

WAIKOLOA MANUEVER AREA QUALITY ASSURANCE SEEDING AREAS R & N - M

BY

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PARKER RANCH & CAMP TARAWA
1943 - 1945

This monument honors the V Amphibious Corps (VAC), and the late Richard Smart, owner of the Parker Ranch during World War II. It also honors the residents of Kamehameha and the Big Island of Hawaii, hosts to Soldiers, Sailors, and more than 50,000 U.S. Marines over the duration of the war years. During the months of August and September of 1943, the VAC was organized in California, and then Hawaii, to prepare for joint Army, Navy and Marine Corps amphibious campaigns in the Pacific. By this time, plans were underway to build on Parker Ranch what was to become the largest Marine training facility in the Pacific. It would include extensive training areas, a tent city, and a dam (with reservoirs) above Kamehameha. This camp, later known as Camp Tarawa, was built with the assistance of U.S. Engineers, Navy Seabees, Marines and local residents. The public school and local hotel served as an Army hospital. Residents welcomed military personnel into their homes and supported them through Red Cross and USO activities.

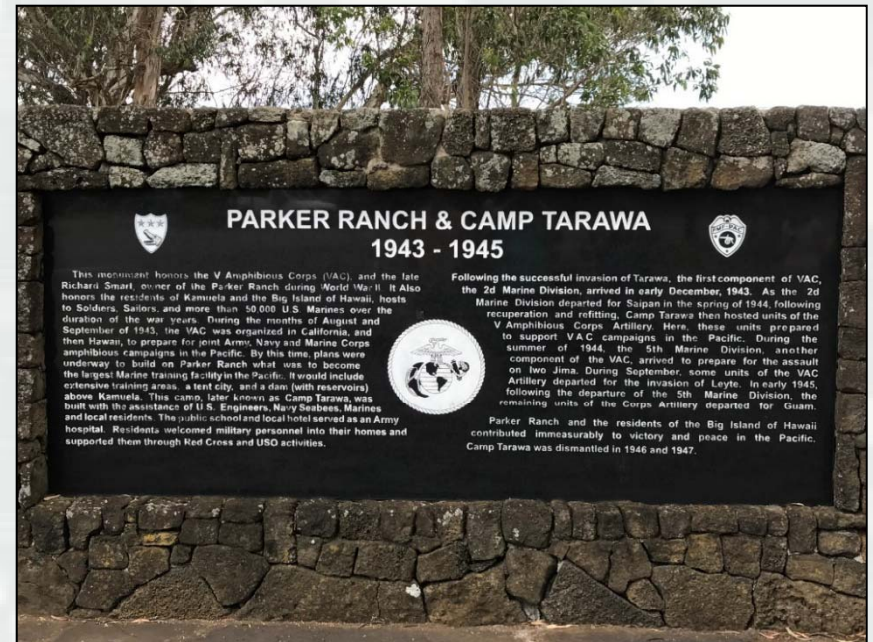
Following the successful invasion of Tarawa, the first component of VAC, the 2d Marine Division, arrived in early December, 1943. As the 2d Marine Division departed for Saipan in the spring of 1944, following recuperation and refitting, Camp Tarawa then hosted units of the V Amphibious Corps Artillery. Here, these units prepared to support VAC campaigns in the Pacific. During the summer of 1944, the 5th Marine Division, another component of the VAC, arrived to prepare for the assault on Iwo Jima. During September, some units of the VAC Artillery departed for the invasion of Leyte. In early 1945, following the departure of the 5th Marine Division, the remaining units of the Corps Artillery departed for Guam.

Parker Ranch and the residents of the Big Island of Hawaii contributed immeasurably to victory and peace in the Pacific. Camp Tarawa was dismantled in 1946 and 1947.

INTRODUCTION

Waikoloa Maneuver Area (WMA)

- After Pearl Harbor - Company F, 299th Infantry/medical detachment was stationed in Waimea
- December 1943, 100,220 acres was leased from Parker Ranch
 - ▶ 2nd Marine Division withdrew from of Tarawa and sent to the Waimea Camp (4-mo rest, recuperation, and training).
 - ▶ Camp Waimea was renamed Camp Tarawa
 - enlarged to > 50,000 soldiers
 - June 1944 - The 2nd Marine Div was shipped out for the battles of Saipan and Tinian
 - ▶ July - Nov 1944 - 5th Marine Division occupied Camp Tarawa & prepared for the invasion of Iwo Jima.
 - ▶ Area around Camp Tarawa was used for maneuvers, live-fire practice range, and artillery impact area.

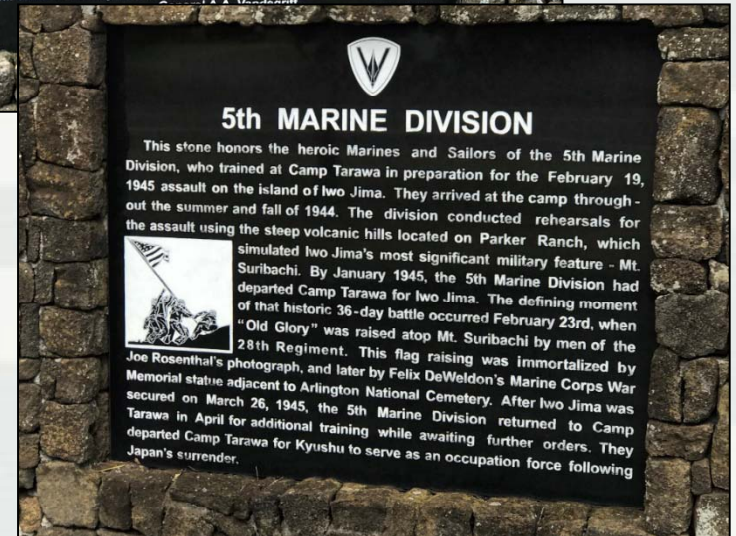
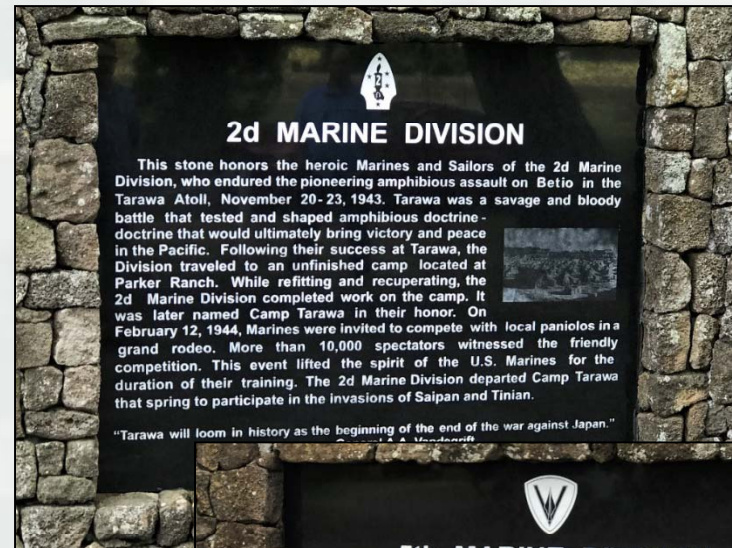


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INTRODUCTION

Waikoloa Maneuver Area (WMA)

- ▶ Site was favored:
 - terrain and climate representative of Pacific Islands
 - ▷ Particularly well suited for training required to support the upcoming Pacific Island battles
 - Saipan
 - Okinawa
 - Iwo Jima
 - Tinian
 - ▷ Size sufficient for training division (simultaneous maneuvers and work out weapons firing problems.
 - ▷ Rolling lava fields provided excellent observation areas for artillery and heavy weapons.
- WMA was returned to the control of the Parker Ranch in September 1946



INTRODUCTION

Waikoloa Maneuver Area

Based upon historic records the following types of munitions have been identified within the WMA:

- 4.2-in., 60mm, 81mm mortars;
- 60mm and 81mm illumination mortars;
- 60mm and 81mm white phosphorus (WP) mortars;
- 2.36-in., 2.75-in., 3.5-in., and 4.5-in. rockets;
- Japanese 25mm anti-aircraft/anti-tank round;
- Japanese knee mortars and hand grenades;
- 37mm, 75mm, 105mm, and 155mm HE projectiles;
- 75mm and 105mm WP projectiles;
- Rifle and hand grenades;
- Practice and HE land mines; and
- .22-caliber to .50-caliber small arms.

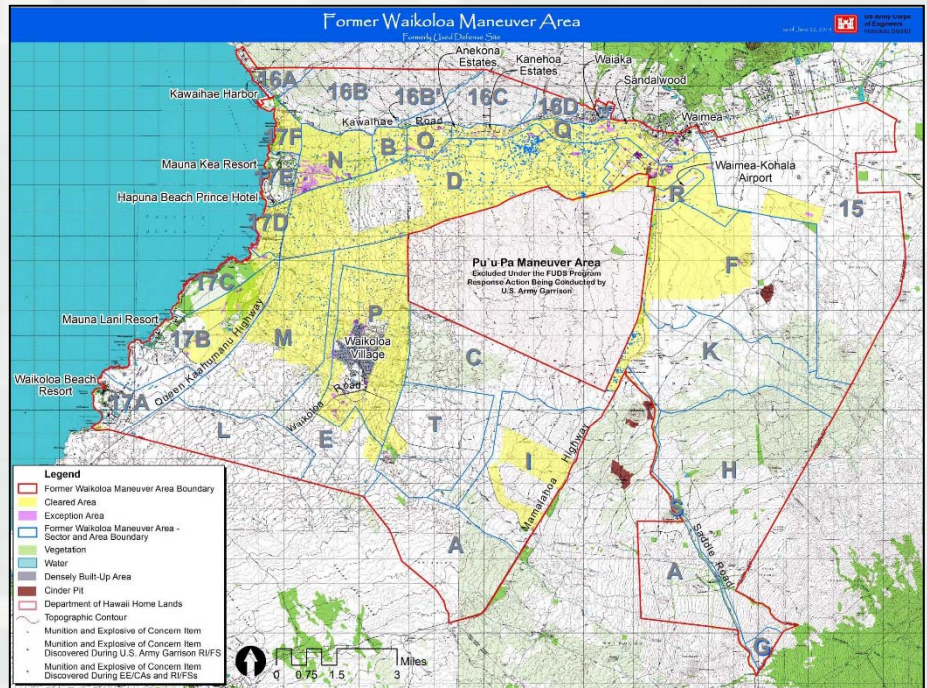


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INTRODUCTION

Waikoloa Maneuver Area

- 100,220.5 acres
- Broken into series of Munitions Response Sites (MRS's)
- Areas of interest for talk:
- M, N & R
- 2001 EE/CA
 - ▶ 38 MEC items, 2,160 MD, 1,343 small arms (13 Sectors)
 - ▶ Area N (Sector 9): No MEC (105 mm just outside)
 - ▶ Area R (Sector 7): No MEC, but MEC was recovered during TCRA of Ouli Parcel (Just to west)

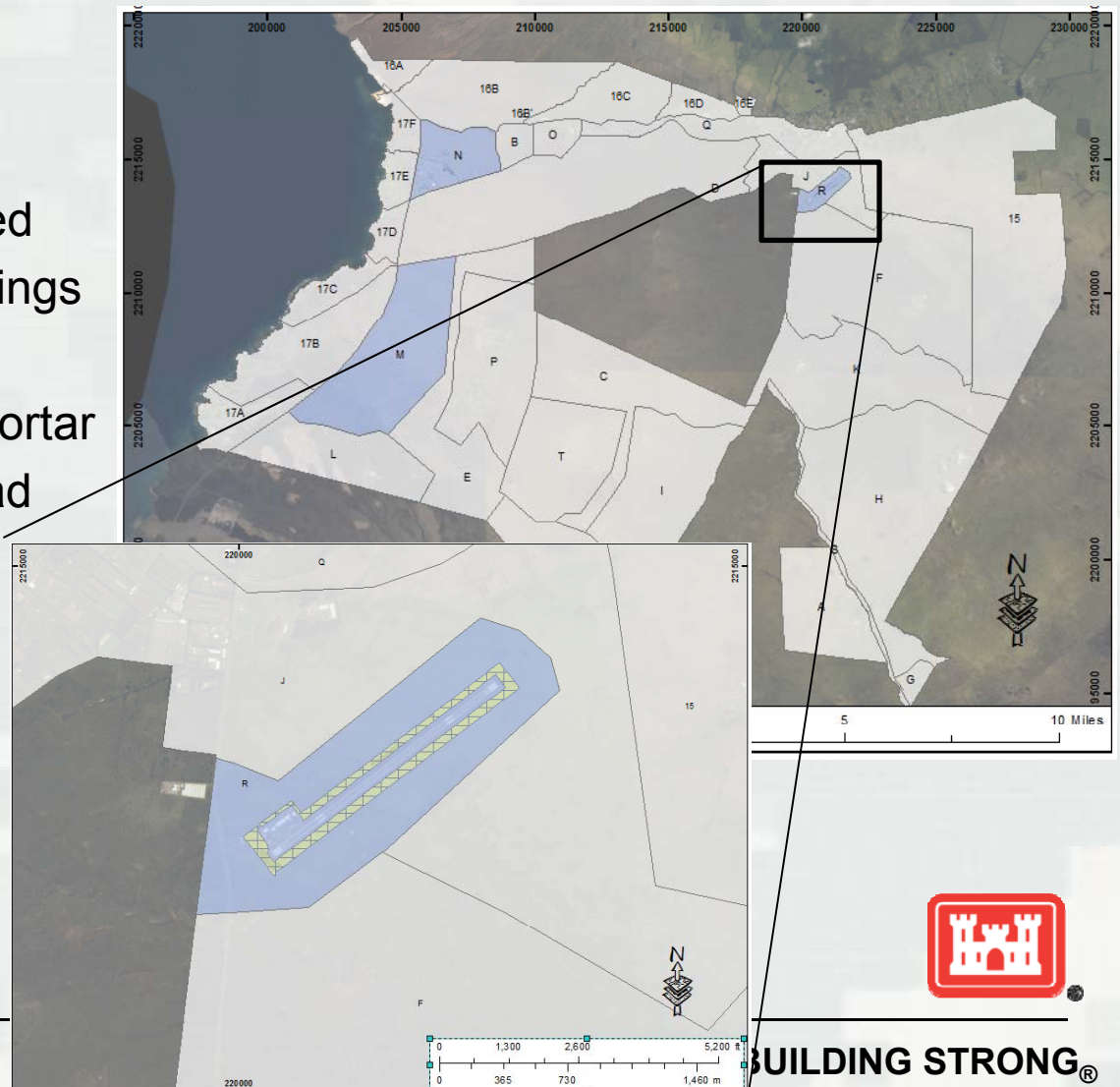


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Area R

2 NTCRA (2009 – 2012)

- 259.9 acres cleared
- 89.9 acres not investigated
 - ▶ Airport, fencing, buildings
- 3 MEC items recovered
 - ▶ 60 mm illumination mortar
 - ▶ 2.36-in rocket warhead
 - ▶ MKII grenade



AREA N

3 NTCRA (2008 – 2013)

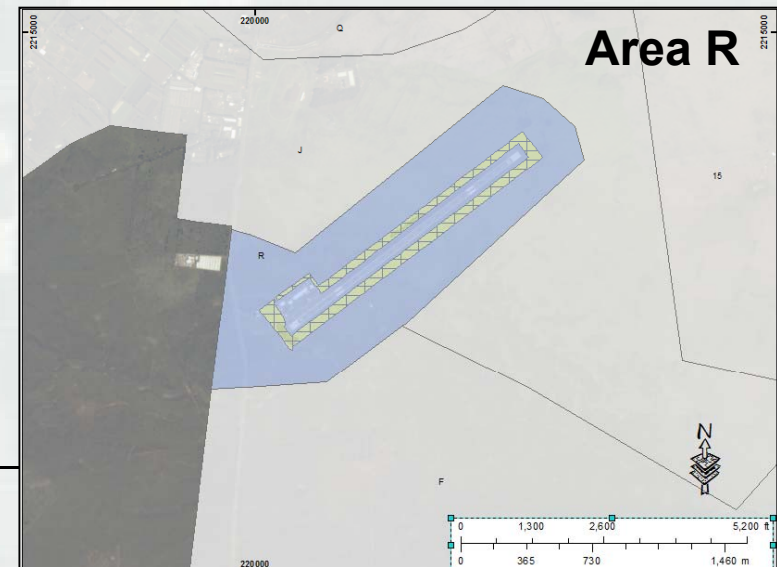
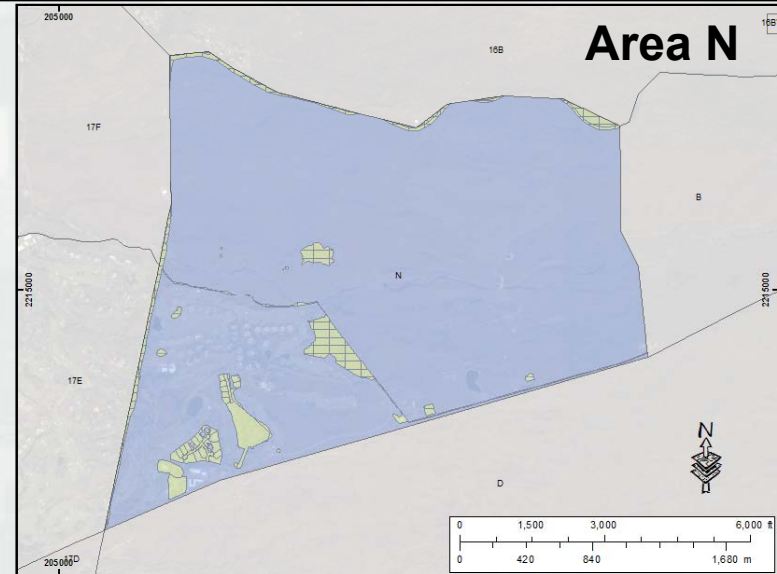
- 1,349.7 acres cleared
- 235.3 acres not investigated
 - ▶ Lack of ROE (35.5 acres)
 - ▶ Existing structures, golf course, thick vegetation, proximity to roads (177.7 acres)
- 71 MEC items/40,000 lbs MD recovered
 - ▶ mortars (60mm [HE and illumination] to 81mm [HE and WP]), projectiles (75 mm [HE] to 37mm [HE and AP]), Japanese 37mm projectile, 3-in. projectile, 4.5-in. barrage rocket, 2.36-in. rockets, MKII Hand grenades, rifle grenades, smoke grenades and fuzes (MK137, M58, and M54 projectile fuzes)



AREAS R & N

2017 Remedial Action

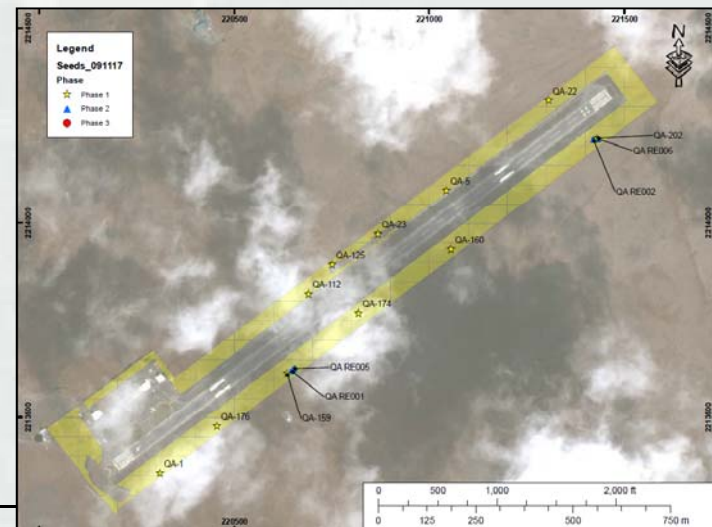
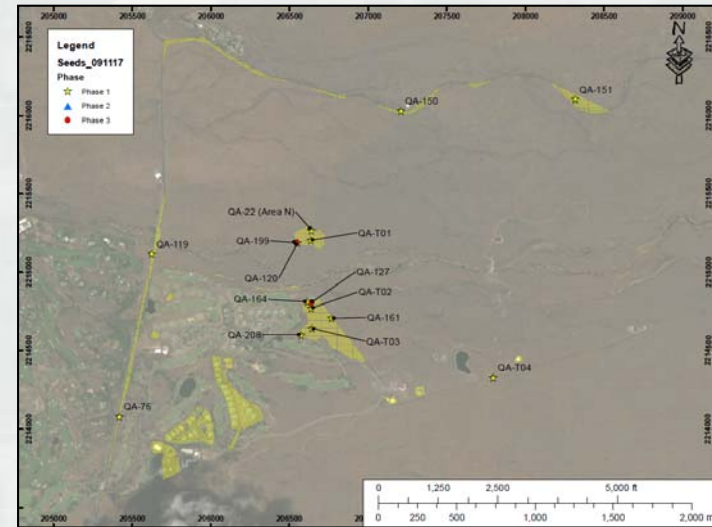
- Exception areas from NTCRA's
- N: 235.3 acres
- R: 43 acres
- Clean-up effort July – September 2018



AREAS R & N

Seeding

- Initially placed 24 seeds
 - 20 small ISOs
 - 4 end caps (simulants for fuzes but not used in QA tracking)
 - Depths 4 – 9 in
- Initial round
 - 9 seeds missed
- Follow-up
 - Grids reseeded with 1 to 6 additional seeds
 - If seed missed during re-sweep, grid was re-seeded and swept again



AREAS R & N

QA Seeds

- Below thick vegetation
- Behind obstructions
- Topographic lows
- Site boundaries
- Near surface metal objects (tin cans, etc)



AREAS R & N

Problems encountered

- Seed location deemed unsafe (although could reach from flat ground)
- Two ISO's were smaller than standard
 - ▶ Contractor tried to negate whole seeding program
 - ▶ Except both were found on first sweep (4" burial)
- Special case areas defined without notifying QA
- Contractor claimed they may have moved seed while moving debris piles
 - ▶ QA found seed at GPS location
- 1 seed could not be relocated (assume contractor pulled and lost track)



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AREAS R & N

Issues/points of contention (Lessons learned)

- QASP prepared during project
- Failure criteria not clearly spelled out
 - ▶ 1.5 x 1.5" on surface
 - ▶ 37 mm at 1'
 - ▶ ~75 mm at 3'
- Clearly define lot size (typically more than 1 grid)
- Penalty for failing a lot
- Miscommunication of accepted/failed grids
 - ▶ Grid release must be cleared by team
 - ▶ Rotating OESS, incoming OESS releases grids in safety meeting without checking with QA geophysicist or outgoing OESS
- Obstructions affecting swing height
 - ▶ Grass, topography, dirt piles, etc.
- QC seed tracking
 - ▶ QA requested seed data – took 2 weeks for contractor to provide
 - ▶ Assume GIS was not being maintained



QA-164

- Placed 3-4 ft within site boundary
- QC personnel told OESS that being that close to boundary it would not have been covered



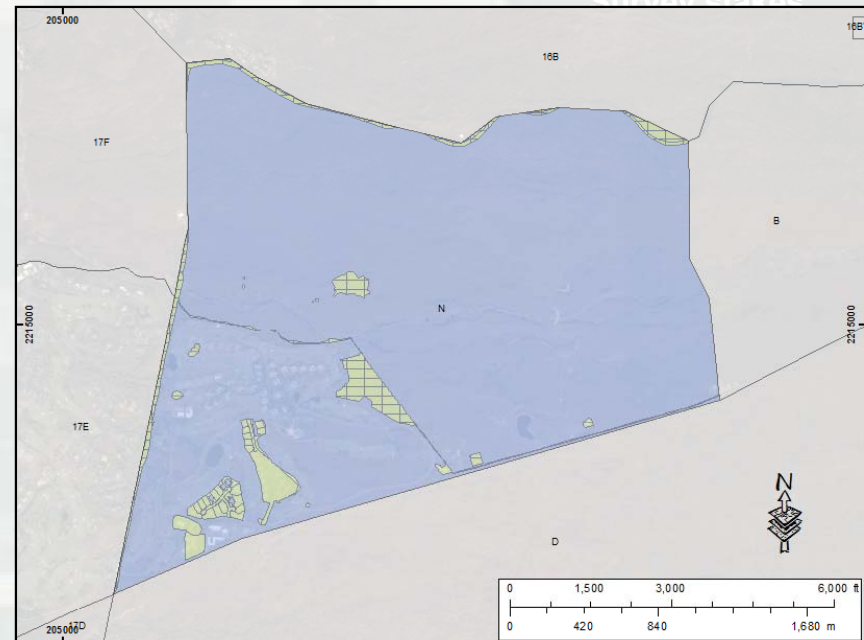
AREAS R & N

Area R:

- Acceptance based on increased QA grid sweeps

Area N:

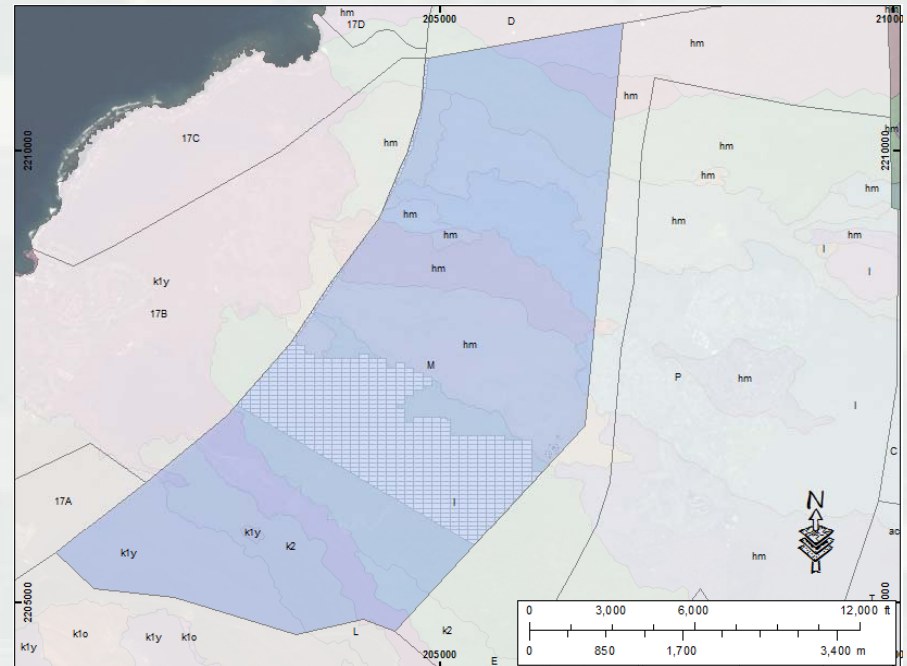
- Surveyed areas accepted following enhanced QA grid sweeps
- ROE's around housing still outstanding
- Areas adjacent to major roads excluded again due to impacts of having to close roads for extended periods of time



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AREAS M

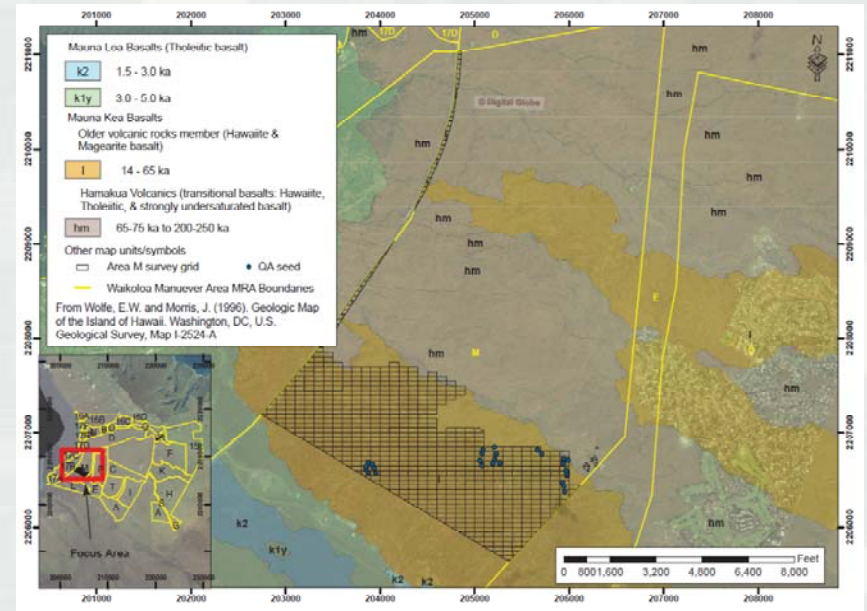
- MRS 5,74 acres
- Artillery training
 - ▶ Adjacent to Lalamilo Firing Range (Area D) that was used intensely till 1 Dec 1953
- Previous clean-up
- EE/CA
 - ▶ 5 items found w/in M; 155mm & 105mm HE projectiles
- Removal Actions (2010 – 2011)
 - ▶ 105 MEC items & 58,130 lbs MD (0-12-in)
- Munitions recovered
 - ▶ 155mm HE Projectiles; 105mm HE Projectiles; 75mm (APC-T & HE); 60mm Illumination Mortar M83; 37mm projectiles; various fuzes
- 850 acres deemed exemption area due to rough topography



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AREAS M

- Current effort restricted to 1 lava flow
- Extremely rough topography
- Generally sparsely vegetated
- Generally poor soil development



AREAS M

PROGRAM MODIFICATIONS

- ▶ POH recently hired 2 FTE OESSs.
- ▶ New QASP has been developed and implemented with support of MMDC with clear QA/QC roles and responsibilities defined.
- ▶ Established QMP and QA seeding program by lots and a standardized lot acceptance process.
- ▶ QA seed by lots and not grids.
- ▶ Seed to the requirements in EM 200-1-15 for type and frequency of seeds.
- ▶ Seed for hard to detect items (95%-100% depth of detection).



6'-3" OESS Josh Byrd



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AREAS M

- **QA seeding**
 - ▶ **Minimum of 1 QA seed per grid block**
 - ▶ **Depth 1 – 13"**
 - Soil
 - Cracks
 - Under loose rocks



AREAS M

Problems encountered

- Few QA seeds missed
- RCA to prevent recurrence
- QA documented improper placement of QC seeds
 - ▶ Contractor self-imposed stand-down (nearly 3-weeks)
 - ▶ Performed RCA
 - Initially prepared memo with their understanding and recommendations
 - Misunderstood that seed depth was measured from ground
 - Detection seeds found by QA at ground surface
 - RCA claimed human error, lack of QC oversight, and improper training
 - ▶ Increased training
 - ▶ Increased QC oversight
 - ▶ Production rate dropped significantly
 - ▶ QC failures increased
 - ▶ Product to government improved
 - Onsite OESS' very happy with changes in contractor performance

