4. Execution

a. The key to the success in minimizing the impact of fires is to maintain an aggressive fire prevention program to reduce the number of fires and to reduce the impact of those fires that do start.

b. The concept of operations for wild land fire management on MCB Hawaii TAs and ranges will be conducted in three phases: pre-incident, incident, and post-incident. Pre-incident operations include such tasks as conducting preventive measures during the dry season to prevent fires and providing training and awareness in the prevention of fires. Incident operations covers a coordinated and immediate response and notification and post-incident operations covers reporting and after action.

c. Pre-Incident tasks. Pre-incident planning is the foundation of an effective fire management plan. It includes all activities intended to reduce the number and severity of fires.

d. The RCO is responsible for:

(1) Ensuring all regulations and SOPs are adhered to IAW this Order.

(2) Ensuring fire prevention and environmental briefs are provided before training is conducted.

(3) Ensuring the Fire Prevention Group (FPG) (Federal Fire Department [Fed Fire], O&T, IE&L Environmental and Facilities Departments [LE/LF], MCAS, Military Police Department [MPD] and Base Safety) meets annually at a minimum, or as otherwise appropriate, to assess the following tasks and objectives:

e. The wild land fire manager (RCO), with the help of the Environmental Department will meet on a quarterly basis, assess condition of range, determine status of the fuel-load (i.e., vegetation cover condition) and opportunities available to reduce fire risk through vegetation removal, suppression, replacement or other means.

(1) Ensure all FPG members are familiar with the terrain, as well as environmental and safety concerns.

(2) Ensuring special consideration is given in controlling the use of classes of ammunition and pyrotechnics that have higher fire hazards associated with their use and taking measures to mitigate risk. Examples include ensuring fire/fuel breaks are properly maintained, ammunition inspections, no tracers, ensuring smoking materials are handled properly, fire bucket availability, range safety briefings.

(3) Ensuring projects and equipment are identified and programmed to mitigate the risk of a fire getting out of control (i.e. additional fuel breaks, etc.). Plan and budget for appropriate improvement projects in close coordination with IE&L personnel to ensure compatibility with Base facilities and environmental compliance plans, laws and regulations governing activities and uses of range lands and water.

f. IE&L is responsible for:

(1) Ensuring fuel load (i.e., vegetation cover) is maintained to minimize fire risk throughout the year.

(2) Encouraging booby birds away from nesting near high-risk fire areas.

(3) Ensuring utility infrastructure (fire hydrants, pump house) is maintained and in proper operating condition and that facilities maintenance personnel are aware of their responsibilities during emergency fire response.

g. Communications Information Systems Directorate is responsible for:

(1) Ensuring range personnel, or first responders can communicate with Marine Air Group (MAG)-24 air personnel directly.

(2) Being prepared to provide back-up communication.
Base Safety Officer is responsible for providing annual fire-bucket training to MAG-24.

h. CO, MCAS is responsible for:

(1) During the months of May thru September, Meteorological and Oceanographic personnel will provide weather forecasts to O&T (range personnel) to use in determining fire danger parameters.

(2) Upon request from Fed Fire, Aircraft Rescue and Firefighting (ARFF) personnel shall report to the Fed Fire Incident Command (IC), as long as it does not conflict with ARFF's primary mission of supporting Airfield Operations (NAVAIR 00-80R-14, MCB Hawaii Order P11320, MCASO P11320.1A).

i. Commanders and managers must be aware and involved in fire prevention to ensure compliance with the requirements of this SOP and provide support as requested.

j. Incident Response Tasks. Public safety is the number one priority when fighting fires at MCB Hawaii RTAs. In addition, at no time will any firefighting personnel enter the high hazard impact area.

k. O&T Directorate

(1) Upon notification of a fire is made to Range Control, the following procedures will be initiated by Range Control:

(2) Cease all training/live firing on the ranges.

(3) The Range Chief shall assume the duties as Operations Control Coordinator (OCC) until the arrival of Fed Fire and they assume IC. The OCC will notify appropriate coordinating departments (Fed Fire, O&T Directorate, MPD) and track the fire using the Fire Report/Communications Sheet, located in Appendix H.

l. Base Operations Center/Command Watch Officer will make notification to all other supporting agencies (IE&L LE/LF, EOD, MAG-24, Base Safety) indicated in the Fire Report/Communications Sheet, located in Appendix H.

(1) Initially, the OCC will immediately set-up a Command Post (CP) at the RCF then move the CP to Range 5. The IC System will be utilized with a

Unified Command (UC) structure, established to include additional support agencies (O&T, Environmental and Facilities Department, Base Safety, EOD, MPD).

(2) All personnel shooting on a range will move back to Range 4.

(3) The OCC will appoint range personnel to control all traffic entering and leaving the main entrance to the RTF. The controller will allow only authorized vehicles/personnel to enter (POVs will not be allowed into the fire area or range complex). POVs of site visitors or other agencies will be parked outside of the range complex in the designated parking areas off the main road and no visitors or outside agencies will be allowed to enter until the area is deemed safe by the fire department. In addition, a log of authorized personnel entering the area will be maintained. This will ensure strict accountability of all personnel entering and leaving the fire site.

(4) At no time will range personnel attempt to extinguish or fight a fire.

m. Range Control and or EOD will ensure Fed Fire IC is briefed on locations of impact areas and at no time will any firefighting personnel enter the high hazard impact area. During a fire no one is permitted past the "lollipop"–shaped road in the impact area.

n. Upon arrival of Fed Fire, designated range personnel will accompany the Fed Fire IC to report back to the CP the status of the fire and any support request.

o. Fed Fire On-Scene Commander (OSC) will:

(1) Report to CP and assume OSC.

(2) Ensure public safety is number one priority.

(3) Ensure range personnel assigned as liaison are properly briefed on roles, responsibilities and safety.

(4) Ensure effective communications with CP and all support agencies.

(5) Request activation of fire bucket support via the Emergency Operations Center (EOC) and establish communication with MAG-24 upon arrival, frequency 379.25.

(6) Training aboard the RTF will not resume until the Fed Fire IC has declared it safe to resume training.

(7) If Fed Fire believes an evacuation of homes is necessary, Fed Fire will consult with O&T and EOC prior to ordering an evacuation unless there is imminent threat of life.

(8) Ensure the Base CO, or his representatives are briefed of the situation and ensure decisions that affect a large number of people such as evacuation orders are briefed immediately to the CP and the UC contributes to the processes of determining objective and strategies.

p. Military Police Department will:

(1) Provide a representative for the CP to coordinate MPD support requests.

(2) Facilitate the orderly evacuation of affected areas to designated shelters/locations after receipt of the order to evacuate from the Base Commander or his appointed representative. MPD may initiate an evacuation IOT save personnel in imminent danger.

q. Post-Incident Tasks. If requested by O&T, all agencies are required to provide an after action report to the O&T to identify all issues and recommendations to improve our fire management program in the future. O&T is required to maintain a copy of this report for up to 7 years.

r. A copy of the incident report, no matter how small the fire or duration, will be provided to the Environmental Department, so location and time that fires occurred can be tracked. This information will help meet an annual reporting requirement to Headquarters Marine Corps of the number of installation acres burned by wildfires, per MCO P5090.2A, Change 1, Chapter 11, Section 11204, 10.

s. Range personnel will monitor the area to ensure there are no flare-ups and to support other follow-on actions that may be required (e.g., installation of erosion controls).

5. Close coordination, communications, and cooperation must be maintained between all staff functions prior, during and after a fire to ensure an efficient fire response.

6. On-scene command is Fed Fire.

7. Fire Report/Communication Sheet. Appendix H contains a Fire Report/Communication Sheet containing POCs that shall be notified in the event of a fire.

1018. FIRE PREVENTION BRIEF. The following verbiage will be included in a general safety, environmental and fire prevention briefing to be given to all personnel before training aboard MCB Hawaii RTAs and Training Facilities:

1. “The purpose of this brief is to educate users about the dangers of fire on the range. Fire prevention is the responsibility of every person working or training on the range. There are several reasons that fire prevention is so important. Fire poses a grave threat to life and property in adjacent communities and to nearby native plants and animals (such as the red-footed boobies, a federally protected seabird colony). The base, or individuals, can be charged $25,000.00 per “take” of a booby bird or other protected species harmed or killed by negligence. Fines and penalties can also be levied on the Base or individuals for fires that damage archaeological features or sites.”

2. “If a fire starts, all training must cease and training downtime will result. For these reasons, every effort must be made to prevent range fires. IOT prevent fires, you must adhere to the following rules:”

3. “No tobacco smoking materials will be discarded on the RTA. Open fires are not authorized.”

4. “Heat tabs and similar commercial products must be used inside metal containers.”

5. “Some pyrotechnics are not authorized for use at MCTAB.”

6. “Smoke grenades and grenade/artillery simulators are permitted at MCTAB only after approval has been granted by the installation RCO, O&T MCB Hawaii.”

7. “In the event a fire has started, cease training immediately contact Range Control. At no time are you authorized to attempt to fight the fire. Units must move away from the fire.”

1019. DESTRUCTIVE WEATHER

1. Range Control. Range control will pass all thunderstorm, high wind, and tsunami warnings to units in the RTAs. Each unit is required to acknowledge the receipt of the warning by obtaining a radio check with Range Control. Destructive Weather Conditions are as follows:

2. Thunder Storm Conditions

a. Thunder Storm Condition Two. Thunderstorms are forecasted to occur within 25 Nautical Miles (NM) of the local area. The potential for lightning, hail, low level wind shear, and destructive wind exists in the vicinity of thunderstorms. The movement of ammunition on-base will be severely limited and moved only on a case-by-case basis that must be cleared by the OIC of the Base Ammunition Supply Point (ASP). All live ranges will be put in a “15 minute be prepared to cease-fire and move” status. This means training will continue, but all ammo and equipment will be stored in a way that it can be packed quickly and moved.

b. Thunder Storm Condition One. Thunderstorms are imminent or occurring within 5 NM of the local area. The potential for lightning, hail, low level wind shear, and destructive winds exist on station. All live-fire and training will cease until cleared. All units will take cover to the best of their ability to reduce the risk of exposing personnel to lightning strikes.

c. Lightning. Lightning is occurring within 10 NM of the area. All live-fire and training will cease until the all clear is sounded.

3. Tropical Cyclone Conditions Of Readiness (TCCOR). TCCOR are set using the applicable term indicating wind force. Conditions of readiness are based on sustained wind speeds of 50 knots or greater.

a. TCCOR-V. Set 1 June to 30 November every year.

b. TCCOR-IV. Destructive winds of 50 knots or greater are possible within 72 hours.

c. TCCOR-III. Destructive winds of 50 knots or greater are possible within 48 hours.

d. TCCOR-II. Destructive winds of 50 knots or greater are anticipated within 24 hours. Units should begin planning to evacuate the training areas.

e. TCCOR-I. Destructive winds of 50 knots or greater are anticipated within 12 hours. Units must evacuate the training area within two hours of receiving this advisory.

f. TCCOR-IC (Caution). Destructive winds of 50 knots or greater are anticipated within six hours.

g. TCCOR-IE (Emergency). Destructive winds of 50 knots or greater are occurring.

h. TCCOR-SW (Storm Watch). Destructive winds are no longer being experienced but winds are still gale force. Damage assessment teams are deployed to develop damage assessment and proposed courses of action for the CO.

i. TCCOR-R (Recovery). Winds are below 34 knots and the CO has ordered recovery operations to commence.

4. Tropical Disturbance. A discrete tropical weather system of apparently organized convection generally 100 to 300 NM in diameter originating in the tropics or subtropics, having a non-frontal migratory character, and maintaining its identity for 24 hours or more. It may or may not be associated with a detectable perturbation of the wind field.

5. Tropical Depression. A tropical cyclone in which the maximum sustained surface wind speed is 33 knots or less.

6. Tropical Storm. A tropical cyclone with sustained winds of between 34 and 63 knots.

7. Hurricane Categories. National Weather Service Hurricane categories are defined using the United States one minute average wind speed method. Although not used to determine hurricane intensity, storm surge values and associated damages are provided. These values are based on the Saffir-Simpson Hurricane Scale and may apply to MCB Hawaii. Storm surge values and potential damage are dependent upon storm location relative to shoreline features, tidal cycle (high or low), storm persistence and storm strength.

a. Category One. A tropical cyclone in which the sustained surface wind ranges from 64 to 82 knots (74 to 95 mph).

(1) Storm Surge. Generally 4 to 5 feet (ft.) above normal sea level.

(2) Damage. No real damage to building structures. Damage primarily to unanchored mobile homes, shrubbery, trees and some damage to poorly constructed signs. Low-lying coastal roads are inundated; there is minor pier damage, and some small craft in exposed anchorage torn from moorings.

b. Category Two. A tropical cyclone in which the sustained surface wind ranges from 83 to 95 knots (96 to 110 mph).

(1) Storm Surge. Generally 6 to 8 ft. above normal sea level.

(2) Damage. Some minor damage to buildings, considerable damage to vegetation, mobile homes, poorly constructed signs and piers. Coastal roads and low-lying escape routes inland cut by rising water two to four hours before the arrival of the eye of the storm. Small craft in unprotected

anchorages torn from moorings. Evacuation of some shoreline residences and low-lying areas may be required.

c. Category Three. A tropical cyclone in which the sustained surface wind ranges from 96 to 113 knots (111 to 130 mph).

(1) Storm Surge. Generally 9 to 12 ft. above normal sea level.

(2) Damage. Some structural damage to small residences and utility buildings with a minor amount of curtain wall failures. Damage to shrubbery and trees with foliage blown off trees and large trees blown down. Mobile homes and poorly constructed signs are destroyed. Low-lying escape routes are cut by rising water three to five hours before arrival of the hurricane center. Flooding near the coast destroys smaller structures with larger structures damaged by battering of floating debris. Terrain continuously lower than 5 ft. above Mean Sea Level (MSL) may be flooded inland eight miles or more. Evacuation of low-lying residences within several blocks of the shoreline may be required.

d. Category Four. A tropical cyclone in which the sustained surface wind ranges from 114 to 135 knots (131 to 155 mph).

(1) Storm Surge. Generally 13 to 18 ft. above normal sea level.

(2) Damage. More extensive curtain wall failures with some complete roof structure failures on small residences. Shrubs, trees and all signs are blown down. Complete destruction of mobile homes. Extensive damage to doors and windows. Low-lying escape routes may be cut by rising water 3-5 hours before arrival of the hurricane center. Major damage to lower floors of structures near shore. Terrain lower than 10 ft. above MSL may be flooded requiring massive evacuation of residential areas as far inland as 6 miles.

e. Category Five. A tropical cyclone in which the sustained surface wind is 136 knots or greater (156 mph or greater).

(1) Storm Surge. Generally greater than 18 ft. above normal sea level.

(2) Damage. Complete roof failure on many residences and industrial buildings. Some complete building failures with small utility buildings blown over or blown away. All shrubs, trees and signs blown down. Complete destruction of mobile homes. Severe and extensive window and door damage. Low-lying escape routes are cut by rising water three to five hours before arrival of the hurricane center. Major damage to lower floors of all structures located less than 15 ft. above MSL and within 500 yards of the shoreline. Massive evacuation of residential areas on low ground within five to 10 miles of the shoreline may be required.

1020. MISSING OR RECOVERED ITEMS REPORTING. Missing, lost, stolen, or recovered government property shall be reported to Range Control immediately. Property losses frequently occur because regulations relating to proper safeguarding and handling are not followed. Range Control will record the information and determine if follow-up action is required. Range Control will obtain the following information:

1. Location of incident (grid coordinates preferred).

2. Date and time of incident reported.

3. Name and contact information of individual reporting the incident.

4. Material description to include quantity and types.

5. Where applicable, National Stock Number and lot number.

6. Where ammunition and explosives are involved, Range Control will advise individuals NOT to remove item(s) for safety reasons and initiate possible follow-on investigatory requirements.

1021. SPECIAL MILITARY/CIVILIAN TRAINING. Foreign Military training at MCB Hawaii RTA will be addressed on a case-by-case basis and must be pre-approved by the appropriate authorities. Support information for visiting units regarding MCB Hawaii Kaneohe Bay can be found in Appendix I.

1. Civilian Training

a. Civilian and non-military law enforcement agencies are required to coordinate with Range Control when requesting to train on MCB Hawaii RTA. Written agreements must be established prior to any approved training. A minimum of 60 days' notice is required IOT establish a written agreement.

b. Contractors wishing to train or conduct operations in MCB Hawaii RTAs are not authorized to make initial requests for range access or coordination. Military or government civilian personnel are required to request initial coordination on behalf of contracted personnel supporting government projects. It is imperative that authorized personnel properly coordinate with Range Management if they desire to see projects requiring range support to be accomplished. Typical examples of contracted personnel requesting access without proper coordination include aerial mapping agencies, environmental agencies wishing to conduct surveys, etc. These agencies must have MCB Hawaii approval before Range Management will allow access.

c. Contractors desiring to become Range OIC/RSO qualified will adhere to the provisions contained within this Order.

d. An Indemnification Agreement and Waiver of Liability found in Appendix J, shall be completed and signed when applicable.

2. Other Service Military Training

a. Other services and DOD commands/organizations will not be charged for use of ranges, but can expect to reimburse MCB Hawaii for support. Units can expect to reimburse MCB Hawaii for providing services including and not limited to portable toilets, trash pickup, civilian overtime, etc.

b. A complete list of ordnance of all Class V to be expended must be reported to MCB Hawaii RCO in advance.

1022. COORDINATES. All coordinates used in this order are referenced in latitude/longitude and/or Military Grid Reference System (MGRS), IAW World Geodetic System (WGS)-84 Reference Datum.

1023. MAGNETIC HEADINGS/DIRECTIONS. Unless otherwise stated, all headings/ directions used in this order are magnetic.

1024. WAIVERS TO REGULATIONS. Changes to provisions contained in this Order should be addressed to the Commanding Officer, MCB Hawaii (Attn: Director, Operations and Training) NLT 30 days prior to the planned event. It is recommended that waiver requests be coordinated with the O&T Directorate in advance of submission. A Waiver Request Format can be found in Appendix K.

1025. POINTS OF CONTACT. The following telephone numbers are provided for reference. The commercial area code for MCB Hawaii is (808); the Defense Switched Network (DSN) prefix is (457), unless otherwise noted. Table 1-2 details important POC information for MCB Hawaii.

Table 1-2 MCB Hawaii POC Information

POINT OF CONTACT	PHONE NUMBER
Installation RCO	(808)257-8884
Range Planner	(808)257-8874
Scheduler	(808)257-8816
OIC, Range Control	(808)257-2067
MCB Hawaii Range Control	(808)257-3180
Castle Regional Medical Center	(808)263-5148
Base Safety	(808)257-1830
Pu’uloa Satellite Range Control	(808)474-8058
Modeling and Simulation Division	(808)257-1110
COMMAND DECK POINT OF CONTACT	PHONE NUMBER
Base CO	(808)257-8877
Base SgtMaj	(808)257-8877
Chief of Staff	(808)257-7707
Command Duty Officer	(808)330-9636

SOP FOR RANGES AND TRAINING AREAS

CHAPTER 2

ENVIRONMENTAL REQUIREMENTS

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CHAPTER 2

ENVIRONMENTAL REQUIREMENTS

2000. GENERAL

1. MCB Hawaii is the home of several endangered species, wetlands and other sensitive habitats, which are protected by Federal and State Laws enforced by the Base Conservation Law Enforcement Officer in the Environmental Department, as well as by other Federal and/or State Law Enforcement Officers. To successfully realize all training objectives while complying with environmental laws and regulations, it is essential to consider environmental concerns while planning training operations and exercises. Proper planning will preserve training facilities for use by future generations of Marines. Therefore, it is essential that training units adhere to the provisions of this chapter.

2. All users of RTAs are responsible for knowing and adhering to the requirements of this SOP. Copies of maps displaying environmentally sensitive spatial data such as wetland, wildlife management area, and archaeologically sensitive locations are obtainable through the IE&L Directorate, Environmental Department. Questions with respect to applicable environmental regulations may also be referred to the Environmental Department at (808)257-6920 ext. 1 or cell (808)216-6202.

2001. LOCAL DIRECTIVES

1. Training conducted aboard MCB Hawaii, especially training which may impact environmentally sensitive areas, must be conducted IAW Environmental Compliance and Protection SOPs and Base Order P5500.15B Base Regulations.

2. Figure 2-1 shows an overview of the wetlands at MCB Hawaii. Figure 2-2 displays the sensitive wetland areas at MCTAB.

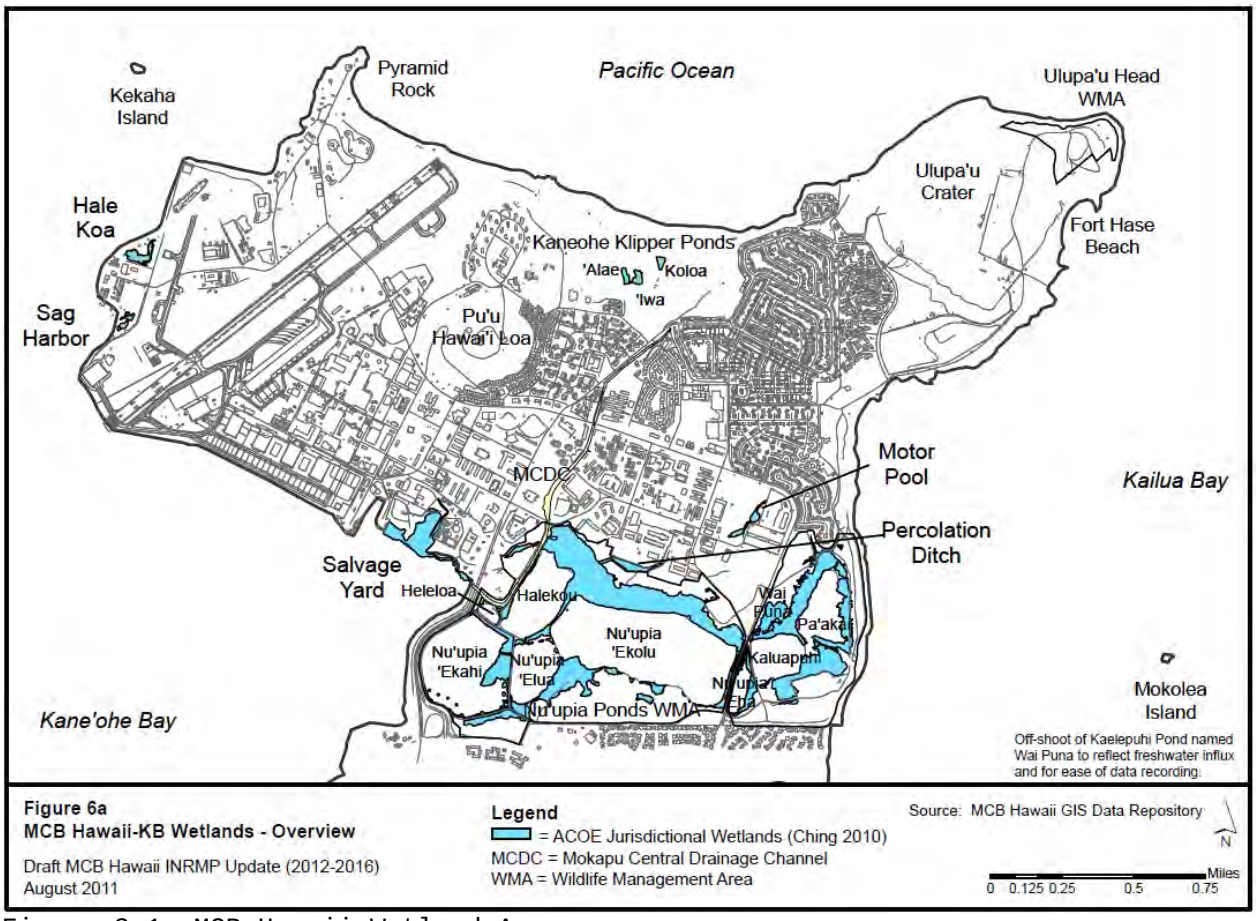

Figure 2-1 MCB Hawaii Wetland Areas

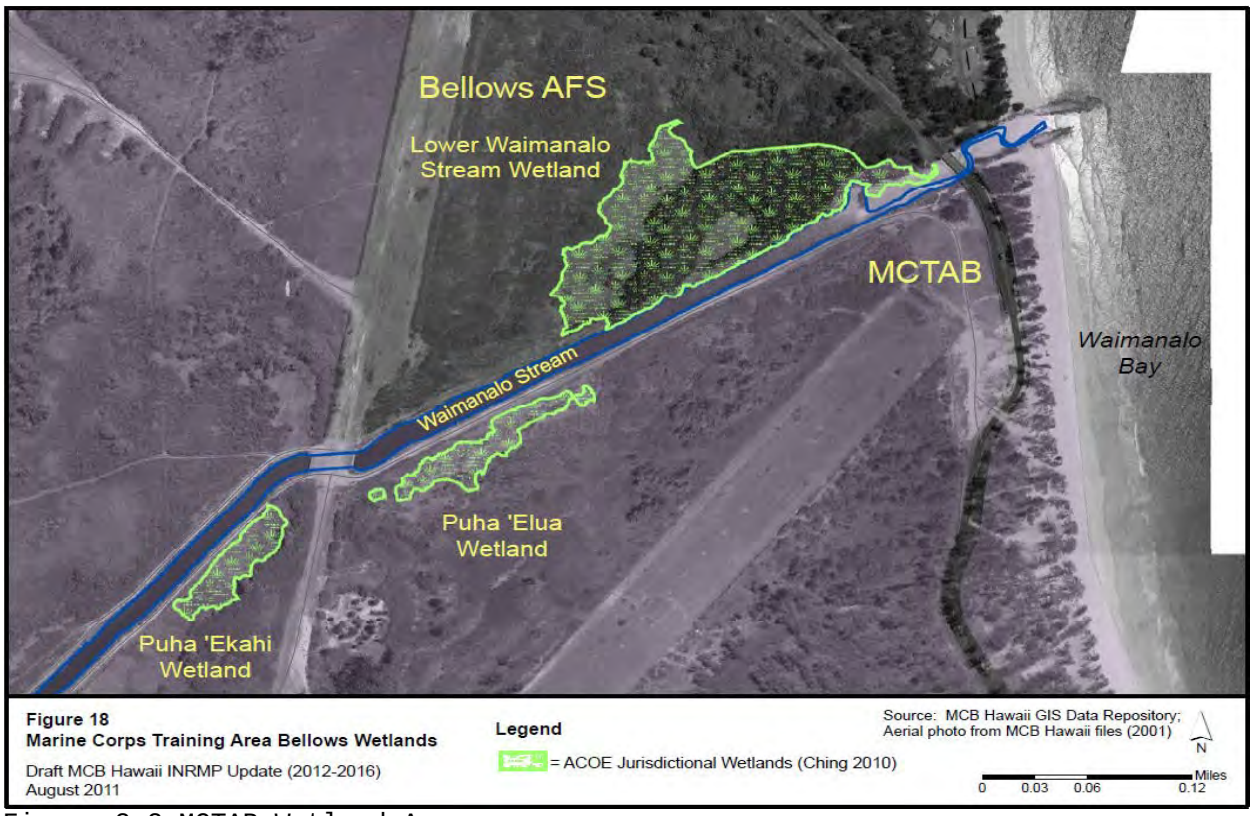

Figure 2-2 MCTAB Wetland Area
Note: Image is NOT TO SCALE

2002. POLICIES, PLANS AND ACTS

1. In an effort to preserve the environment, compliance by all users with the regulations and consistency with all relevant plans are required. Some of the most pertinent of these are listed below:

a. The National Environmental Policy Act of 1969.

b. The Clean Air Act.

c. The Clean Water Act.

d. The Resource Conservation and Recovery Act.

e. The Comprehensive Environmental Response, Compensation and Liability Act of 1980.

f. The Endangered Species Act.

g. The National Historic Preservation Act.

h. The Archeological Resources Protection Act.

i. Antiquities Act of 1906.

j. The Federal Facilities Compliance Act.

k. The Migratory Bird Treaty Act.

l. Integrated Natural Resources Management Plan (required by the Federal Sikes Act and MCO P5090.2A, with Changes 1&2, Chapter 11).

m. Native American Graves, Protection and Repatriation Act.

2. Cultural and Historic Resources. Federal and State Historic Preservation Laws have been developed to protect our cultural heritage and these laws are enforced on the RTAs.

3. Violation of the environmental laws listed above can incur civil and criminal fines and/or incarceration.

2003. ENVIRONMENTAL COORDINATION

1. Training exercises not addressed in previous Environmental Assessments or changes in type or intensity of training will require environmental review by the Environmental Department prior to implementation.

2. Amphibious exercises need to be monitored to ensure there are no endangered marine mammals or sea turtles in the area. Contact O&T, the Environmental Department and Waterfront Operations (WFO) for specific guidance.

3. Should a monk seal or sea turtle be discovered “beached” within any shoreline TAs (e.g., Pu’uloa Craft Landing Zone (CLZ), Fort Hase CLZ, Hale Koa CLZ, Pyramid Rock Beach CLZ, or MCTAB CLZ), all activity in the immediate vicinity (within 50 feet) must cease. The using unit will immediately notify Range Control at (808)257-3180 of the presence of the animal. Range Control will then notify MCB Hawaii Conservation Officer at (808)216-5178 or MPD Dispatch at (808)257-2123. Disturbing, touching, or harassing an endangered species is a violation of Federal Law.

4. Any fuel spills or other Hazardous Material (HAZMAT) related incidents must be reported immediately to Range Control, at (808)257-3180. Range control will initiate HAZMAT response procedures and coordinate with the Environmental Department. Appendix L contains a Hazardous Substance Release/Spill Report.

5. Nu’upia Ponds Wildlife Management Area (WMA). Individual physical training may be conducted in this area. Requests for unit runs around the Nu’upia Ponds WMA must be requested and approval granted by O&T.

6. Consult the Environmental Department, prior to conducting any earthwork on impact berms.

2004. ENVIRONMENTAL CONSTRAINTS

1. Activities shall be confined to and conducted within the TA boundaries.

2. Access and egress to and from amphibious landing beaches shall be confined to established transit lanes determined to be free of coral formations/obstructions.

3. Damage to beach foliage, trees and shrubbery shall be avoided by transiting through existing roadways and trails.

4. Personnel engaged in a training activity will remain within their designated TA(s).

5. Digging and other ground disturbance is limited to six inches (in.) below the existing surface. No fighting holes, bunkers, or trenches may be dug unless approved by the Environmental Department, except in the approved Barrier Obstacle Training Area (BOTA) at MCTAB.

6. Personnel involved in training activities must park in authorized parking areas (parking lots). Parking on the grass is prohibited.

2005 OFF-LIMITS AREAS/PROHIBITED ACTIVITIES

1. Off-limit areas are defined as portions of MCB Hawaii Kaneohe Bay and MCTAB where entry is prohibited unless authorized elsewhere in this manual. All RTAs and facilities are off-limits unless properly scheduled and coordinated with the O&T Directorate, MCB Hawaii.

2. The following areas are off-limits for all training activities aboard MCB Hawaii Kaneohe Bay:

a. All wetlands areas.

b. Areas of historical significance (see Figures 2-1 and 2-2).

3. The following areas are off-limits aboard MCTAB:

a. Waimanalo Stream is designated as a Fish and Wildlife Conservation Area and is an established wildlife sanctuary. No training is allowed within or adjacent to Waimanalo Stream. A 100 yard buffer zone around the mouth of the stream is also off-limits.

b. State of Hawaii or private property and other areas as identified in reference (n).

4. The following activities are prohibited in all MCB Hawaii RTAs and hiking routes:

a. Burying, dumping, abandonment, or otherwise disposing of trash.

b. Burying, dumping, abandonment, or otherwise disposing of any type of explosive material, pyrotechnic or chemical ammunition, or any type of hazardous waste.

c. The draining or spilling of oil, fuel, any other hazardous or regulated substance from vehicles or other machinery, from any container onto the ground, or into the water.

d. Removal or intentional destruction of plants, trees, brush, or other vegetation. Cutting or otherwise removing tree limbs or large portions of any other plant is also prohibited. Using units will limit camouflage material to previously felled vegetation.

e. Killing, injuring, or harassing wildlife.

f. Removal or intentional destruction of archaeological materials or artifacts or the disturbance to any archaeological site.

g. Use of detergents or chemicals for cleaning or maintenance of motor vehicles, machinery, or equipment.

h. Hunting without permission IAW Base hunting order or recreational off-road vehicular traffic.

i. Absolutely no ground disturbance will be permitted within or around the Marine Air Control Squadron 2 (MACS-2) compound (within the Mokapu Burial Area).

j. Use of live ordnance and O-Chlorobenzylidence Malonitrile (CS gas) is prohibited at MCTAB.

k. Training activities that are not included in scope of the “Final Environmental Impact Statement, Land Use and Development Plan for Bellows Air Force Station” of December 1995 are prohibited at MCTAB.

2006. POLICE OF RANGES AND TRAINING AREAS

1. Police of RTAs is the responsibility of the using unit. It is the responsibility of the OIC/RSO to ensure training facilities and RTAs used by their units have been properly policed. All solid waste brought to RTAs and training facilities, including cardboard, wrapping materials, food waste, communication wire, expended brass and ammunition containers must be removed from those areas. No unit will depart from their training location until that area is in proper state of police.

2. Dumpsters will not be provided at RTAs unless individually coordinated with O&T and at the requestors funding. Dumpsters must be removed upon completion of their exercise.

3. HAZMAT (i.e., paint, petroleum, oil, lubricants, etc.) used while training shall be stored in approved, closed, leak-proof containers. All hazardous materials shall be clearly marked.

2007. HAZARDOUS WASTE

1. Units are required to provide funding for Hazardous Waste Disposal from exercises with unique funding. Units may need to set up a Line Of Accounting with the Environmental Department to pay for Hazardous Waste Disposal. Non MCB Hawaii units will need to set up a Line Of Accounting with the Environmental Department for Hazardous Waste Disposal.

2. Only authorized personnel from the Environmental Department can sign Uniform Hazardous Waste Manifests for MCB Hawaii, MCTAB, and Pu’uloa.

3. Satellite Accumulation Sites will have to be established for Hazardous Waste at Bellows and Hazardous Wastes that cannot be managed at the Waste Accumulations Sites on MCB Hawaii and Pu’uloa.

4. Flameless Ration Heaters from Meals Ready to Eat (MREs) must be used in accordance with the instructions. Unused MRE heaters are classified as Hazardous Waste.

5. Hazardous Waste generated at Bellows cannot be transported to MCB Hawaii. MCB Hawaii does not have an Environmental Protection Agency (EPA) Permit to treat, store or dispose of Hazardous Waste.

6. Hazardous Waste at Pu'uloa and aboard MCB Hawaii can be managed in accordance with the Hazardous Waste Management Plan (BaseO 6280.9). Contact the Environmental Department for proper management procedures aboard MCB Hawaii and Pu'uloa.

2008. WASTE WATER AND PORTABLE TOILETS

1. Any organization assigned to a RTA shall properly police and clean heads and urinals in their assigned area. Trash (ration containers, cans, etc.) will not be disposed of in any head, urinal, or portable toilet.

2. Straddle trenches or cat holes used to dispose of solid human waste are not authorized at any MCB Hawaii range or TA.

3. Wastewater from temporary showers must be coordinated prior to any exercise or training evolution with the Environmental Department at (808)257-6999.

4. Portable toilets are strategically located throughout MCB Hawaii Training Facilities and Ranges. These are contracted out and may not be moved by anyone other than the contractor. Units moving or damaging these portable toilets may be subject to fees incorporated by the contractor. MCB Hawaii will provide a total of 24 portable toilets in MCTAB. Additional support can be accommodated with prior coordination with the IE&L Directorate and Supply Department.

2009. FIELD DRINKING WATER SUPPLY

1. All connections to the water system must be attached in such a manner as to prevent cross-connections and back-siphoning from a contaminated source to the potable distribution system. Water hoses at vehicle filling sites should not contact any source of contamination, including the vehicle, ground, tools, and equipment.

2. Units are required to obtain permission from the IE&L Directorate prior to pumping water from any natural or man-made water site.

3. All instances of water pipe breaks, valve and pipe leaks and other system failures will be reported to the Facilities Department.

2010. ULUPA'U HEAD WILDLIFE MANAGEMENT AREA

1. Figure 2-3 depicts the Ulupa'u Head WMA at Kaneohe Bay RTF. The Ulupa'u Head WMA is populated by a colony of red-footed boobies (Sula Rubripes), a migratory seabird protected by the Migratory Bird Act and state laws, as are all species of migratory shore and seabirds. The Environmental Compliance and Protection Department (EC&PD) is responsible for managing, conserving and protecting all the cultural (archeological and historic) and natural resources within the Ulupa'u Head WMA.

2. Figure 2-4 details the Nu'upia Ponds WMA.

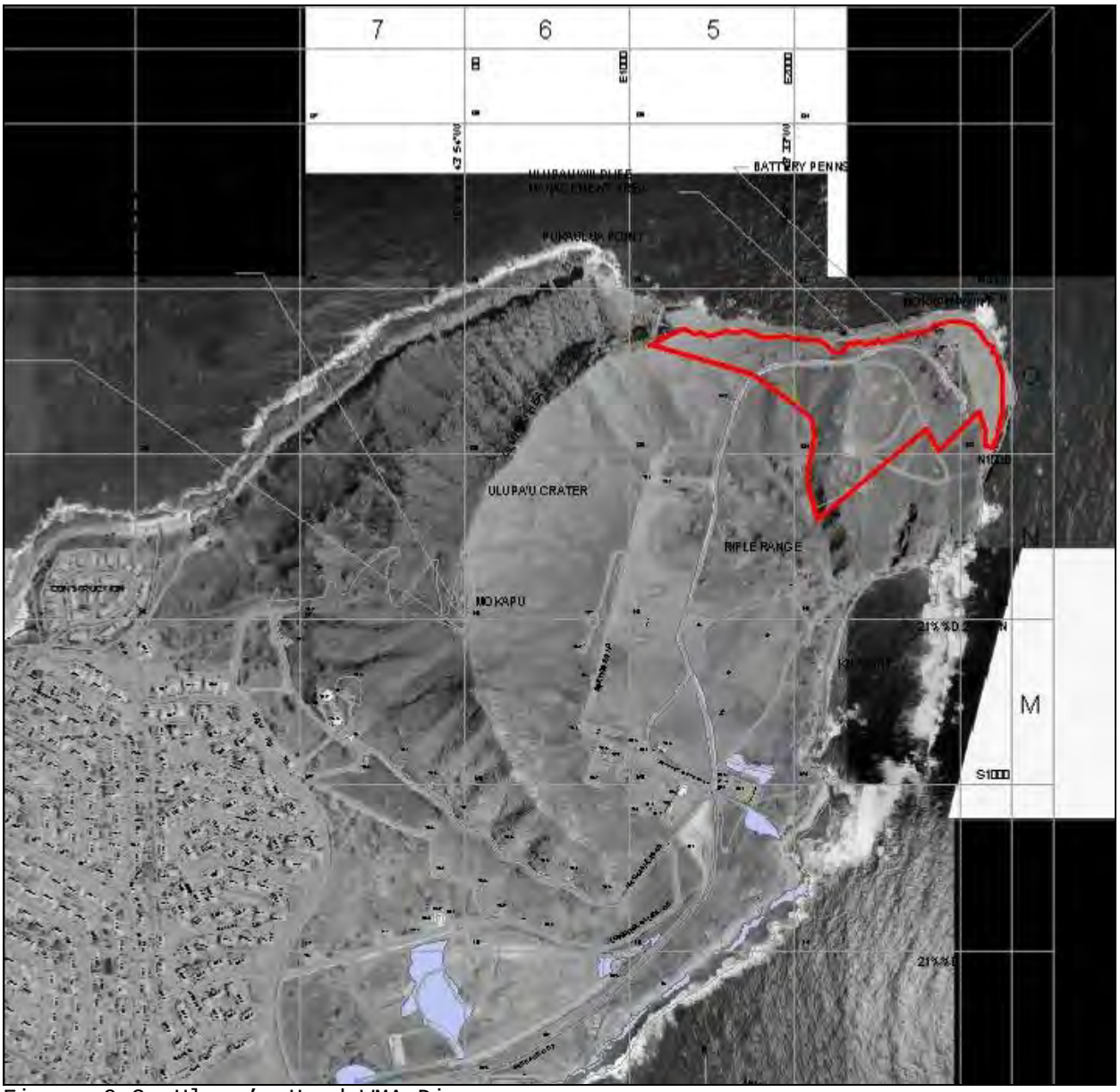

Figure 0-3 Ulupa’u Head WMA Diagram

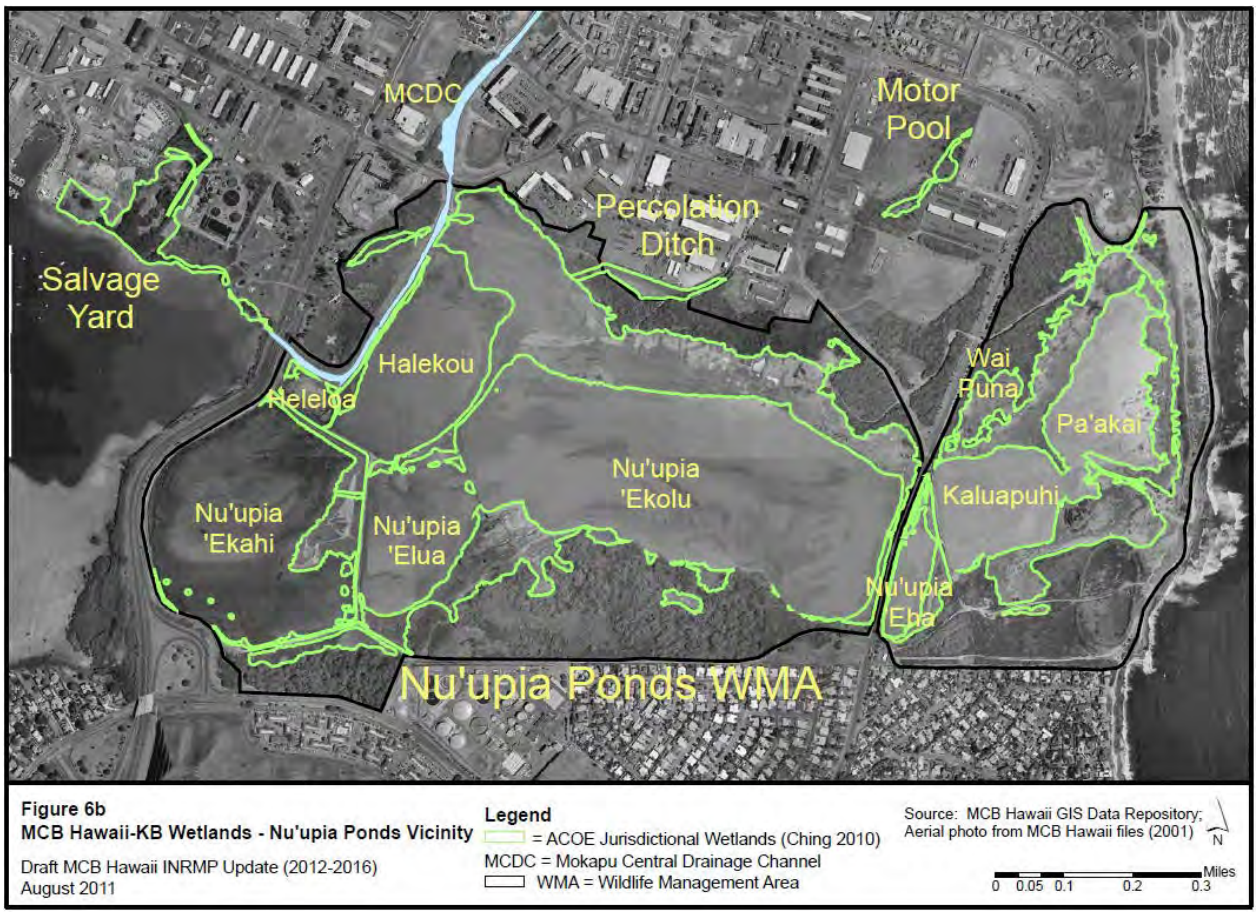

Figure 2-4 Nu'upia Ponds WMA

2011. TRAINING WITHIN THE ULUPA'U HEAD WMA. Live-firing directly into and maneuvering within the WMA is prohibited. When units use Ranges 5, 7, 8A, 9, or 10 for training, extreme caution shall be exercised to preclude direct fire and/or stray rounds from entering the WMA, especially during any fire and maneuver exercises.

2012. FIRES WITHIN THE ULUPA'U HEAD WMA. Information regarding fires and firefighting instructions are contained in Chapter 1.

2013. TOURS/VISITS OF THE ULUPA'U HEAD WMA

1. All tours, visits, or work within the WMA will be coordinated through the MCB Hawaii PAO and scheduled in the RFMSS per Chapter 3, paragraph 3002. The EC&PD and the PAO routinely sponsor technical assistance visits and/or tours of the WMA. Representatives of federal, state and private agencies furnishing professional advice and technical assistance on wildlife and wildfire management concerns shall be allowed reasonable opportunities for access to the WMA. Work or site visits conducted in the WMA will be coordinated by EC&PD and requested via the RFMSS to O&T RTAM at least 7 days in advance of any scheduled work. All site visits, tours, or work in the WMA will be scheduled around military training.

2. Range personnel will be present at the range during all site work, visits, or tours.

3. UXO is a real safety concern. All personnel participating in a WMA site visit, or performing maintenance at a WMA site, will stay on established roads unless specific permission has been granted by the O&T Directorate, an EOD escort has been provided, and medical support is at the range. Only designated work personnel performing WMA maintenance will be authorized above the main road into the WMA.

4. The site visit leader shall inform range personnel of the anticipated amount of time they intend to spend in the WMA.

5. The site visit leader shall carry a range radio with them and maintain communication with Range Control.

6. POVs are authorized, but must stay on established roads.

7. Medical support and EOD will be present wherever work is performed in the SDZ within the WMA.

2014. NATIONAL ENVIRONMENTAL POLICY ACT

1. Whenever there is a proposed change to established range use, request for a substantial increase in range use, planned development of new courses, or construction or introduction of new weapons' systems, an environmental review of the proposed activity/project shall be conducted prior to approval and scheduling of such proposed action(s). Documentation usually takes the form of a Categorical Exclusion (CATEX), Environmental Assessment (EA) or an Environmental Impact Statement (EIS). A CATEX/EA/EIS shall be undertaken at the earliest planning stages of the proposed action(s) and is more fully described in reference (d). EC&PD can be contacted at (808)257-6920, and the Facilities Department at (808)257-2175, for the latest rules and procedures in preparing for approval the requisite CATEX/EA/EIS prior to the implementation of an action. The following are some examples, which, under normal conditions, require the preparation of a CATEX/EA/EIS:

2. New target ranges or range mission changes which could increase environmental impact.

3. Creation of, or changes to, low altitude aircraft training routes, special use airspace and warning areas wherein over flights constitute a nuisance factor to wildlife.

4. Proposed action in a protected species habitat.

5. New revisions to established regulations, directives or policy guidance which initiate actions.

6. Any action with possible environmental impact or likelihood to cause public controversy.

7. Any action that will impact historic or archeological sites.

8. Any digging in a landfill site shown in Figure 2-5, MCTAB Landfill Sites.

2015. MARINE CORPS TRAINING AREA BELLOWS LANDFILL SITES. Figure 2-5 depicts the MCTAB Landfill Sites. Digging is prohibited within landfill sites, unless approved by a CATEX/EA/EIS.

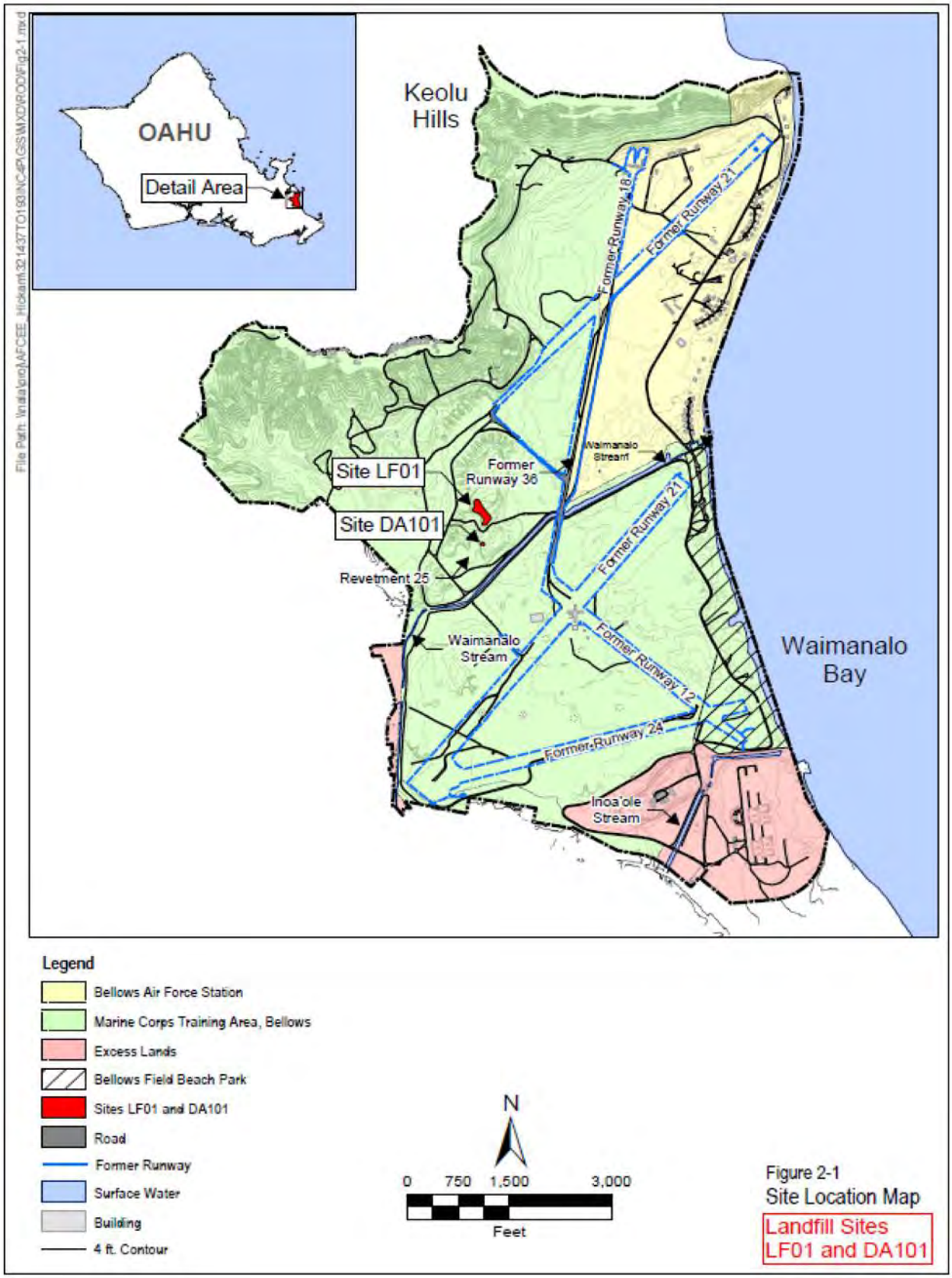

Figure 0-5 MCTAB Landfill Site Diagram

SOP FOR RANGES AND TRAINING AREAS

CHAPTER 3

SCHEDULING PROCEDURES

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RANGE FACILITIES MANAGEMENT SUPPORT SYSTEM	3002	3-2
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CHAPTER 3

SCHEDULING PROCEDURES

3000. GENERAL

1. This chapter establishes policies, procedures, and responsibilities for the scheduling of all ranges, training facilities, courses and classrooms aboard MCB Hawaii to include MCTAB. These training resources are available for use by all DOD Services, federal, and local law enforcement agencies.

2. The Range Management Office is the approving agency for all RTAs, facilities, and classrooms requests. To schedule, the Range Management Office must receive a RFMSS request prior to occupying or utilizing any RTA or facility area aboard MCB Hawaii.

3. Once the requesting unit has submitted a request, it is the responsibility of the scheduling unit to ensure they are in compliance with their authorized times and dates. Should there be a requirement to modify or cancel their request the unit shall notify the Range Management office at the earliest opportunity. Changes to the firing times for either range cannot be changed or modified after 1630 Monday of the preceding week, due to the weekly notice to mariners' submission.

3001. SCHEDULING PRIORITIES. The MCB Hawaii Deputy Range Manager will host a quarterly land resource conference. Ranges and training facilities will be assigned to tenant commands requesting MCB Hawaii RTAs based on the priority listed below. The MCB Hawaii RFMSS website will have the convening message posted on a continuous basis.

1. Annual Marksmanship Training details.

2. Formal Schools training plan.

3. Pre-deployment training programs for the next scheduled deploying unit, regardless of service.

4. Marine Expeditionary Units (MEUs) training in transit.

5. High-level annual or bi-annual exercises (e.g., RIMPAC).

6. Exercises at the discretion of the CO.

3002. RANGE FACILITIES MANAGEMENT SUPPORT SYSTEM. RFMSS is an automated range request system currently in use at most installations abroad and in the Continental United States. All units will have access to ranges and training resources via the World Wide Web at https://rfmss.lmfs.belvoir.army.mil/ from a pre-approved operating system having met all requirements IAW the Navy and Marine Corps Intranet. Units may contact the MCB Hawaii Range Scheduler at (808)257-8816 to receive their unit login and passwords for requesting MCB Hawaii training facilities.

3003. REGULARLY HOSTED EVENTS

1. The local OIC/RSO training will be conducted on the first and third Thursday of each month at 0800. The training takes approximately two hours to complete.

2. Immediately following the OIC/RSO brief, the Range Management office will conduct a one hour RFMSS training session for unit representatives.

3. The O&T Directorate will conduct a training symposium as requested in order to discuss the latest range, training area, and facility improvements. To schedule a date and time, the MCB Hawaii RCO should be contacted.

4. The Pu'uloa RTF will conduct an annual marksmanship quota allocation conference in July. The Pu'uloa RTF OIC should be contacted for more details.

3004. AIRSPACE AND AVIATION SCHEDULING. Specifics concerning the use of airspace is covered in reference (q). Scheduling of Landing Zones (LZs) and Drop Zones (DZs) must be submitted via the same procedures identified in paragraph 3002. Request for MCAS controlled TAs will be approved by MCAS Operations.

SOP FOR RANGES AND TRAINING AREAS

CHAPTER 4

AIRSPACE AND AVIATION OPERATIONS

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CHAPTER 4

AIRSPACE AND AVIATION OPERATIONS

4000. GENERAL

1. This chapter describes the TAs for use by aviation units and commands that are using or supporting aviation operations including MCTAB, Helicopters, DZs and Unmanned Aircraft Systems (UAS) operation. The chapter sets forth instructions pertaining to their use. This Chapter briefly discusses airspace and aviation facilities at MCB Hawaii. For detailed information concerning all aircraft, airspace and airspace safety parameters and regulations, refer to MCAS Order P3710.1F.

2. Nothing in these instructions shall prevent the exercise of sound judgment to preserve lives and property, or to ensure the safety of personnel.

3. COs of aviation units are responsible for the conduct of safe flight operations.

4001. MARINE CORPS AIR STATION

1. The CO, MCAS is responsible for the daily oversight of airspace and coordinates directly with the O&T Directorate, Scheduler, for de-conflicting all LZs and DZs described in this order.

2. MCAS ensures the scheduling and safe operations for all aircraft operating at MCAS within the associated Class D and Terminal airspace.

3. For detailed information concerning Airfield Operations, refer to reference (q).

4002. COURSE RULES

1. Tenant Responsibilities. Pilots shall be knowledgeable of the local course rules and procedures contained in reference (q). To ensure currency, units shall obtain an annual Course Rules Brief (CRB) through the Air Traffic Control Station Officer (ATCSO). In the interest of noise abatement for the surrounding communities, all aircrews shall comply with local course rules and deviate only as necessary in the interest of safety or during emergencies.

2. Transient Responsibilities. Transient pilots conducting extended operations at MCAS Kaneohe Bay, MCB Hawaii shall obtain a CRB prior to commencing operations. Transient detachments, MEUs, and deployed squadrons shall plan accordingly to make pilots available for the MCAS CRB. This brief will be scheduled through the Airfield Operations Officer during the coordination phase for airfield services by calling DSN 457-3579/8389, or commercially at (808)257-3579/8389.

4003. AIRFIELD SERVICES SUPPORT. For a complete listing of airfield services support, contact MCAS Operations at DSN 457-8389, or commercially at (808)257-8389.

4004. AIRSPACE AND AVIATION STATION SCHEDULING

1. MCB Hawaii is a small community with a large capability to support numerous operations. It is the responsibility of the requesting unit to ensure their requests are properly routed through the MCB Hawaii Range Scheduler for all LZs and DZs. Requests for LZs and DZs will not constitute a request for aircraft support. The requestor must submit both requests separately. For detailed information regarding scheduling of TAs, refer to Chapter 3 of this order.

2. All requests for airspace and aviation support, contact MCAS Operations at DSN 457-3579/8389, or commercially at (808)257-3579/8389.

4005. LOCAL FLYING AREA. The Local Flying Area for MCAS Kaneohe Bay, MCB Hawaii includes all the major Hawaiian Islands and other areas within 250 nautical miles of MCAS Kaneohe Bay, MCB Hawaii. The Vertical Hazard to the SDZ when flying over the Kaneohe Bay RTF is 904 meters (2,966 ft.) above MSL. See MCAS Operations SOP P3710.1F for more information.

4006. RUNWAY CROSSING

1. Guidelines. The following guidelines will be followed to ensure the safe execution of this event:

a. Only unit sized formations will be authorized to cross the runway. At no time will individual runners be permitted to cross the runway when it is active. The only authorized running area will be on the west side of the runway.

b. An e-mail request to the MCB Hawaii installation Range Control Officer is required to be submitted prior to the event.

c. MCAS Operations will ensure the Landing Safety Officer (LSO) vehicle is located at the road crossing. The LSO will monitor radio traffic to assist in time of an emergency and clear the runway. The LSO will be responsible to ensure that foreign object damage (FOD) is removed from the runway following each crossing.

2. The POC at MCAS is the Airfield Operations Officer or MCAS Operations Chief and can be contacted by calling (808)257-8389/8425.

4007. HELICOPTER LANDING ZONES

1. MCB Hawaii Helicopter LZs. The following LZs are controlled by O&T Directorate, MCB Hawaii and located aboard MCB Hawaii. ARFF support will be utilized whenever LZs are used aboard MCB Hawaii. The Helicopter LZ Smith rules and regulations set forth have been prepared IAW the current edition of NAVAIR 00-80R-14, U.S. Navy Aircraft Firefighting and Rescue Manual, and the Federal Aviation Administration (FAA) Regulations. The use of any LZ off the airfield runway requires coordination with MCAS Operations for airspace control and MCB Hawaii O&T Directorate.

2. Very Important Person(s) (VIP) LZ/Gun Position (GP) 216

a. LZ/GP 216 is the primary VIP LZ and is located in the open field southwest of Building 216. LZ/GP 216 is outlined by a white square, 100 by 100 ft. Pilots are directed to land inside the square. LZ/GP 216 may also

be used as a GP or a Command and Control TA. Figure 4-1 shows the location of LZ/GP 216.

(1) LZ/GP 216 is restricted to day Visual Flight Rules (VFR) use only. Unless otherwise approved, normal operations will be one aircraft into and out of LZ/GP 216. Takeoffs and landings will be made at the pilot's own risk.

(2) While awaiting clearance, aircraft will hold over Kaneohe Bay at 500 ft. MSL. Once cleared, aircraft shall proceed directly to the LZ for landing.

(3) The Control Tower will provide approach and departure clearances. Air Traffic Control (ATC) cannot issue landing or takeoff clearances, as LZ/GP 216 is not visible from the Tower. Pilots shall inform the Tower when landing is completed and shall request permission to lift.

(4) LZ/GP 216 departures shall be conducted IAW departure procedures set forth in this paragraph of Control Tower instructions. Departing LZ/GP 216 on a northeasterly heading, aircraft shall make a right turnout prior to reaching Kansas Tower (KT) IOT depart on a southwesterly heading. Aircraft shall then proceed directly to Kaneohe Bay. Aircraft departing LZ/GP 216 on a southwesterly heading shall proceed straight ahead, directly to Kaneohe Bay.

(5) ARFF support of LZ/GP 216 operations is required and shall be requested IAW procedures set forth in MCASO P3710.1F paragraph 2.4.4, LZ/DZ Responsibilities. Failure to do so will result in a landing clearance delay. ARFF presence must be verified by the Aircraft Commander prior to landing. Aircraft shall not land without ARFF's presence.

(6) Requirements for helicopter use of LZ/GP 216 shall be coordinated with MCB Hawaii, O&T Directorate at least seven business days in advance. A RFMSS request must be submitted. O&T Directorate will confirm the use of LZ/GP 216 with MCAS Airfield Operations on the date of the scheduled flight.

(7) Prior to commencement of training, an OIC/RSO from the training unit will report to Range Control to sign for the TA. At this time the individual responsible for the TA will receive a map depicting the TA requested and an update on any pertinent information. The same individual will return the TA map to Range Control at the conclusion of training.

b. Flight Procedures. For information regarding flight procedures see MCASO P3710.1F.

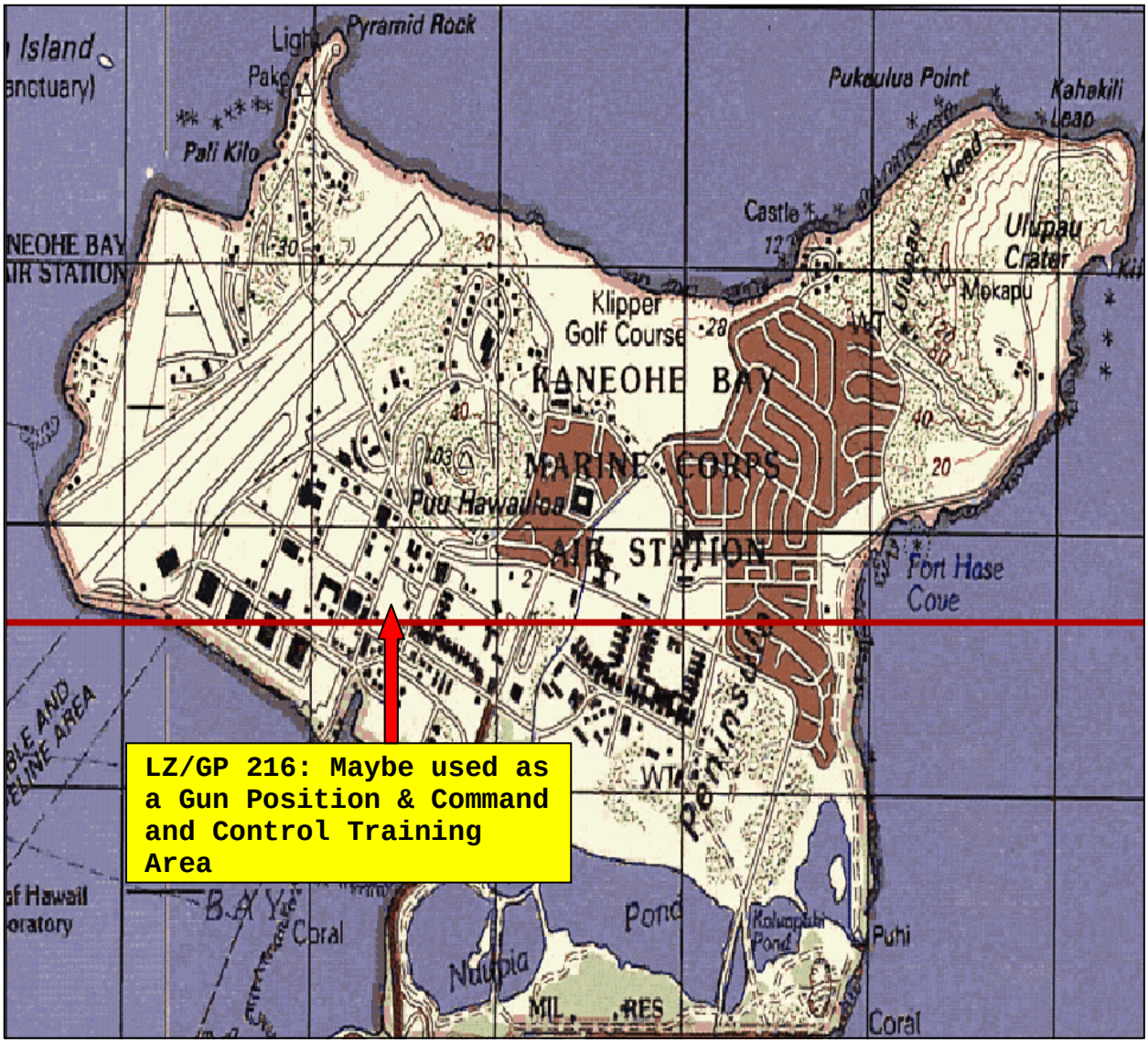

Figure 4-1 Location of LZ/GP 216

3. LZ Boondocker

a. LZ Boondocker is an open area 250 ft. by 300 ft. located inside the Boondocker TA. The LZ is approximately 350 meters southeast of the Combat Convoy Simulator. This LZ is used as a tactical LZ for troop inserts/ extracts and special patrol inserts/extracts (SPIE)/rappelling. This LZ is intended for use by helicopters only. Utilization of this LZ by any other organization must first be requested and approved in writing by MCB Hawaii, O&T Directorate. Aircraft generated noise and its effect on the residents of both MCB Hawaii and surrounding community and effects on the endangered water birds in the adjacent Nu'upia Ponds WMA are of great concern. LZ Boondocker usage must be coordinated and conducted so as to avoid adverse public reaction. Use of LZ Boondocker will be tempered by operational training necessity. Figure 4-2 details the location of LZ Boondocker.

(1) LZ Boondocker is restricted to day VFR use only.

Formation flights into and out of LZ Boondocker are permitted for sections of aircraft only. A maximum of six aircraft may be in the LZ at any one time.

(2) The tower will continue to control Fort Hase entry and departure traffic for those aircraft not involved in LZ Boondocker operations. Opposite direction traffic will not be permitted for aircraft approaching/ departing LZ Boondocker. The Control Tower will provide approach and departure clearances for LZ Boondocker. ATC cannot issue landing or takeoff clearances, as LZ Boondocker is not visible from the tower. Takeoffs and landings will be made at the pilots own risk.

(3) SPIE rigging, rappelling and fast rope operations are permitted. External and ordnance lifts are prohibited due to road crossings, the proximity of power lines south and west of the LZ and the presence of MCB Hawaii's residential and industrial areas within the ordnance safety area.

(4) Marshaling areas for helicopters desiring entry into LZ Boondocker will be established over Kaneohe Bay in the vicinity of the 101 Pad, or over Kailua Bay, east of Fort Hase Rock at 500 ft. above MSL.

(5) ARFF support is required for flight operations at LZ Boondocker, per MCASO P3710.1F.

(6) The tower frequency shall be monitored by the pilot at all times during LZ Boondocker operations.

(7) Request for approaches/clearances shall be made over Kaneohe Bay, well clear of the H-3 gate, or over Kailua Bay, well clear of Fort Hase Rock. Clearance will be given for the approach. Pilots shall report, "safe on deck" to the Control Tower.

(8) Kaneohe Bay approach to LZ Boondocker from Kaneohe Bay shall cross the shoreline in the vicinity of the H-3 gate at 300 ft. above MSL. Wave-offs shall be executed straight ahead so as to cross Fort Hase Rock at 300 ft. above MSL. Fort Hase Rock approach to LZ Boondocker from Kailua Bay shall cross Fort Hase Rock at 300 ft. MSL and may begin a descent for landing upon crossing the Rock. Wave-offs shall be straight ahead so as to cross the shoreline in the vicinity of the H-3 gate at 300 ft. above MSL.

(9) The approach turns. Aircraft unable to execute straight-in approaches due to existing winds shall maintain 300 ft., pass over the zone and continue straight ahead to either Kaneohe Bay or Fort Hase Rock, as appropriate. Once over the water, aircraft should turn to set up for re-entry and a straight-in approach. Approach turns abeam the zone shall not be executed due to the proximity to both civilian and military housing and the base industrial area.

(10) Departing from LZ Boondocker, pilots shall advise Kaneohe Tower when departing so traffic flow may be adjusted accordingly. The pilot will report when airborne to the Tower and receive further departure instructions, if necessary. Kaneohe Bay departure from LZ Boondocker, aircraft shall proceed toward Kaneohe Bay. Aircraft shall cross the shoreline in the vicinity of the H-3 gate at 300 ft. above MSL. Departing from Fort Hase, aircraft shall proceed toward Fort Hase Rock, cross the shoreline at 300 ft. above MSL and report "Fort Hase clear" when over the Rock. Overflights of Aikahi Park residential area are prohibited. Aircraft desiring a reverse course departure from their takeoff heading should climb straight ahead to

300 ft. above MSL. After crossing the shoreline of Kaneohe Bay or when reporting “Fort Hase clear”, aircraft should make an appropriate turn to reverse course and request a Fort Hase transition, if available, IAW normal course rules.

(11) All pilots and ground personnel shall be aware of all hazards while occupying LZ Boondocker. A double power line, elevated by poles measuring 60 ft. in height, is located approximately 150 yards south and west of LZ Boondocker. This power line is the primary source of electrical power for MCB Hawaii Kaneohe Bay. LZ Boondocker is located within the Boondocker TA. This course consist of numerous obstacles ranging from 4 to 40 ft. in height and there are several small sand hills located immediately to the west of the LZ, these hills range from 3 to 20 ft. in height.

(12) The Nu’upia Ponds habitat is a Wildlife Management Area located approximately 300 yards south of LZ Boondocker. Extensive bird activity should be expected in the vicinity of these ponds. Aircraft shall avoid over flying the Nu’upia Ponds to the south and base residential areas to the north of LZ Boondocker.

(13) Requirements for helicopter use of LZ Boondocker shall be coordinated with MCB Hawaii, O&T Directorate at least seven business days in advance. A RFMSS request must be submitted. O&T Directorate will confirm the use of LZ Boondocker with MCAS Airfield Operations on the date of the scheduled flight.

(14) Prior to commencement of training, an OIC/RSO from the training unit will report to Range Control to sign for the TA. At this time the individual responsible for the TA will receive a map depicting the TA requested and an update on any pertinent information. The same individual will return the TA map to Range Control at the conclusion of training.

b. For information regarding flight procedures see MCASO P3710.1F.

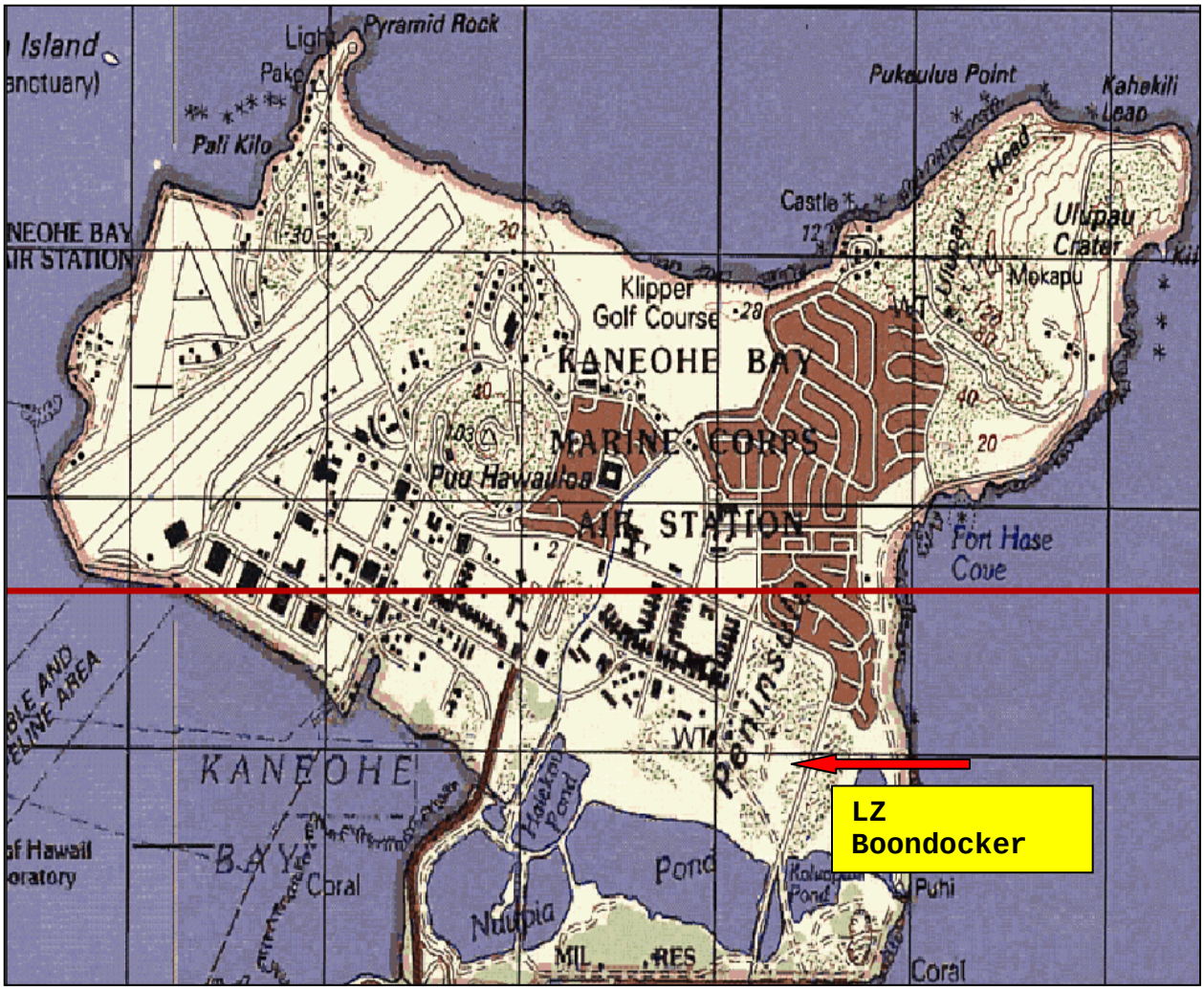

Figure 4-2 Location of LZ Boondocker

4. LZ Eagle

a. LZ Eagle is a large, limited-use LZ, approximately 150 meters by 100 meters in size, located across the hard surface road from Fort Hase Beach. Its close proximity to base housing areas and heavily used roads, as well as the impact of its use on range operations and activity at Fort Hase Beach, necessitates careful (advanced) coordination with MCB Hawaii O&T. Figure 4-3 shows the location of LZ Eagle.

(1) LZ Eagle is restricted to day VFR use only, with prior approval of the CO, MCB Hawaii (O&T). Road guards will be utilized to keep pedestrians clear of the LZ when in use.

(2) The Control Tower will provide approach and departure clearances. ATC cannot issue landing or takeoff clearances, as LZ Eagle is not visible from the tower. All aircraft utilizing LZ Eagle shall remain well east of the range. Fort Hase Entry/Departure routes shall be closed to all aircraft not entering or departing LZ Eagle.

(3) Marshaling areas for aircraft entering LZ Eagle will be established over Kailua Bay east of Fort Hase Rock at 500 ft. MSL. Aircraft shall be under positive control of the Control Tower.

(4) Aircraft approaching LZ Eagle are prohibited from flying over family housing. This LZ is utilized for special events only. Usage of LZ Eagle requires CO, MCB Hawaii approval. Use of LZ Eagle is not intended for routine use. Request must be submitted to MCB Hawaii, Directorate O&T. Aircraft desiring to land at LZ Eagle shall contact the Control Tower. Calls should be made at least two minutes prior to reaching Fort Hase Rock. Pilots will receive weather information and an authorization for the approach but will not receive a landing clearance. Aircraft shall commence their approaches from Fort Hase Rock to LZ Eagle at or below 200 ft. MSL and proceed to the LZ. All landings will be made at pilot’s own risk. Pilots will report “safe on deck” to the Control Tower. Refer to MCASO P3710.1F for responsibilities of all agencies.

(5) LZ Eagle departures shall contact the Control Tower and advise when ready for departure. The tower will repeat any weather information. Takeoff will be at the pilot’s own risk. The pilot will report when airborne to the Tower and receive further departure instructions as necessary. All departing aircraft shall fly directly to Fort Hase Rock at or above 300 ft. MSL.

(6) Some obstacles in the vicinity of LZ Eagle include a two-story family housing area which forms the northwest boundary of the LZ, three 30 ft. streetlights (no wires) along the road which form the northwest boundary, one 50 ft. telephone pole (no wires) is approximately 50 meters northeast of the LZ. There are numerous obstacles between the beach and the road forming the southeast boundary that are all less than 20 ft. in height, and one 3 ft. pipe is extending out of the ground approximately 30 ft. into the LZ from the southeastern boundary.

(7) Requirements for helicopter use of LZ Eagle shall be coordinated with MCB Hawaii, O&T Directorate at least seven business days in advance. A RFMSS request must be submitted. O&T Directorate will confirm the use of LZ Eagle with MCAS Airfield Operations on the date of the scheduled flight.

(8) Prior to commencement of training, an OIC/RSO from the training unit will report to Range Control to sign for the TA. At this time the individual responsible for the TA will receive a map depicting the TA requested and an update on any pertinent information. The same individual will return the TA map to Range Control at the conclusion of training.

b. Flight Procedures. For information regarding flight procedures see MCASO P3710.1F.

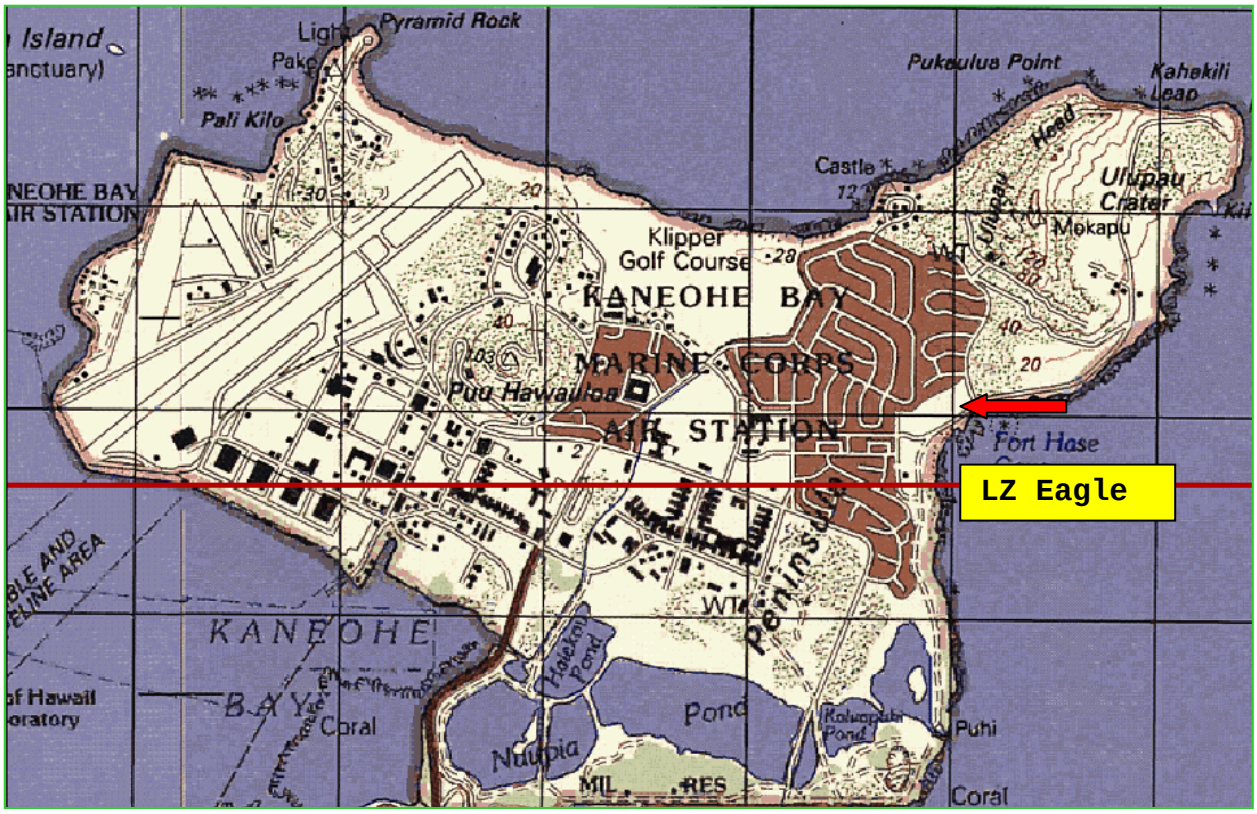

Figure 4-3 Location of LZ Eagle

5. MCTAB LZs

a. The LZs Gull, Noni, Owl, and Hawk are controlled by O&T Directorate, MCB Hawaii and located at MCTAB. The use of any LZ off the airfield runway requires coordination with O&T Directorate, MCB Hawaii. Paragraph 4009 contains more information regarding LZs at MCB Hawaii.

b. Training authorized at MCTAB LZ(s) includes assault landings, low-level flight training, SPIE, rappel and Helicopter Rope Suspension Techniques (HRST) training. Helicopters will only land/takeoff from designated LZs and will strictly adhere to flight patterns IAW MCASO P3710.1F.

(1) LZ Gull is located at grids: 4QFJ 33006340 – 33296365, LZ Noni is located at grids: 4QFJ 32776173 - 32986199, LZ Owl is located at grids: 4QFJ 33336241 – 33606278 and LZ Hawk is located at grids: 4QFJ 33396213 – 33766185 aboard MCTAB. Training authorized at MCTAB LZ(s) includes assault landings, low-level flight training, SPIE, rappel and HRST training. Request for helicopters in support of troop movement during the weekends and holidays will be considered on a case-by-case basis. O&T Directorate will notify Detachment 1, 18th SPTG, Bellows of all flight operations 24 hours in advance. Helicopters will only land/takeoff from designated LZs and will strictly adhere to flight pattern prescribed per MCASO P3710.1F (Information currently not in MCASO P3710.1F recommend flight procedures and pertinent information from MCAS Operations). Figures 4-9 through 4-14 shows the location of the LZs.

(2) Helicopter operations are limited to the following schedule: Monday-Friday from 0700-2200. Requests to conduct helicopter operations on

holidays, weekends or during times outside the limits stated above, may be approved by the O&T Directorate, on a case-by-case basis.

(3) Ingress and egress for all helicopters is seaward and within the confines of TA 1. Designated ingress altitude is 500 ft. Above Ground Level (AGL); designated egress altitude is 300 ft. AGL. Additionally, helicopters must stay within the confines of TAs 2 and 3. Over-flights of adjacent areas are not authorized.

(4) Special VFR (SVFR) are not authorized. No more than four helicopters may operate within MCTAB at any one time. Helicopters will not be left unattended at any time.

(5) Every effort will be made to maximize safety and minimize noise (rotor) and other disturbances to the surrounding military and civilian community.

(6) Requirements for helicopter use of MCTAB LZ(s) shall be coordinated with MCB Hawaii, O&T Directorate 2 business days in advance.

(7) Prior to commencement of training, an OIC/RSO from the training unit will report to Range Control to sign for the TA. At this time the individual responsible for the TA will receive a map depicting the TA requested and an update on any pertinent information. The same individual will return the TA map to Range Control at the conclusion of training.

c. Flight Procedures. Pending change to include LZs into MCASO P3710.1F.

6. LZ Smith

a. LZ Smith is the primary Helicopter LZ for all helicopter operations aboard Camp H. M. Smith. Figure 4-4 depicts the location of LZ Smith. The LZ is capable of receiving aircraft during daylight hours and during VFR only, except in the case of emergencies. LZ Smith is located in the northeastern corner of the Camp known as Smith Field. It is roughly 165 meters by 125 meters, marked rectangular field. The long axis of the field runs north and south.

(1) The Assistant Chief of Staff, G-3, U.S. Marine Corps Forces, Pacific (MARFORPAC) is assigned the responsibilities of delineating the ATC Procedures utilized at the Smith Field LZ.

(2) The LZ is located at coordinates 137/659 on the 1:25,000 grid map (5420 IV Waipahu) and bears approximately 600 meters northeast from the Marine Forces Pacific Headquarters Building.

(3) Requirements for helicopter use of LZ Smith shall be coordinated with MCB Hawaii, O&T Directorate at least seven business days in advance. A RFMSS request must be submitted. Scheduling routine use of the LZ between the hours of 1100-1300, Monday-Friday, should be discouraged. Notification will be given to MARFORPAC O&T Directorate Aviation and MPD when scheduling the use of LZ Smith. O&T Directorate will confirm the use of LZ Smith with MCAS Airfield Operations on the date of the scheduled flight.

b. Flight Procedures. For information regarding flight procedures refer to the following documents:

(1) See Camp H. M. Smith BM/Camp Order 11132.2B

(2) MCASO P3710.1F.

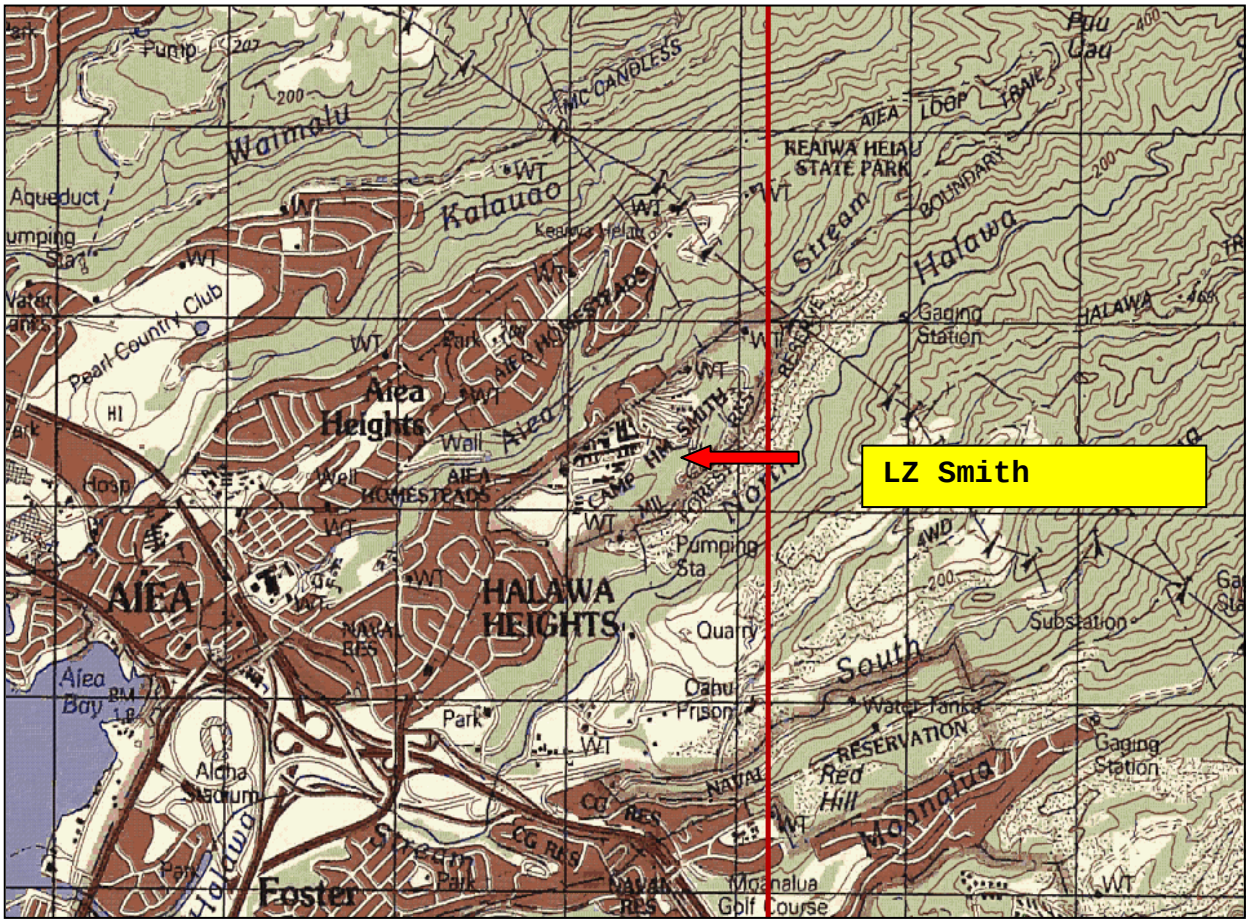

Figure 4-4 Location of LZ Smith

7. <u>LZ Ulupa'u</u>

a. LZ Ulupa'u is a limited-use LZ inside Ulupa'u Crater on Range 1, Kaneohe Bay RTF. It is located in between the 500 and 300 yard lines and is not marked. This LZ allows for day and night operations, HRST training and external lifts.

(1) Training must be completed on Range 1 before this LZ will be opened. Center grid for this LZ is 319 728 (WGS 84).

(2) ARFF support (per MCASO P3710.1F) shall be in place prior to any operation into or out of LZ Ulupa'u.

(3) The Control Tower will provide approach and departure clearances. ATC cannot issue landing or takeoff clearances, as LZ Ulupa'u is not visible from the tower. LZ Ulupa'u entry/departure routes shall be closed to all aircraft not entering or departing the LZ.

(4) Aircraft approaching LZ Ulupa'u are prohibited from flying over family housing. The location of LZ Ulupa'u is displayed in Figure 4-5. Use

of LZ Ulupa'u is not intended for routine use. Request must be submitted to MCB Hawaii, O&T Directorate. Aircraft desiring to land at LZ Ulupa'u shall contact the Control Tower. Calls should be made at least two minutes prior to reaching Fort Hase Rock. Pilots will receive weather information and an authorization for the approach but will not receive a landing clearance. Aircraft shall commence their approaches from Fort Hase Rock to LZ Ulupa'u at or below 200 ft. MSL and proceed to the LZ. All landings will be made at pilot's own risk. Pilots will report "safe on deck" to the Control Tower. Refer to MCASO P3710.1F for responsibilities of all agencies.

(5) LZ Ulupa'u departures shall contact the Control Tower and advise when ready for departure. Tower will repeat any weather information. Takeoff will be at the pilot's own risk. The pilot will report when airborne to the Tower and receive further departure instructions as necessary. All departing aircraft shall fly directly to Fort Hase Rock at or above 300 ft. MSL. This LZ is subject to "brown-outs" during the summer months.

(6) Requirements for helicopter use of LZ Ulupa'u shall be coordinated with MCB Hawaii, O&T Directorate at least seven business days in advance. A RFMSS request must be submitted. O&T Directorate will confirm the use of LZ Ulupa'u with MCAS Airfield Operations on the date of the scheduled flight.

(7) Prior to commencement of training, an OIC/RSO from the training unit will report to Range Control to sign for the TA. At this time the individual responsible for the TA will receive a map depicting the TA requested and an update on any pertinent information. The same individual will return the TA map to Range Control at the conclusion of training.

b. Flight Procedures. For information regarding flight procedures see MCASO P3710.1F.

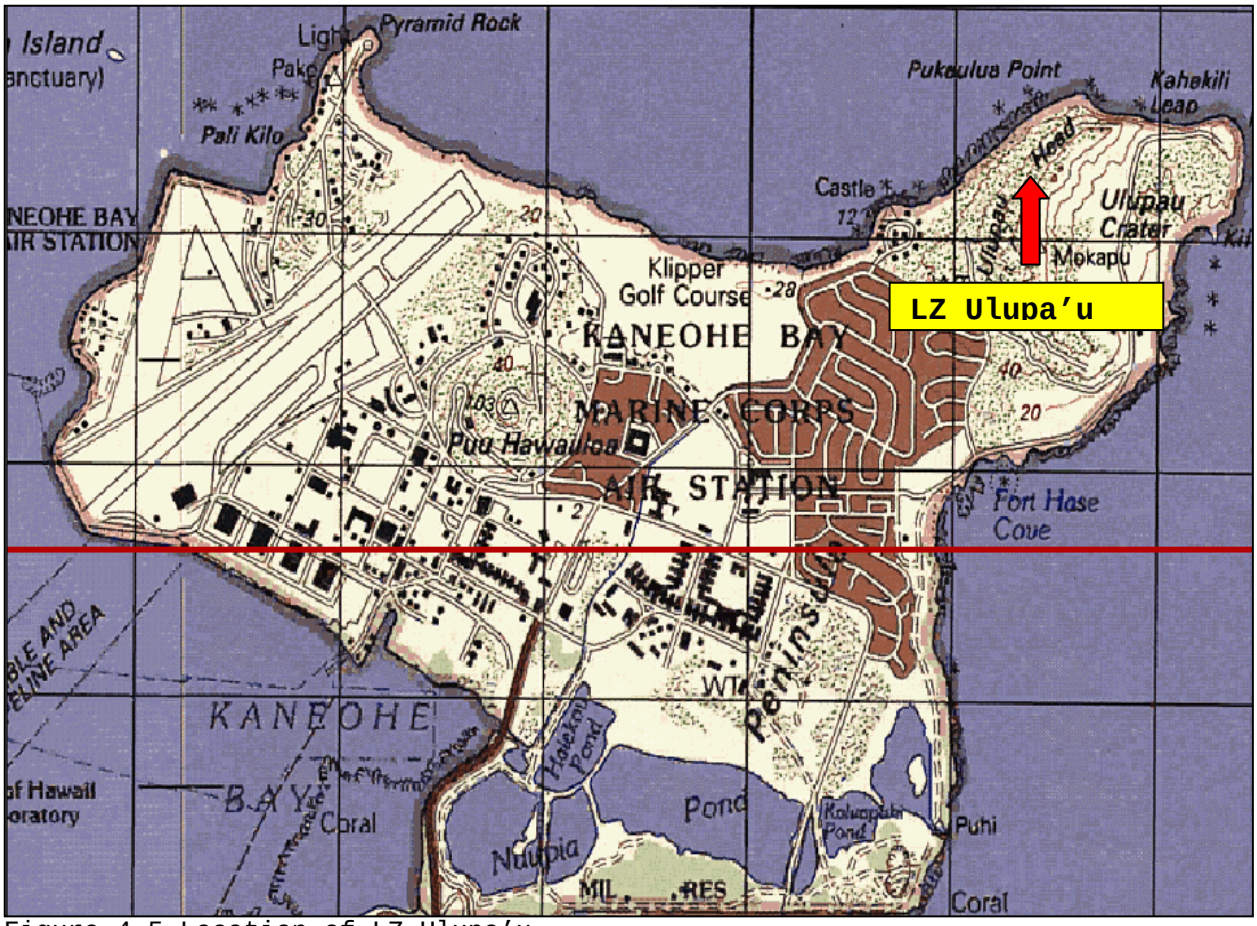

Figure 4-5 Location of LZ Ulupa'u

8. MCAS Controlled TAs

a. For a complete description of the rules governing MCAS controlled TAs, see reference (q), MCAS Air Operations Manual P3710.1F (APM).

b. Authorized helicopter landing areas within the flight line property aboard MCB Hawaii are listed below and displayed in Figure 4-6. Helicopter landings at any other location must have prior approval of Airfield Operations. Requests, via RFMSS, should be submitted to MCAS Airfield Operations at least 5 business days prior to usage.

(1) West Field. West Field is the helicopter operating area linked to and northwest of runway 04/22. This area contains helicopter parking areas, a troop cargo staging area, an external pickup and hover pad, an ordnance assembly building, a tactical Airfield Fuel Dispensing System unit, a CLZ for Landing Craft Air-Cushioned (LCAC) aircraft and corresponding taxiways. A simulated ship deck oriented 040/220 degrees magnetic, is painted at the north end for helicopter Field Carrier Landing Practice training. West Field operations are closed to nonessential aircraft when utilized for ordnance loading/staging.

(2) Hangar 101 Helipad. Helicopter landing pad 101 is located in the southeast corner of the mat, adjacent to and east of hangar 101 for use by tenant squadrons.

(3) Pad Seven. Pad Seven is the general ramp area marked by a Maltese cross located south of FOXTROT taxiway and west of and adjacent to Runway 04, northwest of the Combat Aircraft Loading Area (CALA).

Figure 0-6 MCAS Controlled TAs

4008. DROP ZONES

1. Request for use of any DZ will be submitted to the CO, MCAS via O&T Directorate, MCB Hawaii.

2. DZ Shark (land jump) is located on the northeast end of the runway. Figure 4-7 shows the location of DZ Shark.

3. DZ Kaneohe Bay (water jump) is located in the water off the southwest end of the runway. Figure 4-8 details the location of DZ Kaneohe Bay.

4. All training must be consistent with MCASO P3710.1F.

5. Prior to conducting any parachute/paradrop operations, the unit desiring to conduct such training must coordinate and schedule (in advance) the airspace and the appropriate DZ requirements needed to support the operation. Scheduling airspace and DZ requirements must be done through MCAS RFMSS scheduler. MCAS Operations will notify the O&T Directorate whenever airborne operations are planned.

6. The following restrictions and safety precautions apply to all parachute operations at MCB Hawaii:

a. The DZ Commander must have an anemometer at the DZ site to measure wind speed.

b. The DZ Commander will have the final approval authority for drops based on the wind condition.

c. The DZ Commander will suspend or cancel drop operations if, in his/her judgment, wind direction or wind gusts in combination with aircraft position make the drop unsafe.

d. The DZ Commander must maintain two-way radio contact with the drop aircraft and the tower. In the event of radio communication failure, a single red smoke grenade, or other established visual signal, will be used to indicate “NO DROP” and shall suspend operations until air-to-ground communications can be re-established. A safety vehicle/vessel and Hospital Corpsman/Medic/EMT must be present and located in the same immediate area as the DZ Commander.

e. During static-line parachute operations, using MC1-1B/C, T-10B/C round parachutes, the winds on the surface will not exceed 13 knots, or 30 knots through the jump altitude. When utilizing Ram-Air parachutes, whether it be static-line deployed or manually deployed, the winds on the surface will not exceed 18 knots; the winds through the jump altitude are unlimited.

f. No drops will be made from altitudes which exceed the height restrictions of MCB Hawaii (MCAS) restricted airspace, unless coordinated in advance with MCAS Operations.

g. All High Altitude High/Low Opening jumps shall be conducted in VFR conditions including aircraft transit/pattern and jumper descent to DZ.

h. Units jumping into DZs must also coordinate with MPD and WFO for additional support.

i. Parachute operations will be conducted in designated DZ areas only as established by the O&T Directorate, MCB Hawaii. Requests for parachute operations in areas other than established DZs will require advance approval from O&T Directorate, MCB Hawaii and MCAS Operations.

7. The following control procedures will apply to all parachute operations conducted aboard MCB Hawaii (to include MCTAB):

a. The DZ Commander shall be physically located in the DZ. Prior to positioning within the DZ, the DZ Commander must contact MCAS Operations and the O&T Directorate, to receive a DZ safety brief. At this time, the DZ Commander will also provide MCAS Operations and O&T Directorate, with a brief

summary of the training scenario to be used, to include the type of aircraft, proposed start and stop times, and the type of personnel involved.

b. All aircraft entering MCB Hawaii (MCAS) restricted airspace for participation in parachute operations must first check-in with MCAS Operations and the O&T Directorate. After clearance into the airspace, the tower (MCAS Operations) will pass control of the aircraft to the DZ Commander.

Figure 0-7 DZ Shark

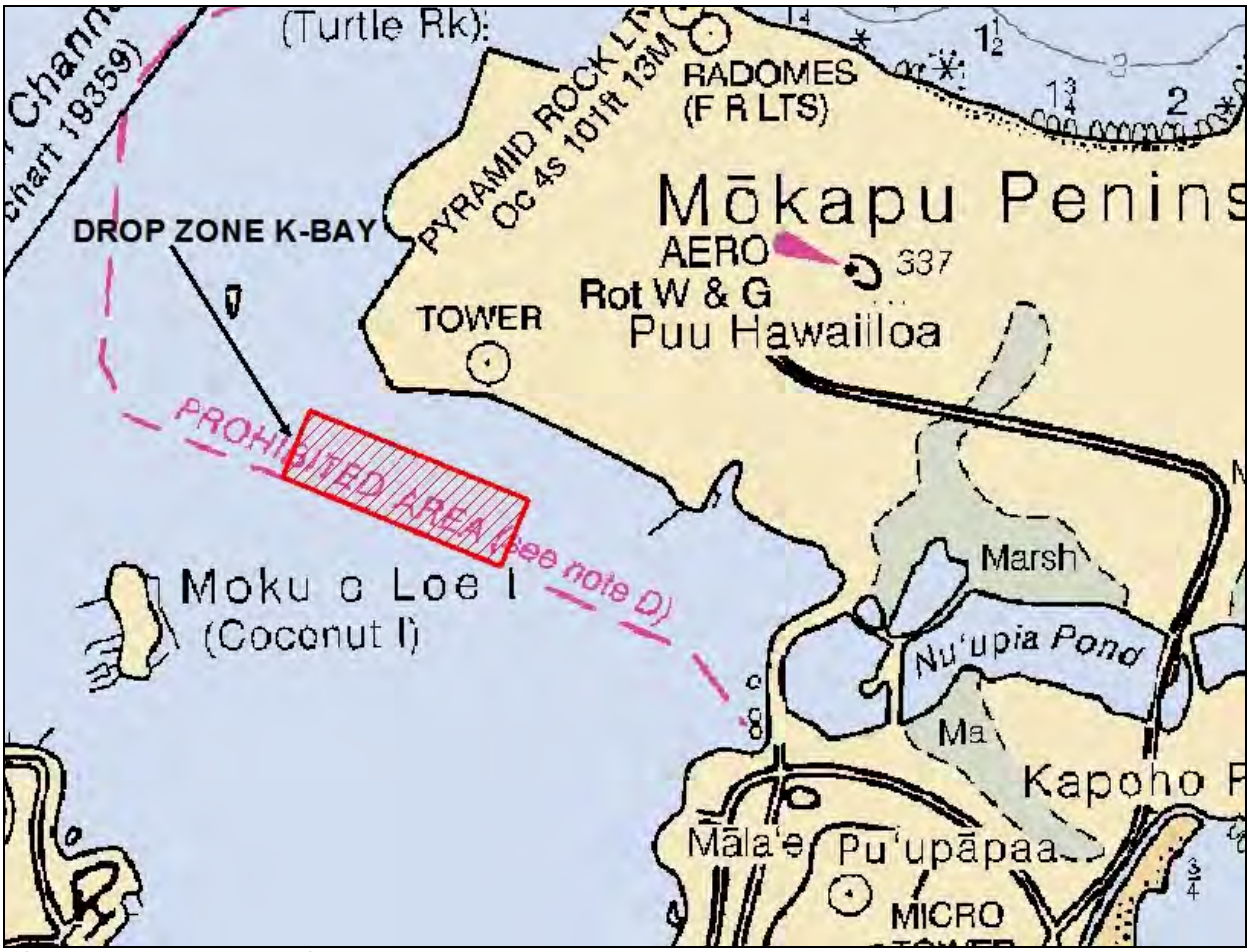

Figure 4-8 DZ Kaneohe Bay

4009. TRANSIT ROUTES AND RESTRICTIONS

1. MCB Hawaii. For detailed information concerning routes and restrictions, refer to reference (q), MCASO P3710.1F.

2. MCTAB

a. Ingress and egress for all helicopters is seaward and within the confines of TA 1. Designated ingress altitude is 500 ft. AGL; designated egress altitude is 300 ft. AGL. Additionally, helicopters must stay within the confines of TAs 2 and 3. Over-flights of adjacent areas are not authorized.

b. SVFR are not authorized. It is recommended that units not resident to MCB Hawaii employ a Forward Air Controller (FAC), Air Liaison Officer (ALO) or personnel to provide ITG to control helicopters within MCTAB. FAC, ALO or ITG teams will be responsible for:

c. Conducting a visual inspection of the operating area and LZ(s) to determine if conditions are safe for helicopter training.

d. Establishing radio communications and provide estimated wind direction and velocity, and wave-off/abort if a hazardous situation develops.

e. Every effort will be made to maximize safety and minimize noise (rotor) and other disturbances to the surrounding military and civilian community.

3. Refer to reference (q), MCASO P3710.1F for complete descriptions of airfield operations and restrictions.

4010. MCTAB AIRCRAFT FLIGHT PATTERNS. Figures 4-9 through 4-14 depict flight patterns for aircraft at MCTAB. The solid lines represent helicopter flight patterns, and the dashed lines represent MV22 flight patterns.

Figure 4-9 MCTAB Flight Tracks

Figure 4-10 MCTAB Gull Flight Patterns

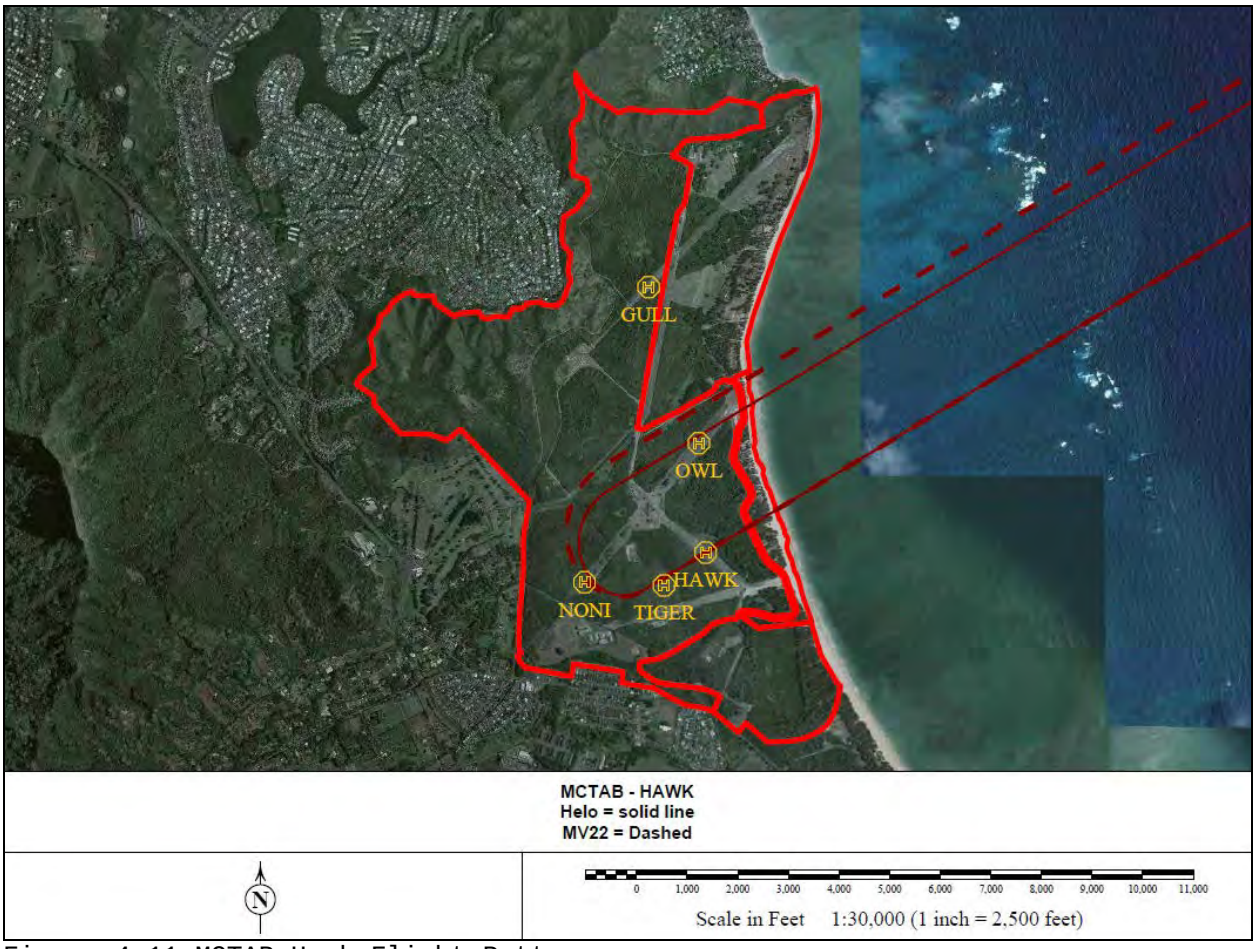

Figure 4-11 MCTAB Hawk Flight Patterns

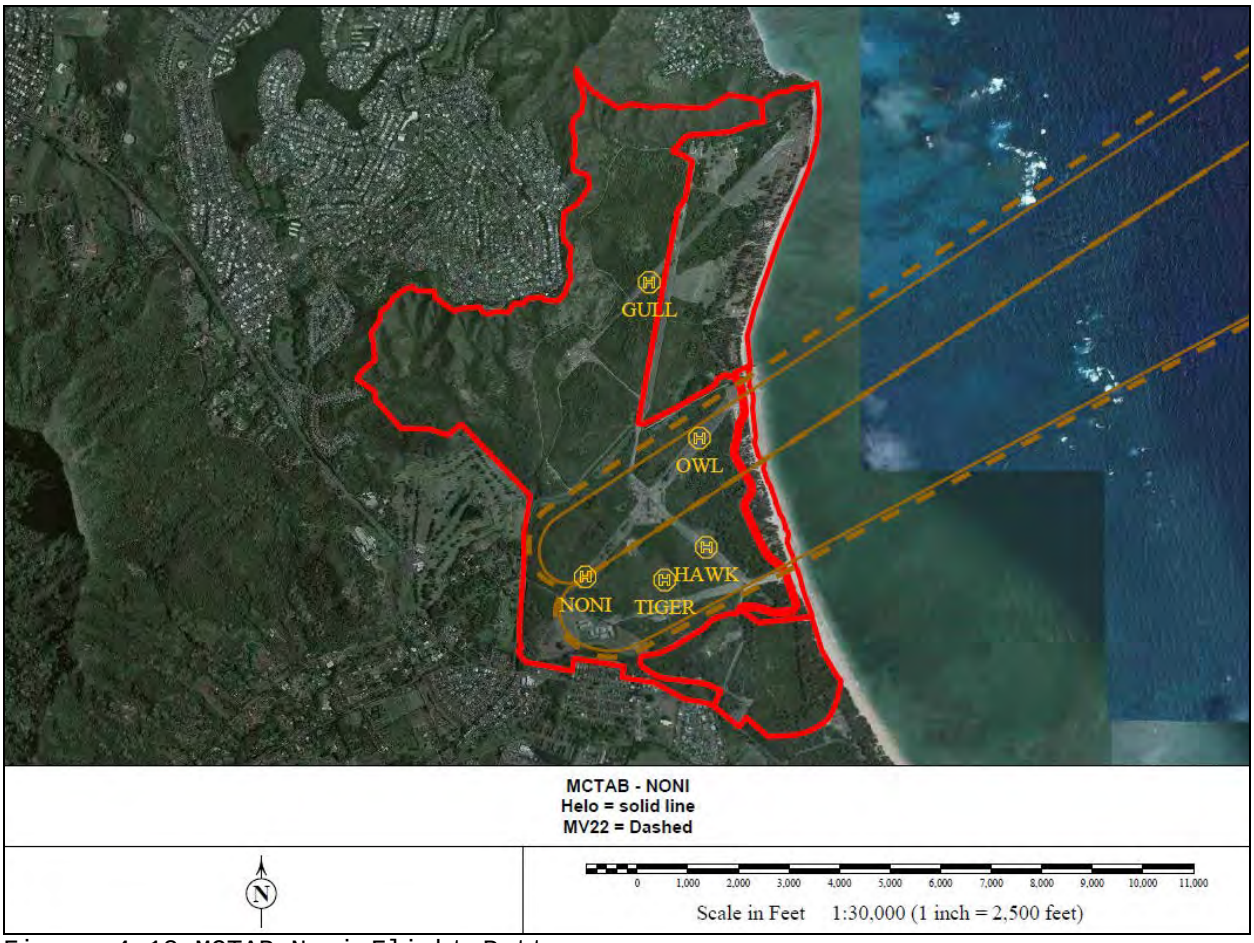

Figure 4-12 MCTAB Noni Flight Patterns

Figure 4-13 MCTAB Owl Flight Patterns

Figure 4-14 MCTAB Tiger Flight Patterns

4011. NIGHT VISION DEVICES. Night Vision Device(s) (NVDs) operations shall be conducted IAW all Navy, Marine Corps and applicable Service Directives, as well as the provisions set forth in reference (q), MCASO P3710.1F.

4012. UNMANNED AERIAL SYSTEM OPERATIONS

1. UAS Operations. UAS operations will be conducted IAW all Navy, Marine Corps and applicable Service Directives. A detailed description of UAS operations and procedures can be found in Appendix N of this Order.

2. Description of Flight Operations. RAVEN-B is classified as a UAS by the FAA. UAS flight operations are required for proficiency training of the operators and to support tactical training operations occurring during exercises supporting Marine Corps and other service pre-deployment training. UAS flight operations may be conducted at MCAS West field area and at MCTAB.

3. Operation Limitations. All operations will be IAW current FAA issued Certificate of Waiver or Authorization (COA) (located in Appendix N) that is issued for the specific UAS to be operated. For a list of all prohibited operations, see Appendix N.

4. Method of Pilotage. Only trained and qualified RAVEN-B operators will pilot the vehicle using pre-assigned Global Positioning System waypoints via an on-board auto-pilot that can be updated by a ground station. One pilot

(operator) and one observer are required for operation. The pilot (operator) and observer cannot be the same person. The pilot (operator) and observer qualifications, other than Marine Corps standards, are established by the FAA and delineated in the COA.

5. Coordination and Scheduling. The UAS operator will contact the Automated Flight Service Station no less than 72 hours prior to the operation of the UAS and request to issue a Distance Notice to Airmen (D-NOTAM) when UAS operations are being conducted. All UAS operations will be scheduled through RFMSS in coordination with MCB Hawaii O&T. In addition, operations planned at West Field will be scheduled and coordinated with MCAS Operations. For more information, see Appendix N.

6. Emergencies. In the event of an emergency including, a loss of communications with the UAS or interloping aircraft, the operating unit will terminate UAS operations immediately. The UAS operator will notify the Host Command Facility (HCF) and MCAS Operations within 1 hour of termination of flight operations.

7. Communications Procedures. Each UAS flight area requires specific communications procedures. See Appendix N for information and requirements.

8. Pilot-In-Command (PIC). The PIC is the person directly responsible for the operation of the UAS. One PIC must be designated at all times and is responsible for the safety of the UAS and all persons and property along the UA flight path. The UAS pilot will be held accountable for controlling their aircraft to the same standards as the pilot of the manned aircraft.

9. Route and Altitude Procedures. Appendix N contains information regarding designated boundaries and information regarding provisions of acceptable mitigation.

10. Safety Provisions. IAW 14 CFR Part 91, General Operating and Flight Rules, Subpart J-Waivers, 91.903, Policy and Procedures, the following provisions provide acceptable mitigation of 14 CFR Part 91.113 and must be complied with. For more details and safety provisions, see Appendix N.

11. Airworthiness Certification Provisions. UAS must be shown to be airworthy to conduct flight operations in the National Airspace System (NAS). Public Use Aircraft applications must contain one of the documents outlined in Appendix N.

12. Pilot/Observer Provisions. All pilot/observer qualifications, PIC and Pilot proficiency VFR, PIC Responsibilities and Pilot/ATC Instructions can be found in Appendix N.

13. Special Provisions. Appendix N lists all special provisions. All personnel connected with this UAS operation shall comply with the contents of this authorization and its special provisions.

14. Incident/Accident Reporting. Appendix N contains important information required to document unusual occurrences associated with UAS activities in the NAS.

15. This COA does not, in itself, waive any Federal Aviation Regulation nor any State Law or Local Ordinance. Should the proposed operation conflict with any state law or local ordinance, or require permission of local

authorities or property owners, it is the responsibility of the USMC to resolve the matter. This COA does not authorize flight within Special Use Airspace without approval from the Using Agency.

16. FAA. Anytime the FAA determines that the UAS operations do not comply with the provisions set forth in this agreement, the FAA may suspend this authorization until the issues can be resolved.

17. MCAS RAVEN-B and MCTAB Operating Areas. The USMC is hereby authorized to operate UAS in the Operations Area are depicted in Figures 4-15 and 4-16.

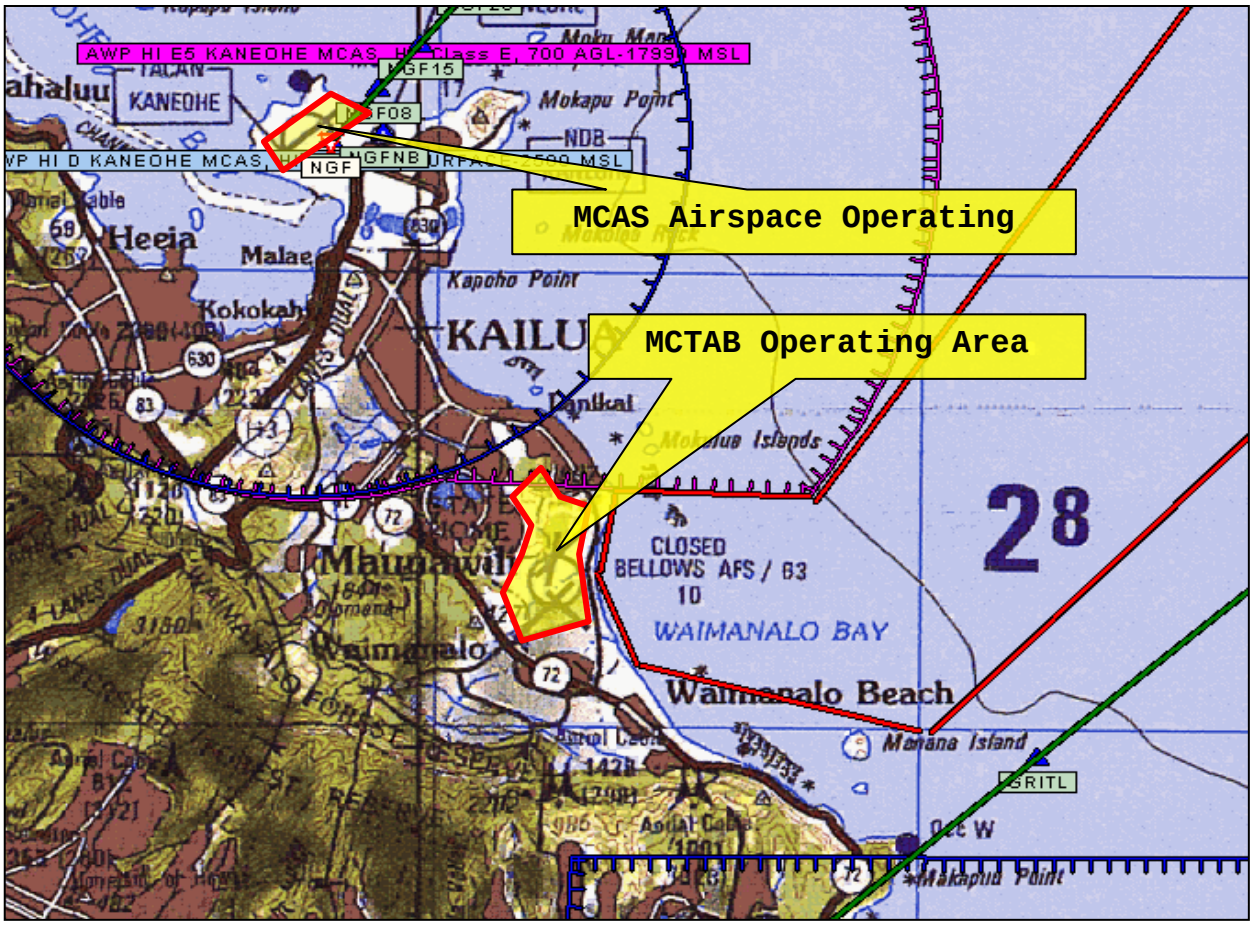

Figure 4-15 MCAS RAVEN-B and MCTAB UAS Operating Areas

Figure 4-16 MCTAB UAS Operating Area

SOP FOR RANGES AND TRAINING AREAS

CHAPTER 5

MARITIME OPERATIONS

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CHAPTER 5

MARITIME OPERATIONS

5000. GENERAL

1. MCB Hawaii is located on Mokapu Peninsula, Oahu, Hawaii and consists of approximately 2,951 acres. It is surrounded by wildlife sanctuaries and endangered species that make the Mokapu Peninsula their home. In collaboration with the Base's Environmental Department, maneuver training and maritime operations are authorized on certain ranges and training facilities.

2. MCTAB also offers amphibious assault training, even with endangered species living in the surrounding waters. It is essential for every person training to take extra precautions when conducting maritime operations in our surrounding waters.

3. Pu'uloa RTF beach area provides an excellent opportunity for units to conduct amphibious training and has been established as a Beach Landing Site (BLS) when live-fire training is not scheduled.

5001. AMPHIBIOUS ASSAULT TRAINING AREAS

1. Amphibious Assault Training Area(s) (AATAs) are defined as TAs that allow access to watercraft vehicles from the ocean to land. They are used for amphibious operations, dive, and parachute operations.

2. The following types of craft are permitted on most AATAs: an Assault Amphibian Vehicle (AAV), a Light Armored Vehicle, LCACs and Combat Rubber Raiding Craft (CRRC).

3. AATAs are categorized as CLZs and BLSs. Paragraph 5002 contains a brief description.

4. No live-fire is permitted in any of the AATAs.

5. AATAs are located on beaches that double as base and public recreational use beaches when they are not used for training. Due to this fact, it is paramount that common sense and ORM is conducted.

6. Refer to Chapter 3 of this Order for all AATA scheduling requests.

5002. CRAFT LANDING ZONES

1. Watercraft vehicles are restricted in their ability to maneuver when operating in the surrounding waters of MCB Hawaii.

2. When departing from or returning to the CLZs, it is imperative that commanders abide by the provisions set forth in this Order and reference (m).

3. For safety purposes, it is imperative that no vehicles, watercraft (other than WFO support), or pedestrians move to within 100 meters of moving watercraft, other than those personnel participating in the training exercise.

5003. CRAFT LANDING ZONE FORT HASE

1. Fort Hase Beach is located aboard MCB Hawaii and has been established as a CLZ. The location of CLZ Fort Hase is depicted in Figure 5-1.

2. The beaches aboard MCB Hawaii provide an excellent opportunity for forces to conduct waterborne movements. Fort Hase is a suitable beach for landing AAVs. The landing beach at Fort Hase is limited in space and does not allow for a full AAV Platoon (12 AAVs) to land online at one time. Landing at Fort Hase can be conducted in waves of one AAV section online at a time (three to four AAVs). In this manner, an entire Infantry Company can be landed in three to four waves. AAV(s) are restricted to tank trails while maneuvering between Fort Hase and LZ Boondocker, and are required to stay out of vegetation.

3. AAV and infantry units’ safety/ORM/weather/surf restrictions remain the training unit commander’s responsibility.

4. MCB Hawaii O&T will notify WFO of any scheduled waterborne training and request safety boat support. A Notification to Mariners will be submitted to the Commander 14th Coast Guard District.

5. The Housing Office will be notified of any scheduled training at CLZ Fort Hase so that MCB Hawaii residents may be notified of the scheduled training. The MPD will also be notified and will need to be on-hand to keep beach visitors away from the training site.

6. During amphibious landings or withdrawals, all waterborne vehicles/craft will remain within the surveyed portion of the beach. The using unit is required to provide ITG. Subsequent inland movement of vehicles may be accessed through the current tank trails.

7. At the termination of a training exercise, the beach sand will be restored to its original condition by the using unit. Tracked vehicles must rake the beach sand so track marks are smoothed over.

8. Disembarking troops must remain 500 ft. from any residential area. Personnel engaged in a training activity will remain within their designated TA(s). Movement of troops will be by prescribed routes.

9. CLZ Fort Hase has cultural and historical significance and needs to be well cared for. Absolutely no digging is permitted.

10. The native vegetation along the beach and dunes is a valuable erosion buffer and must be left undisturbed. No vehicles are allowed in the vegetation.

11. Under no circumstances is live-fire training permitted aboard MCB Hawaii at CLZ Fort Hase. The use of any type of "tear" or "riot control" gas is prohibited. Immediately notify MCB Hawaii Range Control at (808)257-3180 if any explosive ordnance item is discovered during an exercise.

12. Safety pyrotechnics include G950 red smoke, L306 red star and L307 white star, and signal marine distress. These items would not be used unless required due to an emergency.

13. The using unit commander will immediately report any damage to TA property or facility caused by personnel or vehicles to Range Control. Units will make best effort to repair all damage to the requested TA within three

business days. Coordination will be made with the O&T or IE&L Directorates to inspect the repairs.

14. Any accidental fuel spills or other HAZMAT-related incidents must be immediately reported to MCB Hawaii Range Control at (808)257-3180. Range Control will initiate HAZMAT response procedures and coordinate with the O&T Directorate and Environmental Department. Containment, cleanup and reporting of HAZMAT-related incidents will be performed IAW EPA, DOD and USMC procedures and directives.

15. Should a monk seal or sea turtle be discovered “beached”, all activity in the immediate vicinity (50 ft. away from the animal) must cease. The using unit will immediately contact MCB Hawaii Range Control at (808)257-3180. Disturbing, touching, or harassing an endangered species is a violation of federal law.

16. Requests to utilize CLZ Fort Hase must be submitted through RFMSS. The O&T Directorate will have final approval for the use of CLZ Fort Hase.

17. Prior to commencement of training, an OIC/RSO from the training unit will report to Range Control to sign for the TA. At this time the individual responsible for the TA will receive a map depicting the TA requested and an update on any pertinent information. The same individual will return the TA map to Range Control at the conclusion of training.

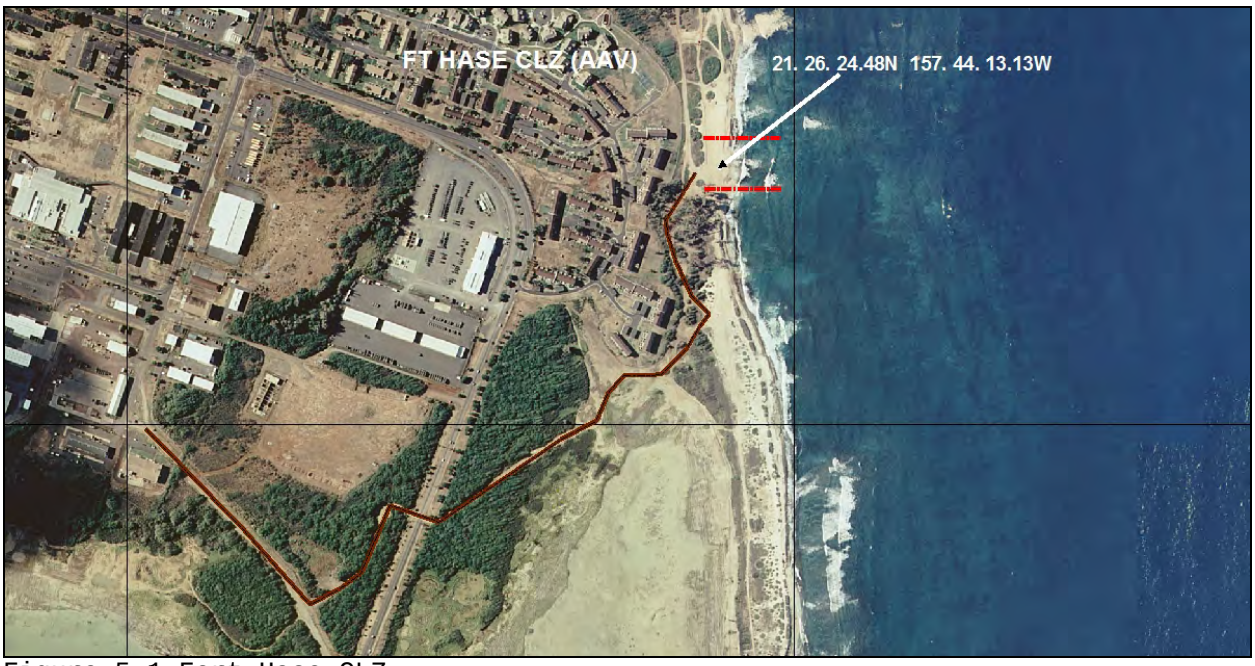


Figure 5-1 Fort Hase CLZ

5004. CRAFT LANDING ZONE HALE KOA

1. Hale Koa Beach is located aboard MCB Hawaii. The location of CLZ Hale Koa is detailed in Figure 5-2.

2. The beaches aboard MCB Hawaii provide an excellent opportunity for forces to conduct waterborne movements. Per the Hale Koa Beach Report conducted by Inspector-Instructor, 4th Force Reconnaissance Company dated 26 Feb, 1997,

Hale Koa Beach has been established as a CLZ. Hale Koa Beach provides the entrance to LZ Westfield and is a very suitable landing site for LCACs. The beach exit area is 60 yards wide and will create difficulties for a large landing force. From offshore, the right flank is easily distinguishable by the beginning of the tree line. The left flank is covered with large rocks that will create problems on beach exits. The surf does not pose any obstacles on this beach as the outlying reef diminishes most incoming wave action down to less than a 1 ft. average. Due to the shallow gradient of the near shore area this would be a very difficult beach to maneuver into with any type of waterborne platform that draws more than 1 to 2 ft. of water.

3. Waterborne units’ safety/ORM/weather/surf restrictions remain the training unit commander’s responsibility.

4. MCB Hawaii O&T will notify WFO of any scheduled waterborne training and request safety boat support. A Notification to Mariners will be submitted to the Commander 14th Coast Guard District.

5. MCAS operations will be notified of any scheduled training at CLZ Hale Koa Beach. MPD will also be notified and will need to be on-hand to keep beach visitors away from the training site.

6. During amphibious landings or withdrawals, all waterborne vehicles/craft will remain within the surveyed portion of the beach. The using unit is required to provide ITG.

7. At the termination of a training exercise, the beach sand will be restored to its original condition by the using unit. A FOD walk of the simulated ship deck at LZ Westfield will need to be conducted after the arrival and departure of LCACs.

8. Disembarking troops must remain 500 ft. from runways. Personnel engaged in a training activity will remain within their designated TA(s). Movement of troops will be by prescribed routes. Unit movement on foot may be conducted across the runway at Mokapu road, with prior approval from MCB Hawaii O&T and MCAS.

9. Due to a risk of striking underground utilities, absolutely no digging is permitted.

10. Under no circumstances is live-fire training permitted aboard MCB Hawaii at CLZ Hale Koa Beach. The use of any type of "tear" or "riot control" gas is prohibited. Immediately notify MCB Hawaii Range Control at (808)257-3180 if any explosive ordnance item is discovered during an exercise.

11. Safety pyrotechnics include G950 red smoke, L306 red star and L307 white star, and signal marine distress. These items would not be used unless required due to an emergency.

12. The using unit commander will immediately report any damage to TA property or facility caused by personnel or vehicles to Range Control. Units will make best effort to repair all damage to the requested TA within three business days. Coordination will be made with the O&T or IE&L Directorates to inspect the repairs.

13. Any accidental fuel spills or other HAZMAT-related incidents must be immediately reported to MCB Hawaii Range Control at (808)257-3180. Range

Control will initiate HAZMAT response procedures and coordinate with the O&T Directorate and Environmental Department. Containment, cleanup and reporting of HAZMAT-related incidents will be performed IAW EPA, DOD and USMC procedures and directives.

14. Should a monk seal or sea turtle be discovered “beached”, all activity in the immediate vicinity (50 ft. away from the animal) must cease. The using unit will immediately contact MCB Hawaii Range Control at (808)257-3180. Disturbing, touching, or harassing an endangered species is a violation of federal law.

15. Requests to utilize CLZ Hale Koa Beach must be submitted through RFMSS. The O&T Directorate will have final approval for use of CLZ Hale Koa Beach.

16. Prior to commencement of training, an OIC/RSO from the training unit will report to Range Control to sign for the TA. At this time the individual responsible for the TA will receive a map depicting the TA requested and an update on any pertinent information. The same individual will return the TA map to Range Control at the conclusion of training.

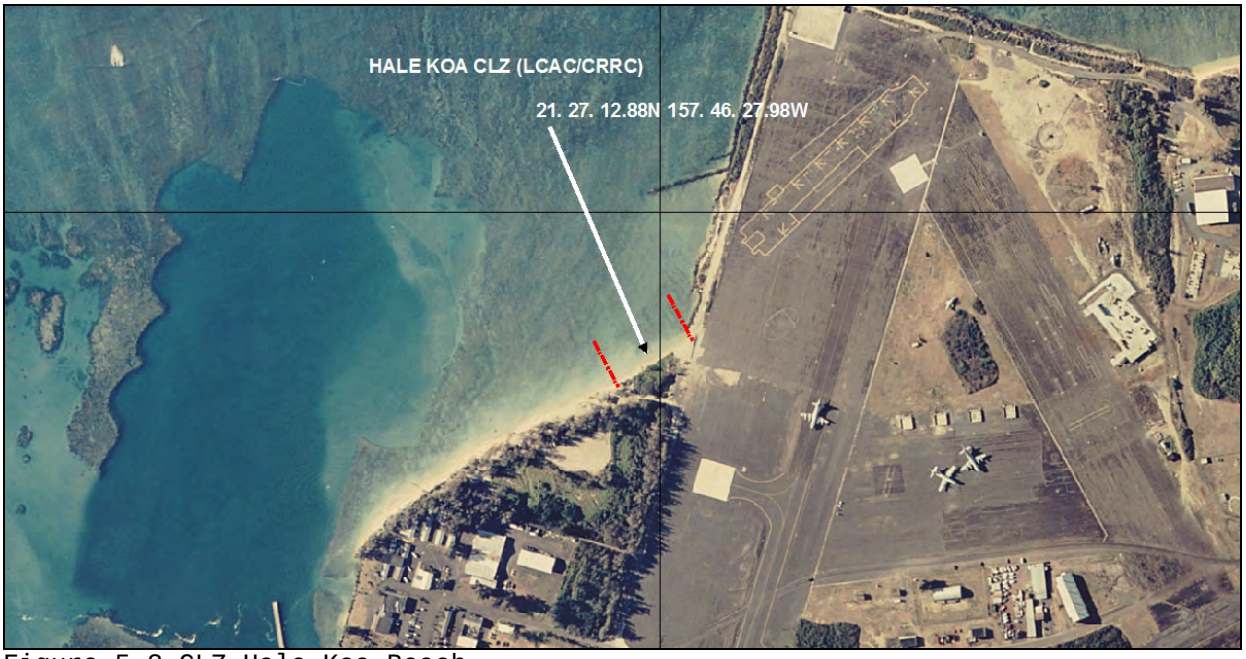


Figure 5-2 CLZ Hale Koa Beach

5005. CRAFT LANDING ZONE PYRAMID ROCK

1. Pyramid Rock Beach is located aboard MCB Hawaii and has been established as a CLZ. The location of CLZ Pyramid Rock is depicted in Figure 5-3.

2. The beaches aboard MCB Hawaii provide an excellent opportunity for forces to conduct waterborne movements. Pyramid Rock Beach is a suitable beach for landing AAVs. The landing beach at Pyramid Rock is limited in space and does not allow for a full AAV Platoon (12 AAVs) to land online at one time. Landing at Pyramid Rock Beach can be conducted in waves of one AAV section online at a time (three to four AAVs). In this manner, an entire Infantry Company can be landed in three to four waves. AAV(s) are restricted to the beach only and are required to stay out of vegetation.

3. AAV and infantry units’ safety/ORM/weather/surf restrictions remain the training unit commander’s responsibility.

4. MCB Hawaii O&T will notify WFO of any scheduled waterborne training and request safety boat support. A Notification to Mariners will be submitted to the Commander 14th Coast Guard District.

5. The Temporary Lodging Facility will be notified of any scheduled training at CLZ Pyramid Rock Beach so that beach cottage residents may be notified of the scheduled training. MPD will also be notified and will need to be on-hand to keep beach visitors away from the training site.

6. During amphibious landings or withdrawals, all waterborne vehicles/craft will remain within the surveyed portion of the beach. The using unit is required to provide ITG. Subsequent inland movement of vehicles may be accessed through the current lifeguard vehicle access.

7. At the termination of a training exercise, the beach sand will be restored to its original condition by the using unit. Tracked vehicles must rake the beach sand so track marks are smoothed over.

8. Disembarking troops must remain 500 ft. from any runway/taxiway. Personnel engaged in a training activity will remain within their designated TA(s) and movement of troops will be by prescribed routes.

9. CLZ Pyramid Rock has cultural and historical significance and needs to be well cared for. Absolutely no digging is permitted.

10. The native vegetation along the beach and dunes is a valuable erosion buffer and must be left undisturbed. No vehicles are allowed in the vegetation.

11. Under no circumstances is live-fire training permitted aboard MCB Hawaii at CLZ Pyramid Rock. The use of any type of "tear" or "riot control" gas is prohibited. Blank ammunition and pyrotechnics are limited to use in the Pyramid Rock TA. The following munitions are permitted in the Pyramid Rock TA:

a. A080 5.56 blank.

b. A075 5.56 blank link.

c. A111 7.62 blank link.

d. A598 .50 cal. blank link.

e. G930 smoke white.

f. G940 smoke green.

g. G945 smoke yellow.

h. LX21 SMAW simulators.

i. L592 Tow simulator.

j. L594 Arty simulator (flash bang).

k. L598 flash bang M177.

l. L599 illumination trip flare M118.

12. All other blank ammunition and pyrotechnic devices may be approved by the O&T Directorate, MCB Hawaii on a case-by-case basis. Units will list all proposed devices on the RFMSS request.

13. Use of smoke grenades is permitted in the pyramid rock TA. IOT preclude a fire, smoke grenades will be employed in an appropriate containment device (i.e., an empty ammunition can).

14. Do not leave any expended/unexpended blank or simulated ordnance. It is the responsibility of the using unit commander to ensure that all training materials are removed from the TAs after each exercise. Immediately notify the MCB Hawaii Range Control at (808)257-3180 if any explosive ordnance item is discovered during an exercise.

15. Safety pyrotechnics include G950 red smoke, L306 red star and L307 white star, and signal marine distress. These items would not be used unless required due to an emergency.

16. The using unit commander will immediately report any damage to TA property or facility caused by personnel or vehicles to Range Control. Units will make best effort to repair all damage to the requested TA within three business days. Coordination will be made with the O&T or IE&L Directorates to inspect the repairs.

17. Any accidental fuel spills or other HAZMAT-related incidents must be immediately reported to MCB Hawaii Range Control at (808)257-3180. Range Control will initiate HAZMAT response procedures and coordinate with the O&T Directorate and Environmental Department. Containment, cleanup and reporting of HAZMAT-related incidents will be performed IAW EPA, DOD and USMC procedures and directives.

18. Should a monk seal or sea turtle be discovered “beached”, all activity in the immediate vicinity (50 ft. away from the animal) must cease. The using unit will immediately contact MCB Hawaii Range Control at (808)257-3180. Disturbing, touching, or harassing an endangered species is a violation of federal law.

19. Requests to utilize CLZ Pyramid Rock must be submitted through RFMSS. CLZ Pyramid Rock cannot be scheduled for use from 1100-1800, Monday-Friday. Use of CLZ Pyramid Rock Beach during the weekend will be scheduled on a case-by-case basis. The O&T Directorate will have final approval for use of CLZ Pyramid Rock Beach.

20. Prior to commencement of training, an OIC/RSO from the training unit will report to Range Control to sign for the TA. At this time the individual responsible for the TA will receive a map depicting the TA requested and an update on any pertinent information. The same individual will return the TA map to Range Control at the conclusion of training.

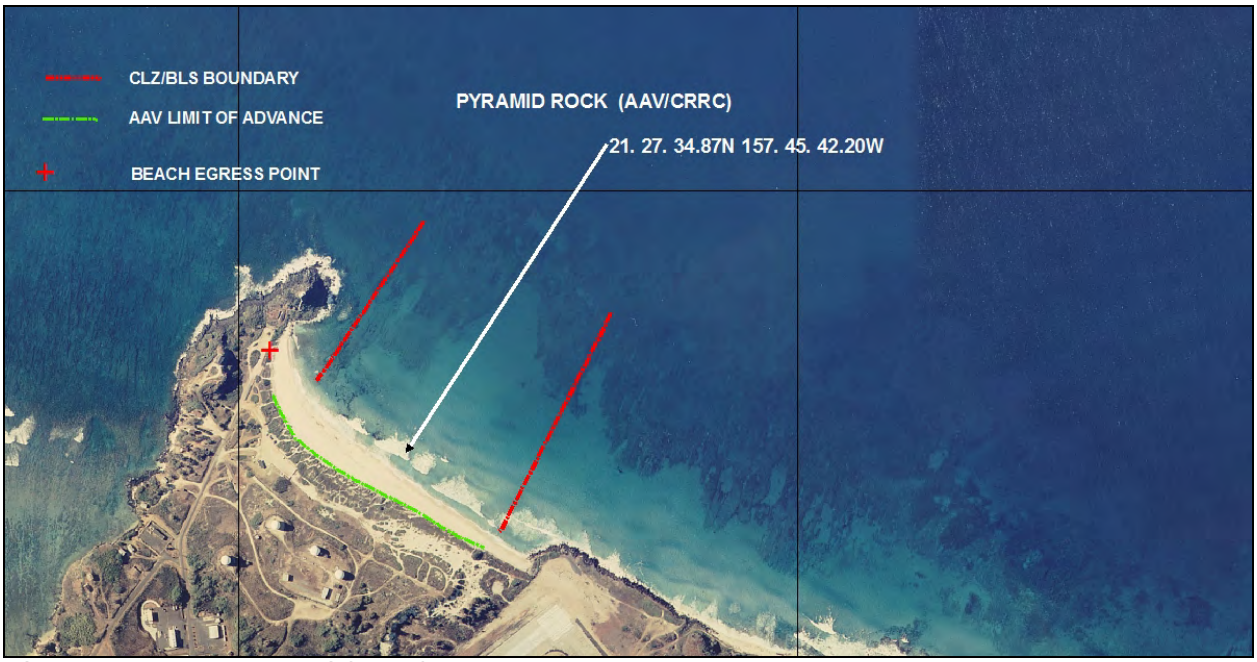


Figure 5-3 CLZ Pyramid Rock

5006. CRAFT LANDING ZONE PACIFIC WAR MEMORIAL

1. The Pacific War Memorial (PWM) is located aboard MCB Hawaii and its adjacent beach has been established as a CLZ. The location of CLZ PWM is detailed in Figure 5-4.

2. The beaches aboard MCB Hawaii provide an excellent opportunity for forces to conduct waterborne movements. The PWM is a suitable beach for landing AAVs. The landing beach at PWM is limited in space and does not allow for a full AAV Platoon (12 AAVs) to land online at one time. Landing at PWM must be conducted one AAV at a time. AAV(s) are restricted to tank trails while maneuvering from PWM and are required to stay out of vegetation.

3. AAV and infantry unit safety/ORM/weather/surf restrictions remain the training unit commander’s responsibility.

4. MCB Hawaii O&T will notify WFO of any scheduled waterborne training and request safety boat support. A Notification to Mariners will be submitted to the Commander 14th Coast Guard District.

5. MPD will be notified and will need to be on-hand to keep beach ceremonial site visitors away from the training site.

6. During amphibious landings or withdrawals, all waterborne vehicles/craft will remain within the surveyed portion of the beach. The using unit is required to provide ITG. Subsequent inland movement of vehicles may be accessed through the current tank trails.

7. At the termination of a training exercise, the beach sand will be restored to its original condition by the using unit. Tracked vehicles must rake the beach sand so track marks are smoothed over.

8. Disembarking troops must remain away from any ceremonies or the displays. Personnel engaged in a training activity will remain within their designated TA(s). Movement of troops will be by prescribed routes.

9. CLZ PWM has cultural and historical significance and needs to be well cared for. Absolutely no digging is permitted.

10. The native vegetation along the beach and dunes is a valuable erosion buffer and must be left undisturbed. No vehicles are allowed in the vegetation.

11. Under no circumstances is live-fire training permitted aboard MCB Hawaii CLZ PWM. The use of any type of "tear" or "riot control" gas is prohibited. Immediately notify MCB Hawaii Range Control at (808)257-3180 if any explosive ordnance item is discovered during an exercise.

12. Safety pyrotechnics include G950 red smoke, L306 red star and L307 white star, and signal marine distress. These items would not be used unless required due to an emergency.

13. The using unit commander will immediately report any damage to TA property or facility caused by personnel or vehicles to Range Control. Units will make best effort to repair all damage to the requested TA within three business days. Coordination will be made with O&T or IE&L Directorates to inspect the repairs.

14. Any accidental fuel spills or other HAZMAT-related incidents must be immediately reported to MCB Hawaii Range Control at (808)257-3180. Range Control will initiate HAZMAT response procedures and coordinate with the O&T Directorate and Environmental Department. Containment, cleanup and reporting of HAZMAT-related incidents will be performed IAW EPA, DOD and USMC procedures and directives.

15. Should a monk seal or sea turtle be discovered “beached”, all activity in the immediate vicinity (50 ft. away from the animal) must cease. The using unit will immediately contact MCB Hawaii Range Control at (808)257-3180. Disturbing, touching, or harassing an endangered species is a violation of federal law.

16. Requests to utilize CLZ PWM must be submitted through RFMSS. The O&T Directorate will have final approval for use of CLZ PWM.

17. Prior to commencement of training, an OIC/RSO from the training unit will report to Range Control to sign for the TA. At this time the individual responsible for the TA will receive a map depicting the TA requested and an update on any pertinent information. The same individual will return the TA map to Range Control at the conclusion of training.

Figure 5-4 CLZ PWM

5007. CRAFT LANDING ZONE MCTAB

1. CLZ MCTAB is located aboard MCTAB and has been established as a CLZ. The location of CLZ MCTAB is detailed in Figure 5-5.

2. The beaches aboard MCTAB provide an excellent opportunity for forces to conduct waterborne movements. MCTAB provides a very suitable beach for landing AAVs, LCAC, CRRC or surface swimmers. The area is fronting north to northeast. There are generally offshore winds that make surface conditions choppy at times, but with the minimal average shore break of 4 ft. this should have no effect on any type of landings. There are no known obstacles located in the water area surveyed. On the right flank of the beach on the

shore there is a rock wall jetty extending 65 ft. out into the water. A stream runoff is also located at this jetty. All hinterland area is suitable for the staging of landing craft however scattered trees will need to be negotiated for maneuver into the hinterland TAs. There is one area approximately 100 to 150 yards to the right of center beach where LCACs can maneuver up into the hinterland and shutdown. The landing beach at MCTAB can accommodate a full AAV Platoon (12 AAVs) to land online at one time. Landing at CLZ MCTAB and maneuvering into TA 2 may be accomplished by crossing Tinker Road at designated areas.

3. Landing of amphibious vehicles on the beach are authorized within TA 1 and subsequent inland movement of vehicles and troops by prescribed routes to TA 2. Infantry units' safety/ORM/weather/surf restrictions remain the training unit commander's responsibility.

4. MCB Hawaii O&T will notify WFO of any scheduled waterborne training and request safety boat support. A Notification to Mariners will be submitted to the Commander 14th Coast Guard District.

5. During amphibious landings or withdrawals, all waterborne vehicles/craft will remain within the surveyed portion of the beach. The using unit is required to provide ITG.

6. At the termination of a training exercise, the beach sand will be restored to its original condition by the using unit. Tracked vehicles must rake the beach sand so track marks are smoothed over.

7. Under no circumstances is live-fire training permitted aboard MCTAB. TA 1 is a non-firing area.

8. Use of any type of "tear" or "riot control" gas is prohibited.

9. Safety pyrotechnics include G950 red smoke, L306 red star and L307 white star, and signal marine distress. These items would not be used unless required due to an emergency.

10. Do not leave any expended/unexpended blank or simulated ordnance. It is the responsibility of the using unit commander to ensure that all training materials are removed from the TAs after each exercise. Immediately notify MCB Hawaii Range Control at (808)257-3180, if any explosive ordnance item is discovered during an exercise.

11. TA 1 is closed from 1200 Friday to 0800 Monday, IOT allow public access and use of the beach. This closure is also effective on designated State and Federal holidays. Training on weekends may be approved on a case-by-case basis. A request for training on weekends must be submitted 45 days in advance to allow for public notification.

12. MCTAB contains numerous environmentally sensitive areas. The USMC is legally responsible for ensuring that cultural and natural resources are protected and preserved.

13. Training activities that fall outside the scope of the "Final Environmental Impact Statement, Land Use and Development Plan for Bellows Air Force Station" of December 1995 are not permitted at MCTAB.

14. Digging and other disturbances of ground surface and/or subsurface are limited to 6 in. Cutting of any trees or tree limbs is prohibited.

15. Waimanalo Stream is designated as a Fish and Wildlife Conservation Area and is an established wildlife sanctuary. No training is allowed within or adjacent to Waimanalo Stream IOT safeguard human health and prevent interference with environmental restoration initiatives.

16. Use of detergents or chemicals is not allowed. Cleaning or maintenance of motor vehicles or machinery is prohibited in all TAs.

17. Any accidental fuel spills or other HAZMAT-related incidents must be immediately reported to MCB Hawaii Range Control at (808)257-3180. Range Control will initiate HAZMAT response procedures and coordinate with the O&T Directorate and Environmental Department. Containment, cleanup and reporting of HAZMAT-related incidents will be performed IAW EPA, DOD and USMC procedures and directives.

18. Should a monk seal or sea turtle be discovered “beached”, all activity in the immediate vicinity (50 ft. away from the animal) must cease. The using unit will immediately contact MCB Hawaii Range Control at (808)257-3180. Disturbing, touching, or harassing an endangered species is a violation of federal law.

19. Requests to utilize CLZ MCTAB must be submitted through RFMSS. The O&T Directorate will have final approval for use of CLZ MCTAB.

20. Prior to commencement of training, an OIC/RSO from the training unit will report to Range Control to sign for the TA. At this time the individual responsible for the TA will receive a map depicting the TA requested and an update on any pertinent information. The same individual will return the TA map to Range Control at the conclusion of training.

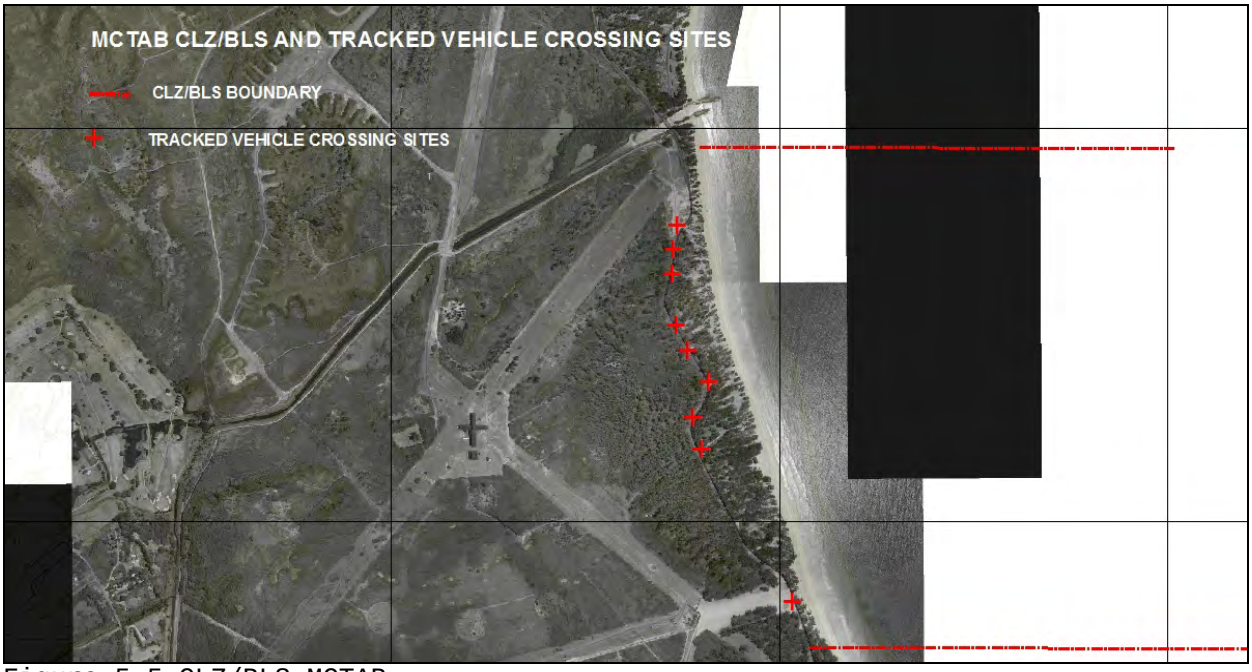


Figure 5-5 CLZ/BLS MCTAB

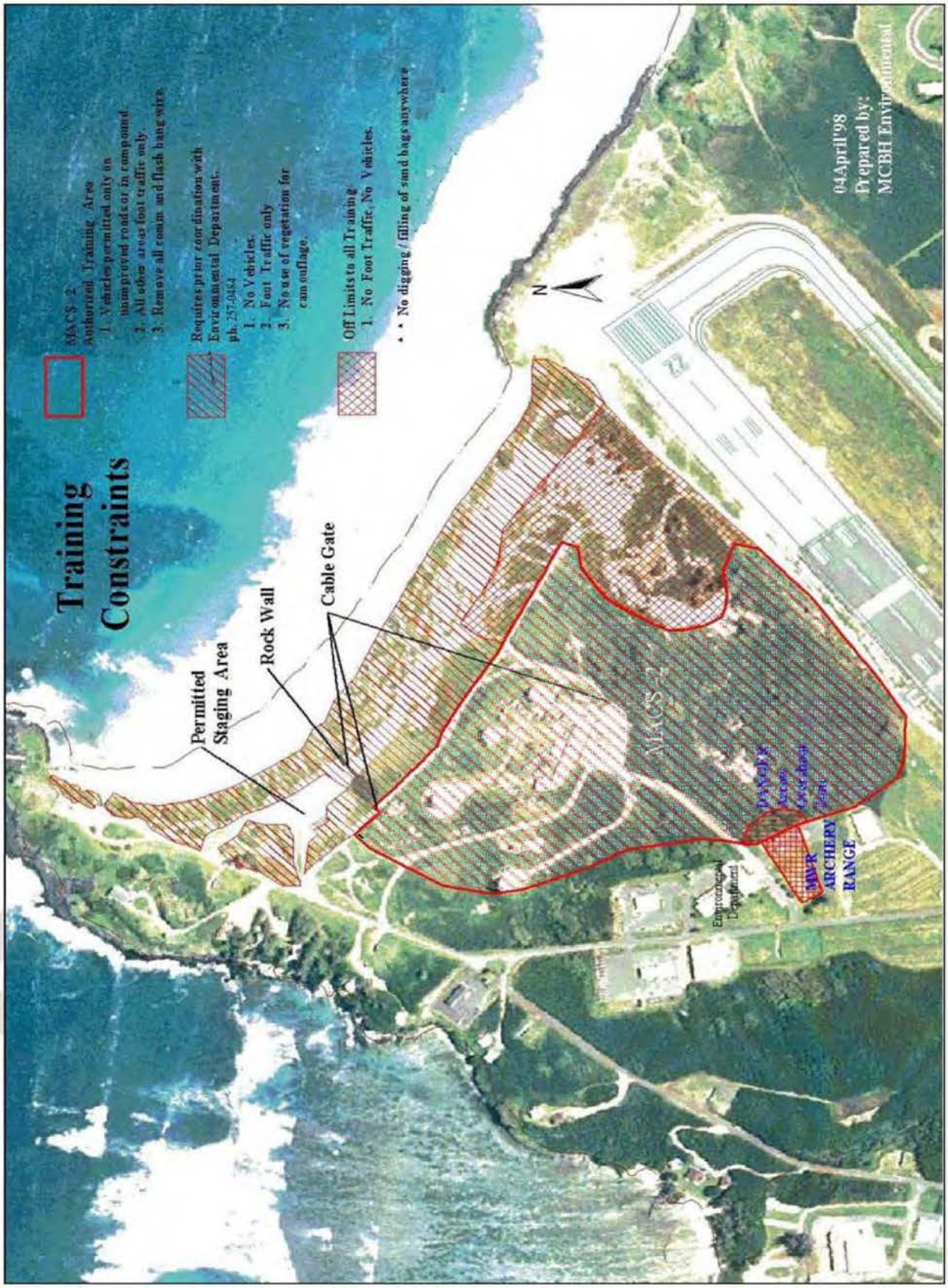


Figure 5-6 MACS-2 Training Constraints

5008. BEACH LANDING SITE PU'ULOA RTF

1. The beach located at the Pu'uloa RTF provides an excellent opportunity for units to conduct amphibious training. BLS Pu'uloa is best suited for CRRC or surface swimmers. There are no known obstacles located in the water area surveyed. The right flank of the beach boundary is adjacent with Ewa Beach Park. The left flank of the beach is adjacent to The Waterfront at Pu'uloa residents' beach. The location of BLS Pu'uloa is detailed in Figure 5-7.

2. Prior to commencement of training, an OIC/RSO from the training unit will report to Pu'uloa Range RTF Range Control office, to sign for the training area. At this time, the individual responsible for the training area will receive a map depicting the training area requested and any pertinent information required to conduct training. The same individual will return the training area map to Pu'uloa Range Control Office at the conclusion of training.

3. MCB Hawaii O&T will notify Pu'uloa RTF of any scheduled amphibious training. A Notification to Mariners will be submitted to the Commander 14th Coast Guard District. During amphibious training (or withdrawals), all waterborne craft will remain within the surveyed portion of the beach. The using unit is required to provide Initial Terminal Guidance.

4. At the termination of a training exercise, the beach sand will be recovered to its original condition by the using unit.

5. Under no circumstances is live-fire training permitted within the BLS. Firing of blank ammunition and pyrotechnics is not permitted while training in the BLS.

6. Artillery simulators/smoke grenades are prohibited within the BLS.

7. Use of any type of "tear" or "riot control" is prohibited.

8. Safety pyrotechnics include G950 red smoke, L306 red star and L307 white star signal marine distress. These items would not be used unless required due to an emergency. (Pu'uloa RTF Range Control staff will advise).

9. Digging and other disturbances of ground surface and/or subsurface are prohibited. Cutting of any trees or tree limbs is prohibited.

10. Use of detergents or chemicals is not allowed. Cleaning or maintenance of motor vehicles or machinery is prohibited.

11. Any accidental fuel spills or other HAZMAT-related incidents, must be immediately reported to Pu'uloa RTF, at 474-8058/8061. Pu'uloa RTF staff will initiate HAZMAT response procedures and coordinate with Directorate, O&T and the Environmental Department. Containment, clean up and reporting of HAZMAT-related incidents will be performed in accordance with EPA, DOD and USMC procedures and directives.

12. Should a monk seal or sea turtle be discovered "beached" within the BLS, all activity in the immediate vicinity must cease. The present unit will immediately contact Pu'uloa RTF staff at (808) 474-8058/8061. Disturbing, touching or harassing an endangered species is a violation of Federal Law.

13. Requests to utilize BLS Pu'uloa RTF must be submitted through RFMSS. O&T Directorate will have final approval for use of BLS Pu'uloa.

Figure 5-7 BLS PU'ULOA

5009. LANDING CRAFT AIR-CUSHIONED OPERATIONS

1. LCACs are restricted in their ability to maneuver when departing from, and returning to, the LCAC LZs. Due to the LCACs high speed of advance, a clear LCAC transit lane extends out seaward leading toward the LCAC LZs.

2. For safety purposes, it is imperative that no vehicles, watercraft (other than WFO support), or pedestrians, move to within 350 meters of moving LCACs, other than those personnel participating in the training exercise.

3. The following LCAC LZs are available for use:

a. CLZ Hale Koa Beach.

b. CLZ MCTAB.

5010. WATERFRONT OPERATIONS

1. Mission. WFO's mission is to provide MCB Hawaii with waterborne search and rescue assets. WFO's Command and Control Center is manned 24 hours per day, seven days per week and is on-call for secondary support to United States Coast Guard (USCG) Honolulu Sector's search and rescue efforts. WFO can be reached on Very High Frequency (VHF) channels 16 and 82A to assist local mariners requesting assistance or experiencing problems in the Kaneohe

Bay area. They serve as the Installation's Emergency Response Team in the event of an oil/hazardous fluid spill or other environmental hazard in Kaneohe Bay And provide assistance to the military police division by enforcing security regulations in prohibited and restricted waters.

2. Tasks

a. Respond to the ready rescue boat within two minutes of an alarm, for Waterborne SAR for any military aircraft, as directed by MCAS tower.

b. Provide assistance for USCG's Civil SAR efforts as the waterborne platform on the windward side of Oahu as delineated in the Memorandum of Agreement. In addition, when requested from USCG Sector Honolulu, monitor VHF radio channel 16 for the windward side of Oahu.

c. Provide assistance to lifeguards at MCB Hawaii Kaneohe Bay, Bellows Air Force Station, Kailua Beach Park, Mokapu Beach Park, Waimanalo Bay Beach Park and others, as directed.

d. Provide an initial oil spill response team for any military oil spill in the Kaneohe Bay area within fifteen minutes. Provide assistance for USCG Marine Safety Office civil oil spill response to protect areas identified in the Oil Pollution Act of 1990 Facility Response Plan.

e. Assist in the enforcement of water safety requirements for the controlled firing area. Conduct regular liaison with the Range Control Officer to determine scheduling and limits of SDZs.

f. Assist the MPD with the waterfront security and enforcement of recreational activity regulations in the MCB Hawaii Kaneohe Bay control area.

5011. MARINE CORPS BASE HAWAII PIER

1. Requests. All requests for use of the pier shall be routed via the O&T Directorate, RTAM RFMSS Scheduler as described in Chapter 3, paragraph 3002 of this Order.

2. Dimensions. The pier is 485 ft. long, 40 ft. six in. wide with an average draft of 28 ft.

3. Requirements. All vehicles will be boomed off by WFO prior to any fueling or de-fueling evolutions.

4. Capabilities

a. Fuel types

(1) Hook-up types: Six in. riser on six in. carbon steel pipe.

(2) Output time: 2,500 barrels per hour (one barrel = 42 gallons).

b. Water Hook-ups

(1) Water hook-up types: Garden hose and one & one-half in. fire hose.

(2) Required attachments: Back flow regulator.

(3) Output time: 80 pounds per square inch.

5012 PIER STAGING AREA

1. MCB Hawaii Pier staging area is a limited-use loading/unloading/cargo staging area located between the MCB Hawaii Marina and the MCAS. Dates that vessels will be moored pier side and vehicles/cargo staged must be scheduled via the RFMSS by the using unit. The area is normally scheduled by the using unit's embarkation office or S-4 although any unit with RFMSS access can schedule. The support vessel is not responsible for scheduling the pier.

2. Twenty-four hours prior to commencement of operations, an OIC/RSO from the using unit will report to Range Control to sign for the TA. At this time the individual responsible for the TA will receive a map depicting the loading/unloading zone, information regarding the loading/unloading zone and a clearance checklist. These items will be returned to Range Control at the conclusion of operations.

3. OICs will have a copy of the RFMSS approval and a signed copy of the ORM worksheet on-hand while loading/off-loading operations are being conducted.

4. OICs will ensure that the staging operations will not interfere with Marina traffic or encroach into Marina parking areas as indicated in Figures 5-8 and 5-9.

5. Vessels entering Kaneohe Bay will contact O&T WFO on VHF 82A when passing either channel head buoy, and notify WFO that they are inbound/outbound.

6. Vessels having a mast higher than 72 ft. will notify the Installation RCO.

7. Safety procedures applicable to loading/offloading and speed limits will be strictly enforced.

8. The staging area will be cordoned off with engineer tape and road cones 24 hours prior to vehicles or cargo can be staged.

9. If POVs are in the way of loading/offloading operations contact Range Control at (808)257-3180.

10. Grid Coordinates of staging area

a. 04QFJ 2813971384.

b. 04QFJ 2805571226.

c. 04QFJ 2806571216.

d. 04QFJ 2803971195.

e. 04QFJ 2805571181.

f. 04QFJ 2812671272.

g. 04QFJ 2810271282.

h. 04QFJ 2815171380.

Figure 5-8 MCB Hawaii Pier Staging Area

Figure 5-9 MCB Hawaii Marina Parking

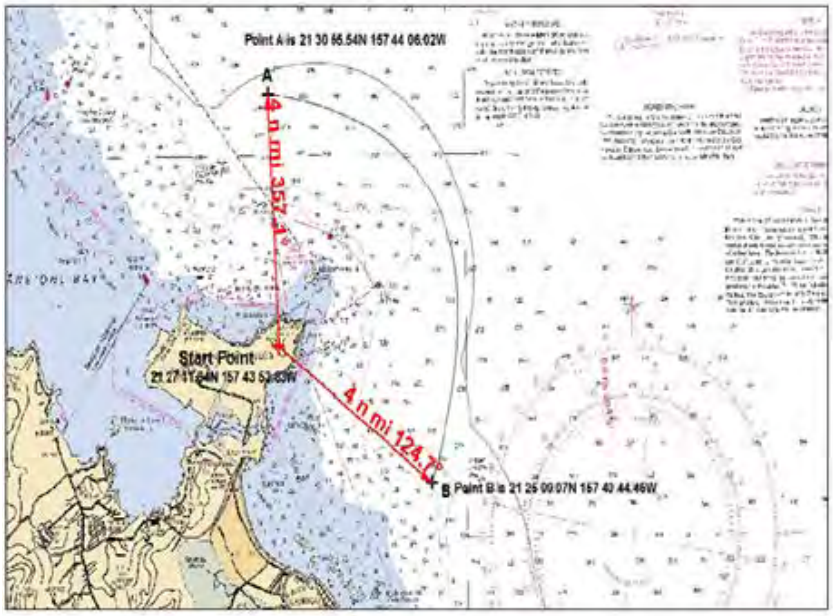
5013 WATER WAY BULLETIN/LOCAL NOTICE TO MARINERS

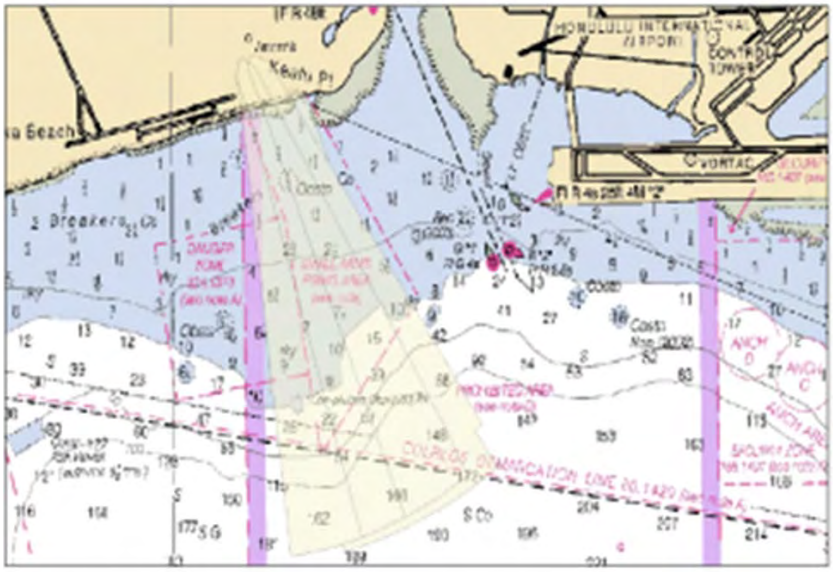
1. A Local Notice to Mariners (LNM) will be released every Monday by the MCB Hawaii, O&T Directorate, RTAM office.

2. It covers a seven-day timeframe from Wednesday to Tuesday. It is the range schedule that the USCG refers to when publishing the LNMs. LNMs can be obtained by downloading them from the USCG District 14 Web site at http://www.navcen.uscg.gov/?pageName=lnmDistrict&region=14.

3. The following is a sample of the MCB Hawaii "Water Way Bulletin". This bulletin is provided to the USCG every Monday.

Restricted Hours				
Moku Manu			Ewa Beach	
Week of 29 Jun – 5 Jul 2011			Week of 29 Jun – 5 Jul 2011	
Day	Zone I Time*	Zone II Time**	Day	Time
Wednesday	N/A	0830-1800	Wednesday	0800-1700
Thursday	N/A	N/A	Thursday	0800-1700
Friday	N/A	0700-2300	Friday	N/A
Saturday	N/A	N/A	Saturday	N/A
Sunday	N/A	N/A	Sunday	N/A
Monday	N/A	N/A	Monday	N/A
Tuesday	N/A	N/A	Tuesday	N/A





* Zone I will encompass R-1, 5, 7, 8, 9, and 10.
** Zone II will encompass R-6, and 8A (if firing to the east)

5014. BELLOWS DROP ZONE SURVEY. Figure 5-10 depicts a blank MCTAB DZ Survey.

AIRBORNE UNIT ASSUMES RESPONSIBILITY FOR PERSONNEL INJURY AND EQUIPMENT DAMAGE ON DZ

DROP ZONE SURVEY	1A. DZ NAME	1B. ZAR INDEX NO.	2A. COUNTRY	2B. STATE
	3. MAP SERIES/SHEET NUMBER/ EDITION/ DATE OF MAP			

4. SURVEY APPROVAL/DISAPPROVAL DATA

4A1. DATE SURVEYED	4A2. TYPED NAME AND GRADE OF SURVEYOR	4A3. PHONE NUMBER (DSN)	4A4. UNIT

4B. DROP ZONE APPROVAL/DISAPPROVAL A = APPROVED D = DISAPPROVED	FOR	CDS/CRL/CRS	PER	HE	MFF	SATB	CRRC	HSLLADS	HVCDS
	DAY								
	NIGHT								

4C. DATE APPROVED FOR	NAME, GRADE AND SERVICE OF APPROVAL AUTHORITY	PHONE NUMBER (DSN)	SIGNATURE
	UNIT AND LOCATION		
4D. DATE SAFETY OF FLIGHT REVIEW APPROVED	NAME AND GRADE OF REVIEWING OFFICER	PHONE NUMBER (DSN)	SIGNATURE
	UNIT AND LOCATION		
4E. DATE OF MAJCOM APPROVAL	NAME AND GRADE OF APPROVING AUTHORITY	PHONE NUMBER (DSN)	SIGNATURE
	UNIT AND LOCATION		

5. COORDINATING ACTIVITIES

A. DZ CONTROLLING AGENCY OR UNIT	B. MEMORANDUM OF UNDERSTANDING/LAND USE YES ☐ NO ☐ ATTACHED ☐	C. PHONE NUMBER (DSN)
D. RANGE CONTROL		E. PHONE NUMBER (DSN)

6. DZ DIMENSIONS (YDS/MTRS) (FOR CIRCULAR DZ, ENTER RADIUS ONLY)

A. LENGTH	B. WIDTH	C. RADIUS

POINT OF IMPACT DISTANCES FROM DZ LEADING EDGE	D. CDS PI	E. PE PI	F. HE PI

7. DZ AXIS DATA (OPTIONAL FOR CIRCULAR DZ)

A. MAGNETIC	B. GRID (MGRS)	C. TRUE	D. SOURCE/DATE OF VARIATION DATA

8. GROUND POINT ELEVATION	A. CDS PI	B. HE PI	C. PE PI	D. HIGHEST

9. DZ COORDINATES

A. SPHEROID	B. DATUM	C. GRID ZONE	D. EASTING	E. NORTHING

F. GPS DERIVED COORDINATES YES ☐ NO ☐	G. POINT OF ORIGIN

H. POINT	MGRS COORDINATES	WGS84 LATITUDE (D-M.MM)	WGS84 LONGITUDE (D-M.MM)
DZ CENTERPOIN			
CDS PI			
PE PI			
HE PI			

I. DZ CORNERS MGRS COORDINATES

LEFT LEADING EDGE	RIGHT LEADING EDGE
LEFT TRAILING EDGE	RIGHT TRAILING EDGE

AF IMT 3823, 20021001, V2 PREVIOUS EDITIONS ARE OBSOLETE.

Figure 5-10 DZ MCTAB Survey

SOP FOR RANGES AND TRAINING AREAS

CHAPTER 6

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CHAPTER 6

TRAINING AREAS AND RANGE OPERATIONS

6000. OPERATIONS

1. Establishment. TAs have been established by the CO, MCB Hawaii. This does not prohibit the identification of additional TAs as long as all safety precautions and environmental regulations are adhered to. Recommendations to improve training and range facilities should be submitted to the O&T Directorate.

2. Maintenance. The RTAM range maintenance contractors, along with the IE&L facilities maintenance division accomplish the maintenance of the TAs and facilities. Units are encouraged to report damage or maintenance problems to the Range Management office so corrective action can be taken. All units or organizations that use MCB Hawaii RTAs or facilities are required to conduct a police call of the RTA or facility at the completion of the event. Units that fail to do so will lose their RTA or facility use privileges.

3. Range Control Inspectors. Range Control Inspectors are authorized access to all training facilities for the purpose of inspection, operation, or maintenance at any time. Unit training will not be disrupted by these personnel except when necessary to perform their duties. Units conducting training will not interfere with these personnel in the performance of their duties, even if the range or facility is in use.

6001. ROAD CLOSURE PROCEDURES

1. All requests for closure of roads will be submitted to the O&T Directorate NLT five business days prior to the scheduled event via a Letter of Instruction depicting their event/ceremony (i.e., retirement ceremony, change of command, etc.).

2. The requesting unit is responsible for the posting of road guards and ultimately responsible for barricades, if needed. This shall be done with guidance from the MPD.

3. The MPD is the only unit/department authorized to close roads aboard MCB Hawaii.

6002. CONTROL FEATURES. Signs and markers are provided on all TAs to indicate lateral limits and other information. Signs and markers are described below:

1. Surveyed Monuments. A white concrete monument placed near the center of GPs, declination stations and/or survey points.

2. Hearing Loss Signs. A sign warning users that hearing protective devices are required.

3. Off-Limits Signs. A sign warning that the area is off-limits by order of the CO unless scheduled through the O&T Directorate, RTA Scheduler, MCB Hawaii.

4. Additional Signs. Self-explanatory in nature, signs announcing specific instructions or precautionary measures are posted at certain TAs, as deemed necessary by the O&T Directorate.

5. Barricades and Guards. Either barricades or guards shall cover normal approaches to danger areas created by unit training events. Barricades combined with appropriate warning signs are adequate and guards are not required except in special cases as noted in this Order. Barricades, when required, will be provided by the Range Control, IE&L, or MPD for all roads and trails leading into the restricted area. There are four types of barricades:

a. Portable barricades consisting of a sawhorse-like structure at least 2 ft. high, placed directly across the road.

b. Permanent barricades, consisting of heavy posts, embedded on both sides of the road or trail with a chain, or cables stretched between the posts, the lowest point to be at least 2 ft. above the ground, with the signs attached to the center of the chain. Such chains or cables shall be locked in place.

c. Portable water-filled barricades placed across the road or trail to restrict access.

d. Cones with fluorescent tape strips placed across the road or trail to restrict access.

6003. CHECK-OUT/CHECK-IN PROCEDURES

1. Once the requesting unit has received approval for their request, it is the responsibility of the unit to ensure they are in compliance with their authorized times, dates and requested activity (i.e. weapons systems, ammunition, scenario). Should there be a requirement to modify or cancel their reservation, the unit shall notify the MCB Hawaii Range Scheduler at the earliest opportunity. Failure to cancel RTAs or facilities IAW this Order will result in RTAM sending the CO of that unit a "no show" report. Failure to take corrective action may adversely affect that unit's scheduling privileges.

2. OICs or RSOs using Kaneohe Bay RTF or Pu’uloa RTF go directly to the range facility. For MCTAB or the BTA, the OIC or RSO must pick up the TA keys and sign for the information package at Kaneohe Bay Range Control, prior to occupying the site. Either the OIC/RSO shall return the keys/equipment upon completion of training, unless an illness, injury or emergency precludes the individual from doing so.

6004. BIVOUACKING

1. Bivouacking is not allowed on observation posts, towers, impact areas or inside the urban structures located at MCTAB or the BTA.

2. Bivouacking is allowed onsite when planned in conjunction with unit training aboard the same TA. Units desiring to bivouac are subject to the following conditions:

a. Units may arrive the night before training. The RSO must check out the TA prior to occupation by the bivouacking unit.

b. Bivouacking shall comply with the provisions of Chapter 2 of this Order.

c. Units must provide a 24-hour guard at the bivouac site.

d. The bivouacking unit shall maintain communications with Range Control with the radio provided or cell phone. In the event of an emergency contact Range Control at (808)257-2123.

6005. MEDICAL SUPPORT REQUIREMENTS

1. Medical support personnel (Hospital Corpsman/Medic or EMT) with first aid equipment will be present at all training events, and shall not be assigned any additional duties.

2. A vehicle designed as a safety vehicle must be present in the TA. At a minimum, the presence of at least one medical support person and one safety vehicle is required. Medical support personnel can be centrally positioned to support more than one range or training event. Waivers to the medical support policy must be submitted to the O&T Directorate two weeks in advance.

3. Medical support personnel and safety vehicle during use of High Mobility Multipurpose Wheeled Vehicle (HMMWV) Egress Assistance Trainer (HEAT) and Mine Resistant Ambush Protected (MRAP) Egress Trainer (MET) training events are not mandatory requirements. The decision is left to unit commander based upon their ORM training assessment.

6006. CONDUCT OF TRAINING

1. In those TAs which contain ranges, or those that are adjacent to impact areas, ensure that personnel do not enter the range or impact area. Assignment to a TA does not include any range, LZ, operation, airspace, or other training facility located within the TA unless specifically requested and approved.

2. Training must be conducted and supervised to avoid damage to facilities and utilities located within the TAs.

3. Training must be conducted without unnecessary damage to, or destruction of, natural resources, and must be in compliance with the provisions of Chapter 2 of this Order.

4. Temporary roadblocks, fortifications, etc., constructed during training exercises, will be removed immediately upon completion of the exercise.

5. Roadblocks will be manned at all times and non-exercise traffic will not be permitted to pass until it is safe to allow traffic to continue.

6. Units utilizing LZ Eagle or GPs must stay clear of housing and civilian work-sites at all times.

7. Fighting holes are not permitted anywhere except at MCTAB in the BOTA. Anyone who inadvertently uncovers human remains or culturally sensitive items must cease the activity that uncovered the items, mark the area and notify Range Control immediately.

8. Trash will not be burned or buried at any training site. Policing of the TA is the responsibility of the using unit.

9. If approved by RTAM, co-use of all RTAs and facilities is highly encouraged. TAs are not generally scheduled for exclusive use unless co-use has been specifically denied by the O&T Directorate.

10. All communication wire laid by using units in any TA must be retrieved prior to departing the training site.

11. Because there is no digging, cat holes or slit trenches are not authorized for use on any MCB Hawaii RTA. There are portable toilets at the ranges and in the TAs to handle human waste; however, the number is limited. The MCB Hawaii portable toilets are scheduled for maintenance twice a week.

12. Units are encouraged to conduct a recon of the TA prior to the event. If the training event is going to "over load" the MCB Hawaii portable toilets, units must contract for additional portable toilet support. Units are responsible for funding the additional portable toilet support. Units must coordinate the portable toilet contractor’s access (delivery) with MCB Hawaii, O&T Directorate.

6007. RANGE TRAINING FACILITIES. The Kaneohe Bay RTF is located in the Ulupa’u Crater. It is a multipurpose range capable of supporting a variety of live-fire training exercises. The Pu’uloa RTF is located near Ewa Beach. It is a known distance rifle and pistol range complex More information regarding specific range regulations are covered in Appendix R.

6008. PERMITTED FIRING TIMES

1. Kaneohe Bay RTF. Firing is authorized from 0600-2300.

2. Pu’uloa RTF. Firing is authorized from 0700-1700.

6009. BEACHES. The beaches aboard MCB Hawaii provide an excellent opportunity for forces to conduct waterborne movements and amphibious training. LCACs have been authorized to conduct operations at MCTAB and West Field (Hale Koa beach). LCUs are authorized to land at MCTAB and the pier at MCB Hawaii. Chapter 5 of this order contains more detailed information.

6010. BASE SWIMMING POOL

1. The Base Pool can accommodate Marine Combat Instructor, Water Survival Training and Navy Swim Qualification. Refer to Chapter 3 of this Order for scheduling.

2. All military units can request and reserve the pool for all swim qualification and remedial physical training programs. Units must coordinate with Range Control for access to the Base Pool. Training units must provide trained / certified water safety personnel, medical support and safety vehicle unless MCCS aquatics is providing life guards.

3. The pool is available to the using unit from 0500-1100 Tuesday–Friday. The pool is closed Mondays.

4. Marine Corps Community Services (MCCS) has priority for the pool starting at 1100 Tuesday–Friday and all day on weekends and holidays.

6011. COMBAT CAMERA. Combat Camera (COMCAM) has equipment available for training. Formerly known as the Combat Visual Information Center, COMCAM can provide a wide variety of training aides such as training films, slides and flip charts. COMCAM also has a "self-serve" copy capability. Contact COMCAM at (808)257-1365 for further information.

6012. BOONDOCKER TRAINING AREA

1. This area consists of an obstacle course, a rappel/fast-rope tower, Leadership Reaction Course (LRC), tactical Helicopter LZ, simunitions shoot house, an Improvised Explosive Device (IED) lane TA, engineer digging area, a gas chamber, GP Boondocker, an Operator Driving Simulator (ODS), Supporting Arms Virtual Trainer (SAVT), HEAT, MET, Combat Convoy Simulator (CCS), Classroom 8, Classroom 9, Mobile Counter-IED Interactive Trainer (MCIT), Urban Operations facilities, and Marine Corps Martial Arts Program (MCMAP) facilities. The LZ can be used for troop inserts, extracts, SPIE, rappelling, and fast-rope training. It is the responsibility of each using unit commander to ensure that training is conducted IAW MCOs, controlling agency directives, standards and procedures. Using units will strictly adhere to the prescribed procedures when scheduling and using these areas, courses and facilities. See MCASO P3710.1F for proper conduct of air operations.

2. Requests to utilize the BTA must be submitted via RFMSS.

3. Prior to occupation of the TA the OIC/RSO from the training unit will check out the keys or sign for the TA at Range Control. Range Control will provide the OIC/RSO a map and check list depicting the TA requested and any pertinent information. The range and TA packet must be returned to Range Control by the OIC/RSO at the conclusion of the training event.

4. For information regarding the ODS, SAVT, HEAT, MET, CCS, and MCIT, refer to Appendix Q.

5. For information regarding Classrooms 8 and 9, refer to paragraph 6027.

6. For information regarding the Urban Operations facilities, refer to Appendix P.

7. For information regarding the MCMAP facilities, refer to paragraph 6028.

6013. OBSTACLE COURSE

1. The Obstacle Course consists of numerous obstacles outlining the LZ.

2. Units must have the following personnel and equipment and perform the following procedures IOT use the Obstacle Course:

a. Inspect Obstacle Course for possible dangers or damage each day before training.

b. Bring potable water in an effort to ensure Marines remain hydrated throughout the training period.

c. The RSO must be a NCO/SNCO/Officer not involved in the training being conducted at this site. The RSO is responsible for the overall safety of the training evolution and will check-out/check-in the area from Range Control.

d. Medical support personnel must be physically present at this site IOT utilize this TA. They must have, at a minimum, a medical kit bag, splints and back board with a “C” collar. If medical support is not present, or leaves during the evolution, all training must cease.

e. A safety vehicle, which is described as a government vehicle suitable to transport an injured person to the nearest medical facility. POVs are not authorized to be used as safety vehicles.

f. Provide a demonstration and explain to Marines the proper techniques for each obstacle before they begin the course.

g. Be aware of adverse weather conditions, as they increase the hazard factors, and take these conditions into consideration when making the decision to run the course.

6014. RAPPEL/FAST ROPE TOWER

1. Tower Specifications. The tour is 44 ft. high with a rappel point on the south side and a fast-rope point on the west side.

2. Use. Units will submit requests for use of the static Tower to through RFMSS.

3. Safety Personnel and Equipment. The following personnel and equipment are required to conduct static tower training:

a. Two rappel lines are required per rope station.

b. A Safety Insert Officer (SIO) (Officer or SNCO).

c. One HRST Master per rope station. HRST Masters must be certified/school trained.

d. One corpsman with a medical kit and backboard.

e. One safety vehicle with a driver.

f. One belay man per rappel rope station.

4. Inclement Weather. The tower will not be used during thunderstorms or when wind speeds exceed 25 knots. Training may be conducted during inclement weather (rain), at the discretion of the SIO.

5. Safety Brief. Prior to commencement of tower training, the SIO/HRST Master shall conduct a safety brief that will cover the following:

a. Tower safety.

b. Tower commands.

c. Proper roping techniques.

6. Training. All tower training will be conducted IAW applicable orders from the higher headquarters of the using unit.

6015. LEADERSHIP REACTION COURSE

1. Usage Requirements and Equipment. Using unit is responsible for providing the following equipment and personnel:

a. SNCO in charge must be present

b. Backboard with “C” collar

c. Medical support personnel

d. Safety vehicle, which can be any government vehicle designated for transport use only during the training evolution.

2. LRC Specifications

a. 17 individual lanes.

b. Equipment is kept in the storage locker by the gas chamber classroom.

c. Scenario cards are kept at Range Control and will be signed out with the key.

6016. GAS CHAMBER

1. Usage Requirements and Equipment. Using unit is responsible for providing the following equipment and personnel:

a. A Chemical, Biological, Radiological, Nuclear, and high yield Explosives (CBRNE) Officer or CBRNE NCO (school trained and qualified).

b. An RSO and OIC that are school trained IAW MCO 3570.1C and meet the RSO/OIC appointment requirements found in Appendix D.

c. Medical support personnel.

d. Safety vehicle, which can be any government vehicle designated for transport use only during training evolution.

e. A burner (to heat CS capsules).

f. CS pellets (CS grenades are unauthorized).

g. Mission-Oriented Protective Posture gear and associated equipment.

2. Chamber Specifications. Consists of a single room chamber that can accommodate 20 personnel.

6017. GUN POSITIONS

1. GP Boondocker

a. CG Boondocker is comprised of four GPs. It is the primary LZ for the BTA and is located in the open field 250 ft. by 300 ft. located inside the BTA (see Figure 6-1). The GP is approximately 350 meters southeast of the Boondocker replacement theater. This GP is normally used as a tactical LZ for troop inserts/extracts and SPIE/rappelling. The area surrounding the GP houses endangered water birds in the adjacent Nu'upia Ponds WMA and should be made well aware of. GP Boondocker usage must be coordinated and conducted to avoid adverse public reaction. Use of GP Boondocker will be tempered by operational training necessity. GP Boondocker may also be used as an LZ or a Command and Control TA.

b. The GPs are marked with red and white striped poles (see Figure 6-2).

c. Two End of Orienting Lines (EOLs) are present. EOL North and EOL South, which are also marked with red and white striped poles.

d. The route of march into the position will be from any roads leading into the TA.

e. The following data is provided:

(1) General direction of fire will be AZ 4000.

(2) AZ to the EOL N is 6200.

(3) Distance to the EOL is 70 m.

(4) GP #1.

(a) E: 630401.0.

(b) N: 2370993.

(c) Alt: +16 m.

f. Ensure the use of road guards when convoying across Mokapu Road or Harris Street. The field is relatively flat. Therefore, it does not drain well after heavy rains. Do a reconnaissance prior to occupation of the GP. Units destroying the grounds are responsible for repairing the grounds.

g. Refer to Chapter 3 of this Order for scheduling requests.

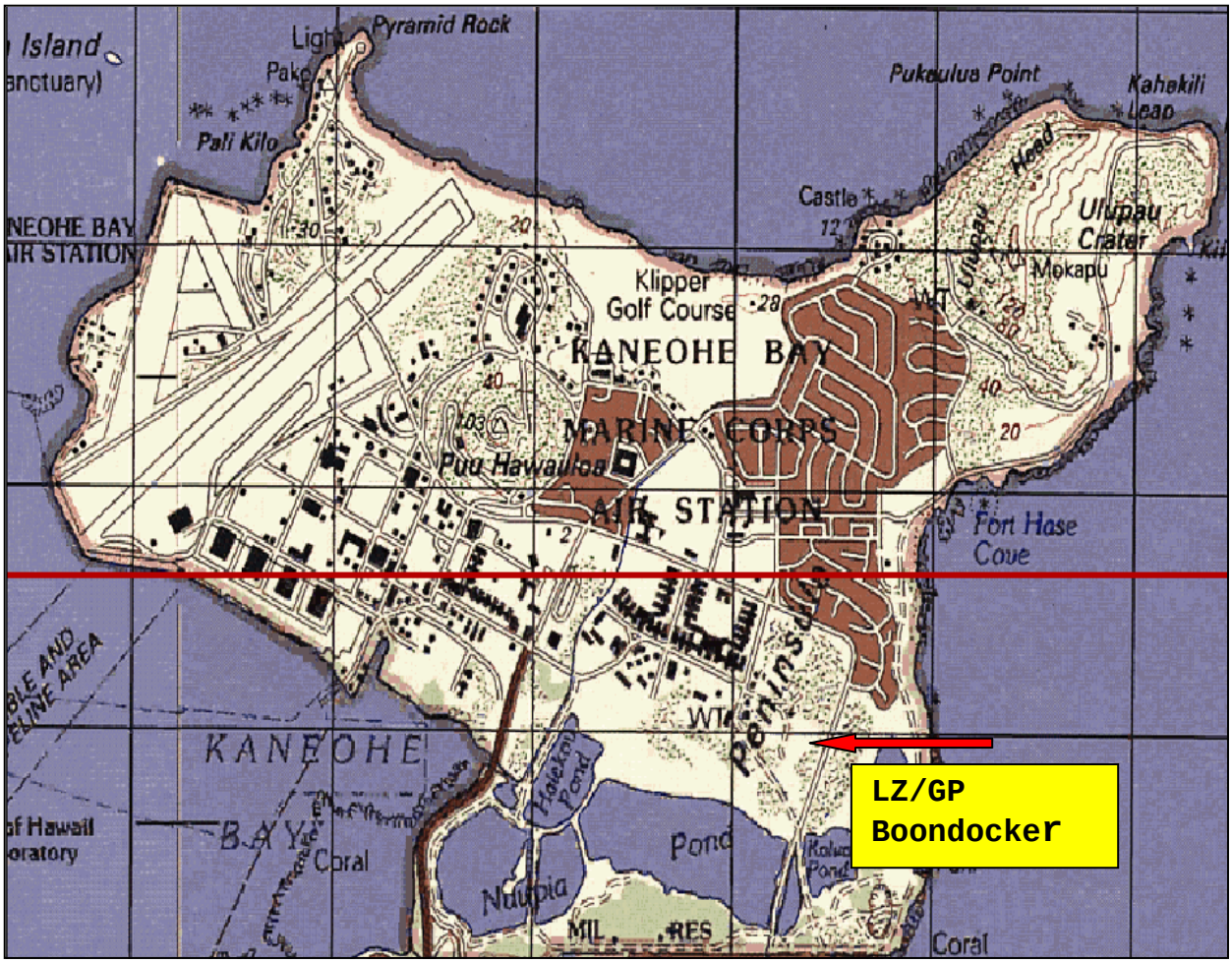
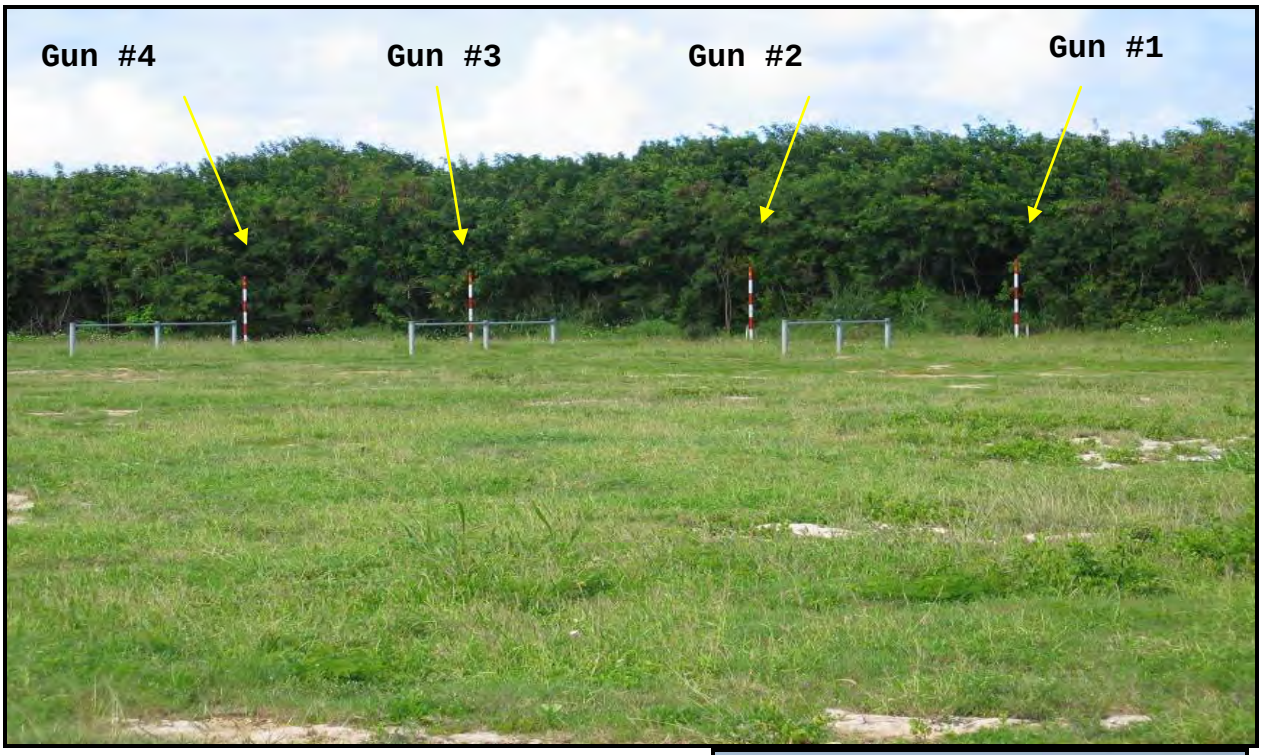


Figure 6-1 Location of LZ/GP Boondocker



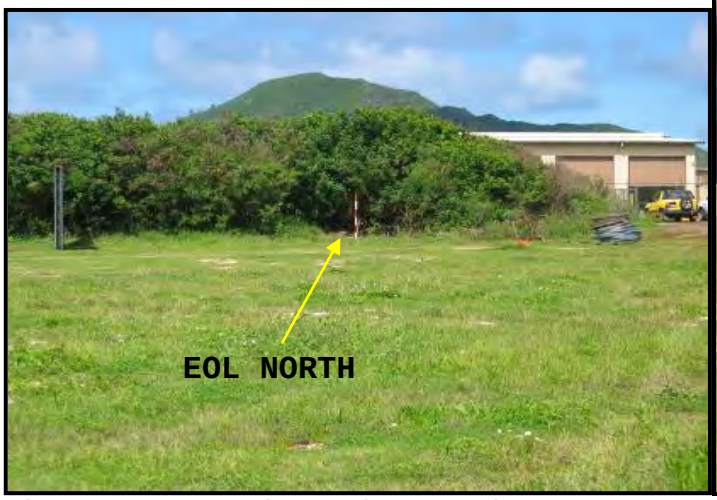


Figure 6-2 Locations of GPs and EOLs

2. GP 216

a. GP 216 is the primary VIP LZ for MCB Hawaii and is located in the open field southwest of Building 216 (see Figure 6-3). LZ/GP 216 may also be used as an LZ or a Command and Control TA. LZ/GP 216 is located southwest of Building 216, just inside the Eastern side of the LZ concrete square, closest to Building 215 (see figure 6-4). A diagram of LZ/GP 216 can be found in Figure 6-5. The point is a brass 105 millimeter (mm) cartridge (see Figure 6-6) stamped with “GP 216” “1/12 Survey”. The EOL is located by the Western corner of Building 277. It is also a brass 105mm cartridge; stamped with “EOL” “Johnny-5”.

b. The route of march into the position will be west along Mokapu Road (towards the flight line). Turning left onto “C” Street, traveling one block and turning left onto 3rd Street. At the intersection of 3rd Street and “D” Street proceed directly forward into the GP.

c. The following data is provided:

(1) General direction of fire will be AZ 4800.

(2) AZ to the EOL is 0829.33.

(3) Distance to the EOL is 71 m.

(4) GP 216.

(a) E: 628443.957.

(b) N: 2371738.772.

(c) Alt: +3.217 m.

(5) EOL Johnny-5:

(a) E: 628495.547

(b) N: 2371787.474

(c) Alt: +3.266 m.

d. Ensure the use of road guards when convoying across “D” Street. The field is relatively flat. Therefore, it does not drain well after heavy rains. Do a reconnaissance prior to occupation of the GP. Units destroying the grounds are responsible for repairing the grounds.

e. Refer to Chapter 3 of this Order for scheduling requests.

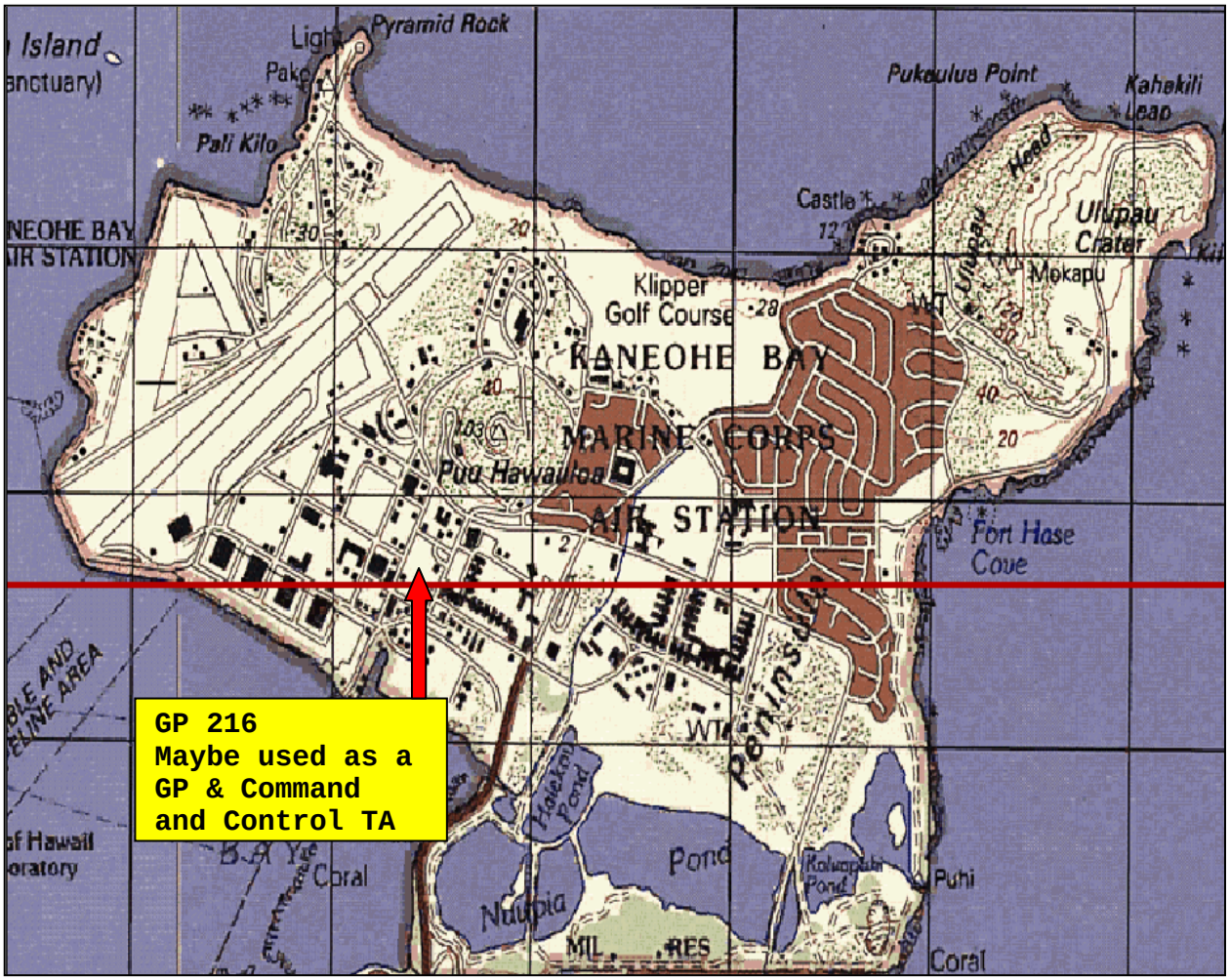


Figure 6-3 Location of LZ/GP 216

Figure 6-4 Building 215

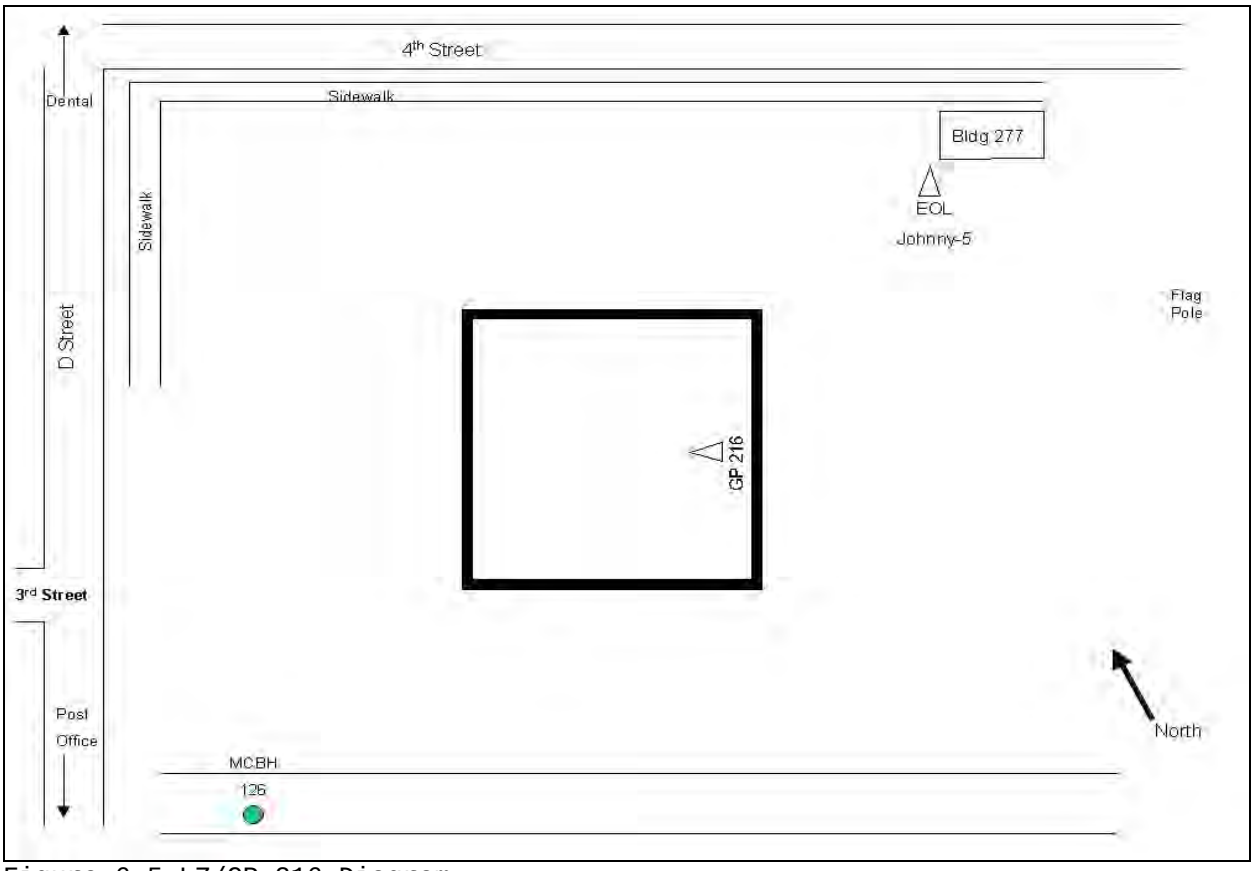


Figure 6-5 LZ/GP 216 Diagram

Figure 6-6 Stamped 105mm Cartridge at GP 216

3. GP Eagle

a. GP Eagle is a primary VIP LZ for MCB Hawaii. The location and layout of GP Eagle are shown in Figures 6-7 and 6-8. It is a large open field which can be used as a limited-use LZ, approximately 150 meters by 100 meters in size located across the hard surface road from Fort Hase Beach. Its close proximity to base housing areas and heavily used roads, as well as the impact of its use on range operations and activity at Fort Hase Beach, necessitates careful (advanced) coordination with O&T Directorate, MCB Hawaii. GP Eagle may also be used as an LZ or a Command and Control TA.

b. The point is a brass 105mm cartridge stamped with “GP Eagle” “1/12 Survey” and is shown in Figure 6-9. The EOL is located near the mail box (see Figures 6-10 and 6-11). It is also a brass 105mm cartridge, stamped with “EOL” “Party Mac”.

c. The route of march into the position will be from Middaugh Street. Once past the creek, the driver may turn left and proceed directly forward into the GP.

d. The following data is provided:

(1) General direction of fire will be AZ 4000.

(2) AZ to the EOL is 0252.5.

(3) Distance to the EOL is 81 m.

(4) GP Eagle.

(a) E: 631023.0.

(b) N: 2372095.0.

(c) Alt: +21.0 m.

(5) EOL Party Mac

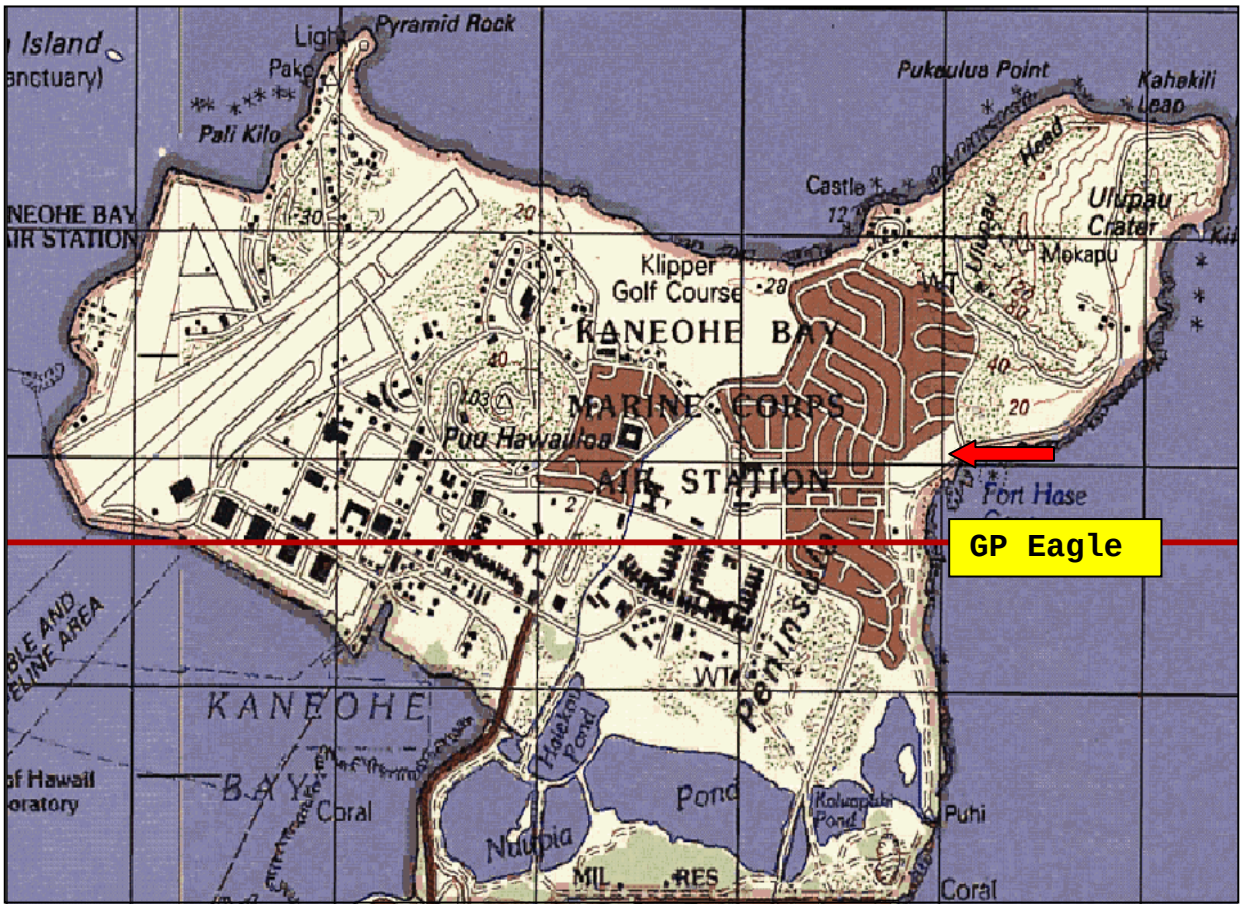
(a) E: 631043.0.

(b) N: 2372174.0.

(c) Alt: +23.0 m.

e. Ensure the use of road guards when convoying across Middaugh Street. The field is relatively flat. Therefore, it does not drain well after heavy rains. Do a reconnaissance prior to occupation of the GP.

f. Refer to Chapter 3 of this Order for scheduling requests.



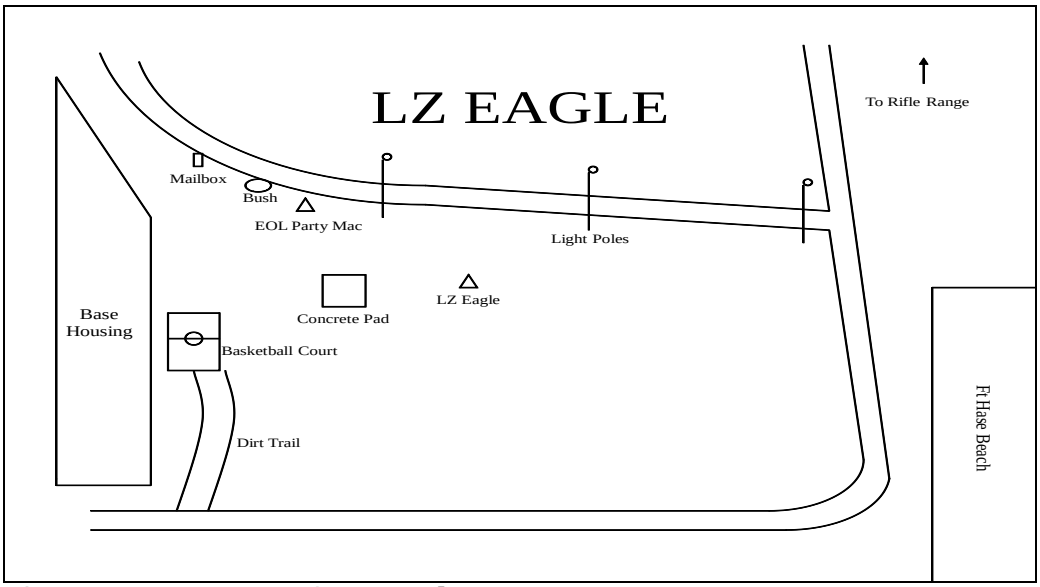


Figure 6-8 Layout of LZ Eagle

Figure 6-9 Images of LZ Eagle 105mm Cartridge

Figure 6-10 EOL Party MAC 105mm Cartridge

Figure 6-11 EOL Party MAC 105mm Cartridge

4. GP Kansas Tower

a. Situation. 1st Battalion 12th Marines required additional areas to practice recon, selection, occupation of position (RSOP) exercises and command post exercises (CPXs) once a month in preparation for the Unit Deployment Program and artillery operations. The M777A2 howitzer is designed

to operate in platoon sized units (two to three howitzers) allowing firing batteries to conduct distributed operations, necessitating the requirement for additional training sites on Oahu. Due to limited TAs aboard MCB Hawaii Kaneohe Bay, the battalion is severely limited in the preparation of its artillery mission. Presently the only TAs aboard MCB Hawaii Kaneohe Bay suitable for conducting artillery training are LZ/GP 216, LZ Boondocker and a portion of LZ Westfield. The use of LZ Eagle has been severely restricted due to construction projects.

b. Before training begins

(1) Units requesting to use this gun position for RSOP or any type of CPX must submit a request to the Base O&T Director, via the RFMSS, seven business days (Monday through Friday) prior to the scheduled training.

(2) The using unit must conduct a walk-around with a Range Control inspector on the first day of training, prior to conducting training.

(3) The using unit must conduct a walk-around of the adjacent parking lot with a representative from the Child Development Center (CDC) to identify any areas of concern at least 2 business days prior to the first day of training.

(4) The OIC/RSO must have on-hand the Scheme of Maneuver (SOM) and ORM worksheet approved by the MCB Hawaii installation RCO.

(5) The OIC/RSO must ensure that all personnel participating in the exercise are aware of this SOP and all off limits areas or activities.

c. During training

(1) No weapons will be loaded with magazines or belts of linked ammunition.

(2) No Blanks, Special Effects Small Arms Marking System (SESAMS), smoke or CS grenades, or flash bang devices will be allowed in the gun position or the adjacent parking lot.

(3) The authorized unit must stay within the boundaries of the approved TA. There will be no use of the overgrown areas behind the gun position for any reason.

(4) All training will cease if there is any damage to personal or base property. Training will not commence until the situation is resolved.

(5) Training units must not interfere with vehicular or pedestrian traffic, base housing family members or CDC staff or children.

(6) Gun position use will only occur during the hours of 0900-1700, Monday through Friday. Night training will be considered on a case by case basis by the MCB Hawaii installation RCO.

(7) At no time will personnel utilizing the gun position attempt to use facilities at the CDC for any reason. The parking lot between the GP and the CDC is for staff and patrons of the CDC, this is off limits to training personnel at any time.

d. After training checklist

(1) Upon conclusion of training, a police call of the area must be conducted. All trash and debris must be removed by the using unit.

(2) The using unit must complete a visual sweep of all areas that were used for training to ensure that no military gear is left in the area of the gun position or the surrounding area.

(3) A Range Control inspector will inspect the area with the OIC/RSO prior to securing the TA.

6018. MARINE CORPS TRAINING AREA BELLOWS

1. MCTAB. This area consists of Urban Operation Sites 1, 2, and 3, Forward Operating Base (FOB) Bellows, Combat Vehicle Operators Course (CVOC), BOTA, driver's trails, (4) Helicopter Landing Zones, OP 4 Compound, Urban SAR training site, and land navigation site.

2. General

a. Training. Requests to use MCTAB must be scheduled and coordinated through O&T RTAM, utilizing RFMSS. The primary purpose of this area is for training. Priority will be given to training exercises over functions or events that are administrative in nature. The TAs consist of approximately 1,049 acres designated for amphibious, air and ground maneuver training, Land Navigation training, Military Operations in Urban Terrain (MOUT) Training, small boat CRRC training and SAR training. The OIC/RSO must sign for the TA(s) from Range Control, prior to occupation of the TA(s). Units may utilize the designated TA(s) for the following:

(1) Landing of amphibious vehicles on the beach is authorized within TA 1 and subsequent inland movement of vehicles and troops by prescribed routes to TA 2. CRRCs are allowed in the water adjacent to TA 1 in between the surveyed portions of the beach. CRRCs can either be transported to MCTAB, or transit by sea.

(2) Helocasting into DZ Bellows is authorized from 0800 Monday through 1200 Friday. Units must notify O&T if WFO support will be needed. Fast Rope operations may be conducted from Monday through Sunday during the listed hours in TAs 2 and 3.

(3) Helicopter/heliborne training is authorized within TAs 2 and 3 during the listed hours, Monday through Sunday. Training includes assault landings, low-level flight training, SPIE, rappel and HRST training. Helicopters will only land/takeoff from designated LZs and will strictly adhere to the flight pattern authorized and keep out of no fly zones.

(4) Small unit offensive and defensive tactics, land navigation, patrolling, blank firing and non-live-fire artillery RSOP exercises may be conducted in TAs 2 and 3. Blank firing hours are from 0700-2200, Monday-Friday. Weekend and holiday blank firing hours are 0900-2200.

(5) Command post exercises may be conducted in all TAs.

(6) Motor vehicle operator’s certification training may be conducted in TAs 1, 2 and 3.

b. Restrictions and Limitations

(1) Due to the close proximity of the homes and property in Waimanalo, as well as the TA's susceptibility to brush fires, smoke grenades, simulators, flash or blast devices may only be authorized after all fire risk factors have been considered. Units that desire to use these munitions will submit in writing to the O&T Directorate, an ORM worksheet outlining all preventive measures. A pyrotechnics request is located in Appendix O of this Order. Overhead type pyrotechnics are not authorized without specific approval from the O&T Directorate.

(2) TA 1 (Beach), is a non-live-fire/non-blank fire TA. No pyrotechnics are allowed in this TA. AAVs may cross into TA-2 across Tinker road but they are limited to nine concrete crossing points. TA 1 is closed on weekends from 1200 Friday to 0800 Monday. TA 1 is also closed on State and Federal Holidays. Beach usage for weekend training will be considered on a case-by-case basis and must be approved by the O&T Director. Request to use TA 1 over a weekend must be submitted 45 days prior to the event.

(3) TAs 2 and 3 are a non-live-fire TA. Blanks up to .50 cal. are allowed. No digging is allowed in TAs 2 or 3, except in the BOTA located northwest of Building 700. Parachute operations will be coordinated 30 days prior to the start date. Blank fire/flight operations may be conducted from Monday-Friday, 0700-2200. Weekends and holiday blank fire/flight hours are 0900-2200. There is a 300 ft. buffer zone around the entire boundary of MCTAB in which blanks cannot be fired and aircraft cannot fly over.

(4) Building 700/FOB is a non-live-fire TA. Prior to occupying the structure, the OIC will conduct a walk through to visually inspect the building.

(5) The stream dividing TA 2 from TA 3 is off-limits. Units or individuals may not conduct any kind of training in the stream itself. Units must drive with caution when using the access road adjacent to the stream.

(6) The cemetery, approximately 300 ft. west of Building 700, is off-limits to all units and individuals. Units are not allowed to conduct any kind of training within the confines of the cemetery.

c. Departing. Before departing, a Range Control representative must visually inspect the TAs to ensure they are policed. Each unit must conduct a trash/brass call upon completion of training. Once the unit is cleared, they can proceed to exit MCTAB and return the keys and TA packet they received from Range Control. All blank casings will be completely policed prior to a unit’s departure. Failure to do so will result in the unit returning and policing all blank casings or trash left in the TA.

3. Urban Operations. For information regarding the MCTAB MOUT facilities, refer to Appendix P.

6019. BARRIER OBSTACLE TRAINING AREA (BOTA)

1. The BOTA is located in TA 2, southwest of the FOB. The BOTA is encompassed by three abandon flightlines. The boundaries of the BOTA are detailed in Fig 6-12.

2. The BOTA was approved for heavy equipment operations but can also be utilized for other training. Commanders are encourage to discuss other possible uses for the area with the MCB Hawaii Installation RCO to determine if the area is suitable for unit specific training requirements.

3. Digging or other ground disturbance is limited to four meters in depth. All disturbed ground must be returned to its original state before the unit can depart the area.

4. If HAZMAT is detected at any time during training, the unit must stop training and initiate clean up procedures. Range Control must be contacted anytime HAZMAT has been detected.

Figure 6-12 BOTA Boundaries

6020. COMBAT VEHICLE OPERATOR COURSE

1. This section will provide guidelines and instructions for the use of the base CVOC course.

2. It is to make available a permanent TA for vehicle operator's confidence training.

3. Information about the CVOC:

a. Recent after action reports from deployed units have identified the need for more driver training after the basic motor vehicle operator school license has been granted. The Base has established a permanent area

consisting of obstacles and challenges in order for units to train their drivers. This area is located within TA 2 at MCTAB.

b. SOM will be as follows:

(1) Before training begins:

(a) The use of the CVOC is requested through RFMSS.

(b) Using units are encouraged to conduct a site visit to familiarize themselves with the training requirements.

(c) The SOM and ORM worksheet will be approved at the appropriate unit level per unit SOP for drivers' training.

(d) The OIC/RSO must have on-hand the approved SOM and ORM worksheet.

(e) The OIC/RSO must ensure that all personnel participating in the training are briefed on the content of this SOP. The brief will cover all off limits areas or activities, obstacle specific information such as entrance and exit characteristics, the SOM/ORM and speed limits at a minimum.

(2) During training:

(a) No aggressor force is allowed. The obstacles are off limits to dismounted activity not associated with safety.

(b) No blanks, SESAMS, smoke or CS grenades, or flash bang devices will be allowed.

(c) The authorized unit must stay within the boundaries of the approved training course.

(d) If any damage occurs to personnel or property, all training must cease until the situation is resolved.

(e) All unit members and/or vehicles must not interfere with other units' training. Night training is allowed per unit approved SOP and ORM.

(3) After training checklist:

(a) Upon conclusion of training, a police call of the area must be conducted. All trash and debris must be removed by the using unit.

(b) If any petroleum, oil, or lubricant spills or leaks occur, the OIC/RSO must ensure that all proper clean up procedures are used to return the area to a HAZMAT free area.

(c) The using unit must complete a visual sweep of all areas that were used for training to ensure that no damage was done to the obstacles. If any damage is discovered, ensure that Range Control is informed.

(d) A Range Control inspector will inspect the area with the OIC/RSO prior to securing from the TA.

4. The OIC/RSO must ensure all personnel participating in the exercise are aware of this SOP and have been briefed on all off limits areas or activities.

5. The Base O&T scheduler is located in Building 216 Room 35. Personnel will be available to assist with all scheduled training.

6. Communication support will be the requesting unit's responsibility.

7. For any issues regarding training contact MCB Hawaii O&T (808)257-8816.

6021. LAND NAVIGATION COURSE. The land navigation course is located at MCTAB. For the land navigation grading key, contact Range Control. For scheduling, refer to Chapter 3 of this Order.

6022. URBAN SEARCH AND RESCUE (USAR) TRAINING AREA

1. The USAR TA is comprised of a series of concrete slabs, pillars and metal debris that forms the shape of a collapsed structure. The site also has a 22-foot tower for rope lowering training. The site was designed for the following type of operational training:

a. Rope Extraction Operations.

b. Lifting and Hauling Operations.

c. Search Operations with K-9s.

d. Confined Space Operations.

2. The training unit must have on hand an OIC, RSO, medical personal with a dedicated safety vehicle, and a certified USAR trainer in order to schedule and use the facility.

6023. PYRAMID ROCK TRAINING AREA. Pyramid Rock Beach is an adequate area for platoon-sized maneuvers. Use of blank ammunition is authorized. Pyrotechnics and explosive devices, including CS gas, are prohibited. Waivers to this policy may be granted on a case-by-case basis by the O&T Directorate. Ground disturbance will not be permitted within or around the Pyramid Rock Beach TA.

6024. CEREMONIAL TRAINING AREAS. The O&T Directorate schedules ceremonial areas for use by units conducting official ceremonies.

1. Dewey Square. Ceremonies conducted at Dewey Square require a RFMSS request submitted to the O&T Directorate, MCB Hawaii. The O&T Directorate RTAM scheduler will coordinate quiet hours with MCAS and IE&L. The requesting unit must coordinate with MPD to place road guards and safety cones. Road guards are recommended for all ceremonies and are the responsibility of the requesting unit. The road guards should be positioned outside Building 216, on the street outside Building 216, outside Building 215, on the street outside Building 215, at the intersection of Mokapu Road and "E" Street, and at the intersection of 5th Street and Dewey Square. Road guards are placed to stop all vehicular and pedestrian traffic. If ceremonies are conducted outside of Dewey Square, units must still coordinate (phone call or e-mail) with O&T and MPD with the details of the event.

2. Pacific War Memorial. The PWM is located at the entrance of MCB Hawaii, and may be scheduled for re-enlistment, retirement, or award ceremonies. Using units shall adhere to the prescribed procedures when scheduling and using this area.

a. The requesting unit is responsible for coordinating their own transportation, and with contacting the MPD for assistance with traffic control. Parking at the site is limited. No vehicles will be parked along "G" street exiting the main gate, unless preapproved and coordinated with MPD and O&T. There is no room for buses.

b. Limited Parking is available at the PWM.

c. When in formation around the circle of honor (red inscribed bricks), special care must be taken not to damage any of the bricks (as they are personalized). Handling of the guidon or weapons on the deck may damage the bricks and is not authorized for use on the PWM brick deck.

d. The using unit commander will immediately report any damage to the PWM or property to the O&T Directorate.

e. A RFMSS request must be submitted and approval must be obtained before the unit can occupy the site.

3. Ceremonial Equipment. The Director of MCCS has ceremonial equipment that may be utilized for unit ceremonies for a fee. For a detailed listing and descriptions of additional MCCS items and services, contact MCCS at 254-7502.

4. Marking of Parade Field. Marking of the parade field is only authorized on the grassy portions of Dewey Square and the PWM. Water-based paint is the only authorized paint allowable. Absolutely no paint markings shall be made on any sidewalk, road, or facility to signify turning points or cues for marching units. Units can utilize standard chalk to mark roads or sidewalks if necessary.

6025. HIKING AND PHYSICAL FITNESS TRAINING. MCB Hawaii is an excellent base to conduct unit or individual runs or hikes. IOT minimize congestion and to conduct a safe environment, units are to avoid hiking and running during rush hour traffic periods both morning and evening. Morning rush hour traffic starts at 0630 and ends at 0815. Evening rush hour traffic starts at 1630 and ends at 1800.

1. Running/Hiking

a. Jogging is defined as recreational physical conditioning runs involving individuals or small groups of personnel. No formations, individuals in charge, chanting or cadence counting are involved.

b. Unit conditioning runs/hikes are defined as organized physical conditioning events involving units of squad size or larger in formation under control of the unit leader. Physical fitness tests are included in this category. Units are reminded of the requirement for medical support, a safety vehicle and road guards. Unit runs must not impede traffic by employing the practice of safety vehicles "following in trace". Instead, safety vehicles should move from location to location to be in the best support position. Any run/hike route requests for company sized units or larger must be submitted in RFMSS to O&T, 48 hours prior to the event. All

approved conditioning runs and hikes are subject to cancellation at any time should an emergency arise or an operational exercise commitment require the use of the area.

c. Individual physical training may be conducted along the designated Nu'upia Ponds Running Trail in this area between the hours of 0600-2100. Unit runs, at any level, must be approved with prior coordination with the O&T RTAM Scheduler. Absolutely no cadence counting is allowed in this area.

d. Any requests for access to MCB Hawaii Flight Line will be submitted to O&T RTAM. O&T will coordinate with MCAS operations for flight line access. Units requesting to utilize the flight line must clear and police the area prior to 0600. No running or unit physical training is authorized along the flight line IAW reference (c) and Chapter 4.

e. If hiking to or from MCTAB, requesting units must coordinate with the Honolulu Police Department (HPD) at (808)235-7621. Submit request to MCB Hawaii O&T and provide map showing the hike route, date, time, number of personnel, number/type(s) of vehicle(s) and any medical support. Submit letter to:

District Commander, Kaneohe Police Dept
45-270 Waikalua Road
Kaneohe, HI 96744

District Commander:
(808)235-7621
Administration Fax: (808)234-0487
Receiving Desk Fax: (808)234-3873

f. Units conducting conditioning hikes to MCTAB will adhere to the following regulations:

(1) Chanting/cadence counting and clapping is prohibited along the route.

(2) Designated rest areas will be away from residential areas. All trash must be thoroughly policed.

(3) Hikes will be conducted so as to have minimum interference with traffic. When and where available, bike routes and grass areas along the side of the road will be utilized. If units must travel in the roadway, remain as close to the right side of the road as possible and move in the direction of traffic.

(4) Units shall not impede traffic along the route. Units shall form along the side of the road, wait for the traffic light to give them access to walk, and then hike across the road with their designated road guards in place at that time only.

g. All off-base conditioning hikes will be considered on a case-by-case basis and require the submission of a request and a map of the proposed route, with outside agency approval documentation, to the O&T Directorate. For approval of an off-base conditioning hike, requesting units must coordinate with MPD, HPD and PAO. If a hiking route involves the use of any state beaches or recreational areas, the requesting unit must coordinate and receive approval from the City and County of Honolulu Department of Parks and

Recreation, at phone number (808)523-4525/27. If a hiking route involves the use of public trails, coordination must be made with the Oahu Division of Forestry and Wildlife to obtain a permit. To obtain a Trail and Access Activities Permit, a map of the route must be submitted to the Division of Forestry and Wildlife at least 15 days in advance of the start date. The Division of Forestry and Wildlife can be contacted at (808)973-9782.

h. Unit commanders are ultimately responsible for the safe conduct of unit conditioning runs and hikes. For detailed safety guidelines aboard MCB Hawaii, refer to Base Order P5500.15B, Change 2.

i. Units shall not conduct training within areas classified as off-limits to training. Organizations requiring access to non-training areas for training evolutions may submit a request 10 business days prior to the event to O&T Directorate.

j. There is a dirt trail alongside the runway near the north departure end that is used for base sporting events on occasion. This requires MCAS CO approval for usage. This area is restricted at all other times to ensure the safety of personnel and normal airfield operations. There are posted signs that declare this area a restricted area. All pedestrian traffic is prohibited along aircraft runways and taxiways due to an airfield requirement to keep a 750 ft. buffer from the runway centerline.

k. The use of Klipper Road to the beach and the sand dunes area shall be approved on a case-by-case basis with prior coordination with MCCS.

l. Units are authorized to conduct unit hikes/runs in family housing with the following restrictions:

(1) Unit commanders shall coordinate with O&T Scheduler and MPD five business days prior to conducting their hike/run and provide their route.

(2) Unit commanders shall conduct ORM and take into consideration school children and buses when selecting their route.

(3) Unit safety vehicles shall abide by the base traffic regulations when traveling through housing. Drivers shall halt and wait with other traffic in the event a school bus has its red lights flashing.

m. Units participating in conditioning runs/hikes shall adhere to the following requirements regarding traffic (refer to Base Order P5500.15B, Change 2, for detailed requirements):

(1) Platoon size units or larger shall be formed so as to have minimum interference with traffic. When and where available, bike routes and grass areas along the side of the road shall be utilized. Units will remain as close to the side of the road as possible and move in the direction of traffic if there is no bike trail or grass area.

(2) Road guards shall be utilized at all intersections. Road guards will wear reflective vests at all times. Road guards will not perform any type of exercise while posted at an intersection nor will they delay traffic once the unit has passed. Road guards shall proceed to intersections and wait alongside of the road (in a safe location) until their unit is within 100 meters of the intersection to stop traffic. Traffic shall not be impeded prior to this distance.

(3) Units smaller than a small platoon size (20 personnel) shall not impede traffic at any time and shall abide by the rules of the road as individual runners/pedestrians, depicted in Base Order P5500.15B Change 2.

(4) Safety vehicles are prohibited from driving in bike lanes, on sidewalks and blocking intersections. Safety vehicles are required to follow the rules of the road and drive with hazard lights flashing. Safety vehicles shall not impede the flow of traffic and shall remain in their lane only. Stragglers should be considered hike/run drops and should move out of the traffic lane. Safety vehicles will not follow in trace of their unit. Safety vehicles should be staged along the route while utilizing these roads.

n. When utilizing the access road up Pu'u Hawaii Loa Hill to KT, units will ensure that road guards are posted forward and aft of the formation. Formations must stay in "column of two," and keep to the outside of the road. Technicians on immediate repair missions are given priority over training. Unit commanders shall ensure that the lead and trail elements of all unit conditioning runs and hikes carry flashlights, chem-lights, or taxi-wands to ensure visibility by vehicular traffic during the hours of darkness. Lead and trail elements will wear road guard vests or belts during hours of darkness.

o. Chanting, cadence, or clapping is prohibited in any housing area and adjacent roads, the perimeter road, WMA, anywhere off-base, or as otherwise depicted in this order. For a detailed listing, refer to Base Order P5500.15B, Change 2.

p. The only authorized Physical Fitness Test (PFT) Route aboard MCB Hawaii is outlined below. Units are not authorized to mark any portion of the streets, roadways, sidewalks or facilities aboard MCB Hawaii. Figure 6-13 displays the PFT Route.

(1) The Base PFT Route starts and finishes on “G” Street, adjacent to the pull up bars behind Barracks 1635. It is marked with an 18 in. x 24 in. yellow stripe with red lettering labeled, “MCB HAWAII PFT 3-MILE START/FINISH”. There are yellow markings along the route at every quarter mile.

(2) During the run portion of the PFT, unit commanders shall provide for adequate traffic safety at intersections crossed by personnel taking the PFT. If the run portion of the PFT is conducted during hours of darkness or low visibility, personnel participating must wear a reflective belt or vest to ensure they make themselves visible.

(3) Units requesting authorization to create a PFT route, must submit their request to the O&T Directorate to coordinate approval. Due consideration shall be given to minimizing crossing roadways and traffic congestion.

2. Units must coordinate with MCCS Semper Fit department to utilize MCCS controlled athletic fields. The Semper Fit department also has Combat Fitness Test items available for use including ammunition cans and traffic cones.

3. <u>Jogging, Pedestrians, Runners and individuals conducting any form of physical exercise</u>. MPD will enforce portions of reference (f), which applies

to pedestrians. All pedestrians, walkers, stroller pushers, joggers, runners and individuals exercising will:

a. Cross roads only at intersections or crosswalks whenever possible.

b. Walk/run on the left side of the road facing oncoming traffic in the absence of sidewalks, trails, or bike paths.

c. Comply with orders or directions of MPD/traffic control persons.

d. Not enter any crosswalk or roadway when vehicle traffic is so close that it constitutes an immediate hazard to pedestrians or vehicles.

e. Not stand on the roadway to solicit a ride in any vehicle, including at authorized pickup stations.

f. Not wear radio headsets, earphones, or other devices that obstruct hearing.

g. Joggers will wear reflective type clothing/gear (i.e., reflective vests/belts) when running, walking, or exercising during hours of darkness or periods of low-light visibility (sunset to sunrise). Light colored clothing will also be worn. This includes all authorized run routes and routes that start and/or finish aboard MCB Hawaii.

Figure 6-13 PFT Route

6026. URBAN PATROLLING IN BASE HOUSING. Recent after action reports from deployed units have identified the need for a small scale urban environment for training. The Base Commander has authorized, scheduled and approved training to take place in selected base housing IOT prepare the deploying units with the most realistic training environment possible. Training in the senior officer/hill top area will be made available to all units, via their S-3s. Upon detailed feedback and unit request, the Commander will consider opening more areas to the requesting unit.

1. Before training begins

a. Units requesting to use family housing for urban patrolling must submit a request to the Base O&T Director, via the RFMSS, seven business days (Monday through Friday) prior to the scheduled training.

b. Using units must coordinate with the installation RCO for a detailed brief five business days prior to the scheduled training.

c. Upon completion of the brief, the unit will identify an appropriate number of controllers to help mitigate damage to personal property or an unsafe event involving a family member.

d. Once the SOM and ORM worksheet are approved, the RTAM office will notify Base Safety, PAO, Forest City and MPD. RTAM will also inform COMCAM to run an advertisement on Channel 2 for a period of five consecutive days prior to the start of the training event.

e. The using unit must conduct a walk-around with a Range Control inspector on the first day of training, prior to beginning.

f. The OIC/RSO must have on-hand the SOM and ORM worksheet approved by the MCB Hawaii installation RCO.

g. The OIC/RSO must ensure that all personnel participating in the exercise are aware of this SOP and all off limits areas or activities.

2. During training

a. No weapons will be loaded with magazines or belts of linked ammunition.

b. No blanks, SESAMS, smoke or CS grenades, or flash bang devices will be allowed.

c. The authorized unit must stay within the boundaries of the approved TA.

d. If any damage occurs to personal property, all training must cease until the situation is resolved.

e. Training units must not interfere with vehicular or pedestrian traffic or any base housing family members.

f. Urban Patrolling in the base housing TA will only occur during the hours of 0900-1700, Monday through Friday.

g. Night training will be considered on a case-by-case basis.

3. After training checklist

a. Upon conclusion of training, a police call of the area must be conducted. All trash and debris must be removed by the using unit.

b. If any abandoned housing was used, the OIC/RSO must ensure that all doors and windows have been shut and are properly secured.

c. The using unit must complete a visual sweep of all areas that were used for training.

d. A Range Control inspector will inspect the area with the OIC/RSO prior to securing the TA.

6027. CLASSROOM FACILITIES

1. The O&T Directorate maintains and schedules conference rooms and classrooms for use by units conducting official unit functions. The following rooms are available:

a. Five COMCAM classrooms in Building 267

(1) Classrooms 1-3 can be reserved and utilized by both civilian and military units for the purpose of official classes and/or testing. Each has one Local Area Network drop, but does not have a phone line. Each is setup in a classroom setting with 16 tables and 32 chairs facing a whiteboard, a television, a digital video disc (DVD) player (on a stand) and an overhead projector with a screen. It is equipped with one air conditioner.

(2) Classroom 4 can be reserved and utilized by both civilian and military units for the purpose of official classes and/or testing. It does not have phone lines or LAN drops. It is set-up in a classroom setting with 19 tables and 38 chairs facing a whiteboard, a television, a DVD player (on a stand), a podium and an overhead projector with a screen. It is equipped with one air conditioner.

(3) Classroom 5 can be reserved and utilized by both civilian and military units for the purpose of official classes and/or testing. It has one LAN drop, but does not have a phone line. It is setup in a classroom setting with 38 tables and 114 chairs facing a whiteboard, a TV, a DVD player (on a stand), a podium, a full array of audio/visual (A/V) support and an overhead projector with a screen. It is equipped with one air conditioner.

b. Additional Classrooms

(1) Classroom 6, located in Building 222, Room 209, seats 46 students and is fully equipped with A/V equipment.

(2) Classroom 7, located in building 1090, has been converted to a multi-use room. The auditorium setting has raised seating that can accommodate over 200 people. The seating is retractable, so the room can also serve as a conference room. The conference room tables and chairs are located onsite but must be checked out from the room manager. The room is outfitted with A/V support equipment. The using unit must provide the computer. There is no bivouacking in CR7.

(3) Classroom 8 is the smaller classroom located inside the “Big Top” shelter behind building 4088. It has bleacher seating, which can accommodate roughly 60 people. The room is not outfitted with A/V support equipment. The using unit must provide this equipment. Units may utilize CR8 for bivouac.

(4) Classroom 9 is the larger classroom located inside the “Big Top” shelter behind building 4088. It has bleacher seating, which can accommodate roughly 150 people. The room is not outfitted with A/V support equipment. The using unit must provide this equipment. Units may utilize CR9 for bivouac.

(5) The KT Conference Room, Classroom 10, can be used for small unit classes or functions. However, priority for scheduling the use of the KT Conference Room will go to briefings during VIP visits. This conference room is laid-out with a “U-Shaped” conference table and high back cushioned chairs. The conference room is capable of accommodating up to 30 individuals. Parking is very limited, so transportation considerations must be made when utilizing this conference room. A/V equipment is installed and available for use pending prior approval through RFMSS. There currently are no restroom facilities located on the premises. A portable toilet is located outside, and units can coordinate directly with MCAS Operations at (808)257-3579 to unlock the restroom facilities located inside the tower control (During VIP visits only).

(6) The Language Learning Resource Center, located in Building 222, Room 209, can be divided into two classrooms. It is equipped with 34 student work stations, 2 instructor stations, 2 smart boards, and is able to connect to the internet.

2. Classrooms/conference rooms shall not be scheduled more than 90 days prior to the scheduled event for normal routine or repetitive events.

3. All Mobile Training Teams and base sponsored events can be scheduled up to 18 months in advance and have priority over routine or repetitive events.

4. The O&T Directorate may reprioritize the use of all classroom facilities based on emerging requirements. Activities in direct support of military training will have priority of scheduling. If a classroom space must be reassigned, O&T will make every effort to locate another venue for the activity/unit that previously reserved the classroom.

6028. MARTIAL ARTS TRAINING AREAS

1. The Warrior Skills Course (MCMAP Skills Course). The MCMAP Skills Course has many obstacles to refine various MCMAP skills. The course is located adjacent to LZ Boondocker and the 3rd Marines’ Motor Pool. There are 15 bayonet tire stacks, painted either white or yellow for bayonet assault, 3 multi-room tire houses designed for hand-to-hand combat, as well as a pugil stick arena and a grappling pit. There are also 7 tire walls throughout the course for aggressors to ambush course runners. The tank trail that runs through the course is designed to have units “flood” the trail the day prior to add a degree of difficulty. The course is approximately 350 meters in length.

2. Warrior Pit 216. Warrior Pit 216, located behind the Legal Building and Base Safety, is a MCMAP Sustainment TA. Measuring 60 ft. in diameter, this

pit is filled with shredded rubber to help ensure safer falls and allow units to participate in the MCMAP outdoors. The School Of Infantry (SOI) West Detachment-Hawaii has priority for use, but units may schedule around their classes. Pits are scheduled via RFMSS.

3. Warrior Pit Boondocker. Warrior Pit Boondocker located at the BTA, is a MCMAP Sustainment TA. Measuring 60 ft. in diameter, this pit is filled with shredded rubber to help ensure safer falls and allow units to participate in the MCMAP outdoors. This pit is open to all units both on and off base, and requests will be scheduled according to the date submitted and priority. Pits are scheduled via RFMSS.

6029. RECREATIONAL FIRE SERIES

1. The Kaneohe Bay RTF conducts a recreational firing program for the benefit of personnel and their guests.

2. Safely conduct a recreational firing program to promote marksmanship proficiency and firearm safety. This event is open to all military personnel and their guests, as well as local, state and federal law enforcement personnel, DoD civilians and contractors who work aboard MCB Hawaii. It is routinely scheduled when not in conflict with unit training. Practice fire of Table of Organization (T/O) weapons is also allowed if authorized by an individual’s command.

3. The range will open for authorized personnel and their guests from 1300-1630 on the second Friday of every month. All operational requirements and previously scheduled training will have priority on Kaneohe Bay RTF ranges. Range 5 will be set up to accommodate all pistol, shotgun, and rifle calibers, .50 Cal and below.

4. Range Details are as follows:

a. Range Requirements

(1) Range Control will provide the required supervisory personnel, range, safety vehicle medical support and targetry to support the activity.

(2) The OIC is responsible for the overall direction and safe conduct of the recreation fire event.

(3) The RSO is responsible for the safe supervision and management of the range while training is in progress. The RSO assists the OIC in ensuring all range regulations are followed. The RSO will maintain communication with Range Control at all times.

(4) The Range Control Fire Desk Operator will maintain communication with the RSO, beach, and road guards. Members of the Range Control staff will check shooters in/out, inspect paperwork and weapons, and direct them to the Range 5 OIC/RSO. Range Control will maintain folders with copies of the participant's weapons registration and hold harmless paperwork.

b. Shooter Requirements

(1) Understand and sign the “Hold Harmless” agreement form.

(2) Understand and comply with all recreational firing regulations.

(3) Provide a copy of Hawaii State Firearms Registration paperwork for each firearm to be used.

(4) Check in and out of Range Control (Building 1584) upon entering and exiting the RTF. Firearms and paperwork will be inspected by Range Control staff when checking in.

c. Guests Requirements

(1) If firing, must comply with all requirements listed under “shooter” above.

(2) Must be at least 14 years of age.

(3) Firing guests age 14-18 must be supervised by their legal guardian.

(4) No more than two firing guests per military member.

d. Practice Fire Requirements

(1) Active duty Marines and Sailors stationed aboard MCB Hawaii are authorized to fire their T/O weapons for practice during recreational fire. Limited quantities of 5.56mm and 9mm ammunition will be kept on-hand for individuals to use for practice. Only ammunition with the DODIC provided is authorized to be fired with issued weapons. The following are requirements

(2) Any Marine/Sailor desiring to fire their T/O weapons during recreational firing must have a signed letter from their CO, authorizing them to utilize their T/O weapon during a specific recreational firing event.

(3) Any Marine/Sailor desiring to fire their T/O weapons during recreational firing must also have a Limited Technical Inspection (LTI) form completed by their unit armorer that is current within 30 days of the recreational firing event.

e. Safety

(1) Every participant must comply with all safety regulations written and given verbally by the OIC, RSO, and Position Safety Officers (PSOs).

(2) Firearms and ammunition are required to be in a safe and serviceable condition and are subject to inspection by the RSO to determine their safe usage aboard the range.

(3) The OIC reserves the right to intervene and, if necessary, terminate an individual’s participation or the entire activity when safe operation of the range is in jeopardy.

(4) All firearms will be handled IAW the Marine Corps’ four weapons safety rules, weapons conditions codes, and range commands.

f. Transportation

(1) Transportation of firearms and ammunition aboard MCB Hawaii must be in compliance with Base Order P5500.15B, Change 2.

(2) Any person transporting firearms small enough to conceal, must perform the following functions to the weapon(s): unload, encase in a lock-box/or apply trigger lock, and make inaccessible to the operator and passengers when in the vehicle. Ammunition must be kept separate from the firearm and in an area inaccessible to the operator and passengers.

(3) Upon arriving at the range, patrons will clear any/all personally owned weapons and present them to the Range Control staff who will verify the serial numbers and registration paperwork. Patrons will then report to the designated range, where they will again present cleared weapons to the RSO for inspection.

(4) Carrying of rifles/shotguns on or to the range will be either at shoulder arms or sling arms, pistols will be cased/holstered or administratively carried “raised pistol”.

g. Ammunition

(1) Care must be taken when using hand loaded ammunition, the range RSO may direct that hand loaded ammunition may not be utilized if there is any reason to suspect it may malfunction or is unsafe to fire. Any ammunition acquired through an unknown source is not authorized for use.

(2) Ensure that your firearm is compatible with the caliber, type and charge of ammunition to be used. E.g. .38 Special, .38 +P, .357 magnum.

(3) Civilian ammunition is only authorized to be fired from privately-owned weapons.

h. Targetry. Kaneohe Bay RTF will set up targets for all recreational firing events. Shooters may bring their own paper targets to place over the existing target backings.

i. Personnel Protective Equipment. Protective eyewear, hearing protection and fully covered footwear are mandatory.

j. Clean-up. Recreational firing participants are responsible for policing their own brass, trash, and targetry at the conclusion of the activity.

5. The assigned Range OIC is the immediate authority during any scheduled recreational firing event and is responsible for establishing the directives contained in this Order and all local range regulations.

6. The following POCs are listed for the Kaneohe Bay RTF:

a. OIC, Range Control (808)257-2067.

b. Range Chief (808)257-3600.

c. Fire Desk Operator (808)257-3180.

d. MCB Hawaii scheduler (808)257-8816.

e. Emergency 911.

7. Scheduling

a. Unless the range is scheduled for unit training, or it falls under a holiday, patrons can expect the recreational firing program to be conducted as outlined in section 6029, paragraph 3.

b. Personnel desiring to participate in recreational firing should inform Range Control of their intent by 1000 on the day of the event. In the event of no scheduled participation, recreational firing will be cancelled for that day. There will be no “maximum” number of participants. The infiltration method of squadding will be used (i.e. when a shooter is complete he/she vacates the firing point and upon clearance from the range staff, another shooter may occupy the firing point).

6030. PARACHUTE OPERATIONS

1. General. Parachute operations include dropping or releasing personnel, or illumination from an aircraft for descent to the ground.

2. Scheduling. Prior to conducting any parachute operations, the unit desiring to conduct such training shall coordinate and schedule (in advance) the airspace and the appropriate DZ requirements needed to support the operation. Scheduling of airspace and DZ requirements shall be done through the Range Scheduling Office. Attempting to schedule after aircraft are assigned often results in conflicts that interfere with training.

3. Restrictions. The following restrictions and safety precautions apply to all parachute operations.

a. All parachute operations will be conducted in accordance with MCWP 3-15.7, Static Line Parachuting Techniques and Training. The RSO will have the final approval authority for jumps based on the wind condition. The RSO will suspend or cancel operations if, in his judgment, wind direction or wind gusts in combination with aircraft position make the event unsafe.

b. During static-line parachute operations, the winds on the surface will not exceed 13 knots, or 30 knots through the jump altitude. When utilizing Ram-Air parachutes, either static-line deployed or manually deployed, the winds on the surface will not exceed 18 knots; the winds through the jump altitude are unlimited.

c. The RSO must maintain two-way radio communication with the drop aircraft, and with Range Control. In the event of radio communication failure, operations shall be suspended until air to ground communication with Range Control is re-established.

d. All high altitude high/low openings shall be conducted in VFR conditions to include aircraft transit/pattern and jumper descent to DZ.

e. Parachute operations will be conducted in designated DZ areas. Requests for parachute operations in areas other than established DZs will require advance approval and shall be coordinated in advance with the Range Scheduling Office.

4. Hazards. The Commander and RSO perform the following actions to reduce the risks associated with hazards:

a. The Commander will ensure a risk assessment analysis has been conducted to determine the risk level for jumpers. If a high risk exists, select (if possible) an alternate DZ that allows mission conduct at a lower risk level.

b. The RSO shall complete a survey of the DZ no less than 24 hours prior to conducting live parachute operations in order to validate the DZ survey and identify any potential hazards in and around the DZ. The results of the DZ assessment shall be included in the ORM prepared by the unit conducting the parachute training.

c. The RSO shall be physically located within the DZ. Prior to occupying the DZ, the RSO shall contact Range Control to receive a safety brief and provide Range Control with a brief scenario of the training to be conducted. The scenario shall include type aircraft, proposed start/stop times, and the type of personnel involved.

5. The Person in Charge/Drop Zone Safety Officer (DZSO) for jumpers will be the only person required to report to Range Control to sign for the parachute event. The DZSO for jumpers will be certified per all requirements in MCO 3120.11 (Marine Corps Parachuting Policy and Program Administration) and Marien Corps Warfighting Publication (MCWP) 3-15.7 (Static Line Parachuting Techniques and Training). The DZSO must have a current MCB Hawaii RSO card and meet all the requirements set forth in this SOP. The DZSO must be a certified/current DZSO. The DZSO must provide the names of the two additionally required jumpmasters for personnel drops during the checkout process and list them on the face-to-face worksheet brief so Range Control can verify them with the CO’s certification letter.

6031. RANGE SAFETY REGULATIONS

1. These four safety rules are the foundation for responsible weapons handling. These rules will be adhered to at all times:

a. Treat every weapon as if it were loaded.

b. Never point a weapon at anything you do not intend to shoot.

c. Keep your finger straight and off the trigger until you are ready to fire.

d. Keep your weapon on safe until you intend to fire.

2. Ranges will not be occupied until the OIC, RSO and hospital corpsman/medic/EMT sign for the range. This includes setting up targetry and ammunition staging.

3. All weapons must have a LTI/Pre-Firing Inspection (PFI) prior to firing. LTI/PFIs are considered valid for 30 days from date of inspection.

4. No one is authorized to cross over protective berms or designated range boundaries at any time.

5. The OIC/RSO must ensure there is full observation of impact area and SDZ. At any time a person, boat or any potentially dangerous condition exist, the range must go into a “CHECK-FIRE” status and the OIC/RSO must relay the pertinent information to Range Control.

6. The RSO must be present on the range at all times. The OIC and medical support, along with a safety vehicle and driver must be physically present on the range while live-fire is in progress. The medical support cannot be a participant in training while performing medical support duties. In the event of an emergency, the medic is the first responder and has the primary duty of providing first aid and/or emergency medical care as needed. Range Control must be notified immediately in the event of an emergency.

7. Everyone is a Safety Officer. Anyone can call a “CEASE-FIRE” if they observe any unsafe condition. Whenever the command “CEASE-FIRE” is given, all shooters will immediately “CEASE-FIRE”, “UNLOAD” and “SHOW CLEAR”. After showing clear, bring weapon to Condition 4 status. Muzzles will be pointed in a safe direction at all times.

8. All range lateral and vertical limits are clearly marked and will be adhered to at all times. No one will intentionally shoot to the left/right/above or below the limit markers. Targets will not be placed in such a way that engaging them will cause rounds to impact outside the range impact area. It is the RSOs duty to insure that targets are placed so that projectiles fired or launched at that target land within the range impact area boundary. Anyone witnessing projectile impacts outside of the impact area must immediately call “CEASE-FIRE”.

9. Firing directly into the Ulupa’u Crater WMA or the Pu'uloa impact berm projectile containment wall is strictly prohibited. Extreme caution shall be exercised to preclude direct fire and or stray rounds from entering the WMA.

10. <u>In the event of a fire</u>

a. All firing will cease.

b. The OIC/RSO will immediately notify Range Control that a fire has started and provide the location and size.

c. On order, the OIC/RSO will evacuate all personnel, weapons, ammunition, vehicles and equipment to a designated area.

d. The OIC/RSO will report status of all personnel and equipment to Range Control.

11. No tracer rounds, incendiary ammunition, illumination, or pyrotechnic devices will be utilized.

12. If there is a weapons stoppage and/or malfunction, and it cannot be cleared, contact Range Control for assistance. Range Control will contact EOD, if required.

13. All personnel must wear at a minimum, approved hearing protection. Eye protection is recommended while conducting live-fire. Flak jackets and helmets will be worn at all times while conducting live-fire and maneuver or firing high explosive (HE) munitions.

14. Radios will be issued by Range Control and will be monitored at all times. Positive radio communication must be maintained with Range Control. The call sign for the Ranges are the letter/number identifier of that range (i.e. R-9, R-1, etc.). Hourly radio checks are required.

15. In the event of a weapon malfunction, and the ammunition is found to be defective, “CEASE-FIRE” will be called and live-fire will stop. Range control will be notified and will coordinate with the proper personnel to ensure the ammo is inspected and cleared for use or turned in if warranted. Continued use of faulty ammunition will not be permitted IAW MCO 8025.1D.

16. OIC/RSO will conduct a post-fire inspection of all weapons used. This includes conducting a thorough check to ensure all weapons’ chambers are free of ammunition, magazines are clear, and ammunition storage pouches are empty of ammunition. All personnel will verbally declare “I have no brass or ammo” during line out procedures at the conclusion of training. Any unfired ammunition must be turned into the RSO or a range block official. There are no amnesty can collection points on MCB Hawaii ranges. In the event that ammunition or ammunition residue is discovered off of either RTF, it is the finder’s responsibility to report and turn it in to the first person in their chain of command.

17. Blank and live ammunition will never be mixed. Strict accountability procedures will be employed to ensure they remain separate. Blank and live ammunition will not be stored in or issued from the same building at the same time. Additionally, blank and live ammunition will not be utilized or stored on ranges at the same time. If the use of blanks is necessary the OIC/RSO will ensure separate storage sites are utilized for blank and live ammunition.

18. Class 1, 2 and, 3A lasers are authorized on all ranges. Class 3B and 4 lasers are only authorized on Ranges 5 and 10. Refer to Chapter 8 for additional information.

6032. RANGE CARDS. Specific information including authorized weaponry and ammunition regarding MCB Hawaii ranges can be found in Appendix R, MCB Hawaii Range Cards.

6033. MARINE CORPS AIR STATION TRAINING AREAS

1. Helicopter Landing Area. The authorized helicopter landing areas within the flight line property aboard MCB Hawaii is Helicopter LZ West Field. Helicopter landings at any other location must have prior approval of Airfield Operations. Requests, via the appropriate chain of command, should arrive at MCAS Airfield Operations at least five business days prior to usage.

2. West Field. West Field is the helicopter operating area linked to, and located northwest of, Runway 04/22. This area contains helicopter parking areas, a troop cargo staging area, an external pickup and hover pad, an ordnance assembly building, a tactical Airfield Fuel Dispensing System unit, CLZ for LCAC aircraft and corresponding taxiways. A simulated ship deck oriented 040/220 degrees magnetic is painted at the north end for helicopter Field Carrier Landing Practice training. West Field operations are closed to nonessential aircraft when utilized for ordnance loading/staging.

SOP FOR RANGES AND TRAINING AREAS

CHAPTER 7

AMMUNITION AND EXPLOSIVES

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CHAPTER 7

AMMUNITION AND EXPLOSIVES

7000. AMMUNITION AND EXPLOSIVES. The specific types of ammunition authorized for use on MCB Hawaii RTAs can be found in Appendix G.

7001. AMMUNITION. The authorized ammunition to be used on MCB Hawaii RTAs will be U.S. Government standard ammunition per MCO P8011.4G. The only exception is civilian law enforcement agencies and specifically authorized recreational firing events. Vehicles transporting ammunition will be placarded IAW NAVSEA OP 2239, NAVSEA SWO-AF-SAF-010, NAVSEA SW020-AC-010/020/030 and CFR 49. Ammunition will be on pallets, strapped down and covered with a tarp when staged/stored on RTFs. Vehicles transporting ammunition on the RTFs will be equipped with one dry chemical fire extinguisher (10 pound B:C or higher rating) and will be ground-guided at all times. Military tactical vehicles and Government Service Administration commercial pickup trucks are the only vehicles authorized to transport ammunition on the RTF.

7002. NONSTANDARD AMMUNITION AND EXPLOSIVE

1. Nonstandard ammunition and explosive items are prohibited unless specifically approved by Commander, Marine Corps Systems Command, as appropriate.

2. Requests to use nonstandard ammunition, explosives or foreign ammunition on MCB Hawaii training ranges will be submitted 60 days in advance of the event to the CO, MCB Hawaii (Director O&T).

3. Altering fixed ammunition, such as increasing the amount of propellant, is prohibited.

4. The CO, MCB Hawaii must approve the use of non-standard ammunition on all MCB Hawaii ranges.

7003. ALTERATION OF AMMUNITION. The alteration of Class V supplies is not authorized under any circumstances.

7004. BLANK AMMUNITION

1. Utilization of blank ammunition will be at the direction of Range Control as determined by, among other considerations, the current Fire Restriction. Blanks are not authorized during fire restrictions. Personnel will be instructed by unit OIC/RSOs on the safety precautions for firing blank ammunition prior to training. Blanks will be visually inspected prior to use, to ensure safe condition.

2. Particular care will be taken to ensure that blank ammunition and live ammunition are never mixed. Blank and live-fire ammunition will not be stored in or issued from the same building at the same time. Additionally, blank and live ammunition will not be utilized, or stored, on ranges at the same time.

7005. FIELD STAGING AREAS. No projectile will be fired over ammunition magazines or field staging areas. Firing is not permitted if the SDZ for the weapon falls within any designated field staging area. Ammunition placed on

ranges will be guarded at all times by armed guards. Staged ammunition will be covered to protect it from the natural elements. Precautions will be taken to prevent accidental ignition or detonation. Ammunition will never be buried.

7006. AMMUNITION MALFUNCTIONS

1. Ammunition handling procedures are contained in reference (k). Ammunition that fails to perform as expected can normally be attributed to a malfunction, human error, or a weapon/equipment deficiency. In all instances, facts surrounding the matter must be immediately noted and reported, so that remedial action can be initiated to preclude a recurrence.

2. If an ammunition malfunction occurs, a cognizant, design agent shall conduct a detailed technical investigation based on the data provided by the user in the malfunction report. To ensure that the report contains the proper data, persons on the scene must take notes on the elements listed below as they relate to the particular situation. If any ammunition malfunction occurs, the ammunition technician at the RTF will submit a malfunction report reflecting the following information:

a. Record the time, date, weather condition, and details of what actually occurred.

b. Identify the item(s) involved and condition of ammunition before firing.

c. Identify the weapon/device used and any pertinent information that pertains to the firing of that weapon.

3. Unused or unserviceable ordnance will not be reported as duds but returned to the ammunition supply point by the using unit. Misfires and hang fires will be cleared by the using unit by application of proper immediate or remedial action or notification of RCO. If notification of EOD is needed, ensure proper ammunition malfunction reporting is concurrently conducted.

4. Any person having knowledge of the whereabouts of live ammunition, pyrotechnics, abandoned ammunition or potentially hazardous ammunition will report such information to Range Control.

7007. EXPLOSIVE ORDNANCE DISPOSAL

1. The mission of EOD is to locate, identify, and neutralize explosive ordnance hazards posing a threat to personnel, equipment, material, and the installation, which are beyond the capability of other occupational skills within the services.

2. Do not pick up anything which might have once been ordnance. Call EOD at (808)257-7112. If after hours, call the duty Technician at (808)216-6215, the supervisor at (808)620-1638, or Range Control to report any findings.

7008. TRANSPORTING, HANDLING, AND STORAGE

1. General. It is imperative that units arriving at MCB Hawaii are familiar with their corresponding regulations governing these subjects. MCO P8020.10, Marine Corps Ammunition Management and Explosive Safety, governs policies and procedures associated with the use, storage, and accountability of Class V

“W” ammunition and explosives. NAVSEA SW020-AF-HBK-010, Transportation Safety Handbook for Ammunition Explosives and Related Hazardous Material, governs transportation of Ammunition Explosives and Related Hazardous Material.

2. Qualified Drivers. Drivers of any vehicle transporting ammunition or explosives aboard MCB Hawaii and RTAs shall meet specific administrative and medical criteria, per 49 CFR 391.41 – 391.49, and NAVSEA SWO20-AF-HBK-010. Any drivers that do not have the “Explosive Driver” stamp on their driver licenses and do not have in their possession their current medical Examiner’s certificate will be turned away.

3. POVs. Using POVs aboard MCB Hawaii RTAs to load, store or transport ammunition, pyrotechnics or explosives of any kind for military training is prohibited.

4. Ammunition Requests. Marine Corps units planning training aboard MCB Hawaii shall coordinate ammunition requirements with Station Ordnance. MCB Hawaii Station Ordnance can be reached at (808)257-8400 or (808)257-5229.

5. Ammunition Handling. MCB Hawaii POC is the Explosive Safety Officer, who can be contacted at (808)257-2096.

6. Duds

a. A dud is ammunition, of any caliber or weight, that has been fired, placed, dropped, thrown or launched, but which fails to function as designed. If units plan to train with dud-producing munitions, they must provide EOD support and all duds must be cleared prior to departure of the unit. Duds found outside an impact area, or in a TA, must be reported to Range Control immediately. Do not disturb a dud or UXO in any manner.

b. The OIC will report all UXO (dud) ammunition to Range Control. In the case of grenades or other munitions that may be immediately hazardous to personnel (that is, bursting radius), firing will be halted until qualified EOD personnel clear the dud. In other cases, firing need not be halted.

c. NOTE: Demolition materials like C4 or TNT which fail to function are misfires, not duds.

7. Misfires and Hang Fires

a. A misfire is defined as the failure of a primer or the projectile propelling charge to function, a line charge or demolition material which fails to function. In the interest of safety, all misfire procedures shall be completed on the range.

b. Misfire procedures in training manuals for the appropriate weapon system will be followed. In the event misfires present an immediate hazard to personnel or a cease-fire is necessary, they will be reported to Range Control.

c. An undesired delay in the functioning of a firing system.

d. A hang fire for a rocket occurs if the rocket propellant is ignited by the firing impulse, but the rocket fails to exit the launcher within the expected time frame.

8. Chemical Munitions

a. Chemical munitions are defined as agents or munitions which, through its chemical properties, produce lethal or other damaging effects on human beings. The term does not include riot agents, chemical herbicides, smoke and other obscuration materials.

b. Live chemical munitions shall not be used for training purposes at MCB Hawaii RTAs.

9. Smoke and Other Obscuration Materials

a. Smoke, and other obscuration materials shall be used only during scheduled training, per the provisions in applicable technical manuals and directives, as improper use may result in injury.

b. CS is not permitted to be used anywhere outside of the “gas chamber”.

c. OIC and RSOs must be CBRNE qualified when conducting CBRNE or smoke training.

10. Rounds Fired Off-Range. Rounds fired off-range must be immediately reported to Range Control. This requirement complies with the 1997 Military Munitions Rule amendments to the RCRA.

a. If a munition lands off-range, and is not promptly rendered safe or retrieved, the munition becomes a solid and hazardous waste, and any imminent and substantial threats shall be addressed.

b. If remedial action is not feasible, the RCO will maintain a record of the event for as long as any threat remains. The record shall include the munitions type (DODIC and nomenclature) and location (to the extent the location is known).

SOP FOR RANGES AND TRAINING AREAS

CHAPTER 8

LASER OPERATIONS

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CHAPTER 8

LASER OPERATIONS

8000. LASER OPERATIONS. This Chapter details the operating procedures and precautions to prevent injury to personnel and material damage from exposure to laser radiation. Only ranges certified for laser use may be used for laser operations.

8001. BACKGROUND

1. The word laser is an acronym derived from a description of the physical process: Light Amplification by Stimulated Emission of Radiation. The laser generates a beam of intense, monochromatic light that is usually invisible under normal operating conditions. The basic hazard associated with laser light is eye damage. This damage can vary from a small burn, undetectable by the injured person, to severe vision impairment. Eye damage by laser light occurs three ways:

a. Intrabeam or direct viewing.

b. Specular reflection.

c. Diffuse reflection.

2. Direct viewing is the most hazardous form of damage, as the light beam is focused directly on the retina. Specular (mirror-like) reflections redirect the light beam and cause the same eye damage as direct viewing. Diffuse reflections occur when the laser beam intercepts a rough surface and is reflected in a scattered pattern. The use of appropriate eyewear (goggles or visors) with the correct Optical Density for the wavelength of the laser will eliminate the ocular hazards associated with lasers.

8002. DEFINITION OF TERMS

1. Diffuse Reflection. The scattering of laser light as it reflects off of a rough surface.

2. Divergence. The increase in the diameter of the laser beam as the distance from the aperture of the laser increases.

3. Maximum Permissible Exposure. The level of radiation a person may be exposed to without hazardous effect.

4. Normal Ocular Hazard Distance (NOHD). The distance from the laser beyond which a laser exposure does not exceed the exposure limit.

5. Optical Density. Refers to the amount of filtration of the eyewear (goggles or visors) required to reduce the laser radiation to levels below the exposure limit.

6. Specular Hazard. A shiny or mirror-like surface. Examples are vehicle windows, polished metals, ice, standing water, and chrome bumpers.

8003. LASER SAFETY PROGRAM

1. Prior to conducting any laser operations, Range Control must establish laser safety programs, which include at a minimum the following elements:

a. Laser Safety Regulations.

b. Laser Safety Training Program.

c. Laser Protective Goggles and Equipment Program.

d. Medical Surveillance Program for the use of Class 3 and below laser systems, per MCO 5104.1B and MCO 3570.1C Range Safety.

2. The Laser Range Safety Report for MCB Hawaii can be found in Appendix S.

8004. LASER USE ON MCB HAWAII RANGES

1. All units conducting laser operations must have a LRSO assigned. The LRSO is responsible for ensuring all range regulations contained herein and other applicable USMC range policies are adhered to and enforced. A copy of the LRSO appointment letter must be forwarded to Range Control for input into RFMSS prior to that unit's use of MCB Hawaii laser ranges. The LRSO responsibilities shall not be delegated, and the LRSO may have no other duties during the training, unless appointed as the RSO IAW DA PAM 385-63 and MCO 3570.1C. The unit LRSO may serve as the RSO IAW MCO 3570.1C, after successful completion of the MCB Hawaii Range Safety Certification Course.

2. The LRSO must provide a detailed Laser Range Safety Brief to the RCO two working days prior to conducting laser operations.

3. When scheduling a laser range, the TA must be scheduled and approved through RFMSS. Scheduling requests shall list types of lasers to be used.

4. Prior to conducting laser operations at the scheduled range(s), the LRSO will ensure no specular hazards exist in the TA.

5. The LRSO will ensure personnel are briefed with information prior to commencing laser operations including range boundaries and lateral limits of fire.

6. Only personnel authorized by the unit LRSO shall operate lasers. All operators shall receive training prior to operating any laser on the following aspects of laser operations:

a. Operation of the laser system.

b. Hazards and safety precautions relative to laser operations in general.

c. All provisions of this Chapter.

7. There shall be no laser firing during rain, fog or any other inclement conditions.

8. Cease lasing immediately if unidentified personnel/aircraft enter the laser danger zone.

9. When lasing, the laser must always be pointed down range or towards the target/impact area.

10. Lasers shall not be directed above the horizon.

11. Aircraft must never be lazed.

12. Lasers shall not be activated until the target has been positively identified by the operator.

13. Laser firing logs will be maintained by RFMSS. Ensure that the expenditure report lists the lasers that were utilized during the training event. A Laser Firing Log can be found in Appendix T.

14. The laser exit port (aperture) must be covered or the batteries removed whenever the laser is not engaged in tactical operations on a laser range.

15. Range guards with radios must be posted at each of the access routes to the laser range.

16. Lasing shall cease if communication is lost with any of the personnel participating in the laser training. Units conducting laser operations must maintain constant communications with Range Control, and shall cease laser operations if communication is lost. Lasing is not to resume until communication with Range Control has been reestablished.

17. Batteries shall be removed from the laser at the completion of each day’s use, and whenever the laser is located outside the range area.

8005. ALLOWABLE LASER SYSTEMS

1. Only those systems approved for use through the USMC Training and Education Command, Range and Training Area Management Division, properly procured USMC laser systems, and systems certified by MCB Hawaii are authorized for use.

2. Units are responsible to ensure the system(s) to be used meet the allowable platform, maximum allowable buffer, and/or maximum allowable NOHD authorized for a selected laser range.

8006. LASER RANGE SAFETY SURVEY REPORT. An on-site laser safety survey was performed for certification of the MCB Hawaii Laser Range, Kaneohe Bay RTF, by the Naval Surface Warfare Center, Corona Division, in September of 2008. This report authorizes the use of Class 3B/4 lasers for training on Range 5 and Range 10 of Kaneohe Bay RTF. The following conditions, limitations and disclaimers apply to the survey:

1. Force-on-force scenarios were not evaluated in this report and should not be allowed without the expressed consent of the range LSSO using safety measures established by the Laser Safety Range Board.

2. The use of Class 3B/4 lasers from both Range 5 and Range 10 closes Ranges 1, 7, 8, 8A and 9. When Range 5 or Range 10 is scheduled for laser training, the other ranges cannot be occupied. Exceptions to this rule are co-uses approved by the installation Range Control Officer. Request to co-use Ranges 1, 5, 7, and 9 must be accompanied with a SOM and ORM worksheet. Co-uses

will only be approved when proven to be safe. At no time will one unit be permitted to be inside of another range's SDZ.

8007. WEAPONS, TARGETRY AND SAFETY

1. Weapons. Class 3B/4 lasers. The only authorized platforms are tripod mounted systems and hand-held systems (stabilized/non-stabilized). Range 10 supports 10 millirad (mrad) platforms. Range 5 supports 15 mrad platforms.

2. Targetry

a. General firing precautions when lasing targets IAW applicable TMs and SOPs apply. It is the RSO's responsibility to ensure all pertinent safety rules are followed.

b. The only authorized target area for use on Range 5 is depicted in Figure 8-1. The only authorized target area for use on Range 10 is depicted in Figure 8-2. Tables 8-1 and 8-2 detail Laser Limitations for Range 5 and Range 10 respectfully.

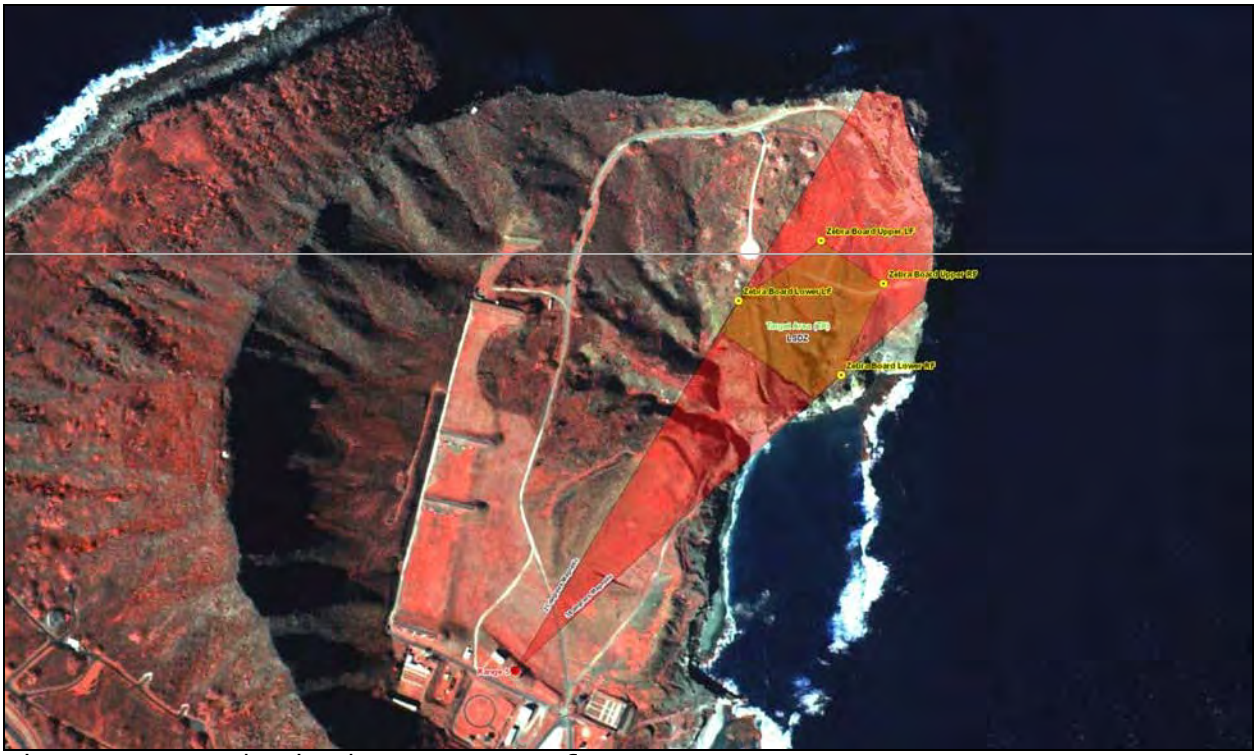


Figure 8-1 Authorized Target Area for Range 5

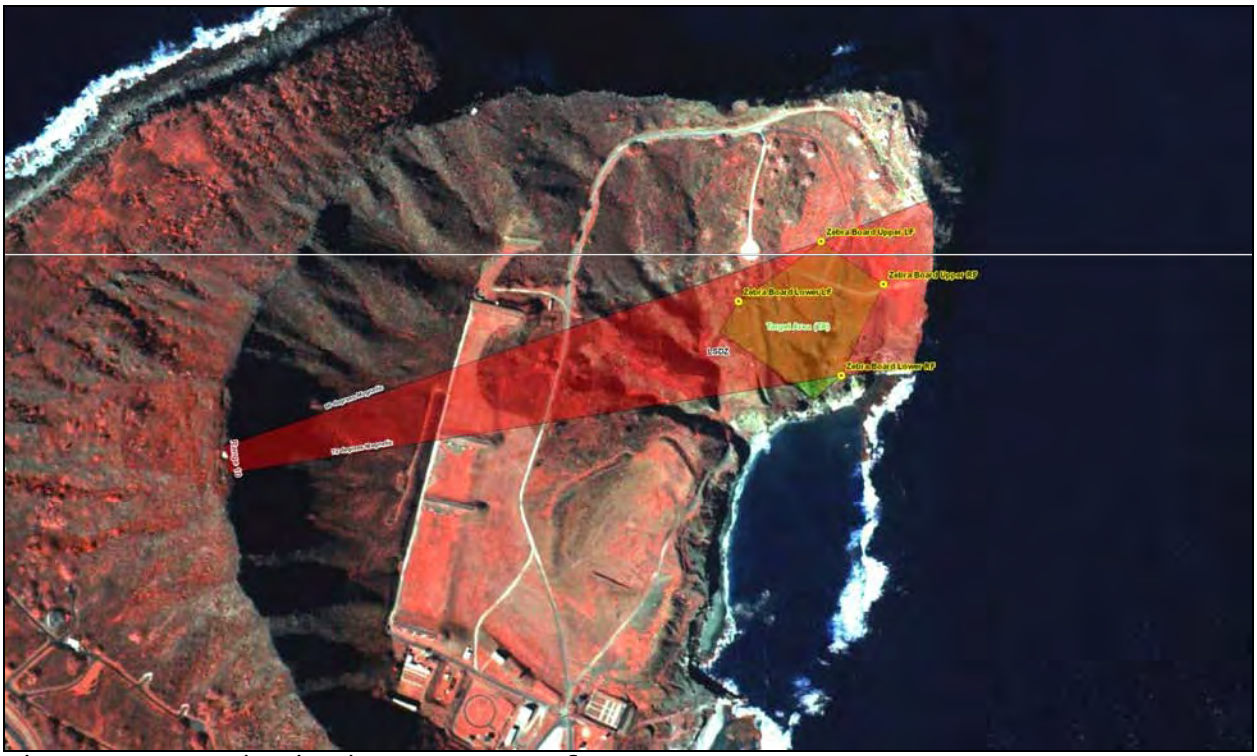


Figure 8-2 Authorized Target Area for Range 10

Table 8-1 Range 5 Laser Limitations

Firing Point (FP)	TA	MAXIMUM ALLOWABLE BUFFER	LATERAL LIMITS (MAGNETIC)
Range 5	Target Area	15 mrad	Left Lateral Limit: 21° Right Lateral Limit: 38°
FP Coordinates (MGRS)		04QFJ3179272705	
TA Coordinates (MGRS)		04QFJ3207073167 04QFJ3209573207 04QFJ3220873288 04QFJ3229373232 04QFJ3223573107 04QFJ3219973075	
Approved Platforms		Tripod mounted systems Hand-held systems (Stabilized and non-stabilized)	

Table 8-2 Range 10 Laser Limitations

Firing Line (FL)	TA	MAXIMUM ALLOWABLE BUFFER	LATERAL LIMITS (MAGNETIC)
Range 10	Target Area	10 mrad	Left Lateral Limit: 60° Right Lateral Limit: 72°
FL Coordinates (MGRS)		04QFJ3139973012 04QFJ3140373000 04QFJ3140472989 04QFJ3140472974	
TA Coordinates (MGRS)		04QFJ3207073167 04QFJ3209573207 04QFJ3220873288 04QFJ3229373232 04QFJ3223573107 04QFJ3219973075	
Approved Platforms		Tripod mounted systems Hand-held systems (Stabilized)	

3. Safety

a. Fire Control and Precautions

(1) Limits of Fire

(a) The lateral limits for the range are marked with yellow/black striped (zebra) signs located in the impact area. A shooter’s individual lateral limits are the left and right sides of his/her intended target.

(b) Table 8-3 details the lateral limits for Ranges 5 and 10.

(2) Firing Point Range 5 (pavilion) Grid 04QFJ3179272705.

(3) Firing Line Range 10 (crater rim) Grid.

(a) 04QFJ3139973012.

(b) 04QFJ3140373000.

(c) 04QFJ3140472989.

(d) 04QFJ3140472974.

Table 8-3 Range Lateral Limits

OPERATIONAL SITES	LATERAL LIMITS (MAGNETIC)
Range 5	Left Lateral Limit: 21° Right Lateral Limit: 38°
Range 10	Left Lateral Limit: 60° Right Lateral Limit: 72°

b. General Safety Requirements. All laser operators should meet the following minimum requirements:

(1) Have received the appropriate laser range briefing from Range Control prior to use of any laser range.

(2) Be familiar in detail with the MCB Hawaii Laser Safety Program and adhere to the procedures established therein.

(3) Communicate with Range Control during laser operations.

(4) Fire laser only after positive identification of the approved targets.

(5) If standing water, glass, or any other reflective materials becomes present within or near any of the established Laser Hazard Danger Zone (LHDZ), then it will be the responsibility of the RSO to suspend the exercise until the situation can be corrected.

(6) Prior to ground lasing operations, a visual inspection should be made to ensure safe lasing.

(7) The RSO will ensure that all personnel in the vicinity of the laser range remain outside the LHDZ during laser operations or wear the appropriate eye and skin protection if within the LHDZ.

c. Planning Requirements. The request for use of Class 3B/4 lasers is scheduled through RFMSS and approved by MCB Hawaii O&T. A LRSO is a mandatory requirement and must be present on the range during all training involving Class 3B/4 lasers.

APPENDIX A

ACRONYMS & DEFINITIONS

The acronyms and definitions listed below are pertinent to this Order and are used throughout.

ACRONYMS

A/V	Audio/Visual
AATA	Amphibious Assault Training Area
AAV	Amphibious Assault Vehicle
AGL	Above Ground Level
ALO	Air Liaison Officer
APOBS	Anti-Personnel Obstacle Breaching System
ARFF	Airfield Rescue and Firefighting
ASP	Ammunition Supply Point
ATC	Air Traffic Control
ATCSO	Air Traffic Control Station Officer
BFA	Blank Firing Adaptor
BFX	Battle Field Simulations
BLS	Beach Landing Site
BO	Base Order
BOTA	Barrier Obstacle Training Area
BSC	Battle Simulation Center
BTA	Boondocker Training Area
CACCTUS	Combined Arms Command & Control Training Upgrade System
CALA	Combat Aircraft Loading Area
CALFEX	Combined Arms Live-fire Exercise
CAN	Combined Arms Network
CASEVAC	Casualty Evacuation
CAST	Combine Arms Staff Trainer
CATEX	Categorical Exclusion

CBRNE	Chemical, Biological, Radiological, Nuclear, and high-yield Explosives
CCS	Combat Convoy Simulator
CDC	Child Development Center
CENTCOM	Central Command
CLZ	Craft Landing Zone
CO	Commanding Officer
COA	Certificate of Waiver or Authorization
COMCAM	Combat Camera
COR	Contracting Officer’s Representative
CP	Command Post
CPX	Command Post Exercises
CRB	Course Rules Brief
CRRC	Combat Rubber Raiding Craft
CS	O-Chlorobenzylidence Malonitrile Gas
CTD&S	Combat Training Devices & Simulators
CVOC	Combat Vehicle Operators Course
D-NOTAM	Distance Notice to Airmen
DOD	Department of Defense
DODIC	Department Of Defense Identification Code
DZSO	Drop Zone Safety Officer
DSN	Defense Switched Network
DVD	Digital Video Disc
DVTE	Deployable Visual Training Environment
DZ	Drop Zone
EA	Environmental Assessment
EC&PD	Environmental Compliance & Protection Department
EIS	Environmental Impact Statement
EMT	Emergency Medical Technician
EOC	Emergency Operations Center

EOD	Explosive Ordnance Disposal
EOL	End of Orienting Line
EPA	Environmental Protection Agency
FAA	Federal Aviation Administration
FAC	Forward Air Controller
Fed Fire	Federal Fire Department
FOB	Forward Operation Base
FOD	Foreign Object Damage
FP	Firing Point
FPG	Fire Prevention Group
ft.	foot/feet
GP	Gun Position
HAZMAT	Hazardous Material
HCF	Honolulu Control Facility
HE	High Explosive
HEAT	HMMWV Egress Assistance Trainer
HEDP	High Explosive Dual Purpose
HMMWV	High Mobility Multipurpose Wheeled Vehicle
HPD	Honolulu Police Department
HRST	Helicopter Rope Suspension Techniques
IAW	In Accordance With
IC	Incident Command
IED	Improvised Explosive Device
IE&L	Installations, Environmental & Logistics
in.	inch, inches
IOT	In Order To
IPAC	Installation Personnel Administration Center
ISE	In-Service Engineer
ISMT-E	Indoor Simulated Marksmanship Trainers-Enhanced

I-TESS	Instrumented Tactical Engagement Simulations System
ITG	Initial Terminal Guidance
ITK	Infantry Tool Kit
JSAF	Joint Sem-Automated Force
KT	Kansas Tower
LAV	Light Armored Vehicle
lbs.	pounds
LCAC	Landing Craft Air-Cushioned
LCU	Landing Craft Utility
LE/LF	Environmental and Facilities Departments
LHDZ	Laser Hazard Danger Zone
LNM	Local Notice to Mariners
LRC	Leadership Reaction Course
LRSO	Laser Range Safety Officer
LSO	Landing Safety Officer
LSSO	Laser Systems Safety Officer
LTI	Limited Technical Inspection
LZ	Landing Zone
MACS-2	Marine Air Control Squadron 2
MAET	Modular Amphibious Egress Trainer
MAG	Marine Air Group
MAGTF	Marine Air/Ground Task Force
MARFORPAC	Marine Forces Pacific
MCAS	Marine Corps Air Station
MCB	Marine Corps Base
MCCS	Marine Corps Community Services
MCIT	Mobile Counter Improvised Explosive Device Trainer
MCMAP	Marine Corps Martial Arts Program
MCO	Marine Corps Order

MCTAB	Marine Corps Training Area Bellows
MCWP	Marine Corps Warfighting Publication
MEB	Marine Expeditionary Brigade
MEDEVAC	Medical Evacuation
MET	MRAP Egress Trainer
MEU	Marine Expeditionary Unit
MGRS	Military Grid Reference System
MM	millimeter
MRAD	milliard
MRE	Meals Ready To Eat
MOUT	Military Operations in Urban Terrain
MPD	Military Police Department
MPH	miles per hour
MRAP	Mine Resistant, Ambush Protected
M&SD	Modeling & Simulation Division
MSL	Mean Sea Level
MTU	Marksmanship Training Unit
MTVR	Medium Tactical Vehicle Replacement
NAS	National Airspace System
NCO	Noncommissioned Officer
NLT	No Later Than
NM	Nautical Miles
NMCRS	Navy/Marine Corps Relief Society
NOHD	Normal Ocular Hazard Distance
NVD	Night Vision Devices
OCC	Operations Control Coordinator
ODS	Operator Driving Simulator
OIC	Officer-In-Charge
ORM	Operational Risk Management

OSC	On-Scene Commander
O&T	Operations & Training
PAO	Public Affairs Office
PCS	Permanent Change of Station
PFI	Pre-Firing Inspection
PFT	Physical Fitness Test
PIC	Pilot-In-Command
PM TRASYS	Program Manager, Training Systems
POC	Point of Contact
POV	Privately-Owned Vehicle
PPE	Personal Protective Equipment
PSO	Position Safety Officer
PWM	Pacific War Memorial
RAC	Risk Assessment Code
RCO	Range Control Officer
RCF	Range Control Facility
RFMSS	Range Facility Management Support System
RSO	Range Safety Officer
RSOP	Recon, Selection, Occupation of Position
RTA	Range Training Area
RTAM	Range and Training Area Management
RDT&E	Research, Development, Test & Evaluation
RTF	Range Training Facility
RTISS	Range Training and Instrumentation Systems Support
SACON	Shock Absorbing Concrete
SAR	Search And Rescue
SAVT	Supporting Arms Virtual Trainer
SAW	Squad Automatic Weapon
SBF	Support by Fire

SDZ	Surface Danger Zone
SESAMS	Special Effects Small Arms Marking System
SIO	Safety Insert Officer
SMART	Sports Medicine and Rehabilitation Team
SNCO	Staff Noncommissioned Officer
SOM	Scheme Of Maneuver
SOP	Standard Operating Procedure
SPIE	Special Patrol Inserts/Extracts
SVET	Submerged Vehicle Egress Trainer
SVFR	Special Visual Flight Rules
TA	Training Area
TAMC	Tripler Army Medical Center
TCCOR	Tropical Cyclone Condition of Readiness
T&E	Traversing & Elevation
T&R	Training and Rediness
TECOM	Training and Education Command
TIED	Training Improvised Explosive Device
TM	Technical Manual
T/O	Table of Organization
TSC	Training Support Center
TT	Turret Trainer
UC	Unified Command
U.S.	United States
UAS	Unmanned Aircraft System
USAR	Urban Search And Rescue
USCG	United States Coast Guard
USMC	United States Marine Corps
UXO	Unexploded Explosive Ordnance
VFR	Visual Flight Rules

VFST	Virtual Fire Support Trainer
VHF	Very High Frequency
VIP	Very Important Person
WBGT	Wet Bulb Globe Temperature
WFO	Water Front Operations
WGS	World Geodedic System
WMA	Wildlife Management Area
WP	White Phosphorus
WST	Weapon System Trainer

DEFINITIONS

Air and Ground Range Control Facility: This facility provides safety, control, maintenance, and administrative functions for aviation, ground, and combined-arms training activities on RTAs, to include both live-fire and non-live-fire events. Ground functions for this facility encompass land RTAs. Range Control is this type of facility.

Air Sentry: An individual designated by the OIC of Firing to maintain surveillance of an assigned sector of airspace to warn of the approach of aircraft.

Bivouac Area: An area assigned for administrative and logistical functions, such as troop billeting. Field training and live-firing are not conducted within bivouac areas.

Bivouac Operations: Those operations involving troop administrative and logistical functions; troop field billeting.

Cantonment: An area assigned for administrative and logistical function, such as housing, troop billeting, offices, storage and maintenance areas. Normally field training and live-firing are not conducted within cantonment areas.

Deviation: A departure from the requirements and/or procedures of this order.

Drop Zone: A tactical landing zone in which personnel or cargo paradrops are authorized.

Dud: Ammunition of any caliber or weight that has been fired, placed, dropped, thrown or launched but which fails to function as designed.

Explosive Ordnance: Ordnance which has become hazardous by damage or deterioration, when the disposal of such explosive ordnance requires techniques, procedures, or equipment, which exceeds the normal requirements for routine disposal.

Explosive Ordnance Disposal: The detection, identification, field evaluation, rendering-safe, recovery, and final disposal of unexploded explosive ordnance. It may also include the rendering-safe and/or disposal of explosive ordnance.

Field Training Areas: Those areas designated for a specific type of training, normally not requiring the use of live ordnance.

Fire and Maneuver Range: Range on which troop movement and live-firing may be conducted simultaneously.

Fire Danger Rating: Forestry Service rating based on weather conditions and fire burning indices describing the potential for ignition, rate of spread, and suppression probability with regard to fires.

Firing Lane: The area within which a weapon system is fired. It consists of a start firing line, cease-firing disarm line, and left and right limits of fire.

Firing Line or Point: The location from which a weapon is fired at a target or into an impact area.

Hang Fire: An undesired delay in the functioning of a firing system. A hang fire for a rocket occurs if the rocket propellant is ignited by the firing impulse, but the rocket fails to exit the launcher within the expected time frame.

Impact Area: Impact areas are areas within and above an operational range used to contain fired or launched military munitions.

Impact area, high-hazard: A permanently-designated impact area used to contain sensitive, high-explosive military munitions. A high-hazard impact area is normally delineated within a dedicated impact area where access is restricted due to unexploded explosive ordnance safety hazards.

Impact area, non-dudded: An impact area with designated boundaries used to contain non-explosive military munitions. These areas are primarily composed of small arms range safety fans and are available for maneuver when not used for military munitions training.

Impact area, temporarily-dudded: An impact area primarily used to contain non-explosive military munitions that may be temporarily used to contain non-sensitive, high-explosive, military munitions. A temporarily-dudded impact area should be capable of being cleared for maneuver.

Laser: A device emitting a focused beam of light.

Landing Zone: A pre-designated, numbered or named helicopter landing zone, which provides major commands ready access to air transportation and medical evacuation.

Live-fire Range: A range on which live-fire exercises, including the use of some types of practice ammunition, may be conducted.

Malfunction: Failure of munition to function in accordance with design, intent, or expected performance.

Maneuver Area: Two or more contiguous training areas designated and scheduled by a using unit for tactical exercises of battalion level or higher.

Misfire: A failure of a primer, initiation charge or propelling charge to function; a demolition charge fails to function; or a small arms primer fails.

Net Explosive Weight: The actual weight of explosive mixture of compound in pounds, including the TNT equivalent of other energetic material, which is used in the determination of explosive limits and Explosive Safety Quantity Distance arcs.

No Fire Area: A designated area into which neither live-fires nor effects of live-fire will occur. No Fire Areas are designated by a six-digit grid with a radius in meters.

No Show: A scheduled range event where the range time was not cancelled and went unused.

Notice To Airmen: A message to aircraft pilots in a specific area warning of airspace restrictions, equipment outages, or other factors which may affect flight activities.

Observation Post: A point from which impacting ordnance may be observed.

Officer-In-Charge: An individual designated by the Commanding Officer of the training unit who assumes responsibility for all aspects of training to include, but not limited to live-fire, paradrops, or air exercises.

Paradrop: The controlled aerial delivery of personnel or equipment by parachute.

Pyrotechnics: Smoke or signals, either flares or grenades. White phosphorous is not considered a pyrotechnic.

Range: A training facility designated for non-live-fire or live-fire weapons training, practice firing of weapons, demolitions, flame weapons, or fire and maneuver exercises.

Range Guard: An individual designated to maintain surveillance over an assigned locale to prohibit unauthorized entry into a surface danger area, and to give the alarm in the event that entry is detected.

Range Safety Officer: An individual designated by the Commanding Officer of the training unit who assumes responsibility for all aspects of safety for the training event.

Restricted Airspace/Area: Airspace designated under Federal Aviation Regulations, Part 73, within which the flight of non-participating aircraft, while not wholly prohibited is subject to restriction.

Special Use Airspace: Airspace in which aviation activities must be confined because of their nature and where limitations may be imposed on aircraft operations that are not a part of those activities. Types of special use airspace include Restricted Areas, Controlled Firing Areas, Military Operations Areas, and Warning Areas.

Standard Altitudes: Regularly scheduled effective altitudes pertaining to Special Use Airspace that are not necessarily the published effective altitudes.

Surface Danger Zone: The ground and airspace designated within the training complex (to include associated safety areas) for vertical and lateral containment of projectiles, fragments, debris and components resulting from the firing, launching or detonation of weapons systems to include explosives and demolitions.

Training Area: All areas on MCB Hawaii outside of cantonment area boundaries.

TERF Route: Terrain flight route used for helicopter low altitude navigation training.

Visual Flight Rules: Aircraft operations conducted under visual flight rules.

APPENDIX B

OIC/RSO DESIGNATION LETTER

UNITED STATES MARINE CORPS
Unit Header

IN REPLY REFER TO:
3570
S-3
DD MMM YY

From: Commanding Officer, Unit Name
To: Range and Training Area Manager, Operations and Training Directorate, Marine Corps Base Hawaii

Subj: OFFICER-IN-CHARGE (OIC)/RANGE SAFETY OFFICER (RSO) CERTIFICATION LETTER

Ref: (a) AR 385-63(MCO 3570.1C), 19 Jun 2003
(b) BaseO 1500.9B
(c) USAG-HI Reg 210-6

1. The following Officers, Staff Noncommissioned Officers, and Noncommissioned Officers have been trained in accordance with the references and are certified as OICs and/or RSOs as indicated:

RANK	NAME	MOS	MCB HAWAII ID #	MCB HAWAII EXPIRE	MARINE NET CERT EXPIRE DATE	QUALIFICATIONS				
						SMALL ARMS	HMG	MORT	RCKTS. MISS.	OTHER (SPECIFY)
										CBRNE
										RAPPEL
										DEMO
										MCWIS
										JTAC
										ALSO
										LASERS

2. This roster supersedes all previous editions.

3. The point of contact is xxxxxxx at (808)xxx-xxx.

I. M. COMMANDER

APPENDIX C

OIC/RSO CHECKLIST

RANGE OFFICER-IN-CHARGE (OIC), AND RANGE SAFETY OFFICER (RSO) CHECKLIST

☐ Ensure either the OIC or RSO is in possession of the current range SOP and Operational Risk Management Worksheet for the range scheduled.

☐ Ensure the RSO is familiar with the Surface Danger Zone, left and right lateral limits and troop penetration limits for the particular range scheduled.

☐ Ensure two-way communication is established with Range Control prior to going ”HOT”, both for the handheld radio issued and tactical radios being used on the range. Hourly radio checks to Range Control are required. If communication is lost the range will go into a “CHECK-FIRE” status until communication is reestablished.

☐ Request to go into a “HOT” status from Range Control prior to the conduct of training.

☐ Ensure the required road/beach guards are posted according to the current range order for the range scheduled, and conduct radio checks every hour to the RSO, OIC, or Range Control. If communication is lost, the range will go into a “CHECK-FIRE” status until communication is reestablished.

☐ Ensure required medical support, to include non-training corpsman, safety vehicle, backboard/stretcher with “C” collar, and unit five medical bag are physically present on the Range/Training Area prior to requesting a “HOT” status from Range Control.

☐ Ensure the RSO is completely familiar with emergency Medical/Casualty Evacuation Procedures.

☐ Ensure all ammunition malfunctions and accidents are reported to Range Control.

☐ Ensure RSO is familiar with weapon systems being used on the range.

☐ Verify all weapons are cleared and on safe prior to removal from range.

☐ Ensure a shakedown of all personnel and equipment is conducted at the conclusion of firing.

☐ Ensure a proper police call is conducted on the range prior to the post-training inspection. The unit will not depart the area until cleared by the Range Inspector.

☐ Ensure the four weapon safety rules are understood and not violated.

☐ Ensure the four weapon conditions are covered for the weapon systems, as applicable.

☐ Request to go into a “COLD” status from Range Control at the conclusion of training.

☐ While I am the RSO for this range, it will be my only duty and I must be physically present during all periods of training.

☐ I have read and understand the MCB Hawaii Standing Operating Procedures for the Range/Training Area being utilized.

RSO _____
(Print Name and Rank)

OIC _____
(Print Name and Rank)

_____ _____
(Signature of RSO) (Signature of OIC)

Notes/Comments:

_____

_____

_____

_____

Appendix C (Range OIC / RSO Checklist)

General Caveats			
OIC and RSO must be physically present at all times during training			
OIC must receive a range safety briefing from MCBH Range Control personnel prior to commencement of training			
OIC is responsible for maintaining communications with Range Control and obtaining clearance to change range status (Hot/Cold/Check Fire)			
Pre-Training	**During Execution**	**Post-Training**	**Emergency or Mishap Action**
Familiar with SDZ, WDZ, Lateral Limits, Troop Penetration Limits, Boundaries, Firing Points, Target Orientations	Ensure required medical support, including non-training Corpsman, Safety Vehicle, Backboard/C-Collar, and Unit-5 bag remain present and prepared	Conduct proper police call prior to arrival of MCBH Range Control personnel. Do not permit unit to depart training area until cleared by Range inspector.	. Immediately Render Aid Initiate "Check Fire" Communicate to Range Control Preserve accident site and materials
Establish redundant 2-way communications with Range Control. Request permission to go "Hot".	"Check-Fire" if communications is lost with Range Control	Reequest through Range Control to go "Cold" and provide post-training ammunition consumption and other required reports to Range Control	. Pass to Range Control: nature of incident, grid location and physical description of incident site, request specific support from Range Control.
Post required road/beach guards, air sentries, hoist range flags, turn visual signals on (Blinking Lights)	Conduct hourly radio checks with Range Control when "Hot" and every two hours when "Cold"	Supervise a thorough ammunition shakedown of all personnel conducting training	Complete Injury Form (Appendix F) and turn in to MCBH Safety NLT 24-hours from incident
Ensure all personnel conducting training receive a Range Safety Brief, including special instructions to position safety officers and other safety personnel	Ensure supervision of individuals conducting hang-fire, mis-fire, cook-off, and malfunction procedures.	Physically and visually clear all weapons before permitting them to depart	Report all mishaps and accidents to Range Cotnrol
Determine requirement for LRSO, and if required ensure Laser Range Safety Brief is given	Continually supervise the pre-planned safety and ORM plans. Identify and correct unforseen risks and hazards.	Ensure the proper disposition of range residue	Report all ammunition malfunctions to Range Control
Ensure OIC/RSO and training unit are familiar with Emergency Medical Plan and CASEVAC procedures	Restrict access to training areas and target areas as required. Maintain visual surveillance of impact areas throughout.	Return all safety equipment to Range Control	
Determine Heat Conditions through Range Control	Monitor Heat Conditions through Range Control		
Ensure RSO is qualified and current on any weapons systems being trained	Maintain written log of safety and control data		
Monitor the safe handling of all AA&E during training, comparing all documentation with actual quantities	Observe impacts of all ammunition. Immediately "Cease Firing" if any impacts are outside of approved limits.		
Maintain in OIC possession copies of: training plan, waivers, ORM, COR, Range Card, Range Regs	Ensure only authorized ammunition and explosives are used during training (Appendix G)		
While I am the RSO for this range, it will be my only duty and I will be physically present during all periods of training. I have read and understand the MCBH RTF SOP and have no questions about my duties. Sign/Date		While I am the OIC for this range, it will be my only duty and I will be physically present during all periods of training. I have read and understand the MCBH RTF SOP and have no questions about my duties. Sign/Date	

APPENDIX D

OIC/RSO APPOINTMENT REQUIREMENTS

WEAPON SYSTEM	OIC[1] OFF	WO	NCO	RSO[1] OFF	WO	NCO
Practice hand grenades; sub-caliber training devices; laser devices; firing devices; simulators and trip flares; small arms, and machineguns	X	X	E6	X	X	E5
Chemical agents and smokes[2]	X	X	E6	X	X	E5
Aerial gunnery and air defense weapons; flamethrowers; live grenades, grenade launchers and grenade machineguns; live mines and demolitions; tank and fighting vehicle cannons; recoilless rifles	X	X	E7	X	X	E6
Field artillery[3]	X	X	E7	X	X	E6
Mortars	X	X	E6	X	X	E6,E7[4]
ADA rockets and guided missiles.		X			X	
Direct fire anti-tank rockets and missiles	X	X	E7	X	X	E6
Live-fire exercises using organic weapons, squad through company, battery, troop[5]	X	X	E7	X	X	E6
Combined arms live-fire exercises (CALFEX) using outside fire support, troop, battery, squad, platoon, company; or battalion and larger[6]	X	X	E7	X	X	E6

Notes:
1. Civilians in the grade of GS–07 or above, or equivalent, may act as the Officer in Charge (OIC); and GS–05 or above or equivalent, may act as the Range Safety Officer (RSO).

2. For the Marine Corps, OIC and RSO must be E-4 and above and be chemical, biological, radiological, and nuclear (CBRN) MOS 5702/5711 when conducting CBRN or smoke training. For the Army, OIC and RSO must be CBRN qualified when conducting CBRN or smoke training.

3. Use of E7s as OICs is authorized only when approved by the senior commander (Army)/installation commander (Marine Corps). Duties of the RSO are normally performed by either the battery executive officer or platoon leader.

4. RSO for Marine Corps can be E5 for mortar training activities.

5. Senior RSO will be a CW03 or higher, or civilian in the grade of GS–11 or above.

6. For a battalion or larger CALFEX/Combined Arms Exercise, OIC will be a field grade officer; exercise RSO will be E-7 or above.

APPENDIX E

MCB HAWAII STANDARD ORM WORKSHEET/RISK ASSESSMENT FORM

Units requesting the use of High Explosives, Fire and Maneuver, or Shoot House training must submit an Operational Risk Management (ORM) worksheet to the installation Range Control Officer located in the Operations and Training wing of Building 216. The following standard ORM worksheet is the only acceptable format.

OPERATIONAL RISK MANAGEMENT MATRIX
MCB HAWAII

TRAINING EVOLUTION:	ORGANIZATION:	PREPARED BY:	DATE:

OPERATIONAL PHASE	HAZARD	CAUSES	INITIAL RAC	DEVELOP CONTROLS	RESIDUAL RAC	HOW TO IMPLEMENT	HOW TO SUPERVISE

HAZARD SEVERITY:
I - CATASTROPHIC- Death, permanent disability, major property damage.
II - CRITICAL- Permanent partial disability, major system damage, minor property damage.
III - MARGINAL- Minor injury, minor system or property damage.
IV - NEGLIGIBLE- 1st aid, minor system repair.

MISHAP PROBABILITY:
A - FREQUENT
B – LIKELY
C - OCCASIONAL
D - UNLIKELY

RISK ASSESSMENT CODE (RAC):
1 – CRITICAL
2 – SERIOUS
3 – MODERATE
4 – MINOR
5 - NEGLIGIBLE

RAC ASSESSMENT CODE MATRIX

HAZARD SEVERITY	MISHAP PROBABILITY A	B	C	D
I	1	1	2	3
II	1	2	3	4
III	2	3	4	5
IV	3	4	5	5

COMMAND REVIEW / APPROVAL

APPENDIX F

INJURY REPORT

1. INJURED PERSON (LAST NAME, FIRST, MI)			2. EDIPI
3. AGE	4. SEX	5. RANK	6. MOS
7. TRAINING UNIT/SECTION (CIRCLE ONE) UNIT _____ POC _____			
8. CIRCLE ONE (OR MORE IF APPLICABLE) FATALITY INJURY PERMANENT DISABILITY PARTIAL DISABILITY PROPERTY DAMAGE			
9. DATE OF INJURY	10. TIME OF INJURY	11. TRAINING AREA (BE SPECIFIC)	
12. TRAINING EVOLUTION BEING CONDUCTED WHEN INJURY OCCURRED			
13. DESCRIPTION OF MISHAP (DESCRIBE CIRCUMSTANCES AND EVENTS LEADING UP TO AND ASSOCIATED WITH THE MISHAP IN SUFFICIENT DETAIL THAT REVIEWING AUTHORITIES MAY GAIN A COMPLETE UNDERSTANDING OF CAUSE.)			
14. WEATHER CONDITIONS	15. DESCRIBE EXTENT OF INJURY	16. LIST INSTRUCTORS INVOLVED	
17. SIGNATURE	18. TITLE	19. DATE	

APPENDIX G

AUTHORIZED AMMUNITION

AUTHORIZED AMMUNITION	R1	R2	R3	R5	R6	R7	R8	R8A	R8B	R9	R9A	R10	A	B	C	D	E	F	MOUT BOONDOCKER	MOUT MCTAB	TA2	TA3
BLANKS W/BFAs	X		X	X		X		X	X	X		X	X	X					X	X	X	X
DEMOLITIONS							X															
7.62MM M240G	X			X		X						X										
7.62 SPECIAL BALL	X			X		X				X		X	X	X								
5.56MM SAW	X		X	X				X	X			X	*									
5.56MM M16	X		X	X	X	X		X	X	X		X	X	X	X	X	X	X				
12 GAUGE		X	X		X			X	X	X					X	X	X	X				
9MM PISTOL/SMG		X	X		X			X	X	X					X	X	X	X				
45 CAL. PISTOL/SMG		X	X		X			X	X						X	X	X	X				
SESAMs									X										X	X	X	X
60 MM(MAX CHARGE 1)											X											
.50 CAL.	X			X		X						X										
40 MM				X		X																
APOBS							X															
FRAG GRENADES								X														
IED SIMS																			X	X	X	X
AT-4/SMAW				X		X																
SMOKE GRENADES			X						X													

* SINGLE SHOT MODE ONLY

APPENDIX H

FIRE REPORT/COMMUNICATION SHEET

FIRE REPORT/COMMUNICATIONS SHEET (See daily range bulletin)

INCIDENT NUMBER (YY-0000)		
DATE (YYYYMMDD)	FIRE LOCATION	RANGE OCCUPIED BY UNIT
TIME FIRE REPORTED		TIME FIRE OUT

NOTIFICATION BY RANGE OFFICER/SNCO (URC Channel C5)

AGENCY NOTIFICATION	PHONE	TIME CALLED	AT SCENE	REMARKS
FED FIRE/MPD	911		Reports to CP	
CDO/EOC	(808)257-8456/ 8457/8819			
O&T Directorate	(808)257-8884		CP O&T Rep	

NOTIFICATION BY FEDERAL FIRE (FED FIRE) DEPARTMENT

AGENCY NOTIFICATION	PHONE	TIME CALLED	AT SCENE	REMARKS
MPD	(808)257-7114		Reports to CP	Additional firefighting assets
ARFF	(808)257-3212		Support Fed Fire	
EOD	(808)630-8310		To ensure no one goes into the impact area	
MAG-24	(808)257-3139/ 2285/1416		Freq 379.25	Request fire buckets

NOTIFICATION BY COMMAND DUTY OR BASE EMERGENCY OPERATIONS CENTER

AGENCY NOTIFICATION	PHONE	TIME CALLED	AT SCENE	REMARKS
O&T OPS	(808)257-8467(W) (808)261-7271(H) (808)479-7300(C)		Reports to EOC	
MAG-24	(808)257-3139 (808)257-2285 (808)257-1416(w)			Follow-up to Fed Fire’s request
Base Safety Fire Specialist	(808)257-1830(w) (808)561-3004(c) (808)216-5206(c)		Reports to CP	
Base Environmental	(808)257-6920(w) (808)216-5178(c)		Reports to CP	
ARFF	(808)257-3212 (duty)		Reports to IC	Follow-up to Fed Fire’s request
Chief of Staff	(808)257-7772 (808)620-2161			Ask COS if he’s going to contact Deputy, etc.

FREQUENCIES/CHANNELS

Frequency approved for on base air to ground emergency operations.	Range personnel should be on URC Channel C5	379.25
Frequencies approved for various air to ground use if needed outside of MCB Hawaii.		342.6 349.9

FIRE DESCRIPTION

High Medium Low	Estimated Acres Burned	Fire started in Impact Area? Fire escaped Firebreak?

HELICOPTER SUPPORT

Support Needed?	Aircraft Call Sign	Time Arrived on Scene	Time Departed	Number of Fire Bucket Drops?

FIRE CAUSE

Narrative		
Ammo Type	Weapon System	
Training unit	POC	Telephone
Remarks		
Fire report completed by	Date	Reviewed By

APPENDIX I

MCB HAWAII KANEOHE BAY SUPPORT FOR VISITING UNITS

1. Marine Corps Base (MCB) Hawaii Kaneohe Bay is located on the Mokapu Peninsula on the eastern side of the island of Oahu. Housed at Kaneohe Bay, you will find a broad-based support structure that can accommodate any training need. Figure I-1 shows the layout of MCB Hawaii Kaneohe Bay.

2. To make liaison with the different commands, the following information is provided:

a. 3d Marine Regiment is the higher headquarters to three infantry battalions and a combat assault company. The regimental staff can be reached by calling (808)257-0700.

b. School of Infantry West Detachment Hawaii maintains a staff of Marines who can instruct units in squad leader, sniper, and martial arts operations. The school can be reached at (808)257-1339.

c. Marine Air Group 24 is the higher headquarters to four medium helicopter squadrons and a logistics support element. For all air requests or requirements call (808)257-3139.

d. 3rd Radio Battalion (RadBn) is the primary signals intelligence Marine unit in the Hawaiian Islands. To request support from 3rd RadBn, call (808)257-7511.

e. Combat Logistics Battalion-3 (CLB-3) can offer a wide range of support from landing support, motor transport, maintenance and repair, and engineers. CLB-3 can be reached at (808)257-0469.

f. 1st Battalion, 12th Marines (1/12) is the home of three artillery batteries and a headquarters battery. To request support from 1/12 please call their S-3 at (808)257-8010.

g. 4th Force Reconnaissance Company can be reached at (808)257-2531.

3. In addition to military training supported by tenant commands, units can also receive mission essential support through these support agencies:

a. Medical - Branch Medical Clinic at Kaneohe Bay can provide a wide range of medical support. Twenty-four (24) hour ambulance support is provided by Honolulu Fire Department ((808)257-3133). For more information call (808)257-2131.

b. Dental - 21st Dental Company can provide a wide variety of dental support. 21st Dental can be reached at (808)257-3100.

c. American Red Cross - In the event of an emergency while utilizing MCB Hawaii for an extended period of time, the American Red Cross can provide assistance. To contact the Red Cross office, call (808)257-3150.

d. Navy/Marine Corps Relief Society (NMCRS) - In the event a service member has an emergency situation while aboard MCB Hawaii, in which financial support is required, the NMCRS can be of assistance. The NMCRS can be reached at (808)257-1327.

e. The Lodge at Kaneohe Bay is the primary lodging facility for visitors to MCB Hawaii on official business. The Lodge also manages the Cottages along the western shore. For temporary lodging call (808)257-2806.

f. MCB Hawaii Base Chapel - Religious services aboard MCB Hawaii are conducted at the Base Chapel. For more information call (808)257-3552.

g. Tripler Army Medical Center (TAMC) - The primary hospital for military members and their families on the island of Oahu, TAMC is a fully functional hospital that can support any medical need. For more information regarding the support capabilities of TAMC, call (808)433-6661/6662/6663 or visit their Web site at www.tamc.amedd.army.mil.

h. Physical Therapy Sports Medicine and Rehabilitation Team (SMART) center – MCB Hawaii’s sports medicine center has two full-time physicians to assist with medical rehabilitation. The SMART center is located in Building 221, and can be reached by calling (808)257-8708.

i. Anderson Dining Facility - The dining facility offers food service support to the Marines and Sailors of MCB Hawaii. The facility has morning, noon and evening meal hours. The dining facility also supports all requests for units who desire field or range chow. The dining facility can be reached at (808)257-2832/1004.

j. Legal Assistance - The Legal Services Support Team and the Staff Judge Advocate Office provide Marines and Sailors, as well as spouses, with legal assistance. They are located in Building 215, across from the Base Commander’s Building on the opposite side of the Base Flag Pole, and can be reached at (808)257-7801.

k. Post Office - The post office provides the base with an on-base site for the distribution of mail. The hours of operation are Monday through Friday from 0800-1630 and Saturday from 0800-1200. The Post Office is located on Mokapu Boulevard, adjacent to the Base Chapel, and can be reached at (808)257-2008.

l. The Military Police Department (MPD) – The MPD is responsible for all matters relating to installation security and law enforcement on-base. Departments include a K-9 Unit, Criminal Investigation Department, as well as others. MPD will be the point of contact for vehicle passes/decals. MPD can be contacted at (808)257-2123.

m. Hawaii Installation Personnel Administration Center (IPAC) – IPAC can assist with any and all personnel administrative issues. Sections include inbound, outbound, operations, pay and leave. The IPAC can be reached at (808)257-1469.

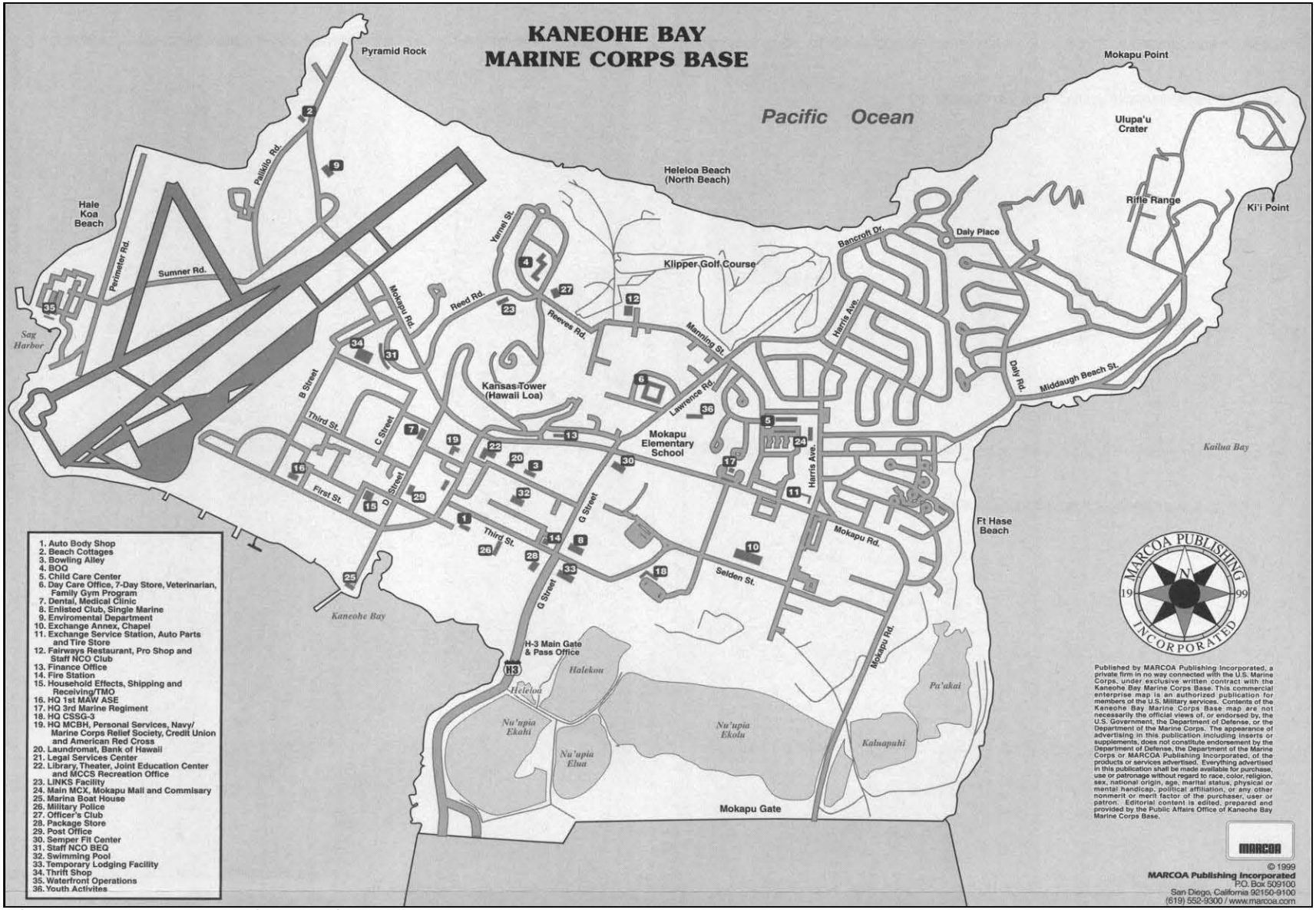


Figure I-1 Layout of Kaneohe Bay

APPENDIX J

INDEMNITY AND HOLD HARMLESS AGREEMENT

In consideration of my being able to participate in Training being conducted on Marine Corps Base Hawaii, Kaneohe Bay, Hawaii, on _____ 20____, at _____ Range Training Area (RTA), the undersigned agrees to the following:

1. That I acknowledge and fully understand that I will be engaging in training on the _____. These activities are known to be inherently dangerous and involve substantial risk of serious injury, including permanent disability, death, and while particular protective equipment and personal discipline will minimize this risk, the risk of serious injury or death does exist. These ranges/training areas may contain hidden manmade or natural obstacles which could similarly result in my injury or death. RTA conditions are often aggravated by the weather where exposure to heat, humidity, cold, wind, or wetness can increase the likelihood of sickness, injury or death. The event in which I am about to participate may include military personnel and equipment, to include the use of weapons, both ground and air based, and where such personnel and equipment are in use the likelihood of accident, injury, or death is greatly increased. I also understand that such injury may result from not only my action or inaction but also the actions or inactions of others, or the conditions of the training facilities. I KNOWINGLY AND FREELY ASSUME ALL SUCH RISKS, both known and unknown, EVEN IF ARISING FROM THE NEGLIGENCE of those persons released from liability below, and assume full responsibility for my participation. Prior to participating in any training on the _____, if I believe that anything is unsafe, I will advise range officials, in particular the Range Safety Officer, of such conditions and refuse to participate. I fully and voluntarily accept all risks associated, so that I may engage in this training activity. I understand that by accepting such opportunity, I incur no obligation towards the United States Government except as imposed by this release. I understand that the United States Government is not acting as a training facilitator for hire and does not bear the liabilities attaching to that status.

_____

Releaser’s Initials or Parent/Legal Guardian

2. I hereby RELEASE AND HOLD HARMLESS, waive, discharge, and covenant not to sue, the United States Government, including all of its subdivisions, officers, military personnel, employees and agents (hereinafter called the RELEASEE) WITH RESPECT TO ANY AND ALL INJURY, DISABILITY, DEATH, or loss or damage to person or property, WHETHER CAUSED BY THE NEGLIGENCE OF THE RELEASEES OR OTHERWISE, except that which is the result of gross negligence and/or wanton misconduct. I hereby release the United States Government from all liability for any injury including death or permanent disability, to me, caused or alleged to have been caused, in whole or in part by the negligence of the RELEASEE or otherwise caused, or resulting from, or in connection with training on _____. I have had a full and fair opportunity to consult an attorney about this agreement, and understand that such consultation is prudent and make this agreement voluntarily.

_____

Releaser’s Initials or Parent/Legal Guardian

3. I agree that this release not only binds myself, but also my family, heirs, assigns, administrators, and executors. Accordingly, I indemnify and hold harmless the RELEASEE from all liability and responsibility of any sort for all damage, injury, death, and loss to all persons incident to my injuries sustained during this training on the _____.

_____
Releaser's Initials or Parent/Legal Guardian

4. Should I sustain any injury while participating in or observing this Training on the _____, I hereby authorize any emergency first aid, medication, medical treatment or surgery deemed necessary by licensed medical personnel.

_____
Releaser's Initials or Parent/Legal Guardian

5. I have considered purchasing insurance for this activity. I understand and agree that neither the United States, the United States Marine Corps, nor any of their partners, agents, employees, or agencies will insure me.

_____
Releaser's Initials or Parent/Legal Guardian

_____
Parent/Legal Guardian Signature Print Date

_____
Range Control Officer Signature Print Date

APPENDIX K

WAIVER REQUEST FORMAT

UNITED STATES MARINE CORPS
Unit Header

IN REPLY REFER TO:
3570
S-3
DD MMM YY

From: Activity Head
To: Installation Range Control Officer, Marine Corps Base Hawaii

Subj: REQUEST FOR WAIVER TO RANGE AND TRAINING AREA REGULATIONS

1. Name and address of Activity:

2. Purpose of request (Specific statement of intent):

3. Specific time and/or time frame of action:

4. Specific location, grid coordinate or zone of action:

5. Plan of Execution:

6. Detail action:

7. Resources involved, special equipment capabilities:

8. Precautions to ensure safety and compliance with legal restrictions:

9. Precautions to minimize impact to environment.

10. References of precedence with similar previous actions (as available/appropriate):

11. Alternative courses of action considered:

12. Significance of the action and anticipated result if action is not approved as requested:

13. Suspense date for coordination:

14. Point of contact name, telephone, e-mail:

SIGNATURE

APPENDIX L

FORM SRF-1 HAZARDOUS SUBSTANCE RELEASE/SPILL REPORT

Date:	Time:	Report #:	Area:

POC:	Phone #:	Rank:
Material spilled:	Bldg #:	Unit:
Source:	Amount:	Grid:

Spill Cause:

Areas Threatened or Damaged a. Beach ☐ b. Water supply ☐ c. River ☐ d. Vegetation ☐ e. Other_____	Potential Dangers: a. Fire ☐ b. Toxic ☐ c. Explosion ☐ d. Other_____

Responders:	Responder Action:

Weather Conditions:	Casualties: Y / N

Brief Description of Spill:

Notifications:
a. Notifications must be made to MCB Hawaii Range Control immediately.
b. Hazardous Substance Spill/Release: Phone XXX-XXX-XXXX.
c. Chain of Command: As directed

Reports:
a. Complete After Action Report.

APPENDIX M

SCHEME OF MANEUVER REQUIREMENTS

1. Description. Units requesting the use of High Explosives, or fire and maneuver (to include shoot houses) to support their training at the Kaneohe Bay Range Training Facility must submit a Scheme Of Maneuver (SOM) plan to the Installation Range Control Officer (RCO) two business days (48 hours) prior to the event. The Installation RCO is located in the Operations and Training (O&T) wing of Building 216. Depending on the type of training, some SOMs must be accompanied by an Operational Risk Management (ORM) Worksheet and/or a pyrotechnics request. SOMs/ORM Worksheets may be submitted via e-mail or faxed to the Range and Training Area Management office. Failure to provide an adequate SOM/ORM Worksheet may result in the training event being canceled.

2. Requirements. At a minimum the SOM must contain:

a. Who: Unit, number of personnel.

b. What: Training to be accomplished.

c. When: Date, time to start, time to end.

d. Where: Location, range

e. Graphic: Indicating where Support by Fire Positions, cease or shift fire lines, demo pits, composition of explosive charge, location of targets, firing points, etc.

f. Key Safety Measures Undertaken: List and describe personal protective equipment, rehearsals, communications, signals, radios, etc.

3. Point of contact (POC). The POC is the O&T Range Facility Management Support System Scheduler at (808)257-8816

4. Example. The following PowerPoint slides are an example of an acceptable format. The example slides are not all inclusive. Ensure all pre-requirements are described in the SOM.

R-10 Platoon Reinforced Attacks
Pohokuloa Training Area
February 21-22 2003

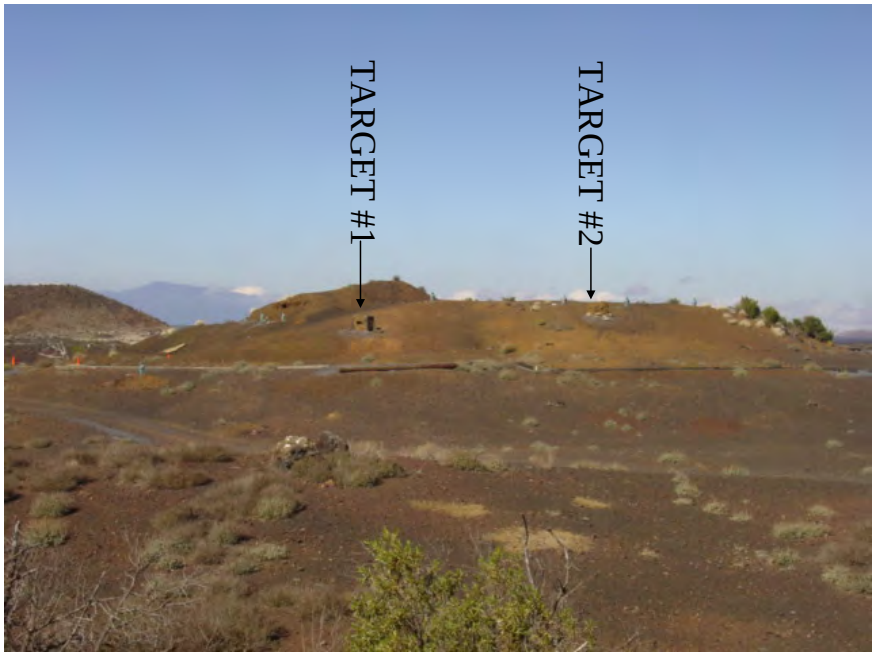
Alfa Company 1/3
OIC:
RSO: (b)(6)

Scheme of Maneuver

Movement to Company Objective 2

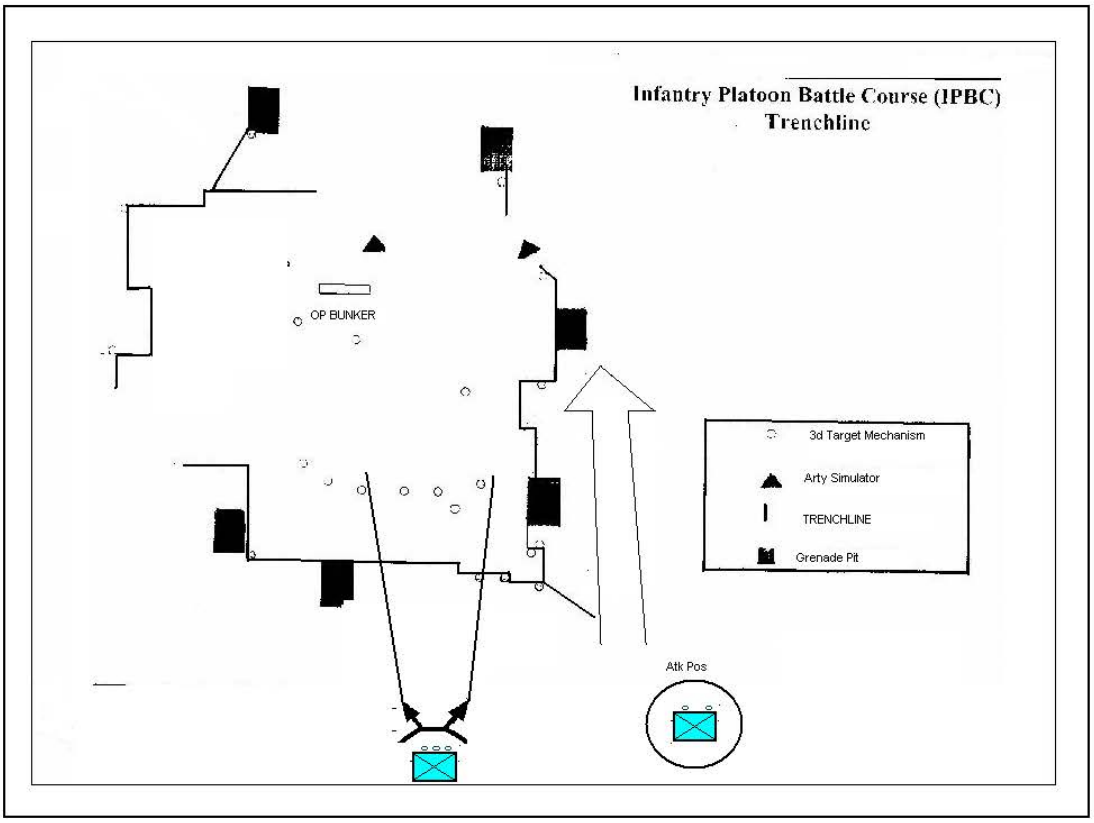
- Mortars shift to AO 1003.
- SBF #3 suppresses Company Objective 2 .
- SBF#3 ceases fire when platoon reaches Black Cinder Trail.
- Platoon moves to Assault Position.
- SMAW shots taken from berm in front of assault position.
- SBF #3 shifts fire to western half of Company Objective 2 .
- ME commences attack on Company Objective 2.

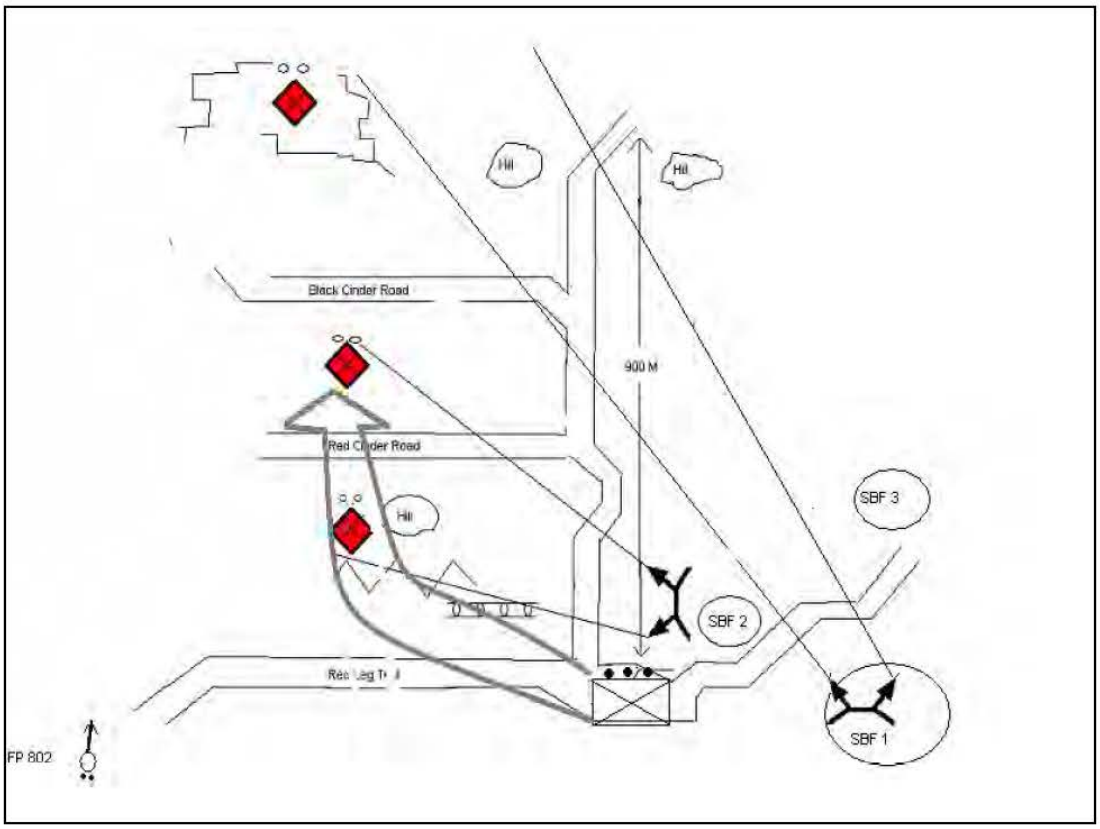
SMAW SHOT TARGETS



Scheme of Maneuver

- Clearing of Company Objective 2
  - Platoon suppresses trench line
  - Squad 1 moves to atk pos. Fire team moves to trench and throws grenade in at entry point.
  - Upon detonation of grenade, platoon shifts fire.
  - First squad enters trench and clears trench to north (right half).
  - Only one room will be cleared at a time (no multiple explosions), only point man will engage trenchline targets.


Infantry Platoon Battle Course (IPBC)
Trenchline
OP BUNKER
3d Target Mechanism
Arty Simulator
TRENCHLINE
Grenade Pit
Atk Pos


Hill
Hill
Black Cinder Road
900 M
Red Cinder Road
Hill
SBF 3
SBF 2
SBF 1
FP 802

R-10 Scheme of Maneuver

- Consolidation
  - Upon seizure of Co Obj 1, platoon consolidates.
  - Under cover fire from platoon, Assault team engages deep hardened targets with a SMAW/AT-4.
  - The RSO and PSOs will inspect all weapons at their respective positions. Company moves to AA.

Safety

- Lead man in each squad will carry a marking device (flag).
- One bunker will be cleared at a time using four man room clearing techniques.
- Only one and two man will fire at targets in rooms
- Only lead man will fire at targets in trench.
- PSOs will supervise all movement and grenade throwing

Timeline

- 21 February
  - 0530–0700 Reveille, morning routine, chow
  - 0700-0900 Platoon Orders
  - 0900-1400 Platoon Rehearsal
  - 1400-1500 Ammo Issue
  - 1500–1730 Platoon Live Fire

Safety Plan

- All ammunition will be kept at the AHA under an armed guard.
- A safety brief will be given by the RSO prior to live fire attacks.
- Communication: the OIC will carry a PRC-119 at all times IOT maintain positive communication with range control. Internal squad radios will be the primary communication between the OIC, RSO, PSOs, Safety Vehicle, AHA, and road guards. Should a cease-fire or check-fire occur, all will be notified via squad radio.
- In the event of a casualty, Range Control will be notified immediately, followed by battalion. The OIC will decide on how to evacuate the casualty (helicopter or vehicular).
- One position safety officer (PSO) will be at SBF 1 and 2, with the maneuver elements, and with each maneuver element in the trench.
- Immediately following each live-fire, PSOs will clear all weapons and line out all shooters. SAWs and M240s will gutted and checked for hiding rounds.
- A thorough line out will be conducted prior to departing the range.

Command

- PTA R-10
  - OIC:
  - RSO:
- FP 802
  - OIC:
  - RSO:

(b)(6)

Signal Plan

- **PRIMARY:** All commands to cease fire, shift fire, open fire and displace will be passed by the platoon commander by radio.
- **SECONDARY:** OIC, RSO, and PSO will cease fire.

APPENDIX N

UNMANNED AIRCRAFT SYSTEMS OPERATIONS

1. Description of flight operations. Unmanned Aircraft Systems (UAS) operations are required for the proficiency training of the operators and to support tactical training operations occurring during exercises supporting Marine Corps and other service pre-deployment training. UAS flight operations may be conducted at Marine Corps Air Station (MCAS) West Field area and at Marine Corps Training Area Bellows (MCTAB). The current Certificate of Authorization issued by the Federal Aviation Administration (FAA) can be obtained from Marine Corps Base (MCB) Hawaii Range Control.

2. Operation Limitations

a. All operations will be in accordance with current FAA issued Certificate of Waiver or Authorization (COA) that is issued for the specific UAS to be operated.

b. Operations at MCAS will be located at West Field. Operations at MCTAB will remain within the confines of the designated training areas assigned and scheduled by the using unit. Figure N-1 shows the MCAS and MCTAB UAS Operating Areas.

c. Prohibited operations include beyond visual line-of-sight, night or periods of low visibility, deliberate operations into clouds, directly overhead housing or directly over densely populated areas. Units may not operate more than one UAS at a time at MCAS or MCTAB.

3. Method of Pilotage. Only trained and qualified operators will pilot the vehicle using pre-assigned Global Positioning System waypoints via an on-board auto-pilot that can be updated by a ground station. One pilot/operator and one observer are required for operation. The pilot/operator and observer cannot be the same person. The pilot/operator and observer qualifications, other than Marine Corps standards, are established by the FAA and delineated in the COA.

4. Coordination and Scheduling. The UAS pilot/operator will contact the Automated Flight Service Station no less than 72 hours prior to the operation of the UAS and request to issue a Distance Notice to Airmen (D-NOTAM) when UAS operations are being conducted. Provide name and address of the using facility, location and altitude of operating area and time and nature of activity. All UAS operations will be scheduled through the Range Facility Management Support System in coordination with MCB Hawaii Operations and Training. In addition, operations planned at West Field will be scheduled and coordinated with MCAS Operations, preferably to coincide with when the airfield is closed or airspace is reserved for UAS operations. The airfield is normally closed on Sundays, which is the preferred period for operations.

5. Emergencies. In the event of an emergency, including the loss of communications with the UAS or an interloping aircraft, the operating unit will terminate UAS operations immediately and contact Range Control for further instructions.

6. Communications Procedures

a. Operations at MCAS. MCAS requires instantaneous two-way radio communication between the UAS operator and MCAS Air Traffic Control while UAS operations are taking place when the tower is operational. When the MCAS tower is not operational, the FAA Honolulu Control Facility (HCF) has jurisdiction. The UAS operator will notify the FAA HCF and MCAS operations no later than one hour prior to and one hour after termination of operations. The FAA HCF can be reached at (808)840-6201. MCAS operations can be reached at (808)257-3579, or (808)216-3252 if after hours.

b. Operations at MCTAB. The FAA HCF has jurisdiction. UAS operator will notify Range Control, FAA HCF and MCAS operations NLT one hour prior to and one hour after termination of operations. The Range control can be reached at (808) 257-3180, FAA HCF can be reached at (808)840-6201. MCAS operations can be reached at (808)257-3579, or (808)216-3252 if after hours.

c. It is highly recommended for operations at MCTAB and MCAS (MCAS with tower closed) that a “Safety Frequency,” obtained by the MCB Hawaii frequency manager in the Very High Frequency AM band, 118-135 MHz, be established and included in the D-NOTAM with a call sign to assist in any real time de-confliction with civil air traffic.

7. Pilot-In-Command (PIC). The PIC is the person directly responsible for the operation of the UAS. One PIC must be designated at all times and is responsible for the safety of the UAS and all persons and property along the UAS flight path. The PIC will be held accountable for controlling their aircraft to the same standards as the pilot of a manned aircraft.

8. Route and Altitude Procedures

a. All UAS routes will be contained within the boundaries of MCAS West Field or MCTAB, and will not exceed 400 ft. above ground level at any time.

b. When operating outside of restricted areas, special provisions must be made to ensure an equivalent level of safety exists for operations had a pilot been onboard. The following provisions provide acceptable mitigation:

(1) Visual observers, either ground-based or airborne, must be used.

(2) The using unit is responsible for collision avoidance with all aircraft, other aviation operations and the safety of persons or property on the surface.

(3) Operations must be conducted during day light hours only.

(4) All operations must stay within the boundaries of Department of Defense owned or leased properties.

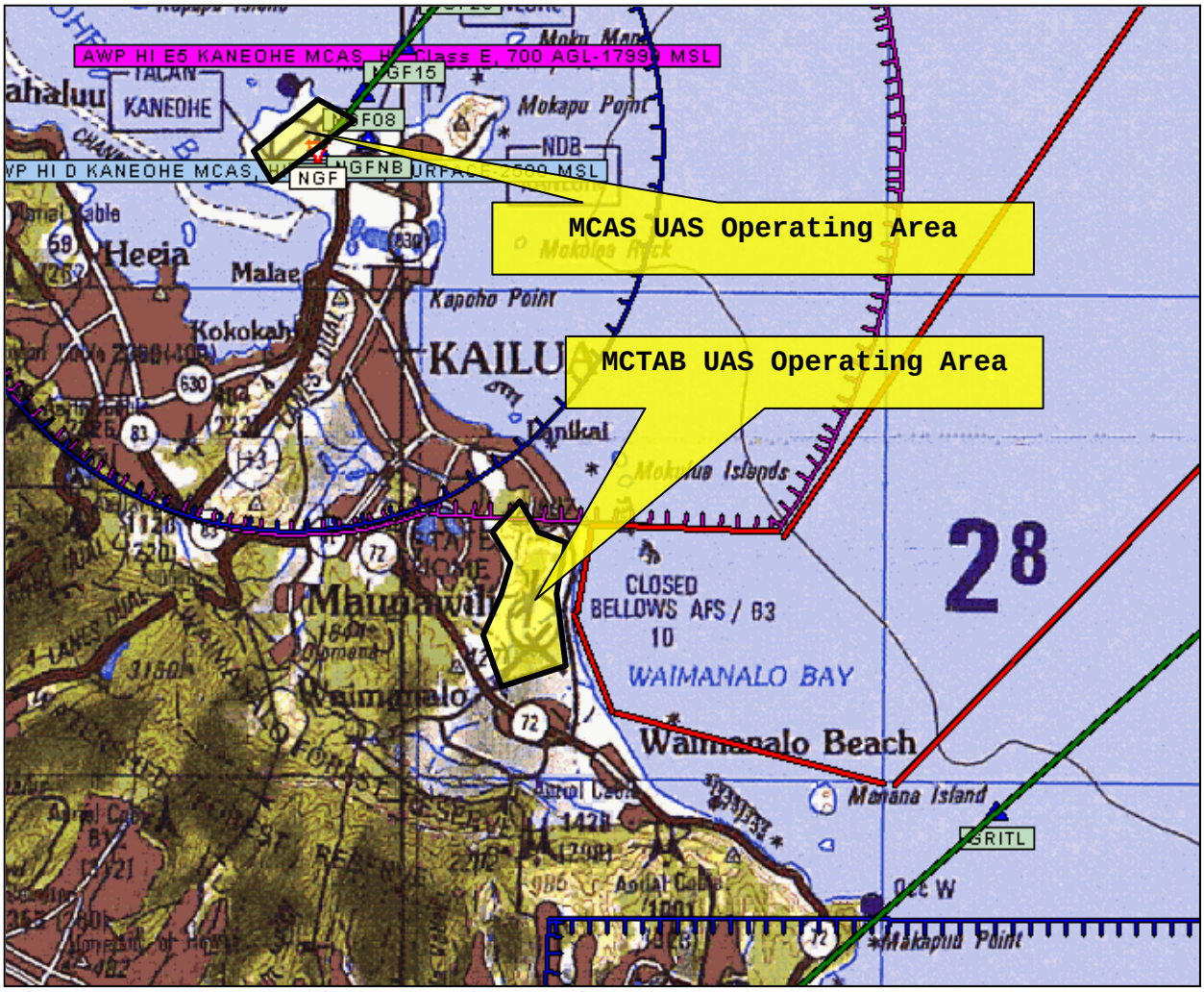


Figure N-1 MCTAB and MCAS UAS Operating Areas

APPENDIX O

MCB HAWAII PYROTECHNICS REQUEST FORM

1. Description. Units requesting the use of pyrotechnics to support their training at Marine Corps Training Area at Bellows, or the Kaneohe Bay Range Training Facility, must submit a pyrotechnics request form to the Range and Training Area Management located in the Operations and Training wing of Building 216. The standard request form found in this Appendix is the only acceptable format.

2. Point Of Contact. The point of contact is the O&T Range Facility Management Support System Scheduler at (808)257-8816.

UNITED STATES MARINE CORPS
Unit Header

IN REPLY REFER TO:
SSIC
Office Code
Date

MEMORANDUM THRU Commander, XXXXXXXX

FOR ATTN: Operations and Training Directorate, Installation Range Control Officer, Marine Corps Base Hawaii, Kaneohe, Hawaii 96744

SUBJECT: Request for utilization of military grade pyrotechnics, smoke and artillery simulators in the MCTAB Training Areas 2 and 3

REFERENCE: Base Order 1500.9B, SOP for Marine Corps Base Hawaii Ranges and Training Areas, Latest Edition.

1. The Combat Arms Training Battalion for the Hawaii Army National Guard is scheduled to conduct a STX in support of the Warrior Leader Course, 18-24 July 2009, in the MCTAB, TAs 2 and 3, reserved under RFMSS RCNI 136770, 136771, 136773, 136774 and 136775. A total of 90 NCOs and Soldiers will be trained by 10 instructors and will be accompanied by two Medics and four Support Personnel.

2. Simulated attacks by the OPFOR, upon the NCOs and Soldiers in training, will be managed by the instructors and carried out by the OPFOR. Blank ammunition for individual weapons, smoke, practice grenades and artillery simulators, along with simulated flash-less IED devices are requested to be utilized as listed under the following table:

DODIC	DESCRIPTION	COUNT	LOCATION by GRID
G940	Green Smoke	10	See attachment
G945	Yellow Smoke	10	See attachment
G950	Red Smoke	2	Use for emergency only
G955	Violet Smoke	10	See attachment
L594	M115A2, simulator, ground burst	50	See attachment

3. IAW reference cited in paragraph 1, all smoke will be expended in steel buckets placed on open ground and surfaces free of brush or grass.

4. All simulator type pyrotechnics, capable of producing noise, explosion, flash and heat, will be utilized on open ground surfaces off of roadways and upon the former runway and upon or very near to roadways, on open surfaces free of brush or grass, to simulate IED explosions, booby traps and hand grenades in close-in dismounted fighting scenarios between the student NCOs and Soldiers and designated OPFOR personnel.

5. Flash-less IED simulator devices, commercially procured and produced, producing a loud explosive sound and expending baby powder only, will be used upon or near roadways to simulate command detonated IEDs upon the student NCOs and Soldiers.

6. All devices, regardless of DODIC, description and purpose(s), will be expended by the course instructors only, wearing and utilizing safety equipment, utilizing steel buckets for smoke and open ground for simulators, with fire-fighting equipment readily available (fire extinguishers, 5 gallon cans of water, shovels, picks and heavy camouflage net bags for smothering). A minimum of two (2) instructors will be on-hand to manage the training scenarios with one instructor prepared to mitigate any possible fire-starting situations. All residue will be recovered.

7. All devices will be expended during daylight hours, on weekdays only.

8. The point of contact for this request memorandum is XXXXXXXX, at (808)xxx-xxxx (office), (808)xxx-xxxx (cell) or e-mail XXXXXXXXXXXX@XXXX.mil.

XXXX XXXX

APPENDIX P

URBAN OPERATIONS FACILITIES

MARINE CORPS TRAINING AREA BELLOWS	
Type	Marine Corps Training Area Bellows (MCTAB) Military Operations in Urban Terrain (MOUT) Non-Live-fire
Location (Center Grids)	Site #1 04QFJ 33126233 Site #2 04QFJ 32596242 Site #3 04QFJ 32746313
Allowable Weapons	M9 Pistol with Special Effects Small Arms Marking System (SESAMS) Kit M16 Service Rifle with Blank Firing Adaptor (BFA)/SESAMS Kit M4 Carbine with BFA/SESAMS Kit M249 with BFA M240G with BFA M2 .50Cal with BFA SMAW with simulator
Allowable Munitions (Inside Buildings)	5.56mm Blanks 7.62mm Blanks 9MM SESAMS munitions L598 Booby Trap Flash simulator (requires Operation and Training (O&T) approval) G811 Grenade Body Practice G878 Grenade Practice Fuse
Allowable Munitions (Outside Buildings)	LX21 Simulator (SMAW) Noise Cartridge G930/G940/G945/ smoke grenades (requires O&T approval) L598 Booby Trap Flash simulator (requires O&T approval) .50 cal/7.62mm/5.56mm Blanks Contractor provided a Battle Field Simulation (BFX) special request, only approved by Installation Range Control Officer (RCO) Demolitions not to exceed 1/4 pound Net Explosive Weight require a special request, only approved by Installation RCO
Direction of Fire	360 degrees
Maximum Range	150 meters

1. Notes

a. Live-fire ammunition (Ball) of any kind is prohibited in the MCTAB MOUT Facility.

b. Bivouacking within the MCTAB MOUT Facility and immediate vicinity is prohibited. Units may bivouac in designated areas only. However, tactical occupation of building is authorized 24 hours a day.

c. 3. Illustrations of MCTAB MOUT Facility can be provided when requested.

2. Training Support

a. Buildings in the MCTAB MOUT Facility may be used as “on-the spot” classrooms by the Range Safety Officer (RSO) when the range is in a “COLD” status.

b. Collateral equipment for the MCTAB MOUT (mechanical breaching material, concertina wire, etc.) is the responsibility of the using unit. “WHAT YOU BRING TO TRAIN WITH MUST BE TAKEN WITH YOU UPON COMPLETION OF TRAINING.”

c. Using units are authorized to use Instrumented Tactical Engagement Simulations System (I-TESS), 5.56mm and 9mm SESAMS and Training Improvised Explosive Devices (TIEDs) within the MOUT Facility. Pyrotechnics are not to be used with these devices. These training devices can either be delivered to the training site by the contractor or they can be checked out from the Range Training and Instrumentation Systems Support (RTISS) warehouse in Building 72, 657 Lehua Avenue, Pearl City Annex. The RTISS Contractor can be reached at (808)455-7891 or (808)391-4618. Equipment requests may be submitted online via www.tesslcs.com. For urgent matters contact the site manager at (808)391-4618 or the Training Support Center (TSC), at (808)257-1766.

d. Furniture (consisting primarily of desks, sofas, chairs and tables) are available at the MCTAB MOUT Facility. All furniture will be returned to its original location at the completion of training.

e. Vehicles located within the MCTAB MOUT facility may be used as fighting positions, but shall not be moved.

3. Scheduling

a. To schedule the MCTAB MOUT Facility, units will submit a Range/Training Area Request via the MCB Hawaii Range Facilities Management Support System (RFMSS). If using SESAMS, a Scheme of Maneuver (SOM) and Operational Risk management (ORM) worksheet must be submitted per BO 1500.9B.

b. Units requesting the use of pyrotechnics to support their training at MCTAB, or the Kaneohe Bay Range Training Facility (RTF), must submit a pyrotechnics request form to the Range and Training Area Management (RTAM), located in O&T wing of Building 216. The standard request form found in Appendix O is the only acceptable format.

4. Check-in Procedures

a. The Officer-in-Charge (OIC) for the MCTAB MOUT Facility must be an E-6 or above. The RSO for the MCTAB MOUT Facility must be an E-5 or above. The OIC and RSO must possess an RSO Card issued by Marine Corps Base (MCB) Hawaii RTAM.

b. Upon arrival at the MCTAB MOUT Training Facility, the OIC and RSO will receive the Training Facility and Safety Brief.

c. Upon completion of the Safety Brief and MCTAB MOUT Standard Operating Procedures (SOP) review, the OIC and RSO will conduct a pre-training inspection with the Range Control Staff. A check-in sheet will be completed and all discrepancies will be annotated on the sheet.

d. The Range Control staff will ensure issue of range flags and road barriers upon occupation of the training area.

5. OIC Duties

a. Conduct safety brief to all unit personnel participating in training.

b. Ensure the overall safe conduct of training and proper use of the Facility.

c. Ensure the RSO, corpsman and safety vehicle are physically present in the training area at all times.

d. Ensure only authorized and/or approved ammunition is used within the Facility.

e. Ensure ammunition is properly handled, transported, stored and accounted for within the Facility from the time of receipt to the time of expenditure or turn in.

f. Ensure control of firing areas to prohibit entry by unauthorized personnel.

g. Ensure Position Safety Officers (PSOs)/Noncommissioned Officers (NCOs) are assigned and briefed on their duties in support of MOUT Training.

h. Ensure a red flag is placed on the pole at the entrance to the range to alert personnel that training is being conducted in the Facility.

i. Ensure all personnel wear required protective equipment.

j. Ensure at the completion of training, all trash is collected and removed from the Facility.

k. Be thoroughly familiar with the contents of this SOP.

l. Complete the OIC/RSO checklist prior to conducting training within the facility.

6. RSO Duties

a. Ensure only authorized and/or approved ammunition is used within the Facility.

b. Ensure Surface Danger Zone (SDZ) is clear of all unauthorized personnel when conducting SESAMS training.

c. When SESAMS is in use, ensure road guards are posted and the entrance is properly marked by flags/barriers provide by range control around the training area and the training area.

d. During SESAMS training, ensure everyone in the MCTAB MOUT wears all SESAMS protective gear.

e. Be present during all training.

f. Ensure that medical personnel with a safety vehicle and driver are present at the Facility.

g. In the event of an emergency situation/accident the RSO will notify Range Control at (808)257-3180 or on the Range Control Net.

h. At the completion of training, ensure all weapons are checked safe and clear.

i. At the completion of training, ensure all personnel take part in a shakedown inspection.

j. At the completion of training, notify Range Control that you are “COLD” and pass a completed ammunition report by Department of Defense Identification Code (DODIC).

k. Be thoroughly familiar with the contents of this SOP.

l. Complete the OIC/RSO checklist prior to conducting training within the Facility.

7. Special Instructions

a. Minimum safe engagement distance as measured from the muzzle of the weapon to any personnel for 5.56 blanks is 5 meters

b. Keep all gates locked at all times. Do not remove/replace locks with temporary locks.

c. OIC/RSOs must be familiar with and avoid environmentally sensitive areas to include the cemetery in Training Area 2, the environmental garden near Gate 2 and the Waimanalo Stream.

d. Ground level window entries are permitted. OIC/RSOs are recommended to address falls in the ORM worksheet. If smoke grenades are authorized (must submit special request via the O&T) ensure that they are not used inside buildings.

e. Ensure practice grenades are not thrown directly at an opposing force.

f. Maintain storm awareness. In the event of an electrical or thunderstorm, evacuate the range. The buildings are made of metal and are not safe during a storm.

g. Subsurface ground disturbance of any kind (digging, trenching, fighting holes or cat holes) is prohibited.

h. Booby trap simulators will be placed below knee level and are prohibited from use in stairwells and ladder wells.

i. The use of grappling hooks within the MCTAB MOUT Facility is prohibited.

j. Entry to the first floor will be made through a window or doorway.

k. Units may occupy rooftops of buildings equipped with safety rails/ forced entry points. Personnel will not hang, pull, climb or rappel from safety rails. All forced entry points/trap doors/escape hatches will be secured at the completion of training.

l. Entry to the second or third floors of buildings will be made using only the internal or external stairwells.

m. Trap doors in buildings may be used to hide military items but must be policed after use.

n. Units may scale/climb block walls.

8. SESAMS

a. Minimum safe engagement distance as measured from the muzzle of the weapon to any personnel for SESAMS:

(1) SESAMS, 9mm: 7 feet or 2 meters.

(2) SESAMS, 5.56mm: 14 feet or 4 meters.

b. All weapons used during SESAMS training WILL BE inspected by the RSO to ensure serviceability and proper installation of SESAMS kits. He/She will not be the same person who installed the kits. The RSO will issue all SESAMS ammunition and check all magazines prior to going “HOT”. RSOs will utilize the SESAMS RSO Checklist.

c. SESAMS will be allowed in all single-level and multi-story buildings.

9. Safety Personnel

a. A RSO will be assigned as the safety supervisor for the exercise.

b. PSO/NCOs will be posted strategically throughout the exercise area for the purpose of spotting safety infractions or potentially hazardous conditions.

c. If an unsafe condition occurs, anyone may call “CEASE-FIRE”. The OIC or RSO may terminate the exercise with the command “CEASE-FIRE” or a previously established signal.

10. Safety Equipment

a. All participants involved in SESAMS training (to include anyone within 150 meter danger zone) will wear the following safety equipment; FX 8000, 9000 or 9003 Protective Face Mask. FX 9000 and 9003 are specifically authorized for use with AB05 and AB06.

b. The MCU-2A/P Chemical Biological mask may be used for face and eye protection, ONLY if the hard outer eye shields and the C2 canister are attached prior to use with the SESAMS training system.

c. A balaclava, towel or neck scarf will be worn so as not to expose any portion of the neck and throat.

d. The utility uniform, flight suit, assault suit or clothing capable of covering the arms and legs entirely shall be worn.

e. Athletic cup or commercial groin protector made to wear on outside of clothing shall be worn.

f. Gloves or commercial protection, that protects the backside of the hand, shall be worn.

11. Safety

a. A safety briefing will precede each training exercise with emphasis on the rules of engagement.

b. The training exercise area will be secured in a manner that precludes unobserved/uninhibited entrance by non-participants.

c. Medical support requirements are the same as “live-fire” exercises.

d. Weapons will be inspected before the exercise to check for damaged or plugged barrels.

e. Load upon command only.

f. Upon hearing the command “CEASE-FIRE” or previously established “ALL STOP” signal, immediately point weapons at the deck, drop to one knee and await further instruction from the PSO or RSO.

g. If at any time your goggles become loose, knocked off or blurred and you can’t see, drop to both knees and cover your face until the exercise is terminated.

h. The standard protective mask filter particles but will not supply oxygen. A separation distance of at least 10 meters should be maintained from burning grenades. Personnel will wear protective masks before exposure to any concentration of smoke produced by M8 white smoke grenade.

12. Rules of Engagement

a. An occupant will be engaged if he/she displays a weapon or demonstrates violence of action.

b. Intentional headshots are prohibited.

c. Intentional groin shots are prohibited.

d. Minimum safe distances must be maintained.

e. Once an occupant/aggressor has been hit, he/she will be out of action and will play dead until that scenario is over or is instructed otherwise by safety personnel.

f. Do not engage anyone who is not wearing safety equipment.

g. Do not engage safety personnel.

h. Aggressors will not barricade doors.

i. Aggressors will delay action for a count of five after a diversionary device simulation.

j. Aggressors may take cover inside once the assault teams have initiated the action.

13. Check-Out-Procedures

a. Conduct a weapons inspection and ensure all weapons are clear and placed on safe.

b. Conduct a shakedown of all personnel so that no ammunitions/ pyrotechnics (munitions) of any kind leaves the facility.

c. Notify Range Control and put the MCTAB MOUT Facility in a “COLD” status.

d. Conduct a police call ensuring all brass, trash and debris from booby traps are removed from the facility.

e. Conduct a post exercise inspection with the OIC and the Range Control Staff.

f. Complete a Facility checkout sheet and note any deficiencies/problems with the facilities. Facility checkout sheets are available through the Range Control Staff. “WHAT YOU BRING TO TRAIN WITH MUST BE TAKEN WITH YOU UPON COMPLETION OF TRAINING.”

BOONDOCKER TRAINING AREA	
Type	Boondocker Training Area (BTA) MOUT - Non-Live-fire.
Location	The five sites are located within the exterior perimeter wall. Note: Only Site #5 is SESAMS capable.
Allowable Weapons	M9 Pistol with SESAMS Kit M16 Service Rifle with BFA M4 Carbine with BFA/SESAMS Kit M249 with BFA M240G with BFA M2 .50Cal with BFA SMAW with simulator
Allowable Munitions (Inside Buildings)	5.56mm Blanks 7.62mm Blanks 9MM SESAMS munitions L598 Booby Trap Flash simulator (requires O&T approval) G811 Grenade Body Practice G878 Grenade Practice Fuse
Allowable Munitions (Outside Buildings)	LX21 Simulator (SMAW) Noise Cartridge G930/G940/G945/ smoke grenades (requires O&T approval) L598 Booby Trap Flash simulator (requires O&T approval) .50 cal/7.62mm/5.56mm Blanks Contractor provided a BFX special request, only approved by Installation RCO
Direction of Fire	360 degrees
Maximum Range	SESAMS will be contained within Site #5 when all doors and windows are closed

1. Notes

a. Live-fire ammunition (Ball) of any kind is prohibited in the BTA MOUT Facility.

b. Bivouacking within the BTA MOUT Facility and immediate vicinity is prohibited. Units may bivouac in designated areas only. However, tactical occupation of building is authorized 24 hours a day.

c. Illustrations of BTA MOUT Facility can be provided when requested.

2. Training Support

a. Buildings in the BTA MOUT Facility may be used as “on-the spot” classrooms by the RSO when the range is in a “COLD” status.

b. Collateral equipment for the BTA MOUT (mechanical breaching material, concertina wire, etc.) is the responsibility of the using unit. “WHAT YOU BRING TO TRAIN WITH MUST BE TAKEN WITH YOU UPON COMPLETION OF TRAINING.”

c. Using units are authorized to use I-TESS, 9mm SESAMS and TIEDs within the BTA MOUT Facility. Pyrotechnics are not to be used with these devices. These training devices can either be delivered to the training site by the contractor or they can be checked out from the RTISS warehouse in Building 72, 657 Lehua Avenue, Pearl City Annex. The RTISS Contractor can be reached at (808)455-7891 or (808)391-4618. Equipment requests may be submitted online via www.tesslcs.com. For urgent matters contact the site manager at (808)391-4618 or the TSC, at (808)257-1766.

3. Scheduling

a. To schedule the BTA MOUT Facility, units will submit a Range/Training Area Request via the MCB Hawaii RFMSS.

b. If using SESAMS, an SOM and ORM Worksheet must be submitted per BO 1500.9B.

4. Check-in Procedures

a. The OIC for the BTA MOUT Facility must be an E-6 or above. The RSO for the BTA MOUT Facility must be an E-5 or above. The OIC and RSO must possess an RSO Card issued by MCB Hawaii RTAM.

b. Upon arrival at the BTA MOUT Training Facility, the OIC and RSO will receive the BTA MOUT Training Facility and Safety Brief.

c. Upon completion of the Safety Brief and BTA MOUT SOP review, the OIC and RSO will conduct a pre-training inspection with the Range Control Staff. A check-in sheet will be completed and all discrepancies will be annotated on the sheet.

d. The Range Control staff will ensure issue of range flags and road barriers upon occupation of the training area.

5. OIC Duties

a. Conduct safety brief to all unit personnel participating in training.

b. Ensure the overall safe conduct of training and proper use of the Facility.

c. Ensure the RSO, corpsman and safety vehicle are physically present in the training area at all times.

d. Ensure only authorized and/or approved ammunition is used within the Facility.

e. Ensure ammunition is properly handled, transported, stored and accounted for within the Facility from the time of receipt to the time of expenditure or turn in.

f. Ensure control of firing areas to prohibit entry by unauthorized personnel.

g. Ensure PSOs/NCOs are assigned and briefed on their duties in support of MOUT Training.

h. Ensure a red flag is placed on the pole at the entrance to the range to alert personnel that training is being conducted in the Facility.

i. Ensure all personnel wear required protective equipment.

j. Ensure at the completion of training, all trash is collected and removed from the Facility.

k. Be thoroughly familiar with the contents of this SOP.

l. Complete the OIC/RSO checklist prior to conducting training within the Facility.

6. RSO Duties

a. Ensure only authorized and/or approved ammunition is used within the facility.

b. Ensure SDZ is clear of all unauthorized personnel when conducting SESAMS training.

c. When SESAMS is in use, ensure road guards are posted and the entrance is properly marked by flags/barriers provide by range control around the training area and the training area.

d. During SESAMS training, ensure everyone in the BTA MOUT wears all SESAMS protective gear.

e. Be present during all training.

f. Ensure that medical personnel with a safety vehicle and driver are present at the Facility.

g. In the event of an emergency situation/accident the RSO will notify Range Control at (808)257-3180 or on the Range Control Net.

h. At the completion of training, ensure all weapons are checked safe and clear.

i. At the completion of training, ensure all personnel take part in a shakedown inspection.

j. At the completion of training, notify Range Control that you are “COLD” and pass a completed ammunition report by DODIC.

k. Be thoroughly familiar with the contents of this SOP.

l. Complete the OIC/RSO checklist prior to conducting training within the Facility.

7. Special Instructions

a. Minimum Safe Engagement Distance as measured from the muzzle of the weapon to any personnel for 5.56 blanks is 5 meters

b. Ground level window entries are permitted. OIC/RSOs are recommended to address falls in the ORM worksheet. If smoke grenades are authorized (must submit special request via the O&T) ensure that they are not used inside buildings.

c. Ensure practice grenades are not thrown directly at an opposing force.

d. Maintain storm awareness. In the event of an electrical or thunderstorm, evacuate the range. The buildings are made of metal and are not safe during a storm.

e. Subsurface ground disturbance of any kind (digging, trenching, fighting holes or cat holes) is prohibited.

f. Booby trap simulators will be placed below knee level and are prohibited from use in stairwells and ladder wells.

g. The use of grappling hooks within the BTA MOUT Facility is prohibited.

h. Entry to the first floor will be made through a window or doorway.

i. Units may occupy rooftops of buildings equipped with safety rails/forced entry points. Personnel will not hang, pull, climb or rappel from safety rails. All forced entry points/trap doors/escape hatches will be secured at the completion of training.

j. Entry to the second or third floors of buildings will be made using only the internal or external stairwells.

k. Trap doors in buildings may be used to hide military items but must be policed after use.

l. Units may scale/climb block walls.

8. SESAMS

a. Minimum Safe Engagement Distance as measured from the muzzle of the weapon to any personnel for SESAMS:

(1) SESAMS, 9mm: 7 feet or 2 meters.

(2) SESAMS, 5.56mm: 14 feet or 4 meters.

b. All weapons used during SESAMS training WILL BE inspected by the RSO to ensure serviceability and proper installation of SESAMS kits. He/She will not be the same person who installed the kits. The RSO will issue all SESAMS ammunition and check all magazines prior to going “HOT”. RSOs will utilize the SESAMS RSO Checklist.

c. SESAMS will be allowed in all single-level and multi-story buildings.

9. Safety Personnel

a. A RSO will be assigned as the safety supervisor for the exercise.

b. PSO/NCOs will be posted strategically throughout the exercise area for the purpose of spotting safety infractions or potentially hazardous conditions.

c. If an unsafe condition occurs, anyone may call “CEASE-FIRE”. The OIC or RSO may terminate the exercise with the command “CEASE-FIRE” or a previously established signal.

10. Safety Equipment

a. All participants involved in SESAMS training will wear the following safety equipment; FX 8000, 9000 or 9003 Protective Face Mask. FX 9000 and 9003 are specifically authorized for use with AB05 and AB06.

b. The MCU-2A/P Chemical Biological mask may be used for face and eye protection, ONLY if the hard outer eye shields and the C2 canister are attached prior to use with the SESAMS training system.

c. A balaclava, towel or neck scarf will be worn so as not to expose any portion of the neck and throat.

d. The utility uniform, flight suit, assault suit or clothing capable of covering the arms and legs entirely shall be worn.

e. Athletic cup or commercial groin protector made to wear on outside of clothing shall be worn.

f. Gloves or commercial protection, that protects the backside of the hand, shall be worn.

11. Safety

a. A safety briefing will precede each training exercise with emphasis on the rules of engagement.

b. The training exercise area will be secured in a manner that precludes unobserved/uninhibited entrance by non-participants.

c. Medical support requirements are the same as “live-fire” exercises.

d. Weapons will be inspected before the exercise to check for damaged or plugged barrels.

e. Load upon command only.

f. Upon hearing the command “CEASE-FIRE” or previously established “ALL STOP” signal, immediately point weapons at the deck, drop to one knee and await further instruction from the PSO or RSO.

g. If at any time your goggles become loose, knocked off or blurred and you can’t see, drop to both knees and cover your face until the exercise is terminated.

h. The standard protective mask filter particles but will not supply oxygen. A separation distance of at least 10 meters should be maintained from burning grenades. Personnel will wear protective masks before exposure to any concentration of smoke produced by M8 white smoke grenade.

12. Rules of Engagement

a. An occupant will be engaged if he/she displays a weapon or demonstrates violence of action.

b. Intentional headshots are prohibited.

c. Intentional groin shots are prohibited.

d. Minimum safe distance must be maintained.

e. Once an occupant/aggressor has been hit, he/she will be out of action and will play dead until that scenario is over or is instructed otherwise by safety personnel.

f. Do not engage anyone who is not wearing safety equipment.

g. Do not engage safety personnel.

h. Aggressors will not barricade doors.

i. Aggressors will delay action for a count of five after a diversionary device simulation.

j. Aggressors may take cover inside once the assault teams have initiated the action.

13. Check-Out-Procedures

a. Conduct a weapons inspection and ensure all weapons are clear and placed on safe.

b. Conduct a shakedown of all personnel so that no ammunitions/ pyrotechnics (munitions) of any kind leaves the facility.

c. Notify Range Control and put the BTA MOUT Facility in a “COLD” status.

d. Conduct a police call ensuring all brass, trash and debris from booby traps are removed from the facility.

e. Conduct a post exercise inspection with the OIC and the Range Control Staff.

f. Complete a Facility checkout sheet and note any deficiencies/problems with the facilities. Facility checkout sheets are available through the Range Control Staff. “WHAT YOU BRING TO TRAIN WITH MUST BE TAKEN WITH YOU UPON COMPLETION OF TRAINING.”

14. BTA MOUT Site #5 use of SESAMS

a. The following four safety rules will be adhered to at all times:

(1) Treat every weapon as if it were loaded.

(2) Never point a weapon at anything you do not intend to shoot.

(3) Keep your finger straight and off the trigger until you are ready to fire.

(4) Keep your weapon on safe until you intend to fire.

b. The using unit is required to submit a graphic SOM and ORM Worksheet when using SESAMS. The OIC/RSO must be present at all times. In the event

of an emergency, the OIC/RSO will call an immediate “CEASE-FIRE”. The corpsman is the first responder and has the primary duty of providing first aid and/or emergency medical care as needed. The using unit will immediately contact Range Control at (808)257-3180. Range Control will call the Federal Fire Department (Fed Fire) if needed.

c. Everyone is a Safety Officer. Anyone can call a “CEASE-FIRE” if an unsafe condition is observed. Whenever the command “CEASE-FIRE” is given, all shooters will immediately cease firing, “UNLOAD” and “SHOW CLEAR”. After showing clear, shooters will bring weapons to a condition 4 status. All muzzles will be pointed in a safe direction. Shooters will remain in the Boondocker MOUT Site until ordered out by either the Safety NCO or the RSO.

d. The lateral limits for Boondocker MOUT is the building itself. The shoot house is a 0 degree SDZ for SESAMS. When SESAMS is being utilized within the house, all windows and doors must be closed. Prior to commencing training, the OIC/RSO will conduct a walk through with Range Control personnel to confirm the SOM and ensure the facility is safe to use.

e. If there is a weapon stoppage and/or malfunction, and it cannot be cleared, cease firing and get assistance clearing the weapon.

f. In the event of a weapons malfunction, if the ammunition is found to be defective, a “CEASE-FIRE” will be called and live-fire will stop. Range Control will be notified and will coordinate with the proper personnel to ensure the ammo is inspected/cleared for use. The continued use of the same ammunition will be determined by the result of the inspection, in accordance with MCO 8025.1.

g. Any training that is conducted with the use of SESAMS on MOUT Site #5 will adhere to the following rules:

(1) Weapons will only be made Condition 1 immediately outside the entry way and just prior to making the entry.

(2) The RSO will inspect the weapons and ensure they have been cleared and are in condition 4 before exiting the building. This is to ensure using units do not violate Training and Education Command (TECOM) SOUM 2-10. The OIC/RSO must read TECOM SOUM 2-10.

(3) A minimum safe engagement distance from the muzzle of 2 meters (7 feet) for the 9mm, and 4 meters (14 feet) for the 5.56mm system must be established and maintained.

h. When using SESAMS in MOUT Site #5, all personnel within the building must be wearing the approved personal protective equipment (PPE) for SESAMS training, to include head, face and neck protection.

i. In the event of a fire:

(1) All training will cease. The OIC/RSO will checkout two fire extinguishers from Range Control while checking out MOUT Site #5.

(2) The using unit will immediately contact Fed Fire at (808)257-9111, then Range Control at (808)257-3180, and request Emergency Fire Support.

(3) The OIC/RSO will evacuate all personnel, weapons, ammunition, vehicles, and equipment to the staging area next to the Gas Chamber.

(4) The OIC/RSO will report the status of all personnel and equipment to Range Control via radio communications.

(5) The unit will stand down and wait for further guidance from Range Control.

(6) MOUT Site #5 is not a live-fire shoot house. No ball/tracer ammunition of any kind is permitted.

(7) Smoking is permitted. The smoking area will be designated by the unit RSO.

(8) Everyone must have the required PPE while MOUT Site #5 is in a “HOT” status.

(9) Positive radio communications must be maintained with Range Control. The call sign for BTA MOUT is “BOONDOCKER MOUT” and the call sign for Range Control is “RANGE CONTROL”. Radio checks will be performed every hour on the top of the hour.

(10) The OIC/RSO will conduct a post fire inspection of all weapons used. Weapons clearing procedures will include “UNLOAD” and “SHOW CLEAR” for all small arms weapons, and a thorough check to ensure crew served weapons chambers are free of ammunition. Magazines will be inspected for ammunition at this time. The OIC/RSO will ensure that all ammunition is accounted for. Grade III ammunition will be properly handled, transported and turned in to the ammunition supply point in accordance with the unit SOPs and Base Orders.

(11) Upon completion of training, a through police call of the range and sweep of the buildings will be conducted, prior to contacting Range Control for a post fire inspection. Once completed with the police call, contact Range Control for your post-fire inspection by the RTF staff. Once you have been cleared proceed to Range Control to turn in the range.

APPENDIX Q

MODELING & SIMULATIONS DIVISION

1. Introduction. The Modeling & Simulations Division (M&SD) was established to manage all associated contracts, coordinate maintenance, monitor readiness and obtain operator training for all Combat Training Devices and Simulators (CTD&S) aboard Marine Corps Base (MCB) Hawaii, except for Live-fire or Range Devices, Urban Operations and Navy-managed devices. The M&SD is MCB Hawaii's subject matter expert and single point of contact (POC) for obtaining, maintaining and modifying all CTD&S (except as noted above). The M&SD is the conduit to the Program Manager, Training Systems (PM TRASYS) and the United States Marine Corps (USMC) Training and Education Command (TECOM) for all contractual, procurement, installation, maintenance, operator training and other related matters. M&SD retains contractual oversight of MCB Hawaii's CTD&S through frequent direct liaison with TECOM and PM TRASYS personnel and by official appointments as PM TRASYS' Contracting Officer's Representative (COR) on CTD&S designated contracts. The scope of M&SD oversight on equipment is described within this Appendix, but is not limited just to these items. M&SD involvement will expand as future generations of CTD&S are fielded. M&SD also controls and coordinates the procurement of all Fake and/or Rubber Weapons for MCB Hawaii. Tenant units should not attempt to procure this equipment without M&SD authorization. The M&SD Warehouse has a large stock of friendly and opposing force fake weapons available for temporary loan. A long term sub-custody checkout is available, and is handled on a case-by-case basis. Staff Non-Commissioned Officers (SNCOs) or Officers are required to sign for all loaned equipment.

2. M&SD Staff
Manager: (808)257-1110 or (808)620-2166
Coordinator Minor Training Devices: (808)257-1110
Location: C Street, Building 267

3. M&SD Warehouse
Location: C Street, Building 267
Equipment Checkout Procedures:
    SNCOs or Officers must sign for equipment
    Schedule by calling the Coordinator at (808)257-1110
Friendly Force Fake Weapons:
    Bangalore Torpedo Training Kits
    Bayonets, M16 (Blue)
    Fighting Knifes (Red)
    Javelin MSR
    M16s (Red and Black)
    M4s (Red and Black)
    M9s (Red)
    MAC-11A1 Machine Pistol
    Mines Training Kits (Blue)
    M-72A3 LAW
    M18A1 Claymore Mine Kit
    Grenades
    M136 AT4 Anti-Tank Weapon
Opposing Force Fake Weapons:
    AK-47 Assault Rifles
    AZ-58K-100 W/C Grenade
    Pistol w/ Silencer
    PM-50 Pistols with Holsters

POMZ-2 Anti-Personnel Mine
RKG-3 Anti-Tank Grenades
RPG-7 Anti-Tank Grenade Launchers with Rockets
RPK Squad Machine Guns
SA-7 (GRAIL) Launchers with Missiles
SVD Sniper Rifles
Uzi Machine Guns

Javelin Trainers: Only Weapons Company Officers may sign for Enhanced Programmable Basic Skills Trainers and Field Tactical Trainers. Javelin gunner competency utilizing the equipment must first be demonstrated by successfully setting up and operating the equipment. Training Compact Disks and checklists are available.

4. CH-53 Weapons System Trainer (WST)
Location: C Street, Building 4041
POC Data:
COR: (808)257-1110
Contracted Site Manager: (808)257-8714(W)/(808)387-6443(C)
Contracted Pilot-Instructor: (808)254-1156
NavAir Lead In-Service Engineer (ISE): (808)257-0544
NavAir ISE WST & Ground Devices: (808)257-8526
Scheduling: The Marine Air Group-24 Frag Order controls the WST schedule for training pilots and crews. Very Important Person Tours and other visitors should contact the Site Manager or COR.

5. Modular Amphibious Egress Trainer (MAET) and Submerged Vehicle Egress Trainer (SVET). The MAET/SVET are underwater egress trainers with a generic body section representing specific emergency escape exits. This commercial off-the-shelf trainer is designed to simulate underwater disorientation caused by rapidly sinking aircraft and other vehicles. The MAET is modular in that it can be quickly reconfigured to simulate the exits and hatches of various craft (i.e. the CH-46, CH-53, AAV, EFV, LAV-25 and MV-22 aircraft). A second module, the SVET, is used to train egress from rollover/submerged ground vehicles, replicating the High Mobility Multi-purpose Wheeled Vehicle (HMMWV) and other ground vehicle platforms.
Location: Enlisted Pool
POC Data:
COR: (808)257-1110
Contracted Site Manager: (808)257-2688/(808)284-6067
Scheduling: Range Facility Management Support System (RFMSS)

6. HMMWV Egress Assistance Trainer (HEAT). The HEAT trainer simulates the conditions of a vehicle roll-over and helps teach each crew member how to respond both mentally, and physically, in the execution of the appropriate immediate action procedures to survive a vehicle roll-over. Conducting this training under controlled conditions provides Marines the opportunity to gain experience of proper egress procedures, while reinforcing the importance of proper seatbelt/harness utilization, developing awareness of the necessary individual and crew skills needed to execute roll-over procedures and training tactical perimeter security drills. HEAT trainers support the Central Command (CENTCOM) requirement for all Marines to complete vehicle roll-over training prior to deploying to designated combat zones.
Location: Boondocker Training Area
POC Data:
HEAT Instructor Training and Documentation: (808)257-1110
Maintenance or Repairs: (808)257-1110
Keys: MCB Hawaii Range Control: (808)257-3180

Scheduling: RFMSS

7. Mine Resistant Ambush Protected (MRAP) Egress Trainer (MET). The MET trainer provides Marines the opportunity to experience vehicle roll-over conditions and rehearse and physically execute the steps necessary to survive a vehicle roll-over. Conducting this training under controlled conditions afford Marines the opportunity to gain experience of proper egress procedures, while reinforcing the importance of proper seatbelt/harness utilization, developing awareness of the necessary individual and crew skills needed to execute roll-over procedures and training tactical perimeter security drills. MET trainers support the CENTCOM requirement for all Marines to complete vehicle roll-over training prior to deploying to designated combat zones.
Location: Boondocker Training Area.
POC Data:
MET Instructor Training and Documentation: (808)257-1110
Maintenance or Repairs: (808)257-1110
Keys: MCB Hawaii Range Control: (808)257-3180
Scheduling: RFMSS

8. Battle Simulation Center (BSC). Combined Arms Command & Control Training Upgrade System (CACCTUS) will provide interoperability between the Combined Arms Staff Trainer (CAST) and other Marine Corps Air and Ground Training devices. CACCTUS will provide fire-support training for the Marine Air/Ground Task Force (MAGTF) elements up to and including the Marine Expeditionary Brigade (MEB) level. CACCTUS will upgrade the existing CAST training systems and provide enhanced two-dimensional and three-dimensional visualization of the battle space, scenario development based upon training objectives and an after action review capability that depicts specific events that can be used as teaching points for improvement of team skills. The upgrade will incorporate command and control systems and a reconfigurable communications capability. All five CAST-training systems will be integrated through common network architecture and will provide the ability to accomplish distributed training. The CAST training system will be capable of integration with other Marine Corps Air/Ground Training systems in order to provide fire-support training for the MAGTF elements up to and including the MEB level. CACCTUS is envisioned as a pivotal component in USMC Modeling & Simulation offerings. It will provide the overarching architecture to support Live, Virtual and Constructive training and interoperability across existing and emerging USMC training capabilities.
Location: Mokapu Street, Building 6036.
POC Data:
COR: (808)257-1110
Contracted Site Manager: (808)257-3550
Scheduling: RFMSS
Parking: Behind the BSC, Building 6036
Other Devices Available at BSC:
MAGTF Tactical Warfare Simulations
MAGTF Integrated Systems Training Center Hawaii
Deployable Virtual Training Environment (DVTE)
DVTE for Infantry Tool Kit (ITK) Software. DVTE is a first-person skills sustainment trainer that trains Marines from the individual to battalion staff level by using a simulation network with reconfigurable workstations capable of emulating a vast array of training scenarios. DVTE is a flexible, deployable, training system that provides combined arms, MAGTF and Naval Integration training. Currently a prototype desktop training network, the DVTE addresses a significant subset of USMC combined arms training. DVTE

provides a custom-built standalone Combined Arms Network (CAN) covering most USMC ground and air weapons systems and is a USMC capability for providing interoperability with other Joint National Training Center participants. This interoperability will also enable distributed interactive unit training for widely separated units. DVTE is made up of two components; the first is the ITK which contains several Tactical Decision-making Simulations. The other half of DVTE is the CAN. This is a set of personal computer-based simulators (FO, FAC, AAV, M1, LAV, AH-1) connected to Joint Semi-Autonomous Force (JSAF). PM TRASYS recently delivered the Virtual Fire Support Trainer (VFST), which incorporates much of the CAN functionality. VFST interfaces JSAF with Advanced Field Artillery Tactical Data System and the Pocked-Sized Forward Entry Device to facilitate training of a variety of fire-support platforms using Marine Corps gear. In addition, DVTE can use this virtual environment and the semi-autonomous force model to train other individual MAGTF skills.

9. Mobile Counter Improvised Explosive Device (IED) Trainer (MCIT). MCIT is a mobile, highly flexible, enhanced training solution which will improve the training and readiness of warfighters in environments where IEDs are employed against our military forces. The design for the MCIT consists of a series of four Conex boxes which may be linked together, staged and supplied with content that will provide a training experience targeting stated learning objectives. Trainees' success in meeting the stated learning objectives will be measured by four quizzes and a Post Exercise Review. The training technologies include, but are not limited to mixed reality stage crafting, virtual human guidance, video footage and an interactive IED/Counter-IED simulation. MCIT requires contractor support to deliver, set-up, checkout and operate. MCIT will be a collective training experience wherein participants will be able to:

a. Recognize an emplaced IED under a variety of complex attack scenarios in the Area of Operation that represent the most common initiating systems in the appropriate terrain and environmental features.

b. Recognize the basic components of an IED and the function of each component.

c. Recognize the most common initiating systems.

d. Recognize some of the terrain and environmental features used to mask the most common initiating systems.

e. Implement the Counter-IED procedures appropriate for each attack.

f. Recall the key Counter-IED enablers and the conditions under which they are used.

10. Indoor Simulated Marksmanship Trainers-Enhanced (ISMT-E). The purpose of the ISMT-E is to provide the USMC with the ability to train individuals, fire teams, and squads effectively and efficiently to the approved standards of combat skills and readiness, in a limited space without the expenditure of costly live ammunition. The ISMT-E is an interactive audio and video weapons simulator that simulates Marine Corps ranges and provides enhanced marksmanship, weapons employment, crew served, collective, indirect fire and tactical decision making training for the M9 pistol through the 81mm Mortar. New initiatives include enhanced training for moving targets, crew-served weapon using turret ring mounts, threat weapons and optical training (ACOG,

AN/PVS-7B/D Night Vision Goggles, AN/PVS-14 Monocular Night Vision Device, AN/PVS-17B/C Mini Night Vision Sight, AN/PSQ-18A Grenade Launcher and AN/PEQ-2A Infrared Aiming Light) and sensored M16A1 simulated weapons. ISMT-E is used by the Reserve Forces, and Ground/Logistic/Air Combat Element units for sustainment and proficiency training in the use and employment of Marine Corps small arms. Reserve forces use ISMT-E extensively to help prepare Marines for their pre-deployment Training. There are 428 systems worldwide.

11. Amphibious Assault Vehicle (AAV) Turret Trainer (TT). The AAV-TT is a stand-alone trainer that uses a surplus AAV turret and modified ISMT weapons (M-2 and MK-19) to provide individual, crew and section gunnery training. The system consists of instructor operator station, driver station, simulation and sound computer, JSAF computer and a high-fidelity communications system. Operator Driving Simulator (ODS). The USMC-ODS is a high fidelity immersive technical skills trainer for teaching Marines how to safely drive select tactical wheeled vehicles to include the Medium Tactical Vehicle Replacement (MTVR), MTVR Armor System, HMMWV and a Category I MRAP variant. Previously, this training system was designated MTVR-ODS, but due to the multiple tactical vehicle wheeled variants being incorporated; it is now designated “USMC-ODS”. The USMC-ODS is an interactive, reconfigurable training device which provides realistic feedback to the student through the steering wheel, pedals and dashboard controls that replicate the experience of driving the actual selected vehicle. Through the controlling instructor/operator station, instructors are able to quantitatively evaluate student performance under controlled, repeatable conditions in various environmental setting (desert, urban, mountainous, etc.), which simulate hazardous and potentially dangerous situations without risk to the Marine or vehicle.

12. Combat Convoy Simulator (CCS). The CCS trainers provide an immersive training environment for convoy operations to include basic procedures for drivers, gunners and passengers including, but not limited to, weapons usage and target engagement, driver evasive action, command and control procedures within the vehicle and convoy, as well as general familiarity with terrain/ environment to provide training for Marines in tactical scenarios, related to combat operations. The CCS shall provide training for both vehicle operators and individuals in both vehicles and small arms weapon utilization, command and control and IED counter-measures. CCS trainers support the Urgent Universal Need Statement requirement approved by the Marine Requirements Oversight Council to train Marines in convoy operations prior to deploying to designated combat zones. The CCS is the third generation of convoy trainers.

13. Supporting-Arms Virtual Trainer (SAVT). The SAVT is a Category I Immersive Trainer designed to enhance the training capability, operational readiness and tactical proficiency of Joint Terminal Attack Controllers, Joint Forward Observes, Forward Air Controllers, and Forward Observer Fire Support Teams. This virtual simulator provides personnel with training scenarios that require the placement of tactical ordnance on selected targets using Joint Close Air Support procedures and observed fire procedures. These scenarios will allow for practical application of Naval Surface Fire Support, artillery and mortar fire neutralization, suppression, illumination, interdiction, and harassment fire missions.

APPENDIX R

MCB HAWAII RANGE CARDS

ALPHA RANGE (“A” RANGE)	
Type	Known Distance, small arms rifle range designed to support individual small arms training and evaluation
Target Distances	100-1000 yards
Authorized Weapons	Shoulder-fired Service and Precision Rifles. M249s Squad Automatic Weapon (SAWs) will be considered on a case-by-case basis (single shot mode only)
Authorized Munitions	Up to .30 cal from 100-600 yards 7.62 Match from 700-1000 yards
Firing Lines	9
Firing Points	40 at 100 yards & 200 yards 35 at 300 yards 25 at 500 yards 10 at 600 yards 12 at 700 yards, 800 yards, 900 yards, & 1000 yards
Target Carriages	40, 6 ft. x 6 ft.
BOUNDARY LIMITATIONS	
1000 yard Lateral Limits	West Grid: 04QFJ0448858135/MAG AZ LLL 26(deg) East Grid: 04QFJ0451858148/MAG AZ RLL 26(deg)
900 yard Lateral Limits	West Grid: 04QFJ0452858053/MAG AZ LLL 26(deg) East Grid: 04QFJ0455858065/MAG AZ RLL 26(deg)
800 yard Lateral Limits	West Grid: 04QFJ0456857970/MAG AZ LLL 26(deg) East Grid: 04QFJ0459857983/MAG AZ RLL 26(deg)
700 yard Lateral Limits	West Grid: 04QFJ0460857888/MAG AZ LLL 26(deg) East Grid: 04QFJ0463857901/MAG AZ RLL 26(deg)
600 yard Lateral Limits	West Grid: 04QFJ0467457821/MAG AZ LLL 26(deg) East Grid: 04QFJ0470757835/MAG AZ RLL 26(deg)
500 yard Lateral Limits	West Grid: 04QFJ0469557730/MAG AZ LLL 26(deg) East Grid: 04QFJ0474757753/MAG AZ RLL 26(deg)
300 yard Lateral Limits	West Grid: 04QFJ0475257556/MAG AZ LLL 26(deg) East Grid: 04QFJ0481857583/MAG AZ RLL 26(deg)
200 yard Lateral Limits	West Grid: 04QFJ0476457464/MAG AZ LLL 27(deg) East Grid: 04QFJ0484957496/MAG AZ RLL 26(deg)
100 yard Lateral Limits	West Grid: 04QFJ0478357369/MAG AZ LLL 27(deg) East Grid: 04QFJ0488157414/MAG AZ RLL 26(deg)
Close-Out List	None

1. Fragmenting, Explosive or Tracer projectiles are prohibited.

2. <u>Targetry</u>

   a. “A” Range is equipped with manual target carriages.

b. Authorized targetry for “A” Range includes paper, plastic or cardboard targets mounted either on 6 ft. x 6 ft. wooden target frames, or mounted to handheld wooden sticks.

c. Targets must be positioned above the Pit Area berm to ensure projectiles land within the designated impact area.

d. No ricochet producing target materials (i.e. steel, nails etc.) are authorized in target/target mount construction.

3. Safety. In addition to General Range Safety Procedures, the following requirements are specific for activities on “A” Range:

a. Limits of Fire. Stay within the protective berms. Targets 1 and 40 are the respective left and right lateral limits of fire from the 100 and 200 yard lines. Target 35 is the right limit from the 300 yard line. Target 25 is the right limit from the 500 yard line. If firing from the 600 yard line the right lateral limit is reduced to target point 10. When firing from the 700 to 1,000 yard lines, target points 3-14 will be used. Individual shooters' lateral limits are the right and left edge of their respective targets only.

b. Audible Pop. Any shooter experiencing an “audible pop” will immediately “CEASE-FIRE”. Live-fire may resume only after the RSO has been informed and the weapon has been cleared. An “audible pop” may be defined as a peculiar sound or feeling that one believes a round did not fire the way it was intended and a projectile may still be present in the bore.

c. Full auto or burst fire is not authorized.

d. Firing Line Supervision. The minimum level of supervision for the firing line aboard “A” Range is the Officer-in-Charge (OIC) and Range Safety Officer (RSO). Supervisory personnel cannot perform their duties and participate in firing simultaneously.

e. Pit Supervision. A competent, authoritative individual must be assigned to supervise all activities in the Pit Area. During firing, the Pit Supervisor is responsible for the safe supervision of all personnel in the pits. The Pit Supervisor must have positive communication with the RSO at all times during firing.

f. The RSO/OIC must be qualified to use 700 to 1,000 yard lines and must provide proof of certification (provided by Operations and Training (O&T) Directorate) upon request.

g. Only 7.62mm precision sniper/match rifles with match grade ammunition (Department of Defense Identification Code AA11 or equivalent) are authorized for use on “A” Range from the 700 to 1,000 yard lines.

h. Rifles will be fired only from the supported prone position on “A” Range at the 700 to 1,000 yard lines.

i. All rifles must have been zeroed and then confirmed at the 600 yard line prior to firing on “A” Range 700 to 1,000 yard lines.

j. Only trained and qualified service snipers and students under qualified sniper supervision (platoon or formal school training/evaluation)

will be authorized to fire from the “A” Range 700 to 1,000 yard lines. Exemptions to this policy must be requested in writing to the Installation Range Control Officer (RCO) via the Pu’uloa Range Training Facility (RTF) OIC.

k. Only target points 3-14 will be used in the pit area. Firing points will be marked accordingly on the “A” Range 700 to 1,000 yard lines. While in the pits, all personnel will remain under the pit canopy and on the catwalk during firing.

l. Only targetry provided by the Pu’uloa RTF is authorized for use on “A” Range.

4. Planning Requirements. “A” Range is scheduled through Range Facility Management Support System (RFMSS) and approved by Marine Corps Base (MCB) Hawaii O&T. Desired use of 6 ft. x 6 ft. target backings or portable range speakers require prior coordination with Pu’uloa RTF Range Control. “A” Range availability is limited due to its routine use for formal scout sniper course training. This training is conducted from 0700-1700 daily, for approximately 15 weeks out of the year.

5. Access Control

a. All units must check-in with the Pu’uloa RTF Range Control (Building 401) prior to occupying the range.

b. “A” Range firing lines are positioned adjacent to “B” Range. Therefore, both ranges have overlapping Surface Danger Zones (SDZs) when in use. For this reason, strict supervision of personnel movement is necessary. All personnel entering and exiting the range must use the access road behind the 600 yard line. At no time will personnel cross any lateral berms.

c. The conduct and movement of personnel in the Pit/Target Area must also be strictly controlled, while firing is in progress. All other Pit Area safety features and precautions are covered in the Range and Pit Safety briefs. When live-fire is in progress on “B” Range, all movement in and out of the pit area must be conducted via the right side of the range.

6. Facilities

a. Water Spigots. None; pit water spigots are non-potable.

b. Heads. The heads associated with “A” Range must be kept clean and properly stocked. RSOs will ensure all heads are policed before the range is turned back over to Range Control. “A” Range heads are located at the following areas:

(1) A co-use head (portable toilet) behind the 200/300 and 500 yard line, on the left hand side of the range.

(2) Two co-use heads (portable toilets) in the pits.

c. Electrical Outlets. There are several 110-volt electrical outlets for general use at the following locations:

(1) At the Sound Shed in the Pits.

(2) At the Target Shed in the Pits.

d. Speakers. Tripod-mounted portable range speakers should be used for clear communication on the firing line when more than half the width of the range is in use. A separate radio and coordination with Pu'uloa RTF Range Control is required for its use.

e. Buildings/Access. If use of the Pit Sound Shed and or Target Shed is required, prior coordination with Pu'uloa RTF Range Control is necessary for access and instructions.

f. Ammunition/Armorer Tables. There are ammunition/armorer tables located behind the center of each firing line. They are designed to facilitate the sorting and distribution of ammunition, as well as a surface for armorers to conduct weapons repair and maintenance.

g. Parking. Parking is limited at the Pu'uloa RTF and the use of government transportation is highly encouraged. Parking is available behind the Pu'uloa transient quarters (Buildings 302 and 303). The overflow parking lot is located in front of the armory (Building 44) and Marksmanship Training Unit (MTU) facility (Building 48).

BRAVO RANGE (“B” RANGE)	
Type	Known Distance, small arms rifle range designed to support individual small arms training and evaluation
Target Distances	25-600 yards
Authorized Weapons	Shoulder fired Service and Precision Rifles
Authorized Munitions	Up to .30 cal
Firing Lines	6
Firing Points	60 at 25 yards, 100 yard, 200 yards, 300 yards, 500 yards & 600 yards
Target Carriages	60, 6 ft. x 6 ft.
BOUNDARY LIMITATIONS	
600 yard Lateral Limits	West Grid: 04QFJ0477457823/MAG AZ LLL 26(deg) East Grid: 04QFJ0490357874/MAG AZ RLL 26(deg)
500 yard Lateral Limits	West Grid: 04QFJ0479957734/MAG AZ LLL 26(deg) East Grid: 04QFJ0494157794/MAG AZ RLL 26(deg)
300 yard Lateral Limits	West Grid: 04QFJ0487657565/MAG AZ LLL 26(deg) East Grid: 04QFJ0501857624/MAG AZ RLL 26(deg)
200 yard Lateral Limits	West Grid: 04QFJ0490557478/MAG AZ LLL 26(deg) East Grid: 04QFJ0505657546/MAG AZ RLL 26(deg)
100 yard Lateral Limits	West Grid: 04QFJ0494257397/MAG AZ LLL 26(deg) East Grid: 04QFJ0509357459/MAG AZ RLL 26(deg)
25 yard Lateral Limits	West Grid: 04QFJ0497257326/MAG AZ LLL 26(deg) East Grid: 04QFJ0513257396/MAG AZ RLL 26(deg)
Close-Out List	None

1. Fragmenting, Explosive or Tracer projectiles are prohibited.

2. Targetry

a. “B” Range is equipped with manual target carriages.

b. Authorized targetry for “B” Range includes paper, plastic or cardboard targets mounted either on 6 ft. x 6 ft. wooden target frames, or mounted to handheld wooden sticks.

c. Targets must be positioned above the Pit Area berm to ensure projectiles land within the designated impact area.

d. No ricochet producing target materials (i.e. steel, nails etc.) are authorized in target/target mount construction.

3. Safety. In addition to General Range Safety Procedures, the following requirements are specific for activities on “B” Range:

a. Limits of Fire. Stay within the protective berms. Targets 1 and 60 are the respective left and right lateral limits of fire from 25-600 yards.

Individual shooters' lateral limits are the right and left edge of their respective targets only.

b. Audible Pop. Any shooter experiencing an “audible pop” will immediately “CEASE-FIRE”. Live-fire may resume only after the RSO has been informed and the weapon has been cleared. An “audible pop” may be defined as a peculiar sound or feeling that one believes a round did not fire the way it was intended and a projectile may still be present in the bore.

c. Full auto or burst fire is not authorized.

d. Firing Line Supervision. The minimum level of supervision for the firing line aboard “B” Range is the OIC and RSO. Supervisory personnel cannot perform their duties and participate in firing simultaneously.

e. Pit Supervision. A competent, authoritative, individual must be assigned to supervise all activities in the Pit Area. During firing, the Pit Supervisor is responsible for the safe supervision of all personnel in the Pits. The Pit Supervisor must have positive communication with the RSO at all times during firing.

4. Planning Requirements. “B” Range is scheduled through RFMSS and approved by MCB Hawaii O&T. Desired use of 6 ft. x 6 ft. target backings or range speakers requires prior coordination with Pu’uloa RTF Range Control. “B” Range availability is limited due to its routine use for annual rifle training. This training is conducted from 0700-1700 daily, for approximately 32 weeks out of the year.

5. Access Control

a. All units must check-in with the Pu’uloa RTF Range Control (Building 401) prior to occupying the range.

b. “B” Range firing lines are positioned adjacent to “A” Range. Therefore, both ranges have overlapping SDZs when in use. For this reason, strict supervision of personnel movement is necessary. All personnel entering and exiting of range must use the access road behind the 600 yard line. At no time will personnel cross any lateral berm.

c. The conduct and movement of personnel in the Pit/Target Area must also be strictly controlled, while firing is in progress. All other Pit Area safety features and precautions are covered in the Range and Pit Safety briefs. When live-fire is in progress on “A” Range, all movement in and out of the pit area must be conducted via the left side of the range.

6. Facilities

a. Water Spigots. There is one spigot located behind the sound shed in the pits.

b. Heads. The heads associated with “B” Range must be kept clean and properly stocked. RSOs will ensure all heads are policed before range is turned back over to Range Control. “B” Range heads are located at the following areas:

(1) Co-use heads (portable toilets) are located at the “big end” of the firing lines behind the 100/200 and 300 yard lines, and at the “little end” of the firing line behind the 500 yard line.

(2) Co-use heads (portable toilets) are located on the “big” and “little” ends of the pits.

c. Electrical Outlets. There are several 110-volt electrical outlets for general use at the following locations:

(1) At the Sound Shed in the Pits.

(2) At the Target Sheds in the Pits.

d. Speakers. Pole-mounted range speakers should be used for clear communication on the firing line and between the firing line and the pits when more than half the width of the range is in use. A separate radio and coordination with Pu’uloa RTF Range Control is required for its use.

e. Buildings/Access. If use of the Pit Sound Shed and or Target Shed is required, prior coordination with Pu’uloa RTF Range Control is necessary for access and instructions.

f. Ammunition/Armorer Tables. There are ammunition/armorer tables located behind the center of each firing line. They are designed to facilitate the sorting and distribution of ammunition as well as a surface for armorers to conduct weapons repair and maintenance.

g. Parking. Parking is limited at the Pu’uloa RTF and the use of government transportation is highly encouraged. Parking is available behind the Pu’uloa transient quarters (Buildings 302 and 303). The overflow parking lot is located in front of the armory (Building 44) and MTU facility (Building 48).

CHARLIE RANGE (“C” RANGE)	
Type	Known Distance, small arms range designed to support individual small arms training and evaluation
Target Distances	0-50 yards
Authorized Weapons	Service rifle Service shotgun Service pistols
Authorized Munitions	Up to 12 Gauge Pistol up to .45 cal. 5.56mm NATO only
Firing Lines	1
Firing Points	25
Target Carriages	25
BOUNDARY LIMITATIONS	
50 yard Lateral Limits	West Grid: 04QFJ0523657426/MAG AZ LLL 29(deg) East Grid: 04QFJ0527157433/MAG AZ RLL 28(deg)
25 yard Lateral Limits	West Grid: 04QFJ0524157398/MAG AZ LLL 29(deg) East Grid: 04QFJ0527557406/MAG AZ RLL 28(deg)
15 yard Lateral Limits	West Grid: 04QFJ0524357387/MAG AZ LLL 29(deg) East Grid: 04QFJ0527757394/MAG AZ RLL 26(deg)
Close-Out List	None

1. Targetry

a. “C” Range is equipped with a 25 target point pneumatic turning target system.

b. Authorized targetry for “C” Range is cardboard “E” type targets only. Paper re-faces are authorized.

c. Targets will affix to the turning mechanisms by wooden 2 in. x 2 in. sticks only.

d. Targets must be positioned above the target mechanism to ensure projectiles land within the impact berm.

e. No ricochet producing target materials (i.e. steel, nails etc.) are authorized in target mount construction.

f. For use other than United States Marine Corps (USMC) annual pistol/rifle training details, targets will be provided by the using unit unless prior planning/coordination has been made with Pu’uloa RTF Range Control.

2. Safety. In addition to General Range Safety Procedures, the following requirements are specific for activities aboard “C” Range:

a. Limits of Fire. Targets 1 and 25 are the respective left and right lateral limits of fire for “C” Range. Individual shooters’ lateral limits are the right and left edge of their respective targets only.

b. Personnel conducting pistol training will bench or holster their weapon and personnel conducting training with rifles will come to sling arms or a controlled carry when personnel move forward of the firing line and will face up range until directed to proceed with the course of fire.

c. A loaded rifle/pistol will not be passed to another person. However, range personnel or service instructors may take a loaded weapon from a shooter to demonstrate or to clear a misfire or stoppage.

d. Audible Pop. Any shooter experiencing an “audible pop” will immediately “CEASE-FIRE”. Live-fire may resume only after the RSO has been informed and the weapon has been cleared. An “audible pop” may be defined as a peculiar sound or feeling that one believes a round did not fire the way it was intended and a projectile may still be present in the bore.

e. Full auto fire is not authorized.

3. Planning Requirements. “C” Range is scheduled through RFMSS and approved by MCB Hawaii O&T.

4. Access Control. All units must check-in with the Pu’uloa RTF Range Control (Building 401) prior to occupying the range.

5. Facilities

a. Water Spigots. None.

b. Heads. There is a “C/D” Range co-use head located behind the 50 yard line. Heads must be kept clean and properly stocked. RSOs will ensure all heads are policed before range is turned back over to Range Control.

c. Electrical Outlets. Electrical outlets are located at the control shed between “C” and “D” Ranges.

d. Ammunition/Armorer Tables. There are ammunition/armorer tables located at the 50 yard line. They are designed to facilitate the sorting and distribution of ammunition, as well as a surface for armorers to conduct weapons repair and maintenance.

e. Parking. Parking is limited at the Pu’uloa RTF and the use of government transportation is highly encouraged. Parking is available behind the Pu’uloa transient quarters (Buildings 302 and 303). The overflow parking lot is located in front of the armory (Building 44) and MTU facility (Building 48).

DELTA RANGE (“D” RANGE)	
Type	Known Distance, small arms range designed to support individual small arms training and evaluation
Target Distances	0-25 yards
Authorized Weapons	Service rifles Service shotguns Service pistols
Authorized Munitions	Up to 12 Gauge Pistol up to .45 cal. 5.56mm NATO only
Firing Lines	1
Firing Points	20
Target Carriages	20
BOUNDARY LIMITATIONS	
25 yard Lateral Limits	West Grid: 04QFJ0529557412/MAG AZ LLL 28(deg) East Grid: 04QFJ0532557418/MAG AZ RLL 27(deg)
3 yard Lateral Limits	West Grid: 04QFJ0529657401/MAG AZ LLL 29(deg) East Grid: 04QFJ0532757407/MAG AZ RLL 26(deg)
Close-Out List	None

1. Targetry

a. “D” Range is equipped with a 20 target point pneumatic turning target system.

b. Authorized targetry is cardboard “E” type targets only. Paper re-faces are authorized.

c. Targets will affix to the turning mechanisms by wooden 2 in. x 2 in. sticks only.

d. Targets must be positioned above the target mechanism to ensure projectiles land within the impact berm.

e. No ricochet producing target materials (i.e. steel, nails, etc.) are authorized in target mount construction.

f. For other than USMC annual pistol/rifle training details, targets will be provided by the using unit unless prior planning/coordination has been made with Pu’uloa RTF Range Control.

2. Safety. In addition to General Range Safety Procedures, the following requirements are specific for activities aboard “D” Range:

a. Limits of Fire. Targets 1 and 20 are the respective left and right lateral limits of fire for “D” Range. Individual shooters’ lateral limits are the right and left edge of their respective targets only.

b. Personnel conducting pistol training will bench or holster their weapon and personnel conducting training with rifles will come to sling arms or a controlled carry when personnel move forward of the firing line and will face up range until directed to proceed with the course of fire.

c. A loaded rifle/pistol will not be passed to another person. However, range personnel or service instructors may take a loaded weapon from a shooter to demonstrate or to clear a misfire or stoppage.

d. Full auto fire is not authorized.

e. Audible Pop. Any shooter experiencing an “audible pop” will immediately “CEASE-FIRE”. Live-fire may resume only after the RSO has been informed and the weapon has been cleared. An “audible pop” may be defined as a peculiar sound or feeling that one believes a round did not fire the way it was intended and a projectile may still be present in the bore.

3. Planning Requirements. “D” Range is scheduled through RFMSS and approved by MCB Hawaii O&T.

4. Access Control. All units must check-in with the Pu’uloa RTF Range Control (Building 401) prior to occupying the range.

5. Facilities

a. Water Spigots. None.

b. Heads. There is a “C/D” Range co-use head located behind the 25 yard line. Heads must be kept clean and properly stocked. RSOs will ensure all heads are policed before range is turned back over to Range Control.

c. Electrical Outlets. Electrical outlets are located at the control shed between “C” and “D” ranges.

d. Ammunition/Armorer Tables. There are ammunition/armorer tables located behind the covered 25 yard line. They are designed to facilitate the sorting and distribution of ammunition, as well as a surface for armorers to conduct weapons repair and maintenance.

e. Parking. Parking is limited at the Pu’uloa RTF and the use of government transportation is highly encouraged. Parking is available behind the Pu’uloa transient quarters (Buildings 302 and 303). The overflow parking lot is located in front of the armory (Building 44) and MTU facility (Building 48).

ECHO RANGE (“E” RANGE)	
Type	Known Distance, small arms range designed to support individual small arms training and evaluation
Target Distances	0-50 yards
Authorized Weapons	Service rifle Service shotgun Service pistols
Authorized Munitions	Up to 12 Gauge Pistol up to .45 cal. 5.56mm NATO only
Firing Lines	1
Firing Points	30
Target Carriages	30
BOUNDARY LIMITATIONS	
50 yard Lateral Limits	West Grid: 04QFJ0534557454/MAG AZ LLL 29(deg) East Grid: 04QFJ0538257461/MAG AZ RLL 28(deg)
25 yard Lateral Limits	West Grid: 04QFJ0534857436/MAG AZ LLL 29(deg) East Grid: 04QFJ0538557443/MAG AZ RLL 28(deg)
3 yard Lateral Limits	West Grid: 04QFJ0535057422/MAG AZ LLL 29(deg) East Grid: 04QFJ0538857430/MAG AZ RLL 26(deg)
Close-Out List	None

1. Targetry

a. “E” Range is equipped with a 30 target point pneumatic turning target system.

b. Authorized targetry for “E” Range is cardboard type targets only. Paper re-faces are authorized.

c. Targets will affix to the turning mechanisms by wooden 2 in. x 2 in. sticks only.

d. Targets must be positioned above the target mechanism to ensure projectiles land within the impact berm.

e. No ricochet producing target materials (i.e. steel, nails, etc.) are authorized in target mount construction.

f. For other than USMC annual pistol/rifle training details, targets will be provided by the using unit unless prior planning/arrangements has been made with Pu’uloa RTF Range Control.

2. Safety. In addition to General Range Safety Procedures, the following requirements are specific for activities aboard “E” Range:

a. Limits of Fire. Targets 1 and 30 are the respective left and right lateral limits of fire for “E” Range. Individual shooters lateral limits are the right and left edge of their respective targets only.

b. Personnel conducting pistol training will bench or holster their weapon and personnel conducting training with rifles will come to sling arms or a controlled carry when personnel move forward of the firing line and will face up range until directed to proceed with the course of fire.

c. A loaded rifle/pistol will not be passed to another person. However, range personnel or service instructors may take a loaded weapon from a shooter to demonstrate or to clear a misfire or stoppage.

d. Audible Pop. Any shooter experiencing an “audible pop” will immediately “CEASE-FIRE”. Live-fire may resume only after the RSO has been informed and the weapon has been cleared. An “audible pop” may be defined as a peculiar sound or feeling that one believes a round did not fire the way it was intended and a projectile may still be present in the bore.

e. Full auto fire is not authorized.

3. Planning Requirements. “E” Range is scheduled through RFMSS and approved by MCB Hawaii O&T.

4. Access Control. All units must check-in with the Pu’uloa RTF Range Control (Building 401) prior to occupying the range.

5. Facilities

a. Water Spigots. There are water spigots and drinking fountains located under the covered firing line.

b. Heads. A co-use head (portable toilet) is located behind the covered firing line, on the left hand side of the range. Heads must be kept clean and properly stocked. RSOs will ensure all heads are policed before range is turned back over to Range Control.

c. Electrical Outlets. Electrical outlets are located center line, at the covered firing line sound tower.

d. Ammunition/Armorer Tables. There are ammunition/armorer tables located behind the covered firing line. They are designed to facilitate the sorting and distribution of ammunition, as well as a surface for armorers to conduct weapons repair and maintenance.

e. Parking. Parking is limited at the Pu’uloa RTF and the use of government transportation is highly encouraged. Parking is available behind the Pu’uloa transient quarters (Buildings 302 and 303). The overflow parking lot is located in front of the armory (Building 44) and MTU facility (Building 48).

FOXTROT RANGE (“F” RANGE)	
Type	Known Distance, small arms range designed to support individual small arms training and evaluation
Target Distances	0-50 yards
Authorized Weapons	Service rifle Service shotgun Service pistol
Authorized Munitions	Up to 12 Gauge Pistol up to .45 cal. 5.56mm NATO only
Firing Lines	1
Firing Points	40
Target Carriages	40
BOUNDARY LIMITATIONS	
50 yard Lateral Limits	West Grid: 04QFJ0541657469/MAG AZ LLL 29(deg) East Grid: 04QFJ0547157479/MAG AZ RLL 28(deg)
25 yard Lateral Limits	West Grid: 04QFJ0541957450/MAG AZ LLL 29(deg) East Grid: 04QFJ0547457460/MAG AZ RLL 28(deg)
3 yard Lateral Limits	West Grid: 04QFJ0542157411/MAG AZ LLL 29(deg) East Grid: 04QFJ0547757451/MAG AZ RLL 26(deg)
Close-Out List	None

1. Targetry

a. “F” Range is equipped with a 40 target point pneumatic turning target system.

b. Authorized targetry for “F” Range is cardboard "E" type targets only. Paper re-faces are authorized.

c. Targets will affix to the turning mechanisms by wooden 2 in. x 2 in. sticks only.

d. Targets must be positioned above the target mechanism to ensure projectiles land within the impact berm.

e. No ricochet producing target materials (i.e. steel, nails, etc.) are authorized in target mount construction.

f. For other than USMC annual pistol/rifle training details, targets will be provided by the using unit unless prior planning/coordination has been made with Pu’uloa RTF Range Control.

2. Safety. In addition to General Range Safety Procedures, the following requirements are specific for activities aboard “F” Range:

a. Limits of Fire. Targets 1 and 40 are the respective left and right lateral limits of fire for “F” Range. Individual shooters lateral limits are the right and left edge of their respective targets only.

b. Personnel conducting pistol training will bench or holster their weapon and personnel conducting training with rifles will come to sling arms or a controlled carry when personnel move forward of the firing line and will face up range until directed to proceed with the course of fire.

c. A loaded rifle/pistol will not be passed to another person. However, range personnel or service instructors may take a loaded weapon from a shooter to demonstrate or to clear a misfire or stoppage.

d. Audible Pop. Any shooter experiencing an “audible pop” will immediately “Cease-Fire”. Live-fire may resume only after the RSO has been informed and the weapon has been cleared. An “audible pop” may be defined as a peculiar sound or feeling that one believes a round did not fire the way it was intended and a projectile may still be present in the bore.

e. Full auto fire is not authorized.

3. Planning Requirements. “F” Range is scheduled through RFMSS and approved by MCB Hawaii O&T. “F” Range availability is limited due to its routine use for annual rifle re-qualification training. This training is conducted from 0700-1700 daily, for approximately 32 weeks out of the year.

4. Access Control. All units must check-in with the Pu’uloa RTF Range Control (Building 401) prior to occupying the range.

5. Facilities

a. Water Spigots. There are water spigots and drinking fountains located under the covered firing line.

b. Heads. A co-use head (portable toilet) is located behind the covered firing line, on the left hand side of the range. Heads must be kept clean and properly stocked. RSOs will ensure all heads are policed before range is turned back over to Range Control.

c. Electrical Outlets. Electrical Outlets are located center line, at the covered firing line sound tower.

d. Ammunition/Armorer Tables. There are ammunition/armorer tables located behind the covered firing line. They are designed to facilitate the sorting and distribution of ammunition, as well as a surface for armorers to conduct weapons repair and maintenance.

e. Parking. Parking is limited at the Pu’uloa RTF and the use of government transportation is highly encouraged. Parking is available behind the Pu’uloa transient quarters (Buildings 302 and 303). The overflow parking lot is located in front of the armory (Building 44) and MTU facility (Building 48).

RANGE 1	
Type	Known Distance, small arms rifle range designed to support individual small arms training and evaluation
Target Distances	100-500 yards
Authorized Weapons	Shoulder fired Service and Precision Rifles. M249 SAWS will be considered on a case-by-case basis
Authorized Munitions	Ball up to .50 cal.
Firing Lines	4
Firing Points	26
Target Carriages	26 6 ft. x 6 ft.
BOUNDARY LIMITATIONS	
500 yard Lateral Limits	West Grid: 04QFJ3162472769/MAG AZ LLL (4 deg) East Grid: 04QFJ3168972753/MAG AZ RLL (4 deg)
300 yard Lateral Limits	West Grid: 04QFJ3166672935/MAG AZ LLL (4 deg) East Grid: 04QFJ3177372919/MAG AZ RLL (4 deg)
200 yard Lateral Limits	West Grid: 04QFJ3169173024/MAG AZ LLL (4 deg) East Grid: 04QFJ3175273009/MAG AZ RLL (4 deg)
100 yard Lateral Limits	West Grid: 04QFJ3171173126/MAG AZ LLL (7 deg) East Grid: 04QFJ3173473120/MAG AZ RLL (7 deg)
Close-Out List	Range 5

1. Fragmenting, Explosive or Tracer projectiles are prohibited.

2. Targetry

a. Targets will be provided by Range Control

b. Range 1 is equipped with manual target carriages and a moving target system.

c. Authorized targetry for Range 1 includes paper, plastic, or cardboard targets mounted either on 6 ft. x 6 ft. wood target frames, mounted to handheld wooden sticks, or attached to the moving target system.

d. Targets must be positioned above the Pit Area berm to ensure projectiles land within the designated impact area.

e. No ricochet producing target materials (i.e. steel, nails etc.) are authorized in target/target mount construction.

3. Safety. In addition to General Range Safety Procedures, the following requirements are specific for activities on Range 1:

a. Blank and live ammunition will not be utilized or stored on ranges at the same time, and must be stored and issued from two separate points. All blank ammunition must be turned in and accounted for prior to the conduct of live-fire.

b. Limits of Fire. Targets 1 and 26 are the respective left and right lateral limits of fire from 200-500 yards. If firing from the 100 yard line the right lateral limit is reduced to target number 15, in order to ensure all projectiles are contained within the pre-existing impact pockets. Individual shooters lateral limits are the right and left edge of their respective targets only.

c. Audible pop. Any shooter experiencing an “audible pop” will immediately “CEASE-FIRE”. Live-fire may resume only after the RSO has been informed and the weapon has been cleared. An “audible pop” may be defined as a peculiar sound or feeling that one believes a round did not fire the way it was intended and a projectile may still be present in the bore.

d. Firing Line Supervision. The minimum level of supervision for the firing line aboard Range 1 is the OIC and RSO. Supervisory personnel cannot perform their duties and participate in firing simultaneously.

e. Pit Supervision. A competent, authoritative individual must be assigned to supervise all activities in the Pit Area. During firing the Pit Supervisor is responsible for the safe supervision of all personnel in the pits. The Pit Supervisor must have positive communication with the RSO at all times during firing.

4. Planning Requirements. Range 1 is scheduled through RFMSS and approved by MCB Hawaii O&T. Desired use of 6 ft. x 6 ft. target backings require prior coordination with Range Control.

5. Access Control

a. All units must check in with the Range Control (Building 1584) prior to occupying the range.

b. Range 1 firing lines are positioned adjacent to Range 5. Therefore, both ranges have overlapping SDZs when in use. For this reason, strict supervision of personnel movement is necessary. All personnel entering and exiting the range must use the steps located behind the 500 yard line or the access road entrance at the top of the hill. There are road guard barriers posted at the West flank of each yard line. The yard line that is in use must have the road guard barrier in place to prevent personnel or vehicles from proceeding any further down range. All other barrier locations should be open to facilitate administrative and emergency traffic. The road east of Range 1 (between Ranges 1 and 5) is off limits to all ground traffic unless authorized by Range Control. The use of this road for traffic to and from the pits requires Ranges 1 and 5 to be placed in “CHECK-FIRE”.

c. The conduct and movement of personnel in the Pit/Target Area must also be strictly controlled, while firing is in progress. “Do Not Exit” signs and chains must be in place at the flanks of the Pit Area to prevent personnel from exiting the Pit Area while firing is in progress. All other Pit Area safety features and precautions are covered in the Pit Safety Brief.

6. Facilities

a. Water Spigots. There are water spigots for general use at the following locations:

(1) Behind the 500 yard line on the left hand side of the range.

(2) At the Base of the “Head” facility behind the 500 yard line.

(3) Behind the 300 yard line, on the left hand side of the range.

(4) Behind the “Head” at the 300 yard line.

(5) In the pits, outside the “Head”, near Target 1.

b. Heads. The heads associated with Range 1 must be kept clean and properly stocked. RSOs will ensure all heads are policed before range is turned back over to Range Control. Range 1 heads are located at the following areas:

(1) Separate male and female heads at the base of the range tower, behind the 500 yard line.

(2) A co-use head behind the 300 yard line, on the left hand side of the range.

(3) A co-use head (portable toilet) behind the 200-yard line, on the left hand side of the range.

(4) A co-use head in the pits, on the left hand side of the range, adjacent to Target 1.

c. Electrical Outlets. There are several 110-volt electrical outlets for general use at the following locations:

(1) At the Sound Shed in the pits.

(2) At the Target Shed in the pits.

d. Speakers. Pole-mounted range speakers should be used for clear communication on the firing line when more than half the width of the range is in use. A separate radio and coordination with Range Control is required for their use.

e. Buildings/Access. If use of the Pit Sound Shed and or Target Shed is required, prior coordination with Range Control is necessary for access and instructions.

f. Ammunition/Armorer Tables. There are ammunition/armorer tables located behind the center of each firing line. They are designed to facilitate the sorting and distribution of ammunition as well as a surface for armorers to conduct weapons repair and maintenance.

RANGE 2	
Type	Known Distance, small arms range designed to support individual pistol and shotgun training and evaluation
Target Distances	7-50 yards
Authorized Weapons	Service shotgun Pistol
Authorized Munitions	Up to 12 Gauge .45 cal. ball
Firing Lines	4
Firing Points	24
Target Carriages	24
BOUNDARY LIMITATIONS	
50 yard Lateral Limits	West Grid: 04QFJ3163972708/MAG AZ LLL (184 deg) East Grid: 04QFJ3166672699/MAG AZ RLL (184 deg)
25 yard Lateral Limits	West Grid: 04QFJ3163372690/MAG AZ LLL (184 deg) East Grid: 04QFJ3165972681/MAG AZ RLL (184 deg)
Close-Out List	None

1. Authorized training includes static small arms pistol/shotgun live-fire training, engaging point targets from 7, 15, 25 and 50 yards. Due to the range safety deviation, the unit will send the range designated OIC and RSO to Range Control before the training is scheduled to begin so they can receive a special brief from range control personnel. The Range Control staff will assign a range safety tech to assist with the conduct of training on the range. The range OIC and RSO will be advised by the range safety tech to ensure that range deviation conditions are being meet at all times.

2. Targetry

a. Range 2 is equipped with a 24 target point pneumatic turning target system.

b. Authorized targetry for Range 2 is cardboard “E” type targets only. Paper re-faces are authorized.

c. Targets will affix to the turning mechanisms by wooden 2 in. x 2 in. sticks only.

d. Targets must be positioned above the target mechanism to ensure projectiles land within the designated bullet trap.

e. No ricochet producing target materials (i.e. steel, nails, etc.) are authorized in target/target mount construction.

f. For other than USMC annual pistol training, targets will be provided by the using unit, unless prior planning/arrangements has been made with Range Control.

3. Safety. In addition to General Range Safety Procedures, the following requirements are specific for activities aboard Range 2:

a. Limits of Fire. Targets 1 and 24 are the respective left and right lateral limits of fire for Range 2. Individual shooters lateral limits are the right and left edge of their respective targets. At no time will the bore of the weapon be elevated above the bold red line that is painted at the top of the covered impact berm.

b. Personnel conducting pistol training will bench or holster their weapon when personnel move forward of the firing line and will face up range until directed to proceed with the course of fire.

c. A loaded pistol will not be passed to another person. However, range personnel or service instructors may take a loaded weapon from a shooter to demonstrate or to clear a misfire or stoppage.

d. Audible pop. Any shooter experiencing an “audible pop” will immediately “CEASE-FIRE”. Live-fire may resume only after the RSO has been informed and the weapon has been cleared. An “audible pop” may be defined as a peculiar sound or feeling that one believes a round did not fire the way it was intended and a projectile may still be present in the bore.

e. Full auto fire is not authorized.

4. Planning Requirements. Range 2 is scheduled through RFMSS and approved by MCB Hawaii O&T.

5. Access Control. All units must check in with the Range Control (Building 1584) prior to occupying the range.

6. Facilities

a. Water Spigots. There are water spigots for general use at the following locations:

(1) At the main entrance to the 50 yard line.

(2) At the Base of the “Head” facility behind Range 1.

(3) At the center of the line, outside the 50 yard line enclosure.

b. Heads. Separate male and female heads are located at the base of the range tower, behind Range 1 (Up the hill from the Range 2 parking lot). The heads associated with Range 2 must be kept clean and properly stocked. RSOs will ensure all heads are policed before range is turned back over to Range Control.

c. Electrical Outlets. There are several 110-volt electrical outlets for general use at the following locations:

(1) At center line, 50 yard line.

(2) At the Target Shed in the pits.

d. Ammunition/Armorer Tables. There are ammunition/armorer tables located at the 50 yard line. They are designed to facilitate the sorting and

distribution of ammunition, as well as a surface for armorers to conduct weapons repair and maintenance.

RANGE 3	
Type	360 degree, Zero SDZ, live-fire shoot house
Target Distances	N/A
Authorized Weapons	All pistols All shotguns All rifles/automatic rifles 5.56mm and below Practice and concussion grenades authorized for training
Authorized Munitions	All pistol calibers 5.56mm and below rifle cartridges All shotgun shells
Firing Lines	N/A
Firing Points	N/A
Target Carriages	N/A
Close-Out List	None

1. Shoot house consists of two stories, nine live-fire rooms, two hallways and two ladder wells. It is used for conducting Close Quarters Battle/Close Quarters Marksmanship blank and live-fire training.

2. No tracers or incendiary ammunition, ball ammo only will be fired on Range 3. Smoke grenades, white phosphorus (WP) grenades, illumination grenades, and O-Chlorobenzylidence Malonitrile (CS gas) grenades are not authorized inside the shoot house. Smoke may be used outside the shoot house within the Range 3 bay, with the approval of Range Control.

3. Targets will be provided by Range Control. The RTF Staff/Range Inspector will inspect and approve the target placement before conducting live-fire with small arms. Once the target location has been approved, targets will not be moved. At no time will ricochet producing materials be used for targetry in the shoot house (i.e. engineer stakes or steel reactive targets).

4. Safety. In addition to General Range Safety Procedures, the following requirements are specific for activities on Range 3.

a. Blank and live ammunition will not be utilized or stored on ranges at the same time, and must be stored and issued from two separate points. All blank ammunition must be turned in and accounted for prior to the conduct of live-fire.

b. Fire Control and Precautions

(1) Marines using the shoot house will have qualified on Table 4A for Day Operations and Table 4B for Night Operations within the last six months.

(2) Limits of Fire.

(a) The individual’s left, right and vertical limits will be the thoracic cavity (10 in. circle), the pelvic girdle or a head shot for each target engagement. Failure for Marines to maintain 80 percent (%) accuracy in shot placement will be considered unsafe. The left and right lateral limits for the team will be 6 ft. from the muzzle of the deepest shooter to the left or right.

(b) At no time will targets be placed in front of any red painted areas. All target placement is limited to locations with a white wall as a backstop.

(c) Every effort will be made to ensure that target placement either allows each shooter to engage the target or clearly prevents other shooters.

(d) Targets will not be placed in areas where a high probability exists that a shooter will violate the 6 ft. rule.

(e) The vertical lateral limit (ceiling) will be the red line.

(3) The OIC, RSO or Position Safety Officer (PSO) will move with the personnel being trained and will ensure all shooters are positively controlled. All weapons safety rules and conditions will be supervised and enforced.

(4) Personnel, not actively training in the shoot house, will remain within the restricted/staging area located on Range 3 during all live-fire training.

(5) At no time will more than one fire-team (four Marines) be used per room and no more than one squad will be in the building at a time. The shoot house maximum occupancy is 13.

(6) The OIC/RSO will ensure all personnel are familiar with firing lanes, firing points, sectors of fire, limits of fire, dispersion between shooters, grenade safety procedures, battle drills and clearing drills.

(7) All live-fire will be conducted within the shoot house.

(8) This Range requires a Gunnery Sergeant (E-7) or above as the OIC.

(9) Using units are not authorized to add any material, such as furniture, to the inside of this training building.

c. A non-firing Hospital Corpsman/Medic/Emergency Medical Technician (EMT) and a safety vehicle are required at the staging area located on Range 3 during all training.

d. Units must conduct rehearsals during the mock-up and dry run rehearsals in the live-fire building before going “HOT".

e. The building is authorized for night use with small arms, flashlights and night vision devices.

f. All safety personnel will have night vision devices during all night live-fire training.

g. While training is being conducted all personnel (including all instructors) MUST wear helmets, Flak Jackets, eye protection and hearing protection.

h. Blanks and live rounds will not be issued from the same ammunition point.

i. All weapons will be properly cleared before transitioning from blank to live-fire.

j. A 2 minute air refresh time will be conducted after every run through or drill. The “shoot house refresh” consists of physically opening every door of the shoot house and suspending training for two minutes. The OIC/RSO will then ensure all applicable doors are secured and the shoot house is clear of all personnel prior to the next drill/run.

5. Planning Requirements

a. Range 3 is scheduled through RFMSS and approved by MCB Hawaii O&T. Certain specific criteria must be met in order to use Range 3.

b. Five days prior to training, units unfamiliar with the range are encouraged to conduct a thorough recon.

c. Two days prior to training a SOM/ORM Worksheet and concept of operations brief must be submitted and approved by the Installation RCO, or in his absence, the OIC of Range Control. Ensure the SOM covers a detailed scenario that include rooms, range and training area requirements, weapons, ammunition, control measures, rehearsal plan, targetry and locations and a breakdown of activity dates from arrival to range, repair/police and departure.

6. Access Control. All units must check in with the Range Control (Building 1584) prior to occupying the range.

7. Facilities. Separate male and female “Heads” are located behind the Range 1 500 yard line, located at the top of the range road and to the west of the shoot house.

RANGE 4	
Type	Dry-fire only / Bivouac
Target Distances	N/A
Authorized Weapons	Service rifle Service pistol
Authorized Munitions	None
Firing Lines	N/A
Firing Points	N/A
Target Carriages	N/A
Close-Out List	None

1. Range 4 consists of one snap-in circle, a bivouac area and an outdoor classroom consisting of a pavilion with bleachers. Authorized training includes static small arms rifle and pistol dry-fire training, bivouacking, outdoor periods of instruction/briefing and staging of materials or vehicles.

2. Targetry consists of one snap-in barrel.

3. Safety. In addition to General Range Safety Procedures, the following requirements are specific for activities on Range 4.

a. Range 4 is a non-live-fire facility.

b. Blank and live ammunition will not be utilized or stored on ranges at the same time.

4. Planning Requirements. Range 4 is scheduled through RFMSS and approved by MCB Hawaii O&T.

5. Access Control. All units must check in with the Range Control (Building 1584) prior to occupying the range.

6. Facilities

a. Water Spigots. There are water spigots for general use at the tool shed.

b. Heads. The “Heads” associated with Range 4 are portable toilets and are located beside the bleachers.

RANGE 5	
Type	Multipurpose Range
Target Distances	N/A
Authorized Weapons	All small arms, automatic rifles, and Machine Guns, 40mm and below Antitank/shoulder fired rockets
Authorized Munitions	40mm TP/HE/High Explosive Dual Purposse (HEDP) .50 cal. Ball and below SMAW TP (use of spotting rounds not authorized) M72AS LAAW AT4 tracer trainer (approval required)
Firing Lines	N/A
Firing Points	N/A
Target Carriages	N/A
Firing Line (pavilion)	West Grid: 04QFJ3176172740 East Grid: 04QFJ3183472678
Close-Out List	Always closes Ranges 7, 8 series, and 9 Closes Ranges 1 and 6 when specific firing scenarios are scheduled

1. Range 5 uses include unknown distance firing, live-fire movement/maneuver, vehicular mounted firing, amphibious assault vehicles, small arms, heavy, medium, and light machinegun training.

2. When one of the ranges on the close-out list are scheduled for training the other ranges cannot be occupied. Exceptions to this rule are co-uses approved by the Installation RCO, or in his absence, the OIC of Range Control. Requests to co-use Ranges 1, 5, 7, and 9 must be accompanied with a SOM and ORM worksheet. At no time will one unit be permitted to be inside of another range's SDZ.

3. Targetry

a. Targets are available through Range Control.

b. The minimum target engagement distances are 7 yards when firing pistols, 10 yards when firing 00 buckshot, 50 yards when firing 12 gauge slugs, 100 meters when engaging steel targets with 5.56mm and above (in accordance with [IAW] SOUM 2-02, MCO 3570.1C).

c. General firing precautions for MK 19. Targets will be engaged at ranges greater than 75 meters when firing 40mm TP rounds. Targets will be set up and engaged only at ranges specified during the Range Control staff’s Pre-fire inspection when firing 40mm HE/HEDP. Personnel within a 310 meter radius of round impact will wear protective helmet, body armor/flak jacket and ballistic eye protection at all times.

d. All heavy machine guns (ground and/or vehicle mounted) require a Traversing & Elevation (T&E) mechanism to control horizontal and vertical trajectory limits.

4. Safety In addition to General Range Safety Procedures, the following requirements are specific for activities on Range 5.

a. Blank and live ammunition will not be utilized on ranges at the same time and must be stored and issued from two separate points. All blank ammunition must be turned in and accounted for prior to the conduct of live-fire.

b. Limits of Fire. The lateral limits for the range are marked with white/black striped (zebra) signs located in the impact area (see range diagram). Individual shooters lateral limits are the right and left edge of their respective targets only.

c. RSOs are responsible for monitoring the dud rate and/or rounds misfired by lot number when firing 40mm HE/HEDP. If lot number's dud/misfire rate exceeds five percent during training, units will immediately cease fire and contact Range Control.

d. When units conduct exercises that include live-fire and maneuver, the OIC/RSO must ensure that the appropriate safety personnel are dedicated to each maneuver or support element (machinegun Support By Fire [SBF] position). Ensure individuals/elements do not flag each other when executing maneuver and movements are conducted IAW the approved maneuver scenario.

e. A requirement for two beach guards to be posted at the coastline observation bunker is mandatory. Beach guards are to report to Range Control and will receive a safety brief. When unauthorized aircraft, vessels or personnel enter the SDZ the beach guards will report that to range control. Range Control will "check firing" until the SDZ is clear. During night live-fire training, beach guards must have night vision equipment. Units are responsible for ensuring beach guards have chow and water. Range Control will provide transportation and communication, to/from the beach guard bunker.

5. Planning Requirements

a. Range 5 is scheduled through RFMSS and approved by MCB Hawaii O&T. Due to the unique layout of the Kaneohe Bay RTF, and specifically the size of the SDZ for most weapon systems, the majority of Range 5 live-fire training will close out (shutdown) Ranges 1, 6 (MK19 HEDP only), 7, 8, 8 series, and 9. Range 5 scheduling, and subsequently approving, will require more attention and review than other ranges on the Kaneohe Bay RTF. Certain specific criteria must be met in order to use high explosives (HE) or Fire and Maneuver.

b. Units unfamiliar with the range are encouraged to conduct a thorough range walk/recon five days prior to training.

c. Two days prior to conducting live-fire and maneuver or firing HE munitions from firing points on Range 5, a SOM/ORM Worksheet must be submitted and approved by the Installation RCO, or in his absence, the OIC of Range Control. Ensure the SOM includes a graphic that includes SBF

locations, control measures, rehearsal plan, additional targets required, and their proposed locations

6. Access Control. All units must check in with the Range Control (Building 1584) prior to occupying the range.

7. Facilities. A co-use “Head” (portable toilet) behind Range 5, is located on Range 4, near the pavilion.

RANGE 6	
Type	Known Distance, small arms range designed to support individual small arms training and evaluation
Target Distances	3-50 yards
Authorized Weapons	All pistols Shotguns Rifles 7.62 and below (single shot only)
Authorized Munitions	All 12 Gauge All pistol calibers up to .45 cal. 7.62mm and below only
Firing Lines	5
Firing Points	25
Target Carriages	25
50 yard Lateral Limits	West Grid: 04QFJ/MAG AZ LLL (4) East Grid: 04QFJ/MAG AZ RLL (4)
25 yard Lateral Limits	West Grid: 04QFJ/MAG AZ LLL (4) East Grid: 04QFJ/MAG AZ RLL (4)
15 yard Lateral Limits	West Grid: 04QFJ/MAG AZ LLL (4) East Grid: 04QFJ/MAG AZ RLL (4)
Close-Out List	None

1. Authorized training includes static small arms rifle, pistol and shotgun live-fire training. Limited live-fire and movement is authorized within the boundaries of Range 6.

2. Targetry

a. Targets will be provided by Range Control.

b. Range 6 is equipped with a 25 target point pneumatic turning target system.

c. Authorized targetry for Range 6 is cardboard "E" type targets for all small arms and steel “poppers” for shotgun and pistol training only. Paper re-faces are authorized.

d. Targets will affix to the turning mechanisms by wooden 2 in. x 2 in. sticks only.

e. Targets must be positioned above the target mechanism to ensure projectile land within the designated bullet trap.

f. No ricochet producing target materials (i.e. steel, nails, etc.) are authorized in target mount construction.

g. The minimum target engagement distances are 7 yards when firing pistols, 10 yards when firing 00 buckshot, 50 yards when firing 12 gauge slugs, 100 meters when engaging steel targets with 5.56mm and above (IAW SOUM 2-02, MCO 3570.1C).

3. Safety In addition to General Range Safety Procedures, the following requirements are specific for activities on Range 6.

a. Blank and live ammunition will not be utilized on ranges at the same time, and must be stored and issued from two separate points. All blank ammunition must be turned in and accounted for prior to the conduct of live-fire.

b. Limits of Fire. The left and right lateral limits for Range 6 are targets 1 and 25 respectively. Individual shooters lateral limits are the right and left edge of their respective targets.

c. No firing is authorized from the tower berm.

d. One Beach Guard is required for Range 6 and will be posted on the ladder well adjacent to the Range Tower door or inside the Range Tower. If conducting night firing, the beach guard must use night vision equipment.

e. Ensure that the range flag/warning light is hoisted and/or working, on the flagpole, as depicted on the range diagram.

f. Due to ricochet hazards, safety technicians will perform in-use safety inspections on ricochet prevention measures that Range Control has implemented. These safety checks will be scheduled to have the least amount of impact on unit training, occurring during relay changes, or other situations when a pause in training is anticipated. If a ricochet hazard is found, training will cease until it is repaired and inspected by the OIC of Range Control.

4. Planning Requirements

a. Range 6 is scheduled through RFMSS and approved by MCB Hawaii O&T.

b. Range 6 availability is limited due to its routine use for Federal Bureau of Investigation and Drug Enforcement Administration training.

5. Access Control. All units must check in with the Range Control (Building 1584) prior to occupying the range.

6. Facilities

a. Water Spigots. There are water spigots for general use at the following locations:

(1) At center line, behind the 50 yard line.

(2) In the target pit area on the left hand side of the range.

b. Heads. Range 6 heads are located north of the range near Range 9. A co-use head (portable toilet) is located behind Range 5, located on Range 4, near the pavilion.

c. Electrical Outlets. There are 110-volt electrical outlets for general use at the tower, behind the 50 yard line.

d. Speakers. Range speakers are mounted on the tower and can be used for clear communication on the firing line. A separate radio and coordination with Range Control is required for their use.

e. Buildings/Access. If use of the tower is required, prior coordination with Range Control is necessary and only RTF personnel will operate it.

RANGE 7	
Type	Static field-firing range
Target Distances	N/A
Authorized Weapons	All small arms, automatic rifles, and Machine Guns, 40mm and below Antitank/shoulder fired rockets
Authorized Munitions	40mm HE/HEDP (M203 only) 40mm TP .50 cal. Ball and below SMAW HE / TP (use of spotting rounds not authorized) M72AS LAAW M136 HE AT4
Firing Lines	1
Firing Points	N/A
Target Carriages	N/A
Firing Line	Northwest Grid: 04QFJ3199893007 Southeast Grid: 04QFJ3203072961
Close-Out List	Closes Ranges 5, 8 series and 9 / 9A.

1. Range 7 is designed to support small arms, crew served machine guns, shoulder-fired anti-armor rockets, and vehicle mounted live-fire training requirements. It consists of one firing line located on the berm, downrange of Range 5.

2. When one of the ranges on the close-out list are scheduled for training the other ranges cannot be occupied. Exceptions to this rule are co-uses approved by the Installation RCO, or in his absence, the OIC of Range Control. Request to co-use Ranges 5, 7, and 9 must be accompanied with a SOM and ORM worksheet. At no time will one unit be permitted to be inside of another range’s SDZ.

3. Targetry

a. Small arms targetry for will be provided by Range Control.

b. The minimum target engagement distances are 7 yards when firing pistols, 10 yards when firing 00 buckshot, 50 yards when firing 12 gauge slugs, 100 meters when engaging steel targets with 5.56mm and above (IAW SOUM 2-02, MCO 3570.1C).

c. All heavy machine guns (ground and or vehicle mounted) require a T&E mechanism to control horizontal and vertical trajectory limits.

d. The HE finger is the only authorized impact area for all HE anti-armor rockets.

e. RSOs are responsible for monitoring the rounds misfired by lot number when firing anti-armor rockets.

f. In the event of a dud round, the RSO will note its approximate location and notify Range Control when training is complete.

g. Misfires will be handled IAW current technical manuals (TMs), current publications and references.

4. Safety. In addition to General Range Safety Procedures, the following requirements are specific for activities on Range 7.

a. Blank and live ammunition will not be utilized on ranges at the same time and must be stored and issued from two separate points. All blank ammunition must be turned in and accounted for prior to the conduct of live-fire.

b. Limits of Fire. The lateral limits for the range are marked with yellow/black striped (zebra) signs located in the impact area (see range diagram). Individual shooters lateral limits are the left and right sides of their intended target.

c. RSOs are responsible for monitoring the dud rate and/or rounds misfired by lot number when firing 40mm HE/HEDP. If lot number's dud/misfire rate exceeds five percent during training, units will immediately cease fire and contact Range Control.

d. A requirement for two beach guards to be posted at the coastline observation bunker is mandatory. Beach guards are to report to Range Control and will receive a safety brief. During night live-fire training, beach guards must have night vision equipment. Units are responsible for ensuring beach guards have chow and water. Range Control will provide transportation and communication to/from the beach guard bunker.

e. Range 7 has a separate flag pole that must be raised in position during live-fire and then lowered upon completion of firing. It is located on the left hand side of Range 7 near the Range 1 pit access road.

5. Planning Requirements

a. Range 7 is scheduled through RFMSS and approved by MCB Hawaii O&T. Certain specific criteria must be met in order to use HE.

b. Units unfamiliar with the range are encouraged to conduct a thorough range walk/recon five days prior to training.

c. Two days prior to firing HE munitions from firing points on range 7, a SOM/ORM Worksheet must be submitted and approved by the Installation RCO, or in his absence, the OIC of Range Control. Ensure the SOM includes a graphic that includes control measures, rehearsal plan, additional targets required, and their proposed locations.

6. Access Control. All units must check in with the Range Control (Building 1584) prior to occupying the range.

7. Facilities. Range 7 heads are located behind Range 5 located on Range 4, near the pavilion and east of Range 5 located on Range 9, near the mortar pits.

RANGE 8	
Type	Light Demolition Range
Target Distances	N/A
Authorized Weapons	M18 Claymore mine Anti-Personnel Obstacle Breaching System (APOBS) Demolitions charges
Authorized Munitions	Various demolition munitions
Firing Lines	N/A
Firing Points	N/A
Target Carriages	N/A
Close-Out List	Closes Ranges 5, 7, 8A, 9, 9A and 10

1. Range 8 is located in a draw below the HE finger on Kaneohe Bay RTF. Authorized training includes demolition and obstacle breaching.

2. When one of the ranges on the close-out list are scheduled for training the other ranges cannot be in a “HOT” status. At no time will a unit be permitted to be inside another range’s SDZ.

3. Explosive charges in the impact area on Range 8 will not exceed 5 pounds (lbs.) of TNT or C-4. When a ring main is set using detonation cord, there can be no more than eight, 1/4 pound charges used for a total of not more than 2 lbs. of explosive (net weight). Fragmentation producing charges are prohibited. Examples of prohibited charges are; steel/timber cutting or field expedient charges such as ammo can claymores (grape shot). Claymore mines can be fired from the demolition pit area of Range 8. Ensure that the front portion of the claymore mine is facing toward the impact area when set in position. Requests for waivers to this certification must be submitted in writing 30 days before the scheduled event.

4. Targetry. Targets are available through Range Control.

5. Safety. In addition to General Range Safety Procedures, the following requirements are specific for activities on Range 8.

a. Unit leaders must ensure all applicable Training and Readiness (T&R) tasks are followed during the conduct of training. Units are required to have on hand, and adhere to, the appropriate T&R tasks, and TM for employing/troubleshooting the APOBS.

b. All personnel will wear approved eye, hearing protection, flak jackets and helmets while the range is in a “HOT” status.

c. Only command certified demolition OICs and RSOs will be permitted to conduct demolition training operations.

d. In the event of a misfire, call an immediate “CEASE-FIRE” and notify Range Control. OIC/RSO will personally clear the misfire. Misfire procedures can be found in MCO 3570.1C and FM 25-250. In the event that the OIC/RSO is unable to clear the misfire Range Control will notify Explosive Ordnance Disposal (EOD). The range will remain in a “HOT” status and no one except EOD will be permitted down range until the misfire has been cleared. Live-fire training may resume upon notification from Range Control.

e. When demolitions are prepared, allow sufficient time for all personnel to leave the demolitions pit area and get into the safety area before detonation.

f. The safety area is designated as the “up range side” of the Range 9 berm and completely out of the line-of-sight of demolitions. Before setting demolitions, the area will be checked by the RSO for any debris that could be thrown by a detonation. When using time fuses, enough time-fuse to ensure a five minute (minimum) delay will be used before detonation. Once all charges have been primed, the RSO shall give the command to pull the igniters allowing at least ten seconds between them to allow an accurate count of the number of shots fired. Once charges have been detonated, the RSO shall ensure that all of the charges have detonated before allowing personnel back into the demolitions area.

6. APOBS Specific Fire Control

a. Before Firing. The OIC will:

(1) Ensure that the entire SDZ is clear of all non-essential personnel or hazardous obstacles, in coordination with Range Control.

(2) Maintain radio communications with Range Control throughout the entire preparation and conduct of training.

(3) Have on-hand, and adhere to, appropriate TM and checklists for employing/troubleshooting the APOBS.

(4) Assign an RSO to supervise all actions regarding the handling and employment of the APOBS.

(5) Ensure all personnel involved in the training are wearing a helmet, flak jacket and approved hearing and eye protection.

(6) Cease use of all electronic transmitting devices in the general area (such as radios and cell phones) prior to connecting sensitive elements of the system.

(7) Move all personnel, vehicles and equipment not physically involved with the employment of the system to positions providing cover from flying debris (such as in the grenade bays, or behind the Range 7 berm).

b. During Firing. The OIC will:

(1) Ensure firing personnel are at least 50 meters to the rear of the launch site and are in a prone or covered position.

(2) Maintain visual contact with the RSO and radio contact with Range Control.

(3) Maintain the ability to halt the training in the event any unsafe condition occurs.

(4) Handle misfires/early detonations IAW procedures outlined in the TM.

c. After Firing. The OIC will:

(1) Ensure EOD has swept the detonation area, ensuring no unexploded residue from the system is evident.

(2) Ensure entire area is policed, including remnants of target obstacle.

6. Planning Requirements

a. Range 8 is scheduled through RFMSS and approved by MCB Hawaii O&T. Certain specific criteria must be met in order to use any type of demolitions.

b. Units unfamiliar with the range are encouraged to conduct a thorough range walk/recon five days prior to training.

c. OICs will submit a "shot report" containing the size and composition of each explosive charge to the Installation RCO 48 hours prior to the training event. A SOM/ORM Worksheet must be submitted and approved by the Installation RCO, or in his absence, the OIC of Range Control. Ensure the SOM includes a graphic that includes control measures, rehearsal plan, additional targets required, and their proposed locations.

7. Access Control. All units must check in with the Range Control (Building 1584) prior to occupying the range.

8. Facilities. Range 8 heads are portable toilets located near Range 9.

RANGE 8A	
Type	Live-fire shoot house
Target Distances	N/A
Authorized Weapons	All pistols All shotguns All rifles (SAW included) 5.56mm and below
Authorized Munitions	5.56mm and below rifle cartridges All pistol calibers All shotgun shells M67 fragmentation hand grenades.
Firing Lines	N/A
Firing Points	N/A
Target Carriages	N/A
Close-Out List	Closes Ranges 1 (pits), 5, 7, 8, 9, 9A and 10

1. Range 8A is a shoot house constructed of Shock Absorbing Concrete (SACON). It consists of two live-fire rooms, one hallway and one large grenade room. There is no ceiling and the shoot house is not authorized for Zero SDZ, 360 degree live-fire. Therefore shoot/no shoot areas are marked.

2. Range 8A is encompassed by Ranges 5, 7, 8 and 9 SDZs. When one of the ranges on the close-out list are scheduled for training, Range 8A cannot be used. Similarly, if Range 8A is scheduled for use Ranges 5, 7, 8, 9 and 9A cannot be used, unless the SACON house is being used as the final objective for maneuver on Range 5. In that case both Range 5 and Range 8A must be requested. At no time will one unit be permitted to be inside of another range’s SDZ.

3. No tracers or incendiary ammunition will be fired on Range 8A. Smoke grenades, WP grenades, illumination grenades and CS grenades are not authorized.

4. Targetry. All Targets will be provided by Range Control. The Kaneohe Bay RTF Staff/Range Inspector will inspect and approve the target placement before conducting live-fire with small arms and/or live grenades. Targets will be shifted occasionally to avoid excessive damage to any one building panel. At no time will ricochet producing materials be used for targetry in the shoot house (i.e. engineer stakes or steel reactive targets).

5. Safety. In addition to General Range Safety Procedures, the following requirements are specific for activities on Range 8A.

a. Blank and live ammunition will not be utilized on ranges at the same time and must be stored and issued from two separate points. All blank ammunition must be turned in and accounted for prior to the conduct of live-fire.

b. The RSO will move with the personnel being trained and will ensure all shooters are positively controlled. All weapons safety rules and conditions will be supervised and enforced.

c. Personnel, not actively training in the shoot house, will remain within the restricted/staging area located on Range 9 during all live-fire training.

d. The maximum number of personnel authorized to conduct live-fire training at one time is a four man clearing team (one Fire Team). When conducting live grenade training, the clearing element and RSO are the only authorized occupants of the entire SACON house.

e. The OIC/RSO will ensure all personnel are familiar with firing lanes, firing points, sectors of fire, limits of fire, dispersion between shooters, grenade safety procedures, battle drills, clearing drills and emergency drills.

f. The primary direction of fire is on the designated walls and targets located inside the building only. NO LIVE-FIRE IS PERMITTED ON “NO SHOOT” WALLS OR ABOVE THE RED SAFETY LINE.

g. Special precautions must be taken with right-handed and left-hand grenade throwers from the different positions within the building.

h. If the shoot house is to be used in conjunction with another range (i.e. objective in SOM with Range 5) a requirement for two beach guards to be posted at the coastline observation bunker is mandatory. Beach guards are to report to Range Control and will receive a safety brief. During night live-fire training, beach guards must have night vision equipment. Units are responsible for ensuring beach guards have chow and water. Range Control will provide transportation and communication, to/from the beach guard bunker.

i. This Range requires a Gunnery Sergeant (E-7) or above as the Range OIC, Staff Sergeant (E-6) as the RSO.

j. Using units are not authorized to add any material, such as furniture, to the inside of this training building.

k. Unit commanders are responsible to make liaison with EOD in advance, in order to notify them when the unit will be conducting grenade training. EOD is not required to be physically present at the training site, but must be on a 30-minute standby.

l. Two rooms have been designated as non-grenade rooms, as displayed on the range handout.

m. A non-firing Hospital Corpsman and a safety vehicle are required at the staging area located on Range 9 during all training.

n. Units must conduct rehearsals with practice grenades during the mock-up and dry run rehearsals in the live-fire building before going “HOT” with live Grenades. The using unit must police up all practice grenades and debris before going “HOT” with live grenades.

o. All live hand grenades must be strictly controlled and accounted for during training.

p. The building is authorized for night use with small arms, flashlights and night vision devices. Live hand grenades are authorized at night, however, if a "dud" hand grenade occurs after ending evening nautical twilight (dark), all Range 8A training must cease and the house/area will be secured to prevent access. The following day at first light EOD may clear the dud. Only then may training continue.

q. All safety personnel WILL HAVE NIGHT VISION DEVICES during all night live-fire training.

r. While training is being conducted all personnel (including all instructors) MUST wear helmets, flak jackets, eye protection and hearing protection.

s. All safety precautions for the M-67 Fragmentation Hand Grenade listed in FM 3-23.30/TM-1330-15/1 and the Diversionary Charge MK-141 (DWBS) listed in the Safety of Use Memorandum 2-03/TM 60E-2-2-3B must be adhered to and supervised by the OIC/RSO.

t. Once the safety pin has been pulled, the grenade must immediately be thrown. No attempt will be made to re-insert the safety pin. Only one live grenade will be thrown inside the facility at a time. “COOKING–OFF” OR “MILKING” A GRENADE IS NOT AUTHORIZED.

u. Marines will wait 3 seconds after the grenade detonates before entering the room in order to allow the smoke/dust to clear. If the room is still filled with smoke/dust the unit should delay even longer to allow better visibility inside the room/building before entering.

v. In the event of a misfire/dud, call an immediate “CEASE-FIRE” and notify Range Control. All personnel must remain in a safe position for 5 minutes then exit the building with condition four weapons and move by the most direct route to the staging/safe area located on Range 9. No one will be exposed to the misfired/dud grenade. Range Control will notify EOD to clear the range before training can be resumed. The range will not be used or occupied until notified by Range Control.

w. The using unit is required to fill in holes, rake down and level out the sandy areas inside the building and remove all the debris from the building (i.e. spoons, clips, trash, dunnage, shotgun shells, brass large pieces of the hand grenades) before departing the range.

6. Planning Requirements

a. Range 8A is scheduled through RFMSS and approved by MCB Hawaii O&T.

b. Units unfamiliar with the range are encouraged to conduct a thorough range walk/recon five days prior to training.

c. Two days prior to firing high explosive munitions from firing points on range 8A, a SOM/ORM Worksheet must be submitted and approved by the Installation RCO, or in his absence, the OIC of Range Control. Ensure the SOM covers a detailed scenario that includes movement in rooms, weapons, ammunition, control measures, rehearsal plan (to include emergency drills

i.e. “dropped frag plan”, safety procedures and clearing drills), targetry and locations, and additional targets required.

7. Access Control. All units must check in with the Range Control (Building 1584) prior to occupying the range.

8. Facilities. Range 8A heads (portable toilets) are located to the southeast of the shoot house.

RANGE 8B	
Type	Live-fire point man reaction course
Target Distances	N/A
Authorized Weapons	All pistols All shotguns All rifles (SAW included) 5.56mm and below
Authorized Munitions	5.56mm and below rifle cartridges All pistol calibers All shotgun shells Blanks L594 Ground burst simulator (requires O&T approval) G930/G940/G945/ smoke grenades (requires O&T approval) Battle Field simulations (BFX) (requires O&T approval)
Firing Lines	N/A
Firing Points	N/A
Target Carriages	N/A
Close-Out List	Closes Ranges 1 (pits), 5, 7, 8, 8A, 9, 9A and 10

1. Range 8B is a live-fire, point man reaction course of fire that consists of a winding trail approximately 150 meters in length (300 meters total). The trail winds North to Northwest through a lightly vegetated gorge (ravine) which allows for a series of stationary, pop-up targets to be concealed at significant points along the trail.

2. Range 8B is encompassed by Ranges 5, 7, 8, 8A, and 9 SDZs. When one of the ranges on the close-out list are scheduled for training, Range 8B cannot be used. Similarly, if Range 8B is scheduled for use Ranges 5, 7, 8, 8A, 9, and 9A cannot be used. At no time will one unit be permitted to be inside of another range’s SDZ.

3. No tracers or incendiary ammunition will be fired on Range 8B.

4. All Targets will be provided by Range Control.

5. Safety. In addition to General Range Safety Procedures, the following requirements are specific for activities on Range 8B.

a. Blank and live ammunition will not be utilized on ranges at the same time and must be stored and issued from two separate points. All blank ammunition must be turned in and accounted for prior to the conduct of live-fire.

b. Fire Control and Precautions.

c. The RSO will move with the personnel being trained and will ensure all shooters are positively controlled. All weapons safety rules and conditions will be supervised and enforced.

d. Personnel, not actively training in the point man reaction course, will remain within the restricted/staging area located on Range 9 during all live-fire training.

e. The maximum number of personnel authorized to conduct live-fire training at one time is a four man fire unit.

f. Only one individual will fire on targets from each firing point. OIC/RSO/PSOs will ensure individuals/Automatic Riflemen firing on full automatic are firing their own Table of Organization weapon and have previously been trained and evaluated on firing on full automatic from the shoulder in the standing and kneeling positions.

g. The OIC/RSO/PSOs will ensure all personnel are familiar with firing lanes, firing points, sectors of fire, limits of fire, dispersion between shooters, battle drills, immediate action drills, and emergency drills.

h. The primary direction of fire will be towards the cluster of targets that are presented at each firing point. Due to the depth of the ravine and target placement restricted to no higher than six feet from the ravine floor, firing will be conducted to the direct front with no lateral deviation.

i. Using units are not authorized to add any additional targets or target material to the course of fire.

j. A non-firing Hospital Corpsman and a safety vehicle are required at the staging area located on Range 9 during all training.

k. A rehearsal (dry-run) must be conducted prior to commencing any live-fire training.

l. All safety personnel WILL HAVE NIGHT VISION DEVICES during all night live-fire training.

m. While training is being conducted all personnel (including All Instructors/safety personnel) MUST wear helmets, flak jackets, eye protection and hearing protection.

n. The using unit is required to fill and replace damaged sand bags and targets (provided by range control), and remove all the debris from the occupied area (i.e. spoons, clips, trash, dunnage, shotgun shells, brass) before departing the range.

6. Planning Requirements

a. Range 8B is scheduled through RFMSS and approved by MCB Hawaii O&T. Certain specific criteria must be met in order to use Range 8B.

b. Units unfamiliar with the range are encouraged to conduct a thorough range walk/recon five days prior to training.

c. Two days prior to training a SOM/ORM Worksheet and concept of operations brief must be submitted and approved by the Installation Range Control Manager, or in his absence, the RTF Range Control Officer. Ensure the SOM covers a detailed scenario that include weapons, ammunition, control measures, rehearsal plan, targetry and locations and a breakdown of activity dates from arrival to range, repair/police and departure.

d. Upon occupation of the range, a member of the Range Control staff, OIC, RSO and PSO(s) will walk the course of fire and verify target placements and firing locations prior to the conduct of training.

7. Access Control. All units must check in with the Range Control (Building 1584) prior to occupying the range.

8. Facilities. Range 8B “Heads” (portable toilets) are located to the southeast of the Range 8A shoot house.

RANGE 9	
Type	Known Distance, small arms range designed to support individual small arms training and evaluation
Target Distances	3-100 yards
Authorized Weapons	Service rifles Shotguns Pistols
Authorized Munitions	Up to 7.62 mm
Firing Lines	8
Firing Points	24
Target Carriages	24
BOUNDARY LIMITATIONS	
100 yard Lateral Limits	West Grid: 04QFJ3192672731/MAG AZ LLL (10 deg) East Grid: 04QFJ3195272720/MAG AZ RLL (10 deg)
50 yard Lateral Limits	West Grid: 04QFJ3189472672/MAG AZ LLL (10 deg) East Grid: 04QFJ3188272646/MAG AZ RLL (10 deg)
36 yard Lateral Limits	West Grid: 04QFJ3196172812/MAG AZ LLL (10 deg) East Grid: 04QFJ3198572799/MAG AZ RLL (10 deg)
15 yard Lateral Limits	West Grid: 04QFJ3196772827/MAG AZ LLL (10 deg) East Grid: 04QFJ3199372819/MAG AZ RLL (10 deg)
Close-Out List	Closes Ranges 5, 7, 8, 8 series, 9A and 10

1. Range 9 is a training range for engaging point and multiple targets from 3, 5, 7, 15, 25, 36, 50, and 100 yards, as well as USMC “table” training.

2. When one of the ranges on the close-out list is scheduled for training the other ranges cannot be occupied. Approval by, and coordination with, units that have training previously scheduled on Ranges 5 and 7 along with a SOM and a ORM worksheet is required prior to RFMSS approval. These cases will only be approved when proven to be safe and are reviewed and approved by the Installation RCO, or in his absence, the OIC of Range Control. At no time will one unit be permitted to be inside of another range’s SDZ.

3. Fragmenting, explosive or tracer projectiles are prohibited.

4. Targetry. All targets will be provided by Range Control. Range 9 is equipped with a pneumatic turning target system. Authorized targetry for Range 9 includes cardboard and plastic "E" type targets.

5. Safety. In addition to General Range Safety Procedures, the following requirements are specific for activities on Range 9.

a. Blank and live ammunition will not be utilized on ranges at the same time and must be stored and issued from two separate points. All blank ammunition must be turned in and accounted for prior to the conduct of live-fire.

b. Limits of Fire. Targets 1 and 24 are the respective left and right lateral limits of fire for Range 9.

c. Caution must be taken when engaging targets with steel penetrating 5.56 mm. The steel plate protecting the targetry can be damaged by the steel penetrator in the projectile and ricochet and frag hazards are possible. A SACON wall is protecting the steel plate, however, certain trajectories can still impact the protective plate.

d. Surface Danger Zone. When firing 5.56mm semi-automatic fire beach guards are not required, however, watercraft inside the first buoy until either passed the buoy headed south or behind the north rim of the crater constitutes a “CHECK-FIRE” area. It is a unit responsibility to monitor the “CHECK-FIRE” area. The maximum amount of shooters that will be permitted to fire is 24 and the maximum distance is 100 meters when the deviation is in effect. OICs/RSOs are required to ensure a “CEASE-FIRE” is conducted any time unauthorized personnel, aircraft or boat enters the range’s SDZ.

e. Beach Guards. Not required IAW special deviation (5.56mm and below).

6. Planning Requirements. Range 9 is scheduled through RFMSS and approved by MCB Hawaii O&T.

7. Access Control. All units must check in with the Range Control (Building 1584) prior to occupying the range.

8. Facilities. Range 9 heads are portable toilets located behind the 100 yard line, on the right hand side of the range.

RANGE 9A	
Type	Mortar Range
Target Distances	
Authorized Weapons	M224 Mortar
Authorized Munitions	60mm HE and TP ammunition is permitted (no illumination/WP)
Firing Lines	N/A
Firing Points	2
Target Carriages	N/A
BOUNDARY LIMITATIONS	
Firing Point #1	Grid: 04QFJ 31897269 LLL (25 deg) RLL (32 deg) Min. Range: 530 m Max Range: 630 m
Firing Point #2	Grid: 04QFJ 31907268 LLL (24 deg) RLL (30 deg) Min. Range: 530 m Max. Range: 630 m
Close-Out List	Closes Ranges 5, 7, 8 series, and 9

1. The maximum charge permitted on Range 9A is charge 1.

2. Request to co-use Ranges 5, 7, and 9 must be accompanied with a scheme of maneuver and a risk assessment worksheet. Co-uses will only be approved when proven to be safe. At no time will one unit be permitted to be inside of another range's SDZ.

3. Targetry. The only authorized impact area is the HE finger. There are three steel tank replica targets on the HE finger.

4. Safety. In addition to General Range Safety Procedures, the following requirements are specific for activities on Range 9A.

a. The HE finger is the only authorized impact area.

b. The M224 Mortar will be fired from the two mortar pits located at the rear of the range, adjacent to Range 6 (indicated by the yellow highlights on the range diagram).

c. RSOs are responsible for monitoring the dud rate and/or rounds misfired by lot number when firing mortars. If a lot number's dud/misfire rate exceeds 5 percent during training, units will immediately cease fire and contact Range Control.

d. In the event of a dud round, the RSO will note its approximate location and notify Range Control when training is complete.

e. Misfires will be handled IAW current TMs, current publications, and references.

f. Unit commanders are responsible to make liaison with EOD and notify them that they are going to be conducting mortar training with HE rounds. EOD need not be physically present at the training site, but must be on a 30 minute standby.

g. Range 9A may be used to support live-fire and maneuver on Range 5. The maneuver element must be clear of the mortar SDZ at all times.

h. If unit is doing training exercises that include fire and movement/maneuver, OIC/RSO must ensure that there is the appropriate safety personnel dedicated to each maneuver/movement or support element (mortar/machinegun support by fire position).

i. Excess mortar increments may be burned on Range 8 IAW MCO 3570.1C, current publications, and references. The RSO must call and report start and completion of powder burning operations. Report in writing the number and type of increments burned.

j. Location. 04QF 32097301.

k. The following are required to be present onsite:

(1) OIC/RSO

(2) Corpsman/Medic/EMT

(3) Fire extinguisher

(4) Two 5-gallon water cans

(5) Shovels/rakes

5. Planning Requirements

a. Range 9A is scheduled through RFMSS and approved by MCB Hawaii O&T. Requesting units are to coordinate/notify EOD prior to training, if utilizing HE ammunition. Certain specific criteria must be met in order to use HE or Fire and Maneuver.

b. Units unfamiliar with the range are encouraged to conduct a thorough range walk/recon five days prior to training.

c. Two days prior to firing mortars on range 9A, a SOM/ORM Worksheet must be submitted and approved by the Installation RCO, or in his absence, the OIC of Range Control. Ensure the SOM covers a detailed scenario that includes information on the training to be conducted, weapons, ammunition, control measures, safety, and misfire procedures.

6. Access Control. All units must check in with the Range Control (Building 1584) prior to occupying the range.

7. Facilities. Range 9A “Heads” (portable toilets) are located between Range 9 and Range 6, near the pavilion.

RANGE 10	
Type	High-Angle, Live-fire Range
Target Distances	300-900 yards
Authorized Weapons	Shoulder-fired precision rifles
Authorized Munitions	5.56mm, 7.62mm and .50 cal.
Firing Lines	
Firing Points	
Target Carriages	
BOUNDARY LIMITATIONS	
Direction Of Fire	
Firing Points Grid	04QFJ 3140273002
Close-Out List	Closes Ranges 1, 5, 7, 8 series, , 9 and 9A.

1. Range 10 is designed to meet the training needs of precision and tactical marksmen, such as Scout Snipers, Law Enforcement and “Designated Marksmen”. Authorized training includes static small arms live-fire training and engaging point and area targets from 300-900 yards within the Range 10 Target Area only, as defined by the range diagram. Static GPMG (7.62 and below) training may also be conducted from range 10 with special approval from the IRCO.

2. When one of the ranges on the close-out list are scheduled for training Range 10 cannot be “HOT”. At no time will one unit be permitted to be inside of another range’s SDZ.

3. All individuals will confirm their rifle’s zero on Range 1 prior to occupying firing positions on Range 10.

4. Targets will be provided by Range Control.

5. Safety. In addition to General Range Safety Procedures, the following requirements are specific for activities on Range 10.

a. Blank and live ammunition will not be utilized on ranges at the same time and must be stored and issued from two separate points. All blank ammunition must be turned in and accounted for prior to the conduct of live-fire.

b. Limits of Fire. The lateral limits for the range are marked with yellow black striped (zebra) signs located in the impact area (See range diagram).

6. Planning Requirements

a. Range 10 is scheduled through RFMSS and approved by MCB Hawaii O&T.

b. Units unfamiliar with the range are encouraged to conduct a thorough range walk/recon five days prior to training.

c. Two days prior to training, an access route and target plan must be submitted and approved by the Installation RCO, or in his absence, the OIC of Range Control. Ensure the route plan include the route the unit intends to take to get to the range, the number of personnel and ORM for the movement. The target plan covers target locations and type (see range diagram).

d. It is recommended units arrive early on the scheduled day of training. All individuals/units are required to confirm the zero of their weapon on the Range 1, 100 yard line prior to occupying Range 10 firing positions. No units will be allowed to sign for or occupy Range 10 until the zero confirmation is complete.

7. Access Control

a. All units must check in with the Range Control (Building 1584) prior to occupying the range.

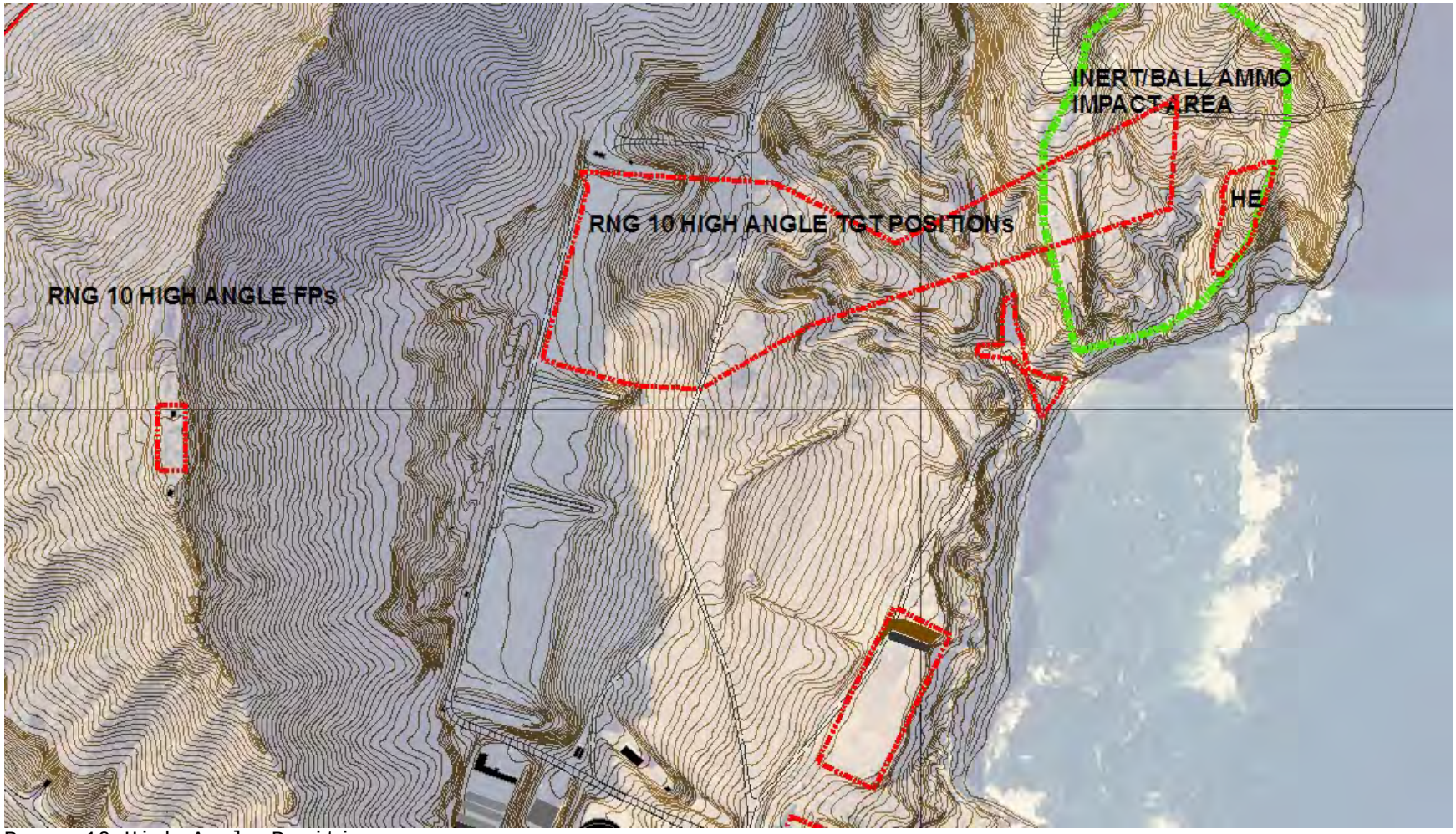
b. Ensure all movement does not enter the area controlled by the Ammunition Supply Point (ASP) unless pre-arranged access has been coordinated.

c. Coordinate with the following when planning to access Range 10 from the pond road entry site:

(1) O&T - for the gate key.

(2) ASP - for liaison (security reasons).

8. Facilities. None.



Range 10 High-Angle Positions

APPENDIX S

LASER RANGE SAFETY REPORT FOR MCB HAWAII

DEPARTMENT OF THE NAVY
NAVAL SURFACE WARFARE CENTER
CORONA DIVISION
PO BOX 5000
CORONA, CA 92878-5000

IN REPLY REFER TO
1200
Ser FT30/048
09 Nov 09

From: Commanding Officer, Naval Surface Warfare Center, Corona Division
To: Commanding Officer, Marine Corps Base, Hawaii

Subj: LASER RANGE SAFETY REPORT FOR MARINE CORPS BASE, HAWAII

Ref: (a) COMNAVAIRPAC Funding Document N5702509WR002ES
(b) OPNAVINST 5100.27B/MCO 5104.1C
(c) E-mail correspondences between Mr. Daniel Geltmacher, MCB Hawaii, Mr. Larry Rustigian and Ms. Lourdes Medina, NSWC in October and November of 2008 and 2009.

Encl: (1) Range Laser Safety Report for United States Marine Corps Base, Hawaii

1. In accordance with reference (a) tasking and funding, we conducted an on-site laser range safety survey for Marine Corps Base (MCB) Hawaii on 03 September 2008. The survey results are provided in enclosure (1). Naval Surface Warfare Center, Corona Division determined that laser operations at MCB Hawaii to be in full compliance with reference (b). The MCB Hawaii Range Safety Department personnel provided comments and concurrence on the original draft by reference (c).

2. If additional information is required, please contact (b)(6)

LASER FIRING LOG

COMMAND	
RANGE	
DATE	
SYSTEM	
USER	
MISSION COMMANDER	

FIRING # TIME	TARGET LOCATION	FIRING POSITION/HEADING

2.22 PERSONNEL EQUIPMENT

2.22.1 Left and Right Pilot Seats

The pilot seats consist of a molded composite seat bucket covered with boron carbide ceramic armor plating. The polyurethane foam cushion on the seat bottom is covered with sheepskin for comfort and to provide a path for the escape of body heat and perspiration. The cushions on the seat back and head rest are fabric covered. Armrests on the left side of each seat are adjustable for both height and tilt. Occupant restraint is by lap belts, shoulder harness, and crotch strap connected to a central release mechanism. The shoulder harness inertia reel is controlled by a lock/unlock lever located on the lower right side of the seat bucket.

The seats adjust in eleven steps through a range of 5 inches vertically and 3 inches longitudinally. The adjustment of the seat is coupled in the vertical and longitudinal directions and is controlled by a lever on the lower right side of the seat bucket. Pulling the lever forward disengages lockpins in the vertical and longitudinal adjustment links, allowing the seat to be raised or lowered. Seat adjustment is assisted by a spring cartridge which counters the weight of the seat and occupant during adjustment. When the desired position is reached, the seat is moved up or down until the adjustment lever moves fully aft and the lockpins are engaged in the adjustment links.

WARNING

Do not move the adjusting lever unless the seat is occupied. The spring cartridge will move the seat rapidly upward. Injury can occur if struck by the seat or if a hand is caught in the adjusting mechanism.

Crash attenuation is provided by a wire-bender energy absorption system which absorbs the impact loads while allowing the seat to stroke vertically up to 16 inches. The system consists of two pairs of corrosion resistant steel wires attached to the seat support structure and threaded between opposing sets of rollers attached to the airframe structure. As the impact g forces are applied, the seat strokes downward, deforming the wires as they are drawn between the rollers. The position of the rollers on one pair of wires provides a fixed load calibrated to absorb the energy generated by the weight of the seat and a pilot with minimum equipment. The rollers on the second pair of wires are adjustable to accommodate heavier occupants, or with full equipment. The adjustment control is located behind the headrest on the inboard side of each seat. The rotating knob is calibrated in 10 lb increments from 140 to 290 lbs. Before getting into the seat the occupant must set the dial to the setting nearest his/her actual weight, including flight equipment. Properly set, the downward acceleration during a crash will be limited to a nominal 14.5 g.

WARNING

Failure to properly set weight in the adjustment control knob for the seats, can lead to serious injury or death in the event of a survivable mishap.

2.22.2 Cockpit Jump Seat

A folding jump seat is installed on the forward side of the cockpit door. The seat back is supported by C-section rails attached to the sides of a corrugated aluminum back panel. A tubular seat bottom frame is attached to the seat back side rails with hinge fittings. The fittings contain springs which partially stow the seat bottom when not occupied. The seat bottom is retained in the fully stowed position with a Velcro strap. The seat assembly is attached to the cockpit door by four fittings which fit around the seat support side rails. The seat uses a 5-point restraint system consisting of shoulder harness, lap belts, and a rotary buckle attached to the crotch strap.

WARNING

The cockpit jump seat shall not be used during takeoff, landing, or during an emergency. Use of the cockpit jump seat may lead to serious injury or death in the event of a survivable mishap.

2.22.3 Troop Seats

Cabin seating is provided for the crewchief and twenty-four troops. The seats are individual crash-attenuating and face inboard. Twelve troop seats are arranged on the left side of the cabin and thirteen on the right, with the forward seat on the right side being the crewchief seat. Each seat is fitted with a 4-point restraint system. The restraint system consists of shoulder harness, lap belts, and a lift lever buckle attached to each end of the lap belts. When not in use, the hinged seat bottoms are stowed against the cabin wall with velcro straps. Installation of the litters or loading of cargo does not require removal of the seats. When installed, the cabin seats restrict access to the window escape hatches. Pulling the escape hatch handle will lock the adjacent seat retention pins in the open position, allowing the seats to be removed for unrestricted escape. The troop seats may have to be lifted out of their mountings to clear the escape hatch opening.

WARNING

- Actuation of a hatch with any portion of the shaped explosive charge submerged will create a shock wave that may result in injury or death. Consideration should be given to jettisoning the hatch prior to ditching. If unable to jettison prior to ditching, it may be necessary to push out the hatch to overcome external water pressure after the system is actuated.
- In an emergency egress, the seats in front of the cabin escape hatches may not drop freely out of their attachment fittings when the hatch is blown. If the seat does not release after the escape hatch is blown, it should be lifted out of the fittings. Forcing the seat downward could cause binding and block the egress route.

2.22.4 Troop Commander Seat

[A, B] The forward most seat on the left side of the cabin is the Troop Commander's seat. An antenna connection for the troop commander's FM radio is installed on the Troop Commander Panel, at the troop commander's station, forward of this seat. In addition, a separate standby compass is installed, allowing the troop commander to maintain situational awareness of final landing headings prior to troop debarkation.

[C] The CSAD Panel is adjacent to the Troop Commander Panel. The CSAD Panel includes two 28V DC utility power receptacles (10A and 20A), a 1553B Bus (primary/secondary) receptacle, an antenna connection for the troop commander's VHF/UHF radio, a HI/LO angle position switch for the troop commander's VHF/UHF antenna, and a CSAD display (see paragraph 2.25.4). The CSAD Panel expands the situational awareness capabilities for the troop commander, providing a moving map, positional data, flight plan, and other pertinent data.

2.22.5 Crash Worthiness

All seats in the cabin are crash attenuating with a vertical stroke of 12 inches maximum, except for the two seats at the ramp, which will only stroke 10 inches, and are built to absorb 13.5 g.