



COAST GUARD

Loran Station

YAP

YAP



General Information Book

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CHAPTER I

GENERAL INFORMATION

A. GEOGRAPHICAL LOCATION: USCG LORAN A/C Transmitting Station Yap is centrally located on the island of Gagil-Tomil (Yap group) in the Western Caroline Islands and comprises 203 acres. The Yap Islands lie about 450 miles southwest of Guam and are composed of four major islands: Yap, Gagil-Tomil, Map, and Rumung. Gagil-Tomil is connected with the main island of Yap by means of a bridge over Tageren Canal. Map is connected to Gagil-Tomil by a similar bridge and causeway. Rumung can be reached only by water. This entire group of islands comprise approximately 38.7 square miles and are surrounded by a fringe like reef.

B. TOPOGRAPHY AND WEATHER: The Yap group consists of four large islands and ten small islands surrounded by a coral reef. These islands were formed by land upheaval and are not, therefore, of volcanic or of coral origin. The soil is quite clay-like and contains considerable rock. The islands are mostly low, rolling grass-covered hills. The group's highest hill is located near the northern end of Yap proper and rises to the elevation of 585 feet. The lowlands, which occupy the southwesterly end of Yap, are covered with dense jungle growth and are marsh-like except during the dry spells that occur from time to time, particularly during the early months of the year. Yap is under the influence of the northeast trade winds for eight months of the year, November through June. From July through October the prevailing wind is southwesterly, with frequent periods of calm and light variable winds. This is also the wettest season with each months average rainfall exceeding 13 inches. The nearest approach to a dry season is February through April, when the average rainfall is less than 7 inches. Temperature varies much less seasonally than between day and night. Thus, the warmest and coolest months differ by less than 2 degrees in average temperature, as compared with a difference of nearly 12 degrees between the warmest and coolest time of day. Cloudless days are rare. A common daily sequence from May through December is to have the morning's fair weather clouds build up in late afternoon into towering cumulus that give rise to evening and early morning showers. Visibility in such showers is seldom less than 5 miles. Despite their relatively small size and low relief, the islands nevertheless appear to be large and high enough to cause local differences in temperature, wind, humidity, and rainfall. The station is located on what is referred to locally as the "high desert" due to the relative lack of vegetation, however,

this is misleading, since there is a great deal more plant life on the station than one would expect to find in many sections of the United States. The average temperature during the day is 88 degrees and at night it settles to around 75 degrees. A good breeze blows in across the station most of the day and effectively mitigates most of the heat normally experienced in a tropical area.

C. POPULATION, CIVIL AND MILITARY: In 1972 the Yap Islands had a total population of 4,790. The islands are populated predominately with Yapese with Colonia, the district center, containing a small number of outer islanders, American contract and civil service personnel who hold some of the key administrative positions and Peace Corps volunteers who are used as teachers, nurses, business advisors, construction and community development specialists and agriculturalists. The U. S. Navy has a Seabee "Civic Action Team" comprised of approximately 12 men who are assigned to the Yap district and are headquartered near Colonia. Its Officer-in-Charge is usually a LTJG (CEC).

D. BASE AND NATIONAL AGREEMENTS: The Coast Guard has a land use and occupancy agreement for the 203 acres on which the Loran station is built for as long as the station is needed. Station personnel are subject to all laws and regulations of the Trust Territory and the local courts. Since the end of World War II Yap has been administered as a Strategic trust by the United States under a trusteeship agreement with the United Nations. It is the only U. N. trust which comes under the control of the U. N. Security Council. Administered first by the U. S. Navy, authority was transferred to the Interior Department in 1951. A district administrator, named by the Trust Territory's High Commissioner, is responsible for Yap and its neighbor islands. Americans hold several of the most key administrative positions, although they are gradually being replaced by Micronesians. Local courts are staffed completely by Yapese and enforce the Trust Territory Code, laws passed by the Congress of Micronesia and Yap District Legislature, plus customary laws.

E. STATION HISTORY: The general contractor for the construction of the station was Dillingham Corporation, who worked from December 1963 to February 1965 with many delays due to weather, road conditions and the remote location. On 7 May 1964, the Loran C tower collapsed after reaching a height of 780 feet. The station was finally commissioned on 11 September 1964 and dedicated on 22 October 1964. During early January 1965, the new 1000 foot tower was completed by Beasley Construction Company and the Loran C commenced transmitting on rate SS3-2

on 9 January 1965. Loran A transmission on rates 2L1 and 2L2 commenced on air operations relieving the Loran A facilities at Ulithi Atoll on 1 February 1965. In early May 1965, the U. S. Navy Mobil Construction Battalion Detail departed after completing the road project.

www.loran-history.info

CHAPTER II

OPERATIONS

A. AIDS TO NAVIGATION: This station has been designed to be a highly effective Aid to Navigation. It accomplishes this by transmitting loran signals (pulses) that are of the desired shape and at the correct time interval. These pulses are to be continually transmitted making the system accurate and reliable with a minimum of unusable time. This is done in the following manner. Yap Loran Station will operate as a double master Loran A Station on the following rates: 2L1 and 2L2. The former's secondary station is CG Loran Station Angaur, the latter's secondary CG Loran Station Guam, located at Orote Point, Guam. Yap Loran Station will also operate as the Zulu secondary in the Northwest Pacific Loran C Chain on rate SS3. Other stations in the chain are Iwo Jima (Master station), Marcus Island (W secondary), Hokkaido, Japan (X secondary), and Gesashi, Okinawa (Y secondary). Yap Loran Station will monitor a Loran A signal to insure correct time delays are being kept and monitor Loran C signals as the master directs. CG Loran Station Saipan acts as system area monitor for Loran C.

B. ADDITIONAL AIDS TO NAVIGATION RESPONSIBILITY: Area of responsibility - Yap Island. Loran Station Yap shall perform routine servicing at least once each month and correct operating deficiencies as necessary at Yap Island Light. Within the capabilities of available personnel, equipment and facilities, perform emergency servicing of all floating and unlighted fixed aids within the area of responsibility. Inspect all aids within the area of responsibility at least once per year.

C. LAW ENFORCEMENT AND INTELLIGENCE: Loran Station Yap personnel must always maintain a state of readiness to perform law enforcement duties and be capable of gathering and forwarding intelligence information to proper authority. Since Yap Loran Station is located within the Trust Territory of the Pacific, all station law enforcement activities and intelligence activities shall be directed by Commander, CG Section Marianas.

D. SEARCH AND RESCUE: Although this station has no specific duties outlined as to SAR, just as any Coast Guard unit, it has a moral obligation to the public to assist in any rescue within the capabilities of the station and to notify higher authority if not able to effect rescue.

E. PUBLIC RELATIONS: (PIO) Being one of the two permanent military tenants on the island of Yap it falls upon the shoulders of CO, Yap LORSTA and all hands to set an excellent example in both conduct and proficiency in the highest tradition of the U. S. Coast Guard. The Commanding Officer is responsible to assure there is a maximum co-ordination and co-operation among Trust Territory, the native inhabitants, and USCG.

F. VEHICLES AND BOATS: Currently this unit is served by one (1) M-37, 3/4 ton 4 x 4 truck, two (2) M-715, 3/4 ton 4 x 4 trucks, two (2) M-34 2 1/2 ton dump trucks, and one (1) John Deere diesel tractor with grass cutting, fork lift and 3/4 yard bucket attachments.

CHAPTER III

PERSONNEL

A. COMPLEMENT:

1. OFFICERS:

a. LTJG	1
b. ELC	<u>1</u>
	2 TOTAL

2. ENLISTED:

a. BMC	1
b. ENC	1
c. ETC	1
d. DC1	1
e. EM1	1
f. EN1	1
g. CS1	1
h. ET1	2
i. HM2	1
j. RM2	1
k. EN2	1
l. ET2	3
m. ETN2	1
n. EN3	2
o. ET3	3
p. CS3	1
q. TT3	1
r. SN	9
s. FN	2
t. SK2	<u>1</u>
	35 TOTAL

3. INDIGENOUS:

a. Kitchen Worker	1
b. Laborer, grounds	<u>1</u>
	2 TOTAL

4. ORGANIZATION: The Commanding Officer is assisted by one ELC (W-4) who functions as Electronics Engineering Officer/ Executive Officer, Communications Officer, Safety and Electronics Maintenance Officer; three Chief Petty Officers who are designated department heads. ENC in Engineering, BMC in Deck, ETC in Electronics. The station office is located on the northwest corner of the barracks building adjacent to the BOQ, and is the primary place of business of the Commanding Officer. Engineering records are maintained in the Engineering Log Office, adjacent to the generator room, Commissary records are kept in the Commissary Office located in the department dry stores area, while sanitary and health records of personnel are maintained in Sick Bay, located adjacent to the CPO Quarters. The BMC assists other departments in ordering supplies while ordering for and supervising the deck department.

B. Personnel records are maintained by the HM in the station office. Pay records are maintained by Commander, CG Section Marianas in Guam.

C. Medical facilities include a modern sickbay under direction of the Hospital Corpsman; the Yap Hospital is open to Coast Guardsmen and is served by two Trust Territory, U. S. doctors, one U. S. Peace Corps doctor and an assortment of native medical officers including a dental technician. Any cases requiring special knowledge, equipment, etc., are treated at the U. S. Naval Hospital in Guam.

D. Yap Loran Station maintains training program for its personnel. Included are the usual courses for advancement in rating and USAFI courses. Weekly all hands lectures, division training, and bi-weekly emergency drills are held. The EEO/XO is responsible for the detailed electronics training of all personnel engaged in loran operations.

E. MORALE AND WELFARE:

1. RECREATION: On station, indoor recreation is accomplished in two main areas, the mess deck and crew's recreation room. Recreation gear on the rec deck consists of a pool table with accessories, a stereo record player, and a ping pong table. Movies are shown on the mess deck nightly with double features on Fridays, Saturdays, and holidays. The mess tables are utilized as card tables for those so inclined. Within the mess deck is located a small storage room used as a projection booth. Sports enjoyed on the station consist of horseshoes, motor bike riding, shell collecting, and dark room photography. A larger concrete area used for water catchment is also utilized for outdoor basketball.

2. OFF STATION RECREATION: The Island of Yap is a photographers dream. Aside from the beautiful flora, fauna and lagoons, colorful pictures can be taken of inhabitants in their native dances and ceremonial rites.

3. SHELL COLLECTION: Many personnel spend much of their time and energy in the collection of beautiful Pacific shells. Shells are plentiful and varied. A few of which include: Cowries, cones, clams, augars, etc.; both rare and common. In addition, shells from the surrounding islands can be obtained. Located about four miles from the station is a private beach accessible by vehicle, known as "The Coast Guard Beach". The beach was loaned to the Coast Guard by a local chief who resides in his village adjacent to the station. Swimming is enjoyed just off the beach within the coral reef that surrounds the island. Coast Guard beach parties are held periodically.

4. Other recreational gear not mentioned before includes boxing gloves, photographic enlarger, slide projector, radio receivers and numerous small games. Recreation is ample and more recreational outlets will probably be found in the future.

5. The town of Colonia, located 7 miles from the station is used by CG personnel for recreation during off duty hours. At present there are two establishments which sell food and beverages. Located in Colonia is a general store operated on the Co-operative plan, in which shells, carvings and artifacts, both local and from the surrounding islands, may be purchased.

6. YAP ISLAND: LORSTA Yap is not isolated in the strict sense of the word. Colonia is located approximately seven miles from the station on the main road directly on the route to the airport. The town itself is not large (approximately 400 population) but it does offer many familiar conveniences. The Yap Co-operative Association has a large general store, grocery store, garage, shipping concern, all of which endeavor to provide for both native needs and those of the crew. Trust Territory Officials and quite a few natives have memberships. Two or three other "Saloons" are located in Colonia and the atmosphere is usually quite convivial. Yap radio broadcasts daily and the programming is pleasantly balanced with stateside and local music and commentary. Trust Territory maintains a Post Office in town and of course there is a Courthouse, constabulary, sanitation department, public works building, local hospital, etc., in addition to the various administrative offices. Mobil Oil Micronesia provides the Loran Station with diesel fuel, gasoline, and lubricating oil.

7. HARBOR: A fairly narrow opening in the fringe like reef surrounding the island provides the entrance to Tomil Harbor. It's very scenic, and activity is usually at a minimum until the arrival or departure of one of the Inter-island vessels. Control over the harbor is exercised by the Trust Territory.

8. AIRPORT: Located on the southeast part of Yap Island is the local airstrip. Originally built by the Japanese, bombed by the U. S. Navy, and rebuilt by the U. S. Coast Guard, the airstrip is now utilized on a scheduled basis by the Air Force for logistics and Air Micronesia for passenger and mail flights.

9. PESTS: Tiny red ants, which do nothing more than annoy, and common house flies are the two most common insects on the island. Constant spraying eliminates most of them and also rids the station of the few cockroaches which manage to hitch a ride to the island on a log flight. Rats are not a problem since coconuts provide an excellent diet for them. They are prevalent on the island but never come near the station, as they prefer the coconut groves where only 2% of the coconuts are harvested and the rest are available to them. Small lizard like "geikles" are actually quite cute and harmless. They abound on the island and are very beneficial as they feed on insects exclusively. Toads are nothing more than a nuisance, as they always seem to get under one's feet. Supposedly, monitor lizards up to six and eight feet live on the island, but no station personnel have ever experienced seeing one that large. They are non poisonous and according to all reports, harmless. No snakes live on the island of Yap, however, some poisonous fish, moray eels and poisonous cones do inhabit the waters off shore and it is prudent to be selective as to where one places his feet or hands when swimming or skin diving. There are also sharks in the local waters, however, they mostly remain outside the coral reef.

10. PETS: The station at present has two dogs and cats and they are all well fed and cared for.

11. WILDLIFE: As is common on most Pacific isles, birds and fish abound.

12. LOCAL INHABITANTS: The customs and traditions of the island people, Yapese mainly, but also Ulithians and Palauans are really quite fascinating and also colorful to observe. Some of the dances and "Mit-Mits" (loosely translated as party) are "open" to

the Loran Station personnel and this opportunity to study the local culture is rarely refused.

13. The unit has a morale committee composed of the CO, one CPO, and four enlisted men chosen by the crew. The committee meets monthly to determine recreational gear and activities of interest to station personnel and to delineate areas within the station operation which may improve unit condition and morale.

14. Crew members at Yap may make purchases through PACEX at Tokyo or the Navy Exchange on Guam. Specific articles requested are ordered and paid for directly by the person.

15. BEER AND SODA MESS: LORSTA Yap has an open beer and soda mess and bills are settled monthly.

F. HEALTH AND SANITATION: The station has its own 48000 gallon concrete septic tank with effluent discharge to a sludge bed and leaching field. The station also has 49,600 square feet of water catchment area with a fresh water storage capacity of 288,000 gallons. Source for the water are the roofs of the barracks building, signal power building, and the surface of the concrete basketball court.

CHAPTER IV

ENGINEERING

A. POWER PLANT: Four (4) Caterpillar D-398 A, SRSE (self regulating, self exciting) generators provide electrical power to meet station demands. Present power demands require the operation of two (2) of the generators in parallel.

The following is a brief synopsis of the technical data relative to this power plant. A more complete breakdown is maintained in the unit machinery index.

ENGINE: Caterpillar, V-12, Turbocharged-diesel. 32 volt starting system. Starters (2) mounted on right and left banks. Speed control through Woodward UG-8, remote control governor.

GENERATOR: 500 kw, 600 kva, 3 phase, 60 cycle, 480 volts.

B. ELECTRICAL SYSTEM: Depending on voltage requirements, the initial 480 volts output of the generators is either stepped up or down through a series of transformers located in the following positions.

ENGINE ROOM: 3 (ea) Westinghouse, indoor type "EP", single phase 25 kva. Primary - 240 x 480 volts: secondary 120 x 240. (1 ea) International - indoor dry type "F". 75 kva-3 phase. Primary 480V. Secondary 120-308 volts, 60 cycle.

ENGINE ROOM TRANSFORMER PAD: 2 ea. Standare Transformer Co., Outdoor, oil immersed, Type "AT". 750 kva - 3 phase LV - 4160/2400-LV-480. Dial setting "C". 4160 V-104 Amp.

LORAN C TRANSMITTER BUILDING: Outdoor Type - 2 ea (same as above).

BARRACKS MACHINERY ROOM: International, indoor dry type "F".

Main feeder circuits to branch circuits are controlled through the engine room main distribution panels. Sections may be isolated or dropped without disrupting the power supply to the other portions of the station, i.e. Main barracks from signal power building, Loran A from Loran C of Loran C transmitter building from a signal power building.

Individual circuits may be secured from circuit breakers panels located in all buildings.

C. AIR CONDITIONING AND REFRIGERATION: The operation and maintenance of refrigeration and air conditioning equipment is the responsibility of the Engineering Department. Due to the amount of refrigeration and air conditioning equipment at this unit, it is essential that at least one (1) of the personnel assigned to the engineering billets have a PAC designator or be thoroughly knowledgeable in this field.

1. BARRACKS BUILDING: The entire barracks building including the BOQ, is centrally air conditioned through the use of a TRANE, chilled water system. With the exception of the Mess Deck, Crew's head, Passageways and closets, all rooms in the barracks building are equipped with one or more, TRANE, fan coil chilled water units. Mess Deck air conditioning is accomplished with the same chilled water system but utilizes an isolated, TRANE, vertical draw thru climate changer. In addition to the chill, coil, each fan coil unit has an additional coil installed for the circulation of hot water. Adjusting the pneumatic controlled thermostat of the fan coil unit allows room temperature control to the individual preference.

2. SIGNAL POWER BUILDING: Only the electronic portion of the signal power building is air conditioned. Five (5), CARRIER model 50DA005-631, 460v/60c/3p, 49,000 BTU/HR air conditioners are used. Two (2) supply LORAN A, two (2) LORAN C, and one (1) for the communications room. Since the operating temperatures of LORAN C timer equipment must be maintained at prescribed settings, it is essential that the two units supplying this equipment be considered critical and be maintained accordingly. If major repairs are necessary, the complete unit can be removed and a spare installed within a reasonably short period without interrupting LORAN C transmission.

D. REFRIGERATION: Refrigeration and refrigerators equipment vary in size and capacity and are as follows:

1. Walk-In 1200 cu. ft. capacity Econo-cold with coplematic, semi-hermetic compressors, (2 ea) one (1) for frozen foods and one (1) for vegetables and dairy products. Both units are identical including controls. In the event of freezer failure the chill box temperature can be lowered to freezing while repairs are being made. Food previously stored in the chill box can be stored in smaller refrigerators.

2. One (1) commercial type refrigerator, totalling approximately 30 cu. ft. is located in the galley and galley storeroom area.

3. One (1) each, compact apartment size refrigerators in the BOQ and CPO quarters.

4. One (1) each, compact combination electric stove and refrigerator in BOQ and CPO quarters.

5. One (1) ice cream maker and freezer chest on mess deck.

6. Five water coolers: (a) mess deck, (b) radio room, (c) garage, (d) transmitter building, and (e) barracks building.

E. FUEL SYSTEM: The supply of diesel fuel for station generators and hot water boiler is stored in an area referred to as the "Tank Farm". Ten 30,000 gallon tanks giving a total storage capacity of 300,000 gallons are located on the western perimeter of the station. Tanks are filled through a six (6) inch fill line approximately four (4) miles long. The starting point of the line is located approximately 3800 feet off shore in Tomil Harbor. When the station is ready to receive fuel, the tanker passes its fuel line to the loading platform and the tank farm. Except for a few road crossings and the underwater portion of the line, the remainder of the 6" line is above ground allowing for periodic inspection of the entire line.

Fuel from the storage tanks passes through a 2", above ground line to a "day tank" located behind the signal power building. Generators fuel supply is drawn from this tank.

At approximately the half way point in the 2" line, the line is tapped with a 2" T. An underground line supplies a 500 gallon storage tank located behind the barracks machinery room. This storage tank supplies the station hot water boiler.

Average daily consumption of diesel fuel is approximately 1,000 gallons. In order to allow for a reserve supply of fuel for those unpredictable instances, refueling is scheduled at approximately six (6) month intervals.

F. FRESH WATER SYSTEM: Potable water for station use is obtained from a rain water catchment system. The roofs of all buildings, the basketball court and the top of the storage tanks are used to trap and collect water during rainfall. The trapped water flows through down spouts and underground piping to the collection tank located at the

end of the signal power building. Dirt and debris settle to the bottom of the tank and the water is passed to the storage tank manifold. What appears to be one large tank, is in reality five separate tanks. Each tank has a capacity of 40,000 gallons. Tanks #1 thru #3 are used for the storage of untreated water or raw water. Tanks #4 thru #5 are equipped with suction service valves and transfer return valves. Tanks #1 thru #3 is transferred to #4 and #5 after being treated. Transfer pumps located in the pump house draw water from the tank or tanks selected. The water is discharged through a 2" line to #5 tank. Before the water is transferred to #5 it is filtered and chlorinated by a Wallace-Tiernan Automatic Chlorinator installed on the discharge side of the transfer line. Fresh water service pumps located in the pump house, take suction on #5 tank and pump it to pressure tanks and thence to various outlets throughout the station.

Although water is plentiful during rain seasons, July thru January, it must be used sparingly the remainder of the year due to light or no rainfall.

G. BUILDINGS, ASSOCIATED DEPARTMENTS AND THEIR FUNCTIONS:

A. BARRACKS BUILDING: Located on the north side of the station property overlooking the blue Pacific Ocean is the barracks building. Construction is basically of concrete block type (to withstand typhoon velocity winds) and the entire building is air-conditioned, making it quite habitable. Contained in the barracks, or more commonly referred to as the subsistence building, is the galley, mess deck, recreational area, crew's quarters, laundry, photographic dark room, beer mess, CPO quarters, sick bay, station office, BOQ, and air handling machinery room for the air conditioning system. The subsistence building generally provides this station with all the conveniences of home. The BOQ consists of the Commanding Officer's room, the Executive Officer's room and one spare guest room, head, kitchenette and living room all of which is tastefully decorated and furnished. The station office contains the CO's desk and Yeoman's desk plus a station armory and all other office type conveniences, file cabinets, etc. The CPO quarters which is adjacent to the office, has a comfortable living area, kitchenette, head, and four large bedrooms. Located just down the open air passage-way from the CPO quarters is Sick Bay, a modern well equipped station "hospital" with emergency table, head, desk, and storage areas. The mess deck is large and spacious and in addition to providing us with our main eating space also contains the beer mess, projection room. Movies are shown nightly on the mess deck. The galley is well

equipped with two electric ranges, reach-in refer, automatic dishwasher, grill, deep fat frier, one head, and numerous small items such as toasters, coffee pots, etc. All in all, it lacks very little. The recreational area (rec deck) has a pool table, console stereo set, numerous couches and chairs, and small amounts of reading material and long playing record albums. The dark room is quite adequate, equipped with enlargers and all necessary paraphenalia for producing good negatives and prints. Two washing machines and two dryers are contained in the station laundry. With the normal allowance of men on board each crew member has his own room and is permitted to decorate it to suit his taste. These rooms are spacious and comfortable, each containing a desk, chair, lounge chair and hollywood type bed. The crew's head is centrally located just off the middle passageway.

B. SIGNAL POWER BUILDING: The Signal Power Building is of similar construction to the Subsistence Building. However, not all spaces are air conditioned. (The Loran C screen room, communications area, office and Loran A timer room are.) Located in the S/P building, from north to south is the Loran C screen room, communications area, head, ET office, electronic repair parts storage room, Loran A timer room, Loran A transmitter room, engineering office, spare parts room, main generator space, DC shop, EM shop, Bosn locker, vehicle Maintenance area, and vehicle storage space.

The Loran C Timer Room is equipped with the AN/FPN-46 timers, control indicator group, workbench, and chalk board space. The communications area is located adjacent to the screen room and is equipped with two URT-17 transmitters, one SSB Mark I transceiver with a linear amplifier, one GPR90RX receivers and CU-591 A/URR converters, three R-1235/URR receivers and two CTT-28 ASR-AUX teletypes used in conjunction with the above, also FM capabilities are accomplished by an AN/URC-45 with the Communications Station in Colonia, and the Weather Bureau's station at the airport. With the URC-45 and AN/PRC 59's (all station vehicles are equipped with the AN/FPN-44 transmitter control group). The electronics office is strategically located next to the head and just down the passageway from the communications area. The EEO (ELC W-4) and ETC find this quite suitable to their needs and handle most of the Electronics "rough" paperwork there. Directly across the passageway from the electronics office is the spare parts storage room which is dehumidified to preserve electronic components. In the space adjoining this area is the Loran A transmitter room with AN/FPN-30 timers and immediately adjacent to this is the Loran A transmitter room with T-325 B/FPN type transmitters AN-1700 amplifiers and an AN/FPZ3B switching group. Traveling south down the passageway one

encounters the main engine/generator area equipped with four 800 horsepower 500 kilowatts caterpillar diesels and the main station distribution panel. The Engineering Log Office is in the Northwest corner and the spare parts room in the northeast. The DC shop, Bos'n's locker, and Electrical shop lie between the engine/generator space and vehicle maintenance area. Equipment necessary for all station maintenance and repair is in this area and many of the crew utilizes these spaces for hobby work. The vehicle maintenance and storage spaces are well equipped and also provide for additional storage parts. Located just outside the vehicle maintenance space is the station "gas station". The diesel (ten 30,000 gallon tanks) fuel "Tank Farm" is on the western part of the property just past the entrance to LORSTA Yap. Twenty four hour continuous watches are maintained in the engineering spaces, Loran A, and Loran C areas, and in addition, the oncoming engineer watchstander makes a station security check. Located directly behind the Signal Power Building is the station's catchment system - 40,000 gallon capacity storage tanks - and across the road from the tanks is the Pump House, containing a pumping system and all chlorination equipment. The Subsistence Building, Signal Power Building, and large concrete combination tennis court, and basketball court all serve as runoff spaces for the fresh water supply. With only moderate water conservation practiced, potable water is available year-round. Chlorine tests are made daily and quarterly water samples are sent to Guam for analysis. The station sewage system consists of a septic tank and tile field located on the northwest corner of the property.

C. Approximately 1300 feet in an easterly direction from the Signal Power Building stands the 1000 foot Loran C transmitting tower. The Loran C transmitter building is located at the base of the tower. Loran signals from the Transmitter Control Group enter the building via an underground cable-trench. The signals are of a low level and are amplified by the AN/FPN-45 Loran C transmitters and then fed to the CU-1106/FPN antenna coupler and thence to the 1000 foot tower, the peak amplitude being at or near 3,500,000 watts. Located outside the transmitter building are various transmitter support equipment such as the radiators for the transmitter secondary cooling system, a storage tank for the transmitter primary cooling system (water), and two 750 KVA transformers, since the primary power supply to the building input to the transformers is via buried cables. The three phase transformers step down 4160 VAC back to its original value of 480 VAC.

CHAPTER V
COMPTROLLER

A. GENERAL: Normally, all supplies are delivered to the station via Air Force aircraft from CG Activities, Guam, twice monthly. Coast Guard buoy tenders visit the island quarterly to service Aids to Navigation, as well as to deliver or pick up heavy equipment and/or non priority items. There are also three Air Micronesian flights per week which may be utilized by COMARSEC.

B. SOURCE OF SUPPLIES:

1. GENERAL AND HOUSEKEEPING: U. S. Naval Supply Depot Guam, and commercial on Guam are the normal sources of supply. Coast Guard peculiar items are obtained from Coast Guard Base Honolulu, Alameda, California, Supply Center and Brooklyn Supply Center.

2. COMMISSARY STORES: Commissary stores are purchased from U. S. Naval Supply Depot, Agana, Guam, and the Commissary Retail Store, Naval Station, Guam.

3. ELECTRONICS: Parts are ordered from Coast Guard Base Honolulu and Coast Guard Supply Center Brooklyn, N.Y.

4. SURVEY: When items are found inadequate or damaged, a board of survey is appointed to determine the proper disposition for the item and whether a replacement is required.

C. PAY: All personnel are paid every two weeks by check. Allotments are strongly recommended; however, many station personnel utilize the Yap Branch of the Bank of Hawaii. Postal money orders may be purchased at the U. S. Post Office in Colonia.

D. FUEL: Fuel is delivered to the 300,000 gallon capacity fuel tanks via a 6" pipeline leading from the Ioran station fuel farm to Tomil Harbor. The pipeline extends into the main channel of Tomil Harbor where Mobil Oil Micronesia tankers tie up to Coast Guard mooring buoys and discharge into the pipeline. Fueling operations occur two to three times per year. Fuel from the tank farm to the main generators is carried via a 2" pipeline from the tank farm to the Signal Power Building. Lube oil and gasoline are

purchased in drums in Colonia at Mobil Oil bulk plant and transported to the station in the stake truck.

E. TRANSPORTATION:

1. AIRCRAFT: Commercial flights provided by Air Micronesia regularly arrive on Monday, Wednesday and Saturday from Guam. Return flights to Guam are on the same day and involve approximately two hours flying time.

2. SHIPS: Some supplies arrive periodically on commercial merchant vessels but most equipment is delivered quarterly by COMARSEC vessels, USCGC BASSWOOD and USCGC MALLOW.

CHAPTER VI
ADMINISTRATION

A. REPORTS AND LOGS:

1. Reporting requirements for this station are subject to change from time to time. All reports required are listed on the Master Chart in the station office. A complete description of the report required, copies to be completed, routing, filing, dates required and other information is included on the chart.

2. Files are maintained in accordance with COMMANDANT INSTRUCTION 5215.1 and the Coast Guard Directives System, CG-199-1. The files are located in the filing cabinets in the station office.

3. All publications that are required at this station are maintained in the station office with the exception of electronics publications which are maintained in the electronics office in the S-P building.

B. OFFICIAL CORRESPONDENCE:

1. All official correspondence at this station is in accordance with the Coast Guard Correspondence Manual (CG-199) and other applicable district and section instructions.

C. DELEGATION OF AUTHORITY:

1. Delegation of authority is directed by the Commandant, via CCGDFOURTEEN and COMCOGARD MARSEC to the Commanding Officer.

2. The Deck, Engineering, and Electronics Divisions are under the direction of the BMC, ENC, and ETC respectively. The ETC is directly responsible to the EEP/XO whereas the BMC and ENC are directly responsible to the Commanding Officer.

D. SAFETY AND STATION BILLS:

1. Safety and Station Bills are in accordance with current directives for small shore units. All station bills are outlined in detail in the Station Organization and Regulations Manual.

E. FLAGS:

1. The station displays the United States, United Nations and Micronesian ensigns in addition to the Coast Guard ensign.

F. COMMAND AND CONTROL:

1. With the exception of Loran-C matters, this station is under the control of Commander, Coast Guard Section Marianas who is the next senior in the chain of command.

2. Commander, Coast Guard Section Far East exercises operational and technical control over all matters pertaining to Loran-C.

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CHAPTER VII

GUIDANCE FOR RELIEF OF PERSONNEL

A. MAILING ADDRESSES:

1. This station has two addresses. Because surface mail frequently takes several months to reach the Trust Territory address, it is recommended that only air mail be sent to it. Mail sent to the FPO address arrives a minimum of twice a month on Air Force C-130 logistics flights.

USCG LORAN A/C STATION YAP	USCG LORAN A/C STATION YAP
USCG SECTION, CODE 7	TRUST TERRITORY OF THE PACIFIC
BOX 76	YAP, W. CAROLINE ISLANDS 96943
FPO SAN FRANCISCO 96637	

2. Stamps may be purchased at the local post office. U. S. postage rates apply.

B. FAMILY FACILITIES:

1. Yap Loran Station is designated a restricted duty station and no provisions have been made for dependents. However, the Trust Territory Administration is currently promoting tourism to Yap and there are two moderate hotels on the island, located in Colonia. An entrance permit is required from the office of the High Commissioner prior to entry into the Trust Territory.

C. THINGS TO DO AFTER RECEIVING ORDERS:

1. There is no exchange on Yap, therefore, personnel are advised to bring sufficient uniform articles, military distinctive items, etc., with them. There are several small stores in Colonia which sell toiletry articles, laundry soap, bleach, cigarettes and stationery.

2. Uniform requirements for Officers and Chiefs are tropical khaki long, tropical white long and full dress whites.

3. Uniform requirements for enlisted personnel other than Chiefs are short sleeved dungarees, tropical white long and dress whites.

4. A U. S. Government drivers license is required in accordance with the Coast Guard Personnel Manual (CG-207), and because of the road conditions and type of vehicles assigned to the loran station, it is highly recommended that the license be up to and include three tons.

5. Shots, dental work and medical exams for overseas assignment should be completed prior to departure from CONUS.

6. If personal effects shipment is authorized, this shipment should be sent a minimum of 30 days in advance of departure from CONUS.

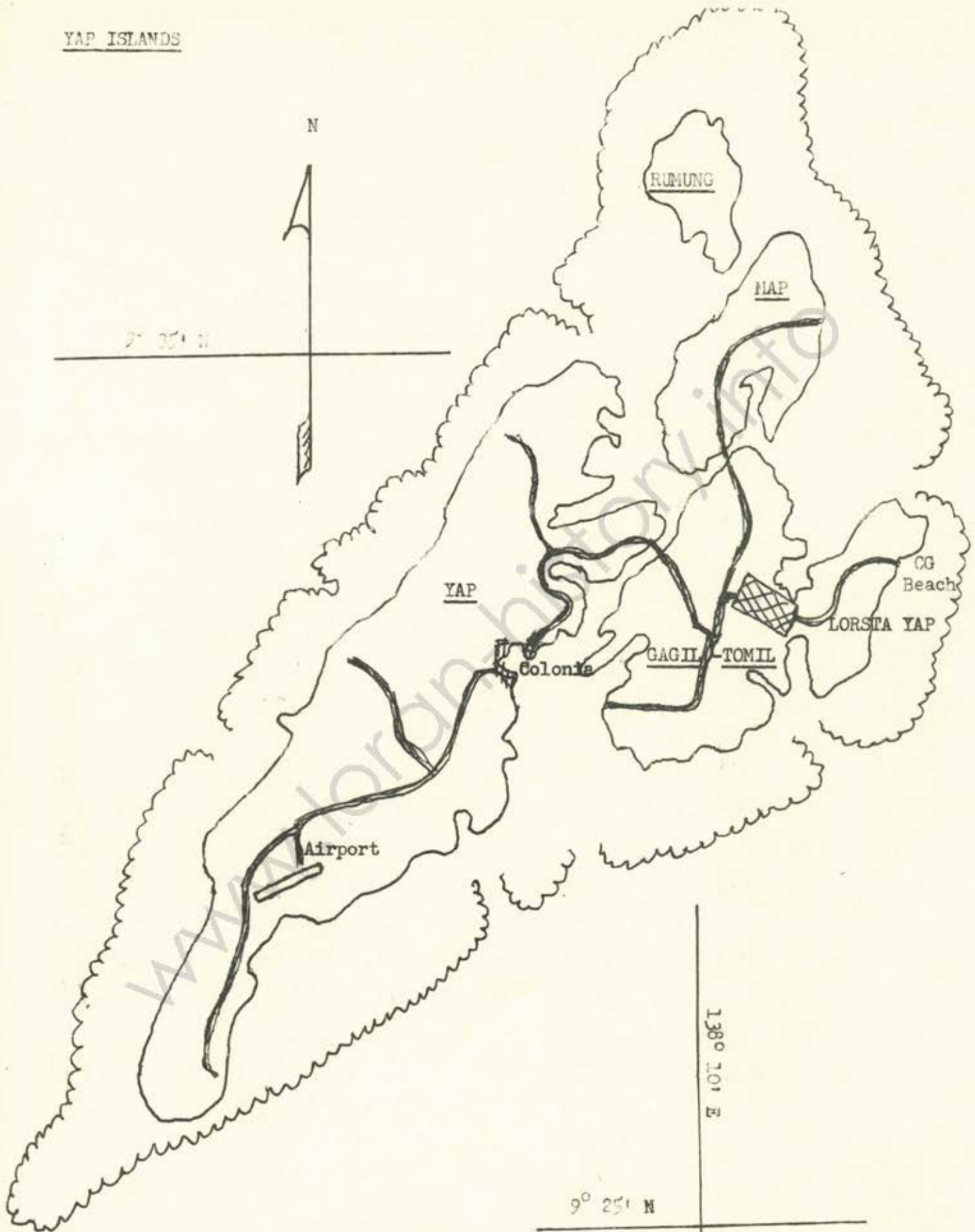
7. Civilian clothing is authorized while in a non-working status. Swimming and diving equipment is recommended if interested.

8. Personnel requiring glasses, special medication, etc., should bring a substantial supply with them.

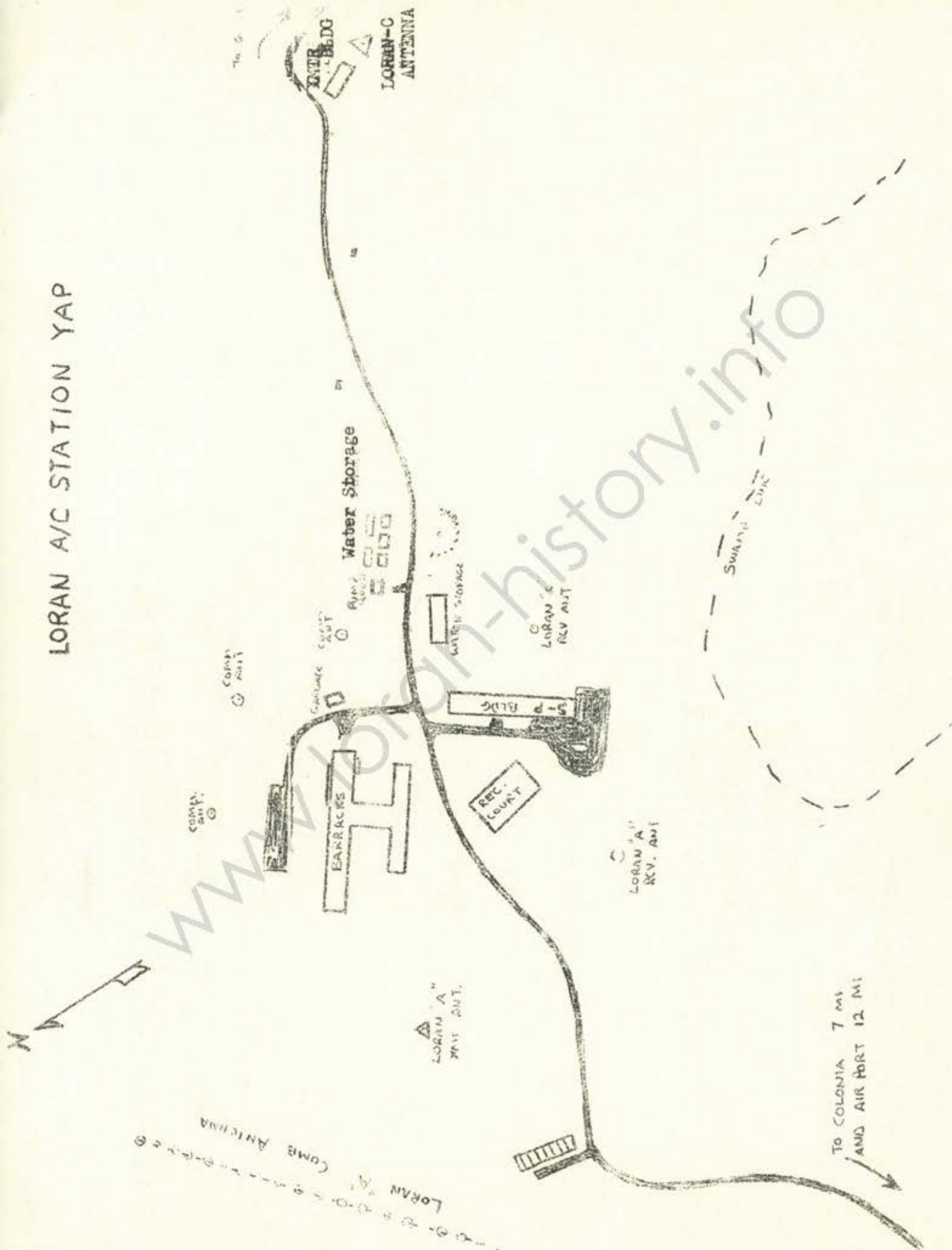
D. TRAVEL TO AND FROM:

1. Travel from the CONUS will normally be via MAC aircraft to Hickam AFB, Honolulu thence Anderson AFB, Guam or via commercial aircraft to Guam International Airport. Upon arrival in Guam contact Marianas Section office during working hours or CG Radio Station Guam during non working hours.

YAP ISLANDS



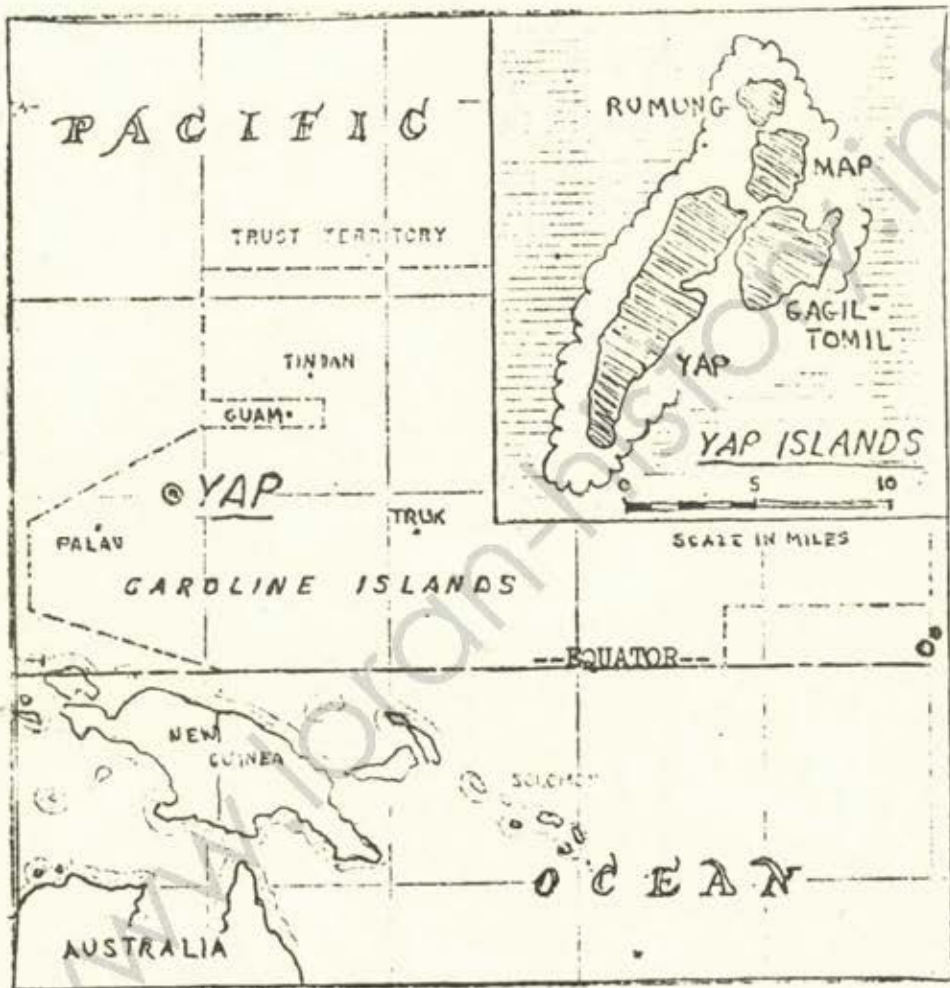
LORAN A/C STATION YAP



LORAN A
COMB ANTENNA

TO COLONIA 7 MI
AND AIR PORT 12 MI

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