

SOURCE:

Pacific Missile Range Facility (PMRF) Cultural Landscape Report Final

August 2011

Chapter 3 Historic Context

Introduction

To the extent that it is relevant to archaeological and historical investigations at PMRF, the cultural and historical setting is reviewed as six topics: (1) traditional cultural geography; (2) traditional land use; (3) early historic land use; (4) commercial agriculture era; (5) early twentieth century prior to World War II, and (6) **World War II and Cold War to 1990s**.

World War II and Cold War

The World War II and Cold War eras brought considerable changes to Barking Sands and the surrounding ridges. At the time of the Japanese attack on Pearl Harbor, Barking Sands was an unpaved landing strip with a small number of support structures. The wartime expansion was primarily focused around the north and south runways, which were paved in 1942. By the close of the war, the base had grown to include a main base area that was located on the eastern side of where the south and north runways met. Other support structures, including revetments, defensive bunkers, antiaircraft gun positions, fueling areas, and a taxi apron, were located on the eastern and northeastern side of the north runway. The only substantial military development away from the runways of Barking Sands, yet related to airbase operations, was the Kamokala Ridge munitions storage, built in 1943, and Port Allen. During the Cold War, the various missions of the base brought redevelopment of the World War-era areas as well as the development of two new facilities atop Kōke'e Ridge and Mākaha Ridge. The story of Barking Sands in the World War II and Cold War periods is told here.

WHAT FOLLOWS IS EDITED FROM "WORLD WAR II AND COLD WAR":

SUBSECTION: 'BARKING SANDS ARMY AIR BASE, 1941-1945'

Barking Sands Army Air Base, 1941–1945

The Japanese attack on Pearl Harbor on 7 December 1941 shook the nation and especially Hawai'i. The bombardment of Pearl Harbor devastated the Hawaiian Air Force, soon to be rebuilt and renamed the 7th Air Force, and sharply refocused the Air Corps' attention to Hawai'i's airfields. Of the force's 231 planes, 64 were destroyed and 88 were rendered unusable. Hickam Field, a USAAF bastion, was badly damaged. Wheeler Field and Bellows Field suffered less than Hickam, but the impact of enemy bombs and strafing still left them in a state of acute disrepair. Casualties for USAAF personnel were 163 killed, 43 missing, and 336 wounded. Moreover, the air reconnaissance plane had failed to locate and prevent the attack (Craven and Cate 1948). The small airfield at Barking Sands was not subject to this initial Japanese onslaught, likely because the Japanese would have very little to gain in attacking such a small installation that was comparatively lacking in planes and US military investment.

On the same day of the Pearl Harbor attack, Japanese Navy aviator Nishikaichi Shigenori crashed his damaged Mitsubishi A6M Zero fighter onto Ni'ihau, a small island to the west of Kaua'i. The circumstances of the next several days brought Kaua'i military forces to Ni'ihau. Having survived the wreck, Nishikaichi surrendered to islanders, who confiscated the papers and weapons he carried onboard. At the time of the crash, the islanders were not yet aware of the attack on Pearl Harbor and treated Nishikaichi with limited suspicion. Once the news arrived, however, the islanders tried to transport him to Kaua'i where military authorities could deal with him. Attempting to avoid this fate and to prevent Japanese military secrets from being leaked, Nishikaichi fought for the return of his papers, escaped his captors, and managed to burn his crashed Zero. On 13 December, a small group of locals overpowered and killed Nishikaichi (Beekman 1995; Cressman 1999).

In the meantime, a small group of Niihauans traveled to Kaua'i to alert authorities of the crashed Zero and its pilot. Arriving to Kaua'i, they reported to Aylmer Robinson, a prominent local who owned Ni'ihau, where his family had run a large sugar operation for decades. Also a Kaua'i landowner, Robinson had supported military training in recent years in the event of such an emergency. Robinson alerted the military at Barking Sands, who sent a contingent of the 299th Infantry to Ni'ihau. By the time they reached Ni'ihau, Nishikaichi had been killed (Beekman 1995; Cressman 1999).

After the Japanese attacked Pearl Harbor on 7 December 1941, the USACE ramped up the pace of defense-related construction projects in the Hawaiian Islands. Airfields were of high priority. On 8 December, the USACE began enlarging runways at Barking Sands and other Hawaiian airfields. The USACE planned to use plantation labor as well as that of civilian organizations. As they became available, troop units also were used (Dod 1966; Klass ca. 1970). By January 1942, the USACE had ordered that all construction being done by civilian firms for the Army in the Hawaiian Islands be subcontracted to a company called Hawaiian Constructors (Dod 1966).

Before construction began at Barking Sands and other sites, however, the USAAF ordered that nonessential fields be rendered temporarily useless lest the Japanese land their aircraft upon them in an invasion (Dod 1966:348-349). Throughout the Hawaiian Islands the USACE had ordered obstructions to be placed on wide, level areas of 400 feet long where the enemy might land or take off. Pineapple crates and other scrap were used to this effect. On Kaua'i the USACE "mined" the airstrips at Burns Field and Barking Sands (Dod 1966). In the case of Barking Sands, the mines were not explosives but rather secondhand cars and other "junk" (Klass ca. 1970). Once the threat of a Japanese invasion of the



Figure 3.19. A photograph, taken in the early months of World War II, documents the arrival of the Keawe Corps for a clearing project at Barking Sands. Photograph from *World War II on Kauai* (Klass ca. 1970).

territory had passed, the USACE sped up work on Barking Sands in the opening months of 1942 (Dod 1966:348). In March, plans were made to pave runways at Barking Sands (Dod 1966).

Around the time that work on the runways had begun at Barking Sands, the USACE contracted the assistance of an organization known as the Keawe Corps (Klass ca. 1970) (**Figure 3.19**). These laborers worked for the USACE on a number of defense-related projects. Known variously as the Keawe Kommando Corps or the Keawe Corps, they were so named because they were heavily involved in clearing rough keawe tree brush (Rademaker 1951). The Keawe Corps was an arm of the Emergency Service Committee, which was founded several months after Pearl Harbor by Japanese residents of Hawai'i as well as residents of Japanese descent (*Nisei*). The goal of the Corps was to demonstrate support of the US war effort against Japan through various activities including laboring on military installations in the islands. The Keawe Corps was involved in burning rubbish, stringing barbed wire, and building trails on Kaua'i and other islands (Klass ca. 1970). The laborers typically worked three Sundays of every month from the time of the Corps' founding in early 1942 until 1944. Rademaker (1951) noted that the Keawe Corps was especially visible on Kaua'i, where the Army praised its hard work. At least one Army officer commented that a group of 458 men and women of the Keawe Corps did more work in one day than could an entire battalion (Klass ca. 1970; Rademaker 1951:178-181). The length of the Keawe Corps' involvement at Barking Sands has not been determined from available sources, although it is assumed that its involvement at Barking Sands ended sometime in 1942.

The USAAF left a fairly detailed account of activities and developments at the base from 1942 until the close of the war. The log began in May 1942, when Barking Sands/Mānā was designated an Army Air Force station, officially called Barking Sands Army Air Base (AAB). Records show that the airbase was still under construction at this date, but most of the barracks and administration buildings were completed. The first of many units to arrive was the 91st VP Squadron (Navy), which consisted of PBY5 torpedo planes (**Table 3.3**). VMF-223 and VMF-224 (Marine Air Group 24), consisting of seven or eight fighter planes and about 25 enlisted men each, also arrived at Barking Sands at this time to train in night-fighter interception (Astor 2005; Sherrod 1952; USAAF 1945a).

Company K, 165th Infantry Regiment, was active in defense measures around Barking Sands. From March to October 1942, the 165th was involved in patrolling the beachfront, installing barbed wire, digging foxholes, and establishing gun emplacements. In October, the unit transferred inland to Kōke'e and, soon after, to other realms of the Pacific (Bennett 2010a; TEC Inc.–JV 2011a).

Not long after the USAAF established its presence at Barking Sands, American forces met the Japanese head-on in the Pacific in the momentous Battle of Midway (4–7 June 1942). On 3 June, the 42nd Bomb Squadron (Heavy) landed six B-17s, under the command of Major George A. Blakely, at Barking Sands en route to the imminent sea battle. The 42nd, part of the larger 11th Bombardment Group, assisted in bombing the Japanese fleet in the battle (Salecker 2001; Stille 2010; Parshall and Tully 2005; Symonds 2011). The Battle of Midway involved a large number of American aircraft, and given the remote sea location of the clash, American air power planners predicted that injured or returning aircraft might make landings at any island that could be reached, including Kaua'i. Specifically, Barking Sands was put on warning of the potential for B-17s to land at the base. However, as it turned out, the B-17s that participated in the Battle of Midway suffered little from enemy fire in the battle. After their bombing runs against the Japanese Navy were completed, the B-17s landed at the Midway Atoll. Refueling there, they returned to Hawaii (Salecker 2001; USAAF 1945a).

Two years after the battle, an unofficial history of a unit stationed at Barking Sands (US Pacific Fleet Composite Squadron Sixty-Six [USPFCS-66] 1944) noted that Barking Sands “was the landing field for numbers of battered B-17s” that had participated in the Battle of Midway. This statement should not be read to mean that the B-17s that participated in the Midway battle were operating out of Barking Sands. Other sources examined (Bennett 2010a; Salecker 2001; Stille 2010; USAAF 1945a) do not support this idea but rather indicate that the planes merely passed through Barking Sands while en route to the island of Midway. Therefore, it appears from available sources that Barking Sands was not directly involved in the Battle of Midway.

After the halting of Japanese expansion in the Pacific, Allied forces continued to chip away at the Japanese empire in campaigns that relied heavily on air power. Barking Sands AAB, whose major mission in the early part of the war was flight training (TEC Inc.–JV 2011a), was one of numerous bases that supported this effort. Therefore, the base expanded as the war progressed. In the latter half of June 1942, a motor pool was completed and a gas station was built in the south part of the base. Paving of the north runway had begun. A water tank was installed and operative (**Figure 3.20**). Also, the first of several B-17 bunkers came into use. In July, an Officers' Club was completed and the base theater was operating on rented equipment. The remainder of the summer of 1942 saw the fire station, the north runway, a service apron, and the installment of demountable buildings completed. Paving on the south runway began as well (USAAF 1945a).

Table 3.3. Units Assigned to Barking Sands during the World War II Period.

US Army Air Force
42 nd Bombardment Squadron (11 th Bomb Group)
864 th Bombardment Squadron (494 th Bomb Group)
865 th Bombardment Squadron (494 th Bomb Group)
866 th Bombardment Squadron (494 th Bomb Group)
867 th Bombardment Squadron (494 th Bomb Group)
392 nd Bombardment Squadron (30 th Bombardment Group)
819 th Bombardment Squadron (30 th Bombardment Group)
63 rd Aerdrome Squadron (Air Combat Replacement Center)
91 st Aerdrome Squadron (Air Combat Replacement Center)
Detachment 18 (Army Airways Communications Squadron)
Detachment 37 (Army Airways Communications Squadron)
1042 nd Signal Company (Air Combat Replacement Center)
1045 th Signal Company (Air Combat Replacement Center)
1704 th Signal Detachment Company (Air Combat Replacement Center)
1384 th Military Police Company (Air Combat Replacement Center)
1168 th Quartermaster Company (Air Combat Replacement Center)
377 th Air Base Squadron (Air Combat Replacement Center)
73 rd Fighter Squadron (Air Combat Replacement Center)
78 th Fighter Squadron (Air Combat Replacement Center)
Air Group 28
Military Air Transport Services
US Marine Corps
Tow Target Detachment
VMTD-1
VMF-223
VMF-224
VMJ-1
Marine Air Group 28
US Navy
VC-66
VC-7
VC-63
91 st VP Squadron
VP-11 (detachment)
Military Air Transport Services
US Army
69 th Infantry Regiment
165 th Infantry Regiment (Co. A) (40th Infantry Division)
165 th Infantry Regiment (Co. K) (40th Infantry Division)
389 th Infantry Regiment (98th Infantry Division)
390 th Infantry Regiment (98th Infantry Division)
Hawaii National Guard
299 th Infantry

Source: Air Force Historical Research Agency Records; Astor 2005; Bennett 2010a; Dodge 2011; Sherrod 1952; USAAF 1945a; USPFCS-66 1944.

The USAAF constructed 22 “clam-shaped” revetments along the runways and taxiways at Barking Sands in 1942 and 1943 (TEC Inc.–JV 2011a). At Barking Sands and other Hawaiian airfields that did not have aircraft hangars, revetments were used for aircraft maintenance and refueling. Bennett (2010a, 2010b), who has studied revetments at Oahu, notes that various materials were used in building aircraft revetments there. These materials usually consisted of earth sprayed with gunite, earth reinforced with concrete, or earth reinforced with pierced steel planking (also known as Marston Mat) (Bennett 2010a). Also added in this period were underground facilities including two small command posts (Facility 350 in the present), a telephone exchange building, a radio room, and underground aviation fuel storage tanks, all for USAAF purposes (Bennett 2010a). Several wood-frame buildings (Facilities 275 and 281 in the present) also were built in this period (Figures 3.21–3.25). At nearby Kamokala Ridge, 10 tunnel magazines, some with monorail transport, were built into the cliff side in 1943 and used for bomb storage (TEC Inc.–JV 2011a; Wasch et al. 1989). These structures were typical USAAF designs, and likely all of the other new constructions were completed by the USAAF (Weitze 2008).

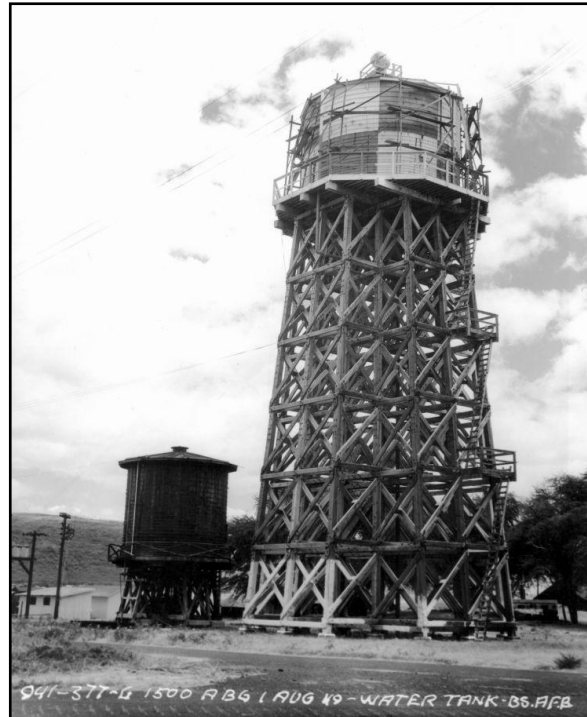


Figure 3.20. Barking Sands AAB water tank, 1 August 1949. Courtesy of NAVFAC Hawaii.

One of the notable events of the World War II period at Barking Sands AAB happened early in 1944. On 23 January, 24 P-40 aircraft of the 78th Fighter Squadron (7th Air Force) flew from Barking Sands, Kaua’i, to Midway, where they were assigned to relieve the 73rd Fighter Squadron, which had been carrying out patrols. The flight of the 78th was about 1,100 nautical miles, making it the longest over-water massed flight of single-engine planes made as of that date (Carter and Mueller 1973).

A glimpse of life at Barking Sands in early 1944 is available in the unofficial history of US Navy Squadron VC-66 (USPFCS-66 1944). In March of that year, most of the squadron came to Barking Sands, fresh from campaigns in the Marshall Islands. They were the only squadron based at Barking Sands at the time as the Navy had recently taken over the base from the Army, which was still moving out of the base. The unit history described the Kaua’i airfield in less than glowing terms—“Plenty of dirt, indifferent food, little or no furniture, and a million mosquitoes”—but mentioned that the unit enjoyed the hospitality of local families who invited them to parties (USPFCS-66 1944:12). At the end of March, VC-66 boarded the USS *Altamaha* for Ford Island to conduct other activities, noting that following their stay at Barking Sands, “The gang hunted goats, caught colorful Hawaiian fish, picked up suntan at the beach near the end of the runway, and used the back roads to evade the MPs [Military Police] after curfew” (USPFCS-66 1944:12).

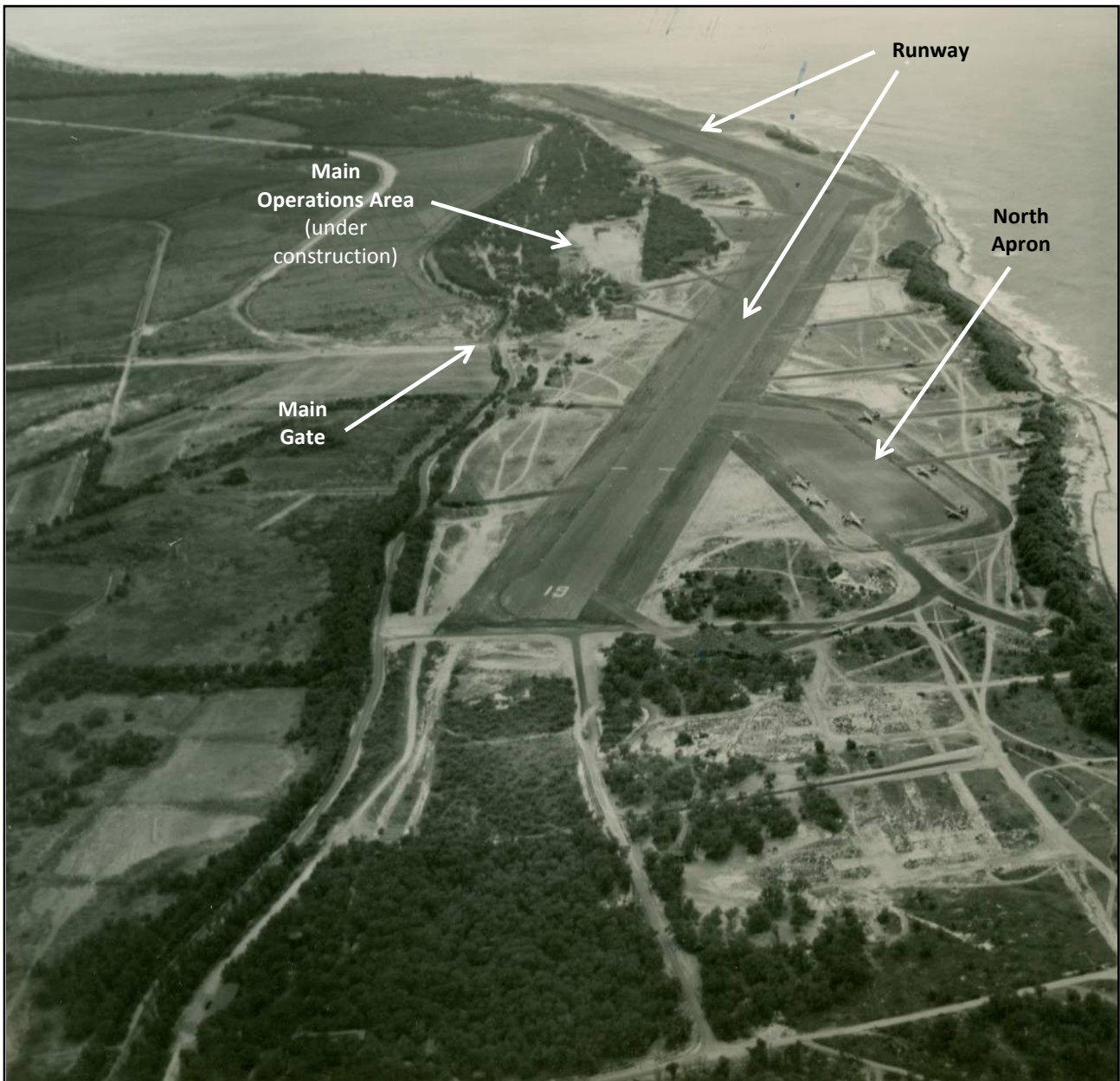


Figure 3.21. Barking Sands Army Air Base, looking south, 27 October 1943. Courtesy of the National Archives and Records Administration.

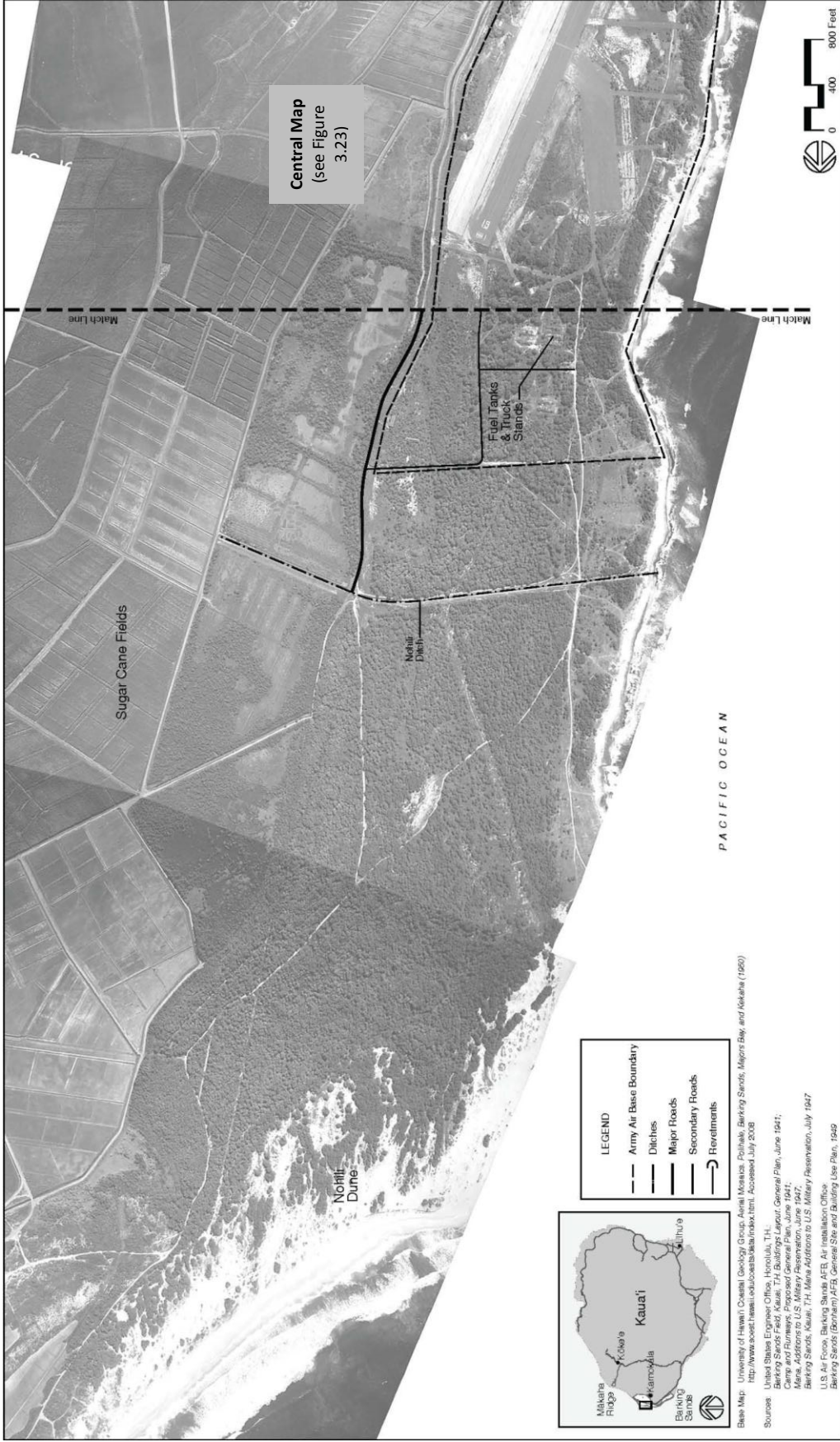


Figure 3.22. Representative map of the northern side of Barking Sands Army Air Base, 1940–1945. Adapted from TEC Inc.–JV 2011a.

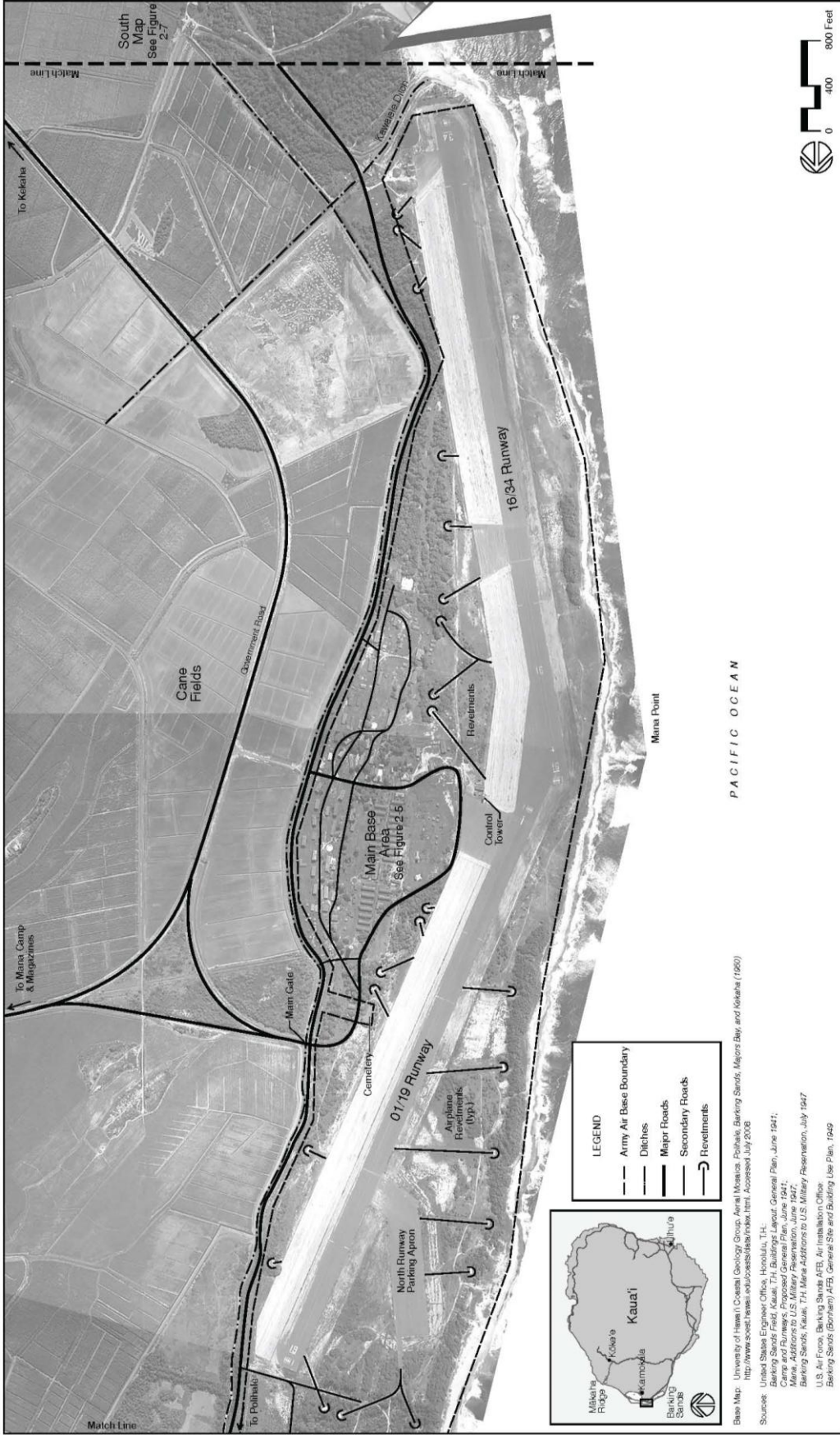


Figure 3.23. Representative map of the central portion of Barking Sands Army Air Base, 1940–1945. Adapted from TEC Inc.–JV 2011a.

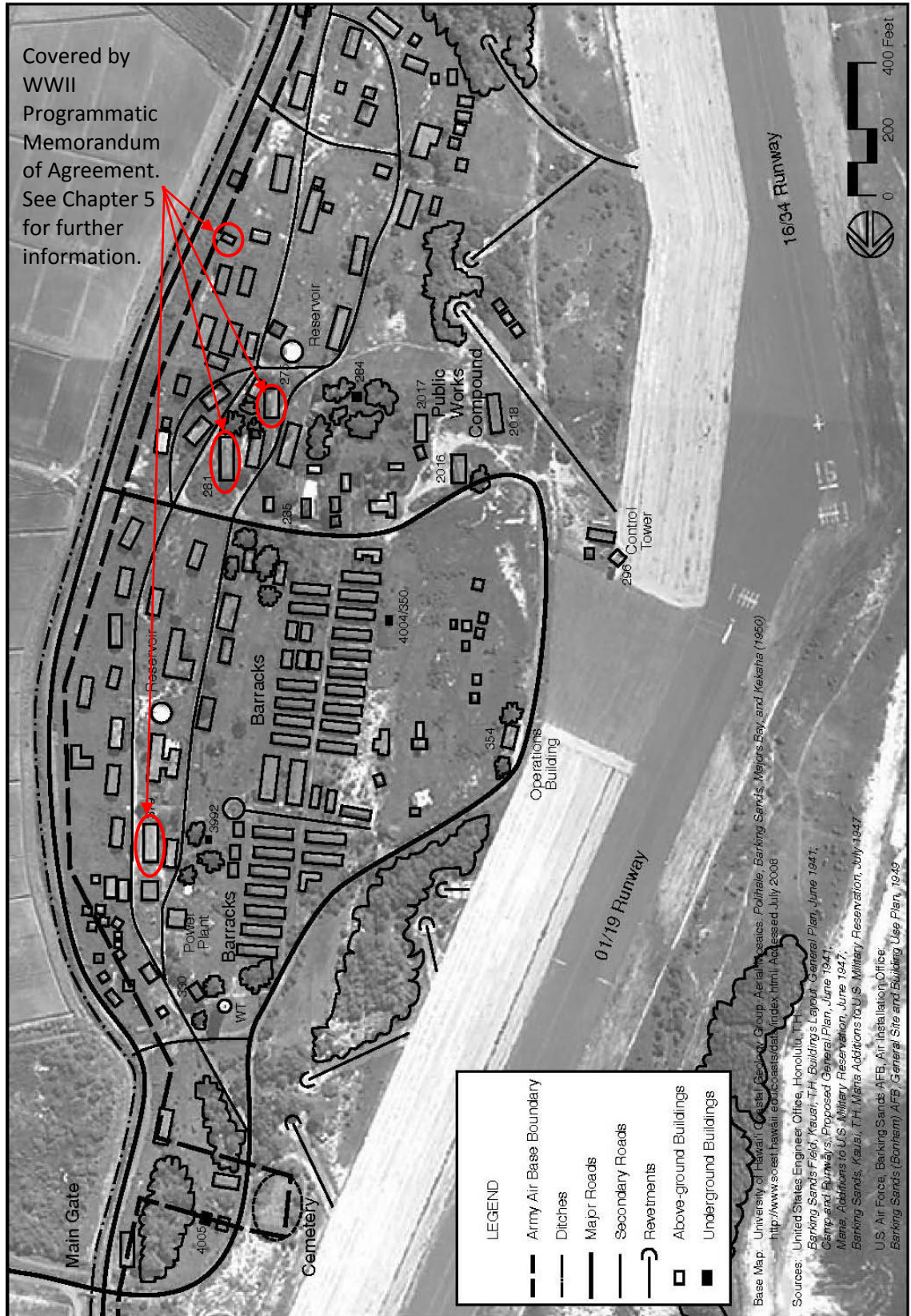


Figure 3.24. Representative map of the Main Base Area of Barking Sands Army Air Base, 1940–1945. Adapted from TEC Inc.–JV 2011a.

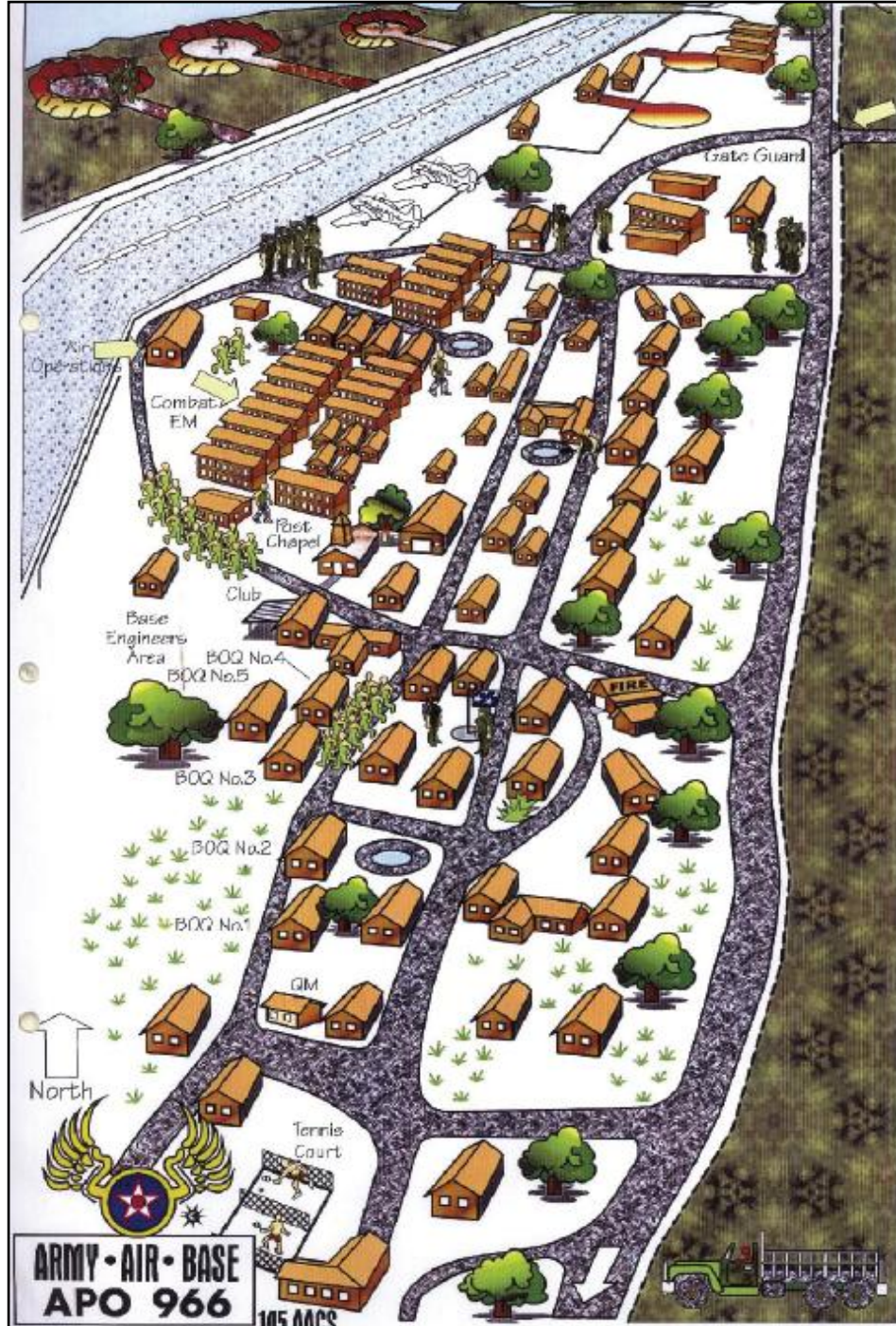


Figure 3.25. Representation of the World War II-era layout of the main area of Barking Sands Army Air Base. Courtesy of PMRF.

[NOTE: Remaining Figures 3.26 through 3.38 have been incorporated into: A Tour of the Past: “Mana Airfield “to “Barking Sands Army Air Force Base” to “Bonham AFB” to the “Pacific Missile Range” & PMRF From: “Inter-Island Airways” to the “Regulus” cruise missile: Aviation on Barking Sands, posted elsewhere on this PMRF public web site.]

VC-66 returned to Barking Sands in May 1944, but this time, they shared the station with Air Group 28, VC-7, and VC-63. The squadron stayed at Barking Sands for less than two weeks before transferring elsewhere. The reason for its departure, as stated in their unofficial history, was the conversion of Barking Sands into a B-24 field (USPFCS-66 1944).

Commenting in September 1944 on the growth of the base, Lewis Pollock, a USAAF historian stationed at the base, wrote: “Construction projects are proceeding apace[,] and it is with pride that we watch our field develop into what we hope someday will be the best damned field in the islands” (USAAF 1944a:1028). Pollock was referring to new construction that was occurring in anticipation of the establishment of Barking Sands as a Combat Crew Replacement Center (CCRC). The CCRC (Provisional) arrived at Barking Sands in late 1944. This new unit had been formed from parts of the 63rd and 91st Airdrome Squadrons. Their mission, and essentially the new mission of the base, was to “check aircraft after the flight from the mainland US to the Hawaiian Islands, making necessary repairs, equipment adjustments and effecting any other services required prior to assignment and combat flying in the forward areas” (USAAF 1944c:1078). A secondary function was to provide rations, housing, and administration needs for combat crews. Further construction related to the changed mission occurred at the base in 1944 and consisted of another taxi strip and additional barracks (USAAF 1944b) (**Figures 3.26–3.32**).

The CCRC had several sections for which the specific locations on base are unclear. One was the Transient Section. Here transient combat crews were first quarantined for 72 hours, physically examined, and introduced to the base. Then they were initiated into various training courses (**Figures 3.33 and 3.34**). At Barking Sands, the Operations and Training Section courses included briefing, ditching, skeet, link training, flying, and, as of February 1945, aerial gunnery. The Technical Supply Section of the CCRC furnished parts and equipment for aircraft and also reconditioned planes for the Pacific theater. Clothing, bedding, and other personnel supplies were managed by the General Supply Section, which processed up to 60 crews per month. The Ordnance and Armament Section armed aircraft that arrived from the mainland (USAAF 1945e) (**Figures 3.35–3.38**).

Thomas J. Cullen was a gunner on a B-24 of the USAAF’s 494th Bomb Group (7th Air Force) who was briefly stationed at Barking Sands AAB in 1944. Fifty years later, he recalled his time at Barking Sands in an oral history interview. At Barking Sands, his unit trained in ditching planes, among other duties. “We practiced ditching several times, so if we did get shot down, if the plane did land [on the water], we could get out of the plane.” Cullen recalled, “We would set down [an amphibious training plane] in the water, we would throw open the bomb bay doors[,] and then we would throw out a big square kit that had life rafts in it[,] and we would toss that out[,] and then we would jump into the water and inflate our Mae West’s [i.e., life vests,] and then we would swim toward this big packet and take it apart and inflate it with CO2 cylinders . . . then climb into the raft” (Van Ells and Cullen 1994:22-23). Cullen’s unit also made regular runs between Barking Sands and Honolulu. When flight training duties were over, Cullen’s unit was engaged in other tasks at Barking Sands. “After we would take these runs back and forth from

Honolulu and run out of things to do, we would work in the post office, the Army post office for example, and various other details of that sort” (Van Ells and Cullen 1994:22-23). During periods when he was off, Cullen and his comrades enjoyed the nearby area. “On occasion we would have duty and run out of things to do, and a more perfect place, you could not imagine,” he reminisced. “I mean the humidity at fifteen percent, beautiful trade winds blowing, temperature maybe 78 degrees . . . and it was so beautiful” (Van Ells and Cullen 1994:22-23). In the small towns of Kaua’i, Cullen and his comrades enjoyed fresh fruit bowls and pineapple juice as well as “island steaks” from locally raised beef (Van Ells and Cullen 1994:22-23)

Morale on such an isolated base as Barking Sands was a continual issue that improved as the war progressed and diversions were created. In July 1944, Bob Hope’s USO show came to Barking Sands (Sherrod 1952) and probably performed at the base theater. On occasion, Women’s Air Corps (WAC) nurses were brought to Barking Sands from other bases during World War II, but apparently for social events only. “It has been generally agreed upon that these periodic invasions by our feminine counterparts are most enjoyable,” recorded Pollock (USAAF historian at Barking Sands) after one such visit in 1944 (USAAF 1944a:1027).

As in the early months of the base’s operations, the Navy continued to use Barking Sands for its operations in the final years of the war. The Navy returned to Barking Sands on 6 February 1944 and remained until April 1944; both the Army and the Navy inhabited the base. In April 1944, USAAF records state that the Army “gave up the field” to the Navy, apparently meaning that the Navy was the sole presence (USAAF 1944c:1078). While this may have been true, the name and mission of the base is not known to have changed. In any case, the USAAF returned in June of the same year (USAAF 1944c:1078). The Marines also revisited Barking Sands in 1944. In late November and December, an unidentified Marine squadron was present at Barking Sands, most likely en route to or from forward areas. Other than the CCRC, this Marine unit was the only other tactical flying unit at Barking Sands in these months. The Marine unit flew tow-target missions for the anti-aircraft personnel stationed along the coast of Kaua’i. At the end of 1944, the USAAF projected that Barking Sands would be primarily devoted to the servicing of “and expanding and fast-growing” CCRC, and this projection proved true (USAAF 1944c:1078).

USAAF records created at Barking Sands AAB in 1945 depict a base stirring with activity. The mission of the CCRC continued to be the staging and preparation of crews on heavy-bombardment, medium-bombardment, and fighter-bombardment aircraft that were involved in the air war against Japan. The CCRC initiated the first flight training program at the base. Pollock, still base historian, indicated that the CCRC activity “gave substance to the visions of an actual part in this war.” The earlier activities of the base apparently were viewed as insignificant by those who performed them. February 1945 saw “many drastic and sweeping changes to the structure of the airbase” as the commanding officer changed several times and new facilities were built and old ones expanded to accommodate the influx of personnel (USAAF 1945d:1195). As of January 1945, the CCRC had been utilizing a number of buildings at Barking Sands, some old and some new. The old construction, as USAAF records show, included 11 barracks, two Orderly Rooms, two mess halls, and three Bachelor Officers’ Quarters (BOQs). The newly built and utilized structures included two additional BOQs, two barracks (80-man capacity), one mess hall, and one Orderly Room (USAAF 1945b). For recreation, five movies were shown each week at the base theater. Also, a swimming pool was built five miles from the base because ocean swimming was too dangerous due to currents (USAAF 1945c).

In his summary of the events of 1945 at Barking Sands AAB, Pollock wrote, “With the end of the war in Europe on 8th May 1945 the Air Base settled down to the hard and serious business of helping win the

war against Japan. With each man lending his efforts to this end we pledged all to the maintenance of highest efficiency of operation toward the day of total victory” (USAAF 1945d:1201). By July, an average of 2,000 combat crewmen were staged each month at Barking Sands. The influx of men was so significant that, despite expansion in years prior, the housing and utilities were “seriously embarrassed” (USAAF 1945d:1202). Air traffic also remarkably increased. In anticipation of a long war on the Japanese mainland, a Chemical Warfare training program was initiated at Barking Sands in the summer of 1945 (USAAF 1945d).

With the surrender of Japan in early September 1945, the activity at Barking Sands entered a gradual decrease. As Pollock recorded:

The month of August 1945 was a most momentous one as the war came to its end with the unconditional surrender of Japan. The news was received joyously but at no time was there a boisterous demonstration of any kind, the men taking it in a rather sober, contemplative way. With the victory, though unofficial in August, there came a rapid paring down of Combat Crew strength which started towards the end of the month. The mission of Barking Sands, though perhaps not fully completed, was well on its way to being done (USAAF 1945d:1206).

Yet even with war’s end, the Engineering Section remained very busy, completing construction of the Link Trainer Building, the Outdoor Theater, additional parking areas on the north runway, and a new water heating system for the CCRC mess halls. It also was almost finished with an Engineering grease rack, control tower painting, and remodeling the mess hall. Chemical Warfare training continued. Ordnance and vehicles were returned to Oahu in large numbers. At the close of 1945, the future of the field was uncertain (USAAF 1945d:1206). However, Barking Sands became a permanent fixture on Kaua’i in the years to come.

Barking Sands, an isolated landing field before the war, became a bona fide military airfield during World War II. However, this development and the events that took place at the base were not unique in the Pacific. Barking Sands was one of an estimated 140 airfields across the Pacific that the US military developed and utilized during World War II (**Table 3.4**). Its role, which was basically as a waypoint between Hawaii and other Pacific locales of the war, was secondary or tertiary to the broadly influential events of the war, particularly if one considers airfields such as Hickam, Luke, and Wheeler, which featured in the 7 December 1941 attack on Pearl Harbor; NAS Midway, which played a vital support function in the momentous Battle of Midway; and Ushi Point (North Field, Tinian), the field from which the *Enola Gay* departed for Hiroshima.