

Volume 1

# Draft Programmatic Environmental Impact Statement

for the Modernization of Training  
Infrastructure and Construction and  
Operation of an Infantry Platoon Battle  
Area at Pōhakuloa Training Area, Hawai'i

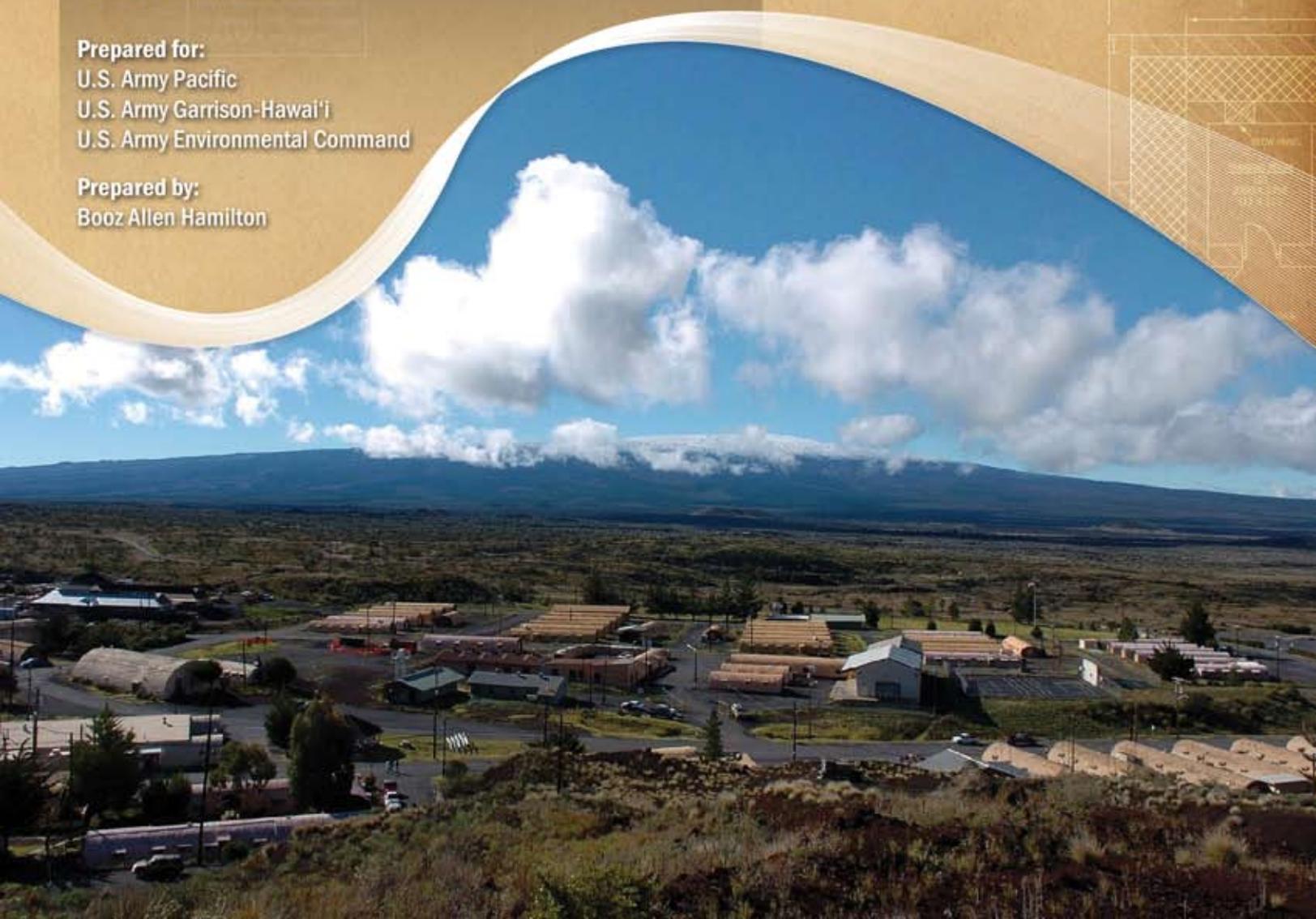
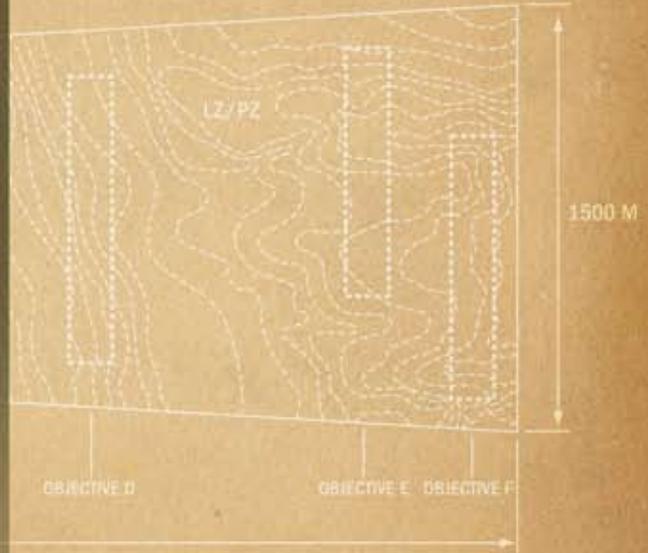
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**Prepared for:**

U.S. Army Pacific  
U.S. Army Garrison-Hawai'i  
U.S. Army Environmental Command

**Prepared by:**

Booz Allen Hamilton





**DRAFT PROGRAMMATIC ENVIRONMENTAL IMPACT STATEMENT**  
**MODERNIZATION OF TRAINING INFRASTRUCTURE AND CONSTRUCTION**  
**AND OPERATION OF AN INFANTRY PLATOON BATTLE AREA (IPBA)**  
**AT PŌHAKULOĀ TRAINING AREA (PTA), HAWAII**

September 2011



Approved by:

Douglas S. Mulbury  
Colonel, US Army  
Commanding  
US Army Garrison, Hawaii

James D. George Jr.  
Director  
Mission Support Element - Hawaii  
U.S. Army Pacific

Mr. Alvin Char  
Chief, Environmental Division  
US Army Garrison, Hawaii



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FINAL PROGRAMMATIC ENVIRONMENTAL IMPACT STATEMENT  
Modernization of Training Infrastructure and Construction and Operation of an Infantry Platoon Battle  
Area (IPBA) at Pōhakuloa Training Area (PTA), Hawai‘i

Abstract

This Draft Programmatic Environmental Impact Statement (EIS) addresses the proposed modernization of training infrastructure at Pōhakuloa Training Area (PTA), Hawai‘i. The lead agencies for this effort are the U.S. Army Pacific (USARPAC) and the U.S. Army Garrison-Hawai‘i (USAG-HI). This EIS has been developed in accordance with the National Environmental Policy Act (NEPA) and implementing regulations issued by the Council on Environmental Quality (CEQ, 40 Code of Federal Regulations [CFR] Parts 1500 to 1508) and the Army (32 CFR Part 651).

The Army’s Proposed Action involves modernizing training ranges, training support infrastructure (e.g., roads and utilities), and training support facilities in the Cantonment Area at PTA. The analysis of this Draft Programmatic EIS addresses the broad environmental concerns related to modernization projects that could be implemented in the reasonably foreseeable future. The proposed modernization projects include requirements from the U.S. Army and the U.S. Marine Corps (USMC), another major user of PTA. The first of the modernization project is the construction and operation of an Infantry Platoon Battle Area (IPBA). A detailed examination of the potential impacts for other proposed modernization projects would be conducted as part of future project-specific NEPA analysis.

The major potential environmental issues discussed for the proposed IPBA are associated with the possible impacts to air quality, cultural sites, and threatened and endangered species; encountering munitions and explosives of concern (MEC); and igniting wildfires. The Army is formally consulting with the Hawai‘i State Historic Preservation Division (SHPD) and other consulting parties, and the U.S. Fish and Wildlife Service (USFWS) to determine the extent of impacts to sensitive cultural and biological resources, respectively.

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

For more information and to obtain a copy of the Draft Programmatic EIS, please visit the project Web site: <http://www.garrison.hawaii.army.mil/PTAPEIS/>. For further information, contact USAG-HI Public Affairs Office by phone at (808) 656-3152 Monday through Friday 9:00 a.m. to 5:00 p.m. Hawai‘i Standard Time (HST). Written comments may be addressed to PTA PEIS, P.O. Box 514, Honolulu, HI 96809. Facsimiles may be sent to (808) 545-6808. Email comments may be addressed to [PTAPEIS@bah.com](mailto:PTAPEIS@bah.com).

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## ACRONYMS LIST

A&M	Artillery and Mortar
AAR	After Action Review
AAS	Analysis of Alternatives Study
AC	Active Component
ACC/MVM	Accidents per Million Vehicle Miles
ACGIH	American Conference of Governmental Industrial Hygienists
ACHP	Advisory Council on Historic Preservation
ADA	American Disability Association
ADNL	A-Weighted Day-Night Average Sound Level
ADT	Average Daily Traffic
AEDB-R	Army Environmental Database- Restoration
AGL	Above Ground Level
AGR	Aerial Gunnery Range
AHA	Ammunition Holding Area
AICUZ	Air Installation Compatible Use Zone
AIROPS	Aircraft Operations Support
AMRP	Army Master Range Plan
AOR	Area of Responsibility
APE	Area of Potential Effect
AR	Army Regulation
ARRA	American Recovery and Reinvestment Act
ARRM	Army Range Requirements Model
ASMEX	Air-to-Surface Missile Exercises
ASP	Ammunition Supply Point
ATC	Aberdeen Test Center
ATC	Air Traffic Control
ATCAA	Air Traffic Control Assigned Airspace
ATS	Army Training Strategy
ATSDR	Agency for Toxic Substances and Disease Registry

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BA	Biological Assessment
BAAF	Bradshaw Army Airfield

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BAX	Battle Area Complex
BCT	Brigade Combat Teams
BMP	Best Management Practices
BO	Biological Opinions
BOMBEX	Bombing Exercise

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C2	Command and Control
CAA	Clean Air Act
CAB	Combat Aviation Brigade
CACTF	Combined Arms Collective Training Facility
CALFAM	Combined Arms Live-fire and Maneuver
CALFEX	Combined Arms Live-fire Exercises
CAS	Close Air Support
CASEX	Close Air Support Exercise
CATS	Combined Arms Training Strategy
CCD	Census County Division
CDNL	C-Weighted Day-Night Average Sound Level
CDS	Container Delivery System
CEQ	Council on Environmental Quality
CERCLA	Comprehensive Environmental Responsibility, Compliance, and Liability Act
CFA	Controlled Firing Areas
CFR	Code of Federal Regulations
CHPPM	Army Center for Health Promotion and Preventive Medicine
CLF	Convoy Live Fire
CMETL	Core Mission Essential Task List
CMP	Comprehensive Management Plan
CNEL	Community Noise Equivalent Level
CNS	Central Nervous System
CPQC	Combat Pistol Qualification Course
CQM	Close Quarters Marksmanship
CS	Combat Support
CSS	Combat Service Support
CSU	Colorado State University
CTC	Combat Training Centers

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CWA	Clean Water Act
CWB	Clean Water Branch
CZMA	Coastal Zone Management Act

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DA	Department of Army
DA PAM	Department of the Army Pamphlet
dB	Decibel
dBA	A-Weighted Decibel
dB(C)	C-Weighted Decibel
dB(P)	Unweighted Peak Sound Level
DCS	Deputy Chief of Staff
DFAC	Dining Facility
DLNR	Department of Land and Natural Resources
DMETL	Direct Mission Essential Task List
DNL	Day-Night Average Sound Level
DoD	Department of Defense
DoDI	Department of Defense Instruction
DOE	Department of Energy
DOL	Directorate of Logistics
DOT	Department of Transportation
DPTMS	Director of Plans, Training, Mobilization and Security
DPW	Department of Public Works

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EA	Environmental Assessment
ECO	Environmental Compliance Office
EISA	Energy Independence and Security Act of 2007
EMCS	Energy Monitoring Control Systems
ENMP	Environmental Noise Management Program
EO	Executive Order
EOD	Explosive Ordnance Disposal
EPA	U.S. Environmental Protection Agency
EPNL	Effective Perceived Noise Level
ESA	Endangered Species Act
EW	Electronic Warfare

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FAA	Federal Aviation Administration
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FAARP	Forward Area Arming and Refueling Point
FAR	Federal Aviation Regulations
FARP	Forward Arming and Refueling Point
FD	Fire Department
FDRS	Fire Danger Rating System
FEMP	Federal Energy Management Program
FEWR	Facilities Engineers Work Request
FICAN	Federal Interagency Committee on Aviation Noise
FICUN	Federal Interagency Committee on Urban Noise
FIDLER	Field Instrument for the Detection of Low Energy Radiation
FL	Flight Level
FM	Field Manual
FNSI	Findings of No Significant Impact
FOB	Forward Operating Base
FSO	Full Spectrum Operations
FTI	Fixed Tactical Internet
FUDS	Formerly Used Defense Site
FY	Fiscal Year

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GA	General Aviation
GHG	Greenhouse Gas
GM	Geiger-Mueller
GPS	Global Positioning System
GPW	Global Warming Potential
GSA	Government Service Agreement
GUNEX	Air-to-Ground Exercise

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HAMET	High Altitude Mountainous Environment Training
HAPs	Hazardous Air Pollutants
HAR	Hawai'i Administrative Rules
HCPD	Hawai'i County Police Department
HDOH	Hawai'i Department of Health
HE	High Explosive
HELCO	Hawaiian Electric Light Company
HEMTT	Heavy Expanded Mobility Tactile Truck

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HETS	Heavy Equipment Transporter System
HIARNG	Hawai'i Army National Guard
HMMWV	High Mobility Multipurpose Wheeled Vehicle
HQ	Headquarters
HQDA	Headquarters, Department of the Army
HST	Home Station Training
HUD	Housing And Urban Development
HUT	Human Urban Targets

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IAEA	International Atomic Energy Agency
IBCT	Infantry Brigade Combat Team
ICM	Improved Conventional Munition
ICRMP	Integrated Cultural Resource Management Plan
ICUZ	Installation Compatible Use Zone
IDS	Intrusion Detection System
ID	Infantry Division
IED	Improvised Explosive Device
IFF	Identify Friend or Foe
IFR	Instrument Flight Rules
IFMZ	Intensive Fire Management Zone
IHWMP	Installation Hazardous Waste Management Plan
IMC	Instrument Meteorological Conditions
IMPROVE	Interagency Monitoring of Protected Visual Environments
IMU	Intensive Management Units
INRMP	Integrated Natural Resource Management Plan
IONMP	Installation Operational Noise Management Plan
IPBA	Infantry Platoon Battle Area
IPBC	Infantry Platoon Battle Course
IPCC	Intergovernmental Panel on Climate Change
IR	Instrument Routes
IRP	Installation Restoration Program
ISBC	Infantry Squad Battle Course
ITE	Institute of Transportation Engineers
IWFMP	Integrated Wildland Fire Management Plan

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JNTC	Joint National Training Capability
JTEN	Joint Training and Experimentation Network
KD	Known Distance
kVA	kilo Volt Amperes
LAW	Light Anti-tank Weapon
LBP	Lead Based Paint
LCC	Large Capacity Cesspool
LFX	Live-Fire Exercise
LOS	Level of Service
LRLTP	Long Range Land Transportation Plan
LSV	Logistic Support Vessels
LTA	Local Training Areas
LUPZ	Land Use Planning Zones
LVC	Live, Virtual, and Constructive
LZ	Landing Zone
MARFORPAC	Marine Forces Pacific
MBTA	Migratory Bird Treaty Act
MCA	Military Construction, Army
MCB	Marine Corps Base
MCBH	Marine Corps Base Hawai'i
MDEP	Management Decision Evaluation Package
MEB	Marine Expeditionary Brigade
METL	Mission Essential Task List
MG	Machine Gun
MGD	Million Gallons per Day
MGS	Mobile Gun System
MIL STD	Military Standard
MMR	Mākuā Military Reservation
MOA	Memorandum of Agreement
MOA	Military Operations Area
MOU	Memorandum of Understandings
MOUT	Military Operations on Urban Terrain
MP	Military Police

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MRAP	Mine Resistant Ambush Protected
MPMG	Multipurpose Machine Gun
MPRC	Multipurpose Range Complex
MPTR	Multi-Purpose Training Range
MRF	Modified Record Fire
MSE-HI	Mission Support Element - Hawaii
MSL	Mean Sea Level
MSR	Main Supply Route
MTA	Major Training Areas
MTR	Military Training Routes

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NA	Not Applicable
NAAQS	National Ambient Air Quality Standards
NAR	Natural Area Reserves
NCA	National Command Authority
NEPA	National Environmental Policy Act
NFDRS	National Fire Danger Rating System
NHPA	National Historic Preservation Act
NIOSH	National Institute for Occupational Safety and Health
NM	Nautical Miles
NMFS	National Marine Fisheries Service
NMS	National Military Strategy
NOA	Notice of Availability
NOAA	National Oceanic and Atmospheric Administration
NOC	Network Operations Center
NOI	Notice of Intent
NPDES	National Pollution Discharge Elimination System
NPS	National Park Service
NRCS	Natural Resources Conservation Services
NREL	National Renewable Energy Laboratory
NRHP	National Register of Historic Places
NRO	Natural Resources Office
NSS	National Security Strategy
NZEI	Net Zero Energy Installation
NZEP	Near Zero Emissions Power

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OC	Operations Center
OIC	Officer in Charge
OMA	Operations and Maintenance, Army
OPA	Other Procurement, Army
OPFOR	Opposing Force
ORAP	Operational Range Assessment Program
ORMP	Ocean Resources Management Plan
OSASPL	Overall Sound Pressure Level
OSHA	Occupational Safety and Health Administration
OWS	Oil-Water Separator

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PACOM	Pacific Command
PEA	Programmatic Environmental Assessment
PEIS	Programmatic Environmental Impact Statement
PK15(met)	Peak Sound Level
PM	Particulate Matter
PNL	Perceived Noise Level
POI	Programs of Instruction
POM	Program Objective Memorandum
POV	Personally Occupied Vehicles
ppb	Parts per Billion by Volume
PPBE	Planning, Programming and Budgeting Execution
ppm	Parts per Million by Volume
PRL	Practical Reporting Level
PTA	Pōhakuloa Training Area
PV	Photo-Voltaic

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QDR	Quadrennial Defense Review
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RA	Restricted Airspace
RC	Reserve Component
RCMP	Range Complex Master Plan
RCO	Range Control Officer
RDA	Research, Development and Acquisition

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RDP	Range Development Plan
RDT&E	Research, Development, Test & Evaluation
RFMSS	Range Facility Management Support System
RI/FS	Remedial Investigation/Feasibility Study
RIMPAC	Rim of the Pacific
ROCA	Range Operations Control Area
ROD	Record of Decision
ROI	Region of Influence
RTLA	Range and Training Land Assessment
RTLPL	Range and Training Land Program
RTV	Rational Threshold Value
RWQCB	Regional Water Quality Control Boards

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SAIA	Sikes Act Improvement Act
SARNAM	Small Arms Range Noise Assessment Model
SAW	Squad Automatic Weapon
SBCT	Stryker Brigade Combat Team
SC	Spread Component
SDWA	Safe Drinking Water Act
SDWB	Safe Drinking Water Branch
SDZ	Surface Danger Zones
SEL	Sound Exposure Level
SENEL	Single Event Noise Exposure Level
SESAMS	Special Effects Small Arms Marking System
sf	Square Foot
SHPD	State Historic Preservation Division
SHPO	State Historic Preservation Officer
SIP	State Implementation Plan
SONMP	Statewide Operational Noise Management Plan
SOP	Standard Operating Procedure
SPECWAROPS	Special Warfare Operations
SPL	Sound Pressure Level
SRA	Sustainable Range Awareness
SRP	Sustainable Range Program
SRTA	Short Range Training Ammunition

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STRAC	Standards in Training Commission
STWEX	Strike Warfare Exercise
SUA	Special Use Airspace
SVOC	Semi-Volatile Organic Compound
SWRCB	State Water Resources Control Boards

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TAC-P	Tactical Air Control Party
TADSS	Training Aids, Devices, Simulators, and Simulations
TBD	To Be Determined
TC	Training Circular
TCP	Traditional Cultural Properties
TISA	Troop Issue Subsistence Activity
TLV	Threshold Level Value
TMDL	Total Maximum Daily Load
TMK	Tax Map Key
TOP	Transportation for O'ahu Plan
TOW	Tube-launched, Optically tracked, Wire-guide
TP	Target Practice
TPT	Training Practice Tracer
TRADOC	U.S. Army Training and Doctrine Command
TRI	Training Requirements Integration
TSP	Total Suspended Particulates
TSR	Training Support Representative
TTP	Tactics, Techniques and Procedures
TT PEG	The Training Program Execution Group

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U.S.	United States
UAS	Unmanned Aircraft Systems
UFC	Unified Facilities Criteria
UIC	Underground Injection Control
UO	Urban Operations
USACE	U.S. Army Corps of Engineers
USAF	U.S. Air Force
USAG-HI	U.S. Army Garrison-Hawai'i
USAPHC	U.S. Army Public Health Command

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USARPAC	U.S. Army Pacific
USCB	U.S. Census Bureau
USDA	U.S. Department of Agriculture
USFWS	U.S. Fish and Wildlife Service
USMC	U.S. Marine Corps
USPACOM	U.S. Pacific Command
USWEX	Undersea Warfare Exercise
UTM	Ultimate Training Munition
UXO	Unexploded Ordnance

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VFR	Visual Flight Rules
VMC	Visual Meteorological Conditions
VMT	Vehicle Miles Traveled
VOC	Volatile Organic Compound
VOG	Volcanic Smog
VSCW	Four letter code for the range operations MDEP

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WAAF	Wheeler Army Airfield
WHO	World Health Organization
WMD	Weapons of Mass Destruction
WQC	Water Quality Certification
WRCC	Western Regional Climate Center
WWB	Wastewater Branch

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## **EXECUTIVE SUMMARY**

### **INTRODUCTION AND BACKGROUND**

This document is a Programmatic Environmental Impact Statement (EIS) for the proposed modernization of training ranges, training support infrastructure, and training support facilities at Pōhakuloa Training Area (PTA), Hawai‘i and includes as part of the modernization, a site-specific analysis for the construction and operation of an Infantry Platoon Battle Area (IPBA) at PTA. The U.S. Army Pacific (USARPAC) and the U.S. Army Garrison-Hawaii (USAG-HI) are the lead agencies for this EIS.

The Programmatic EIS considers the broad environmental concerns for the modernization of PTA ranges, training support infrastructure (e.g., roads and utilities), and training support facilities in the Cantonment Area. Subsequent National Environmental Policy Act (NEPA) studies will analyze site-specific actions and their potential impacts. This EIS also includes an analysis of the Army’s first proposed modernization project, a site-specific action to construct and operate an IPBA. The tiered analysis will focus on the preferred project location, alternative locations, and assess areas surrounding these sites for direct and indirect effects. The tiered analysis also considers a No Action alternative of not building the IPBA.

The Draft Programmatic EIS will be released for 45 days in Draft form to the public for comment. It will then be released again in final form. No earlier than 30 days after the Final Programmatic EIS comes out, the Army will make a decision on the modernization of the training infrastructure at PTA and the construction and operation of an IPBA.

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

PTA is a 132,000 acre multi-function training ground located on the Island of Hawai‘i used by all branches of the U.S. military including live-fire ranges, an airfield, 566 acre facility area (referred to as the Cantonment Area), and a 51,000 acre artillery impact area. Army units that normally use the PTA are stationed in Hawai‘i at the 25th Infantry Division (ID). These include the 2/25th Stryker Brigade Combat Team (SBCT), 3/25th Infantry Brigade Combat Team (IBCT), and the 25th Combat Aviation Brigade (CAB). PTA is also used by other service and Reserve Component (RC) Soldiers. PTA must be upgraded to meet the training needs of these military units.

The USARPAC is proposing to upgrade PTA by renovating and constructing new facilities in the Cantonment area, widening and upgrading access roads, and constructing integrated training facilities known as the Infantry Platoon Battle Course (IPBC), Live-fire Shoothouse, and Military Operations on Urban Terrain (MOUT) within the IPBA that would be built on land within the artillery impact area.

PTA does not have the right amount or the right type of standardized ranges to support the 25th ID’s collective (unit) training requirements. New and modernized ranges are needed to provide increased live-fire capabilities. PTA also does not have suitable training support infrastructure (roads and utilities) and training support facilities in the Cantonment Area that provide access and support to the operation of its ranges. Many of the roads have deteriorated beyond repair, and the electric grid and utilities could not support the requirements for the newly proposed ranges and training facilities in the Range Area, and proposed new Cantonment facilities. The buildings and structures in the Cantonment Area are old, do not

meet current military standards, and are inefficiently being used for administrative and logistics purposes which are inconsistent for which they were designed.

### PROPOSED ACTION

The Army's Proposed Action is to modernize training ranges, training support infrastructure (e.g. roads and utilities) and training support facilities in the Cantonment Area at PTA. This modernization will improve the quality of training and efficient use of facilities at PTA, and reduce a current shortfall in collective (group) live-fire standard training capabilities for units stationed in Hawai'i.

The Army coordinated with the Marine Corps, Navy, and Air Force on developing a project list. The Army projects in this list are assets that would be used to support primarily Army training and use of PTA, but these assets could be used by other military Services.

Appendix A of this Programmatic EIS provides a description, purpose, and need for each of the planned future projects. The exception is the IPBA. The IPBA construction and operation is fully described in Section 2.1.3.

**Table ES-1 Proposed Modernization Projects**

<b>Project Title</b>	<b>Project Type</b>	<b>Military Proponent</b>
<b>Proposed Five Year Project List (FY 12-16) (Not in Priority Order)</b>		
IPBA – IPBC, Live-fire Shootouse, and MOUT	Training Range	Army
IPBC (Range 10) Upgrade	Training Range	Army
Infantry Squad Battle Course (ISBC) Upgrade	Training Range	Army
MOUT Assault Course(s) Tactics, Techniques and Procedures (TTP)	Training Range	Army
Multipurpose Storage Facility	Cantonment Area	USMC
Ammunition Storage Facility	Training Range	Army
Range Road Improvements - East-West Main Supply Route (MSR), Charlie's Circle Upgrade, and Widening of Roads in the Southeast of the Installation	Infrastructure	Army
Production Water Well	Cantonment Area	Army
Training Aids Support Center / Multipurpose Training Facility	Cantonment Area	Army
Ammunition Storage Facilities	Training Range	USMC
Electrical Upgrade	Infrastructure	Army
Tactical Equipment/Vehicle Maintenance Shop	Cantonment Area	Army
UAV Facilities	Cantonment Area	Army
Brigade Headquarters (HQ) and Exercise Control Facility	Cantonment Area	Army
Aerial Gunnery Range (AGR)	Training Range	Army

Projects planned for FY 2017 or later fall within the Extended Planning timeframe and are analyzed in the cumulative effects analysis of this document.

This Programmatic EIS also fully evaluates the first of the modernization projects on Table ES-1, to construct and operate the IPBA at one of three locations on PTA.

### **DECISION TO BE MADE**

The Army's decision maker will consider environmental and other issues of concern disclosed in the Programmatic EIS before making a final decision. This decision will be issued in a Record of Decision (ROD). The ROD will be signed no earlier than 30 days from the publication of the Final Programmatic EIS Notice of Availability (NOA) and will be available to the public when it is completed.

### **PUBLIC SCOPING**

The notice of intent (NOI) to prepare the Programmatic EIS was published in the Federal Register on December 23, 2010; and the Army held public scoping meetings over a two-day period in Mid-January, 2011. The scoping meetings included an open information session that allowed individuals to review posters describing the Proposed Actions, and also provided a forum for attendees to voice their concerns to the Army in both written and oral testimony. Section 1.7 of the document discusses in greater detail the topics of concern raised by the public during scoping and further provides the reader with information on where these concerns were addressed within the document. In general, the public asked the Army to analyze impacts to wildlife and protected species, survey for cultural resources and consider traditional practices in their evaluation, address depleted uranium and any impacts it may have to the community surrounding PTA, look at noise issues related to nearby parks, review the cumulative impacts of recent Army actions (including helicopter training), revisit the issue of Native Hawaiian Sovereignty, disclose its policies towards hunting restrictions and fencing throughout the installation, and provide information on munitions and explosives of concern (MEC)/unexploded ordnance (UXO) cleanup<sup>1</sup>.

A majority of concerns raised during scoping were in the form of opposition to the expansion of PTA. It should be clarified that this EIS does not propose expanding PTA outside its existing boundaries.

### **DESCRIPTION OF THE PROPOSED ACTION**

There are three (3) elements of the proposed modernization of PTA; these are:

- Modernization of Ranges
- Modernization of the Cantonment Area
- Modernization of Roads and Utilities, some of which are common to the range area and the Cantonment Area

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<sup>1</sup> MEC is more commonly known as unexploded ordnance (UXO). MEC is technically a more accurate term when the DoD considers the challenges that munitions constituents of ordnance fill poses to cleanup efforts.

### **Modernization of Ranges**

The Army is proposing actions for six ranges in this Programmatic EIS within the near-term five-year project list; these are:

- IPBA
- Range 10 IPBC Upgrade
- Infantry Squad Battle Course Upgrade
- MOUT Assault Courses in the Ke'āmuku Maneuver Area
- Aerial Gunnery Range

The first range modernization project is the proposed IPBA that is discussed later in this Executive Summary, and in greater detail in Section 2.1.3. Another range, Urban Close Air Support (UCAS) range, may be constructed within the long-term, ten-year time period covered in the Programmatic EIS.

### **Modernization of Cantonment Area**

The Army is proposing to construct administrative offices; temporary living facilities (barracks), vehicle parking and maintenance facilities; equipment storage; and other facilities required in the Cantonment Area to support PTA's mission.

The Army and Marine Corps, require the following standard-type facilities to meet their mission requirements at PTA in the near term:

- Company Use Multipurpose Storage Facility
- Ammunition Storage Facilities
- Multipurpose Training Facility (Training Aids Support Center)
- Tactical Vehicle Maintenance Shop
- Unmanned Aerial Vehicle Facilities
- Brigade HQ and Exercise Control Facility

### **Modernization of Roads and Utilities**

The road system at PTA requires considerable improvement, as follows:

- The Army would widen roads in the southeast of the installation, particularly portions of Red Leg Trail and Hilo Kona Road near the Convoy Live-Fire (CLF) range, to minimize safety conflicts between users of the range and military units using the road. Units have access to PTA twice annually and therefore, must be able to maximize the use of their time at the installation without causing delay due to other training conflicts;

- Proposed upgrades to Charlie's Circle Road would provide safe access to an underutilized portion of the range that could later be used to enhance PTA's training capability; and,
- A proposed main supply route would be built to connect the main range area with the KMA.

Utilities running through the range area and the Cantonment Area are currently meeting the installation's energy and utility requirements, but would be entirely stressed to meet the demand that new ranges and proposed facilities in the Cantonment Area, if modernization of PTA is decided to occur. Utility upgrade requirements are:

- Production Well;
- Electrical upgrade.

### **First Range Modernization Project: Construct and Operate the IPBA**

The Army proposes to co-locate, within the IPBA, an IPBC, Live-fire Shoothouse, and a MOUT facility. Co-locating these facilities would enable the infantry companies to maximize their limited training time and resources through simultaneous training of its platoons during deployments to PTA.

An IPBC supports a variety of light infantry training events, day and night, such as reconnaissance and security; movement to contact; attack; raid; ambush; defend and retrograde. An infantry platoon training on the IPBC would move dismounted from objective to objective while engaging the targets with rifles (5.56 mm ammunition) and machine guns. The infantry platoon would normally conduct several practice runs without live ammunition prior to conducting a live-fire exercise.

The proposed Shoothouse would be a two-story building of approximately 4,700 sf with roof and stairways. It is divided into rooms and hallways of different sizes which contain automated precision human urban targets (HUT). All vertical surfaces would be covered with bullet absorbing wall panels.

The Shoothouse would be used to train and evaluate individual Soldiers and squads on their ability to move tactically (enter and clear a room, enter and clear a building), engage targets, and conduct breaches, and practice target discrimination in a live-fire environment. Soldiers would use pistols, rifles and light machineguns, and shotguns. Units using the Live-fire Shoothouse may complete practice exercises before conducting a live-fire exercise.

The MOUT site would be used to train small units such as patrolling, security operations, cordon and search, attack and defend. Friendly and enemy targets may be emplaced temporarily in the MOUT site, or the unit may conduct "force-on-force" exercises.

### **ALTERNATIVES**

Because of its multi-tiered approach the Army reviews two levels of alternatives.

**Tier 1: Modernization**

**No Action Alternative.** The “No-Action” Alternative is the decision to take no action other than to continue utilizing existing training ranges, training support infrastructure, and training support facilities as efficiently as possible

**Alternative 1: Modernize training ranges, training support infrastructure and training support facilities at PTA.** The Army, under this alternative would implement required projects in the Cantonment Area and in the range area.

**Tier 2 Construct and operate the IPBA (Site-Specific Action)**

In Tier 2, the No Action Alternative will be analyzed, as well as three (3) alternative locations for constructing the IPBA. These alternatives are discussed in greater detail in Section 2.2.3:

- **No Action Alternative:** Do not construct or operate the IPBA.
- **Alternative 1:** Construct and operate the IPBA at the Western Range Area (this is the Preferred Alternative).
- **Alternative 2:** Construct and operate the IPBA at Charlie’s Circle.
- **Alternative 3:** Construct and operate the IPBA Southwest of Range 20.

***Conditions common to all action alternative locations***

Each of the three (3) action alternative locations for the IPBA share some common features. These locations are all found within the existing impact area at PTA. They do not conflict with Improved Conventional Munitions (ICM) restricted area within the impact area; and they do not conflict with known sites containing depleted uranium (DU). Each location is proposed in historically underutilized portions of the impact area where no live-fire ranges exist, thereby minimizing surface danger zone (SDZ) and training conflicts with other operational ranges located at the perimeter of the impact area.

Additionally, some road infrastructure exists near these locations, but access roads would need to be built, and the IPBA would need to erect power lines linking into existing lines that near the impact area along existing roads.

The preferred alternative would run west to east from the western most portion of the impact area toward the center of the impact area. A recent survey of the preferred IPBA location found that the terrain in the western range area slopes steadily from the western and northern boundaries of the surveyed area, towards the eastern and southern boundaries. Much of the terrain consists of smooth rolling pāhoehoe flows interrupted by elevated a’a flows with steep banks. A surface of rock covers the majority of the area, much of which would need to be softened in order to accommodate dismounted training by infantry units.

2010 surveys for cultural resources and sensitive biological resources were conducted and both were found to be present on the proposed range area. The Army has initiated consultations with the State Historic Preservation Division (SHPD) and the U.S. Fish and Wildlife Service (USFWS) to fully identify

the potential impacts and mitigation and conservation measures required before implementing this alternative.

### SUMMARY OF POTENTIALLY SIGNIFICANT IMPACTS

Table ES-2 provides a snapshot of the impacts to Valued Environmental Components (VECs) found to be significant as a result from implementing the proposed modernization actions at PTA, and from implementing the IPBA modernization project specifically. Many of the resources (VECs) were found to experience few relative potential impacts, or less than significant impacts. These are not shown in Table ES-2. Full disclosure of all the potential impacts to resources analyzed are found in detail at the beginning of each resource reviewed in Chapter 4 Environmental Consequences.

The symbols below indicate the intensity of potential impacts to VECs.

#### LEGEND

⊗ = Significant impact

⊙ = Significant impact mitigable to less than significant

**Table ES 2. Summary of Potential Impacts**

Valued Environmental Components Analyzed	Modernize Training Ranges					Modernize Training Support Infrastructure (Roads and Utilities)	Modernize Training Support Facilities (Cantonment Area)	No Action (Do Not Modernize PTA)
	Construct and Operate the IPBA				Future Range Projects			
	IPBA at Western Range Area	IPBA at Charlie's Circle	IPBA South-west of Range 20	No Action Do Not Build IPBA				
Land Use and Recreation		⊙						
Airspace								
Visual Resources								
Air Quality	⊙	⊙	⊙		⊙		⊙	
Noise							⊙	
Traffic and Transportation								
Water Resources						⊙	⊙	
Geology and Soils			⊗				⊙	
Biological Resources	⊗	⊗	⊗		⊗	⊙	⊙	
Cultural Resources	⊗	⊗	⊗	⊙	⊗	⊗	⊙	
Hazardous Materials and Waste	⊙	⊙	⊙		⊙	⊙	⊙	

Valued Environmental Components Analyzed	Modernize Training Ranges					Modernize Training Support Infrastructure (Roads and Utilities)	Modernize Training Support Facilities (Cantonment Area)	No Action (Do Not Modernize PTA)
	Construct and Operate the IPBA				Future Range Projects			
	IPBA at Western Range Area	IPBA at Charlie's Circle	IPBA South-west of Range 20	No Action Do Not Build IPBA				
Depleted Uranium								
Socioeconomics and Env. Justice								
Public Services and Utilities								
Wildfires	⊗	⊗	⊗		⊗			
Sustainability								

### Land Use

The SDZs of the proposed IPBC at Charlie's Circle may encroach upon Training Area 23 and, without proper mitigation measures (e.g., restrictions on tracer ammunition), could significantly impact threatened and endangered species in that area, and could result in operational restrictions under this alternative<sup>2</sup>.

### Air Quality

Air quality concerns related to the IPBA would result from the quantities of fugitive dust expected to be generated during the construction phase. Mitigation measures could include the use of dust palliatives to temporarily moisten and bind loose soils from becoming airborne. During the construction phase, these impacts would be temporary, lasting only for the duration of construction. Fugitive dust generated by travel to the IPBA during the operational phase could also be mitigated through similar management practices. Through mitigation, the expected impacts would be less than significant.

### Noise

Elevated noise levels would be experienced in the Cantonment Area for many construction projects over the anticipated ten year timeframe covered in this Programmatic EIS. Smaller construction efforts would not result in potentially significant noise issues. The Army may consider limiting large projects by time of day and monitoring for unacceptable noise levels. Through mitigation, long-term construction-related noise impacts to employees working within the Cantonment Area may be less than significant.

<sup>2</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 EIS, the Army refers to the area within which the MPRC is located, Training Area 23.

## **Water Resources**

Given the number of proposed projects in the Cantonment Area that would create more artificial/hardened surfaces, stormwater would need to be closely managed and mitigated to reduce the potentially significant impacts from soils migration, sedimentation, and minor flooding within and outside construction areas.

## **Geology and Soils**

The terrain at the proposed IPBA location southwest of Range 20 is thought to be extremely rugged and would require substantially more ground softening, grading, and leveling at a premium cost over the other two IPBA alternatives.

Construction activities in the Cantonment Area such as site clearing and grading for newly proposed facilities would expose soils to enhanced erosion by water and/or wind. This impact could be mitigated through the use of standard erosion control practices and possible development of an erosion control plan (because the large amount of construction expected to occur).

## **Biological Resources**

Implementation of the IPBA and other modernization projects at PTA could result in potentially significant impacts from the spread of invasive species. Movement of equipment into Hawai'i from the continental U.S. or foreign ports, as well as from other islands or sub-installations within Hawai'i, would increase the likelihood of invasive plant and animal introductions. Construction activities can introduce invasive species and other weeds through the use of sand and gravel that contains plant seeds and by equipment and vehicles carrying invasive plant material from offsite locations. The spread of invasive species would have both short and long-term impacts on vegetation resources and sensitive plants and wildlife. The Army would implement mitigations to reduce the level of significance from the spread of invasive species (e.g., applying currently used and effective management controls to new range construction, and continue instituted controls through the use of wash racks).

Federally-listed plant species were found to occur in the Western Range Area and Charlie's Circle IPBA locations, and may occur (unsubstantiated to date) southwest of Range 20. Adverse effects may occur resulting from range construction and/or operation to these species at these locations, but potentially could be mitigated through conservation and avoidance measures. Additional Federally-listed species that may be present at PTA, such as the Hawaiian hoary bat or the nene, could be potentially impacted by habitat alteration.

## **Cultural Resources**

Surveys covering all of the preferred IPBA alternative and part of the Charlie's Circle alternative found a number of sites that are currently undergoing Section 106 consultation. While surveys have not been conducted for the alternative located southwest of Range 20, the Army believes it is possible for similar sites to be found there as well. Significant and irreversible impacts could occur to resources in these areas. The Army will continue to consult with the Hawai'i State Historic Preservation Officer (SHPO) and reach to other consulting parties, including Native Hawaiian organizations, on potential mitigation, preservation, and avoidance measures.

**Hazardous Materials and Hazardous Waste**

Decades of use of PTA as a training area have introduced a significant risk of encountering MEC/UXO. MEC/UXO is known to exist in the impact area and is expected to be encountered during range modernization activities; but there is also a medium risk of finding MEC/UXO outside the impact area. The Army would conduct surveys for these hazards prior to implementing proposed projects to mitigate the risks to a level of less than significant.

**Wildfires**

Because of sparse fuel supplies with localized areas of heavier fuels (easily ignitable or dry vegetation), the risk of live training igniting wildfires in the range area is high and requires regular monitoring and mitigation activities to prevent the damaging effects of wildfires to human health, sensitive cultural and biological resources, and range assets. The Army would continue to take measures to minimize the potential for wildfire ignition (e.g., use of fire breaks), and also would continue to have readily available fire fighting assets on-hand, if a fire were to break out. Given these management controls, the potential impacts from wildfires could be mitigable to less than significant.

**CUMULATIVE IMPACTS**

The EIS also identifies the potential cumulative effects from implementing the proposed action at PTA when combined with past, present, and reasonably foreseeable future military, public, and private actions that were determined to also pose impacts to the human environment. These are discussed fully in Chapter 5.

**MITIGATION**

The EIS identifies mitigation measures for the programmatic actions, and site-specific action (construction and operation of the IPBA). These measures are proposed to reduce or eliminate the potential environmental impacts from implementing the Proposed Action at PTA. These are discussed fully at the conclusion of each resource area discussion in Chapter 4, and summarized in Section 4.17.

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