

**ORGANIZATION
AND
GENERAL INFORMATION
RELATING TO THE
LORAN TRANSMITTING STATION
SAN SALVADORE
B.W.I.**



U. S. COAST GUARD
TREASURY DEPARTMENT
SEVENTH COAST GUARD DISTRICT
MIAMI, FLORIDA

U. S. COAST GUARD LORAN TRANSMITTING STATION

SAN SALVADOR, BAHAMAS

ORGANIZATION
AND
GENERAL INFORMATION
BOOK

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RECORD OF CORRECTION

| | <u>Change Number</u> | <u>Effective Date</u> | <u>Date Entered</u> | <u>Signature</u> |
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SECTION OF CHART SHOWING SAN SALVADOR

IN RELATION TO MIAMI, NASSAU, ETC.

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FLORIDA

MIAMI

GRAND BAHAMA ISLAND

NASSAU
NEW
PROVIDENCE I.

GREAT
AABACO I.

CUBA

ANDROS

ELEUTHERA I.

CAT I.

GREAT
EXUMA

SAN SALVADOR

RUM CAY

LONG I.

CROOKED I.
ACKLINS I.

MAYAGUANA I.

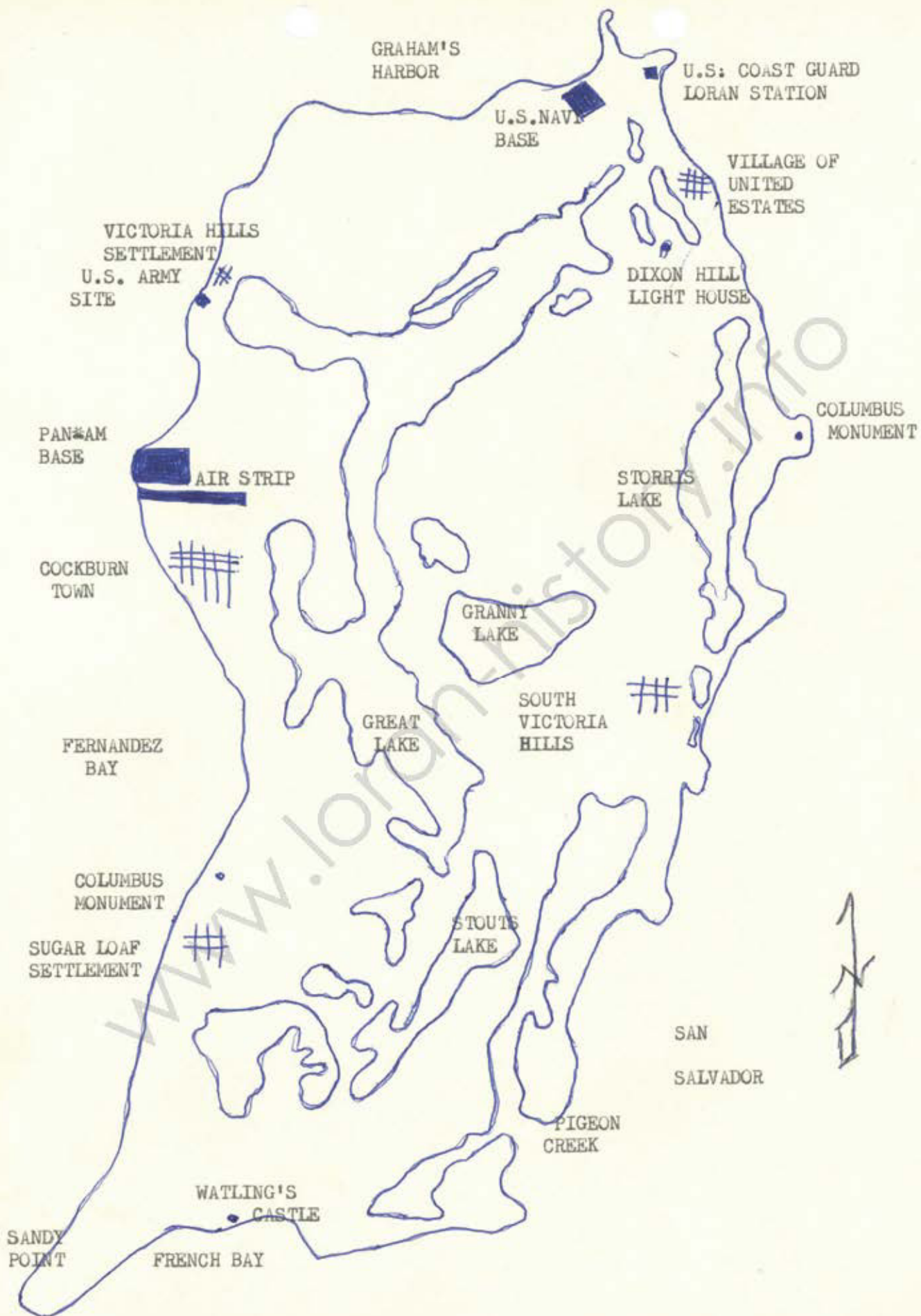
GREAT
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CHART OF SAN SALVADOR

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CHAPTER ONE

GENERAL INFORMATION

A. THE ISLAND

1. Geographic location: The island of San Salvador is one of the Out Islands of the Bahamas, and is located at 24-00 N, 74-30 W. San Salvador lies about 360 miles southeast of Miami, and about 190 miles southeast of Nassau. Nearby islands include Cat Island, Rum Cay and Samana Cay.

2. Topography and Climates: San Salvador is twelve miles long and five miles wide, the longer dimensions running north and south. Like most other of the islands of the Bahamas, it is rocky and relatively hilly with sandy soil. Gleaming beaches front San Salvador on the south and western shores. Jagged coral cliffs on the north and east are interspersed by broad white beaches bordering the crystal-clear indigo waters of the Caribbean. The interior of the island contains many semi-fresh water lakes of all sizes, many connected by both natural and man made canals. This broad waterway was once the primary means of transportation around the island, and has only recently been superseded by roads and automobiles. Many small islands (cays) surround San Salvador on all sides at distances of one-half to two miles off the coast.

A temperate climate prevails year round with temperatures ranging from 65 to 90 degrees. The hottest month is usually August, with temperatures as high as 95 degrees. The coolest month is January with temperatures as low as 45 degrees. Humidity is rather high, in the 70-80% range. Average annual rainfall is 45.1 inches, occurring mostly during the "rainy season" i.e., August-November.

Occasional hurricanes in the fall have caused severe damage to local property. Hurricane condition four is maintained from June to November, and higher conditions are often set.

| Temperatures | Daily | Annual |
|--------------|-------|--------|
| maximum | 93.0 | 83.0 |
| minimum | 56.0 | 72.6 |
| mean | ---- | 78.1 |

3. Plant and Animal Life: Animal life consists of a few species of small lizards and land crabs. Duck and other migratory birds are common during the months of November, December, and January. Chickens, goats, pigs and a few head of cattle are kept on some of the small

local farms. The waters around the island teem with all manner of marine life including lobster (langousta), crabs, conch, and many varieties of fish. A class of animal life not particularly desirable but in plentiful abundance, is the insects. Constant spraying and extermination is required to control the myriad of sand flies, mosquitos, and to a lesser degree, roaches. There are no poisonous snakes or other harmful animals on the island.

Plant life includes palmettoes, sisal, cactus, palms and other vegetation that can thrive on the dry sandy soil. Banana, guava and coconut trees can found about the island. Native farmers grow corn, cabbage and squash. A few types of poisonous vegetation have been reported.

4. History: On the third of August 1492, Christopher Columbus sailed from Palos, Spain, with a fleet of three tiny ships "to discover and acquire certain islands and mainlands in the Ocean sea." Seventy days later, on the twelfth of October, 1492, he made his first landfall in the western hemisphere on a small island in the Bahamas; Columbus christened the island "San Salvador" (Holy Savior) in thanksgiving.

In the early 18th Century an English pirate named Watling adopted San Salvador as a base of operations for his slaving and raiding expeditions. So successful were his raids on the Spanish Main, that the British Government gave him title to the island and named it Watlings Island, a name it still bears on some charts today. In 1926 the Bahama Government re-instated the original name that Columbus had given it.

Although the vast majority of experts are convinced that San Salvador is the island where Columbus first landed, others still contend that it was elsewhere. On San Salvador itself, there is even disagreement as to the exact point where Columbus came ashore. Three monuments in widely scattered locations represent the different interpretations.

5. Inhabitants: The Bahamians are of West African origin. The descendants of negroes brought here by the slave-traders. San Salvador is said to have been a major port in the slave trade which flourished between the American Colonies and the West Indies. Also the slaves worked the network of cotton and sugar cane plantations which existed here before the abolition of slavery throughout the British Empire in 1834.

About three quarters of the population of about 800 live in either Cockburn Town (pronounced Coburn) on the southwest end of the island, or the village of United Estates, on the northeast end. Their homes, though not comparable with U. S. standards, are neatly maintained. Private generators supply power for lights, radios, pumps and fans. Automobiles, trucks, and motorcycles are not uncommon.

The Bahamians have a well developed sense of humor and are on the whole, a friendly and happy group. They like the U. S. and the Americans, but their first loyalty is to their own country and the Queen. Most are quick to take offense when confronted with disparaging remarks regarding their race, their island, or their Queen; these are never joking matters.

A born sense of rhythm and a love of music make the Bahamians good singers and even better dancers. Their favorite dance music is Calypso or American "rock and roll". Friday nights are dance nights at the Rips, (parties or dances) usually held in local taverns. Sundays, however, are reserved for religious services, and most of the Bahamians are active Christians.

The islanders speak a brand of English that is tinged with the British accent and sprinkled with local colloquialisms. The British influence is exemplified in the use of "mon" (man) and are evident in substituting "oi" for "ur" as shown in "foist", "Boibon", "Alboita", and the use of "w" in place of "v" as in "Nowember" and "wodka".

The Bahamians have a strong sense of family devotion and close family ties. All look after the young and elder members of the family with commendable spirit of responsibility. Discipline is firm and obedience is constant. The native children look after their younger brothers and sisters, and fighting among them is practically unknown.

6. Economy: In the last decade, the economy of the island has grown considerably due, in large measure, to the establishment of three U. S. Military Activities here. This is most obvious in the western parts of the island where many Bahamians work at the military installations. The people at the eastern end of the island, while not wholly unaffected, have not enjoyed the late prosperity of their counterparts across the island. Their way of life is simple and their few wants are easily satisfied. Patch farming and fishing are their major occupations.

7. Government: The Bahamas Islands, a unit of the British Commonwealth of Nations, covers an area bounded, roughly, by the Straits of Florida in the north and the Caicos Passage in the south. The islands are controlled from government offices in Nassau, on the New Providence Island. The Caicos Islands (the location of the slave station) and Turks Island are part of the Federation of the West Indies and are governed from Jamaica.

The head of the Bahamas Government is the Governor, who is appointed by the Queen of England. The Premier, head of Parliament and advisor to the Governor, is elected by the people of the Bahamas. Parliament, with elected representatives from the islands, consist of the Cabinet and the House of Assembly. The various Ministries, such as the Minister of Finance, Minister of Education, etc., round out the major units of the central government. Commissioners, police and constables take care of matters on the local level.

B. LOCAL U. S. MILITARY

1. The location of U. S. Military facilities in the Bahamas goes back to the Lend-Lease agreement concluded by the U. S. and Great Britain in the early years of World War II. The regulations governing this agreement are contained in the State Departments publication "United States Defense Areas in the West Indies" (TIAS4734).

2. U. S. Coast Guard: The U. S. Coast Guard Loran Station is located on the northeast tip of the island. The barracks and water catchment facilities are located on top of a low ridge overlooking the operations and engineering building below on the road level. Thus situated, the station presents an unusually attractive appearance and commands one of the best views on the island.

3. U. S. Navy: The U. S. Naval Facility, San Salvador (NAVFAC) is located on the northern shore of the island, facing Grahams Harbor. The primary mission of the station is oceanographic research. The facility was commissioned in December 1954; permanent construction was begun in 1957, and finished in 1959. Its complement is approximately ten officers and 100 men. In addition to the exchange and recreational facilities offered to Coast Guard personnel, they provide communications service and the use of some of their specialized maintenance and transportation equipment. A fine spirit of cooperation and friendship had grown over the years among personnel of the two stations. Beside the recreational facilities they have open to Coast Guard personnel, they also handle both incoming and outgoing mail, fuel, and the local labor force.

4. Pan American Base: The Pan American Missile Tracking Station at one time had about 150 people assigned, including dependents. At the present time a skeleton crew of three is assigned to the base.

CHAPTER TWO

OPERATIONS

A. LORAN

1. West Indies Loran Chain: The West Indies LORAN Chain is the collective name of our system with U. S. C. G. LORAN Station South Caicos being our paired station. Both stations are under the operation control of CCGD7. LORAN Station South Caicos, a double pulsed slave, is paired with LORAN Station Cape San Juan for rate 2L2. We perform monitor functions for this rate and in turn are monitored by the Cape San Juan station. The mode of operation presently authorized is type 3 modified with an assigned tolerance of plus or minus 2 microseconds and standard time delay of 3765.0 microseconds. Type three modified operation is defined as that mode of operation wherein LORAN synchronization and recording are accomplished by automatic synchronizer and recorder units. Remote alarms are provided to indicate off sync, sync error, decreased power and power off condition and blinking (pulse shifting) is automatically initiated when rate tolerance is exceeded. Automatic recording of performance is scribed on a continuous roll chart, power off and local blink time. Auto-matic output switching equipment is also provided.

U. S. C. G. LORAN Transmitting Station, San Salvador, Bahamas is the master station of rate 2L3, delivering 150KW peak power to a 120 foot antenna at a frequency of 1850KC, a basic repetition rate of 25 cycles per second and a specific repetition rate of 39,700 microseconds.

2. Personnel and equipment: Four electronics technicians are assigned for the maintenance and operation of the rate. The technicians prime concern is the operational equipment, but they also maintain all electronic and electrical equipment and systems. The more important operational equipment consists of T-325B LORAN TRANSMITTERS; AN/FPN-30 TIMER and AN/FPA-3A OUTPUT SWITCHING EQUIPMENT. The T-325B LORAN TRANSMITTER and AN/FPN-30 TIMER have standby equipment that is kept in instant readiness by the technicians. Aside from adjustment, alignments and common circuit break downs, the gear is relatively trouble free. Detailed write ups on all the equipment is available from various technical manuals.

The fall and winter months present that old enemy of electronics: dampness. A state of high humidity exists during these months which call for constant battle to keep the equipment dry. Corrosion is always a problem due to the proximity of salt water. Air conditioning has been recently installed in the LORAN room and provides better and more reliable operation. The old adage "its an ill wind" might be applied

to the dampness encountered here during the rainy season. The frequent rains of this period wash the salt accumulations from the antenna, insulators, and guys, greatly improving the resistance values. These salt accumulations are sometimes troublesome during the dry season.

Another occasional problem results from the lack of voltage regulation on the T-325B TRANSMITTERS. If voltage fluctuations are excessive, decreased output power and tube arcing will occur. This may result in momentary signal loss, bad time and excessive wear on tubes and components.

All of these problems are relatively minor; vigilant preventive maintenance and alert watchstanders keep them well in hand.

In general, pulse output and sync accuracy has been very good. Average good time is usually in the neighborhood of 99.8% per month. The station has maintained a better than average record for sync accuracy in comparison with stations of the same type. Frequent preventive maintenance and tuning and a good signal to noise ratio help in this respect.

B. COMMUNICATIONS

1. Loran Net: The West Indies LORAN-A Net, designated P7.3 in CG-233, consists of the single sideband voice frequencies 3253, 4050, 7531.5 and 8085 MCS. Units authorized to use these frequencies are: Radio San Juan (NMR), Loran Cape San Juan (NMR14), Loran South Caicos (NMA5), and Loran San Salvador (NMA4). The LORAN Net is an invaluable aid in synchronization, testing and logistic problems between Master and Slave stations.

We maintain and operate a COLLINS 32RS-1 Single Sideband Transceiver on these frequencies. The 32RS-1 has an output of 100 watts on upper sideband, and is connected to an exact quarter wavelength dipole antenna for our guard frequency, 4050kcs. A thirty-five foot whip antenna is utilized for other LORAN Net frequencies.

2. Other Communications: With the exception of the single sideband transceiver used for Master-Slave traffic, station communications are provided by the Naval Facility. The NAVFAC has all manner of communication gear including RATT, which is their usual method of sending and receiving our messages. Message service is extremely reliable but sometimes slow due to the vast quantities of messages handled at their comm center. The NAVFAC has on-line crypto equipment which may be utilized for classified traffic.

Pan-Am maintains an underwater submarine cable with Patrick Air Force Base, Fla., which may be used for official business or personal emergency affairs.

We also have three AN/PRC-59 handie talkies on board that can be utilized for station communications over most of the island and in the small boat in local waters.

C. SEARCH AND RESCUE

1. General: The station SAR capabilities, as might be expected, are very limited. The location of San Salvador, however, seems to be in an area of frequent distress and several cases are encountered each year. These are limited to assistance in overdue and MEDICO situations on or near the island. These cases are received from or reported to CCGD7 or COMGANTS and action is usually swift and effective. The station small boat has been used several times to ferry MEDICO's from vessels off-shore to a waiting HU-16E for evacuation to Miami. Since we have only the SSB transceiver equipment, all comm searches in overdue and uncertainty cases are referred to the NAVFAC which has the necessary frequency coverage for PRECOM and EXCOM searches.

With the late large rise in boating and fishing in the Bahamas, occasional SAR situations will probably continue to cause intermittent breaks in a placid routine.

CHAPTER THREE

PERSONNEL

A. COMPLEMENT

1. General: The Station has 11 enlisted and one officer billets; a LTJG as CO, a BMC as XO, an ET1 as leading operations petty officer, an EN1 as leading engineering petty officer, and a CS1 as leading commissary petty officer. The remainder of allowed bills are (1) ET2, (2) ET3's, (1) DC2, (2) SN's and (1) FN. The complement is divided into three sections, comparable to most Coast Guard organizational structures. The operations section consists of one ET1, one ET2, and two ET3's. The engineering section consists of one EN1, one DC2, one SN, and one FN. Two native laborers are assigned to the "E" section round out the section. The commissary section consists of one CS1 and one SN. This complement has proven adequate for effective operation.

B. PERSONNEL RECORDS

1. General: Personnel Service Records, personnel diary, roster, etc., are maintained at the station under the supervision of the CO and XO. Although no clerical personnel are assigned, little trouble has been encountered in the administration of service records and other personnel records. The personnel manual, directives and related sources must, of course, be thoroughly studied and periodically checked. Since pay records, travel claims, allotments, etc., are certified by the Disbursing Officer, at the NAVFAC, based on records prepared by the station, proper and timely submissions is requisite. Re-enlistment and discharges are effected at the District Office.

C. MEDICAL

1. General: In accordance with Chapter 8 of CG-294, Medical Manual, this unit is categorized as a class (5) medical facility. However, being located so close to the NAVFAC, no HM is assigned and arrangements are in effect for the NAVFAC to maintain sick call and binnacle lists for this command. The best of services have been rendered and received on the few occasions when needed. For serious cases requiring a doctors attention, patients are air evacuated to Patrick AFB or Miami. The sanitation program is conducted by the station crew. Spraying and extermination are more for comfort than for health purposes and are seldom a problem. Fresh water samples are taken quarterly and are sent to the Miami State Laboratories for testing. As the water is literally as pure as rainwater (infact it is rainwater), always filtered and chlorinated, it has never failed to meet standards. Sewage is handled by an efficient septic tank system which is trouble free. Unfortunately, for the SN, the septic tank must be cleaned periodically. Nose-plugs, gloves and det-ermination make cleaning almost easy.

D. EDUCATION AND TRAINING

1. General: The Commanding Officer is the educational officer in accordance with CG Regulations. He is however assisted by the SSO and LOPO, the SSO being designated as training officer and the LOPO as educational assistant. The station training program is conducted in accordance with the COMDTINST 3500 series and Appendix (I) to Annex (E) of CCGD7 OORDER No. 1-(YR). Isolated duty provides a vast amount of spare time i.e., off duty hours which would normally be utilized, more or less, ashore on outhorized liberty in CONUS, which can be directed toward furthering a man's education through CG Institute Correspondence courses and USAFI Courses. The LOPO supervises the procurement of educational material and maintains educational records pertaining to the latter. In accordance with current regulations, the CO administers all completion of course test finals. Approximately 3/4 of the crew is enrolled in Institute or USAFI courses at any given time.

Opportunities for advancement in the rate are plentiful in the rates presently on board. Practical factors for the rates of BM and ET1 should be taken before reporting as facilities and/or examiners are limited in these areas. The amount of time a man desires to spend on his own education is the only factor limiting how much he will accomplish in this line while stationed here.

E. WELFARE, RECREATION, AND MORALE

4. General: Morale and Welfare have been consistently high over the years. Some of the factors contributing to this are: frequent mail service, earned compensatory absence, nearby American installations and the invaraibly fine weather.

2. Mail: Mail is received and delivered twice weekly via Navy Patrick APB, Florida on MATS airliners. It takes from 3 to 7 days to receive mail from Northern areas of the U. S., depending on the date mailed and the state of MATS aircraft. The C-124 MATS planes have had relatively poor record of reliability. There has been talk of replacing these aircraft with C-130's which have been very reliable on the few occasions used.

3. LEAVE, Pay and Exchange: In accordance with CCGD7 Instructions, the CO is authorized to grant earned compensatory absence to personnel assigned at the rate of 2½ days for each month served on board. The current policy is not less than 5 nor more than 15 days at any one time will be authorized. A person desiring to depart on C. A. is, at this writing, very fortunate transportation wise. He can depart via the CG Loran log flight and return via MATS or vise versa, or utilize either agency both ways, depending on the amount of C. A. authorized and the schedules for rendezvous with departing A/C at it's respective point of departure. The privilege of personnel to depart on C. A.

is one of the greatest and probably the greatest moral building factor in effect (especially to married men with families). While stationed here on San Salvador, everyone has a good opportunity to add greatly to his savings account due to personal island operating expenses being at a mean low. The NAVFAC ACO maintains this units military pay records. Regular pay day is held on the 1st and 16th of the month, and special pay can be obtained at almost any reasonable time. Savings of several thousand dollars in a year is not unusual. Laundry and Haircuts are professionally provided by U. S. NAVFAC. The cost of these services is currently \$5.00 per month. The NAVFAC also provides a Navy Exchange, snack bar, small store, etc. In summary, it might be added, you name it and they have it. All of these luxuries are very advantageous to CG personnel. U. S. postal money orders are available through th NAVFAC Post Office.

4. Recreation: Opportunities for recreation and relaxation are great, depending on the individual or group concerned and their organizing and imagination. There are competitive sports such as softball, volleyball, tennis, pool, table tennis, and basketball games in progress from time to time. Island wide leagues in softball, basketball and volleyball have been organized. The 1964 softball tournament was won by our crew, and trophies were presented to each member of the winning team. The beautiful tropical waters that surround this intriguing Bahama Island provide for alluring expeditions: ie, deep sea fishing immediately offshore, water skiing, or just exploratory boat trips. Duck hunting in and around the central lakes is a favorite fall and winter sport.

The unit recreation allowance of Title "B" recreation gear includes a 16 foot fibreglass boat with a 35 HP OBM, for propulsion, a 16 MM movie projector, a 14 foot Thunderbird sail boat, a pool table and several bicycles. Title "C" recreation gear is procured with a \$15 quarterly allowance. Since CG personnel are regular patrons of the Navy Exchange, the Commanding Officer of the NAVFAC has extended us a standing invitation to all cook-outs, parties and happy hours that are finances from Navy Exchange profits. USO shows visit the NAVFAC about once every three months. These shows, the daily movies, weekly bingo games and any special affairs are always open to CG personnel.

CHAPTER FOUR

ENGINEERING

A. ELECTRICAL POWER

1. Diesel Generators: Power for both station systems and Loran equipment is supplied by a generator unit consisting of a GM 6-71 diesel engine and a Delco AC Generator rated at 60 KW at 1200 RPM. Engine cooling is by dual roof mounted radiators with electric driven fans. Three of these generating units are installed. Only one is required for station operation at any given time; the other two are kept available for back up and rotation. When one unit accrues 8,000 - 10,000 operation hours, it is removed and exchanged for an identical, overhauled unit supplied and installed by engineering personnel from Base, Miami Beach. The unit removed is taken to the Base, overhauled and put in "mothballs" for the next exchange.

Three General Electric distribution panels feed the power from the respective generators to a three wire 110/220 volt system. The normal station load at the main panel varies from a minimum of 45 amp. to a maximum of 80 amp., at 20/25 KW. The average rate of power failure has been 1.3 minutes a month, considerably below the average of type 3 overseas stations. 99% of these failures are due to our nemesis corrosion, usually in the collector brush mechanism, springs, guides, etc. Frequent inspection and maintenance of this mechanism keeps corrosion under control. With the excellent reliability of the generators and boards and the thorough back-up system, serious power problems are rare.

2. Fuel Oil System: Fuel for the operation of the generators is stored in two 5,000 gallon above ground storage tanks. The fuel is transferred from these tanks to two 275 gallon day tanks as needed by electric transfer pumps operated from the engine room. The system also has a mechanical hand pump for emergency use. Fuel is procured from the NAVFAC and delivered by a tank truck borrowed from the NAVFAC. Normal fuel consumption is 2,500 gallons diesel fuel, 250 gallons gasoline and 20 gallons lube oil per month. Gasoline is stored in a below ground tank and is used from a metered pump.

B. WATER AND PLUMBING

1. Fresh Water: The plumbing and water systems are modern and require only routine maintenance. The fresh water system, or potable water system, consists of a 7,000 sq. ft. cement slab catchment area plus approximately 10,000 sq. ft. of roof catchment area. Fresh water is stored in two 50,000 gallon steel tanks into which the catchment slab

and barracks roofs drain directly. The Loran building roofs drain directly into the 19,000 gallon fresh water cistern which is located under the western end of the Loran Building. This cistern is also filled by piping from the main storage tanks. Besides providing additional water storage space, the cistern complex also contains a water filter, raw water reservoir and a filtered water tank. The water in the raw water reservoir (which has been caught on the Loran Building roof of fed from the main tanks) drains, by gravity, into a sand and tile filter tank and then into the lower tank, the filtered water tank. Water from the filtered water tank is pumped into the fresh water pressure tank for domestic use. While being pumped into this tank, a hypochlorinator adds a predetermined unit of chlorine solution to the water. In general, potable water from rainfall is plentiful, with approximately six months supply always on hand.

2. Fire System: The raw water reservoir in the cistern is the source of supply for the fire main system, the fire pump drawing directly from the reservoir through piping from the maintenance shop. The fire system consists of standpipes at various fire hydrants throughout the station. The system is charged by a vertical turbine, $7\frac{1}{2}$ HP 220V electrical driven pump, with a capacity of 100 psi at 50 GPM. This pump is automatically turned on whenever the alarm system is activated.

The fire alarm system consists of sixty-one heat sensitive fire detectors located on the ceilings of all station compartments and eleven manual push button relays located at prominent points throughout the station. A fire will close the contacts on the fire detectors and automatically actuate the fire alarms. If a fire is observed before the detectors sense it, the manual relays can be used to start the alarms.

3. Sanitary Systems: The sanitary system draws suction from a salt water well at the rear of the Loran Building and is used for flushing water only. Both the fresh water and sanitary systems have electric driven pumps, 82 gallon pressure tanks, and are automatically pressure operated. They operate at 20 psi/min. 40 psi/max.

4. Other Water Supplies: In addition to the piping systems explained above, a 2" plastic emergency water line runs from the cistern to the NAVFAC. This line originates at the Navy filtration building and empties into the raw water reservoir of the cistern. A globe valve and back flushing is incorporated for testing and back flushing. This installation provides for emergency water to the cistern for added fire protection.

C. BUILDINGS AND GROUNDS

1. General: The construction of the station is of a typical style with maximum cross ventilation, large window areas and flat roofs. The buildings are of a low fire hazard type construction, with a minimum of

combustible building materials incorporated. The roofs have been formed of precast cement inter-lock sections and covered with white ceramic tile. The roofs constitute approximately 10,000 sq. ft. of rain catchment, or about 60% of total catchment area. The bulkheads are of cement block construction, with cement decks throughout.

The main barracks and living areas are on top of a small ridge overlooking the sea, approximately 300 yards from the beach, at an elevation of 40 ft. above sea level. The Loran Room, enerator room and work areas are located on lower ground, approximately 20 ft. below.

A beach patio (called "Holligan's Haven") has been built on the cement slab where the original trailer equipment was installed in 1955. The thatched roof, benches, tables and barbecue pit on the patio provide an excellent scene for cook-outs and beach parties. Further along the beach is the 120 foot loran transmitting tower and ground system, the 60 foot remote receiving antenna and the 60 foot communications receiving antenna. The loran antenna is of aluminum cage construction while the receiving antennas are of the telephone pole type.

The station was constructed by the Navy Mobile Construction Battalion 7 in 1958-1959. These Sea Bees and the Coast Guard site Survey and Planning Group, have built what many consider one of the best stations in the Coast Guard, from engineering, operations and overall appearance view points. The buildings at the NAVFAC which were built by the same Sea Bees lack many of the features and durability of our buildings.

D. BOATS AND VEHICLES

1. Vehicles: The vehicles at this station consist of a Carry-all and Power Wagon stake bed truck. As with most isolated units logistic support is by aircraft, and a cargo carrying vehicle is necessary.

2. Boats: The station small boat is a standard CG 16 ft. fiberglass O/B with permanent mounted single lever controls, and a single cable wheel. The boat is powered by a 35 HP O/B engine. We also have a 14 ft. Thunderbird centerboard sailboat. A boat house has been constructed for the storage of both the outboard and sailboat.

E. HEATING AND REFRIGERATION

1. Heating: No personnel heating system is installed or needed. Hot water for galley, heads and showers is provided by five electric water heaters located throughout the station. These units have storage tanks which allow water to be heated and stored before use. They are self-contained units and operate automatically.

2. Refrigation: Refrigeration spaces consist of an 120 cubic foot walk-in freezer, a 120 cubic foot walk-in chill box and 32 cubic foot galley refrigerator. A 20 cubic foot civilian type refrigerator is used for storage of beverages for the station beer and soda mess. A small refrigerator unit is included in the combination stove-sink-reefer unit in the CO's quarters.

CHAPTER FIVE

COMPTROLLER

A. SUPPLY

1. Procurement: Routine material procurement may be categorized in four basic groups corresponding to the different documents used in each transaction. Most of these are familiar procedures at all Coast Guard Stations.

The first and most frequently used document is the MILSTRIP requisition. The station has an allocation allowance of \$380.00 per quarter for replenishment of office and housekeeping title "C" supplies. Most of these requisitions are submitted to GSA Atlanta, Georgia.

For procurement of title "B" material and electronic parts, Funds Requested MILSTRIPS are sent to the District for approval. If approved these requisitions are re-addressed to the various Defense Supply Agencies and the other Federal Supply Systems sources. A copy of the requisition is returned to the station by the District showing the supplier and the Julian Date.

The combination of unit allocation and funds requested MILSTRIPS has been an excellent means of maintaining supply inventories of almost all types of material. Only fuel, commissary, and nonstock items require other procedures. Fuel and commissary supplies are requisitioned on order form DD-1149. Fuel is procured from the NAVFAC on a locally prepared requisition about once a month, as needed; the Navy is payed on a cross-service billing at the District level.

Commissary supplies are also ordered on locally prepared requisitions. These orders are submitted to the Supply Depot Miami Beach once every two weeks and are delivered on the Loran Logistics Flight.

Items needed for station operations which do not have a Federal Stock Number and are not available through the Federal Supply System are requisitioned on a Request for Procurement (CG-4248). The District purchases these items on local purchase orders.

B. COMMISSARY

1. General: This universally important facet of unit operation is doubly important here, as it is on probably all isolated stations. We are fortunate in having the quantity and quality of food and galley facilities to serve a continuously high caliber bill of fare.

The station is authorized to operate a Class F General Mess as defined in volume four of the Comptrollers Manual. Aside from the paper work involved, the basic difference between our mess and the large General Messes is the ration value, currently 40% more than basic ration allowance. The billet allowance for a cook is a CS1; a mess cook is

assigned as his assistant. Beside cooking all meals, the CSI maintains break-out sheets, daily cost records, etc., and inventories all commissary supplies with the Commanding Officer each month. He also submits the monthly commissary report to the Commanding Officer after inventories, ration credits, etc., are determined.

The commissary requisitions mentioned in Section A are prepared by the cook every other week. Fortunately, fresh milk and produce along with the non-perishable and canned goods can be ordered from the Supply Depot with little worry of spoilage or damage. This is a significant factor in the quality and variety of the menu. The galley is very well equipt and designed. An electric beater, toaster, deep fryer, waffle iron, electric range, etc., all in a functional stainless steel and porcelain work area, is reminiscent of the best state side kitchens. In short, just how high calibre the menu will be, depends mostly on the ability of the cook assigned. The swelling waistlines of the past crews attest to the gastronomical aptitude of the most recent chefs.

C. PAY

1. General: For the past few years an agreement has been in effect with the NAVFAC for the maintainance of our pay records by the Navy Disbursing Officer. This privilage has been very advantageous for all hands, especially when reporting, departing, and going on C. A.

Regular pay days are held on the first and sixteenth of each month. The amount due may be received in any proportion of cash or check as the individual desires. In addition to regular pay, travel claims, allotments, advances and shipments are also processed. Occasional disparities between Coast Guard and Navy pay procedures have come up, but they are rare and minor. The great majority of transactions have been smooth and effecient.

D. LOGISTICS

1. Logistics Flights: The loran Logistics flight, mentioned in other sections is our major link with the outside world and carries 90% of our supplies. The aircraft, a C-123B, departs Miami every other Wednesday. After leaving Miami it stops at San Salvador, South Caicos, Grand Turk (for fuel) and terminates at Miami.

Tuesday, while in Miami, the aircraft is loaded with material for the various stations down range, including San Salvador. The Supply Depot, as trans-shipping point and supplier for these stations, accumulates supplies for the two week period between flights. Thses are all loaded Tuesday as far as weight limitations allow.

2. Mail: A certain amount of supplies are also received by parcel post on the twice weekly MATS flights. All the usual supply sources have been urged to ship as many items as possible through the mail, within the size and weight limitations prescribed by the post office. A surprisingly large number of items can and are shipped this way.

CHAPTER SIX

ADMINISTRATION

A. ORGANIZATION

1. General: The station complement of twelve has been divided into three sections under the supervision of the CO and XO. Each section is headed by the senior man who is designated the leading petty officer.

While the BMC is not an executive officer as defined in CG Regulations, he is none-the-less the Commanding Officer's representative for section supervision. In the same line, the section heads are the supervisors of their segments. Under the direction of the XO, the leading operations petty officer is in charge of the Watch Bill and Watch Sections.

Each section head has been designated as assistant for certain of the collateral duties of the CO and XO. Among these are: Safety Officer, Educational Assistant, Recreational Assistant, First Aid Petty Officer, etc.

The XO is designated as Officer in Charge in the absence of the Commanding Officer, and must be certified for succession to command by the District Commander. After the XO, the order of internal succession is the section heads, by precedence. The authority and limitations of the acting Officer in Charge are listed in the District Commanders letter of Certification.

B. CORRESPONDENCE AND REPORTS

1. Correspondence: One of the limitations of the station complement is the lack of clerical personnel assigned. On many loran stations, the HM is able to act as a sometime YN and SK. Here at San Salvador however, the deletion of the HM billet has abolished this enviable situation. Consequently, appropriate categories of paper work are delegated to almost every man assigned. The experience derived from this education is actually an invaluable aid for a mans' future in the Coast Guard. Most of the paper work however, is handled by the Commanding Officer and the XO. The CO usually drafts the letters and the XO types the smooth copies. The XO also maintains the personnel diaries, service records, the filing system and the directives and publications. The CO has cognizance of the supply records and accounts.

2. Reports: Reports are drafted by the section concerned and are submitted to the CO who fills out the narative sections. Some of the periodic reports are: Commissary, Diary, Loran Operation, Outboard motor, Communication, Allocation, etc. The form and frequency of these reports

is the same as they are for all Coast Guard units. Distribution of the reports among the sections keeps the individual burden to a minimum.

C. SAFETY

1. General: Safety indoctrination is accomplished through both the station training program and the proceedings of the Safety Board.

2. Safety Board: The Safety Board is comprised of all section heads and the DC2, with the leading engineering petty officer as chairman. Meetings are held each quarter to consider station conditions and to discuss new safety literature and programs. Many accident producing situations and hazards have been eliminated as a result of the recommendations of the Board.

3. Training Program: Within the training program, several periods are devoted to safety lectures and instructions. The subject of the lectures and instructions is designated by the CO.

D. STATION BILLS

1. General: Station Bills are divided into three categories: Administrative Bills, Operational Bills, and Emergency Bills.

2. Administrative and Operational Bills: The Administrative Bills are the Personnel Assignment Bill and the Collateral Duty Bill. Detailed descriptions of these are contained in the Stations' Organization Book. The Operational Bills are the Loran Operating Bill, Primary Power Bill, Water Bill and Commissary Bill. These are sectional bills and are also explained in the Organization Book.

3. Emergency Bills: Loran Failure, Primary Power Failure, Fire, Hurricane, Emergency Destruction and NBC Defense are Emergency Bills. The Fire, Hurricane and NBC Bills are all hands evolutions and are tabulated on the watch quarter and station bill. The others are sectional or individual operations.

ORGANIZATION CHART



| OPERATIONS SECTION | |
|--------------------|--|
| LOPO | |
| ET2 | |
| ET3 | |
| ET3 | |

| ENGINEERING SECTION | |
|---------------------|--|
| LEPO | |
| DC2 | |
| SN | |
| FN | |
| CIV | |

| COMMISSARY SECTION | |
|--------------------|--|
| LCPO | |
| SN | |

WATCH QUARTER AND STATION BILL

| BILLET NO. | GRADE | FIRE BILL | | HURRICANE BILL | | | | NBC DEFENSE BILL | |
|------------|-------|--------------------------|---------------------------|------------------|--------------------------|----------------|----------------------------------|----------------------------------|-----------------------------------|
| | | STATION | PROVIDE | COND.4 | COND.3 | COND.2 | COND.1 | BEFORE ATTACK | AFTER ATTACK |
| CO | LTJG | COMMUNICATIONS | | | ACKNOW-LEDGE TO DISTRICT | ACKNOW. | ACKNOW. SEND RPT OF DAMAGE | MSG TO DISTRICT | SEND NUDET MSG |
| XO | BMC | AT SCENE | IN CHARGE | LOG ENT-DAILY | LOG WHEN SET | LOG WHEN SET | LOG WHEN SET IN CHARGE ASST TEAM | IN CHARGE SHELTER PREPERATIONS | DECONTAMINATION STATION IN CHARGE |
| O-100 | ET1 | ALARM PANEL MAIN BOARD | ELECTRICAL REPAIR KIT | AS DIRECTED | AS DIRECTED | SHUTTER DETAIL | ON WATCH LORAN RM | PROVIDE HOT PLATE FOR SHELTER | CHECK LORAN ROOM |
| O-101 | ET2 | ALT O-100 TEND HOSE | HOSE AND NOZZLE | AS DIRECTED | AS DIRECTED | SHUTTER DETAIL | ON WATCH LORAN RM | STANDBY RADIO TRANSMITTER | DECONTAMINATION TEAM |
| O-102 | ET3 | ALT E-102 TEND HOSE | HOSE AND NOZZLE | AS DIRECTED | AS DIRECTED | SHUTTER DETAIL | ON WATCH BARRACKS | PROVIDE BLANKETS SOAP AND TOWELS | DECONTAMINATION TEAM |
| O-103 | ET3 | INVESTIGATOR | CO2 EXTINGUIR | AS DIRECTED | AS DIRECTED | SHUTTER DETAIL | ASST TEAM | PREPARE DECON STATION | ASST O-100 |
| E-100 | EN1 | ALT XO OVERHAUL FIRE | AXE CROW BAR BOLT CUTTER | AS DIRECTED | TOP OFF FUEL | AS DIRECTED | STOW TRUCK | PROVIDE TOOLS AND BATTLE LANTERN | CHECK POWER PLANT |
| E-101 | DC2 | REPAIR PARTY IN CHARGE | ASBESTOS GLOVES | INSPECT SHUTTERS | INSPECT GROUNDS | SET SHUTTERS | ASST TEAM | SET SHUTTERS ON SHELTER | DECONTAMINATION TEAM IN CHARGE |
| E-102 | SN | OBA TENDER REFLASH WATCH | DRY CHEMICAL EXTINGUISHER | AS DIRECTED | AS DIRECTED | SHUTTER DETAIL | ON WATCH BARRACKS | SECURE BARRACKS | DECONTAMINATION TEAM |
| E-103 | FN | OBA MAN | OBA | AS DIRECTED | ASST E-100 | SHUTTER DETAIL | ON WATCH LORAN RM | ASST E-102 | ASST E-100 |
| C-100 | CS1 | FIRST AID AT SCENE | FIRST AID KIT | AS DIRECTED | AS DIRECTED | SHUTTER DETAIL | FIRST AID ASST TEAM | PROVIDE FOOD AND UTINSILS | FIRST AID STATION |
| C-101 | SN | MESSENGER ALT E-103 | ASST E-103 | AS DIRECTED | AS DIRECTED | SHUTTER DETAIL | ASST TEAM | ASST E-101 | DECONTAMINATION TEAM |

CHAPTER SEVEN

INFORMATION FOR RELIEFS

A. GENERAL

1. The preceeding chapters have covered most of the unusual factors of a loran station and ours on San Salvador in particular. Some sections have been repititious in spots but necessarily so in our effort to cover all phases of operation. Two important subjects have not been discussed: (1) personal attitude, (2) what to do, what to bring and where to go.

2. As with most tours of isolated duty, the individuals attitude will largely determine just how satisfying his 12 months here will be. Acknowledge the fact that the Coast Guard is here to operate an extremely vital and beneficial service and if you pull together with the rest of your shipmates time will fly. A sour, do nothing attitude will lead to a year of loneliness and frustration. Be of good cheer and you won't notice the year.

B. UPON RECEIPT OF ORDERS

1. Since you will be away from your dependents, residence, creditors, etc., for a year, it would be wise to make provisions for them for your year of absence, while you are still state-side. Of course you will have the opportunity to take care of some of these matters while on CA during the year, but after you've been here a while you'll naturally want to spend as much time with your family as possible while on leave.

2. Review your financial status and insure that allotments are sufficient for your family's needs. It's a good idea to pay off all your obligations in-so-far as possible. Check with your pay officer for particulars on dependents travel, dislocation allowance, household effects, etc. Be sure all concerned know your correct address. The current official address is:

W. T. DOOR
USCG LORAN STATION
NPO 557
PATRICK AFB, FLA. 32925

Mail may also be sent to:

W. T. DOOR
USCG LORAN STATION
FPO NEW YORK, N.Y. 09557

3. Advise your dependents, parents, etc., of the emergency service provided by the Red Cross. The Red Cross office at Patrick AFB has been very co-operative in these matters in the past. Communications with the states is limited, but telephone calls through the Bahama Telephone System are possible. Persons calling here must be sure to specify San Salvador, Bahamas, as the island is often confused with San Salvador, El Salvador, in Central America.

4. In the official line, check your service record for completeness, especially if recently re-enlisted. Take your physical as soon as possible so that all dental work and immunization can be finished in time. Page 8 of your service record should indicate your qualifications for driving government vehicles. If you don't have a license or if the license is only for passenger cars, make arrangements to obtain a license for vehicles of 3/4 ton and over.

5. If you don't want to lug your seabag around, ship it and any other personal effects to the Supply Depot, Miami Beach. The correct address of the SUPDEP is:

COMMANDING OFFICER
USCG SUPPLY DEPOT
100 MACARTHUR CAUSEWAY
MIAMI BEACH, FLORIDA 33139

M/F LORAN STATION, SAN SALVADOR

C. WHAT TO BRING

1. Uniforms: Officers and CPO's wear tropical khaki long or tropical khaki during regular duty hours, tropical white long for inspections and either uniform or civilian clothes on liberty. The enlisted working uniform is dungarees, with tropical white long worn for inspections. Either service or tropical whites of civilian clothes may be worn on liberty.

Six sets of working uniforms should be brought to the island. Also uniform accessories should be purchased prior to reporting aboard as the small stores selection is limited and special orders involve a lengthy wait. Civilian clothes should be of the cotton or dacron wash and wear type, since no dry cleaning facilities are available on the island. Sport shirts and slacks or Bermuda shorts is the usual "uniform of the day" on liberty. Formal civilian clothes are not needed.

A full seabag of regulation uniforms is required except for blues and other cold weather articles. One set of dress blues, however, is required and peacoats, gloves, etc., are often used by those heading north on CA in the winter.

2. Personal effects such as cameras, radios, sports equipment, hobby materials, books, room decorations (pictures, desk sets, etc.) are handy to have but are not absolutely necessary. Automobiles (which are NOT shipped by the government) are of little use and motorcycles and motorbikes are not allowed.

3. Toilet articles, paper, envelopes, stamps, shoe laces and all the usual exchange supplies are available and only an initial supply is needed for travel enroute. An iron and ironing board is available on the station and all other laundry items except a laundry bag are unnecessary.

D. WHERE TO GO

1. Your orders will probably direct you to report to Base, Miami Beach (T&A). Prospective CO's will be directed to O'CCGDSEVEN as quarters are not available at the base for officers. At the base, check with T&A daily for transportation to San Salvador. Also, take care of any deficient items such as drivers license, personal effects (if any) to be shipped.

2. Visit the District if you have any questions concerning your records or personal affairs. Be sure to get your pay record if it's at the District and don't forget to bring it here with you. All travel claims, etc., are handled down here. Insure that you also have your service and health records.

3. New CO's should check in with Personnel and visit the District Commander, Aids to Navigation, Electronics, Civil Engineering and Supply. Personnel will know the date of the next available transportation to San Salvador.

4. Everyone should have their orders endorsed at each point of delay to facilitate filing of the travel claims. This should normally be only at the Base or District, but may include CGAS Miami, etc. Once aboard the plane, it's only a short hop to San Salvador, where you will be welcomed with open arms.

STATION PHOTOGRAPHS

www.loran-history.info



CO'S QUARTERS FROM THE MAIN ROAD



SPAR FROM WRECKED SAILING VESSEL



CO'S QUARTERS AND MAIN BARRACKS.



HOOOLIGAN'S HAVEN.



SIGNAL BUILDING.



REAR OF SIGNAL BUILDING.



GENERATOR ROOM



LORAN ROOM



DC SHOP



MESS DECK



HOOLIGAN'S HAVEN



SODA BAR