

RESTRICTED

CG Loran Station
Murder Point
Attu Alaska
9 November 1948.

HISTORY AND DESCRIPTION OF CG LORAN STATION
LOCATED AT MURDER POINT, ATTU ALASKA.

1. CONTRACT NOY 13913.

This is a Navy contract executed between BuDocks and the contracting firm ~~of~~ Drake Puget Sound Co for the construction of certain buildings and other facilities along the Aleutian Islands. Since the contractor had established camps, equipment and a construction force, the CG negotiated with the Navy for the construction of three Loran stations, one each at Attu, Adak and Cape Sarichef. The construction of these stations was included as part of contract Noy 13913 under the direct supervision of the Navy Public Works Dept, with Drake Puget Sound Co as the contractors on a cost plus fixed fee basis. During the construction of each station, the Navy is represented by a ROINCC (resident officer in charge construction). He is liaison between the contractor and the Navy. He has civilian personnel hired by the Navy which include civil engineers, draftsmen, inspectors, accountants and clerical. The contractor has his own supervisors, and accounting force.

2. The SITE.

On 7 March 1948, the contractor broke ground in preparation of building the new Loran station at Attu. The site, previously surveyed by CG engineers, is located at the extreme base of Murder Point in Casco Bay, which is actually a cove in Massacre Bay. The tip of Murder Point which runs out and forms one side of Casco Cove, is a good mile from the Loran station site. The main part of Attu, which includes the Navy docks, oil and gas stations, air fields and all present Navy facilities, is known as NAU (Naval Aerological Unit). This is the only active military establishment on the Island of Attu at this time. To reach the Loran station from NAU, there is a good wide gravel surfaced road which winds around Massacre Bay, through Casco Cove and on to Murder Point. The distance from NAU to CG Loran station via this road is approximately three miles, the road runs almost North and South. The CG Loran station consists of three buildings, the Barracks and Engineerroom Building, Pump House and Signal Building. All buildings are connected by wide gravel roads, and a considerable area around each building has been graded and graveled. The Navy Radio Range station on Murder Point is approximately one half mile south of the barracks.

3. BARRACKS BUILDING AND ENGINEER ROOM.

This building is located about 300 feet from the beach, and not more than 50 feet from the main road, which is reached by either of two wide gravel driveways. The building runs about North and South, the engineer room wing overlooks Casco Bay, which would be looking East. The garage wing of the building faces West. At the South end of the building an area of about 100 X 150 feet has been graded and graveled. This not only makes a good parking ground, but will make a very fine recreational area during the summer. The entire building is of concrete construction. There is a spacious two car garage with overhead doors. A large entrance from the garage takes you into a storage room which is approximately 32'x18'. Both the garage and this storage room are heated by large hot water radiators suspended from the ceiling, the heat being distributed by large electric fans behind the heaters. The storage room has a large double door which opens onto a loading platform. Next to this, and on the loading platform, is another entrance which opens into a vestibule which in turn has doors leading to the dry stores room, refrigerator and coolroom, and the galley. The dry stores room is equipped with metal shelving along one side of the room. The walk-in refrigerator room is entered through the cool room, and both are equipped with metal shelving. In the galley there is an electric cooking range, over which is built a metal hood connected to an exhaust fan. Heat for the galley is supplied from an electric fan type heater suspended from the ceiling. Opposite the range there is a large two door refrigerator, and an monel metal cabinet with shelves and work bench. Alongside the range there is a large monel metal work table. On the west wall, underneath a row of windows, is a large double monel metal sink with drain boards. From the galley there is one entrance going into a small utility room which is equipped with a large wash basin. The other entrance from the galley goes into the living room, which is a nice bright room running the entire width of the building. There is a row of windows on both the east and west walls. The room measures about 19'x30' and is heated by steam radiators located under the windows. From the living room you enter into a vestibule which has an outside entrance, an entrance to the CO's office, and to the hallway which extends through to the south entrance. On one side of the hallway are five bedrooms, while on the other there is the sickbay, crews washroom and Co living quarters. All the bedrooms are 9'x12', are heated by steam radiators, and all have one window looking east, except the end one which has another looking south. The bedrooms are finished in pastel green, with a marble brown tile flooring, and black tile boarder. The sickbay and officers quarters are finished in ivory with the same type of flooring as the bedrooms. The living room is also finished in ivory but has a light grey wainscoting, and a floor of green tile. The crews washroom has a showerbath with dressing room, two washbowls, two toilets, and a Bendix washer and drier for clothes. The hallway is painted ivory, with a light grey wainscoting and brown tile floor. There are two utility closets in the hallway. The CO has an office, bedroom bathroom and shower and clothes closet. In general these quarters are

Description Attu Loran Station, page 3

all that could be desired, and certainly nothing has been left undone for the comfort of the station personnel. The only outside entrance to the engineroom is a large double door in the south wall, but inside entrance can be gained through the main storage room, or through the utility room to the living room. This engineroom is something to behold, it has the appearance of being a separate building from the actual barracks because it is so much higher. It is 36'x37' with a 16' ceiling. A balcony runs the entire length of the east wall, about 9' off the floor. The ceiling is painted white, as are the walls to within about 36" of the floor, where there is a black boarder and a grey wainscoting. All the overhead piping is painted white, while the engines and associated equipments are painted green. A wide stairway leads up to the balcony just inside the main entrance. At the head of the stairway is the large plenum chamber made of ~~iron~~ sheet metal, and which houses a large electric fan and radiator. The chamber is connected to a louver in the wall of the building, and to a large exhaust or vent which goes up through the roof. The chamber performs a three fold duty, (1) when the water used in the engine cooling system gets beyond a certain temperature, the electric fan starts up and blows cold air on the radiator through which this water passes. (2) when the engineroom becomes too warm, the hot air is forced out through the roof exhaust, (3) cold air is brought in through the louver on the wall. There is a similar plenum chamber at the far end of the balcony. Each chamber can be used with either engine, or both can be operated at the same time. Next to the plenum chambers are the Gardner-Denver Vertical Air Compressors used for starting the Fairbanks-Morse Diesel engines. Either compressor can be used on either engine. Magnetic starting switches and reset stations for all equipment on the balcony is mounted on the wall behind the respective equipments. Between the compressors are the two Day fuel tanks with a capacity of one hundred gallons each. The consumption of fuel can be gauged by watching the glass tube mounted on the front of each tank and easily seen from the engineroom floor. As a safety precaution, each tank is fitted with a Mercoid float switch which sets off an alarm on the engineroom control board when the fuel oil gets below a certain level. Mounted on the wall between the day tanks are two small tanks with glass tubes mounted on front which show the level of the water cooling system for either engine. Located on the main floor center, are the two Fairbanks-Morse Diesel Engines, with direct~~ly~~ connected generators, and exciters which are belt driven from the main shaft. The exhaust silencers for the engines are mounted inside the building, being suspended from the ceiling, going directly from the engine head through the roof to the outside exhaust pipe. There is a Monorail crane suspended from the ceiling, forming a square over the engines. The refrigeration machine and hot water supply tank, are mounted on the wall of the engineroom about ten feet from the floor. A complete data description of the above items and of other equipments contained in the engineroom is attached to this report. There are lots of lights and outlets, and a row of windows across the north wall. There is lots of ~~working~~ working space, yet everything is compact and well planned.

4. PUMPHOUSE AND WATER SUPPLY.

The station water supply is procured from a pond which is located on a slight rise about 600' from the Barracks Building. The pumphouse is of concrete construction, is located at the edge of the pond and is reached by a wide gravel road which begins outside the garage. The pond has a good gravel and sand bottom, and is connected to another pond several hundred feet away. Both ponds have a good sized stream feeding into them from the hills nearby. The pumphouse is heated electrically with thermostat control. The water is automatically chlorinated before reaching the buildings. The water pressure delivered to the buildings is 48 lbs. A description of equipment is attached to this report.

5. SIGNAL BUILDING.

The Signal building is located on a rise about 800' from the Barracks building, and about 150' from the main road. There is a graveled road connecting it to the main road, and a separate graveled road connecting it to the Barracks building. An area of about 50' wide around the building has been graded and graveled. The building is of wood construction on a concrete foundation. The walls from the studding out consist of 7/8" wood sheathing, building paper, asphalt felt and asbestos shingles. The inside walls have 1" fiber glass insulation, air space, and Masonite sheathing. The building consists of a Timer room 15'6" x 18'5", a Transmitter room 31'11" x 18'5", a Supervisors room 11'10" x 10'9", a Spare Parts room complete with work bench and shelves 10'11" x 7'8", and a 5'x4'4" room complete with toilet and wash bowl. The main entrance to this building faces south toward the barracks building. It opens into a vestibule, then through another door into the transmitter room. Directly ~~xxxxxx~~ opposite this entrance, and on the rear wall of the transmitter room, there is another entrance in the form of a removeable panel. The outside and inside walls of this panel are held together by bolts, and both sides are quickly and easily removed when it is necessary to move large equipments into the room. The ceilings of the rooms are painted white, and the walls a cascade blue. The timer room and supervisors room have hardwood floors, the other rooms have tile flooring with black tile borders. On the transmitter room wall near the main entrance is the main power panel. The conductors bringing power to this panel consist of two three wire 4-0 parkway cables, which are buried in a trench about 5' deep. The trench runs under the roadway between the two buildings. The cables enter the building through two 3 1/2" conduits, which are sealed at the entrance and also inside the panel. The building is heated by fan type electric heaters suspended from the ceiling. Air conditioning of the building is governed by automatic louvers in the walls and exhaust fans in the ceiling. When the temperature of the timer and transmitter rooms reaches a certain degree, a wall thermostat places the exhaust fans in operation and the hot air is blown up through the exhausters. This operation also opens the wall louvers to admit the circulation of fresh air. When the temperature becomes normal, the thermostat opens the circuit, the fans stop and the louvers close.

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Both the timer and supervisors rooms are completely screened. The floor of the transmitter room has a wiring trench which runs around the entire room with a series of connecting trenches, all are equipped with grounding taps, and covered with a heavy masonite. The windows are of wood casings similar to the barracks, except that ~~they~~ the ones in the signal building are fitted with hinged storm windows.

6. ANTENNA SYSTEM.

The antenna system is in accordance with Headquarters drawings. All ground radials are buried. Coaxial cables and power lines are of the armored type, and are also buried. All poles are fitted with obstruction lights which are controlled from the transmitter room.

7. LOGISTICS.

Coast Guard vessels landing supplies for this station should land at Navy dock 2. Directly opposite this dock there is an gas and fuel oil pumping station. NAU Attu has ample fuel and gas storage, and the CG tank truck can obtain it at any time, providing such arrangements are made by the District, with the Navy. Mail should be addressed, and freight should be marked as follows; Coast Guard Loran Station, Murder Point, Attu Alaska. The former method of making it care of NAU has caused considerable confusion by getting mixed with NAU freight. The CO at NAU was very definite on this point. NATS intends to discontinue all Attu flights as of 1 January 1949. There will possibly be Navy vessel from Adak once each month with supplies, and arrangements are being made to have the mail flown out by PSY from Adak at least twice each month. The station should have a powered lifeboat of some kind as there is good mooring facilities in Casco Bay, only a few hundred feet from the Barracks building. It would be the only available boat in Attu.

8. FLOORS.

All tile flooring has been treated with two coats of wax. They can be polished daily, but only an occasional coat of wax is necessary. The tiles on the floor of the living room are grease ~~proof~~ proof. The company representative stated that the tiles should never be washed with a soap ~~suds~~ having an alkaline content. Two waxings per month are enough. Broken tiles can be replaced by first heating with a blow torch or flatiron. There are considerable spare tiles of each type on hand. Furniture should have steel casters to prevent cutting the tile. There is a two gallon can of tile stain remover on hand.

9. GENERAL.

Close cooperation between the CG and the Navy is most desirable at Attu. Much valuable materials for both operation and recreation are available, providing it is properly requested. Although this report is in complete, it is hoped it will help those who supply the stations needs.

USCG LORAN STATION
MURDER POINT, ATTU, ALASKA.
4 November 1948

NAME PLATE DATA

ENGINE-ROOM.

- No 1 Eng. ~~x2xaxaxg~~ Fairbanks-Morse Model 32M12 stationary Diesel Engines,
120 HP, two cylinder. Sr Nom 911583
- No 2 Eng. Same as above, Sr No 912906
- No 1 Alternator. Fairbanks-Morse Alternator Sr # 585054 Type TGZO FR iv
KVA 97; RPM 360. Phase 3. Cycles 60; Volts 240.
%PF 80. Amps per terminal 234. Field Amps 100% PF.
80% PF 26.3 F Volts 114 T rise 50 c Contd Duty.
Rated Capacity 77.8 KW Mfgd by Fairbanks-Morse Co
- No 2 " " Same as above, Sr # 535055.
- No 1 Exciter. Fairbanks-Morse DC shunt wound Generator.
Type DG Frame RA 284 Sr# X72228 5 KW 40 amps
Volts FL 125 Continious 40 dgs C 1750 RPM SF 1.15
- No 2 " " Same as above Sr # X72227
- No 1 Governor for No1 Engine is Woodward Type TC 360 RPM
Sr # 168757 Mfgd by Woodward Governor Co, Rockford Ill
- No 2 " " For #2 Engine, same as above, Sr # 168755.
- No 1 Air Compressor. Used for starting Diesel Engines.
Vertical Air Compressor. Bore LP 3½ Bore HP 2 Stroke 2½
Model ADA ~~57223~~ 57283 Sr# 130692. Speed 700 RPM
Pressure 250 Lbs per sq inch. Block 1ADAL Piston ADA2
This is belt drive using Twin V belt number A-71
(belt is mfgd by Gates Vulco Rope Co)
Compressor is mfgd by Gardner-Denver Co, Quincy Ill.
- Motor for above compressor is a Fairbanks-Morse Line Start
Induction Motor. Type Q7K Frame RS 225 No F48708
3HP 3Phase 60 Cycle Full Load RPM 1735.
220/440 Volts at 8.4/4.2 Amps. SF 1.15 Code G
Cont duty 40 dgs C rise. Mfgd by Fairbanks-Morse Co
- Pressure Switch on Vertical Compressor. Class 9100 Type AP1
Range 100-600 Diff 10-60 No 2S-1423 M4-G2-B23
110/220 Volts 1HP AC ½HP DC
Mfgd by Square D Co Milwaukee Wis.
- Magnetic Control on Vertical Compressor is Class G-1A
Control Volts 220 Compressor Sr# 130693
Mfgd by Gardner-Denver Co

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No 2 Air Compressor. Same as above. Sr # 130693

Motor for above compressor, same as described above Sr# F48707

No 2 compressor has same controls as described above for No 1.

Note on above Vertical Air Compressor; Always give Model and Sr number when ordering parts. Clean carbon ~~mm~~ from valves and seats once a month, extend suction pipe to a supply of clean cool air. Always use an air filter.

No 1 Air Circulator Fan Motor, this is a Fairbanks-Morse Line Start induction Motor Type QZK Frame RS284 No 584720 5 HP 3 Phase 60 Cycle 220/440 Volts at 14.6/7.3 Amps. SF 1.15 Code G Cont Duty 40 dgs C rise Full load RPM 1155

No 2 Air Circulator Fan Motor, same as above, Sr # 584719

Note; The above fans are located at each end of the balcony. They have a dual purpose, since aside from changing the air condition of the entire engineroom thru the plenum chambers and wall louver, they also cool the engine water system thru a radiator mounted in front of the fan.

Auto Start Switches. There are four of these switches mounted on the balcony wall. One connected to each Fan motor and one to each Vertical compressor Motor. These switches are Class 8536 Type SG18B 220 Volts 60 cycle and are mfgd by Square D Co Milwaukee Wis.

No1 Water Pump Circulator. Fairbanks-Morse Line start induction Motor. Type QZK Frame RS204 Sr# F45178 1½ HP 3 Phase 60 cycle full load RPM 1735 220/440 Volts at 4.4/2.2 amps. SF 1.15 Code H

No 2 Water Pump Circulator, same as above, Sr # F45177

Fuel Oil Pump, discharge to day tanks. F-M Co Line Start Induction Motor Type QZK Frame RSS72 Sr# F21726 ½HP 3 Phase 60 cycle 220/440 Volts at 2.2/1.1 amps SF 1.15 Code J CC 40 dgs C rise. Full load RPM 1160

LINE STARTER switches, Westinghouse DE-10n Class 11200-S01 Mech Style 1116651A 15amps open 13.5 amps closed size 1 HP Three of these switches are mounted on engineroom wall behind water pumps. One to each water pump and one to the oil pump.

~~LINE~~ OIL FILTERS, one connected to each of the two ^{Fuel} ~~Line~~ oil day tanks. Type FULFLO Model AS8 8/9 RD2V½

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Sharples Super Centrifuge. Type M-3086-35 22U-43 Sr# 4812220
 Maximum bowl speed 13,000 RPM. This machine uses a special
 type Rhoades Speedolite Belt. All fuel oil goes through this
 machine, which removes water and impurities before oil
 enters day tanks. Mfgd by ~~the~~ THE SHARPLES CORP,
 CENTRIFUGAL ENGINEERS PHILADELPHIA PENN.

TRIP STATION SWITCH, this switch is mounted on the Centrifuge, it is
 a type 9461K Mfgd by Monitor Controller Co Baltimore Md.

TEMPERATURE GAUGE, mounted on Centrifuge, scale reads 20 to 240 dgs F
 Weston Model 122D Mfgd by Weston Electric Inst Corp
 Newark NJ

PRESSURE GAUGE, mounted on Centrifuge, Model 2½AD 5250 scale reads
 from 0 to 30 with red danger line at 15 Mfgd by
 U S Gauge Co NY

MOTOR AC used with Sharples Centrifuge is 220 Volt 3 Phase AC
 Type D1 Frame 203 SS code 2210-1 3500 RPM 1 HP
 Cont Duty 40 dgs C rise Mfgd by DIEHL MFG CO FINDERNE NJ
 ELECTRIC DIVISION OF SINGER MFG CO

GENERATOR. AUXILIARY, Westinghouse 25KVA AC 240 Volts 3 phase 60 cycle
 1200 RPM Exc Volts 125 Exc amps 9.1 Sr# 2354G7811
 There is an American Bosch Magneto mounted on the plant
 but numbers are not readable.
 Duplex Truck Co Lansing Mich, Power Plant 20 KW 25 KVA
 240 V 60 cycle 3HP 1200 RPM starter volts 8 Sr#9560
 There is an Auto-Lite generator attached to power plant
 but data is unreadable.
 Motor Block by Continental Motors Corp Detroit Sr#B371-148
 Pressure Switch, mounted on above auxilliary plant is type 261AP14X
 Model 2200 Sr# B12844 or 812844 Range Min 20" Max 50"
 HP cutout opens 197 dgs 1HP MFGD by PENN ELECTRIC SWITCH
 CO GOSHEN IND.

REFRIGERATION EQUIPMENT, this equipment is mounted on the engineroom
 wall about ten feet from the floor.

Motor, Squirrel Cage Induction Polyphase Motor, Code J
 Model SC-224-JA4-5 2HP 3 phase 220/440 Volt at 5.6/2.8
 amps. 60 cycle 1740 RPM. Sr# 4AB19618. Mfgd by
 Century Electric Co, St Louis Mo.

Pressure Switch, Type 251APOIK Model 1500 Sr# GPB47 Range Min 30"
 Max 50# Mfgd by Penn Electric Switch Co, Goshen Ind.

Pressure Relief Valve, set at 175 lbs per sq inch, mfgd by
 Henry Valve Co, no other data available.

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REFRIGERATION EQUIPMENT, Cont'd

In addition to the above data, the cylinder of the compressor is marked 32B3A 2040-32BA BAKER. There are two meters marked Vac and pres. One has a scale of 30-150, the other 30-300.

Temperature Control, this is mounted inside the cool room door, it is a type 1609 sr #31 and is mfgd by White-Rodgers Electric Co, St Louis Mo. The complete refrigeration unit is put out by the BAKER ICE MACHINE CO, OMAHA NEB.

SWITCH PANEL, This is a no fuse type panel mounted on the engineroom wall directly under the refrigeration unit. It controls all the lights and outlet circuits in the Barracks building. It is marked 115/220 Volt 3 Phase 100 amp Sr # B320484. It is mfgd by WM WURDACK ELECT MFG CO ST LOUIS MO. A division of Federal Elect Products.

TRANSFORMER LIGHTING,

This unit is mounted above the Switch Panel described above, it is marked Pri volts 240/480 Sec volts 120/240 60 cycle 10KVA 1 phase Sr# 6236 Spec #2618 It is mfgd by MARCUS TRANSFORMER CO INC, HILLSIDE, NJ.

ENGINE CONTROL PANEL,

This panel is located on the center of the North wall so that it is visible while operating either engine. Its purpose is to monitor three important functions in the operation of each engine, and to cause an alarm to sound and a red light to show when anything goes wrong with any one of them. The three functions are, FUEL OIL LEVEL: JACKET WATER TEMPERATURE: LUBE OIL PRESSURE. Since there are two engines, there are a total of six circuits on the board, and each circuit is equipped with a red and green light and a hand test switch. There are six Magnetic contactors mounted along the top of the board that are marked Class 8502 Coil V 110 60 cycle Type RG21 Sr# 2005S559. All six are the same class and type and are Mfgd by Square D Co Millwaukee Wis. There is one Jacket Water Pressure Meter with a scale from 0-35 lbs, ~~mm~~ for each engine. In the center of the panel there is one Alnor type meter adjustable with a scale from 0-1000 degs F for the exhaust temperature of either engine. There is no data on these meters. The panel is built for the F&M Co by WEAKE ENGINEERING CO OCEANSIDE LI. NY.

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Furnace, The furnace is located under the East end of the balcony.
Motor. It is mfgd by Crane Co, and is completely enclosed.
Boiler Max WP lbs Steam 15, Water 30. The motor used is
marked as follows; Mfgd by AUTOMATIC CONTROL ENGINEERS
INC MOTORS, BEDFORD IND. Split phase long hour duty motor
Type FB Frame 145 Cont duty 55 C rise 110 volts 1/6 HP
3 amps 60 cycle RPM 1725 Style 23447.

Burner, Crane line Conservoil Unit, Model CR2FG Sr# 104720834
Century Fuel Unit S1-R Sr# 107

Underwriters Plate. OIL BURNER NOD64072 Group 1 for use
with oil not heavier than #3

Ignition Transformer. Mfgd by FOREST ELECTRIC CO, FOREST PARK ILL.
Cat # K10M6OR Model 151. Primary 115V 60 cycle.
Secondary 10,000 Volts 250 VA 23 MA, secondary mid terminal
grounded.

CIRCULATOR MOTORS. There are five of these motors in the water circulating
system. All are mounted on the west ~~ang~~ wall of the engineer room
in the vicinity of the water storage tank. It was only possible to get the data
data off one of the motors at this time, it was marked as follows;
Mfgd by WAGNER ELECT CORP, ST LOUIS MO AC motor
type RB Frame 571 Model SY2637 K2926 1/6 HP 1725 RPM
1 Phase 60 cycle. 110 volts 3.1 amps Cont rating 40 C
No 3B Code N SK protector MKA 709.

HEATER, This fan type hot water radiator is suspended from the
Storage room. ceiling. It is mfgd by UNITED STATES AIR CONDITIONING CORP
MINN MINNEAPOLIS MINN, type 717 Sr# 5218 Size 1609 110V
A seperately mounted thermostat is marked Spencer KLIXON
control Model ST-F 1/2 HP 5 amps 110 volts. It is set at
130 degs. Mfgd by SPENCER THERMOSTAT CO ATTLEBORO MASS.

HEATER, IN GALLEY. This heater is similar to the one above. The only data
available at present is mfgd by MC CORD CO DETROIT.

PUMPHOUSE, Power. Power is brought from the engineroom to this unit by three #4 ~~XXXX~~ copper conductors in trenchlay cable buried about two feet.

PUMPS There are two POMONA TURBINE PUMPS using Fairbanks-Morse line starting Induction Motors. The only data on the pumps is the Sr#. They are handled by the CASCADE MACHINERY CO SEATTLE WASH. The motor and pump is in one unit (upright),
Pump #1 Sr# PF10910-3

Motor #1 Induction Motor 220V 60cy 6/3 amps 2HP speed 3490 RPM
Type K code K Frame 104Y Sr# WDJ6761114 PH5339-9. Model 12F5171

Pump #2 Sr# PF45704-4

Motor #2 Same description as #1, Model 12F5171, but Sr# WDJ6761107 and order # PH5339-8

HYPOCHLORINATOR, this unit is mounted on a table near the pumps. It is automatic in operation, so that each time pumps begin operation, it injects a predetermined amount of chlorine into the main water line. Underneath the table there is a large earthenware container which holds about twenty gallons of chlorine. This can be mixed to any strength desired, depending on the water. The chlorine is pumped through a rubber tube from the container to the injector, and from there to the water pump by a copper tube. The only data on the Hypochlorinator is Mfgd by WALLACE & TIERNAN Sr# 4539.

Pressure Gauge, this gauge is set for 60 lbs pressure. The only data on it is 4 1/2 AD and mfgd by NEW YORK GAYGE CO.

Magnetic Starters. There are three of these mounted on the wall near the main switch panel. They are all mfgd by GENERAL ELECTRIC CO and carry the following description.

#1 Size 0 13 amp Type M2 Magnetic starter Cat #03A5Ts

#2 Same.

#3 Same except Cat#03A5HRTS

Safety Switch. This is a Square D series 7 Cat#97311-C 30 amp 125-250V.

Switch Panel. This is a transfere switch to throw in either motor. This is a No Fuse type 12 circuit panel. No data.

Reset Station. For manual control of the pumps. General Electric. No other data.

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SIGNAL BUILDING.

- LOUVERS. There are three Louvers in the signal bldg. They are made of light cast metal and are fitted flush with the wall. Each louver has a motor mounted in a square cast metal box. The following data covers all three louvers. Louver control motor, Part #CYCH-625 Sr# 285-5-52 type CW 115 v 60cy VA 50 Lb.in.20 Sec/360 dgs 8 . Mfgd by BARBER-COLMAN CO ROCKFORD ILL
- AUTOMATIC STARTER. This unit is mounted on the transmitter room wall between the supervisor room and the parts room. It controls the operation of the four electric heaters suspended from the transmitter room ceiling. It is an AC AUTOMATIC STARTER Size 2 class 8536 Type T 220 V 60cy TB2 SR# G342 mfgd by FEDERAL ELECT CO CHICAGO ILL
- MAGNETIC STARTER & Reset. This unit is mounted in the spare parts room, and controls the electric heater which heats the supervisors room. It is a Size No 0 13amp Type M2 Cat# 03ALHRA mfgd by TRUMBULL ELECT MFG CO PLAINVILLE CONN.
- HEATERS, Electric. The four fan type electric heaters in the transmitter room are 230V 3 Phase 7.6 amps 3KW and mfgd by COATES ELECT MFG CO SEATTLE 4 WASH.
- HEATERS " This unit is located in the spare parts room and heats the supervisors room through a louver in the wall. It is a CHROMALOX fan type heater #HF151 230v 60cy 1.5KW and is mfgd by EDWIN L WIEGAND CO PITSBURG PA.
- HEATER " This is a Centrifugal Fan and Filter unit. It is mounted in the transmitter room on a specially built platform and delivers heat to the timer room through a metal duct. The following is the available data. R-16 Rexvane Vent Set with direct connected 1/8 HP 115v 60cy 1 phase resilient mounted motor, radial blade wheel and convertible housing clockwise rotation, top horizontal discharge, duty 570CFM @ 1/2 S.P. 1140 RPM Type PL-24 American Air Filter 24"x24"x8 3/4 " with renewable type filters. It is equipped with a 1000 Watt heater element. It is mfgd by (WESTINGHOUSE) STURTEVANT DIVISION BERKLEY CALIF.
- EXHAUSTS " There are three in the building, and marked FORBES SYPHONAIR FS 18" W/BF with 1/6 HP Motor.

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SIGNAL BUILDING Contd;

SWITCH PANEL. This is the main power switch panel for the building, and is marked 400 amp 240v 3 phase 3 wire. It is a breaker type no fuse having the following circuits. 2-200 amp, 2-100amp, 4-50amp, 2-35 amp, 2-20 amp 2-15 amp. It carries Underwriters Inspection NO BR79358 and is mfgd by PELHAM ELECT MFG CO BRIN PHEN.

TRANSFORMER. This is a dry type lighting transformer and is mounted on the transmitter room wall, it is marked Westinghouse Air Transformer single phase 240/120 v 60cy 3KVA continuous 3.6% at 75 deg Srf#4419652 Style#435061, Mfgd by WESTINGHOUSE ELECTRIC CORP.

SWITCH PANEL This is a small 8 circuit breaker no fuse type panel which handles the lighting. It is marked NLI inspected form 12 panelboard 115-230 v 60amp single phase 3 wire Srf#731046 and is mfgd by WM WURDAX ELECT MFG CO ST LOUIS MO, a division of Federal Elect Products Corp.

ELECTRONIC EQUIPMENT.

Isolation Transformers. Type CG 301227 Pri 115/230v single phase 60cy
#1 See 105-115-125 v 7.5KVA CAT#78-G-501 Srf#7700317
K-54737 shielded Inst K58535192R. Mfgd by GENERAL ELECTRIC CO.

#2 Same as above except Srf#7735667

SWITCH GEAR Model UM Loran Switching Equipment, supply 115v 1 phase 60cy Srf#12 Cabinet type 8810473 mfgd by GENERAL ELECTRIC CO Contract NEXR #1395

Excitation Switching Unit	Srf	Type
Discriminator Sw	" 14	" 23483
" " " Unit #1	" 33	" 50247
" " " " #2	" 40	" "
" " " " #3	" 36	" "
Power Distribution Panel	" 15	" 23482 (23482)

TIMERS Model UE-1 Timing Equipment 115v 60cy Navy Dept Wash DC Contract NEXR 26592 Mfgd by GENERAL ELECTRIC CO SCHENECTADY NY.

Timer #1 Srf#31

Timer #2 Srf#30

see next page for individual units.

SIGNAL BUILDING

Electronic Equipment contd.

Timer units	Sr# Timer#1	Sr# Timer#2	Type Number.....
Timer Delay Sweep	33	31	CG35066
Radio Receiver	41	26	" 46239
Synchronization Indicator	30	35	" 55144
Automatic Sky Synchronizer	33	30	" 20176
High Voltage Pwr Supply	33	31	" 20279
Frequency Divider	31	32	" 35045
Test Oscilloscope	33	32	" 60078
Crystal Oscillator	129	11	" 35044
Synchronization Control	32	33	" 23417
Main Power Supply	37	30	" 20277
Res Power Supply	34	32	" 20278

TRANSMITTERS.

#1 Model TRP-1 Radio Transmitting Equipment 115-230v
single phase 60cy Navy Dept BuShips mfgd by GE co
Contract NKA 33167
Sr#53 Type CG52330

#2 Same as above, Sr#52

ANTENNA COUPLING UNIT. Type CG47366 Navy Dept BuShips Contract NKA
83403, Mfgd by GENERAL ELECTRIC CO.

SPARES

Rufom