

1300-166/10

PT1

CROSS REFERENCES

| FILE NO. | SUBJECT |
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S. 1300-166/10

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| DN Com | A | 11/1/63 | | | |
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**FILE
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NOT TO BE REMOVED FROM FILING CABINET

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FILE NUMBER: S. 1300-166/10 VOL

1

PPA
14/1/63

CLOSED VOLUME

VOLUME 2 FOLLOWS

NO FURTHER CORRESPONDENCE TO BE PLACED ON THIS FILE

SECRET

MCACS: 1300-1

DEPARTMENT OF NATIONAL DEFENCE



Office of the Maritime Commander Atlantic,
Fleet Mail Office,
Halifax, N.S.

26 January, 1961.

AIR/GROUND/AIR HF COMMUNICATIONS
WITH MARITIME AIRCRAFT

- References: (a) NSS 1300-166/10 (STAFF) dated 21 Dec 60.
(b) AFHQ S951-100-69/20 (D Com) dated 21 Nov 60.
(c) CANCOMARLANT OPODER 1-61.
(d) MAROPEDLANT 1960.

As requested in reference (a) the following are the comments of this Command on the plan proposed in reference (b).

2. This Command supports the principle of separate and more flexible air/ground/air communications underlying the AFHQ proposal. There is no doubt that for effective long-range communications MP aircraft must have an adequate allocation of frequencies covering the HF spectrum and a device that will enable the NAV/RO to select the most suitable frequency for communication with the ground station. It follows also that the MHQ must have the capability of guarding all frequencies assigned to the aircraft and, equally important, must have the ability to pass operational traffic to the aircraft with a minimum of delay and without interference with traffic on other circuits.

3. It is agreed that the present net organization comprising base control nets, the air reconnaissance net and the convoy air support net does not meet the requirements of the Maritime Command. It is also agreed that the division of HF air/ground/air circuits and frequencies into Operational and Training communication facilities will meet present and future communication requirements. The installation of high power HF ground equipment at Station Greenwood to meet both the training and alternate MHQ requirements is supported by this Headquarters. It is suggested that a direct voice land-line circuit connecting Greenwood and Summerside operations should be established on a call-up basis, in addition to the proposed on-line teletype link between these two units.

4. While the proposed plan holds out the promise of much needed improvements in long range air/ground/air communications, it is not believed that the proposal as it stands will solve our immediate problems. There are several problems to be overcome before such a communication

The Naval Secretary.

Copy to: Chief of the Air Staff.

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- 2 -

plan can be implemented. First, it will be necessary for all MP aircraft to be equipped with a device such as the ionospheric sounder. Secondly, in the ground environment there will be a requirement for a device which will indicate the circuits on which aircraft are attempting to establish communications, and which will permit a minimum number of operators to guard all assignments efficiently. Thirdly, a ground to air broadcast facility is essential to ensure that MHQ can transmit vital operational traffic to all airborne aircraft simultaneously without disrupting other operational air/ground/air circuits.

5. The proposed plan deals in part with the first two problems mentioned above, by referring to the possible fitment of an ionospheric sounder and by offering an allocation of frequencies and the assurance that adequate staff will be provided to guard the assignments. Although it is stated that single or multiple transmissions could be made from the ground station, the proposal does not provide for multiple transmissions or broadcast on a non-interference basis. Because it is as important for MHQ to communicate with as many aircraft as are airborne as it is for the aircraft to communicate with MHQ, this Command is convinced that future plans should provide separate ground to air and air/ground/air facilities. A high-power, low frequency, radio teletype, ground to air facility, would appear to be the best method of solving the third problem.

6. The immediate problem is how best to provide the means by which the Maritime Commander Atlantic can exercise centralized operational control of the assigned forces employed under the present concepts of peacetime and wartime operations as detailed in references (c) and (d). In the SOSUS, A/S Surveillance, and Beartrap concepts of operations, CANCOMARLANT forces are deployed close to the eastern seaboard. Experience has shown that satisfactory communications can be established within the concept areas on frequencies within the 3 to 7 mcs band. MHQ difficulties stem not from establishing communications within the concept areas but from the inherent limitations of the net organization: inflexibility, low capacity and mutual interference in particular.

7. A much higher degree of communications efficiency can be achieved by providing separate air/ground/air, MHQ/ships, and ship/shore circuits. It has been decided, therefore, that reorganization along these lines should be the first step taken towards improvement of the means by which tactical control is exercised. The communication links which this Command plans to establish in the immediate future are:

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- 3 -

- a. Air/ground/air between aircraft, MHQ and Torbay.
- b. Direct keying as required for Broadcast LIMA/ROMEO for traffic from MHQ to ships.
- c. Ship to MHQ circuits using ship/shore frequencies.
- d. Tactical circuits between Naval ships and aircraft using surface to air and air to air frequencies (primarily UHF).

8. Based on the assumption that some 14 aircraft will be employed in Beartrap circles off the coast of Nova Scotia, together with at least as many Naval picket ships, it is considered that a minimum of five air/ground/air circuits and three ship/shore circuits should be provided in the Emergency Defence Plan. Under the present concept of peacetime operations, which devotes primary emphasis to improvement of the operational capabilities of SOSUS and of the abilities of MARLANT forces to operate in conjunction with the three SOSS (FOX, VICTOR and KING), it is considered that three air/ground/air circuits and one ship/shore circuit should be established. Frequencies for all of the above circuits should be assigned from within the 3 to 9 mcs band. It would be necessary, of course, to install an adequate number of ground station transmitters and receivers to provide these facilities.

9. In addition, frequencies above 9 mcs as proposed in reference (b) are recommended for assignment on an as-required basis, mainly for communications with aircraft operating at long ranges from MHQ and, possibly, during periods of ionospheric disturbance. It is not believed that these frequencies should be guarded continuously in the current short-range types of operation.

10. Consequently, when coordinated aircraft and surface operations or investigations are directed it will no longer be necessary for the Naval ship to guard the air/ground/air assignment; a listening watch on the frequency by the ship is all that would be required. UHF communication would adequately meet the requirements for inter-unit tactical cooperation. When employed in the concept areas, shore-based naval aircraft will employ the appropriate air/ground/air circuit assignments.

11. To summarize, this Command supports the principle underlying the AFHQ proposals for long-range air/ground/air communications and considers that action should be taken now along the lines suggested. To meet our immediate requirements it is recommended that:

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- 4 -

- a. Ten frequencies from within the 3 to 9 mcs band should be allocated to the Maritime Commander Atlantic for use as air reporting and control circuits.
- b. Six ship/MHQ frequencies should be allocated to the Maritime Commander Atlantic for use as surface reporting circuits.
- c. At least four frequencies above 9 mcs should be assigned for use mainly in long-range air/ground/air communications.
- d. That a suitable assignment of frequencies, as proposed in reference (b) para 8, be provided for the air/ground/air training facilities at Station Greenwood.


REAR ADMIRAL
MARITIME COMMANDER ATLANTIC

SECRET

ESS 1300-166/10
(STAPP)

11 11 5-5
1181700-151/1 075

Royal Canadian Navy

Ontario.

21 DEC 1960

AIR/GROUND/AIR HF COMMUNICATIONS
WITH MARITIME AIRCRAFT

Enclosure: (A) 3951-100-69/20(DCom) dated 21 November, 1960.

The Maritime Commander, Atlantic, is requested to comment on the plan proposed in Enclosure (A), particularly with respect to the effect of the plan on the operation of warships and shore based naval aircraft.

2. A reply is requested by 1 February, 1961.

②
DN Com

Concur

Borden *etc* *P6*
NAVAL SECRETARY

8 Dec DCom

Maritime Commander Atlantic.

To *7710*

For Despatch **Copy to: Chief of the Air Staff.**

Date *21-1260*

Initials *ak*

DNAR
DN PLANS
DCOM (RCAF)
for concurrence.

CONFIDENTIAL



ESS 1500-166/10 (STAFF)

NSS 1700-151127
IN REPLY PLEASE QUOTE

CONFIDENTIAL

No. ~~XXXXXXXXXXXX~~

S951-100-69/20(DCom)



CONFIDENTIAL

Department of National Defence

Ottawa, Ontario.

21 November, 1960.

**Air Officer Commanding,
Maritime Air Command,
17 South Street,
HALIFAX, N.S.**

Telecommunications Services -
Maritime HF A/G/A Reorganization

1 Tactical control of Canadian Maritime patrol aircraft throughout the CANLANT area must be maintained by NHQ but present RCAF facilities fall far short of providing this operational requirement. It is therefore imperative that positive action be taken to improve our communications capability over the CANLANT area.

2 Improvements to RCAF ground installations at Halifax and Torbay are underway and will provide some improvement, but after careful analysis of the communications problems encountered in the North Atlantic area we conclude that the improvement will be marginal unless the frequency organization now in use is changed.

3 Basically the high frequency air-ground-air communications problems stem from the fact that area coverage is required from a point source and the area to be covered falls in a region of frequent ionospheric disturbances. In the CANLANT area communications are disturbed for as much as 10 days a month making the use of frequency prediction charts impractical. Other factors that adversely affect communications are the inefficiency of the aircraft antenna, its frequent poor orientation, the constantly changing range, and the relatively low power output of the aircraft transmitter. As can be seen from the above, selection of the optimum frequency is mandatory in establishing two way communications between aircraft and ground.

4 High frequency communication, unlike other forms of communication, is only accomplished when the proper frequency is selected after taking into account the distance involved and the current state of the ionosphere. Due to ionospheric variations the optimum frequency for communication between two points is constantly changing necessitating several frequency assignments on every circuit. In the case of air-ground-air communications to a single location many assignments are required to compensate for the aircraft's inherent high frequency communications disadvantage. Therefore the Obs/Rad in the aircraft requires many frequency assignments from which to choose the best frequency for communications plus reliable information on which to base his selection. Neither facility is now available to the Obs/Rad.

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HQ. 1010A
300M--10-52 (4282)
N.S. 7570-HQ. 1010A

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5 The high frequency airborne ionospheric sounding trials taking place this fall and winter are designed to provide reliable information on the most suitable frequencies. If an airborne sounding receiver or similar device is fitted in all Argus aircraft accurate frequency selection information will be available to the Obs/Rad, but under present conditions he still will not have the required range of frequencies at his disposal.

6 In order to provide an adequate number of diverse frequency assignments to Maritime A/G/A circuits a complete reorganization of the present NET system is required. A study of the present HF A/G/A NET organization was made and the following facts came to light:

- (a) the two Base Control Nets are used for training only;
- (b) the Air Recce Net is the only operational net;
- (c) the Convoy Air Support Net is not used now and it is not planned to use it until at least 30 days after the outbreak of hostilities; and
- (d) it is doubtful if the Convoy Air Support Net would be required during a war because of the reliability of VHF/UHF equipment for ship air communication and the reluctance of the Officer in Tactical Command of a convoy to expose his forces to HF/DF.

It is therefore concluded that in peace and war only two high frequency a/c control nets are required in support of Maritime air forces, namely an Operations Net and a Training Net.

7 A two net plan will fill Canada's NATO Commitment which is to provide high frequency air-ground-air communications in support of NATO Maritime Air Forces. There is no "scale" of communications requirements. The RCAP is now committed to the three net plan but changes to Canadian communications inputs to NATO are adequately covered in ACP 176(B) NATO Supplement No 2 para 103 (a) and NCCP-2 para 101 (a) which states;

Amendments

- (a) the facilities listed in chapters 3, 4 and 6 are made available by the NATO member nations for the use of naval forces and maritime air forces under the operational command of NATO naval commanders and maritime air commanders during wartime and in peacetime NATO exercises. Details of these facilities may often be amended by national authorities before the cognizant NATO Commander is informed. The national authorities are therefore requested to forward details of amendments to facilities provided by them as rapidly as possible through the appropriate NATO Area or Sub-Area Commander to SACLANF for NATO - wide promulgation of such information.

CONFIDENTIAL

- 3 -

7 (Cont'd)

Annex L to LANTCOMPLAN "Communications" - Electronics Facilities Required to Support Assigned Forces also refers.

7 It is planned to establish the Operations Net at Torbay and Halifax with a complement of frequencies from 3 to 24 mc/s. The Training net will have a frequency complement from 3 to 10 mc/s. Financial and manning considerations dictate that only one ground station can be activated for the Training Net and as Greenwood is the alternate MHR it has been chosen as the ground station. A direct on-line cryptographic teletype will link the Greenwood ground station with Summerside operations. Improvements to the Greenwood ground station will be undertaken to enable it to handle the new role.

8 The two nets will be assigned the following frequencies:

| <u>Operations</u> (Halifax and Torbay) | | <u>Training</u> (Greenwood) | |
|---|------|--------------------------------|------|
| 3031 | Kc/s | 3060 | Kc/s |
| 4745.5 | " | 5690.5 | " |
| 5630.5 | " | 6745.5 | " |
| 6715.5 | " | 8960 | " |
| 8965.5 | " | 11100 | " |
| 11275 | " | 13255.5 | " |
| 15035 | " | | |
| 18020 | " | | |
| 23250 | " | | |

9 The advantages of the above plan are:

- (a) a comprehensive range of frequencies assigned to both the operations and training sides of maritime air command that will enable A/G/A communications during periods when communications are not now possible;
- (b) aircraft will only be required to guard frequencies of one net for both communications and broadcasts facilitating tactical control;
- (c) an ionospheric sounder, or similar device, used in conjunction with these nets will materially reduce out of contact time by enabling the Obs/Rad to use the best frequency;
- (d) the OTC of a convoy can be kept informed of developments through VHF/UHF transmissions or if the distance is too great through normal shore-ship broadcasts;
- (e) in the event of MHR being destroyed the alternate MHR will have adequate facilities for A/G/A communication;
- (f) if both the MHR and the alternate were destroyed tactical control of Summerside a/c could be exercised through Torbay;

CONFIDENTIAL

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9 (Cont'd)

- (g) single or multiple transmissions could be made from any ground station;
- (h) improved security will be provided as monitoring stations would be unable to determine the a/c track by the frequency in use;
- (j) traffic loading problems will be reduced as a/c will use the proper frequency for their transmission distance;
- (k) all high frequency assignments will be used thus protecting the RCAP from frequency encroachment by other countries.

10 The above plan, if properly guarded, will provide much more reliable communications over the CANLANT area than are now possible but before it is activated your comments on its operational effectiveness are requested. May your reply be forwarded to AFHQ DCom by 1 Feb 61. In your reply you may assume that adequate staff will be provided to guard these nets.

Original Signed By
A.J. Charters F/L

for (D. Gooderham) G/O
for OAS

✓ NSS1300-166/10(EEC)

RFD/jc

9 December, 1960.

MICROWAVE TOWER - ALBRO LAKE
SECURITY FENCING

Reference: (a) 70-H4(DCEC) dated 7 October, 1960.

The proposal outlined in Reference (a) is generally satisfactory to the Royal Canadian Navy except as noted below:

- (a) Custody and Control of the site must remain with the Officer-in-Charge Albro Lake Naval Radio Station while this facility remains at the site.
- (b) Plans for the enclosed area be submitted directly to Lieutenant R.F. Duston Room C1537Y Cartier Square, Ottawa, for discussion and approval. It is considered that the fencing should make provision for an R.C.N. radio relay equipment house at the tower base.
- (c) RCMP personnel will have access to the site for RCMP equipment maintenance.
- (d) Nova Scotia Department of Lands and Forests fire-watch personnel will have access to the site.

DISPATCHED E.E.C.

DATE DEC 9 1960

NAVAL SECRETARY.

The Chief of the Air Staff,
Air Force Headquarters,
Ottawa, Ontario.

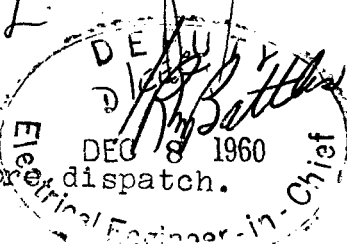
DNCOM

CEG

DNE

For concurrence before dispatch.

Where H. A/DNI (L) 25/11/60



[Handwritten signature]

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CONFIDENTIAL

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S951-100-69/20 (DCom)

MEMORANDUM


17 Nov 60

DNCom

Telecommunications Services - MHQ Halifax
HF A/G/A Communications

1 The attached draft of a letter pertaining to maritime HF A/G/A communications is enclosed for onward transmission to the Commander Maritime Headquarters, Halifax.

2 May DCom/Com 2-2-3-2 be included in the distribution.

for 
(D Gooderham) G/C
DCom
2-5302

Attach.

S951-100-69/20(DCom)



Department of National Defence

Royal Canadian Air Force

Ottawa Ont
 21 Nov 60

1st Officer in command
 Commander *Maritime Air Command*
 Maritime Headquarters
 Halifax NS

Telecommunications Services - Maritime HF A/G/A Reorganization

- 1 Tactical control of Canadian Maritime patrol aircraft throughout the CANLANT area must be maintained by MHQ but present RCAF facilities fall far short of providing this operational requirement. It is therefore imperative that positive action be taken to improve our communications capability over the CANLANT area.
- 2 Improvements to RCAF ground installations at Halifax and Torbay are underway and will provide some improvement, but after careful analysis of the communications problems encountered in the North Atlantic area we conclude that the improvement will be marginal unless the frequency organization now in use is changed.
- 3 Basically the high frequency air-ground-air communications problems stem from the fact that area coverage is required from a point source and the area to be covered falls in a region of frequent ionospheric disturbances. In the CANLANT area communications are disturbed for as much as 10 days a month making the use of frequency prediction charts impractical. Other factors that adversely affect communications are the inefficiency of the aircraft antenna, its frequent poor orientation, the constantly changing range, and the relatively low power output of the aircraft transmitter. As can be seen from the above, selection of the optimum frequency is mandatory in establishing two way communications between aircraft and ground.
- 4 High frequency communication, unlike other forms of communication, is only accomplished when the proper frequency is selected after taking into account the distance involved and the current state of the ionosphere. Due to ionospheric variations the optimum frequency for communication between two points is constantly changing necessitating several frequency assignments on every circuit. In the case of air-ground-air communications to a single location many assignments are required to compensate for the aircraft's inherent high frequency communications disadvantage. Therefore the Obs/Rad in the aircraft requires many frequency assignments from which to choose the best frequency for communications plus reliable information on which to base his selection. Neither facility is now available to the Obs/Rad.
- 5 The high frequency airborne ionospheric sounding trials taking place this fall and winter are designed to provide reliable information on the most suitable frequencies. If an airborne sounding receiver or similar device is fitted in all Argus aircraft accurate frequency selection information will be available to the Obs/Rad, but under present conditions he still will not have the required range of frequencies at his disposal.
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- (b) the Air Recce Net is the only operational net;
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- (d) it is doubtful if the Convoy Air Support Net would be required during a war because of the reliability of VHF/UHF equipment for ship air communication and the reluctance of the Officer in Tactical Command of a convoy to expose his forces to HF/DF.

It is therefore concluded that in peace and war only two high frequency a/c control nets are required in support of Maritime air forces, namely an Operations Net and a Training Net.

7 A two net plan will fill Canada's NATO Commitment which is to provide high frequency air-ground-air communications in support of NATO Maritime Air Forces. There is no "scale" of communications requirements. The RCAF is now committed to the three net plan but changes to Canadian communications inputs to NATO are adequately covered in ACP 176(B) NATO Supplement No 2 para 102 (a) and NCCP-2 para 101 (a) which states;

Amendments

- (a) the facilities listed in chapters 3, 4 and 6 are made available by the NATO member nations for the use of naval forces and maritime air forces under the operational command of NATO naval commanders and maritime air commanders during wartime and in peacetime NATO exercises. Details of these facilities may often be amended by national authorities before the cognizant NATO Commander is informed. The national authorities are therefore requested to forward details of amendments to facilities provided by them as rapidly as possible through the appropriate NATO Area or Sub-Area Commander to SACLANT for NATO - wide promulgation of such information.

Annex L to LANTCOMPLAN "Communications"- Electronics Facilities Required to Support Assigned Forces also refers.

7 It is planned to establish the Operations Net at Torbay and Halifax with a complement of frequencies from 3 to 24 mc/s. The Training net will have a frequency complement from 3 to 18 mc/s. Financial and manning considerations dictate that only one ground station can be activated for the Training Net and as Greenwood is the alternate MHQ it has been chosen as the ground station. A direct on-line cryptographic teletype will link the Greenwood ground station with Summerside operations. Improvements to the Greenwood ground station will be undertaken to enable it to handle the new role.

8 The two nets will be assigned the following frequencies:

| <u>Operations</u> (Halifax and Torbay) | | <u>Training</u> (Greenwood) | |
|---|------|--------------------------------|------|
| 3081 | Kc/s | 3060 | Kc/s |
| 4745.5 | " | 5690.5 | " |
| 5686.5 | " | 6745.5 | " |
| 6715.5 | " | 8969 | " |
| 8965.5 | " | 11190 | " |
| 11273 | " | 13255.5 | " |

Operations
 (Halifax and Torbay)

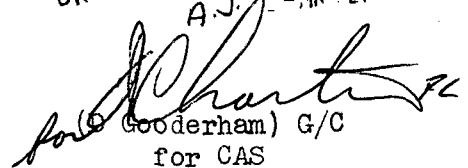
Training
 (Greenwood)

15036 Kc/s
 18020 "
 23250 "

9 The advantages of the above plan are:

- (a) a comprehensive range of frequencies assigned to both the operations and training sides of maritime air command that will enable A/G/A communications during periods when communications are not now possible;
- (b) aircraft will only be required to guard frequencies of one net for both communications and broadcasts facilitating tactical control;
- (c) an ionospheric sounder, or similar device, used in conjunction with these nets will materially reduce out of contact time by enabling the Obs/Rad to use the best frequency;
- (d) the OTC of a convoy can be kept informed of developments through VHF/UHF transmissions or if the distance is too great through normal shore-ship broadcasts;
- (e) in the event of MHQ being destroyed the alternate MHQ will have adequate facilities for A/G/A communication;
- (f) if both the MHQ and the alternate were destroyed tactical control of Summerside a/c could be exercised through Torbay;
- (g) single or multiple transmissions could be made from any ground station;
- (h) improved security will be provided as monitoring stations would be unable to determine the a/c task by the frequency in use;
- (j) traffic loading problems will be reduced as a/c will use the proper frequency for their transmission distance;
- (k) all high frequency assignments will be used thus protecting the RCAF from frequency encroachment by other countries.

10 The above plan, if properly guarded, will provide much more reliable communications over the CANLANT area than are now possible but before it is activated your comments on its operational effectiveness are requested. May your reply be forwarded to AFHQ DCom by 1 Feb 61. In your reply you may assume that adequate staff will be provided to guard these nets.

OR C-22 SIGNED BY
 A.J. CANTERS F/L

 (C. Gooderham) G/C
 for CAS


Action To:--AOC, MACHQ Halifax

MESSAGE FORM

| | | | | | |
|--|---|---|--------------|--|---|
| INDICATE DEGREE OF PRIORITY | | FOR MESSAGE CENTRE USE ONLY | | MARK X TO INDICATE SECURITY CLASSIFICATION | |
| | | <p>"AC" - TO UNIT - SECRET - ONLY - 1971</p> <p>REF</p> | | TOPSEC | |
| OPERATIONAL IMMEDIATE | | | | SECRET | |
| PRIORITY | | | | CONFID | X |
| ROUTINE | | | | RESTD | |
| IF NOT MARKED WILL BE TRANSMITTED DEFERRED | X | FROM | CANAVHED | | |
| | | ACTION ADDRESSEE/S | CANCOMARLANT | | |
| INFORMATION ADDRESSEE/S | | | | | |
| ORIGINATOR'S NO. | | | | | |

YOUR 041850Z. ADDITIONAL CIRCUIT REQUIREMENT NOT UNDERSTOOD IN VIEW
EXISTING ON LINE CIRCUIT MARLANT TO SHELBURNE AND OFF LINE CIRCUIT
TAPE RELAY TO SHELBURNE, REQUEST CLARIFICATION.

51300.166/10



| | | | |
|--|----------------------------|--------------------------------------|----------|
| ORIGINATOR Lt. H. Hargreaves | TELEPHONE 2-3915 | DATE - TIME GROUP 0814-7 Z | FILE NO. |
|--|----------------------------|--------------------------------------|----------|

DEPARTMENT OF NATIONAL DEFENCE

MINUTE SHEET

Referred To

REMARKS

To be signed in full showing Appointment, Telephone Number & Date


DND Com sm
9/11/60

CV. spoke.

EE/C
12/13/60

There appear to be no
technical objections and, of course,
the erection of a fence will
improve security. DND/
Chapman concurs.

2. Attention is invited to
the considerations introduced
in paras 3 & 4 of 1558200-166/0
(EEC) dated 25 Oct 1960.


J. D. N. (see)
P. 11. 60

DND.317

Assumed that DND Com Concurs
ME. 000022

NSS1300-166/10(EEC)

MEMORANDUM TO: DNECOM

CEC

DNI

ALBRO LAKE NAVAL RADIO STATION - MICROWAVE
TOWER RCAF SECURITY FENCE

- References:
- (a) 70-H4 (DCEC) dated 7 October, 1960.
 - (b) NSS1300-166/10, NSS7400-189/163(EEC) dated 20 September, 1960.
 - (c) NSS1300-166/10, NSS7400-189/163(CNTS) dated 1 October, 1960.

There is no technical objection to the security fence proposal outlined in paragraph 3 of Reference (a).

2. The RCN has radio relay equipment fitted at the top of the tower and to which Albro Lake Naval Radio Station personnel must have rapid access at all times.

3. The RCAF requirement is further complicated by the following factors:

- (a) RCMP VHF radio equipment will be housed with the RCAF equipment as requested in Reference (c) Paragraph 2. Therefore RCMP technical personnel must have rapid access to the site.
- (b) The Nova Scotia Department of Lands and Forests have been granted permission to utilize the tower for fire-watching purposes. The reference is not available at this time. For this purpose a manned cupola will be established near the top of the tower. Therefore there is a requirement for designated Department of Lands and Forests personnel to have access to the top of the tower particularly during the fire season.

4. The RCN is currently engaged in a project for the relocation of the radio receiving facilities at Albro Lake Naval Radio Station. However it is anticipated that the RCN will have a requirement for the retention of the Radio Relay Tower for RCN communications within the Atlantic Command. It is to be presumed that a small building, similar to the RCAF building, will be required at the tower base for RCN purposes. Consequently it is undesirable that the site should pass out of RCN jurisdiction either by design or default.

5. DNI is requested to review the RCAF requirement stated in Reference (a).

F. T. Gillespie
(F. T. Gillespie)
Commodore R.C.N.
ELECTRICAL ENGINEER-IN-CHIEF.

O T T A W A,
25 October, 1960.

1311



IN REPLY PLEASE QUOTE

No. 70-H4 (DCEC)

Department of National Defence

OTTAWA, Ont.
7 Oct 60

Ref NSS1300-166/10
NSS7400-189/163 (EEC) 20 Sep 60

A/EEC(E)

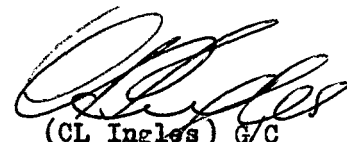
Chief of Naval Staff,
Department of National Defence,
Ottawa, Ontario.

Microwave Link - Completion of Buildings and Towers - Halifax, N.S.

1 The kind permission granted the RCAF to erect microwave relay facilities at your Albro Lake Radio Station is appreciated, and in this regard the construction authority at Maritime Air Command has been instructed to maintain close liaison with your representatives at Halifax and Albro Lake.

2 To avoid introducing new electrical noise sources into the antenna field, action is being taken to install an underground power line from the Albro Lake Road to the RCAF relay hut near the tower base. In addition, the auxiliary power unit located in the relay hut will be driven by a diesel engine.

3 This microwave relay at Albro Lake is an integral part of the maritime communications system and has thus been designated as a "vital point" by the Director of Air Force Security. It is our normal practice to enclose vital points with a seven foot chain link fence topped with three strands of barbed wire, and at Albro the fenced enclosure would have to include the hut and also the tower. This fence, if erected, would be so constructed as to leave free access to the tower until a readiness state is imposed, at which time gates would be closed and RCAF security guards would patrol the enclosure. Under secure conditions RCN personnel would have access to the tower when necessary. It is requested that you advise us if there is any objection on technical or other grounds to our enclosing the hut and the tower with a chain link fence. If you concur, our respective staffs in Halifax could work out the exact positioning of the fence and arrange control of the access gate to their mutual satisfaction.


(CL Inglis) G/C
for CAS

OCT 14 1960 9:25

NSS 1300-166/10
UNSC 7401-660-7 (EEC)

CR(N)PA

2/10

MEMORANDUM TO: ① DNPC *Para 5 is confirmed*
② CNTS *Consur 11/10* *7/10*

RADIO TRANSMITTERS TYPES CGRT-1 AND TH-41B
HARMONIC REDUCTION

Approval is requested for an expenditure of \$3,500.00, in accordance with Secords 36.011, for the procurement of a quantity two 20KW wideband high-frequency transformers and a quantity 200 feet of suitable coaxial cable for interconnecting the transformers.

2. These items are required for engineering a means of reducing harmonic and spurious output from the CGRT-1 and TH-41B radio transmitters at Newport Corners Naval Radio Station and at HMCS ALDERGROVE (transmitting site). Many reports of Radio Regulation infringements are received from the Department of Transport and the U.S. Federal Communications Commission for harmonic and spurious radiation from these stations.

3. It is intended that the successful application of these items will result in engineering of a modification kit for the CGRT-1 and the TH-41B equipments for field installation. The total number of kits which would eventually be required is 46.

4. Should the use of these devices not provide sufficient attenuation then it will be necessary to procure a suitable tunable filter for use with the coaxial cable and wideband transformers.

5. Funds are available in Vote 403 Primary 65 of the 1960-61 estimates.

F.T. Gillespie
(F.T. Gillespie)
Commodore R.C.N.
ELECTRICAL ENGINEER-IN-CHIEF.

O T T A W A,
29 September, 1960.

*Copy retained
in DOLS.
E. Hill
20/10/60*

*SEE EEC
Procurement Requisition
225/60.*

✓NSS1300-166/10
NSS7400-189/163(EEC)

RFD/jc

ORIGINAL DAMAGED

21 September, 1960.

BCAF MICROWAVE LINK
ALBRO LAKE NAVAL RADIO STATION

Reference: (a) NSS1300-166/10, NSS7400-189/163 (EEC) dated
30 September, 1959.

The BCAF microwave radio propagation trials have established that the RCN Albro Lake microwave tower is suitable as a relay site for providing microwave communication between Anderson Square, Halifax, and Mount Uniacke. Reference (a) refers.

2. The BCAF have submitted their preliminary plans to Naval Headquarters for approval. It has been agreed that the BCAF may initiate construction at an early date.

3. It has been requested that the BCAF project engineer establish full liaison with the Officer-in-Charge, Albro Lake Naval Radio Station, and the Manager, Civil Engineering, HMC Dockyard, Halifax. The project engineer is to discuss all plans with the above authorities prior to the start of construction.

NAVAL SECRETARY.

The Flag Officer Atlantic Coast.

cc: Commodore Superintendent,
Atlantic Coast.

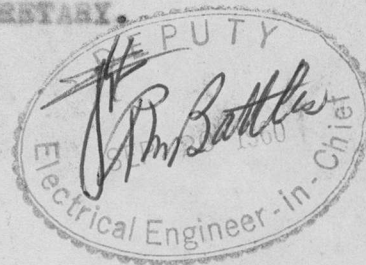
cc: Officer-in-Charge,
Albro Lake Naval Radio Station.

DWCOM

SEC

concur 21-9

) For concurrence before dispatch.



DISPATCHED E.E.C.
DATE SEP 29 1960

000026

ORIGINAL DAMAGED

✓NSS1300-166/10
NSS7400-189/163(EEC)

RFD/jc

20 September, 1960.

RCAF MICROWAVE LINK
ALBRO LAKE NAVAL RADIO STATION

Reference: (a) 70-H4 (CCE) dated 19 August, 1960.

The proposal outlined in reference (a) is satisfactory to the Royal Canadian Navy except as noted below.

2. It is agreed that the Royal Canadian Air Force may proceed with the proposed installation. It is requested that the project engineer establish full liaison with the Officer-in-Charge, Albro Lake Naval Radio Station, and The Manager, Civil Engineering, HMC Dockyard, Halifax. All plans should be thoroughly discussed directly with these authorities prior to the start of construction.

3. The Albro Lake site is a major radio receiving station. Consequently it is undesirable to introduce additional potential electrical noise sources into the antenna field. The generation of man-made noise in the vicinity of this site is already a matter of concern to the Royal Canadian Navy. Accordingly it is requested:

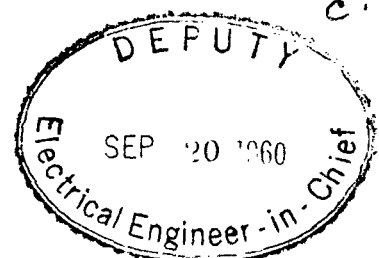
- (a) That all external power supply requirements be provided by means of a suitable buried underground cable. An existing Nova Scotia Light and Power Co. source is available near the main gate at the head of Albro Lake Road.
- (b) That all standby power supply requirements be provided by means of a diesel engine driven generator.

NAVAL SECRETARY.

The Chief of the Air Staff,
Air Force Headquarters,
Ottawa, Ontario.

DISPATCHED E.E.C.
DATE SEP 29 1960

Canoe 26-7
DECOR) For concurrence before dispatch.
CCE
JH



ORIGINAL DAMAGED

UNSS1300-166/10
NSS7400-189/163(EEC)

RFD/jc

8 September, 1960.

RCAP MICROWAVE LINK
ALBRO LAKE NAVAL RADIO STATION

Reference: (a) 70-H4 (CCE) dated 19 August, 1960.

The proposal outlined in reference (a) is satisfactory to the Royal Canadian Navy except as noted below.

2. It is agreed that the Royal Canadian Air Force may proceed with the proposed installation. It is requested that the project engineer establish full liaison with the Officer-in-Charge, Albro Lake Naval Radio Station, and The Manager, Civil Engineering and Maintenance, HMC Dockyard, Halifax. All plans should be thoroughly discussed directly with these authorities prior to the start of construction.

3. The Albro Lake site is a major radio receiving station. Consequently it is undesirable to introduce additional potential electrical noise sources into the antenna field. The generation of man-made noise in the vicinity of this site is already a matter of concern to the Royal Canadian Navy. Accordingly it is requested:

- (a) That all external power supply requirements be provided by means of a suitable buried underground cable. An existing Nova Scotia Light and Power Co. source is available near the main gate at the head of Albro Lake Road.
- (b) That all standby power supply requirements be provided by means of a diesel engine driven generator.

NAVAL SECRETARY.

The Chief of the Air Staff,
Air Force Headquarters,
Ottawa, Ontario.

DNCOM
CCE

For concurrence before despatch.

jit - minor correction.

Rm Battles

(✓) CHECK
SERVICE & ACTION

NAVY

ARMY

AIR FORCE

D.R.B.

ADMIN'VE

PASS

REQUEST

B.F.

T.D. PLACED

ON FILE

000029

M

Action)

FILE NUMBER

Vol. No.

T.D. No.

Indicate Subject on Reverse if No. NOT Known

BRANCH
(Requesting,
B.F. ing or
To Whom
Passed)

DATE

(For B.F. Enter Date Required)

A SEPARATE FORM IS REQUIRED FOR EACH FILE

Signature

Branch

(Indicate also for PASSES)

C.R. 112

50M Pads-6-54 (M-7634-168)

FILE CONTROL FORM

IN REPLY PLEASE QUOTE

No. 70-H4(CCE)

Department of National Defence

ORIGINAL DAMAGED

OTTAWA, Ont.
19 Aug 60

Ref 70-H4(CCE) 16 Jun 60

Chief of the Naval Staff
Department of National Defence, Navy
Ottawa, Ontario

Microwave Link - Completion of Buildings
and Towers, Halifax, N.S.

1. Further to our referenced letter, enclosed is a general specification for the construction of RCAF Adcom Relay Stations, Part II, paras (e), (f), (g), (h), (k), and (n) of which apply to the relay hut which it is proposed to erect near the base of your microwave tower at Albro Lake, N.S. Also enclosed is an "as-built" drawing of a similar installation at Burnaby Mtn., B.C., and a photogrammetric plan of Albro Lake showing the proposed location of the relay hut. This information is forwarded for the approval of your Civil and Electrical Engineers-in-Chief.

2. The electronic equipment, consisting of an RCA Type CW-20 through Repeater and a Microwave Station complete with Cold Start, will be positioned in the hut as shown in the attached RCAF drawing 24351. The remainder of the interior contents are shown on the "as-built" drawing. It will be necessary to construct a 15 foot wide road from your operations building to the hut. This road will be approximately 200 feet long and will be constructed of 1" crushed stone, 6" deep. At the request of your Electrical Engineer-in-Chief provision will be made to bring in power from a commercial source. This will be the subject of further correspondence regarding a right-of-way for a power pole line.

3. As this facility is urgently required to support the RCAF Maritime operation, your prompt consideration of this matter would be greatly appreciated.

MR Whiting
(RB Whiting) A/C
for CAS

REFERENCED LETTER PLACED

1300-166/10
AND PASSED TO TS

Referred

AUG 1960

File No.

1300-166/10

Chat to

FILE NUMBER

**(✓) CHECK
SERVICE & ACTION**

NAVY

ARMY

AIR FORCE

D.R.B.

ADMIN'VE

PASS

REQUEST

B.F.

T.D. PLACED

ON MAIN FILE

M

Action)

000031

Indicate Subject on Reverse if No. NOT Known

BRANCH

(Requesting,
B.F. ing or
To Whom
Passed)

DATE

(For B.F. Enter Date Required)

A SEPARATE FORM IS REQUIRED FOR EACH FILE

Signature

Branch

(Indicate also for PASSES)

FILE CONTROL FORM

C.R. 112
50M Pads-6-54 (M-7634-168)

NSS1300-166/10
NSS7400-189/163(EEC)

FGR/jc

PPH 28/7/60.

21 July, 1960.

MICROWAVE LINKS AT HALIFAX

Reference: (a) 70-H4 (CCE) dated 16 June, 1960.

The Royal Canadian Air Force proposal to mount two microwave dishes atop the Albro Lake tower with consequent repositioning of the existing VHF Antenna is approved. However, it would be appreciated if the following conditions could be applied.

- (a) -- Repositioning of the VHF antenna to the position outlined in RCAF Drawing Number 51222 be carried out by Royal Canadian Air Force personnel.
- (b) The final repositioning be subject to the approval of the Officer-in-Charge Albro Lake Naval Radio Station from operational efficiency aspects.

NAVAL SECRETARY.

Chief of the Air Staff.

~~OEC~~ For concurrence.

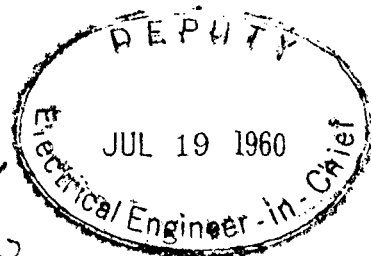
Concur

PHH

28/7/60.
RETURN TO C-2

DISPATCHED E.E.C.
JUL 22 1960
DATE JUL 22 1960

c.L.



000032

FGR/jc

VSS91300-166/10
SS7400-189/163(BEC)

18 July, 1960.

CHIEF OF THE AIR STAFF

MICROWAVE LINKS AT HALIFAX

Reference: (a) 70-M4 (CEC) dated 16 June, 1960.

The Royal Canadian Air Force proposal to mount two microwave dishes atop the Albro Lake tower with consequent repositioning of the existing VHF Antenna is approved. However, it would be appreciated if the following conditions could be applied.

- (a) Repositioning of the VHF antenna to the position outlined in RCAF Drawing Number 51222 be carried out by Royal Canadian Air Force personnel.
- (b) The final repositioning be subject to the approval of the Officer-in-Charge Albro Lake Naval Radio Station from operational efficiency aspects.

CHIEF OF THE NAVAL STAFF

CEC For concurrence.

OK(N) *Pz* [NS1300-166/10
NS7400-189/163
(EEC)]

FGR/jc

24 June, 1960.

RCAF MICROWAVE LINK - HALIFAX -
ALBRO LAKE - MOUNT UNIACKE

Reference: (a) NS1300-166/10, NS7400-189/163(EEC)
dated 30 September, 1959.

Enclosure: (A) Proposed Antenna Mounting Details -
Drawing No. 51222.

The Royal Canadian Air Force microwave link, reference (a) refers, requires a parabolic reflector to be mounted on the Albro Lake Tower which will necessitate the repositioning of the existing VHF antenna to the suggested position marked on Enclosure (A).

2. *St 20* Request that concurrence on RCAF proposal or comments on alternate repositioning be forwarded by message.

B
NAVAL SECRETARY.

Officer-in-Charge,
Albro Lake Naval Radio Station. (With Enclosure)

cc: The Flag Officer Atlantic Coast. (Without Enclosure)

cc: Commodore Superintendent,
Atlantic Coast. (Without Enclosure)

cc: Officer-in-Charge,
Newport Corner Naval Radio Station. (Without Enclosure)

DISPATCHED E.E.C.
DATE JUN 24 1960
ch

Rand
Com - for info & Concurrence before dispatch

000034

DEPARTMENT OF NATIONAL DEFENCE

MINUTE SHEET

| Referred To | REMARKS |
|-------------|--|
| A/CEC(E) | <p data-bbox="252 238 1182 284">To be signed in full showing Appointment, Telephone Number & Date</p> <p data-bbox="283 323 1207 1124">We put an approval stamp (CEC) on the tracing of this dog 51222 and returned same, in person to Mr. J. J. Districh AMC Stelo/Tel CE 7 July 60. We have retained the 1 print which accompanied this letter, in our plan file room.</p> <p data-bbox="862 1047 1182 1370">J A Roberts 8/7/60 6-6739.</p> <p data-bbox="49 1232 283 1401">Noted B 47</p> |

ORIGINAL DAMAGED

Our file ref. 70-H4(CCE)



CANADA

DEPARTMENT OF NATIONAL DEFENCE

ROYAL CANADIAN AIR FORCE

Ottawa, Ont.
16 Jun 60

Ref 952-5-2(DCom) 19 Aug 59
NSS 1300-166/10
NSS 7400-189/163(CNTS) 1 Oct 59
DCom 1484 14 Jun 60

Chief of the Naval Staff,
Department of National Defence, Navy,
Ottawa, Ontario.

Microwave Link Completion of Buildings
and Towers - Halifax, N.S.

Referred to TS.....

JUN 21 1960

File No. 1300-166/10

Chgd to

1 In accordance with the request contained in your referenced letter to the Chief of the Air Staff, enclosed is RCAF drawing number 51222 showing proposed modifications to the RCN microwave tower at Albro Lake, N.S. Subject to the approval of your Civil Engineer-in-Chief and Electrical Engineer-in-Chief, it is the intent of the RCAF to mount two microwave dishes atop this tower to complete the microwave link between MAC HQ and Mount Uniacke, N.S.

2 Associated with the completion of the microwave link is the erection of a 12'x 28' relay hut near the base of the Albro Lake tower. It is regretted that the details of the hut, its electronic equipment and outside services are not enclosed herewith. As soon as it is consolidated this information will be forwarded for approval by your Engineering Staff.

(RB Whiting) A/C
for CAS

~~JUN 5 1960~~

1300-166/10

R 051840Z

FM CANAS

TO RCEPC/CANAVHED

INFO RCEHC/CANFLAGLANT

BT

U N C L A S S I F I E D

REF RADFAC ALASKA CANADA AND NORTH ATLANTIC OF 2 MAY 60 X

REQUEST NEXT EDITION OF RADFACS INCLUDE LISTING FOR RCN RBN IDENT AW,
TRANSMITTING ON 281 MCS AND 534 KCS, CLASS POWER MHW, FACILITY
TO FIELD 344 DEGREES MAGNETIC 3 NM X

2. REF PARA 2 YOUR 032025Z X, THE RELOCATED RADIO RANGE STATION SERVING
HALIFAX INTERNATIONAL AIRPORT IS IDENTIFIED BY CALL HZ X IN VIEW RECENT
CHANGE OF CANAS NAME TO SHEARWATER AND UTILIZATION OF AW RBN AS PRIMARY
LET DOWN AID TO NEW RUNWAY RECOMMEND CONSIDERATION BE GIVEN TO
ESTABLISHING AW AS STATION DESIGNATOR FOR PURPOSES OF FLIGHT
PLANNING AND LISTING AVIATION WEATHER REPORTS AND FORECASTS X

3. PROPOSE AW RBN TOGETHER WITH DT RBN AND XRAY RBN BE DISPLAYED IN
RADFACS IN MANNER SIMILAR TO THAT FOR GREENWOOD WITH AW RBN
OCCUPYING TOP POSITION IN BOX

BT

TOR 081949Z JUN 60

ROUTINE
032025Z -(DNA) RE-ABO 1115-1
DATED 2 MAR 59

no record

DNMS VCNS
SA/CNS ACNS (P)
PPCC ACNS (A&W)
DNCOM
DNPLANS
DNOFS
SOC
DPP
TS (A)
EEC
O/SEC/STAFF
HYDRO

MESSAGE FORM

Document disclosed under the Access to Information Act
Document divulgué en vertu de la Loi sur l'accès à l'informationNSS 1300-166/101 EESQ
NUMBER

26/10

21:59
AWA
CC
21:59

GR

MESSAGE INSTRUCTIONS

PREFIX

SECURITY CLASSIFICATION

UNCLASSIFIED

ORIGINATOR'S NUMBER

PRECEDENCE - ACTION

ROUTINE

PRECEDENCE - INFO

DEFERRED

DATE - TIME GROUP

262125

FROM

CANAVHED

TO

CANAIRHED

INFO

UNCLASSIFIED. YOUR 952-5-2(DCOM) DATED 20 AUG.
SPACE AND POWER ~~IS~~ AVAILABLE AND PROPOSAL ACCEPTABLE.

DN COM FOR CONCURRENCE. 11 26-X

JRB

PAGE 1 OF 1 PAGES

REFERS TO MESSAGE

CLASSIFIED YES ☐ NO ☒

ORIGINATOR'S NAME

H. PALMER/jc

OFFICE

TEL.

(EEC-E2)

20159

RELEASING OFFICER'S SIGNATURE

COPY 2

000038

MESSAGE FORM

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 Document divulgué en vertu de la Loi sur l'accès à l'information
 NSS1300-166/10
 NSS7400-189/163(EEC)

NUMBER

BEST AVAILABLE COPY

15/10

| | | | |
|--|--------------------------------------|------------------------------------|--|
| PRECEDENCE - ACTION DEFERRED | PRECEDENCE - INFO DEFERRED | DATE - TIME GROUP 152206 | MESSAGE INSTRUCTIONS GR |
| FROM CANAVHED | | | PREFIX GR |
| TO CANFLAGLANT | | | SECURITY CLASSIFICATION UNCLASSIFIED |
| INFO COMSUPTLANT | | | ORIGINATOR'S NUMBER |

UNCLASSIFIED. ~~NY~~ NSS1300-166/10, NSS7400-189/163(EEC) DATED
 30 SEP REQUEST REPLY. RCAF DESIRE TO COMPLETE FEASIBILITY STUDY
 WITH FOLIAGE ON TREES.

| | | | | | | | | | |
|--|----------|-------------------|------|--------------------------------------|----------|---------------------------|------|---|--------|
| PAGE 1 OF 1 PAGES | | REFERS TO MESSAGE | | DRAWN BY NAME H. PALMER/jc | | OFFICE (EEC-H2) | | TEL. 2-0159 | |
| CLASSIFIED YES <input type="checkbox"/> NO <input checked="" type="checkbox"/> | | | | | | | | | |
| FOR OPR'S USE | R | DATE | TIME | SYSTEM | OPERATOR | D | DATE | TIME | SYSTEM |
| | | | | | | | | RELEASING OFFICER'S SIGNATURE <i>[Signature]</i> | |

DEPARTMENT OF NATIONAL DEFENCE

MINUTE SHEET

Referred To

REMARKS

To be signed in full showing Appointment, Telephone Number & Date

D/EEG
J.H.
Concurrence
21/10/59

For concurrence please. The attached letter has been redrafted in this office with a view to changing the tone to that of a "request" rather than an "order" as it is addressed to the CAS.

① TS Sec
② A/NAU Sec (EE)

Should this letter go through N.S.(?) despatch to Sec (TS) that 952-2-2-19th Aug 1/10/59 was sent to CNS by CAS. (Goodenham % for CAS)

[Signature]

NSS 1300-166/10
NSS 7400-189/163
(CNTS)

BEST AVAILABLE COPY

1 October, 1959

CHIEF OF THE AIR STAFF

MICRO WAVE LINKS AT HALIFAX

Reference: (a) 952-5-2(D COM) dated 19 August, 1959

The Royal Canadian Airforce proposal to use the micro-wave tower at Albro Lake Naval Radio Station as a micro-wave relay point between Halifax and the Royal Canadian Airforce installations at Mount Uniacke is approved. However, it would be appreciated if the following conditions could be applied: -

- (a) Installation and operation of the RCAF facilities at Albro Lake Naval Radio Station to be carried out on a strict non-interference basis, and the RCAF be prepared to install, as required, additional screening and filters or other necessary modifications to eliminate any spurious omissions.
- (b) It is also requested that installation drawings and specifications be submitted for approval prior to commencement of work and that the final installation be subject to the approval of the Civil Engineer-in-Chief, Royal Canadian Navy, for structural and prime electrical power aspects and the Electrical Engineer-in-Chief, Royal Canadian Navy, for the electronic aspects.

2. It would also be appreciated if space, prime and emergency electric power could be provided in the proposed prefabricated building for a low-power VHF relay transmitter serving the Halifax area Royal Canadian Mounted Police Detachment. Approval has been given the Royal Canadian Mounted Police to proceed with a temporary installation at the top of the Albro Lake micro-wave tower with the final installation dependent upon the results of the Royal Canadian Air Force proposal and final installation.

Rem. P. Equip.

Original Signed By
MARTIN BLAXLAND

✓ NAVAL SECRETARY.

[Handwritten signature]
1007 5 - 1959

HP/NR

NSS 1300-166/10
NSS 7400-189/163(BEC)

30 September, 1959.

CHIEF OF THE AIR STAFF

MICRO WAVE LINKS AT HALIFAX

Reference: (a) 952-5-2(D COM) dated 19 August, 1959.

The Royal Canadian Airforce proposal to use the micro-wave tower at Albro Lake Naval Radio Station as a micro-wave relay point between Halifax and the Royal Canadian Airforce installations at Mount Uniacke is approved subject to the following conditions:

- (a) Installation and operation of the RCAF facilities at Albro Lake Naval Radio Station shall be carried out on a strict non-interference basis. The RCAF shall be prepared to install, as required, additional screening and filters or other necessary modifications to eliminate any spurious emissions.
- (b) Installation drawings and specifications shall be submitted for approval prior to commencement of work.
- (c) The final installation is subject to the approval of the Civil Engineer-in-Chief, Royal Canadian Navy, for structural and prime electrical power aspects and the Electrical Engineer-in-Chief, Royal Canadian Navy, for the electronic aspects.

2. It is requested that space, prime and emergency electric power be provided in the proposed prefabricated building for a low-power VHF relay transmitter serving the Halifax area Royal Canadian Mounted Police Detachment. Approval has been given the Royal Canadian Mounted Police to proceed with a temporary installation at the top of the Albro Lake micro-wave tower with the final installation dependent upon the results of the Royal Canadian Air Force proposal and final installation.

RETYPE

CHIEF OF THE NAVAL STAFF.

1-DN COM)
CEC

for concurrence.



HP/mb

NSS1300-166/10
NSS7400-189/163 (EEC)

BEST AVAILABLE COPY

30 September, 1959.

RCAF MICROWAVE LINK - HALIFAX - ALBRO LAKE -
MOUNT UNIACKE

Reference: (a) CANAVHED 180208Z July, 1959.

The RCAF have a requirement for a microwave link from Anderson Square, Halifax, to the RCAF communications installations at Mount Uniacke. It has been approved for the Albro Lake Microwave Tower to be used as a relay point with parabolic reflectors and coaxial feeders mounted on the tower below the RCN equipment and a prefabricated building erected at the base of the tower to house the equipment and emergency power supply.

2. Subject to confirmation of feasibility of the RCAF proposal by the successful completion of a one month trial operation, it is anticipated that the RCMP equipment, Reference (a) refers, will be transferred to the RCAF prefabricated building.

3. Confirmation by message is requested if space and prime electric power could be made available in the Albro Lake Microwave Tower for the following RCAF equipment for a trial operating period not exceeding one month:

- (a) Standard 19 inch rack - 7 feet high by 20 inches deep.
- (b) Signal level recorder - approximately 2 cubic feet in volume.
- (c) Total power consumption - 500 watts, 110 volt, 60 cps, single phase.
- (d) Total weight of equipment on tower - 600 pounds.

A four foot diameter parabolic reflector will be mounted on the tower. Maintenance and inspection of the RCAF equipment during the trial will be carried out by RCAF personnel from 6CU.

4. The trial and subsequent permanent installation is authorized on a strict non-interference basis to the operation of Albro Lake Naval Radio Station.

NAVAL SECRETARY

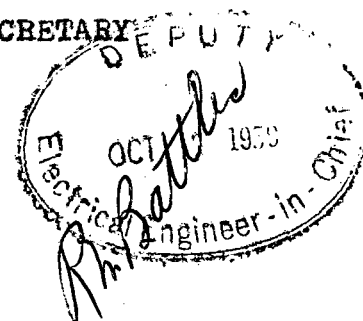
The Flag Officer Atlantic Coast.

cc: Commodore Superintendent Atlantic Coast

cc: Officer-in-Charge,
Albro Lake Naval Radio Station,
Dartmouth, N.S.

cc: Officer-in-Charge,
Newport Corner Naval Radio Station,
Hants County, N.S.

~~DN COM~~
~~CEC~~ - for concurrence



7-10-59
C.D.

000043

H.C. 1024

NAV SERVICE—MINUTE SHEET

FILE No.

REFERRED TO

REMARKS
(WITH SIGNATURE, POSITION AND DATE)

EEC.

Attn: Lt Palmer

Suggest this be
reworded to reflect
a commitment rather
than a proposal.

Shut led.
J. DW Com.

II 23 Apr 59
Reformed letter
amended as recommended

25/9/59

W Palmer
Lt

000044

BEST AVAILABLE COPY

✓NSS 1300-166/10
NSS 7400-189/163
(EEC)

HP/AT

22 September, 1959.

RCAF MICROWAVE LINK - HALIFAX - ALBRO LAKE -
MOUNT UNIACKE

Reference: (a) CANAVHED 180208Z July, 1959.

The RCAF have a requirement for a microwave link from Anderson Square, Halifax, to the RCAF communications installations at Mount Uniacke. It is proposed that the Albro Lake Microwave Tower would be utilized as a relay point with parabolic reflectors and coaxial feeders mounted on the tower below the RCN equipment and a prefabricated building erected at the base of the tower to house the equipment and emergency power supply.

2. Subject to approval and confirmation of feasibility of the RCAF proposal by the successful completion of a one-month trial operation, it is anticipated that the RCMP equipment, Reference (a) refers, will be transferred to the RCAF prefabricated building.

3. Confirmation by message is requested if space and prime electric power could be made available in the Albro Lake Microwave Tower for the following RCAF equipment for a trial operating period not exceeding one month:

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- (b) Signal level recorder - approximately 2 cubic feet in volume.
- (c) Total power consumption - 500 watts, 110 volt, 60 cps, single phase.

A four foot diameter parabolic reflector will be mounted on the tower. Maintenance and inspection of the RCAF equipment during the trial will be carried out by RCAF personnel from 6CU. The total weight of equipment on the tower is approximately 600 pounds.

4. The trial and any subsequent permanent installation will be authorized only on a strict non-interference basis to Albro Lake Naval Radio Station.

NAVAL SECRETARY.

The Flag Officer, Atlantic Coast.

cc: Commodore Superintendent, Atlantic Coast.

cc: Officer-in-Charge,
Albro Lake Naval Radio Station,
DARTMOUTH, N.S.

cc: Officer-in-Charge,
Newport Corner Naval Radio Station,
HANTS COUNTY, N.S.

DN Com
CEC

- for concurrence

000045

MESSAGE FORM

FOR COMMCEN/SIGNALS USE

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| PRECEDENCE - ACTION DEFERRED | PRECEDENCE - INFO DEFERRED | DATE - TIME GROUP 170207 | MESSAGE INSTRUCTIONS |
| FROM CANAVHED | | | PREFIX |
| TO INTERVIEW CANFLAGLIANT | | | GR |
| INFO CHANDLER ALBRO LAKE | | | SECURITY CLASSIFICATION UNCLASSIFIED |
| | | | ORIGINATOR'S NUMBER |

UNCLASSIFIED, REFERENCE ^{YOUR} AC 7400-1 VOL. 4 DATED 2 JUN. REQUEST
CONFIRMATION SPACE COULD BE MADE AVAILABLE IN MICROWAVE HUT
AT TOP OF TOWER FOR TEMPORARY INSTALLATION OF RCMP EQUIPMENT.

| | | | | | | | | | |
|--|---|-------------------|------|----------------|----------|--------|------|-------------------------------|--------|
| PAGE 1 OF 1 PAGES | | REFERS TO MESSAGE | | DRAFTER'S NAME | | OFFICE | | TEL. | |
| CLASSIFIED YES <input type="checkbox"/> NO <input checked="" type="checkbox"/> | | LT.(L)H.PALMER | | EEC/E2 | | 2-0159 | | | |
| FOR OPR'S USE | R | DATE | TIME | SYSTEM | OPERATOR | D | DATE | TIME | SYSTEM |
| | | | | | | | | RELEASING OFFICER'S SIGNATURE | |

DEPARTMENT OF NATIONAL DEFENCE

MINUTE SHEET

NSS-1300-166/10

REMARKS

Referred To

To be signed in full showing Appointment, Telephone Number & Date

EEC

EN

REQUEST NECESSARY ACTION PRIOR
TO D.N. COM CONCURRENCE.

J. Dugan
for D.N. Com
24/8

II

NSS 1300-166/10, 7400-189/163 (EEC)
dated 22 Sept 59 *ufen*

16-9-59.

J. Dugan
for EEC

NSS-1300-166/10

66430

952-5-2(DCom)

MEMORANDUM

20 Aug 59

Ref 952-5-2(DCom) 4 Jun 59
NSS 1300-166/10(Staff) 27 Jul 59

INCom

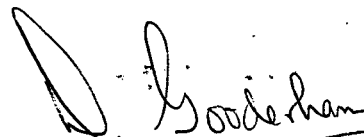
Microwave Link at Halifax

1 In connection with the feasibility study proposed in reference (a), the RCAF desire to install a test link between Anderson Square and your installation at Albro Lake, to confirm that a usable microwave path exists between these two locations. It is proposed that the test link operate for a period of about one month.

2 The equipment for the Albro Lake end of the link will consist of one standard 7 foot rack of RCA CW20A microwave equipment, a 4 foot parabolic antenna and coaxial feeder, and a signal level recorder. My staff have discussed this matter with Lt. H. Palmer of EEC Staff and he indicated that space and power can be provided in the microwave hut. Permission is, therefore, requested to install the equipment in your Albro Lake microwave building.

3 The equipment will be operated and maintained by RCAF personnel from 6CU. It is expected that after the equipment is installed, one technician would inspect the equipment on a routine twice weekly basis.

4 Your early concurrence with the arrangements outlined above would be appreciated.



(D Gooderham) G/C

DCom
25302

DEPARTMENT OF NATIONAL DEFENCE

MINUTE SHEET

Referred To

REMARKS

To be signed in full showing Appointment, Telephone Number & Date

EEC

THERE IS ANOTHER LETTER IN
REC ON THIS SUBJECT ON A
SEPARATE STAFF DOCKET,
SUGGEST IT BE MARRIED
WITH THIS AND THE
WHOLE PROJECT CONSOLIDATED.

IT APPEARS THAT

CEC MUST BE CONSULTED
IN THIS AT THIS STAGE,

REQUEST COMMENTS

II

[Signature]
[Signature]

NSS 1300-166/10

7400-139/163 (EEC)

dated 30 Sept. 59 mps

16-4-59

1/10/59 Lt P.E.2

26/000049

Our file ref. 952-5-2(DCom)



DEPARTMENT OF NATIONAL DEFENCE

ROYAL CANADIAN AIR FORCE

Ottawa Ont
19 Aug 59.

Ref 952-5-2(DCom) 4 Jun 59
NSS 1300-166/10(Staff) 27 Jul 59

Chief of the Naval Staff,
Naval Service HQ,
Ottawa, Ont.

Communications - Microwave Links at Halifax

1 The RCAF has a requirement to provide a microwave link between its units in South Halifax and its receiving and transmitting stations at Mount Uniacke. The route which had been chosen for this link must now be abandoned and another one found because Halifax civic officials object to the erection of a tower in the area proposed, ie, Anderson Square. The results of an engineering study indicate that it will be feasible to re-route the link via a repeater station located at Albro Lake if this plan is acceptable to your service.

Dn com
2 In discussions between members of our respective staffs it was determined that the RCAF antennas and transmission lines could be mounted on your microwave tower but space and power for the electronic equipment could not be provided by the RCN. If you concur, the RCAF will arrange to erect a small prefabricated building in a suitable area close to the tower, to house the repeater equipment. The building will be approximately 12' X 28' in base dimensions.

3 Your approval is requested for the proposed RCAF microwave repeater installation at Albro Lake and for the use of RCN facilities as outlined above.

Referred to... *Staff*
AUG 1959
File No... *1300-166/10*
Chgd to.....

D. Gooderham
(D Gooderham) G/C
for CAS

C O P Y

NSS 1300-166/10 (Staff)

SA# 2110



MEMORANDUM TO: D COM

MICROWAVE LINK AT HALIFAX

Reference: (a) 952-5-2 (D Com) dated 4 June, 1959.

The project officers for the feasibility study proposed in reference (a) will be as follows:

Lt. H. Hargreaves, Staff DN Com - Traffic Implications

Lt. H. Palmer Staff EEC - Technical Implications.

Original signed by

(D.C. Rutherford)
Commander, RCN,
DIRECTOR OF NAVAL COMMUNICATIONS.

OTTAWA 27 July, 1959.

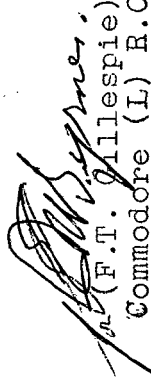
1
NSS 1300-166/10(EEC)

MEMORANDUM TO: DN/COM

MICROWAVE LINK AT HALIFAX

Reference: (a) NSS 1300-166/10 DN/COM
dated 19 June, 1959.

Lt H. Palmer has been designated as project
officer for EEC.


(F.T. Gillespie)
Commodore (L) R.C.N.
ELECTRICAL ENGINEER-IN-CHIEF.

O T A W A,
29 June, 1959.

NSS 1300-166/10

MEMORANDUM TO: EEC 

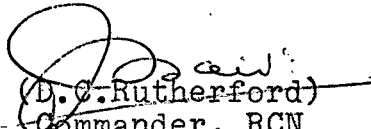
MICROWAVE LINK AT HALIFAX

Reference: (a) NSS 1300-166/10 D Com 952-5-2
dated 4 June, 1959.

It is considered that the project
in reference (a) could be of advantage to the
RCN.

2. The project officer for DN Com
would be Lt. H. Hargreaves. In view of the
technical ramifications of this proposal, it
is requested that an officer from EEC be
nominated.

3. On receipt of the name of the
project officer for EEC a reply will be made
to D Com.


(D.C. Rutherford)
Commander, RCN
Director of Naval Communications

OTTAWA,
19 June, 1959.

000053

NSB-1300-166/10
952-5-2(DCom)

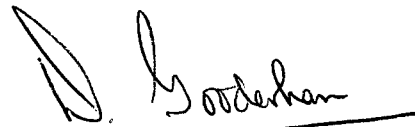
MEMORANDUM

4 Jun 59

DN Com

Communications - Microwave Links at Halifax

- 1 The RCAF has a requirement to provide a microwave link between its units in South Halifax and its Receiving and Transmitting Stations at Mount Uniacke. The route which had been chosen for this link will have to be abandoned and another ~~one~~ found because Halifax Civic Officials object to the erection of a tower in the area proposed, i.e. Anderson Square. It may be possible to re-route the link using some RCN facilities if it is acceptable to your service.
- 2 It is understood that the RCN has a 200 to 250 foot tower at Albro Lake across the harbour from the RCAF units in South Halifax. From a cursory map study it appears practicable to route the circuit from the Maritime Air Command HQ on South Street to the tower at Albro Lake and then on to Mount Uniacke. In an unofficial discussion members of our respective staffs came to the conclusion that it would be worth while to go into more detail to determine if re-routing via the Albro Lake tower is in fact technically feasible.
- 3 It is proposed that microwave experts of our respective staffs should do an engineering study of the route from South Halifax to Uniacke through Albro Lake and report on its feasibility. In doing the study it is suggested that the staff should take into account the future interim and permanent MHQs; there may be considerable advantage in doing so. If you agree to my proposal would you nominate an officer who my staff may contact. If the outcome of the study confirms the cursory examination the RCAF will of course make a formal request for use of your facilities addressed to CNS.



(D Gooderham) G/C
DCom
25302

MESSAGE FORM

NUMBER

10/3

MAR 10 12 31

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|---|--------------------------------------|--------------------------------------|--|
| PRECEDENCE - ACTION DEFERRED | PRECEDENCE - INFO DEFERRED | DATE - TIME GROUP 10 2 108 | MESSAGE INSTRUCTIONS |
| FROM CANAVHED | | | PREFIX |
| TO NEWPORT CORNER MBS | | | SECURITY CLASSIFICATION UNCLASSIFIED |
| INFO CANFLAGLANT ALBRO LAKE | | | ORIGINATOR'S NUMBER |

UNCLASSIFIED. CARE IS TO BE TAKEN TO ENSURE THAT HF FACSIMILE TRANSMISSIONS COMPLY WITH THE FOLLOWING

- (A) MAX SHIFT - 800 CPS (PLUS/MINUS 400CPS FROM ASSIGNED FREQUENCY)
- (B) LOWER FREQUENCY WHITE
- (C) UPPER FREQUENCY BLACK

DN

COM for concurrence

| | | | | | | | | | |
|--|------|-------------------|--------|--|------|--------------------|--------|----------------|---|
| PAGE 1 OF 1 PAGES | | REFERS TO MESSAGE | | DRAFTER'S NAME <i>10/3</i> LT(L)H. Palmer/lm | | OFFICE (EEC-E2) | | TEL. 2-0159 | |
| CLASSIFIED YES <input type="checkbox"/> NO <input checked="" type="checkbox"/> | | | | | | | | | |
| FOR OPR'S USE R | DATE | TIME | SYSTEM | OPERATOR | DATE | TIME | SYSTEM | OPERATOR | RELEASING OFFICER'S SIGNATURE <i>[Signature]</i> |

Directorate of Naval Communications.

NSS 1300-166/10 (STAFF)

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ED/sb

ROYAL CANADIAN NAVY

Canada,

BEST AVAILABLE COPY

9 March, 1959.

Dear Sir:

MARINE FACSIMILE TRANSMISSIONS

With reference to your letter 9182-1 (RAC) dated 4 February, 1959, instructions have been forwarded to Halifax Radio (CFH) to ensure that, in facsimile transmissions, black is transmitted on the upper frequency and white on the lower frequency. This procedure is consistent with Canada - United Kingdom - United States military standards which also call for a 800 CPS shift.

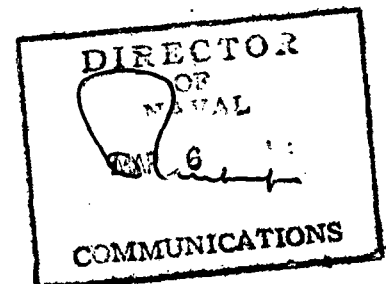
Yours truly,

NAVAL SECRETARY

Director General, Air Services,
Department of transport.

EEC - for concurrence, please.

To File
For Despatch
Date MAR 14 1959
Initials AR



MEMORANDUM TO: DN COM

FACSIMILE TRANSMISSIONS

References: (a) DOT letter 9182-1 (RAC) dated
4 February, 1959.
(b) NSS 1300-166/10 (Staff) dated
13 February, 1959.
(c) CGO Part III Com A1.
(d) MIL-STD-188A, 25 April, 1958,
Military Standard Military Communication
Technical Standards, Department of Defence
USA.

The following comments on Reference (a) are forwarded
as requested by Reference (b):

- (i) The Fleet Meteorological Broadcast, Circuit Bl-3
(Lima Papa) transmits with a 800 cps (\pm 400 cps
from assigned frequency) shift. The lower frequency
is "white" and the upper frequency "black".
- (ii) The above characteristics should be included with
the notes following Bl.3(iv) Facsimile Schedules,
page 23, of Reference (c).
- (iii) The reversal of sense reported in paragraph (1) of
Reference (a) is possibly the result of
 - (a) insufficient promulgation of correct
facsimile transmission characteristics
 - (b) carelessness on the part of CFH.
- (iv) It is very likely that the transmissions from CFH
have been inconsistent with the transmission
characteristics quoted in (i) above. The BFO
controls on current RCN receivers make it a simple
matter to tune above or below the incoming signal
which effectively changes the black/white - upper/
lower frequency relationship. It is understood
the DOT facsimile receivers are crystal controlled
in the BFO stage and hence are not easily adjusted
if the transmissions are reversed from normal sense.
- (v) No record is held of a NATO standardization agreement
of Facsimile characteristics however, Reference (d)
is considered to be a reasonable substitute until a
NATO agreement is promulgated. The facsimile
characteristics quoted in para. (i) above comply
with Reference (d), paragraphs 3.5.3.3.7.2 and
3.7.4 RCN facsimile equipment is flexible within
reasonable limits and can comply with any transmission
or reception characteristics currently being considered.

.../2

-2-

- (vi) It is considered the DOT should reduce their facsimile shift from 1000 cps on radio circuits to 800 cps to provide a more standard facsimile service.


(F.T. Gillespie)
Commodore (L) R.C.N.
ELECTRICAL ENGINEER-IN-CHIEF.

O T T A W A,
27 February, 1959.

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NAVAL SERVICE—MINUTE SHEET

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NSS 1640-14 (STAFF)

FILE No NSS 1300-166/10

SD # 754 (STAFF)

REFERRED TO

REMARKS

(WITH SIGNATURE, POSITION AND DATE)

DIWS

A CW facility can be provided.

2. It is noted that all NATO FAX, RATT and CW meteorological information must be transmitted on one broadcast.

3. There are no plans to implement either CW or RATT transmissions at the present time.

Original Signed by:
(B. C. RUTHERFORD)
Commander, RCN

DIRECTOR OF NAVAL COMMUNICATIONS.

OTTAWA,
2 February, 1959.

SECRET

000059

SECRET

NSS 1640-14 (Staff)

NSS 1300-166/10 (Staff)

MEMORANDUM TO: DN COM


NATO METEOROLOGICAL COMMUNICATIONS PLAN

Reference: NSS 1640-14; NSS 1300-166/10 dated 14 January 1958.

The above reference provided a status report as of 1 February 58 regarding RCN Communication facilities supporting the NATO Meteorological Communications plan, SGM 467-57. A Canadian report on the status as of 1 February 1959 is required and an enquiry has been received from the meteorologist attached to the Joint Staff.

2. The status appears to be unchanged except for the CW facility to provide synoptic data. (para 2.214 of SGM 467-57). If this facility is now available the present status appears to be "The facility is available but there are no plans to implement the routine broadcast of this synoptic data".

3. Comments of DN Com are requested please.


(W.F. Ganong).
DIRECTOR OF NAVAL WEATHER SERVICE.

OTTAWA,
27 January, 1959.

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H.Q. 1024

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AL SERVICE—MINUTE SHEET

FILE No. NSS 1300-166/10
(STAFF)

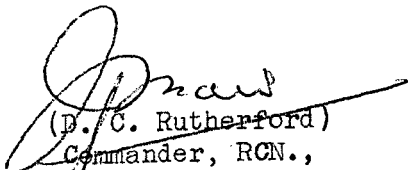
REFERRED TO

REMARKS

(WITH SIGNATURE, POSITION AND DATE)

EEC

Request your comments on
DOT report on CTH facsimile trans-
missions.


(D. C. Rutherford)
Commander, RCN.,
DIRECTOR OF NAVAL COMMUNICATIONS.

OTTAWA,
13 February, 1959.

000061

(CIVIL, MET, TELECOMMUNICATIONS,
LOGICAL AND CONSTRUCTION
BRANCHES)



IN REPLY --
QUOTE FILE NUMBER

9182-1 (RAC)

DIRECTOR GENERAL, AIR SERVICES
DEPARTMENT OF TRANSPORT
OTTAWA, CANADA

February 4, 1959.

11-2
Attention: Director of Naval Communications

Dear Sir:

Marine Facsimile Transmissions

1. During the setting up of our facsimile receiving equipment aboard the icebreaker C.G.S. "LABRADOR" last December, it was noted from attempts to copy station CFH in Halifax that a transposition of the receiving sense was necessary in order to obtain normal maps. Our radio transmitter frequency shift sense has always been higher frequency representing black while the lower frequency corresponds to white map background, which is the converse to your transmissions from Halifax.
2. We believe that our systems should be more compatible, particularly since similar ice reports are broadcast. Our equipment consists essentially of crystal controlled receivers and a Northern Facsimile Converter which does not easily lend itself to a sense reversal without a complete re-adjustment of the receiver-BFO which, because of the time required to accomplish this, could lead to loss of charts. It is our intention to overcome this lack of versatility, however, a common transmitting sense would be to our mutual advantage.
3. Our transmissions are made with a total shift of 1000 cycles whereas it is understood that a shift of 800 cycles is used at "CFH". This difference would denote a slight loss in contrast with equipment having been previously set to 1000 cycles shift. This difference is not considered serious.

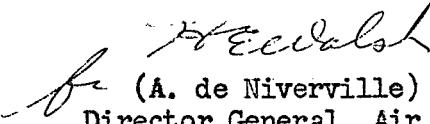
Chief of the Naval Staff,
Department of National Defence,
O T T A W A,
Ontario.

| | |
|------------------|-------------|
| Referred to..... | Staff |
| File No..... | 1300-166/10 |
| Chgd to..... | 000062 |

- 2 -

4. May we please receive your views on this matter and whether you would consider reversing your facsimile transmitting sense.

Yours very truly,


(A. de Niverville)
Director General, Air Services

HP/mb

✓ NSS1300-166/10 (EEC)

4 February, 1958.

U.H.F. HARBOUR COMMUNICATION HALIFAX

References: (a) AC 7400-112/1 dated 15 January, 1958.

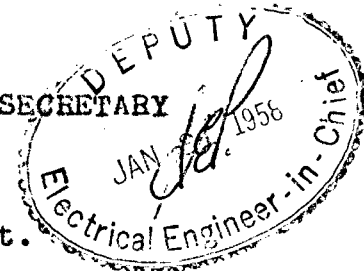
(b) CSAC 7401-200 Vol. 4 dated 6 January, 1958.

The proposals outlined in paragraph (1) of
Reference (b) are approved as requested in Reference (a).

Flag Officer Atlantic Coast.

cc: Commodore Superintendent Atlantic Coast.

P. L.
NAVAL SECRETARY



DISPATCHED EEC
DATE *7.2.58*

000064



CANADA

Department of National Defence

Royal Canadian Navy

Office of Flag Officer Atlantic Coast
H.M.C. Dockyard, Halifax, Nova Scotia

IN REPLY PLEASE QUOTE

NOAC:7400-112/1.....

15 January, 1958

UHF HARBOUR COMMUNICATION HALIFAX

Reference (a) CSAC 7401-200 Vol. 4 of 6 January, 1958 *(→) 1300-166/1 O.F.-CEC*

Submitted for the consideration of Naval Headquarters. *E2*

2. In view of the continued favourable results, it is recommended that the proposals outlined in paragraph 1 of reference (a) be approved.

3. It is estimated that the final survey of the harbour approaches will be undertaken in March, 1958.

Allen
REAR ADMIRAL

The Naval Secretary,
Department of National Defence,
Ottawa 4, Ontario.

Copy to: The Commodore Superintendent Atlantic Coast. *EEC*

| |
|-----------------------------------|
| Referred to..... <i>EEC</i> |
| JAN 23 1958 |
| File No. <i>1300-166/10</i> |
| Chgd to..... |

000065

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Directorate of Naval Communications

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NSS 1640-14
NSS 1745-166/10 ✓
14 January, 1958

CHAIRMAN, CHIEFS OF STAFF

REPORT TO METEOROLOGICAL COMMUNICATIONS PLAN

Reference (a) CSC 1709-1 (Met) dated 6 December, 1957.

The Royal Canadian Navy accepts the responsibility for providing the meteorological broadcasts as set forth in the Enclosure to SCN 467-57.

2. As of 1 February 1958, the status of readiness of facilities for which responsibility is accepted is as follows:-

- | | |
|------------|---|
| Para 2.135 | available and in operation |
| 2.214 | it is not intended to implement this broadcast but the facility is expected to be available in late 1958. |
| 2.215 | available and in operation |
| 2.221 | available and in operation but on Primary Fleet Broadcast |

By
J. G. DeWOLF
Chief of Naval Staff

(H. G. DeWolf),
Vice-Admiral, RCN,
Chief of the Naval Staff.

SECRET

Despatched to
N. Sec.

Date
Time

DA
14.1

000066

CSAC 7401-200 Vol. 4

DEPARTMENT OF NATIONAL DEFENCE
Royal Canadian Navy

Commodore Superintendent Atlantic Coast

ORIGINAL DAMAGED

JAN 6 1958

UHF HARBOUR COMMUNICATION HALIFAX
PROPAGATION SURVEY

Reference: (a) NSS 1300-166/10 EEC dated 26 August, 1957.
(b) AC 7400-112/1 dated 13 September, 1957.

Submitted for consideration that, in view of the favourable results obtained in the preliminary operational survey reported in reference (b), the specification mentioned in para. 3 of reference (a) be delayed until the report of the comprehensive survey noted in para. 4 of reference (b) has been received and evaluated.

2. If the results of this survey bear out the favourable results obtained in the preliminary survey, it is felt that the comprehensive propagation survey referred to in reference (a) might not be required.

(J. MacGillivray)
COMMODORE (E)

Flag Officer Atlantic Coast.

Copy to: The Naval Secretary,
Department of National Defence,
Ottawa 4, Ontario.

*Correspondence received
in C.R. torn*

Referred to EEC
JAN 7 1958
File No 1300-166
Chgd to

000067

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|---------------------------------------|--------------------------------------|------------------------------------|--|
| PRECEDENCE - ACTION ROUTINE | PRECEDENCE - INFO DEFERRED | DATE - TIME GROUP 302114 | MESSAGE INSTRUCTIONS |
| FROM CANAVHED | | | PREFIX GR |
| TO ADMIRALTY | | | SECURITY CLASSIFICATION UNCLASSIFIED |
| INFO | | | ORIGINATOR'S NUMBER |

DSD FROM DN COM X YOUR 231756Z X

SECTION WA ARTICLE 4 X

DELETE PARA (V) AND SUBSTITUTE

BROADCAST LR X CONTINUOUS RATT X HOURLY ROUTINE 00-55 MINUTES TRAFFIC TRANSMISSIONS

WITH RE-RUNS X 55-00 CALL TAPE X SERIES NUMBERS LRI AT 0001Z FIRST OF MONTH AND

CONSECUTIVELY TO 2359Z LAST OF MONTH X NO ONE, TWO OPERATOR OR GENERAL PERIODS X

SPEED 45 BAUDS

| | | | | |
|---|-------------------|---|-------------------------|-----------------------|
| PAGE 1 OF 1 PAGES | REFERS TO MESSAGE | DRAFTER'S NAME LCDR R.M. Dunbar | OFFICE DN COM | TEL. 6-6148 |
| CLASSIFIED YES <input type="checkbox"/> NO <input type="checkbox"/> | | | | |
| FOR CDR'S USE R | DATE | TIME | SYSTEM | OPERATOR D |
| RELEASING OFFICER'S SIGNATURE <i>[Signature]</i> | | | | |

ORIGINAL DAMAGED

R 302114Z
FM CANAVHED
TO ADMIRALTY
BT

ROUTINE

NSS 1300-166/10

231756Z RE REQUEST AMENDMENT
AFC SI/57 ARTICLE 4 SECTION WA

VCNS
ACNS (2401)
PPCC
D/SEC/
STAFF
SA/CNE
DNCOM

DSD FROM DN COM X YOUR 231756Z X

SECTION WA ARTICLE 4 X

DELETE PARA (V) AND SUBSTITUTE

BROADCAST LR X CONTINUOUS RATT X HOURLY ROUTINE 00-55 MINUTES

TRAFFIC TRANSMISSIONS WITH RE - RUNS X 55-00 CALL TAPE X SERIES

NUMBERS LR1 AT 0001Z FIRST OF MONTH AND

CONSECUTIVELY TO 2359Z LAST OF MONTH X NO ONE CMM TWO OPERATOR

OR GENERAL PERIODS X SPEED 45 BAUDS

BT TOU 302128Z DEC 57

IN REPLY PLEASE QUOTE

Department of National Defence

NO. AC 7400-112/1

Royal Canadian Navy

FLAG OFFICER, ATLANTIC COAST

7262

ORIGINAL DAMAGED

Halifax, Nova Scotia,

13 September, 1957

UHF HARBOUR COMMUNICATION HALIFAX
PROPAGATION SURVEY

Reference: (a) AC 7400-112/1 dated 3 June 1957
(b) CANAVHED 121835Z June 1957
(c) NSS 1300-166/10 (EEC) dated 26 August 1957

Submitted for the consideration of Naval Headquarters in accordance with reference (c).

283.4
Mc/s.

2. A preliminary operational survey by H.M.C. Ships ST. LAURENT and SIOUX indicates adequate coverage on the UHF Harbour Common Circuit in the Bedford Basin, Halifax Harbour, and harbour approach areas.

3. The harbour itself, which was the area most extensively investigated during these operational trials, would appear to have very satisfactory coverage. The survey of Bedford Basin included mainly the anchorage area. During the survey of the harbour approaches, ST. LAURENT maintained excellent communications to a point four miles southeast of SAMBRO LIGHT VESSEL, approximately twenty miles from the terminal installation in the Dockyard Signal Tower.

4. A comprehensive survey has not yet been possible due to the operational commitments of suitable UHF - fitted ships. It is anticipated that a unit will be made available to complete the survey, particularly the CHEBUCTO HEAD - OSBORNE HEAD areas, in the near future. A more comprehensive report will be rendered at that time.

The Naval Secretary.

(Copy: Commodore Superintendent Atlantic Coast.)

Referred to Staff

SEP 13 1957

File No. 1300-166/10

Chgd to 28.2.57

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✓ NSS1300-166/10(SEC)

RFD/dg

26 August, 1957.

UHF HARBOUR COMMUNICATION HALIFAX
PROPAGATION SURVEY

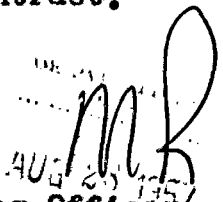
References: (a) AC 7400-112/1 dated 3 June, 1957.
(b) CANAVHED 121835Z, June, 1957.

Reference (b) approved the interim harbour UHF radio installation as recommended in Reference (a).

2. It is requested that a summary of the operational results obtained with this installation together with any additional recommendations and changes to requirements be forwarded to Naval Headquarters. A final decision will then be made concerning the necessity of obtaining engineering field services under contract.

3. In connection with contractual action it is essential that the specification mentioned in paragraph 3 of Enclosure (A) to Reference (a) be forwarded since it is a basic contract document and forms the basis for tendering.

4. It is envisaged that the Manager Electrical Engineering would be the design authority responsible for technical supervision and co-ordination under any resulting contract.


AUG 25 1957
The Flag Officer,
Atlantic Coast.

cc: Commodore Superintendent,
Atlantic Coast.


NAVAL SECRETARY
AUG 25 1957

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SECRET

1300-166/10
(Staff)
PPA
PA 15/8/57 RJP

ROYAL CANADIAN NAVY

Canada,

13 August, 1957

SC# 2-604

COMMUNICATION STAFF REQUIREMENTS
HALIFAX RADIO STATION

The attached Communication Staff Requirements have been approved in principle to indicate the envisaged form that Halifax Radio should take and they therefore serve as a guide for planning purposes.

2. These staff requirements are forwarded for information and should in no way be construed as either authorization for alteration of existing facilities or the procurement of additional equipment.

LSS
NAVAL SECRETARY.

Flag Officer Atlantic Coast.

Copies to: Officer-in-Charge,
Albro Lake Naval Radio Station.

Officer-in-Charge,
Newport Corner Naval Radio Station.



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NSS 1300-166/10

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COMMUNICATION STAFF REQUIREMENTS

HALIFAX RADIO STATION

Introduction

This pamphlet, entitled "Communication Staff Requirements for Halifax Radio", having been approved by competent authority, is promulgated to indicate the desired form that the communication facilities should take in order that those involved may have a basis for planning.

2. These staff requirements may be changed from time to time as added requirements arise and technological advances make it advantageous to change the facilities.

Definitions

3. For the purpose of these staff requirements, transmitter power is defined as follows:

| | |
|--------------|------------------|
| Low power | up to 1000 watts |
| Medium power | 1 KW to 5 KW |
| High power | over 5 KW. |

Abbreviations

| | | |
|----|--------|---|
| 4. | DFS | Double frequency shift |
| | DIR | Directional antenna |
| | DIV | Diversity receiving arrangements |
| | DPX | Duplex |
| | SSB | Single sideband |
| | 0.1A1 | CW |
| | 0.6F1 | 60 w.p.m. single channel RATT (low frequency) |
| | 1.08F1 | 60 w.p.m. single channel RATT (high frequency) |
| | 1.3F1 | Double frequency shift (2 channel RATT) |
| | 6A9C | Single sideband (6 channel tele- type) |
| | F9 | Scatter |
| | 4F4 | Facsimile. |

5. In order to ensure maximum flexibility for the allocation of equipment, all HF transmitters to be procured in future shall be capable of, or modification to, 0.1A1, 1.08F1, 6A9C and 4F4 emission.

6. Halifax Radio consists of a transmitting site at Newport Corner and a receiving site which is at present at Albro Lake, but which it is intended to move to a site outside the Halifax area.

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COMMUNICATION STAFF REQUIREMENTS

HALIFAX RADIO

1. Purpose
 - (a) To transmit communication traffic to ships at sea.
 - (b) To receive communication traffic from ships at sea.
 - (c) To act as a terminal for point-to-point radio services.
2. Radio Facilities

See Appendices "A" and "B".
3. Cryptographic Facilities

As appropriate.
4. Transmitter Site,
Receiver Site Intercommunication

Cable and alternative microwave systems enabling all transmitters required for circuits in Appendices "A" and "B" to be keyed from the receiving site, and to provide adequate order facilities.
5. Antennae

An efficient integrated antenna system to handle all circuits in Appendices "A" and "B".
6. Emergency Power Arrangements

Power sources at the transmitter and receiving sites capable of operating all equipment independent of main local power but with the proviso that the main LF transmitter is operated at reduced power.
7. Receiver Site Intercom
 - (a) Office intercommunication.
 - (b) Bay intercommunication.
8. Transmitting Site Intercom

Office intercommunication.
9. Landlines

The principle of terminating all RATT fixed services in the Halifax Major Tape Relay Centre shall be adhered to whenever possible.

 - (a) Teletype
 - (i) 1 Duplex - Receiving Station to Halifax Major Tape Relay Centre.
 - (ii) 1 Duplex - Receiving Station to Halifax Major Tape Relay Centre (M Day).

SECRET

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9. cont'd

(iii) 1 Simplex - Receiving
Station to Washington
Radio (NSS) (M Day)
(NA 55).

(b) Keying Lines

(i) 15 Duplex between Receiving
Station and Halifax
Major Tape Relay Centre.
(See also paragraph 4).

(ii) 3 Simplex - Receiving
Station to MHQ.

(c) Telephone

Adequate for administrative and
operational requirements.

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FIXED SERVICES HALIFAX RADIO

| LINE | SERVICE | TRANSMITTING CHANNELS | | EQUIPMENT | DISTANCE | FREQ. OR FREQ RANGE | TYPE OF EMISSION | | TRANSMITTING ANTENNA | RX. CHANNELS | RX. ANTE. |
|------|-----------------------------|--------------------------|-------------|-----------|---|---------------------|---------------------|-----|----------------------|--------------------------|-----------|
| | | PEACE | WAR | | | | PEACE | WAR | | | |
| A 1 | WHITEHALL | 6(SSB)(DPX) | 6(SSB)(DPX) | 1HP H/F | 4300 KM 2510 MI | 4-30 MCS | O.I.A.I. A 9C | DIR | | 6(ICW BAY) | DIV DIR |
| A 2 | GRONNEDAL | 1(DPX) | 1(DPX) | 1MP H/F | 2200 KM 1275 MI | 4-30 MCS | O.I.A.I. 1.08 FI | DIR | | 1 CW BAY | DIR |
| A 3 | OTTAWA | 2 (DFS) | 2 (DFS) | 1MP H/F | 926 KM 526 MI | | 1.3 FI O.I.A.I. | DIR | | 2(ICW BAY) | DIV DIR |
| A 4 | VANCOUVER | 2(DFS) | 2(DFS) | 1HP H/F | 4000 KM 2429 MI | 4-30 MCS | 1.3 FI O.I.A.I. | DIR | | 2(ICW BAY) | DIV DIR |
| A 5 | BERMUDA | | 1 (DPX) | 1MP H/F | 1200 KM 700 MI | 4-20 MCS | | DIR | | 1(CW BAY) | DIV DIR |
| A 6 | ST. JOHN'S. NF | | 1(DPX) | 1MP H/F | 842 KM 468 MI | 2-12 MCS | | DIR | | 1(CW BAY) | DIV DIR |
| A 7 | GULF NRS | | 1(DPX) | 1MP H/F | NK | 2-12 MCS | | DIR | | 1(CW BAY) | DIR |
| A 8 | ARGENTIA | 1(SPX) | 1(SPX) | 1MP H/F | 800 KM 420 MI | 2-12 MCS | O.I.A.I. | DIR | | 1(CW BAY) | DIR |
| A 9 | WASHINGTON OR NORFOLK | | 1(DPX) | 1MP H/F | 1110 KM 620 MI OR 1305 KM 725 MI | 4-20 MCS | | DIR | | 1(CW BAY) | DIV DIR |
| A 10 | STANDBY | 6(SSB) | 6(SSB) | 1HP H/F | | 4-30 | O.I.A.I. A 9C | | | | |
| A 11 | MARITIME HEADQUARTERS | MULTI CHANNEL LINK | | | | | | DIR | | MULTI CHANNEL LINK | DIR |
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APPENDIX. "A"

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NOTE: ADDITIONAL SPARE H/F TRANSMITTERS LISTED IN APPENDIX "B"

BROADCAST AND SHIP SHORE HALIFAX RADIO

| LINE | SERVICE | TRANSMITTING CHANNELS | EQUIPMENT | DISTANCE | FREQ OR FREQ RANGE | EMISSION | TX. ANTENNA | RX BAYS | RX. ANTENNA | REMARKS |
|------|------------------------------|-----------------------|-----------|---------------------|--------------------|----------------------------|-------------|--------------------------------|----------------------------|---|
| B 1 | PRIMARY RATT FLEET BROADCAST | 1 | HP L/F | NORTH ATLANTIC AREA | 73.6 KCS | O.I.A.I. 0.6 F.I. | OMNI | | | |
| B 2 | DO | 1 | HP H/F | DO | 4 MC/S | O.I.A.I. 1.08 F.I. | DO | | | |
| B 3 | DO | 1 | HP H/F | DO | 6 MC/S | O.I.A.I. 1.08 F.I. | DO | | | UP TO FIVE H/F COMPONENTS TO OPERATE SIMULTANEOUSLY |
| B 4 | DO | 1 | HP H/F | DO | 8 MC/S | O.I.A.I. 1.08 F.I. | DO | | | |
| B 5 | DO | 1 | HP H/F | DO | 12 MC/S | O.I.A.I. 1.08 F.I. | DO | | | |
| B 6 | DO | 1 | HP H/F | DO | 17 MC/S | O.I.A.I. 1.08 F.I. | DO | | | |
| B 7 | DO | 1 | MP H/F | DO | 22 MC/S | O.I.A.I. 1.08 F.I. | DO | | | |
| B 8 | ADMIN/MET/ RATT/FAX | 1 | HP H/F | DO | 3 MC/S | O.I.A.I. 1.08 F.I. 4F.4 | DO | | | |
| B 9 | DO | 1 | HP H/F | DO | 5 MC/S | O.I.A.I. 1.08 F.I. 4F.4 | DO | | | |
| B 10 | DO | 1 | HP H/F | DO | 9 MC/S | O.I.A.I. 1.08 F.I. 4F.4 | DO | | | UP TO 3 H/F COMPONENTS TO OPERATE SIMULTANEOUSLY |
| B 11 | DO | 1 | HP H/F | DO | 13 MC/S | O.I.A.I. 1.08 F.I. 4F.4 | DO | ADEQUATE MONITORING FACILITIES | AS REQUIRED FOR MONITORING | |
| B 12 | DO | 1 | HP H/F | DO | 17 MC/S | O.I.A.I. 1.08 F.I. 4F.4 | DO | | | |
| B 13 | FLEET CW BCST MERCAST | 1 | HP L/F | DO | 115.3 KCS | O.I.A.I. | DO | | | |
| B 14 | DO | 1 | HP H/F | DO | 4 MC/S | O.I.A.I. | DO | | | |
| B 15 | DO | 1 | HP H/F | DO | 6 MC/S | O.I.A.I. | DO | | | |
| B 16 | DO | 1 | HP H/F | DO | 8 MC/S | O.I.A.I. | DO | | | UP TO 5 H/F COMPONENTS TO OPERATE SIMULTANEOUSLY OR INDIVIDUALLY |
| B 17 | DO | 1 | HP H/F | DO | 12 MC/S | O.I.A.I. | DO | | | |
| B 18 | DO | 1 | HP H/F | DO | 17 MC/S | O.I.A.I. | DO | | | |
| B 19 | DO | 1 | MP H/F | DO | 22 MC/S | O.I.A.I. | DO | | | |
| B 20 | HALIFAX LOCAL BROADCAST | 1 | HP M/F | 300 MILE RADIUS | 400-540 KCS | O.I.A.I. 0.06 F.I. | DO | | | |
| B 21 | DO | 1 | MP H/F | DO | 4-12 MC/S | O.I.A.I. 1.08 F.4 | DO | | | 15M" DAY REQUIREMENT |
| B 22 | DO | 1 | MP H/F | DO | 4-12 MC/S | O.I.A.I. 1.08 F.I. | DO | | | |
| B 23 | PRIMARY SHIP SHORE | 1 | HP H/F | NORTH ATLANTIC AREA | 4 MC/S | O.I.A.I. | DO | 2 | FAN | |
| B 24 | DO | 1 | HP H/F | DO | 6 MC/S | O.I.A.I. | DO | 2 | FAN | |
| B 25 | DO | 1 | HP H/F | DO | 8 MC/S | O.I.A.I. | DO | 2 | FAN | RATT |
| | | | | | | O.I.A.I. | | | | 2 BAYS IN T/T ROOM WITH CW KEYING FACILITIES ON SHIP SHORE AND SHIP SHORE |

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APPENDIX "C"

HALIFAX RADIO FIXED SERVICES

Requirement

1. Halifax-Whitehall

In peace channels are required as follows:

- (a) One channel for
 - (i) Commonwealth naval,
 - (ii) Commonwealth merchant, and
 - (iii) Naval Member Canadian Joint Staff (London) traffic.
- (b) NATO Halifax to Plymouth (NA51).
- (c) NATO "Y" network inter-control circuit.
- (d) Order circuit for multiplex system.
- (e) Spare.
- (f) Spare.

In war channels are required as follows:

- (a) Commonwealth naval traffic.
- (b) NATO and Commonwealth merchant shipping traffic.
- (c) NATO Halifax to Plymouth circuit (NA51).
- (d) NATO "Y" network inter-control circuit.
- (e) Naval Member, Canadian Joint Staff (London) and RCN base facilities traffic.
- (f) Order circuit for multiplex system.

2. Halifax-Gronnedal

This circuit is required to meet SACLANT requirements for a circuit between ISCOM GREENLAND and COMCANLANT. It is assigned circuit number NA24 in LANTCOM-PLAN.

3. Halifax-Ottawa

This circuit is required to provide communication between Ottawa and the Atlantic Command in the event that landlines serving this purpose are disrupted. These landlines would be liable to interruption in the face of nuclear attack as the main terminals are in likely target areas.

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4. Halifax-Vancouver

If, in an emergency, Canada is subject to nuclear attack, it is probable that Ottawa would be bombed with the result that the overall control of the RCN by Naval Headquarters would be seriously impaired or eliminated. In this circumstance it will be necessary to maintain direct liaison between the Atlantic and Pacific Commands. It is unlikely that landline will provide this as the main intermediate terminals will probably be destroyed or seriously damaged under these circumstances. A direct fixed service is therefore necessary. This circuit would use the same equipment as 3 above.

5. Halifax-Bermuda

This circuit is required to provide war-time communication to the base facilities in Bermuda which may be required to support RCN ships working up in the area. In addition, the RCN has agreed to provide this link as part of the Commonwealth Strategic Wireless network to serve RN facilities in Bermuda.

6. Halifax-St. John's, Nfld.

This circuit is required to provide back-up communications in wartime to RCN base facilities and the secondary radio station in St. John's, Nfld. This is supported by experience in the Second World War.

7. Halifax-Gulf Naval Radio Station

Experience in the Second World War showed that it was necessary to provide a secondary radio station to control shipping in the Gulf of St. Lawrence. It is considered that similar facilities would be required in a future war and this circuit would be necessary to handle traffic to and from the Headquarters of CANCOMARLANT and between radio stations.

8. Halifax-Argentia

This circuit is required as a back-up to landlines which provide liaison between CANCOMARLANT and the US Naval Station at Argentia. These circuits also provide an alternate route to Gronnedal, Greenland (NA24) as it is an entry point into the USAF Globecom system.

9. Halifax-Washington or Norfolk

This is to provide back-up to the landlines which:

- (a) provide traffic exchange facilities between Halifax Radio and Washington Radio;
- (b) provide communication between COMCANLANT and CINCPACFLT in Norfolk.

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10. Standby for 1 above

It is impossible to operate a circuit continuously utilizing only one transmitter in view of the maintenance, repair, and frequency changing requirement and therefore a standby transmitter is needed.

11. Halifax Radio-MHQ

This circuit is required as a back-up for landlines which provide teletype, keying and voice facilities between the MHQ and the radio Station.

Note:- The necessity for this circuit will depend on the distance between the MHQ and Halifax Radio.

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D.N. Com.

For necessary
action on Naval Bd.
Minute 535-3,
pls.

000083

THE NAVAL BOARD

The following Minute is promulgated for information
and/or necessary action.

Meeting held on 17 July, 1957

535-3

COMMUNICATION STAFF REQUIREMENTS - HALIFAX AND VANCOUVER RADIO STATIONS (NSS:1300-166/10:NSS:1300-166/11)

At the 15/57 meeting of Naval Staff on 18 June, 1957, Staff requirements for Halifax and Vancouver Radio Stations were considered. Naval Staff agreed to recommend to Naval Board the staff requirements as proposed by DN COM.

2. DN COM explained to Naval Board that the proposed communications staff requirements were being recommended for approval in principle only, in the interests of continuity of planning. Any resultant expenditures or procurement would be put forward separately for specific approval. He reviewed the proposed commitments in Fixed Services and Broadcast and Ship Shore circuits and services for Halifax and Vancouver radio stations, and explained the equipment included in the requirements.

3. The necessity for Halifax-Argentia and Halifax-Gronnedal circuits was questioned because of the probable availability of a US circuit from Argentia to Island Commander Greenland. It was explained that the US circuit was from Argentia to Thule and did not include Gronnedal. In any event, it was a US national circuit and might not be available to NATO. As a number of the war commitments visualized in the staff requirements seemed to be related to experience in the Second World War, the question was raised as to whether the proposed requirements conformed to the current concept of a future war. Naval Board agreed that the staff requirements could be accepted in principle but that approval of any specific procurement or expenditure would have to be justified on the basis of actual plans or in the case of services to merchant ships, our actual commitments.

DECISION:

4. Naval Board approved in principle the communications staff requirements for Halifax and Vancouver Radio Stations as recommended by Naval Staff.



SECRETARY, NAVAL BOARD

000084

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Classification SECRET

File No. NSS.1300-166/10
NSS.1300-166/11

NAVAL STAFF PROJECT FORM

Subject COMMUNICATION STAFF REQUIREMENTS
HALIFAX AND VANCOUVER RADIO STATIONS Originator DNCOM

Staff Minute 15/57-2 dated 18 June, 1957

Naval Staff ~~recommended~~ agreed to recommend the staff requirements for
Halifax and Vancouver Radio Stations.

MINUTE II

Recommended for:

(a) Tabling at Naval Board

~~(b) Approval by CNS for Naval Board~~

Date _____

Antony Evans
for Rear Admiral,
VICE CHIEF OF NAVAL STAFF
CHAIRMAN, NAVAL STAFF

MINUTE III

Action approved:

(a)

(b)

Date _____

[Signature]
Vice Admiral,
CHIEF OF THE NAVAL STAFF.

SECRET

S E C R E T

MINUTES OF 15/57 MEETING OF NAVAL STAFF

HELD ON 18 JUNE, 1957

Members Present

| | | | |
|----------------------|-----------|--------------------|-----------------|
| RADM. H.N. Lay | - VCNS | CAPT. G.C. Edwards | - A/ACNS(Air) & |
| CMDRE A.H.G. Storrs | - ACNS(W) | | DNA |
| CMDRE D.L. Raymond | - ACNS(P) | CAPT. R.W. Murdoch | - DTSD |
| CAPT. W.M. Landymore | - DNPO | CDR. H.W.A. Moxley | - DND |
| CAPT. F.B. Caldwell | - DNI | CDR. W.P. Hayes | - DNG |
| CAPT. P.F.X. Russell | - DTASW | CDR. H.A. Porter | - DNCOM |

Also Present

| | | | |
|-------------------|------------|----------------------|---------|
| CDR. E.G. Savage | - SNLO(UK) | LCDR. P.F. Wilson | - DNCOM |
| CDR. A.H. Rankin | - D/DNPC | LCDR. H.H. Smith | - DNG |
| CDR. H.B. Carnell | - D/DTSD | LCDR. M.A. Considine | - DNCOM |
| MR. J.W. Mayne | - DOR(N) | LCDR. C.H.P. Shaw | - DND |
| LCDR. E.G. Gigg | - SO(O) | | |

15/57-1 Minutes of the 14/57 meeting of Naval Staff were approved.

15/57-2 COMMUNICATION STAFF REQUIREMENTS
HALIFAX AND VANCOUVER RADIO STATIONS
(NSS.1300-166/10; NSS.1300-166/11) (SECRET)

Introduction

Naval Staff had for consideration DNCOM's paper recommending staff requirements for Halifax and Vancouver radio stations.

Discussion

2. DNCOM explained that Communications staff requirements for these two stations had been drawn up to indicate the desired form that the communications facilities should take in order that those involved would have a basis for further detailed planning.

3. Naval Staff studied the draft staff requirements (enclosures (A) and (B)) and were in agreement with the contents. DNCOM was asked, however, to provide a separate appendix describing the fixed services in more detail, viz the reason for each.

4. In addition, it was noted that several of the circuits envisaged had tri-service implications. Pending approval of these requirements by the Joint Telecommunications Committee, Naval Staff considered that these circuits should remain in the staff requirements.

5. Naval Staff noted that the staff requirements were for guidance only, and that procurement action would require separate justification.

Decision

6. Naval Staff agreed to recommend the staff requirements for Halifax and Vancouver Radio stations.

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15/57-3 RCN REQUIREMENTS FOR AIR DEFENCE
(NSS.5178-22) (SECRET)

Discussion of this item was postponed.



(R.N.G. Smith)
Lieutenant Commander (S) RCN
Deputy Naval Secretary (Staff)

S E C R E T

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S E C R E T

MINUTES OF 15/57 MEETING OF NAVAL STAFF

HELD ON 18 JUNE, 1957

Members Present

| | | | |
|----------------------|-----------|--------------------|---------------------|
| RADM. H.N. Lay | - VCNS | CAPT. G.C. Edwards | - A/ACNS(Air) & DNA |
| CMDRE A.H.G. Storrs | - ACNS(W) | | |
| CMDRE D.L. Raymond | - ACNS(P) | CAPT. R.W. Murdoch | - DTSD |
| CAPT. W.M. Landymore | - DNPO | CDR. H.W.A. Moxley | - DND |
| CAPT. F.B. Caldwell | - DNI | CDR. W.P. Hayes | - DNG |
| CAPT. P.F.X. Russell | - DTASW | CDR. H.A. Porter | - DNCOM |

Also Present

| | | | |
|-------------------|------------|----------------------|---------|
| CDR. E.G. Savage | - SNLO(UK) | LCDR. P.F. Wilson | - DNCOM |
| CDR. A.H. Rankin | - D/DNPC | LCDR. H.H. Smith | - DNG |
| CDR. H.B. Carnell | - D/DTSD | LCDR. M.A. Considine | - DNCOM |
| MR. J.W. Mayne | - DOR(N) | LCDR. C.H.P. Shaw | - DND |
| LCDR. E.G. Gigg | - SO(O) | | |

15/57-1 Minutes of the 14/57 meeting of Naval Staff were approved.

15/57-2 COMMUNICATION STAFF REQUIREMENTS
HALIFAX AND VANCOUVER RADIO STATIONS
(NSS.1300-166/10; NSS.1300-166/11) (SECRET)

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5. Naval Staff noted that the staff requirements were for guidance only, and that procurement action would require separate justification.

Decision

6. Naval Staff agreed to recommend the staff requirements for Halifax and Vancouver Radio stations.

S E C R E T

000088

NSS 1300-166/10

ENCLOSURE (A).

COMMUNICATION STAFF REQUIREMENTS

HALIFAX RADIO STATION

Introduction

This pamphlet, entitled "Communication Staff Requirements for Halifax Radio", having been approved by competent authority, is promulgated to indicate the desired form that the communication facilities should take in order that those involved may have a basis for planning.

2. These staff requirements may be changed from time to time as added requirements arise and technological advances make it advantageous to change the facilities.

Definitions

3. For the purpose of these staff requirements, transmitter power is defined as follows:

| | |
|--------------|------------------|
| Low power | up to 1000 watts |
| Medium power | 1 KW to 5 KW |
| High power | over 5 KW. |

Abbreviations

| | | |
|----|--------|---|
| 4. | DFS | Double frequency shift |
| | DIR | Directional antenna |
| | DIV | Diversity receiving arrangements |
| | DPX | Duplex |
| | SSB | Single sideband |
| | 0.1A1 | CW |
| | 0.6F1 | 60 w.p.m. single channel RATT (low frequency) |
| | 1.08F1 | 60 w.p.m. single channel RATT (high frequency) |
| | 1.3F1 | Double frequency shift (2 channel RATT) |
| | 6A9C | Single sideband (6 channel tele- type) |
| | F9 | Scatter |
| | 4F4 | Facsimile. |

5. In order to ensure maximum flexibility for the allocation of equipment, all HF transmitters to be procured in future shall be capable of, or modification to, 0.1A1, 1.08F1, 6A9C and 4F4 emission.

6. Halifax Radio consists of a transmitting site at Newport Corner and a receiving site which is at present at Albro Lake, but which it is intended to move to a site outside the Halifax area.

COMMUNICATION STAFF REQUIREMENTS

HALIFAX RADIO

1. Purpose
 - (a) To transmit communication traffic to ships at sea.
 - (b) To receive communication traffic from ships at sea.
 - (c) To act as a terminal for point-to-point radio services.
2. Radio Facilities

See Appendices "A" and "B".
3. Cryptographic Facilities

As appropriate.
4. Transmitter Site,
Receiver Site Intercommunication

Cable and alternative microwave systems enabling all transmitters required for circuits in Appendices "A" and "B" to be keyed from the receiving site, and to provide adequate order facilities.
5. Antennae

An efficient integrated antenna system to handle all circuits in Appendices "A" and "B".
6. Emergency Power Arrangements

Power sources at the transmitter and receiving sites capable of operating all equipment independent of main local power but with the proviso that the main LF transmitter is operated at reduced power.
7. Receiver Site Intercom
 - (a) Office intercommunication.
 - (b) Bay intercommunication.
8. Transmitting Site Intercom

Office intercommunication.
9. Landlines

The principle of terminating all RATT fixed services in the Halifax Major Tape Relay Centre shall be adhered to whenever possible.

 - (a) Teletype
 - (i) 1 Duplex - Receiving Station to Halifax Major Tape Relay Centre.
 - (ii) 1 Duplex - Receiving Station to Halifax Major Tape Relay Centre (M Day).

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9. cont'd

(iii) 1 Simplex - Receiving
Station to Washington
Radio (NSS) (M Day)
(NA 55).

(b) Keying Lines

(i) 15 Duplex between Receiv-
ing Station and Halifax
Major Tape Relay Centre.
(See also paragraph 4).

(ii) 3 Simplex -- Receiving
Station to MRQ.

(c) Telephone

Adequate for administrative and
operational requirements.

NSS 1300-166/11

ENCLOSURE (B)

COMMUNICATION STAFF REQUIREMENTS

VANCOUVER RADIO

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| | 6A9C | Single sideband (6 channel teletype) |
| | F9 | Scatter |
| | 4F4 | Facsimile. |

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6. Vancouver Radio consists of a transmitting site at Matsqui and a receiving site at Aldergrove. These sites are administered as one unit, HMCS ALDERGROVE.

COMMUNICATION STAFF REQUIREMENTS

VANCOUVER RADIO

1. Purpose
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As appropriate.
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8. Transmitting Site Intercom

Office intercommunication.
9. Landlines
 - (a) Teletype
 - (i) 1 Duplex - Receiving Station to Major Tape Relay Centre.
 - (ii) 1 Duplex - Receiving Station to Major Tape Relay Centre (M Day).
 - (b) Keying Lines
 - (i) 8 Duplex - Receiving Station to Major Tape Relay Centre. (See also paragraph 4).
 - (ii) 3 Simplex - Receiving Station to MHQ (JOC).

H.Q. 1024

NAVAL SERVICE—MINUTE SHEET

FILE No. NSS 1300-166/10
(Staff)

REFERRED TO

REMARKS NSS 1300-166/11

(WITH SIGNATURE, POSITION AND DATE)

DEP SEC
STAFF

It is considered that
paragraph 3 should read as follows:

"Naval Staff studied the draft
staff requirements (enclosures
(A) and (B)) and were in
agreement with the contents.
DN COM was asked, however, to
provide a separate appendix
describing the fixed services
in more detail, viz the reason
for each."

H.A. Porter

(H.A. Porter)
Commander, RCN,
DIRECTOR OF NAVAL COMMUNICATIONS.

OTTAWA,
21 June, 1957.

000094


MEMORANDUM TO: VCNS

Communication Staff Requirements
Subject Halifax and Vancouver Radio Stations.....;

It is recommended that DN COM 's.....
submission on the above subject:-

- ☐ Be approved by you for Naval Staff.
- ☒ Be discussed at the next Naval Staff meeting.

Date... 6 June, 1957...


Commodore, R.C.N.
ACNS(W)

NSS 1300-166/10 (Staff)
NSS 1300-166/11

SECRET

MEMORANDUM TO: ~~AGNS(W)~~
VCNS

COMMUNICATION STAFF REQUIREMENTS
HALIFAX AND VANCOUVER RADIO STATIONS

- Enclosures: (A) Staff Requirements for Halifax Radio.
(B) Staff Requirements for Vancouver Radio.
(C) Equipment summary.

Introduction

1. A requirement exists for an approved communication staff requirement for the radio stations at Halifax and Vancouver in order that a foundation for continuity in planning and a guide to the technical services may be provided.

Discussion

2. Up until the present time no approved plan has been prepared to show the desired form that the communication facilities at Halifax and Vancouver Radio Stations should take. This had led to a tendency for the stations to be added to from time to time on a piecemeal basis rather than with a view of furthering an overall plan.

3. By providing such plans in the form of an approved staff requirement, it is considered that:

- (a) continuity will be provided;
- (b) guidance will be provided for the technical branches; and
- (c) more efficient stations will be the eventual outcome.

4. The communication staff requirements outlined in Enclosures (A) and (B) are based on known commitments and Enclosure (C) is a summary of equipment now fitted and that required to meet peacetime and wartime needs.

5. Additional equipments which are needed to meet these staff requirements will be the subject of individual staff submissions.

Conclusions

6. It is concluded that approved staff requirements are required to provide planning guidance and continuity in the development of Halifax and Vancouver Radio Stations.

- 2 -

Recommendation

7. It is recommended that Naval Staff approve the attached staff requirements for Halifax and Vancouver Radio Stations.



(H.A. Porter)
Commander, RCN,
DIRECTOR OF NAVAL COMMUNICATIONS.

OTTAWA,
29 May, 1957.

SECRET

000097

SECRET

NSS 1300-166/10

ENCLOSURE (A).

COMMUNICATION STAFF REQUIREMENTS

HALIFAX RADIO STATION

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SECRET

COMMUNICATION STAFF REQUIREMENTS

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As appropriate.
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Office intercommunication.
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The principle of terminating all RATT fixed services in the Halifax Major Tape Relay Centre shall be adhered to whenever possible.

 - (a) Teletype
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SECRET

- 2 -

9. cont'd

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Station to Washington
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(NA 55).

(b) Keying Lines

(i) 15 Duplex between Receiving
Station and Halifax
Major Tape Relay Centre.
(See also paragraph 4).

(ii) 3 Simplex - Receiving
Station to MHQ.

(c) Telephone

Adequate for administrative and
operational requirements.

FIXED SERVICES HALIFAX RADIO

| LINE | SERVICE | TRANSMITTING CHANNELS | | EQUIPMENT | DISTANCE | FREQ OR FREQ RANGE | TYPE OF EMISSION | | TRANSMITTING ANTENNA | RX CHANNELS | RX ANTENNA |
|------|--------------------------|-----------------------|-----|-----------|---|--------------------|--------------------|-------|----------------------|--------------------|------------|
| | | PEACE | WAR | | | | PEACE | WAR | | | |
| A 1 | WHITEHALL | 6(SSB)(DPX) | | IHP H/F | 4300 KM 2510 MI | 4-30 MCS | O.I.A.I. A9C | DIR | | 6(ICW BAY) | DIV I |
| A 2 | GRONNEDAL | 1(DPX) | | IMP H/F | 2200 KM 1275 MI | 4-30 MCS | O.I.A.I. I.O8FI | DIR | | ICWBAY | DIR |
| A 3 | OTTAWA | 2(DFS) | | IMP H/F | 926 KM 526 MI | | I.3FI O.I.A.I. | DIR | | 2(ICWBAY) | DIV I |
| A 4 | VANCOUVER | 2(DFS) | | IHP H/F | 4000KM 2429 MI | 4-30MCS | I.3FI O.I.A.I. | DIR | | 2(ICWBAY) | DIV I |
| A 5 | BERMUDA | | | IMP H/F | 1200 KM 700 MI | 4-20 MCS | | DIR | | 1(CW BAY) | DIV I |
| A 6 | ST.JOHN'S. NF | | | IMP H/F | 842 KM 468 MI | 2-12 MCS | | DIR | | 1(CW BAY) | DIV D |
| A 7 | GULF NRS | | | IMP H/F | NK | 2-12 MCS | | DIR | | 1(CW BAY) | DIR |
| A 8 | ARGENTIA | 1(SPX) | | IMP H/F | 800KM 420MI | 2-12 MCS | O.I.A.I. | DIR | | 1(CW BAY) | DIV D |
| A 9 | WASHINGTON OR NORFOLK | 1(DPX) | | IMP H/F | 1110 KM 620MI OR 1305 KM 725MI | 4-20 MCS | | DIR | | 1(CW BAY) | DIV D |
| A 10 | STANDBY | 6(SSB) | | IHP H/F | | 4-30 | O.I.A.I. A9C | | | MULTI CHANNEL LINK | D |
| A 11 | MARITIME HEADQUARTERS | MULTI CHANNEL LINK | | | | | | DIR | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | " B " | | | |

SEAS
FIXED SERVICES HALIFAX RADIO

| QUIPMENT | DISTANCE | FREQ. OR FREQ RANGE | TYPE OF EMISSION | | TRANSMITTING ANTENNA | RX. CHANNELS | RX. ANTENNA | REMARKS |
|------------------|---|---|--------------------|--------------------|----------------------|--------------------------|-------------|--|
| | | | PEACE | WAR | | | | |
| MP H/F | 4300 KM 2510 MI | 4-30 MCS | O.I.A.I. A9C | O.I.A.I. A9C | DIR | 6(ICW BAY) | DIV DIR | |
| MP H/F | 2200 KM 1275 MI | 4-30 MCS | O.I.A.I. 1.08FI | O.I.A.I. 1.08FI | DIR | 1CW BAY | DIR | |
| MP H/F | 926 KM 526 MI | | 1.3FI O.I.A.I. | 1.3FI O.I.A.I. | DIR | 2(ICW BAY) | DIV DIR | |
| HP H/F | 4000 KM 2429 MI | 4-30 MCS | 1.3FI O.I.A.I. | 1.3FI O.I.A.I. | DIR | 2(ICW BAY) | DIV DIR | ONLY IN EVENT FAILURE LINE A-3 |
| MP H/F | 1200 KM 700 MI | 4-20 MCS | | O.I.A.I., 1.08FI | DIR | 1(CW BAY) | DIV DIR | "M" DAY |
| MP H/F | 842 KM 468 MI | 2-12 MCS | | O.I.A.I., 1.08FI | DIR | 1(CW BAY) | DIV DIR | "M" DAY |
| MP H/F | NK | 2-12 MCS | | O.I.A.I., 1.08FI | DIR | 1(CW BAY) | DIR | "M" DAY |
| IMP H/F | 800 KM 420 MI | 2-12 MCS | O.I.A.I. | O.I.A.I., 1.08FI | DIR | 1(CW BAY) | DIR | CALLED UP NATO EXERCISES ON TEST BASIS IN PEACE |
| IMP H/F | 1110 KM 620 MI OR 1305 KM 725 MI | 4-20 MCS | | O.I.A.I., 1.08FI | DIR | 1(CW BAY) | DIV DIR | |
| IHP H/F | | 4-30 | O.I.A.I. A9C | O.I.A.I. A9C | | | | SPARE FOR LINE A.I. |
| | | | | | DIR | MULTI CHANNEL LINK | DIR | BACKUP TO, LANDLINE SERVING FACILITIES IN VICINITY OF .MH Q |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| NOTE: ADDITIONAL | | SPARE H/F TRANSMITTERS LISTED IN APPENDIX "B" | | | | | | |

BROADCAST AND SHIP SHORE HALIFAX RADIO

| LINE | SERVICE | TRANSMITTING CHANNELS | EQUIPMENT | DISTANCE | FREQ OR FREQ RANGE | EMISSION | TX ANTENNA | RX BAYS | RX ANTENNA | REMARKS |
|------|------------------------------|-----------------------|-----------|---------------------|--------------------|----------------------------|------------|--------------------------------|----------------------------|--|
| B 1 | PRIMARY RATT FLEET BROADCAST | | HP L/F | NORTH ATLANTIC AREA | 73.6 KCS | O.I.A.I. O.6 F.I. | OMNI | | | |
| B 2 | DO | | HP H/F | DO | 4 MC/S | O.I.A.I. 1.08 F.I. | DO | | | |
| B 3 | DO | | HP H/F | DO | 6 MC/S | O.I.A.I. 1.08 F.I. | DO | | | UP TO FIVE H/F COMPONENTS TO OPERATE SIMULTANEOUSLY |
| B 4 | DO | | HP H/F | DO | 8 MC/S | O.I.A.I. 1.08 F.I. | DO | | | |
| B 5 | DO | | HP H/F | DO | 12 MC/S | O.I.A.I. 1.08 F.I. | DO | | | |
| B 6 | DO | | HP H/F | DO | 17 MC/S | O.I.A.I. 1.08 F.I. | DO | | | |
| B 7 | DO | | MP H/F | DO | 22 MC/S | O.I.A.I. 1.08 F.I. | DO | | | |
| B 8 | ADMIN/MET/ RATT/FAX | | HP H/F | DO | 3 MC/S | O.I.A.I. 1.08 F.I. 4F.4 | DO | | | |
| B 9 | DO | | HP H/F | DO | 5 MC/S | O.I.A.I. 1.08 F.I. 4F.4 | DO | | | |
| B 10 | DO | | HP H/F | DO | 9 MC/S | O.I.A.I. 1.08 F.I. 4F.4 | DO | | | UP TO 3 H/F COMPONENTS TO OPERATE SIMULTANEOUSLY |
| B 11 | DO | | HP H/F | DO | 13 MC/S | O.I.A.I. 1.08 F.I. 4F.4 | DO | ADEQUATE MONITORING FACILITIES | AS REQUIRED FOR MONITORING | |
| B 12 | DO | | HP H/F | DO | 17 MC/S | O.I.A.I. 1.08 F.I. 4F.4 | DO | | | |
| B 13 | FLEET CW BCST MERCAST | | HP L/F | DO | 115.3 KCS | O.I.A.I. | DO | | | |
| B 14 | DO | | HP H/F | DO | 4 MC/S | O.I.A.I. | DO | | | |
| B 15 | DO | | HP H/F | DO | 6 MC/S | O.I.A.I. | DO | | | |
| B 16 | DO | | HP H/F | DO | 8 MC/S | O.I.A.I. | DO | | | UP TO 5 H/F COMPONENTS TO OPERATE SIMULTANEOUSLY OR INDIVIDUALLY |
| B 17 | DO | | HP H/F | DO | 12 MC/S | O.I.A.I. | DO | | | |
| B 18 | DO | | HP H/F | DO | 17 MC/S | O.I.A.I. | DO | | | |
| B 19 | DO | | MP H/F | DO | 22 MC/S | O.I.A.I. | DO | | | |
| B 20 | HALIFAX LOCAL BROADCAST | | HP M/F | 300 MILE RADIUS | 400-540 KCS | O.I.A.I. O.06 F.I. | DO | | | |
| B 21 | DO | | MP H/F | DO | 4-12 MC/S | O.I.A.I. 1.08 F.4 | DO | | | "M" DAY REQUIREMENT |
| B 22 | DO | | MP H/F | DO | 4-12 MC/S | O.I.A.I. 1.08 F.I. | DO | | | |
| B 23 | PRIMARY SHIP SHORE | | HP H/F | NORTH ATLANTIC AREA | 4 MC/S | O.I.A.I. | DO | 2 | FAN | |
| B 24 | DO | | HP H/F | DO | 6 MC/S | O.I.A.I. | DO | 2 | FAN | |
| B 25 | DO | | HP H/F | DO | 8 MC/S | O.I.A.I. | DO | 2 | FAN | RATT 2 BAYS IN T/T ROOM WITH C.W. KEYING |

[illegible]

NSS 1300-166/11

ENCLOSURE (B)

COMMUNICATION STAFF REQUIREMENTS

VANCOUVER RADIO

Introduction

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SECRET

COMMUNICATION STAFF REQUIREMENTS

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FIXED SERVICES VANCOUVER RADIO

| LINE | SERVICE | TRANSMITTING CHANNELS | | EQUIPMENT | DISTANCE | FREQ OR FREQ RANGE | TYPE OF EMISSION | | TRANSMITTING ANTENNA | RECEIVING CHANNELS | RECEIVING ANTENNA | REMARKS |
|------|----------------------------------|-----------------------|--------------------|---------------|---------------------|--------------------|-----------------------|-----------------------|----------------------|--------------------|-------------------|---|
| | | PEACE | WAR | | | | PEACE | WAR | | | | |
| A 1 | OTTAWA | 2(DFS)(DPX) | 2(DFS)(DPX) | I.H/P H/F | 3500 KM 1907 MI | 4-30 MCS | 1.3 F.I. O.I.A.I. | 1.3 F.I. O.I.A.I. | DIR | | DIV DIR | |
| A 2 | HALIFAX | 2(DFS)(DPX) | 2(DFS)(DPX) | I.H/P H/F | 4000 KM 2420 MI | 4-30 MCS | O.I.A.I. 1.3 F.I. | O.I.A.I. 1.3 F.I. | DIR | 2(1.CW BAY) | DIV DIR | ONLY REQUIRED IN EVENT OF FAILURE. A.I. |
| A 3 | NEW ZEALAND | 1(DPX) | 1(DPX) | I.H/P H/F | 13000 KM 6450 MI | 4-30 MCS | O.I.A.I. 1.08 F.I. | O.I.A.I. 1.08 F.I. | DIR | 1(CW BAY) | DIV DIR | |
| A 4 | ESQUIMALT | 1(DPX) | 1(DPX) | I.M/P M/F H/F | 126 KM 70 MILES | 2-12 MCS | O.I.A.I. 1.08 F.I. | O.I.A.I. 1.08 F.I. | DIR | 1(CW BAY) | DIR | |
| A 5 | PRINCE RUPERT | | 1(DPX) | I.M/P H/F | 673 KM 374 MI | 2-12 MCS | | O.I.A.I. 1.08 F.I. | DIR | 1(CW BAY) | DIR | |
| A 6 | MARITIME HEADQUARTERS (J.O.T.C.) | MULTI CHANNEL LINK | MULTI CHANNEL LINK | | | | O.I.A.I. 1.08 F.I. | | DIR | MULTI CHANNEL LINK | DIR | |
| A 7 | MASSET | 1(SPX) | 1(SPX) | I.M/P H/F | | 2-12 MCS | O.I.A.I. 1.08 F.I. | O.I.A.I. 1.08 F.I. | DIR | 1 | DIR | |
| | | | | | | | | | | | | |
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BROADCAST AND SHIP SHORE VANCOUVER

| LINE | SERVICE | TRANSMITTING CHANNELS | EQUIPMENT | DISTANCE | FREQ OR FREQ RANGE | EMISSION | TRANSMITTING ANTENNA |
|------|----------------------------|-----------------------|-----------------|--------------------|--------------------|-----------------------|----------------------|
| B 1 | PRIMARY RATT FLEET BEST | I | HP LF | NORTH | 133.15 KCS | O.I.A.I. 0.6 F.I. | QMNI |
| B 2 | DO | I | HP HF | PACIFIC AREA DO | 4 MCS | O.I.A.I. 1.08 F.I. | DO |
| B 3 | DO | I | HP HF | DO | 6 MCS | DO | DO |
| B 4 | DO | I | HP HF | DO | 8 MCS | DO | DO |
| B 5 | DO | I | HP HF | DO | 12 MCS | DO | DO |
| B 6 | DO | I | HP HF | DO | 17 MCS | DO | DO |
| B 7 | DO | I | MP HF | DO | 22 MCS | DO | DO |
| B 8 | FLEET C/W BROADCAST | I | HP LF | NORTH PACIFIC | LF | O.I.A.I. | DO |
| B 9 | DO | I | HP HF | DO | 4 MCS | O.I.A.I. | DO |
| B 10 | DO | I | HP HF | DO | 6 MCS | O.I.A.I. | DO |
| B 11 | DO | I | HP HF | DO | 8 MCS | O.I.A.I. | DO |
| B 12 | DO | I | HP HF | DO | 12 MCS | O.I.A.I. | DO |
| B 13 | DO | I | HP HF | DO | 17 MCS | O.I.A.I. | DO |
| B 14 | DO | I | MP HF | DO | 22 MCS | O.I.A.I. | DO |
| B 15 | PRIMARY SHIP SHORE | I | HP HF | N.A. | 4 MCS | O.I.A.I. | DO |
| B 16 | DO | I | HP HF | N.A. | 6 MCS | DO | DO |
| B 17 | DO | I | HP HF | N.A. | 8 MCS | DO | DO |
| B 18 | DO | I | HP HF | N.A. | 12 MCS | DO | DO |
| B 19 | DO | I | HP HF | N.A. | 16 MCS | DO | DO |
| B 20 | DO | I | MP HF | N.A. | 22 MCS | DO | DO |
| B 21 | SECONDARY SHIP SHORE | I | MP MF | 50 MILES | 2-3 MCS | 1.08 F.I. O.I.A.I. | OMNI |
| B 22 | STAND BY | 4 | HP H/F MP HF | | 2-30 MCS | 1.08 F.I. O.I.A.I. | |
| | | | | | | | |
| | | | | | | | |

APPENDIX " B "

SHORE VANCOUVER RADIO

| FREQ OR FREQ RANGE | EMISSION | TRANSMITTING ANTENNA | RX. BAYS | RX. ANTENNA | REMARKS |
|--------------------|-----------------------|----------------------|--------------------------------|----------------------------|--|
| 133.15 KCS | O.I.A.I. 0.6 F.I. | QMNI | | | |
| 4 MCS | O.I.A.I. 1.08 F.I. | DO | | | |
| 6 MCS | DO | DO | | | |
| 8 MCS | DO | DO | ADEQUATE MONITORING FACILITIES | AS REQUIRED FOR MONITORING | UP TO FIVE H/F COMPONENTS TO OPERATE SIMULTANEOUSLY |
| 12 MCS | DO | DO | | | |
| 17 MCS | DO | DO | | | |
| 22 MCS | DO | DO | | | |
| LF | O.I.A.I. | DO | | | |
| 4 MCS | O.I.A.I. | DO | | | |
| 6 MCS | O.I.A.I. | DO | | | |
| 8 MCS | O.I.A.I. | DO | ADEQUATE MONITORING FACILITIES | AS REQUIRED FOR MONITORING | UP TO FIVE H/F COMPONENTS TO OPERATE SIMULTANEOUSLY |
| 12 MCS | O.I.A.I. | DO | | | |
| 17 MCS | O.I.A.I. | DO | | | |
| 22 MCS | O.I.A.I. | DO | | | |
| 4 MCS | O.I.A.I. | DO | 2 | FAN | |
| 6 MCS | DO | DO | 2 | FAN | |
| 8 MCS | DO | DO | 2 | FAN | 2- RATT BAYS SITED IN T/T ROOM WITH CW KEYING FACILITIES ON SHIP SHORE ANSWERING FREQUENCIES |
| 12 MCS | DO | DO | 2 | FAN | |
| 16 MCS | DO | DO | 2 | FAN | |
| 22 MCS | DO | DO | 2 | FAN | |
| 2-3 MCS | 1.08 F.I. O.I.A.I. | OMNI | 1 | FAN | |
| 2-30 MCS | 1.08 F.I. O.I.A.I. | | | | |
| | | | | | |
| | | | | | |

ENCLOSURE (C)

SUMMARY OF EQUIPMENT REQUIREMENTS -

TO MEET STAFF REQUIREMENTS

HALIFAX AND VANCOUVER RADIO STATIONS

(a) Transmitters

| | Staff Requirement | | Installed now or included in 1957- 58 | Deficiency | |
|----------------|-------------------|-----|---|------------|-----|
| | Peace | War | | Peace | War |
| HALIFAX | | | | | |
| High Power SSB | 2 | 2 | 1 (1957-58) | 1 | 1 |
| High Power | 20 | 20 | 20 | 0 | 0 |
| Med. Power | 15 | 19 | 15 (1957-58) | 0 | 4 |
| VANCOUVER | | | | | |
| High Power | 18 | 18 | 12 | 6 | 6 |
| Med. Power | 10 | 11 | 10 (1957-58) | 0 | 1 |
| TOTALS | | | | | |
| High Power SSB | 2 | 2 | 1 | 1 | 1 |
| High Power | 38 | 38 | 32 | 6 | 6 |
| Med. Power | 25 | 30 | 25 | 0 | 5 |

(b) Receivers

New HF receivers included in 1957-58 estimates will fill all requirements.

(c) Radio Link Equipment

Multi-channel radio link equipment required for receiving stations and MHQ's on each coast.

SECRET

NSS 1300-166/10
NSS 1300-166/11
NSC 7400-189 (EEC)

MEMORANDUM TO: ^{17/6}DN COM

STAFF REQUIREMENTS
HALIFAX AND VANCOUVER RADIO STATIONS

Reference: (a) NSS 1300-166/10 (STAFF) NSS 1300-166/11
dated 28 December, 1956.

Reference (a) has been examined and is generally satisfactory. It is considered that a useful basis for planning will be provided.

2. With regard to the Halifax Fixed Services it is pointed out that Line A4 an Ionospheric Scatter link would be a very expensive project. In any case it is highly unlikely that the existing sites would be suitable.

3. In connection with Appendix "C" it is pointed out that a quantity of TH-41B equipment is employed on the Broadcast services. Owing to frequency allocations and number of channels supplied from a common power supply difficulty is often encountered with mutual interference and other forms of crosstalk between adjacent R.F. channels. Actually the TH-41B equipment was procured to meet stated ship-shore answering and point-to-point requirements. In the case of point-to-point circuits only one channel of an equipment would normally be employed with alternative channels immediately available as required. In this application the TH-41B equipment would provide satisfactory service. In the case of the ship-shore answering application the TH-41B equipment provides reasonably satisfactory service. Occasionally crosstalk, difficulties are encountered when two or three channels of one equipment are keyed simultaneously.

4. It is considered that the basic technical requirement particularly for the broadcast services with a high utilization factor is for complete single channel equipments in sufficient quantity for the number of channels required.

5. It is understood that there may be a requirement for encrypted facsimile transmission on Halifax Broadcast Lines B8 to B12 inclusive. Such a requirement can only be met by single sideband equipment permitting frequency - division multiplexing.

M. Gillespie
4 (F.T. Gillespie)
Commodore (L) R.C.N.
ELECTRICAL ENGINEER-IN-CHIEF.

O T T A W A,
8 May, 1957.

NSS 1300-166/10 (Staff)
NSS 1300-166/11

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MEMORANDUM TO: EEC *al'*

STAFF REQUIREMENTS
HALIFAX AND VANCOUVER RADIO STATIONS

Prior to seeking Naval Staff approval of the Communication Staff Requirements for Halifax and Vancouver Radio Stations, it is desired to have them examined by EEC. It is therefore requested that any comments and/or recommendations in regard to the attached drafts may be forwarded to DNCOM.

H.A. Porter
(H.A. Porter)
Commander, RCN,
DIRECTOR OF NAVAL COMMUNICATIONS.

OTTAWA,
28 December, 1956.

SECRET

D R A F T

NSS 1300-166/10 (Staff)
NSS 1300-166/11

MEMORANDUM TO: ACNS(W)
VCNS

COMMUNICATION STAFF REQUIREMENTS
HALIFAX AND VANCOUVER RADIO STATIONS

Enclosures: (A) Staff Requirements for Halifax Radio.
(B) Staff Requirements for Vancouver Radio.
(C) Equipment summary.

Introduction.

1. A requirement exists for an approved communication staff requirement for the radio stations at Halifax and Vancouver in order that a foundation for continuity in planning and a guide to the technical services may be provided.

Discussion.

2. Up until the present time no approved plan has been prepared to show the desired form that the communication facilities at Halifax and Vancouver Radio Stations should take. This had led to a tendency for the stations to be added to from time to time on a piecemeal basis rather than with a view of furthering an overall plan.

3. By providing such plans in the form of an approved staff requirement, it is considered that:

- (a) continuity will be provided;
- (b) guidance will be provided for the technical branches; and
- (c) more efficient stations will be the eventual outcome.

4. The communication staff requirements outlined in Enclosures (A) and (B) are based on known commitments and Enclosure (C) is a summary of equipment now fitted and that required to meet peacetime and wartime needs.

- 2 -

5. Additional equipments which are needed to meet these staff requirements will be the subject of ~~an~~ individual staff submissions.

Conclusions.

6. It is concluded that approved staff requirements are required to provide planning guidance and continuity in the development of Halifax and Vancouver Radio Stations.

Recommendation.

7. It is recommended that Naval Staff approve the attached staff requirements for Halifax and Vancouver Radio Stations.

(H.A. Porter)
Commander, RCN,
DIRECTOR OF NAVAL COMMUNICATIONS.

OTTAWA,
28 December, 1956.

SECRET

000114

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NSS 1300-166/10

COMMUNICATION STAFF REQUIREMENTS

HALIFAX RADIO STATION

Introduction.

This pamphlet, entitled "Communication Staff Requirements for Halifax Radio", having been approved by competent authority, is promulgated to indicate the desired form that the communication facilities should take in order that those involved may have a basis for planning.

2. These staff requirements may be changed from time to time as added requirements arise and technological advances make it advantageous to change the facilities.

Definitions.

3. For the purpose of these staff requirements, transmitter power is defined as follows:

| | |
|--------------|------------------|
| Low power | up to 1000 watts |
| Medium power | 1 KW to 5 KW |
| High power | over 5 KW. |

Abbreviations.

| | | |
|----|--------|---|
| 4. | DFS | Double frequency shift |
| | DIR | Directional antenna |
| | DIV | Diversity receiving arrangements |
| | DPX | Duplex |
| | SSB | Single sideband |
| | 0.1A1 | CW |
| | 0.6F1 | 60 w.p.m. single channel RATT (low frequency) |
| | 1.08F1 | 60 w.p.m. single channel RATT (high frequency) |
| | 1.3F1 | Double frequency shift (2 channel RATT) |
| | 6A9C | Single sideband (6 channel teletype) |

F9

Scatter: []

000115

- 2 -

Abbreviations (cont'd)

4F4

Facsimile.

5. In order to ensure maximum flexibility for the allocation of equipment, all HF transmitters to be procured in future shall be capable of, or modification to, O.1A1, 1.08F1, 6A9C and 4F4 emission.

6. Halifax Radio consists of a transmitting site at Newport Corner and a receiving site ^{which is at present} at Albro Lake ~~but which~~ *it is intended to move to a site outside the restriction area.*

COMMUNICATION STAFF REQUIREMENTS

HALIFAX RADIO

1. Purpose
 - (a) To transmit communication traffic to ships at sea.
 - (b) To receive communication traffic from ships at sea.
 - (c) To act as a terminal for point-to-point radio services.
2. Radio Facilities See Appendices "A" and "B".
3. Cryptographic Facilities As appropriate.
4. Transmitter Site, Receiver Site Intercommunication Cable and alternative microwave systems enabling all transmitters required for circuits in Appendices "A" and "B" to be keyed from the receiving site, and to provide adequate order facilities.
5. Antennae An efficient integrated antenna system to handle all circuits in Appendices "A" and "B".
6. Emergency Power Arrangements Power sources at the transmitter and receiving sites capable of operating all equipment independent of main local power but with the proviso that the main LF transmitter is operated at reduced power.
7. Receiver Site Intercom
 - (a) Office intercommunication.
 - (b) Bay intercommunication.
8. Transmitting Site Intercom Office intercommunication.

SECRET

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9. Landlines

The principle of terminating all
RATT fixed services in the Halifax
Major Tape Relay Centre shall be
adhered to whenever possible.

(a) Teletype

(i) 1 Duplex - Receiving

Station to Halifax Major
Tape Relay Centre

(ii) 1 Duplex - Receiving

Station to Halifax Major
Tape Relay Centre

(M Day)

(iii) 1 Simplex - Receiving

Station to Washington

Radio (NSS) (M Day) (NSS)

(b) Keying Lines

(i) 15 Duplex between Receiving

Station and Halifax Major Tape
Relay Centre. (See also paragraph

⁴⁾
(ii) 3 Simplex - Receiving Station to M.H.Q.

(c) Telephone

Adequate for administrative and
operational requirements.

SECRET

NSS 1300-166/11

COMMUNICATION STAFF REQUIREMENTS

VANCOUVER RADIO

Introduction.

This pamphlet, entitled "Communication Staff Requirements for Vancouver Radio", having been approved by competent authority is promulgated to indicate the desired form that the communication facilities should take in order that those involved may have a basis for planning.

2. These staff requirements may be changed from time to time as added requirements arise and technological advances make it advantageous to change the facilities.

Definitions.

3. For the purpose of these staff requirements, transmitter power is defined as follows:

| | |
|--------------|------------------|
| Low power | up to 1000 watts |
| Medium power | 1 KW to 5 KW |
| High power | over 5 KW. |

Abbreviations.

| | | |
|----|--------|---|
| 4. | DFS | Double frequency shift |
| | DIR | Directional antenna |
| | DIV | Diversity receiving arrangements |
| | DPX | Duplex |
| | SSB | Single sideband |
| | O.1A1 | CW |
| | O.6F1 | 60 w.p.m. single channel RATT (low frequency) |
| | 1.08F1 | 60 w.p.m. single channel RATT (high frequency) |
| | 1.3F1 | Double frequency shift (2 channel RATT) |

SECRET

Abbreviations (cont'd)

| | |
|------|--------------------------------------|
| 6A9C | Single sideband (6 channel teletype) |
| F9 | Scatter |
| 4F4 | Facsimile |

5. In order to ensure maximum flexibility for the allocation of equipment, all HF transmitters to be procured in future shall be capable of, or modification to, O.1A1, 1.08F1, 6A9C and 4F4 emission.

6. Vancouver Radio consists of a transmitting site at Matsqui and a receiving site at Aldergrove. These sites are administered as one unit, HMCS ALDERGROVE.

SECRET

SECRET

COMMUNICATION STAFF REQUIREMENTS

VANCOUVER RADIO

1. Purpose
 - (a) To transmit messages to ships at sea.
 - (b) To receive messages from ships at sea.
 - (c) To act as a terminal for point-to-point radio services.
2. Radio Facilities See Appendices "A" and "B".
3. Cryptographic Facilities As appropriate.
4. Transmitter Site, Receiver Site Inter-communication Cable and alternative microwave systems enabling all transmitters required for circuits in Appendices "A" and "B" to be keyed from the receiving site, and to provide adequate order facilities.
5. Antennae An efficient integrated antenna system to handle all circuits in Appendices "A" and "B".
6. Emergency Power Arrangements Power sources at the transmitter and receiving sites capable of operating all equipment independent of main local power but with the proviso that the main LF transmitter is operated at reduced power.
7. Receiver Site Intercom
 - (a) Office intercommunication.
 - (b) Bay intercommunication.

SECRET

8. Transmitting Site
Intercom

Office intercommunication.

9. Landlines

(a) Teletype

(i) 1 Duplex - Receiving
Station to Major Tape
Relay Centre.

(ii) 1 Duplex - Receiving
Station to Major Tape
Relay Centre (M Day).

~~(i) 1 Duplex - Receiving
Station to Major Tape
Relay Centre (M Day)~~

(b) Keying Lines

(i) 8 Duplex - Receiving
Station to Major Tape
Relay Centre. (See
also paragraph 4).

(ii) 3 Simplex - Receiving
Station to MHQ (Joc)

APPENDIX. " B "

BROADCAST AND SHIP SHORE HALIFAX RADIO

| LINE | SERVICE | TRANSMITTING CHANNELS | EQUIPMENT | DISTANCE | FREQ OR FREQ RANGE | EMISSION | TX. ANTENNA | RX BAYS | RX.ANTENNA | REMARKS |
|------|------------------------------|-----------------------|-----------|---------------------|--------------------|---------------------------|-------------|--------------------------------|----------------------------|--|
| B 1 | PRIMARY RATT FLEET BROADCAST | I | HP L/F | NORTH ATLANTIC AREA | 73.6 KCS | O.I.A.I. O.6.F.I. | OMNI | | | |
| B 2 | DO | I | HP H/F | DO | 4 MC/S | O.I.A.I. I.08F.I. | DO | | | |
| B 3 | DO | I | HP H/F | DO | 6 MC/S | O.I.A.I. I.08F.I. | DO | | | UP TO FIVE H/F COMPONENTS TO OPERATE SIMULTANEOUSLY |
| B 4 | DO | I | HP H/F | DO | 8MC/S | O.I.A.I. I.08F.I. | DO | | | |
| B 5 | DO | I | HP H/F | DO | 12MC/S | O.I.A.I. I.08F.I. | DO | | | |
| B 6 | DO | I | HP H/F | DO | 17MC/S | O.I.A.I. I.08F.I. | DO | | | |
| B 7 | DO | I | MP H/F | DO | 22MC/S | O.I.A.I. I.08F.I. | DO | | | |
| B 8 | ADMIN/ MET/ RATT/FAX | I | HP H/F | DO | 3MC/S | O.I.A.I. I.08F.I. 4F.4 | DO | | | |
| B 9 | DO | I | HP H/F | DO | 5 MC/S | O.I.A.I. I.08F.I. 4F.4 | DO | | | |
| B10 | DO | I | HP H/F | DO | 9MC/S | O.I.A.I. I.08F.I. 4F.4 | DO | | | UP TO 3 H/F COMPONENTS TO OPERATE SIMULTANEOUSLY |
| B11 | DO | I | HP H/F | DO | 13MC/S | O.I.A.I. I.08F.I. 4F.4 | DO | ADEQUATE MONITORING FACILITIES | AS REQUIRED FOR MONITORING | |
| B12 | DO | I | HP H/F | DO | 17MC/S | O.I.A.I. I.08F.I. 4F.4 | DO | | | |
| B13 | FLEET CW BCST MERCAST | I | HP L/F | DO | 115.3 KCS | O.I.A.I. | DO | | | |
| B14 | DO | I | HP H/F | DO | 4MC/S | O.I.A.I. | DO | | | |
| B15 | DO | I | HP H/F | DO | 6MC/S | O.I.A.I. | DO | | | |
| B16 | DO | I | HP H/F | DO | 8MC/S | O.I.A.I. | DO | | | UP TO 5 H/F COMPONENTS TO OPERATE SIMULTANEOUSLY OR INDIVIDUALLY |
| B17 | DO | I | HP H/F | DO | 12 MC/S | O.I.A.I. | DO | | | |
| B18 | DO | I | HP H/F | DO | 17MC/S | O.I.A.I. | DO | | | |
| B19 | DO | I | MP H/F | DO | 22MC/S | O.I.A.I. | DO | | | |
| B20 | HALIFAX LOCAL BROADCAST | I | HP M/F | 300MILE RADIUS | 400-540KCS | O.I.A.I. O.06F.I. | DO | | | |
| B21 | DO | I | MP H/F | DO | 4-12 MC/S | O.I.A.I. I.08 F.4 | DO | | | "M" DAY REQUIREMENT |
| B22 | DO | I | MP H/F | DO | 4-12MC/S | O.I.A.I. I.08F.I | DO | | | |
| B23 | PRIMARY SHIP SHORE | I | HP H/F | NORTH ATLANTIC AREA | 4 MC/S | O.I.A.I. | DO | 2 | FAN | |
| B24 | DO | I | HP H/F | DO | 6MC/S | O.I.A.I. | DO | 2 | FAN | |

NOTE:- STANDBY TRANSMITTERS IN LINES
A. 11 AND B 35 ARE REQUIRED IN THE EVENT
OF EQUIPMENT FAILURE AND FOR "LEAP-
FROG" FREQUENCY CHANGING OF FIXED
SERVICES TO MAINTAIN HIGH CIRCUIT
RELIABILITY AND EFFICIENCY

APPENDIX. " A "

FIXED SERVICES VANCOUVER RADIO

| LINE | SERVICE | TRANSMITTING CHANNELS | | EQUIPMENT | DISTANCE | FREQ OR FREQ RANGE | TYPE OF EMISSION | | TRANSMITTING ANTENNA | RECEIVING CHANNELS | RECEIVING ANTENNA | REMARKS |
|------|----------------------------------|-----------------------|--------------------|---------------|---------------------|--------------------|-----------------------|-----------------------|----------------------|--------------------|-------------------|---|
| | | PEACE | WAR | | | | PEACE | WAR | | | | |
| A 1 | OTTAWA | 2(DFS)(DPX) | 2(DFS)(DPX) | I.H/P H/F | 3500 KM 1907 MI | 4-30 MCS | 1.3 F.I. O.I.A.I. | 1.3 F.I. O.I.A.I. | DIR | | DIV DIR | |
| A 2 | HALIFAX | 2(DFS)(DPX) | 2(DFS)(DPX) | I.H/P H/F | 4000 KM 2420 MI | 4-30 MCS | O.I.A.I. 1.3 F.I. | O.I.A.I. 1.3 F.I. | DIR | 2(1.CW BAY) | DIV DIR | ONLY REQUIRED IN EVENT OF FAILURE. A.I. |
| A 3 | NEW ZEALAND | 1(DPX) | 1(DPX) | I.H/P H/F | 13000 KM 6450 MI | 4-30 MCS | O.I.A.I. 1.08 F.I. | O.I.A.I. 1.08 F.I. | DIR | 1(CW BAY) | DIV DIR | |
| A 4 | ESQUIMALT | 1(DPX) | 1(DPX) | I.M/P M/F H/F | 126 KM 70 MILES | 2-12 MCS | O.I.A.I. 1.08 F.I. | O.I.A.I. 1.08 F.I. | DIR | 1(CW BAY) | DIR | |
| A 5 | PRINCE RUPERT | | 1(DPX) | I.M/P H/F | 673 KM 374 MI | 2-12 MCS | | O.I.A.I. 1.08 F.I. | DIR | 1(CW BAY) | DIR | |
| A 6 | MARITIME HEADQUARTERS (J.O.T.C.) | MULTI CHANNEL LINK | MULTI CHANNEL LINK | | | | | | DIR | MULTI CHANNEL LINK | DIR | |
| A 7 | MASSET | 1(SPX) | 1(SPX) | I.M/P H/F | | 2-12 MCS | O.I.A.I. 1.08 F.I. | O.I.A.I. 1.08 F.I. | DIR | 1 | DIR | |
| | | | | | | | | | | | | |
| | | | | | | | | | | | | |
| | | | | | | | | | | | | |
| | | | | | | | | | | | | |
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| | | | | | | | | | | | | |
| | | | | | | | | | | | | |

BROADCAST AND SHIP SHORE VANCOUVER I

| LINE | SERVICE | TRANSMITTING CHANNELS | EQUIPMENT | DISTANCE | FREQ OR FREQ RANGE | EMISSION | TRANSMITTING ANTENNA |
|------|----------------------------|-----------------------|-----------------|----------------------|--------------------|-----------------------|----------------------|
| B 1 | PRIMARY RATT FLEET BEST | I | HP LF | NORTH | 133.15 KCS | O.I.A.I. 0.6 F.I. | QMNI |
| B 2 | DO | I | HP HF | PACIFIC AREA A DO | 4 MCS | O.I.A.I. 1.08 F.I. | DO |
| B 3 | DO | I | HP HF | DO | 6 MC S | DO | DO |
| B 4 | DO | I | HP HF | DO | 8 MC S | DO | DO |
| B 5 | DO | I | HP HF | DO | 12 MC S | DO | DO |
| B 6 | DO | I | HP HF | DO | 17 MC S | DO | DO |
| B 7 | DO | I | MP HF | DO | 22 MCS | DO | DO |
| B 8 | FLEET C/W BROADCAST | I | HP LF | NORTH PACIFIC | L F | O.I.A.I. | DO |
| B 9 | DO | I | HP HF | DO | 4 MC S | O.I.A.I. | DO |
| B 10 | DO | I | HP HF | DO | 6 MCS | O.I.A.I. | DO |
| B 11 | DO | I | HP HF | DO | 8 MCS | O.I.A.I. | DO |
| B 12 | DO | I | HP HF | DO | 12 MCS | O.I.A.I. | DO |
| B 13 | DO | I | HP HF | DO | 17 MCS | O.I.A.I. | DO |
| B 14 | DO | I | MP HF | DO | 22 MCS | O.I.A.I. | DO |
| B 15 | PRIMARY SHIP SHORE | I | HP HF | N.A. | 4 MCS | O.I.A.I. | DO |
| B 16 | DO | I | HP HF | N.A. | 6 MCS | DO | DO |
| B 17 | DO | I | HP HF | N.A. | 8 MCS | DO | DO |
| B 18 | DO | I | HP HF | N.A. | 12 MCS | DO | DO |
| B 19 | DO | I | HP HF | N.A. | 16 MCS | DO | DO |
| B 20 | DO | I | MP HF | N.A. | 22 MCS | DO | DO |
| B 21 | SECONDARY SHIP SHORE | I | MP MF | 50 MILES | 2-3 MC S | 1.08 F.I. O.I.A.I. | OMNI |
| B 22 | STAND BY | I 4 | HP H/F MP HF | | 2-30 MCS | 1.08 F.I. O.I.A.I. | |
| | | | | | | | |
| | | | | | | | |

APPENDIX " B "

SHIP SHORE VANCOUVER RADIO

| ANCE | FREQ OR FREQ RANGE | EMISSION | TRANSMITTING ANTENNA | RX. BAYS | RX. ANTENNA | REMARKS |
|---------|--------------------|-----------------------|----------------------|--------------------------------|----------------------------|--|
| | | | | | | |
| H | 133.15 KCS | O.I.A.I. 0.6 F.I. | QMNI | | | |
| AREA | 4 MCS | O.I.A.I. 1.08 F.I. | DO | | | |
| | 6 MCS | DO | DO | | | |
| | 8 MCS | DO | DO | ADEQUATE MONITORING FACILITIES | AS REQUIRED FOR MONITORING | UP TO FIVE H/F COMPONENTS TO OPERATE SIMULTANEOUSLY |
| | 12 MCS | DO | DO | | | |
| | 17 MCS | DO | DO | | | |
| | 22 MCS | DO | DO | | | |
| PACIFIC | L F | O.I.A.I. | DO | | | |
| | 4 MCS | O.I.A.I. | DO | | | |
| | 6 MCS | O.I.A.I. | DO | | | |
| | 8 MCS | O.I.A.I. | DO | ADEQUATE MONITORING FACILITIES | AS REQUIRED FOR MONITORING | UP TO FIVE H/F COMPONENTS TO OPERATE SIMULTANEOUSLY |
| | 12 MCS | O.I.A.I. | DO | | | |
| | 17 MCS | O.I.A.I. | DO | | | |
| | 22 MCS | O.I.A.I. | DO | | | |
| A. | 4 MCS | O.I.A.I. | DO | 2 | FAN | |
| A. | 6 MCS | DO | DO | 2 | FAN | |
| | 8 MCS | DO | DO | 2 | FAN | 2- RATT BAYS SITED IN T/T ROOM WITH CW KEYING FACILITIES |
| A. | 12 MCS | DO | DO | 2 | FAN | ON SHIP SHORE ANSWERING FREQUENCIES |
| A. | 16 MCS | DO | DO | 2 | FAN | |
| A. | 22 MCS | DO | DO | 2 | FAN | |
| ES | 2-3 MCS | 1.08 F.I. O.I.A.I. | OMNI | 1 | FAN | |
| | 2-30 MCS | 1.08 F.I. O.I.A.I. | | | | |
| | | | | | | |
| | | | | | | |

SECRET
ENCLOSURE C
APPENDIX "C"

SUMMARY OF EQUIPMENT REQUIREMENTS -
TO MEET STAFF REQUIREMENTS
HALIFAX AND VANCOUVER RADIO STATIONS

(a) Transmitters

| | Staff Requirement | | Installed now or included in 1957- 58 | Deficiency | |
|----------------|-------------------|-----|---|------------|-----|
| | Peace | War | | Peace | War |
| HALIFAX | | | | | |
| High Power SSB | 2 | 2 | 1 (1957-58) | 1 | 1 |
| High Power | 20 | 20 | 20 | 0 | 0 |
| Med. Power | 15 | 19 | 15 (1957-58) | 0 | 4 |
| VANCOUVER | | | | | |
| High power | 18 | 18 | 12 | 6 | 6 |
| Med. Power | 10 | 11 | 10 (1957-58) | 0 | 1 |
| TOTALS | | | | | |
| High Power SSB | 2 | 2 | 1 | 1 | 1 |
| High Power | 38 | 38 | 32 | 6 | 6 |
| Med. Power | 25 | 30 | 25 | 0 | 5 |

(b) Receivers

New HF receivers included in 1957-58 estimates
will fill all requirements.

(c) Ionospheric Scatter

Two terminals required for Halifax-Ottawa
VHF Scatter circuit.

Appendix "C" (cont'd)

(d) Radio Link Equipment

Multi-channel radio link equipment
required for receiving stations and
MHQ's on each coast.

~~8/EEC~~

M 121833Z

DEFERRED

FM CANAVHED

TO RCEHC/ CANFLAGLANT

NSC 7400-189
NSC 7401-610-2(EEC)

INFO RCEHC/ COMSUPTLANT

131845Z RE- PERMANENT AERIAL
SITE FOR HARBOUR UHF

NAVY GRNC

BT

DNCOM
SOC
DPP
CEC
EEC
NCC
D/SEC/STAFF
DNF
CTO
TS(ADMIN)

YOUR 131845Z MAY.

INTERIM INSTALLATION HARBOUR UHF COMMAND HEADQUARTERS SIGNAL

TOWER APPROVED. REQUEST OPERATIONAL RESULTS AND AS FITTED DRAWINGS
BE FORWARDED.

BT

TOD 122048Z JUN 57 EEC(E2)

~~1/1~~



Department of National Defence

Royal Canadian Navy

Office of Flag Officer Atlantic Coast
H.M.C. Dockyard, Halifax, Nova Scotia

IN REPLY PLEASE QUOTE

NO. AC:7400-112/1

3 June 1957

Referred to *Staff*

HFX - UHF - HARBOUR COMMUNICATIONS

JUN 10 1957

File No. *1300-166/10*

Chgd to

PROPAGATION SURVEY

Reference (a) Canflaglant 131845Z May.

Enclosure (A) CSAC: 7401-200 of 3 May, 1957 (with Enclosure).

Enclosure (A) is submitted for the consideration of Naval Headquarters and in amplification of paragraph 2 of reference (a).

2. It is considered that a most urgent requirement exists for a UHF Harbour Circuit giving coverage over Bedford Basin, Halifax Harbour and five miles to seaward of Maugher's Beach Light.
3. The proposals in Enclosure (A) are concurred in and should be conducted to determine the optimum location to meet the requirements of the Harbour Common Circuit as recommended in paragraph 3 of Enclosure (A).
4. In order to meet the urgent requirement to establish a UHF Harbour Circuit it is intended to effect an interim installation as outlined in reference (a) siteing the antenna atop the present 40 foot signal mast of the Command Headquarters Building. Eventually, it is intended to replace this mast with a 70 foot installation now required to meet other communication requirements. A proposal for this replacement is being prepared and will be forwarded in due course. It is possible that adequate coverage might be achieved from the antenna siteing on either of these masts.
5. An early reply is requested in order that this installation may be completed during the early part of June as other Dockyard commitments exist for the early part of the summer.

[Signature]
REAR ADMIRAL

The Naval Secretary

Copy to: Commodore Superintendent Atlantic Coast.

Handwritten note:
Canvassed 121835Z ~~1957~~ ^{JUNE} 1957 approves interim Harbour UHF installation in Command HQ Signal Tower. Operational results and as fitted drawings to be forwarded.

DEPARTMENT OF NATIONAL DEFENCE
Royal Canadian Navy

ORIGINAL DAMAGED

Commodore Superintendent Atlantic Coast

3 May, 1957

HALIFAX UHF HARBOUR COMMUNICATIONS - PROPAGATION SURVEY

References: (a) NSC 7400-189(EEC) NSC 7401-610-2 dated 28 February, 1957.

(b) AC 7400-112/1 dated 27 March, 1957.

Enclosure: (A) Summary of Requirements for a Common UHF Survey.

It is submitted that to carry out the Propagation Survey, referred to in references (a) and (b), will require the full time services of one Project Engineer and two experienced Technicians for a period of 8 to 10 weeks. This would hinder the completion of the present UHF conversion program as well as repair and trials commitments generally for the period noted. It is to be appreciated that the present Manager Electrical Engineering staff is not complemented for extraneous and unforeseen projects of this magnitude.

2. During the recent complement survey of HLC Dockyard, the complement submitted by the Manager Electrical Engineering was designed to cope with increased system engineering work and other technical investigations. This was not acceptable to the Complement Committee on the grounds that the duties of the Commodore Superintendent do not include responsibility for engineering services beyond superintendence, refit and repair of equipment as laid down in N.G.O. 2.08/9.

3. It is recommended, therefore, that approval be sought from Naval Headquarters to have the propagation survey carried out by civilian contract. The necessary specification and technical supervision can be provided by the Manager Electrical Engineering.

4. A brief outline of the requirements of the survey and the approximate costs involved is attached as enclosure (A).

Original signed by
J. MacGILLIVRAY
(J. MacGillivray)
COMODORE (E)

Flag Officer Atlantic Coast.

(ENCLOSURE A) to CSAC 7401-200 dated 3 May, 1957)

SUMMARY OF REQUIREMENTS FOR HARBOUR COMBINATION UHF SURVEY

1. Purpose of the Survey.
 - (a) To determine the best site for the shore station antenna.
2. General Outline.
 - (a) Possible sites will be checked by visual observation to eliminate those obviously not suitable.
 - (b) The remaining possible sites will be checked by making field strength measurements.
 - (c) UHF equipment will be installed at the test site, and field strength measured by equipment installed in a small ship such as the Bird Class.
 - (d) The initial survey will be conducted using a TED-3 transmitter working into a standard type AS-390/SRC antenna. In the event that this setup does not provide sufficient field strength, the effect of using a vertically directive antenna may be computed with the use of the initial field strength chart. Estimates will be obtained on the cost of a vertically directive antenna such as a turnstile.
3. Detailed Procedure to be followed by Survey Ship.
 - (a) The evaluating ship will be required to steer so as to pass through a system of predetermined positions in Bedford Basin and the Harbour approaches.
 - (b) Measurements at jetties and in restricted anchorages will be taken with the ship stopped.
 - (c) The main network positions will be on lines 5 cables apart with intervals of 5 cables between observations. Other positions will be as shown on charts provided.
 - (d) As a result of the initial survey it may be necessary to take other readings at intermediate positions on the network. It is therefore essential that an accurate track chart and record of fixes with times be kept. A fixing and plotting team in addition to the ship's staff will, it is considered, be necessary to assist the Commanding Officer if a Bird Class ship is used as the evaluating ship.
 - (e) Some communication between the Engineers and the fixing team will be necessary in order to ensure that the Engineers can take a reading at the instant the ship is thought to be in position. On plotting a fix it may be found that the ship was not in the exact position at the time the reading was taken. This will be acceptable if the plotted position is within a circle of $\frac{1}{2}$ cable radius with its centre at the required position.
 - (f) The test team will in all matters effecting the navigation and safety of the ship be governed by the requirements of the Commanding Officer of the ship.
4. Estimate of Equipment Required.
 - (a) Electronic Equipment.
 - (i) One model TED transmitter and crystal for 283.4 M.C.
 - (ii) One model AN/URR-13 receiver and crystal for 283.4 M.C.
 - (iii) One type AS-390/SRC antenna.
 - (iv) One model NFA-5A field strength measuring equipment.
 - (v) Miscellaneous cables, connectors, etc.

- 2 -

(■) Auxiliary Equipment.

- (i) One small ship such as Bird Class and fitted with UHF communications equipment and plotting table.
- (ii) Two sextants.
- (iii) One perspex station pointer.
- (iv) Two pairs high power binoculars.

5. Estimate of Men Required.

- (a) One project engineer.
- (b) Two electronic technicians.
- (c) Two navigators.
- (d) One recording man.
- (e) One plotting man.
- (f) Crew for ship.

6. Estimate of Working Time Required. (Assuming two sites will be checked by field strength).

- (a) Installation of equipment - 2 weeks
- (b) Conducting survey proper - 8 weeks
- (c) Total working time required - 10 weeks

7. Estimate of Cost of Contracting the Electronic Technical Work.

- (a) One project engineer -
10 weeks at \$45.00 per man day - \$2200.00
- (b) Two electronics technicians
10 weeks at \$30.00 per man day - \$3000.00
- (c) Total estimated cost - \$5200.00

8. Estimate of Cost of Using Dockyard Personnel for Electronics Technical Work.

- (a) One project engineer
10 weeks at \$60.00 per man day - \$3000.00

NOTE: Although this cost is not directly payable by Dockyard, it will cost the Defence Department approximately this amount and represents time of contract engineer assigned to Manager Electrical Engineering.

- (b) Two electronics technicians.
10 weeks at \$15.00 per man day - \$1500.00
- (c) Total cost - \$4500.00

RESTRICTED

RFD/MML

NSC 7400-189(EEC)
NSC 7401-610-2

28 February, 1957.

UHF HARBOUR COMMUNICATION HALIFAX

It is intended that the Harbour Common UHF radio communication circuit CAN L6 (C) be instituted at Halifax. The UHF circuit will replace the former VHF circuit. The existing MF circuits will be retained.

2. A frequency of 283.4 Mc/s has been allocated for CAN L6 (C). Voice communication will be employed initially. Teletype communication using AN/SGC-1 equipment may be instituted subsequently. The circuit will be controlled from the Naval Communication Centre, Halifax.

3. The broad requirement for this circuit is to provide reliable local ship-shore and shore-ship communication between the Naval Communication Centre and ships in Halifax Harbour, Bedford Basin and the Harbour Approaches.

4. To meet this objective within the more rigorous limitations imposed on shipboard UHF installations it is considered desirable that in the shore installation:

(a) the antenna should be sited as high as practicable at a given site.

(b) the R.F. transmission line losses ^{be} minimized.

To reduce installation costs, negotiation, and other related problems it is most desirable that the equipment be sited in an R.C.N. establishment in which the required services and facilities are presently available.

5. It is considered that the configuration of the harbour and the surrounding terrain as well as the presence of various structures will introduce difficulties in achieving reliable surface coverage.

6. In order to determine the site which most nearly fulfills all conditions it is requested that a propagation survey be conducted. The survey should test communication at selected possible sites with ships berthed alongside and underway in the areas mentioned in paragraph 3. It is realized that various factors may introduce uncertainties in the results. It is assumed that suitable UHF-equipped ships may be made available as necessary.

7. It is suggested that the following sites be included among those investigated:

(a) Headquarters Building, Flag Officer, Atlantic Coast.

(b) Microwave Tower at Albro Lake Naval Radio Station.

The Flag Officer, Atlantic Coast.

c.c. The Commodore Superintendent,
Atlantic Coast.

311 Com } consumed
50E } on other copy
DNF }

RESTRICTED

.... /2

In connection with the latter site it is pointed out that the effect of line voltage regulation on the microwave transmitters in the tower building must be considered.

8. For remote siting of the radio equipment it may be assumed that one telephone pair will provide the minimum facilities in the final installation as follows:

- (a) transmit audio
- (b) receive audio
- (c) transmit-receive changeover via a D.C. loop composited with (a) and (b).

Suitable control equipment will be provided as necessary.

9. A report is to be forwarded to Naval Headquarters containing the following information:

- (a) Factors governing selection of test site
- (b) Description of selected test sites
 - (i) location
 - (ii) facilities available
 - (iii) facilities required for permanent installation.
- (c) Description of tests conducted
- (d) Expected coverage and reliability
- (e) Estimated cost of permanent installation
- (f) Sketches in amplification of the above
- (g) Recommendations

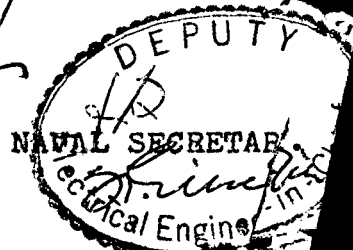
10. The following equipment held in Naval Supply Depot, Halifax may be employed for this project:

| <u>NAVCAT</u> | <u>DESCRIPTION</u> | <u>QUANTITY</u> |
|-------------------|-------------------------------------|-----------------|
| (a) 5820 000 0067 | Transmitter TED 3 | 1 |
| (b) 5820 000 0020 | Receiver AN/URR-35A | 1 |
| (c) 5820 401 2020 | Antenna AS-390/SRC | 1 |
| (d) 5835 447 0065 | Handset | 1 |
| (e) 5955 460 1826 | Crystal Unit Quartz for item (a) | as req. |
| (f) 5955 460 1830 | Crystal Unit Quartz for item (b) | as req. |
| (g) | required accessory stores | |

All equipment is to be returned in a serviceable condition on completion of the tests.

11. If this project cannot be entirely undertaken by Dockyard Staff owing to existing commitments then it is recommended that suitable industrial assistance should be obtained locally. All essential facilities and co-operation should be provided as necessary.

12. Action is being taken to forward an allotment of in the amount of \$1500. from Primary 400-75 for this project.



SECRET

THE NAVAL BOARD

The following minute is promulgated for information
and/or necessary action.

Meeting held on 20th February, 1957.

521-5

NET CONTROL STATION - COVERDALE
(NS S 1321-9/3)

At the 92nd meeting on 11th February, 1957, PPCC considered a recommendation that the proposed Net Control Station at Gander be transferred to Coverdale. PPCC recommended to Naval Board that:-

(a) net control facilities be moved from Gander to HMCS COVERDALE;

(b) ACNS(W) and CNTS be the Co-ordinators.

2. DN COM. explained that a Control Station was necessary to co-ordinate the activities of the Canadian HFDF Stations, and to act as an alternative Net Control Station for the North West Atlantic. He outlined the advantages of Coverdale over Gander for the purpose, and confirmed that no over-all increase in personnel would be entailed. The cost of moving the necessary radio transmitter from Gander to Coverdale was estimated to be \$25,000.

DECISION:


3. Naval Board approved the recommendations of PPCC as in Paragraph 1 of this minute.

ACNS(W) 21/3
For action.

By JSRA

Action to date:

1. Coverdale + Gander informed of forthcoming move of Net Control.
2. Plot personnel will be drafted to Coverdale from HQ when the form is ready; so that Net control operation can commence, with Coverdale directing Gander's transmissions.
3. Allowance in '58-'59 estimates being submitted to cover transference move to Coverdale. *Alt. H. 20/3/57.*


SECRETARY, NAVAL BOARD.

SECRET

PPCC PROJECT FORM

Subject REQUIREMENT FOR NET CONTROL - HMCS COVERDALE Originator DSRA
Project No. 25 File No. NSS 1321-9/3
Classification SECRET Date 11 FEBRUARY 1957

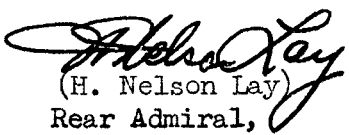
PPCC recommended that:

- (a) net control facilities be moved from GANDER to HMCS COVERDALE;
- (b) ACNS(W) and CNTS be the Co-ordinators.

MINUTE II

Recommended for:

- (a) Tabling at Naval Board
- (b) ~~Approved by ACNS for Naval Board~~



(H. Nelson Lay)
Rear Admiral,
VICE CHIEF OF NAVAL STAFF,
CHAIRMAN, PPCC.

Date 14 FEBRUARY 1957.

MINUTE III

Action approved:

- (a)
- (b)


Vice Admiral,
CHIEF OF THE NAVAL STAFF.

Date 18/2/57

EXTRACT FROM
MINUTES OF THE 92nd MEETING OF THE
POLICY AND PROJECTS CO-ORDINATING COMMITTEE
MONDAY, 11 FEBRUARY 1957

92-4 REQUIREMENT FOR NET CONTROL - HMCS COVERDALE
(SECRET)(NSS 1321-9/3)

PFCC had for consideration a brief prepared by DSRA stating that in accordance with the latest SACLANC HFDF plan, concurred in by the RCN, a net control for the Northwest Atlantic together with a tactical unit capable of supplying HFDF information is needed to feed such information to the Operational Intelligence Centre, Halifax.

2. Formerly, GANDER was the net control station for the Canadian HFDF Stations COVERDALE, FROBISHER BAY, CHURCHILL and GLOUCESTER, and the alternate net control station for the whole of the Northwest Atlantic. However, it has been found that co-location of HFDF plots, technical aids and net control is essential; and that a tactical unit and rapid communication between net control and Operational Intelligence Centres is also essential if the full value of this intelligence is to be obtained.

3. By locating the net control of the HFDF system at COVERDALE instead of at GANDER a number of advantages would be achieved. These are as follows:

- (a) COVERDALE is large enough to provide the additional operational and accommodation space required.
- (b) COVERDALE is much nearer to CANFLAGLANT's Operational Intelligence Centre, thus providing cheaper communications circuits.
- (c) As the number of operating positions for DSRA's other activities at COVERDALE has been reduced, receivers, antennas and operating space for the tactical role are available.
- (d) COVERDALE is easily accessible by air from Halifax in the event of line breakdown or traffic overload conditions.
- (e) COVERDALE is so located that transportation costs for personnel drafted there from any other SUPRAD Station would be cheaper.

The only disadvantage is that the required radio transmission facilities are already installed at GANDER and it is estimated that it would cost approximately \$25,000.00 to move these to COVERDALE.

4. DSRA informed the Committee that if approval in principle were given to set up net control facilities at COVERDALE it was intended that they be divided into two phases:

PHASE I

- (a) Modify existing operation space to accommodate the net control functions and install communications terminal equipment for both net control and tactical unit channels.
- (b) Incorporate the HFDF plot, now housed in Naval Headquarters, in net control COVERDALE. Present Wren personnel (4) employed in plotting would be drafted to COVERDALE as part of the extra personnel requirement.

PHASE II

- (a) Move the necessary radio transmitter from GANDER to COVERDALE for installation in the Department of Transport transmitting site, Moncton, and install necessary remote control and antenna facilities.

DSRA stated that the implementation of Phase II would not be made until official approval has been received from the Department of Transport to house the transmitter at their site near Moncton, and the cost established.

5. DCNP queried whether or not any personnel could be transferred from GANDER to COVERDALE to meet the increased personnel requirement. DSRA stated that a recent survey of his branch by DN Org proposed to reduce the number of personnel within the branch, and he anticipated the additional fifteen personnel required at COVERDALE could be allocated from the proposed reduction. DN Org stated that he could see no difficulty in allocating the required personnel for this commitment providing it came within the overall reduction in the branch.

DECISION

PFCC agreed to recommend to Naval Board that:

- (a) net control facilities be moved from GANDER to HMCS COVERDALE;
- (b) ACNS(W) and CNTS be the Co-ordinators.

NAVAL SERVICE—MINUTE SHEET

FILE No.

REFERRED TO

REMARKS
(WITH SIGNATURE, POSITION AND DATE)

VCA S

Due to the sensitive nature of this subject, recommend discussion at PPCC.

2. It is suggested that, to avoid wide distribution of sensitive material, this docket be circulated by hand of my secretary to PPCC members prior to the meeting. The attached brief, not regarded as sensitive, can be prepared as the PPCC submission, in the usual number of copies.

Concur

AKH/2

AK Hewitt
DSRA
4 Feb. '87

SECRET

DSRA 036
NSS 1321-9/3 (DSRA)

BRIEF TO PPCC ON REQUIREMENT FOR NET CONTROL - HMCS COVERDALE

In accordance with the latest SACLANT HFDF requirements, concurred in by the RCN, a net control for the Northwest Atlantic together with a tactical unit capable of supplying HFDF and "Y" information is needed to feed such information to the Operational Intelligence Center, Halifax.

2. In former plans for such services, GANDER had been shown as the net control for COVERDALE, PROBISHER BAY, CHURCHILL and GLOUCESTER HFDF stations. It has been found by experience, however, that co-location of HFDF plot, technical aids such as radio finger printing, and net control is essential; and that rapid communication between net control and Operational Intelligence Center is also essential if the full value of this intelligence is to be obtained.

3. By locating the net control of the HFDF function at COVERDALE instead of at GANDER, a number of advantages, and few disadvantages, will be achieved.

Advantages of COVERDALE over GANDER

- (a) COVERDALE is large enough to accommodate the additional operational and accommodation space required, including PMQs. *
- * NOTE: COVERDALE now has extra space, due to the recent building up of AKLAVIK, and consequent reduction of COVERDALE.
- (b) COVERDALE is much nearer to CANFLAGLANT's OIC, thus providing cheaper communication circuits, rentals of which compare as follows:
 - (i) COVERDALE to Halifax and to U.S. - \$7,870.08 per annum;
 - (ii) GANDER to Halifax and to U.S. - \$37,749.72 per annum.
- (c) As the number of positions at COVERDALE has been reduced, receivers, antennas and operating space are available for the tactical role. GANDER would have to be expanded to provide intercept.
- (d) COVERDALE is easily accessible by air from Halifax in the event of line breakdown or traffic overload conditions. COVERDALE is 200 miles, as opposed to GANDER's 550 miles, from Halifax.
- (e) Cheaper transportation costs for personnel drafted from any Suprad station to COVERDALE than to GANDER.

Advantages of GANDER over COVERDALE

- (a) Required radio transmission facilities already installed. Estimated cost to install at COVERDALE, under \$25,000.00.

4. The additional personnel required at COVERDALE to cover the increased commitment would be 15 in number. This number will, of course, be subject to review by the Complement Committee during their next visit to COVERDALE.

...../2

SECRET

000142

SECRET

5. It is proposed to set COVERDALE up as net control in two phases:

PHASE I

- (a) modify existing operations space to accommodate the net control functions, and incorporate communications terminal equipment for the OIC and net control channels;
- (b) incorporate the HFDF plot, now housed in Naval Headquarters, in net control COVERDALE. Present wren personnel (four) employed in plotting would be drafted to COVERDALE as part of the extra personnel requirement.

PHASE II

- (a) move the necessary radio transmitter from GANDER to COVERDALE for installation in the Department of Transport transmitting site, Moncton, and install necessary remote control and antenna facilities.

6. The RCN has been requested by SACLANT to provide net control, traffic analysis and Operational Intelligence Center facilities for exercise "STRIKE-BACK" in September, 1957. It is proposed to implement Phase I above prior to that date in order that the SACLANT requirement may be at least partially met. Transmitting facilities will be retained at GANDER, and employed under COVERDALE's direction until such time as these facilities can be moved to the latter place.

7. It is recommended that approval in principle may be given to set up net control facilities at COVERDALE so that Phase I may be implemented. Further submission for approval to implement Phase II will be made when official Department of Transport approval for housing the transmitter at Moncton has been received, and the cost established. It is estimated that this cost will not exceed \$25,000.00.

which?

A.R. Hewitt

(A.R. Hewitt)
Commander (SB), RCN,
DIRECTOR OF SUPPLEMENTARY
RADIO ACTIVITIES

OTTAWA,
4 February 1957.

SECRET

000143

Document disclosed under the Access to Information Act
Document divulgué en vertu de la Loi sur l'accès à l'information

DEPARTMENT OF NATIONAL DEFENCE

MESSAGE FORM

FOR UNCLASSIFIED MESSAGES ONLY

| | | | |
|--|---|-----------------------------|----------|
| INDICATE DEGREE OF PRECEDENCE | | FOR MESSAGE CENTRE USE ONLY | |
| OPERATIONAL IMMEDIATE | | | |
| PRIORITY | | | |
| ROUTINE | X | GR | X UNCLAS |
| IF NOT MARKED WILL BE TRANSMITTED DEFERRED | | FROM CANAVHED | |
| | | TO CANFLAGLANT CANFLAGPAC | |
| | | NAVAL CCG OTTAWA | |
| | | DEC 18 22 41Z56 | |
| | | OUT | |
| INFO | | NRS ALBRO NRS ALDERGROVE | |
| ORIGINATOR'S NO. | | | |

SUBJECT TO OPERATIONAL REQUIREMENTS AND YOUR CONCURRENCE
VANCOUVER AND HALIFAX RADIO MAY BE PARTIALLY CLOSED DOWN FOR A TWO
HOUR PERIOD 25 DEC 56

18/12/56

SECRETARY D.N. COM.

17-12-56.

| | | | |
|----------------------------|---------------------|------------------------------|-------------------------|
| ORIGINATOR INCOM (H.S.) | TELEPHONE 2-5163 | DATE - TIME GROUP 182243Z | FILE NO. 1300-166/10 |
|----------------------------|---------------------|------------------------------|-------------------------|

NAVY SERVICE - MINUTE SHEET

FILE NO

MS B.70-166/30
8/11/56

REFERRED TO

REMARKS

(WITH SIGNATURE, POSITION AND DATE)

C R

Navy Monthly Report - ^{Communications} Centre
DS: 1300 - 112/11 dated
2 November 56, from
Base Superintendent
Port Edward Naval Base
Sydney, N. S. W.
Director of Naval Comm-
unications - N H S.
removed and
placed in 1300 - 37
in the Comm.

L J Lindsay

8/11/56


NSS 1300-166/10 (Staff)

MEMORANDUM TO: EEC

RADIO RELAY - ATLANTIC COMMAND

Reference: (a) NSS 1300-166/10 (EEC) of 5 April, 1956.

In regard to paragraph 2 of reference (a), it has been decided to defer this project until such time as a site for the Maritime Headquarters is selected.


(H.A. Porter)
Commander, RCN,
DIRECTOR OF NAVAL COMMUNICATIONS.

OTTAWA,
10 April, 1956.

NSS 1300-166/10 (EEC)

14
MEMORANDUM TO: DN COM

RADIO RELAY ATLANTIC COMMAND

References: (a) NSS 1300-166/10(STAFF) *date 24 May 1955.*
(b) Naval Board Minute 429-1 dated 15 December, 1954.

It is understood that this project has been deferred or cancelled in order to make the funds available for another project.

2. Clarification of the status of this project is requested.


P.M. Battle
(W.H.G. Roger)
Commodore (L) R.C.N.
ELECTRICAL ENGINEER-IN-CHIEF

O T T A W A,
5 April, 1956.

5075

DEPARTMENT OF NATIONAL DEFENCE

TEMPORARY DOCKET



| REFERRED | REMARKS | DATE OF PASS | INITIALS | DATE OF P.A. | INITIALS | DATE OF B.F. | CENTRAL REGISTRY | INSPECTED IN C.R. BY |
|----------|-------------|--------------|----------|--------------|-----------|--------------|------------------|----------------------------|
| Staff | Transferred | 10/30/54 | | | | | | A31 |
| STAFF | | 9-4-54 | gl | 16/4/54 | gl Action | | 17-1958 | |

000148

T.D. No.

NOTICE

1. The BRANCH SECRETARIAT must be informed when you pass a file by hand.
2. Secretariats or File Rooms must inform Central Registry by C.R. Pass Slip when a file is passed.

MAINTENANCE FILE No.

1300-166/10

T.D. No.

6041

DEPARTMENT OF NATIONAL DEFENCE

TEMPORARY DOCKET

NAVY

9.4.56

| ROUTING | | | | P.A. & B.F. ENTRIES | | | REGISTRY ONLY | |
|--------------|---|---------------|-----------|---------------------|---------------|---------------|---------------|--|
| REFERRED | REMARKS | DATE OF PASS | INITIALS | DATE OF P.A. | INITIALS B.F. | DATE RECEIVED | INSPECTED | |
| <i>Staff</i> | <i>transferred to</i> WITH PAPERS OF FEB 10 1956 | | | <i>20/2/56</i> | | | <i>9.4.56</i> | |
| <i>STAFF</i> | <i>1302-1</i> | <i>9.4.56</i> | <i>cl</i> | <i>16/4/56</i> | | <i>9.4.56</i> | | |

H.Q. 1024



NAVAL SERVICE — MINUTE SHEET

1300-166/10

FILE No. TD 6041

REFERRED TO

REMARKS

(WITH SIGNATURE, POSITION AND DATE)

File

Letter from Canadian Overseas
Telecommunications Corporation,
Montreal, 1 Que.
dated 9 Feb. 1956.
Ref. HQ 10/11 has been
transferred to 1302-1

M.P.

Staff

20-2-56.

000151

TJB/JP

SECRET

PA 30/9
NSS 1340-40
✓ NSS 1300-166/10
(Staff)

ROYAL CANADIAN NAVY

Ontario

26

-8 September, 1955

EMERGENCY RADIO ORGANIZATION - ATLANTIC COMMAND

Reference (a) ACS 1340-1 of 18 August, 1955

Enclosure (1) Suggested Operational Requirements -
Atlantic Command Secondary Radio Station.

The proposals and recommendations in reference (a) for the establishment of an Atlantic Command Secondary Radio Station in HMCS CORNWALLIS, are under consideration in Naval Headquarters.

2. The operational requirements outlined in para 2 of reference (a) have been noted. To assist in further planning, enclosure (1) outlines CANAVHED's suggested operational requirements, together with the recommended transmitter complement. It is considered that the provision of transmitters Type AN/SRT 502 for this installation could not be justified, however, it is recommended that a higher powered transmitter than an AN/SRT 502 would be an essential requirement for the Emergency Broadcast Service.

3. It is requested you will forward any comments on the suggested operational requirements. CANAVHED will communicate information on the progress of this project in due course.

FMO
22/9/55
[Signature]

NAVAL SECRETARY

The Flag Officer Atlantic Coast #3436

EEC
DNPO
ACNS(P)
ACNS(W)

{
{ for concurrence.
{

SECRET

SECRET

Enclosure 1 to NSS 1340-40
NSS 1300-166/10

SUGGESTED OPERATIONAL REQUIREMENTS -
ATLANTIC COAST AND SECONDARY RADIO STATION

| <u>LINE</u> | <u>SERVICE</u> | <u>FREQUENCY KC/S</u> <u>FREQ. RANGE KC/S</u> | | <u>REMARKS</u> |
|-------------|----------------|--|----------------|---|
| | | <u>Transmit</u> | <u>Receive</u> | |
| 1 | Broadcast | 6425 | 6425 | { May be used I Method with St. John's Nfld Radsta when established. |
| 2 | L | 8542 | 8542 | |
| 3 | | 12813 | 12813 | |
| 4 | Mericast | 6449.5 | -- | { 2 lines only |
| 5 | | 8662 | -- | |
| 6 | | 12984 | -- | |
| 7 | | 17281.4 | -- | |
| 8 | Ship-Shore | 4283 | 4.0-4.3 | { 3 lines only |
| 9 | | 6386.5 | 6.2-6.4 | |
| 10 | | 8566 | 8.2-8.6 | |
| 11 | | 12849 | 12.4-12.6 | |
| 12 | | 17132 | 16.4-17.2 | |
| 13 | Fixed Services | 3-19 Mc/s | 3-19 | |
| 14 | | 3-19 " | 3-19 | |
| 15 | | 3-19 " | 3-19 | |

Transmitters required:- 1 - TH41B or equivalent

8 - PV500 H11 or equivalent

Receivers required:- 10 - CSR5 or equivalent

SECRET

NSS 1300-166/10 (Staff)

MEMORANDUM TO: EEC *74/5* *PL* *E2*

RADIO RELAY ATLANTIC COMMAND

Reference: (a) Naval Board Minute 429-1 of 15 December, 1954.

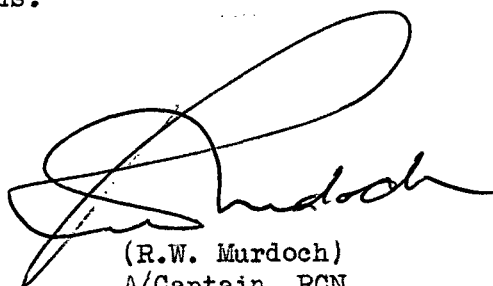
Attached herewith operational requirements for the Atlantic Command radio relay system approved in reference (a).

2. It is appreciated that the operational requirements outlined are the ultimate and may present engineering problems. If you consider that the requirements will result in a complex system which may exceed the financial provisions, the following may be considered in the engineering study:

- (a) The Albro Lake-CANFLAGLANT (Dockyard) link to be installed as a first priority. Other installations should, if possible, be carried out within the limitations of the approved financial commitment. In the event that financial limitations preclude other installations the Albro-Dockyard link should be compatible with other installations to be provided at a later date.
- (b) The requirement for operational facsimile circuits is an acceptable deficiency if problems concerning engineering and costs arise. It is essential, however, that the facsimile circuit facilities are provide for the remote keying of the Admin/Met broadcasts.
- (c) Until efficient speech secrecy equipment is available the fitting of this equipment on the Albro-Dockyard link is an acceptable deficiency. No speech secrecy equipment is required for the voice order-engineering or communication control circuits.
- (d) The Albro-Dockyard teletype circuits now being carried by cable have been included in the requirements. It is recommended, however, that cable pairs be reserved in the existing cable to provide teletype circuits in event:
 - (i) equipment failure in the radio relay system;
 - (ii) pending installation of a radio relay system in Maritime H.Q., it will be necessary to provide teletype circuits MHQ-Albro Lake which will be carried in the MHQ-Dockyard existing Army cable system and patched into the RCN cable.

- 2 -

3. The term "communication control circuit" is defined as a circuit used for radio circuit control, i.e., change of frequencies, conduct of the radio circuits, etc. It is suggested that these circuits may be provided by utilization of the voice order-engineering circuit with a suitable extension to the radio circuit control positions.

A handwritten signature in black ink, appearing to read 'R. Murdoch', with a large, sweeping loop at the end.

(R.W. Murdoch)
A/Captain, RCN,
DIRECTOR OF NAVAL COMMUNICATIONS.

OTTAWA,
24 May, 1955.

APPENDIX "A"
to NSS 1300-166/10 dated 24 May, 1955.

RADIO RELAY - ATLANTIC COMMAND.

Operational Requirements:-

- (1) Establishments served - (a) Maritime HQ, South Street
(interim)
(b) HQ-CANFLAGLANT-HMC Dockyard
(c) RCN Air Station, Dartmouth
(d) Albro Lake Radio Station
(e) Seaward Defence Headquarters-
York Redoubt

N.B. Installation in Maritime H.Q.
to be considered temporary until
a permanent MHQ is available.

- (2) Circuit requirements - (a) MHQ-HQ CANFLAGLANT
(i) 2 Voice
(ii) 3 Duplex teletype
(iii) 1 Duplex facsimile
(b) MHQ-Albro Lake
(i) 2 Voice
(ii) 2 Duplex teletype
(iii) Remote control circuits
for radio services:-
A. Broadcast L - CW
B. Met Broadcast-RATT and CW
C. Mercast-CW
D. Ottawa - Duplex RATT or CW
E. Whitehall - Duplex RATT or CW
F. Washington - Duplex RATT or CW
(iv) 1 voice circuit in (b)
(i) to be capable of patch-
ing through to Newport Corner
(c) MHQ-RCN Air Station
(i) 1 Voice
(ii) 1 Duplex teletype
(iii) 1 Duplex facsimile
(d) MHQ-SDHQ
(i) 1 Voice
(ii) 1 Duplex teletype.

.../2

- 2 -

(e) HQ-CANFLAGLANT-RCN Air Station

- (i) 1 Voice
- (ii) 3 Duplex teletype
- (iii) 1 Duplex facsimile

(f) HQ-CANFLAGLANT-Albro Lake

- (i) 2 Voice
- (ii) 3 Duplex teletype
- (iii) Remote control circuits -
transmit for local broad-
cast - CW; ~~and~~ Admin broad-
cast - RATT and facsimile.
- (iv) 5 Duplex RATT (peacetime
requirement, reduced to 2
in an emergency)

(g) RCN Air Station-Albro Lake

- (i) 1 Voice
- (ii) 2 Duplex teletype

(h) RCN Air Station-SDHQ

- (i) 1 Voice.

3. Functions of circuits in para (2) are outlined in Annex
"A".

4. Security:- Operational voice circuits to be capable
of operation with speech secrecy equipment.

ANNEX "A"

| <u>Terminations</u> | <u>Voice Circuits</u> | | <u>Teletype</u> | | <u>Facsimile</u> | | <u>Radio Remote</u> | |
|--------------------------------|-----------------------|---|-----------------|------------------------------|------------------|-----------------|---------------------|---|
| | <u>No.</u> | <u>Function</u> | <u>No.</u> | <u>Function</u> | <u>No.</u> | <u>Function</u> | <u>No.</u> | <u>Function</u> |
| (a) MHQ- CANFLAGLANT | 1 1 | Operational Communication Control | 1 2 | Operations Communications | 1 | Operational | | |
| (b) MHQ- Albro Lake | 1 1 | Operational Communication Control | 2 | Communications | | | 2 1 3 | CW Broadcast Control RATT/Fax Broadcast Duplex RATT |
| (c) MHQ- CANAS | 1 | Operational | 1 | Operations | 1 | Operational | | |
| (d) MHQ- SDHQ | 1 | Operational | 1 | Communications | | | | |
| (e) CANFLAGLANT- CANAS | 1 | Operations | 1 2 | Operations Communications | 1 | Operational | | |
| (f) CANFLAGLANT- Albro Lake | 1 1 | Operational Communication Control | 1 2 | Operations Communications | | | 1 1 5 | CW Broadcast Control RATT/Fax Broadcast Duplex RATT |
| (g) CANAS - Albro Lake | 1 | Operations | 2 1 | Operations Communication | | | | |
| (h) CANAS- SDHQ | 1 | Operational | | | | | | |

In all cases Voice Circuits are additional to "Voice Order-Engineering Circuit" requirements.

File No: NSS. 1300-40

Department of National Defence

CONFIDENTIAL

MEMORANDUM

TO: Electrical Engineer in Chief *HEC 8/3/55* *or EEC* *16/3*
FROM: D.C.P. Attention - Mr. H.E. Burke *HEB 8/3/55* Ottawa, Ontario.
Date: March 4, 1955.

Subject: New Operations Building - Naval Radio Station -
Albro Lake

1. Reference your memorandum November 9, 1954, concerning above named subject.
2. This matter has been referred to the Civil Service Commission, who has informed the Department that, in view of the number of outstanding vacancies for Communications Engineers, it will be unable to furnish the services of a qualified Engineer for this position.
3. It will therefore be necessary to raise a Contract Demand for this purpose.

(2) L.S.O.C. for your action 4/4/55
HEC
HEB
2
(3) EEC *Attn. Zeds. Human.*
14.4 *He spoke. Referred for action by EEC.*
Human Resources
for WOC
12/4/55

[Signature]
Director of Civilian Personnel.

NSS. 1300-40

CONFIDENTIAL

Electrical Engineer-in-Chief


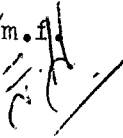
D.C.P. Attention - Mr. H.E. Burke

March 4, 1955.

New Operations Building - Naval Radio Station -
Albro Lake

1. Reference your memorandum November 9, 1954, concerning above named subject.
2. This matter has been referred to the Civil Service Commission, who has informed the Department that, in view of the number of outstanding vacancies for Communications Engineers, it will be unable to furnish the services of a qualified Engineer for this position.
3. It will therefore be necessary to raise a Contract Demand for this purpose.

Director of Civilian Personnel.

 F. Hodgins/m. 1


CIVIL SERVICE COMMISSION



CANADA

COMMISSION DU SERVICE CIVIL

Ottawa, February 22, 1955.
Ref. (CWB)

Deputy Minister of National Defence,
Ottawa, Ontario.

Dear Sir:

With reference to your request of January 26, 1955 for a Communications System Engineer for a period of ten months to assist the Works Officer-in-Chief in the preparation of plans for a new operations building at Dartmouth, N.S., the Commission has to advise that, in view of the number of outstanding vacancies for Communications Engineers, it will be unable to provide you with the services of a qualified Engineer for this position.

It would appear that unless you can utilize the services of one of your present staff, the work will have to be performed by contract.

Yours truly,

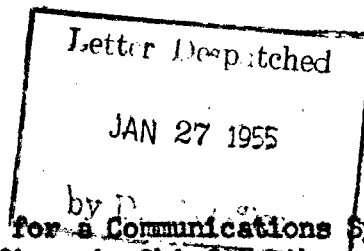
A handwritten signature in cursive script, appearing to read "M.M. Maclean".

M.M. Maclean
M.M. Maclean,
Secretary.

January 26, 1955.

Chairman,
Civil Service Commission,
OTTAWA, Ontario.

Dear Sir:



A requirement exists for a Communications System Engineer to assist the Works Officer-in-Chief in the preparation of detailed plans for a new operations building at Albro Lake Naval Radio Station, Dartmouth, N.S.

The statement of duties is as follows:

- GEC
- (i) To assist WOC in preparing detailed plans for the new building showing equipment and work room layouts and the necessary conduits.
 - (ii) To provide necessary plans for the movement of the existing equipment from the old to the new building without an interruption in service.
 - (iii) To determine what new equipment is necessary and to raise the necessary contract demands and provide the followup action to see that it is obtained on time.
 - (iv) To work closely with the antenna system design engineer to provide the necessary terminal arrangements for the antenna feeders.
 - (v) To supervise the installation of the equipment on the site to see that all plans are effectively carried out.
 - (vi) To render a report on the completed system showing any alterations to the plans.
 - (vii) To prepare similar plans for Aldergrove receiving station if similar building plans are approved in the interim.
 - (viii) To procure equipment meeting the operational

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- 2 -

requirements for the VHF link connecting
Albro Lake-Maritime Headquarters - RCNAS.

- (ix) To supervise the installation of the link
procured in (viii).
- (x) To provide plans for the procurement of the
Aldergrove - Jericho Beach Link.

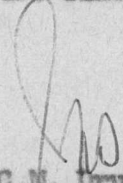
This engineer should have several years of experience in military communication systems and thorough practical knowledge of receiving station equipment and techniques. Considerable experience with VHF and microwave link installations is necessary.

The possibility of employing an engineer at present on strength with the Electrical Engineer-in-Chief Department has been explored. However, in view of the present workload, it is impossible to divert an engineer from other assignments to perform this work.

This engineer will be required for a period of approximately ten months but not exceeding one year.

Will you kindly inform me whether or not you can provide this Department with an engineer to perform this task and, if so, when he can be made available.

Yours sincerely,


(C.M. Drury)
Deputy Minister

5/ *Drury*
Rr

MEMORANDUM TO: DCP

References: (a) NSS 1300-40 (EEC) dated 4 October, 1954.
(b) NSS 1300-40 (EEC) dated 9 November, 1954.
(c) DCP Memorandum (No file No.) dated 22 November, 1954.

In reply to reference (c) the following information is forwarded.

- (a) The possibility of employing an engineer presently on strength in this Directorate has been explored. It is impossible to divert an engineer from other assignments to perform the required task with the present workload.
- (b) The duties of this system engineer are as follows:
 - (i) To assist WOC in preparing detailed plans for the new building showing equipment and work room layouts and the necessary conduits.
 - (ii) To provide necessary plans for the movement of the existing equipment from the old to the new building without an interruption in service.
 - (iii) To determine what new equipment is necessary and to raise the necessary contract demands and provide the followup action to see that it is obtained on time.
 - (iv) To work closely with the antenna system design engineer to provide the necessary terminal arrangements for the antenna feeders.
 - (v) To supervise the installation of the equipment on the site to see that all plans are effectively carried out.
 - (vi) To render a report on the completed system showing any alterations to the plans.
 - (vii) To prepare similar plans for Aldergrove receiving station if similar building plans are approved in the interim.
 - (viii) To procure equipment meeting the operational requirements for the VHF link connecting Albro Lake-Maritime Headquarters - RCNAB.
 - (ix) To supervise the installation of the link procured in (viii).
 - (x) To provide plans for the procurement of the Aldergrove - Jericho Beach Link.

- 2 -

2. His qualifications should include several years of experience in military communication systems and thorough practical knowledge of receiving station equipment and techniques. Considerable experience with VHF and microwave link installations is necessary.

(W.H.G. Roger)
Commodore (L) R.C.N.
ELECTRICAL ENGINEER-IN-CHIEF

O T T A W A
3 January, 1955.

COPY/GR

NSS1300-40 (EEC)

MEMORANDUM TO: DCP

NEW OPERATIONS BUILDING
NAVAL RADIO STATION, ALBRO LAKE

Reference is made to NSS 1300-40 (EEC) dated
4 October, 1954.

2. It is intended to raise a contract demand to obtain the services of a communications systems engineer to assist the Works Officer-in-Chief to finalize the electronic requirements for the new operations building.
3. It is requested that DCP confirm that this procedure is acceptable to the Civil Service Commission and D.C.P.

(W.H.G. Roger)
Commodore (L) R.C.N.
ELECTRICAL ENGINEER-IN-CHIEF.

O T T A W A
9 November, 1954.

COPY

NSS 1300-40 (EEC)

MEMORANDUM TO: DN COM (For Concurrence)
CNIS (For Approval)
DCA

It is proposed to hire a communication system engineer from the Philco Corporation as a communications design engineer on the new operations building at Albro Lake Naval Radio Station, Dartmouth, N.S. This man will be required to assist the Works Officer-in-Chief in the preparation of detailed plans for the new building, co-ordinate the procurement and installation of equipment, and co-ordinate the transfer of communication equipment facilities from the old operations building to the new building. He will be required for a period of approximately ten months but not exceeding one year.

2. The estimated fee is \$1200.00 a month exclusive of travelling expenses. It is therefore requested that DCA indicate whether \$15,000.00 can be made available for this purpose.

(W.H.G. Roger)
Commodore (L) R.C.N.
ELECTRICAL ENGINEER-IN-CHIEF.

O T T A W A
4 October, 1954.

2 NSS 1300-40 (EEC)

MEMORANDUM TO: ^{6.1} DCP

References: (a) NSS 1300-40 (EEC) dated 4 October, 1954.
(b) NSS 1300-40 (EEC) dated 9 November, 1954.
(c) DCP Memorandum (No file No.) dated 22 November, 1954.

In reply to reference (c) the following information is forwarded.

- (a) The possibility of employing an engineer presently on strength in this Directorate has been explored. It is impossible to divert an engineer from other assignments to perform the required task with the present workload.
- (b) The duties of this system engineer are as follows:
 - (i) To assist WOC in preparing detailed plans for the new building showing equipment and work room layouts and the necessary conduits.
 - (ii) To provide necessary plans for the movement of the existing equipment from the old to the new building without an interruption in service.
 - (iii) To determine what new equipment is necessary and to raise the necessary contract demands and provide the followup action to see that it is obtained on time.
 - (iv) To work closely with the antenna system design engineer to provide the necessary terminal arrangements for the antenna feeders.
 - (v) To supervise the installation of the equipment on the site to see that all plans are effectively carried out.
 - (vi) To render a report on the completed system showing any alterations to the plans.
 - (vii) To prepare similar plans for Aldergrove receiving station if similar building plans are approved in the interim.
 - (viii) To procure equipment meeting the operational requirements for the VHF link connecting Albro Lake-Maritime Headquarters - RCMAS.
 - (ix) To supervise the installation of the link procured in (viii).
 - (x) To provide plans for the procurement of the Aldergrove - Jericho Beach Link.

...../2

- 2 -

2. His qualifications should include several years of experience in military communication systems and thorough practical knowledge of receiving station equipment and techniques. Considerable experience with VHF and microwave link installations is necessary. //

W.H.G. Roger.

(W.H.G. Roger)
Commodore (L) R.C.N.
ELECTRICAL ENGINEER-IN-CHIEF

O T T A W A
3 January, 1955.

File No: *NSS 1300-40*

Department of National Defence

MEMORANDUM

TO: EEC *E2*

Ottawa, Ontario.

FROM: DCP

Date: November 22, 1954.

Subject: NEW OPERATIONS BUILDING
NAVAL RADIO STATION, ALBRO LAKE

Reference is made to your memorandum NSS 1300-40
(EEC) dated 9 November, 1954.

Before action can be taken with the Civil Service
Commission, the following information is required:

- (a) Has the possibility of employing an Engineer
presently on strength in your Directorate for
this assignment been explored?
- (b) What are the duties and the qualifications
required of this design Engineer?

W. K. Langshell
✓ Director of Civilian Personnel.

NSS 1300-40 (EEC)

MEMORANDUM TO: DCP

NEW OPERATIONS BUILDING
NAVAL RADIO STATION, ALERO LAKE

Reference is made to NSS 1300-40 (EEC) dated 4 October, 1954.

2. It is intended to raise a contract demand to obtain the services of a communications systems engineer to assist the Works Officer-in-Chief to finalize the electronic requirements for the new operations building.

3. It is requested that DCP confirm that this procedure is acceptable to the Civil Service Commission and D.C.P.

W.H.G. Rogers

for (W.H.G. Rogers)
Commodore (L) R.C.N.
ELECTRICAL ENGINEER-IN-CHIEF.

O T T A W A
9 November, 1954.

✓ NSS 1300-40 (EEC)

MEMORANDUM TO: DN COM (For Concurrence)
710 CENTS (For Approval)
710 DCA

It is proposed to hire a communications system engineer from the Philco Corporation as a communications design engineer on the new operations building at Albro Lake Naval Radio Station, Dartmouth, N.S. This man will be required to assist the Works Officer-in-Chief in the preparation of detailed plans for the new building, co-ordinate the procurement and installation of equipment, and co-ordinate the transfer of communication equipment facilities from the old operations building to the new building. He will be required for a period of approximately ten months but not exceeding one year.

2. The estimated fee is \$1200.00 a month exclusive of travelling expenses. It is therefore requested that DCA indicate whether \$15,000.00 can be made available for this purpose.

BBB
Funds can be made available under 41-30 if necessary approval can be obtained.

8/10 HEN

O T T A W A
4 October, 1954.

Neil H. Heman
For (W.H.G. Roger)
Commodore (L) R.C.N.
ELECTRICAL ENGINEER-IN-CHIEF.

1. DCP CSC
2. Note re pressing other work
3. Sub Lt as assistant.

EXTRACT FROM

MINUTES OF THE 13th MEETING OF THE
POLICY AND PROJECTS CO-ORDINATING COMMITTEE
MONDAY, 6 DECEMBER, 1954

13-3 COMMUNICATIONS - ATLANTIC COMMAND
(CONFIDENTIAL)(NSS 1300-166/10 NSS 7400-112/1)
(Naval Staff Minute 15-54-3, 583-3)

PPCC had for consideration a paper prepared by DN Comm and Naval Staff Minute 15-54-3, 583-3 concerning:

- (a) the procurement of a VHF Radio Inter-communication System for the HALIFAX area to inter-connect Maritime Headquarters, HMC Dockyard, RCN Air Station, Dartmouth and Albro Lake at an approximate cost of \$200,000.00;
- (b) the fitting of this equipment in HMC Dockyard, RCN Air Station and Albro Lake, also the temporary installation in Maritime Headquarters (Interim) and re-installation in the permanent Maritime Headquarters when provided.

2. DCNP queried the status of the new Maritime Headquarters, HALIFAX. ACNS(P) was requested to investigate and inform the next meeting as to the present situation regarding selection of a site for MHQ HALIFAX.

ACNS(P)

DECISION

PPCC recommended to Naval Board that:

- (a) a VHF Radio Inter-communication System for the HALIFAX area, to inter-connect Maritime Headquarters, HMC Dockyard, RCN Air Station, Dartmouth and Albro Lake, be procured at an approximate cost of \$200,000.00;
- (b) this equipment be fitted in HMC Dockyard, RCN Air Station and Albro Lake; and temporarily installed in Maritime Headquarters (Interim) pending re-installation in the permanent Maritime Headquarters when provided;
- (c) CNTS be the co-ordinator.

4CNTS(P)

*Dx 8.12
For comment to phone*

*L.B. Skinning
See ACNS(P)*

see 1700-151/1

*P.A. Lewis
7/12*

SECRET

NCS 1340-40 (Staff)

NCS 1300-166/10

ORIGINAL DAMAGED

ROYAL CANADIAN NAVY

Canada,

6 December, 1954.

EMERGENCY RADIO ORGANIZATION - ATLANTIC COMMAND

Reference: (a) NCS 1340-40 (Staff) dated 12 May, 1953.

NAVAL HEADQUARTERS has reviewed the requirement for an RCN emergency radio organization, as indicated in para 2 of reference (a), and an outline of the organization has been formulated. The final details of the organization, however, are dependent on information which is not available in NAVAL HEADQUARTERS.

2. It is considered that an emergency radio organization should be based on the requirements of the Atlantic Command in the event that either or both ALBERTA LAKE and NEWPORT COAST Naval Radio Stations are inoperative from any cause. An effective emergency radio organization for the Atlantic Command will therefore require the provision of emergency radio transmission and reception facilities at a location other than at these two sites.

3. It is believed that the required emergency transmission and reception facilities might be located in EUCS COMPTONVILLE, due to the following factors:-

- (a) A suitable building and space for an antenna park may be made available.
- (b) Communication personnel should be available in the event of an emergency.
- (c) Command line communication facilities could be re-routed through ST. JOHN, N.B.-DIGBY, N.S., in the event of damage in the HALIFAX area or the main TRO-NAVAL route.

4. In order that NAVAL HEADQUARTERS may progress the requirements for an emergency radio station in the Atlantic Command, it is requested that information may be provided if consideration has been given to the planned location of the Command Headquarters, in the event that the Headquarters in HALIFAX is unable to function, due to loss of buildings, line communication facilities or other causes. NAVAL HEADQUARTERS' suggestion, in para 3, is forwarded for consideration, observing Command line communication facilities would be difficult to provide at other sites, in the Maritime Provinces, which are under RCN control.

SECRET

NAVAL SECRETARY.

Flag Officer Atlantic Coast.

DNPO
ACNS(P)
ACNS(W)

- for concurrence, please.

DN COM - before despatch.

000174

H.Q. 1024

COM-1/MAF
SECRET

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Document divulgué en vertu de la Loi sur l'accès à l'information

NAVAL SERVICE - MINUTE SHEET

FILE NO. NSS 1300-166/10 Vol.1
(Staff)

REFERRED TO

REMARKS (WITH SIGNATURE, POSITION & DATE)

ACNS (W)

DNFO 22/4

VCNS

NAVAL COMMUNICATIONS
IN ATLANTIC COMMAND

Paragraph 5. All RCN major point-to-point circuits will have on-line crypto this year. Also CINCWESTLANT, COMCANLANT circuit.

Every effort is being made to produce a NATO crypto machine to replace CCM - late 1954 is expected date.

Paragraph 10. P2 situation is slowly improving.

Paragraph 13. First new transmitter has just been delivered; others follow this year.

John A. Charles
(John A. Charles)
Commander, RCN,
DIRECTOR OF NAVAL COMMUNICATIONS

OTTAWA

20 April, 1953.

SECRET

000175

SECRET

FROM: The Flag Officer Atlantic Coast

DATE: 8th April, 1953.

TO : The Naval Secretary, Naval Headquarters.

NAVAL COMMUNICATIONS - ATLANTIC COMMAND

Enclosure: (i) Report by Staff Officer Communications,
dated 31 March, 1953.

Enclosure (i) is forwarded for information.

14/4
S N con
DAN PO
VCS



SECRET

[Signature]
REAR ADMIRAL

referred to *[Signature]*
APR 13 1953
File No. *81300-166/10*
Chgite

SECRET

ORIGINAL DAMAGED

AN APPRECIATION ON NAVAL COMMUNICATIONS
IN THE ATLANTIC COMMAND

For the Flag Officer Atlantic Coast

By the Staff Communication Officer

Halifax
31 March, 1953

INTRODUCTION

At the close of the 1952-53 fiscal year, the writer decided to prepare for presentation to the Flag Officer an appreciation of Naval Communications in the Command at that time. The appreciation is intended to outline briefly, in layman's language, the status of communication planning for war, equipment fitting progress, personnel problems, and any deficiencies noted in present day communications. It is also intended to propose certain courses of action open to improve communications during the coming year.

REVIEW OF THE SITUATION

2. Plans

War planning during the past year has been greatly expedited by the advent of the Allied Command Atlantic. Under pressure of SACLANT directives and guided by the various NATO exercises of 1952, the communication plan for this Command is now firmly defined.

3. Some of the major obstacles overcome in 1952 planning are as follows:

- (a) Landline requirements
- (b) Area Broadcast requirements
- (c) Ship/Shore communications
- (d) Point to point radio circuits
- (e) Common publications for NATO
- (f) Frequency assignments

4. Some of the major items which are not solved as yet are:

- (a) Cryptography
- (b) VHF to UHF conversion programme
- (c) Material coordination

5. In NATO exercises last year, cryptography proved to be the greatest stumbling block of all. The chief difficulty was that no "on-line" crypto system was available for supply to all member nations. In the past few months, such a system has been made available for certain major circuits between commands, e.g., CINWESTLANT-COMCANLANT. There will, however, continue to be grave delays in cryptography where ships are concerned, since ships have no alternative to the manually operated CCM.

SECRET

SECRET

- 2 -

ORIGINAL DAMAGED

6. By international agreement, all nations must move military tactical communications from the VHF to the UHF band as soon as equipment is made available. The supply of UHF equipment, however, is a major difficulty. SACLANT's estimate of the changeover period is 1954 to 1959 or 1960. The U.S. and CANADA will have completed in 1954, with other nations of NATO lagging behind up to six years.

7. This poses a pretty problem in maintaining communication between all forces during the changeover period, particularly where aircraft are concerned. As an example, the U.S.N. were forced to re-convert a whole Carrier Air Group to VHF in order to enable the group to participate in MAINBRACE.

8. The only solution is to fit ships with both UHF and VHF during the conversion period. This is planned for Canadian ships.

9. Material coordination is another sticky problem facing Naval Communications and is receiving top level consideration by SACLANT and MAS. A typical example of material differences is the teletype machine, where present European and North American types are built to different standards and are difficult to adapt to one another.

10. Personnel

Communication personnel are now available in such numbers that ships and stations can be manned to complement. It is unfortunate, however, that there is still an extreme shortage of ratings of P2 grade and above. This reflects in the supervision and training given to junior men on the job. The writer is pleased to report that the standard of Communicators produced from H.M.C. Communication School is high, in fact quite comparable with their counterparts in the U.S.N. and R.N.

11. Training

In the past year, a concerted effort has been made to increase the tempo of training of communication men in ships. This is done by extensive exercises of all types at sea and by a regular training programme in harbour. The harbour training has been satisfactory in the case of Radiomen, but not good enough for Visual personnel. The latter will be improved by the activation of the HALIFAX harbour signal tower early in the new year.

12. Equipment

H.M.C. Ships and Radio Stations are rapidly being fitted with adequate radio equipment to fulfil their roles in any emergency. The Tribal class destroyers have been able to deal competently with all situations in KOREA, where communications have reached a very high peak. Other types, such as the CR class destroyers, RIVER class frigates and ALGERINE class mine-sweepers are not so well fitted at present, but coming conversions and refits will take care of that situation.

13. The Naval Radio Transmitting Station at NEWPORT CORNER is one of the key points in our war plans. Hence a great deal of money has been invested in the expansion of the station and in the procurement of new transmitters. The expansion is now 90% complete and the new transmitters should be fitted in 1953-54. It has been disappointing to observe that, although orders for the new transmitters were placed some years ago and delivery promised in 1951, we are still waiting. However, if war were to commence at this time, the station is capable of coping with the majority of our commitments.

14. Conclusions

To sum up this review, the following points are set forth:

SECRET

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SECRET

ORIGINAL DAMAGED

- 3 -

- (a) Naval Communication planning is better prepared at this time than at any time since World War II to meet an emergency should it arise.
- (b) Communication personnel in the R.C.N., including specialist Officers and trained men, are adequate in numbers to man the peacetime fleet. H.M.C. Communication School is capable of rapid expansion in order to produce large numbers of men in an emergency.
- (c) Training of Communicators in the fleet is increasing in intensity, but still more emphasis must be placed on this very important subject in the coming year.
- (d) H.M.C. Ships and Stations are becoming among the best fitted in the world from the communication end. It remains only to train the fleet to make proper use of the equipment.

THE AIM

15. The aim for 1953-54, as in almost all phases of naval life in peacetime, is to prepare Naval Communications to meet all demands upon the system in the advent of War.

PROPOSED COURSE OF ACTION

16. The proposed course of action for 1953-54 is as follows:
- (a) To advance and modify war plans until it is assured that the transition from peace to war can occur with the minimum of disruption to Naval Communications.
- (b) To expedite the fitting of ships and stations with the latest in devices necessary to the satisfactory pursuance of a war against any anticipated Enemy.
- (c) To make the utmost endeavour in furthering the training of our ship-borne Communicators in all phases of their duties.
17. Of the three minor aims listed above, this writer feels that the greatest emphasis should be placed on (c) at this time, since aims (a) and (b) have been provided for to a large extent in past years.

PROPOSED PLAN OF ACTION

18. As noted in paragraph 17, the groundwork for planning and ship-fitting is already laid. Communication training, on the other hand, is a day-to-day problem, which requires intensive supervision on all levels to ensure that the individual man learns all he has to know.
19. The great weakness that lies in our own training programme is that H.M.C. Ships proceed on too many independent cruises. From the communication point of view, this is fatal. As an example, H.M.C.S. QUEBEC, presently complemented with about 50 Communicators, will probably employ about 8 Radiomen (in watches) on her present cruise. The remainder must receive daily training by simulated internal exercises, a poor substitute for the real thing.

SECRET

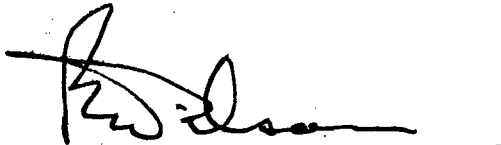
SECRET

ORIGINAL DAMAGED

- 4 -

20. If QUEBEC were in company with one or two other ships, it would be possible to employ all of the men borne night and day by increasing the number of "live" radio circuits and carrying out inter-ship visual and radio exercises of all types.

21. It is strongly recommended, therefore, that future operational planning make every effort to sail ships in company whenever possible. No matter what the role of the ships involved, operating in company should magnify manifold the results of training in all phases of naval activities.



(P. F. Wilson)
LIEUTENANT-COMMANDER, R.C.N.
Staff Communication Officer

SECRET

CR 107
1M Pads of 100-11-49 (2882)
H.Q. 200-115-CR 107

RECLASSIFICATION SHEET

FILE No.

1300-166/10

LETTER ☒

MEMO ☐

SIGNAL ☐

EXTRACT ☐

ORIGINATOR

Staff D N P O

REF. No.

DATE 12-6-52

REFERRED TO

GENERAL CORRESPONDENCE ☐

SYNOPSIS:

Provision of cable facilities
at St. John's Newfoundland & Halifax,
N.S.

HAS BEEN REMOVED AND PLACED ON

N.S.S. 1302-1

DIRECTOR OF CENTRAL REGISTRIES

(per)

J.P.S.

DATE

16-6-52

NOTED IN RECORDING
SECTION

NAVAL MESSAGE

To:

CANAVHED
INFO CANAS

NIGHT

From:

CANFLAGLANT

1300-166/10

ACNS
EEC
DGSFA
D N COM
DNA

CANAS 232046Z AND URMSG 242210Z X THE FOLLOWING
POINTS HAVE BEEN CONSIDERED X

(A) DESPITE THOROUGH BONDING OF AIRCRAFT AND CAREFUL
MAINTENANCE AT CANAS RESULTS FROM ATR 11 ARE MOST
UNSATISFACTORY

(B) NO RCAF AIRCRAFT ARE FITTED WITH ATR 11 IN THE
HALIFAX AREA AND RESULTS OBTAINED BY THE RCAF WITH THIS
EQUIPMENT ARE NOT AVAILABLE HERE

(C) CHANGEOVER TO VH/F IN EXISTING HARVARDS AND ANSONS
COULD BE ACCOMPLISHED BY CANAS STAFF

(D) SUFFICIENT CRYSTALS ARE HELD ON THE STATION TO
OUTFIT THESE ADDITIONAL VH/F SETS

BEST AVAILABLE COPY

000182

NAVAL MESSAGE

To:

From:

--2--

(E) CHANGEOVER WOULD SIMPLIFY MAINTENANCE AT CANAS
(F) CHANGEOVER WOULD IMPROVE CONTROL OF THESE AIRCRAFT, I.E.
WHILE AIRBORNE AIRCRAFT COULD COMMUNICATE WITH 16 RU AND BE

HOMED BY VH/F D/F

2. IT IS THEREFORE RECOMMENDED THAT UPON SUCCESSFUL COMPLETION
OF CANAS TESTS THE EXISTING HARVARDS AND ANSONS BE FITTED
WITH SCR 522 IN LIEU OF ATR 11

252130Z

232046Z RE FITTING SCR 522 VH/F SETS IN ONE HARVARD FOR TRIALS
242210Z DRAFTED BY D N COM (GAW)
RE QUESTIONS OF COMMUNICATION POLICY SHALL IN FUTURE BE
FORWARDED THROUGH CANFLAGANT

T/T P/L 252158Z/NOV/48 AB 4879

BEST AVAILABLE COPY

000183

S. 1320 D
6 000M-1-48 (2186)
N.S. 7570-S. 1320D
K.P. 5504.

NAVAL MESSAGE

To

CANAS

INFO CANFLAGLANT

NIGHT

From:

CANAVHED

1300-166/10

VCNS
ACNS
EEC
DGSFA
DN COM
DNA

CANAS 232046Z QUESTIONS OF COMMUNICATION POLICY SHALL IN
FUTURE BE FORWARDED THROUGH CANFLAGLANT X CANFLAGLANT IS
REQUESTED TO FORWARD HIS RECOMMENDATIONS WHICH SHOULD
INCLUDE THE POLICY REQUIREMENT FOR CHANGING FROM HF

TO VHF X

242210Z GR 33

HALIFAX AT 242333Z

232046Z-RE - FITTING SCR522 V/HF SETS IN ONE HARVARD FOR
TRIALS.

T/T

P/L

24/NOV/48

LJL

1554

DRAFTED BY D.N. COM (GAW)

BEST AVAILABLE COPY

000184

NAVAL MESSAGE

320b.
200
320B

For use
Signal
Depart
only

DRAFTED BY D.N. COM. (GAW)

SECRETARY D.N. COM.

81300-166/10

Originators Instructions:
(Indication of Priority,
Intercept Group, etc.)

No. of
Groups:

TO: CANAS
INFO CANFLAGLANT

FROM: CANAVHED

Write
Across

CANAS 232046² QUESTIONS OF COMMUNICATION POLICY SHALL IN FUTURE

BE FORWARDED THROUGH CANFLAGLANT X CANFLAGLANT IS REQUESTED TO FORWARD

HIS RECOMMENDATIONS WHICH SHOULD INCLUDE THE POLICY REQUIREMENT FOR

CHANGING FROM HF TO VHF X

242210Z

System

P/L Code or Cypher

Time of
Receipt Despatch

Operator

Date

24/11/4000185

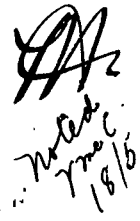
18th May, 1948.

NSS 1300-166/10
Vol. 1 (Staff)

Naval Communications - New Brunswick

With reference to your letter, NDSJ 1300-170/9, of 3rd May, 1948, I am directed to advise you to inform the Commander, New Brunswick Area, that the information he requires is available from National Defence Headquarters.


NAVAL SECRETARY


Commanding Officer,
HMCS "BRUNSWICKER",
Saint John, New Brunswick.

To... 7ms
For De...
Date... 18.5
Staff M. J.

F 33351

Referred to *Staff*
MAY 5 1948
File No *1300-166/10*
Chg'd to

FROM: The Commanding Officer
H.M.C.S. "BRUNSWICKER"
Saint John, New Brunswick.

DNCm

DATE: 3rd May, 1948

FILE: NDSJ 1300-170/9
CONFIDENTIAL.

TO : The Naval Secretary
Naval Service Headquarters
Ottawa, Ontario.

COPY: Commander
New Brunswick Area
Fredericton, New Brunswick.

Naval Communications

Submitted for the consideration of the Department the attached letter Confidential NBS/3-0-0(G) dated 30th April, 1948 that has been received from the Commander, N. B. Area, Fredericton, N. B.

2. A summary of communications facilities held in H.M.C.S. "Brunswicker" will be forwarded to N.B. Area Headquarters at an early date.

3. It is requested that the Department take such action as is necessary to provide information that has been requested relative to other naval communication facilities that exist in this province.

for *[Signature]*
C.H. BONNYCASTLE
COMMANDER, R.C.N. (R).

Encl. 1

/JB.

IN REPLY PLEASE QUOTE No.

NBS/3-0-0 (G)
CONFIDENTIAL



DEPARTMENT OF NATIONAL DEFENCE
ARMY

HQ NB Area,
Fredericton, NB,
30 Apr 48.

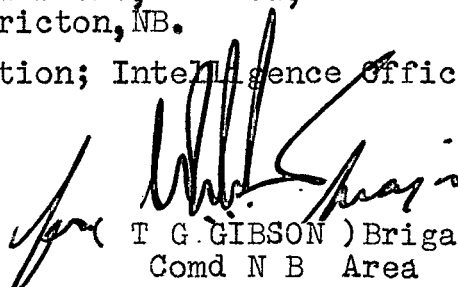
Commanding Officer,
H.M.C.S. Brunswick,
RCN (R),
Saint John, NB.

INFORMATION
Naval Communications

1. Headquarters New Brunswick Area is presently engaged in making a survey of all information which may be vital to the defence of this province in time of war.
2. In this regard, may we be provided with particulars of Naval Communications in and from New Brunswick, as follows;
 - (a) Line telegraphy-(incl cable).
 - (b) Wireless telegraphy.
 - (c) Others.
3. It would be greatly appreciated if this information were sent to;

Headquarters, NB Area,
Fredericton, NB.

Attention; Intelligence Officer.


T. G. GIBSON) Brigadier,
Comd N B Area

To:

From:

PLANT 44

NEGATIVE RESERVE DIVISIONS

(R) ADMIRALTY

COAC

D4D
DOD
DWT
DSD
GMC

COMMENCING WITH PERIOD 1400Z TO 1500Z TUESDAY
21ST OCTOBER REVERSE ON/OFF RTT KEYING TRIALS
WILL BE CARRIED OUT ON HALIFAX LOVE FOX BROADCAST
2. THESE TRIALS WILL BE CARRIED OUT AT THE SAME
TIME DAILY UNTIL FURTHER NOTICE
3. TRIALS MAY BE STOPPED AT ANY TIME TO BROADCAST
PRECEDENCE OR URGENT OPERATIONAL TRAFFIC

214712

MONTREAL VIA ARMY AT 211747

| T/T | P/L | AR | 2785 |
|-----|--------------|----|------|
| | 211502/10/47 | | |

ORIGINAL DAMAGED

BEST AVAILABLE COPY

D.E.E. FILE CIRCULATION

DATE 20.2.49 FILE

D.E.E.

A1

D/D.E.E.

A2

A/D.E.E.

A3

C.A.

TEST

B1

LIBR.

B2

TRG.O.

B3

SEC.

B4

B5

P.A.

FOR ACTION

FOR INFO.

FOR REPLY

RETENTION

FOR COMMENTS

FOR B.F. ON

RECORDED - YES/NO BY

000190

GAW/RL

ORIGINAL DAMAGED

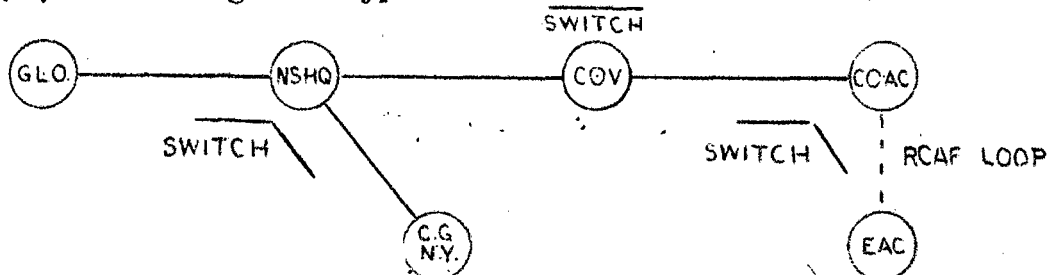
NSS 1700-27 Vol. 3 (Staff)
NSS 1300-166/10 Vol. 1

MEMORANDUM TO: A.C.N.S.

Search and Rescue Communications - Shore

The commitments of the RCN to date are:

- (1) Monitoring 2 distress frequencies and taking D/F bearings of distress messages on these frequencies at both Coverdale and Gloucester.
- (2) Providing teletype communication as shown:



- (3) The RCAF is the overall authority for SAR and, specifically, EAC appears to have authority from AFHQ to make his own arrangements.
- (4) The official request of AFHQ, dated 27th January, asks us to arrange for a conference circuit to include all six points served.
- (5) I have been informed that EAC has instructed Coverdale and Gloucester to pass all bearings to them, and I have asked EAC to make an official request to that effect for the following reasons:
 - (a) In the organization proposed to the Cabinet the Naval Service is to be responsible for evaluation of D.F. bearings in the Eastern Area. At the moment the only two HFDF stations are Naval.
 - (b) The coordinating authority for all North American bearings is USCG Headquarters, New York. This arrangement is the only one possible from the requirement for D.F. cuts.
 - (c) The RCN is the only service in Canada with a knowledge of D.F. evaluation. Individual bearings to EAC would if acted on by them be misleading or useless.
- (6) Unnecessary teletype conference facilities and bearing transmissions can seriously interfere with the transmission of priority messages over the circuit.
- (7) Approval is requested for DSD to discuss the whole subject on behalf of NSHQ with COAC and EAC during his forthcoming visit to Halifax along the lines mentioned above.

(G.A. Worth)

A/Captain RCN,

DIRECTOR OF SIGNAL DIVISION.

OTTAWA
6th February, 1947.

000191

N.S.S.

1300 - 166/10

F.D.

1224

DEPARTMENT OF NATIONAL DEFENCE (NAVAL SERVICE)

COMMUNICATIONS

EAST COAST GENERAL

CROSS REFERENCE

7.12.46
↑

REFERRED

FOR REMARKS

DATE OF PASS

SC
INITIALS

DATE OF P.A.

CENTRAL REGISTRY

DATE OF B.F.

INSPECTED
IN C.R.
By

72094

NOV 30 1946

3/12

Y

D.S.D.

9/12

S

DM(N)

11.12.46

SP

Staff

13.12

J.D.

One(N)

13.12

J.D.

Staff

16.12

J.D.

18.12.46 DEC 19 1946

1/1

000192

OTTAWA



CANADA

N.S.S. 1300-166/10 F.D. 1224

7th December, 1946.

D.S.D. / 19.12.46
[Signature]

Would you please advise whether this proposal will result in additional expenditure to the Naval Service.

If the R.C.A.F. is going to make joint use of the Naval circuit, should the cost of operating this circuit be payable jointly by the R.C.A.F. and Naval Service, as has been done in the case of other joint lines?

[Signature]
Assistant Deputy Minister.

DEC 16 PM.

Again. no. we already use the R.C. - Gov. - Ottawa line for naval comm. - The additional work will fall on the R.C. teletype staff but will require no additional bodies.
Lawrence 10.12

DEC 13 A.M.

GAW/RL

FILE
RUC

8th December, 1946.

NSS 1300-166/10 PD 1284 (STAFF)

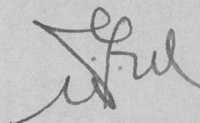
Dear Mr. Gordon:-

In reply to your letter 466-1-9 (D of S) of 27th November, the Naval Service concurs and requests that the RCAF make the necessary arrangements to connect with the system in the Dockyard signal distributing office, Halifax.

2. For your information the circuit is via Halifax and Coverdale to NSHQ and thence to New York.

3. In a circuit of this kind, where switching is employed, priorities can be assigned to messages by only one authority and it is proposed to place this responsibility on the Naval S.D.C., Halifax.

Yours very truly,



(W.G. Mills)
Deputy Minister

Deputy Minister,
Department of National Defence for Air,
Ottawa.

[Handwritten signature]
11.12

W.G.

[Handwritten signature]

10.12.46

[Handwritten signature]
17/12
10/12

FILE
BUDGET

Can / NL

ORIGINAL DAMAGED

6th December, 1946.

NSB 1300-166/10 FD1224
(Staff)

Communication Facilities - Sea and Air Rescue
Operations on the East Coast

The following has been received from
the Deputy Minister, Air:

"To implement the communication
facilities required in connection
with Sea, & Air Rescue Operations
on the East Coast, it will be
necessary for the RCAF to tie into
your Department's New York Coast
Guard Centre teletype net at Halifax.
Your concurrence in this matter is
requested."

2. NSHQ reply is attached.

 NAVAL SECRETARY

Commanding Officer, Atlantic Coast,
c/o Fleet Mail Office,
Halifax, N.S.

To... *File*
For Despatch
Date... *13-12*
Staff... *BCA*

✓ 171
See DEB 173 6 B3

After signature return

reapostate, please action

120C 5.12

for further 15

This shared also go to
CNAS for communication files
please. DIC.

HGB:AM

ORIGINAL DAMAGED

6th December

6.

1300-166/10 VOL."1"(S.D.)✓

SECRET

Dear Sir:-

This will acknowledge receipt of your letter dated 29th October, 1946, and Mr. Sharp's very comprehensive report on the survey of communication installations in the Halifax area.

2. The report is being given very careful consideration by the Department and a directive is in the course of preparation to the Commanding Officer Atlantic Coast, instructing him to make reductions in the number of telephones and changes in services as summarized on page seven of the Telephone Investigator's report. A copy of this memorandum will be forwarded to you for information. The directive will also include instructions to cut to a minimum long distance telephone calls and personal calls, both incoming and outgoing to and from H.M.C. Dockyard.

3. It is further pointed out that approval has been given recently for the purchase of three R/T Transmitters for use between Halifax, Baccaro and Whitehead, and shortly the necessary facilities will be available for this radio telephone link which, if successful, will entirely eliminate the present voice lines between these stations.

4. Since the receipt of the Telephone Investigator's report, I have been informed that over sixty telephones have been removed from H.M.C. Dockyard, Halifax with a resultant reduction of \$76.25 per month, for rented telephone equipment. The report from the Commanding Officer Atlantic Coast, which details this reduction, is attached.

5. An investigation with regard to installing a consolidated automatic dial system as recommended on page four of Mr. Sharp's report will be carried out and the necessary recommendations forwarded.

6. All Reserve Divisions have been instructed to severely curtail their telephone requirements, and this is at present being carried out resulting in a considerable annual saving to the Department.

7. Every endeavour is being made by the Technical Staffs concerned to reduce Naval Service telephone commitments, and no opportunity to cut telephone communication costs is being overlooked.

Yours truly,
W.G. Mills
(W.G. Mills)
DEPUTY MINISTER.

[Signature]
The Secretary,
Treasury Board,
OTTAWA, Canada.

✓ C.N.A.S. for concurrence please.

A/A DEE attn. B3

OFFICE OF THE DEPUTY MINISTER FOR NAVAL SERVICES
OTTAWA

a *SD*

Q A/C.N.S.

12/3/46

Referred for draft reply,
please.



(W.G. Mills)
Deputy Minister.

Dec. 2, 1946.

000199

DEC 3 1946

| |
|-------------------------|
| NOV 29 1946 |
| D. M. Naval Service. |



Our File: 466-1-9 (DofS)

1300-166/10

DEPARTMENT OF NATIONAL DEFENCE FOR AIR
OFFICE OF THE DEPUTY MINISTER

OTTAWA. 27 November, 1946.

22004

Dear Mr. Mills:-

To implement the communication facilities required in connection with Sea, & Air Rescue Operations on the East Coast, it will be necessary for the RCAF to tie into your Department's New York Coast Guard Centre teletype net at Halifax. Your concurrence in this matter is requested.

Yours very truly,


H.F. Gordon
Deputy Minister

Deputy Minister,
Department of National Defence (Navy)
Ottawa, Ontario.

BEST AVAILABLE COPY

H.Q. 1024

NAVAL SERVICE - MINUTE SHEET


FILE NO. -

REFERRED TO

REMARKS (With Signature, Position & Date)

7.8.2/15/17
(Telecons)

CNAS requests that
you draft reply &
let him have a
report as soon as
possible.

 :NAS
8/11

CNAS

A report as of
31/10 was called
for in our memo
of 26/9. There has
not been time for
this to have been
prepared.

 8/11

OFFICE OF THE DEPUTY MINISTER FOR NAVAL SERVICES
OTTAWA

Admiral Grant
C.N.A.S.
-----/y811

Referred for consideration and
draft reply, please.

It is evident that decisive
action must be taken to curtail the
use of the telephones for personal
calls.

Attention is particularly
directed to the suggested decrease
in the number of telephones and
changes in services as summarized
on page 7 of the attached report.

(U.B. portions which I have
marked in red pencil).



(W.G. Mills)
Deputy Minister.

November 6, 1946.

NOV 8 A.M. 000203



OCT 31 1948

D. M.
Naval Service.

Ottawa, October 29, 1946.

W. G. Mills, Esquire,
Deputy Minister,
Department of National Defence,
for Naval Services,
Ottawa, C a n a d a.

251340

Dear Mr. Mills:

Recently the Board's Investigator (Mr. Sharp) visited Halifax and District to survey communications installations of the various departments there and has submitted reports on these together with suggestions which he considers will improve efficiency and at the same time decrease expenditures.

✓ In the matter of removal and re-arrangement of existing Telephone facilities, Mr. Sharp is of the opinion that the number of suggested dis-connections of instruments might have been increased had time been available to make traffic studies and follow these through. He is greatly concerned with the abundant evidence of the heavy volume of personal calls, both outgoing and incoming. These involve considerable expense to your Department by the fact that additional equipment and operation is necessary to service them and those outgoing must be paid for on the extra measured call basis. He also believes that as there is Land Line Teletype, Radio Teletype Transmission, Wireless Telegraph and Air Mail available, the amount incurred for Long Distance Toll Calls is heavy.

Understanding that service between Halifax, Baccaro, Whitehead must be maintained, he suggests that if it is not already in prospect, experimentation to establish suitable Radio Frequency, might be considered, with circuit service through cables still in Government ownership, plus the loop between Halifax and Truro, rented from Canadian Pacific as a standby until such a Frequency might be regarded as failure proof.

✓ There is a suggestion that the three Services might by mutual arrangement, reduce their collective circuits between Halifax and Ottawa, to one joint circuit, especially in view of

b.u.g.s.

(see attached report) *W. G. Mills*

(over)

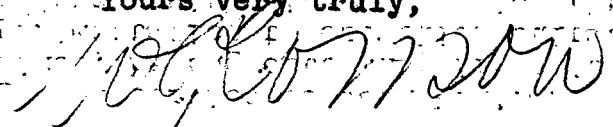
1000204

- 2 -

there being the alternative Radio Teletype Frequencies and
Wireless Telegraph Systems available.

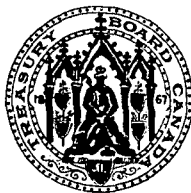
Knowing your interest in these matters, I am en-
closing a copy of Mr. Sharp's report, for your information.

Yours very truly,



For Secretary.

BEST AVAILABLE COPY



Ottawa, October 21, 1946.

The Secretary,
Treasury Board,
Ottawa, C a n a d a.

COMMUNICATIONS - NAVAL SERVICES ESTABLISHMENTS,
HALIFAX, DARTMOUTH, BEDFORD AND SYDNEY

Dear Sir:

The following report of investigation into these facilities is submitted for information and any action which is deemed advisable. Recommendations and suggestions have been included, which if put into effect, would materially decrease present expenditures.

Telephones

A phone by phone survey was made in the undermentioned Shore Establishments;

| | | | |
|--------------------------------|---|-----------|-----------------------|
| H.M.C. Dockyard | - | Halifax | |
| " Stadacona | - | " | (North of Barrington) |
| Naval Stores | - | " | (Dockyard) |
| Central Victual- ling Depot | - | " | (Water) |
| Bulk Stores | - | " | (Young & Windsor) |
| Lumber Stores | - | " | " " |
| Coal " | - | " | " " |
| Laundry | - | | (Gladstone) |
| Armament Depot | - | Dartmouth | |
| Magazine | - | Bedford | |

As 71 Telephones had recently been dis-connected at Sydney, it was not considered that the time and expense would be warranted in making the trip to that location, to deal with approximately 20 still remaining. The last available account, (exclusive of the Armament Depot and the Magazine) was for the

- 2 -

Month of August, the charges included:

| | | |
|------------------------------|---|----------|
| Equipment rental | - | 939.15 |
| 56,474, Extra Measured Calls | - | 850.71 |
| Long Distance Toll Calls | - | 2,093.01 |

while 1 Chief Operator and 14 Operators are employed to operate the Switchboard.

✓ || During progress of the survey it was observed that of the telephones which happened to be in use, about 90% were calls of personal nature, which would indicate that the majority of the 56,000 Measured Calls (outgoing) were personal, it may be assumed that the incoming personal calls build up to a similar volume. Thus when it is considered that these calls make it necessary to employ additional equipment, trunk lines and Operators, it will be realized that the cost is considerable. ||

✓ || What remedy can be devised is a difficult matter to suggest, certainly the operators cannot monitor all calls. Possibly the threat to charge 25% of such costs to Branch Heads might effect some reduction.

Two factors stood out concerning the retention of instruments, these were that in many locations, it was evident that as personnel were released, a spreading out of those remaining immediately takes place, in other instances there are too many telephones in one office, four in some cases for 4 persons.

There are also a number of Off Premises Locals, (outside Dockyard Cable area) on which extra wire mileage charges are incurred, in some cases as high as 15/5 on each local, plus the 40 cents on each instrument including extensions of locals. This may be reduced where telephones are locked inside offices and separate locals are used by Night Watches, by providing the Night Watch with a Jack ended extension of the inside phone and having a Plug in Desk Instrument at a Jack inside and moving this phone at office closing time.

✓ At Central Victualling Depot (15/5), it was found that a 51 pair Canadian National Cable running out of the Dockyard, passes the entrance to this area. Subsequent enquiry established that the fill in this cable was not near capacity and that the Company would allow the Naval Services use of 7 more pairs in it providing they would assume the small cost of installation of a 10 pair Terminal Box on the pole at the entrance mentioned. This would make it possible to eliminate all mileage charges on the Depot Locals, also

(over)

000207

leave enough spare pairs to service the laundry when they move into the same area, as it was stated would be done.

It was noted that the Fleet Air Arm is based at the R.C.A.F. Air Station, Dartmouth, and are serviced through the Switchboard there. As the volume of calls between the Dockyard and this Service is considerably greater than can be accommodated over the 1 Tie Line, it is suggested that one or two more Tie Lines be added as the pairs are available in Army Cable, so the only charges would be for the 1 or 2 Terminals at each Switchboard, to eliminate the extra measured call charges.

As personnel are no longer available as guards on Piers, the telephone equipment is being damaged, with the Naval Services bearing cost of replacements and repairs. Calls are also being made without hope of collection of costs. These troubles could be eliminated by removing the Local Telephones and installing Jacks to which Ships when tied alongside, could plug in.

Other points of general nature in this connection might be considered;

That Traffic Studies be made to determine the volume of Traffic passing between the Dockyard Switchboard and those of Army, R.C.A.F., Command and Veterans Affairs, to decide if the installation of Tie Lines would be justified by the reduction of Measured Calls. Pairs in Government Cable would be available to the first two, whether this might be applied to D.V.A., would have to be established, as it is not immediately known if cable runs to or near the latter.

As Teletype and Wireless services are available for communication, it would appear that the amount (\$2,093.01, for August), incurred for Long Distance Toll Calls, is excessive.

The expense in operating this Switchboard is heavy, due to the fact that continuous 24 hour service 7 days in the week, is maintained. In the near future this might be reduced to office hours, with posted lines at other times.

A copy of the list of the telephones and miscellaneous equipment serviced through this Switchboard is attached, marginal notation has been made of those which it is suggested, might be dis-connected. If this be acted upon, it should permit the removal of a position of Switchboard and release of 2 Operators. Later when traffic has had an opportunity to settle down, a traffic study on the Trunk Lines should be made to determine if any of these could be dis-connected.

(over)

At a later date, possibly 31-3-47, further reductions might be effected.

In any reduction of Operators which might be made, it is suggested that the present Chief Operator, a married woman with a supporting husband, be released. This is not intended as any reflection upon her ability, as she has ^{been} and is carrying out her duties most efficiently, but due to the new classifications set up by the Civil Service Commission, with the approval of Privy Council, P.C. 18/2990 of 18th July, 1946, by the provisions of which this position should be re-classified as "Chief Operator, Grade 1, with a consolidated salary range of \$1,500 to \$1,824." An opportunity to make this change appears possible by the promotion of the Assistant to the Chief Operator, a Miss Amiro, who seems to possess the necessary ability to fill the position.

✓
✓
Dockyard Authority in discussion asked what were the possibilities of a Consolidated Automatic Dial System being organized for installation in Halifax. The answer was that Treasury Board had not given such a matter consideration. This Authority was of the opinion that such an installation would considerably increase telephone efficiency in the Dockyard. Failing this could an automatic dial system be considered for installation in the Dockyard. Answer; if the Naval Authorities put forward an application of that nature, it would be carefully investigated and recommendations based on such study submitted to Treasury Board for consideration. That to determine an accurate reflection of its possible relation to any co-ordination, it would be necessary to study the engineering problems, such as existing cable plant, traffic, together with operation and financial questions. That it would have the immediate effect of reducing operating staff and increase efficiency was agreed. Whether, due to the distance of the Dockyard from downtown activity and cable facilities would render it a good project as an eventual satellite switch-board, would have to be established.

It was agreed that the Telecoms Officer would contact the Telephone Company and obtain an estimate of the rental charges and installation costs for such an installation in the Dockyard, and forward same for examination.

While it was considered that too many telephones were in use in the R.C.N. Hospital in the Stadacona area, it was difficult to suggest which were the ones which might be dis-connected. The Medical Director General, agrees that this Hospital could have their total reduced by 18 to 20, and suggests they be directed to decrease by this number, rather than indicate which should be removed.

- 5 -

Armament Depot - Dartmouth

This Depot is serviced by a 1 position Switchboard, 4 Trunk Lines and 5 Tie Lines.

Little or no reduction appears to have been effected since V.E. Day, although from all appearance activity has materially decreased. Investigation has resulted in the suggestions marginally noted on the attached list of Telephones and Miscellaneous Equipment at present in use. Further a traffic study might be made on the Trunk Lines to determine if they are all necessary.

Here again there was evidence of a large volume of personal calls.

At a later date, possibly 31-3-47, it is believed that additional reductions could be made and the Switchboard removed, the two operators released and Trunk and Tie Lines dispensed with, adding the balance of the Locals to the Dockyard Switchboard.

Magazine - Bedford

The explosion of last year has all but erased communication with this Magazine, there now only remaining 3 lines which can be used for ingoing and outgoing traffic. The main cable was entirely destroyed and it appears that the distribution cable within the present area, is buried, and apparently useless, not due to the explosion, but to frost heaving the rock fill to create damage. As faults are located from either end and repaired, others show up further in from the ends and as a rock slide at one point has buried the cable to a depth of 8 feet, it is evident that the cost of digging and effecting repairs is more expensive than it would be to run new cable.

In some offices a triplicate telephone service is maintained. It is considered that one of these could be removed, retaining the inter-communicating Magnets System and utilizing the 3 incoming lines to service a Cordless Switchboard if one can be obtained which one of the girls already employed could operate or using the 3 lines for Telephones and adding Extensions, until a definite policy is put into effect for this area, when telephones could be re-organized to service any changed conditions.

Use of telephones at two outside points, Saint John, N.B., and Charlottetown, P.E.I., seem to require attention. The R.C.N.V.R. Division at Saint John appear overstocked with lines, while the Long Distance Toll account for the R.C.N.V.R. Division at Charlottetown, \$146.07, for one month appears out of proportion, especially when it is recollected that these Divisions were not even allowed a telephone the war. A copy of this account is attached for information. (over)

000210

R.C.N.V.R.

666

CHTOWN

TOLL SERVICE STATEMENT

| | TO | PLACE CALLED | |
|------|-----------------|--------------|--------|
| 1946 | | | |
| JUL | | | |
| 17 | FROM KENS - | OTTAWA | 3.10 |
| 17 | | OTTAWA ONT | 7.20 |
| 22 | | KENS | .40 |
| 22 | | OTTAWA ONT | 4.60 |
| 22 | | HALIFAX | 5.80 |
| 22 | | HALIFAX | 1.35 |
| 23 | | BORDEN | .25 |
| 23 | | KENSINGTON | .25 |
| 23 | | HALIFAX | 2.85 |
| 23 | | BORDEN | .25 |
| 24 | | FROM POWNAL | .15 |
| 24 | FROM POWNAL | CHTOWN | .20 |
| 25 | | KENS | .25 |
| 25 | | OTTAWA ONT | 6.85 |
| 25 | FROM HILLS | CHTOWN | .10 |
| 25 | | KENSINGTON | .25 |
| 26 | FROM POWNAL | CHTOWN | .15 |
| 26 | FROM POWNAL | CHTOWN | .10 |
| 26 | | OTTAWA ONT | 2.35 |
| 27 | FROM HILLS | CHTOWN | .15 |
| 27 | FROM KENSINGTON | | .25 |
| 30 | | OTTAWA ONT | 15.85 |
| 30 | | HALIFAX | 2.35 |
| 31 | | OTTAWA ONT | 18.85 |
| AUG. | | | |
| 2 | | HALIFAX | 1.00 |
| 2 | | OTTAWA ONT | 3.85 |
| 5 | | HALIFAX | 1.65 |
| 5 | | OTTAWA ONT | 5.35 |
| 5 | | KENSINGTON | .35 |
| 5 | | KENSINGTON | .25 |
| 6 | | OTTAWA ONT | 4.60 |
| 7 | | W COVEHD | .15 |
| 7 | | OTTAWA ONT | 5.35 |
| 8 | | HALIFAX | 1.50 |
| 9 | | HALIFAX | 1.65 |
| 9 | | KENSINGTON | .25 |
| 12 | | HALIFAX | 4.05 |
| 12 | | FROM KENS | .35 |
| 13 | | OTTAWA ONT | 6.10 |
| 18 | | COVEHD | .15 |
| 17 | | HALIFAX | 2.55 |
| 19 | | HALIFAX | 1.95 |
| 19 | | KENS | .25 |
| 19 | | OTTAWA ONT | 5.35 |
| 20 | | OTTAWA ONT | 6.85 |
| 20 | | OTTAWA ONT | 3.85 |
| | | TOTAL TOLLS | 131.50 |
| | | GOV'T TAX | 14.57 |

Teletype Service

Several instances where this type of communication must be retained in some degree, re-arrangement would make it possible to save material amounts.

An example may be found in the Halifax, Baccaro, Whitehead, triangle, as the Maritime Telegraph and Telephone Company have been able to absorb cables as surplus, through which exchanges are passed and appear to be using such ownership to their good advantage, as the following figures would seem to point to:

The Company request a five year contract for the continued operation of these circuits, the terms of which they quote as;

| | | | |
|--------------------|---|-----------------|-----------|
| Halifax to Baccaro | - | \$ 6,144 | per annum |
| Halifax to Truro | - | 2,688 | " " |
| Truro to Whitehead | - | 6,048 | " " |
| Total | - | <u>\$14,880</u> | " " |

whereas it appears there are some remaining Government Circuits between Halifax and Baccaro, and Truro and Whitehead, which might possibly be utilized, but as there is some doubt of anything between Halifax and Truro, an estimate for a circuit between these points was obtained from Canadian Pacific, who quoted \$1,500, per annum for this, without mention of a 5 year contract.

Some time ago Army Signals successfully demonstrated that this type of communication could be passed by Radio Frequency, for this reason it is suggested that similar operation might be undertaken for this service, retaining circuits through Government Cable between the above mentioned points, with acceptance of Canadian Pacific offer between Halifax and Truro, if it is definitely established that Government Cable does not exist along that route, as it will be necessary to protect this service with a standby for emergency, until such time it may be proven that Radio Frequency is failure proof.

It is noted that each of the Armed Services, Navy, Army and Air Force, maintain Teletype Circuits between Halifax and Ottawa. Why this should be necessary in addition to the several other channels of communication available, Air Mail, Wireless Telegraph and Radio Frequency Teletype, is not understood.

If it be considered essential that line teletype be maintained, could one circuit joint service not be instituted, thus eliminating existing triplication of circuits, machines, operators, supervision, etc., the Terminal points in Halifax and Ottawa to be located in the buildings of the Service which handles the greatest volume of traffic.

In conversation with District Signal Officer (Army) we were requested to ask if decision might be hastened, concerning their request for space at Albion Lake Naval Establishment, for the installation of Antennae, 1 R.T.T. Receiver and 4 Radio Receivers. Similar application for transmission at Newport, was granted and approval of this later application would save acquirement of more land, and erection of buildings.

SUMMARY

The foregoing suggestions would permit the following net decrease in the Telephone services of the Dockyard System and the Armament Depot;

| | | | | |
|------|----------------------------------|---|-----------------|--------|
| 1 | Position of Switchboard | - | \$25.00 | permth |
| 107 | Locals, desk @ \$1.00 | - | 107.00 | " " |
| 9 | Locals, hand @ 1.35 | - | 12.15 | " " |
| 18 | Extensions, desk @ 1.00 | - | 18.00 | " " |
| 2 | Extensions, hand @ 1.35 | - | 2.70 | " " |
| 7 | Wiring Plans @ .50 | - | 3.50 | " " |
| 2 | Moore Gongs @ .50 | - | 1.00 | " " |
| 88 | - 1/5 Miles, extra mileage @ .25 | - | 22.00 | " " |
| 2 | Operators, average @100.00 | - | 200.00 | " " |
| 13 | Exterior charges @ .40 | - | 5.20 | " " |
| | | | <u>\$396.55</u> | " " |
| Less | | | | |
| 4 | Jacks @ .10 | - | .40 | " " |
| | | | <u>\$396.15</u> | |

or \$4,753.80 per annum

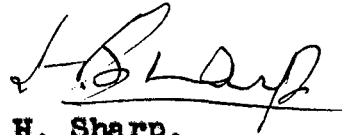
This is not inclusive of reductions which may be effected by the re-arrangement of off-premises Locals, to be serviced through other cable facilities, saving mileage and extra measured calls, and Tie Line additions.

Also, it is believed that additional reductions could be effected in telephones, by further effort, which might well be in the form of a directive to remove some given number at some set date.

The present expense of the Halifax, Baccaro, Whitehead, circuits, at the rate of \$14,880, per annum can be reduced to the \$1,500, quoted by Canadian Pacific. ✓

(over)

While joint agreement between the Services concerning joint use of a Teletype Circuit between Halifax and Ottawa, which it is understood bears an annual charge of \$19,800, each, with possibly 2 operators at each end as 24 hour service is maintained, or an additional sum of about \$5,000 per annum.



H. Sharp,
Telephone Investigator.

LEGEND:-

LD - Local Desk
 LH - Local Hand
 XD - Extension Desk
 XH - Extension Hand
 WP - Wiring Plan
 LRX - Moore Gong

Document disclosed under the Access to Information Act / Document divulgué en vertu de la Loi sur l'accès à l'information

XB - Extension Bell
 /5 - Each Fifth Mileage
 X - R.C.N. Hospital In

Out

| | | | | | | |
|----|-----------------------------------|-----|----|--------|---------------------------|-----------|
| 1 | Tie Line to R.C.N.A.D. | | | | | |
| 2 | Tie Line to R.C.N.A.D. | | | | | |
| 3 | Tie Line to R.C.N.A.D. | | | | | |
| 4 | Tie Line to R.C.N.A.D. | | | | | |
| 5 | Fire & Emergencies (Naval Mag.) | D | | | | |
| 6 | P.B.X. | H | | | | |
| 8 | Rehabilitation | D | | | LD 8 | |
| 9 | Discharge Transit | D | XD | | | |
| 10 | National Employment (Sch. Master) | D | XD | | LD10 & XD | |
| 11 | Transport, Stadacona | D | | | LD11 | |
| 12 | Bulk Stores | D | | LRX | | 2 Jacks |
| 13 | Bulk Stores | D | | | LD13 & 9/5M | |
| 14 | Lumber Store (Naval Stores) | D | XD | | LD14&XD | |
| 15 | Coal Yard (Naval Stores) | D | | LRX | LD15& 9/5M | XD14 2/5M |
| 16 | French Cable Wharf | D | XD | | | |
| 17 | Minesweeping Store | D | | | | |
| 19 | Magnetic Minesweeping Base | D | | | | |
| 20 | Naval Laundry OI/C | D | | WP203 | WP203 | |
| 21 | Naval Laundry, Shipping | D | | | LD21&15/5M | |
| 22 | Naval Laundry, Dry Cleaning | D | | XB | | |
| 23 | Naval Laundry, Stockroom | D | XD | XB | LD23&XD&15/5M XH&WP203 | XD22 |
| 24 | Sea Transport Officer | H | XH | 2WP203 | LH24&WP203 | |
| 25 | Asst. Sea Transport Officer | H | | WP203 | LH25&WP203 | |
| 26 | "S" Block | D | XD | | | |
| 28 | Medical Discharge | D X | | | | |
| 29 | Discharge Medical Records | D X | XD | | | |
| 31 | Base Distributing Authority | D | XD | | XD | |
| 32 | Staff Officer Operations | H | | | | |
| 33 | R.C.N. Sub Depot Records | D | | | LD33 | XD63 |
| 34 | Naval Research Establishment OI/C | D | | | | |

| | | | | | |
|-----------|------------|------------|-----------|----------|--------------|
| <u>15</u> | <u>Loc</u> | <u>Ext</u> | <u>WP</u> | <u>X</u> | <u>Jacks</u> |
| 48 | D9H2 | D4H1 | 4 | D3 | 2 |

| | | | | |
|----|------------------------------------|----|------|-------------------|
| 35 | Naval Research Establishment | D | 2 XD | 1XD ✓ |
| 36 | SO(I) Books | D | | |
| 37 | Base Distributing Authority | D | | |
| 38 | Civilian Guard Office | D | | |
| 39 | Navigational Training | D | XD | |
| 40 | Kings Harbour Master | H | XH | WP203 ✓ |
| 41 | Asst/K.H.M. | H | | 2WP203 ✓ |
| 42 | Yard Craft Storekeeper | H | | |
| 43 | Telecoms Party | D | | |
| 44 | Telecoms | D | | |
| 45 | Treasury Officer | H | XD | |
| 46 | Treasury Office | D | | |
| 47 | Treasury Cost Accounting | D | | |
| 50 | Central Records Dockyard (Gen Off) | D | XH | XD |
| 51 | Central Records | D | | |
| 52 | Naval Reading Service | D | | LD52 |
| 54 | Resident Architect | D | | LD54 ✓ |
| 55 | Command Maintenance Officer | HD | | 2WP203 LD55&WP203 |
| 56 | Staff Officer Maintenance | H | XD | WP203 |
| 57 | Staff Officer Maintenance | D | | |
| 58 | Staff Officer Maintenance | D | | |
| 59 | Staff Officer Maintenance | D | | LD59 ✓ |
| 60 | Drafting Commander | H | | |
| 61 | Seaman's Drafting | D | XD | XD |
| 62 | E.R.A.'s Drafting | D | | |
| 63 | Draft Sub Depot Records | D | | |
| 64 | Heating Maintenance | D | | |
| 65 | Deputy Superintendent | H | | WP203 |
| 66 | Dep. Superintendent Residence | W | XD | |
| 67 | Secretary (D Supt) | H | | WP203 |
| 68 | Chief Clerk (D Supt) | H | | LN68 |

| Loc | X | WP |
|-------|-------|----|
| L.D.5 | X.D.3 | 1 |

| | | | | | |
|-----|-----------------------------------|----|------|---------|-------|
| 69 | D 42's (D Supt) | D | | | |
| 70 | D 5's (D Supt) | D | | | |
| 71 | Port Sports Officer, Stadacona | D | | | |
| 72 | Chief P.T.I. & Sports Office | D | XD | LD72&XD | X71 |
| 73 | Library | D | XD | | |
| 74 | Administrator of Ship Repairs | H | | | |
| 75 | Assistant A.S.R. | D | | | |
| 76 | Hobby Shop | D | | LD76 | |
| 77 | A'S & A'S (D Supt) | D | | | |
| 78 | Engine Trials | D | | LD78 | |
| 79 | A'S & A'S (General Office) | D | | LD79&XD | XD77 |
| 80 | Bos'n Stadacona | D | XD | LD80&XD | XD216 |
| 81 | Plumbers Shop - Stadacona | DX | 2 XD | | |
| 82 | Elect. Construction & Maintenance | D | 2 XD | XD | |
| 83 | Command Chaplain - Stadacona | D | | | |
| 84 | Chaplains P & RC, Scotian | D | XD | | |
| 85 | Staff Officer M.T.E. | D | XD | | |
| 86 | M.T.E. Regulating Office | D | XD | | |
| 87 | M.T.E. Engineer I/C Vets. Affairs | D | | | |
| 88 | M.T.E. A/Engr. Officer | D | | LD88 | XD92 |
| 89 | M.T.E. E.O I/C Tenders | D | XD | | |
| 90 | North Gate | D | | | |
| 91 | Centre Gate | D | | | |
| 92 | Air Training Office, M.T.E. | D | | | |
| 93 | South Gate | D | | | |
| 96 | First Lieutenant Stadacona | H | | WP203 | |
| 97 | First Lieutenant (Manual Office) | D | XD | | |
| 98 | Dockyard Sick Bay | D | XD | | |
| 100 | Admiralty House Mess Secretary | D | | | |

| | | |
|------------|----------|----------|
| <u>Loc</u> | <u>X</u> | <u>X</u> |
| LD 6 | XD 4 | XD 4 |

| | | | | | | |
|-----|----------------------------------|-----------|------------|------------------|--|----------|
| 104 | Officers Discharge Transit | D | | | | |
| 106 | Naval Garage | D | | | | |
| 113 | Nurses Residence Macadam House | D X | XD | → Walker House ✓ | | |
| 114 | Nurses Residence Helles House | D X | XD | → Russell | | |
| 115 | Spare Gear Store | D | | | | |
| 116 | Sales & Salvage Store | D | | LD116&9/5 | | XD115 |
| 117 | Recruiting Officer | H | XD | | | |
| 118 | Sea Cadet Liaison Officer | D | XD | LD118 & XD | | |
| 119 | C.O.A.C. - Residence | H | XH | XB | | |
| 120 | Central Post Office | D | | | | |
| 121 | Dockyard Post Office | D | | | | |
| 122 | Staff Officer Local Craft | H | | | | |
| 123 | OI/C Harbour Craft | H | XD | XH | | |
| 124 | Engineer Officer Harbour Craft | D | | LD 124 | | XD 126 |
| 125 | Inquiry - Harbour Craft | D | | | | |
| 126 | General Office - Harbour Craft | D | | | | |
| 127 | Motor Transport | D | | | | |
| 128 | Motor Transport | H | XD | | | |
| 129 | Motor Transport | D | | | | |
| 130 | D.G. Elect. Anti-Mining | H | | | | |
| 131 | Central Stores Officer Stadacona | D | | LD 131 | | |
| 132 | Central Stores Office | D | XD | | | |
| 134 | Tool Crib Stadacona | D | | | | |
| 135 | Spare Gear - Technical Officer | D | | | | |
| 136 | Spare Gear - Workshop | D | | | | |
| | | <u>15</u> | <u>Loc</u> | <u>X</u> | | <u>X</u> |
| | | 9 | LD 4 | XD 1 | | XD 2 |
| | | | | XH 1 | | |

| | | | | | |
|-----|------------------------------------|---|-------|---------|-------|
| 137 | Officers Regulating Stadacona | D | | LD137 ✓ | XD609 |
| 138 | Spare Gear Office | D | | LD138 | |
| 139 | Commander of the Dockyard Res. | H | XD | | |
| 146 | Operations | H | | | |
| 147 | Chief of Staff | H | | | |
| 148 | Res. Chief of Staff | H | XD | | |
| 151 | Staff Communications Officer | H | | | |
| 152 | Command Supply Officer | H | XD | | |
| 154 | Commanding Officer Res. - Stad | H | XD XH | | |
| 155 | Executive Officer Res. - Stadacona | H | XD | | |
| 157 | Executive Officer Reserve Fleet | D | 2XD | | |
| 158 | Air Warrior | D | | | |
| 159 | Warrior - Captains Office | D | | | |
| 160 | St. Laurent "F" & "D" Block | D | | | |
| 161 | Curator | D | | | |
| 162 | Chief Engineer | H | | | |
| 163 | Chief Engineers Office | D | | | |
| 164 | Senior Supply Officer | H | | | |
| 165 | Outside Fitters | D | XD | LD165 | |
| 166 | Co-ordinator of Outside Bases | H | XD | LD166 ✓ | |
| 168 | C.O.A.C. | H | XH | | |
| 169 | Secretary C.O.A.C. | H | XD | | |
| 170 | Assistant Secretary C.O.A.C. | H | XD | | |

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|--|------------|----------|
| | <u>Loc</u> | <u>X</u> |
| | LD 4 | XD 1 |

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|-----|-----------------------------------|-----|-----------|---------------|-------------|
| 171 | Secretariat C.O.A.C. | D | | | |
| 173 | Staff Officer Intelligence | H | XD | | |
| 174 | Staff Officer Appointments & Rec. | D | | | |
| 175 | Command Medical Officer | H | XH XD | | |
| 179 | Medical Records | D | XD | | |
| 180 | N.S.O. | H | XD | | |
| 181 | Inquiry & Information S.N.S.O. | D | | | |
| 182 | D/Naval Stores Officer | H | XD | XD | |
| 183 | Naval Stores Office Manager | H | | LH 183 | |
| 184 | N.S.O. Principal Clerk | H | | | |
| 185 | Assistant Stores Clerk & Ledgers | D | | | |
| 186 | Demands (Naval Stores) | H | | LH 186 | ✓ |
| 187 | Audit Dept. N.S.O. | H | | | |
| 188 | Procurement N.S.O. | H | | LH 188 | ✓ |
| 189 | Demands Counter N.S.O. | D | | LD 189 | on 30-11-46 |
| 190 | Invoice Section S.N.S.O. | H | | | |
| 191 | ASDIC Radar Con | DGG | D | LD 191 | |
| 192 | Surveyor | H | | LH 192 | |
| 193 | Traffic Control S.N.S.O | H | | | |
| 194 | Foreman of Stores | D | | | |
| 195 | Receiving Stores | D | | | |
| 196 | Stationery Books & Reference | D | | LD 196 | |
| 197 | Customs & Shipping N.S.O. | D | XD | | |
| 198 | #6 Return Stores S.N.S.O. | D | XD | XD | |
| 199 | #8 Stores | D | | | |
| 200 | OI/C C.V.D. | H | XD | | |
| 201 | Central Victualling Yard | D | XD | | |
| 202 | Central Victualling Depot | D | 2 XD | | |
| 203 | C.V.D. Order Office | D | | LD203& 15/5 M | XD202 |
| 204 | Mess Traps Provision Stores NSO | D | XD | XB | LD204& XD ✓ |
| | | | <u>15</u> | <u>Loc</u> | <u>X</u> |
| | | | 15 | LD5LH4 | XD3 |
| | | | | <u>X</u> | <u>WP</u> |
| | | | | XD1 | 1 |

| | | | | | |
|-----|--------------------------------|---|------|-----------|-------|
| 205 | Staff Officer Rehabilitation | D | | | |
| 206 | First Lieutenant's Residence | D | | | |
| 207 | A/S Fixed Defences | D | 2 XD | | |
| 208 | Albro Lake W/T | D | | | |
| 209 | Signal Distributing Office | D | | | |
| 210 | Supervisor of Training | D | | | |
| 211 | "A" Block, Regulating | D | XD | LD211&XD | ✓ |
| 212 | Coal Order Office | D | | LD212&9/5 | ✓ |
| 213 | "J" Block Cells | D | | | |
| 215 | Lieutenant At Arms | H | | | |
| 216 | Main Guard Stadacona | D | LRI | | |
| 217 | Baggage Room | D | XD | LD217&XD | XD213 |
| 218 | Newport Corners W/T | H | | | |
| 219 | Loran Monitor | D | | | |
| 220 | OI/C Torpedo School | D | XD | | |
| 221 | OI/C A/S School | D | | | |
| 222 | Senior Instructional Officer | D | 2 XD | XD | |
| 223 | Reg. Office Torpedo School | D | | LD 223 | |
| 224 | E.A. Shop | D | XD | | |
| 225 | School Master | D | XD | XD | |
| 226 | Torpedo School | D | | | |
| 227 | Duty Officer M.C.O. | H | | | |
| 228 | Distribution Desk M.C.O. | D | | LD228 | ✓ |
| 229 | Signal Station | D | | | |
| 230 | Teleprinter Room | D | | | |
| 231 | Inquiry M.C.O. | D | | | |
| 232 | Telephone Room M.C.O. | H | | | |
| 233 | Telephone Room M.C.O. | H | | | |
| 234 | Telegraph Desk M.C.O. | H | | | |
| 235 | Officer in Charge M.C.O. | H | | | |
| 236 | Signal Training Centre Reg. | D | XD | | |
| 237 | Special Services Office - Stad | D | 2XD | | |
| 238 | A/S Base Maintenance Officer | D | | | |

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|-----|------------------------------------|-----|------|---------|
| 239 | A/S School | D | XD | |
| 240 | Sports Officer | D | XD | |
| 241 | Reg. Office Electrical School | D | | |
| 242 | Electrical School, Stadacona | D | | |
| 243 | Officer in Charge Elect. Sch. | D | XD | WP203 |
| 244 | Master At Arms Stadacona | D | | |
| 246 | Galley | D | | LD246 |
| 247 | Executive Officer Stadacona | H | XD | WP203 |
| 248 | Executive Officer | H | | WP203 |
| 249 | Staff Officer Scotian | D | | |
| 250 | Staff Officer Torpedo Scotian | H | XD | |
| 251 | Engineer Office Scotian | H | XD | XD |
| 252 | Engineer Officer Secretary | D | | XD ✓ |
| 256 | Personnel Selection Officer | D ✓ | 2 XD | XD ✓ |
| 259 | Long Range Gunnery | D | XD | |
| 260 | Service Certificate Office | D | | LD260 |
| 261 | Recreational Supervisor | D | | LD261 |
| 262 | Material Expediting Dept. | D | | |
| 263 | Secretary C.O. Stadacona | H | | LH263 ✓ |
| 264 | OI/C Civilian Personnel | H | | WP203 |
| 265 | OI/C Civilian Personnel Secretary | D | | |
| 266 | Civilian Personnel General Office | D | | |
| 267 | Employees Welfare Civil Personnel | D | | |
| 268 | Labour Interviewer | D | | LD 268 |
| 269 | Records & Attendance | D | | |
| 270 | Records & Attendance (Hourly Paid) | D | | |
| 271 | First Aid Room | D | XD | XD ✓ |
| 272 | Labour Relations Training Supt. | D | | |

Loc X
LD4 XD 4
LH 1

| | | | | |
|-----|-----------------------------------|-----|------------|-------------------|
| 273 | Pattern Shop | D | LRX | LD273&LRX |
| 274 | Plumber Shop - Civil | W | XB | |
| 275 | Dockyard Foreman | D | | |
| 276 | Fitters | D | | |
| 277 | Plant Engineering Stores | D | | LD277 |
| 278 | Foreman Light Machine Shop | D | | |
| 279 | Supt. Tool Room | D | | |
| 280 | #8 Store S.N.S.O. | D | | |
| 281 | #8 Store Packing | D | | LD281 ✓ |
| 282 | #9 Store | D | | |
| 283 | #9 Store | D ✓ | | |
| 284 | Iron Store | D | | |
| 285 | Stationery Store | D | | |
| 286 | Engine Parts | D | | |
| 287 | Return Stores | D | | |
| 288 | A/S Store | D | | |
| 289 | W/T Stores | D | | LD289 ✓ |
| 290 | # 44 Store Clothing | D | | |
| 291 | # 44 Store General Office | D | | |
| 292 | # 44 Store (Zinck) | D | | |
| 293 | # 44 Store Miscellaneous | D | | |
| 294 | Outward Seagoing Shipment | D | | |
| 295 | Commanding Officer Stadacona | H | XH | WP203 |
| 296 | C.O. Stadacona Secretary | H | | |
| 297 | OI/C Invoice Section S.N.S.O. | D | | |
| 298 | Salvage & Repair Officer | D | | LD298 |
| 299 | Heavy Shipping Store | D | | LD299 |
| 300 | Expense Accounts Officer | D | | LD300 |
| 301 | Asst. Expense Accounts Officer | H | | |
| 302 | Asst. Expense Accounts Officer | D | XD | |
| 303 | Expense Accounts Office - General | D | | |
| 304 | Timekeeper Naval Stores | D | | |
| 305 | Elect. Shop - Civil Timekeeper | D | | |
| 306 | Motor Transport Timekeeper | D | Loc LD8 | LRL 1 LD306 |

When
stores
moved to
Sydney. ✓

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|-----|-----------------------------------|-----------|------------|-------------------|-----------------------|
| 307 | Naval Garage | D | LXR | LD307 & 7/5 | 2 Jacks |
| 309 | Bull Gang Timekeeper | D | | | |
| 310 | Leave & Transportation | H D | | | |
| 311 | Shipwright Timekeepers | D | | LD311 | |
| 312 | Bos'n Timekeepers | D | | | |
| 314 | Civil Co-ordinator Supply Branch | D | | LD314 | |
| 315 | Canteen Stores | D | XD | XD | |
| 316 | Laboratory | D X | | | |
| 317 | Pumphouse | D | XD | | |
| 318 | Senior Equipment & Trials Officer | D | XD | XD | |
| 320 | Port Central Stores Officer | D | | LD320 15/11/46 | |
| 321 | Radio Technical Assistant | D | | LD321 | |
| 322 | Radio Maintenance | D | | | |
| 323 | "B" Ward & Infectious Ward | D X | XD X | | |
| 324 | Radio Engineering Dept | D | | LD324 | |
| 325 | Inquiry, R.C.N.H. | D X | | | |
| 326 | Chief Radio Engineer Officer | D | | | |
| 327 | 1st North R.C.N.H. | D X | | | |
| 328 | 2nd North R.C.N.H. | D H X | | 4 Jacks 1 Plug | |
| 329 | 3rd North R.C.N.H. | D X | | | |
| 330 | Loud Hail Maintenance | D | | LD330 | |
| 332 | Reg. Office Saguenay Block | D | | | |
| 333 | Reg. Office Skeena Block | D | | LD333 | X332 |
| 334 | North Cafeteria (Supply) | D | | | |
| 338 | Medical Consultant | D X | | | |
| 339 | S.B.A. Reg. R.C.N.H. | D X | | | |
| 340 | Flotilla Central Stores Officer | D | XD | | |
| | | <u>15</u> | <u>Loc</u> | <u>X</u> | <u>X</u> <u>Jacks</u> |
| | | 7 | LD8 | XD2 | XD 1 2 |

| | | | | |
|-----|-----------------------------------|---|----------|-------|
| 341 | Accountant Officer Audits Spare | | | |
| 342 | Dietitian | D | X | |
| 343 | Plant Engineering General Office | D | XD | |
| 344 | Manager Electrical Engineering | D | XD | |
| 345 | Assistant M.E.E. | D | | |
| 346 | M.E.E. Corvettes, Harbour Craft | D | XD | XD |
| 347 | Chemical & Metallurgical Lab. | D | | |
| 348 | OI/C E.A. Shop | D | XD | XD |
| 349 | M.E.E. (Estimating Depts.) | D | | |
| 350 | Outpatients - Records | D | D X XD X | |
| 351 | Naval Electricians | D | | LRX |
| 352 | Electrical Shop Civilian Foreman | D | | |
| 353 | Electrical Shop, Civilian | D | | LD353 |
| 354 | Electrical & M.C.D. | D | | |
| 355 | Electrical Shop | D | | |
| 356 | Electrical Shop Stock Room | D | XD | |
| 357 | Jetty 3 - Electrical | D | | |
| 358 | Electrical Linemen | D | XD | |
| 359 | Electrical Shop Jetty 5 | D | | |
| 360 | Foreman of Machine Shop | D | XD | LD360 |
| 361 | Dermatology | D | X XD X | |
| 362 | Tool Room South Machine Shop | D | | |
| 363 | Central Tool Crib | D | | |
| 364 | Dispensary - Well Baby Clinic | D | D X | |
| 365 | Civilian Shipwright Shop | D | XD | |
| 366 | Eye, Ear & Nose | D | X | |
| 367 | Psychiatrist | H | X | |
| 368 | Internal Combustion Engine Repair | D | | |
| 369 | Manager Constructive Dept. | H | | |
| 370 | General Office M.C.D. | D | XD | |
| 371 | Shipwrights Electrical School | D | | |
| 372 | Physiotherapy, R.C.N.H. | H | D X | |
| 373 | Laboratory Medical Officer | D | X XD X | |
| 374 | Manager, Construction Dept | D | | |

Loc X
LD 2 XD 2

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|-----|----------------------------------|-------|------|---------------------|-------------------|
| 375 | Underwater Repair Shop | D | XD | | |
| 376 | Chart & Chronometer Depot OI/C | H | | WP203 LH376 & WP203 | |
| 377 | Chart & Chronometer Depot | D | XD | WP203 | WP 203 |
| 378 | Admitting R.C.N.H. | H X | XD X | | |
| 379 | Admitting R.C.N.H. | D X | | | |
| 380 | Depot Workshop | D | XD | | |
| 381 | Tool Room North Machine Shop | D | XD | | |
| 382 | Recovery Room; Provision Supply | D X | XD | | |
| 383 | E.R.A.'s Reg. N. Machine Shop | D | | | |
| 384 | Commissioned Shipwright | H | | | |
| 385 | Shipwrights Office | D | | LD385 | XD385 |
| 386 | Shipwright Shop Stores | D | XD | | |
| 387 | Naval Plumber Shop | D | | LD387 | XD383 |
| 388 | Naval Shipwright | D | XD | LD388&XD | XD384 |
| 389 | Dental | D X | | | |
| 390 | Surgical Consultant | D X | | | |
| 391 | Boiler Maker | D | XD | | |
| 392 | 1st South, R.C.N.H. | D X | | | |
| 393 | 2nd South, Private Cabins | D H X | | 4 Jack's 1 Plug | |
| 394 | 3rd South | D X | | | |
| 395 | Gyro Workshop | D | | | |
| 396 | Boatswain | H | XD | | XD |
| 397 | Riggers Civil | D | | | |
| 398 | Sick Bay Stadacona | D X | | | |
| 399 | Divisional Harbour Craft Officer | D | | | |
| 400 | Executive Officer Scotian | H | | | |
| 401 | C.O. Secretary Scotian | D | XH | WP203 | LD401&WP203 |
| 402 | Maintenance Officer | D | XD | | XD |
| 403 | W. M.A.A. Scotian | D | | | |
| 404 | M.A.A. Scotian | D | | | LD404 15/11/46 |
| 405 | Officer of the Day Scotian | D | | | |
| 406 | Central Regulating Scotian | D | XD | | LD406&XD 15/11/46 |
| 408 | Main Guard Scotian | D | XD | | |

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|-----|-----------------------------------|---|------|----------|-------|
| 409 | Service Certificates Scotian | D | | | |
| 410 | Captain's Office Scotian | D | | | |
| 411 | Canteen Supervisor | D | | | |
| 412 | Civilian Workmen's Canteen | D | | | |
| 414 | Engineer Officer Scotian | D | | | |
| 415 | S.D.O. Scotian | D | | | |
| 416 | Medical Stores | D | | | |
| 417 | Dental Clinic | D | XD | | |
| 418 | Dental Clinic - Officers | D | XD | | |
| 419 | | | | | |
| 500 | Fire Department | D | XD | | |
| 501 | Command Fire Protection Officer | D | XD | | |
| 502 | Munitions & Supply | H | | | |
| 503 | Munitions & Supply | H | | | |
| 504 | Sr. Gunnery Officer & Assistant | D | XD | | |
| 505 | Sr. Staff Officer - Gunnery | D | XD | | |
| 506 | Regulating & Instructional Gun. | D | XD | | |
| 507 | Gunnery School, Stores & Ordnance | D | 2 XD | | |
| 508 | Munitions & Supply Purchasing | H | | | |
| 509 | Fuel Officer Halifax | D | | LD509 ✓ | |
| 510 | Contracts, Surplus Demands | D | | | |
| 511 | Staff Officer Pay Div. I | D | | | |
| 512 | Asst. Staff Officer | D | XD | LD512&XD | XD511 |
| 513 | Field Training Officer | D | | | |
| 514 | Spare | | | | |
| 515 | Central Reg. Officer - Stadacona | D | | LD515 | XD516 |
| 516 | Draft Reg. Officer - Stadacona | D | | | |
| 600 | Mess Secretary - Admiralty House | D | | LRX | |
| 601 | "B" Mess Reg. Office | D | | | |
| 602 | Chaplain in Charge - Stadacona | D | 2 XD | | |

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| <u>Loc</u> | <u>X</u> | <u>X</u> |
| LD 3 | XD 1 | XD 2 |

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|-----|--------------------------------|-----|------|-------------------------------------|----------|
| 607 | Photographer, Technical | D | XD | LD607 [✓] &XD [✓] | |
| 608 | W/T Bulk Stores | D | | | |
| 609 | Central Registry | D | | | |
| 610 | Stationary Engineer East Coast | D | XD | XD | |
| 611 | Officer of the Watch Stadacona | D | | | |
| 612 | Salvage & Repair Officer | D | | LD612 [✓] | |
| 613 | Central Heating Plant | D | | LRX | |
| 614 | Leave Regulating Office | D | | LD614 | XD244 |
| 616 | Inspector of Booms | H | XD | LH616 [✓] &XD [✓] | |
| 618 | Diving Office | D | 2 XD | XD | |
| 619 | Clothing Store | D | | LD619 | |
| 700 | Jetty "0" | D | | LRX | |
| 701 | Jetty "1" North | D | | LRX | |
| 702 | Principal Medical Officer | H X | XD X | | |
| 703 | Jetty "2" | D | | LRX | |
| 705 | Jetty "3" | W | | LRX | |
| 706 | Jetty "4" | D | | | |
| 707 | X-Ray Dept | D X | | | |
| 708 | Jetty "5" | D | | LRX | |
| 710 | S.O. Maintenance Plumber | D | | | |
| 711 | Operating Room | D X | | | |
| 712 | Blacksmith Civil | D | | | |
| 713 | Wardmaster | H X | | | |
| 714 | Boiler Inspector | D | | LD714 | |
| 715 | Canteen Officer | H | | WP203 | |
| 716 | Central Supply Room | D X | XH X | | |
| | | | | <u>Loc</u> | <u>X</u> |
| | | | | LD 5 | XD 4 |
| | | | | LH 1 | XD 1 |
| 717 | Regrigeration Repair | D | | | |
| 718 | Motion Picture Officer | D | XD | XD [✓] | |
| 719 | Matron, R.C.N.H. | D X | | | |
| | | | | <u>X</u> | |
| | | | | XD 1 | |

ROYAL CANADIAN NAVAL ARMAMENT DEPOT

58 Desk Sets
2 Hand Sets
4 Ext. Desk Sets
1 Loud Ringing Gong

Equipment

Sets Ext. Misc.

| Local | Listing | Sets | Ext. | Misc. |
|-------|------------------------------------|------|------|------------------|
| 1 | Superintendent of Naval Arm. Depot | H | XD | |
| 2 | Secretary | D | | LD 2 |
| 3 | Assistant S.N.A.D. | D | | |
| 4 | Works Co-ordinating Office | D | | ORIGINAL DAMAGED |
| 5 | Electrical Shop | D | | |
| 6 | Armament Supply Officer | D | XD | |
| 7 | Assistant A.S.O. | D | | LD 7 XD 6 |
| 8 | Shipping Section | D | | LD 8 |
| 9 | Signals | H | | |
| 10 | Works & Buildings | D | | |
| 11 | Personnel Office | D | | |
| 12 | Personnel Manager | D | | |
| 13 | Foreman of Stores | D | | |
| 15 | Drawing Office | D | | |
| 17 | Sick Bay | D | | |
| 18 | Blue Prints | D | | LD 18 |
| 19 | Motor Transport | D | | |
| 20 | Canteen | D | | |
| 21 | Inspector of Naval Ordnance | D | | |
| 22 | Assistant I.N.O. | D | | |
| 23 | Gun Mounting Officer | D | | |
| 24 | Electrical Office | D | | LD 24 |
| 25 | Maintenance Officer | D | | |
| 26 | Voucher | D | | |
| 27 | Inspector of Naval Ordnance Office | D | | |
| 28 | Ledgers | D | XD | LD 28 |
| 29 | Invoice Section | D | | LD 29 |
| 31 | Guard House & Time Office | D | XD | |
| 32 | Guard House West & Time Office | D | | |
| 33 | Wardroom | D | | XB LD 33 |
| 34 | Plumber Shop | D | | |

Loc

LD 8

X

XD 1

ORIGINAL DAMAGED

| | | | | | |
|----|------------------------------|---|----|-------|-------------|
| 35 | Joiner Shop | D | | | |
| 36 | Electrical Rectifier Hut | D | | LD 36 | |
| 37 | Small Arms | D | | | |
| 38 | Fire Control Stores | D | | LD 38 | |
| 39 | Fire Control Instrument Shop | D | | | |
| 40 | Fire Control Office | D | | | |
| 41 | Torpedo Depot 2nd Floor | D | | | |
| 42 | Torpedo Depot 1st Floor | D | | | |
| 44 | Torpedo 12B | D | | | |
| 45 | Torpedo 12C | D | | LD 45 | |
| 47 | Depth Charge Stores | D | | | |
| 48 | Depth Charge Pistol Testing | D | | | |
| 49 | Receiving | D | | | |
| 50 | Shipping | D | | LD 50 | |
| 51 | Works Co-ordinating Office | D | | LD 51 | |
| 52 | Gun Mounting Store 2D2E | D | | | |
| 53 | Gun Mounting Store 2B2C | D | | LD 53 | |
| 54 | Gun Mounting Store 2A | D | | LRX | |
| 55 | Ordinance Shop | D | XD | | XD |
| 57 | Gunwharf 1C1D 1st Floor | D | | | |
| 58 | Gunwharf 1C1D 2nd Floor | D | | | |
| 59 | Gunwharf 1A1B | D | | | |
| 60 | Gunwharf 24 | D | | | |
| 61 | Garage | D | | | |
| 62 | Main Office | D | | | |
| 63 | Repair 1A1B | D | | | |
| 64 | Diving Tender | D | | LRX | LD 64 & LRX |
| 65 | Fire Department | D | XD | | |
| 66 | Director Shop | D | | | |
| 67 | Chief Clerk | D | | | |

| | | |
|------------|----------|------------|
| <u>Loc</u> | <u>X</u> | <u>LRX</u> |
| LD 7 | XD 1 | 1 |

NAVAL MAGAZINE

ORIGINAL DAMAGED

| | | | |
|--------|---------------------------------|---|----------------------------|
| 6-6970 | General Office | D | Int Com Mag. |
| 6-2275 | Officer in Charge | D | Int Com Mag. P.L. - N.A.D. |
| 6-6917 | Armament Supply Officer - Res. | | |
| 6-6979 | Assistant Foreman - Res. | | |
| 6-6980 | C.M. Base & Maintenance Officer | D | Moore Gong |
| 6-2297 | Guard House, North Gate | D | Int Com Mag. |
| 6-6711 | Inspection Foreman - Res. | | |
| 6-6712 | Foreman of Stores - Res. | | |
| | Laboratory | | Int Com Mag. |
| | Personnel | | P.L. - N.A.D. |
| 6-2275 | Armament Supply Office | D | |
| 6-6970 | Main Office | D | P.L. - N.A.D. |
| 6-6970 | Inspection Office | D | |
| 6-6970 | Laboratory Office | D | P.L. - N.A.D. |
| Loc. 5 | Fire Dept. | D | |
| | Jetty | | Int Com Mag. |
| | Central Heating | | " |
| | Motor Transport | | " |

NAVAL MESSAGE

O IM C CNA
(R) NSEQ
RONT

From: NOIC

Check # 7

1300-166/10

NOIC SYDNEY
NOIC GASPE
NOIC MONTREAL

PORT WAR SIGNAL STATION, ST. JEAN I.O. COMMENCED
OPERATION 14TH APRIL.

DSO
D OF P
CIC
DSO

161400Z

T/T P/L 161434Z/4/45 JMM 13970

ORIGINAL DAMAGED

98568

ORIGINAL DAMAGED

000233

NAVAL MESSAGE

To:

CINC CNA
(R)NSHQ

From:

NOIC GASPE

1300-166/10

NOIC QUEBEC
NOIC QUEBEC

DSD
CIC
DSO

WAR SIGNAL STATION AT RED HEAD P.Q. COMMENCED
OPERATIONS AT 1600Z 15TH APRIL 1945.

151606Z

T/T 151743Z/4/45 JIM 13459

ORIGINAL DAMAGED

000234

ORIGINAL DAMAGED

81226

121000Z

DEPT OF DEFENSE OPERATIONS AT 1000Z 12TH APRIL 1942

CIC

RED HAT SIGNAL STATION AT RED HAT P.O. COMMUNICATIONS

MOIC QUEBEC

MOIC SYDNEY

(R)MHC

CINC CMA

MOIC GAZEL

NAVY MESSAGE

RESTRICTED

200000
7570 - S. 1370
K.P. 13337

NAVAL MESSAGE

To: C IN C GNA

(R) NSHQ

NOIC SYDNEY

NOIC QUEBEC

NO50 RIMOUSKI

From: NOIC GASPE

//300-166/10

DSD

OIC

DSO

GASPE W/T COMMENCED OPERATIONS 1200Z 10TH APRIL

1945.

101204Z

T/T

P/L

101302Z/4/45




JMM

8141

ORIGINAL DAMAGED

000236

NAVAL MESSAGE

To:   

W. H. D. 1111

NOIC GASPL

43 VINEY

WCEO PRODUCT

From: 1 (10)

11860-11

11350-166/10

TRIMOUSKI W/T STATION WILL COMMENCE OPERATION AT
00001Z APRIL 10TH YOUR 071833 REFERS
QUEBEC W/T WILL COMMENCE OPERATION AT 1200Z APRIL
10TH YOUR 081659Z NOT TO NSHQ REFERS

097440Z

RE W/T STATIONS QUEBEC SYDNEY GASPE AND RIMOUSKI
TO COMMENCE OPERATIONS AT 0001Z APRIL 1972.

五

22

091619Z/4/45

新

2303

100-100000

100-100000

01266

TO COMMISSIONER OF THE REVENUE AND CUSTOMS

FROM THE DIRECTOR OF THE REVENUE AND CUSTOMS

REVENUE AND CUSTOMS DEPARTMENT

OTTAWA, ONTARIO

100-100000

100-100000

NAVAL MESSAGE

To:

QUESEC CCO

ACHQ

CCO

OTTAWA CCO

MONTREAL CCO

GASPE CCO

HALIFAX CCO

SYDNEY CCO

MULGRAVE CCO

RIMOUSKI CCO

11300 - 166/10

DSD

DSO

RIMOUSKI T/P WILL BE OPEN FOR SEASON AS FROM 1200Z MONDAY

APRIL 9TH

091205Z

T/T

P/L

091240Z/4/45

GDL

7157

2/1

2/1

0015408/445

ODT

272

41336

0015025

APRIL 2011

DEO

REMOVED TO THE FILE IN THE OPEN FOR REVIEW AS FROM 15005 MONTHLY

REMOVED TO

REMOVED TO

REMOVED TO

REMOVED TO

REMOVED TO

REMOVED TO

CCO

CCO

REMOVED TO

REMOVED TO

REMOVED TO

RESTRICTED

NAVAL MESSAGE

NOIC GASPE
(R) NOIC SYDNEY
NOIC QUEBEC

To:

CINCNA
From:

11300-166/10

DDP
CIC

DSG

COMMENCEMENT OF W/T WATCH MAY BE DELAYED 12

HOURS BY WHICH TIME W/T RATINGS WILL BE AVAILABLE.

MY 071833Z REFERS

081659Z

PAUSED TO QUEBEC AT 081820Z
071833Z RE W/T STATIONS AT QUEBEC, SYDNEY, GASPE &
RIMOUSKI ARE TO COMMENCE OPERATION AT 0001Z APRIL 10TH

T/T

P/L

081812Z/4/45

MB

6722

NAVAL MESSAGE

To:

URGENT

From:

11860-11

CORRECTED COPY

IN 0 ONA

NOIC'S SYDNEY

QUEBEC

(R) NSHQ

11300-166/10

DSO
CIC
DSO

W/E STATIONS AT QUEBEC SYDNEY GASPE AND RIMOUSKI

ARE TO COMMENCE OPERATION IN ACCORDANCE WITH

ACCO'S ART 36 TABLE 1 LINES 2 3 4 - AND 5

TABLE 2 LINES 1 AND 2 AND ART 37 (B) AT 0001Z

APRIL 10TH

071833Z

PASSED TO QUEBEC AT 071859Z

T/T

P/L

071845Z/4/45

GN

5959

NAVY AIRSPACE

GOVERNMENT COPY

91875

NAVAL MESSAGE

BASISGRAM

To:

AIG 409 0-393

From: 11860-11
C IN C CNA

11 300-164/10

CNS
ACNS
DOD
DSD
DTD
NDA
D OF P
OIC
DWT
GMC

GULF OF ST LAWRENCE NAVAL W/T STATION WILL COMMENCE
OPERATION IN ACCORDANCE WITH ACCO ARTICLE 35
TABLE 1 LINES 2 3 4 AND 5
TABLE 2 LINES 1 AND 2 AND ARTICLE 37
(2) AT 0001Z APRIL 10TH

071835

PASSED TO MONTREAL QUEBEC ST HYACINTHE AT 080245Z
PASSED TO OTTAWA W/T FOR BERNUDA AT 080259Z

T/T CODE 072150Z/4/45 GW 6125

CONFIDENTIAL

AUG 409 0-381

NAVAL MESSAGE

C IN C CNA

From:

11300 - 166/10

To:

DOD
DSD
DTD
NDA
CSOR
DNAD
DSO
DWT
GMC
BGC

ACCO'S APPENDIX 9 BERMUDA SECTION IS TO BE
CANCELLED AND THE FOLLOWING SUBSTITUTED READ
IN 5 COLUMNS NAME FREQUENCY CHARACTERISTIC
POSITION TIME
KINDLEY FIELD 391 KC/S KB 032 21 N 064 40 W
CONTINUOUS
KINDLEY FIELD 254 KC/S HO 032 21 N 064 40 W
CONTINUOUS
US NAVAL AIR STATION 414 KC/S MO 032 15 58 N
064 51 58 W ON THE HOUR AND HALF HOUR

041639Z
PASSED TO BERMUDA AT 042355Z
PASSED TO MONTREAL, QUEBEC, & ST HYACINTHE
AT 042332Z

T/T CODE 042105Z/3/45 PS 4587

18C-9
6-9

R/T GODT

56699

AT 045335Z
BASED TO MONTEVELE: SUBREQ. 9 ST. HYPOTHINE
PASSED TO BERMUDA AT 045335Z
045335Z

064 21 28 W ON THE HOUR AND HALF HOUR

US NAVY AIR STATION WITH KQ/VB NO 035 12 28 W

CONTINUOUS

KINDLY FIELD 524 KQ/VB NO 035 51 W 064 NO W

CONTINUOUS

KINDLY FIELD 301 KQ/VB NO 035 51 W 064 NO W

POSITION LINE

IN 2 COLLINS NAME FREQUENCY CHARACTERISTIC

UNDELETED AND THE FOLLOWING SUBSTITUTED FIELD

ACCO'S APPENDIX 3 BERMUDA GEOLION IS NO BE

BGC
GWC
DML
DSC
DND
GCR
NDV
DAD
DSD
DOD

AT 045 0-303

CONFIDENTIAL

G IN C CNA

CONFIDENTIAL

RESTRICTED
BASEGRAM

NAVAL MESSAGE

To: AIG 409 NO. 0-380

From: C IN C GNA

11300-166/10

S. 1320 D
20000M-7-44 (89)
7570 - S. 1320 D
K.P. 13337

DOD
DSD
DTD
NDA
DSO
CSOR
DWT
GMC

ST. JOHN'S NFED PORT WAVE ORGANIZATION
WILL BE AS FOLLOWS COMMENCING MARCH 10TH.
(A) GZP WILL BROADCAST PORT WAVE TRAFFIC ON
425 KC/S TRANSMITTING MESSAGE TWICE THROUGH.
(B) SHIP TO SHORE PORT WAVE TRANSMISSION
WILL TAKE PLACE ON 1740 KC/S GZP ANSWER ON

425 KC/S.

(C) SHIPS LEAVING THE PORT ARE TO EXCHANGE
SIGNAL CALLS WITH GZP ON PASSING THE
(BAFFLE).

2 AGCO'S WILL BE AMENDED

031905Z

0-380

S AGCO,8 WILL BE UNRECORDED

(BATTLE E)

RIGHT MESSAGE WITH GSP ON PASSING THE

(C) SHIPS LEAVING THE PORT WIL TO EXCHANGE

#52 KC/A

WILL TAKE PLACE ON 12/10/68 GSP TRAVEL ON

(B) SHIP TO SHORE PORT WAVE TRANSMISSION

#52 KC/A TRANSMITTING MESSAGE TWICE THROUGH

(A) GSP WILL BROADCAST PORT WAVE TRAVEL ON

WILL BE AS FOLLOWS COMMENCING MARCH 10TH

GT. JOHN'S WILF PORT WAVE ORGANIZATION

GMC
DML
GEO
DRO
NDV
WLD
DRO
DDB

WTO BOX NO. C-380

C IN C GMA

RECEIVED
BUREAU
WASHINGTON

To:

NAVAL MESSAGE

From:

-2-

CHECK ASKED ON BRACKETED GROUP
PASSED TO MONTREAL, QUEBEC, ST HYACINTHE
AT 040505Z
PASSED TO BERMUDA CCO AT 040546Z

T/T CODE 040443Z/3/45 PB 4126

08890

E/T CODE 0707438/3742 48 4156

PASSED TO BELINDA GAO AT 070240N
AT 070202N
PASSED TO MONTREAL QUEBEC ST HYACINTHE
CHIEF VEREND ON DECKED OUT GROUP

-5-

NAVY MESSAGE

RHB/BEC

26th March, 5.

NS 11300-166/10 Vol. 1
(Staff)

CONFIDENTIAL

MEMORANDUM:

Enclosed herewith for your information is copy No. 45 of "Communication With Merchant Vessels In The Canadian Atlantic Coastal Zone 1945".

Y.
SECRETARY, NAVAL BOARD.

Naval Member Canadian Joint Staff,
2222 "S" Street, N.W.,
WASHINGTON, D.C.
U. S. A.

For Despatch
Date 28/3
Staff 14/3
To 14/3

*Concerned in by OTO
O.P.
O.O.*

000253

RHB/BEC

NS 11300-166/10
Vol. 1 (Staff)

ORIGINAL DAMAGED

CONFIDENTIAL

26th March, 1945.

MEMORANDUM:

Enclosed herewith are copies of "Communication With Merchant Vessels In The Canadian Atlantic Coastal Zone 1945" as listed below.

2. In addition to showing the watches to be maintained by Merchant Vessels, the main object of this pamphlet is to obviate delays in passing messages between Naval Authorities and Merchant Vessels.

3. Any suggestions for the improvement of these instructions are to be forwarded to the Department, Attention of the Director of Signal Division.

4. Distribution is as follows:-

| <u>Authority</u> | <u>No. of copies</u> | <u>Copy Number</u> |
|-------------------------|----------------------|----------------------------|
| C. in C. C.N.A. | 4 | 16,17,18,19 |
| F. O. N. P. | 3 | 20,21,22 |
| N.O.I.C. Montreal | 2 | 23,24 |
| N.O.I.C. Quebec | 2 | 25,26 |
| N.O.I.C. Gaspe | 2 | 27,28 |
| N.O.I.C. Sydney | 2 | 29,30 |
| N.O.I.C. Shelburne | 2 | 31,32 |
| N.O.I.C. St. John, N.B. | 2 | 33,34 |
| N.C.S.O. Rimouski | 1 | 35 (for S.D.O.) |
| S.N.O. Mulgrave, N.S. | 1 | 36 |
| N.C.S.O. Botwood, Nfld. | 1 | 37 (for Naval R/T Station) |
| R.O. Cornerbrook, Nfld. | 1 | 38 (for Naval R/T Station) |

5. Authorities to whom issue is made are to ensure that their respective Signal Distributing Offices receive one copy of this pamphlet.

BY ORDER

P. G.
SECRETARY, NAVAL BOARD

Commander-in-Chief Canadian Northwest Atlantic,
H.M.C. Dockyard, Halifax, Nova Scotia.

The Flag Officer Newfoundland,
Naval Offices, St. John's, Newfoundland.

The Naval Officer-in-Charge, Montreal, P.Q.
The Naval Officer-in-Charge, Quebec, P.Q.
The Naval Officer-in-Charge, Gaspe, Que.
The Naval Officer-in-Charge, Sydney, N.S.
The Naval Officer-in-Charge, Shelburne, N.S.
The Naval Officer-in-Charge, St. John, N.B.
Naval Control Service Officer, Rimouski, Que.
Senior Naval Officer, Mulgrave, N.S.
Naval Control Service Officer, Botwood, Newfoundland.
Reporting Officer, Cornerbrook, Newfoundland.

10 fmo
For Despatch
Date 28.3
Staff *MG*

Rebuck at 100

*consumed in by 070
000
000*

000254

File 11300
ORIGINAL DAMAGED

G. S.
Army Communication Facilities
Gaspe Peninsula

1829
140316

1. With reference to Army memorandum HQS 8945-2-0-4 (DMO&P) of 11 Oct 44, I have received the following comments from the C.A.S. and C.N.S.
2. C.A.S. concurs in the recommendations set forth in para 7 of the memorandum under reference with the proviso that R.C.A.F. retain use of one of the telephone circuits between Fox River, P.Q. and Gaspe, P.Q., for radar reporting from the Air Force unit stationed at Fox River.
3. C.N.S. concurs in the recommendations in para 7.
4. Unless you direct to the contrary, this item will not be placed on the agenda of the next meeting of the Chiefs of Staff Committee, and direction will be given to the Joint Communications Committee to examine and report upon the question of which service circuits should be maintained for operation by service personnel after the end of hostilities.

| OPERATIONS | |
|------------|------|
| CD | 1/11 |
| INF | 2/11 |
| DOR | 2/11 |
| REC | 2/11 |

8/11
Can
Evans
Secretary,
Chiefs of Staff Committee.

NOV 2 P.M.

Copies to
C. A. S.
C. N. S.
Major General Pope.

RHB/BEC

26th March, 5.

N.S. 11300-166/10 Vol. 1
(Staff)

CONFIDENTIAL

MEMORANDUM:

Enclosed herewith for your information are six copies of "Communication With Merchant Vessels In The Canadian Atlantic Coastal Zone 1945", Copy Numbers 39 to 44 inclusive.

BY ORDER

SECRETARY, NAVAL BOARD.

The Captain,
H.M.C. Signal School,
ST. HYACINTHE, Quebec.

Enclosures: 6

10 P.M.O.
For Despatch
Date 28-3
Staff M.C.

ORIGINAL DAMAGED

000256

RHB/BEC

ORIGINAL DAMAGED.

11300-166/10 Vol. 1 (Staff)

24th March, 1945.

CONFIDENTIAL

Sir,

Enclosed herewith are 15 copies (Copy Numbers 1 to 15 inclusive) of a pamphlet entitled "Communication with Merchant Vessels in the Canadian Atlantic Coastal Zone 1945", one copy of which should be retained and the remainder distributed in accordance with Article 1 (h) of the pamphlet.

2. Your attention is drawn to Article 1 (a) of the pamphlet, with regard to the supercession and destruction of "Communications, Gulf of St. Lawrence 1944".

3. In addition to showing details of watches to be kept by Merchant Vessels, the main object of this pamphlet is to speed up the passing of messages between the Naval Authorities and Coastal Stations.

4. Any suggestions which you may forward for the improvement of the pamphlet will be appreciated by the Naval Service.

Yours truly,

[Signature]
SECRETARY, NAVAL BOARD.

Refer to
Walter A. Rush, Esquire,
Controller of Radio,
Department of Transport,
O t t a w a.

Enclosures: 15

28/3
To *C. 400*
For Despatch
Date *28/3/45*
Staff *[initials]*

Consumed in by OTO
OJF
000

000257

NAVAL MESSAGE

T

ALT 409 0 17

From:

C IN C ONA

CORRECTED COPY

11300-166/110

DOD
DSD
PTD
NDA
CNP
OIG
CSQR
GMC

GASPE W/T (CFL) WILL CLOSE AT 1600Z JAN. 18TH.

(2) SYDNEY (C.B.) W/T (CZE) WILL CARRY BROADCAST CH

ON 174 KD/S ONLY UNTIL FURTHER NOTICE.

172039Z

366-0

PASS'D TO MONTREAL QUEBEC ST. HYACINTHE AT 161043Z

PASS'D TO VANCOUVER AT 161400Z

PASS'D TO OTTAWA W/T FOR BELLEUDA AT 161137Z

15296

LH

180618Z/1/45

CODE

T/T

ORIGINAL DAMAGED

000258

CO
CO
CO
CO
CO

S. 1320 -
2000M-7-44 (3)
7570 - S. 1320

To:
NSHQ

NAVY AET MESSAGE

From:
PORTLAND ME.

11300-1661

110

GMC

A.F.O.'S 10 TRAFFIC RETURN 1ST. DECEMBER 1944

(22) 132/50 19

011517Z

ORIGINAL DAMAGED

L/T

CODE

011930Z/1/45

RL

00416

000260

ORIGINAL DAMAGED

1/1

CODE

016000/1/13

RE

16951

00113

(33) 738/20 13

A.T.O. 3 TO THERETIC REFURN TCT. DECEMBER 1944

0112/12

RECEIVED

1944

NAVAL MESSAGE

To:

C IN C ONA
(R) NSHQ
NOIC GASPE

From:

CONFIDENTIAL
NOT W/T

NOIC SYDNEY

11300-166/10

DSD
OIC
DSG

NOIC GASPE 261819.

REQUIRED ALTERATIONS COMPLETED AND SYDNEY W/T READY
TO ASSUME BROADCAST QL ON 174 KCS.

N.S.S. 1006 - 33 - 16 PD 9 OF 19TH JULY 1944 REFERS

271218Z

261819Z RE REQUEST PERMISSION TO CLOSE GASPE W/T
STATION AT 1200Z 2ND JAN 1945

ORIGINAL DAMAGED

T/T P/L 271210Z/12' 104 JS 23592

五

50

THE UNIVERSITY OF CHICAGO

MOI. 0736 567817

NO. 245

CONFIDENTIAL
NAVAL MESSAGE

To:

C IN C CNA
(R) NSHQ

NOIC SYDNEY

NOIC QUEBEC

From:

NOIC GASPE

11300-166/10

DSD

OIO

REQUEST PERMISSION TO CLOSE GASPE W/T STATION

INCLUDING BROADCAST GL SHIP SHORE AND POINT TO POINT

SERVICES AT 1200Z 2ND JANUARY 1945.

261819Z

ORIGINAL DAMAGED

T/T CODE

262030Z/12/44

DM

23107

000264

85611

T/L CODE 585030X/15VH IN 52103

5218133

SERVICES AT 1500X SMD 11MAY64 13475

OIO INCLUDING PROVOVOST ET SHTZ SHOLE VMD KOJMT TO KOJMT
NAD REQUEST PERMISSION TO CROSS CABLE M/L STATION

NOIO CHEBEO
NOIO 81DMEX
(R) 125H3
G IN O ONA

NOIO 6VBYH

CONFIDENTIAL

ORIGINAL DAMAGED

RECEIVED NAVAL MESSAGE

TO: [REDACTED] NA
(R) ADMIRALTY

BAD
FOG SUBMARINES

From: NSHQ

11315-8

11300-166/10

18700-676

11340-1

APPROVED TO PASS SITUATION REPORTS VIA WASHINGTON

NAA TO SUBMARINES ON PASSAGE IN AREA "D" YOUR 091529.

2. ADMIRALTY IS REQUESTED TO PROMULGATE FOLLOWING
CORRECTIONS TO AFO 91/44 SECTION "WA."

(A) TABLE 2(3) (A) ADD "SEE ARTICLE 16 (A)"

(B) ARTICLE 16 (A) ADD "AND IN ADDITION ARE PASSED TO

WASHINGTON FOR RETRANSMISSION ON WASHINGTON SUBMARINE

BROADCAST (TABLE 3 (3) LINE 1) FOR SUBMARINES ON

PASSAGE IN AREA "D"

101653Z

PASSED TO HALIFAX FOR FONG AT 110512Z
PASSED TO OTTAWA W/R FOR WHITEHALL AT 102359Z
091529 RE: ESSENTIAL THAT SIM'S ON PASSAGE
RECEIVE SITUATION REPORTS

091529 - RE ESSENTIAL THAT S/M'S ON PASSAGE RECEIVE
SITUATION REPORTS.

W/T T/T CODE 10/12/44 MC 2401
DRAFTED BY DSD PER RHB

DOD
DSD
DTD
OIC

NAVAL MESSAGE

IN FROM: VIA

11300-166/10

| | | | | | |
|------|--------------|------|------------|------|-----------|
| (1) | OCTOBER 1944 | (4) | 1/16 | (5) | 17/8A9 |
| (8) | 50/2405 | (9) | 469/26484 | (12) | 277/15867 |
| (22) | 186/4768 | (25) | 2/127 | (27) | 14/860 |
| (36) | (33) 16/167 | (38) | (696) 1/15 | | |
| | | | (699) 1/15 | | |

| | | |
|------|-------|-------|
| (39) | (880) | 1/22 |
| | (885) | 1/27 |
| | (887) | 3/117 |
| | (888) | 2/86 |
| | (889) | 1/57 |
| | (904) | 4/169 |
| | (905) | 2/75 |

(Handwritten notes)

07.18.3/2

196297

000269

To:

NAVAL MESSAGE

From:

(39) (912) 1/35

(914) 2/71

(40) (19) 40/600

(20) 14/259

(52) 40/2233

(79) 138/8282

(61) 1226/85203

(81)

3/186

(78)

13/1325

071836Z

T/T

FL

071920Z/11/44

AB

06494

000270

196296

000271

DATE/DATE 1/1/77

138/8885

40/5737

138/8885

40/5737

138/8885

40/5737

DATE/DATE

NAVAL MESSAGE

C IN From: CNA

11300-166/10

ANALYSIS OF H/T SHIP-SHORE TRAFFIC RECEIVED AT HALIFAX W/T
DURING THE MONTH OF OCTOBER 1944
READ IN 4 COLUMNS
FREQUENCY ACCEPTED BY HALIFAX W/T ACCEPTED BY OTHER SINS TOTAL

| | | | |
|-------|------|-----|-----|
| 4740 | 390. | 258 | 648 |
| 6300 | 74 | 170 | 244 |
| 8290 | 137 | 468 | 605 |
| 12685 | 18 | 61 | 79 |
| 16845 | 1 | 4 | 5 |

TOTAL SHIP-SHORE MESSAGES RECEIVED

1581

011357Z

T/T

P/D

TOR011608Z/11/44

HP

494

34

Q. T. A. Q. D. N.

NSHC
IN C ONA

NAVA

To:

FOLLOWING IS ANALYSIS OF H/F SHIP TRAFFIC

IN ST. JOHN'S FOR OCTOBER 1944.

READ IN FOUR COLUMNS.

| FREQ. | REC'D BY ST JOHN'S | REC'D BY OTHER STN'S | TOTAL |
|--|--------------------|----------------------|-------|
| 4740 | 77 | 836 | 913 |
| 6300 | 29 | 317 | 346 |
| 8290 | 57 | 608 | 665 |
| 12685 | 8 | 108 | 116 |
| TOTAL OF H/F SHIP-SHORE TRAFFIC REC'D..... | | | 2040 |

ORIGINAL DAMAGED

011220Z

T/T P/L TOR 011337Z/10X 44 LLM 00421

000274

ORIGINAL DAMAGED

1/1 2/1 3/1 0173215/10X 11 TTM 060151
6261

0173215

TOTAL OF ALL SHIP-SHORE TRAFFIC REC'D.....5040

15682 2 708 176

8530 21 608 662

6300 20 311 340

1140 11 836 212

TRNSD REC'D BY ST JOHN'S REC'D BY OTHER STN'S TOTAL
HEVD IN FOUR COLUMNS

IN ST. JOHN'S FOR OCTOBER 1941

FOLLOWING IS ANALYSIS OF ALL SHIP-SHORE TRAFFIC

IN C CNA

DEPARTMENT OF NATIONAL DEFENCE NAVY

COMMUNICATIONS

EAST COAST

GENERAL

FOR CROSS REFERENCES SEE INSIDE COVER

| ROUTING | | | | P.A. & B.F. ENTRIES | | | | REGISTRY ONLY | |
|-----------|--------------------|--------------|----------|---------------------|----------|--------------|-------------|---------------|------------|
| REFERRED | REMARKS | DATE OF PASS | INITIALS | DATE OF P.A. | INITIALS | DATE OF B.F. | CANCEL B.F. | DATE RECEIVED | IN-SPECTED |
| EEC | PER REQUISITION CR | OCT 23 1959 | | 26-10-59 | al | | | OCT 26 1959 | |
| TS | WITH PAPERS CR | JUN 21 1960 | | | | | | | |
| EEC | | 21.6.60 | DMB | | | | | | |
| EEC | | 27.6.60 | am | | | | | | |
| EEC | | 8.7.60 | JP | | | | | | |
| EEC | | 19/7 | | | | | | | |
| EEC | | 21/7 | DAK | JUL 22 1960 | c L | | | JUL 26 1960 | |
| EEC | | 21/7 | R | 28.7.60 | al | | | | |
| EEC | WITH PAPERS CR | AUG 23 1960 | | | | | | | |
| EEC | | 25.8.60 | JP | | | | | | |
| DN Com | | 7.9.60 | al | | | | | | |
| EEC | | 13.9.60 | DAK | | | | | | |
| DN Com | | 28.9.60 | am | | | | | | |
| EEC | | 24.9.60 | DAK | | | | | | |
| DN Com | | 23/9 | | | | | | | |
| EEC | | 27/9 | DAK | | | | | | |
| DN Com | | OCT 6 1960 | c L | | | | | | |
| CNTS | | 7-10-60 | FW | | | | | | |
| EEC | | 12/10 | MB | | | | | | |
| POC(2010) | | OCT 17 1960 | c L | | | | | | |
| EEC/EL | | 20/10/60 | ET | | | | | | |
| DN Com | | OCT 26 1960 | c L | | | | | | |
| 9769 | | 2/11 | DAK | | | | | | |
| DN Com | | 15.11.60 | am | | | | | | |
| DN Com | | 25/11 | DAK | | | | | | |
| Staff | | 28.11 | Ed | | | | | DEC -9 1960 | |

CROSS REFERENCES

| FILE NO. | SUBJECT |
|----------|---------|
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