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## **CHAPTER 1 PURPOSE, NEED AND SCOPE**

### **1.0 PURPOSE OF AND NEED FOR THE PROPOSED ACTION**

The Programmatic Environmental Impact Statement (EIS) evaluates the Army's long-term strategy and plans for modernizing training ranges, training support infrastructure (e.g., roads and utilities), and training support facilities in the Cantonment Area. This modernization would improve the quality of training and efficient use of facilities at Pōhakuloa Training Area (PTA), and reduce a current shortfall in collective (group) live-fire training capabilities for units stationed in Hawai'i. The shortfall has been caused by having ranges that do not meet current Army design standards, or are otherwise not resourced to train platoon and company-sized units when they deploy with their battalions and brigades to PTA to conduct their semi-annual training.

This Programmatic EIS also provides a tiered approach beginning with the Army's focused analysis on constructing and operating the first of the proposed modernization projects, an Infantry Platoon Battle Area (IPBA). The IPBA includes an Infantry Platoon Battle Course (IPBC), Live-fire Shoothouse, and a Military Operations on Urban Terrain (MOUT) facility. Section 2.1.3 describes the ranges that make up the IPBA. The Army assesses three alternative locations for building the IPBA; they are the Western Range Area (preferred alternative), Charlie's Circle, and Southwest of Range 20.

None of the Army's proposed actions in this Programmatic EIS involve the acquisition of additional land, training off current installation boundary, or increasing training over historical levels at PTA.

### **1.1 INTRODUCTION**

Pōhakuloa Training Area (PTA), HI supports military training and training strategy for combined arms forces in the Pacific Region. PTA ranges and training areas have helped Army, Marine, Air Force, Navy, Joint and multi-national forces to maintain their combat readiness. The U.S. Army, however, is the primary owner, land manager, and user of the PTA; and it works to continue to offer realistic, relevant, and modern training opportunities for the units that train there.

Working under the auspices of the Joint Force, the Army plans and executes its operational and training missions by implementing complementary key policy documents: National Security Strategy (NSS) (May 2010); the Quadrennial Defense Review (QDR) (February 2010); and National Military Strategy (NMS) (February 2011). In order to execute its missions the Army developed the Army Training Strategy (ATS) (December 2009) along with other supporting training doctrine and guidance. As the nation's primary land-based military force, the Army is organized, trained, and equipped to support the Nation's global security and defense interests. The Army does this through prompt intervention and sustained combat, peacekeeping, and support and stability operations in key regions of interest.

#### **1.1.1 National Security Strategy**

The 2010 NSS reaffirmed America's commitment to retaining its global leadership role and defined our enduring national interests:

- The security of the U.S. , its citizens, and U.S. allies and partners

- A strong, innovative and growing U.S. economy in an open international economic system that promotes opportunity and prosperity
- Respect for universal values at home and around the world
- An international order advanced by U.S. leadership that promotes peace, security, and opportunity through stronger cooperation to meet global challenges

In defending and promoting these national interests the Joint Force makes critical contributions to U.S. leadership and national security. In conjunction with U.S. diplomatic efforts, the Joint Force must possess the reach, resolve, and ability to project decisive power.

### 1.1.2 Quadrennial Defense Review

The QDR took important steps towards institutionalizing reform in the Defense Department and rebalancing urgent needs of today with preparation for future challenges. The QDR also defined the main elements of U.S. force structure and provided guidance on sizing and shaping the Joint Force to accomplish the Nation's defense objectives.

In accordance with the QDR "U.S. ground forces will remain capable of full-spectrum operations, with continued focus on capabilities to conduct effective and sustained counterinsurgency, stability, and counterterrorist operations alone and in concert with partners." In order to maintain that capability, the Army requires a trained and ready force, supported by a modern, realistic, and efficient training infrastructure.

QDR directives and guidance drive the improvement or development of training infrastructure such as enhancing the domestic capabilities to counter improvised explosive devices (IEDs); expanding manned and unmanned aircraft systems (UAS) for intelligence, surveillance, and reconnaissance; strengthening and expanding capabilities for training partner aviation forces; and to increasing the resiliency of U.S. forward posture and base infrastructure.

### 1.1.3 National Military Strategy

The NSS and QDR guided the establishment of the National Military Objectives:

- **Counter Violent Extremism.** The threat of violent extremism is not limited to South Central Asia, and the Joint Force will work with our Allies and partners to disrupt these operations. Through deterrence and direct response across the full spectrum of military capabilities, the Joint Force will protect the Nation's vital interests.
- **Deter and Defeat Aggression.** In the role as security guarantor, the Joint Force will be prepared to deter and defeat regional aggression that would threaten the national interests. This objective includes countering WMD proliferation, defeating adversary aggression and maintaining joint assured access to the global commons, space, and cyberspace.
- **Strengthen International and Regional Security.** Strengthening international and regional security requires that our military forces be globally available yet regionally focused. Missions can change rapidly and the Joint Force must be shaped to aggregate quickly the right capabilities. With partner nation support, our Joint Force will preserve its forward presence and access to the

bases, ports and airfields required to safeguard the nation's economic, and security interests worldwide.

- **Shape the Future Force.** The NMS is focused on fielding modular, adaptive general-purpose forces that can be employed in the full range of military operations. Land forces will be capable of full spectrum operations (FSO)<sup>3</sup>, and be organized to provide a versatile mix of tailorable and networked organizations operating on a sustainable rotational cycle.

### *1.1.3.1 Pacific Command Support to NSS and NMS*

PACOM is a joint combatant command (containing all military services) reporting directly to the National Command Authority (NCA). With HQ in Hawai'i, its area of responsibility (AOR) includes over 50% of the earth's surface, stretching across the Pacific and from Antarctica to the Arctic Ocean. This area, known as the Pacific Theater, includes 39 countries. Among these are India, China, Japan, both Koreas, the Philippines, and Australia.

To support the NSS and National Military Objectives PACOM Commanders must be prepared to promote regional security and deter aggression, and to be prepared to respond to the full spectrum of military contingencies using the following methods (PACOM Strategy from PACOM Web site, January 2011):

- Synchronize U.S. Pacific Command (USPACOM) actions across the U.S. Government, associated Combatant Commands, regional Allies, and partners;
- Continual forward presence enabled by an adaptive regional military posture and enhanced by synergy with capable partners, maintain security of the regional commons;
- Provide conventional and strategic military capabilities for extended deterrence of aggression against the U.S., its territories, Allies, and interests;
- Maintain ready forces and plan, train, and exercise to accomplish the full range of military contingencies; and,
- Concentrate on five focus areas: Allies and Partners, China, India, North Korea, and Transnational Threats.

### U.S. Army Pacific (USARPAC) Mission and Vision

“As the Army Service Component Command to USPACOM, USARPAC provides forces, commands assigned forces and enables FSO to deter aggression, advance regional security/cooperation, and respond to crisis and fight to win. On order, USARPAC provides command and control for small scale contingency operations or serves as a Combined or Joint HQ to support Humanitarian assistance/Disaster Relief and peacekeeping operations.”

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<sup>3</sup> FSO, from Field Manual (FM) 7-0, refers to the concept that the military must be prepared to be effective in meeting and defeating threats in any operational environment and being capable of using lethal and nonlethal methods and tactics.

The USARPAC Commander's vision focuses on accomplishing the USARPAC mission as a combat ready, technologically advanced, and culturally astute Theater Army force. As such, the Commander's vision includes needing an expeditionary command and control HQ that advances stability, security, and cooperation in the Asia-Pacific region.

Combat readiness, the ability to succeed in the FSO, and fighting to win depends on providing units and Soldiers with realistic training conditions and the full suite of challenging and doctrinally-to-standard live-fire training facilities and ranges.

#### **1.1.4 Army Training Strategy**

The Deputy Chief of Staff, G-3/5/7 provided training guidance in a Memorandum, ATS (November 12, 2009). A core assumption is that our Nation and Army will be engaged in a period of persistent conflict over the next decade or more. The ATS is designed to generate cohesive, trained, and ready forces that can dominate at any point on the spectrum of conflict, in any environment, and under all conditions.

This era of conflict will likely feature hybrid threats-diverse and dynamic combinations of two or more regular forces, irregular forces, criminal elements, or terrorist cells that are distinctly different in nature, but unified in purpose or effect, employed to counter the Army's strengths. Across this spectrum of conflict, the Army will simultaneously conduct offense, defense, and stability or civil support operations – FSO. Therefore, the primary goal of the ATS is “Train Units on Full Spectrum Operations.”

Units will train to FSO Mission Essential Task List (METL) capability by executing a challenging training plan that has as its foundation the availability of standardized (per Army doctrine) live training facilities and ranges that maximize Home Station Training (HST). Home station means where the units are stationed when they are not deployed into a theater of operations, where efficiencies and resources can be maximized. The Home Station must provide the training environment and infrastructure where units can train FSO METL tasks (live-fire and maneuver) for up to brigade-level in the Active Component (AC) and up to company level in the Reserve Component (RC).<sup>4</sup>

This is an important change from previous unit METL training. Prior to December 2009, the Army trained to two METLs. Units trained on Core METL (CMETL) tasks according to their organization and equipment and to standard training doctrine based on their primary wartime mission (ex. artillery units trained on artillery maneuver and indirect fire tasks). Units trained on Directed METL (DMETL) individual, leader, and collective tasks in preparation for deployment to Iraq and Afghanistan. Many units were unable to accomplish CMETL training due to the short dwell time at the home station before deployment. In some cases, units could not train to CMETL standards because units did not have access to required standard ranges at or close to home station. Since 2009, units have been directed to train and report training readiness in one METL, the FSO METL. The FSO METL focuses training on standard METL tasks that match what a unit is organized and equipped for, and at nine months prior to deployment

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<sup>4</sup> December 9, 2009 MEMORANDUM, SUBJECT: FSO METL. James D. Thurman, Lieutenant General, GS, Deputy Chief of Staff, G-3/5/7.

shifts the focus to deployed/theater-specific tasks.<sup>5</sup> In other words, the FSO METL is a balance of offense, defense, and stability training.

To achieve this FSO METL capability Army installations (to include those in Hawai‘i) must provide Soldiers and units with a training infrastructure (training lands, ranges, and support facilities), a training network infrastructure that links to the operational network, and modernized training aids, devices, simulators, and simulations (TADSS). The foundation of FSO METL proficiency begins with Soldiers and units training to standard on modern, doctrinally correct, and realistic training ranges and facilities as proposed in this Programmatic EIS.

Training and qualifying Soldiers and units typically requires three types of training ranges: individual weapons qualification ranges (crawl), live-fire range complexes that allow units to conduct live-fire training simultaneously as one team (walk), and maneuver areas for units to rehearse and train on the full complement of mission essential tasks required by a units training doctrine (run). This crawl-walk-run progression is essential for units to attain full spectrum training proficiency prior to deployment.<sup>6</sup>

## 1.2 ASSESSING MODERNIZATION REQUIREMENTS

### 1.2.1 Determining Training and Resource Requirements

There are several important Army publications that provide guidance on identifying live-fire training requirements and the facilities needed to meet these requirements and that explain the range modernization process from concept to completion. Army Regulation (AR) 350-1 Army Training and Leader Development provides policy and guidance on training and leader development that supports a full spectrum, force protection, expeditionary Army. AR 350-19, *The Army Sustainable Range Program*, assigns responsibilities and provides policy and guidance for managing and operating Army ranges. Field Manual (FM) 7-0, Training for FSO, addresses the fundamentals of training modular, expeditionary Army forces to conduct full spectrum operations—simultaneous offensive, defensive, and stability or civil support operations—in an era of persistent conflict. Department of the Army (DA) Pamphlet (DA PAM) 350-38 *Standards in Training Commission* (STRAC) contains procedures for planning, resourcing, and executing training to include weapons qualification standards, training programs and ammunition standards. Training Circular (TC) 25-8 *Training Ranges* provides information (including range capacity, and standard range designs) about- and guidance for developing and operating Army ranges.

The Army validates and funds range modernization projects through its Planning, Programming and Budgeting Execution (PPBE) process, a rolling five-year process guided by the Program Objective Memorandum (POM). The current POM cycle consists of fiscal years (FYs) 2012 through 2016 (FY 12-16). The Army also utilizes an Extended Planning Annex for future funding requirements extending out 15 years. The Training Program Execution Group (TT PEG) provides resources for range modernization (Management Decision Evaluation Package (MDEP) for Range Operations Four letter code for the range

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<sup>5</sup> RC units shift the focus of their FSO METL training at 24 months prior to deployment

<sup>6</sup> The Chief of Staff of the Army verbal directive now refers to Army training progression as low-mid-high fidelity, versus the current use of terminology, crawl-walk-run.

operations MDEP (MDEP VSCW<sup>7</sup>) and includes Military Construction (MILCON) or Military Construction, Army (MCA); Other Procurement, Army (OPA); and Operations and Maintenance, Army (OMA).

- **MILCON.** Programs funding for new construction of range facilities for validated new mission range modernization project construction; and it funds research, development, and test and evaluation for range technology requirements.
- **OPA.** Programs funding for range technology (targetry, instrumentation, and related equipment) that is installed on all range modernization projects, whether they are supporting a new mission or revitalization of an existing range, supporting operations and maintenance (OMA), or simply programming for new range technology alone. OPA planning funding may also support range project requirements not funded in the POM.
- **OMA.** This mechanism supports construction-related munitions and explosives of concern (MEC)<sup>8</sup> cleanup/clearance, central preparation of the planning documentation, including required National Environmental Policy Act (NEPA) actions that support the Army Master Range Plan (AMRP)<sup>9</sup>, and MEC/unexploded ordnance (UXO) clearance, to provide access for maneuver and other training activities.

### Range Modernization Planning Process

This process begins with a doctrinal analysis of the installation training load (requirements) driven by all assigned, tenant, and routine users' combined arms training strategy (CATS) and METL, the guidance in STRAC (May, 2009), and any school programs of instruction (POI). This is the installation's throughput requirement - the number of individuals, teams, crews, or units required to train during a single year on specific ranges and facilities. The next step is identifying the number, size and configuration, condition, and utilization of doctrinally-correct, standard ranges in order to determine throughput capacity—referring to the number of Soldiers, teams, crews, units, or individuals that can train on specific ranges in a single year.

The Army-wide standard for range availability is 242 days (the 365 day calendar year minus all weekends (104 days), Federal holidays (10 days), and an additional nine (9) days for range maintenance and inclement weather (HQDA, 2010).

When comparing the annual throughput requirement versus throughput capacity, if the throughput capacity exceeds the throughput requirement of a given range, an excess capacity exists. If the throughput

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<sup>7</sup> The MDEP VSCW is a funding decision tool that supports development and procurement of air and ground training targets, target materials, and various target system components. It also includes support for contractual services to operate, maintain, and modernize Range and Training Land Program (RTLTP) facilities.

<sup>8</sup> MEC is more commonly known as UXO. MEC is technically a more accurate term when the Department of Defense (DoD) considers the challenges that munitions constituents of ordnance fill poses to cleanup efforts.

<sup>9</sup> The master repository for the Deputy Chief of Staff (DCS) G-3/5/7 validated, prioritized, and funded range modernization and training land acquisition projects. It serves as the Army's database of record for all Army-approved range projects in all resourcing categories.

requirement exceeds the throughput capacity, a need exists for additional training capability. This additional capability can be achieved by expanding, reconfiguring, or modernizing existing ranges, or constructing new ranges.

If the existing ranges do not meet doctrinal standards in design, targetry, and infrastructure, do not support the Army's weapons systems and their surface danger zones (SDZ), or do not provide realistic training conditions then the range modernization process is used to develop solutions and meet training requirements.

The Director of Plans, Training, Mobilization and Security (DPTMS) or range officer, after calculating the operational and doctrinal requirements for units (such as discussed above under throughput), will work with other installation staff to consider the environmental, safety, munitions, and facility management plans when considering the need for range facility modernization; and implement the range modernization process using the following planning and analytical tools:

### **Range Complex Master Plan**

The Range Complex Master Plan (RCMP) depicts the installation's current range and training land assets, potential sites of future range projects, and the installation's requirements and constraints that may impact range modernization. The RCMP helps to identify and define the specific range modernization and land acquisition projects that will be integrated into the installation's Range Development Plan (RDP).

### **Range Development Plan**

The RDP is the installation's prioritized list of range modernization projects and it is derived from the RCMP. The RDP generally identifies the range modernization projects by year when the range planners wish to implement each project. Range project requests are submitted as a Facilities Engineers Work Request (FEWR) for consideration, planning, and funding (if necessary). The RDP will also identify range costs, standard targetry, SDZs, and other related information. Once validated, the RDP is adjusted as needed, given operational requirements of the installation, training requirements that use the range assets, and funding requirements and funding constraints. The RDP process has four major steps described below and is depicted graphically on the next page in Figure 1.2-1.

- **Doctrinal Analysis.** This is a review of tenant and non-tenant users training requirements and Service School POI driven by Army standards and policies, training strategies and unit METL. The result is the total doctrinal requirement.
- **Operational Analysis.** This is a review of the current and temporary range and training land assets, to include their condition and utilization history. The result is the installation's total assets and capabilities. The assets are compared to the requirements, and the shortfalls or excesses are identified. The unconstrained operational requirement, what ranges and other key facilities must be modernized or constructed without regard to available land, cost and other limitations, is then developed and analyzed.
- **Sustainability Analysis.** Through an integrated planning process, the garrison staff will analyze other elements that affect potential range requirements. These elements are generated from environmental, safety, munitions, and facility management plans such as: Installation Master

Plan; Integrated Natural Resources Management Plan; Threatened and Endangered Species Management Plan; and Integrated Cultural Resources Management Plan. Other considerations can include range security assessments, encroachment, utility and infrastructure, and economic impacts.

- **Analysis of Alternatives Study (AAS).** Installation planners will evaluate all requests for new or modernized range assets by reviewing the RCMP, evaluate if existing training ranges are fully utilized to their potential or if they meet/do not meet doctrinal requirements, and identify alternatives to building a particular range and alternatives for modernization given land constraints. The AAS will feed into an analysis of potential environmental and economic impact or feasibility studies for each alternative identified.

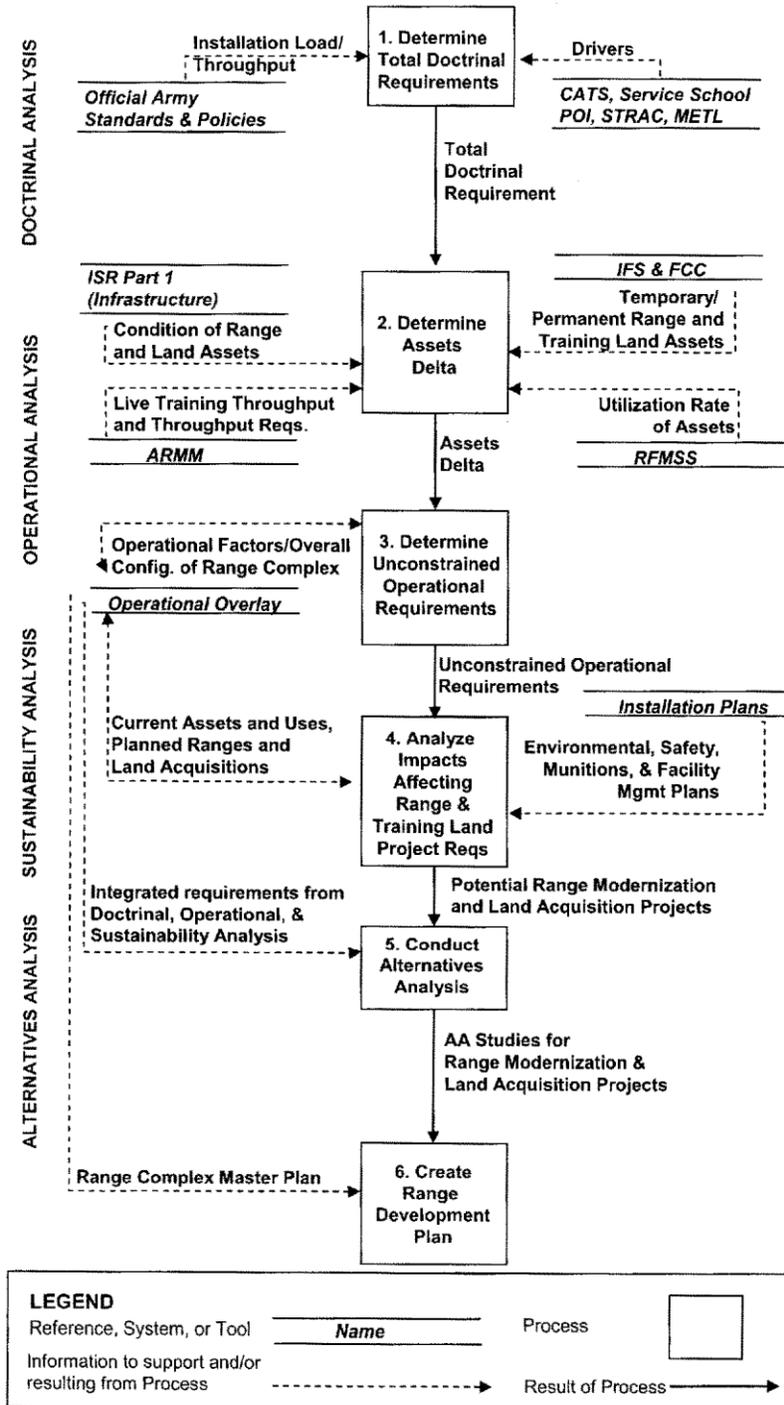


Figure 1.2-1. RDP Process (TC-25-8)<sup>10</sup>

<sup>10</sup> First use of acronyms in this figure include: Intelligence, Surveillance, and Reconnaissance (ISR), ARRM, Range Facility Management Support System (RFMSS), Integrated Facilities System (IFS), and Facility Use Category Code (FCC).

### 1.2.2 Determining training support infrastructure requirements (roads and utilities)

The Under Secretary of Defense, in a Memorandum dated 29 May 2002, issued guidance to all Defense agencies requiring the use of Military Standard 3007 (MIL-STD-3007) unified facilities design and construction criteria in the planning, design, construction, sustainment, restoration, and modernization of Department of Defense (DoD) facilities. DoD developed criteria within the Unified Facilities Criteria (UFC) system as required by the Under Secretary of Defense Memorandum. The U.S. Army Corps of Engineers (USACE) is the lead Army agency for developing and updating planning, design, construction, sustainment, restoration, and modernization criteria for Army projects. The UFC program information, including specific codes for MILCON, is found at the Web site for Whole Building Design Guide<sup>11</sup>, online.

The UFC applies to training support infrastructure. The UFC for Aggregate Surfaced Roads and Airfield Areas presents criteria for determining the thickness, material, and compaction requirements, and drainage, maintenance, and dust control requirements for all classes of aggregate surfaced roads, and for the airstrips of airfields at U.S. Army installations (UFC 3-250-09FA, 16 January 2004.) This UFC also prescribes a design life of 25 years for most roads. New roads are needed when:

- Existing roads are aged or dilapidated, or are beyond reasonable repair because the long-term cost of road maintenance is larger than the cost of road replacement; and when the existing road no longer meets the Army's unified criteria;
- Planned new facilities require new roads to be built to meet them;
- Building new infrastructure (such as ranges or cantonment facilities) and new roads are requirement to access those facilities.

Utilities, such as transformers or overhead power lines, for example, are typically installed by the power supplier that provides power to the Army installation. The design and maintenance of this infrastructure is inherently under the control of the power supplier. The age and operational effectiveness of this infrastructure is continually observed by the power supplier and the installation. As this infrastructure ages it is replaced with newer technology that may also require more space than the existing technology already occupies. Also, installation-planning staff continually monitors utility usage and conditions for a variety of reasons including:

- To conduct life-cycle, system-based economic assessments of existing infrastructure versus newer technology that may have a longer term beneficial impact to cost and to the environment;
- To meet energy goals set by Federal mandates, such as for energy performance (Executive orders (EO) 13514 and 13423);
- To meet the requirements of the installation mission by modernizing existing facilities or constructing new facilities in Range Areas or the Cantonment Area, and to determine the impact of demand on existing infrastructure.

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<sup>11</sup> [http://www.wbdg.org/references/pa\\_dod.php](http://www.wbdg.org/references/pa_dod.php)

Installation planners, for these reasons, may request road and utility infrastructure modernization or replacement.

### **1.2.3 Determining training support facility requirements in the Cantonment Area**

Inside installation Cantonment Areas are the locations for temporary or permanent housing for Soldiers and their Families, retail, recreation, and other Family and Soldier support services, installation command, administrative, training support and logistical offices and facilities. Families and their installation support facility requirements will not be located at PTA.

The mission of the installation and the type of tenants determine the types of facilities that are required. If training is the primary mission, then that installation is likely to have unit HQ, supply, and maintenance facilities along with TADSS storage facilities, classrooms, and a constructive/virtual training facility. Quality of Life facilities that support Soldier and Family welfare (e.g., child development center) may not be required if Soldiers and their Families are not stationed or residing on an installation. The mission of PTA is to enhance the combat readiness of training units by providing a quality joint combined arms facility that offers logistical, administrative and service support for up to regiment or brigade-level combat teams.

The USACE is the lead agency for developing the Army standards for Cantonment Area facility criteria. Criteria for these standards may be found at the USACE Centers of Standardization Web site supporting MILCON<sup>12</sup>. These criteria are updated as needed, and apply to facilities Army-wide. Funding for facilities construction is programmed as MCA in the POM (Section 1.2.1)<sup>13</sup>.

## **1.3 BACKGROUND FOR THIS PROGRAMMATIC EIS**

As the Army Service Component Command to PACOM, the USARPAC provides forces, commands assigned forces, and enables FSO to deter aggression, advance regional security/cooperation, respond to crises, and fight to win. On order, USARPAC provides command and control for small-scale contingency operations or serves as Combined or Joint HQ to support Humanitarian Assistance/Disaster Relief and peacekeeping operations. USARPAC units must be trained and prepared to deploy to execute PACOM-directed missions across the full spectrum of operations.

This Programmatic EIS addresses modernizing training infrastructure to ensure the USARPAC and other PACOM units that train at PTA have access to adequate training infrastructure. PACOM and USARPAC units require a full suite of live-fire ranges and maneuver lands that meet doctrinal standards for sequential (crawl-walk-run) live-fire tasks. Units must be able to conduct their doctrinally-required training and achieve their required readiness levels prior to deployment.

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<sup>12</sup> <https://eportal.usace.army.mil/sites/COS/Pages/Default.aspx>

<sup>13</sup> Bradshaw Army Airfield at PTA is part of the Cantonment Area. UFC 3-260-01 Airfield and Heliport Planning and Design addresses criteria for airfield design per aircraft type, construction to accommodate new missions (e.g., adding aprons that support aircraft parking), and design criteria addressing fixed and rotary wing (helicopter) use requirements.

Three types of training areas support progressively higher levels of proficiency training that are required to support full spectrum operations. These are local training areas (LTAs), major training areas (MTAs), and combat training centers (CTCs). Table 1.3-1 provides an overview of each of these training areas.

**Table 1.3-1. Training Areas Defined**

Training Area	Overview
LTA	LTAs support individual Soldier and crew weapons proficiency training with the objective of qualifying Soldiers and small units on their weapon systems. Soldiers and units will also train on maneuver tactics, techniques and procedures (TTP) <sup>14</sup> . The training objectives focus on individual through platoon weapon systems proficiency and up to battalion level maneuver operations.
MTA	MTAs support larger unit collective live-fire training (platoon and higher) and maneuver training (battalion or brigade). MTA training builds on the training proficiencies achieved at LTAs, and also integrates TTP as necessary.
CTC	The Army's premier training centers provide an enhanced maneuver training experience, a dedicated opposing force (OPFOR), robust instrumentation and formal evaluation and feedback process to brigade sized combat teams. This is the final training event for large units and prepares them for their operational mission

There is limited collective training capability and capacity on the island of O'ahu. Only PTA, Hawai'i is classified as a MTA. PTA was established as a multi-functional training facility in 1956 and is the largest live-fire range and training complex in Hawai'i and the primary tactical training area for units conducting military FSO METL training<sup>15</sup>. PTA encompasses approximately 132,000 acres, to include a 566-acre Cantonment Area, Bradshaw Army Airfield (BAAF), maneuver training areas, live-fire training ranges, artillery firing points, and a centrally located 51,000-acre impact area (USAEC, 2009b). Figure 1.3-1 illustrates the location of PTA.

<sup>14</sup> TTP, as discussed in FM 7-0, are also known as new conditions or tasks that may not have established standards, but where Commanders in the field redefine an existing task or may establish a standard to be successful in a new situation. TTP are usually integrated with standards so that Soldiers may both meet and exceed their FSO requirements.

<sup>15</sup> As discussed earlier in this section, PTA is a MTA, and while it does offer crawl- and walk training capability, its primary purpose is large unit training. Ranges on Oahu are all LTAs, and offer some unit training capability, but not large unit maneuver capability.



Figure 1.3-1. Map showing PTA on the Hawai'i Island

PTA supports the Army's Active and RC training missions by providing a variety of training and training support resources and facilities. PTA supports live-fire training (to include joint and multi-national forces training) from Soldier to battalion level. Additionally, PTA supports up to battalion and brigade combat team force-on-force maneuver training under uniquely realistic conditions. In some areas, the terrain restricts maneuver training (Nakata Planning Group, LLC, 2002). PTA does not have any standard ranges that meet the requirements for conducting company level or above live-fire collective training (run-type ranges)<sup>16</sup>.

The PTA range complex consists of 31 separate direct fire ranges<sup>17</sup> in the northern, eastern, and southern regions of the installation (Figure 1.3-2); these are identified in Table 1.3-2. This range complex occupies approximately 30 percent of the PTA acreage, and supports a variety of training including weapons live-fire exercises, bivouac and aviation training. PTA also has over 100 artillery and/or mortar firing points, and ammunition holding areas (AHA). Of the ranges listed on Table 1.3-2, "collective" (run-type) ranges at PTA include the Range 1, 8C, 10, 11T, 12, 14, 21, and the Convoy Live-fire (CLF) range. Of these collective ranges, only range 8C (Live-fire Shoothouse), the CLF, and the Battle Area Complex (BAX) (once it is operational) are of standard design.

**Table 1.3-2. Direct Fire Ranges at PTA**

Range Number	Type of Range	Purpose (Qualification or Familiarization)	Standard or Non-standard Range (TC 25-8)
1	Infantry Squad Battle Course (ISBC) with 25 m Zero	Qualification	Non-Standard
1A	Modified Record Fire (MRF)	Qualification	Standard
1B	Known Distance (KD) Range	Familiarization and qualification	Under Construction (Standard)
2	Combat Pistol Course	Qualification	Standard
3	M203 Training Practice Tracer (TPT) Target Practice (TP)	Qualification	Standard
4	Rifle Range	Qualification and familiarization	Deactivated (Non-Standard)
5	Hand Grenade Confidence Course	Live grenade familiarization	Standard
6	Hand Grenade Qualification Course	M69 practice grenade only	Standard

<sup>16</sup> In accordance with AR 350-19, paragraph 3-20b, standards associated with range designs are published in TC 25-8 *Training Ranges* and TC 25-1 *Training Land*. The definitions are based on concepts and recommendations developed by U.S. Army Training and Doctrine Command (TRADOC) schools, centers and individual Army Commands. TC 25-8 and TC 25-1 serve as the primary reference for generic range layout and targetry equipment. In addition, USACE design manuals provide the specifications and designs for approved Army standards.

<sup>17</sup> The number of ranges listed in past EISs at PTA has varied, but frequently identifies only 22 ranges present at PTA. After careful consideration of the range inventory at PTA, it was determined that past EISs did not count all ranges within the specified range areas; for example, range area 8 (table 1.3-2) includes five different ranges.

7	Rifle Zero Range	Rifle qualification	Deactivated (Non-Standard)
8	Multipurpose Machine Gun (MPMG) with 10 Zero Lane	M2 Machine Gun Qualification	Non-Standard
8A	Anti-Armor (sub caliber)	Anti-Armor qualification (restricted)	-Inactive (Standard)
8B	MK19 Machine Gun (MG)	MK19 Machine Gun (TP Only) Qualification	Non Standard
8C	Live-fire Shootouse	Urban Live-fire/Close Quarters Marksmanship (CQM) (one story) qualification	Standard
8S	Sniper Range	Sniper training familiarization	Non-Standard
9	Demolition Range	General and special demolition familiarization	Standard
10	IPBC	Infantry platoon live-fire qualification	Non-standard
11L	Anti-Armor	Qualification	Deactivated (Non-Standard)
11T	Gunnery Range (Ground mounted and Aerial Gunnery)	Live-fire gunnery qualification	Non-Standard
12	BAX	Qualification	Under construction (Standard)
12A	Forward Arming and Refueling Point (FARP)	Hot rearming and refueling	Standard
13	Artillery Direct Fire Range	Artillery direct fire qualification	-Inactive (Non-Standard)
13A	MK19 Machine Gun Multipurpose Range	Qualification	-Inactive (Non-Standard)
14	Multipurpose (live-fire) Range	Familiarization	-Inactive (Non-Standard)
15	Interim Helicopter Gunnery (impact area)	Helicopter gunnery qualification (small caliber up to .50 caliber)	-Inactive (Non-Standard)
16	Aerial Bombing Range	Fixed wing bombing and gunnery familiarization	Non-Standard
17	Forward Area Arming and Refueling Point (FAARP)	Hot rearming and refueling	Non-Standard

18	FARP	Hot refueling only (see earlier designation)	Standard
19	Drop Zones	Container Delivery System (CDS)	Standard <sup>18</sup>
20	Helicopter Door Gunnery	Helicopter gunnery qualification	Non-Standard
21	Multipurpose Range (including Anti-Armor Firing Point <sup>19</sup> [AAFP] and mock runway)	Familiarization and qualification	Non-Standard
22	CLF	Qualification	Standard

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<sup>18</sup> Range 19 at PTA follows aviation standards required for minimum safe drop distance by airspeed, time and altitude. Range 19 does not follow TC 25-8 standards as the drop zone was established decades ago and is/was used for air and troop cargo drops.

<sup>19</sup> To be used primarily for the Tube-launched, Optically tracked, Wire-guided missile (TOW) and MK19 Grenade Launcher using high explosive (HE) rounds. Range 8B, which was previously used for firing the MK19 HE system, is inactive due to restrictions on the use of HE rounds in DU designated areas. This new firing point replaces the capability lost due to closure of that range.

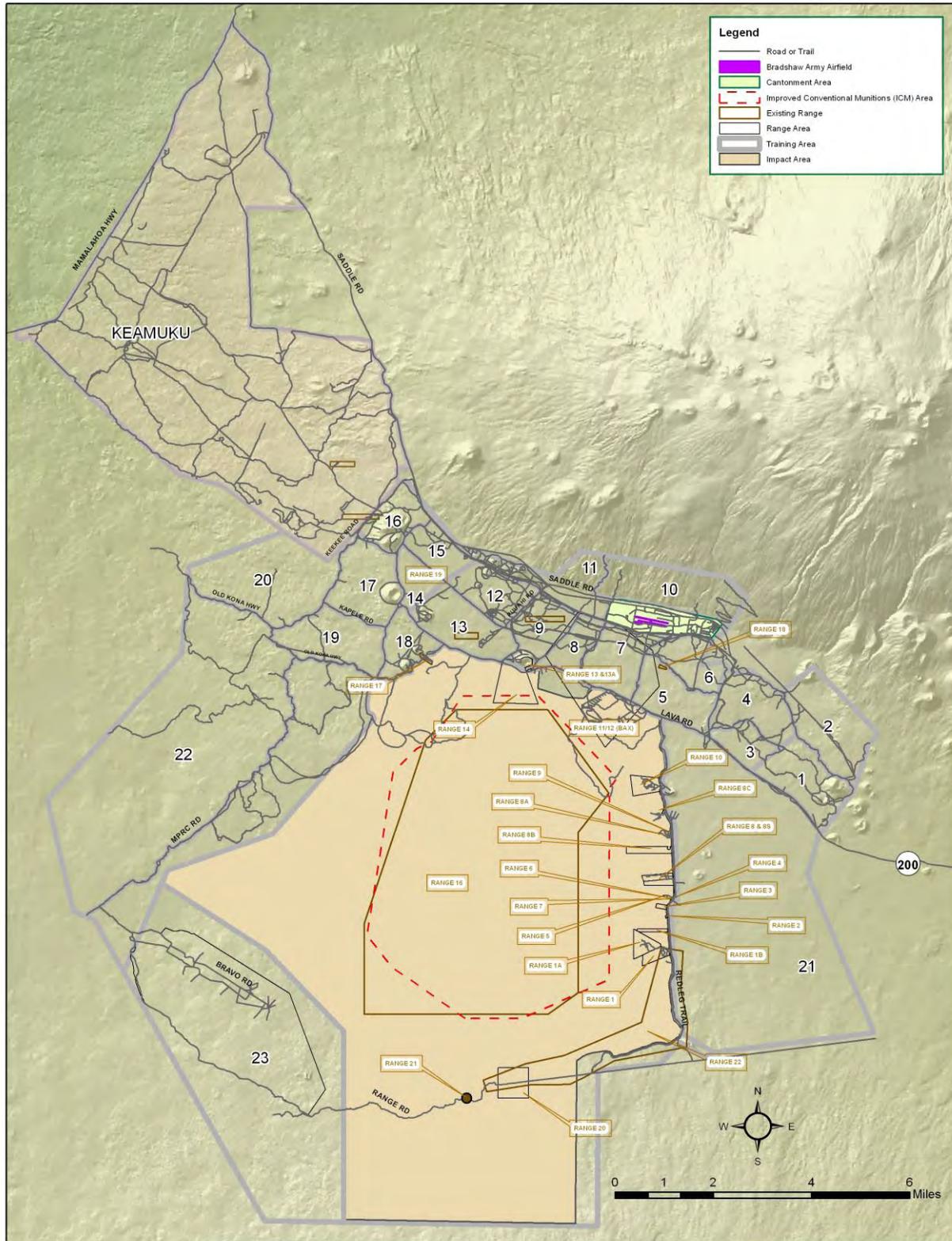


Figure 1.3-2. Existing direct fire ranges at PTA

Range operation personnel schedule all training events and other activities (e.g., range maintenance) on PTA through an automated system known as Range Facility Management Support System (RFMSS). Range control staff use RFMSS to manage a unit's use of the range complex by scheduling the required available ranges and training areas, verifying specific range SDZs matched with weapons systems planned for use during training, and to resolve scheduling, environmental, or safety conflicts. RFMSS can also produce a variety of reports on range usage and ammunition expenditures.

Historically, the active Army trained three infantry brigades at PTA, an armored cavalry squadron, and aviation and artillery assets. In addition, Army Reserve, Army National Guard, Navy, Air Force, and Marine Corps units stationed in Hawai'i trained regularly at PTA.

Beginning in the early 2000s, USARPAC brigades and support units have repeatedly deployed to and returned from Iraq and Afghanistan, and this led to an overall decrease in training activities at PTA. This decrease in activity does not reflect the full anticipated use of PTA. The following section discusses the military use of PTA, and assumes all units are at Home Station. This provides a snapshot of the optimum training situation and allows the reader to understand the PTA's current training capability.

It should be noted that any resulting decision from this Programmatic EIS will not increase training at PTA. Units would continue to deploy to PTA to conduct semi-annual training. No additional units over historical levels would travel to PTA under the actions proposed in this Programmatic EIS. While at PTA, some units may fire more ammunition (this correlates with Army-wide training requirements as defined in STRAC). Furthermore, the Proposed Action would not increase the average number of aircraft operations at BAAF beyond historic levels; aircraft maneuvers are not part of the Proposed Action, and were not substantially evaluated.

### **1.3.1 Current military use of PTA**

#### ***1.3.1.1 Current Army use of PTA***

PTA supports full-scale combined arms live-firing and field training military exercises at all levels from squad to brigade for Army AC units stationed in Hawai'i; and supports similar training up to company level for Army Reserve Component (RC) and Army National Guard units stationed in Hawai'i.

AC training at PTA primarily includes the units of the 25th Infantry Division (ID) (25th ID), composed of the 2/25th Stryker Brigade Combat Team (SBCT), 3/25th Infantry Brigade Combat Team (IBCT), and 25th Combat Aviation Brigade (CAB). Other Army AC units that use PTA include the 45th Support Group, elements of the 8th Military Police (MP) Brigade, elements of the 19th MP Battalion, and the 94th Army Air and Missile Defense Command.

There are seven maneuver battalions in the two Brigade Combat Teams (BCTs) and five aviation battalions in the CAB that train regularly at PTA. In accordance with their FSO METL, these battalions may train at PTA twice per year for up to 30 consecutive days to meet their doctrinal collective training requirements.

BCT Headquarters units, and other brigade support elements (combat support (CS) and combat service support (CSS) units) deploy to PTA to establish command and control, communications, and logistics operations approximately one week in advance of the infantry battalion's arrival at PTA. Some of these

units also have a collective training requirement that would be performed at PTA. Brigade support elements remain at PTA a week after the infantry battalion leaves to support redeployment and other post-operations activities. In other words, an infantry unit deploys to PTA for approximately 30 days to accomplish its FSO METL tasks, while supporting brigade elements deploy for approximately 45 days overlapping that same time period.

The Final EIS for the Permanent Stationing of the 2/25th SBCT discussed use of PTA for meeting SBCT annual training requirements. This is summarized in Table 1.3-3 below.

**Table 1.3-3. SBCT Training at PTA**

<b>Training</b>	<b>Description</b>
Mobile Gun System (MGS) Gunnery Training	The MGS platform, firing a 105mm cannon, uses Range 11T to accomplish its annual gunnery training and qualification. Range 11T is partially located within the BAX construction site.
Combined Arms Live-fire Exercises (CALFEX)	Once completed, the BAX at PTA will support company-level CALFEX and reconnaissance and infantry units conducting collective operations and convoy live-fire training. Upon completion, the BAX will also support MGS gunnery training.
Anti-Armor Tracking	Units of the 2/25th use Range 8a to meet training requirements for medium and heavy anti-armor weapons systems. This range is used to train Soldiers in identifying, tracking, targeting, engaging, and defeating moving armor targets individually or in tactical array.
Maneuver Training	Maneuver training for battalion and brigade-sized units occur at PTA. It is anticipated that each infantry battalion would train 8 times annually at PTA and brigade-level maneuver rotations would occur every 12 to 18 months

*Note that no additional SBCT training is proposed to occur at PTA over the 2008 ROD.*

UAS are used by units of the 2/25th and 3/25th ID. Training involving UAS occurs at PTA, mainly within restricted air space.

The 25<sup>th</sup> CAB conducts individual and collective training on the island of O‘ahu and at PTA; at the National Training Center, California; and the Joint Readiness Training Center, Louisiana. During these training events, helicopter pilots and crews, train on their basic aviation skills and complete required annual training to maintain flight proficiency and certification. This training includes specific flight maneuvers, operations with night vision equipment, instrument evaluation, and collective flight training tasks. A separate NEPA document was prepared by the Army regarding training by the CAB at PTA, and using designated landing zones (LZ) on Mauna Loa and Mauna Kea. That document may be found on the U.S. Army Garrison, Hawai‘i (USAG-HI) Web site<sup>20</sup>. The action proposed in that document is considered in the cumulative impacts section (Chapter 5).

<sup>20</sup> <http://www.garrison.hawaii.army.mil/sites/nepa/default.asp>

The 9th Mission Support Command and the 1/196<sup>th</sup> Infantry Brigade of the Army Reserve conduct FSO METL training at PTA. Both units provide training support to Reserve and National Guard units throughout the USARPAC AOR; training assistance to ensure units meet pre / post mobilization readiness standards; and training support and assistance to USARPAC Theater Security Cooperation<sup>21</sup> Program exercises.

The Hawai‘i Army National Guard (HIARNG), primarily units of the 29<sup>th</sup> IBCT, conducts FSO METL training at PTA to support its federal and state missions. Its federal mission is to serve as an integral component of the Total Army by providing fully-manned, operationally-ready, and well-equipped units that can respond to any national contingency. Its state mission is to “provide a highly effective, professional, and organized force capable of supporting and assisting civilian authorities in response to natural disasters, human-caused crises, or the unique needs of the state and its communities.”

Although PTA is the primary training environment for FSO METL tasks in Hawai‘i, the installation does contain several individual and crew served ranges that are used to provide individual Soldiers or units with qualifying training opportunities if those opportunities were missed on O‘ahu. When their battalion deploys to PTA the individual platoons, squads, or Soldiers can accomplish these basic qualifying training tasks.

Starting in 2001 when units began deploying to Iraq and Afghanistan, the frequency of home station training at PTA decreased. As the Army moves toward a sustainable operational tempo and begins to draw down forces overseas, units will redeploy to Hawai‘i. The “dwell time” (or time spent at home station to reset and retrain<sup>22</sup>) will mean that training at PTA will return to the previous (historic) levels. Training ranges, training infrastructure and training support facilities must be readily accessible, and up to standard so that units using PTA can meet their doctrinal training requirements.

### ***1.3.1.2 Current Marine Corps Use of PTA***

The U.S. Marine Corps (USMC) prepared the Final Environmental Assessment (EA) for Development and Use of Military Training Facilities on Pōhakuloa Training Area, Hawai‘i (October 2008). The following text describes USMC use of PTA, but it does not include joint military exercises conducted there. Joint military exercises involving the USMC are addressed in part in the Hawai‘i Complex EIS prepared by the Navy (2008) and discussed in Section 1.3.1.3.

USMC is the second largest user of PTA after the 25th ID. Marine Forces Pacific (MARFORPAC) is structured similarly to the Army, having Marine Regiments that are similar to an Army brigade and

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<sup>21</sup> Following the publication of the 1995 National Security Strategy of Engagement and Enlargement, the Office of the Secretary of Defense, regional commanders and the joint staff developed a formal peacetime engagement planning process. Through the process each Geographic Combatant Commander developed a regional strategic plan, now referred to as the Theater Security Cooperation Plan that described the security environment, identified engagement objectives and listed associated activities that supported those objectives.

<sup>22</sup> In accordance with the Army Force Generation (ARFORGEN), AR 525-30 (5 May 2010), reset and retrain is the structured progression of increasing readiness units use after redeployment from an operational environment. It includes the receipt of new personnel, and equipment, and other reconstitution tasks. Training begins at the individual and crew levels (crawl- and walk), and progresses through collective (run-type) training exercises as the unit achieves its FSO METL and its assigned mission capabilities.

consisting of battalions and smaller units mirroring similarly-sized Army units. The 3rd Marine Regiment (3<sup>rd</sup> Marines) is permanently stationed in Hawai‘i and it consists of three infantry battalions that operate on rotating deployments where one battalion is always deployed overseas and the other two are on a reset and retrain cycle getting ready for their next deployment. Training requirements and standards are similar between the USMC and the Army. Marine Corps commands at Marine Corps Base (MCB) Hawai‘i (or MCBH) rely upon PTA to fulfill a large portion of their METL training requirements.

Primary Marine Corps training exercises are live-fire training on existing PTA ranges, MOUT training, and CLF training.

Battalions of the 3<sup>rd</sup> Marines train at PTA once per quarter (every three months). Battalion composition varies, but typically consists of artillery batteries, as many as three infantry companies, a HQ company, and possibly one combat service company and a company-sized CSS Group. In addition, battalions deploy to PTA once per year to conduct large scale maneuvers. The entire mobilization and training takes approximately 30 days, with actual on-the-ground exercises occupying approximately 15 to 25 days at PTA (USMC Personal Communication, November 2010).

PTA also supports training for Marine Corps units that are part of the Fleet Marine Forces afloat on transports in the Pacific, and includes transiting Marine Expeditionary Units from the U.S. Pacific coast to participate in training at the installation. These units conduct combined arms live-fire and maneuver (CALFAM) and Close Air Support (CAS) training at PTA.

The Marine Corps Aircraft Group 24, located at MCBH conducts aviation training at PTA that includes assault support training and CAS training. MCBH 1st Battalion, 12th Marines (artillery battalion) conducts regular firing at PTA. Finally, the Marines conduct UAS training at Cooper Airstrip near Forward Operating Base (FOB) Warrior, which is also located at PTA.

### ***1.3.1.3 Current Navy Use of PTA***

The Rim of the Pacific (RIMPAC) Programmatic Environmental Assessment (PEA) (June 2002), describes broadly how the U.S. Navy (Navy) uses PTA to accomplish its multinational, sea control/power projection fleet exercises (training) that it performs biennially. The PEA discusses several types of training events, but those that occur at PTA or using PTA assets include Command and Control (C2) activities, Air Support Exercises including Close Air Support Exercises (CASEX) and Strike Warfare Exercises (STWEX), live-fire exercises (LFX), Special Warfare Operations (SPECWAROPS), Aircraft Operations Support (AIROPS), and Air-to-Surface Missile Exercises (ASMEX).

The Navy also prepared a Hawai‘i Range Complex EIS (2008) analyzing the continuation of RIMPAC exercises as its baseline of training, and further analyzed training that currently occurs or could occur in the future. Table 1.3-4 summarizes the type of training planned at PTA.

**Table 1.3-4. RIMPAC Exercises Planned at PTA**

<b>Training</b>	<b>Description</b>
C2 Activities	Performed from both land and sea during the full exercise evaluation. Achieved through a network of communication devices strategically located at DoD installations (including PTA) around the islands to ensure positive

Training	Description
	communication with exercise participants.
STWEX / Bombing Exercise (BOMBEX) and CASEX / Air-to-Ground Exercise (GUNEX)	Basic training in air-to-surface missile firing; conventional ordnance delivery including bombing (MK80 series bombs, live and inert), gunnery, and rocket and precision guided munitions firing; and close air support techniques. STWEX/GUNEX activities include air-to-surface missile training occurs routinely. Air-to-surface missile training and live-fire exercises would be confined to special use airspace (SUA) and impact area.
SPECWAROPS	Provides covert insertion and reconnaissance training for small Special Warfare units by Navy and USMC. Includes training activities, however, only helicopter inserts (for three to six helicopters) used to transport troop units to take control of an area could occur at Bradshaw Army Airfield at PTA. Helicopters may land for refueling.
LFX	Provide ground troops with live-fire training and combined arms LFX training, including aerial gunnery and artillery firing. LFX operations would be conducted at PTA.
AIROPS	Provides operational support for maritime, air force, and other aircraft, including an airship. AIROPS support may be provided from Joint Base Pearl Harbor Hickam Coast Guard Air Station Barbers Point/Kalaeloa Airport, Marine Corps Base Hawai'i, Wheeler Army Airfield (WAAF) on O'ahu, Bradshaw Army Airfield on Hawai'i, and PMRF on Kauai.

*Note: Between the two documents, the type of training planned for PTA remained the same, but the terminology used for some training events changed. Both names are included in the table to allow for easier cross reference*

#### **1.3.1.4 Current Air Force Use of PTA**

The U.S. Air Force (USAF) trains regularly at PTA in conjunction with other military exercises, such as RIMPAC. The Air Force trains at PTA with their B-2 Spirit stealth bomber aircraft for squadrons deployed to theater in order to practice air strikes. For example, in 2007, the Air Force participated in Exercise Koa Lightning at PTA where tactical air control party members, or TAC-Ps, from the 25th Air Support Operations Squadron practiced their skills calling in air strikes for B-2 bombers during a week-long training event. B-2s flew from Anderson Air Force Base, Guam to PTA as part of the continuous bomber presence in the Pacific during the exercise. The TAC-Ps, as battlefield Airmen, were assigned to Army units as joint terminal attack controllers to call in close-air-support strikes, dropping training ordnance on enemy targets when needed. The TAC-Ps gain experience for close ground combat. For younger TAC-PS, this training is essential to support ground forces and all elements of maneuvers and critical for the Air Force's ability to rapidly support ground troops in combat.

The Air Force trains its pilots to fly under Instrument Flight Rules (IFR) and Visual Flight Rules (VFR). When flying under IFR, altitude and routes are controlled by Air Traffic Control (ATC) allowing aircraft to operate in clouds. When flying under VFR conditions, the pilot is responsible for his own routes and altitudes, but he must remain clear of cloud cover. While operating under VFR, C-17s are currently

allowed to proceed into PTA at low altitudes that allow for accurate airdrop operations, but must operate on limitations based on terrain at the installation.

The Air Force is currently refining its air drop corridors to include two drop corridors – a 40 nautical mile corridor into and out of PTA and one over Kaho‘olawe. The revised corridor altitudes under IFR are also similar, yet slightly higher than VFR altitudes. The revised drop corridor elevation is between 5,000 to 6,000 feet. The Air Force flies its C-17s across the shoreline (northeast of Kona) at an elevation between 7,000 to 9,000 feet. The terrain on the Hawai‘i Island rises to meet the aircraft therefore by the time the aircraft reaches the drop corridor, the aircraft is high above any developed areas making it barely noticeable both visually and audibly (personal communication, CAPT Alan Partridge (USAF), email dated 3 Jan 2011).

In addition, the Air Force conducted survey efforts prior to RIMPAC for seven (7) new drop zones (one of them being the largest in the Hawaiian Islands) and the plan to use these drop zones on a regular basis in the future. With the combination of these proposed new drop zones, the IFR drop corridors, and restricted areas, the 15th Wing would be able to establish a world class airdrop venue for joint operations while greatly enhancing 15th Wing training and all weather war-fighting capabilities.

#### **1.4 PURPOSE FOR THE PROPOSED ACTION**

The following sections in this chapter describe the Army’s purpose (Section 1.4) and need (Section 1.5) for modernizing the training ranges, training support infrastructure (e.g., roads and utilities), and training support facilities in the Cantonment Area at PTA. This need is driven by a significant change in FSO METL training requirements derived from lessons learned in current operations and the Army’s future engagement in a period of persistent conflict, and also by the deteriorating condition of training and training support infrastructure at PTA.

Over the past several years, the Army underwent a significant transformation in unit organization and stationing, in weapons systems and equipment, and in training strategies that changed live-fire range and training support requirements. Two new important training objectives: train to FSO METL and the emphasis on the training capability and resources of home station training sites also changed those requirements. New and modernized ranges are needed to provide increased live-fire capabilities. New training support infrastructure and facilities are needed to optimize the home station training environment. At PTA, prior to transformation of doctrinal training requirements, there was already a shortfall in standard and modern collective training ranges. The changes in training doctrine and METL, and the emphasis on home station training increased that shortfall in training capability. PTA does not have the right amount or the right type of standardized ranges to support collective training requirements. Section 1.2.1 above describes the Army’s process for determining range requirements.

PTA also does not have adequate training support infrastructure (facilities, roads, and utilities) that provides access and support to the operation of its ranges. Many of the roads at PTA have deteriorated and cannot be restored to a sustainable condition. Many are well beyond the standard 25 year design life. The electric grid and utilities at the installation are old and cannot support the increased power requirements of new facilities planned for the training and the Cantonment Areas. Section 1.2.2 above discusses the process for identifying road and utility requirements.

Construction of the structures at PTA began after World War II, in 1955. Construction continued through 1964, two buildings were built in 1969, several in the 1980s, and the remainder in the 1990s and 2000s (many are Quonset Huts<sup>23</sup>). They do not meet current military standards and many are inefficiently being used for administrative and logistics purposes which are inconsistent for which they were designed.

Section 1.2.3 above discusses the process for identifying Cantonment Area and other facility requirements.

The Army's Proposed Action is to modernize non-standard and outdated training and training support facilities at PTA. The Army proposes to modernize PTA ranges to support unit collective live-fire and maneuver training that meet Army standards and future training requirements. The Army also needs to modernize the PTA training support facilities in the Cantonment Area and training support infrastructure to ensure the Soldiers and units can operate in and have reliable safe access to their home station training environment.

This Programmatic EIS defines modernization as improving existing training ranges, or constructing new ranges; improving existing roads and utilities, or constructing new roads and utilities; and, improving existing facilities at the Cantonment Area, or constructing new facilities there.

## **1.5 NEED FOR THE PROPOSED ACTION**

The existing PTA live-fire ranges, training support infrastructure and training support facilities do not meet current and future training requirements. In order to accomplish its training support mission, PTA needs modernized ranges and infrastructure that can provide a realistic training environment for all military units that deploy to there to train. Military units in Hawai'i must train on live-fire ranges and maneuver areas that replicate the tasks and conditions they will face in full spectrum operations; and those units must have adequate infrastructure at PTA to operate, and safely access the ranges and maneuver areas.

### **1.5.1 Need for Ranges**

Many of the ranges at PTA are obsolete or outdated, and do not meet the current doctrinal standard and do not support doctrinally required training tasks. TC 25-8 and the Army Range Requirements Model (ARRM) identify which ranges are required by Hawai'i-based Army units to meet individual and collective training requirements. Table 1.5-1 below shows the required primary ranges; which alternative ranges can be used if a primary range is not available; which Hawai'i-based Army units require specific ranges; and if these ranges are located at PTA. As stated in Section 1.3.1.1 some of these range requirements can be met on O'ahu (crawl- and walk ranges). Of the ranges listed on this table, the following ranges are designed for collective (run-type ranges) training at PTA:

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<sup>23</sup> A Quonset hut is a lightweight prefabricated structure of corrugated galvanized steel having a semicircular cross section (based on a World War I British design). The original design was a 16 ft × 36 ft structure framed with steel members with an 8 ft radius. The sides were corrugated steel sheets. The two ends were covered with plywood, which had doors and windows. The interior was insulated and had pressed wood lining and a wood floor. The building could be placed on concrete, on pilings, or directly on the ground with a wood floor. The most common design created a standard size of 20 ft × 48 ft with 10 ft radius, allowing 720 sf of usable floor space, with optional four-foot overhangs at each end for protection of entrances from the weather.

- Range 1 ISBC
- Range 8C Live-fire Shootouse
- Range 10 IPBC
- Range 11T Gunnery Range
- Range 12 BAX
- Range 14 Multipurpose Range
- Multipurpose Range Complex (MPRC)<sup>24</sup>, located at Training Area 23
- CLF

Table 1.5-1 demonstrates that Range 8C Live-fire Shootouse, the CLF, and the BAX (once it is operational) are the only standard collective ranges at PTA.

**Table 1.5-1. Training Ranges Required for Hawai‘i-based Army units**

Primary Range	Alternate Range	2/25th SBCT	3/25th IBCT	25th CAB	PTA Range	Standard / Non-Standard
Anti-Armor Range		•	•		Range 8A Anti-Armor Sub Caliber	Standard Inactive
Auto-Sniper Range	MPMG	•	•		Range 8S Sniper Range	Non-Standard Inactive
Aerial Gunnery Range (AGR)				•	Range 11T Gunnery Range	Non-Standard Inactive
Basic 10/25 m Range		•	•	•	Range 7 Zero Range	Non-Standard Inactive
BAX	None	•			Range 12 BAX	Standard In Construction
Combined Arms Collective Training Facility (CACTF)	MPRC	•	•		Training Area 23 MPRC	Non-Standard Inactive
CLF		•	•	•	Range to be determined (TBD) CLF	Standard
Engineer Qualification Range	None		•		Range 9 Demolition Range	Non-Standard

<sup>24</sup> The MPRC was built at PTA, but never used by the Army as a result of a settlement agreement. While other NEPA documentation covering PTA has referred to this area as the MPRC, for the purposes of this Programmatic EIS, the Army refers to the area within which the MPRC is located, Training Area 23.

Primary Range	Alternate Range	2/25th SBCT	3/25th IBCT	25th CAB	PTA Range	Standard / Non-Standard
Grenade Launcher Range		•	•	•	Range 3 M203 TPT	Standard
Hand Grenade (live)		•	•		Range 5 Hand Grenade	Standard
Hand Grenade Qualification		•	•	•	Range 6 Hand Grenade Qualification	Standard
IPBC		•	•	•	Range 10 IPBC	Non-Standard
ISBC		•	•		Range 1 ISBC	Non-Standard
KD Range		•	•		Range 1B KD Range	Standard In Construction
Light Anti-tank Weapon (Law) Range	None	•	•	•	Range 11L Anti-Armor	Non-Standard
Light Demolition Range		•	•	•	Range 9 Demo Range	Non-Standard
Live-fire Breach Facility	Demo Range	•	•		Range 9 Demo Range	Non-Standard
Live-fire Shoothouse		•	•	•	Range 8C Shoothouse	Standard
Machine Gun Range (MPMG)		•	•	•	Range 8 MPMG	Non-Standard
MRF		•	•	•	Range 1A MRF	Standard
Mortar Range		•	•		Range 3 M203 TPT	Standard
MPRC	None	•	•	•	Training Area 23 MPRC	Non-Standard Inactive
Multipurpose Training Range	MPRC	•	•	•	Range 14 Multipurpose Range Training Area 23 MPRC	Non-Standard Inactive
Pistol Range		•	•	•	Range 2 Combat Pistol Qualification Course (CPQC)	Standard

Primary Range	Alternate Range	2/25th SBCT	3/25th IBCT	25th CAB	PTA Range	Standard / Non-Standard
Scout Reconnaissance Range	Multi-Purpose Training Range (MPTR), MPRC	•	•		Training Area 23 MPRC	Non-Standard Inactive
Sniper Range	MPMG	•	•		Range 8S Sniper Range 8 MPMG	Non-Standard Inactive Non-Standard
Squad Defense Range	ISBC	•	•	•	Range 1 ISBC	Non-Standard
Stationary Gunnery Range	MPTR, MPRC	•			Range 14 Multipurpose Range Training Area 23 MPRC	Non-Standard Inactive
Urban Assault Course	None	•	•		MOUT	Non-Standard (TTP)

The term “inactive” means that while the range is not currently used; it is not permanently closed and may in the future be added back to the training schedule for use. Some ranges that are inactive, such as Training Area 23, may take additional mitigations, funding, and agreements with regulatory and consulting partners in order to transition back to an active range.

Prior to 2001, PTA supported the collective training requirements of the Active Army, Army Reserve, Army National Guard, Marine Corps, Navy, Air Force, Special Operations Forces, PACOM, and allied armed forces from the Pacific region. Since then, PTA has continued to support this mission, while units deployed to- and redeployed from Iraq and Afghanistan. The lessons learned in Afghanistan and Iraq, along with Army Transformation led to significant changes in Army training doctrine and training range requirements (see Section 1.4). The Army developed designs for new and more capable ranges (including new and more targetry) and modified the designs of existing ranges to increase their training capability. Modernized ranges will support the new modular force and ensure that Soldiers and units can train to meet the challenges of the contemporary operating environment and the anticipated future era of persistent conflict. As discussed earlier, the list of “run-type” ranges on Table 1.5-1 that require modernization are Ranges 1, 10, 11T, 14, and 21. The Army’s modernization plans (see Table 2.2-1, Chapter 2) involve upgrades to Ranges 1 and 10. The Army presently has no plans to site a new multipurpose range (Ranges 14 or 21) at PTA, because the BAX being built at PTA will fill this requirement.

Even though training at PTA decreased (since the early 2000s) commensurate with the level of unit presence due to deployments, training and range requirements changed so that many of the existing ranges at PTA do not meet today’s training standards. Even with existing collective training range facilities on O‘ahu, a training capability shortfall exists at PTA and will become a larger readiness problem as military units redeploy to Hawai‘i from theater operations, stay longer at home station (dwell time), and execute their FSO METL training schedules.

Live-fire training is an essential component of Army training. Soldiers must “train as they fight” and develop the skills and experience necessary to effectively use their weapons systems under all conditions. Combat arms and CS Soldiers qualify on their individual weapon twice annually, CSS Soldiers qualify once annually. Infantry squads and platoons conduct collective live-fire training exercises at least once per quarter, and companies and battalions at least twice per year on collective live-fire ranges to increase weapons proficiency and command and control procedures.

Army BCTs and the units that comprise them must conduct regular “combined-arms” training on their FSO METL (see Section 1.3) to ensure that all of the units’ capabilities can be integrated and synchronized to execute missions under complicated operational conditions. Collective training consists of subordinate BCT units working together to integrate and bring together their combined capabilities and skills as a larger unit to carry out a mission. BCTs must conduct and rehearse collective training at every echelon from platoon through brigade level to ensure they can accomplish FSO METL.

### **Increased Dwell Time**

As the Army moves toward a sustainable operational tempo, it will attempt to balance the requirements of current and future missions with increased dwell time that provide more time at home station for units and Soldiers to Reset. During Reset, unit and Soldiers will train to FSO across the spectrum of operations. Greater dwell time will mean that installations, such as PTA, will once again begin to realize their full potential of providing doctrinally required training capability. Training ranges, training infrastructure and training support facilities must be readily available and up to standard.

### **Insufficient Capability of Existing Ranges**

The Army at PTA needs modernized training infrastructure to meet standard training capability requirements. As stated previously, many of PTA’s training ranges and infrastructure do not meet current doctrinal training requirements as identified by AR 350-1, CATS, STRAC, and FM 7-0. TC 25-8 provides the standard templates for range design to satisfy current training doctrine.

The Army, in concert with other military components using PTA, developed a list of modernization projects (Table 2.1-1) as part of the Proposed Action. The first of these projects is ready for consideration by the public and the decision maker now – to develop an IPBA. This Programmatic EIS specifically addresses the requirement for an IPBA at PTA. Other projects on the list in Table 2.1-1 are not fully mature because they are still in the planning process and are not yet ready for decision. The Army plans to tier from this document to address those projects when those design alternatives are ready for decision.

#### ***1.5.1.1 Infantry Platoon Battle Area***

The Army at PTA needs an IPBA comprised of an IPBC, Live-fire Shoothouse, and a MOUT facility. Currently, PTA does not have a range capable of supporting standard Infantry Platoon Live Fire Training that enables the unit to accomplish their METL tasks using one range. The ranges used to train weapons systems at PTA are spread across a wide area requiring units to support numerous ranges to accomplish modified weapons qualifications. This situation leads to logistical and training challenges for each unit. Additionally, existing ranges do not provide modernized targetry or scoring. The IPBA would support the live-fire collective training needs of Active Army, Army Reserve, and National Guard units, as well as other Service components that are stationed or train in Hawai‘i.

The Army needs to co-locate a MOUT facility with the Live-fire Shoothouse and IPBC to provide companies the realistic collective training opportunities such as they would encounter in the operational environment<sup>25</sup>. By co-locating these three training facilities, an infantry company can maximize valuable training time and resources during its semi-annual training at PTA. For example, the company leadership could command and control and logistically support each of its three platoons that are simultaneously conducting different training events. The proposed IPBA would provide infantry platoons with the ability to conduct collective live-fire training tasks on the skills necessary to conduct tactical movement techniques in a variety of live-fire or simulated live-fire environments. Use of the proposed IPBA would allow infantry platoons to go into battle with the best possible training for threats the Army expects to encounter during combat operations.

### **Infantry Platoon Battle Course**

The existing IPBC at PTA located at Range 10 is too small based upon current range design standards and has obsolete targetry. The range cannot be expanded at this current location because its extension would fall within the improved conventional munition (ICM) MEC/UXO area of the impact area at PTA. Limited entry is permitted into that area due to extremely hazardous conditions. The construction of a permanent range is beyond the scope of authorized actions in the ICM area. A standard IPBC has more objectives (e.g., targetry emplacements, bunkers, etc.) than what is found on Range 10. Training objectives would be considered enemy positions that Soldiers using the IPBC need to engage in order to simulate an actual situation in combat. Range 10 cannot accommodate these extra objectives due to its size; therefore, if it cannot be extended, Range 10 cannot meet the Army's current doctrinal range design and training standards.

Infantry platoons must train in a live-fire mode on tasks and in conditions they will execute in combat across the full spectrum of operations. The proposed IPBC is designed to meet the live-fire collective training needs of infantry platoons of the 25<sup>th</sup> ID through a variety of targets, objectives, and maneuver scenarios. This range would also support training for Marine Corps or other small units training at PTA, but principally the IPBC is designed as an essential element of infantry platoon live-fire training.

### **Live-fire Shoothouse**

Soldiers must have confidence in their skills and experience when facing challenging urban combat situations. To attain that confidence units and Soldiers must be proficient in entering and clearing a building, friendly and threat target identification, and quick reaction marksmanship skills. The proposed Live-fire Shoothouse will train Soldiers in these requirements.

### **MOUT Facility**

PTA does not have sufficient simulated urban facilities to provide units with the training under the conditions found in an urban or semi-urban environment. Units must be taught to shoot, move, and

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<sup>25</sup> The DoD defines the operational environment as a composite of the conditions, circumstances, and influences that affect the employment of [military] capabilities and bear on the decisions of the commander. The operational environment is most commonly referred to those locations (maritime, land, air, etc.) where military units are deployed to conduct peacekeeping activities or combat operations.

communicate in urban or semi-urban settings; to instinctively see and use urban features for cover and concealment; to establish squad and platoon positions; and to conduct roadblocks and vehicle searches such as they would in battle-focused environments.

### 1.5.2 Need for Training Support Infrastructure (Roads and Utilities)

**Roads.** Units using PTA need roads to and from the Range Areas, Cantonment Area, and airfield facilities that can handle vehicular traffic efficiently without risking vehicle damage or Soldier safety. Many roads at PTA are unpaved trails that are old, and in bad condition with deep ruts or potholes. Many of the roads at PTA also are not wide enough to support vehicle traffic to and from some Range Areas. This has a noticeable impact on the time it takes for units travelling on these roads to perform their required training tasks. Also, PTA needs new roads that allow access to parts of PTA that have been underutilized, such as the western Range Area that could be used for training. Figure 1.5-1 shows the typical road at PTA. This road segment (as shown) is poorly designed, having many unsafe curves, and produces a high amount of fugitive dust per vehicle.

**Figure 1.5-1. Vehicles Travelling in the Range Area at PTA**



**Utilities.** The primary sources of power at PTA are electricity (96 percent) and propane<sup>26</sup> (4 percent). Electrical energy is provided to PTA by the Hawaiian Electric Light Company (HELCO), which owns the utilities up to the installation's main substation. The Army owns, operates, and maintains the distribution network beyond the main substation<sup>27</sup> (DOE, 2010.) Facilities that draw power from the substation are buildings in the Cantonment Area and structures associated with ranges in the Range Area. The main substation transformer at the installation is inadequate to handle a projected growing energy demand associated with modernization improvements proposed in the Cantonment Area, and maximum power draw from the range complex. Future modernization of the Cantonment Area would also require a redesign of the power line network in the Cantonment Area to complement new buildings.

Furthermore, the existing power network in the range complex does not reach the entire range complex. If, for example, new ranges are built in the western range area or southwest of Range 20 then new power lines would have to be established in those areas of PTA.

### **1.5.3 Need for Training Support Facilities (buildings in the Cantonment Area)**

The Cantonment Area at PTA provides mainly an administrative function to manage the installation's land and assets, and it includes some temporary barracks. The PTA Cantonment Area also includes BAAF.

Many of the buildings in the Cantonment Area are old and dilapidated, and the cost to maintain these facilities is high. They were not originally meant for long term use, and the buildings there do not meet the Military Standard (Section 1.1.3). For example, temporary barracks, where some Soldiers sleep when deployed to PTA, are rapidly deteriorating and do not meet the space requirements to accommodate a battalion-sized unit.

Figures 1.5-2 through 1.5-5 show examples of various facilities in the Cantonment Area that do not meet current design standards; rather, these are facilities that were fashioned from existing infrastructure at PTA (Quonset Huts) that are in various stages of degradation.

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<sup>26</sup>Propane at PTA is used for meal preparation and cleanup in the dining facilities, and for water heating in the showers. (DOE, 2010)

<sup>27</sup>Public Services/ Utilities and energy at PTA is discussed and evaluated in greater detail in Section 3.14.



**Figure 1.5-2. Overview of PTA Facilities**

**Figure 1.5-3. Dining Facility Bldg S-185**





**Figure 1.5-4. PTA Base Theater Bldg S-91**

**Figure 1.5-5. Vehicle Maintenance Facility Bldg S-25**



## 1.6 SCOPE OF THE ANALYSIS

The Army at PTA, Hawai‘i is developing this Programmatic EIS in accordance with the NEPA, Council on Environmental Quality (CEQ) regulations, 40 Code of Federal Regulations (CFR) Parts 1505-1508, and the Army’s implementing procedures published in 32 CFR Part 651 Environmental Analysis of Army Actions. The Programmatic EIS will site-specifically analyze and disclose the human and environmental effects of a proposal to construct, operate, and maintain an IPBA and programmatically (broadly) assess the impacts of modernizing other training ranges, training support infrastructure, and training support facilities at the PTA on Hawai‘i Island. The Army will tier from this EIS to conduct the appropriate level of NEPA prior to undertaking specific projects that are analyzed programmatically.

### 1.6.1 NEPA Process

The purpose of this document is to inform Army decision makers and the public of the likely environmental consequences of the Proposed Action and its alternatives. In addition, this document evaluates the Proposed Action to construct and operate an IPBA at one of three location alternatives at PTA. An interdisciplinary team of biologists, hydrogeologists, air quality specialists, environmental scientists, noise experts, planners, engineers, archaeologists, historians, hazardous waste specialists, and military range experts prepared this document. During the scoping process, detailed in Section 1.7, the Army received public input on the issues to be analyzed by the Army and the document authors.

The breadth of subject matter in this NEPA document and the nature of the environmental resources potentially affected require that the Army consider many laws, regulations, and EOs related to environmental protection. Appendix I identifies the principal laws and EOs and how they relate to the Proposed Action. These authorities are addressed in various sections of this document where they are relevant to particular environmental resources and conditions as some of the regulations prescribe standards for compliance, whereas others require specified planning and management actions that protect environmental values potentially affected by Army actions.

### 1.6.2 Programmatic Analysis

The NEPA Task Force reported that “Programmatic NEPA analyses and tiering can reduce or eliminate redundant and duplicative analyses and effectively address cumulative effects” (Modernizing NEPA Implementation: The NEPA Task Force Report to the Council on Environmental Quality, Sept. 2003. p. 35). This draft Programmatic EIS incorporates programmatic and tiering components. It examines cumulative impacts and establishes a plan to avoid conflicts. It also serves as a baseline for site-specific analyses, to include the IPBA.

### 1.6.3 Tiering

Tiering is a staged approach to NEPA described in CEQ’s Regulations for Implementing the Procedural Provisions of the NEPA (40 CFR 1500-1508). Tiering addresses broad programs and issues in the initial (Tier 1) level analysis, and analyzes site-specific actions and impacts in subsequent NEPA tiered studies. The tiered process supports decision making on issues that are ripe for decision; tiering allows for a means to preserve those decisions. Future modernization projects at PTA would undergo independent site-specific NEPA documentation as part of a tiered analysis.

#### **1.6.4 Decision(s) to be Made**

This Programmatic EIS provides the decision maker and the public with the information necessary to evaluate the potential impacts associated with the Proposed Action and those supporting actions that the Army and other military services in Hawai‘i would undertake to fulfill the purpose and need of the Proposed Action at PTA. The Proposed Action consists of modernizing training ranges, training support infrastructure (e.g., roads and utilities), and training support facilities in the Cantonment Area. The Army proposes to modernize and improve the infrastructure at PTA to meet current, doctrinally-required training needs and standards.

The first modernization project for review is the site-specific IPBA project to construct an IPBC, Live-fire Shootouse, and a MOUT facility. Chapter 2, in addition to describing the Army’s modernization concept for PTA, also describes in greater detail the proposed IPBA design, use, and function, and presents a range of reasonable alternatives for the public and the decision maker to consider when siting the range, or to not build and operate the IPBA at all.

It is important to note that, for the Programmatic (Tier 1) portion of the draft Programmatic EIS, the decision being made is whether to modernize the ranges, infrastructure, and Cantonment Area at PTA. If the Army decision maker decides to modernize PTA, then a decision will be made whether or not to construct and operate the IPBA upon consideration of all public input. In effect, the Army has two decisions to consider based upon this document. If, however, the decision maker decides not to modernize PTA, then units training at the installation will continue to use the existing infrastructure as efficiently as possible at a high cost to the Soldiers, who would not then receive their doctrinally-required training and the IPBA will not be considered at this time.

Selection of an alternative by the decision maker will take into account the environmental, economic, and social issues as well as the alternative’s ability to meet the objectives of the military mission. Chapter 4 includes any practical mitigation measures available to avoid, minimize, or mitigate adverse environmental impacts.

#### **1.6.5 Cooperating Agencies**

CEQ defines the rights and responsibilities of cooperating agencies in Section 1501.6 of the CEQ regulations (CEQ, 1978) and in Question 14 of “The 40 Most Asked Questions (about NEPA)” (CEQ, 1981). Upon request of the lead agency, any other federal agency that has jurisdiction by law or that has special expertise with respect to any environmental issue, may become a cooperating agency. Currently, cooperating agencies include the USFWS and Hawai‘i SHPD. Nonetheless, the Army is working closely with agencies that have jurisdiction over or special expertise regarding resources at PTA.

### **1.7 PUBLIC INVOLVEMENT**

Through public involvement, the Army determined the range of issues and those significant issues to be addressed in the Programmatic EIS. Public involvement also allows for full and fair discussion of significant environmental impacts. By providing a means for open communication between the Army and the public, the procedural aspects of NEPA promote better decision making.

Numerous organizations were contacted to gather input on the NEPA process. Civic organizations consulted included Rotary International, chambers of commerce, the Military Affairs Committee, veterans groups, retired military members, State and City government officials, Members of Congress, and neighborhood boards. Native Hawaiian and Pacific Islander groups also have been encouraged to participate in the NEPA process.

Several opportunities are available for public involvement with the preparation of an EIS under NEPA. This section provides an overview of the scoping process and public comment period on the Draft Programmatic EIS. Appendix B contains copies of Federal Register notices, newspaper notices, public hearing transcripts, and comment letters.

### **1.7.1 Scoping – Public Notification**

CEQ regulations and 32 CFR Part 651 guides public participation opportunities for Army actions. The Army's public participation outreach includes issuing in the Federal Register a notice of intent (NOI) to prepare an EIS, a public scoping process, a 45-day public review period for the draft document, and publication of the final EIS accompanied by a 30-day mandatory waiting period before a Record of Decision (ROD) is issued. The Notice of Availability (NOA) for the ROD will be published in the Federal Register before Army action is taken.

The NOI to prepare this Programmatic EIS was published in the Federal Register on December 23, 2010. The notice described that the Army will address the environmental impacts associated with modernization activities at PTA and specifically the proposed IPBA and its alternative locations. Included in the notice was an announcement of public scoping meetings on Hawai'i Island.

The Army further published notices announcing the Army's intent to prepare a Programmatic EIS and to hold public scoping meetings in local daily newspapers to coincide with the publication of the NOI in the Federal Register, in the weeks preceding the scoping meetings. A representative copy of one of the notices is included in Appendix B. The notices were published in the *West Hawai'i Today* (28 and 29 December 2010) and *Hawai'i Tribune-Herald* (28 and 29 December 2010).

The Army held public scoping meetings over a two-day period on January 11, 2011 at the Hilo Intermediate School cafeteria; and on January 12, 2011 at the Waimea Elementary School cafeteria. Each public scoping meeting was preceded by an open information session that allowed individuals to review posters that described the Proposed Actions; and, the public was provided the opportunity to voice their concerns to the Army in either written or oral testimony. Army representatives were available during the open information session. Approximately 97 people attended the scoping meetings, with 46 individuals providing oral comments for the Army's consideration. The Army, throughout the 46-day scoping period, also received written comments from approximately 41 individuals and organizations (14 written comments from the scoping meetings, 25 emails, 2 written comments provided via U.S. Postal Service).

### **1.7.2 Scoping – Summary of Comments**

The Army reviewed and evaluated comments received during the scoping process to help focus the content of this Programmatic EIS. Comments are generally grouped by topic. Table 1.7-1 summarizes the concerns raised by the public from the oral statements and written comments provided throughout the scoping period; and it provides the chapter where the Army discusses the affected resource.

**Table 1.7-1. Topics of Concern Received From Public Scoping**

<b>Concerns</b>	<b>Chapter</b>
Impacts on wildlife and listed species	4.9 Biological Resources: Environmental Consequences
Survey of caverns located in the range area	3.10.4.2 Cultural Resources: Identifying and managing resources at PTA through surveys
Depleted Uranium (DU) (radiation and dust control)	3.12 Depleted Uranium Affected Environment and 4.12 Depleted Uranium Environmental Consequences
Noise impacts on wildlife, National Park visitors, and historical landmarks.	4.5.4.1 Noise: General Range Area
High Altitude Mountainous Environment Training (HAMET) – helicopter training	5.3 Cumulative Impacts
Native Hawaiian Sovereignty	3.10.3.3 Cultural Resources: Native Hawaiian Sovereignty
Impacts on cultural and archaeological sites in the area	4.10 Cultural Resources Environmental Consequences
Hunting at PTA	3.1.2.1 Land Use: Recreation
MEC/UXO Cleanup	3.11.1.1 Hazardous Materials/Hazardous Waste: Regulations (MEC/UXO)
Cumulative Impacts considering all military activities at PTA	5.0 Cumulative Impacts

Only a few comments offered specific concerns over topics of modernization presented during scoping. Rather, a majority of the public's concern regarded the impacts of all the Army's recent activities. This information is best discussed in the cumulative impacts assessment (Chapter 5), and that analysis includes the recent actions proposed in the HAMET EA. The Department of Interior additionally offered its concern about noise from the Proposed Action and past actions, and the impact to the soundscape at Volcanoes National Park. Other interested parties were concerned that more fencing would further restrict hunting at PTA. Several general concerns were raised about the impact to cultural resources from modernization. If a specific concern was raised, the corresponding resource chapter addresses that concern.

A majority of concerns raised during scoping were in the form of opposition to the perceived expansion of PTA. This Programmatic EIS does not propose expanding PTA outside its existing boundaries and further does not propose increasing live-fire or maneuver training beyond what was analyzed in the Final EIS for the Permanent Stationing of the SBCT (U.S. Army and USACE, 2008a), or beyond historical training levels (pre-2001). This Programmatic EIS addresses chiefly the need for having training and training support facilities at PTA that can support the Army's doctrinal training requirements; and it proposes projects in Chapter 2 (Table 2.1-1) that would meet this need.

## 1.8 ORGANIZATIONAL STRUCTURE OF THE PROGRAMMATIC EIS

This Programmatic EIS is organized by chapters. Major issues and topics of each chapter are summarized below:

- Chapter 2, Description of the Proposed Action and Alternatives, presents the No Action Alternative and alternatives to accomplish the Proposed Action for the modernization of ranges, infrastructure, and the Cantonment Area at PTA. For the site-specific Proposed Action to implement an IPBA at PTA, three site alternatives and the No Action alternative are presented.
- Chapter 3, Affected Environment, describes existing resources and environmental conditions at PTA. The conditions presented form the baseline for analyzing the environmental impacts of the alternatives. Resource categories addressed in the EIS include land use and recreation, airspace, aesthetic and visual resources, air quality, noise, traffic and transportation, water resources, geology and soils, biological resources, cultural resources, hazards and hazardous materials and wastes, depleted uranium, socioeconomic and environmental justice, public services and utilities, and sustainability.

The Army conducted site-specific resource studies to provide existing environment data for the IPBA. These studies included the following:

- Cultural resources inventory survey, and a surface/subsurface evaluation of the IPBA preferred alternative. A detailed overview and results of the field investigations are included in Section 3.10, Cultural Resources.
  - Biological resources surveys, including listed species, of the IPBA preferred alternative. Available results have been incorporated into the EIS. A detailed overview and results of the field investigations are included in Section 3.9, Biological Resources.
  - MEC/UXO surveys were conducted for the entire IPBC range footprint. In addition, trained and certified contractors in ordnance identification accompanied surveyors of the cultural and biological field investigations over the footprint of the entire IPBA (to include the proposed locations for the Live-fire Shoothouse and MOUT, and areas in between). Discussion of these surveys is offered in Section 3.11, Hazardous Materials.
  - A noise analysis for the IPBC portion of the IPBA was conducted by the Army and summarized in Section 3.5, Noise.
  - USARPAC and USAG-HI officials completed aerial surveys (from helicopters) of PTA to identify feasible site locations for the IPBA based upon terrain, and maps of areas on PTA where limitations exist (see Section 2.2.3.5).
  - The Army has conducted a number of studies for depleted uranium at PTA including literature searches, aerial surveys, soil sampling, and air monitoring. These studies are discussed in Section 3.12, Depleted Uranium.
- Chapter 4, Environmental Consequences, identifies and describes the adverse and beneficial environmental impacts expected to result from implementing the alternatives. Analyzing

potential impacts identifies direct and indirect effects and mitigation measures that could reduce the intensity of adverse effects.

- Chapter 5, Cumulative Projects and Impacts, presents other past, present, and reasonably foreseeable projects and identifies the cumulative environmental effects that could result from implementing those projects along with the alternatives.
- Chapter 6, Other Required Analyses, addresses other considerations required by NEPA, such as significant unavoidable adverse effects.
- Chapter 7, References, lists the references used during preparation of the Programmatic EIS.
- Chapter 8, Consultation and Coordination, lists the agencies and individuals consulted during preparation of the document.
- Chapter 9, List of Preparers, presents the preparers and contributors to the document.
- Chapter 10, Glossary, defines terms used in the document.

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