

RETURN TO OSU 7-12

USCG LORAN STATION

FRENCH FRIGATE
SHOALS

GENERAL
INFORMATION
BOOK

1965

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CHAPTER 1

HISTORY OF STATION

1. Geography and Climate: French Frigate Shoals is located 500 miles West-Northwest of Honolulu, Hawaii. Tern Island, the home of French Frigate Shoals Loran Transmitting Station, makes up just one part of the nine little islands which comprise the whole of French Frigate Shoals. The Shoals in turn comprise the approximate middle portion of the finger-like extension called the Hawaiian Archipelago which extends to Midway Island. As is true of the Archipelago the shoal area began as a result of volcanic action, which while erupting from its ocean bed, continued to spew lava upwards until it broke the surface, extending the crater many hundreds of feet above the ocean. With the volcano finally extinct, the ocean began the continuing process of erosion, wearing away the crater, finally all but removing it. The only portion of it still remaining is La Perouse, the 122 foot sentinel and land mark of the area. As the ocean was wearing the crater away, the denizens of the deep which in death form coral were building up the small islands which comprise the Shoals. What might have been a volcanic crater eighteen miles across is now only a scattered group of sand and coral islands. The excellent weather that is the rule is a redeeming factor in the isolation of French Frigate Shoals. Brilliant sunshine prevails with occasional rain squalls. When winter comes the squalls get longer and more frequent. Prevailing trade winds of 15 knots keep the station comfortable and free of flies and mosquitoes. The temperature is generally in the 70's during the day with cooler nights.

2. Discovery: A Frenchman is responsible for the discovery of this area, hence the natural evolution of the name. Jean Francois de Galup, Comte de la Perouse, a famous explorer of the Hawaiian Pacific Area, literally stumbled across the Shoals while on a voyage in the Pacific. On November 6th, 1786, Le Comte was sailing briskly along in his flagship, the BROUSOLE, accompanied by the ASTROLABE. Two days prior, the ships had come upon Necker Island and were continuing west. To quote from his narrative of the events, "Since our departure from Monterey, we had never experienced a finer night, or a more pleasant sea; but this tranquillity of the water was among the circumstances which had nearly proved fatal to us. Toward half past one in the morning we saw breakers at the distance of two cables length ahead of my ship. From the smoothness of the sea they made scarcely any noise, and some foam was perceptible only at distant intervals. The ASTROLABE was a little farther off, but she saw them at the same instant as myself. Both vessels immediately hauled on the larboard, and stood with their heads south-southeast; and as they made way during the maneuver, our nearest distance from the breakers could not, I conceive, be more than a cable's length." The Comte made a very careful survey of the area the next day and on that day christened it "Basse des Frigates Francais", the shoal of the French Frigates, "it had nearly proved the final termination of our voyage."

There is no record of any earlier inhabitants of this area. Necker Island, the island discovered two days earlier by de Galup, was inhabited by early Polynesians and relics of religious ceremonies have been found. Evidently, these islands were never used for any purpose until the twentieth century. The only inhabitants seem to have been birds and seals. Both these former residents still predominate. Until this century, French Frigate Shoals was just a passive witness to the passing of time.

(The name was adopted officially by the United States Geographic Board on October 1, 1924.) The Provisional Government of Hawaii leased the area for twenty five years in 1894. On July 13, 1895 it formally was made part of the Republic of Hawaii by Captain J. A. King. In 1898 it was included among the islands acquired by the United States when Hawaii became a territory. In 1909, it was made a part of the Hawaiian Islands Bird Reservation; a function it still serves. A 1923 survey of the islands indicated that the total area of the group comprised 46 acres, 17 of which were covered with sparse grass and other low vegetation, a total of six species of herbs and vines. The highest elevation was twelve feet. The population consisted of thousands of sea birds, most of them terns. It was on this 1923 expedition that the islands were given their present names. Tern Island derived its name from the White Tern which can be found roosting in the Horsetail Pines in front of the Barracks. Some of the other names are East Island, Shark Island, Whale Island, and Disappearing Island. The shoals form a rough crescent with La Perouse Pinnacle in the center. Officially, this area is part of the City and County of Honolulu but has been administered in turn by the Departments of Agriculture, Defense and Treasury.

3. Island Construction: Tern Island's inhabited history began with the advent of World War II. The Japanese were the first to discover the tactical possibilities of controlling this area. They used the Shoals as a submarine rendezvous and for refueling seaplanes. The seaplanes continued eastward for nuisance raids on the big islands and to locate the ships of our Navy. There were also big plans to build a launching pad here for another attack on Pearl Harbor. Our Navy, at the same time, was developing plans for the invasion of Midway. Admiral Nimitz ordered two destroyers and two AVPs ahead to scout the shoals and establish a U. S. base of operations, sufficient to provide a landing strip for carrier aircraft. Two months after the second attempt - unsuccessful this time - on Pearl Harbor on 4 March 1942 three Japanese submarines cruised into the area to find the AVPs resting at anchor with our seaplanes in the air controlling the Shoals. No further Japanese activities were reported in this area. Tern Island at the time resembled a small crescent. It was approximately 100 feet long and perhaps 80 feet wide. The Seabees started construction; first reshaping the island into its present carrier-like appearance. The Seabees bulldozed the island out of the coral, placed steel pilings around the perimeter and established gun emplacements. The total length of the runway was 3,1000 feet and the width of the island had increased to 410 feet. During the construction, the crews remained anchored off the south shore in barges.

Later, in 1944, the Navy abandoned Tern Island and the buildings fell into disuse.

4. Station History: About the time the Navy decided to leave, the Coast Guard began its Pacific Loran program. In August 1944 we built and established the Loran Transmitting Station which is famous in legend and song; French Frigate Shoals-reputed to be the most isolated Loran Station ever built. The first station was located on East Island, about nine miles southeast of Tern Island. This patch of coral is about 1,500 feet long and 400 feet wide, just enough room for the buildings and antennas. East Island was supplied logistically by sea with mail drops by PBY aircraft. The crew was rotated every six months if they desired and sent to another station to finish their year of isolated duty. On April Fools Day 1946 a tidal wave struck the island. Quite fortunately, no personnel casualties were suffered although the station itself was damaged severely. The station was rebuilt and continued to operate without incident until 1950 when in August the entire station was evacuated due to a typhoon warning which proved to be a false alarm. In 1952, the Coast Guard, recognizing the superiority of Tern Island over East Island, leased Tern from the Hawaiian Aeronautical Commission for an indefinite period. In March of that year, the present specifications of this station were accepted and shortly thereafter construction was started on the new French Frigate Shoals Loran Station. The contractor was C. W. WINSTEAD LTD. This station was built using the existing abandoned structures as the nucleus of the base with those additions peculiar to a Loran station being added. During station rehabilitation projects the crew has found old newspapers dating from 1942 to 1944. On October 14, 1952 the present station was accepted and placed in commission. After it was certain that everything was functioning properly, the East Island site was decommissioned. This occurred on 6 November 1952. The remains of the abandoned station are still standing. A visit to this island is in order during a tour of duty. It will be the only time, station personnel will refer to Tern Island as "home". Because of its landing strip and location Tern Island has been utilized by other government agencies. On December 15, 1960, the Pacific Missile Range established a tracking site on the east end of the island. It remained in active operation until late in 1962 and was completely dis-established in August 1963. The Atomic Energy Commission set up an observation post during tests in 1962. Station rehabilitation work was accomplished by the M & R Detachment from Honolulu CG Base during 1964. Many of the 1952 buildings were replaced by sturdy concrete block buildings and the sea wall was reinforced.

CHAPTER 2
STATION ROUTINE

1. Organization: The Commanding Officer, assisted by two chief petty officers and a first class petty officer, operates the station just as any other command functions. The BMC acts as executive officer and island manager and is responsible for the daily routine and maintenance of buildings and the runway. His duties also include supervision of the training program and head of the deck department. The ETC is the head of the electronics department and is responsible for operation and maintenance of all electronics equipment, and control of electronics spares and supply. The EN1 is responsible for the operation of the engineering department, vehicles attached, and fire fighting equipment. The HM1 acts as medical officer and administrative assistant to the commanding officer. If a seaman is available who wishes to strike for storekeeper, he is assigned as supply assistant.

2. Personnel Allowance:

(a) Officers: 1 - LTJG	Total 1
(b) Enlisted: 1 - BMC	
1 - ETC	
2 - ET1	
1 - CS1	
1 - HM1	
1 - EN1	
2 - ET2	
1 - RM2	
2 - ET3	
1 - EN3	
4 - SN/SA	
1 - FN/FA	Total 18

3. Buildings and Functions:

(a) Barracks Building: The barracks building contains 10 bedrooms, sickbay, galley, office and library. The crew's rooms are two men rooms equipped with single beds, desks and lockers. The office and library are located in the east end of the building. Formerly, the CO and CPO quarters were adjacent to the office, but they are now located in the air conditioned trailers just east of the barracks. On the west end of the barracks are the galley and mess deck. Although the barracks is 22 years old, it was completely renovated in 1964 and is in very good shape.

(b) Signal Power Building: The signal power building, constructed in 1964, is located 100 yards east of the barracks building and contains the Loran A timers, transmitters, amplifiers, Loran C monitor receivers, radio beacon timers and transmitters, electronics spares, and the engine room. This station operates as a double pulse master on Loran A rates 2L6 and 2L7 and the slaves are at Kauai and Johnston Island. Output power is 1,000 KW and the antenna is a 125 foot aluminum tower located just east of the signal power building. The Loran receiving antenna is located between the barracks and recreation hall. In addition, this station is monitor for the Central Pacific Loran C chain, Rate SH4. The Loran C master is on Johnston Island with slaves on Kure and Hawaii Islands. There are three receivers provided and the antenna is on the recreation hall. The radio beacon transmits code FSS on 320 kcs continuously and the antenna is about 500 feet east of the loran transmitting antenna. Primary communications are furnished with two 1,000 watt transmitters. This station is equipped with radio teletype equipment giving rapid communications with Radio Honolulu (NMO). A high frequency transceiver is installed for ship/shore traffic and to maintain communications with LORSTA Kauai. A dial phone system has been installed for intra-station use. Three portable FM transceivers are provided for small boat communications. This station is equipped with four GM 6-71 60KW generators. In normal operation, two generators are on the line in parallel. Also installed in the engine room are two distilling units that are used when insufficient water is obtained from the catchment system on the roofs of the rec hall, barracks, and signal power building. Water is stored in five 10,000 gallon wooden tanks and a 50,000 rubber tank.

(c) Recreation Hall: The recreation hall is located on the west end of the island and is the center of "liberty time" operations. The main room is a recreation room and movie hall with a permanently installed cinemascope screen. Also there is a gym and a dark room. "Joe's", the station beer hall, is also in the rec hall. This is probably the only mahogany paneled bar on any loran station and was built by station personnel. The station boat house is next to the rec hall and provides storage for the two 16 foot boats assigned.

4. Daily Routine: The working day starts at 0800 with quarters and colors. at 1300 drills and instructions are held. Work is generally secured at 1500 for athletics. These usually consist of volleyball, softball, or football. Generally a 5½ day work week prevails with material inspection held on Saturday morning at 1100. If the work load permits, holiday routine is held Thursday afternoons after departure of the logistics flight.

CHAPTER 3

LOGISTICS

1. General: The station is normally supplied by a weekly logistics flight from CGAS Barbers Point. This flight carries commissary stores, canteen stock, mail, passengers, and general stores. Fuel and heavy non-priority items are delivered semi-annually by the KUKUI or buoy tenders while working aids to navigation.

2. Source of Supplies:

(a) General Stores: The standard federal stock supply system is used with requisitions being submitted to CGSD, Honolulu, CGSC Alameda, NSC Pearl Harbor, GSA Supply Center, Honolulu, or GSA San Francisco.

(b) Commissary Stores: All commissary stores are furnished by the general mess at CGAS Barbers Point.

(c) Electronics Spares: All electronics requisitions are submitted to CCGD14 (eee) for funding. The normal sources of supply are CGSD Honolulu and CGSC Brooklyn.

3. Transportation:

(a) Aircraft: All personnel arriving or departing the station are passengers on the weekly log flight which currently utilized HU16E aircraft. Special log flights are scheduled when a heavy back-log of supplies occurs or for medical evacuation or other special personnel transportation.

(b) Vehicle: The station is provided with a jeep.

(c) Boats: One 16 foot outboard and a 16 foot inboard are assigned for recreation and local SAR duties.

4. Pay: The crew is paid semi-monthly by check and these checks are usually deposited to the individual canteen accounts.

CHAPTER 4

GENERAL INFORMATION

1. Canteen: The commanding officer maintains a canteen account much the same as an exchange, except that all purchases are on a credit basis. The canteen maintains a stock of beer, soda, tobacco and toilet articles. Special exchange items are ordered from the logistic coordinator at CGAS Barbers Point or mail order houses. These are paid for by checks written by the commanding officer on the canteen check account and the individuals canteen account is adjusted accordingly. Stamps and money orders are also charged to canteen accounts.
2. Recreation: Recreation facilities at French Frigate Shoals are quite varied. The sea provides skin diving, fishing, water skiing and swimming on the beach behind the barracks. The reefs that surround the island offer ulua, parrot fish, and lobster for the skin diver. The surrounding waters hold ulua, tuna, papio, and sea turtle. A softball diamond is on the runway and an all-purpose recreation court between and the rec hall and barracks is equipped for tennis, volleyball, basketball, and badminton. Nightly movies are shown in the rec hall. The library is well furnished with paperback novels. The rec hall has ping-pong, and pool tables.
3. Amateur Radio Station: The ham station is located on the east end of the island and is equipped for working phone patches to the mainland.