



U.S. COAST GUARD

LORAN STATION
ENIWETOK

General
Information
Book

1969

TABLE OF CONTENTS

<u>CHAPTER</u>	<u>TITLE</u>	<u>PAGE</u>
I	Facts on Island and Station	1-1
II	Station Routine and Activities	2-1
III	Command	3-1
IV	Logistics	4-1
V	Local Area	5-1
VI	Recreation	6-1

PRINTED JUNE 1969

CHAPTER I

FACTS ABOUT THE ISLAND AND STATION

1. LOCATION - 11° 21' N. 162° 21' E. The western atoll of the northern Marshalls; 530 nautical miles Southwest of Wake Island, 200 West of Bikini, 1,050 East of Guam, and 2,380 Southwest of Honolulu.

2. SIZE AND TOPOGRAPHY - The atoll consists of a chain of 42 islets surrounding an oval lagoon 25 miles by 20 miles wide and slightly elongated in a northwesterly direction. The total land area of the islands is 2.26 square statute miles. Most of the islets are less than 13 feet high. Three entrances penetrate the reef. The deep entrance, at the Southeast side, is about 3/4 of a mile wide and has a depth of 31 fathoms between Parry Islet and Japtan Islet. South Channel, on the other hand, is very wide, about 6 miles, but the chartered depths are only 6 to 12 fathoms. Southwest Passage is shoal with depths of about 1 fathom maximum. Tidal currents of 4 knots in Deep Entrance, and 1 knot in South Channel have been observed.

3. CLIMATE - The Northern Marshalls have a tropical marine climate characterized by uniform temperature, high humidity, cloudiness, and to a lesser extent, constant winds. The prevailing weather conditions are partly cloudy skies and moderate easterly tradewinds. Convective activity is primarily responsible for weather changes, and bad weather usually consists of relatively brief showers and infrequent thunderstorms. Typhoons are relatively uncommon.

There are two seasons. One extends from mid-September to mid-June and is characterized by the dominance of the northeast tradewinds; from mid-June to mid-September, the season may be characterized by either doldrum conditions or southeast tradewinds.

Temperatures are remarkably constant. The mean annual temperature is 82 degrees and the mean monthly temperature does not vary from this by more than 2 degrees; absolute maximum temperatures vary from 90 degrees to 95 degrees; absolute minimums vary from 71 degrees to 73 degrees, a range of 24 degrees.

Mean relative humidity is 80 to 85 percent; mildew problems are frequent. Annual precipitation is about 78 inches, the major portion falling between July and November. Maximum mean rainfall is 10.4 inches in October; mean minimum rainfall is 1.8 inches in February.

4. BIOTA - In general, the northern half of Eniwetok Atoll, subject to AEC tests, does not have a normal vegetation. Site Irene, for example, is devoid of all vegetation. Heavy fighting in World War II destroyed most of the trees on the larger islets and, indeed, not one tree survived into 1946 on Eniwetok. Since then, on the major islets, most available space has been utilized for construction, and the area is almost fully surfaced. Japtan however, is currently supporting coconut palms and other indigenous plants, Scaevola, primarily. Rigili Islet is occupied by dense jungle.

5. ISLAND HISTORY - The Island was part of the Japanese Mandate in the Pacific after 1920, and was seized by American forces in February of 1944 and converted into an air and naval base from which attacks were launched on Japanese Bases. It is now part of the U. S. Trust Territory of the Pacific Islands. From 1946 to 1960 the Atomic Energy Commission used the island for testing nuclear weapons. Native inhabitants were permanently moved to Ujelang, another Marshall Island atoll before the testing began. In July of 1960, the control of the Eniwetok Proving Grounds passed from the AEC to the Pacific Missile Range of the United States Navy. There are still four pits in the atoll that nuclear detonations have caused and the resulting craters are still visible. In February 1965 control of the Atoll was transferred to Commander Air Froce Western Test Range, Vandenburg Air Force Base, California. The Atoll command was designated Commander Air Force Western Test Range Detachment One. The Atoll remains under Air Force control at the time of this writing.

6. STATION HISTORY - The site for the Loran-A station at Eniwetok was first selected by the Coast Guard in February 1949, and the location and property area was confirmed by the AEC and CINCPAC at a conference in Washington held on 12 December 1949. Land permit for this site was issued to the Coast Guard by the Department of the Navy on a revocable basis on 15 August 1950. The station was built by the AEC contractors, Holmes and Narver, and completed on 24 January 1951. Operation was started on that date as a double master Loran-A station on rates 1L0 and 1L1 with a crew of one officer and eight enlisted men. The station is provided with complete base support including power, water, telephone services, messing facilities, land and water transportation, shop and warehousing facilities, and limited local supply support by the civilian contractor. An additional building was erected on Parry Island, Eniwetok Atoll on 24 January 1951 for use as a Loran Monitor Station. This facility was later discontinued having served its purpose. The original station consisted of the Signal-Power Building only. The crews quarters were completed in July of 1953 and renewed in 1955. The store-room and paint locker were completed on 16 July 1962. A rehabilitation project was begun in September 1967. An eight foot addition was made to the barracks, the entire building was air conditioned, and rooms were formed out and finished off. Each man in the compliment was provided with his own air conditioned room. The loran operations building was rehabilitated and completely air conditioned with the exception of the engine room. This project was accomplished by station personnel with technical help from the Support Contractor. It was completed in March 1968.

CHAPTER II

STATION ROUTINE & ACTIVITIES

1. STATION ROUTINE - The station routine is determined to some extent by scheduled services and routine of the other military and civilian activities on Eniwetok, particularly those of the Atoll Commander and Base Support Contractor. Recreational periods and curfews are in basic conformance with those of the Atoll Commander. Since there is no provision for leave or liberty at Eniwetok, all hands other than those on watch and duty electronics technician are permitted free gangway liberty during non-working hours with the provision that each man keep the watch informed of his whereabouts at all times. This is accomplished by use of a checkout board posted inside the timer room. All trips off the island for aids to navigation inspections or recreation must be cleared by the Commanding Officer and Island Security. A typical day at Eniwetok would be as follows:

0345	Relieve the watch.
0600	Breakfast begins.
0630	Reveille.
0715	Breakfast secured.
0800	Morning Colors. Turn to station work. Sick call.
1030	Early chow. Inspection of living spaces.
1200	Lunch begins.
1300	Resume station work.
1500	Secure from station work. Quarters, instructions and drills.
1600	Early chow.
1715	Dinner begins.
1845	Dinner secured.
Sunset	Evening colors.
1945	Relieve the watch.
2015	Movie at the outdoor theater.
2200	Lights out, curfew in the barracks.
2300	Curfew on the island, all hands on the station.

2. STATION PERSONNEL ALLOWANCE

a. Officer:	1 LTJG - Commanding Officer
b. Enlisted:	1 BMC
	1 ET1
	1 EN2
	1 ET2
	2 ET3
	<u>2 SN</u>
	8 Total

3. BUILDINGS, ASSOCIATED DEPARTMENTS AND THEIR FUNCTIONS

a. Barracks Building - The Barracks Building is where the crew of eight live. The Commanding Officer's quarters, located in the center of the island, is the Staff Quarter Building 720.

b. Loran Operations Building - This is the heart of the station, containing the Timer and Transmitter Rooms, the Recreation Room, Engine room, Stockroom and the office. The Transmitter Room houses the SSB-1MK IV communications transmitter and two T-325C Loran Transmitters and associated equipment. The Loran Transmitters operate one at a time, producing approximately 128 KW double pulsed power, serving both Loran rates, 1L0 and 1L1. Adjacent to the Transmitter Room is the Timer Room containing four AN/FPN-30 timers and the AN/FPA-2 Switching group. It is here in the timers that the 100 KC basic frequency is generated to a high degree of accuracy. The timers multiply and divide this basic frequency to obtain all scope sweeps, the reference time delay, transmitter triggers, etc. The timers also provide excitation for the transmitters. The Engine room contains two auxiliary generators for use when the island power supply is lost.

c. Mess Hall - The Mess Hall is located in the center of the island. The galley is staffed by the base support contractor and is adequately equipped to feed more than three hundred people. All meals are served cafeteria style.

d. Air Terminal - The Air Terminal and landing strip, located at the south west end of the island, is maintained by the support contractor. The landing strip is over 8000 feet long and with the aid of installed arresting gear is capable of handling all military and commercial MAC contract planes presently in use. A control tower manned during daylight hours is operated by the CAA qualified civilian air controller. Two regularly scheduled MAC contract flights come in during each week from Honolulu via Kwajalein Island. In addition, at least one MAC cargo flight is scheduled per week.

e. Communications Center - This is the relay for the Loran Station on most message traffic. A continuous news broadcast is received on a teletype readily available to all personnel. For those men with dependents in Honolulu, nightly calls may be made by landline provided advance arrangements are made with the telephone operator.

f. Ham Radio - There is one Ham Station on the island that is operated by any qualified Ham Operator under the supervision of the Chief of Communications. There are several Ham Operators on the west coast of the United States and in Honolulu who are faithful operators of "phone patches" for personnel on Eniwetok.

g. FEC - Federal Electric Corporation provides photo-instrumentation coverage of missile events scheduled in the Eniwetok lagoon and provides limited photographic support to the Loran Station on request. The Photo Lab is in the center of the island.

h. Hospital - The island hospital is located in the center of the island and is staffed by one civilian doctor and several aid men, all employees of the base support contractor. The hospital is equipped with an operating room, several treatment rooms, and in-patient quarters.

CHAPTER III

COMMAND

1. LORAN STATION OPERATIONAL CONTROL - The Commanding Officer, USCG Loran Transmitting Station, Eniwetok, is directly responsible to Commander, 14th Coast Guard District.
2. ENIWETOK ISLAND OPERATIONAL CONTROL - Eniwetok Atoll and Bikini Atoll are part of the Air Force Western Test Range under the operational control of commander, AFWTR Det. 1. The Air Force commander has a staff of one officer, 3 enlisted men and 3 civil service employees. In addition, 20 regular Air Force personnel are assigned to man the Weather Support Station.
3. CIVILIAN SUPPORT - Kentron Hawaii, Ltd., and Federal Electric Corporation are the civilian support contractors. At the time of this writing Kentron has 200 men present; Federal Electric has 60 men present.
4. COLLATERAL OPERATIONS
 - a. Aids to Navigation: Aid to Navigation Control of this area is assigned to Commander Marianas Section, Guam. Eniwetok Loran Station maintains a watch over all 12 surface aids to navigation in the atoll. Two fixed aids, Japtan Light and Deep Water Entrance Light, are serviced monthly, and are a primary responsibility of this unit. Five lighted and five unlighted buoys constitute the remainder of the aids. A buoy tender is scheduled quarterly for aid repair.
 - b. Tide Observations: Daily tide observations are taken and recorded for the U. S. Coast & Geodetic Survey. The tide station is located at the pier directly opposite the station. A representative from the Coast & Geodetic Survey periodically inspects the tide station and offers comments and suggestions for improved operations.
 - c. Passports: The Commanding Officer, Eniwetok Loran Station is the only officer on the atoll authorized to process and witness passport applications. Forms and general information are available on request.
 - d. Notary Public: The Commanding Officer serves as the notary public for the atoll.

CHAPTER IV

LOGISTICS

1. GENERAL - Supplies are normally delivered to the station via Air Force MAC flights from Hickam AFB, Honolulu. Special Coast Guard flights may bring in supplies periodically. Heavy, non-priority items will be delivered by MSTs.

2. SOURCE OF SUPPLY

a. General Stores and Housekeeping Supplies: The contractor maintains stocks at Federal Supply which are available to the station. Standard Navy stocks are procured from NSC Pearl Harbor, NSC Oakland, or GSA San Francisco. Coast Guard peculiar items are ordered from the Coast Guard Supply Depot, Sand Island, Honolulu or from the Supply Center, Alameda, California.

b. Fuel: Gasoline and diesel fuel are obtained from the Support Contractor.

c. Commissary: There is no messing facility on the station. All food is obtained under an inter-service agreement. Rates are \$4.00 a day for TDY personnel. Enlisted personnel mess bills are under contract and are handled by the District Office. Officers must pay their bills in cash on the last day of the month at the cashiers window.

d. Laundry: Laundry charges for all TDY/TRANSIENT personnel are \$1.75 per bundle. Permanently assigned personnel are also charged \$1.75 per week. Payment of bills is the same as for commissary.

e. Quarters are provided to TDY personnel at a charge of \$1.50 a day.

3. MAIL - Mail arrives twice a week on MAC contract flights from Honolulu via Kwajalein Island. All mail and mail services are handled by the Island Post Office. U. S. Postal Money Orders are not available, but Bank of Hawaii Money Orders may be purchased at the Kentron Cashier's window.

4. TRANSPORTATION - One scout and crew pickup truck are presently assigned to this station from AFWTR, Det. 1. Scheduled water transportation is to sites Elmer and David. Additionally, five bicycles are on board for use.

5. WATER & POWER - The Support Contractor provides primary electrical power for the station. Auxiliary generators on the station are used for emergencies. Water is provided by the contractor from distilled salt water, and although the supply is adequate, the equipment is old, and caution should be used in consumption.

CHAPTER V

LOCAL AREA

1. ENIWETOK ISLAND - Eniwetok Island offers support to the station in the ways of services, facilities, and recreation. The services and facilities include:

Church services, base exchange, theatre, post office, library, refreshment bar, barber shop, hobby shop, gym, and other similar things.

2. CUSTOMS

a. Dining Hall: Shirts are required wearing apparel in the dining hall. Swim trunks and bare feet are prohibited. Alcoholic beverages will not be carried into or consumed in the dining hall. No food may be removed from this area.

b. Clothing: Aloha shirts, bermuda shorts, and shower slippers are accepted items of wearing apparel during non-working hours for all island and station personnel.

c. Movie Theatre: Due to the frequent and unpredictable showers, and the fact that the theatre is open to the elements, rain capes are a must and are available at the Loran Station.

3. DEVELOPMENT - Before atomic testing began on Eniwetok in the late 40's, there were approximately 175 natives on the atoll. When testing began the natives were removed to another island in the Marshall chain and they have not been returned to Eniwetok.

4. SHOPPING HINTS - The "Camp Store" stocks an adequate supply of toilet articles, tobacco, civilian clothing, and liquor. Very few articles of the military uniform are carried. Gift and luxury items are available. Prices are very good on foreign made goods and liquor and cigarettes. Electronic items and cameras are popular buys.

5. SAFETY - The following are several hazards peculiar to this area:

a. Sunburn and coral abrasions: The severe intensity of the sun at Eniwetok can cause serious burns. It is strongly recommended that you get your suntan in gradual stages and do not delay in getting medical attention at the hospital in case of painful burns. Similarly, cuts and abrasions caused by contact with the coral, which makes up these islands, are more than ordinary infections. Obtain competent first aid for all such injuries.

b. Underwater Hazards: Potentially dangerous marine life in the area include sharks, barracuda, stonefish, turkeyfish, puffers, moray eel, and stingray. Other venomous invertebrates are: poisonous jellyfish, the Portugese Man 'O War, poison cone shells, and stinging sea urchins. Certain corals are also dangerous.

CHAPTER VI

RECREATIONAL FACILITIES

1. RECREATION HALL - The recreation hall in Building 603 is open daily from 0730 to 2300 hours. Game facilities in the building include pool and table tennis. A library and reading room is located in the same building with operational hours of 1800 to 2000 hours on Sunday. News boards in the main lobby contain the latest news, sports and financial bulletins.
2. TERRACE THEATRE - Movies are shown nightly at the theatre in accordance with a movie schedule published and distributed each Saturday. There is no admission charge. Movie time is 2015 daily.
3. BINGO SCHEDULE - Bingo is scheduled at the "Tradewinds" each Wednesday night. Cards go on sale at 1900 hours and the game starts at 1930.
4. ATHLETIC EQUIPMENT - Fishing gear, softball equipment, volleyballs, tennis and table tennis is available at the Recreation Department, Building 603, between 0730 and 1800 hours.
5. SWIMMING POOL - A swimming pool is located east of Lagoon Drive, opposite the lagoon swimming area. Swimming alone is permitted during daylight hours.
6. LAGOON SWIMMING - The lagoon swimming area is located 200 yards south of the Marine ramp. The swimming area is open during daylight hours for any group of two or more swimmers. Solitary swimming is prohibited.
7. TENNIS COURTS - The tennis courts are located 500 yards up the Lagoon Drive from the station. They are provided with lights for night playing.
8. GOLF RANGE - The Golf Driving Range is located across from Security. Balls and clubs are available at the recreation office. The range is open during all daylight hours.

www.loran-history.info