

U.S. Department
of Transportation

United States
Coast Guard



Supervisor, Coast Guard
Electronics Maintenance
Detachment

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10550/280

SEP 24 1990

FILE COPY

From: Supervisor, Coast Guard Electronics Maintenance Detachment
To : Commander, Maintenance and Logistics Command Pacific (t)

Subj: CG LORSTA HAVRE STAFF VISIT TRIP REPORT

1. CWO4 G. J. Soula conducted a staff visit of the following units from 27 to 30 August 1990.

- a. CG LORSTA Havre (under construction).
- b. AF Detachment 17, 1st ECRG/CC.
- c. AF Base Malmstrom, 301st FMS/MAFL.
- d. AF Base Malmstrom, 840th CES/DEM.
- e. CG LORMON Site Great Falls, Mt. (unmanned).

The purpose for this staff visit was to familiarize myself with the LORAN station, the stations staff, and availability of local electronic support. The findings are discussed in enclosure (1).

2. Prior to visiting the units, CWO4 Soula met with the following personnel to discuss the status of CG LORSTA Havre.

LT Schenk	Coordinator Of Chain Operations (COCO)
ETC Boutwell	US & Canadian West Coast LORAN-C Chains
ET1 Montgomery	Officer In Charge
MK1 Wood	Senior Electronic Technician
	Executive Petty Officer and Engineer

3. My point of contact for this staff visit and author of this report is CWO4 G. J. Soula; FTS 396-5623.


R. J. BLOUNT
By direction

Encl: (1) Staff Visit Items from CG LORSTA Havre Visit of 27 thru 30 August 1990 w/attachments.

Copy: PACAREA (ptl)
CG MLC PAC (tts, tes, kma, fcp)
CGD THIRTEEN (dtm, oan)
CG COCO Middletown
CG LORSTA Havre
AF 40th Air Div

Staff Visit Items
from CG LORSTA Havre Visit
of 27 thru 30 August 1990

A. My main purpose in this visit was to evaluate the availability of support for maintenance of the facility and the needs of the station staff.

B. On the 28th of August CWO4 Soula met with the staff of LORAN station Havre and the COCO of the west coast chain to discuss the status of the LORAN station as it nears commissioning. The following information are possible sources of support, points of contact, associated support commands and private sector possible sources of support.

<u>ITEM</u>	<u>SUGGESTIONS/ACTION</u>
(1) Housing: Local Air Force housing arranged for all the LORSTA personnel. POC Mr. Sandrock (civilian) (406) 394-2401. Outstanding housing and recreational facilities provided by the Air Force!	<u>NO ACTION REQUIRED</u>
(2) Medical: Air Force DET 17 has a contract with the North Montana Medical Arts Center. POC Mrs. Beaver (406) 265-5408. For a joint services agreement, contact LTC Bussian (406) 731-2690. A separate contract can be arranged through SSGT Morton (406) 731-3744. The local hospital is Northern Montana Hospital (406) 265-2211. Medical bills for inpatient active duty personnel LT McGilvra (406) 731-4391. The above information was provided by the local Independent Duty Medical Technician, SSGT Crowe (406) 394-2402. SSGT Crowe has custody of the medical evacuation vehicle. Contact CG COCO Middletown, CA (707) 987-2911 for status of medical support.	<u>CG MLC PAC (kma)</u> <u>POC: CWO3 Padgett</u> Suggest ISSA, see paragraph D.
(3) Telephone: Local phone company is Triangle Telephone Cooperative, (406) 265-7807. CG MLC PAC(tts-3) Mr. Thompson has ordered telephone service.	<u>NO ACTION REQUIRED</u>
(4) Commissary/Exchange facilities are available at Malmstrom AFB, Great Falls MT. approximately 130 miles southwest of the LORSTA Havre.	<u>NO ACTION REQUIRED</u>

ENCLOSURE(1)

C. After meeting with the LORSTA staff, LT Schenk and myself toured the LORAN station, Air Force detachment 17 and the staff's Air Force assigned housing.

LORAN Station Havre Tour Comments:

(1) The tower, receive antenna, station building, emergency generators, generator fuel storage vault, fuel tanks, power panels, cooling systems for the environment, generators and transmitters construction/installation have been completed. Of particular note, the senior electronic technician, ET1 Montgomery, will be sent to Brooklyn Supply to see how the transmitters and associated equipments are being packed for shipment. ET1 Montgomery will be responsible for unpacking, inventorying and laying out this equipment for assembly and installation.

(2) LORSTA building is a low/no maintenance brick structure with ample room and an excellent layout. Emergency generator room appears well lighted, with ample working space. Spare tower hardware presently clutters floor of this room and the engineers store room. The control and main transmitter room has a raised floor, this floor's support frame work has not been adequately isolated from the concrete floor of the building. ET1 Montgomery raised a floor panel to display the floor's support columns. The isolating compound between the concrete floor and the foot of the column had smeared, this likely destroyed or damaged the isolation properties. The floor's frame work may cause Electromagnetic Interference (EMI) noise where the mounting hardware is joined.

(3) LORSTA grounds are open to roaming cattle. Residue from the herd is found everywhere. The fence around the tower base has two gates. The west gate has broken away from its supports and has allowed the cattle to enter. The gate is hinged so the prevailing wind forces the gate open in lieu of holding the gate shut. This gate requires immediate attention.

A non-conductive fence should surround the building, receive antenna, ground planes, and tower guide anchor areas, See attachment (1).

(4) The emergency generator fuel vault is immense! Two huge fuel tanks are contained in the vault plus ample room to move around, See attachment (1).

(5) The heat exchanger area is plagued with weeds. This type weed tends to break loose with the wind and could clog or damage the radiators, See attachment (2).

(6) The ground rods terminating the ground plane radials are each covered by 6" PVC pipe caps, See attachment (2). These pipe caps are used for the transmitting tower, receive antenna and the monitor antenna ground planes. This is an excellent way to insure access for locating and servicing. Suggest marker stakes be used to locate the pipe caps after the foliage returns.

(7) Road from the main highway to the station gate is gravel for part of the way and 1 3/4" stone covered for the remainder of the way. The station vehicle will be an all wheel drive pickup with a snow plow. On a gravel road with 1 3/4" aggregate, this light duty vehicle will have trouble with traction and the plow will likely hang-up and drop. Light duty plows are designed to pivot forward upon striking an obstacle. This safety item/action prevents damage to both the vehicle and the plow mount when the blade hits snow covered obstructions. I suggest action be started to have this road asphalted.

D. CWO4 Soula visited Malmstrom AFB on 29 August. The purpose of the visit was to locate possible sources of support regarding test equipment calibration, electrical maintenance, plumbing and air conditioning.

I visited PMEL and the Engineering and Environmental Planning Office. I discussed test equipment calibration with a TSGT Kinnavy of PMEL. It appears the laboratory will have no problem calibrating the LORSTA's electronic and engineering test equipment.

After discussions with several individuals in the Engineering and Environmental Planning Office, it appears that direct Air Force support for electrical, plumbing and air conditioning maintenance is an unlikely possibility. The overriding priority will always be Air Force facilities maintenance. Limited personnel, funding and DOD priorities would relegate Coast Guard support low. The Engineering and Environmental Planning Office can be helpful in negotiating and adding LORSTA Havre to existing Air Force contracts.

All correspondence to Malmstrom AFB should be directed via:

Base Commander
840 CSG/CC
Malmstrom AFB, Mt. 95402-5000

Interservice Support Agreements (ISSA) are arranged by the following office:

Commanding Officer
40th Air Division
attention LGXP, TSGT Hicks
Malmstrom, AFB 59402-5000

LOCAL SUPPORT AVAILABILITY:

(1) Precision Measurement Equipment Laboratory (PMEL) support. The Air Force PMEL can provide electronic test equipment calibration service per the 301st FMS/MAFL, Malmstrom AFB, MT 95402
POC's: MSGT Farley (406) 731-4512
TSGT Kinnavy (406) 731-3097

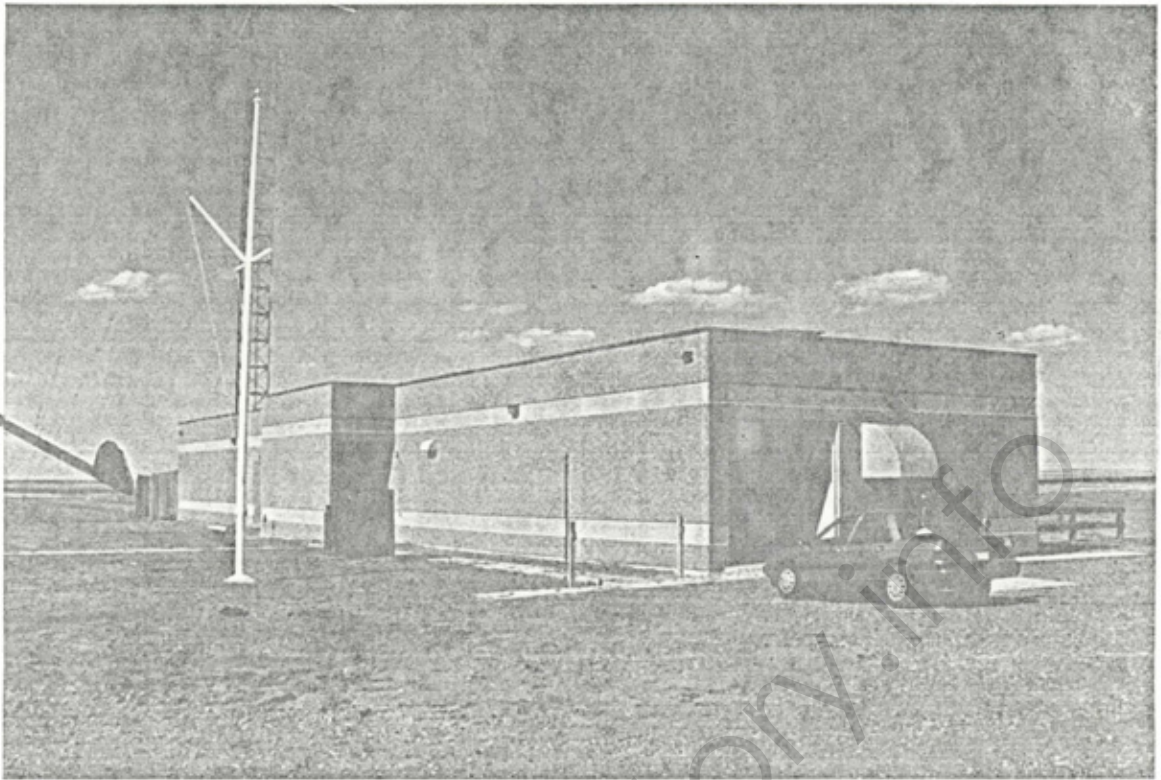
CG MLC PAC(tes-2)
attn. Mr. Gansz
Suggest ISSA.

(2) Electrical, Air Conditioning, Plumbing and Grounds Maintenance service contracts for Air Force units are arranged/negotiated by Mr. Byerly of the Engineering and Environmental Planning Office, 840th CSG/DEED, Malmstrom AFB 95402, (406) 731-6158.

CG MLC PAC(fcp)
Suggest ISSA.

E. On 30 August LT Schenk and CWO4 Soula visited the LORAN monitor site with the FAA technician, Mr. Neumann, (406) 452-0815. This facility is at the Great Falls airport. This site is not fully operational. The equipment and receive antenna installations are excellent. I found the electronic equipment chassis, cabinet and rack bonds within the structure not in compliance with MIL-HDBK-419. Electronic installations generally are required to meet these standards to prevent EMI and shunt spurious noise. Suggest all surface to surface (Type three bonds) contact bonds be clear of paint and checked to insure zinc impregnated antiseize compound (MIL-T-22361) was used to reduce contact resistance. Suggest flexible bond straps be installed to allow servicing of the electronic equipment without the necessity of unbolting the bond strap. I suggest copper ground straps be bolted to clean metallic surfaces utilizing washers to insure full and even pressure to the width of the copper strap. See attachment (3) for depictions of bonding suggestions.

TOWER
FENCE



LORAN STATION HAVRE



ABOVE GROUND VIEW OF
FUEL VAULT

ENCLOSURE(1)

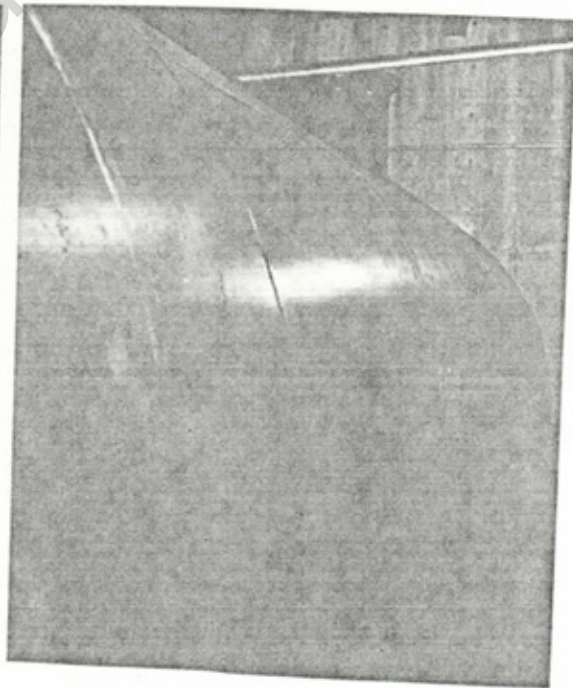
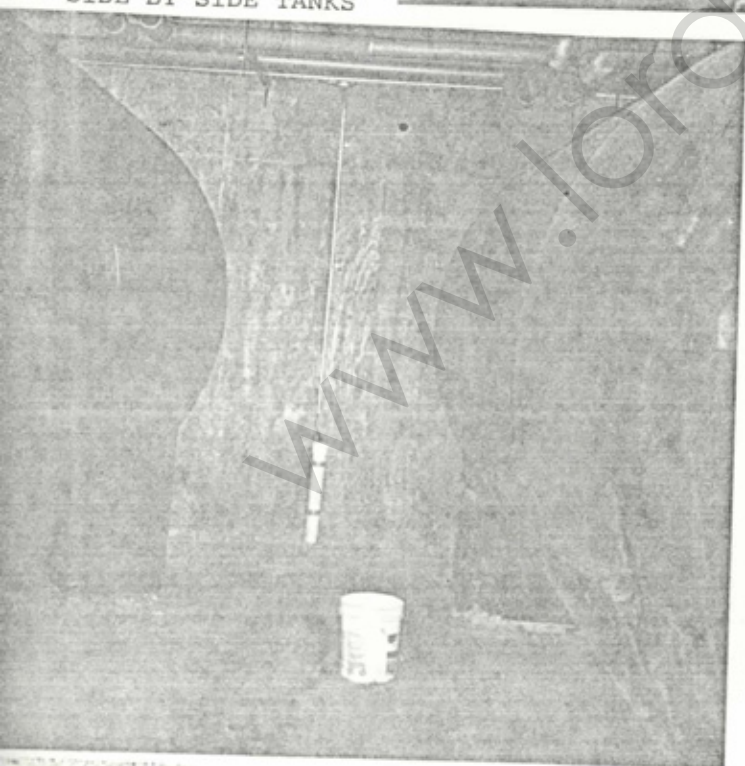
ATTACHED (1)

LORAN
STATION
HAVRE

BELOW GROUND
VIEW OF
FUEL VAULT



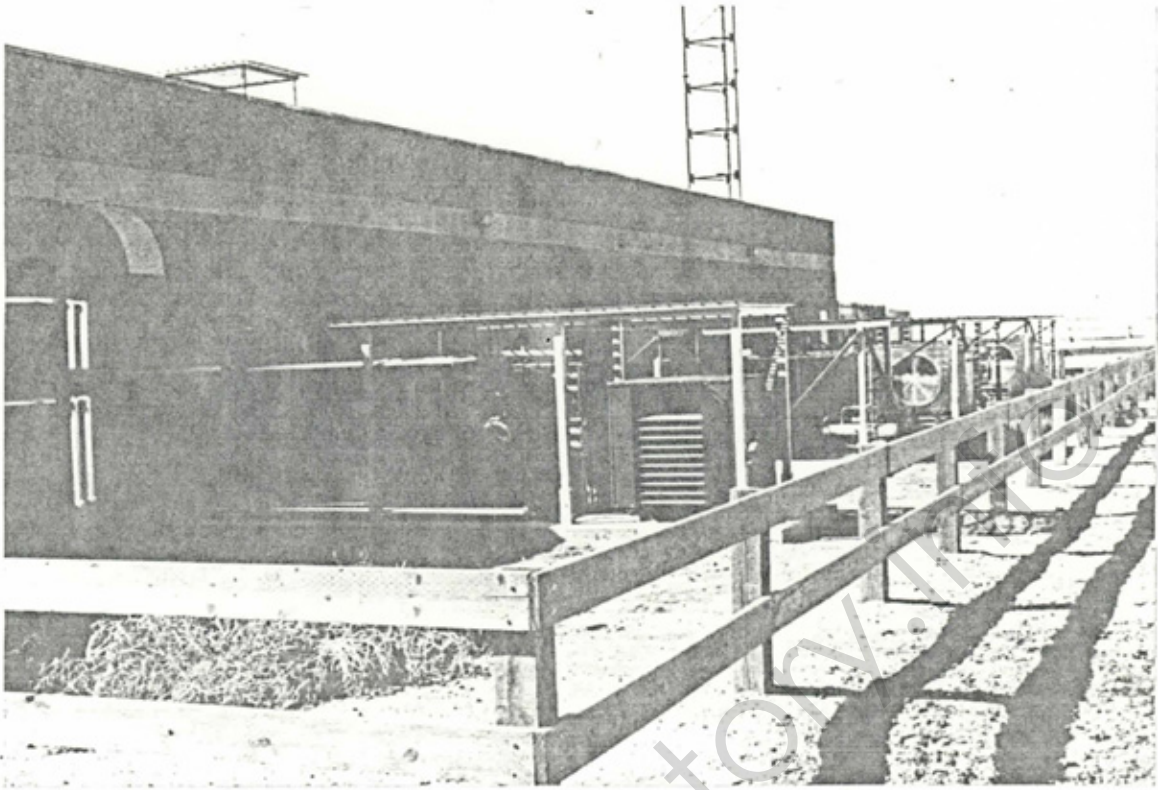
SIDE BY SIDE TANKS



ENCLOSURE(1)

ATTACHED (1)

HEAT
EXCHANGER
AREA



ANTENNA
GROUND
PLANE
PIPE CAPS

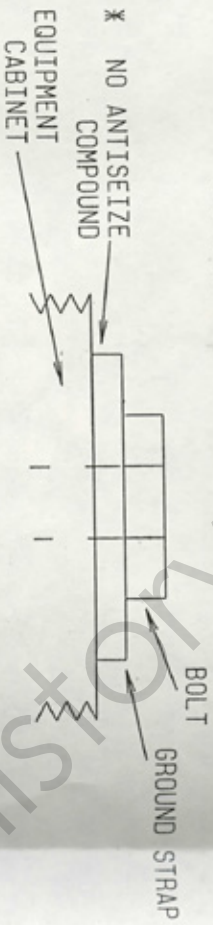


ENCLOSURE(1)

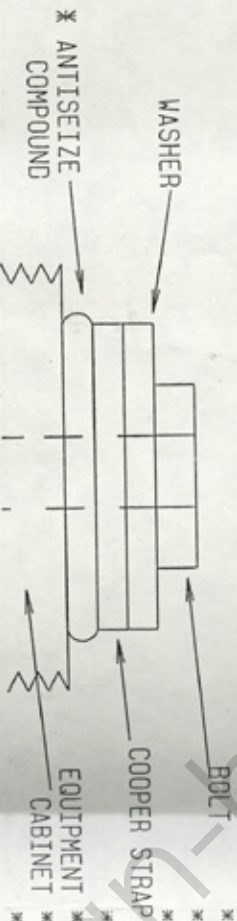
ATTACHED (2)

SUGGESTED BONDING FROM MIL-HDBK-419

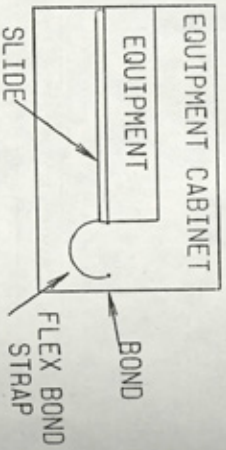
EXISTING CABINET BONDING



PROPOSED CABINET BONDING



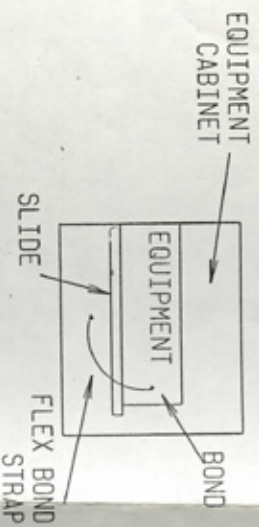
EXISTING SETUP



* ANTISEIZE COMPOUND - PETROLATUM AND ZINC DUST TUBE.

8 OZ., MIL-T-22361, SPMIG #0055
NSN #9030002921102

PROPOSED SETUP



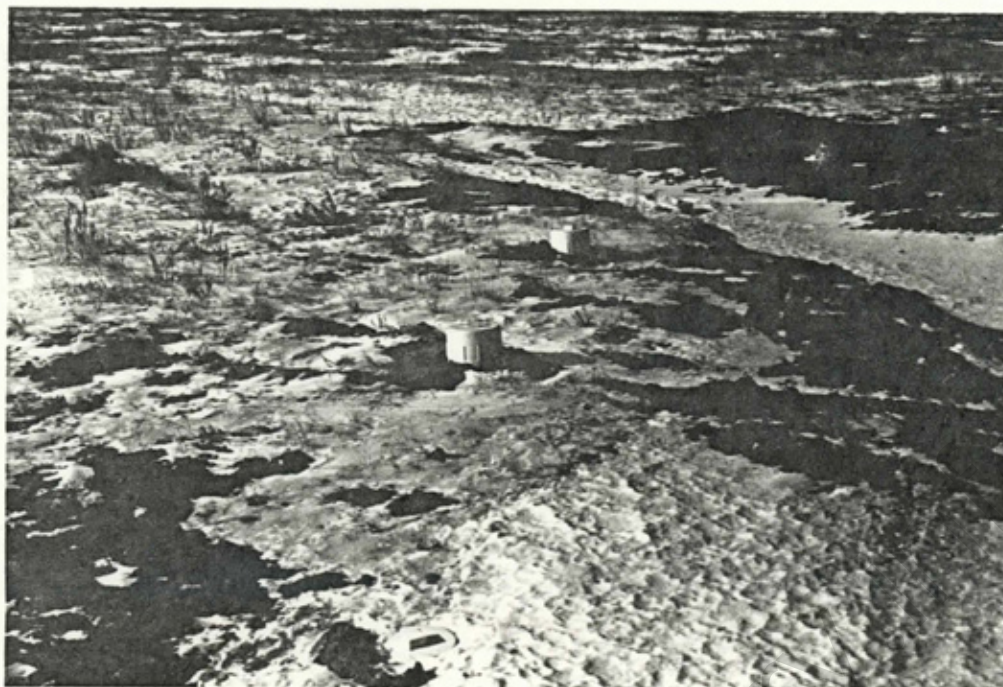
EQUIPMENT EXTENDED FOR SERVICE
EQUIPMENT CABINET



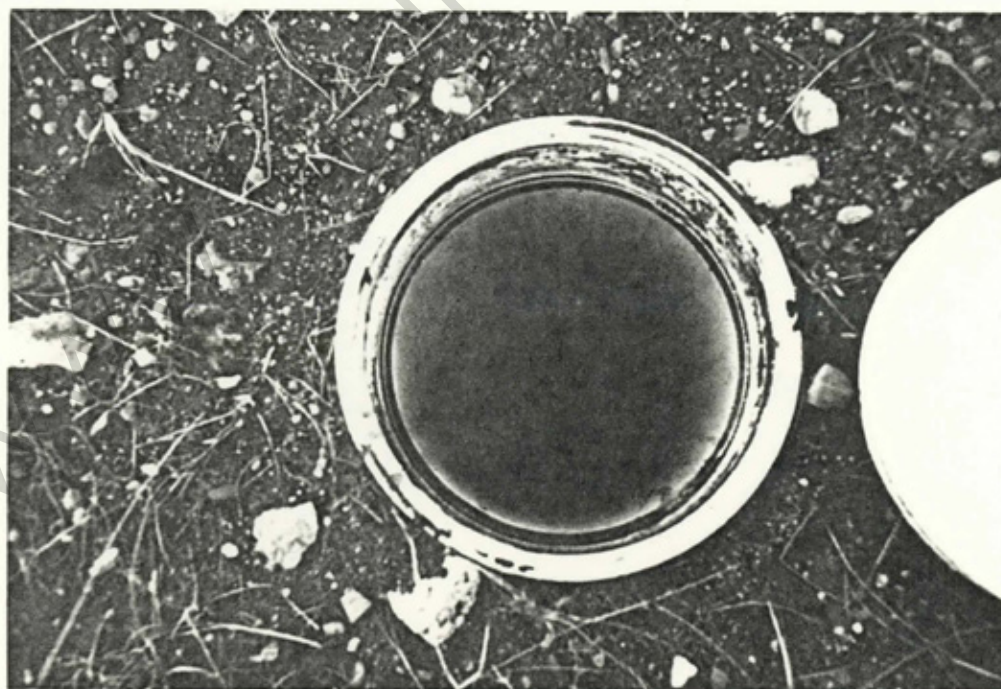
"NOT TO SCALE"

ENCLOSURE(1)

ATTACHED (3)

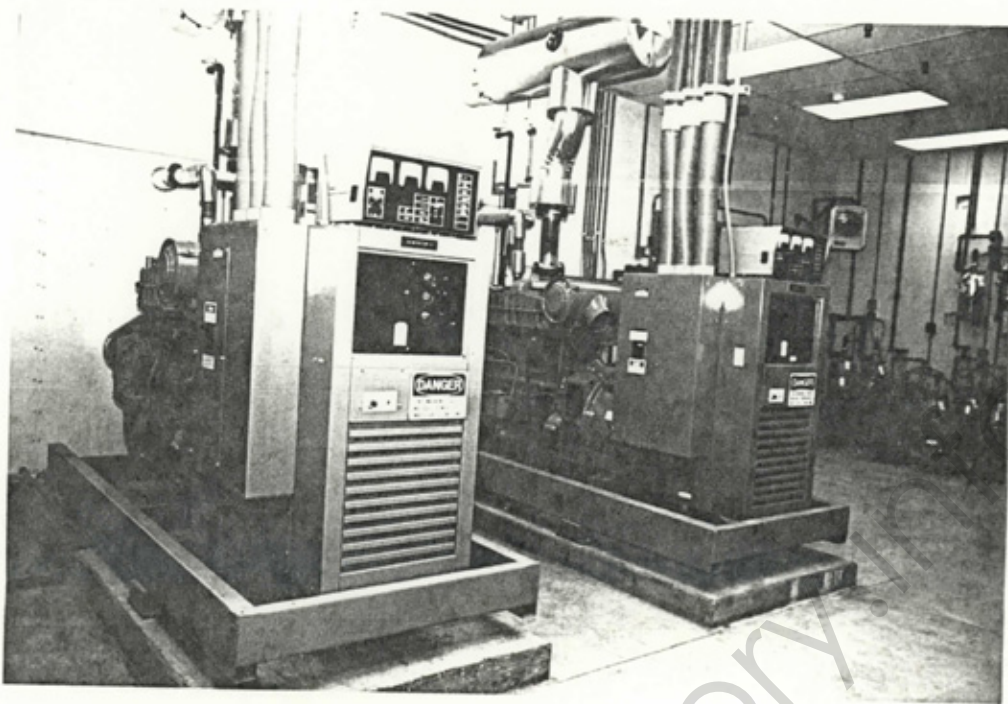


THESE ARE THE TERMINATIONS OF THE ANTENNA
GROUND RADIALS, BOTH TRANSMIT AND
RECEIVE ANTENNAS, AT BOTH THE LORSTA
AND THE GREAT FALLS MONSITE.

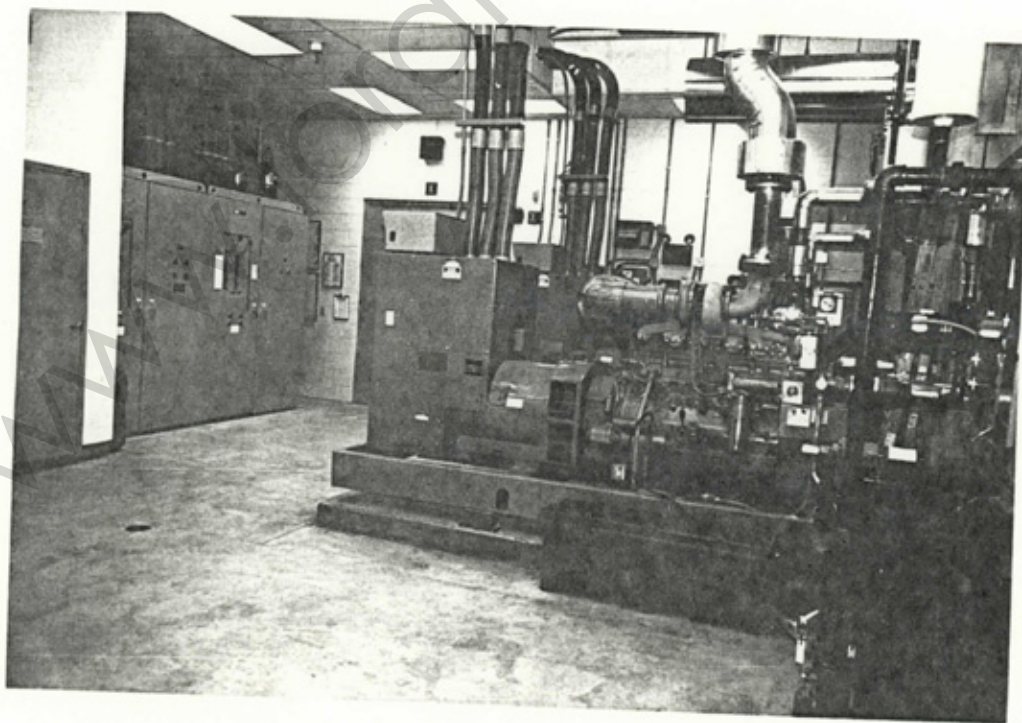


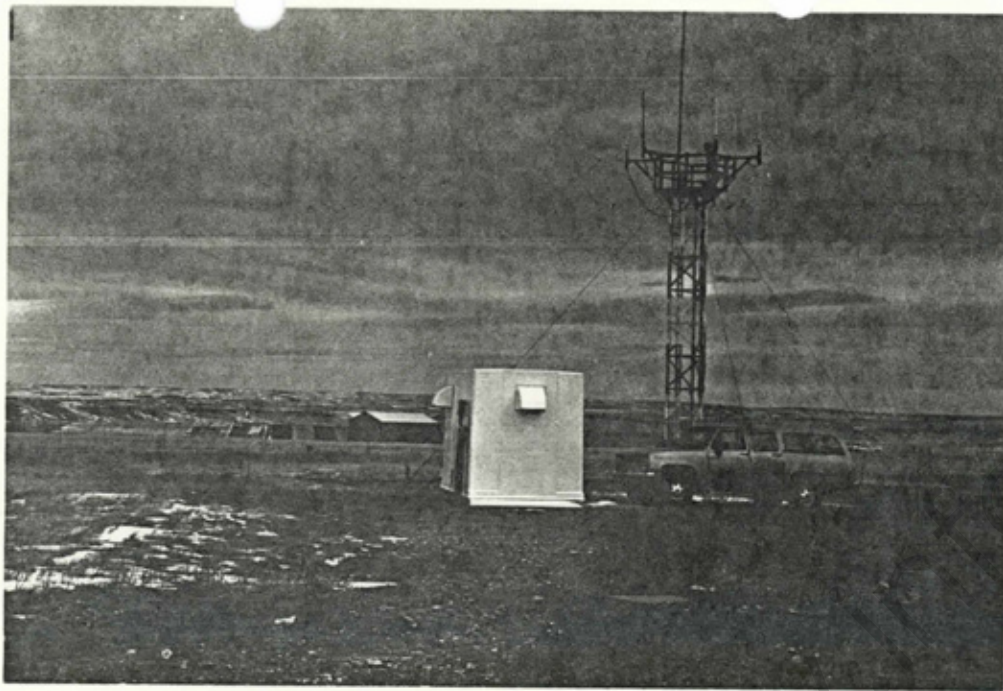
IN THIS PHOTO, THE GROUNDING ROD WITH
THE RADIAL ATTACHED IS SHOWN IN THE
CENTER OF THE PIPE.

GREAT IDEA !!
EASY TO FIND THE RADIALS, MAKE MEASUREMENTS,



The GENERATOR SETS.
A LOT OF SPACE IN THIS ROOM.





LORMONSITE
GREAT FALLS.
AT AIRPORT.
FAA MAINTAINED.

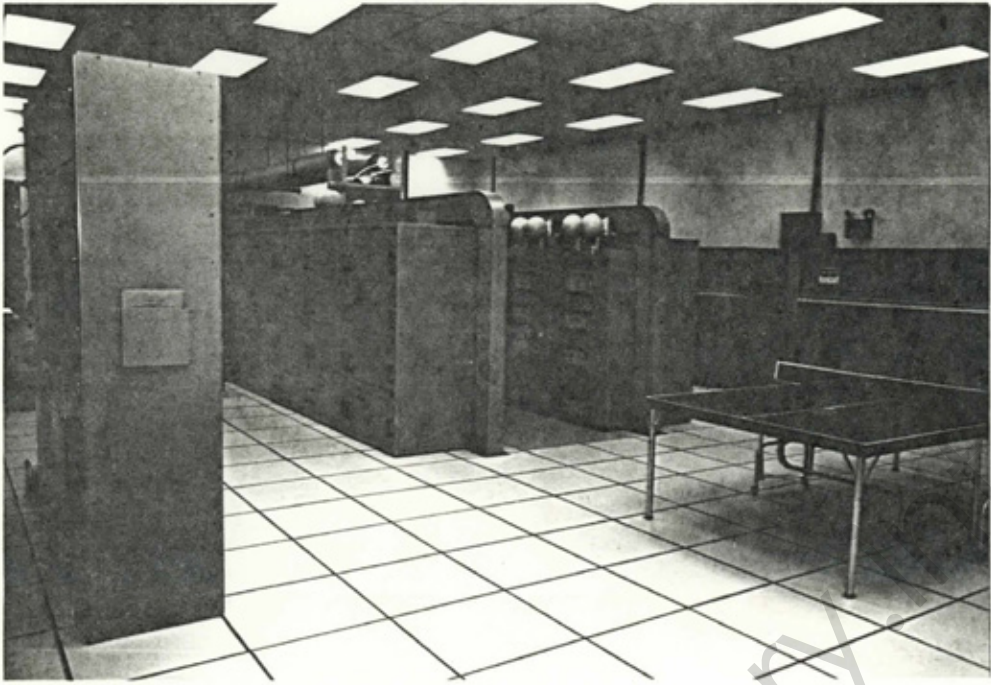




A VERY NICELY DESIGNED AND
CONSTRUCTED BUILDING, BUT
NO WINDOWS!



ops Room



TRANSMITTER ROOM.

The SSX.

