

Introduction

San Clemente Island (SCI) is the southernmost of the eight California Channel Islands. It lies 55 nautical miles (nm) south of Long Beach and 68 nm west of San Diego (Figure 1). The island is approximately 21 miles long and is 4-1/2 miles across at its widest point. It consists of approximately 36,200 acres, with its highest elevation of 1,964 feet located at Mount Thirst.

Since 1934, the island has been owned and operated by various naval commands. More than a dozen range and operational areas are clustered within a 60-mile radius of the island. The Commander-in-Chief, Naval Forces, Pacific (CINCPACFLT) is the major claimant for the island, and the

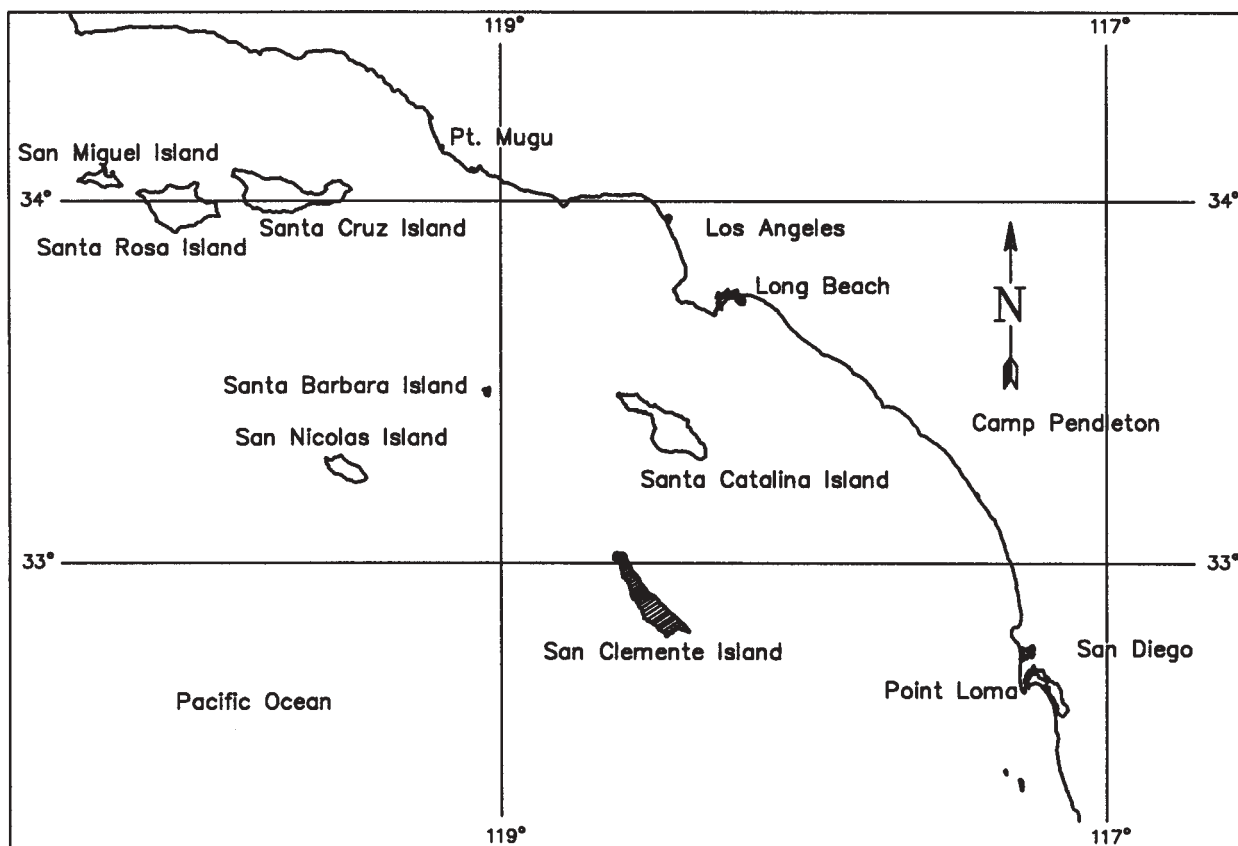


Figure 1. Location of San Clemente Island.

Naval Air Station, North Island (NASNI) is responsible for its administration.

The San Clemente Island Range Complex (SCIRC) is the cornerstone of the tactical training ranges supporting the Southern California Operations Area (SOCAL). SOCAL supports the largest concentration of naval forces in the world. The SCI land, air, and sea ranges provide the U.S. Navy, U.S. Marine Corps, and other military services, space and facilities which they use to conduct readiness training and test and evaluation activities. SCI's distance from the mainland and its complete Navy ownership make the island and its surrounding area ideal for fleet training, weapon and electronics system testing, and research and development activities.

There have been a number of documents prepared that describe the early human history of San Clemente Island, dating back as far as 8000 years. Maritime-adapted Indian cultures occupied the island for most of that time, until their removal by California Spanish colonists. The 19th and early 20th centuries brought periods of sea otter and seal hunting, whaling, sheep ranching, smuggling, and the Chinese abalone industry. This document however, assembles chronologically, the military, and research and development history of the island since the Navy's first use in 1932.

The 1930's

1

1932

San Clemente Island's impact on the Navy was present as early as 1932. During the summer, four scouting aircraft on training flights out of NAS, San Diego, made emergency landings at San Clemente Island.¹

1933

On January 5, 1933, the San Clemente Sheep Company, leaseholders on the island, granted the U.S. Navy Department a permit to establish, maintain, and use an emergency landing field on San Clemente Island.² (See Appendix A.) The Chief of Naval Operations then, on March 17, 1933, authorized the use of San Clemente Island as an Emergency Landing Field (ELF).

Following the fleet departure for maneuvers in Hawaii, NAS, San Diego utilized this time for facility maintenance. One project called for the construction of an emergency landing field on San Clemente Island. The construction expedition sailed for San Clemente Island and arrived in a storm which was lashing Wilson Cove, and which prevented landing. The sea calmed during the night and materials were put ashore. The next day was worse and no landing could be made until noon. The dory was out of commission, thus transportation through the kelp was a whale boat pulled by manpower. The working party landed on the island full of enthusiasm, but only one team of ponies was available to pull the outfit over five miles of mountain road. Instead of the horses pulling, the men actually had to push the wagons and horses over most of the road. It took two hours to travel the five miles. This left only three hours of daylight for work. By then most of the enthusiasm had disappeared - it lay in scattered fragments among the large rocks that had been broken up by sledge hammers. The last day of the project the weather cooperated and the expedition was able to work all day. By dark the job was completed, ready for the fleet aircraft in distress. Two days later the field was successfully tested by an OL-9 aircraft.¹

1934

The first in a series of Fleet Battle Group tactical and amphibious exercises at San Clemente Island, combining elements of the Army, Navy, and Marine Corps, took place 18-21 February. Naval units included the battleships Pennsylvania (BB-38), California (BB-44), Arizona (BB-39), and Ne-

vada (BB-36), and the aircraft carrier Lexington (CV-2).³

One area of experimental tactics employed included the exercising of intentional radio interference (jamming) to disrupt enemy communications. This exercise also pointed out the need to avoid enemy interference. In addition, the need for development of a machine to encipher and transmit radio signals and messages simultaneously, was evident in the delays encountered in covered communications.⁴

One of the exercise observers, from the U.S. Army Headquarters, 9th Area Command at the Presidio in San Francisco, was Lt. Col. Joseph W. “Vinegar Joe” Stillwell, who later distinguished himself during WWII as the Commander of Forces in the Southeast Asia campaign, and specifically Burma.⁵

(Author’s Note: The USS Arizona (BB-39), USS California (BB-44), and USS Nevada (BB-36) would later be lost or damaged at Pearl Harbor. The USS Lexington (CV-2) was lost in the battle of Midway in May of 1942.)

President Franklin D. Roosevelt, by Executive Order No. 6897 dated November 7, 1934, transferred the control of San Clemente Island from the Department of Commerce to the Secretary of the Navy “for naval purposes.”⁶ (See Appendix B.) Original planning had San Nicholas Island designated for this purpose.

The Fleet Machine Gun Range (50 Caliber) was established half-way down Flasher Road leading to the north end of West Shore Rd.⁷

1935

The island’s military value had for a number of years been recognized by the Navy. They made plans to establish a fighter-aircraft training base.¹ In 1935 the Navy moved civilian workmen out to the prospective naval base to build barracks, roads, and a pier at Wilson Cove.⁸

1936

Thirteen major administrative, utility, and personnel support facilities were constructed at Camp Tarrant (Wilson Cove) which included the communications and operations building (60101), headquarters building (60102), the galley-mess hall (60103), the fire station (60143), the pier (60145), several personnel berthing facilities (Figure 2), and a number of utility support structures.⁹ (See Appendix C.)

In the Fall, the Navy tugboat USS Koko, while towing a barge, went aground in a dense fog at the southern end of Northwest Harbor. Her navigator mistakenly thought this was the entrance to Wilson Cove. She was unsalvageable and remained on the rocks for years.¹⁰

The “racetrack” mobile targets range was constructed on the west coast south of West Cove and the sand dunes area. This range was used for gunfire support training from offshore boats to the west, and the Fleet Machine Gun School Range and weapons emplacements located on the bluff to the east. Target balloons were released from a concrete bunker near the west shore.¹¹

(Author’s Note: In January 2001, the author hiked down to this bunker. Inside was the following inscription scratched into the concrete: “V.C. Harlidge, VP Eleven, U.S. Navy, San Diego, July 12, 1940.” This bunker in later years was named “Capitaine Observation Station” by the Naval Undersea Center R & D projects personnel. This name referenced the U.S. Coast and Geodetic Survey



Official U.S. Navy Photo

Figure 2. Original buildings constructed in Wilson Cove (1936).

marker located nearby.)

1937

On January 25, an Aerological Station was established and commenced operation on the Island.¹²

The island was now named *The U.S. Fleet Training Base, San Clemente Island* and the support facilities at Wilson's Cove were named Camp Tarrant (for Vice Admiral W. T. Tarrant, Commander Attack Force.) The U.S. Army Western Defense Command listed San Clemente Island as a Naval Auxiliary Air Station, Fleet Training Base, and Free Gunnery School.¹³

The U.S. Fleet Landing Exercise No. 3 (Flex 3) was conducted during the period January 30-February 18, 1937, IAW U.S. Attack Force Operation Plans 1-37 and 2-37. Participants included the FMF 1st Marine Brigade from Quantico, 2nd Marine Brigade, San Diego; the U.S. Army 1st Expeditionary Brigade, various naval elements of Battleship Division One including the USS Wyoming (AG-17), USS New York (BB-34), USS Utah (BB-31), and USS Nevada (BB-36), Cruiser Divisions 4 & 5 including the USS Salt Lake City (CA-25), and USS Houston (CL-81), and Destroyer Division 11.

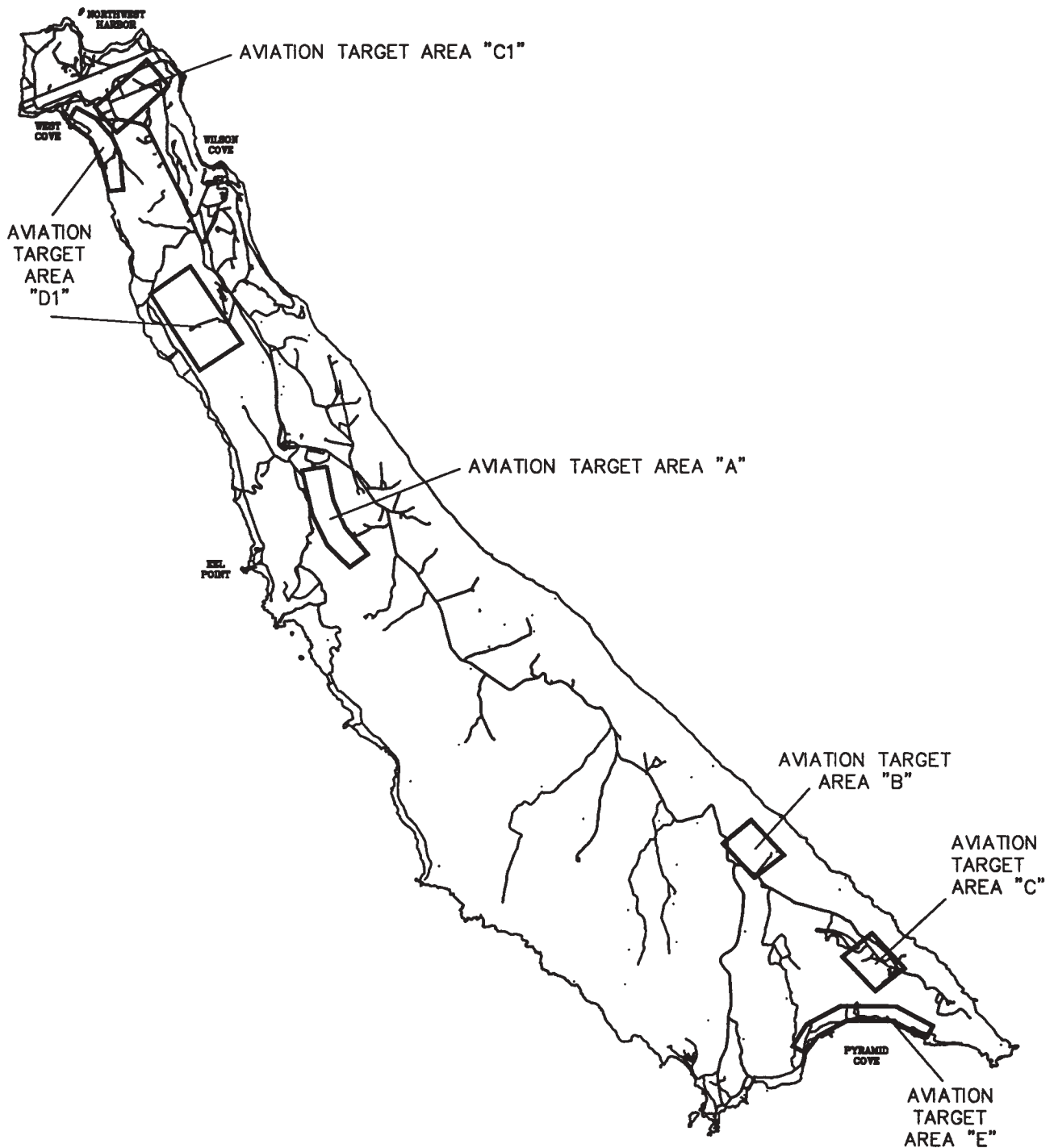


Figure 3. Aviation Target Areas - Fleet Exercise #3 (1937).

Two aircraft squadrons, from Quantico, VA. and North Island, comprised of VF, VO, VB, and VJ aircraft, also participated. Figure 3 depicts the aviation target areas for these squadrons during this exercise.

The mission: "To capture SAN CLEMENTE ISLAND." Mission information: "The hostile land force consists of a reinforced regiment, supported by light artillery, 155 MM guns, anti-aircraft artillery, and aviation not exceeding twenty planes. The UNITED STATES FLEET will provide protection against attack by enemy surface vessels. Attack by submarines is possible." The total amphibious landing force was comprised of approximately 4700 Army and Marine Corps personnel.¹⁴ Tragically, while firing a scheduled secondary battery practice on board the USS Wyoming on the last day of the exercises at San Clemente Island, an explosion occurred in the #13 5-inch gun mount, killing one officer and six enlisted personnel. Thirteen other personnel were injured in the blast.

(Author's Note: The USS Utah AG-16, now converted to an aerial bombing target configuration, would be one of the victims of the attack on Pearl Harbor. The USS Houston (CL-81) of this exercise, would later be lost on 1 March 1942 in the battle of Sundra Strait off the Netherlands East Indies.)¹⁵

This exercise brought out very clearly several points in connection with amphibious landing operations. Naval vessels were not well adapted to transporting landing forces. "The crowded conditions, and the lack of adequate boats are a great handicap," wrote Lt. Col. B.W. Gally, U.S. Marine Corps, Atlantic Squadron (1939). "It is believed that suitable transports should be built or acquired, and that they be constantly available for transportation of the Fleet Marine Force."¹⁶ These findings contributed major impetus to the development of a specialized "Naval Amphibious Force."

The San Clemente Exercise, and similar operations at Culebra and Vieques in the Caribbean, proved exceedingly valuable for training boat crews under conditions of heavy surf. It also proved conclusively that a special type landing boat with superior power, maneuverability, surf-riding qualities and protection was a highly desirable adjunct to the equipment for landing operations. The Higgins boat, or Landing Craft Vehicle Personnel (LCVP) was to be the result of these requirements. After WWII, General Dwight David Eisenhower stated, "If Higgins had not designed and built those LCVP's, we never could have landed over an open beach. The whole strategy of the war would have been different."¹⁷ Thus were two of the major impacts of San Clemente Island on the outcome of WWII, and our nation's history.

A major contribution to the success of these 1936-1938 training exercises at San Clemente Island, as stated in post-operational analysis, and which is still a key element in the training evolutions of our Pacific Fleet, was the islands close proximity to support bases at San Pedro, San Diego, and Camp Pendleton.¹⁶ (The Naval Base at San Pedro, CA., has since been deactivated.)

On July 1st, the first Marine Corps detachment was assigned to the U.S. Fleet Training Base, San Clemente Island. This detachment was made up of one Captain, and twenty-five enlisted personnel (Figure 4).^{18 & 19}

The second largest shark tooth ever found, was located at an altitude of 611' in Chalk Canyon by Corporal William E. Davis, Battery D, 10th Marines. It measured 4-1/2" in length by 2" in width. It was estimated that this shark must have been at least 60 feet in length.¹⁰

Several additional berthing structures were constructed, including the two oceanfront cottages (60134 & 60135) in Wilson Cove, presently used for VIP and visitor housing.⁹



Official U.S. Navy Photo

Figure 4. Marine Corps personnel conducting Field Hospital Training (1937).

The small arms target butts were constructed one-mile northwest of Camp Tarrant (Wilson's Cove) and included 200, 300, 500, 600, 800, and 1000 yard firing positions. These butts can still be seen to the west of San Clemente Island Ridge Road enroute to the airfield from Wilson Cove. Also, a pistol range was installed 0.6 miles northwest of the camp across from the recreation area presently called Billy Mills Field.²⁰

President Roosevelt, by Executive Order dated November 20, 1937, established the area of water surrounding San Clemente Island and extending from the low-water mark out for a distance of three hundred yards, as a defensive sea area for national defense.²¹

1938

During the period 3-15 January, a Battle Force led by the USS California BB-44 (Figure 5) and including Battleship Divisions 1, 2 & 3, Cruiser Division 3, Destroyer Squadrons 1 & 14, and the Aircraft Battle Force, conducted major bombing and naval gunfire exercises at the island.

The landing force was comprised of the First Marine Brigade from Quantico, VA; Second Marine Brigade from San Diego; the First Expeditionary Brigade, U.S. Army, composed largely of troops from the 30th Infantry stationed at west coast posts.²²



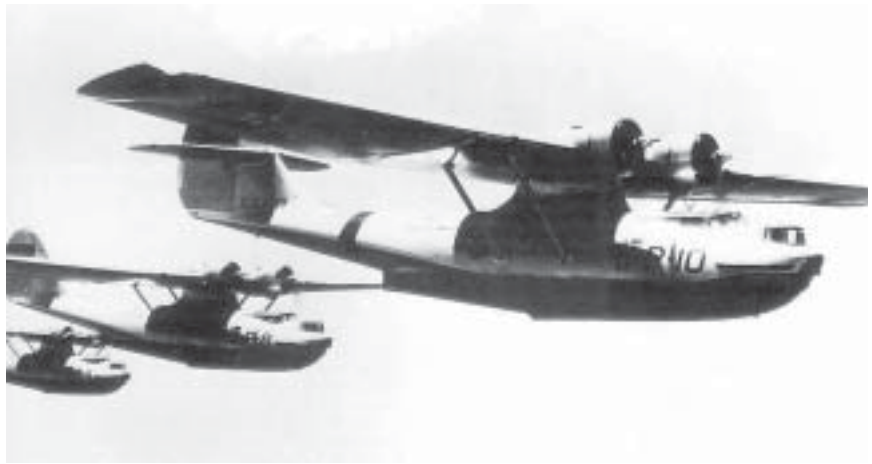
Official U.S. Navy Photo

Figure 5. USS California BB-44 (1938).

On January 21st, a civilian maintenance force for island facilities and infrastructure was established.⁸

On February 2nd, two PBY “Catalina” patrol aircraft attached to VP-11, and based at NAS, North Island (Figure 6), collided at night in scattered clouds. One crashed in flames with no survivors. The other dove into the ocean near a line of battleships. Boats

from the USS Tennessee (BB-43) picked up 4 enlisted men. One of the rescued survivors later died aboard the hospital ship USS Relief (AH-1) anchored at San Clemente Island. This accident occurred during fleet maneuvers with 96 warships and 200 aircraft.²³



Official U.S. Navy Photo

Figure 6. Consolidated PBY “Catalina” Aircraft of VP-11 (1937).

President Roosevelt, on February 5, 1938, issued an amendment to Executive Order 6897 of November 7, 1934, correcting the western longitudinal limitation to read 118°- 36’- 30” W.²⁴

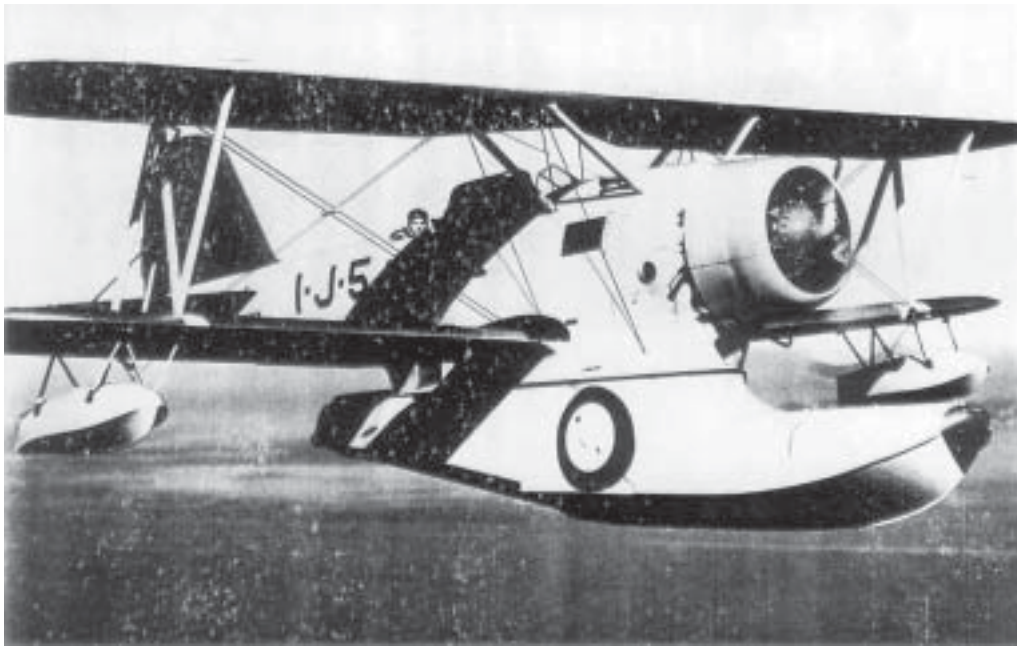
Construction of a permanent airfield up on the central plateau was begun in 1938, and included hangars and a paved road connecting the airfield with Wilson Cove.⁸ One of the old steel truss hangars from the Army’s Rockwell Field (North Island,) when transferred to the Navy, was moved to this new airfield.¹

1939

A small army of WPA workers were at San Clemente Island during the spring months building a permanent airbase there, a strictly “hush-hush” project. Designed to house an entire air group, the field would include a 3000 foot runway, a large 200 X 220 foot hangar, barracks, mess hall, store rooms, bomb storage, gasoline, and anything necessary to support gunnery, bouncing drills, refresher landings, night flying, and other practices that might be desired. When the project was finished, a ship such as Ranger (CV-4) could anchor at Pyramid Cove, and be ready to operate in minutes with no long hauls to operating areas.¹

In April & May, the 2nd Battalion, 10th Marines, supported by a unit from Aircraft Two of the Fleet Marine Force (FMF) at NAS, San Diego, conducted a series of landing exercises representing a rehearsal period for the naval attack force preparing to seize, occupy or defend the base. Special emphasis was placed on anti-aircraft defenses, evacuation of wounded, supply arrangements, and FMF units functioning as part of a naval attack force.

During the summer, Utility Squadron 2 adopted a mascot at North Island. They brought a nursing bottle-sized baby lamb back from San Clemente Island, and the squadron took it to raise.¹



Official U.S. Navy Photo

Figure 7. Grumman JF-1 of Squadron VJ-1, Shore-Based at NAS, San Diego.

Shuttle transportation between NAS, San Diego, and San Clemente Island, for naval personnel stationed at the airfield, was by Grumman JF-1 amphibious aircraft (Figure 7). This aircraft was attached to Carrier Aircraft Service Unit 5.¹

The entire Fleet Marine Force conducted three weeks of Amphibious Landing Exercise #7 on the island. Aircraft from NAS, San Diego, provided air support during this training.¹

The 1940's **2**

1940

In July, the Marines stationed at North Island conducted operations on the island. The 2nd Marine Aircraft Group reported the following: “The high point of a camouflagers dream was accomplished in the work of the radio trailer during recent ‘warfare.’ So well was the trailer hidden in one of the canyons of San Clemente Island, that the man who superintended the camouflaging could not find the trailer from the air. There was also excellent experience gained in the camouflaging of planes and the secreting of them in the protective terrain of the island.”¹ The Marine encampment was located on the plateau area above Wilson Cove (Figure 8).

On September 9th, Executive Order 8536 established the “San Clemente Island Naval Defensive Sea Area, California.” This area extended out to seaward 2000 yards from the shoreline low water mark.²⁵

A grade school for seven island personnel dependent children was established in October. The teacher was furnished by the Los Angeles City Schools.¹⁰ This school was located in the building that is now used for the island Security Headquarters (Bldg 60151). The fathers of several of these children were Station Medical Officer Lieutenant Commander S. E. Flynn, (MC) USN, and Air Operations Officer for the new airfield, Lieutenant Thomas F. Carlin, USN.²⁶



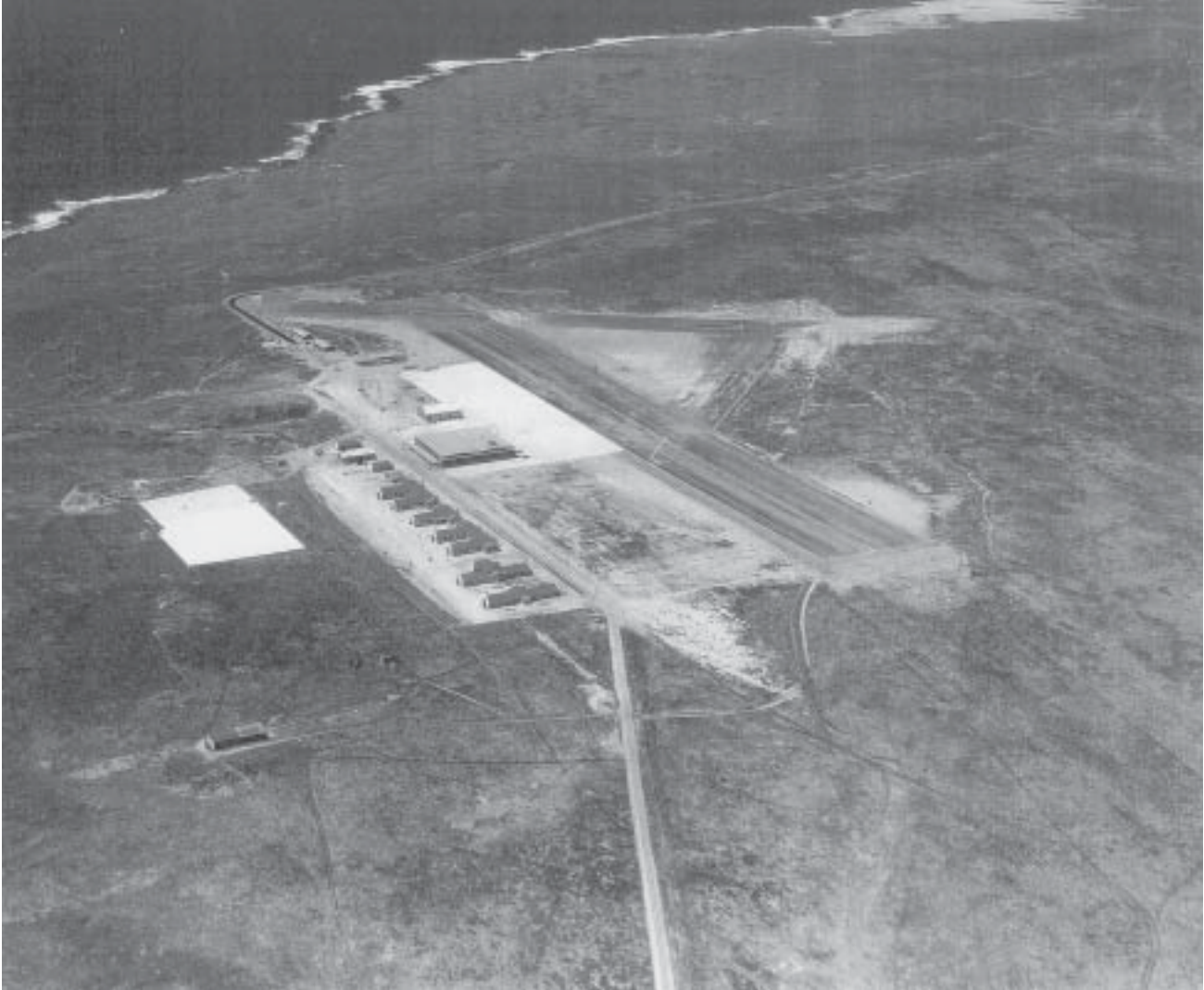
Official U.S. Navy Photo

Figure 8. Marine encampment above Wilson Cove (1940).

1941

The Naval Air Station, San Clemente Island, was now fully operational. The new airfield, as it appeared in May of this year, is depicted in Figure 9.

In June, the Fleet Machine Gun School was reopened for training.²⁷



Official U.S. Navy Photo

Figure 9. Naval Air Station (NAS), San Clemente Island (1941).

On December 7th, the following dispatches were received: ²⁸

CINCPAC 071630 – TO ALL SHIPS HAWAIIAN AREA: “AIR RAID ON PEARL HARBOR. THIS IS NO DRILL.”

CINCPAC 071842 – TO PACIFIC FLEET: “HOSTILITIES COMMENCED WITH AIR RAID ON PEARL.”

SECNAV 071930/142 – “EXECUTE W.P.L. 46 AGAINST JAPAN.”

RADIO S.F. 072115 – Readdressed by COMELEVEN to ALSTA 11th Naval District: “TAKE DISTRESS ORGANIZATION.”

SECNAV 072221 - Directed: “NAVY, MARINE, AND COAST GUARD PERSONNEL TO WEAR UNIFORM AT ALL TIMES WHILE ON DUTY AND WHEN TRAVELING BY GOVERNMENT CONVEYANCE.”

SECNAV 072336/144 – Placed: “NAVAL CENSORSHIP IN EFFECT.”

During the period December 8th thru the 11th, the following dispatches were received, and appropriate actions were taken:

COMELEVEN 080155 – Required: “POINT HEUNEME, ARGUELLO, IMPERIAL BEACH, AND POINT FIRMIN TO DISCONTINUE GIVING DIRECTION FINDER SERVICE IMMEDIATELY.”

OPNAV 081447 – Directed: “DISCONTINUANCE OF ALL PLAIN LANGUAGE RADIO WEATHER REPORTS.”

COMELEVEN 081815 – stated: “AIRCRAFT WARNING SERVICE TO BE IN OPERATION” and required “ALL STATIONS TO CARRY OUT PROCEDURES FOR REPORTING AIRCRAFT.”

December 8 - “CONGRESS ON THIS DATE DECLARED WAR ON JAPAN.”

The Commanding Officer, Fleet Training Base, directed general nightly blackout of San Clemente Island including the navigational light at Wilson Cove.

SECNAV issued the “NAVY MUST LEAD THE WAY” dispatch.

SECNAV directed instructions governing maritime and aerial warfare of May 1941 be placed in effect subject to modifications and supplementary instructions.

NOB SAN PEDRO 100642 – Readdressed by COMELEVEN as follows: “ARMY FILTER CONTROL ADVISES THEY ARE PREPARED TO OPEN FIRE ON ALL UNIDENTIFIED PLANES. TO AVOID FIRING ON FRIENDLY PLANES, FILTER CONTROL REQUESTS THEY BE INFORMED WHEN NAVAL FLYING OPERATIONS MAY BE EXPECTED.”

SECNAV 111423/149 – “GERMANY HAS DECLARED WAR ON THE UNITED STATES.”

SECNAV 111451/150 – “EXECUTE WPL 46 AGAINST GERMANY AND ITALY IN ADDITION TO JAPAN.”

SECNAV 111456/151 – “ITALY HAS DECLARED WAR ON THE UNITED STATES.”

COMELEVEN 111545 – “EXECUTE WPL 46 AGAINST ITALY AND GERMANY.”

December 11th - “THE CONGRESS OF THE UNITED STATES DECLARED WAR ON GERMANY AND ITALY THIS DATE.”

On the 19th, the Golden Trepte Construction Company completed construction of the NW-SE runway of the Naval Aviation Facility, and departed for the mainland.²⁸

In the early morning hours of the 22nd, light flares and searchlights were observed indicating possible enemy activities in the vicinity of Pyramid Cove. A report of the circumstances was dispatched to COMELEVEN. A reconnaissance flight was conducted around the island, as three observers reported sightings of a submarine. A flight of two Marine Corps SBC-4 aircraft was assigned as a temporary striking and observation force for San Clemente Island.²⁸

1942

Following commencement of WWII hostilities, the Navy in early 1942 accelerated use of the Shore Bombardment Area (SHOBA) at the southern end of the island for fleet training. (Years later in 1997, the author would have the privilege of escorting one of the original naval gunfire spotters down into the SHOBA area. His mission in 1942 was to drive the ridge along the length of the island in a jeep, set up his pup-tent and camp, and then using his crank-powered walkie-talkie radio, perform call-fire exercises for fleet units operating in the Pyramid Cove area.⁹)

On the 17th of March, three officers and ninety-three men of the 184th Infantry, U.S. Army, and two officers and forty-four men of the 654th Signal Corps, U.S. Army, were assigned to the island for defensive purposes, and operation and protection of the Army Radar installations. Two days later, two officers and fifty-nine additional men of Company "A", 184th Infantry, U.S. Army, arrived from the mainland to augment the force presently on the island. Part of this 184th Infantry defensive force was relieved four days later by one officer and one hundred thirty men of the 140th Infantry, U.S. Army. This unit was assigned under the direction of the Commanding Officer, Fleet Training Base, in case of emergency.²⁸

During the period 27 March - 18 April, elements of Carlson's Raiders (2nd Raider Battalion-U.S. Marine Corps,) deployed on the new high speed transports U.S.S. CALHOUN (APD-2), U.S.S. GREGORY (APD-3) and U.S.S. LITTLE (APD-4) and conducted training on the island. This training



Official U.S. Navy Photo

Figure 10. Carlson's Raiders practicing Rubber Boat Assault (April 1942).

included day and night amphibious landings in rubber rafts, rifle, pistol, machine gun and mortar firing, and offensive and defensive field tactics (Figure 10). These landings simulated deployment from a submarine, and landings on a hostile beach. Upon completion of these exercises, the Raiders deployed to Hawaii, and then on to their heroic actions in the South Pacific.²⁸ (See Appendix D.)

Personnel of the First and Second Marine Aircraft Wings, Fleet Marine Force, completed anti-aircraft gunnery practice on the island.²⁸

A grass fire was started on the northwest end of San Clemente Island by tracer bullets fired by Army units during training maneuvers. This fire was extinguished without damage to any installations or buildings. The Army Detachment Commander was warned to permit no use of tracer ammunition in grassy areas during dry weather.²⁸

On 19 May, the U.S. Navy Dirigible L-6 from Moffett Field, CA, made two moorings at the Naval Aviation Facilities, San Clemente Island. These trips to the island were made in connection with establishment of Lighter-Than-Air facilities here. The L-6 made two additional moorings on the following day (Figure 11).²⁸

Nine explosive ordnance magazines were constructed mid-island. Also airfield support facilities, and containment areas, were constructed four miles south of Wilson Cove for logistics support and training.⁹

On June 9th, received dispatch stating: “On 5 June 1942, United States recognized state of war exists with Rumania, Hungary and Bulgaria. Also 1 June 1942, Mexico declared state of war had existed with Germany, Italy and Japan since 22 May 1942.”²⁸

Mr. R.R. Kennedy, Engineer, and Mr. C. Marliave, geologist, arrived via airplane to make a study of dam sites and drainage areas in connection with proposed water collection and purification system, construction of which was soon to be inaugurated.²⁸

On July 16th, an Army launch “James J. Meyler” docked at Wilson Cove having transported one officer and six enlisted army personnel from the 161st Field Artillery Battery, U.S. Army, with one .50 caliber antiaircraft machine gun. This gun was to be set up in the vicinity of radar equipment and manned by these personnel.²⁸

At 0950, on 20 August, the island radio station intercepted a message from the U.S.S YP-410 to Commanding Officer, Section Base, San Diego, California, to effect that YP-410 was attacking an enemy submarine in area Edith 35. San Clemente Island was immediately placed on alert and the Commandant was informed by dispatch as to further action taken. Scouting patrols composed of Army, Navy, and Marine forces deployed along the west shore line from Northwest Harbor to China Point. By sundown, patrols were recalled and a strong guard placed around the Wilson Cove area,



Official U.S. Navy Photo

Figure 11. U.S. Navy Dirigible L-6 (1942).

and the Air Station. A reserve defense force composed of available Army, Navy, and Marine Corps personnel was held in readiness. Additional outlying sentry posts were manned by Marines. Civil service personnel were held in readiness for non-combatant duty.²⁸

In September, the U.S.S YP-410 while on patrol, flashed a message that she was being fired upon by shore batteries of San Clemente Island. This proved later to be an unauthorized short burst of machine gun fire across the bow as a warning by a unit of the 140th Infantry, U.S. Army, assigned to guard the radar installation on the island.²⁸

On October 20th, Lt. T. F. Carlin, USN (Ret), the first Air Operations Officer for the San Clemente Island Naval Aviation Facility, was detached to assume duties as Commanding Officer, Carrier Aircraft Service Unit No. 5.²⁸

1943

The following is an excerpt from the Eleventh Naval District, United States Fleet Training Base, San Clemente Island, War Diary dated 16 February 1943:

“Mission: U.S. Fleet Training Base, San Clemente Island, California, established by Navy Department General Order No. 120, functions as a training base for bombardment practice by units of fleet, surf landing and allied military training and maneuvers by troops. Aerial bombing practice on land and water targets. Machine gun and small arms target practice. Complete training facilities are found in pamphlet ‘Miscellaneous Information, United States Fleet Training Base, including Aviation Facilities, San Clemente Island, California.’

In addition to training facilities, San Clemente Island also functions as an outlying observation post by use of radar and coastal lookout stations.

With exception of radar installations which are under cognizance of Army, all other activities located on San Clemente Island function under the Commanding Officer, U.S. Fleet Training Base, who is also Officer-In-Charge, Auxiliary Air Facility, San Clemente Island.”²⁸

A lecture was presented, with pictures, to all base personnel by the Medical Officer. The subject: Venereal Diseases.²⁸

In March, Army and Marine Corps Reinforced Infantry Battalions, supported by a battle group composed of the battleships Idaho, Nevada, and Pennsylvania, conducted naval gunfire, counter-battery, close support artillery, and amphibious landing exercises in the SHOBA area.²⁸

Also in March, a photographic party of ten men from U.S. Pacific Fleet Task Force THREE arrived via the U.S.S. YF-270 for temporary duty in connection with aircraft bombing practice to be held in vicinity of Seal Cove. A bomb-proof shelter for the photographic party was being constructed in this area.²⁸

On April 1st, two 1600-pound bombs, and three 1000-pounds were dropped in the Seal Cove area in connection with Bureau of Ordnance bombing tests. This was the first of a large series of heavy ordnance to be dropped in Seal Cove.²⁸

On April 5th, the 130th Field Artillery, U.S. Army, reported aboard the island to reinforce island defensive forces.²⁸

On April 15th, one hundred one men, including five officers, from the 71st Division, U.S. Army, made night landings via rubber boats at Northwest Harbor from the U.S.S. NARWHAL (W-167). These men were again housed and subsisted at the Fleet Training Base upon completion of operations carried out in accordance with Operations Order Number 1-43, U.S. Pacific Fleet Task Group Seventeen Point Nine. The U.S.S. NARWHAL anchored in Wilson Cove at 2315.²⁸

On April 20th, the Pyramid Cove area was again machine gunned by a group of eight Grumman Wildcats without previous notification of contemplated firing exercises. Army personnel attached to Radar Station No. 4, China Point, were narrowly missed by machine gun fire.²⁸

One LCT, two LCM(3)'s and two LOV's arrived at Pyramid Cove from Landing Craft School, Boat Basin, Camp Pendleton, California, to conduct three days of experimental firing of 75 mm and coaxial .30 caliber machine guns from medium tanks embarked in LCM(3) tank lighters. About fourteen officer observers of Experimental Board of Tank Firing and fifty enlisted men were quartered at the Auxiliary Air Facility on the island.²⁸⁸

On April 22, six F4F Grumman "Wildcat" aircraft from the U.S.S. NASSUA (CVE-16) made emergency landings on the island due to fog and shortage of fuel. A crash on the flight deck of the NASSUA prevented their return to that ship. Four of the planes landed safely at the Emergency Landing Field near Northwest Harbor. A fifth aircraft landed in the vicinity of Middle Ranch, sustaining minor damage to the tail assembly, and right landing gear. The sixth aircraft crash landed on the island in the vicinity of Land Bombing Target No. 7, sustaining major damage. The pilot was critically injured and was airlifted via ambulance plane to San Diego.

Later that same day, another SOC-4 scouting aircraft from the NASSUA landed at the Emergency Landing Field. Following take-off, the pilot made an emergency landing in the vicinity of Middle Ranch, sustaining damage to both wheels. After being repaired, the aircraft took off, but lost a wheel in the process. It however, landed safely back at North Island.²⁷

Sixty men from Company "D", 770th Military Police Battalion, U.S. Army, reported aboard the island as a security force for all U.S. Army installations on the island.²⁸

In July, the 601st Field Artillery Battalion, U.S. Army reported aboard the island as relief for the 130th Field Artillery, U.S. Army.²⁸

Two groundings by vessels occurred in August. The merchant tanker S.S. Gulf Queen ran aground in West Cove, and was re-floated without major damage six days later. However, the purse seiner "Frances" ran aground one mile north of Pyramid Head and was unsalvageable.²⁸

During 1943-44, Chief Boatswains Mate Frank Kuhlow, a wounded Pearl Harbor survivor, was assigned to limited duty on the island, in charge of a security (lookout) group of fourteen personnel. This detachment was composed of Chief Kuhlow, 12 lookout personnel, and a cook. They were stationed in lookout towers at the North Head (North) and Pyramid Head (South) areas of the island.²⁹

The U.S. Army Southern California Sector-Western Defense Command listed San Clemente Island as a *Naval Auxiliary Air Station (NAAS)*, Fleet Tug Base, and with a Free Gunnery School located at Wilson Cove.³⁰

1944

In February, manning at the Naval Auxiliary Air Facility (NAAF), San Clemente Island, was one hundred officers, and six hundred and fifty-six men. This number included one hundred and seventy U.S. Army personnel. Activities now included two Argus Units, one Utility Squadron Detachment, one Combat Information Center Training Unit, an Army Radar Unit, and a detachment of men at the Aviation Free Gunnery School.³¹

Also in February, the U.S. Army 710th Tank Battalion conducted an amphibious landing exercise from LST's in the Pyramid Cove and China Point areas (Figure 12).³²

In March and April, elements of the U.S. Army Task Group 137, 81st Division, conducted maneuvers on the island, which included amphibious landing exercises of troops (Figure 13).³²

Commander Fleet Air West Coast was contemplating basing of a large fighter squadron consisting of thirty-six planes and a CASU Unit of approximately six officers and one hundred seventy-three men at the Naval Auxiliary Air Facility.³³

1945

On 18 July 1945, a metal pre-fab (UB-80) structure was built to house the new Naval Auxil-



Official U.S. Navy Photo

Figure 12. U.S. Army 710th Tank Battalion Landing (1944).



Official U.S. Navy Photo

Figure 13. U.S. Army 81st Infantry Division Amphibious Assault (April 1944).

itary Air Station (NAAS) Special Projects School for Douglas R5D aircraft line maintenance training. However, this on-island training was terminated on 15 December 1945.¹

1946

The Naval Auxiliary Air Station (NAAS), San Clemente Island was placed in a caretaker status.³⁴

In the first major amphibious training exercise since the war, the nation's three forces combined to stage landings on the island and Aliso Canyon just north of Oceanside. This force included elements of the Amphibious Forces, Pacific Fleet, the Second Infantry Division, the Second Engineer Special Brigade, as well as Army, Navy and Marine Corps aircraft. One division landed on the island on November 12, under cover of naval gunfire, with air support provided by Naval and Marine Corps planes from fleet units, and Army planes from the 12th Air Force based at March Field near Riverside, Calif.³⁵



Official U.S. Navy Photo

Figure 14. USS Turner DDR-834 (1947).

1947

Throughout the war, seagoing Marines proved themselves by their marksmanship and ability aboard combat ships of the Navy. During a course of advanced training, each class of trainees deployed for one week on board the destroyer USS William M. Wood (DD-715), to fire 20mm and 40mm anti-aircraft guns at towed sleeves and remotely controlled drone targets. This training took place off of San Clemente Island. Each evening the Woods would anchor in Pyramid Cove.³⁶

In August, the author's ship, the USS Turner (DDR-834) (Figure 14), in company with the other ships of DESDIV-132, conducted shore bombardment exercises in SHOBA for several days prior to deploying to Tsingtao, China for an 8-month tour of duty. The other destroyers of the division were: USS Charles P. Cecil (DDR-835), USS Furse (DDR-882), and USS Newman K. Perry (DDR-883).⁹

1948

First Division Marines loaded landing craft with amphibious tanks and other vehicles preparatory to a full-scale assault to be conducted on February 10 at Aliso Canyon north of Oceanside. During the preceding week, the 2,500 men of the 6th Marines who went aboard ship in San Diego, engaged in practice at the Coronado Strand and on San Clemente Island. The troops embarked on

LST's, LSM's, attack cargo vessels and transports. Naval Air Station flyers added a realistic touch to the San Clemente Island landings with a pre-invasion bombing attack.³⁷

During the mainland landings, heavy seas and turbulent surf conditions developing 10-15 foot breakers caused the LCM's and LCP's to return to their respective transports. Approximately 800 men were returned safely. The Amtraks, unable to return through the bow ramps of their mother ships, were ordered to attempt to reach shore. Five of them were swamped in the heavy surf, throwing 35 men into the sea. Tragically, 2 Marines were drowned.³⁸

1949

In February, an FJ-1 "Fury" made an emergency landing on the San Clemente Island airstrip. This was thought to be the "first" landing on the island by a jet aircraft. As there was no service or repair facilities available, the station R4D was dispatched with a repair crew and a full load of jet fuel in order to get the small bird back in the air. All went well. After repairs were made, the "Fury" was refueled from the tanks of the R4D by means of an auxiliary transfer pump and a length of hose. The jet was soon ready to fly.¹

San Clemente Island was in a caretaker status at this time, with only four maintenance personnel on site. The Naval Ordnance Test Station (NOTS), China Lake, began using the island as a test and evaluation range on an occasional basis.³⁴

The 1950's

3

1950

Basic Underwater Demolition School (BUDS) commenced training Underwater Demolition Team (UDT) personnel on the island. The initial tent camp was established at Northwest Cove.⁹

Early in the 1950's, the San Clemente Island National Forest was designated. This forest, in the words of Colonel Lawrence B. Bixby, U.S. Army (Ret.), "is a sight which must be seen to be appreciated."³⁹ New visitors to the island are routinely cautioned to carry a compass when entering the forest unescorted.

1951

NOTS Pasadena contracted with the 11th Naval District in San Diego, to use the Navy's underwater test ranges at SCI.⁴⁰

The Naval Auxiliary Air Station (NAAS), San Clemente Island, was redesignated as an Outlying Landing Field (OLF) to Naval Air Station, San Diego.³⁴

The U. S. Air Force (USAF) 670th Aircraft Control & Warning Squadron (AC&W) from Norton Air Force Base, established a radar station manned by approximately 200 military and 25 civilian technician personnel. These operations were in support of the North American Air Defense (NORAD) command. Barracks, BOQ and messing facilities were improved for their use. The USAF assumed responsibility for logistic support, utilities, Wilson Cove maintenance and messing.³⁴

1952

NOTS initiated the installation of an underwater rocket range haul-down winch facility at Ben Weston's Cove, two miles south of Wilson Cove. Piers, access roads and numerous tracking camera sites were constructed.³⁴

Operations at the San Clemente Island airstrip as an outlying field were started again on a limited scale.¹

1953

Administration of San Clemente Island was transferred to Commander, Naval Amphibious Force-Pacific, at the Naval Amphibious Base (NAVPHIBASE), Coronado, under Bureau of Personnel (BUPERS), and a complement of 15 naval personnel were assigned to the island.³⁴

The East Shore Range was established for shore and underwater launched missiles with ranges up to 15 miles. This range was used for a number of missile tests. Also, the Torpedo Warshot Range was installed south of the NOTS Pier area for exploder and warhead evaluation for all Navy torpedoes.³⁴

UDT training now included floating mine demolition from HOS-type helicopters. This was accomplished in the Northwest Cove area firing 45 cal. Thompson sub-machine guns at the mines.⁴¹

1956

In another NOTS test and evaluation program, rocket-assisted torpedoes (RAT) were launched on the west side of the island at the new Eel Point Shallow Water Range.

For the next several years, well into the 60's, a variety of sub-surface and surface-launched projects were conducted at the island (i.e., Mk-13, 32, 43 & 44 torpedoes, Polaris, ASROC, SUBROC, Weapon "Alpha" and "RAP").⁴⁰ (Figure 15)

1957

An 18-day training exercise, employing more than 30,000 Marines and 20,000 Navy men, was conducted off the coast. This exercise called "Operation Ski-Jump," constituted the first realistic full-scale operation of the "vertical envelopment" concept. It reached its climactic point when Marine assault forces hit the Camp Pendleton beaches by helicopter from the new "copter-carrier," the USS Thetis Bay (CVHA-1). The initial phase of the exercise began with heavy shore bombardment at San Clemente Island.⁴²



Official U.S. Navy Photo

Figure 15. Anti-Submarine Rocket (ASROC) launch.

The "Operation Pop-Up" project began at the NOTS Pier test facility. This was the testing that preceded the actual underwater launching of a Polaris missile.³⁴

The Navy awarded a 6.3 million dollar military contract to four Stanton, CA., construction firms to build a 9,350-foot long concrete runway and missile site base. This runway was to be located at the north end of the island just south of Northwest Harbor and would be capable of handling heavy jet aircraft.⁸

In December, the 1st Marine Division, 3rd Armored conducted waterborne Amphibious Vehicle Tracked-Howitzer (LVTH) firing in SHOBA.⁴¹

1958

The Polaris test program was started. Air Force messing facilities could not accommodate increased NOTS personnel; therefore the messing, custodial and guard services were civilian-contracted in March. Public Works support for Polaris tests, maintenance, and minor construction was provided by Public Works Department, China Lake, on a shift basis. NOTS, China Lake use of SCI showed a marked increase with the start of Polaris testing.³⁴

1959

The Chief of Naval Operations (CNO) reassigned island responsibility from BUPERS to Bureau of Aeronautics (BUAER) and designated the airfield as an *Auxiliary Landing Field (ALF)* to NAS, North Island. In April, the island administrative control was transferred from the Commander, Naval Amphibious Force, Pacific, to Commander, NAS, North Island.³⁴

The Polaris Pop-Up Range construction for underwater launch testing was implemented, including a partial grain firing. Equipment was barge-mounted except for shore-based telemetry, control and staging facilities. The SUBROC Range was established south of the Polaris Range.³⁴

An article entitled “San Clemente Island - A Sailors Paradise,” in the NAS, North Island weekly newspaper, “*The North Islander*,” dated December 4, 1959, quoted the Officer-in-Charge LCDR W. R. Gibbs as saying, “San Clemente Island duty is one of the best the Navy has to offer.” T. Hutton, BU1, added: “This island is tops. The liberty is good, the recreation is about the greatest, and there is never any boredom. It’s truly the answer to a sailors dream of a duty paradise.”⁴⁵

Three Navy officers and 39 enlisted men, along with 200 Air Force officers and men, and 25 civilian technicians and specialists, now manned and maintained a radar site and the airstrip.³⁹

The 1960's

4

1960

The first successful powered underwater firing of the Polaris missile was conducted at the NOTS pier test area in April (Figure 16). This 67th launch of a Polaris missile from the island test range, marked a new milestone. This was the first underwater launch of a test vehicle that contained a live first stage booster. Its second stage booster was inert. Future tests were to be full-range vehicles with the booster burning for one minute, followed by a second stage burning an equal length of time to slam the Polaris to hypersonic speeds over ranges of 1,035 to 1,380 statute miles.⁴⁰

A helicopter launched MK-46 torpedo, from approximately a 2000 yard range, successfully hit and sank the target submarine USS Burrfish (SS-312).⁴⁰ (Figure 17)

(Author's Note: One of the author's ships, the USS Savage (DER-386) was used as a target ship and sunk off of San Clemente Island on October 25, 1982 at 32 deg.-04 min N, 119 deg-54 min W in 1735 fathoms of water. "Bravo Zulu" Savage.)⁹

NOTS project personnel, at this time, were flown to and from the island in amphibian aircraft.⁴³

A West Cove Range was installed for aircraft drops of torpedoes and depth charges into shallow water where recovery was possible. This area was used for mine countermeasures tests, for Rocket Assisted Projectiles (RAP) tests, and CHAPPARAL missiles. The West Side (Eel Point) Range



Official U.S. Navy Photo

Figure 16. Underwater Test Launch of Polaris Missile (1960).



Official U.S. Navy Photo

Figure 17.
Helo-Launched Tor-
pedo Hit on USS
Burrfish SS-312 (1960).

was implemented for missiles such as the Anti-Submarine Rocket (ASROC) with extended ranges. This range was also used for fuze production lot tests, and gun-fired classification device testing.³⁴

A Three-Dimensional Underwater Tracking Range was installed on the west side, north of Eel Point, on an experimental basis.³⁴

NOTS, China Lake deployed a remotely operated vehicle (ROV) for use on the test range for the recovery of malfunctioning torpedoes from the sea floor.⁴⁶

The Air Force 670th AC&W radar squadron moved from the island, leaving it completely in Navy hands.

1961

The new 9,350-foot airstrip and support facilities located at the northern end of the island (Figure 18) was completed, and the WW-II airstrip was deactivated. This new air facility, costing \$14 million dollars, was originally built for the Regulus II missile operations, which were later cancelled.¹

On 11 January, this airfield, ALF, San Clemente Island, was dedicated by Capt. W. M. Collins, NAS, Commanding Officer, as Sherman Field, in honor of Admiral Frederick C. Sherman. Admiral Sherman was a three time winner of the Navy Cross in WWI and WWII, and was a brilliant leader of aerial combat, and carrier task groups in the Pacific.⁴⁷

In February, the Naval Ordnance Test Station, China Lake, prepared a preliminary study for a major renovation of the old Naval Air Facility landing field south of Wilson Cove. This study included renovation and/or enlargement of a number of the berthing, messing, administrative, utility and aircraft support facilities. This training complex for Commander, Training Pacific (COMTRAPAC), included support for the Fleet Gunnery School, Fleet Training Group and the Fleet Anti-Air Warfare Center. Also included was installation of gun mounts at West Beach near Eel Point. However, this project was never undertaken.⁴⁸

The underwater tower or “Pop-Up Variable Depth Launch Facility” was nearing completion. It could be adjusted to various heights for testing the Polaris missile. The tower, costing \$55,000, had a base 170 feet below the surface of the water and was anchored to pilings driven more than 20 feet into the ocean floor.⁴⁹

The US Air Force radar station was deactivated in June 1961.³⁸

On 1 July, the administrative command of San Clemente Island was assigned to NOTS, China Lake, with NAS, North Island as the dominant user. The ALF was assigned to China Lake for administration and support. Fleet manning totaled approximately 50 personnel, with NOTS project and support personnel numbering approximately 275.³⁸

The Acoustic Range for acoustics medium studies, and evaluation of experimental acoustic homing systems for torpedoes was installed, as was the “Stone” range for evaluation of non-acoustic methods of submarine detection.³⁸



Official U.S. Navy Photo

Figure 18. The new Naval Auxiliary Landing Field (NALF) (1961).

1962

Noting an impending increase in utilization at SCI for fleet operations, the Chief of Naval Operations (CNO), in February, requested COMELEVEN to undertake a study of an appropriate command structure. The report, forwarded to CNO in July, recommended a separate SCI command, with considerable increase in staffing and with management control by Bureau of Weapons (BUWEPS). In December, CNO directed that planning for a new command be held in abeyance, pending solution of billet and funding problems.³⁸

The Naval Amphibious School, Coronado, constructed a permanent complex for the Basic Underwater Demolition School (BUDS) at Northwest Harbor for SEAL advanced personnel, and team training.⁹

A desalinization plant was procured from the public facility at Point Loma, and was on a barge being prepared for shipment to San Clemente Island. The Cuban Missile Crisis caused this utility to be diverted to Guantanamo Bay, Cuba, when the Cuban government cut the water supply to the naval base.¹ This utility was never replaced. Fresh water, to this day, is transported weekly by barge to the island.⁹

1963

NOTS Pasadena conducted the first successful flight test of the Submarine Rocket (SUBROC) vehicle from a submarine.⁴⁰

NOTS China Lake continued to manage and use the island, providing fleet support, until mid-1967.³⁸

The QH-50C “DASH” (Destroyer Anti-Submarine Helicopter), a remotely controlled torpedo delivery system (Figure 19), was tested and deployed to destroyers from the island’s “Fleet Introduction Site.” The San Diego-based destroyer USS Buck (DD-761) became the first Pacific Fleet ship to receive the Navy’s latest answer to anti-submarine warfare. The training site at the old airfield was operated by the NAS, North Island-based Utility Squadron Three (VU-3).⁵⁰

(The author’s ship, the USS Hanson (DD-832) was also the recipient of these “air-delivered” drones from the island. However, one of the two units delivered to the “Hanson” was lost during the transfer. As it approached the helo-deck on the stern of the ship, it suddenly flipped over on its back and went into the sea.)⁹

The NOTS “Deep Jeep” research submersible attained a depth of 2010’ on its first significant dive at the San Clemente escarpment. The “Deep Jeep” was deployed from the surface support ship YFU-53, a converted landing ship.⁴⁶

1965

The early 60’s also saw at Wilson Cove the early development of the first Fleet Operational Readiness Accuracy Check Site (FORACS) on the west coast. The initial operations of this prototype range utilized three precision-surveyed theodolite (triangulation) stations at North Light and Wilson Cove. The initial data reduction station was in a small shack at Station North Light.⁴⁰

The FORACS range became fully operational for the testing of shipboard sonars, radars, navigation and electronic sensors. This was the prototype for additional ranges in Hawaii, Cape Cod, MA, New York, the Bahamas, the Virgin Islands, Norway and the Greek island of Crete.⁴⁰ (The author’s ship, the USS Chevalier (DD-805) was one of the early units to be tested for the underwater accuracy of its sonar system.)⁹

The NOTS undersea research vehicle “Moray,” in consort with the catamaran support vessel “Cata-Moray” conducted a series of operations which included normal diving and emergency procedures testing.⁴⁶

The Greek freighter, White Eagle, ran aground near Eel Point in a storm. The hulk of this old Liberty ship lay rusting in the pounding surf for a number of years, reminding mariners of the navigational hazards of the island.

The USS Carronade (IFS-1), an amphibious support vessel of the LSM type, and outfitted to fire clusters of rockets in support of amphibious landings, conducted a series of test and evaluation firings in the SHOBA area.⁵¹

1967

The Naval Undersea Center (NUC), San Diego, was developed as an outgrowth of NOTS

Pasadena activities on the island. San Clemente Island, including the ALF, was transferred to NUC, who continued to operate the airfield primarily in support of Pacific Fleet (PACFLT) training requirements.³⁴

During this year, the SEALAB III and Deep Submergence Rescue Vehicle (DSRV) Ranges were implemented, and Poseidon testing began on the Polaris Pop-Up Range.³⁴

1968

The beginning of a new series of Poseidon missile tests marked the 10th anniversary (March 23, 1958) of its predecessor, the Polaris missile.

The SEALAB III was scheduled to begin off San Clemente Island. The site selected for positioning the habitat on the bottom was on the eastern side of the island, about one-half mile offshore, just south of Wilson Cove. The SEALAB III habitat was placed on the bottom at a depth of 600 feet.⁴⁶

The Poseidon test program was completed in November.³⁸



Official U.S. Navy Photo

Figure 19. QH-50C “Dash” Destroyer Deployment (1963).

The 1970's 5

1971

The airfield was transferred from NUC to NAS, North Island and established as a *Naval Auxiliary Landing Field (NALF)*.¹ NUC continued to administer the bulk of the island facilities.

Carrier-deck lighting was installed at the airfield, which greatly increased the importance and utilization of the field. Since then, Navy and Marine Corps squadrons have used the island to practice carrier landings. Navy, Marine and Air Force planes also conduct ground control approach (GCA), and normal landing and take-off training.¹

On September 2, Teledyne-Ryan of San Diego, in concert with the Pacific Missile Test Center (PMTTC) and VC-3, successfully launched a BQM-34 "Firebee" (Model 248) missile from a DC-130A aircraft, to impact a surface ship target, the decommissioned destroyer USS Butler, stationed off of the island. The launch was made from about 5000 feet. Then the drone missile was brought down to 220 feet, then to 75 feet, and then to 35 feet for the final run at the target. At the last instant, it was guided down to 20 feet for a perfect hit on the bridge of the "Butler."⁵⁴

A civilian group headed by a U.S Congressman Rep. Glenn M. Anderson (D. Calif) and including the Los Angeles County Board of Supervisors, the state Department of Fish and Game, the Marine Parks and Harbor Association and others, attempted to obtain civilian yachting access to Pyramid Cove. The island is a part of Los Angeles county, although it is located southwest of the county boundary. This group suggested that the Navy could move their bombardment range to San Nicolas Island. It also recommended that the old airfield could be renovated for civilian aircraft use, while possibly including a restaurant at the terminal. They also suggested that the size of the island would be able to accommodate between 5000-7000 civilians. The Navy was reluctant, and through Sen. Alan Cranston (D-Calif.), the word was passed, "the Navy does not intend to abandon this island, and as a matter of fact will be transferring some additional operations to the island as it closes down other mainland facilities." This attempted civilian takeover was unsuccessful.⁵⁵

In October, two old-timers, K. D. Grumbles and E. L. House, who leased San Clemente Island back in the 1920's returned for a two-day visit as the guests of the Naval Undersea Center

(NUC). Their arrival at the airstrip was a bit different than their first landing on New Years Eve in 1924. They had spent the years from 1929 to 1933 on the island working a herd of about 10,000 sheep for the San Clemente Island Sheep Company.⁵⁶

On November 23, the new search and surveillance radar station at Mount Thirst was dedicated. This new system would provide better coverage and coordination of the more than 8,000 offshore exercises that are scheduled each year. Radar contacts from as far away as 200 miles from San Clemente Island would be microwaved to radar consoles manned by radar and air controller personnel at the Fleet Area Control and Surveillance Facility (FACSFAC) at North Island NAS.⁵⁷

The U.S. Army 19th Artillery Group (Air Defense) had a detachment located adjacent to the FACSFAC radar. This group utilized the FACSFAC radar to cover a blind spot west of SCI for air defense radar at Fort McArthur.⁴⁴

1972

The Naval Undersea Center (NUC) shore and underwater facilities were established for submarine launched guided missiles.³⁴

NUC also initiated monitoring and management of the natural and cultural resources on San Clemente Island. Mr. Jan Larsen was assigned as manager of this new organization.

Fleet Composite Squadron 3 (VC-3), inaugurated their new island operations and support facilities, by cutting a ribbon with the launching of an MQM-74 target drone. VC-3 launched jet target drones for surface ship target practice from the old deactivated airfield south of Wilson Cove, and an area now referred to as the Photo Lab area. These operations were conducted for 50 weeks a year with a complement of 15 personnel.

In December, VC-3 celebrated the achievement of launching its 1000th MQM-74A target drone, setting a new record. This particular launch was in support of the USS Mason (DD-852).⁶¹

NALF, San Clemente Island, received approval for its first official insignia from the Chief of Naval Operations. During the latter part of 1972, an all hands contest for submission of a Unit Insignia was held. The winning design was submitted by AC1 Joel B. Little, who was awarded two days special liberty, \$25 in cash and received an island sightseeing trip with Miss Suzie Stowitts, an attractive stewardess with Mercer Airlines, which provides transportation to and from Long Beach and North Island.⁶¹

Members of VS-41, conducting training exercises at the Mount Thirst site, were regularly accosted each morning as they attempted to enter the site building. Their antagonist was a 600 lb. wild pig lovingly referred to as "Shithead." Upon payment of retribution in the amount of 2-3 box lunches, the personnel would be allowed to pass and enter the building.⁶²

1973

Early this year, the Naval Research Laboratory (NRL) established a research site at the Photo Lab area consisting of four Pascoe buildings (60223 thru 60226), a radar platform, and a helicopter platform. This project, known as "Non-Such," was investigating "Over The Horizon" radar technology. The installed radar was an FPS-16 long-wave type. This project was abandoned late in the year. The original helicopter platform, constructed by Kaman Aircraft Corp., is still intact under a warehouse facade, and is known as Bldg. 60227.⁴² It is now used for storage. The other four buildings are

intact, with three presently assigned in support of the Southern California Offshore Range (SCORE).⁶²

Dr. R. W. Bogle, of the Naval Research Laboratory, Washington, using some of the equipment from the decommissioned “Non-Such” project, started assembling a site located between Whale Point and North Head, at the north end of the island. This research project was to be known as “Sea Echo.”⁶²

The NALF manning complement now numbered 5 officers and 78 enlisted personnel.⁴⁸

1974

The “Sea Echo” site became operational and commenced ground-wave mode “Over The Horizon” (OTH) radar measurements of sea wave direction and height in the Sea of Alaska. This information would be used to provide early detection of storms originating in that area. Dr. Bogle would continue to manage and operate this project until it was decommissioned in 1994.⁶²

The Natural Resources Office (NRO) at Staff Civil Engineering, NAS, North Island, assumed management of the natural and cultural resources program on San Clemente Island.

The Underwater Poseidon Range for the Trident missile program was reactivated.³⁴

Appendix E summarizes the utilization of the island for military and RDT&E operations during this period.

1977

Administrative control of San Clemente Island was transferred from NUC to the Commanding Officer, Naval Air Station, North Island.⁶³

1978

There were presently 65 civilian employees, and 150 enlisted and 5 officer personnel, including tenant activities, stationed on the island.⁶⁴

A five-year old female bald eagle named “Modak,” was released into the wild by John Ailin, a bird curator at the Sacramento Zoo, CA. She was the fifth eagle to be released in a Natural Resources Office, NAS North Island, SCI extension of a Bald Eagle Recovery Program. This was a cooperative program in conjunction with the Lindsay Museum.⁶⁵

1979

CDR John J. Newlin, Officer in Charge, officially opened the San Clemente Island Library on 11 September. As reported in the “*North Islander*,” the staff consisted of one civilian, volunteer librarian Jeanne Hickey, and three military volunteers.⁶⁹

Since 1973, nearly 16,500 goats had been removed from the island, most of them alive. Approximately 3000 goats remained, mostly in the southeastern area that is laced with very deep rugged and steep canyons that are inaccessible to man.

The 1980's

6

1981

On September 30, Fleet Composite Squadron 3 (VC-3), after 18 years of providing drone aircraft and surface target services to the fleet, was decommissioned.⁷⁰

1982

Operating under the tightest of security, Pacific Fleet amphibious forces with embarked Marines finished a major civilian evacuation exercise on January 16th. Code-named “Kernel Egress,” the exercise was the first of its kind ever staged on the west coast to demonstrate the fast-reaction capability of Southern California and Hawaii home ported ships and Marines. The highly realistic exercise included the removal of approximately 110 Marine “actors” in civilian clothing - representing a fictional U.S. ambassador, U.S. officials and private citizens - from a country whose government was collapsing in the face of terrorist attacks and insurgent fighting. The USS Peleliu (LHA-5) was the flagship of this exercise.

The deep submergence research vehicle “Alvin” conducted a series of dives in the San Clemente escarpment.⁴⁰



Official U.S. Navy Photo

Figure 20. First live warhead “Tomahawk” test at the Island (1984).

1984

The Cable Termination Van (CTV) site, in support of the SOCAL Anti-Submarine Warfare (ASW) range, was installed at West Cove. The vans were designed and constructed at the Naval Ocean Systems Center (NOSC) in San Diego, were then shipped to the Naval Undersea Systems Center (NUSC), Newport, RI. for installation of electronics equipment, and returned for installation on the island. (The author designed and supervised construction of these four vans.) The Range Electronics Warfare Simulator (REWS) site was also under construction at this time.⁹

The first in a series of eight island Tomahawk missile

tests was conducted in July. The live warhead test was executed against a concrete bunker (water tank) in the Missile Impact Range (MIR). The test was a complete success with a direct hit and penetration of the bunker. The internal explosion destroyed the target bunker (Figure 20).⁹

1985

During March, the NASNI Staff Civil Engineering (Natural Resources) contractor personnel completed three net trapping exercises for removal of feral goats. Approximately 1500 goats were removed from the island during this year.

On July 24th and 25th, Helicopter Support Squadron 1 (HC-1) demonstrated the versatility of the CH-53E “Sea Stallion” helicopter, in support of the SHOBA range, by airlifting two Phantom aircraft hulks and a 19,000 pound bus the 70 miles to the island in separate lifts. These hulks, to be used as targets in the impact areas, were deposited at the VC-3 (old airfield) site targets marshaling area.⁷²

In August, members of the National Guard’s 137th Transportation Co., based at the Stead



Official U.S. Navy Photo

Figure 21. Underwater Shock Test (1985).

Airport in Reno, NV, joined up with the Marines, Texas Airborne Pathfinders and the Navy's HC-1 to set up targets in the shore bombardment area of the island. The 137th had practiced this procedure over desert stretches at NAS Fallon and in Washington State. However, the San Clemente operation was a unique first. This training included a simulated crash landing or ditching at sea. Members of the 1150th Medical Detachment Guard based in Carson City, NV, were included.⁷²

Also in August, following installation and testing of the Under Sea Warfare (USW) range facilities during the period 1982-1985, the Southern California Offshore Range (SCORE) was commissioned and began operations under the command of the Commander, ASWWINGPAC, at NAS, North Island.¹ The USW range initially covered 112 sq. miles, but was later enlarged to provide 670 sq. miles of 3-dimensional underwater tracking capability.⁴⁹ The first exercise on the new USW range pitted an SH-3 helicopter against a Los Angeles class submarine.⁷³

Again, on October 11th, HC-1 used the new Sikorsky CH-53E "Sea Stallion" heavy lift helicopter to recover a stranded TA-3B reconnaissance aircraft that had crash-landed on the island. The aircraft was carried by cable underneath the helicopter for 5 miles to the deck of the USS Carl Vinson (CVN-70). HC-1 was the only helicopter squadron to perform such lifts at this time, virtually "writing the book."⁷⁴

NOSC conducted a series of surface ship and submarine underwater explosive shock trials on the east side of the island (Figure 21).

This year, the Naval Auxiliary Landing Field (NALF), San Clemente Island, operated for over 4500 hours, handling over 65,000 operations. The air terminal processed over 38,000 incoming and outgoing passengers.

1986

The second Tomahawk test was conducted in April. This test was a successful aerial burst over the MIR revetment, which contained a target aircraft. The aircraft was totally destroyed (Figure 22).⁹

1987

In August, command of SCORE, and its several island range sites, was transferred from Commander, ASWWINGPAC, to the Commander, Fleet Area Control and Surveillance Facility (FACSFAC), at NAS, North Island.⁹

The Range Electronic Warfare Simulator (REWS) was commissioned to provide Surface-to-Air threat avoidance, jamming and threat simulations for fleet unit reactive training.⁷⁵

Two Tomahawk missile tests were conducted this year. They were both sub-munitions payload tests.⁹

1988

In January, the SCORE Range Electronic Warfare Simulator (REWS) site became operational by conducting a jamming exercise against a surface combatant on the west side of the island.⁷⁵



Official U.S. Navy Photo

Figure 22. Tomahawk “Airburst” Test at MIR Revetment (1986).

Also in January and March, the deep submergence research vessel “Turtle” conducted search and recovery operations of two Mk-27 targets, and four Deep Ocean Transponders (DOT) for the Naval Undersea Warfare Engineering Center (NUWEC).⁴⁰

The 409th Construction Battalion Unit (CBU), Long Beach, conducted the first of a series of major “Self Help” projects in support of SCORE and NALF. (See Appendix F.) The Seabees bivouacked on the beach at West Cove, and during their one-month deployment constructed four buildings and repaired three miles of critical range site access roads.⁷⁶

In August, a veteran Naval Ocean Systems Center rigger, David “Scrap Iron” Mullin, was killed in a tragic accident on the crane barge at NOTS Pier.⁹

1989

In the second deployment of the military in support of “Self-Help” projects, the U.S. Army 14th Combat Engineering Battalion (CEB) from Fort Ord, CA., constructed several range site facilities and conducted range renovation repairs to impact area access road bridges in SHOBA. This unit set up support facilities at the VC-3 area.⁷⁶

In September, the DSRV “Turtle” searched for and photographed a lost F-14 in a debris field in 4,000' of water.⁴⁰

In November, the “Turtle” was trapped by two cables as it was attempting to recover a hydrophone at a depth of 1,277'. After 14 hours and 12 minutes, the “Turtle” and crew surfaced, tired but safe.⁴⁰

The 1990's

7

1990

In March, a CH-53E helicopter, belonging to HC-1, hoisted a 36-foot personnel launch from the jagged rocks at Wilson Cove. The boat, used in special warfare training, was blown onto the rocks by 80-knot winds in February. After attempts to tow the boat failed, the decision was made to use a helicopter to lift the boat to safety. The helo-lift proved to be highly successful with the boat being returned to SPECWAR for repairs.⁷⁷

Construction of new Basic Underwater Demolition School (BUDS) facilities at Northwest Harbor was completed. They included 23 new buildings for personnel, administrative, and operations support.⁹

In June and July, the island was visited by two groups of scouts. A Boy Scout troop from Escondido, CA., spent the weekend of 23-24 June snorkeling, diving and fishing at the shore-side scout camp at Wilson Cove. They participated in two nature expeditions and discovered the abundant cultural history and natural resources of San Clemente Island. Then during the weekend of 29 June-2 July, Girl Scout Troop 1027 of Ocean Beach, CA., enjoyed a fabulous weekend in the sun, swimming and diving. Besides the cultural tour, they observed night carrier-controlled landings from the control tower at the airfield.⁷⁸

In October, the 14th CEB from Fort Ord, CA., returned and performed twelve major facility “Self Help” construction projects for SCORE, NOSC and NALF. These projects included five buildings for the SCORE Torpedo Facility (TORPFAC), a boat house and storage facility for the NOSC OEEET project, facilities and roadwork for the SCORE “Tombstone” (EW) and “Little Rock” (EW) sites, and excavation of an area in Wilson Cove for a new NALF Fire Station. Again, VC-3 was the site for their support camp.⁷⁶

1992

On 12 March, George Weiss, a veteran of the many RDT&E projects on the island, passed away in his barracks. George had worked on the island continuously for 26 years. A nicer and more helpful person the island has never known. He was a friend to all.⁹

In August, the U.S. Army 864th Combat Engineers from The Presidio, CA., and supported by the 555th Engineering Group from Fort Lewis, Washington, deployed in an amphibious exercise to conduct “Self Help” construction support for SCORE and NALF. These projects included construction of eight buildings, 1.7 miles of REWS site road repair, and five electronics support structures and utilities.⁵ This “Self Help” deployment saved the Navy \$1.08M in labor and equipment costs, vice performance by a civilian contractor.⁷⁶

Figure 23 depicts the construction phases for one of the eleven buildings of this design constructed by military personnel working on “Self-Help” construction and maintenance projects for SCORE, NOSC and NALF, San Clemente Island.

All the military construction units that deployed to the island stated that this was a very unique and important phase of their training. They were particularly pleased to be able to engage in an amphibious deployment, which greatly enhanced their capabilities.

During this deployment, while driving a “Belly Dump” on the REWS road repair project near the radar station at Mount Thirst, Pvt. Anthony C. Dye, U.S. Army, was killed when his vehicle rolled over the edge of the road and into Chukit Canyon.⁹

1994

Military activities included 135 operations/special operations conducted by Army/Navy/Marine Corps forces composed of approximately 5500 troops. These operations included amphibious landings, land warfare, night vision training, underwater operations, aerial reconnaissance, LCU operations and live firing exercises in the SHOBA area.

1995

The new Special Warfare Command (SPECWARCOM) Maritime Operations (MAROPS) training and support facility was commissioned.⁹

During the Operation “Bell Thunder” training exercise, numbers of multi-national explosive ordnance disposal (EOD) personnel parachuted from a Hercules C-130 into the drop zone at the “old airfield” (VC-3).

1996

The San Clemente Island Operational Management Plan (OMP), and Environmental Impact Study (EIS) was initiated by the Naval Facility Command (NAVFAC), Southwest Div.⁹

The Marine Wing Support Squadron (MWSS-374) from MCAS, Tustin, CA., deployed in support of several SCORE support facilities self-help construction projects.⁷⁶

The Electronic Warfare (EW) and Command and Control Warfare (C2W) training was now conducted from five island sites. These sites included the Range Electronic Warfare Simulator (REWS), Threat Avoidance Subsystems (TAS) at “Little Rock” and “Tombstone,” the VC-3 area and SOARFAC.⁹

SCORE was certified and commenced conducting Mine Readiness Certification Inspections (MRCI) for fleet units.⁷⁵

Figure 23a. 864th Combat Engineers from the Presido constructing 4'-9" wing-wall forms preparatory to pouring concrete.



Figure 23b. Wing-walls pouring completed. When forms are removed, the Pascoe building kit is assembled on this elevated foundation.

Figure 23c. The 20' x 49-6" Pascoe building is fully assembled awaiting an epoxy-based paint coating. Total time for construction: 11 days.
Total cost: \$12,000.



Figure 23d. Fully completed and painted Pascoe building. An overhead roller door is installed in one end, with a personnel access door on the other end. This building served as a boat house.

Figure 23. A typical "Self-Help" Project utilizing Military Assests.



Figure 24. BQM-74 Missile Target Drone ready for launch (1997).

In October, a Joint Stand Off Weapon (JSOW) was flown into the MIR for a sub-munitions test against a number of target vehicles.⁹

In November, an Unmanned Aerial Vehicle (UAV) “Predator” was flown from the island in an operational exercise with a submarine.⁹

1997

SCORE installed and began operating the “Kingfisher” range, a tethered underwater mine avoidance training range, located on the west side of the island.⁷⁵

Operation and maintenance of the SHOBA range was transferred from the Electronic Warfare Training Group, Pacific (EWTGPAC) to SCORE.⁷⁵

In October, a “proof of concept” exercise was conducted to demonstrate the cost effectiveness of deploying ASUW and AAW target drones from San Clemente Island vice PMTC, Point Mugu (Figure 24). This exercise was an unqualified success, overcoming a myriad of technical, political and safety related issues. Planning was initiated to continue with exercises of this type, and expanding SCORE’s capability to offer Fleet Missiles Training up to the FltEx level, with San Clemente Island as the logistical base.⁷⁹

During this year, 143 training operations were conducted that involved 50,365 personnel of the Army, Navy, and Marine Corps. These training evolutions included photo reconnaissance, TORPEX, MINEX, target logistics and ASW exercises; live fire SCAR operations, LCAC landing and airfield seizure, SWAT team training, mine avoidance, EW exercises and a host of other land warfare, special warfare and amphibious warfare training evolutions. Other RDT&E exercises included Joint Stand-Off Weapon (JSOW) testing.⁷⁵

1998

Construction of facilities and installation of equipments was completed, and operations commenced, for the new FACSFAC ARSR-4 radar complex at Mount Thirst.⁹

SCORE initiated unit level offensive mining exercises in the two Minex Training Ranges



Official U.S. Navy Photo

Figure 25. HMS Splendid Tomahawk Missile near impact on target (1998).

(MTR1 & MTR2) on the west side of the island, utilizing Castle Rock and Eel Point as IP's.⁷⁵

SCORE also initiated Surface-to Air and Air-to-Air missile exercises, by launching and controlling surface and air targets from the island.⁷⁵

In November, the submarine HMS Splendid conducted the British Navy Acceptance Tests by sub-surface launching of a Tomahawk missile from the Naval Weapons Test Range at Point Mugu. The missile performed flawlessly, resulting in a direct hit on the island MIR target (Figure 25). This test was observed by the Commander-in-Chief, U. S. Pacific Fleet Adm. Archie Clemens, First Sea Lord/Chief of Naval Staff, Admiral Sir Michael Boyce (Royal Navy) and Southwest Navy Region Rear Admiral Veronica Froman.⁸⁰

Support site and area locations for a wide variety of RDT&E projects that have been conducted over a period of almost 50 years on San Clemente Island are illustrated in Figure 26.

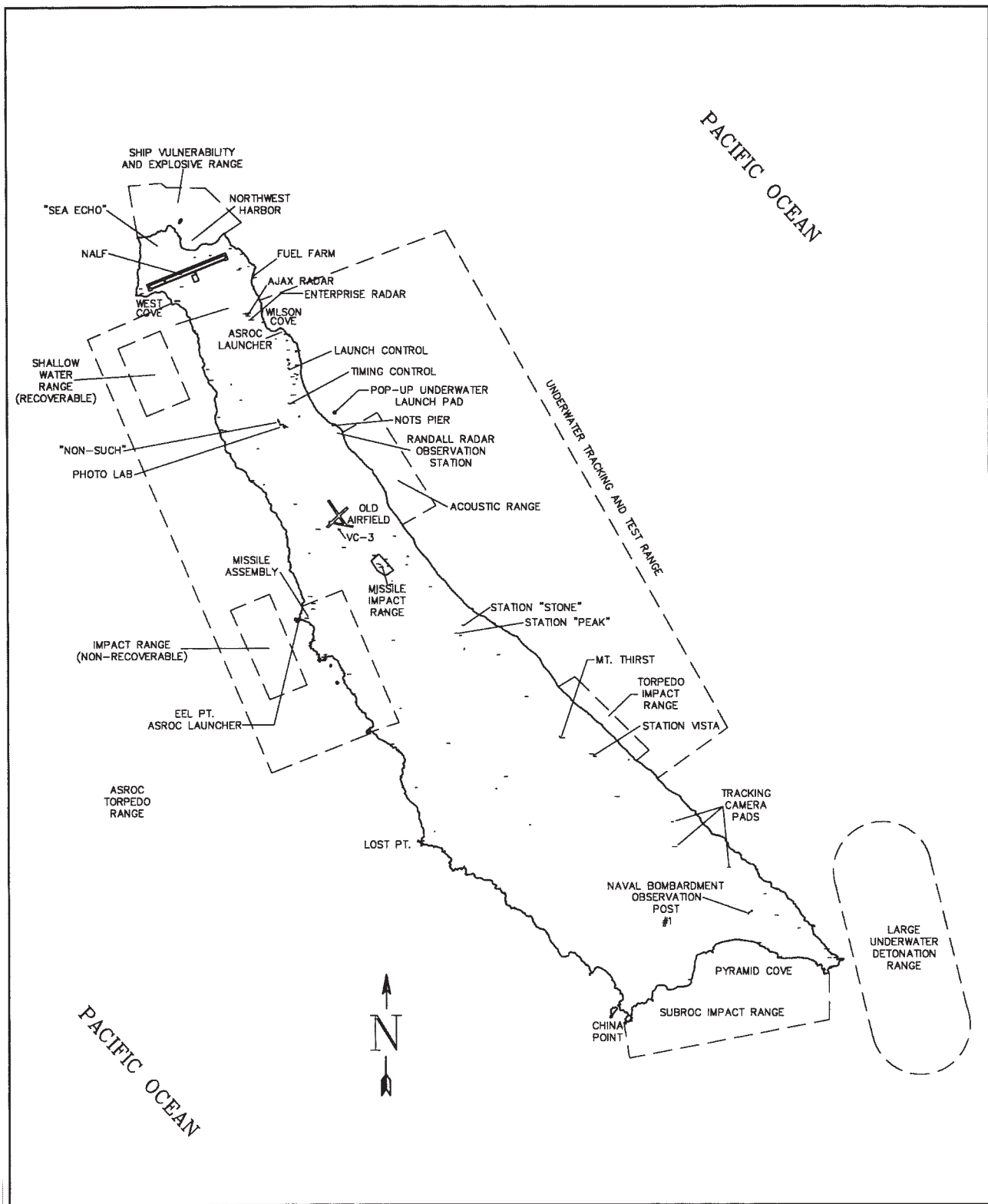


Figure 26. RDT&E Programs Island Utilization (1950-2000).

1999

Construction was completed on the first phase of the new personnel support facilities complex comprised of 10 single and multi-level berthing buildings, 1 common facility, 1 mess hall facility and 2 utility structures.⁹ These long overdue support facilities became a reality because of the concern and efforts of Admiral J.W. Prueher, Commander In Chief, U.S. Pacific Command.

Present island manning levels were: approximately 356 (March 99).⁹

The island was redesignated “*San Clemente Island Range Complex.*”⁹

The San Clemente Island Range Complex (SCIRC) was now composed of twenty-five operational and support sites for various types of warfare training. These sites extended from the Basic Underwater Demolition School (BUDS)/Maritime Operations (MAROPS) sites at Northwest Harbor, south to Observation Post #1, overlooking Fire Support Area 1 (FSA-1) and Pyramid Cove.⁸³ Figure 27 depicts these sites and their locations.

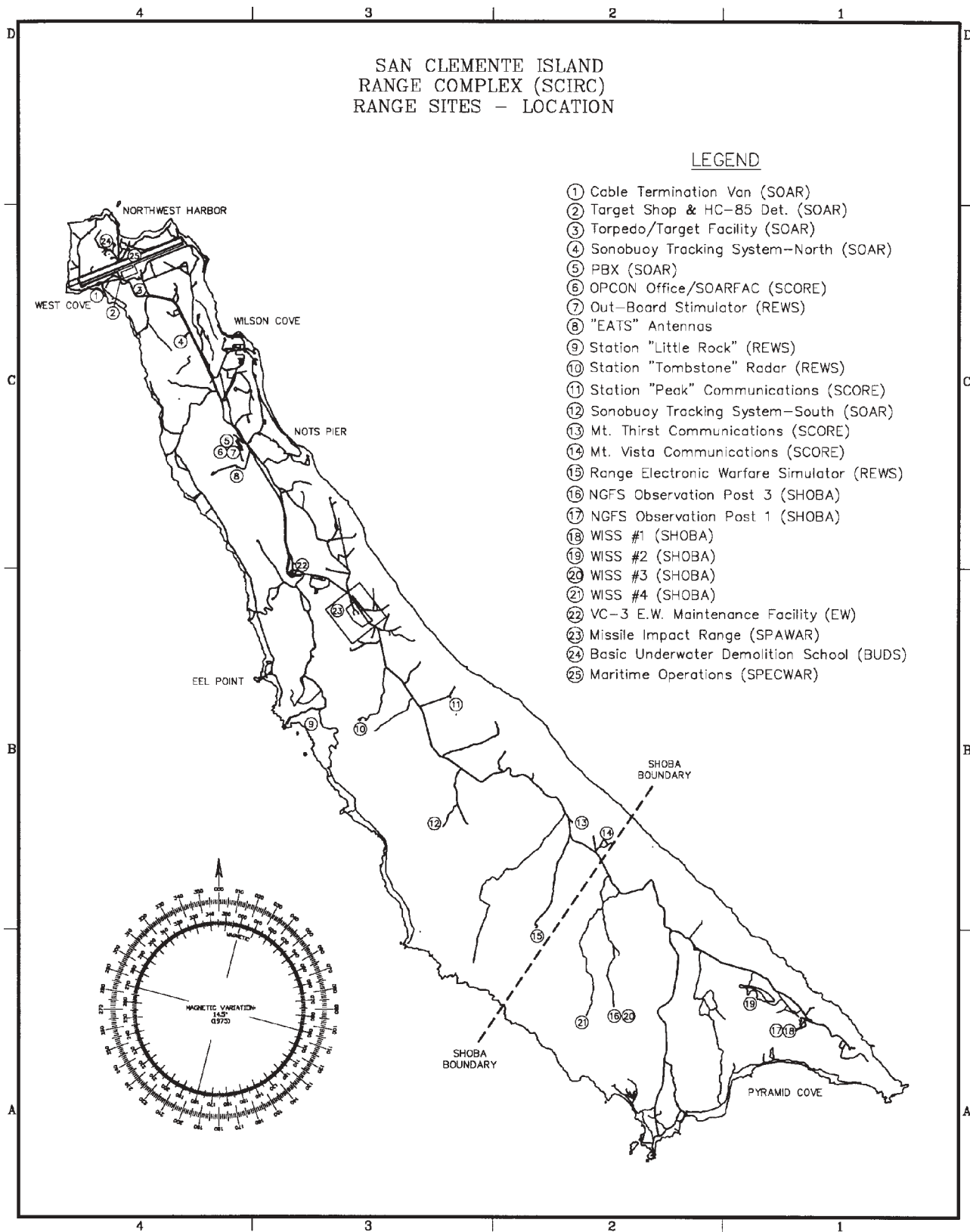


Figure 27. On-Island Range Operations/Support Sites (2000).

The Year 2000

8

2000

Downtown Wilson Cove as it appeared at the start of the new century (Figure 28), and prior to the demolition of ten of the original structures (circa 1935-1938). Five more new berthing facilities on the hill above Wilson Cove were finished to complete the first phase of the personnel support

Figure 28a. Downtown Wilson Cove looking South (March 2000).



Figure 28b. Downtown Wilson Cove (Old Camp Tarrant) looking Northwest (March 2000).



complex construction program composed of a new mess hall, common building and fifteen berthing structures. Figures 29 thru 32 compare the old and the new.



Figure 29. Old Barracks (Circa 1936).

San Clemente Island Operational Control (OPCON) was assigned to FACSFAC/SCORE Division by CINCPACFLT, and was initiated on 1 March 2000. The purpose of SCI OPCON was to provide a single point of advocacy and scheduling for SCI and its surrounding operational areas.

During this first year of the new century, SCORE supported 1041 exercises and 1794 fleet participants, during 3850 operating hours. These exercises were conducted in

the Anti-Submarine Warfare (ASW), Mine Training Range (MTR), Electronics Warfare Range (EWR), Missile Exercise Range (MXR), and Shore Bombardment Range (SBR) areas.



Figure 30. New Barracks (1999).

The ASW exercises included 725 fleet participants deploying 339 torpedoes, 10 missiles, 15 rockets, 444 bombs/mines, and 100,450 gunfire rounds.

There were 39 exercises conducted in the MTR areas, with 105 participants deploying 149 exercise weapons.

The EWR area supported a variety of training evolutions

during which 516 operations, involving 463 fleet participants, were conducted. Additionally, over a period of 180 days, 300 periods of open broadcast cryptologic stimulator services (CSS) were provided. In total, the EWR provided the fleet with more than 2000 hours of this training.

There were 20 exercises conducted in the MXR area involving 72 participants and the deployment of 56 exercise weapons.



Figure 31. Original Wilson Cove Messhall & Chapel - Bldg. 60103 (1936-1999).

The SBR area was utilized by 428 participants, during 821 training hours, deploying 235,011 gunfire rounds, 36 missiles and 3385 various rockets, grenades, mines and bombs. There were 10 different types of missiles launched on SCORE. Some of these missiles were launched in SAR, SBR and MXR.

The Naval Auxiliary Landing Field (NALF) handled a total of 22,925 aircraft operations. The breakdown for takeoffs & landings were as follows: Navy/Marine Corps.- 11,076; Other Military-290; Air Carrier-1,167; General Aviation-1,123 for a total of 13,656. In addition there were 6,591 Carrier Controlled Approaches, and 8,578 Radar Approaches.⁸¹



Figure 32. New Messing Facility above Wilson Cove Bldg. 61000 (1999).

Epilogue

9

San Clemente Island has had a major, although little recognized impact on the military history of the United States.

In the 30's, amphibious training exercise shortcomings discovered here, and in similar operations in the Caribbean, dictated the need for specialized boat designs for expeditious troop and equipment transport, and safe landings through the surf zones of target beaches. The Higgins boat, and the ultimate evolution of a family of landing craft designs, was the culmination of this special requirement.

The shortcomings of transporting, housing, and deploying troops on board ships designed for naval surface warfare, led to the initiation of designs for a specialized amphibious fleet. Thus, the "Gator Navy" was born.

The emergency landing field constructed on the island no doubt saved the lives of a number of naval aviators and crews, operating out of NAS, San Diego. The Naval Air Station, San Clemente Island, was later constructed to support squadrons based on the island.

In the 40's, the island was used for specialized training of units deploying to the South Pacific during WWII. The training by Carlson's Raiders was one example. Surface combatants, and Army and Marine Corps reinforced infantry battalions, qualified on the SHOBA range for naval gunfire, counter-battery, and close artillery support, prior to deployment overseas. To this day, this is still the case. There is no other place, on the West Coast or in the Pacific, for these units to obtain this training. With the impending closure of the Vieques Range in the Caribbean, San Clemente Island will be the last remaining bastion for this type of naval training.

In the Cold War Years of the 50's, 60's, and 70's, the Russian navy had a strong, nuclear weapon capable, submarine force. The island became the prime test and evaluation site for a number of very important tactical anti-submarine weapons systems. These weapons included the ASROC, SUBROC, Weapon "A", RAT, and the Mk13, Mk 32, Mk 43, Mk 44 & Mk 46 torpedoes.

The strategic military posture of the United States was also greatly enhanced by the Polaris, Poseidon, and Trident missile systems. The underwater launching capability of these weapons was developed, and testing was conducted, at the island during this period. Other early research projects conducted at San Clemente Island included Over-The-Horizon Radar experiments.

Construction of the new 9350-foot Naval Auxiliary Landing Field (NALF) at the north end of the island, now provided a greatly enhanced access to the island. Aviation units now had a realistic environment for conducting day and night Carrier Landing Practice (CLP).

The early tent camp at Northwest Harbor for the Basic Underwater Demolition School (BUDS) was replaced with modern personnel and operational support facilities, and training operations for the Naval Special Warfare units was expanded.

The 80's and 90's saw significant naval training ranges development. Heretofore, training on and around the island had been limited to Marine Corps amphibious support operations. Fleet units were now able to expand their training to include anti-submarine warfare, electronic warfare, offensive and defensive mining, missile exercises, and all elements of littoral warfare training.

The Navy now acted to manage this vast scenario of varied training exercises by designating an Operational Control (OPCON) authority. This responsibility was assigned to FACSFAC/SCORE at NAS, North Island. The training areas on and around the island, were now designated as the San Clemente Island Range Complex.

Test and evaluation of important weapons systems continued during this period. A series of live warhead "Tomahawk" missile tests were conducted that included air and submarine-launched "direct impact," "air-burst," and "sub-munitions" deployments into the Missile Impact Range on the island.

The Navy, now recognizing that the pre-WWII personnel support facilities at Wilson Cove could no longer support the numbers of people required for the increased operational tempo, constructed a large complex of modern berthing, messing, and recreational support facilities above Wilson Cove.

San Clemente Island is the cornerstone of the Southern California Operations Area, a tactical training complex that support the largest concentration of naval forces in the world. It has had a long, and illustrious history in support of our countries military forces. Its importance for the future is recognizable, yet immeasurable.

To the many thousands of military and civilian personnel who have been, and continue to be, involved in training and support functions on San Clemente Island through the years, we extend the Navy's salute of recognition and thanks for a job Well Done. **"Bravo Zulu."**

Appendix **A**

Permit to Establish, Maintain, and Use Emergency Landing Field on San Clemente Island (1933).

(COPY)

SAN CLEMENTE SHEEP COMPANY
RANCH: SAN CLEMENTE ISLAND
OFFICE: 408 SOUTH SPRING STREET
TELEPHONE MUTUAL 5607
LOS ANGELES, CALIFORNIA.

January 5, 1933.

Re: N1-13/N1-9 (a-1)
(PW)

Commandant's Office,
Navy Department,
Eleventh Naval District,
San Diego, California.

Gentlemen:-

We hereby grant permit to the U. S. Navy Department during the term of our lease to establish, maintain and use an emergency airplane landing field on San Clemente Island, as outlined in a letter from Rear Admiral Thos. J. Senn. Said permit shall be subject to the approval of the Lighthouse Service.

Yours respectfully,

SAN CLEMENTE SHEEP COMPANY

By /s/ E. G. Blair,
President.

(ENCLOSURE (A))

1933 NWS - 13 - VM 8 : 12

WVA: DEB
201-88

Appendix

B

Executive Order 6897 Establishment of San Clemente Island for Naval Purposes (1934)

Executive Order

TRANSFERRING TO THE CONTROL AND JURISDICTION OF THE SECRETARY OF
THE NAVY CERTAIN LANDS OFF THE SOUTHERN COAST OF CALIFORNIA

CALIFORNIA

By virtue of and pursuant to the authority vested in me by the act of June 25, 1910 (ch. 421, 36 Stat. 847), as amended by the act of August 24, 1912 (ch. 369, 37 Stat. 497), and as President of the United States, it is ordered that San Clemente Island and the rocky island at west entrance to North West Harbor, San Clemente Island, California, between longitude 118°20'45" W. and 118°~~26~~³⁴'30" W. and latitude 32°48'15" N. and 33°02'15" N., containing 31,500 acres, more or less, which were reserved for lighthouse purposes by Executive orders dated September 11, 1854, and January 26, 1867, be, and they are hereby, transferred from the control and jurisdiction of the Secretary of Commerce to the control and jurisdiction of the Secretary of the Navy for naval purposes; there being reserved, however, for the use of the Department of Commerce sites to be selected by that Department on which to erect and maintain such aids to navigation and incidental facilities as the Secretary of Commerce may consider desirable.

This order shall continue in full force and effect unless and until revoked by the President or by act of Congress.

FRANKLIN D ROOSEVELT

THE WHITE HOUSE,
November 7, 1934.

[No. 6897]

Appendix

C

Chronology of SCI Building Construction (1935-2000)

San Clemente Island Structures Construction Date History (1935-2000)

Bldg.No.	Site Use	Construction	Yr. Built
60145	Wilson Cove Pier	Wood & Steel	1935
60102	SCI Headquarters/Admin.	Wood Frame	1936
60176	Potable Water Storage Tank	Steel	1936
60138	SERVMART	Sheet Metal	1936
60157	Storage	Wood Frame	1936
60119	Berthing, Fed. Fire Quarters	Wood Frame	1936
60175	Seawall	Concrete	1936
60140	Potable Water Distr. Plant	Concrete Block	1936
60143	Fire Station	Wood Frame	1936
60148	Gasoline Depot	Open Tankage	1936
60124	Potable Water Storage Tank	Steel	1936
60101	SCI Operations/Comm.	Concrete Block	1936
60158	Boiler/Heating Plant	Wood Frame	1936
60134	Ocean-front Cottage/Temp. Lodging	Wood Frame	1937
60149	Storage	Wood Frame	1937
60135	Ocean-front Cottage/Temp. Lodging	Wood Frame	1937
60159	Fire Pumping Station	Wood Frame	1937
60152	Berthing, Military-Officer	Wood Frame	1937
60168	PWC Carpenter Shop	Sheet Metal	1938
60153	OinC Quarters	Wood Frame	1938
60170	Magazine	Concrete Block	1938
60151	Base Police	Wood Frame	1938
60017	H.E. Magazine	Concrete Block	1938
60111	Berthing	Wood Frame	1939
60330	Ready Service Magazine	Concrete	1939
60307	Vacant	Sheet Metal	1939
60172	Potable Water Storage Tanks-2	Concrete	1939
60171	Water Storage Tank	Steel	1939
60304	PWC Shop Storage	Sheet Metal	1939
60310	Storage	Concrete	1942
60169	PWC Shop Stores	Sheet Metal	1942
60322	Magazine	Concrete	1942
60133	Enlisted Quarters	Wood Frame	1942
60179	Water Storage Tank	Concrete	1942

Bldg.No.	Site Use	Construction	Yr. Built
60308	Vacant	Sheet Metal	1942
60328	Magazine	Concrete	1942
60305	Oper. Storage Ready Issue	Sheet Metal	1942
60121	Enlisted Quarters	Wood Frame	1942
60327	Magazine	Concrete	1942
60136	PWC Shop	Wood Frame	1942
60321	Magazine	Concrete	1942
60324	Magazine	Concrete	1942
60306	General Warehouse	Sheet Metal	1942
60320	Magazine	Concrete	1942
60313	Vacant	Metal	1942
60326	Magazine	Concrete	1942
60116	Civilian Quarters	Wood Frame	1942
60323	Magazine	Concrete	1942
60325	Magazine	Concrete	1942
60144	Fire Pumping Sta.	Concrete	1942
60155	Library	Wood Frame	1942
60127	Navy Exchange	Wood Frame	1943
60022	Passenger Terminal	Butler Bldg.	1943
60147	Diesel Fuel Depot	Open Tankage	1943
60126	Dispensary	Wood Frame	1943
60173	Water Storage Tank	Concrete	1943
60120	Pwr. Plant Maint. Shop		1943
60010	North Tracking Sta.	Wood Frame	1945
60142	Storage/Warehouse	Wood Frame	1945
60166	Beacon	Concrete	1945
60129	Comm. Control	Concrete Block	1946
60019	H.E. Cook-Off Oven		1950
60191	Flagpole	Steel	1950
60244	RDT&E Site	Concrete Block	1951
60165	Storage	Sheet Metal	1951
60242	Video Lab.	Concrete	1951
60243	Photo Storage	Wood Frame	1951
60240	PACTEL Microwave	Concrete Block	1951
60247	Water Treatment Plant	Concrete Block	1951
60241	Photo Lab.	Concrete	1951
60160	Water Treatment Plant	Wood Frame	1951
60245	PBX	Concrete Block	1951
60254	Water Storage Tank	Steel	1951
60250	Photo Lab. Bldg.	Concrete	1951
60218	Camera Shelter	Sheet Metal	1952
60219	Camera Shelter	Sheet Metal	1952
60210	Haul Down Winch	Sheet Metal	1952
60904	Generator Bldg.	Wood Frame	1953
60903	Storage/Butler Bldg		1953
60139	Operations/Storage	Sheet Metal	1953
60405	ASROC Hangar	Condemned	1953
60216	Pier	Concrete	1954
60206	NOTS Pier	Wood & Concrete	1954
60902	Enlisted Berthing (Abandoned)	Sheet Metal	1954
60806	Observation Post #2	Butler Bldg.	1954
60901	Observation Post #1	Concrete	1954
60162	Riggers Loft	Butler Bldg	1956
60012	Fire Dept. Storage	Metal	1957
60015	Electronics		1959

Bldg.No.	Site Use	Construction	Yr. Built
60128	VHF/UHF Comm.	Van	1959
60004	Power	Concrete Block	1959
60209	Randall Radar	Concrete Bunker	1959
60137	Power Plant	Sheet Metal	1959
60164	Storage	Wood Frame	1959
60208	Photo Barn	Sheet Metal	1959
60163	Range Control II	Concrete Block	1959
60220	Magazine	Steel	1959
60125	Terminal Equip. Bldg	Wood Frame	1959
60002	A/C Grd. Support Equip.	Steel	1960
60011	JP Fuel Farm	Open	1960
60001	Air Operations/Admin/Weather	Metal	1960
60014	UHF beacon	Concrete Block	1960
60401	Station STONE	Sheet Metal	1961
60161	Storage Open	Wood Frame	1961
60311	VC-3 Bldg.	Metal	1962
60507	Water Storage Tank	Steel	1963
60131	PWC Maintenance	Butler Bldg.	1963
60413	Antenna Bldg.		1963
60183	Hazardous Storage	Sheet Metal	1963
60503	Generator Bldg.	Concrete Block	1963
60411	Station PEAK	Concrete Block	1963
60412	Generator Bldg.	Concrete Block	1963
60505	Receiver Bldg.	Concrete Block	1963
60504	Water Storage Tank	Steel	1963
60184	Waterfront Ramp	Concrete	1963
60255	Camera Shelter	Concrete Pad	1963
60506	Generator Bldg.	Concrete Block	1963
60130	PWC Vehicle Maintenance	Butler Bldg.	1963
60221	Westinghouse Bldg.	Sheet Metal	1964
60314	Vacant Metal		1964
60037	Instructor Lounge	Butler Bldg	1964
60050	North Light Pier	Wood w/Steel	1964
60256	Timing/TM Bldg.	Sheet Metal	1965
60021	Water Treat.Plant	Wood Frame	1965
60182	Water Distr. Plant	Concrete Block	1965
60007	GCA Site	Steel Vans	1965
60192	Water Distr. Plant	Concrete Block	1965
60000	NALF Tower	Metal	1965
60006	Crash Barn	Metal	1965
60193	Civilian Quarters	Concrete Block	1966
60194	BOQ/Civilian Quarters	Concrete Block	1966
60180	Oper. Storage/Ready Issue	Sheet Metal	1970
60196	Berthing, Transient/Overflow	Concrete Block	1970
60222	Diving Locker	Concrete Block	1971
60115	Tennis Court	Slab Surface	1973
60224	SCORE Range Mgr. Office	Butler Bldg.	1973
60223	Storage	Butler Bldg.	1973
60225	Radar Shop	Butler Bldg.	1973
60226	SOARFAC Operations	Butler Bldg.	1973
60227	Storage (Helo Platform)	Wood Frame	1973
60141	Mid-Tracking Station	Wood Frame	1975
60906	Bunker, Berthing/Messing	Concrete	1977
60905	Water Storage Tank	Steel	1977
60028	JP Fuel Storage	Open Tankage	1977

Bldg.No.	Site Use	Construction	Yr. Built
60026	A/C Hot Fuel Pit	Open	1977
60023	Crash Crew Quarters	Butler Bldg.	1978
60114	Range Control Fac.	Concrete Block	1979
60024	Line Ops/Grd.Supp.	Butler Bldg.	1979
60195	Sewage Treatment Plant		1979
60907	Magazine	Concrete	1979
60042	Transient Berthing	Butler Bldg	1982
60109	Handball Court	Sheet Metal	1983
60217	Camera Shelter	Concrete	1983
60909	StorageButler Bldg.		1984
60908	Water Storage Tank	Steel	1984
60041	Medical Clinic	Butler Bldg	1984
60043	Grnd. Elex Maint. Shop	Butler Bldg	1985
60040	Carpenter Shop	Butler Bldg	1985
60402	Biological Lab.	Butler Bldg	1985
60044	Berthing, Transient	Butler Bldg.	1985
60008	Target Turnaround	Metal	1985
60403	Broken Down & Stored	Butler Bldg	1985
60045	NALF Offices	Butler Bldg.	1985
60910	Flammable Storage	Concrete Block	1986
60005	Radar Facility	Steel Vans	1986
60009	Electronics	Modular	1986
60046	Grd. Elec. Maint. Shop	Butler Bldg.	1986
60003	Electronics		1986
60013	NALF Crash Barn	Sheet Metal	1988
60602	Maint./Storage	Pascoe Bldg.	1988
60802	Generator Bldg.	Wood Frame	1988
60803	Range Instrumentation	Concrete Block	1988
60800	Range Instrumentation	Concrete Block	1988
60805	Range Instrumentation	Concrete Block	1988
60601	Maint./Storage	Pascoe Bldg.	1988
60600	Generator Bldg.	Metal	1988
60804	Ready Service Magazine		1988
60911	Range Instrumentation	Concrete Block	1988
60801	Observation Post #3	Concrete	1988
60068	Dining Facility	Concrete Block	1990
60080	Receiver Bldg.	Concrete Block	1990
60077	Ready Magazine	Sheet Metal	1990
60065	Applied Instruction	Concrete Block	1990
60061	Applied Instruction	Concrete Block	1990
60066	Staff Billeting	Concrete Block	1990
60060	Administrative Office	Concrete Block	1990
60059	Field Maintenance Shop		1990
60079	Water Storage Tank		1990
60051	Boat House/Storage	Sheet Metal	1990
60020	HazMat Storage	Concrete Block	1990
60197	P.O. Lounge	Pascoe	1990
60067	BOQ/BEQ	Concrete Block	1990
60064	BOQ/BEQ	Concrete Block	1990
60078	Water Storage Tank		1990
60063	Laundry/Shower	Concrete Block	1990
60018	Torpedo Facility Garage	Pascoe	1990
60016	Torpedo Facility	Pascoe Bldg.	1992
60047	Torpedo Facility	Butler Bldg.	1992
60603	Maint./Storage	Pascoe Bldg.	1992

Bldg.No.	Site Use	Construction	Yr. Built
60190	Transient Laundry/Showers	Pascoe	1992
60025	Fire Dept. Duty Berthing	Pascoe Bldg.	1992
60027	Berthing, Temporary	Pascoe Bldg.	1992
60452	UPS Bldg.	Wood	1993
60399	Range Operations	Concrete/Wood	1993
60246	Camera Mount Storage	Sheet Metal	1993
60451	Generator Bldg.	Wood	1993
60082	Vehicle Maintenance	Concrete Block	1995
60185	SDV Operations\Maint.	Concrete Block	1995
60083	Vehicle Operations	Concrete Block	1995
60450	Range Operations	Wood	1995
60081	Operations	Concrete Block	1995
60086	Pumping Station	Concrete Block	1996
60088	Water Tank	Steel	1996
60415	Comms. Tower	Steel	1996
60501	Mount Thirst Radar	Steel	1997
60502	Mount Thirst Communications	Concrete Block	1997
60508	Radar Facility & Walkways	Steel	1997
60189	Pump House	Concrete Block	1999
60251	Botany Lab.	Concrete Block	1999
60252	Native Plant Nursery	Concrete Block	1999
60257	NRO Administration	Concrete Block	1999
60258	Archaeology Lab.	Concrete Block	1999
60259	NRO Storage	Concrete Block	1999
61000	Mess Hall	Concrete Block	1999
61001	Common Bldg.	Concrete Block	1999
61002	Berthing, Military	Concrete Block	1999
61003	Berthing, Military	Concrete Block	1999
61003A	Storage	Concrete Block	1999
61004	Berthing, Military	Concrete Block	1999
61005	Berthing, Military	Concrete Block	1999
61006	Berthing, Military	Concrete Block	1999
61007	Berthing, Military	Concrete Block	1999
61008	Berthing, Military	Concrete Block	1999
61009	Berthing, Military	Concrete Block	1999
61010	Berthing, Military	Concrete Block	1999
61010A	Storage	Concrete Block	1999
61011	Berthing, Military	Concrete Block	1999
61012		Concrete Block	1999
61013	Berthing, Military	Concrete Block	2000
61014	Berthing, Military	Concrete Block	2000
61015	Berthing, Military	Concrete Block	2000
61016	Berthing, Military	Concrete Block	2000
61017	Berthing, Military	Concrete Block	2000
Unknown Construction Dates			
60178	Water Storage Tank	Steel	Unknown
60331	Vacant	Concrete	Unknown
60132	Elec. Plant Machine Shop	Sheet Metal	Unknown
60187	Pump House	Concrete Block	Unknown
60198	Sewage Treat.Tank	Steel	Unknown
60177	Water Storage Tank	Steel	Unknown

Appendix **D**

Carlson's Raiders

Training Activities of the 2nd Marine Raider Battalion, Second Division, USMC on San Clemente Island.

The following are entries in the War Diaries of the Commanding Officer, U. S. Fleet Training Base, San Clemente Island; and the Officer-In-Charge, U.S. Naval Aviation Facilities, San Clemente Island, California.

March 20, 1942 - Major General C.F.B. Price, US Marine Corps, Commander Albert Handley, U.S. Navy, Major E.F. Carlson, U.S. Marine Corps, and Captain James Roosevelt, U.S. Marine Corps, arrived for reconnaissance and to arrange for operations of Raider Battalion, Second Division, U.S. Marines. Such operations to begin about March 26, 1942.

March 27, 1942 – The U.S.S CALHOUN stood in and disembarked Company “A”, Second Marine Raider Battalion, Amphibious Force, Pacific Fleet, for training exercises. Disembarkation effected in Higgins Surf and rubber landing boats. Three Officers and one hundred seven enlisted men, including Second Lieutenant M.C. Plumley, U.S.M.C., Company Commander, were received and taken up for messing and billeting purposes. Billeting was in shelter haves in vicinity of Base.

March 28, 1942 – Rifle and pistol ranges in use by personnel of Raider Battalion for miscellaneous exercises.

March 29, 1942 – Rifle, pistol, and machine gun firing conducted by Company “A”, Marine Raider Battalion, including dummy run for night firing. These activities coordinated with those of 184th Infantry, 654th Signal Company, U.S. Army, and local marine detachment.

March 30, 1942 – Rifle, pistol, and machine gun practices including night firing. Combat problem conducted by Company “A”, Second Marine Raider Battalion. Activities of local Marines, 184th Infantry Company and 654th Signal Company, U.S. Army, coordinated to avoid area and operational conflicts.

March 31, 1942 – One half of Company “A”, 2nd Marine Raider Battalion, conducted practice landings using rubber boats. Remainder of this group departed on a two day field problem.

The Medical Officer of the Marine Raider Battalion was transported by air to the Naval Hospital, San Diego, California. Diagnosis: fractured ankle.

Transport Division TWELVE made practice landings at Wilson Cove and Pyramid Cove on San Clemente Island; this unit also fired target practice offshore in vicinity of San Clemente Island.

April 1, 1942 – Personnel on field problem from Company “A”, 2nd Marine Raider Battalion, returned to base at 2100 and secured from this operation.

The remainder of the 2nd Raider Battalion, embarked in Transport Division TWELVE, conducted operations in vicinity of San Clemente Island including surf landings at Northwest Harbor, using rubber boats.

April 2, 1942 – Company “A”, 2nd Marine Raider Battalion, conducted target practice with 60 mm mortars in the area southeast of the Naval Aviation Facilities.

Companies “B”, “C”, and “D”, 2nd Marine Raider Battalion, embarked in Transport Division TWELVE, continued practice surf landings at Northwest Harbor using Higgins Surf Boats and rubber boats.

April 3, 1942 – At 0745 Transport Division TWELVE stood in to Wilson Cove and disembarked Company “B”, of the 2nd Marine Raider Battalion, to hold scheduled training exercises. Company “A” having completed training on the island, embarked on the transport ships. The transports departed immediately, but remained in the vicinity of San Clemente Island to participate in exercises. Companies “C” and “D” returned on board the transports during the maneuvers; Company “B” remained on the island for further training.

April 4, 1942 – Company “B”, 2nd Marine Raider Battalion, continued training exercises at San Clemente Island including firing of various weapons.

Transport Division TWELVE continued training exercises in vicinity of San Clemente Island including surf landings at West Cove and Northwest Harbor.

April 5, 1942 – Company “B”, 2nd Raider Battalion, continued training exercises including machine gun and small arms target practice.

Transport Division TWELVE continued training in vicinity of San Clemente Island.

April 6, 1942 – Company “B”, 2nd Marine Raider Battalion, continued training exercises at San Clemente Island including day and night combat problems.

Transport Division TWELVE continued maneuvers in vicinity of San Clemente Island, with early morning exercises in Wilson Cove, and evening landings near Mosquito Harbor.

April 7, 1942 – The 2nd Marine Raider Battalion, less Company “B”, conducted a simulated “Commando” raid on the Fleet Training Base and facilities. The raid commenced at 2033 and operations were secured at 2320. Landing and tactics were observed by Fleet Training Base Officers and a report thereon made to Commander Transport Division TWELVE (Copy of report attached).

April 8, 1942 – Transport Division TWELVE with units of 2nd Marine Raider Battalion on board continued operations in vicinity of San Clemente Island.

Company “B”, 2nd Marine Raider Battalion completed training on San Clemente Island and returned to ships of Transport Division TWELVE.

Company "C", 2nd Marine Raider Battalion then occupied the Marine Field Camp and commenced training period on San Clemente Island.

April 9, 1942 – Transport Division TWELVE with units of the 2nd Marine Raider Battalion continued operations in vicinity of San Clemente Island including day and night surf landings.

April 10, 1942 – The U.S.S. LITTLE of Transport Division TWELVE, Calibrated Radio Direction Finder with the facilities of the Fleet Training Base Radio Station.

Units of the 2nd Marine Raider Battalion operating from ships of Transport Division TWELVE, made practice surf landings on the northern end of San Clemente Island.

Company "C", 2nd Marine Raider Battalion conducted field operations extending from the Naval Aviation Facilities southward to Pyramid Cove.

April 11, 1942 – Units of the 2nd Marine Raider Battalion made surf landings on the southeast end of San Clemente Island and commenced simulated guerrilla warfare tactics toward the Range Finder Calibration Station. These units were landed from ships of Transport Division TWELVE.

Company "C", 2nd Marine Raider Battalion, conducted firing exercises including night firing of small arms, on the rifle and pistol ranges; and 60 mm mortar firing in a selected area near West Cove.

A rescue party from the Fleet Training Base effected the rescue of Sgt. L.G. Alexander, Headquarters Company, 2nd Marine Raider Battalion, who was stranded in a canyon near Wilson Cove. Rescue operations were started at 1630 and were completed at 1850.

April 12, 1942 – Company "C", 2nd Marine Raider Battalion continued firing practices on rifle and pistol ranges, including night firing; also additional firing of 60 mm mortars.

Other units of the 2nd Marine Raider Battalion continued their exercises in guerilla warfare tactics towards northern end of the Island. This group was intercepted by portions of Fleet Training Base Marines and Army units at San Clemente Island in vicinity of the Range Finder Calibration Tower and conducted a simulated defensive combat operation in that vicinity.

The U.S.S. CALHOUN and U.S.S. GREGORY of Transport Division TWELVE, calibrated Radio Direction Finders with facilities of the Fleet Training Base Radio Station.

April 13, 1942 – Company "C", 2nd Marine Raider Battalion, broke camp at Marine Field Camp, and Company "D", established camp at this site. Companies "A" and "B" held field maneuvers in vicinity of Wilson Cove. All companies except "D" reembarked on ships of Transport Division TWELVE during evening.

April 14, 1942 – Company "D", 2nd Marine Raider Battalion conducted M-1 rifle, .30 Caliber machine gun and 60 millimeter mortar firing.

The other units of the 2nd Marine Raider Battalion landed at Wilson Cove, Ben Weston Cove, and Mosquito Harbor. Individual Company problems were carried out and Units reembarked.

April 15, 1942 – Company "D", 2nd Marine Raider Battalion, conducted rifle firing.

The other units of the 2nd Marine Raider Battalion practiced rubber boat procedure in vicinity of Mosquito Harbor and Ben Weston Cove.

April 16, 1942 – Company "D", 2nd Marine Raider Battalion, in conjunction with the Fleet Training

Base Marines, conducted defense of Naval Aviation Facilities, San Clemente Island, against units of the 2nd Marine Raider Battalion which landed at Wilson Cove. Units reembarked after completion of problem.

April 17, 1942 – Company “D”, 2nd Marine Raider Battalion conducted training exercises on San Clemente Island including firing of 60 mm mortar and .30 caliber Lewis Machine Guns. These exercises took place during the afternoon.

At 1400, Transport Division TWELVE stood in to Wilson Cove with Companies “A”, “B”, and “C”, of the 2nd Marine Raider Battalion on board. These troops disembarked and rendezvoused in the vicinity of West Cove where they were joined by Company “D”. At 1925, Companies “A”, “B”, and “C” returned to Wilson Cove and embarked aboard their respective ships and stood out to sea.

April 18, 1942 – At 0505, Company “D”, 2nd Marine Raider Battalion, commenced to break camp at Marine Field Camp and prepared to embark in ships of Transport Division TWELVE. At 0605, Transport Division TWELVE stood in and commenced to embark troops. All personnel and equipment of Company “D” on board at 0730, and transports departed Wilson Cove for San Diego.

Source: “*War Diary – U.S. Fleet Training Base & U.S. Naval Aviation Facilities, San Clemente Island (December 7, 1941 – January 1st, 1943)*,” located at the Military Section, National Archive and Records Administration (NARA), College Park, MD.

Appendix **E**

Current Utilization (1974), San Clemente Island

The current utilization of San Clemente Island is best illustrated by separating the three types of users, namely: PACFLT, RDT&E, and other tenants and intermittent users.

a. Pacific Fleet and other Tenants Based at SCI: Services and gunfire support are provided to other Navy organizations, including fleet units on training exercises. Tenant activities based at the island include:

- Naval Amphibious School (NAVPHIBSCOL)
 - Basic Underwater Demolition/SEAL Department (BUDS)
 - Shore Bombardment Range Area (SHOBA)

- Naval Air Station, North Island (NAS NORIS)
 - Naval Auxiliary Landing Field (NALF)

- Pacific Mobile Environmental Team (PACMET)
 - Naval Weather Service Facility

- Fleet Operational Readiness Accuracy Check Site (FORACS)

- Navy Exchange (Long Beach Island Annex)

- Fleet Composite Squadron Three Detachment, SCI (VC-3)

- Naval Weapons Station, Seal Beach (NWS-Seal Beach)

- Fleet Area Control and Surveillance Facility, San Diego (FACSFAC)

- Branch Dispensary of the Naval Regional Medical Center

The following is a brief description of these user activities:

NAVPHIBSCOL - BUDS provides basic training for underwater demolition and Seal Team trainees. The practical phase of this training is conducted at San Clemente Island. Specifically, the training

includes land and water reconnaissance, hydrographic survey techniques, use of weapons, and land and underwater demolition procedures. San Clemente Island is highly advantageous for this type of training since it is close to the NAVPHIBSCOL and accommodates all phases of training, including weapons training with live ammunition and all types of demolition techniques. It is not only advantageous, it is, in fact, the only place on the West Coast where large demolition charges can be exploded in surf without danger to civilian population.

NAVPHIBSCOL - SHOBA is used for shipboard gunnery training and naval spotter training for Navy and Marine Corps personnel. Techniques learned include gunfire spotting, shore bombardment, fire control, and ship gunfire control observation. The range is also used, though infrequently, for air bombardment and straffing. It is the only range on the West Coast where shore bombardment training may be conducted. Normal operations take place Monday through Friday, 48 weeks per year, plus eight weekends per year for Reserve training. Naval spotter training averages one class of 20 students per month. Marine Corps training averages 14 classes per year, consisting of 30 students.

NALF, operated by NAS North Island, services air transport to and from SCI. In addition to regular landing traffic, the field also meets the following mission requirements:

Training site used by 1) various Navy, Marine and Air Force squadrons to conduct carrier landing practice, Ground Control Approach (GCA) training, and normal landing/take-off training; 2) Marine Corps aviation units assigned with the responsibility of setting up advanced bases.

Refueling base for Navy and Coast Guard helicopter squadrons to extend operating range for anti-submarine warfare, search and rescue, and Medical Evacuation (MEDEVAC) missions.

Emergency landing site for 1) primary divert/bingo tactics for carriers conducting operations in Southern California; 2) land-based aircraft operating over Southern California waters.

Pacific Mobile Environmental Team of the Naval Weather Service Facility (PACMET) provides continuous weather information to support flight operation at NALF. In addition, climatological and synoptic information is furnished to NUC and various SCI tenant commands in support of their operations. An hourly aviation weather observation and a daily pilot balloon observation are forwarded into the national, military, and civilian weather teletype network. Accuracy of information will be improved by a new electronic measurement system which is now being installed.

FORACS is operated by personnel from the Naval Electronics Laboratory Center, San Diego. It provides Anti-Submarine Warfare (ASW) sensor error, measurements, and analysis for Pacific Fleet ships. In addition, ASW Weapons Accuracy Tests are conducted on the range. All Navy ships with sonars and ASW weapons are required to have these sensor measurements made periodically in order that calibrations can be made.

NX supplies provisional stores for island-based personnel. The NX also provides a snack bar for the purchase of light meals.

VC-3 Det SCI provides aerial and surface target drone services for fleet gunnery and other training

exercises. Operations include launching radio-controlled aircraft and boats and maneuvering them over a predetermined path. In the case of drone aircraft, they are returned over the island, the engine shut down, and a parachute is deployed to effect a landing. Capabilities of VC-3 include full radar tracking capability, communications with fleet units, and complete target maintenance.

NWS Seal Beach is the Southern California collection point for fleet returns of overage and leaky ordnance items. Due to the current prohibitions against deep sea dumping, open pit burning is the method by which disposal is currently effected. To accomplish this task, NWS maintains burning pits, control bunker, and magazines at SCI.

FACSFAC has the responsibility for scheduling air space and ocean operating areas to fleet ships and aircraft. In addition, it maintains surveillance of the Southern California air/ocean space and directs ships/aircraft away from areas in which gunfire, etc. are being conducted. Radar equipment is used to provide a radar picture of aircraft operating within approximately a 200-mile radius of SCI via a microwave to FACSFAC Tactical Control Center (TCC) at North Island. A transmitter facility at Mount Thirst provides radio circuits between FACSFAC operators in TCC and ships/aircraft operating within a 200-mile radius of SCI. Microwave equipment at SCI, San Nicolas Island (SNI), and Point Loma form a microwave net that relays SNI radar as well as SCI radar and communications to TCC. A receiver facility at Station Vista passes signals via overhead and underground cable to the transmitter facility and then via microwave to North Island TCC.

b. RDT&E Users: The Naval Undersea Center (NUC) in San Diego, as well as other Government agencies and commercial companies under government contract, use SCI to conduct testing and/or basic research on a periodic basis. NUC uses this site for test and evaluation of weapons and other undersea systems. The use of this island property is paramount to all users to obtain hardware or research data in their respective areas of expertise. Listed below are some of SCI's RDT&E users:

- Naval Electronics Laboratory Center, San Diego, CA.
- Naval Weapons Center, China Lake, CA.
- Naval Ordnance Laboratory, White Oak, MD.
- Naval Missile Center, Point Mugu, CA.
- Naval Research Laboratory, Washington, D.C.
- Mare Island Naval Shipyard, Vallejo, CA.
- Naval Torpedo Station, Keyport, WA.
- Office of Naval Research, Arlington, VA.
- Deep Submergence Systems Program, Washington, D. C.
- Naval Ships Engineering Command, Norfolk, VA.
- Atomic Energy Commission.
- Naval Civil Engineering Laboratory, Port Hueneme, CA.
- Various private companies working on Government contract.

c. Intermittent Users Not Based at SCI: A large number of activities use SCI for training or special operations on a periodic basis. Following is a list of the more frequent intermittent users and a very brief statement of their missions:

- 1st Marine Division, Camp Pendleton - full capability fighting force.

Landing Force Training Command, Coronado - training of Marine Corps personnel in amphibious landing techniques.

3rd Marine Air Wing, El Toro - Marine close support aircraft operations.

196th Fighter Squadron, California Air National Guard - air superiority fighter operations.

160th Infantry, 4th Battalion, California Army National Guard - amphibious assault operations.

U. S. Army Special Forces (various units) - special warfare and intelligence operations.

4th Marine Division (various units) - full capability fighting force.

Inshore Undersea Warfare Groups - provide harbor and beachhead surveillance and protection.

Fleet UDT/SEAL Teams - clear beachheads for landings, conduct special operations.

Commander, Anti-Submarine Warfare Wing Pacific - ASW operations with fixed wing aircraft.

Commander Third Fleet - naval operations, Eastern Pacific.

Commander Submarine Force Pacific - submarine operations and training, Pacific area.

Commander Submarine Development Group One - development of new technology and tactics for the submarine force.

Navy Construction Battalions (SEABEES) - conduct combat, and field construction training.

Appendix

F

Chronology of Self-Help Military Construction Unit Projects (1988-1996)

(SCORE Ranges/NALF, SCI/SPAWAR)

Year	Project	Range/Island Activity	Performing Activity	Mode
1988	CTV Grey Water Leach Field	ASW	409th CBU	LCU
1988	REWS Storage Van & Equipment Pads	EW	409th CBU	LCU
1988	REWS Power Distribution (PDS) Building	EW	409th CBU	LCU
1988	REWS Maintenance & Storage Building #1	EW	409th CBU	LCU
1988	REWS Maintenance & Storage Building #2	EW	409th CBU	LCU
1988	REWS Road Repair (1.7 Miles)	EW	409th CBU	LCU
1988	STS "South" Road Repair (1.3 Miles)	ASW	409th CBU	LCU
1988	REWS Secondary Compound Security Fence	EW	409th CBU	LCU
1988	REWS Potable Water Tank Erection	EW	409th CBU	LCU
1988	Boy Scout Sea Hut	@NALF	409th CBU	LCU
1988	"A" Frame Clubhouse Renovation	@NALF	409th CBU	LCU
1988	Tennis Courts Renovation	@NALF	409th CBU	LCU
1988	Corps of Engineers Sites Survey	ASW/EW	Army C of E	Barge
1988	Weapons Impact Scoring Syst. Bldgs (4)	SHOBA	7th Marines	LCU
1988	Bldg. 60906 (Palace) Entrance Patio	SHOBA	7th Marines	LCU
1988	Safety Bullhorn Pad (Pyramid Cove)	SHOBA	7th Marines	LCU
1988	Range Renovation - Targets & Roads	SHOBA	7th Marines	LCU
1989	Torpedo Retrieval Soft Pad	ASW	14th CEB	LHA
1989	Torpedo Retrieval Hard Pad	ASW	14th CEB	LHA
1989	CTV Footings Extension	ASW	14th CEB	LHA
1989	Remote Area Access Bridges	SHOBA/NALF	14th CEB	LHA
1989	Range Renovation - Targets & Roads	SHOBA	7th Marines	Barge
1990	TORPFAC Torpedo Storage Building-Pad & Walls	ASW	14th CEB	LHA
1990	TORPFAC Weapons Truck Garage-Pad & Walls	ASW	14th CEB	LHA
1990	TORPFAC Maint. & Storage Bldg.- Pad	ASW	14th CEB	LHA
1990	TORPFAC Effluent Storage Building	ASW	14th CEB	LHA
1990	TORPFAC Torpedo Retrieval Soft Pad	ASW	14th CEB	LHA
1990	Storage Building (Enclose Helicopter Pad)	ASW	14th CEB	LHA
1990	TOMBSTONE Site Access Road (1.25 Miles)	EW	14th CEB	LHA
1990	TOMBSTONE Site-Fill & Compact	EW	14th CEB	LHA
1990	TOMBSTONE Equipment Van Pads	EW	14th CEB	LHA
1990	LITTLE ROCK Site Prep. & Bldg. Pad & Walls	EW	14th CEB	LHA
1990	OEEET Projects Maintenance & Storage Bldg.	@SPAWAR	14th CEB	LHA
1990	Fire Station Site Excavation	@NALF	14th CEB	LHA

Year	Project	Range/Island Activity	Performing Activity	Mode
1991	Projects Deployment Cancelled ("Desert Storm")	All	14th CEB	N/A
1992	HF Antenna, Coupler Pad, & Safety Fence	ASW	864th Engr.	LSD
1992	SOARFAC Run-Off Diversion Trenches	ASW	864th Engr.	LSD
1992	TORPFAC Torpedo Storage Building (Complete)	ASW	864th Engr.	LSD
1992	TORPFAC Maint. & Storage Building (Complete)	ASW	864th Engr.	LSD
1992	LITTLE ROCK-TOMBSTONE Repeater Mast	EW	864th Engr.	LSD
1992	REWS Road Repair (1.7 Miles)	EW	864th Engr.	LSD
1992	REWS Maintenance & Storage Building	EW	864th Engr.	LSD
1992	TOMBSTONE Generator Building	EW	864th Engr.	LSD
1992	TOMBSTONE M-G Building	EW	864th Engr.	LSD
1992	Temporary Berthing Buildings (2)-Construction	@NALF	864th Engr.	LSD
1992	REWS Maintenance & Storage Building #4	EW	409th CBU	LCU
1992	Temporary Berthing Buildings (2)- Carpentry	@NALF	409th CBU	LCU
1996	TORPFAC Weapons Truck Garage (Uncompleted)	ASW	MWSS-374	LCU
1996	TORPFAC Soft Pad & Bldgs. Access Apron/Road	ASW	MWSS-374	LCU
1996	TORPFAC Buildings Ramps & Stoops	ASW	MWSS-374	LCU
1996	E.W. Site (Tombstone) Security Fence & Gates (Uncompleted)	EW	MWSS-374	LCU

@ - Materials Funded By Activity.

Appendix **G**

List of Acronyms

ALF	Auxiliary Landing Field
ALSTA	All Stations
ASROC	Anti-Submarine Rocket
ASW	Anti-Submarine Warfare
ASWWINGPAC	Anti-Submarine Warfare Wing, Pacific
BUDS	Basic Underwater Demolition School
CBU	Construction Battalion Unit
CEB	Construction Engineering Battalion
CINCPAC	Commander-in-Chief, Pacific
CINCPACFLT	Commander-in-Chief, Pacific Fleet
CNO	Chief of Naval Operations
COMELEVEN	Commander, 11 th Naval District
DASH	Destroyer Anti-Submarine Helicopter
DESDIV	Destroyer Division
DSRV	Deep Submergence Research Vehicle
ELF	Emergency Landing Field
FACSFAC	Fleet Area Control and Surveillance Facility
FMF	Fleet Marine Force
FORACS	Fleet Operational Readiness Accuracy Check Site
IAW	In Accordance With
LCVP	Landing Craft Vehicle Personnel
LST	Landing Ship Tank
MM	Milli-Meter
NAAF	Naval Auxiliary Air Field
NAAS	Naval Auxiliary Air Station
NALF	Naval Auxiliary Landing Field
NASNI	Naval Air Station, North Island
NAVPHIBASE	Naval Amphibious Base
NOB	Naval Operating Base
NORAD	North American Air Defense
NOSC	Naval Ocean Systems Center
NOTS	Naval Ordnance Test Station
NRL	Naval Research laboratory

NRO	Natural Resources Office
NUC	Naval Undersea Center
NUSC	Naval Undersea Systems Center
OLF	Outlying Landing Field
OMP	Operations Management Plan
OPNAV	Office of Naval Operations
PMTC	Pacific Missile Test Center
RAT	Rocket Assisted Torpedo
RDT&E	Research Development, Test and Evaluation
REWS	Range Electronic Warfare Simulator
ROV	Remotely Operated Vehicle
SCI	San Clemente Island
SCIRC	San Clemente Island Range Complex
SECNAV	Secretary of the Navy
SHOBA	Shore Bombardment Area
SOCAL	Southern California Operations Area
SPECWAR	Special Warfare
SUBROC	Submarine Rocket
SW	Surface Warfare
TORPFAC	Torpedo Facility
USS	United States Ship
USW	Under Sea Warfare
VC	Composite Air Squadron
WWII	World War II

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About The Author

Wilfred J. “Bill” Sturgeon first visited San Clemente Island in August 1947. His ship, the USS Turner (DDR-834), qualified on the Shore Bombardment range just prior to departing for duty on the China Station.

He would return in 1956, for naval gunfire qualification on board the USS Kidd (DD-661), prior to her deployment to WestPac.

Following a five-year tour of instructor duty, Chief Sonar Technician Sturgeon’s next destroyer, the USS Hanson (DD-832) in 1963, was one of the first ships to receive the Destroyer Anti-Submarine Helicopter (DASH) system. These small remotely controlled weapons delivery aerial vehicles, were flown from the VC-3 area on the island, and delivered by air to the receiving ships.

He next visited the island in 1965, when his destroyer, the USS Chevalier (DD-805), participated on the Fleet Operational Readiness and Accuracy (FORACS) range at Wilson Cove. Because of his ship’s high degree of readiness in its ASW systems, he was invited ashore to visit the FORACS sites.

Retiring from the U.S. Navy as a Senior Chief Sonar Technician in 1968, Mr. Sturgeon immediately started work as a Harco Engineering contractor to General Dynamics, Pomona Division on the contract definition phase of the DX or Spruance Class Destroyer. In this capacity, he served as a military training advisor, and assisted in the design of the Combat Systems Team Trainer, a new training concept that allowed the ship’s company to operationally train on their own shipboard equipment against electronically synthesized aggressor forces. He also participated in the several ship general arrangement design studies.

Mr. Sturgeon’s next assignment in 1970, working for Jakus Associates, was with the Naval Undersea Center (NUC) in San Diego as an Anti-Submarine Warfare Specialist for a classified operational research program. Upon completion of this project, he was invited to join the Advanced Concepts Division design team for a radical new ship concept, the Small Waterplane Area, Twin Hull (SWATH) ship. The Stable Semi-submerged Platform or SSP “Kaimalino” was the result of this



design. She served as a research platform in Hawaii with the Naval Ocean Systems Center (NOSC) at Kaneohe for over fifteen years.

In 1978, Mr. Sturgeon was invited to join civil service at NOSC, San Diego, as a Naval Architectural Engineering Technician. In further development of the SWATH concept, Mr. Sturgeon prepared general arrangement designs, and constructed a scale model for a 3000-ton VTOL Aircraft Carrier. He also prepared designs for a 500-ton Surface Warfare ship, and several other advanced concepts.

During hydrodynamic testing of this new concept, he reduced drag and motions data and prepared test result reports for several model tests.

In addition, he developed and prepared documentation and designs for several manning, world port and drydocking compatibility, modular outfitting, and air-basing potential studies. (See Bibliography.)

Mr. Sturgeon was then assigned as the Navy's principle Engineering Test Technician for the Advanced Lithium Battery (ALB) development program at the contractors facility in San Jose, CA. This high-energy density battery, having an energy density eight times that of a lead-acid battery, utilizes Lithium Thionyl Chloride electrochemistry and is presently in use in a number of important Navy programs. During this two-year project, he prepared and/or reviewed all battery test plans, and observed and reported on all performance and hazard evaluation testing.

He also represented NOSC, and the project, at all the Navy Lithium Battery Safety Committee conferences. This committee was formed after several fatal accidents were attributed to explosions of another lithium battery electrochemistry (lithium sulphur dioxide).

Mr. Sturgeon, during the period 1980-81, was awarded two Superior and Outstanding Performance Awards for this work.

Mr. Sturgeon, upon deactivation of the Advanced Concepts Division in 1982, was invited to join the Ranges Branch as an Architectural Engineering Technician. His first assignment was in the design and installation of the Anti-Submarine Warfare (ASW) Training Range for the Southern California Offshore Range (SCORE) at San Clemente Island. San Clemente Island is the southernmost of the Channel Islands group off the coast of Southern California, and has been utilized for military training since 1934. His initial involvement was as designer of the Anti-Submarine Warfare Range Cable Termination Van (CTV) complex at West Cove on the island. He subsequently was principal in the development of most of the ASW and Electronics Warfare (EW) range sites and support facilities on San Clemente Island.

During this same period Mr. Sturgeon initiated, and developed, the computer-aided design (CAD) Configuration Management (C/M) drawings database for the twenty-three SCORE range sites (island and mainland). These include 307 site location, site plan, building general arrangement, and electronics racks (front elevations) drawings. The C/M drawings database also includes 478 individual pieces of electronics equipments. He continues, on an annual basis, to prepare new drawings, and revise the existing drawings to reflect current configurations at all the range sites.

Mr. Sturgeon, in 1983, initiated the development of the San Clemente Island topographic chart series (23 sheets), and the island facilities database. The database drawings include all geographic reference markers, elevations (50'), roads, support facilities, utilities, and range sites. The facilities database includes information related to every structure on the island (ie, Bldg. No., dimensions, type of construction, year constructed, assigned tenant command, category code, cost, etc.)

The Navy has adopted this information as the official database for San Clemente Island and it is used throughout the naval complex in San Diego. Mr. Sturgeon continues to maintain and update the San Clemente Island chart series and database on an annual basis. This data has been voluntarily developed, maintained, and distributed to the naval community.

Upon his civil service retirement in 1987, Mr. Sturgeon, operating as Buena Vista Associates, continued on as a Military Training Range Development/Documentation Specialist/Consultant in support of SCORE, and AIRPAC, NAS, North Island in San Diego. The ranges development tasking has been in requirements development, support facilities design, bills-of-materials preparation, logistics planning, construction supervision, and military unit liaison.

Since 1988, Mr. Sturgeon has obtained available military engineering construction units (Army, SeaBee, National Guard, and Marine Corps) to perform the construction, renovation, and repair of San Clemente Island Range Complex (SCIRC) infrastructure, range support, and other tenant activity facilities. He developed and managed five major military unit deployments during the period 1988-1992, which included the design and construction of nineteen buildings. One single deployment in 1992, utilizing military assets vice private contractors, saved the U.S. Navy over \$1 million dollars.

In 1996-97, because of his long-term involvement in island matters, Mr. Sturgeon was enlisted to participate in the development of the San Clemente Island Operations Management Plan (OMP). The resulting document compiled all the users and their activities, and presented recommendations for future operational management, and elimination of operational conflicts.

In 1998, Mr. Sturgeon participated in the development of the Environmental Impact Study (EIS) for San Clemente Island. His primary responsibilities involved development of the documentation for island infrastructure and facilities. In addition, Mr. Sturgeon conducted EIS study team members, with specific cultural and environmental interests, on extensive tours of the island. He also reviewed existing conditions and prepared modifications to be used in future Basic Facility Requirements (BFR) documentation. Because of his strong military background in underwater acoustics, he was also asked to develop a database for all man-made noise sources in the island waters

Also in 1998, Mr. Sturgeon was invited to participate in the development of the San Clemente Island Naval Training Complex Operational Authority (OA) study. This study defined the operational authority of SCIRC, identified essential personnel and resources, and produced standard operational procedures for the naval training range complex and the range users. Additionally, this included revision of the Fleet Area Control and Support Facility (FACSFAC) Range Users Manual (draft) documentation. FACSFAC is the parent organization for SCORE.

In 1999, because of his extensive knowledge of San Clemente Island, Mr. Sturgeon was asked by the Natural Resources Office (NRO) at NAS, North Island, to research and write the military history of the island.

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The Code of Conduct: Honor - Courage - Commitment

“HONOR”

I am accountable for my professional and personal behavior. I will be mindful of the privilege I have to serve my fellow Americans.

I will:

- Abide by an uncompromising code of integrity, taking full responsibility for my actions and keeping my word.
- Conduct myself in the highest ethical manner in relationships with seniors, peers and subordinates.
- Be honest and truthful in my dealings within and outside the Department of the Navy.
- Make honest recommendations to my seniors and peers and seek honest recommendations from junior personnel.
- Encourage new ideas and deliver bad news forthrightly.
- Fulfill my legal and ethical responsibilities in my public and personal life.

“COURAGE”

Courage is the value that gives me the moral and mental strength to do what is right, with confidence and resolution, even in the face of temptation or adversity.

I will:

- Have the courage to meet the demands of my profession and the mission entrusted to me.
- Make decisions and act in the best interest of the Department of the Navy, and the nation, without regard to personal consequences.
- Overcome all challenges while adhering to the highest standards of personal conduct and decency.
- Be loyal to my nation by ensuring the resources entrusted to me are used in an honest, careful and efficient way.

“COMMITMENT”

The day to day duty of every man and woman in the Department of the Navy is to join together as a team to improve the quality of our work, our people and ourselves.

I will:

- Foster respect up and down the chain of command.
- Care for the professional, personal and spiritual well-being of my people.
- Show respect toward all people without regard to race, religion or gender.
- Always strive for positive change and personal improvement.
- Exhibit the highest degree of moral character, professional excellence, quality and competence in all that I do.

