

# Commander's Comments



Lt. Col. David E. Anderson Commander and District Engineer

# "A Century of Service"

I have been preceded by 63 other officers who had the honor of commanding the Honolulu District.

As a bit of a history buff, I found some interesting information on the first District Commander, Colonel John R. Slattery, which is included below.

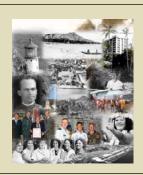
This issue celebrates the Centennial of the Honolulu District, U. S. Army Corps of Engineers.

It is dedicated to my predecessors and the thousands of men and women who have served under their command.

Your projects, engineering feats and contributions have made a lasting impact on the defense of our Nation and on the people of the Pacific.

From Makapu'u Lighthouse, to Sand Island, Schofield Barracks, Hickam Air Force Base, hundreds of runways throughout the Pacific Ocean and the Palau Road – we are proud to be "America's Engineers in the Pacific."

Enjoy this issue of the "Pacific Connection." We look forward to continuing to serve as we begin our second century of service.



Cover design by Roland Stine. The cover collage celebrates the long, varied and distinguished history of the Honolulu Engineer District, its projects and its people.

#### Lt. John Rudolph Slattery, HED's first District Engineer

John Rudolph Slattery graduated 5th in the West Point Class of 1900. Born in Athens, Ohio, on Jan. 31, 1877, he was appointed to the Academy by Charles P. Taft, brother of President William Howard Taft.

After graduation, Slattery was assigned to the Philippines to work on bridges and roads—a typical beginning for an engineer officer.

The next few years found him living in Honolulu, Hawaii, where he founded the Corps of Engineers District; Jacksonville, Florida and Vicksburg, Mississippi, where he remained for several years and worked on the Flood of 1916. He then served in France during World War I as the Chief Engineer of the Seventh Army Corps until 1919.

One of his contributions was the development of a project on the upper Hudson River known as the Port of Albany. After it was completed, oceangoing vessels could travel 150 miles inland from New York City.

While working on the project, Slattery was noticed by John Delaney, Dock Commissioner of New York City, who was impressed with Slattery's work and wanted him to serve as one of Delaney's chief aids on the new system of transportation in New York- the subway.

In an unusual move, the Army granted Slattery a year's leave of absence so he could work on the subway system. At the end of that year, Slattery had served 25 years and wanted to retire, but the Secretary of War would not allow it.

Slattery eventually retired as a Colonel in 1925 and became the Deputy Chief Engineer of the Board of Transportation, in charge of such projects as the tunnels to Queens and Staten Island and the New York Central Railroad.

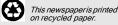
Slattery earned a master of arts from Ohio University. He was a member of the American Society of Civil Engineers and past president of the Society's New York section, American Military Engineers and the Municipal Engineers.

He also received accolades from the mayor of New York for his work. The intersection of Queens and Woodhaven Boulevards in Queens, NY, is named Slattery Plaza in his honor.

He suffered a heart attack while working in 1932 and died several days later in Jackson Heights, NY, at the age of 55.

#### Editor's note:

Over our first 100 years, the Honolulu District has undergone a number of reorganizations and subsequent name changes. The District and its essence has endured. For the sake of simplicity in this publication, we will refer to Honolulu Engineer District as HED.



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# Honolulu Engineer District Celebrates "100 Years of Exemplary Service"

#### Excerpt from Congressional Record, April 15, 2005

**Mr. INOUYE:** Mr. President, on April 15, the U.S. Army Corps of Engineers, Honolulu Engineer District (HED) will celebrate 100 years of exemplary service to Hawaii, the Pacific region, the U.S. military and the Nation.

For an entire century, the District has served with pride and distinction. I have personally witnessed their hard work and dedication to improve the lives of our fellow citizens in many ways. They have never failed to answer the call.

The District has had a significant impact on the ability of our servicemen and women to fight the global war on terror, it has bolstered the region's economy and worked to enhance the safety of communities in and about waterways and the functionability of the many major harbors in my home State of Hawaii. In everything they do they safeguard the environment.

From civil works projects navigation, flood control and shore protection to building and maintaining the infrastructure for our military personnel, the Honolulu District is proud of its service.

The U.S. Army Corps of Engineers' missions in the Pacific region have expanded exponentially since the unit's conception in 1905 when Lt. John R. Slattery was designated as Honolulu District Engineer on the Island of Oahu.

The mission of the Twelfth Lighthouse District was to design and construct lighthouses for navigation, acquire land for military fortifications, improve the harbors and expand the Corps' services to other Pacific islands.

In its first 100 years, the Honolulu District has supported the military in peace and in war, helped protect the island from enemies and forces of nature, protected the environment and wetlands, and added to Hawaii's economic growth.

HED's legacy includes: the creation of Sand Island; the acquisition of the Fort DeRussy area in Waikiki; the expansion of Honolulu Harbor; the repair of Hickam, Wheeler and Pearl Harbor airfields after the December 1941 attack; the construction of the National Memorial Cemetery of the Pacific at Punchbowl, the Tripler Army Medical Center, the Hale Koa Hotel and numerous military and federal construction projects; and the creation of the Kaneohe-Kailua Dam, as well as a host of disaster mitigation and assistance measures.

At the beginning of the 20th Century, HED constructed six deep-draft harbors on the five major Hawaiian Islands and three crucial lighthouses for navigation.

Under Slattery's command, the District began transforming the swampy coral reef used as a quarantine station in Honolulu Harbor into what is now known as Sand Island. Lt. Slattery's contributions are honored today with the Lt. John R. Slattery Bridge which connects Sand Island with the city of Honolulu.

He later purchased the 74-acre Fort DeRussy area in Waikiki for just \$2,700 an acre for use as a military fortification. At the time, the land was little more than a swampy parcel. Today the area provides a valuable green oasis in the heart of Waikiki....

Changes in technology and the approach of World War I changed HED's missions. Batteries and forts were supplemented with artillery fire control and submarine mine defense systems....

The District's role in the Pacific increased dramatically during World War II. At the height of the war, HED employed more than 26,000 people. Not only was the District creating the new airfield ferry routes and repairing the damaged air fields at Hickam, Wheeler and Pearl Harbor, but the District was also tasked with additional responsibilities outside its normal realm.

The District was suddenly responsible for determining shipping priorities in the harbor; converting sugarcane and pineapple plantations to vegetable farms; organizing the rationing program for oil and other consumer goods; camouflaging equipment and landmarks; building trenches and air raid shelters; erecting radar stations and excavating extensive underground rooms and tunnels for ammunition storage.

Before war was declared, the District had been creating a new Airfield Ferry Route System. The original route from the Philippines, Marianas, Wake Island, Midway, Hawaii to California was considered vulnerable to Japanese attack. New air ferry routes to the east and south were necessary to the war effort and the military buildup in Australia.

Building seven runways and support facilities on small, remote islands presented a number of challenges involving materials, manpower and water shortages, communication, transportation and geographical topography. The southern route, from California, Hawaii, Christmas, Canton, Fiji, New Caledonia to Australia and the eastern route, from Christmas, Penrhyn, Aitutaki, Tongatabu, Norfolk to Sydney, were finished by the 1-year anniversary of the attack on Pearl Harbor—an impressive accomplishment by any standard.

When the war ended, HED had constructed 69 miles of runways and taxiways and 2,700,000 square yards of aircraft parking area....

The Corps was also busy with major endeavors including construction of Tripler Army Medical Center, the National Memorial Cemetery of the Pacific at Punchbowl, and flood control and shore protection projects critical to the safety and future enjoyment of many communities.

Tripler Army Medical Center, commonly known as the "Pink Lady," was completed in 1948 at a cost of \$40 million. The 14-story, 1,500-bed hospital was an extensive project featuring 12 separate buildings—each constructed separately to make the Medical Center earthquake resistant. Today, Tripler continues serving military members and their families from around the Pacific as well as Hawaii's veterans and military retirees.

During the 1960's and 1970's, new federal policies further expanded HED's duties. The National Environmental Policy Act of 1969 required the Corps to prepare environmental impact statements, EIS, on all proposed federal actions affecting the environment. The Clean Water Act of 1977 brought changes to the Corps' regulatory mission and required the Corps to issue permits for all dredged or fill material. The Corps was now responsible for all the nation's water and wetlands—a scope that now stretches far beyond navigable waters. This began the Corps' mission as "Stewards of the Environment"....

Civil works and capital improvement programs expanded to Guam, American Samoa, Kwajalein and the Commonwealth of the Northern Mariana Islands. Main projects on Oahu included building military housing and improving facilities at Hickam AFB, Wheeler, Schofield, Aliamanu and Fort Shafter.

In 1973 HED began construction of the Hale Koa Military Rest and Recreational Hotel at Fort DeRussy in Waikiki. The original highrise hotel tower has 416 rooms, 15 floors and was built for \$15.7 million.

Nearby Battery Randolph was transformed into the U.S. Army Museum. The second floor of the museum today houses the U.S. Army Corps of Engineers Pacific Regional Visitors Center.

The Corps' responsibilities were further defined in 1980 with the addition of an Emergency Management Division....

HED today continues to serve a variety of missions in a region of 12 million square miles from Hawaii to Micronesia an area of operations spanning five time zones, the equator and the international dateline. This they have done with the utmost of professionalism, integrity and an unwavering commitment to service.

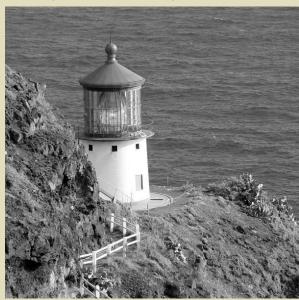
I am truly honored to have the Honolulu Engineer District in my home State. They serve as "America's Engineers in the Pacific," I have no doubt that they will continue their service and legacy with pride and aloha for the next hundred years and beyond. Happy Birthday. Congratulations on a job well done. On behalf of a grateful Nation, thank you for your service.

Mahalo and Aloha, Daniel K. Inouye, USS

# 1905-1910 The Beginning



HED's first District Engineer, Lt. John R. Slattery, arrives in Honolulu in November 1904. On April 15, 1905, Slattery opens the first HED office on Bishop Street. His duties grew to include acquiring land for military fortifications, improving Hawaii's harbors and expanding the Corps' service to other Pacific islands. He bought the land at Ft. DeRussy for just \$2,700 an acre to use as a military fortification. At the time the land was little more than a swampy parcel. Now the land provides a valuable green oasis in the heart of Waikiki.



Lt. Slattery prepared the design for Makapu'u Lighthouse. HED built the "wonder of Oahu" in 1909. Its construction exemplifies the variety of HED's endeavors and is one of several lighthouses built during HED's reign as administrator of the Lighthouse District. On June 17, 1910, Congress establishes the Bureau of Lighthouses under a civilian staff, designating the Corps as consultants instead of administrators.



The "Lighthouse on the Reef", Honolulu Harbor, circa 1900, was removed when HED widened the harbor.



Honolulu Harbor, circa 1900: HED begins dredging the harbor in November 1905. The material obtained from the dredging was used to reclaim Sand and Quarantine Islands. The islands calm the harbor eliminating any need for a breakwater.

In May 1906, the sailing ship *Martha Davis* burned and sank in Hilo's harbor. After bids to remove the wreckage were too costly, Lt. Slattery hired contractors to dig underneath the wreckage allowing the *Davis* to become buried in the harbor. This begins HED's reputation for ingenious ideas and innovative problem solving.

The District also began improvements to Hilo Harbor with construction of the rubbermound breakwater in Sept. 1908. In 1910, HED extended the breakwater at Kahului Harbor.



Ft. Shafter's Officers' quarters, circa 1910: the District played a crucial role in helping Ft. Shafter become a major anti-aircraft installation. The District built a number of military fortifications for Oahu's defense including Pearl Harbor, Forts Ruger, Armstrong, Weaver, Barrette and Kamehameha as well as Batteries Randolph, Williston, Hatch, Dudley and Harlow.

# 1911 - 1920 Mapping Oahu's Defense

In the early 20th century, HED's civil works, supply and military construction missions expanded. The newly opened Panama Canal made Hawaii a Pacific hub and increased the need for deeper and larger harbors and better lighting. HED expanded Honolulu, Hilo, Kahului and Nawiliwili Harbors. With the approach of WW I and the advent of airpower, HED fulfilled Oahu's need for defense. By 1911 HED had built Batteries Dudley and Randolph at Ft. DeRussy as well as Ft. Armstrong and Ft. Harlow. The Corps was also tasked with creating a detailed map of Oahu. In 1912, Major Winslow, Honolulu District Engineer and Commander of the 1st Battalion of Engineers, and his company finished the map which allowed the Coast Authority to prepare a comprehensive land defense scheme for Oahu. In addition to the batteries, maps and portable lighthouses, HED also developed an artillery fire control system and an electronic submarine mine defense system. In 1913, the DE assumed the additional role of the Hawaiian Department Engineer. The Hawaiian Department was responsible for overseeing the various elements of Oahu's defenses.



Fort Shafter officer quarters in cantonment, circa 1916. In 1917, HED built the Engineer Depot at Fort Shafter. The advent of military aircraft changed HED's missions. Airstrips had to be built and guns that originally guarded against enemy ships had to be replaced with guns that could intercept aircraft. HED was instrumental in transforming many of Oahu's batteries and for turning Ft. Shafter into a major anti-aircraft installation.



HED played a crucial role in Oahu's early defense by building a number of military fortifications such as this one on Diamond Head Lookout.

By 1913, Oahu had eight coastal batteries guarding the naval base at Pearl Harbor and the port of Honolulu, including four at Ft. Kamehameha; one at Ft. Armstrong; two at Ft. DeRussy and one at Ft. Ruger. The Navy had dredged the harbor and placed the dredge material at Ft. Kamehameha to build up the submerged land.



The original Tripler Hospital, Fort Shafter, Palm Circle, circa 1920. The hospital, built in 1907 was redesignated as Tripler General Hospital in 1920, honoring Brig. Gen. Charles Tripler, author of "Manual of the Medical Officer of the United States Army."

# 1921 - 1929 Calm Before The Storm

The 1920s were not exactly roaring for the Honolulu Engineer District. As WW I military projects and civil works surveys were being wrapped up, HED built roads and laid an underground cable almost all around the island for fire control.

HED's work load did increase after the Naval Conference of 1921-1922 called for a moratorium on capital ship building. This moratorium allowed the Navy to transfer four of its surplus 16-inch guns to the Army in Hawaii. HED constructed batteries for the new guns at Ewa and the North Shore along with the necessary support facilities and machinery such as railroads, locomotives, power plants, magazines plotting and switchboard rooms.

HED saw an increase in civil work projects in 1925 after the Treaty of 1922 prevented the U.S. from fortifying the Philippines, Guam or Wake. Hawaii could now receive the funds and the Army's undivided attention necessary to improve its harbors and defenses. Hawaii also had the advantage of local business support for many of the harbor improvement projects-including three pineapple companies who agreed to pay for the initial dredging of Reserved Channel.

In 1926, HED's missions once again changed when HED's District Engineer no longer had to wear two hats - jettisoning the title of Hawaiian Department Engineer.

#### 1920s Milestones

**1921:** HED built the Nawiliwili Harbor breakwater in Kauai and began enlarging its entrance channel and harbor basin.

**1922:** HED moves to the new Honolulu Federal Building at Richards and Merchant Streets.

**1922:** Completed the concrete Engineer Wharf at Honolulu Harbor.

**Sept. 1924:** Williston Battery at Iroquois Point in Ft. Weaver is completed.

**1927:** Reserved Channel created which divides Sand Island from the Honolulu waterfront.



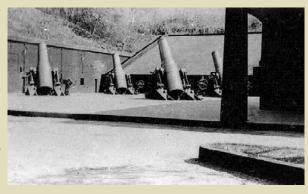
Ft. Shafter's Palm Circle, circa 1920: Today, the area is designated as a historical landmark.



Military families enjoy the swimming tank at Fort DeRussy in 1924. In 1911, a deep channel was dredged through the reef in front of Ft. DeRussy to facilitate the installation of the 69-ton guns at Battery Randolph. This dredged channel served as a swimming tank for Soldiers and their families. Lt. John Slattery, HED's first DE, purchased the 74-acre Ft. DeRussy for just \$2,700 an acre as a military fortification. Today the area is a major recreation area for the community with a park, jogging trail, the U.S. Army Museum, the USACE Pacific Regional Visitor Center and the Hale Koa Hotel.



(L & R) Oahu's first coastal fortification, Battery Harlow at Ft. Ruger, circa 1924: HED built Battery Harlow in 1910 at Diamond Head. Its eight 12-inch guns were contained in two concrete pits which were praised for their strength. When the guns were testfired, only one small crack appeared in the concrete.



### 1930 - 1939 Economic Recovery

Honolulu Engineer District (HED) played a big part in helping Hawaii recover from the Great Depression. In 1931 HED built roads, underground storage magazines and various structures at Aliamanu. The budget was supplemented with National Industrial Recovery Act (NIRA) projects.

Military projects were augmented by civil works projects. The Public Works Administration (PWA) called for billions of dollars to be spent on large projects to help provide employment, stabilize purchasing power and improve America's economy. In Aug. 1933, HED's District Engineer was appointed to be a representative of the PWA for the Territory, thus beginning the "Partnership" of HED and Hawaii. The partnership grew as the Corps was designated as the federal construction agency for flood control in 1936.

HED administered many PWA projects such as additions to Roosevelt and Thomas Jefferson schools, Roosevelt Auditorium and community civil works projects such as the Kuakini St. Bridge and expanding the water supply systems on Oahu, Molokai, Kauai and Hawaii.

Although these projects were not that large, they helped improve Hawaii's economy and signaled the start of a new beginning for HED. In 1938, HED DE Maj. Peter E. Bermel assumed the responsibility for the Public Works and the Works Progress (WPA) Administrations in the Territory. Although Washington had the final say concerning WPA projects, the DE's new responsibilities yielded a lot of power and sparked local criticism when he recommended or vetoed WPA projects. With the additional workload, HED outgrew its offices and moved to Pier 2-A near the Engineer Storehouse.



The 12-inch guns of Battery Clossen, Ft. Kamehameha were originally designed for war in France. Oahu was often called the "Pacific Gibraltar" due to its many coastal batteries.



The 16-inch guns of Battery Hatch at Ft. Barrette were mounted in 1934 to allow for a 360-degree field of fire.

In the latter part of the decade with the threat of war approaching, WPA projects began to take a back seat to military construction projects further fueling the local criticism. In 1937 HED constructed chemical storage facilities at Schofield Barracks. As tensions with Japan increased, HED's mission expanded into the Pacific with the beginning of the Welles Harbor project on Midway in 1938.



HED widened Honolulu Harbor to 500 feet in 1934 with money received from the NIRA. A lighthouse commissioned by the Corps in 1910 was removed to accommodate the enlargement. Other NIRA/WPA projects included Kaunakakai Harbor and Port Allen navigational improvements, removing a portion of Sand Island and revetting the cut shoreline. Projects like these signaled a new beginning for HED and helped Hawaii recover from the Great Depression.

# Pre-WW II: 1940-1941 War Preparations

"If we had had the Engineers on the entire construction program last year they would have moved in with an experienced organization and much waste would have been avoided"

-Robert P. Patterson, Under Secretary of War, in an Aug. 28, 1941 memo to the President Roosevelt calling for all Army construction work to be transferred from the Quartermasters to the Corps of Engineers. F.D.R. approved the change and it was signed into law Dec. 1, 1941.

After the Dec. 7, 1941 attack on Pearl Harbor, Honolulu Engineers repaired the airstrips on Hickam and Wheeler and created new airfield ferry routes across the Pacific with recordbreaking speed--prompting this editorial by Lorrin P. Thurston then President of the Honolulu Advertiser. Below is an excerpt from the Feb. 26, 1942 column.

# A Tribute to a Driving Work Producing Genius

Last week I stood on a finished airport, one of many. On December 7, there was nothing there but sand and swamp. The magnitude of the job which was accomplished is breathtaking—that is the only word that can be fairly used to describe what has been done.

This was only one of the countless dozen of completed projects on many of which work is still going on full blast. Each needed tons of material, thousands of men, equipment mounting into thousands of individual items. They had to be gotten from some place. Millions of dollars of costs were involved....

However, out of the whole chaotic mess, one thing stands out and that is, that this one man {HED District Engineer Col. Theodore Wyman, Jr.} is the spark plug, the executive head and the driving force which got ready and turned over to the Army, an incredible number of "must" installations in a fraction of the time normally required.



As WW II approached, portable storage units such as this one at Wheeler Army Air Field, circa 1930. were replaced with extensive underground rooms and tunnels for ammunition storage at many locations on Oahu. One worker commented that the Engineers had built so many tunnels, if placed end to end-- the entrance would be at Koko Head, the exit at Moanalua.

Prior to the attack on Pearl Harbor, HED was enlarging and modernizing facilities at Ft. Shafter and Schofield Barracks, building anti-aircraft gun sites, bomb-proofing coastal fortifications and building bunkers at Wheeler Army Air Field. HED was also finishing extensive work on Hickam Field including a hospital, dental clinic, an engineering shop, barracks, an NCO club, pool and perimeter fencing.

After France fell in 1940, America urgently prepared for war and HED played a crucial role in those preparations. In June 1940 the War Department authorized HED to construct three aircraft warning fixed stations: Kaala on Oahu, Haleakala on Maui, Kokee on Kauai and six mobile stations. They were not operational the day Japan attacked Oahu.



Before war was declared, the District had been creating a new Airfield Ferry Route System. The original route from the Philippines, Marianas, Wake Island, Midway, Hawaii to California was considered vulnerable to Japanese attack. New air ferry routes to the east and south were necessary to the war effort and the military build-up in Australia.

On Oct. 4, 1941, the War Dept. orders HED to begin construction on the new routes. Building numerous runways and support facilities on small, remote islands presented a number of challenges including material, manpower and water shortages, communication, transportation and geographical topography problems.

Both routes were finished by the one-year anniversary of the attack on Pearl Harbor in spite of the fact that airfield pavement was a new and unfamiliar area--an impressive accomplishment even in war time.

# WW II: 1941-1943 Pacific Defenses

# U.S. Engineers Busy Plugging All Possible Leaks in Isle Defenses

Teamwork Is Keynote of Builders' Program

Ever since war burst in Hawaii's face the hunt for heroes has gone at a good clip. One hunting ground overlooked so far is the Corps of Engineers, as the Continental Congress of 1775 first named them.

While the spotlight of Hawaii was fixed on the new stars in the military galaxy, these builders of the army, with no chance to sparkle, were busy plugging all possible leaks in the Island fortifications.

The men whose technical engineering skills puts might into the punch of other combat units were handed the most burdensome and least spectacular job at the mobilization for total war. Though the casual eye may fail to see much proof, it is there just the same.

#### Helping 'Hold That Line"

Unlike star players in a football game, none of the engineers could race down the battlefield while the crowd shrieked 'Hold that line,' and score a triumphant touchdown. But they could—and did —show teamwork that was a credit to American ingenuity. They not only 'held the line,' they built some of it under enemy fire and the rest in practically nothing flat.

The U.S. engineers know better than any other arm of the service that there is no royal road to victory. They build that road, literally as well as figuratively. In peace, they are trained and disciplined to roadbuilding on a grand scale, to surveying boundaries and mapping new lands to building lighthouses, dockyards, dams for flood control, to improving waterways in harbors and rivers so that the life force of an industrial nation—its commerce — might flow freely as the tide.

In war their tasks become Herculean. With little opportunities to shine as individual Hercules, these technical experts as a close-knit team shared the service family's responsibility and integrity with America in her supreme test and carry a heavy load withal.

- excerpt, *Honolulu Advertiser*, Feb. 26, 1942

#### Early World War-II Milestones

March 1941 to Sept. 1943: Barracks, utilities, runways and taxiways constructed on Bellows Army Air Field. Runways started before the attack were expanded from 2,220 ft. to 4,900 ft. to accommodate B-17s. Area was completed in blackout conditions and rain one hour before the first four U.S. planes landed.

**Dec. 23, 1941:** Japanese capture Wake Island. Prior to this, HED had plans to create a harbor on Wake similar to the Welles Harbor project.

**Dec. 27, 1941:** 5,000 ft. runway at Tontouta, New Caledonia completed. **1942:** Underground gasoline ammunition storage facilities constructed at various locations.

Jan. 20, 1942: Christmas Island runway completed.

**March 1942:** Start of an extensive cold storage building program on the islands. Design Division developed a self-contained, 200-300 cu. ft. capacity walk-in portable reefer box for use in isolated areas.

**1943:** Tunnel near Kipapa Gulch, believed to be the first steel-lined gasoline storage tunnel ever constructed. HED constructed so many tunnels, it was estimated that if all the tunnels blasted on Oahu during the war were place end to end, the entrance would be at Koko Head and the exit at Moanalua.

1943-1944: HED built six Prisoner-of-War camps on Oahu: Honouliuli Gulch, Wahiawa, Sand Island, Schofield Barracks, Fort Hase and Kalihi Valley.

**Jan. 1, 1943:** Brig. Gen. Kramer established the "Bottleneck Buster Division" to simplify procedures in managing the many different new units. By mid February, Kramer's executive officer had broken some 400 bottlenecks and dramatically improved the District's efficiency.

**Feb. 1943:** HED begins creating a rear entrance to Honolulu Harbor at the urging of Brig. Gen. Kramer to Lt. Gen. Emmons. Considered a military emergency, the channel was to be 10,000 ft. long with a pontoon bridge. The project was abandoned after the war and not resumed again until 1960.



After the Dec. 7th attack, the District was suddenly tasked with additional responsibilities outside its normal realm and needed additional space to carry on its many new missions. HED moved into Punahou School on Dec. 8, 1941, leasing the compound for \$20,000 a month until Sept. 8, 1945.

Six days before Pearl Harbor was attacked, all Army construction projects were transferred to HED from the Quartermaster Department. Simultaneously, HED acquired responsibility for Army and Air Force real estate in Hawaii. An explosion of work soon followed.

This brought HED into new fields of work with more than 26,000 employees. HED repaired the damaged airfields on Hickam and Wheeler in record time while completing the new air ferry routes. Practically overnight, the District Engineer became responsible for determining shipping priorities in the harbor; converting pineapple fields to vegetable farms to feed the troops and the island population; organizing the rationing program; leasing buildings and warehouses and hotels (to temporarily house the massive influx of new recruits); building trenches, shelters, tunnels for ammunition storage; supplying the forward bases; selling war bonds and camouflaging landmarks.

In 1942, HED entered into a "Plantation Agreement" with various local companies. This provided food for the troops and allowed HED to use the farm equipment and manpower for military construction projects.

This time frame also saw some of HED's most direct contributions to the war effort: developing bases on three Pacific Atolls, transporting Soldiers and supplies and preparing maps.



Jan. 1942: Ft. DeRussy area lei makers were recruited to weave rags into nets to hide the islands' landmarks. HED's newly-formed Camouflage Section displayed its ingenuity as it incorporated camouflage designs into every new building planned and placed patterns over existing critical facilities. The Camouflage Section also built plywood airplane decoys and planted vegetables on property used by the military.

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#### **Training**

HED built a number of training centers in Hawaii during the war such as this one at Helemano. The District also built amphibious and jungle training centers as well as barracks and support facilities at a number of bases in the Pacific including those near the airfields on the new air ferry routes.

#### World War II Milestones

**Sept. 1943:** The District Engineer Office and the Department Engineer merged to become the Engineer Office, Central Pacific Area. As the U.S. war in the Pacific shifted from defense to offense, HED's work focus changed as well.

**Nov. 1943:** U.S. captures the Gilbert Islands. HED became responsible for troop training, supplying materials and equipment and reproducing intelligence maps. The campaign for the three Pacific Atolls, Gilbert, Marshall and Marianas Islands constituted HED's most direct contribution to the war.

**May 1944:** HED begins construction on Richardson Hall dubbed the "Pineapple Pentagon" at Ft. Shafter. This was one of HED's most complex projects. To minimize excavation, HED built three irregularly-shaped structures on a steep sloping site.

**Aug. 1944**: HED reorganizes to become the "Construction Service" of the Central Pacific Base Command.

**Aug. 1944:** Construction begins on Tripler Army Medical Center.

**Feb. 1945:** Construction begins on HED's new headquarters at Ft. Armstrong. The project was urgent, as Punahou classes were promised to resume in the Fall.

**1945:** Many land transactions by Real Estate Division; schools, plantations and gas stations returned to public use.

**1945:** Dredge material used to build up swamp land where Ala Moana Center is today. The Dredging Division used numerous hopper, electric cutterhead pipeline and clamshell dredges.

**Aug. 1945**: HED supplied engineers materials necessary to capture Iwo Jima and Ryukyus.

**Sept. 8, 1945:** Punahou School returned to trustees in restored/improved condition and new District headquarters established at Fort Armstrong.

**1944-1945:** Recycled and installed big Navy guns salvaged from sunken U.S. warships as part of island's defense.

# **World War I**



#### Volunteers

Women's Army Volunteer Corps formed in 1942. This group of 500 HED and Hawaii Constructors female employees received six weeks of special training so they could assist the District with evacuation drills, first aid and other duties normally assigned to men.



#### **Priorities**

Waikiki Beach in 1944 was clearly in need of beach replenishment. During the war, many of HED's critical civil works projects had to be postponed in favor of military projects.



#### **Military Construction**

HED had thousands of ongoing military construction projects during WW II. The Construction Service was established in 1944. HED's total war construction costs were estimated to be \$400 million.

# T: 1941-1945

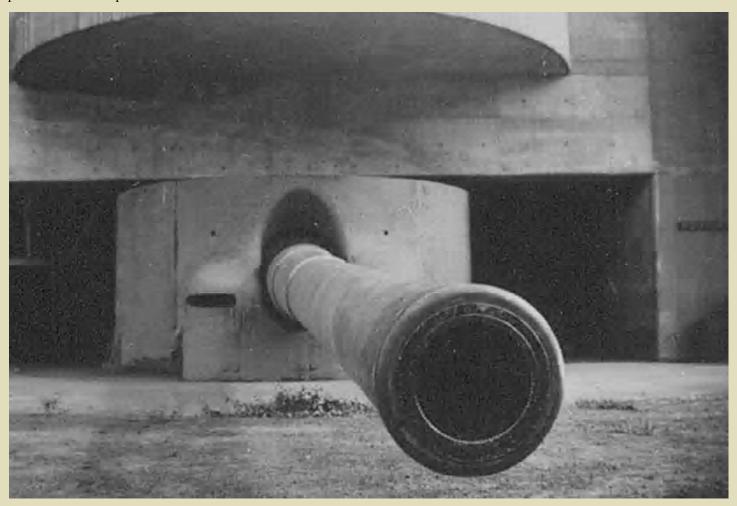
Military construction in wartime was a constant challenge for HED. There were shortages of supplies, equipment, land and skilled labor.

Yet when the war ended, HED had constructed: 69 miles of runways and taxiways and 2,700,000 square yards of aircraft parking area; 240 miles of roads in Hawaii; a new 46,000 square foot Joint Army and Navy Command Post in Aliamanu Crater; the top secret "Hole" known today as Kunia Tunnel; numerous batteries and casemented existing ones, ammunition storage areas, troop housing, utility systems, hospitals, numerous training camps, underground gasoline storage and radio transmitting tunnels, recreation facilities and prisoner-of-war camps.



#### **Ingenuity**

Red Cross Clubmobiles, circa 1944, were used to bring refreshments and relaxation to the troops in the forward areas. HED Construction Service built the fleet of clubmobiles from remodeled 2.5-ton trucks and discarded materials. The 800 employees made everything from prefabricated buildings to cargo nets. The engineers' ingenuity helped make life a little easier for the Soldiers. HED engineers also designed a spinal brace for injured patients and created a "Jeep Laundry", a makeshift washing machine which used the jeep's power for agitation.



#### **Protect the Shore**

Battery Closson's long-range guns at Ft. Kamehameha were casemented during WW II. Officials feared a second attack on Oahu and in response, HED took several measures including constructing new batteries and casementing existing ones. Battery Closson's 12-inch guns, built during WW I, originally had a 360-degree field of fire which was reduced considerably by the casement. In addition to bomb-proofing the batteries, HED concealed coastal installations, placed boat barriers and barbed wire on potential landing beaches, built thousands of concrete pillboxes, laid land mines in the middle of Oahu and added 50 new fire-control stations. HED engineers' ingenuity was praised when they constructed batteries utilizing Naval gun turrets salvaged from the USS Saratoga (CV-3), USS Lexington (CV-2) and the USS Arizona (BB-39).

# **Post war: 1946 - 1949** Building Permanence

After the war, HED adapted to the changing needs of the Nation and continued to support America's Soldiers. In contrast to the wartime temporary structures, HED began building lasting, permanent facilities such as Tripler Army Medical Center and the National Cemetery of the Pacific at Punchbowl while continuing to supply forward bases. HED also built a number of housing and recreational facilities to support the increase in Soldier population and HED's Real Estate Division restored or transferred thousands of acres of property. Civil works continued to take a back seat in Hawaii as the nation strived to support the Soldiers. As its work load decreased, HED went through a number of transformations.

#### **Postwar Milestones**

**1946:** After the war, millions of dollars worth of equipment was dispersed and thousands of acres of land were transferred to the Territory of Hawaii.

**Feb. 1946:** HED transferred from Pacific Ocean Division to the new Western Ocean Division (WOD) as the North and South Pacific offices merged. The interim organization was called U.S. Army Forces, Middle Pacific.

**April 1, 1946:** Tsunami hits Hilo. HED sent an emergency team to repair the breakwater. This leads to two decades of investigations and experiments in tsunami protection.

**May 12, 1948:** Richardson Theater at Fort Shafter officially opens. HED built the 995-seat theater for \$816,000.

**1948**: HED constructs barracks at Schofield Barracks, Ft. Shafter and Tripler AMC.

**1948:** Kauai's Hanapepe River flood control project began; the project was later interrupted by the Korean conflict. This represented the start of flood control projects for HED.

**May 1948:** Port Allen Harbor is expanded. This was the only new navigational project HED undertaken between 1945-1950.

**June 1948**: The repair of Kahului Harbor breakwater in Maui led HED into a new area of civil works.

**1949:** HED builds family housing at Tripler, Hickam AFB, Helemano Signal Corps Station and Ft. DeRussy.



In 1948 HED completed one of Oahu's most famous landmarks, Tripler Army Medical Center (TAMC), at a cost of \$40 million. To protect against earthquake damage, the 1,500-bed hospital was constructed as 12 independent buildings. For over 50 years, TAMC has been one of HED's biggest customers. HED has been responsible for numerous additional renovations to TAMC.



HED constructed the National Memorial Cemetery of the Pacific in the Punchbowl Crater. The Hawaiian name for Punchbowl is Puowaina meaning "the hill of sacrifice." The cemetery opened on July 19, 1949 with the burial of Ernie Pyle, a beloved war correspondent. The Cemetery was officially dedicated on the fourth anniversary of V-J day, Sept. 2, 1949.



HED's V-J Parade float, Sept. 3, 1945. HED's efforts were crucial to the war and its members had much to celebrate.

### **1950-1959** Civil Works

In the early 1950s, HED resumed a number of civil works projects which had been postponed due to war including several shore protection projects.

HED found itself once again being called upon for unique challenges with large projects such as the build-up of Kwajalein Atoll and Fort Shafter's Capehart Housing Projects.

On June 6, 1950, the Western Ocean Division was abolished and HED transferred to South Pacific Division. In August of the same year, HED transferred, once again, to the San Francisco District. The Real Estate Division answered directly to the Chief of Engineers.



After the war ended, the District moved its headquarters from Punahou School to Fort Armstrong. Coastal Batteries were loosing their importance as the WW II development of missiles and atomic bombs made the use of coastal big guns obsolete. The Corps' Real Estate office transferred two tracts of land on Fort Armstrong, 595 acres at Fort Ruger and 38 acres at Fort Barrette to the Territory of Hawaii.



HED built a number of Capehart family housing units at Fort Shafter, Schofield Barracks, TAMC and Hickam AFB. The Capehart Project was a nation-wide military construction project designed to standardize military housing around the world. Honolulu engineers had to make several changes to accommodate Hawaii's semitropical climate. Between 1957 and 1967, HED built 3,120 military housing units for \$51.6 million.

#### 1950s Milestones

**1950:** HED installed an automatic wave recording gauge near Oahu's Black Point which measured differences in hydrostatic pressure due to wave action by sending wave impulses to a recording unit on shore. Several such studies set the stage for the next decade of HED's experiments on waves. Shore protection activity increased during the decade.

**Jan. 1951:** HED established a Project Office at Johnston Island. HED built family quarters, barracks, a mess hall; resurfaced the runway; rehabilitated the utility and support system and built the UHF air/ground facility.

**1954:** HED operated the hopper dredge, *Biddle*. With help from Portland's dredge *Davison*, HED dredged Nawiliwili, Port Allen, Honolulu, Kaunakakai and Kahului Harbors.

**1955:** HED constructed a new federally-funded deep-draft harbor at Kawaihae giving the Big Island two deep harbors, Hilo in the east, Kawaihae to the west.

**1956:** After the Korean War, military construction in the Territory of Hawaii increased. Army and Air Force projects totaled over \$41 million in 1956.

**July 1, 1957:** HED was re-established as a District under Pacific Ocean Division although its jurisdiction only applied to Hawaii and Johnston Island.

**Oct. 1957:** HED doubles the width of the Waikiki Beach berm to 150 feet.

**Dec. 1957:** HED's jurisdiction expanded past the International Date Line to the Gilbert, Marshall, Midway and Wake Islands.



HED established the Kwajalein Resident Office in 1959. Kwajalein is now home to the Ronald Reagan Ballistic Missile Defense Test Site. HED has been instrumental in supporting the mission on Kwajalein as well a designing and building the facilities to house and support the 2,000 American civilian and military personnel who live there.

### 1960 - 1969 New Horizons

The May 23, 1960 tsunami which hit Hilo took the lives of 61 people including that of HED Engineer James K.K. Look as he gathered data on the shoreline. His memory is honored today with the University of Hawaii's James K.K. Look Laboratory of Oceanographic Engineering. HED continues to assist in emergency situations in support of FEMA, flood protection, satellite mapping, etc. as well as preventative measures to protect against storm and flood damage.

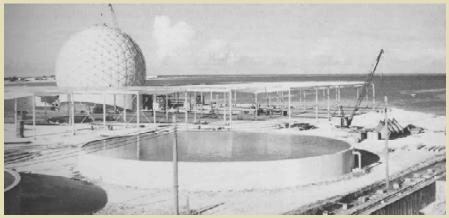


For HED and the nation, the 1960s were a time of change and exploring new horizons. New technologies were taking HED's Civil Works and Military Construction Divisions into bold new worlds. The Nike Missile program in the Pacific, the design of the Hale Koa Hotel, providing electricity to the Panama Canal and an HED engineer's tribar invention for armoring breakwaters helped solidify HED's reputation for innovation and quality projects.

Prior to HED Engineer Robert Q. Palmer's tribar invention, HED had been paying royalties to a French company for use of their tetrapods for breakwater construction. Palmer's tribars were used experimentally on the Nawiliwili breakwater with great success. Not only were the concrete triangular-shaped tribars more effective against hurricane-strength waves but proved to be more economical as well. The tribar's worth gained world-wide acceptance and professional recognition to Mr. Palmer and the Honolulu District.



HED created the second entrance to Honolulu Harbor and built the bridge to join Sand Island and Honolulu. The bascule bridge, the first of its kind to be built in Hawaii, opened in April 1962 and was named for HED's first District Engineer, John R. Slattery.



The Zeus acquisition radar receiver antenna and the horizontal ground plane complex on Kwajalein Island were completed in 1962 along with a transmitter building. The receiver building contains 22,255 sq. ft. of floor space.

#### 1960s Milestones

- Large military family housing projects began at Schofield, Tripler, Hickam and Fort Shafter. HED oversaw the construction of 3,100 units; Installed Nike-Hercules batteries at Oahu locations;
- HED's Civil Works completed four major flood control projects and numerous beach erosion projects including Waikiki and Haleiwa;
- Oversaw the installation of radar facilities and launch pads at Kwajalein;
- Completed renovations at TAMC including: new elevators, altered surgery and delivery rooms;
- Construction of the Hickam AFB Globecom relay center, antenna and microwave facilities;
- Constructed a new hangar, apron and taxiway for the Air National Guard at Hickam AFB;
- Assisted with keeping Hawaii's harbors navigable by overseeing the salvage of several sunken boats;
- Improved the Iao Stream, Maui Channel and debris basin; and
- Supported national defense in Kwajalein Atoll & Marshall Islands with the construction of Nike-Ajax, Nike-Hercules, Nike-Zeus, Nike-X; the Project PRESS and ZAR complexes and the numerous support facilities necessary for these programs.

# 1970 - 1979 New Responsibilities

The 1970s gave HED a number of new challenges. A declining workload resulted in a reorganization of the Division while Congress passed a number of laws which increased the Corps' responsibilities concerning the environment, cultural resources and regulatory activities. Civil Works projects increased in the mid-1970s as the Division became responsible for water resources in Guam, Northern Marianas and American Samoa.

Between 1970 and 1973, POD and HED merged to form an Operating Division (OD). Shortly thereafter the OD moved from Ft. Armstrong to Ft. Shafter's Building 230, a structure they had built a few years earlier.

As an OD, the Command continued to contribute to Hawaii's military and the people of the Pacific. The 1970s saw extensive renovations and improvements to Schofield Barracks. This 10-year project resulted in new "Quads" and construction of family housing, a water treatment plant, a fitness center, enlisted club, a bowling center addition, skills development center, warehouses, cold/dry storage units and training facilities. This represented a dramatic growth in HED's military construction program.

In 1975, the Honolulu Main Post Office Complex was completed for \$12.6 million. In 1979, the Enewetak Atoll villagers returned to their island after an extensive and innovative radiation cleanup project in the Marshall Islands.



In 1973 HED began construction on the Hale Koa Hotel in Waikiki. Since then, many additions including the second tower and parking structure have been added. Thousands of military members and their families enjoy the facility each year.

# DeRussy hotel funds approved

- excerpt, Feb. 3, 1973, Honolulu Advertiser

An additional \$2.3 million has been approved to meet increased costs for the Army's new high-rise hotel at Ft. DeRussy, and it appears construction will begin in a few weeks, The Advertiser has learned.

The Department of the Army has approved the expenditure of the additional funds which will come from exchange and open-mess profits.

It is expected that the awarding of the hotel contract will be announced shortly. The contract is expected to go to E.E. Black Ltd., whose bid of \$15.7 million was the lowest of those received during bidding in December.

Actual work on the 15-story, 416-room military high rise probably will begin within 10 to 15 days after the contract is awarded, said Col. Leonard Edelstein, deputy district engineer for the Army Corps of Engineers.

Black will have 25 months to complete the recreation center, Edelstein said yesterday.

The Army has estimated that the new structure to be built at the ewa end of DeRussy, will cost approximately \$17.3 million.

The Army says that of the \$17.3 million, \$14.4 million will come from nonappropriated military welfare funds, \$2.5 million from mess funds and \$400,000 from exchange funds. Tax money will not be used.

The new center will be available on a first-come first-served basis to all servicemen passing through Hawaii and to the 112,000 military personnel, and dependents assigned here as well as to all active duty and retired personnel in the Pacific or on the Mainland who wish to vacation here.

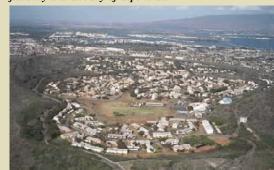
The size of the new structure which will replace existing building is based on peace-time requirement, the Army says.

Existing facilities can accommodated 450 guests and have an occupancy rate of more than 80 percent. The new center will accommodate 832.

The Army anticipates the occupancy of the new larger hotel will be favorable. It is expected to attract personnel who do use present facilities because of their poor condition.



The 1974 flood in Honolulu prompted a considerable number of studies concerning flood control, beach erosion and hydropower. HED's studies and projects demonstrate the District's flexibility and diversity of experience.



Aliamanu Military Reservation housing, one of HED's biggest family housing projects, was completed in 1978. HED built 2,600 units for \$113 million, overcoming unique challenges of the terrain and geology of the crater.



The Corps' responsibilities continued to evolve with the Clean Water Act of 1977 which made the Corps responsible for all the nation's waters and wetlands.

### 1980 - 1989 Growth Meets Technology

The 1980s were a time of dramatic changes in technologies that affected the way everyone did business. Keeping up with the exploding information age led to the creation of the Information Management Office and changes in government legislation led to the establishment of the Emergency Management Division. The '80s also saw large military construction and navigational projects as well as displays of ingenuity which increased the quality of life for people in the Pacific and Hawaii's Soldiers and their families.

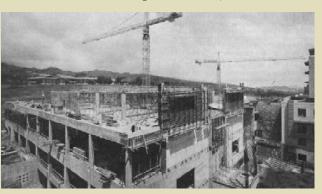
#### 1980s Milestones

- The major buildup of Kwajalein Atoll; HED's 1989 total construction at Kwajalein was \$43.6 million;
- New Barbers Point Harbor;
- New dental clinic at Schofield Barracks;
- Managing construction of more than 30 different housing areas in support of Oahu Consolidated Family Housing Office to include Aliamanu, Schofield Barracks, TAMC, Helemano, Fort Shafter, Pearl Harbor, Kaneohe and Wheeler;
- Upgrading the man-made reef runway near Pearl Harbor to accommodate an emergency landing of the NASA space shuttle;
- HED completes the Ground Based Electro-Optical Deep Space Surveillance system (GEODSS) project on Maui. Overcoming numerous obstacles, GEODSS went into operation on schedule, saving the govern-
- ment more than \$800,000 in potential penalties and liquidated damages;
- State-of-the-art contamination cleanup of Enewetak in the Marshall Islands;
- Real Estate sells 36.7 acres on Honolulu waterfront; monies which funded several military construction projects including a logistics facility at TAMC, warehouses at Schofield Barracks, and an ID lab/mortuary at Ft. Kamehameha; and
- The USACE Pacific Regional Visitor Center/ Army Museum built at Ft. DeRussy at Battery Randolph opens. This premier facility in the heart of Waikiki represents HED's continued commitment to community outreach.

In 1981, the Department of the Army ordered all units to create a new division: The Information Management Office. Photo at right: An HED computer operator and Honeywell executive examine the new system which brought together data processing and administrative services such as mail and records, the library, printing, publishing and visual information systems. Computers not only changed the way HED did business, it also improved communication between the districts which previously had been difficult and costly.



Since its completion in July 1980, the Kaneohe-Kailua Dam has proven its worth by saving millions of dollars in flood damage. Even before the project was finished, it was estimated to have saved \$1.5 million in damages during a March 18-19, 1980 storm.



In 1981 HED began the 10-year project to upgrade Oahu's Tripler Army Medical Center to include a four-story addition, three new wings, new entrances, a power plant, eye clinic, dental clinic and modernizing the wards and clinics all while the hospital remained fully operational.



The Aliamanu Consolidated Community Center swimming pool opened in 1986. The pool was just one facet of HED's project to improve the quality of life for Aliamanu Military Reservation residents. The project also included a fitness center, a chapel, a multipurpose building with library and a child development center.





In 1987, HED built the computerized shooting range at Schofield Barracks.

# <u> 1990 - 199</u>9 Breaking New Ground

The 1990s represented an era of ground breaking projects for the District. HED continued to evolve with a change in philosophy and operating procedures to a more customer-oriented approach. The creation of Project Program Management in November 1992 facilitated HED's many projects. The organization evolved as HED became its own District again in March 1998.

#### 1990s Milestones

May 1991: HED's Kwajalein Office overseas the installation of the Kwajalein Island 10megawatt power plant, final cost of \$18 million was \$3.2 million under budget;

**Sept. 1993:** Schofield Barracks library and education center open;

**1994:** HED completes the Army Reserve Center at Fort Shafter Flats;

1995: HED completes the additions to Hale Koa Hotel. The Grand Opening held Nov. 30 celebrated a new hotel tower, parking garage, fitness center and more;

**1995:** Hickam AFB receives quality of life improvements: two new dormitories, a new medical/dental clinic and a new Professional Management Education Complex;

1995: Work begins on the 41,000 sq. ft. Haleakala Air Force Maui Optical Station on Maui;

1997: The \$20 million Advanced Electro Optical System (AEOS) in Maui completed;

1997-1998: HED constructs the Helemano Community Center, chapel, day-care center, fitness center and swimming pool;

**June 1998:** Ground is broken for Hickam AFB's 40 new temporary lodging units;

Nov. 1998: HED completes the Ground Based Radar-Prototype facility at Kwajalein Atoll.



All members of the Division were electronically connected in November 1993 thanks to a Pacific-wide corporate network, Microsoft Windows NT. Pictured is the first team trained in the new system. This technology would remain in place for the next decade.



was broken on the facilities for the CH-47D Chinook helicopters for B Company, 214th Aviation Regiment (B/214th) at Wheeler Army Airfield. The \$5.6 million project included a new hangar, renovation of the existing hangar, taxiway and aprons. Wheeler's original World War II-era runway could not support the 25-ton load generated by the helicopters.



The Alenaio Flood Control Project on the Big Island, completed in 1997, nearly paid for itself in one flood event by preventing an estimated \$12.2 million in damages in 2000.



The Hale Ikena Combined Community Club opens in 1999. HED built the \$6.4 million facility at the Walter J. Nagorski Golf Course on Fort Shafter. The 21,220 sq. ft. facility includes a dining room, lounge, banquet rooms and kitchen. The project also included a new golf facility.



Ground was broken for the Palau Compact Road in June 1999. The \$100 million, 53-mile long project deep in the rainforest on the island of Babeldoab in the Republic of Palau (ROP) is nearing completion. The ROP is the westernmost geographical area in Micronesia. The road is being built under the provisions of the Compact of Free Association which emerged after World War II to foster economic development of the Pacific nations which aided the U.S. during the war.

# The Present Partnering In The Pacific

HED's past is diverse and its future challenging as it continues to serve the nation and the Armed Forces. It has evolved and adapted to the nation's needs, from being on the cutting edge of military construction and flood protection to road building in the Republic of Palau, providing clean water to East Timor villagers, to environmental work throughout the Pacific. HED continues to provide customers' and the nation with a wide array of innovative solutions.

HED's 400 employees are committed to earning and keeping the nation's trust by executing quality projects and balancing the need of the Pacific Region and the Armed Forces with the importance of protecting the environment.

HED currently has 474 ongoing projects valued at \$1.76 billion. HED 'smajor projects include: the upgrade of the Pacific Regional Visitor Center , a 13.5 megawatt power plant at Roi Namur, an emergency management tool for the Pacific islands, Whole Barracks Renewal, Armytransformation, modularity, the C-17 Beddown Program at Hickam AFB, the Ala Wai Watershed Study, FUDS clean up, Kaumalapau Harbor in Lanai, Tsunami Road Reconstruction in Indonesia and drafting an EIS for Makua Military Reservation.

HED continues to be America's "Partner in the Pacific."



Hawaii Congressman Ed Case recently toured the Waikoloa Formally Used Defense Site (FUDS) on the Big Island. HED is ahead of schedule in clearing an 135,000-acre area of unexploded ordnance.



HED is responsible for the planning, design and construction of the \$153 million C-17 Beddown program which will transform Hickam AFB into a Pacific Mobility hub.



In the Fall of 2004 when Florida and the Gulf Coast were hit in succession by Hurricanes Charley, Frances and Ivan, HED deployed teams to assist FEMA. Teams were also sent to Saipan and Guam to assist with temporary housing, emergency generators, debris management, technical and logistical assistance and GIS mapping.



HED partnered with the Australia Agency for International Development to build a community water system in East Timor thus eliminating the waterborne disease problems which had plagued the 650 residents of Lotan Village.



HED is partnering with Hawaii's Department of Land and Natural Resources on a feasibility study to restore the Ala Wai Watershed and prevent future flooding. The October 30, 2004 Manoa Valley flooding prompted officials to expand the study to include Manoa, Palolo, and Makiki Streams.

# The Present Changing "landscapes"



HED often assists the State of Hawaii with environmental issues. With infestation of salvinia molesta at Lake Wilson, HED utilized scientists from the Corps of Engineers Research and Development Center, Vicksburg, MS.



HED's Kwajalein Resident Office oversaw the building of the 13.5 megawatt power plant on the Kwajalein Atoll Island of Roi Namur. The 34,000 sq. ft. facility houses nine 1,500 kilowatt diesel enginegenerator sets with state-of-the-art controls. It was completed in 2001, two months ahead of schedule.



Several HED members have deployed to Iraq, Afghanistan and the Philippines to help build a foundation for democracy and stability. Shown above is an HED engineer with a group of tribal elders in Iraq.



HED is responsible for the Whole Barracks Renewal Program to provide a better quality of life for single Soldiers. The \$865 million program, in conjunction with the Barracks Upgrade Program, is modernizing and upgrading more than 4,000 single soldiers' quarters at Schofield Barracks, Wheeler Army Airfield and Tripler Army Medical Center.



One of HED's original missions in the early 1900s was to dredge Honolulu and Pearl Harbors to improve navagational safety, a mission that continues today. HED Civil Works Technical Branch engineers coordinate with Portland District, Hawaii State Dept. of Transportation and the U.S. Navy to bring the dredge ship "Essayons" to Honolulu approximately every two years.

The USACE Pacific Regional Visitor Center (RVC) at Ft. DeRussy was renovated with state-of-the-art interactive displays. It's located at Battery Randolph, one of the coastal fortifications built by the Corps in the early 20th century. An average of 1,200 visitors tour the RVC monthly to learn about the Corps' accomplishments and commitment to Hawaii. It's open to the public Tuesday through Sunday from 10 a.m. to 4:30 p.m.





WHEREAS, Lt John R Slattery came to the Hawanan Islands in 1904 to improve the lives of the people by building lighthouses, improving rivers and harbors and constructing coastal military fortifications, and

WHEREAS, the U S Army Corps of Engineers, Honolulu Engineer District, was officially established one century ago on April 15, 1905, and

WHEREAS, the district conducts missions and construction projects in a region of 12 million square miles from Hawai i to Micronesia, thus spanning five time zones, the equator and the International Dateline, and

WHEREAS, over the decades, the men and women of this district have come to exemplify the characteristics of ingenuity, creativity, perseverance and dedication in their service to civilians and military personnel of the state, nation and region, and

WHEREAS, the district has supported the armed forces in times of peace and war, helped defend the island from foreign enemies and forces of nature, protected the environment and promoted Hawai i's economic growth, and

WHEREAS, the district's legacy includes providing disaster assistance throughout the Pacific, creating Sand Island, enlarging Honolulu Harbor, repairing Hickam, Wheeler and Pearl Harbor air fields after the December 1941 attack, and constructing Kane ohe-Kailua Dam, Tripler Army Medical Center, the National Memorial Cemetery of the Pacific at Punchbowl, the Hale Koa Hotel and numerous military and federal facilities, all the while being good stewards of the environment, and

WHEREAS, the district, as a member of the world's preeminent public engineering agency, provides quality and timely engineering services to the nation and its armed forces by supporting the Global War on Terrorism,

NOW, THEREFORE, I, LINDA LINGLE, Governor of Hawaii, do hereby proclaim April 15, 2005, as

# U.S. ARMY CORPS OF ENGINEERS HONOLULU ENGINEER DISTRICT DAY

in the Aloha State, and recognize the century of contributions made by the district on behalf of the people of Hawai i, the nation and the Pacific Region.

DONE at the State Capitol, in the Executive Chambers, Honolulu, State of Hawai 1, this eighth day of April 2005

Linda Lingle Governor, State of Hawai 1

U.S. Army Engineer District, Honolulu ATTN: Public Affairs Office Building 230