



# **SEVENTEENTH COAST GUARD DISTRICT**

## **GENERAL INFORMATION**

**RELATING TO THE**

**LORAN TRANSMITTING STATION**

# **ATTU**



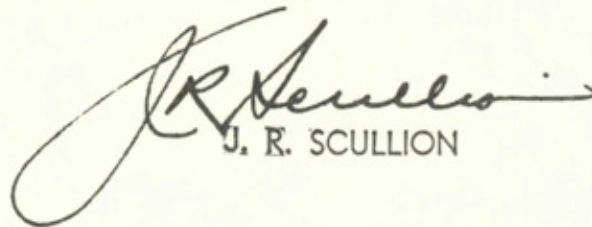
DEPARTMENT OF TRANSPORTATION  
UNITED STATES COAST GUARD

Address reply to:  
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Seventeenth Coast Guard District  
P.O. Box 3-5000  
Juneau, Alaska 99801

\* 3262  
1 March 1968

LETTER OF PROMULGATION

1. This letter promulgates a Loran Station Information Book for each of the nine Seventeenth District Loran Stations. These books are designed to provide information to commands and staff components concerned with the stations logistic support, operation and administration, and to training commands to familiarize themselves and their students with station equipment, environment, problems and routines. The books purposely omit unnecessary details. Additional information regarding any phase of the stations operation, equipment, or plant can be obtained from Commander, Seventeenth Coast Guard District, Juneau, Alaska.
2. Loran Station Information Books will be reviewed periodically and new additions issued as the need arises.



J. R. SCULLION

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U. S. Coast Guard Loran Station

Attu

General Information Book



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## CHAPTER ONE

### HISTORICAL AND GEOGRAPHICAL BACKGROUND OF ATTU ISLAND

Attu Island, the 368 square mile land mass which is the last of the Aleutian Islands, is the western most point of the fifty United States. This island is composed of rugged mountains and hills with several narrow valleys. The USCG Loran Station is located in an area formed by two of these valleys on the eastern end of the island, the Peaceful and Henderson Valleys. (see fig 1).

Forty miles to the east, Shemya Island, another of the Near Island group, supports approximately 1500 Army, Air Force, Navy and civilian personnel attached to the USAF Station.

There are no native inhabitants of Attu. The Aleut Indians who originally occupied a village at Chicakof Harbor were relocated during the Second World War. The only inhabitants are thirty-two Coast Guardsmen and seven Air Force men stationed at the CG Loran Station.

Wildlife on Attu is limited to Artic Blue Fox and various fowl. The streams and rivers, however, teem with salmon and trout from late May till September. Several streams and lakes near the station provide an excellent source of recreation during these months.

Most of the recorded history of Attu originated during the World War II period when, early in the war, the Japanese occupied Attu as part of their Aleutian Campaign. On the 14th of May 1943 the American forces landed on Attu in an attempt to retake the island. There followed fifteen days of bitter fighting in the cold and rugged terrain. Finally on 29 May the Japanese occupation was eliminated when a final midnight Banzai charge of 800 men was crushed.

A majority of the American landings took place on the beaches of Massacre Bay in the vicinity of the present Loran Station.



By the end of the war approximately 20,000 American servicemen were stationed on Attu. Most of these men departed shortly after the end of the war. However, the U. S. Navy maintained a communications station on Attu until the late 1950's. Upon their departure the Coast Guard renovated the building to house the new Loran A and C station which was commissioned in 1960. At that time the old Loran A station at Murder Point was decommissioned.

Members of the National Park Service recently visited Attu for field surveys. It is their hope that some of the World War II buildings can be renovated as memorials to the Americans who gave their lives in one of the costly battles of the Pacific Theater.

## GENERAL INFORMATION

## NORTH PACIFIC CHAIN:

The Coast Guard Loran Station on Attu transmits Loran C signals on the SL2 rate as the slave Y station in the North Pacific Loran C Chain. The master station is located on Saint Paul Island in the Pribilof Island group located in the Bering Sea. The X slave is located on Sitkinak Island just south of Kodiak. The Z slave of the chain is located at Port Clarence, near Nome, Alaska. The system area monitor is the Loran Station on Adak Island.

## ALEUTIAN CHAIN:

In addition to the Loran C mission Attu also broadcasts on the Loran A 1L2 rate as a slave station. The master for this rate is the Loran Station on Adak Island. Adak is a double master serving as master on the 1L3 rate with Cape Sarichef as the slave station.

## ADAK ISLAND:

Adak Island is located 500 miles east of Attu in the Aleutian Chain. The CG Loran Station on Adak coordinates logistic requirements with the U. S. Navy for the Loran Station on Attu. The Naval Station on Adak supplies the required commissary stores on a quarterly and bi-weekly schedule. Coast Guard and GSA stock items are shipped to Adak for shipment to Attu on the quarterly logistic runs. C130 aircraft from CGAS Kodiak have the task of transferring tons of supplies to Attu each quarter.

The Navy Exchange supplies the Attu Exchange with merchandise at a modest markup. In addition the Naval Post Office assists the station with postal matters.



REEVE ALEUTIAN AIRWAYS:

Reeve Aleutian Airways operates throughout the Aleutian Islands. On Monday and Friday Reeves Flight One departs Anchorage for Attu via Cold Bay, Adak, Amchitka and Shemya. Reeves Airways has the mail contract to transport the stations mail from Anchorage and Adak on these flights. Bi-weekly supplies of cold stores also arrive on the Reeve aircraft. In addition all personnel arriving and departing fly from and to Anchorage on Reeve Airways.

The pilots, crew and stewardess are most friendly and cooperative. They supply the station with the latest newspapers and an occasional bottle of fresh milk in addition to a little friendly conversation from the outside world.

MAIL:

As previously mentioned the mail arrives at Attu twice a week, weather permitting, on Reeve Airways. Postage stamps are stocked by the exchange. Although there is no post office here, most any type of first class or parcel post mail can be handled. Average first class delivery time ranges from two to seven days depending on location of origin and aircraft schedules. Parcel post packages take about ten days to two weeks.

Personnel at the station receive very good service from Sears' mail order house in Seattle and from various film processing companies in the Northwest.

SHEMYA:

Shemya Island, located forty miles to the east supports a USAF Station. Military personnel and civilians on Shemya total approximately 1500. The Loran Station on Attu receives no direct support from Shemya. However, the Catholic and Protestant Chaplains



make frequent visits to Attu for the benefit of personnel stationed here.

The Special Services Section at the USAF Station organizes fishing trips to Attu for Shmya personnel. A fish camp is established here each spring for these trips which continue throughout the summer and early fall.

#### RECREATION:

As previously mentioned Attu is uninhabited save the men stationed at the Loran Station. The island has no cities or towns and local liberty is nonexistent. Because of the degree of isolation and the islands great distance from the main land or any other military commands it is not possible to set up an R&R program for travel from the island. However, Attu has many advantages over other isolated stations. For those who love the great outdoors nothing could be finer; fishing and hiking reign supreme from spring through fall. Only about one-third of the island is accessible to a hiker, however, this area has much to offer. Within minutes walk of the station are battlegrounds and beach heads of the battle of Attu. Mt. Terrible, about one mile from the station, provides a challenge to most everyone who spends a tour here.

On the northeastern end of the island the valleys near Holtz Bay and Sarana Bay provide an excellent spot for overnight camping trips. From these spots one can travel to the sight of the Japanese stronghold on the Island. Also the remains of the old Aleut Indian village near at hand. In addition Sarana Valley contains two of the most popular fishing spots, Lake Cories and Lake Nicholas.

Attu is a fisherman's paradise from May till September; during this period the streams and lakes of the island abound with salmon and Dolley-warden trout. The Peaceful River, a five minute walk from the station,



provides every would-be fisherman a chance to try his luck.

Another popular activity during the spring and summer months is glass ball hunting. Hundreds of balls used as fishnet floats by the Japanese drift onto the beaches of Attu each year. They range in size from that of a baseball to that of a basketball, the larger sizes being collectors items. Hardly a man comes to Attu who doesn't make a glass ball expedition during his year on the island as these balls make excellent souvenirs of Attu for the folks back home.

The usual recreational facilities are available at the station. A complete radio station, KL7CGB, is located above the rec deck. The photo lab and leather shop are two of the most popular areas on the station. Movies are scheduled each day with several double features each week. A soda and beer mess is located on the rec deck with the bar open each evening and on special holiday occasions.

An old World War II gym is situated about 3/4 miles from the station. Recently a group of men went to work on the interior and after several weeks produced a full basketball court. These basketball games have become a popular wintertime activity. They supply both a source of recreation and physical exercise for all.

An outdoor small arms range has also been set up for the benefit of station personnel.



## CHAPTER THREE

### STATION ORGANIZATION

The USCG Loran Station on Attu Island preforms an Aids to Navigation mission as specified in Aids to Navigation Manual, CG-222, and Appendix C thereto. Attu has a dual mission as Y slave in the North Pacific Loran C chain (SL2) and as slave station in the Aleutian Loran A pair (1L2). This dual mission,

makes Attu one of the largest Loran stations, personnel wise, in the Coast Guard.

The billet of the Commanding Officer calls for a LTJG. An EMO in the grade of CHRELE W-2 is also assigned by the Commandant. The EMO is referred to as the station XO as an honorary title meaning second in command. His actual duties are specifically set forth in CG-222 and the station organization book. He is assigned to insure smooth efficient operation of the Electronics Department. The Commanding Officer has various assistants for various aspects of station operation to ensure that the EMO can devote full time to the operation of the Electronics Department.

The departmental organization consists of three departments, Deck Department, Electronics Department and Engineering Department. The EMO heads the Electronics Department and is assisted by an ETC. An ENC is designated senior engineman and is head of the Engineering Department. A BMC is Deck Department head and serves as an Administrative Assistant to the Commanding Officer.

The following is the authorized billet structure for USCG LORSTA ATTU:

COMMANDING OFFICER:	LTJG	EMO:	CHRELE W-2
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<u>DECK:</u>	<u>ENGINEERING:</u>	<u>ELECTRONICS:</u>
BMC 1	ENC 1	ETC 1
HM1 1	EM1 1	ET1 1
CS1 1	EN2 1	ET2 2
CS3 1	EN3 2	ETN2 1
SK3 1	DC2 1	ET3 3
SN/SA 8	FN/FA 1	RM2 1
		TT3 1

**DECK DEPARTMENT:**

A Chief Bos'nsmate serves as deck department head. The Deck Department, under his supervision, is responsible for repair and maintenance of small arms and survival equipment, snow removal and ground upkeep, maintenance and cleanliness of areas assigned and building maintenance in conjunction with the Damage Controlman.

The CSI is responsible to the commissary officer for all facets of general mess administration.

The HM1 is responsible for health, sanitation and hygiene of station personnel. In addition he serves as administrative clerk for the Commanding Officer.

The SK3 is responsible for supply. In addition he preforms daily checks required by the Radiation Surveillance Network.

The deck department also preforms the duties required of the tide observing station and weather observing station established here.

**ELECTRONICS DEPARTMENT:**

The primary mission of the Electronics Department is the operation and maintenance of the Loran equipment. Since Attu has a dual mission of loran A and C this is a 24 hour a day proposition. In addition to Loran operation the department is also responsible for the communication equipment and comms operation.

An extensive antenna system requires constant inspection and maintenance by the department. Attu has a 625' Loran C transmitting tower, a Loran C receiving antenna, a Loran A transmitting antenna,



a Loran A receiving antenna and communications antenna.

With an electronics department of this size supply is a major undertaking. Each year the department orders and processes supplies in the amount of approximately \$12,000.00 in addition to various district funded supplies.

#### ENGINEERING DEPARTMENT:

The Engineering Department exists to support the Aids to Navigation mission of the station. In this respect the most important duty is the operation and maintenance of the station power plant. Every facet of Loran operation depends on a steady dependable source of primary power.

In addition to power plant operations the department is responsible for the station heating and fresh water systems. The Damage Controlman and Electrician are constantly concerned with station structural and electrical maintenance. The department also insures that the fire fighting equipment and alarm systems are kept in an optimum operating condition.

Three pickup trucks, two sno-tracs, one tycol and an Oshkosh truck indicate the amount of automotive maintenance which must be performed by the department annually.

#### STATION ROUTINE:

The station routine has been established on a five day work week basis. However the mission of the station required twelve watchstanders daily on a seven day week basis. Station routine is flexible to allow for morale building holiday routine on occasions of log flights, delayed mail planes or exceptionally nice days which are an Aleutian rarity. In the same respect it is often necessary to extend the working hours to perform scheduled maintenance, engine overhauls and corrective

maintenance when problems arise.

A plan of the week is posted on Monday and sets forth the instructions, inspections and drills to be held that week.

The normal work uniform for enlisted men is dungarees and for officers and chiefs is either work kahki or work blue.

All messing consists of home style meals. On Saturday and Sunday mornings a "cook your own" brunch is served and is enjoyed by all would-be chefs.

Fig. 2 is a diagram of the station area on Attu.

Fig. 3 is a diagram of the station interior showing all living and working spaces.



## CHAPTER FOUR

### PHYSICAL PLANT

#### ENGINEERING PLANT:

The primary station electrical power is supplied by Caterpillar D-397 Series B Electric Set. Three of these sets are installed in the station generator room with a rated output of 300 KW each. Since the normal station load ranges between 190 KW and 220 KW any one set is capable of carrying the station load. Due to the isolation of the station and the dependence on stable, reliable primary power, the three generator system was established. With this setup there are two standby generators ready at all times. During periods of overhaul or corrective maintenance a generator can be placed in charlie status without an adverse effect to the station mission. This will leave an on-line generator and a standby generator for normal operation until the third generator can be placed in service. Station power supplied by the Caterpillar sets is 208 volt 3 phase.

Two American Standard, Ideal Oil Burning, model S-1036 boilers are installed for station heading and hot water supply. One boiler is sufficient to supply the station heading and hot water needs.

The heating system for the station is a low pressure, 2 pipe system with a pumped return.

The station water supply is a small lake formed by a man made dam near the source of Aleut Creek. Water is gravity fed direct to three cisterns located directly behind the station building. Water flows to the cisterns through approximately 2½ miles of 1½" pipe. Each winter it is necessary to check the lake and dam daily to insure the drain and dam overflow are clear of ice.

The station sewage system does not utilize a septic tank but is piped directly to the sea in an area approximately four miles from the station.

PHYSICAL PLANT

ELECTRONICS PLANT:

The electronics plant consists of two AN/FPN-41 timers and two AN/FPN-42 transmitters for Loran-C, operating into a 625' antenna. As Y slave in the SL2 rate, Attu presently operates in method A/B control, that is, the area monitor controls the cycle and the master station controls the envelope.

For Loran-A operation Attu employs two AN/FPN-30 timers and two T325-C/FPN transmitters into a 117' antenna. Years of use and the resultant modifications and field changes have resulted in an extremely reliable system.

Of interest to the incoming electronics personnel in the department complement. It consist of a CHRELE as EMO, One ETC, One ET1, Two ET2, One ETN2, One TT3, Three ET3, and one RM2. All electronics personnel, with the exception of the HM are immediately indoctrinated as "C" watchstanders. After acquiring proficiency in C watchstanding the man rotates to "A" watchstanding under supervision. This policy allows for a rotation of watchstanders between A watch, C watch and daywork.

The first few months are usually difficult, but past experience has proven that these new men adapt regardless of background.

All hands of the department have a very close working relationship due to the nature of the mission. Due to local weather conditions and propagation conditions a 100% week is a rarity. When this event does occur it is cause for celebration by all and a special feeling of pride by the electronics personnel.



## CHAPTER FIVE

### ATTU BOUND - HELPFUL HINTS

The first question that will arise after you find where Attu is located, is what to bring with you or send ahead. Naturally a complete seabag is a requirement. In addition you may wish to bring various personal items. Personal effects may be shipped on your PCS orders or excess gear may be shipped parcel post, by you, to the following address:

Hold for:  
ET2 John X. Doe  
USCG Loran Station  
Attu Island, Alaska 99501

This address will also be your mailing address while stationed at Attu.

Civilian clothing consisting of sport shirts, sweaters, slacks, etc. may be brought for off-duty wear. In addition those who favor outdoor activities may wish to bring their own hiking boots, jackets, parkas, etc. The station will supply the necessary foul weather clothing for normal winter duties.

The station recreation locker has a complete supply of fishing equipment, however, ardent fishermen may find it advantageous to bring their own gear.

Private small arms are allowed on the station pursuant to District and Station regulations. You may carry side arms with you to Attu but these must be checked in with the CMMA immediately upon arrival.

Radio reception on Attu is extremely limited. There is a possibility in the future that TV may be available from the broadcasting station on Shemya, however, this is not presently available. Many people bring record players or tape recorders with them. A stereo and tape deck are installed on the Rec Deck for the use of all, however, many like to have the recorders for use in their own rooms. In addition a large supply of stereo tapes are available for recording. Tape recorders are also



a convenient way of communicating with friends and family at home.

All enlisted personnel with orders to Attu will be directed to report to CG Base Seattle, Washington for processing and further transfer. Insuring that all records are complete and that an overseas physical and dental checks have been accomplished prior to departing your present unit will minimize your stay in Seattle. Your overseas tour starts the day you depart the CONUS and you will be eligible for rotation one year from that date.

It will be to your advantage to insure that all necessary allotments are in effect prior to departing your present unit. A checking account is desirable while stationed at Attu. Most transactions can be conducted more efficiently by check. You can obtain an account for your present bank or an account may be opened with the First National Bank of Anchorage branch at Adak after you arrive here.

Transportation Requests will be issued in Seattle for your travel to Attu. Normal routing is by Western Airlines to Anchorage connecting with a Reeve Aleutian Airways flight to Attu.

It is a good idea to set aside a sum of money as an emergency fund for use during your tour on Attu should emergency leave or other needs arise.

The station exchange carries all the basic necessities such as toilet articles, cigarettes, cigars, tobacco, candy, and various sundries. Many other items can be obtained on special order. The exchange also carries postage stamps of various denominations. Variety of stock is limited, so if you smoke a special brand of tobacco, cigarette, etc. it may be advisable to bring a supply to tide you over until arrangements can be made to obtain these items.

The station has a laundry consisting of three household washers and driers. Due to the isolation of the station and lack of any commercial

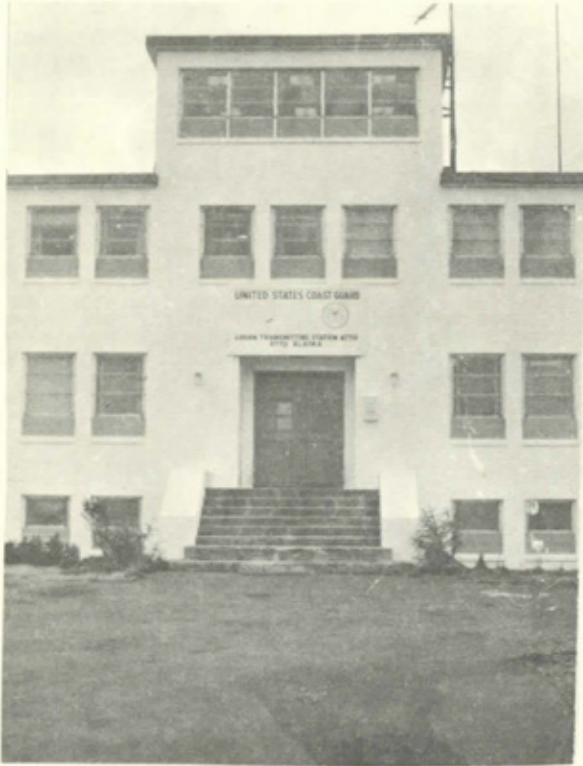


facilities each individual must do his own laundry. Laundry soap is supplied in the laundry. In addition the exchange sells detergent, bleach, and starch. Station irons are available for the crew's use.

While on Attu each individual accumulates thirty days compensatory absence for the years tour. You can look forward to a sixty day leave upon rotation.

CHAPTER SIX

CGLORSTA ATTU IN PICTURES



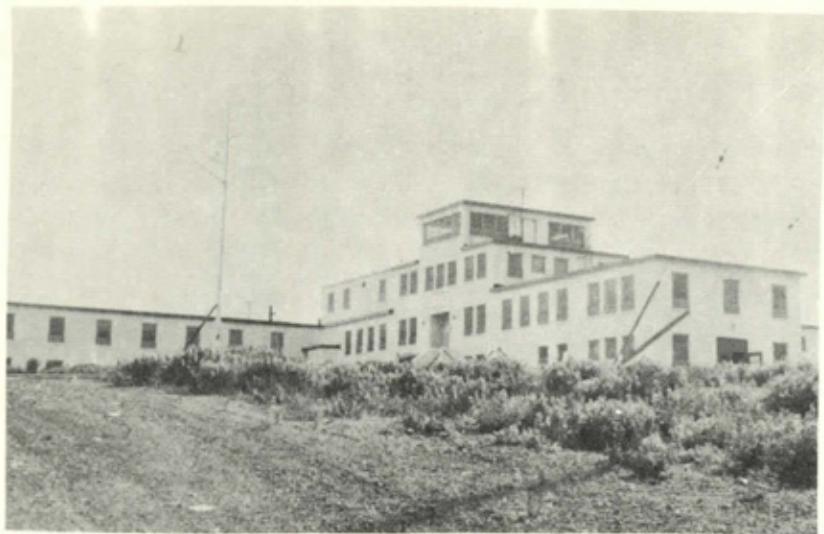
U. S. Coast Guard  
Loran Transmitting  
Station, Attu Island,  
Alaska

Station Building from the beach



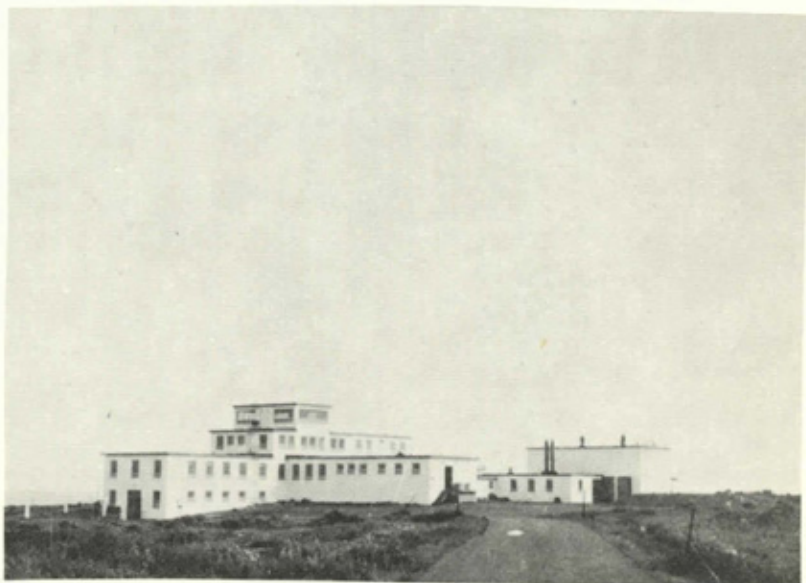
Station Lobby



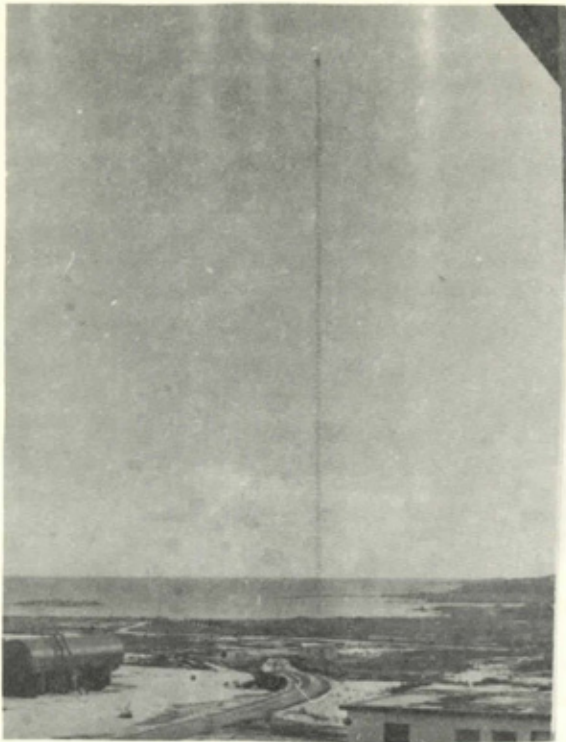


Station Building  
from Northeast

Station Building  
from Northwest



Garage Area  
Volleyball Court



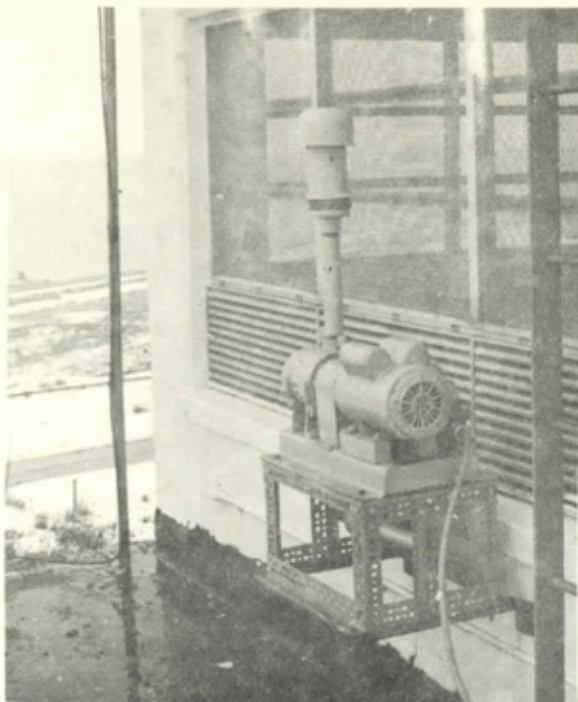
Loran C Transmitting  
Antenna

Station fuel tanks



Loran A Transmitter  
Antenna





Air sampler for  
radiation surveillance

Old Navy Gym

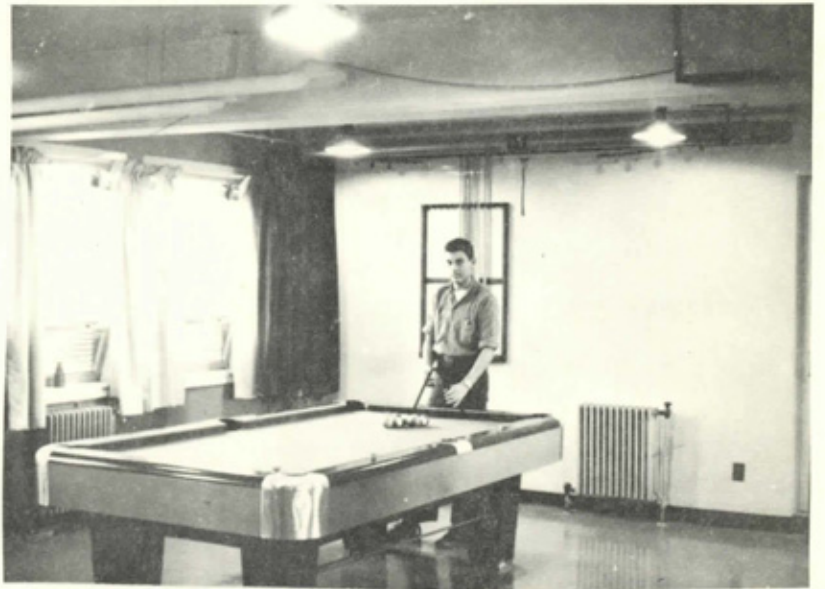


ET's at work in  
Timer Room



Coffee break on the  
Mess Deck

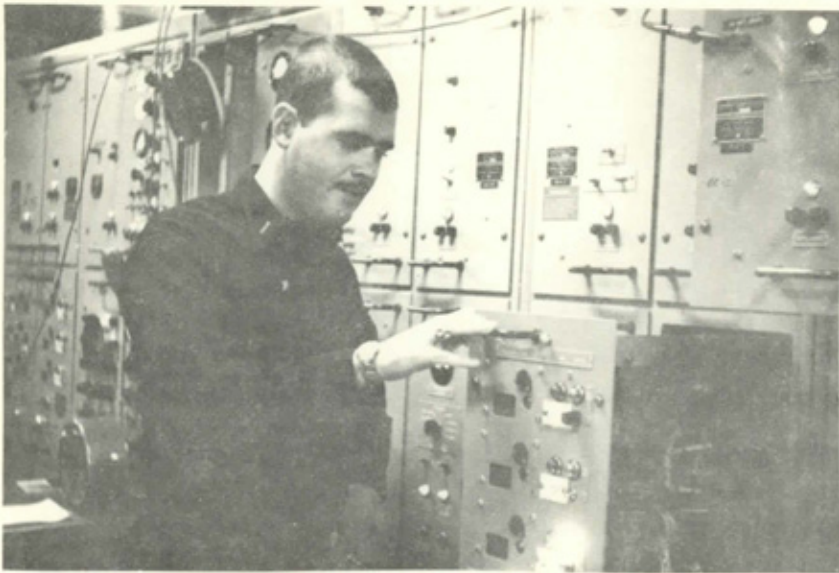
Rec Deck



Soda/Beer Bar  
on Rec Deck

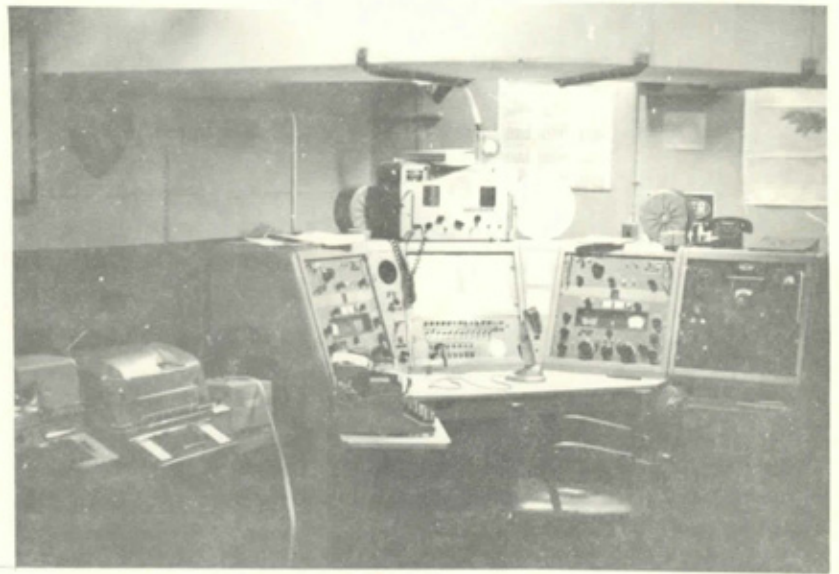






CO checks the C Timers

Station Communication  
Center



The Station Galley and  
Chef.





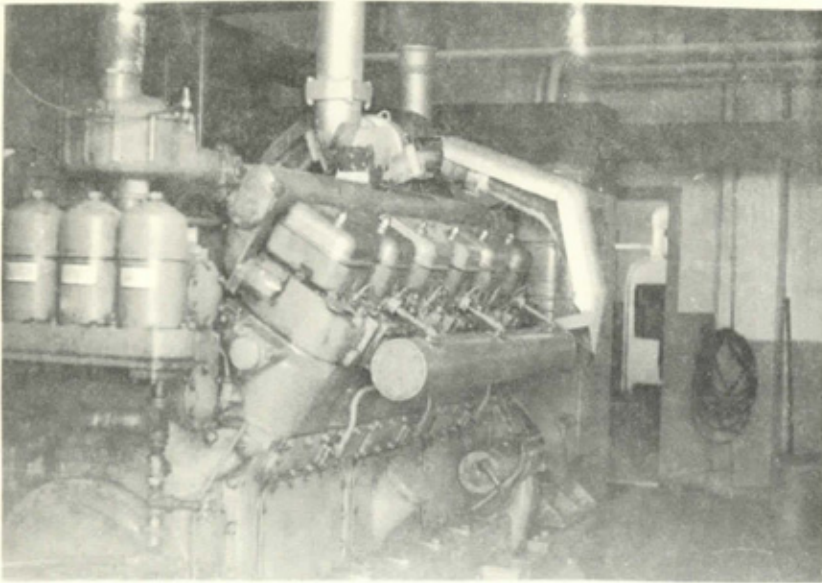


C-130 departing after  
quarterly log run

Station Sno-Trac

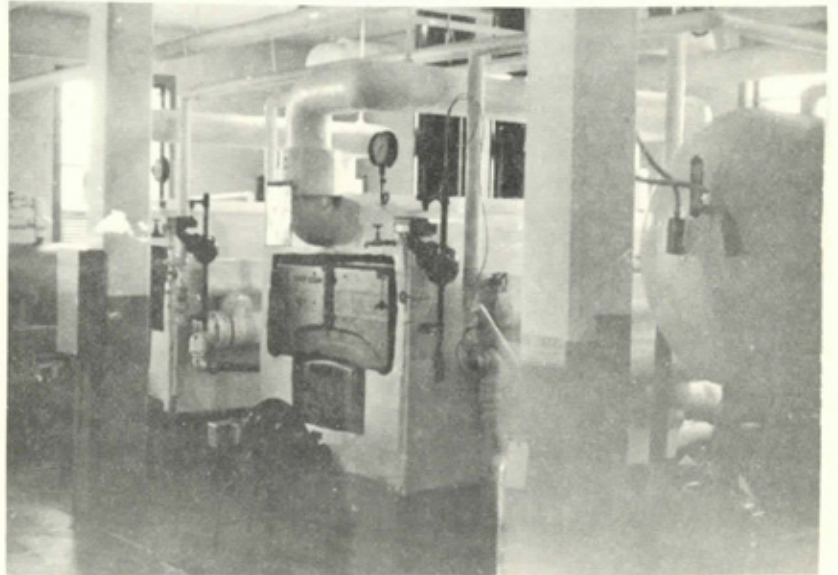


One of stations  
pickup trucks



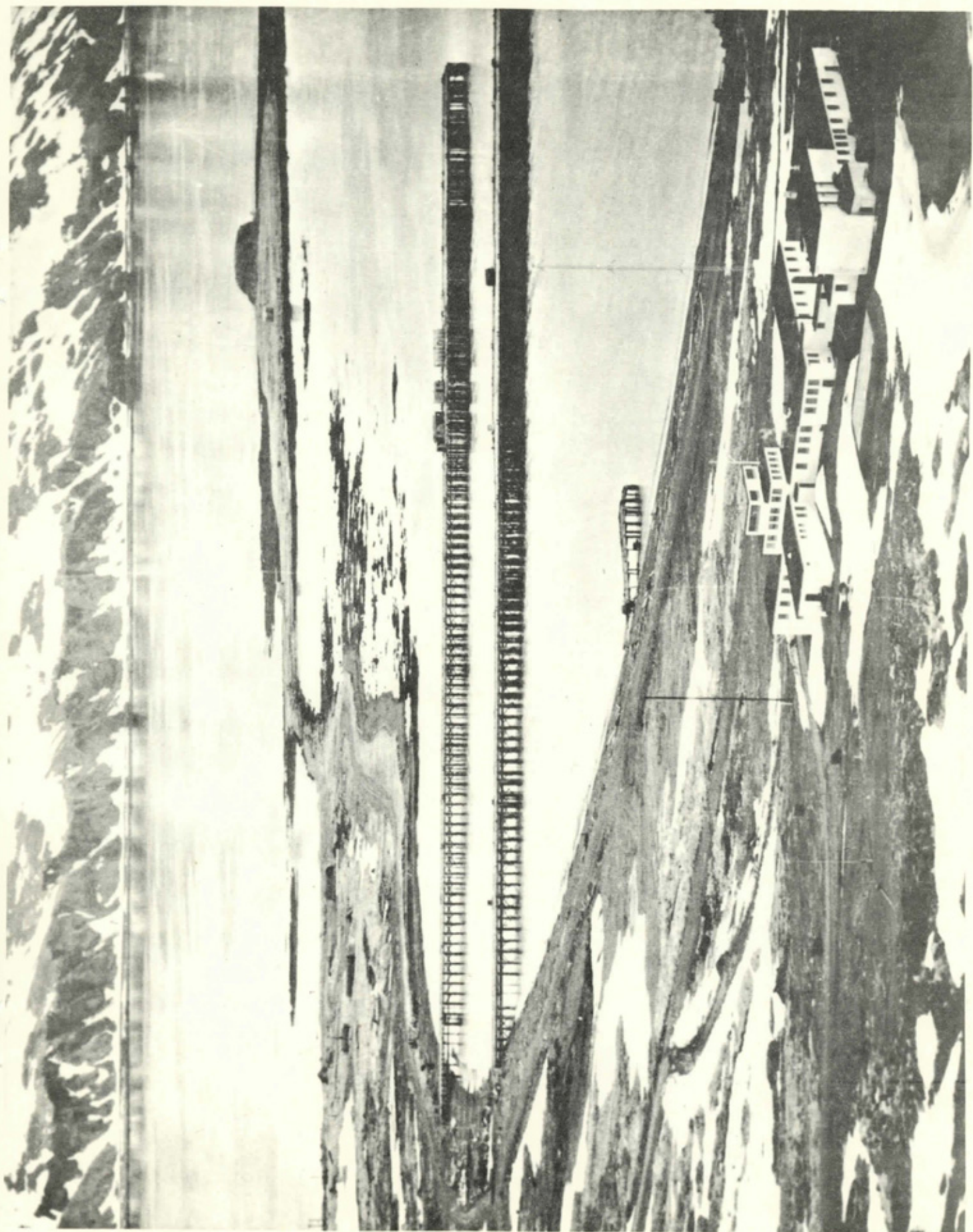
Station Electric Sets

Station Boilers



Eastern Attu from  
front of station





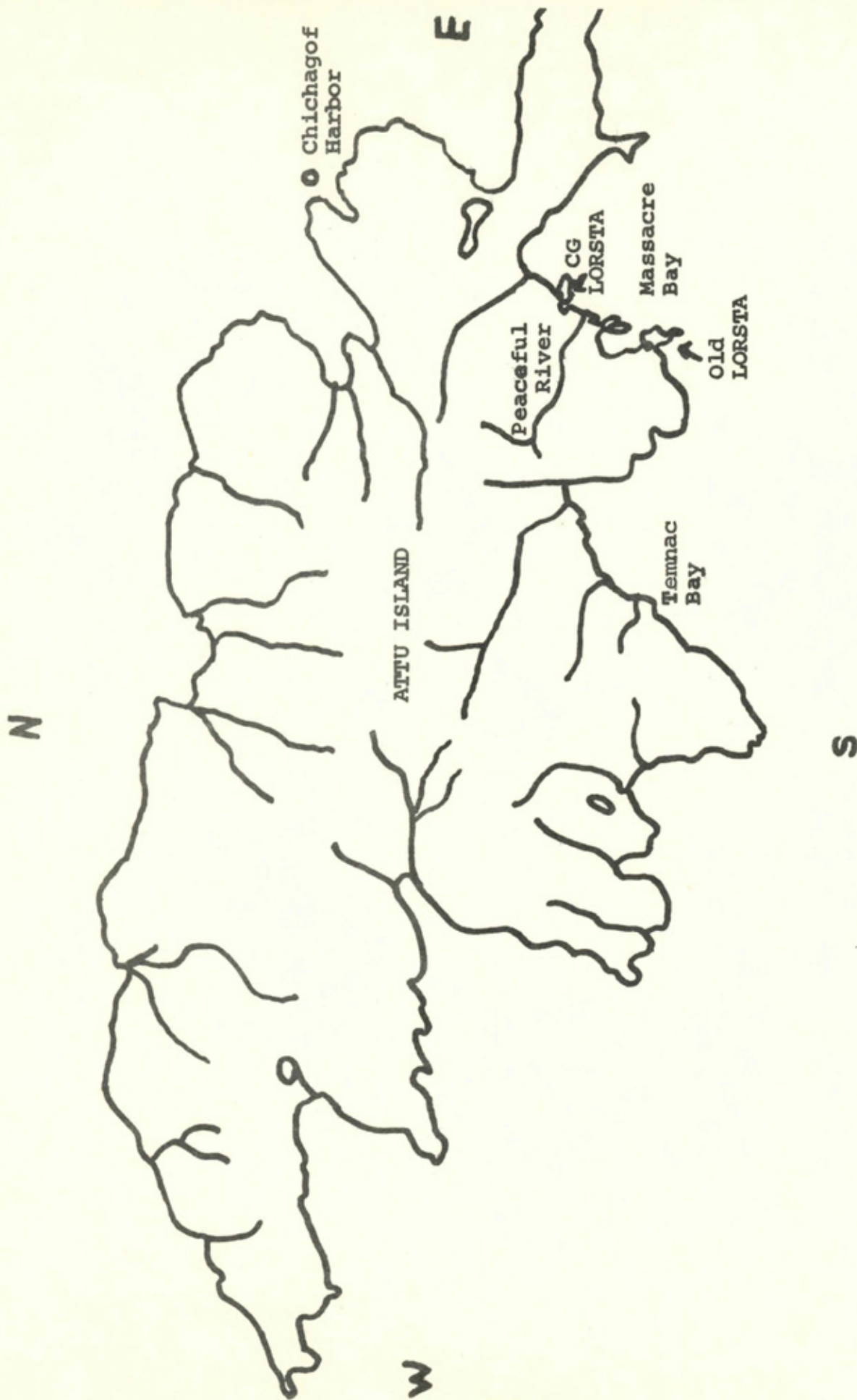


Figure 1



NORTH - SOUTH RUNWAY

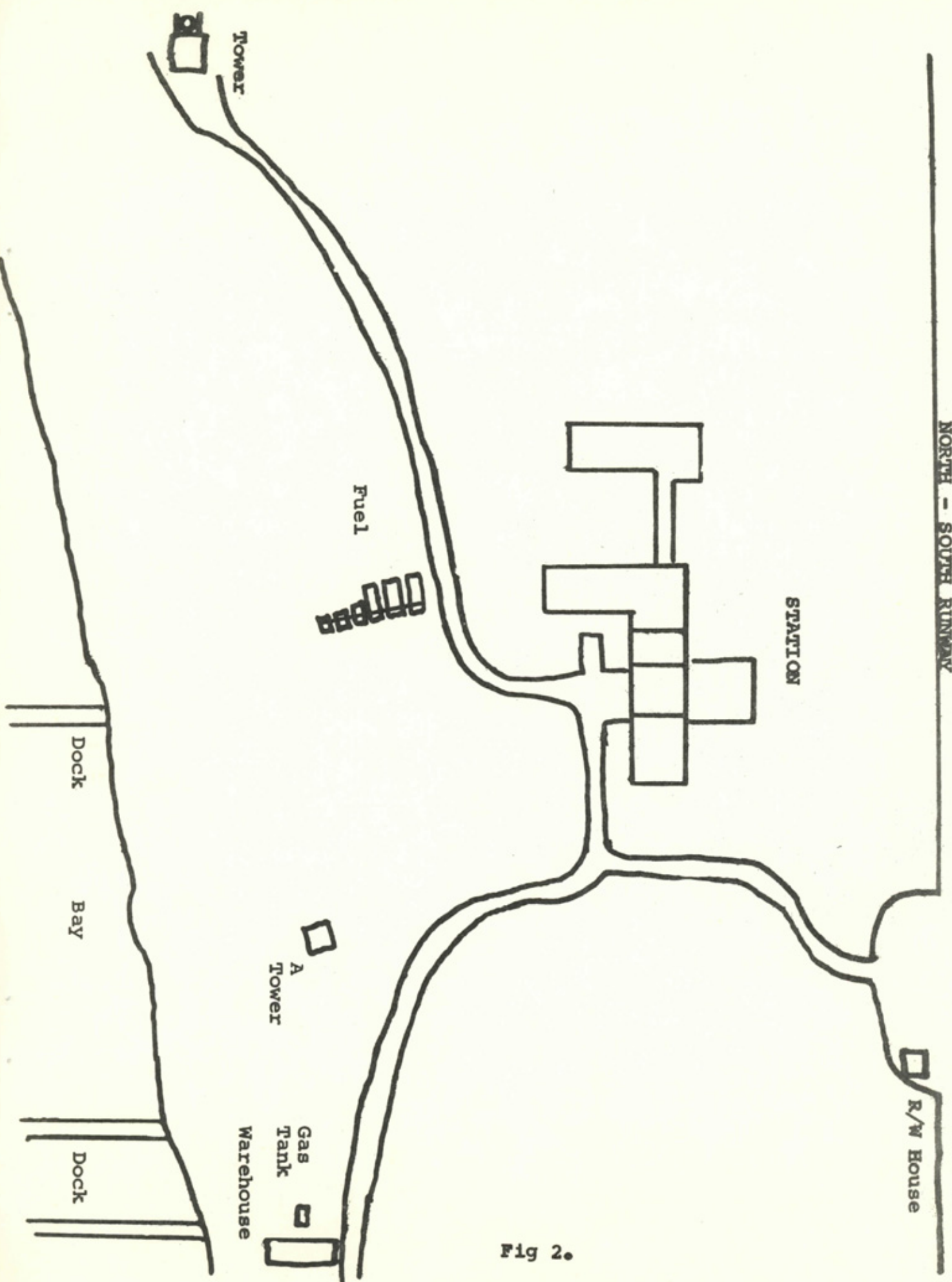
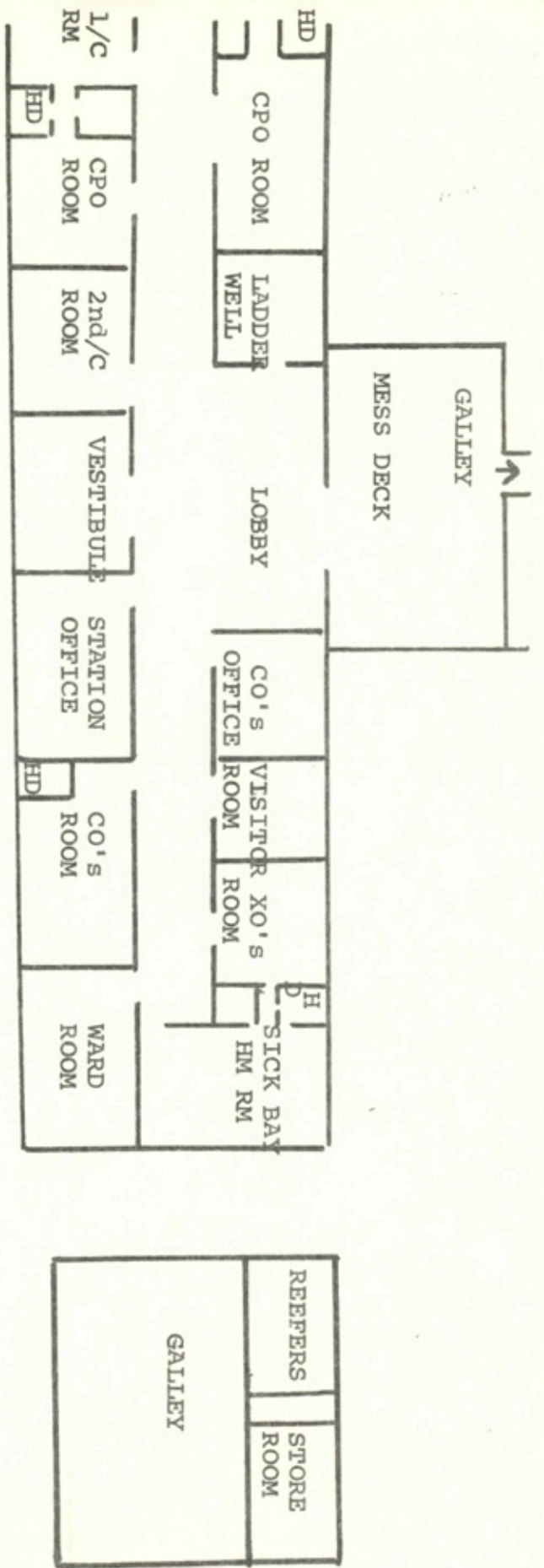
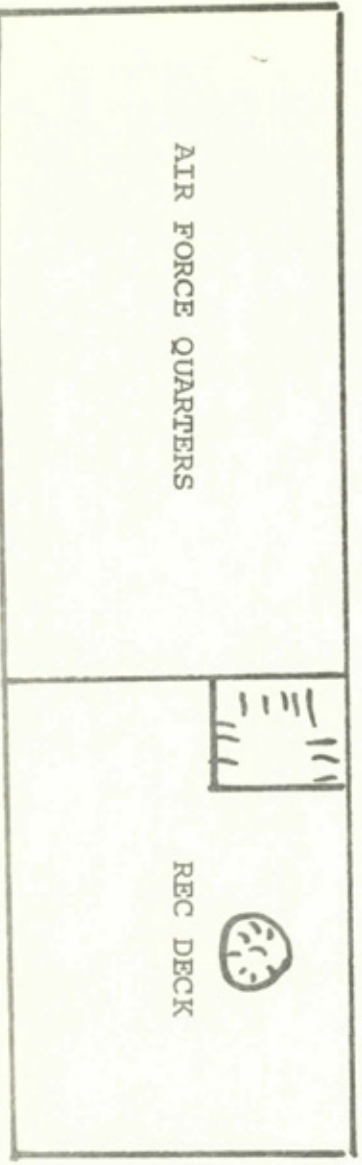


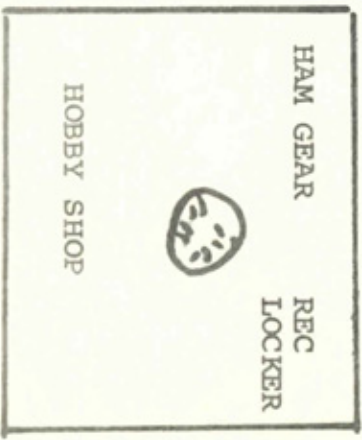
Fig 2.



FIRST DECK



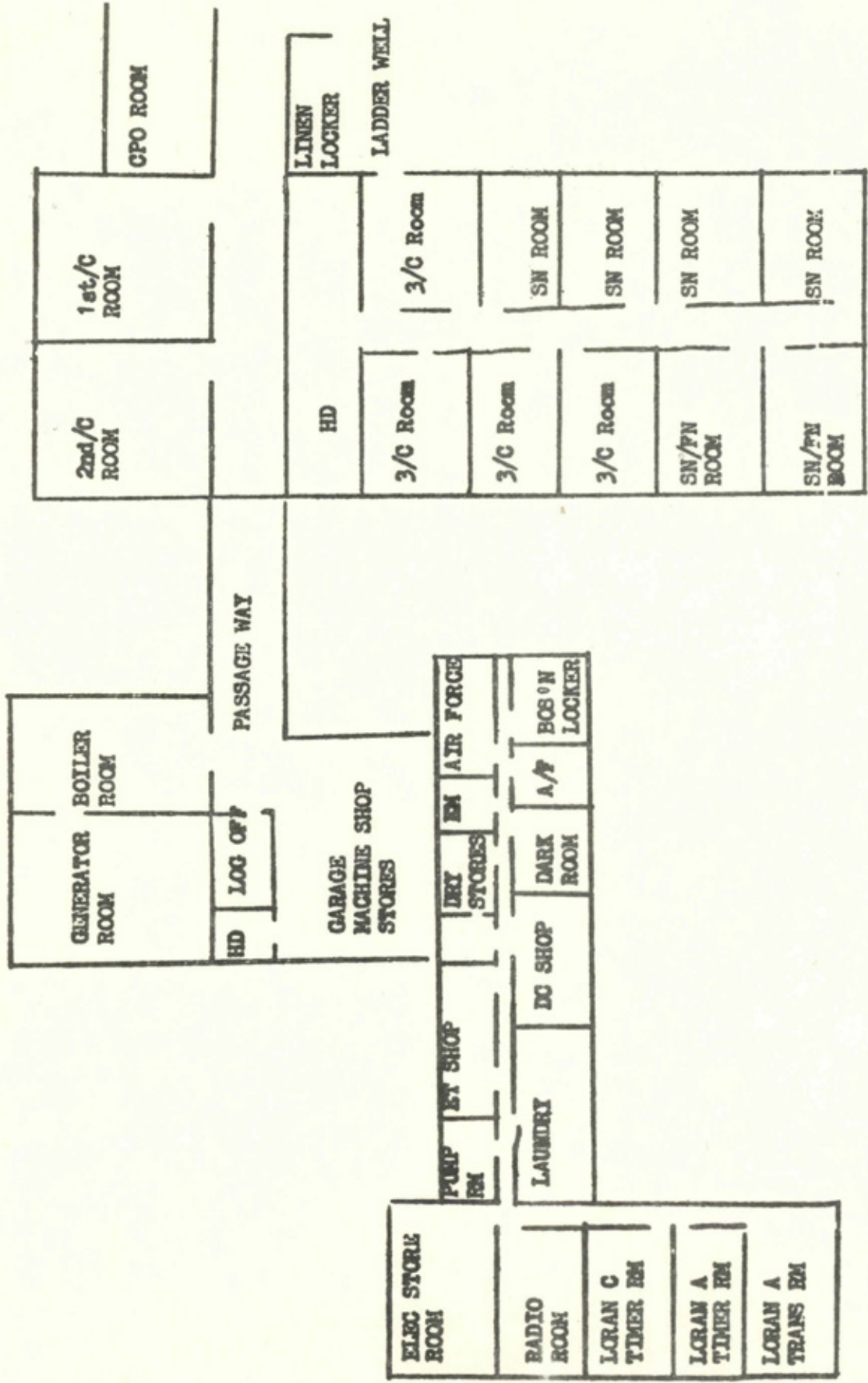
SECOND DECK



THIRD DECK

Fig 3





ENGINEERING PARTS ROOM

PAINT LOCKER

GARAGE

MACHINE  
SHOP

LOG OFFICE

HD

WATER

CHLORINATOR

HOT WATER

S-1036  
BOILER

S-1036  
BOILER

SWITCH  
BOARD

D-397

D-397

D-397



C TRANSMITTER IN TRANSMITTER BUILDING AT THE  
FOOT OF THE 625' ANTENNA

ELECTRONICS PLANT

A TRANSMITTER ROOM

AN-201/FPN

AN-201/FPN

F-328C/FPN

F-328C/FPN

ELEC OFFICE

A TIMER ROOM

AN/FPN-30

AN/FPN-30

~~AN/FPN-30~~ ~~AN/FPN-30~~

C TIMER ROOM

~~AN/FPN-61~~ ~~AN/FPN-61~~

AN-201

TI-2400

TI-2400

APR-90RX

APR-90RX

RADIO ROOM

ELECTRONICS STORE ROOM

FIG-5





