

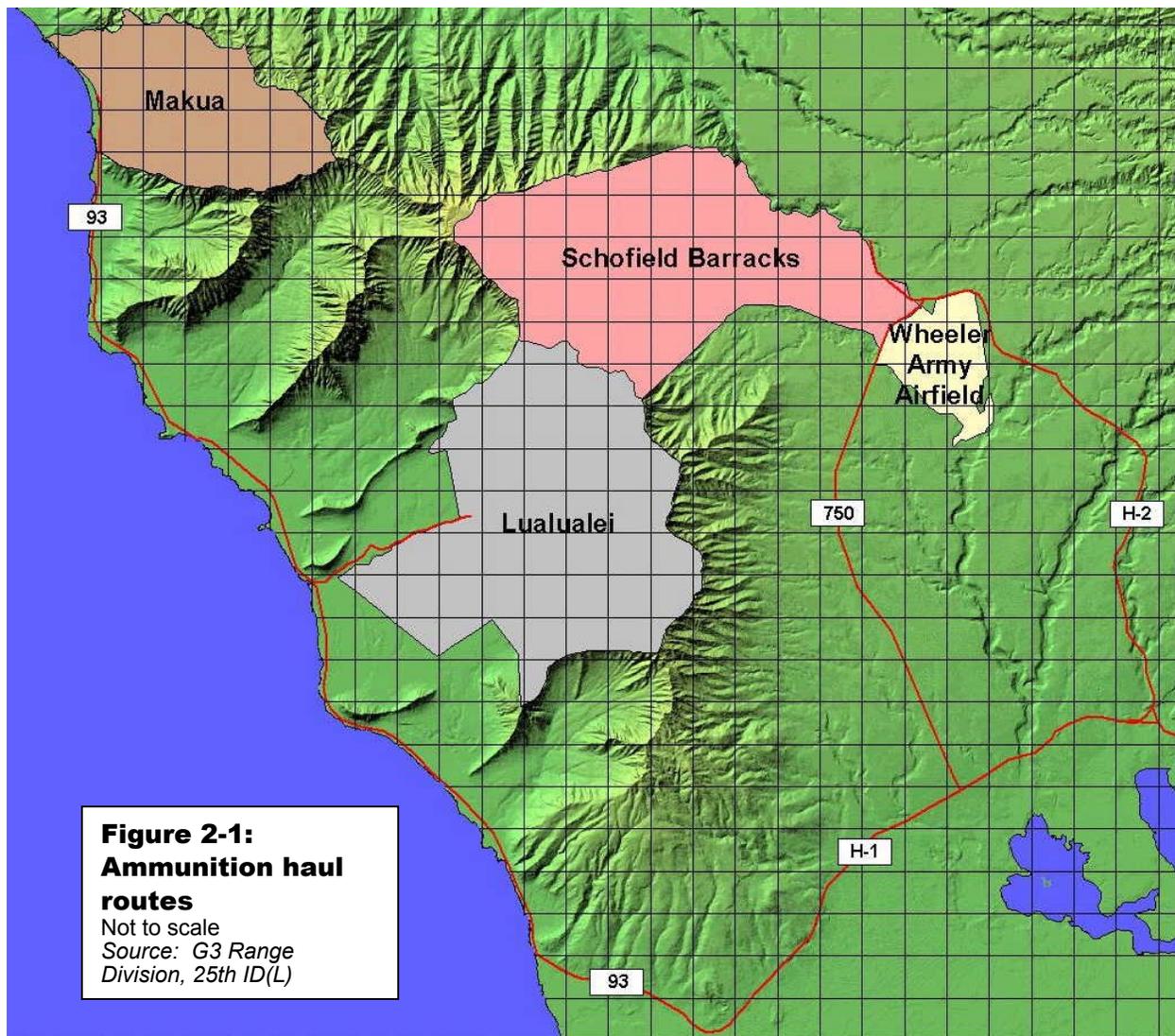
Section 2: Description of the Proposed Action

2.1 INTRODUCTION This Section identifies the Proposed Action that is the subject of this Supplemental Environmental Assessment, which is to resume routine operation of the Pilila'au Range Complex, Company Combined-arms Assault Course (CCAAC) at Makua, but at a level that poses less risk to the environment than the training the Army conducted up to 1998. The action also incorporates wildland fire management, endangered species protection, cultural resources protection, and the Integrated Training Area Management (ITAM) program. As a means of explaining the actions such a training exercise can entail, the following paragraphs describe a typical course of events for a week during which one light infantry company uses the facility. For a CALFEX, the infantry company is augmented at a minimum by a combat engineer squad, and supported by at least battalion mortars and direct support artillery. When available, attack and assault lift aviation will participate. This is the largest exercise that would be conducted at the CCAAC, but the facility could be used to conduct smaller exercises. The CCAAC facility is also used by elements of the Navy, Marine Corps, Coast Guard, Army Reserve, and the Hawaii Army National Guard to conduct a variety of training exercises. All users of Makua will operate within the constraints outlined in this Supplemental Environmental Assessment. The company-level exercise described below is the most intensive use proposed for the facility.

2.2 PLANNING FOR THE EXERCISE In accordance with the US Army-Hawaii and 25th ID(L) Regulation 210-6, *Installation Ranges and Training Areas*, (USARHAW and 25th ID[L], 1999), planning for conduct of a typical exercise at Makua begins at least eight weeks prior to the event. The unit commander must provide a detailed written description of the exercise scenario, listing the plan of

maneuver and fire support, the types of weapons, ammunition and targets to be used, the control measures and means of communication to be employed, and the limits of advance entailed in the proposed exercise. The unit commander must also provide a risk assessment for the exercise. The unit commander's superiors, the battalion and brigade commander, a lieutenant colonel and colonel respectively, and the division commander's Range Safety supervisors and Range Officer must approve the plan.

2.3 MOVEMENT TO THE SITE An infantry company of about 150 persons and supporting elements will depart Schofield Barracks with 10 to 15 military vehicles and travel to Makua. These movements are scheduled to avoid peak commuter times and school transit hours. They travel in convoy or individually dispersed throughout the flow of traffic. The bulk of the unit will move down public highways from Schofield Barracks and then travel up Farrington Highway to Makua (see 4.14 and Figure 2-1). Participating artillery and engineer units follow the same routes; aviation units would fly out in their helicopters at the scheduled time as prescribed in the training scenario.



The unit ammunition section from the battalion Support Platoon draws ammunition to be used for the exercise at the ammunition storage point at Wheeler Army Air Field, the Naval Magazines at Lualualei, or the West Loch, where ammunition types for military units in Hawaii are stored in specially designed facilities. The section leader must sign for the exact quantities of ammunition issued, and any unused ammunition must be returned at the end of the exercise.

Vehicles used to transport ammunition must pass a rigorous safety inspection before they are allowed to enter any ammunition storage facility. All personnel involved in the transportation of ammunition are trained in accordance with Army, Federal, and state standards, and are certified to transport hazardous materials; see 4.14.1 for a description of training and safety procedures. Artillery and mortar ammunition are packed separately from ignition fuses to preclude accidental detonations. In addition, all ammunition is stored in specialized packing materials, which are designed to withstand an impact 15 times greater than the force of gravity, which further minimizes the risk of accidental explosion. All vehicles used in movement to Makua use diesel fuel or JP-8 (kerosene), which are much less volatile than gasoline. These factors combine to substantially reduce the risk of explosion in a vehicle accident.

2.4 PREPARATION AND DRY FIRE When units arrive at Makua, they bivouac in a designated area near the road. Their ammunition is stored at the Makua ammunition supply point shown in Figure 1-2, and guarded throughout the exercise. The soldiers subsist on pre-packaged meals-ready-to-eat (MREs) or delivered hot meals, and use portable toilets for sanitation. For the balance of the first day and all of the second, unit personnel receive instruction, plan and practice their exercise without firing live ammunition, and conduct other tasks associated with preparing for the actual live-fire exercise. Pop-up targets and blast simulators are sometimes placed in the training area to replicate enemy contact.

On every occasion when the CCAAC is used, unit leaders (captains, lieutenants, and sergeants) are briefed by USARHAW Range Division staff on the locations of threatened and endangered species habitat, locations of known cultural resource sites, fire hazards, and fire prevention measures and procedures. The unit leaders walk over the areas to be used in the scenario, accompanied by Range Division staff members who direct the location and limitations for weapons. When the walkthrough is completed, the unit leaders use blank ammunition and signaling devices to rehearse the attack scenario. Where necessary, the scenario is modified to reduce the risk of fire or other damage to the environment. The unit leaders then brief every soldier in the unit on the importance of protecting endangered species habitat, cultural sites, and avoiding wildland fires.

Twenty soldiers from the unit are designated as firefighters, and in the event of a fire can be immediately withdrawn from training and dedicated to assisting the five permanent professionally-trained firefighters who will be on site during all live-fire exercises. A helicopter dedicated to firefighting purposes is always present during any training conducted at Makua. The safeguards contained within the Wildland Fire Management Plan (see Appendix F) are designed to reduce and suppress the ignition of any fire, whatever the source. (Smoking is only permitted in the administrative bivouac area and the administrative area adjacent to the Range Control Building, both low risk-areas for fire.) Fires contained within the firebreak road that circumscribes the actual training site do not imperil any threatened or endangered species habitat. In the event of fire at any location, training is stopped immediately and the unit takes all appropriate actions to put out the fire.

2.5 LIVE FIRE EXERCISE On the third and fourth days of a typical training week, unit personnel conduct their actual training exercise. For a company level live fire, all of the above preparations must be certified personally by the brigade commander, a colonel, typically with over 20 years of service. The company is typically under the command of a captain, but the brigade commander is always at the site when company-level live-fire training exercises are conducted. The company generally moves with 3 platoons of approximately 30 men (or 9 squads of 5-10 men each) down the valley and toward the objectives. The first squad in the lead platoon to see the targets fires their rifles and machine guns at it. The mortar section fires its 60-mm mortars at the objective while the lead platoon moves toward it. When the lead platoon makes contact on the objective, the platoon leader moves his squads to a position of advantage and, by spreading his men out to ensure that they can hit every target, gains fire superiority over the enemy.

In an operation called fire and maneuver, the platoon leader advances his lead squad while the squad behind overwatches (One unit stops movement to observe the area and be able to provide fire cover for other maneuvering units). The platoon continues to fire and maneuver across the objective until there are no more targets at which to shoot. At this point he consolidates his men and reorganizes—that is, he finds out if any were hurt, how much ammunition remains, and organizes his forces to defend the land just taken. At this point the unit is on the first objective with another objective in front of them. The company commander may elect to continue moving the first platoon forward, or to hold the lead platoon and bring another platoon forward.

This process continues through a number of objectives until the final one, known as Objective Deer. Objective Deer consists of a large U-shaped trench line, and is used to teach the following tasks: Enter and Clear a Trench Line; Company Deliberate Attack; Platoon and Squad Attack; Knock Out a Bunker; and Conduct an Initial Breach of a Mine/Wire Obstacle. These are the primary tasks infantry platoons and companies must know in order to execute their missions.

Once the lead platoon has set up its machine guns to overwatch the objective, the other two platoons advance towards Objective Deer via a creek bed which, in rainy times, may contain 3-4 feet of water. A simulated minefield and a concertina-wire obstacle usually protect the westernmost entrance. The company commander will order his engineer squad to reduce the obstacle with a bangalore torpedo (a 10-foot-long tube filled with explosives designed to focus the blast in a cutting line that explodes mines, cuts wire, and allows soldiers to walk over the site where it is used). Several bangalore torpedoes may be combined to clear a wider path.

After the minefield and wire obstacle has been cleared, the soldiers, who have moved behind cover to protect themselves from the blast, now run through the breach to the trench complex. Two men roll into the trench and fire down its length to engage any enemy present in the first legs. The squads and platoon follow these men, and as each lead man comes to a turn in the trench line, his buddies cover him. The unit continues down the trench until they come to the first bunker or room. The squads use 4-man fire teams to clear the bunkers with fragmentation hand grenades. The lead man guards the opposite approach, and the remaining 3 men position themselves close to the door in a “stack.” The lead man tosses a grenade in, and after it goes off the three rush the room, pointing their rifles at different pre-arranged locations in the bunker to cover any enemy who might still be present. The platoon continues to clear the remainder of the trench in this manner.

The squads clear the trench and meet in order to consolidate and prepare for any counterattack. The company commander may direct the emplacement of claymore mines (small, command-detonated antipersonnel mines) in front of the unit. If artillery is employed in the scenario, the company commander may direct their fire toward a target in the far eastern extent of the impact area to suppress a counterattack or echelon artillery preparatory fires in advance of the assault. He may also direct the company's anti-armor section to emplace their missile launchers to prevent any enemy tanks from overrunning the just-occupied trench line; however, no TOW missiles will be fired at Makua. Once the enemy counterattack occurs and is repelled by the company, the exercise is over. The above scenario will be typically conducted both day and night in order to complete a training evaluation to standard.

2.5.1 Additions and modifications Part of the value of Makua Military Reservation to Army and other-service forces stationed on Oahu is that it can support a number of modifications to the basic company-level exercise. These include platoon- and squad-level variations of the scenario described above, as well as the supplements listed below.

Air Assault This is the same type of exercise, except that the soldiers board helicopters at Schofield Barracks and fly to the approved landing zone north of the range control buildings. The helicopters land one or two at a time, discharge their loads and fly off. Some vehicles and equipment may be rigged for external transport beneath the helicopters ("sling-loading"), allowing the aircraft to transport both the soldiers and their equipment to a given location at the same time. Sling loads are not generally carried over populated areas.

Aviation support A typical scenario includes three attack helicopters—one designated as an observation aircraft and the other two as attack helicopters—flying to Makua and firing 50-caliber and 7.62-mm machine guns in support of troops on the ground. The aircrews direct all fire into the impact area and are in constant radio contact with soldiers on the ground to ensure that the correct targets are engaged.

Artillery support Artillery—in this case, weapons no larger than 105 mm—is an integral part of combined-arms training. A typical exercise involves at least two gun sections with four men per gun firing from a point at the western edge of the valley at targets within the southern firebreak road. In some scenarios gun sections may be transported by a UH-60 Blackhawk helicopters, with the guns sling-loaded below the helicopters, and flown forward into the CCAAC. Such a scenario also includes up to 6 high-mobility, multipurpose wheeled vehicles (HMMWVs) and two 5-ton trucks to haul ammunition. Surface danger zones for artillery and mortars are shown in Figure 2-2. It should be noted that surface danger zones represent a worst-case probability for injury to humans by shrapnel from exploding shells. All ordnance fired at Makua is aimed so as to fall within the south firebreak road.

2.6 CLEANUP On the fifth day, the using units remove any target equipment they may have provided, gather brass casings from spent rounds, remove litter, and otherwise make every effort to restore the facility to its condition prior to their use. Explosive ordnance disposal (EOD) specialists destroy all identified UXO. All ordnance is destroyed where it is found, whether as a result of the training being conducted or from prior use of Makua. No known dud rounds are left in place at the conclusion of a training exercise. These procedures ensure that training to be conducted at Makua will not increase the amount of UXO on the site, and may actually lower it, since all UXO of any origin found on the site is