

U. S. COAST GUARD LORAN TRANSMITTING STATION

SAN SALVADOR, BAHAMAS

GENERAL INFORMATION

BOOK

INDEX

CHAPTER 1	General Information
CHAPTER 2	Operations
CHAPTER 3	Personnel
CHAPTER 4	Engineering
CHAPTER 5	Comptroller
CHAPTER 6	Administration
CHAPTER 7	Guidance for Personnel
SUPPLEMENT 1	Charts
SUPPLEMENT 2	Photographs
SUPPLEMENT 3	Watch, Quarter & Station Bill

## 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. The nearest islands are Cat Island and Rum Cay.

2. Topography and Climate: San Salvador is twelve miles long and five miles wide, the longer dimension running north and south. Like most of the other islands of the Bahamas, it is rocky and relatively hilly, with poor, 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 lakes of all sizes, several being 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 This broad waterway was once the primary means of transportation around the island, and has only recently been superseded by roads and automobiles. Approximately a dozen 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 at night. Humidity is rather high, in the 70-80% range. Average annual rainfall is around 45 inches, occurring mostly during the "rainy season"ie., August through November.

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

3. Plant and Animal Life: Animal life consists of a few species of small lizards and land crabs. Iguanas are plentiful on the cays near the island. Ducks and other migratory birds are common during the winter months. Chickens, goats, pigs, a few head of cattle and several horses 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 species of fish. A class of animal life not particularly desirable, but in

plentiful abundance, are the insects. Constant spraying and extermination is required to control, partially, 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 types of vegetation that can thrive on the dry sandy soil. Banana, guava and coconut trees can be found about the island. Native farmers grow corn, cabbage and squash. A few types of poisonous vegetation grow on the island.

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 Bahaman Government reinstated the original name that Columbus had given it.

Although the 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 more 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 generally neatly maintained. There are a few private generators to supply power for lights, radios, pumps and fans. Automobiles, trucks and motorcycles are common.

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; as these are never joking matters.

A born sense of rhythm and a love of music make the Bahamians enthusiastic singers and good 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 the 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 New Providence Island. The Caicos Islands (the location of one of the slave stations) 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 Prime Minister, 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 Department publication "United States Defense Areas in the West Indies" (TIAS4734).
2. U.S. Coast Guard: The 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 (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. It's complement is approximately 10 officers and 120 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 has grown over the years among personnel of the two Stations.
4. Pan American Base: The Air Force Missile Tracking Station, which is operated by Pan American, at one time had about 150 people assigned, including dependents. At the present time a skeleton crew of two is assigned to the base.

## CHAPTER TWO

### OPERATIONS

#### A. LORAN

1. West Indies Loran Chain: U.S.C.G. LORAN Transmitting Station, San Salvador, Bahamas is a double master station for rates 3L3 and 3L5, delivering 150KW peak power to a 120 foot antenna at a frequency of 1900KC, a basic repetition rate of 25 cycles per second and a specific repetition rate of 39,700 microseconds.

The West Indies LORAN Chain is the collective name of our system with USCG LORAN Stations South Caicos & Jupiter being our paired Stations. All 3 Stations are under the operational control of CCGD7. LORAN Station South Caicos, a double pulsed slave, is paired with LORAN Station Cape San Juan for rate 3L2. We perform monitor functions for this rate. In turn, rate 3L3, which is maintained by South Caicos and San Salvador, is monitored by the Cape San Juan Station. Rate 3L5 is maintained by LORSTAs San Salvador and Jupiter, with LORAN Station Folly Beach serving as a monitor. LORSTA Jupiter is both an A and C LORAN Station.

The mode of operation presently authorized is type 3 modified with an assigned tolerance of plus or minus 2 microseconds. We have a time delay of 3765.0 microseconds for rate 3L3, and 5366.5 microseconds for the 3L5 rate. 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. Automatic output switching equipment is also provided.

2. Personnel and equipment: Four Electronics Technicians are assigned for the maintenance and operation of the Station LORAN equipment. The Technicians also maintain all electronic and electrical equipment and systems on the Station. The more important LORAN operational equipment consists of 2 T-325B LORAN transmitters; 4 AN/FPN-30 timers and AN/FPA-3A output switching equipment. The transmitter and timers have standby equipment that is kept in instant readiness by the Technicians. Aside from adjustment, alignments and common circuit breakdowns, 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 all year long, and especially during these months, which calls for constant battle to keep the

equipment dry. Corrosion is also a constant problem due to the proximity of the salt water. Air conditioning has been installed in the LORAN room and provides better and more reliable operation. The old adage "it's 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 can be 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, and vigilant preventative 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 99.7% per month. The Station has maintained a better than average record for sync accuracy in comparison with Stations of the same type. Frequent preventative 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 that arise between San Salvador and South Caicos.

We maintain and operate a Collins 32RS-1 single sideband transceiver on these four 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, 4050. A thirty-five foot whip antenna is utilized for other LORAN Net frequencies.

2. Teletype: A teletype circuit has been installed between San Salvador and LORSTA Jupiter. This is used strictly for operational type communication between the two Stations concerning the LORAN rate.

3. Other Communications: With the exception of the equipment described above, station communications are directly or indirectly provided by the NAVFAC. They have all manner of communication gear, including RATT, which is their usual method of sending and receiving Station messages. Message service is reliable, but sometimes slow due to the vast quantity of messages handled at their communications center. The NAVFAC has on-line crypto equipment which may be utilized



for classified traffic.

Pan American maintains an underwater submarine cable connected with Patrick Air Force Base, Florida. We are hooked up with an audovon line which can be used for official business or emergency calls, usually with either CCGD7 RCC or Opa Locka Air Station.

The Station 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 occasional 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 offshore 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 Operations Petty Officer, an EN1 as Engineering Petty Officer, and a CS1 as Commissary Petty Officer. The remainder of allowed bills are one ET2, two ET3's, one DC2, two SN's and one FN. The complement is divided into three sections, comparable to most Coast Guard organizational structures. The Operations Section consists of all the ET's. The Engineering Section consists of the EN1, DC2, a SN and the FN. The Commissary Section consists of the CS1 and one SN. We also have two native laborers, one assigned to the "E" Section, and the other assigned to the "C" Section.

For the past couple of years the Station has usually been either one or two men over complement, due to the assignment of SNEW's from Governors Island Training Center. These men are assigned to the "O" Section. Although the normal complement is adequate for effective operation, having the extra men make it a little easier for everyone.

#### 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 of information must, of course, be thoroughly studied and periodically reviewed. 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 submission is required. Reenlistment 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 five 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 binicle lists for this command. The best of services have always been rendered on the few occasions when they are needed. For serious cases requiring a Dr.'s attention, patients are medevaced to Patrick AFB, or Miami.

The sanitation program is conducted by the Station crew, with an occasional inspection by the NAVFAC HM. 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, for in fact 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 virtually trouble free. Unfortunately, for the DC and SN, the septic system does require routine cleaning. This is only a matter of a few hours a quarter however, and nose plugs, gloves and boots make the job 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 XO and OPO, with the XO being designated as Training Officer and the OPO as educational assistant. The Station training program is conducted in accordance with the COMDTINST 3500 series and Appendix (I) to the District OPPLAN. Isolated duty provides a large amount of spare time i.e., off duty hours which would normally be utilized ashore on authorized liberty in CONUS. This time can be directed toward furthering a man's education through CG Institute Correspondence courses and USAFI courses. The OPO supervises the procurement of educational material and maintains educational records. In accordance with current regulations, the CO administers all End-Of-Course exams. Approximately 3/4 of the crew is enrolled in Institute or USAFI courses at any given time.

Opportunities for advancement in 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 qualified 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

1. General: Morale at this unit has been consistently high over the years. Some of the factors contributing to this are: frequent mail service, earned compensatory absence, nearby American installations, good chow and the invariably fine weather.

2. Mail: Mail is received and delivered twice weekly via Patrick AFB, Florida on MATS planes. The C-124 MATS planes have a relatively poor record of reliability. There is also a Navy C-54 flight which comes in from Patrick each Wednesday. Most of the mail actually comes

in on that flight, which to date has been quite dependable. It takes from 3 to 5 days to receive mail from the U.S., depending on the date mailed in relation to the mail flights.

3. Leave, Pay and Exchange Facilities: 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 nor more than 15 days at any one time will be authorized. A person desiring to depart on C.A. is, at this time, very fortunate transportation wise. He can depart and return on his choice of C.G. LORAN Logflight, MATS, or the Navy C-54, depending on the amount of C.A. authorized and the schedules for rendezvous with departing A/C at their respective points of departure. Bahamas Airways also operate 3 flights a week to San Salvador from Nassau, which can be used for persons departing or arriving on the island, if they so desire. The privilege of personnel to depart on C.A. is probably the greatest morale building factor in effect, especially to the married men.

While stationed here on San Salvador, everyone has a good opportunity to add greatly to his savings account due to very limited personal expenses. Savings of several thousand dollars in a year is not unusual. The NAVFAC Disbursing Officer maintains the units military pay records, with pay day being held on the 1st and 16th of the month. Special pay can be obtained at almost any reasonable time.

Laundry and haircuts are professionally provided by the NAVFAC. The cost of these services is currently \$5.00 per month. The NAVFAC also provides an Exchange, snack bar, etc. Stamps and Money Orders are available through the NAVFAC Post Office. In summary, it might be added, you name it and the NAVFAC has it.

4. Recreation: Opportunities for recreation and relaxation are great, depending on the individual or group concerned and their organizing ability and imagination. There are competitive sports such as softball, volleyball, football, tennis, pool, table tennis, and basketball games in progress from time to time. Island wide leagues in softball, basketball, volleyball and football have been organized. The LORSTA teams have won several of the tournaments in the past few years, with our main strength being in softball and volleyball. Trophies are always presented to each member of the winning team by the NAVFAC.

The beautiful tropical waters that surround this island provide for unlimited alluring expeditions such as deep sea fishing immediately offshore, water skiing, skin diving or just exploratory boat trips.

The unit recreation allowance of Title "B" recreation gear includes a 16 foot fiberglass boat with a 40 HP outboard motor, a 16 MM movie projector, a pool table and several bicycles. Different movies are shown every night, many of them quite recent.

Since C.G. personnel are regular patrons of the Navy Exchange, the C.O. of the NAVFAC has extended us a standing invitation to all

cook-outs, parties and happy hours that are financed from Navy Exchange profits. USO shows also visit the NAVFAC about once every three months. These shows, 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 to 10,000 operational 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 80 amp. to a maximum of 180 amp., at 40/45 KW. The average rate of power failure has been low, and the majority of what failures we do have are due to our old 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 their tank truck. Normal fuel consumption is 2,500 gallons of diesel fuel, 300 gallons of gasoline and 20 gallons of 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. foot cement slab catchment area plus approximately 10,000 sq. feet 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 as explained has been caught on the LORAN building roof, or 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.

3. Fire System: The raw water reservoir in the cistern is the source of supply for the fire main system, with the fire pump drawing directly from the reservoir through piping in the maintenance shop. The fire system consists of standpipes at various fire hydrants throughout the Station. The system is charged by a vertical turbine, 7½ HP, 220V electrical driven pump, with a capacity of 100 lbs. psi at 50 GPM. This pump is automatically turned on whenever the fire 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 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.

4. Sanitary System: 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 lbs. psi minimum, to 40 lbs. psi maximum.

5. 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 in 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 interlock sections, and constitute approximately 10,000 sq. feet of rain catchment, or about 60% of the total. The main barracks and living areas are on top of a small ridge overlooking the sea, approximately 125 yards from the beach, at an elevation of 40 ft. above sea level. The LORAN room, generator room and work areas are located on a lower level, approximately 20 ft. below.

A beach patio, called "Hooligan'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 ft. remote receiving antenna and the 60 ft. 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 to be 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 people at the same time, lack many of the features of our buildings.

## D. BOATS AND VEHICLES

1. Vehicles: The vehicles at the Station consist of a Carry-All and a 1 ton Power Wagon stake bed truck. As with most isolated units logistic support is by aircraft, and a cargo carrying vehicle is a necessity.

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 40 HP O/B motor. The boat is normally kept on it's trailer and left in the carport on the signal building. A launching ramp has been built by LORSTA Personnel about 2 miles from the Station.

## 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. Refrigeration: Refrigeration spaces consist of a 250 cubic foot walk-in freezer, a 250 cubic foot walk-in chill box and a 32 cubic foot galley refrigerator. Another 32 cubic foot 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-refrigerator unit in the CO's quarters.

An ice machine in the galley always provides an adequate amount of ice for everyday needs, as well as filling coolers for picnics and other outings.

## 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 \$390.00 per quarter for replenishment of office and housekeeping title "C" supplies. Most of these requisitions are submitted to either GSA Atlanta, Ga. or to Supply Depot Miami Beach.

For procurement of electronic parts and tools the Station has an allocation allowance of \$1300.00 per quarter. Most of the tools are also ordered from either GSA Atlanta or Supply Depot Miami Beach. The electronic repair parts mostly come from Defense Electronic Supply Center in Dayton Ohio, or from CG Supply Center Brooklyn.

Items needed for Station operations which do not have a Federal Stock Number and are therefore not available through the Federal Supply System, or items which are non-recurring and are high cost enough so that they would put an undue strain on our regular \$390.00 allocation are requisitioned on a Request for Procurement (CG-4248). The District purchases these items on local purchase orders.

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 requisitions are also prepared locally, and are submitted to Supply Depot Miami Beach every two weeks. The items are then delivered on the regular LORAN Logflight.

The combination of unit allocations, request for procurement, and locally prepared 1149's has been an excellent means of maintaining supply inventories of all types of material. The District also provides excellent supply support in all respects.

#### B. COMMISSARY

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

The Station is authorized to operate a Class F General Mess as defined in Volume 4 of the Comptroller 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 CSL, and a mess cook is assigned as his assistant. Beside cooking all meals, the CSL 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., have been 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 equipped and designed. An electric beater, toasters, deep fat fryer, waffle iron, range, etc., all in a functional stainless steel and porcelin work area, is reminiscent of the best stateside kitchens. In short, just how high calibre the menu will be depends entirely on the ability of the cook assigned. The swelling waistlines of the past crews attest to the gastronomical aptitude of our chefs.

#### C. PAY

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

Regular pay days are held on the 1st and 16th 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 efficient.

#### D. LOGISTICS

1. Logflights: 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-123, departs Miami every other Wednesday. After leaving Miami it stops at San Salvador, then South Caicos, refuels at Grand Turk and terminates at Miami. The flight is fairly dependable.

Tuesday, while in Miami, the aircraft is loaded with material for the LORAN Stations. The Supply Depot, as trans-shipping point and supplier for these Stations, accumulates supplies as they arrive during the two week period between flights. The supplies are loaded

on board as far as weight limitations will allow.

The logflights are also the primary means of transportation for people reporting into the Station, and departing the Station.

2. A certain amount of our supplies are also received by parcel post on the twice weekly MATS flights and the once a week Navy C-54 flight. All the usual supply sources are 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 be, 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 as the Section Petty Officer.

While the BMC is not an executive officer as defined in CG Regs, 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 sections. Under the direction of the XO, the Operations Petty Officer is in charge of the Watch Bill, and the 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 CO, 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 Commander's 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 sometimes 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 man's future in the Coast Guard. Most of the paper work however, is handled by the CO 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 narrative sections. Some of the regular reports are: Commissary, Personnel Diary, LORAN Operation, Outboard motor, Communications Summary, 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 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 subjects of the lectures and instructions are 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 Bills: These Bills are the Personnel Assignment Bill and the Collateral Duty Bill. Detailed descriptions of these are contained in the Station's Organization Book.
3. Operational Bills: These 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.
4. Emergency Bills: LORAN Failure, Primary Power Failure, Fire, Hurricane, Emergency Destruction and NBC Defense are all 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.

## CHAPTER SEVEN

### GUIDANCE FOR RELIEF PERSONNEL

#### A. GENERAL

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

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 hardly 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 the 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 C.A. 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 you're 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 as 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:

USCG LORAN Station  
NPO 557  
Patrick AFB, Fla. 32925

Mail may also be sent to:

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 cooperative 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 you were recently reenlisted. 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 is:

LORAN Station San Salvador  
% Commanding Officer  
USCG Supply Depot  
100 MacArthur Causeway  
Miami Beach, Florida 33139

#### C. WHAT TO BRING

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

At least six sets of dungarees & chambray shirts should be brought to the island, although these can be bought at the NAVFAC Exchange. Uniform accessories should be purchased prior to reporting aboard, as the Exchange selection is limited on these items, and special orders often 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" while 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. Peacoats, gloves, etc., are often used by those men heading north on C.A. 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.

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. Sheets, pillowcases, blankets and bedspreads are furnished, but each man should bring his own towels and wash clothes.

#### D. WHERE TO GO

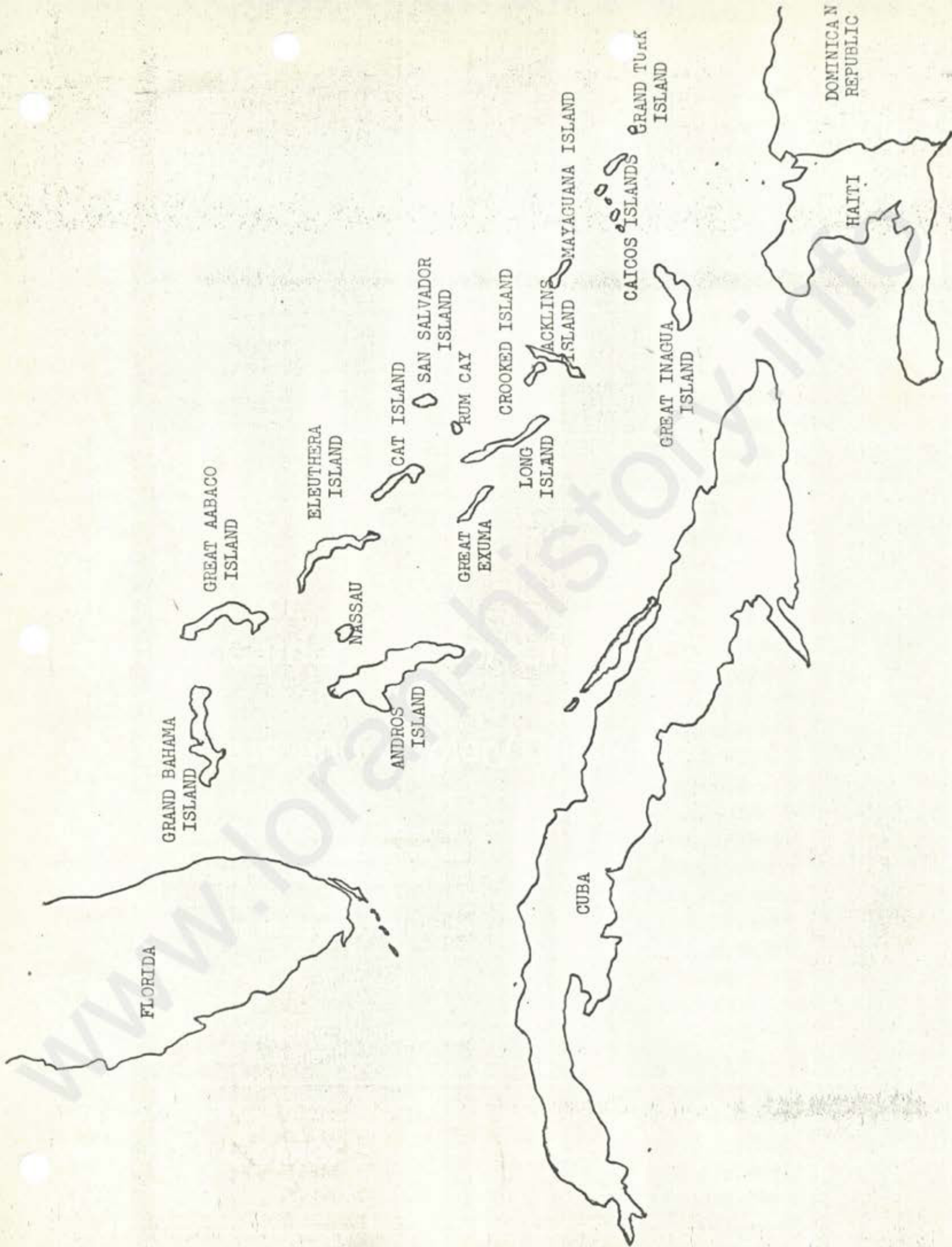
1. Your orders will probably direct you to report to Base Miami Beach (T&A). Prospective CO's will be directed to CCGD7, as quarters are not available at the Base for officers. At the Base, check with T&A daily for transportation to San Salvador. Also, take care of any deficient items such as drivers license, personal effects to be shipped, etc.

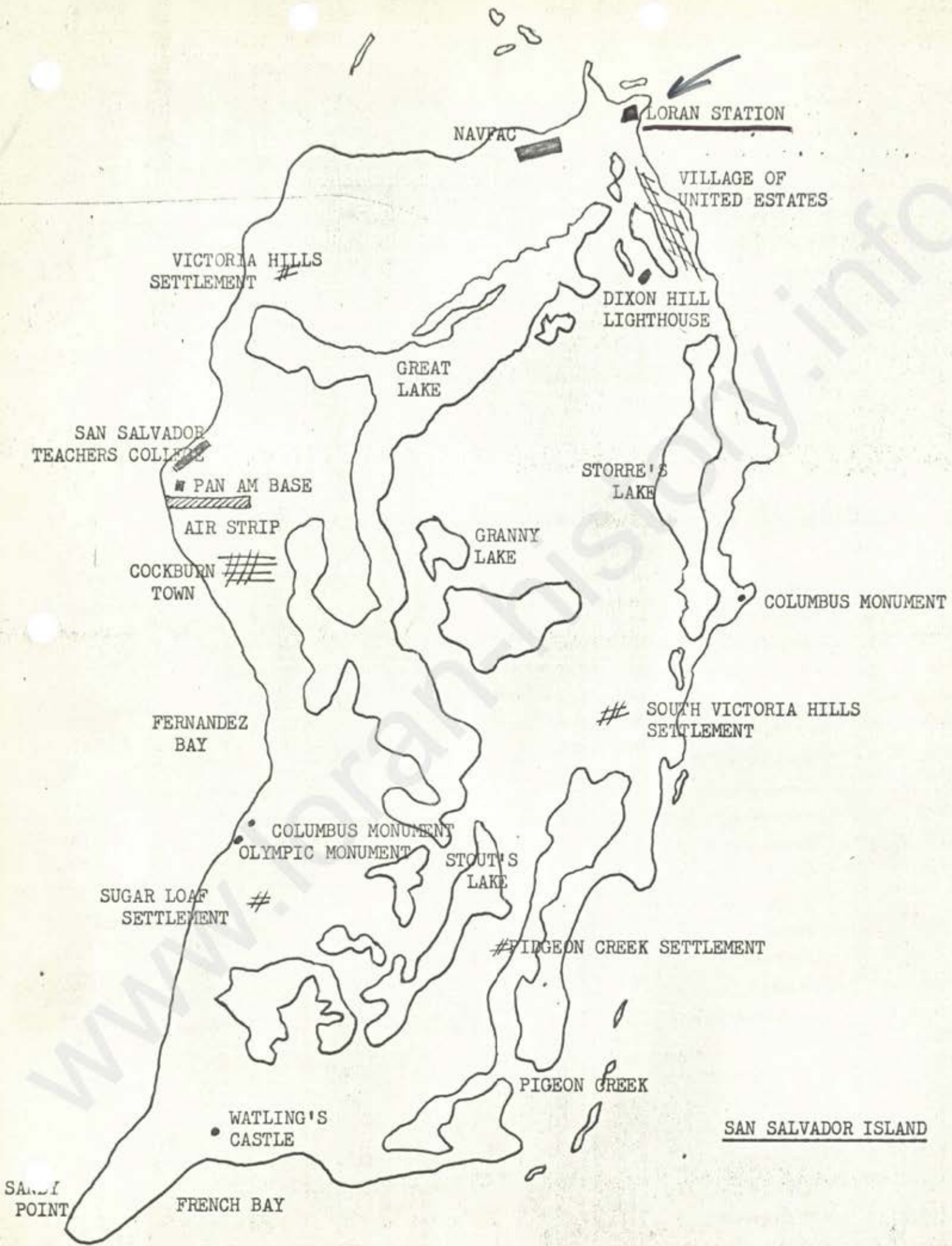
2. Visit the District if you have any questions concerning your records or personal affairs. Be sure to get your pay record if it is at the District and don't forget to bring it here with you. All travel claims, etc., are handled down here. Insure that you also have your service and health records.

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.

CHARTS





SAN SALVADOR ISLAND

STATION PHOTOGRAPHS



ENTIRE STATION FROM LORAN TOWER



CO'S QUARTERS FROM MAIN ROAD



MAIN BARRACKS FROM BELOW



HOOLIGAN'S HAVEN AND BEACH



SIGNAL BUILDING



REAR OF SIGNAL BUILDING





GENERATOR ROOM



LORAN ROOM



DC SHOP



MESS DECK

WATCH QUARTER AND STATION BILL

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		ACKNOWLEDGE TO DISTRICT		ACKNGW.	SEND RPT OF DAMAGE	MSG TO DISTRICT	SEND NUDET MSG
XO	BMC	AT SCENE	IN CHARGE	DAILY LOG ENTRY	LOG WHEN SET	LOG WHEN SET	LOG WHEN SET-IN CHARGE ASST TEAM	IN CHARGE SHELTER PREPEPATIONS	DECONTAMINATION STATION - IN CHARGE
O-100	ET1	ALARM PANEL MAIN BOARD	ELECTRICAL REPAID KIT	AS DIRECTED	AS DIRECTED	SHUTTER DETAIL	ON WATCH LORAN RM	PROVIDE HOT PLT 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 EXT.	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 VEHICLES	PROVIDE TOOLS & BATTLE LAMP	CHECK POWER PLT
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 EXTINGUISH.	AS DIRECTED	AS DIRECTED	SHUTTER DETAIL	ON WATCH BARRACKS	SECURE BARFACKS	DECONTAMINATION TEAM
E-103	FN	OBA MAN	OBA	AS DIRECTED	AS DIRECTED	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 UTENSILS	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