

Coast Defense Study Group 2026 Annual Conference to the Coast Defenses of the Oahu - Hawaii

May 5 to May 10, 2026

Part 1: Days 1 to 3

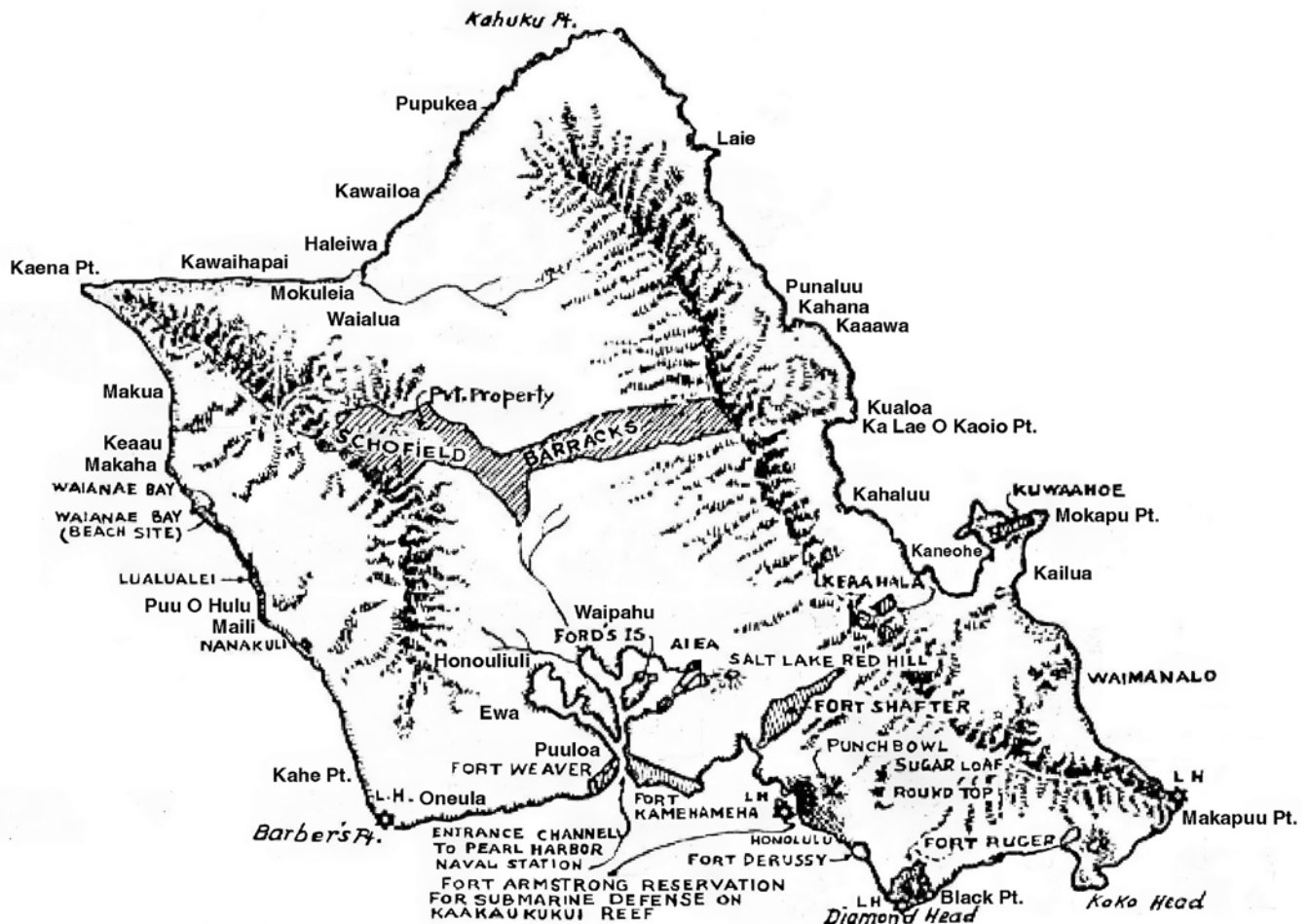
Conference Report by Terry McGovern and AI

The Coast Defense Study Group (CDSG) held a successful annual conference to the coast defense of Oahu from May 5 – 10, 2026. After two years of intense planning, our 62 members were able to visit almost every major site (both inside and out) that our original plan contained. All 15 different site owners came through for us and we owe them special thanks as almost all of these sites are not open to the public and lay behind locked gates and security systems or guards. While we have thanked them directly, I have listed them at the end of this report so they get credit for putting up with us wandering around and taking photographs of these former coast defense sites. One of key factors to the conference's success were the Royal Star drivers of our bus and supporting vans. They came through for us as there was

no site we could not reach because of our ground transport. They also provided us with lunch and water every day. Our conference hotel provided good basic rooms and their breakfast service allowed our members to get to the bus on time. Our registration and banquet needs were provided by the three McGovern daughters (Rebecca, Rachel, and Alana) so we did not need to worry about these logistics. Our 62 members proved that they were able to follow instructions and not turn into wandering cats. That compliance greatly assisted relations with our hosts and got us into structures that were we were originally denied.

We visited over 50 historic structures during our 5 days of field trips and held 15 nightly presentations, I thought I would let AI (with my prompting) do the work of telling the rest of the CDSG membership who did not attend the conference what happened each day. So, the conference begins

The steady hum of conversation at the mandatory 7:00 PM May 5, 2026 orientation briefing in the plain, utilitarian conference room of the Best Western-The Plaza Hotel felt a world away from the postcard-perfect beaches of Waikiki. Surrounded by the



TERRITORY OF HAWAII
OAHU

EDITION OF JUNE 7, 1921.
REVISIONS JUNE 9, 1922

MILES
5 0 5 10 15 20

industrial warehouses and car lots of North Nimitz Highway, 62 members of the Coast Defense Study Group (CDSG) sat shoulder-to-shoulder under flickering fluorescent lights. The air was thick with anticipation for the detailed orientation that would reveal what fortifications they would visit over the next five days. Terry McGovern, the conference chairman, laid out the daily plan and “rules of road” to the CDSG members. Glen Williford, co-founder of the CDSG, then gave a great presentation on the “History of Oahu’s Coast Defenses” so our members would have a good grounding in the sites we would visit over the next five days. For decades, Hawaii’s legendary coastal fortifications had been a “holy grail” for CDSG members—locked behind welded steel doors, hidden deep within active military bases, and entirely out of reach to the public.

The island’s defenses began as a direct result of America’s annexation of the territory, following up rapidly on the 1905 Taft Board recommendations. What started as basic Endicott-period open emplacements designed to repel traditional naval broadsides evolved through the tense pre-war years into a dense, heavily reinforced network of casemated batteries designed to withstand 1-ton armor-piercing projectiles dropped from high-altitude naval bombers. The culmination of these frantic building efforts during World War II resulted in Oahu having the strongest, most complex network of coastal defenses protecting any American harbor by 1945. Members of the CDSG had spent years combing through the National Archives, translating yellowed blueprints and long-classified maps into a master itinerary. That night, the maps were coming to life. The next day, those rusted doors were opening.

Day One: Breaking Ground in the West

The expedition began after breakfast on May 6 as a single, 63-seat coach bus pulled away from the airport hotel. Heading west, the landscape shifted from urban sprawl to the rugged volcanic terrain of the island. The first stop was Fort Barrette on Kapolei Hill, where the group stood inside the concrete footprints of Battery Hatch. Built between 1931 and 1934, these two immense 16-inch guns on barbette carriages were designed to hurl 2,700-pound shells 28 miles out to sea, shielding the western approaches of Pearl Harbor’s naval base. Members walked the massive casemates, examining the underground power room, marveled at the wooden plotting board that still remains in the battery’s PSR, and discussing the complex logistical feat of moving such heavy ordnance to an isolated volcanic hill during the



One of the emplacements of Battery Hatch



Inside one of the emplacements of Battery Hatch



The plotting room and battery commander's station of Battery Hatch



Glen Williford and the plotting board of Battery Hatch

interwar depression years. They noted the reinforced concrete walls and the underground magazines, still smelling faintly of damp earth and old oil. Today, Battery Hatch is largely an empty shell, preserved structurally but picked clean of its mechanisms, showing the steady toll of rust and weathering from decades of exposure to the salty trade winds. After consuming our lunch while arrayed around the battery site, we thanked the City and County of Honolulu Department of Parks and Recreation's crew. They cleared the vegetation, broke open the locks, and cut through the welds on the casemates' doors so we could explore the battery.

The true significance of the conference hit home at Battery Arizona. Here, the members stood in awe before the silent remains of the 14-inch triple-gun naval turret, salvaged from the sunken battleship after the December 7 attack. In a race against a projected Japanese invasion, the Army moved this turret to the volcanic ridge at Kahe Point and constructed a massive underground, bombproof concrete bunker cut deep into the Kahe Point ridge, almost completing it just as the war ended in August 1945. Once operational, the three 14-inch guns were designed to fire 1,500-pound projectiles at surface targets up to 19 miles away. Positioned 300 feet above sea level, Battery Arizona commanded a wide, unobstructed arc over the southern and western waters of Oahu, effectively covering the naval approaches to Pearl Harbor from the west. A central concrete barbette well—matching the depth and diameter of the battleship's internal structure—was cut deep into the rock. CDSG members marveled at the sheer scale of the engineering, tracing the paths from the power room, powder magazine, and shell room into administrative area with a large plotting room. A steel ladder extended up into the darkness allowing one to reach the two-level Battery Commander's Station located behind the turret. Some members attempted to climb the 70-foot vertical ladder but the physical effort proved to be too much. The concrete was rough to the touch, bearing the marks of the gunite sprayed on the tunnel walls by wartime construction crews. Because the battery is on restricted land, the preservation state of Battery Arizona is remarkably intact. It is mostly free from the ever-present graffiti that plagues more accessible ruins, though humidity has left a thick layer of oxidation on the remaining exposed ironwork and the battery's



Battery Arizona's filled in turret ring



Battery Arizona Entrance Portal



Battery Arizona Power Room



Battery Arizona Battery Commander's Station



Battery Arizona Powder Magazine

power room has been completely burned leaving scorched and crumbled machinery on the floor. Waste Management, who runs the Waimanalo Gulch Sanitary Landfill, were great hosts as they gave us the keys to battery's portals and allowed us to ferry our members up the landfill's roads to the battery. They allowed us to visit the tunnels that are under the turret site as long as we wanted



Battery Arizona Powder Hoists



Battery Arizona Plotting Room

to, but our demanding schedule had us ferrying our members in vans and jeeps down to the waiting coach after just two hours.

Our next site on the leeward shore was Pu'u O Hulu, where our members inspected the incomplete casemates of Battery #303, a prime example of the late-war 6-inch shield gun battery that was to replace the obsolete, 7-inch naval guns of Battery Hulu. Battery Hulu was built in 1942 as an emergency coastal defense post following the attack on Pearl Harbor. The military armed this site with two obsolete 7-inch / 45-caliber naval guns salvaged from old pre-dreadnought battleships. Battery #303 was authorized in 1944 to replace Battery Hulu with a permanent,



Our Royal Star bus at Battery Hulu

two 6-inch guns mounted on Model M4 Barbette Carriages (these guns were never installed). These carriages would allow for a high 45-degree elevation, which extended the ballistic range to 27,000 yards to lock down the leeward coast. These emplacements were cleverly tunneled directly into the mountain ridge, offering near-perfect camouflage from both naval and aerial observers. From this vantage point, our members could look out over the Pacific, realizing exactly why tactical planners chose this site to control the western waters. Our host, Frankie Domingcil, the caretaker for Department of Emergency Management (DEM) for the City and County of Honolulu, made sure the two batteries were ready for our visit. After viewing the underground areas of the two batteries, our members scrambled their way up the hillside to Battery #303 battery commander's station that is located 75 feet above the battery. Sweat soaked through shirts,



Frankie Domingcil at Battery Hulu

but the challenge of navigating through the overgrowth kept everyone moving forward while worrying about falling down the steep hillside.

Our members climbed aboard our bus and the coach made its way slowly down the switchbacks to the main road for our ride back to the conference hotel. After a quick dinner at such choices as McDonald's, IHOP, L&L Hawaiian Bar BQ or Big Kahuna's Pizza, our members returned the hotel meeting room for nightly presentations until 10 pm when our exhausted members made their way to their hotel rooms to prepare for another day of field trips.

Day Two: Inside the Steel Ring of Pearl Harbor

May 7th was defined by strict military precision, leaving the hotel promptly at 8:30am. To meet the rigid security requirements of Joint Base Pearl Harbor-Hickam, the group moved as a single tactical unit. Armed with pre-cleared background checks managed by Ned Libby, they rolled past armed guards and sturdy gates to the very heart of the US Navy's Pacific stronghold, where the Army's oldest Hawaiian defenses once stood guard at Fort Kamehameha.

The day was a rapid-fire tour of heavy artillery history, highlighting the Endicott-Taft designs. Guided by Captain Krug USN and LtCol Villamor USAF, our group explored the massive concrete works of Battery Hasbrouck—which once housed eight



Battery Hasbrouck Pit A



Exploring the Corridors of Battery Hasbrouck



Indicator Display at Battery Hasbrouck

devastating 12-inch mortars designed for high-angle plunging fire against thin ship decks—now lost in an overgrown tract of jungle. Our members climbed over the entirety of the abandoned battery and explored deep into its underground rooms that were converted during World War II into the HDCP for Pearl Harbor. We next traveled to Batteries Hawkins (two 3-inch rapid



Battery Hawkins



Fort Kamehameha Mine Casemate

fire guns) and the nearby mine casemate for Pearl Harbor. We also got the chance to view the delict garrison housing for Fort Kamehameha which are subject to a very long dispute between the USAF and historical societies over tearing down these historic quarters. The bus next took us to Battery Jackson (two 6-inch disappearing guns) and the nearby Fort Commander tower (where our members got yelled at for climbing to the top of the tower). Chased back to our bus, we made our way to Battery Selfridge, which once mounted two 12-inch M1895 guns on disappearing carriages. Used by the Hawaiian Air National Guard until recently, the large concrete emplacement is now abandoned. Built between 1907 and 1913, this battery was Pearl Harbor's primary defense for many years. We were greeted by Colonel Horton of the HANG and this team who showed us around the multi-story concrete structure as Colonel Horton told us of his interest in restoring the battery so it could be used as museum and other community uses. Our members enjoyed both visiting



Battery Jackson



Fire Command Tower at Fort Kamehameha



Battery Selfridge



Shell receiving tables at Battery Selfridge

and eating their bagged lunch around the historic battery, which was named for the first human to die during a powered aircraft crash at Fort Myer, VA in 1908.

Our bus rumbled down the access road and passed under the approaches to Honolulu International Airport to reach Battery Closson, which once mounted two formidable 12-inch M1895 guns on long-range barbette carriages. Captain Krug had made special arrangements for us to tour the interior of the battery as originally the Navy had denied our request to do so several times. While heavy tropical bushes choked the exterior facade, the interior of the massive World War II bunker was completely free of vegetation. Stepping inside, the air turned cool and stagnant. Flashlight beams swept across bare concrete floors and wide, single-level corridors engineered for rolling heavy shell carts. The original 12-inch artillery components were long gone, but the



Battery Closson emplacement



Main Corridor in Battery Closson

empty walls revealed fascinating modern artifacts of faded room numbers, painted tactical markers, and simulated breach points—the distinct remains left behind from when elite units used the vacant complex for Special Forces Close Quarters Battle (CQB) training. After photographing the empty magazines converted to shooting rooms and gun casemates filled with abandoned military storage lockers, the group stepped back out into the blinding sun, leaving the silent concrete sentinel.

Our bus rolled over the floating bridge to Ford Island to allow us to document the rarely seen Batteries Henry Adair and Charles T. Boyd which were built in 1917 as the first U.S. military presence on Ford Island. Designed with 6-inch guns to protect Pearl Harbor from land attacks, they were deactivated in 1925. Today, Battery Adair is most famous as a makeshift bomb shelter during the December 7, 1941 attack. In the late 1930s, the Navy had



Entrance to Battery Boyd

built Quarters K—the commanding officer's residence—directly on top of the battery, using the gun emplacements as a massive basement. During the chaos, neighborhood children and wives sheltered inside while their husbands rushed to duty. The Admiral still lives there so we were not invited in, so we continued to Battery Boyd. The Army equipped the casemated emplacement with two 6-inch Armstrong guns to protect Pearl Harbor from infantry invasions. However, the installation became obsolete within eight years. By 1925, the Army removed the guns and transferred the empty structure to the Navy, who repurposed it into an ammunition storage facility. During the December 7, 1941 attack, Japanese bombs destroyed nearby hangars. Though packed with live Navy munitions, Battery Boyd miraculously escaped a direct hit. Today, the empty concrete shell still stands on San Jacinto Street as one of Pearl Harbor's oldest surviving military structures.

The day concluded on Sand Island, where everyone wandered around the remaining emplacements of Battery Harbor, which the Army built on Sand Island in 1942. It was an emergency defense constructed right after the Pearl Harbor attack to protect Honolulu Harbor from a Japanese invasion. Because standard weapons were scarce, engineers scavenged four obsolete 7-inch Navy ship guns to arm the site. To hide the underground ammunition bunkers from enemy spy planes, the military cleverly camouflaged them to look like a locomotive and a train station (not really but AI has mixed today's playground with how the battery looked during WW2). The battery was dismantled in 1945, and the site is now part of the Sand Island State Recreation Area.



Sand Island HECP



Sand Island gun emplacement

We viewed the concrete gun rings and the towering 50-foot steel HECP structure standing along the harbor entrance.

The Royal Star coach's door hissed open, and the CDSG members climbed aboard. They swapped historical notes during the short, twelve-minute ride from Battery Harbor to the Best Western-The Plaza Hotel. Dropped off at the lobby, the group quickly scattered to nearby local joints for independent dinners. By 7:00 PM, everyone reassembled in the hotel's "ballroom," fueled up and ready for an evening of coastal defense presentations. These ranged from King Kamehameha's commandos and fortifications to Coast Artillery Corp's legacy of "precision fires" to a comparison between American and Germany artillery during World War II.

Day Three: From the Punchbowl to the Mule Tunnel

On May 8, the tour focused on Oahu's southern defenses, starting with the solemn, panoramic heights of the Punchbowl, also known as the National Memorial Cemetery of the Pacific. During World War II, the Punchbowl crater served a coast defense role. To defend Honolulu's harbor, the military installed 360-degree concrete Panama mounts armed with mobile 155mm GPF guns. They also began building Battery 304, an underground bunker meant for two 6-inch shield guns. However, the war ended before the big guns could be installed. Stepping off the bus, we were greeted by the Cemetery Director, John Horton, who guided us to the remains of the cemetery's coast defenses. The highlight of our visit came when we bypassed the manicured lawns of the National Memorial Cemetery of the Pacific to tour the remains of Battery 304. Standing before the large, concrete underground



Battery 304 gun emplacement



Battery 304 lateral tunnel

structure, the members swapped stories of its incomplete history—how the war ended before its 6-inch shield guns could ever be installed. Walking inside, they chuckled with appreciation seeing the historic tactical rooms now neatly packed with cemetery lawnmowers, tractors, and maintenance gear. We were able to visit the outdoor site for one of gun emplacements where we viewed downtown Honolulu and Waikiki Beach. After a brief search for the remaining Panama Mount, we returned to our bus to go to our next stop.

Descending to the coast, the group visited Fort DeRussy's Battery Randolph, taking in the historical displays at the US Army Museum of Hawaii housed right inside its massive, 12-foot-thick reinforced concrete walls—walls that easily resisted demolition attempts after WWII. The sheer density of the cement, mixed with local volcanic basalt rock, stands as a testament to the indestructible nature of early 20th-century military masonry. Several of our members were dressed in period coast artillery uniforms so they joined the display at the shell table to show how the large 14-inch shells (those on display are made of foam) were moved to the 14-inch disappearing guns that used to fire the 1,660-pound armor-piercing shells up to a maximum range of 14.2 miles. Our members explored the galleries detailing ancient island warfare and Oahu's coastal "Ring of Steel" artillery defenses. They examined World War II Pearl Harbor artifacts and studied the decorated legacy of the local Nisei soldiers. The group mapped out the museum floor plan to identify where the subterranean plotting rooms once operated. Our demanding tour schedule had us pulling members out of the museum's gift shop to board



Battery Randolph shell room display



7 inch Naval gun on display at U.S. Army Museum of Hawaii

the bus as we thanked Jenna Scholz, the museum's curator, for arranging our visit.

The climax of the day awaited at Fort Ruger, embedded in the iconic slopes of Diamond Head, the birthplace of Oahu's coast artillery in 1909. The group spent hours navigating the labyrinth of Battery Harlow, which once held eight 12-inch mortars, but today is just used for storage. The ultimate highlight was view-



Battery Harlow



Intact mechanical indicator display mechanism at Battery Harlow

ing the rare mechanical indicators that transmitted range and azimuth settings from the plotting room via numeric dials above the mortar pits. We enjoyed eating our lunch arrayed around the battery's pits and magazines.

Stepping out of the tropical sun and into the cool, dark depths of the Mule Tunnel was our next stop as we used vans to take us into the Diamond Head crater. Flashlights illuminated the damp concrete walls of the old Harbor Defense Command Post (HDCP) for the Honolulu area. In this underground complex, officers once sat at plotting boards, synthesizing data from remote fire control stations to direct the island's massive firepower against potential enemy fleets. The echo of boots on the historic concrete floors brought the tense, wartime atmosphere vividly back to life.

Originally, our special van was to take our members up the steep road to the top of the rim to visit Batteries Dodge and Hulings, but our hosts were unable to find the keys to allow us access to these land defense casemates. The batteries were each designed to house two 4.7-inch Armstrong quick-firing rifles on pedestal



Entrance to Battery Dodge



Entrance to Battery Birkhimer



Hawaii Emergency Management Crisis Center

carriages. Unlike traditional open-air coastal batteries, these fortifications housed their guns inside fully covered bomb-proof bunkers integrated into the ridge. The front of each casemate featured a narrow embrasure opening that allowed the 4.7-inch Armstrong rifles to fire outward while remaining shielded. Today, these historic embrasures are permanently sealed with hollow cement blocks, and heavy iron gates keep the interior passageways tightly locked. Instead, the van took CDSG members to Battery Birkhimer inside Diamond Head crater. Our members examined the subterranean fortification, which was specifically engineered in 1916 to house four 12-inch mortars. The operations manager for Hawaii Emergency Management Agency (HI-EMA), which uses the bomb-proof bunker as its active command center today gave us guided tours of the interior of the former battery. The group noted how perfectly the three-to-six-foot-thick reinforced concrete walls now protect modern emergency telecommunications networks. Stepping back out, the members marveled at how a century-old heavy artillery battery evolved into the state's modern crisis center.

Back aboard our bus, we made our way across the crater's floor to the subterranean tunnels of Battery 407, engineered as a World War II H-Type layout carved directly through the solid volcanic basalt of Diamond Head. Our members walked beneath a natural rock overburden up to 100 feet deep that was designed to protect the military installation from heavy aerial bombardment and naval gunfire. Soldiers from the Hawaii National Guard escorted the group through the arched, concrete-lined corridors to show how the 1943 fortress has been retrofitted into a modern Joint Operations Center. The highlight of the tour was examining the empty barbette casemates that project over the cliffside of Diamond Head. These casemates, designed to



Rear Entrance to Battery 407



Battery 407 gun emplacement



Battery 407 interior corridor

protect the two 8-inch Mk VI M3 naval guns on high-elevation M1 barbette carriages, that were never delivered before the war ended in 1945, were designed more for protection from rockfalls, than direct enemy shell fire. Looking over the Pacific Ocean, our members speculated how these guns would have protected Oahu from enemy warships. Retracing our steps we made our way out the underground tunnels to our bus with much thanks to the Hawaiian National Guard, especially to Major Randall Duldulao, who organized getting our permission to visit all the sites at Fort Ruger/Diamond Head.

The bus took us back to the Best Western-The Plaza Hotel for another night for a quick dinner and then presentations on coast defense subjects until 10pm in the “ballroom”. This night’s talks ranged from Oahu’s prefabricated pillboxes to Hawaii’s defenses against chemical attacks.

The concluding second part of this report covering Days 4 and 5 will appear in the next issue (winter 2026) of the CDSG Newsletter.

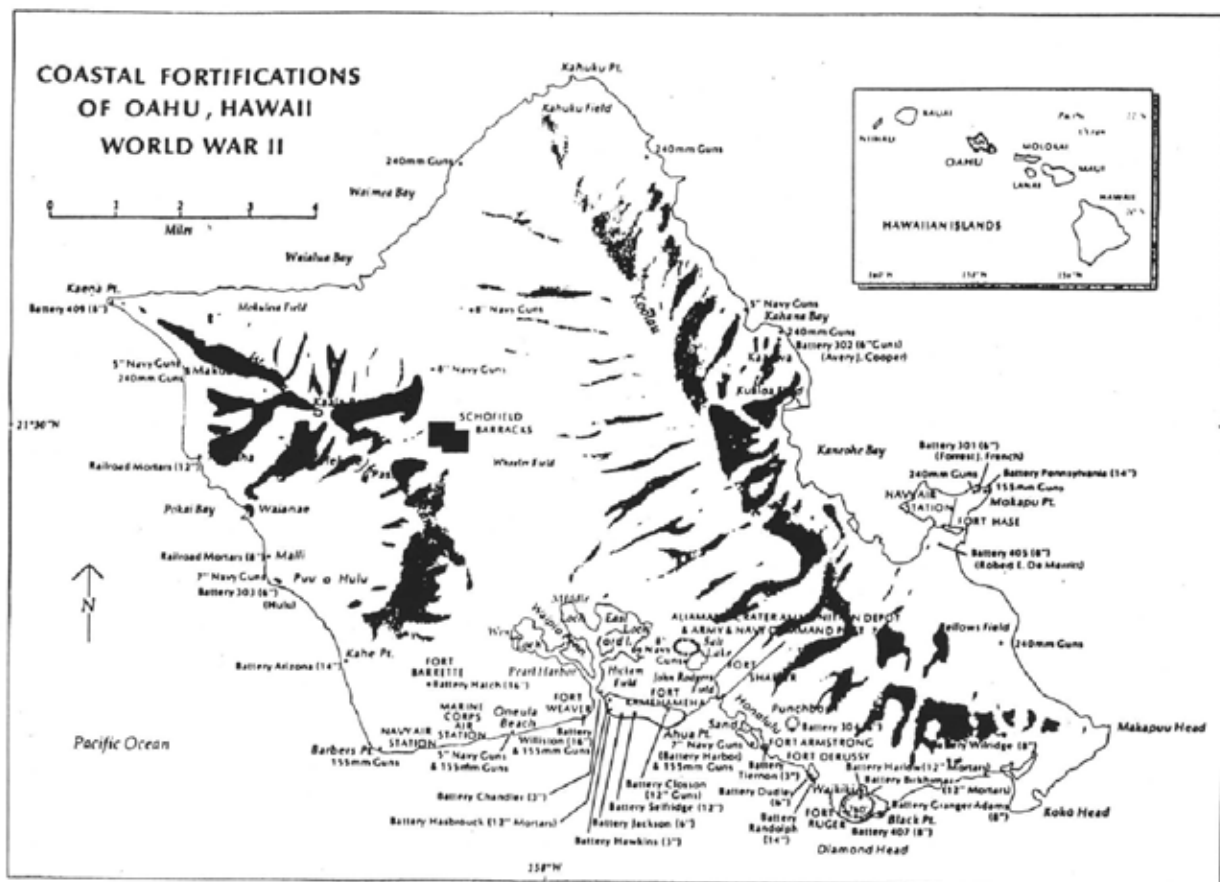
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key factors to the conference's success were the Royal Star drivers of our bus and supporting vans. They came through for us as there was no site we could not reach because of our ground transport. They also provided us with lunch and water every day. Our conference hotel provided good basic rooms and their breakfast service allowed our members to get to the bus on time. Our registration and banquet needs were provided by the three McGovern daughters (Rebecca, Rachel, and Alana) so we did not need to worry about these logistics. Our 62 members proved that they were able to follow instructions and not turn into wandering cats. That compliance greatly assisted relations with our hosts and got us into structures that were we were originally denied.

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Day Four: The Windward Coast and the Final Banquet

May 9 took the group to Oahu's eastern shore, a sector heavily fortified late in the war to protect the naval station at Kaneohe Bay and prevent a possible amphibious landing on the windward beaches. Our bus made its way over the rugged mountain range to take us down to the windward side of Oahu, navigating the lush hillsides of Kailua to make our way to Battery DeMerritt (#405). We were greeted by the battery's owner, Gary Weller, who was standing next to one of the concrete emplacements that once mounted two 8-inch Mark VI M3A2 naval guns on barbette carriages. Because the open guns lacked armored



The entrance to Battery DeMerritt



One of the gun emplacements for Battery DeMerritt



Some of the Thrift Shop tables

shields, the military had constructed unique metal lath frameworks over the emplacement to camouflage the artillery piece as a harmless farmhouse rooftop, but our members noted that this metal framework had been removed by the current owner. Our members moved past the outdoor emplacements to explore the subterranean infrastructure, where the powder magazines, shell rooms, power room, and tactical plotting spaces were tunneled directly into the defensive hillside. The owner explained that after its 1950 decommissioning, the underground tunnel complex was repurposed as a commercial mushroom farm before being sandblasted decades later to serve as a secure digital data center. Currently the battery is occupied by a cat shelter and host site for countless unloved articles for monthly sale to the public to fund the upkeep of the old and tired cats.

The coach moved directly downhill to arrive at Marine Corps Base Hawaii (MCBH) on the Mokapu Peninsula. Waiting for us at the gate was 1st Lt John O'Hara, our liaison and escort for our



Battery French

time at the base. Thanks to months of diplomatic coordination and chain of command interactions, our security cleared members were able swiftly move through the main gate and allowed to visit all three of our coast defense objectives at MCBH. Our first stop was MCBH golf course, not for golf but for van transport to ferry us to Battery French (#301) which is located in front of a commanding general's home. Battery French was constructed using the standard design of the 1940 Program 6-inch shielded barbette gun battery. The only difference was a staircase from inside the battery to the battery commander's station located on the roof. Today, the battery serves as the control center for the U.S. Navy's Wave Energy Test Site. Subsea cables run directly from the old ammunition rooms into the deep ocean, capturing the power of ocean waves from high-tech floating buoys and turning it into clean electricity for the military base. Our visit caused the general's staff to probe why 65 people were in front of his home, but luckily one of our CDSG members, who is retired Rear Admiral, was able to assure them that we were not a threat. The Marine Corp vans ferried us back to our bus so we could reach our next stop.

Deep inside the secure MCBH Ammunition Storage Area lies the World War II Harbor Defense Command Post for Kaneohe Bay. Escorted by several Marine vehicles and guards, our bus made its way to the HDCP. We were required to leave our cameras and any device that could create a flame on the bus. Carved through multiple levels of solid volcanic rock to survive heavy bombing, the upper levels served as protected spaces for tracking targets on plotting tables and telephone switchboards, while the lower levels safely isolated radios and backup generators. Today, with the equipment entirely cleared out, the multi-level tunnels are maintained by the military—standing as a silent blueprint of the tactical brain that once defended Oahu's shores.

Our bus then traveled into the Ulupa'u crater, where our bus driver carefully crossed the modern Marine firing range under military escort, stopping at the rugged perimeter of Ulupa'u crater where we could see the Pacific Ocean crashing to the cliffs about 400 feet directly below us. From there, our members climbed through a bustling, federally protected colony of nesting Red-footed Booby birds to reach Battery Pennsylvania's three concrete portals. The group then ascended to the very top of the crater rim to look straight down into the exposed, 70-foot-deep turret well. This massive concrete cylinder was bored vertically into the volcanic rock to replicate the 42.5-foot diameter tracking



Battery Pennsylvania Battery Commander's station



Battery Pennsylvania Turret well



One of Battery Pennsylvania Entrance Portals



Battery Pennsylvania



Battery Pennsylvania Turret Well

tolerances required to support the salvaged, three-gun armored turret of the USS *Arizona*. Afterward, we gained rare access to step inside the underground complex. Moving into the pitch-dark interior, we visited the powder and shell magazines, the turret well, a large power room, and other support area, including the battery's plotting room. Walking these flat, silent tunnels beneath the many feet of volcanic rock, we stood at the exact operational hub where the resurrected 14-inch guns fired their lone, historic salvo on August 10, 1945. Sadly, the battery was deactivated soon afterwards and the turret and machinery were scrapped. Returning to our bus we thanked our Marine escort and especially 1st Lt. John O'Hara for making our visit to MCBH so successful.



Battery Pennsylvania Plotting Room

Our bus took us around Kane'ohe Bay to Battery Cooper (#302) at Kualoa Ranch. This battery consists of a 150-foot network of concrete-lined tunnels bored directly into the cliffside volcanic rock to protect the northern channels of Kane'ohe Bay. Our members analyzed the physical layout where two 6-inch guns once sat on long-range M1 shielded barbette carriages, tracing the



Battery Pennsylvania Powder Lift



Battery Cooper Emplacement



One of Battery Cooper's Magazines



Battery Pennsylvania Power Room



Battery Cooper's BC

tunnels that were used to transport high-capacity ammunition from isolated rear magazines out to the open-front casemates. Today, the ranch operates these pristine tunnels as a walk-through museum, packing the rooms with memorabilia and props from blockbusters like Jurassic Park, Lost, Hawaii Five-0, and Godzilla. The group hoped to inspect the Battery Commander's Station perched higher up the cliff but due to time constraints and the steep, restricted ladder climb, the members did not get an opportunity to visit the observation post, thus focusing their study entirely on the main horizontal tunnel complex below. We thanked David Morgan and Robert Patturua for providing local transport and guiding us through the battery. Our bus made its way over the steep mountain range to the Best Western-The Plaza Hotel and dropped us off for the last time.



The McGovern Girls serve the Banquet

That evening, we held our traditional annual banquet in the hotel's "ballroom." Our meal of Hawaiian barbeque was provided by Rebecca, Rachel, and Alana McGovern who arranged and served the dinner to our hungry members. Ned Libby, Chairman of the CDSG, conducted the CDSG Annual Business Meeting, where he recapped last year's activities and the coming year's plans (see separate write up in the May's newsletter for details). He called upon the committee chairmen to give reports on their committee's activities (some in person and others by written form). The Board then held a Q&A session for members. The conference was then officially over and our members celebrated a flawless operation knowing they had just experienced an itinerary that would likely never be repeated.



The Chow Line for the Banquet

Day Five: The Rugged Reconnaissance

For a dedicated core of 42 CDSG members, May 10 was the ultimate endurance test. Bypassing the coach bus, members packed into shared, rented 4-wheel-drive vehicles to tackle the island's unmaintained backcountry, tracing the evolution of coastal defense into the missile age. Our first challenge was to match up our non-driving members with the dozen 4-wheel-drive vehicles rented by our driver members as we gathered in the roadway behind our hotel at 7:30am. Once formed up into a convoy, we headed west to the leeward side of Oahu. Climb-



Our convoy of 4-wheel drive vehicles ing up the foothills of the Wai'anae Range, we meet Mr. McD Philpotts, our guide and the land manager for the Palehua Ranch, at the first of several gates along the winding dirt road that would lead us the Cold War-era OA-63-L/C Nike Site. Following him higher into rugged, volcanic hills our 4x4s grounded to a halt on a shelf of the Ewa district hills, their tires caked in slick, wet clay. The CDSG members stepped out directly into the dual-battery Launch Area of Site OA-63, positioned below the high tracking radars of Puu Manawahua. The expansive concrete pads glistened from recent downpours. The usually arid Makakilo hillside had turned a vibrant green, with fresh grass sprouting thick through the fissures in the tarmac as roaming cattle feasted on the green growth. Our members immediately fanned out across the open-air configuration—a layout unique to Hawaii that completely



The entrance Gate to the Nike Launch area

discarded the underground silos used on the mainland. They traced the faded metal blast shields where five-ton, nuclear-capable Nike-Hercules missiles were once positioned to be launched. Around the launch pads were the earthen blast berms, which were originally engineered to deflect the 260,000-pound thrust of a booster rocket launch over the Pacific. Farther up the hillside stood the weathered remains of the Garrison Area. Damp air circulated through the hollowed-out barracks and skeletal mess hall where missile crews once lived on permanent 24-hour launch alerts. At the perimeter, rusted double-fence



An Above Ground Nike Storage/Launch Pad



The Missile Warhead Building

lines and concrete guard shacks stood out sharply against the newly green hillsides, marking where the final line of defense once stood to protect the nuclear-capable warheads. Our members explored these structures before returning to our vehicles so we could make our way down the rugged dirt road to make our way to our next target.

Our convoy of vehicles raced up the center valley of Oahu, passing by Scholfield Barracks to reach the North Shore. We gathered at the first of three locked gates that we needed to pass through to reach the Opauea Ranch on private Bishop Estate lands. Traveling five miles over a rough dirt road we almost missed the faint outline of the access road as jungle has completely swallowed the abandoned World War II site of Battery Carroll G. Riggs. In early 1942, the military salvaged large 8-inch/55-caliber twin-gun naval turrets from the aircraft carriers USS *Lexington* and USS *Saratoga*, dragging the heavy 187-ton mounts up these



Hunting for the Battery Emplacement

ridges to defend against a Japanese invasion. Fighting through the thick canopy, our members cleared the paths to both Barbette No. 1 and Barbette No. 2—the two circular steel and concrete rings embedded in the damp earth. Though the turrets themselves were scrapped in 1948, the steel and concrete underground structures still marked where the carrier guns once pointed. Skirting the edge of the rings, the group located the entrances to their respective underground magazines. Descending a flight of concrete stairs into the ground, our members descended into the subterranean chambers that once safely stored the heavy 8-inch projectiles and powder bags. After searching out the other structures, such as the



Battery Riggs Number 2 turret Emplacement



Battery Riggs Magazine

BC, plotting rooms, and the power room, that made up battery, our members, refreshed with cold water, loaded up to head for our next objective. At the last minute we realized that one of members was not accounted for so we returned to the battery site to locate our lost member. Luckily, we were able to locate him in the thick jungle where he got bogged down. Now with all accounted for we backtracked down the rough road to the North Shore so we could head the far southeast of the island. Our success in visit Battery Riggs was due to Mr. Keith Chang, land manager, for the Kamehameha School /Bishop Estate, who arranged for us to visit the site and to get us through the locked gates.

Our destination was Battery Lewis S. Kirkpatrick (Wiliwilinui Ridge) where two twin 8-inch naval turrets were positioned as the highest elevation location for any permanent Coast Artillery Corp battery, sitting at an elevation of 1,200 feet above sea level high in the Ko'olau Mountain Range. Our 4x4 vehicles wound up the affluent subdivision of Wiliwilinui Ridge for several miles, where drivers simply asked the gatehouse guard for a hiking pass before continuing the steep mile-and-a-half climb to the trailhead parking lot. Stepping out, our CDSG members did not realize that the ruins of Battery Kirkpatrick completely surrounded



Battery Kirkpatrick Barbette #2

them. Modern development had altered the site, with a multi-million-dollar luxury home placing Barbette No. 1 and the Battery Commander's Station permanently off-limits. Fortunately, the rest of the battery remained accessible if you knew where to look for it. Pushing into the lush forest near the start of the trail, the group first explored the deeply buried power room bunker, a concrete structure built to protect the diesel generators. Moving deeper into the green canopy, they reached Barbette No. 2 and descended its concrete stairs into the subterranean ammunition magazines. Finally, we hiked back across to the opposite side of the parking area to locate the underground plotting room. Inside this underground reinforced concrete bunker, their flashlights cut through the darkness to spot the remains of the battery's plotting board where soldiers once calculated firing data.

As the sun dipped low in the Oahu horizon, signaling the true end of our campaign, the exhaustion was entirely eclipsed by a collective sense of triumph. We had breached the sealed defenses of America's strongest historic harbor, turning a lifetime of archival research into an unforgettable, firsthand reality, documenting the fragile, fading state of these concrete sentinels before time can erase them completely.

The CDSG thanks for following site owners and their representatives:

Battery Hatch – Christine Ching, Administrator, Park Maintenance & Recreations Services, Jack Torres, Leeward Oahu District Manager, Dept of Parks and Recreation

Battery Arizona – Tina Alder, District Manager, Waste Management of Hawaii

Batteries Hulu and #303 – Jeff Spencer, Emergency Management Specialist, DEM, Honolulu

Fort Kamehameha and Ford Island/JBPHH – Captain Kurtis Krug, Chief Staff Officer, JB-PH-H, Captain Samuel White, Commander, JB-PH-H

Battery Harbor – Martha Yent, Archeologist, Hawaiian State



Battery Kirkpatrick Magazine Entrance

Parks

Punchbowl – Jim Horton, Director, National Memorial Cemetery of the Pacific, Dept of VA

Fort DeRussy/US Army Museum – Jenna Scholz, Museum Curator, Hawaii Army Museums

Fort Ruger/Diamond Head – Major Randall Duldulao, Land Manager, State of Hawaii, DOD

Battery DeMerritt – Gary Weller, Owner, Battery #405

Fort Hase/MCBH – 1st Lt John O'Hara, S-5, Engagement, Communication, & Government Affairs, Kristi Kaluhiwa, S-5, Engagement, Communication, & Government Affairs

Battery Cooper – David Morgan, Owner, Kualoa Ranch, Robert Pascua, Sales Manager, Kualoa Ranch

OA-63-Nike Launch Site – McD Phipotts, Property Manager, Palehua Ranch, Paul Alston, Trustee, Palehua Ranch

Battery Riggs – Keith K.A Chang, Land Asset Manager, Kahameha Schools

Battery Kirkpatrick - Waialae Iki 5 Community Association, Trail access to Wiliwilinui Ridge Trail

Joint Army-Navy Command Center – No access due to site is been use for a modern C2F facility

The following CDSG members attended the 2026 CDSG Annual Conference to Oahu:

James Anderson III, Doug Asbjornsen, Matthew Bell, Mark Berhow, Aaron Buda, Carl Chappell, Steven Combs, Nigel Cunningham, Marvin Dryden, Craig Dyson, Julie Ann Dyson, William Evensen, Nancy Farrell, Mike Fiorini, Morgan Ford, Karl Fritz, Alan Fyson, Maurice Gehlen, Carl Gray, Michael Griesmer, Robert Grimm, Alan Hardey, Bridget Hart, Roy Hatanaka, Marvin Heinze, Christopher Herrmann, Maniusz Jachimowicz, Thomas Kavanagh, Brandon Kovaly, Michael Kovaly, Francisco Lacy, Edmund Libby, Daniel Lindley, Scott Loomer, William Lyles, Ben Mackey, Danny Malone, Michael Malone, Terrance McGovern, J. Bryce McWalter, Glen Milam, Bruce Nordmark, Scott Nordmark, Peter Nowicki, Jason Ockrassa, Phil Payette, Paul Prentiss, Richard Sanchez, Richard Schilb, John Scholes, Jenna Scholz, James Smith, Peter Smith, Roger Stevens, Rolf Thoendel, James Touza, Robert Walk, Mark Warren, Glen Wiliford, Ian Wolfe, Richard Wong, Charles Woodman





CDSG Fund

The CDSG Fund supports the efforts of the Coast Defense Study Group by raising funds for preservation and interpretation of American seacoast defenses. The CDSG Fund is seeking donations for projects supporting its goals.

Visit the CDSG.ORG website for more details.

The goals of the CDSG and CDSG Fund are the following:

- * Educational study of coast defenses
- * Technical research and documentation of coast defenses
- * Preservation of coast defense sites, equipment, and records for current and future generations
- * Accurate coast defense site interpretations
- * Assistance to groups interested in preservation and interpretation of coast defense sites

Donations are tax-deductible for federal tax purposes as the CDSG is a 501(c)(3) organization, and 100% of your gift will go to project grants. Major contributions are acknowledged annually. Make checks or money orders payable in US funds to: Coast Defense Study Group Fund or the CDSG Fund. Donations can also be made by credit card through the CDSG website at www.cdsg.org.

The Fund is always seeking proposals for the monetary support of preservation and interpretation projects at former coast defense sites and museums. A one-page proposal briefly describing the site, the organization doing the work, and the proposed work or outcome should be sent to the address below. Successful proposals are usually distinct projects rather than general requests for donations. Ideally, we desire to fund several \$1,500 to \$5,000 grants per year. Upon conclusion of a project a short report suitable for publication in the CDSG *Newsletter* is requested. The trustees shall review such requests and pass their recommendation onto the CDSG Board of Directors for approval. The trustees for the CDSG Fund are Terry McGovern, Mark Berhow and Glen Milam.

Send donations to (and made out to):

CDSG Fund c/o Glen Milam
22150 Pondsville Road, Smithsburg, MD 21783

Or use your credit card via PayPal on the www.cdsg.org website.

Send Fund Project requests to:

CDSG Fund c/o Terry McGovern
1700 Oak Lane, McLean, VA 22101-3326 USA

Please prepare a written request of your need and how your request relates to the goals of the CDSG.



CDSG Logo Hats, Shirts & Patches

The CDSG is pleased to offer custom-made hats, T-shirts and patches to our membership. Wearing these hats, T-shirts and patches are a great way to make others aware of the CDSG and its goals. It is also an excellent way to promote joining the CDSG.

The CDSG patches have been available for several years. Designed especially for the CDSG, these quality patches combine the Coast Artillery Corps, the Ordnance Corps, and the Corps of Engineers symbols to reflect their involvement in U.S. coastal defenses. This logo is now on hats and a set of T-shirts which are great for showing the CDSG "flag."

To order your hat, T-shirt or patch, please complete the order form below and send it along with your check (made out to CDSG, Inc.) to Terry McGovern at 1700 Oak Lane, McLean, VA 22101-3326 USA (e-mail: tcmcgovern@att.net).

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Black T-shirt with white ink:

Size & # ___L ___XL ___2XL ___3XL

Red T-Shirt with white ink:

Size & # ___L ___XL ___2XL ___3XL

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Size & # ___L ___XL ___2XL ___3XL

Navy T-shirt with yellow ink:

Size & # ___L ___XL ___2XL ___3XL

Total Number: _____ times \$ _____ = Total \$ _____
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Be sure to include your name and shipping address.

You can also order online at cdsg.org/shopping/

* * *

Support the CDSG.org and FortWiki.com Websites

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The Coast Defense Study Group <https://cdsg.org>

The *CDSG Newsletter* is published quarterly by the Coast Defense Study Group, Inc. along with the *Coast Defense Journal*. Submissions for the newsletter should be sent to the editor or publisher below.

Submission deadlines are the first of the month in February, May, August, and November of each calendar year. All rights are reserved. Comments on business matters should be addressed directly to the Chairman of the Board of Directors.

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Mark Berhow, Publisher
PO Box 6124, Peoria, IL 61601
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The CDSG is a non-profit corporation formed to promote the study of coast defenses and fortifications, their history, architecture, technology, and strategic and tactical employment. The purposes of the group include educational research and documentation, preservation of historic sites, site interpretation, and assistance to other organizations interested in the preservation and interpretation of coast defense sites. Membership in the CDSG is open to any person interested in the study of the coast defenses and fortifications of the United States.

Annual dues are \$50 domestic printed and foreign electronic, \$60 for Canada printed, and \$100 for international printed. Join/renew online at cdsg.org.

Checks payable to: The Coast Defense Study Group, Inc. (CDSG)
Send to:

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CDSG Press Books

Prices below include domestic shipping
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Both items:	\$45
<i>Seacoast Artillery Weapons</i> (Army Technical Manual 4-210, 13 Oct. 1944) paper back reprint.	\$25
<i>The Service of Coast Artillery</i> , by F. Hines and F.W. Ward (1910), hardcover reprint	\$40
<i>Permanent Fortifications and Sea-Coast Defenses</i> , Congressional Report No. 62, U.S. House of Rep. (1862), hardcover reprint	\$30
<i>Handbook of American Coast Artillery Matériel</i> , Ordnance Doc. #2042, (1922), Hardcover reprint	\$45
<i>The Endicott and Taft Reports</i> , reprint of original reports of 1886, 1905, 1915, hardcover, with plates included in a separate paperback	\$45
<i>Artillerists and Engineers, the Beginnings of American Seacoast Fortifications, 1794-1815</i> , by Arthur P. Wade, paperback, (2010)	\$25
<i>American Seacoast Defenses: A Reference Guide</i> , Third Edition, revised edited by Mark Berhow (2023), hardcover	\$45
<i>Historic Fortifications Preservation Handbook</i> , 2003 guide to preservation methods spiral bound softcover	\$15
<i>WWII Harbor Defenses of San Diego</i> , 2021 by H.R. Everett also available from Amazon	\$50
<i>American Seacoast Forts, a Directory</i> Vol 1, North Atlantic Coast	\$40
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