

1500-166/10

P12

DEPARTMENT OF NATIONAL DEFENCE

COMMUNICATIONS
EAST COAST
GENERAL

FOR CROSS REFERENCES SEE INSIDE COVER

NAVY

VOL. 2
1300-166/10

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	INSPECTED
Com Com	PER REQUEST CR	JAN 7 1963							
VCNS			14/1/63 PG	1/2/63	FW			FEB 7 1963	
Com Com	PER REQUEST CR	FEB 25 1963							
JPP			26/4 PG	7/5/63	JR				
Com Com	PER REQUEST CR	SEP 30 1963							
VCNS				9/2/63	JB				
Com Com	PER REQUEST CR	JAN 13 1964							
VCNS			15/4/64						
Malcom			28/4 PG						
VCNS			4/5/64						
VCNS			26/5 PG						
VCNS			1/6/64			15/6/64			
Com Plans	PER REQUEST CR	DEC 14 1964							
				6/1/65	Lh				

"B.F."—DO NOT HOLD THIS FILE WHEN LAPSE IN ACTION MAY EXCEED 48 WORKING HOURS

117
8/2 944
158
1192



7
A-21816
PPA
9/12/63

DATED FROM _____ FILE No. S. 1300-166/10

TO _____ VOLUME No. 2

CLOSED VOLUME

ORIGINAL DAMAGED

DO NOT PLACE ANY CORRESPONDENCE ON THIS FILE

FOR SUBSEQUENT CORRESPONDENCE SEE:

FILE No. VOLUME No. 3

PLEASE KEEP ATTACHED TO TOP OF FILE

Handwritten initials/signature

M 272035Z
FM CANAVUS
TO CANAVHED
INFO CANAIRHED
CANCOMARLANT
BT

DEFERRED
CONFIDENTIAL

"AC" - NO UNCLASSIFIED
REPLY OR REFERENCE.

NSS- 1300-166/10

252132Z A/DNCOM (CS1)
RE-CONFIRM CIPHER EQUIPMENT
AVAILABLE.

ACNS (P)
ACNS (A&W)
DPP
CRYPTO
CAPT BOGGILD

YOUR 252132Z.

USN CONFIRMS COMPATIBLE EQUIPMENT AVAILABLE AT
NAVSTA ARGENTIA FOR ADDITIONAL HALF DUPLEX CIRCUIT.

BT TOR 280035Z JUL 62

MESSAGE FORM

FOR COMM/CEN/SIGNALS USE

NUMBER

"AC" = NO UNCLASSIFIED REPLY OR REFERENCE

BEST AVAILABLE COPY

25/7/62

JUL

PRECEDENCE - ACTION DEFERRED	PRECEDENCE - INFO DEFERRED	DATE - TIME GROUP 252132Z	MESSAGE INSTRUCTIONS
FROM CANAVHED	TO CANAVUS		PREFIX GR
INFO CANAIRHED CANCOMARLANT	<div style="border: 1px solid black; padding: 5px; text-align: center;"> JUL 25 1962 COMMUNICATIONS </div>		SECURITY CLASSIFICATION CONFIDENTIAL
			ORIGINATOR'S NUMBER

APPROVAL BEING SOUGHT FOR ADDITIONAL HALF DUPLEX
 CIRCUIT RCAF STATION TORBAY (ALTERNATE MHQ) TO NAVSTA
 ARGENTIA FOR USE DURING FALLEX 62 DURING PERIOD 17 - 29
 SEP.

2. REQUEST CONFIRMATION CIPHER EQUIPMENT COMPATIBLE TO
 ETCRRM IS AVAILABLE AT NAVSTA ARGENTIA.
3. RCN WILL PROVIDE NECESSARY ONE TIME TAPE.

FOR CONCURRENCE:

A/DNCom(SS)

CAPT BOGGILD

DISTRIBUTION:

CAPT BOGGILD ✓

DNops

DN Plans ✓

DPP ✓

NAVCOMCEN CRYPTO ✓

PAGE OF PAGES	REFERS TO MESSAGE	DRAFTER'S NAME	OFFICE	TEL.
	CLASSIFIED YES <input type="checkbox"/> NO <input type="checkbox"/>	(WD Moyes)	LCdr A/DNCom(CS1)	2-6145
FOR OPR'S USE	DATE	TIME	SYSTEM	OPERATOR
R				D
				RELEASING OFFICER'S SIGNATURE
				RELEASING OFFICER

Directorate of Naval Communications.

JLC/DF

NS 1300-166/10 (STAFF)

- ROYAL CANADIAN NAVY -

4, Ontario.

16 JUL 1962

MEETING OF THE STEERING GROUP ON
MARITIME COMMUNICATIONS

The 3/62 meeting of the Steering Group on Maritime Communications is scheduled for Wednesday, 17 October, in Naval Headquarters. In addition, it is intended to hold discussions on communication problems during the period 16-18 October.

2. It is requested that the following officers report to Naval Headquarters for this period:

- Staff Officer (Communications) to CANCO MARLANT
- Staff Officer (Communications) to CANCOMARPAC
- Staff Officer (Communications) to CANFLAGLANT
- Staff Officer (Communications) to CANAIRLANT
- Staff Officer (Communications) to CANFLAGPAC

3. Visiting officers will attend the Steering Group meeting as observers. Items for the agenda should arrive in Naval Headquarters by 15 September.

DEPUTY NAVAL SECRETARY
(STAFF)

NAVAL SECRETARY.

Acns (now) [Signature]

To FMD

For Dispatch

Date 19. 7. 62

Initials OR

- Maritime Commander Atlantic.
- Maritime Commander Pacific.
- Flag Officer Atlantic Coast.
- Flag Officer Pacific Coast.
- Air Officer Commanding, Maritime Air Command.

Copy to: Chief of the Air Staff.

DIRECTOR
OF
NAVAL
COMMUNICATIONS

JUL 12 1962

[Signature]

2468

M 121938Z

FM CANCOMARLANT

TO RCEPCR/CANAVHED

INFO RCEHCR/CANFLAGLANT

ZEN/CANAIRLANT

ZEN/CANAIRHED

BT

DEFERRED
CONFIDENTIAL
"AC" NO UNCLASSIFIED
REPLY OR REFERENCE
NSS 1300-166/10 (STAFF)
101950Z (DNCOM) RE-EXERCISE
FALLFX.

ACNS (A&W)
STAFF
DNPLANS
DNOPS
DNCOM
DGNS
CAPT BOGGILD
DGFE
DGSE

YOUR 101950Z MY MCACSI300-1 OF 27 JUNE. TELETYPE EQUIPMENT AVAILABLE
AT TORBAY AND ARGENTIA.

2. ASSUME FIRM PLANNING FOR CRYPTO AND TELETYPE CIRCUITRY WILL BE
PROCESSED BY YOUR HQ. INFORMATION ON AVAILABILITY OF EQUIPMENTS WAS
OBTAINED THROUGH INFORMAL DISCUSSIONS WITH COMM OFFICERS OF
COMARGENTIAASWGRU AND STN TORBAY

BT

TOR 122048Z JUL 62

CONFIDENTIAL

JLC/DF

CRE PPA - NSS 1300-166/10
(START)

- ROYAL CANADIAN NAVY -

4, Ontario.

12 JUL 62

MINUTES OF THE STEERING GROUP ON MARITIME COMMUNICATIONS

ENCLOSURE: (A) S950-116 (D Com) dated 29 June, 1962.

Enclosure (A) is forwarded for information.

R.L.
NAVAL SECRETARY.

- Maritime Commander Atlantic.
- Maritime Commander Pacific.
- Flag Officer Atlantic Coast.
- Flag Officer Pacific Coast.
- Air Officer Commanding, Maritime Air Command.
- The Commodore, RCN Barracks, Halifax. (The Directors, Joint Maritime Warfare School).
- Officer-in-Charge, Communication Division Fleet School, HES CORNWALLIS.
- Naval Member Canadian Joint Staff, (LONDON).
- Naval Member Canadian Joint Staff, (WASHINGTON).
- Chief of the Air Staff.

To imo
 For Despatch
 Date 12 7 62
 Initials AR

CONFIDENTIAL

DIRECTOR
 OF
 NAVAL
 COMMUNICATIONS
 JUN 11 1962
 000288

CONFIDENTIAL

S950-116 (DCom)

MINUTES OF 2/62 MEETING OF THE
STEERING GROUP ON MARITIME COMMUNICATIONS
HELD 13 JUN 62 IN ROOM 255, BUILDING 7, VICTORIA ISLAND

Ottawa Ont
 29 Jun 62

Present

S/L	H.F. Holgate	DCom	Chairman
LCdr	P.F. Wilson	DNCom	
F/L	R.H. Stewart	DCom	Secretary

In Attendance

LCdr	J.L. Creech	DNCom
LCdr	H. Hargreaves	DNCom
LCdr	J.W. Jewers	DNCom
LCdr	W.D. Moyes	DNCom
LCdr	R.F. Duston	DGFE
LCdr	W. Kanwisher	DGFE
LCdr	H.L. Sproat	DNFER
Lt	S. Iscoe	DNCom
F/L	G.A. Kerr-Wilson	ATSC
F/O	G.R. Lepage	DATel

ITEM	SUBJECT	ACTION
1	<u>MINUTES</u>	
	1 The minutes of the 1/62 meeting were approved by the Steering Group.	
2	<u>BROADCAST CONTROL OF AIRCRAFT BY MHQ ATLANTIC</u>	
	2 F/L Lepage reported on the trials of the LF RTT terminal equipment and associated KWR 37 crypto equipment in Argus aircraft. He said that trials to date had been carried out mainly during daylight hours; however, in the near future night trials would also be carried out. Satisfactory results had been obtained at ranges up to 300 nautical miles by day and it was hoped to increase the range to at least 1000 nautical miles when the improved aircraft antenna had been obtained. (The antenna had been expected to be available in April, but delivery had been delayed).	
	3 LCdr Duston advised that 15 Sep is now the earliest date by which the high-power LF transmitter at Newport Corners can be back in service.	
	4 LCdr Wilson stated that the deadline for orders to be filled from the current KWR37 production run is 1 Aug 62.	

ITEM	SUBJECT	ACTION
	<p>5 <u>Decision</u> - It was agreed to continue monitoring the LR Broadcast Airborne Reception trials, and that the possible requirement for reception of the HF component of the RCN/LR broadcast by Argus aircraft should be kept in view.</p>	<p>DCom DCom</p>
3	<p><u>PERMANENT MHQ ATLANTIC - STATUS</u></p> <p>6 LCdr Wilson said that consideration of the location of a permanent MHQ Atlantic was proceeding at a more rapid pace under joint CNS/CAS direction. He reported that Blandford NS, the proposed site of the new RCN receiver station and the joint automatic relay (TARE) was being examined with considerable interest at the moment. Blandford is attractive because of:</p> <ul style="list-style-type: none"> (a) the distance from Halifax, which renders it fairly secure from nuclear attack; (b) the proximity to the proposed naval radio receiving TARE auto-switching, and administrative facilities, and (c) the reported plans of the commercial carriers which, when completed, will make available diversified routing for keying circuits. <p>7 <u>Decision</u> - The Group took note and agreed to continue the item.</p>	<p>DCom DCom</p>
4	<p><u>SERVICE RESPONSIBILITIES FOR PROVISION OF FACILITIES AND MAINTENANCE AT MHQS</u></p> <p>8 LCdr Kanwisher stated that the sections of Joint Org orders 29 and 30 dealing with maintenance responsibility required clarification.</p> <p>9 During discussion, it emerged that the question which originally had been one of the provision of communications facilities, had become clouded by consideration of maintenance problems. Noting that this was contrary to the intent of the original draft of the agreement, LCdr Wilson proposed that all reference to the maintenance factor be deleted from the proposed agreement on the provision of facilities, and that maintenance be viewed as a separate problem.</p> <p>10 <u>Decision</u> - It was agreed that DCom would re-draft the proposed joint RCN/RCAF agreement on the provision of communications facilities in a form acceptable to the RCN, and would then forward the draft to the RCAF for concurrence.</p>	<p>DCom</p>
5	<p><u>MARITIME PACIFIC COMMUNICATIONS FACILITIES - KEYING LINES</u></p> <p>11 The Chairman reviewed briefly RCAF proposals for providing keying circuits linking the Maritime air-ground-air transmit facilities at Langley Prairie, and the associated receive facilities at Westham Island, with the MHQ Pacific radio room at Esquimalt, and the alternative MHQ Pacific at Comox. The plan calls for a 24-channel microwave link between the mainland and Comox, twelve voice lines connecting Esquimalt and Comox, and landline tails from the mainland microwave terminal to Westham Island and Langley Prairie.</p>	

ITEM	SUBJECT	ACTION
	<p>The keying/audio path would normally be from Esquimalt to Westham and Langley via Comox. The microwave link would then serve if it became necessary to activate the alternate MHQ at Comox.</p> <p>12 The estimated costs of the keying circuits are \$400,000. provisioning for the microwave link, and \$70,000. a year landline rental.</p> <p>13 LCdr Hargreaves reminded the group of commercial carrier plans to install a main lateral communications system which would by-pass target areas and, ultimately link up with similarly protected circuits in the east and west Maritime areas. He suggested that these facilities might fulfill all service requirements.</p> <p>14 <u>Decision</u> - It was agreed that the RCN would obtain from the carriers full details of their plans for the construction of by-pass routes, so that these could be related to service requirements.</p>	<p>DNCom</p>
<p>6</p>	<p><u>EMERGENCY COMMUNICATIONS FACILITIES-MHQ ATLANTIC</u></p> <p>15 LCdr Wilson said that a staff paper on the communications requirements for the interim alternative MHQ Atlantic had been submitted by CANCOMARLANT. The paper details a two-part plan. Part one includes facilities which could be provided quickly at little expense, primarily from within local resources, to be implemented by 1 Sep in time for exercise FALLEX 62. Part two, a longer-range phase, involves the provision of more elaborate and costly facilities.</p> <p>16 S/L Holgate said that correspondence had been received from MACHQ, asking RCAF support for the MHQ proposals.</p> <p>17 It was noted that letters had been sent to MHQ and MACHQ by Naval Headquarters and AFHQ, respectively, approving part one of the MHQ plan for trial during FALLEX 62, and deferring consideration of part two until the requirement had been re-examined after FALLEX 62.</p>	
<p>7</p>	<p><u>MHQ ATLANTIC SHIP-SHORE CHANNELS AT UNIACKE</u></p> <p>18 The Chairman reiterated the statement made at the previous meeting that new requirements for space at Uniacke would probably make it necessary to transfer the 4 ship-shore channels elsewhere. He said, however, that any action to transplant these facilities would be deferred for as long as possible.</p> <p>19 <u>Decision</u> - The Group took note, and agreed to discontinue this item.</p>	
<p>8</p>	<p><u>SSB EQUIPMENT FOR RCAF & RCN AIRCRAFT</u></p> <p>20 LCdr Wilson stated that the proposal to procure 86 SSB transceivers for Tracker aircraft had been approved at RCN screenings and would be forwarded to DM in the near future.</p>	

ITEM	SUBJECT	ACTION
	<p>21 S/L Holgate said that purchase by the RCAF of airborne SSB transceivers depended on approval being obtained for the RCAF Communications Improvement and Augmentation Program. He said that a submission covering the CIAP was enroute to Treasury Board for consideration, but that it had not yet emerged from the office of the DM.</p>	
9	<p>22 <u>Decision</u> - The Group took note, and agreed to continue the item.</p> <p><u>TSEC/KW7 PROCUREMENT</u></p> <p>23 LCdr Moyes reported that a submission covering the RCN requirement for this equipment had just been despatched to Treasury Board. He said it was hoped to have orders placed by Sep 62.</p> <p>24 S/L Holgate observed that RCAF procurement of TSEC/KW7 for Maritime ground and air communications was dependent on Treasury Board reaction to the CIAP.</p> <p>25 <u>Decision</u> - The Group took note, and agreed to continue the item</p>	DCom
10	<p><u>PACIFIC COMMAND FACSIMILE BROADCAST-PROGRESS REPORT</u></p> <p>26 LCdr Wilson advised that requirement had been approved by RCN for procurement in 1963/64 fiscal year. He also stated that completion of project would be delayed if space requested in new (RCAF) Langley Prairie transmitter site was not forthcoming. The Chairman replied that the Langley Prairie Plant was part of the CIAP, of which approval was still outstanding.</p> <p>27 <u>Decision</u> - The Group took note and agreed to continue the item.</p>	DCom DCom
11	<p><u>EMPLOYMENT OF TSEC/KL7 BY 407 SQN</u></p> <p>28 The Chairman advised that MACHQ had reported problems had been resolved and 407 Sqn was now operational with KL7.</p> <p>29 <u>Decision</u> - It was agreed that this could now be discontinued.</p>	DCom DCom
12	<p><u>BACK UP COMMUNICATIONS FACILITIES FOR PACIFIC COMMAND</u></p> <p>30 LCdr Wilson said that a new submission had been received from CANCOMA/RPAC concerning requirements for communications back-up facilities. He said that the net requirement now appeared to be two HF radio channels. This was being examined in DCom.</p> <p>31 <u>Decision</u> - The Group took note and agreed to continue the item.</p>	DCom

ITEM	SUBJECT	ACTION
13	<p><u>ACTIVE ECM POLICY - TRAINING & EXERCISE REQUIREMENTS</u></p> <p>32 LCdr Sproatt said that the CANCOMA/RPAC proposals for air-surface ECM exercise requirements had not yet been received, but that there was considerable activity at the Headquarters level, namely:</p> <p>(a) a joint ECM policy paper, containing provision for active ECM training, had been prepared and circulated to Chiefs of Staff for concurrence;</p> <p>(b) the RCN was preparing a new study of the ECM threat, and would be circulating this to the RCAF Directorate of Maritime Operations for comment.</p> <p>33 LCdr Wilson asked whether the ECM problem might not better be handled by the service EW directorates. In the discussion which followed, it became apparent that much CM activity constituted a potential threat to communications, and that communicators would be well advised to keep the topic under review, at least until the threat was more precisely defined.</p> <p>34 <u>Decision</u> - The Group took note and agreed to continue the item.</p>	<p>DCom DNCom</p>
14	<p><u>AUTOMATIC KEYING OF MARITIME ASSIGNMENTS FOR FREQUENCY SAMPLING</u></p> <p>35 The Chairman reported that trials of the automatic keyer were continuing; however, the accumulation of data would require some time, perhaps six months, owing to the small number of flights being flown by Maritime aircraft at ranges beyond 300 miles. He also advised that additional keyers requested for MHQ Esquimalt and the alternate MHQ at Comox and Torbay were being constructed by the RCAF.</p> <p>36 <u>Decision</u> - It was agreed that MARPAC should be advised of progress on this item and the 1 Aug 62 target date for Esquimalt installation.</p>	<p>DCom DNCom</p>
15	<p><u>EMERGENCY COMMUNICATIONS - FM MODULATION OF COMMERCIAL BROADCAST TRANSMITTERS</u></p> <p>37 The Chairman referred to a report by the USAF describing a potential auxiliary Maritime communications facility, consisting of a 60 wpm RTT broadcast establishment by frequency-modulating a standard commercial AM broadcast transmitter. It was reported that tests had indicated that 24-hour service could be maintained with an acceptable error rate over a sea path 580 miles in length, using a transmitter of 50 KW output power operating on a frequency of 680 Kc/s. It was pointed out, however, that this range would be reduced if a higher frequency was used, if the power was reduced, or if the land part of the path was increased.</p>	

ITEM	SUBJECT	ACTION
	<p>38 The Chairman said that the report had been circulated to DNCom for comment.</p> <p>39 LCdr Creech said that the report had been examined but, although the proposal was attractive, application in Canada appeared to be limited at present because of scarcity of coast broadcast transmitters of suitable power. Further, preliminary study had shown that all coast transmitters which might qualify for this use by reason of power output and/or short land path were located in target areas.</p> <p>40 <u>Decision</u> - It was agreed that the RCN would look further into this development as a possible emergency broadcast facility, and that the item should be continued.</p>	<p>DNCom</p>
16	<p><u>TECHNICAL SUPPORT OF MHQ PACIFIC RECEIVER SITE AT ALBERT HEAD</u></p> <p>41 By way of review, S/L Holgate said that maintenance support of the Albert Head receiver site was provided by HMC Dockyard, Esquimalt; telecommunications logistic support is the responsibility of RCAF Station Vancouver. He said that it had been proposed in the RCAF that responsibility for logistics support of Albert Head be transferred from Stn Vancouver to Stn Comox, as the latter unit had recently been assigned this task on behalf of 5 Air Division, Victoria. He said that this recommendation was being considered at AFHQ.</p> <p>42 <u>Decision</u> - The Group took note.</p>	<p>DCom</p>
17	<p><u>RCAF MARITIME A/G/A TRAINING FREQUENCIES - USE OF 3151 Kc/s</u></p> <p>43 F/L Kerr-Wilson drew attention to an exchange of messages in which CANCOMAIRPAC had suggested that 3151 Kc/s, a recent substitute assignment, was unsuitable for use by 407 Sqn as a Maritime training frequency. When queried, MACHQ had replied that the frequency was considered satisfactory.</p> <p>44 Based on the information at hand, it was difficult to appreciate the MARPAC position, as the employment of RCAF Maritime training frequencies is normally the concern of MACHQ.</p> <p>45 <u>Decision</u> - It was agreed that DNCom would correspond with CANCOMAIRPAC on the subject, and obtain clarification.</p>	<p>DNCom</p>
18	<p><u>REQUESTS FOR FREQUENCY ASSIGNMENT RECEIVED FROM USN</u></p> <p>46 F/L Kerr-Wilson reported that requests have been received from the USN, via The Joint Canada-US Frequency Coordinating Channel for assignment of frequencies to Esquimalt and Halifax. He felt that when the Maritime Commanders have a requirement for additional frequencies in support of USN forces, a request outlining the requirement should be forwarded by the Canadian Maritime Commander through normal channels, and that the matter not be left merely as one for frequency co-ordination by the USN.</p>	

UNIT	SUBJECT	ACTION
	<p>47 <u>Decision</u> - It was agreed that a letter would be drafted to MARLANT and MARPAC directing them to submit a requirement through normal channels when they are requested by CINCLANFLT or CINCPACFLT to implement additional frequencies in support of Maritime operations</p>	DNCom
19	<p><u>DATE OF 3/62 MEETING</u></p>	
	<p>48 The Chairman advised that the next meeting would be held 17 Oct 62. This date had been selected to avoid conflict with Exercise Fallex 62 and to enable the new DNCom member to be present.</p>	
20	<p><u>ADJOURNMENT</u></p>	
	<p>49 The meeting adjourned at 1130 hrs.</p> <p style="text-align: right;"> (HF Holgate) S/L Chairman Steering Group on Maritime Communications</p>	
	<p><u>Distribution</u></p> <p>DNCOM - 25 copies DCom - 10 copies</p>	

ROYAL CANADIAN NAVY

FILE: ABD; 1300-1

R.C.N. Air Station,
Shearwater, N. S.

ORIGINAL DAMAGED

JUL 12 1962

NOTAM CIRCUITS

Reference: (a) NS 1300-166/10 (STAFF) dated 5 July, 1962.

The following is submitted for information.

2. The Airops circuit is expected to facilitate the receipt and transmission of NOTAM traffic at SHEARWATER.
3. It is considered that it could best be located in the Meteorological Telecommunications section, in view of the DOT procedures in use on the circuit. Continuous attention cannot be given the circuit, however, until such time as the increased complement, requested in the recent Station Complement Survey, is made available.
4. The Regional Director at Moncton is being asked to provide SHEARWATER with the necessary acquaintance training.

Original Signed by
R. A. B. CREEERY
FOR CAPTAIN
(ABSENT ON LEAVE)

Flag Officer Atlantic Coast.

✓ Copy to: The Naval Secretary.

Referred to <i>Staff</i>
JUL 16 1962
File No. <i>1300-166/10</i>
Chgd to <i>Dr Conn. 10/7</i>

*20-7
DN COM
Sentry
SS page
RAC
23/1/62*

M 111359Z

FM CANFLAGLANT

TO CANAVHED

INFO CANCOMARLANT

BT

YOUR 101950Z PARA TWO:

AFFIRMATIVE FOR PERIOD 18-28 SEPT

BT

DEFERRED
CONFIDENTIAL
"AC" NO UNCLASSIFIED REPLY
OR REFERENCE

NSS 1300-166/10 (STAFF)

101950Z RE-EXERCISE FALLEX.

ACNS (A&W)
STAFF
DN PLANS
DN OPS
DN COM
DGNS

DGFE
DGSF
CAPT BOGGILD

TOR 111618Z JUL 62

CONFIDENTIAL

PA
17/8/62

NSS 1300-166/10 (STAFF)

11 July, 1962.

MEMORANDUM TO:

ACNS (P) *Conrad* 13 June 62.
 N Comp " *17/7/62*
~~CNPS~~ *Conrad*
~~VCNS~~ *19/7*
~~CNS~~ *19/8*

SERVICE RESPONSIBILITIES FOR PROVISION OF
COMMUNICATION FACILITIES FOR MARITIME COMMANDERS

References: (a) NSS 1300-166/10 (STAFF) dated 18 June, 1962.

(b) Joint Organization Orders 28 and 29.

ENCLOSURE : (A) Letter to CAS.

In reference (a) DN Com recommends approval of a draft agreement on service responsibilities for provision of communication facilities for Maritime Commanders. DN Com and D Com (RCAF) have agreed to it and D Com has already ratified for the RCAF.

2. I agree but recommend the agreement be made between CNS and CAS.

3. Since DN Com's memorandum was written DGFE has recommended the addition of paragraph 5 dealing with maintenance of equipment.

4. A draft letter to CAS is attached.

R.P. Welland
 (R.P. Welland)
 COMMODORE, RCN

ASSISTANT CHIEF OF THE NAVAL STAFF (AIR & WARFARE).

000298

CONFIDENTIAL

See [Signature] 17/6
[Signature]
 14.8

2681
2221

MESSAGE FORM

FOR COMMEN/SIGNALS USE

NUMBER

NSS 1300-166/10 (STAFF)

NO UNCLASSIFIED REPLY OR
 REFERENCE BEST AVAILABLE COPY

10-7-62

JUL 11 1962

PRECEDENCE - ACTION DEFERRED	PRECEDENCE - INFO DEFERRED	DATE - TIME GROUP 10 1950Z	MESSAGE INSTRUCTIONS
FROM CANAVHED	TO CANCOMARLANT CANFLAGLANT		PREFIX GR
INFO CANAIRHANT CANAIRHED			SECURITY CLASSIFICATION CONFIDENTIAL
			ORIGINATOR'S NUMBER

EXERCISE FALLEX. MCAGS 1300-1 DATED 9 APRIL 1962.

REQUEST CONFIRMATION TELETYPE EQUIPMENT FOR TORREY ARGENTIA
 TERMINALS AVAILABLE.

- DOES REQUIREMENT EXIST TO INCREASE HALIFAX CORNWALLIS CIRCUIT
 TO 24 HOUR OPERATION.

DIRECTOR
 OF
 COMMUNICATIONS
 JUL 10 1962

PAGE OF PAGES	REFERS TO MESSAGE	DRAFTER'S NAME	OFFICE	TEL.
	CLASSIFIED YES <input type="checkbox"/> NO <input type="checkbox"/>	CREECH/LCDR E.L./DF	INCOM	2-5163
FOR OPR'S USE	DATE	TIME	SYSTEM	OPERATOR
R				D
	DATE	TIME	SYSTEM	OPERATOR
				RELEASING OFFICER'S SIGNATURE
				NUMBER 12

NS 1300-166/10
(STAFF)

ROYAL CANADIAN NAVY

4, Ontario.

6 JUL 1962

NOTAM CIRCUITS

NOTAM messages will be transferred from the Department of Transport Meteorological Branch circuit to the DOT Telecommunication Airops circuit #946, at SHEARWATER, effective 1 August, 1962.

2. If any training is required by SHEARWATER meteorological personnel in Airops teletype procedures for the transmission of NOTAMS, Mr. H.C. Risteen of the DOT Moncton Regional Office should be contacted at:

Regional Director, Air Services,
Department of Transport,
PO Box 42,
Moncton, N.B.

To Tmo
For Despatch
Date 6-7-62
Initials ak

P.B.
NAVAL SECRETARY



The Flag Officer Atlantic Coast

Copy to: Commanding Officer, RCN Air Station, SHEARWATER

For concurrence: ~~DNMS~~ *Concur.* *Should reference not be made to*
DN COM *Concur.* *CANVAHED's 28 1401 Z June 62*
WPA 3/7

2347

John S.H.

Reference your note under.

The letter was written

before the message went out.

I do not consider it necessary to

amend the letter at this time

B/
4-7

DW 42 - Lcdr Briseman

To note DWWS
note.

I think you should
reference the
message. P. Losh

(CIVIL AVIATION, TELECOMMUNICATIONS
ELECTRONICS, METEOROLOGICAL
CONSTRUCTION BRANCHES)



YOUR FILE NO. NS 1300-166/10
(STAFF)
OUR FILE NO. 3120-15 (SRO)

ASSISTANT DEPUTY MINISTER—AIR
DEPARTMENT OF TRANSPORT
OTTAWA, CANADA

June 21, 1962.

Attention: Mr. P. Cosh

Dear Sir:

Reference is made to your letter of March 21, 1962 in connection with a send/receive Notam drop on our Airops circuit at Shearwater.

The necessary order was placed with Canadian Pacific Communications on June 11, 1962 for the Shearwater drop. Although we have not yet been advised when Canadian Pacific Communications will complete the work, it is expected to be at an early date.

Arrangements will be made to transfer Notams from our Meteorological Branch circuits to Telecommunications and Electronics Branch Airops circuits east of Montreal co-incident with the completion of this and related work.

Chief of the Naval Staff,
Royal Canadian Navy,
Department of National Defence,
OTTAWA, Ontario.

.....2

referred to <i>Staff</i>
JUN 22 1962
File No. <i>1300-166/10</i>
<i>Nav Com 29/9/61</i>

25-6
NAV COM

- 2 -

We have advised our Moncton Regional Office to expect a request for Department of Transport staff to assist in the training of R.C.N. personnel in Airops teletype procedures for the transmission of Notams. Mr. H. C. Risteen of our Moncton Regional Office, should be contacted at the appropriate time in this respect and he will arrange this training. The address of our Moncton Regional Office is:

Regional Director, Air Services,
Department of Transport,
P. O. Box 42,
Moncton, N.B.

If further information is required, please do not hesitate to contact Mr. E. T. English at local 2-4920.

Yours very truly,


(A. de Niverville)
Assistant Deputy Minister, Air.

SECRET

NSS 1300-166/10 Vol.2(DGFE)

MEMORANDUM TO: DN COM

MAINTENANCE/SUPPORT FOR MHQ'S

- References:
- (a) NSC 1300-166/10 (DGFE) Vol.2 dated 27 September, 1961.
 - (b) NSS 1300-166/10 (STAFF) Vol.2 dated 21 December, 1961.
 - (c) NS 1300-166/11 (STAFF) TD 1072 dated 5 April, 1961 (Copy).
 - (d) PCS 1300-166/11 dated 19 April, 1961 (Copy).

Enclosure (A) to reference (a) proposed an amendment to Joint Organization Orders 28 and 29, on which DN COM obtained DCom/RCAF concurrences (reference (b)). The alternate proposal for RCN/RCAF agreement at Chiefs of Staff level, is concurred in, provided a final paragraph is still included, to delineate the maintenance and support responsibilities for equipment provided.

2. Subsequent to proposing the final paragraph of Enclosure (A) to reference (a), it has been learned that both MARLANT and MARPAC possess Joint-Service Establishments, including operator staff for communications equipment, but not maintenance staff.

3. It is now considered that staff for day-by-day maintenance in the MHQ's should be included in the Joint-Service Establishments, with manning from RCN/RCAF sources, as for operators, and that the proposed last paragraph of the agreement should be reworded as follows:

"Routine maintenance of communications equipment shall be the responsibility of the Maritime Commanders, utilizing staff within the Inter-Service Establishments. The individual Service Commanders shall supply logistics materiel appropriate to RCN or RCAF provided equipment. Base repair shop facilities for major repair and overhaul, assistance in constructing or altering equipment installations, and general technical support shall be provided or coordinated through the RCN Service Commander."

4. It is understood that the maintenance problem in Maritime Headquarters has not proven too severe until recently, when communication facilities have expanded beyond the scope of part-time attention from nearby agencies. Should the MHQ's move to locations outside the Dockyard areas, e.g. Blandford, they will be unable to operate without in-house maintenance competence.

5. It is not considered practicable or desirable to request the Ship Repair Facilities of the Dockyards to perform normal running maintenance in the Maritime Headquarters, despite the ad hoc arrangement at MARPAC for the RCAF supplied air-ground-air radio equipment (references (b) and (c)). For MHQ's, as for other establishments and ships, work orders might be placed on Dockyard production

Handwritten notes:
 Xide
 NSS 1300-166/10 (DGFE)
 11 July 62
 from Adm
 Para. included
 agreement
 RCAF
 24, 862

SECRET

SECRET

- 2 -

for base repair and alterations beyond in-house capabilities, involving the assistance of MEE shops, and the use of MCEM and the Crypto Repair Base facilities.

6. If the RCN undertook to provide running maintenance of MHQ communications equipment, as earlier proposed, the nearest RCN communication technicians are civilian staff in the Tape Relay Centres on each coast. While some similarity exists between these establishments in teletype and cryptographic equipment fitted, the expanding installations of RCAF air-ground-air radio in the MHQ's require other skills. No advantage is seen in enlarging the RCN Tape Relay Centre complements to provide maintenance staffs for MHQ's, in comparison to adjusting the MHQ complements.

7. The number of technicians required for MHQ maintenance has yet to be reported by the Maritime Commanders. If trained in all electronic and electro-mechanical equipment now fitted, probably one or two full-time technicians would suffice. Some increase would likely be necessary when the RCAF single-sideband programme is implemented. A major increase would become necessary if a future programme were undertaken to automate the operations room functions. With inter-service manning, it is presumed RCAF technicians might be made available to maintain RCAF supplied equipment.

8. Following inter-service agreement on the general principles for provision, maintenance and support of MHQ communications equipment, DNOM will be requested to explore means of adjusting the MHQ Inter-Service Establishments to reflect their maintenance requirements.



(S.E. Paddon)

Commodore, R.C.N.
DIRECTOR GENERAL OF FIGHTING EQUIPMENT.

O T T A W A,
29 June, 1962.

9/20/62
DGSF/DFM - for concurrence.

DNOM - cc for information.

SECRET

000307

MESSAGE FORM

Document disclosed under the Access to Information Act -
 Document divulgué en vertu de la Loi sur l'accès à l'information
 FILE NS 1300-166/10

FOR COMM/CEN/SIGNALS USE

NUMBER (STAFF)

PRECEDENCE - ACTION ROUTINE	PRECEDENCE - INFO DEFERRED	DATE - TIME GROUP 281401Z	MESSAGE INSTRUCTIONS IN 281401Z
FROM CANAVHED			PREFIX GR
TO CANFLAGLANT			SECURITY CLASSIFICATION U
INFO CANAS			ORIGINATOR'S NUMBER 262

UNCLASSIFIED

DEPARTMENT OF TRANSPORT HAVE BEEN AUTHORIZED TO
 INSTALL A DROP FROM THE DOT AIROPS CIRCUIT NUMBER
 946 AT SHEARWATER X
 2x THIS DROP WILL BE LOCATED IN THE METEOROLOGICAL
 SECTION X

For concurrence: **DNWS** (by phone)

~~DN COM~~ *[Signature]*



PAGE 1 OF 1 PAGES	REFERS TO MESSAGE	DRAFTER'S NAME LCDR E.G. BROOMAN	OFFICE DNAR	TEL. 2-0917							
CLASSIFIED YES <input type="checkbox"/> NO <input type="checkbox"/>		RELEASING OFFICER'S SIGNATURE									
FOR OPR'S USE	R	DATE	TIME	SYSTEM	OPERATOR	D	DATE	TIME	SYSTEM	OPERATOR	NUMBER 12

OPA
11/8/62

M 121938Z

FM CANCOMARLANT

TO RCEPCR/CANAVHED

INFO RCEHCR/CANFLAGLANT

ZEN/CANAIRLANT

ZEN/CANAIRHED

BT

DEFERRED
CONFIDENTIAL
"AC" NO UNCLASSIFIED
REPLY OR REFERENCE
NSS 1300-166/10 (STAFF)
101950Z (DNCOM) RE-EXERCISE
FALLEX.

ACNS (A&W)
STAFF
DNPLANS
DNOPS
DNCOM
DGNS
CAPT BOGGILD
DGFE
DGSE

YOUR 101950Z MY MCACSI300-1 OF 27 JUNE. TELETYPE EQUIPMENT AVAILABLE
AT TORBAY AND ARGENTIA.

2. ASSUME FIRM PLANNING FOR CRYPTO AND TELETYPE CIRCUITRY WILL BE
PROCESSED BY YOUR HQ. INFORMATION ON AVAILABILITY OF EQUIPMENTS WAS
OBTAINED THROUGH INFORMAL DISCUSSIONS WITH COMM OFFICERS OF
COMARGENTIAASWGRU AND STN TORBAY

BT

TOR 122048Z JUL 62

000310
OPM

M 101950Z

DEFERRED
CONFIDENTIAL

ACNS (A&W)
STAFF

FM CANAVHED

"AC" NO UNCLASSIFIED REPLY OR REFERENCE

DN PLANS

TO CANCOMARLANT

NSB 1300-166/10 (STAFF)

DN OPS

CANFLAGLANT

DN COM

INFO CANAIRLANT

DGNS

CAPT BOGGILD

CANAIRHED

DGFE

DGSF

BT

EXERCISE FALLEX. MCACS 1300-1 DATED 9 APRIL 1962. REQUEST
CONFIRMATION TELETYPE EQUIPMENT FOR TORBAY ARGENTIA TERMINALS
AVAILABLE.

2. DOES REQUIREMENT EXIST TO INCREASE HALIFAX CORNWALLIS CIRCUIT
TO 24 HOUR OPERATION.

BT

TOD 102148Z JUL 62

DN COM

SECRET

MCACS: 1300-1

DEPARTMENT OF NATIONAL DEFENCE

2180



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

JUN 27 1962

AMHQ (ATLANTIC) COMMUNICATIONS

References: (a) NSS 1300-166/10 TD 2122 (Staff) of 11 May 1962
(b) MCACS: 1300-1 of 9 April 1962

As approved by reference (a), the proposed interim alternative MHQ communications will be activated on a trial basis during FALLEX 62 - insofar as this is possible. Since live forces will not be participating within this Command, the trial will necessarily be limited to those circuits which can be used realistically to carry exercise traffic.

2. It is intended to test the following circuits as proposed in reference (b):

- (a) Torbay - Mt. Uniacke (RATT), as indicated in paragraph 30 (a) (ii), (d) (ii), and (h). Tapes received for Broadcast LR will be run through a page printer at Mt. Uniacke and the resulting "drop" copies retained for analysis.
- (b) The air base net, in accordance with paragraph 30 (d) (i) and (d) (ii).
- (c) Torbay - USN, in accordance with paragraph 30 (e).

3. Although it will not be possible to activate the alternative fleet broadcast during FALLEX, tests will be arranged at some other time convenient to CANFLAGIANT on an ad hoc basis. Broadcast LR frequencies 4349, 6425, and 12813 KCS are recommended as being the most appropriate assignments for the alternative broadcast.

4. Because of the nature of the exercise, it is doubtful whether the provision of an additional on-line circuit between Torbay and Argenticia could be justified on the basis of anticipated exercise traffic load alone. However, as indicated in reference (b) paragraph 20, there is no doubt that the additional circuit should be available for use in an emergency. With this in mind, the trial activation of the circuit during FALLEX is recommended. The United States Navy has confirmed that the required on-line equipment compatible with ETCRRM is available at Argenticia; an ETCRRM equipment from CANCOMARLANP's holdings could be transferred to Torbay for retention.

W. W. W. W.
REAR ADMIRAL

The Naval Secretary

Copy to: The Flag Officer Atlantic Coast
Air Officer Commanding, Maritime Air Command
Chief of the Air Staff

Referred to <i>Staff</i>
JUN 29 1962
File No. <i>300-166/10</i>
<i>TD 2122</i>
Chgd to <i>...</i>

SECRET

3-7
DN Com

3. Since Dwyer's memorandum
was written DGE has recommended
the addition of paragraph 5 ~~to~~
~~the equipment~~ dealing with
maintenance of equipment.

CONFIDENTIAL

NSS 1300-166/10 (STAFF)

27 June, 1962.

MEMORANDUM TO: ACNS(P)
N Comp
CNIS
VCNS
CNS

SERVICE RESPONSIBILITIES FOR PROVISION OF
COMMUNICATION FACILITIES FOR MARITIME COMMANDERS

References: (a) NSS 1300-166/10 (STAFF) dated 18 June, 1962.

(b) Joint Organization Orders 28 and 29.

ENCLOSURE : (A) Letter to CAS.

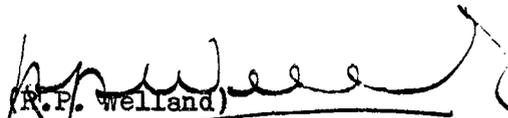
In reference (a) DN Com recommends approval of a draft agreement on service responsibilities for provision of communication facilities for Maritime Commanders. DN Com and D Com (RCAF) have agreed to it and D Com has already ratified for the RCAF.

2. I agree but recommend the agreement be made between CNS
and CAS.

3. →

3.4.

A draft letter to CAS is attached.


(R.F. Welland)

COMMODORE, RCN

ASSISTANT CHIEF OF THE NAVAL STAFF,
(AIR AND WARFARE)

CONFIDENTIAL

Re-tybe

CR 11

RECLASSIFICATION SHEET

FILE No.

LETTER MEMO SIGNAL EXTRACT

ORIGINATOR *Navel Secretary*

REF. No. *131300-166/10* DATE *31/3/62* REFERRED TO

GENERAL CORRESPONDENCE

SYNOPSIS:

.....

.....

.....

HAS BEEN REMOVED AND PLACED ON *1300-166/10 T02177*

DIRECTOR OF CENTRAL REGISTRIES

(per) *L. Laviolette*

DATE *26/6/62*

NOTED IN RECORDING

SECTION

CONFIDENTIAL

NSS 1300-166/10 (STAFF)

18 June, 1962.

D.N. Comm. This matter needs to be agreed at Chiefs level (CNS-CAS), however

MEMORANDUM TO: ACNS (A&W)

until this is achieved assume your recommendations are going to be approved.

SERVICE RESPONSIBILITIES FOR PROVISION OF COMMUNICATION FACILITIES FOR MARITIME COMMANDERS

*W
25/6.*

Reference: (a) Joint Organization Orders 28 and 29.

ENCLOSURE: (A) Draft Agreement on Service Responsibilities for Provision of Communication Facilities for Maritime Commanders.

INTRODUCTION

The responsibilities for provision of communication facilities for Maritime Commanders are inadequately covered by Joint Organization Orders 28 and 29. It is proposed to (precisely) define the responsibilities of the RCN and RCAF in a formal agreement between the services.

AIM

2. The aim of this paper is to attain RCN ratification of a draft agreement on provision of communication facilities for Maritime Commanders. (See enclosure).

BACKGROUND

3. Joint Organization Orders 28 and 29 formally establish the Maritime Headquarters; however, legislation of responsibilities for provision of communication facilities is inadequate. Since the cost of providing communication facilities is significant, it is important to (precisely) define service responsibilities.

4. Despite the lack of a formal agreement the RCN and RCAF have evolved a system which works adequately. In essence, the RCN provides all equipment (except air-ground-air equipment) in the MHQ's and pays for all leased circuits serving the Maritime Commanders. The RCAF provides air-ground-air equipment and terminal equipment in RCAF stations remote from the MHQ's.

5. To avoid mistakes through oversight DN Com and D Com wish to establish a formal agreement between the services. A draft agreement, which D Com has already ratified on behalf of the RCAF, is attached.

PROVISIONS OF AGREEMENT

6. The agreement would make the RCN the chief provider of facilities. The RCAF would be responsible for only those items which are peculiar to that service. This is, in fact, the present practice.

CONFIDENTIAL

2221

CONFIDENTIAL

- 2 -

COST

7. There would be no change in future cost to the RCN. The RCN has included funds in the 1962-63 estimates to buy communication equipment for the new Atlantic Command MHQ.

LOGISTIC AND MAINTENANCE SUPPORT

8. The Joint Organization Orders say that CANFLAGLANT and CANFLAGPAC shall arrange for support of the MHQ's, except for items peculiar to the RCAF. That arrangement would continue.

9. It is understood, however, that the RCN is ill prepared at present to maintain communication equipment in the MHQ's. DGFE is pursuing that problem, which has no bearing on the agreement on provision of facilities.

PERSONNEL

10. The agreement would have no effect on the present arrangement for joint manning of the MHQ's.

CONCLUSIONS

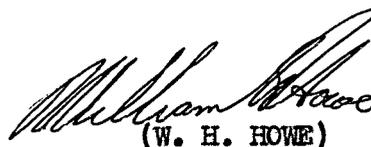
11. It is concluded that:

- (a) Joint Organization Orders 28 and 29 inadequately prescribe service responsibilities for provision of communication facilities for Maritime Commanders;
- (b) although a satisfactory arrangement has evolved through practice, it is necessary to establish a formal agreement on service responsibilities;
- (c) DN Com and D Com have drafted an agreement which assigns the main responsibility to the RCN, with the RCAF providing only that equipment peculiar to the RCAF; D Com has ratified for the RCAF;
- (d) the agreement would cause no change in current practice, but would formally establish it to avoid mistakes through oversight;
- (e) no additional cost, maintenance, or personnel requirements would be involved;
- (f) the RCN should ratify the draft agreement.

RECOMMENDATION

12. It is recommended that:

- (a) the RCN ratify the draft agreement; and
- (b) DN Com be authorized to sign for the RCN.


(W. H. HOWE)

COMMANDER, RCN

DIRECTOR OF NAVAL COMMUNICATIONS.

CONFIDENTIAL

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ENCLOSURE (A) TO: NSS 1300-166/10 (STAFF)
DATED 15 JUNE, 1962.

**DRAFT RCN/RCAF AGREEMENT
ON
RESPONSIBILITY FOR PROVISION OF COMMUNICATION FACILITIES
FOR MARITIME COMMANDERS**

1. The RCN shall be responsible for the provision of all communication facilities required by Maritime Commanders with the exception of those specifically indicated hereunder as the responsibility of the RCAF and those which may be jointly agreed from time to time as being the responsibility of the RCAF.
2. The RCAF shall be responsible for the provision of:
 - (a) all ground equipment required for air-ground-air radio links, including control consoles located in the Maritime Headquarters, but excluding cryptographic and teletype terminal equipment;
 - (b) all airborne equipment used in RCAF aircraft;
 - (c) terminal equipment at RCAF terminals of circuits serving the Maritime Commanders.
3. Notwithstanding the basic assignment of responsibilities as described in the preceding paragraphs, all Service equipment currently used in satisfaction of Maritime communication requirements shall remain in use unless its removal is jointly agreed to.
4. Facilities established primarily in support of Maritime operations may be used by either Service in satisfaction of non-Maritime requirements; e.g. a microwave link established primarily for remote keying of Maritime radio facilities may be used to provide keying circuits or command circuits supporting non-Maritime operations.

CONFIDENTIAL

R E S T R I C T E D

RCN FILE - NSS 1700-151/1
RCAF FILE - S895-100-83/11

A.L.
28
1.

JOINT ORGANIZATION ORDER 28
MARITIME HEADQUARTERS, ATLANTIC
HMC DOCKYARD, HALIFAX, N.S.

INFORMATION

1. The Chiefs of Staff Committee (COSC) has authorized the formation of a Maritime Headquarters on the Atlantic Coast with an integrated staff. The Chief of Naval Staff is the executive agent of COSC within his responsibility for the maritime defence of Canada. Responsibility for the operational control of assigned Atlantic Maritime forces is vested in the Maritime Commander, Atlantic (CANCOMARLANT) who is appointed by the Minister on the advice of the COSC. It is therefore necessary to form an integrated Maritime Headquarters, Atlantic, to assist CANCOMARLANT in exercising his responsibilities. As an interim measure this HQ is established in HMC Dockyard, Halifax, N.S.

2. In addition to providing the HQ staff functions of the Canadian Maritime Command, Atlantic, this staff will also function as the HQ staff for both the Canadian Atlantic Sub-Area Command and the Canadian ASW Group which are components of CINWESTLANT within the SACLANT NATO organization.

INTENTION

3. To form the Maritime Headquarters, Atlantic in HMC Dockyard, Halifax.

EXECUTION

Effective Date

4. The provisions of this Order are effective 1 July, 1959.

Role

5. The role of this HQ shall be to assist CANCOMARLANT in exercising his responsibility for:

- (a) The overall operational control of forces assigned to him by the Chiefs of Staff Committee.
- (b) The implementation and compliance with the operational policies and directives of the Chiefs of Staff Committee.
- (c) The development of detailed operational plans.
- (d) The policy and doctrine for joint operations.
- (e) The planning, conduct and analysis of joint exercises carried out by the forces assigned to him.
- (f) The co-ordination of Service commanders' recommendations concerning force requirements.
- (g) Development and evaluation of joint tactics and techniques.

.../2

- 2 -

- (h) NATO - The Maritime Commander, Atlantic will be responsible to the Commander-in-Chief, Western Atlantic for operations in the Canadian Atlantic Sub Area as COMCANLANT in accordance with SACLANT and CINWESTLANT instructions and policies.

Composition

- 6. The Maritime Headquarters shall consist of:
 - (a) The Maritime Commander;
 - (b) The Deputy Maritime Commander, from a service different to that of the Maritime Commander;
 - (c) Service Commanders as designated by the respective Service Chiefs of Staff;
 - (d) Integrated service staffs on a full time basis for Maritime Intelligence, Operations, and Plans.

Service Commanders

- 7. Service Commanders are responsible to:
 - (a) the Maritime Commander for:
 - (i) Advice on the operational capabilities and limitations of their own forces.
 - (ii) Preparation of detailed Service plans in support of the Maritime Commander's plans.
 - (iii) The operational readiness of forces of their service.
 - (iv) The provision of logistic support for the operation and functioning of the Maritime Headquarters as required by the Maritime Commander.
 - (v) Advice on force and weapon requirements.
 - (b) their own Service Chief of Staff insofar as their own Service is concerned for:
 - (i) Administration and discipline.
 - (ii) Training.
 - (iii) Logistics.
 - (iv) Test and evaluation of own service equipments and tactics.

Command

- 8. The Commanding Officer, HMCS STADACONA, shall be the Commanding Officer as defined by QRON Art. 101.01 of all RCN personnel on HQ staff.
- 9. The senior RCAF officer below the rank of Air Commodore on CANCOMARLANT staff shall be the Commanding Officer as defined by QR(Air), Art. 101.01, of all RCAF personnel on HQ staff.

.../3

AL 2

Control

- 10. Operational control of this HQ shall be exercised by the Maritime Commander, Atlantic.
- 11. Administrative Control of the personnel of this HQ shall be as follows:
 - (a) for the RCN, by the Flag Officer Atlantic Coast (CANFLAGLANT);
 - (b) for the RCAF, by the Air Officer Commanding Maritime Air Command (AOC MAC).

ADMINISTRATIVE ARRANGEMENTS

Establishment

12. The establishment for CANCOMARLANT staff shall be controlled by the Interservice Establishment Committee.

Personnel

- 13. The appointment of RCN officer personnel shall be arranged by Naval Headquarters. Men shall be drafted by RCN Depot, Halifax.
- 14. The transfer or posting of RCAF personnel shall be arranged by Air Force Headquarters and AOC MAC.

Supply and Support Services

15. Wherever possible, CANFLAGLANT shall arrange for provision of HQ materiel and support (including accommodation, mobility, and amenities). Provision of items peculiar to the RCAF shall be arranged by their Service Commander.

INTERCOMMUNICATION

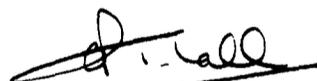
16. Copies of all correspondence between CANCOMARLANT and CNS shall be sent simultaneously to CAS. Copies of all correspondence from one Service Commander to CANCOMARLANT shall be sent to the other Service Commander where it is of major concern to their joint operational role.

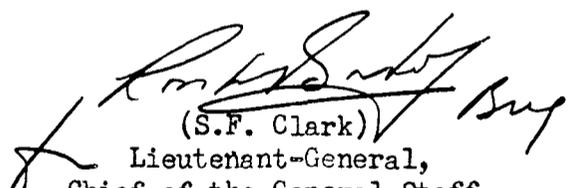
Address

17. The address of this HQ shall be:

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

COMMITTEE APPROVAL DATE: 2 December, 1959


(H.S. Rayner)
Vice Admiral
Chief of the Naval Staff


(S.F. Clark)
Lieutenant-General,
Chief of the General Staff


(Hugh Campbell)
Air Marshal
Chief of the Air Staff

DISTRIBUTION

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- RCAF-AFHQ - "

R E S T R I C T E D

RCN FILE - NSS 1700-151/2
RCAF FILE - S895-100-83/11

29
/

JOINT ORGANIZATION ORDER 29
MARITIME HEADQUARTERS, PACIFIC
HMC DOCKYARD, ESQUIMALT, BC

AL.
1.
2.

INFORMATION

1. The Chiefs of Staff Committee (COSC) has authorized the formation of a Maritime Headquarters on the Pacific Coast, with an integrated staff. The Chief of Naval Staff is the executive agent of COSC within his responsibility for the maritime defence of Canada. Responsibility for the operational control of assigned Pacific Maritime forces is vested in the Maritime Commander, Pacific (CANCOMARPAC) who shall be appointed by the Minister on the advice of the COSC. It is therefore necessary to form an integrated Maritime Headquarters, Pacific, to assist CANCOMARPAC in exercising his responsibilities. As an interim measure this HQ is established in HMC Dockyard, Esquimalt, BC.

INTENTION

2. To form the Maritime Headquarters, Pacific, in HMC Dockyard, Esquimalt.

EXECUTION

Effective Date

3. The provisions of this Order are effective 1 July, 1959.

Role

4. The role of this HQ shall be to assist CANCOMARPAC in exercising his responsibility for:-
- (a) The overall operational control of forces assigned to him by the Chiefs of Staff Committee;
 - (b) The implementation and compliance with the operational policies and directives of the Chiefs of Staff Committee;
 - (c) The development of detailed operational plans;
 - (d) The policy and doctrine for joint operations;
 - (e) The planning, conduct and analysis of joint exercises carried out by the forces assigned to him;
 - (f) The co-ordination of service commanders' recommendations concerning force requirements;
 - (g) Development and evaluation of joint tactics and techniques;
 - (h) ALCANUS - The Maritime Commander, Pacific will be responsible to the Chiefs of Staff Committee for maritime warfare in the Canadian Coastal Area Pacific and will be a member of the ALCANUS Committee.

- 2 -

Composition

5. The Maritime Headquarters shall consist of:-
- (a) The Maritime Commander;
 - (b) The Deputy Maritime Commander, from a service different to that of the Maritime Commander;
 - (c) Service Commanders as designated by the respective Service Chiefs of Staff;
 - (d) Integrated service staffs on a full time basis for Maritime Intelligence, Operations, and Plans.

Service Commanders

6. Service Commanders are responsible to:-
- (a) the Maritime Commander for:-
 - (i) Advice on the operational capabilities and limitations of their own forces;
 - (ii) Preparation of detailed service plans in support of the Maritime Commander's plans;
 - (iii) The operational readiness of forces of their service;
 - (iv) The provision of logistic support for the operation and functioning of the Maritime Headquarters as required by the Maritime Commander;
 - (v) Advice on force and weapon requirements
 - (b) their own Service Chief of Staff insofar as their own Service is concerned for:-
 - (i) Administration and discipline;
 - (ii) Training;
 - (iii) Logistics;
 - (iv) Test and evaluation of own service equipments and tactics.

Command

7. The Commanding Officer, HMCS NADEN, shall be the Commanding Officer as defined by QRCN ART 101.01 of all RCN personnel on HQ staff.

8. ~~CANCOMREP~~ The senior RCAF officer below the rank of Air Commodore on ~~CANCOMREP~~ staff shall be the Commanding Officer as defined by QR(Air) Art 101.01, of all RCAF personnel on HQ staff. A.L.I.

Control

9. Operational control of this HQ shall be exercised by the Maritime Commander, Pacific.

... /3

AL 2

10. Administrative control of the personnel of this HQ shall be as follows:
- (a) for the RCN, by the Flag Officer Pacific Coast (CANFLAGPAC);
 - (b) for the RCAF, by the AOC MAC

ADMINISTRATIVE ARRANGEMENTS

Establishment

11. The establishment for CANCOMARPAC staff shall be controlled by the Inter-service Establishment Committee.

Personnel

12. The appointment of RCN officer personnel shall be arranged by Naval Headquarters. Men shall be drafted by RCN Depot, Esquimalt.
13. The transfer or posting of RCAF personnel shall be arranged by Air Force Headquarters and the AOC MAC.

Supply and Support Services

14. Wherever possible, CANFLAGPAC shall arrange for provision of HQ materiel and support (including accommodation, mobility, and amenities). Provision of items peculiar to the RCAF shall be arranged by their Service Commander.

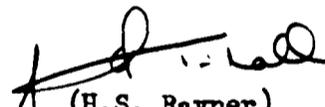
INTERCOMMUNICATION

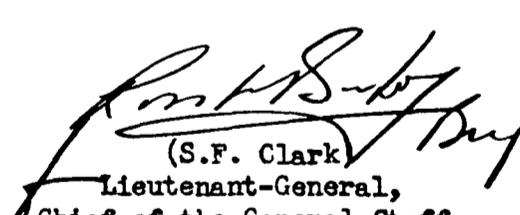
15. Copies of all correspondence between CANCOMARPAC and CNS shall be sent simultaneously to CAS. Copies of all correspondence from one Service Commander to CANCOMARPAC shall be sent to the other Service Commander where it is of major concern to their joint operational role.

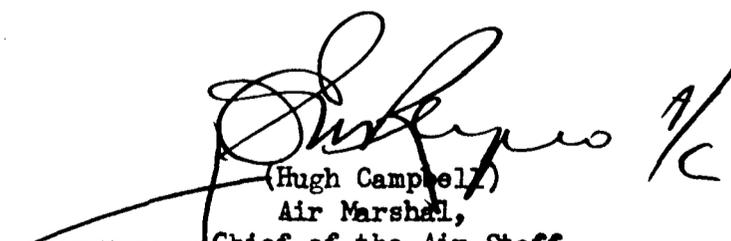
Address

16. The address of this HQ shall be:-
- Maritime Commander, Pacific,
Fleet Mail Office,
Victoria, B.C.

COMMITTEE APPROVAL DATE: 2 December 1959


(H.S. Rayner)
Vice Admiral,
Chief of the Naval Staff.


(S.F. Clark)
Lieutenant-General,
Chief of the General Staff


(Hugh Campbell)
Air Marshal,
Chief of the Air Staff

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1868-78
1300-166/10
031749Z RE AVAILABILITY
ON-LINE EQUIPMENT

ACNS (A&W)
STAFF
DNPLANS
DNOPS
DNCOM
DPP

BT
YOUR 031749Z. INTEND TO UTILIZE ETCRRM EQUIPMENT ON OND 20241
CANCOMARLANT/QUONSET PENDING INSTALLATION TSEC KW26C EQUIPMENT.
2. REQUEST CONFIRMATION COMPATIBLE EQUIPMENT AVAILABLE U.S.
TERMINAL.
3. ONE TIME KEY TAPES CAN BE PROVIDED.
4. NSC 1300-166/10 (STAFF) TO 1220 OF 1 NOV 61 TO CANAVUS ONLY
BT
TOD 092346Z MAY 62
DPP

M 111851Z
FM CANAVUS
TO CANAVHED
INFO CANFLAGLANT
CANC0MARLANT
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ACNS (A&W)
STAFF
DNPLANS
DNOPS
DNCOM
DPP

NSS 1310-78-1 1868-78
1300-166/10

091540Z .DPP RE CONFIRM
COMPATIBLE EQUIPMENT AVAILABLE

YOUR 091540Z .

USN HAS COMPATIBLE EQUIPMENT AND HAS ASKED DIRNSA TO PROVIDE
KEY TAPES

BT

TOR 112351Z MAY 62

Directorate of Naval Communications.

~~SECRET~~

JLC/DF

NSS 1300-166/10
(STAFF)

- ROYAL CANADIAN NAVY -

25 APR 1962

BEST AVAILABLE COPY

MINUTES OF THE STEERING GROUP ON MARITIME COMMUNICATIONS

ENCLOSURE: (A) S950-116 (D Com) dated 9 April, 1962.

Enclosure (A) is forwarded for information.

A/A

~~Don Coffey~~ 26/4/62

Please ensure a copy of the minutes gets on to file p.6

P.C.
NAVAL SECRETARY.

DIRECTOR
APR 19 1962
COMMUNICATIONS

- Maritime Commander Atlantic.
- Maritime Commander Pacific.
- Flag Officer Atlantic Coast.
- Flag Officer Pacific Coast.
- Air Officer Commanding, Maritime Air Command.
- The Commodore, RCN Barracks, HALIFAX. (The Directors, Joint Maritime Warfare School).
- Officer-in-Charge, Communication Division Fleet School, HMCS CORNWALLIS.
- Naval Member Canadian Joint Staff, (LONDON).
- Naval Member Canadian Joint Staff, (WASHINGTON).
- Chief of the Air Staff.

To Jmc
Per Respect

Date 25.4.62

Initials AK

~~SECRET~~

1050

CONFIDENTIAL
S950-116 (DCom)

9 Apr 62

MINUTES OF THE 1/62 MEETING OF THE

STEERING GROUP ON MARITIME COMMUNICATIONS

HELD 14 MAR 62 IN ROOM 255, BUILDING 7, VICTORIA ISLAND

Present

S/L HF Holgate	DCom	(Chairman)
LCdr PF Wilson	DNCom	
F/L JA Hermiston	DCom	

Absent

LCdr H Hargreaves	DNCom
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In Attendance

LCdr AM Cockeram	SCom/CanFlagLant
LCdr PG May	SCom/CanComArPac
LCdr JL Creech	DNCom
LCdr KM Young	DNCom
LCdr WD Moyes	DNCom
LCdr RF Duston	DGFE
LCdr W Kanwisher	DGFE
LCdr HL Sproatt	DNFER (part time)
S/L RH Carver	SCom/CanComArLant
S/L WA Lawton	DEW (part time)
Lt RC Clark	SCom/CanFlagPac
Lt S Iscoe	DNCom
F/L DE Haines	SOTel/MAC
F/L GW Tahirali	DEW (part time)
F/L A Crew	DCom (part time)
F/L GE Clarke-Marlow	DCom (part time)
F/L JF Power	DATR (part time)
F/O GR Lepage	DATel (part time)

Item	SUBJECT	ACTION
1	<u>Minutes</u> 1 The minutes of the 3/61 meeting were approved by the Steering Group.	
2	<u>Broadcast Control of Aircraft by MHQ Atlantic</u> 2 F/O Lepage reported that trials of the LF RTT receiving equipment and associated KWR-37 crypto device in Argus aircraft were proceeding. He said that results to date indicated satisfactory reception of the low-power encrypted RCN broadcast at ranges up to 300 nautical miles from Halifax, and that use of the crypto device had caused no apparent degradation of signal. He concluded by saying that an improved ferrite antenna was by the maker of the LF receiver (IT&T) being sent to Summerside/for the balance of the trials, which would include a flight to the UK early in April during which it would be possible to test reception capability at longer ranges.	

ITEM	SUBJECT	ACTION
3	<p>LCdr Duston said that Jul 62 was probably the earliest date on which the high-power LF transmitter at Newport Corner could be back in service.</p>	
4	<p>LCdr Moyes said that RCN ships for which KWR-37 was planned would be equipped this summer.</p>	
5	<p>S/L Carver re-iterated the MHQ requirement for LF encrypted broadcast reception capability in Argus aircraft as soon as possible.</p>	
6	<p>The Chairman pointed out that this facility was included in the RCAF Communications and Improvement Program (CIAF) and, although Maritime requirements would be handled on a first priority basis within the program, delays of up to two years would have to be expected, as the program had only just been submitted for Treasury Board approval.</p>	
7	<p>F/L Crew said that the first KWR-37 for the RCAF would be available in form 8 to 10 months from the date of firm order.</p>	
8	<p>LCdr Wilson recommended that the RCAF consider installing equipment in Argus aircraft that would permit reception of the HF component of the LR broadcast. The broadcast is a system comprising both LF and HF components, which, together, cover the area of operations. In support of this LCdr Duston pointed out that there was normally no back-up for the high-power LF component of the LR broadcast, and that when the transmitter was down for maintenance, for instance, RCN ships were dependent on the HF component for LR broadcast continuity. The Chairman replied that present plans called for satisfaction only of the MHQ Atlantic requirement for reception of the LF component of the LR broadcast, and suggested that provision of the HF facility should be studied as a new requirement.</p>	
9	<p><u>Decision</u> - The Steering Group agreed to continue to monitor the airborne KWR-37 trials, and to keep in view a possible requirement for reception of the HF component of the RCN/LR broadcast in Argus aircraft.</p>	<p>DCom DNCom</p>
3	<p><u>Permanent MHQ Atlantic - Status</u></p>	
10	<p>LCdr Wilson informed the Group that the Sea-Air Warfare Sub-Committee had been assigned the task of studying the requirement for a permanent MHQ Atlantic but that, as yet, no recommendations had emerged.</p>	
11	<p><u>Decision</u> - The Group agreed to continue this item.</p>	
4	<p><u>Service Responsibilities for Provision of Facilities and Maintenance at MHQs</u></p>	
12	<p>LCdr Wilson reported that the proposed amendment to Joint Org Orders 28 and 29, which had been agreed to by the RCAF, was now being studied by RCN/DGFE. The Chairman pointed out that the need for ratification of these proposals was becoming urgent, as the Maritime A/G/A portion of the RCAF CIAP, now before Treasury Board, had been costed on the assumption that additional landline or microwave circuits necessary to connect improved facilities to MHQs would be provided by the RCN.</p>	

ITEM	SUBJECT	ACTION
	<p>13 <u>Decision</u> - It was agreed that the need for early decision in this matter would be conveyed to appropriate RCN authorities.</p>	DNCOM
5	<p><u>Maritime Pacific Air-Ground-Air Communications Facilities</u></p> <p>14 This topic was discussed under items 5 and 6 of the previous minutes. The Chairman confirmed that Langley Prairie had been selected as the new RCAF transmitter site, replacing Lulu Island, and said that the RCAF CIAP envisaged a microwave system linking Langley Prairie and Esquimalt via Comox, the alternate location of MHQ Pacific.</p> <p>15 <u>Decision</u> - It was agreed that a firm plan for linking RCAF and RCN remote communications facilities at Langley Prairie and Aldergrove with Esquimalt and Comox should be derived as quickly as possible.</p>	DNCOM DCom DNCOM
6	<p><u>Emergency Communications Facilities - MHQ Atlantic</u></p> <p>16 Discussion of items 12 and 13 of the agenda were combined under this item.</p> <p>17 S/L Carver said that in view of the uncertainty surrounding the provision of a permanent MHQ Atlantic, and the lack of facilities at the present alternate MHQ location at Greenwood, CanComArLant staff had designated Torbay as interim alternate MHQ Atlantic in place of Greenwood, and that this change would be reflected in an amendment to MAROPEDLANT now being prepared. He pointed out that MHQ Atlantic A/G/A communications facilities were backed up on a one-fore-one basis at Torbay, and Torbay NDCS point-to-point RATT channels could be made available in emergency to fulfill a HF fleet broadcast requirement and provide an operational link with the mainland. He outlined in some detail plans for operational use of Torbay communications facilities in emergency. These plans included the installation of a 10 KW LF fleet broadcast transmitter.</p> <p>18 <u>Decision</u> - It was agreed that Marlant staff should prepare detailed proposals and submit them through channels for joint RCN/RCAF consideration.</p>	
7	<p><u>MHQ Atlantic Ship-Shore Frequencies - Provision of Terminal Equipment</u></p> <p>19 The Chairman said that terminal facilities for four new ship-shore channels recently assigned to MHQ Atlantic were being furnished by the RCAF at Uniacke, a situation which was at variance with the normal division of responsibilities under which the RCAF provided air-ground-air facilities. He went on to say that new requirements for space at Uniacke which was already overcrowded, would probably make it necessary to transfer the 4 ship-shore terminations elsewhere eg, to Newport Corners and Albro Lake.</p>	

ITEM	SUBJECT	ACTION
	20 <u>Decision</u> - The Group took note.	
8	<u>RCN/RCAF Auto Relay Centre for Atlantic Command Progress Report</u>	
	21 Lt Iscoe said that joint RCN/RCAF plans called for the installation of the first automatic relay at St Jacques, Que (RCAF) in 1963 and that, subsequently, auto relays would be installed at Portage la Prairie Man (RCAF), Esquimalt BC (RCN) and Blandford NS (RCN) in that order. Completion of the entire project was scheduled for 1965. He pointed out, however, that although funds had been placed in Service estimates, the program had yet to be approved by JTC.	
	22 <u>Decision</u> - The Group took note, and agreed to discontinue this item since it was outside the Steering Group terms of reference.	
9	<u>Procurement of SSB Equipment for RCAF and RCN Aircraft</u>	
	23 LCdr Wilson said that a proposal to buy 86 SSB transceivers for installation in Tracker aircraft in 1963/64 had been made by the RCN. He suggested that as the RCAF were contemplating purchase of about 200 copies of similar equipment as part of the CIAP, and as the Army also had plans to buy 200 SSB transceivers for introduction into field units by 1964/65, all concerned should be alert to the possibility of joint specifications and procurement.	
	24 <u>Decision</u> - It was agreed that this information should be brought to that attention of service procurement agencies.	DCom DNCCom
10	<u>TSEC/KW7 Procurement - Progress Report</u>	
	25 LCdr Moyes said that the RCN was contemplating purchase of 232 copies of this item, which was also being procured in considerable numbers by the USN. He estimated that if the RCN order was placed by Sep 62, first deliveries could be expected within a year.	
11	<u>Pacific Command Facsimile Broadcast - Progress Report</u>	
	26 LCdr Wilson outlined RCN plans supported in RCN 1963-64 estimates for satisfying a CanComArPac requirement for facsimile broadcast facilities for the transmission of meteorological and oceanographic information from MHQ Esquimalt to ships and to RCAF Comox. He said that the RCAF had been asked to make available 10 acres for antennas and 800 square feet of building space for transmitters at its proposed new transmitter site, (Langley Prairie) and to undertake maintenance of the RCN transmitters. He concluded by saying that a reply had been received from the RCAF agreeing to principle to these proposals.	

ITEM	SUBJECT	ACTION
12	<p><u>Problems with Tactical Call Signs - Pacific Command</u></p> <p>27 LCdr May outlined a perennial problem - that of achieving compatibility in tactical call signs among co-operating RCN, USN and RCAF forces in the CanPac area.</p> <p>28 <u>Decision</u> - It was decided that the question was specialized and therefore could not be discussed effectively at the present meeting. It was agreed that representatives of RCAF and Naval HQ, CanComArPac and CanFlagLant should get together later in the day to work on the problem and, if possible, arrive at a common position, or make recommendations.</p>	
13	<p><u>Employment of TSEC/KL7 by 407 MP Sqn</u></p> <p>29 F/L Haines said it had been learned at MAC that 407 Sqn was not yet fully operational with KL7. LCdr May confirmed this, saying that 407 Sqn had submitted a report to CanComArPac describing apparent shortcomings of the system and the difficulties attending its operation in Neptune aircraft.</p> <p>30 There was some surprise at this news. F/L Crew reported that KL7 equipment had been supplied to 407 Sqn by Jun 61. It appeared that 407 Sqn was unique among RCAF, and USN maritime forces in which KL7 had been used successfully in Neptunes for some time.</p> <p>31 <u>Decision</u> - It was agreed that initial action to solve this problem should be taken in the MARPAC- MAC channel.</p>	<p>CanComArPac MAC</p>
14	<p><u>Technical and Space Requirements for Atlantic Command</u></p> <p>32 LCdr Cockeram said that following the request from Naval HQ for confirmation of space in MHQ Atlantic for the proposed new air-ground-air facilities, a FlagLant/MarLant committee had been set up to deal with new communications requirements in that area, and the associated technical and space needs. He said it would be necessary for this committee to be kept informed of developments, and asked if there were any new facilities planned, apart from the air-ground-air aspects of the RCAF CIAP. LCdr Wilson confirmed that there was no major activity contemplated for the present, and that the tendency had been to avoid expansion of MHQ Atlantic installations until a decision had been reached regarding the permanent MHQ Atlantic.</p>	
15	<p><u>Back-Up Communications Facilities For Pacific Command</u></p> <p>33 LCdr May said that although CanComArPac's request for back-up HF and LF radio facilities had not been approved, the requirement was still considered to be urgent, and a new submission was, therefore, being prepared.</p>	<p>CanComArPac</p>

ITEM	SUBJECT	ACTION
16	<p data-bbox="397 274 909 336"><u>Active ECM Policy - Training and Exercise Requirements</u></p> <p data-bbox="397 361 1356 722">34 LCdr May outlined the urgent need to exercise ships against both communications and radar ECM. LCdr Sproatt said a new joint ECM policy had been formulated, and was up for consideration by JTC. He also said a letter of instruction on ECM training and exercises was under preparation for promulgation to commands. LCdr May pointed out that proper exercise of fleet units at sea would require ECM aircraft, of which the RCN had none. He suggested that RCAF EMU aircraft, which had been operating recently in the western regions, might be able to co-operate with ships in ECM training.</p> <p data-bbox="397 747 1372 884">35 F/L Power said that the communications ECM capability of EMU aircraft was limited, and that the aircraft were equipped for S,L, and X-band jamming for the purpose of exercising the ground radar environment.</p> <p data-bbox="397 909 1356 1046">36 S/L Lawton suggested that RAF Bomber Command aircraft on periodic "Western Ranger" flights between UK and US bases via Canada, might be diverted to exercise RCN units in the Halifax and Vancouver areas.</p> <p data-bbox="397 1071 1242 1171">37 <u>Decision</u> - It was agreed that CanComArPac should submit detailed proposals for air-surface ECM exercise facilities</p>	CanComArPac
17	<p data-bbox="397 1233 1023 1295"><u>Auto-Keying of Maritime Assignments for Frequency Sampling</u></p> <p data-bbox="397 1320 1372 1781">38 The Chairman reported that an auto-keying device developed as an RCAF project had been installed for evaluation at MHQ Atlantic and had been operating successfully for some weeks, sending call sign identification on as many as ten MHQ Atlantic assignments simultaneously for 20 seconds of each minute. Unfortunately, the received signal indicating equipment being developed as part of the same project had not proved successful, and had been returned for re-design. He said that a trials directive was being raised at AFHQ to ensure a comprehensive test of the usefulness to air radio officers of the auto-keyer as a frequency-sampling device, but that it was expected that these trials would take at least six months to complete, as flights of sufficiently long range were infrequent.</p> <p data-bbox="397 1806 1323 1968">39 S/L Carver said that the auto-keyer was proving very useful as a frequency-occupier. As evidence of this he reported that complaints of interference were being received from agencies which had been encroaching on less frequently used Canadian Maritime assignments.</p> <p data-bbox="397 1993 1356 2130">40 LCdr May said that CanComArPac had asked that a similar facility be installed at MHQ Esquimalt. LCdr Wilson acknowledged receipt of this correspondence, and said it had been passed to the RCAF for action.</p>	

-7-

ITEM	SUBJECT	ACTION
18	<p>41 The Chairman said that the project by which air-ground-air facilities had been installed at Esquimalt had included the auto-keyer, but that installation had been deferred until the prototype at MHQ Atlantic had been proved.</p> <p>42 <u>Decision</u> - The Group took note of the intention to continue testing the auto-keyer at MHQ Atlantic, and agreed that a second model should be produced as quickly as possible for MHQ Pacific, where it would fulfill an urgent need as a frequency-occupier.</p> <p><u>Date of the 2/62 Meeting</u></p> <p>43 The 2/62 meeting was scheduled tentatively for 13 Jun.</p>	DCom

19 Adjournment

44 The meeting adjourned at 1245 hours.



(HF Holgate) S/L
Chairman

Steering Group on Maritime Communications

MINUTES OF MEETING HELD FEBRUARY 12TH, 1962

AT # 3 BUILDING, OTTAWAAGENDA:

- Item 1. Discussion re drops required on Circuit #946 to permit transfer of NOTAMS from Met Circuits to Airops Circuits East of Montreal.
- Item 2. Difficulties that have been encountered in connection with military drops now designated as "S/R NOTAMS Only".
- Item 3. General discussion re any problems being encountered with regard to NOTAM traffic.

ATTENDED BY:

R. S. Nowlan	Civil Aviation Branch (Chairman)
E. T. English	Telecommunications Branch
F/L A. Booth	RCAF AFHQ/DAIRS
G. A. Fozard	Meteorological Branch
F/L R. H. Stewart	RCAF AFHQ/DCCM
A. E. Duffy	Meteorological Branch
T. J. McCarthy	Civil Aviation Branch

ITEM 1.

The Chairman opened the meeting and asked Mr. English to outline briefly the additional civil drops that he considered would be required on Airops circuit #946 to permit transfer of NOTAM traffic to Airops circuits East of Montreal.

Mr. English indicated that drops at Fredericton, N.B., St. John, N.B., Yarmouth, N.S., and Charlottetown, P.E.I., would be required and that drops at St. Andrews and Buchans Mfld., from circuit #953 would also be needed. F/L Booth indicated that the military requirement would be met if drops were provided at Summerside, Greenwood, Chatham and Halifax (SAR). He also was of the opinion that there was an operational requirement for a drop at Bagotville from circuit #942. F/L Booth was unable to confirm whether "Send and Receive" or "Receive Only" drops would be required at these locations but indicated that this information would be determined from the individual units along with details as to whether 24 hour monitoring could be carried out and the location in which the equipment would be installed at each site.

It was generally agreed that there was an operational requirement for a drop at RCN Station Shearwater but as no RCN representative was in attendance it was decided that the matter should be taken up with Naval Headquarters by letter from D.O.T.

The Meeting tentatively agreed to the following drops on Circuits 946,

943, 953:

#946

Montreal Aeradio
Moncton Aeradio
Fredericton Aeradio
St. John, N.B. Aeradio
Chatham RCAF
Yarmouth Aeradio
Greenwood RCAF
Halifax Aeradio
Halifax (GAR) RCAF
Shearwater RCN
Summerside RCAF
Charlottetown Aeradio
Sydney Aeradio
Gander Aeradio

#943

Montreal Aeradio
Moncton Aeradio
Gander Aeradio

#953

Gander Aeradio
Gander ATC (Receive-only)
St. Johns Aeradio
St. Johns RCC RCAF
Argentina USN
Stephenville USAF
Stephenville RCC USAF
St. Andrews Aeradio
Buchans Aeradio

F/L Booth raised the question as to payment for the required military drops. Mr. English indicated that if the previous policy was followed the Dept. of Transport would assume all costs for the specified military sites as these were at geographic locations not served by existing Aeradio stations. However, the final decision on this question could not be given at this time as it was subject to approval by higher authorities.

Mr. English stressed that automatic sending only would be permitted from the military drops and that Model #19 or equivalent teletype equipment was therefore necessary. He further stressed that strict adherence to circuit procedures would be required and that D.O.T. staff could be made available to assist in the training of R.C.A.F. communicators if desired.

ITEM 2.

Mr. McCarthy advised the meeting that considerable difficulty was being encountered in relaying service messages to RCAF stations that have Airops drops designated as "S/R NOTAMS ONLY". Mr. English indicated that some of this difficulty could be eliminated by broadening the use of these drops to include service messages related to NOTAMS as well as NOTAMS. The meeting agreed that this should be done. Mr. Duffy was of the opinion that messages were also being missed by the stations concerned and F/L Booth indicated that these stations would be asked to monitor the teletype more closely in future and to ensure that a 24 hour watch was maintained.

ITEM 3.

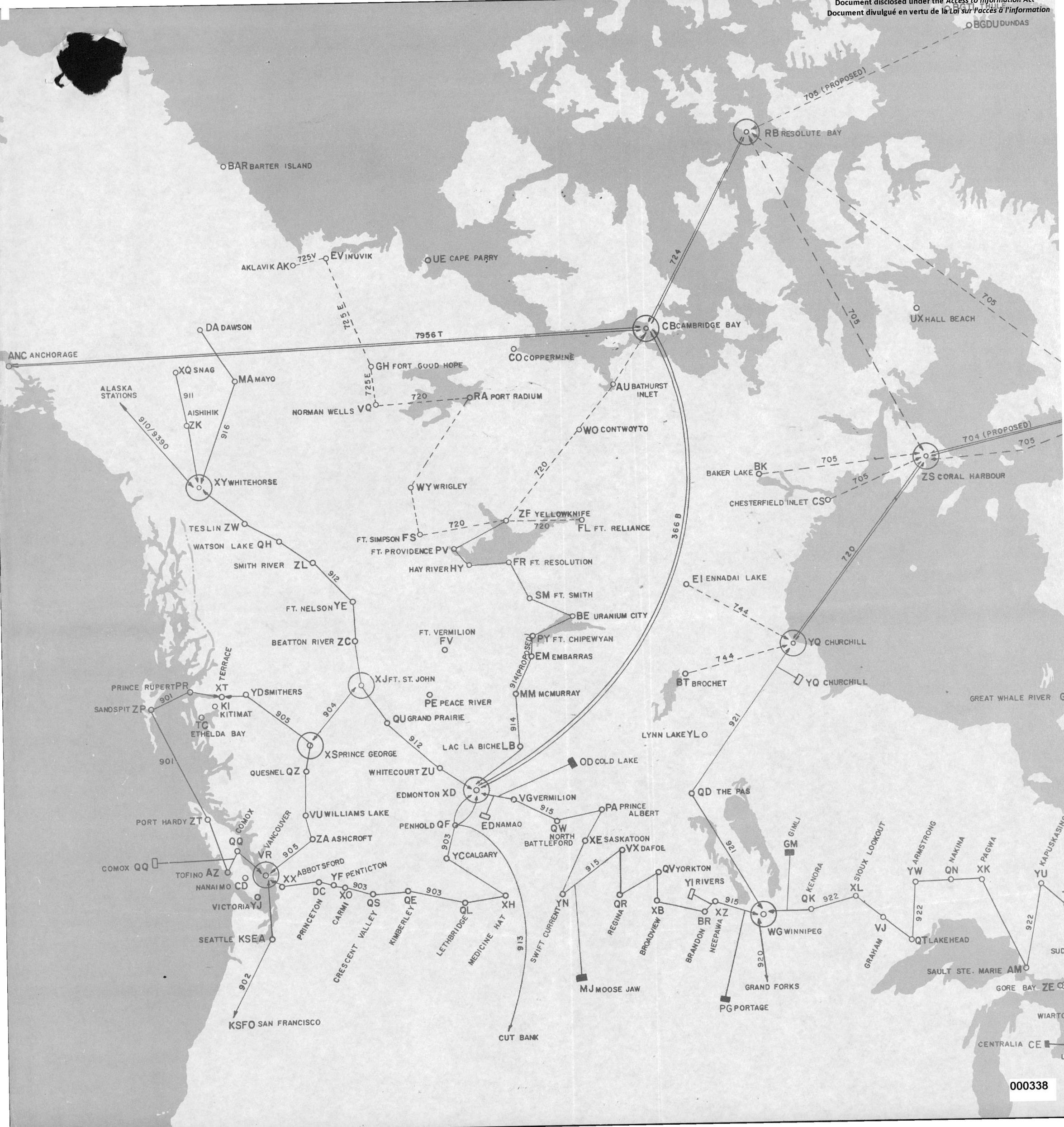
There was a short general discussion concerning NOTAM handling and teletype operation during which Mr. English stated that some informal reports

had been received that the secrecy of D.O.T. administrative traffic was not being maintained at all locations where military drops were established. F/L Booth indicated that a reminder to this effect would be relayed to all stations where drops from Airops circuits were installed.

It was generally agreed that the proposed April 1st, 1962 target date was feasible provided an early reply was received from the military authorities as to whether "Receive Only" or "Send/Receive" drops will be required at their sites. Information as to the physical location for the teletype equipment at these sites and whether 24 hour monitoring can be provided will also be necessary.

The meeting was adjourned at 4:00 p.m.


R. S. Nowlan,
Chairman.



BGDU DUNDAS

705 (PROPOSED)

BAR BARTER ISLAND

AKLAVIK AKO 725Y EVINUVIK

QUE CAPE PARRY

RB RESOLUTE BAY

CBCAMBRIDGE BAY

UX HALL BEACH

DA DAWSON

7956 T

ANC ANCHORAGE

XQ SNAG 911

GH FORT GOOD HOPE 720

CO COPPERMINE

AU BATHURST INLET

ALASKA STATIONS

AISHIHIK 916

NORMAN WELLS VQ 725E

RA PORT RADIUM

705

XY WHITEHORSE

WY WRIGLEY

WO CONTWOYTO

704 (PROPOSED)

BK BAKER LAKE

CSO CHESTERFIELD INLET

ZS CORAL HARBOUR

ZW TESLIN

FS FT. SIMPSON

ZF YELLOWKNIFE

FL FT. RELIANCE

QH WATSON LAKE

PV FT. PROVIDENCE

HY HAY RIVER

FR FT. RESOLUTION

ZL SMITH RIVER

YE FT. NELSON

SM FT. SMITH

BE URANIUM CITY

EL ENNADAI LAKE

ZC BEATTON RIVER

PY FT. CHIPEWYAN

EM EMBARRAS

YQ CHURCHILL

PR PRINCE RUPERT

XT TERRACE

YD SMITHERS

XJ FT. ST. JOHN

PE PEACE RIVER

MM MCMURRAY

BT BROCHET

ZP SANDSPIT

KI KITIMAT

QU GRAND PRAIRIE

QU GRAND PRAIRIE

LAC LA BICHE LB

LYNN LAKE YL

GREAT WHALE RIVER

TC ETHELDA BAY

YD SMITHERS

XJ FT. ST. JOHN

QU GRAND PRAIRIE

PE PEACE RIVER

MM MCMURRAY

BT BROCHET

ZP SANDSPIT

TC ETHELDA BAY

QU GRAND PRAIRIE

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LAC LA BICHE LB

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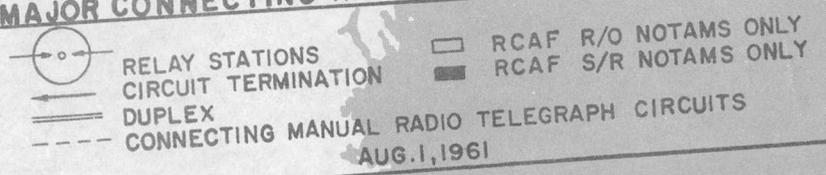
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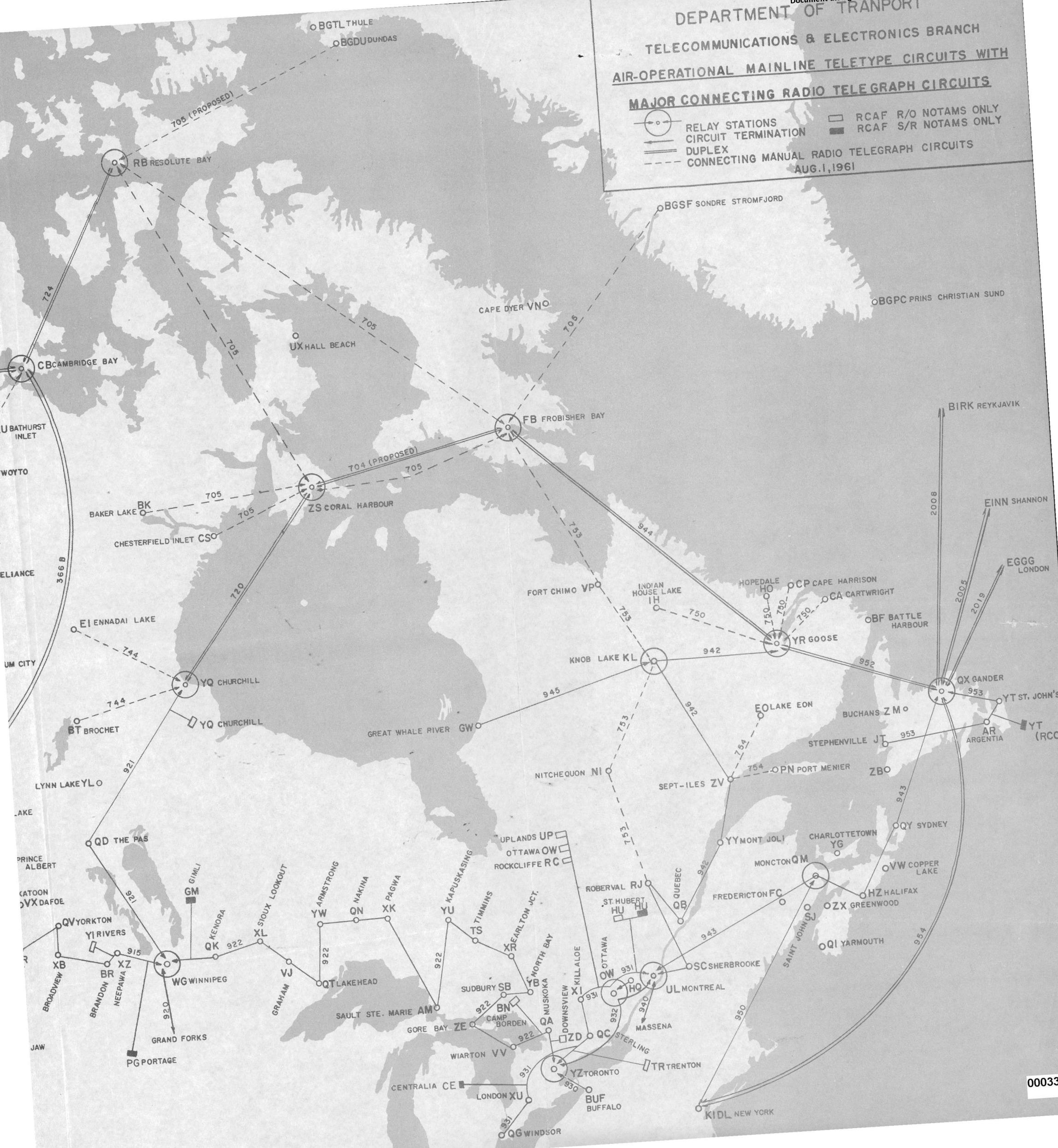
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LYNN LAKE YL

DEPARTMENT OF TRANSPORT
 TELECOMMUNICATIONS & ELECTRONICS BRANCH
 AIR-OPERATIONAL MAINLINE TELETYPE CIRCUITS WITH
 MAJOR CONNECTING RADIO TELEGRAPH CIRCUITS



AUG. 1, 1961



MESSAGE FORM

FOR COMMEN/SIGNALS USE

166711 (Staff)

"AC" - NO UNCLASSIFIED REFERENCE
 TD 1220
 REPLY U.

BEST AVAILABLE COPY

PRECEDENCE - ACTION DEFERRED	PRECEDENCE - INFO DEFERRED	DATE - TIME GROUP 242131Z	MESSAGE INSTRUCTIONS 22 01:15 11:15 GR
FROM CANAVHED	TO CANCOMARLANT CANAVUS		SECURITY CLASSIFICATION CONFIDENTIAL
INFO CANAIRHED			ORIGINATOR'S NUMBER 15

NMWC 9810-1 9 FEB NOTAL MCACS 1300-1 22 MAR NOTAL.
 RCN PORTION SIMPLEX CIRCUIT HALIFAX - QUONSET
 AVAILABLE FOR INSTALLATION FROM 1 MAY DND 20241.
 2. REQUEST DATE INSTALLATION US PORTION TO ENABLE
 FIRM COMMENCEMENT ORDER TO COMPANY.

DIRECTOR
 OF
 NAVY
 1 APR 1962
 C. H. HARGREAVES

[Handwritten Signature]

PAGE 1 OF 1 PAGES	REFERS TO MESSAGE	DRAFTER'S NAME LCDR H. HARGREAVES	OFFICE DN COM	TEL. 2-3915					
CLASSIFIED YES <input type="checkbox"/> NO <input type="checkbox"/>									
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SECRET

DIRECTORATE OF NAVAL COMMUNICATIONS

HQS 1300-166/10
TD / 2122 (STAFF)

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FILE
BUDGET

PFW/sb

ROYAL CANADIAN NAVY

Ottawa.

11 MAY 1962

INTERIM ALTERNATIVE PLAN (ATLANTIC) COMMUNICATIONS

Reference: (a) HQAGS: 1300-1 dated 9 April, 1962.

The proposals in paragraph 30(a) through (h) are approved for trial during FALLEX-62. Further consideration will be given to the future improvements proposed in paragraph 26 after FALLEX-62.

2. Since the situation described in the paper assumes Halifax destroyed, Broadcast IN would have to revert to off-line if it is intended to key this broadcast from Mount Uniacke during the exercise. Naval Headquarters would like advance notice of any actual broadcast changes.

3. Make all arrangements through COMFLANLANT and CANAIRLANT, except:

(a) Paragraph 30(b)(1) - there should be no difficulty in assigning maritime mobile frequencies to Torbay, however, please say which frequencies are actually required (LR or L);

(b) Paragraph 30(e)(1) - Naval Headquarters will provide these circuits for FALLEX-62 and examine the long term requirement after the exercise. STORM equipment now held may be used at Torbay; please ensure the United States Navy can provide on-line equipment at Argentina. Normal SIGTOT is compatible and key tapes can be made available for both SIGTOT and STORM.

DIRECTOR
COMMUNICATIONS
MAY 11 1962

P.F.W.
NAVAL SECRETARY

Maritime Commander Atlantic.

Copy to: The Flag Officer Atlantic Coast.
Air Officer Commanding, Maritime Air Command.
Chief of Air Staff.

To: Tmo
For Dispatch
Date: 11 5 62
Initials: AR

Concurrence (s/c HOBGATE)
D Com (RCAF)
ACNS (AOW) } For
concurrence
please.

SECRET

000342

(B)
9 Apr

SECI
DEPARTMENT OF NAVAL



MCACS: 1300-1

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

2122

Referred to	Staff
APR 12 1962	166/10
File No	11700-151/1
Chgd to	V/ops 15/3

APR - 9 1962

DN/Com 29-9-61 vol 2

INTERIM ALTERNATIVE MHQ (ATLANTIC) COMMUNICATIONS

ms Enclosure: (A) Staff Paper on Communication Requirements for the Interim Alternative MHQ (Atlantic)

Submitted for the consideration of the Chiefs of Staff Committee is Enclosure (A), which is a communications staff paper prepared at this Headquarters as a result of the selection of RCAF Station Torbay as the interim alternative Maritime Headquarters (Atlantic).

2. The final selection of an alternative MHQ will depend upon the decisions made on the requirement for and the location of a permanent headquarters. In the interim, it is considered that an emergency headquarters could function effectively at Torbay, if the proposals submitted in the enclosure are approved and implemented. It is intended to activate the alternative MHQ during forthcoming major exercises, the first of which will be FALLEX 62, scheduled to take place during the period 20 - 28 September, 1962.

3. It is requested, therefore, that the recommendations made in paragraph 31 of Enclosure (A) be approved, and that those measures which will permit activation of the alternative MHQ at Torbay be implemented immediately.

13-4-62
DN/Com

[Signature]
REAR ADMIRAL

The Naval Secretary

Copy to: Chief of the Air Staff

Flag Officer Atlantic Coast

Air Officer Commanding, Maritime Air Command

BEST AVAILABLE COPY

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ENCLOSURE (A) TO
MCACS: 1300-1
DATED: APR - 9 1962

A STAFF PAPER ON
COMMUNICATION REQUIREMENTS FOR
THE INTERIM ALTERNATIVE MARITIME HEADQUARTERS (ATLANTIC)

- References: (a) MCACS: 1300-1 of 8 February, 1961
(b) ASW/ORT Memorandum 61/2: Analysis of Exercise BEAGLE I

INTRODUCTION

Review of the Situation

The Maritime Commander Atlantic (CANCOMARLANT) is responsible for the exercise of command and operational control of assigned forces, both surface and air, in the Maritime Atlantic area. In peacetime and in wartime CANCOMARLANT intends to control the assigned forces from the Maritime Headquarters (MHQ), now located in Halifax. The communications required for this purpose were set forth in reference (a). In the event that the MHQ ceases to function during an emergency, it is intended that command of the assigned forces will devolve upon the Deputy Maritime Commander, and that he will exercise operational control from an alternative maritime headquarters (AMHQ).

2. RCAF Station Torbay is the only location in the Command, other than Halifax, which is now equipped with the minimum of communication facilities and accommodations required for the AMHQ. For this reason, an AMHQ was activated at Torbay during Exercise BEAGLE I, as described in reference (b). Provided the lessons learned during BEAGLE I are applied, and that the best possible use is made of the existing communications facilities at Torbay and elsewhere within the Command, complemented as requisite, it is believed that an interim AMHQ could function effectively at Torbay. Communications facilities available at Torbay, both radio and landline and including components of the RCAF Main Communications Relay Network (MCRN), are summarized in Appendix A.

The Aim

3. The aim of this paper is to propose how best to use the existing communications facilities, complemented as requisite, to meet the operational requirements of the interim AMHQ at RCAF Station Torbay.

Basic Assumptions

4. For the purpose of this paper it is assumed that when command of the assigned forces devolves upon the Deputy Maritime Commander at the AMHQ:

- (a) The communication facilities at Halifax and Albro Lake will not be available to the AMHQ.

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- 2 -

- (b) Landline circuits passing through Halifax will be disrupted.
- (c) The radio stations at Mt. Uniacke (RCAF) and Newport Corners (RCN) will probably continue to function.
- (d) The surviving emergency headquarters of the Flag Officer Atlantic Coast (FOAC) and the Air Officer Commanding, Maritime Air Command (AOC MAC) will have communication links into the National Defence Communications System (NDCS).

DISCUSSION

Overriding Considerations

5. Communication circuits connecting Torbay with the NDCS, the assigned forces, the supporting commands, the adjacent USN commands, and the Oceanographic System (Atlantic) are essential to the effective functioning of the AMHQ. The availability and reliability of such circuits must therefore be the overriding considerations.

Configuration

6. The precise location of the AMHQ operations room at Station Torbay and its configuration have yet to be decided. However, because it is planned to locate the AMHQ as close as possible to the communications building, no major changes in the present disposition of the communication facilities at Torbay are envisaged. A diagrammatic layout of the proposed communications plan for the AMHQ, centred on the communication facilities at Torbay, is presented in Appendix B.

Manning of Communication Sites at Torbay, Mt. Uniacke, Newport Corners

7. In peacetime, the communication sites at Torbay, Mt. Uniacke and Newport Corners are manned and operated continuously. In an emergency, current plans call for the augmentation of the first two sites: Torbay, by RCN and RCAF personnel to meet the needs of the AMHQ; the Mt. Uniacke receiver station, by the RCAF to operate the emergency tape relay station at that site. As in peacetime, RCN technical staff will continue to maintain the transmitter station at Newport Corners in wartime for as long as possible. Therefore, in an emergency, communication operating and technical personnel will be available at both Mt. Uniacke and Torbay, and the transmitter station at Newport Corners will be manned by technicians.

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- 3 -

Torbay - Mt. Uniacke - Newport Corners - NDCS - Fleet Broadcast

8. If the radio stations at Mt. Uniacke and Newport Corners remain in operation, it is proposed to retain the existing duplex RATT circuit between Torbay and Mt. Uniacke as the main link into the NDCS, and to the emergency headquarters of FOAC and AOC MAC. This is an MCRN circuit.

9. By interconnecting Mt. Uniacke and Newport Corners, traffic for the high-power Fleet Broadcast could be passed on tape by Torbay to Mt. Uniacke (RATT) for relay to Newport. Alternatively, the Fleet Broadcast transmitters at Newport could be keyed remotely by Mt. Uniacke. Since the latter system would eliminate one relay and would require no operators at Newport Corners, it would be the preferred method.

10. The necessary keying circuit or teletype circuit to Newport could be provided by patching the Mt. Uniacke receiver station into the DND cable that now passes through Mt. Uniacke on its way from Albro Lake to Newport. A telephone circuit should also be provided from the spare pairs available in this cable. Appropriate keying and teletype equipments would have to be installed at the terminals. *Only at Uniacke*

Alternative Fleet Broadcast

11. If the radio stations at Mt. Uniacke and Newport Corners become inoperative, or the RATT circuit to Mt. Uniacke fails, it is proposed to activate an alternative, low-power, HF fleet broadcast at Torbay. This broadcast could be provided by using the existing TH41 transmitters, transmitting simultaneously in the RATT mode on three or four of the currently assigned fleet broadcast frequencies. This method was proved during Exercise BEAGLE I (reference (b) page 123), using MCRN assignments.

Ship-Shore and Air-Ground-Air

12. Since the ship-shore radio facilities of Albro Lake will not be available to the AMHQ, it is proposed to use the existing aeronautical mobile (off-route) radio facilities at Torbay for both ship-shore and air-ground-air-communications. Transmissions would be in the present CW/Voice modes, using currently assigned frequencies.

13. The air-ground-air facilities of Mt. Uniacke could provide a back-up (the reverse of the normal situation where Torbay backs up Mt. Uniacke), and some of the channels could be used for other emergency requirements: for example, in support of EMO.

Air Base Net

14. Because the landline circuits passing through Halifax will be disrupted, necessary communications between the AMHQ and the air bases will have to depend upon radio circuits. It is proposed to use existing CW radio facilities at Torbay as part of the network linking the AMHQ to Greenwood, Summerside, Sydney and Yarmouth.

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- 4 -

15. As indicated in reference (b), page 124, a CW point-to-point circuit between Torbay and Greenwood on 3 and 8 MCS assignments was tried unsuccessfully during Exercise BEAGLE I. It is believed that a better selection of frequencies, such as the present A/G/A training assignments in the 3, 6, 8, 11 MCS bands, would permit an effective net operation.

16. Radio equipment which could be used on this net is available at Greenwood and Summerside and is now held by CANAS for the Sydney and Yarmouth detachments. ?

17. To back up this net, the present point-to-point CW circuits from Mt. Uniacke to Greenwood and Summerside should be extended to include the Sydney and Yarmouth detachments. The RATT circuit between Mt. Uniacke and Torbay could then be used as the alternative route between the air base net and the AMHQ.

18. This net could also be used by the surviving emergency headquarters of FOAC and AOC MAC as an alternative to their primary circuits (through the NDCS) to the AMHQ.

Torbay - Argentia - SOSUS - USN Circuits

19. Because the landline circuits through Halifax will be disrupted, it is proposed to use the existing on-line teletype circuit between Torbay and Argentia as the link into the USN communications system.

20. To ensure that this vital link can carry the resultant heavy traffic load, the present simplex circuit should be converted to a full duplex. The conversion could be accomplished by adding another line on an emergency call-up basis, provided the additional on-line teletype equipments are held at the circuit terminations. A voice hot-line circuit connecting the AMHQ and COMBARARGENTIA operations room should also be provided on a call-up basis.

Other Circuits in Newfoundland

21. The existing landline facilities listed in Appendix A would be used as and when required by the AMHQ. For air control and search & rescue functions, the AMHQ Air Control position should be provided with local extensions of the direct voice lines to ATCC Gander, Coast Guard Argentia, Service F, and AMIS, and with direct voice lines to the RCC and the control tower.

22. The various staff officers and the operations room of the AMHQ should, of course, be connected to the Station Torbay PABX.

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- 5 -

Fleet Broadcast Monitors

23. It was shown in Exercise BEAGLE I (reference (b)) that one of the most reliable circuits and a main source of intelligence was the fleet broadcast. If the "surviving" and dispersed commands could copy the primary (Newport) and alternative (Torbay) fleet broadcasts, the AMHQ would be provided with an excellent alternative means of delivering vital intelligence to these commands.

24. In order to increase the reliability of AMHQ communications, it is proposed that steps should be taken as soon as possible to equip the emergency headquarters of FOAC & AOC MAC, and the air bases at Greenwood, Summerside, Sydney and Yarmouth with the necessary RATT receiving installations. Torbay should also be provided with an LF receiver to enable the AMHQ to monitor the LF component of the Newport broadcast.

why?

NCSO/Area Port Director Circuits

25. The duplex RATT circuit between Mt. Uniacke and Torbay is proposed as the circuit over which the AMHQ will be linked with the NCSO/Area Port Director emergency organization, via the NDCS.

Future Improvements

26. As soon as the appropriate equipments could be made available, decided improvements in reliability, security, and speed of emergency communications would result from:

- (a) Installing KW37 equipment at Mt. Uniacke or Newport Corners and at Torbay for on-line keying of the primary and alternative fleet broadcasts.
- (b) Providing the Torbay-Mt. Uniacke RATT circuit with on-line capability. *Done RCAF*
- (c) Equipping all emergency headquarters, air bases, and air detachment locations with facilities to copy the on-line fleet broadcasts.
- (d) Converting both the present and proposed point-to-point CW circuits from Mt. Uniacke to the emergency headquarters, air bases, and air detachments to RATT on-line operation. *RCAF*
- (e) Installing an LF transmitter, even one with a rated output as low as 10 kilowatts, at Torbay to provide an LF component for the alternative fleet broadcast.
- (f) Installing an on-line RATT circuit between Torbay and Argentia to back up the landline circuit.

. . . /6

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- 6 -

- (g) Installing a microwave link between Mt. Uniacke and Newport Corners as an alternative to the landline keying (or teletype) circuit and voice circuit.

CONCLUSION

Summary

27. The proposals contained in this paper (except those in paragraph 26) have been concerned with the use of existing communications facilities to meet the requirements of the AMHQ. A few relatively simple and inexpensive additions have been suggested to complement the existing facilities and, in paragraph 26, to eventually improve the effectiveness of emergency communications. ?

28. Essentially, the intention has been to show a means by which the potential of the present maritime communication system can be exploited from a headquarters located at Torbay. Implicit in the assumptions made and the proposals stated is an emergency condition which envisages the destruction of Halifax and its environs. Because of the resulting disruptions of normal landline communications, the emphasis has been on radio communication with but two main exceptions: a keying circuit between Mt. Uniacke and Newport Corners; and, the Torbay - Argentia on-line teletype circuit. However, in both cases, alternative radio links have been suggested under the heading of "Future Improvements".

29. Important from the viewpoint of the reliability of communications, is the continued use of the high-power fleet broadcast at Newport Corners and the facilities of Mt. Uniacke for as long as these facilities are available. A vital component of the proposed communication organization is, therefore, the Torbay - Mt. Uniacke - Newport Corners circuit. However, in recognition of the possibility that these facilities may be lost to the AMHQ, a method of using the radio equipment now installed in Torbay to maintain essential emergency communications has been suggested.

30. The proposals contained in this paper are summarized below:

(a) AMHQ - Mt. Uniacke - Newport Corners

- (i) Install a keying or teletype circuit and a telephone circuit between Mt. Uniacke and Newport Corners using existing DND cable pairs. ||
- (ii) Use the existing duplex RATT circuit between Torbay and Mt. Uniacke as the main link to the emergency headquarters of FOAC and AOC MAC, and to 'key' the primary fleet broadcast.

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- 7 -

- (b) Alternative Fleet Broadcast
- (i) Use the present TH41 transmitters at Torbay and assigned fleet broadcast frequencies for an alternative fleet broadcast, when necessary.
- (c) Ship-Shore and Air-Ground-Air
- (i) Use the present A/G/A radio at Torbay for both ship-shore and air-ground-air communications with the AMHQ, backed up by the facilities at Mt. Uniacke.
- (d) Air Base Net
- (i) Primary: CW radio netting Torbay, Greenwood, Summerside, Sydney, Yarmouth, using available equipment and either available training (A/G/A) frequencies or new HF assignments.
- (ii) Alternative: RATT from Torbay to Mt. Uniacke, thence by CW to air bases and detachments.
- (iii) Use this net as the alternative link with the emergency headquarters of FOAC and AOC MAC, assuming they are equipped to join the net.
- (e) AMHQ-Argentia - SOSUS - USN
- (i) On a call-up basis, provide an additional on-line teletype and a hot-line voice circuit between Torbay and Argentia to augment the existing simplex on-line circuit.
- (f) Newfoundland Circuits
- (i) Use existing facilities listed in Appendix A.
- (ii) Equip the AMHQ Air Control positions with extensions of the existing direct voice lines to ATCC Gander, Coast Guard Argentia, Service F and AMIS, and with direct voice lines to the RCC and control tower.
- (iii) As requisite, provide the AMHQ staff with PABX telephone extensions.
- (g) Fleet Broadcast Monitors
- (i) Equip the emergency headquarters of FOAC and AOC MAC, and the air bases and detachments to copy the primary and alternative fleet broadcasts.

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SECRET

- 8 -

- (ii) Install an LF receiver at Torbay for monitoring the LF component of the primary fleet broadcast.
- (h) NCSO/Area Port Director Circuits
 - (i) Use the existing Torbay - Mt. Uniacke duplex RATT circuit as the link from the AMHQ via the NDCS to the emergency NCSO/Area Port Director organization.
- (j) Future Improvements
 - (i) These are summarized in paragraph 26.

31. Recommendations

It is recommended that:

- (a) The proposals summarized in paragraph 30(a) through (h) be approved and implemented immediately.
- (b) The improvements suggested in paragraph 26 be approved now and introduced as soon as practicable.

APPENDIX A - Summary of Communication Facilities at RCAF Station Torbay

APPENDIX B - Diagram of Proposed Communications Plan for the AMHQ

SECRET

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APPENDIX "A" TO
ENCLOSURE (A) TO
MCACS: 1300-1
DATED: APR - 9 1962

SUMMARY OF COMMUNICATION FACILITIES

AT RCAF STATION TORBAY

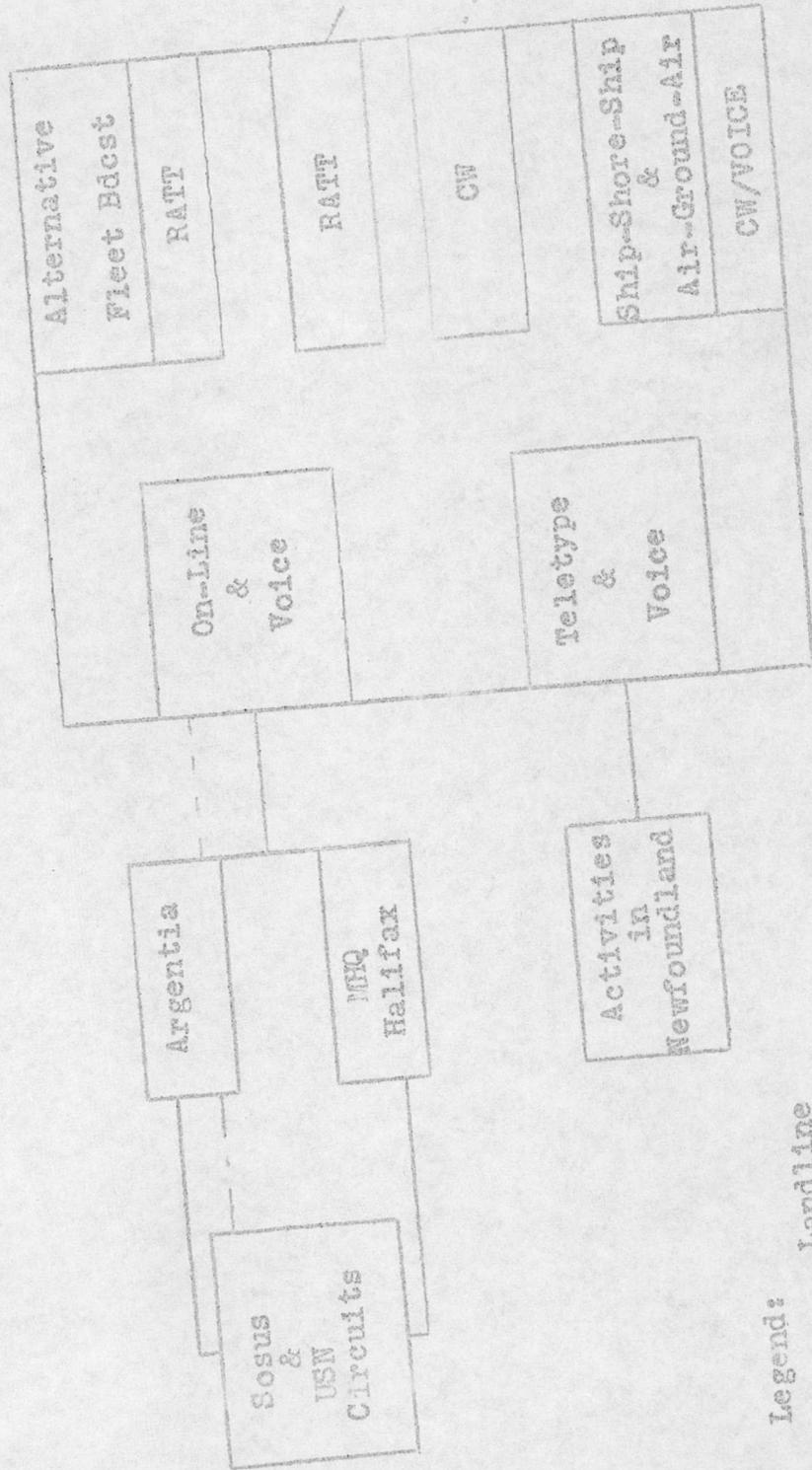
<u>RADIO FACILITIES</u>	<u>SIMULTANEOUS CAPABILITY (CHANNELS)</u>	<u>TRANSMITTER</u>	<u>AUTOMATIC AUX POWER</u>
RADIO TELETYPE (TO MT. UNIACKE HFX)	6	TH41	YES
AIR-GROUND-AIR	12	TE755	YES
AIR-GROUND-AIR (BACK UP)	4	FRT501	YES
<u>LANDLINES</u>		<u>TELETYPE (SIMPLEX OR DUPLEX)</u>	<u>VOICE (ADMIN OR OPS)</u>
TO MHQ (ON-LINE)		S	
TO MHQ (CALL-UP ONLY)			0
TO 6CU (TAPE RELAY CRT)		D	
TO GOOSE BAY (TAPE RELAY)		D	
RCC TO ATCC GOOSE BAY			0
TO GANDER (ADMIN)		S	
TO GANDER (ICAO)		S	
RCC TO ATCC GANDER			0
OPS TO GANDER (SKED F)			0
OPS TO GANDER (AMIS)			0
TO COMBARARGENTIA (ON-LINE)		S	
RCC TO COAST GUARD ARGENTIA			0
TO RCN BUCKMASTERS (TAPE RELAY)		S	
TO ST. JOHN PBX			A
MET LOOP		S	
<u>MET FAX</u>			

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Appendix B to
Enclosure (A) to
MCACS 1300-1
Dated APR - 9 1962

PROPOSED COMMUNICATIONS PLAN FOR
THE INTERIM ALTERNATIVE MARITIME HEADQUARTERS



Legend:
— Landline
- - - RATT
- - - - CW
- - - - Proposed Ckt

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DEPARTMENT OF NATIONAL DEFENCE

MINUTE SHEET NSS 1300-166/10 TD 2122

(STAFF)

Referred to

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Concerned in 1 hour
~~ACNS(A & W)~~
~~Ops S (SS)~~
W/S

The proposals in Para 30 have negligible cost and should be approved straight away so that FALLEX 62 plans can be completed.

2. The future improvements in Para 26 are costly and must be studied after FALLEX 62.

3. Please approve the attached letter. The RCAF agrees.



(E.J. Semmens)
Commander, RCN,
Director of Naval Communications

9 May, 1962.

D.N.D.

REQUEST FOR PHOTOSTAT COPY

TO: D.N.D. INSPECTION SERVICES,
75 ST. PATRICK ST.,
OTTAWA, ONT.

DATE: 14 May, 1962.

- ADMIN.
- NAVY
- ARMY
- RCAF

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ACNS(A&W)
STAFF
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TCR 030356Z APR 62

NS 1300-166/10
(STAFF)

ROYAL CANADIAN NAVY

Ontario:

21 MAR 1962

Assistant Deputy Minister (Air),
Department of Transport,
Ottawa, Ontario.

(Attention: Mr. R.S. Nowlan)

Dear Sir:

With reference to your letter File Number
3120-15 of February 14, 1962, the RCN will require
a drop from the Airops circuit #946 at SHEARWATER.

A send/receive drop will be required to
the teletype circuit. The equipment is to be
physically installed in the meteorological section
located in the Operations Building. The equipment
will be monitored on a 24 hour basis.

It is understood from the enclosure to the
reference, Item 1, that if previous policy is followed,
DOT will assume all costs for the required install-
ation. It is further understood that DOT staff can
be made available to assist in any necessary training
of RCF personnel.

R.B.
NAVAL SECRETARY

A/ens (Arms) W.

To Tono
For Despatch
Date 21. 3 62
Initials AR



DEPARTMENT OF NATIONAL DEFENCE

MINUTE SHEET

Referred to

REMARKS

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

~~ACWS (AW)~~

seen
21/3/62

LCDR Cameron returned this
for clarification of costs and
manpower requirements.

COST.

as stated in the minutes,
unless policy is changed DOT
will pay the cost.

MANPOWER.

It has been confirmed
that no increased manpower
will be required to maintain this
equipment once installed

[Signature] LCDR
for DADR

20-3-62.

000359

DEPARTMENT OF NATIONAL DEFENCE

MINUTE SHEET NS 1300-166/10

Referred to

REMARKS

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

DNAR

Further to discussions LCDR Brooman - Mr. Ganong, the O.I.C. of the SHEARWATER meteorological office has been contacted and he has confirmed that a send/receive connection to circuit can be located in the meteorological section.

2. It is assumed that DOT will be prepared to provide any special instruction related to the operation of this circuit.

3. This information has been passed informally to DOT (Mr. Nowlan). It is understood that you will initiate appropriate reply to DOT.


(W.F. Ganong)

DIRECTOR NAVAL WEATHER SERVICE
2-0485

O T T A W A

8 March 1962

MESSAGE FORM

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"AC" - NO UNCLASSIFIED LABEL OR REFERENCE

1300-166/10

FEB 21

N/VC
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GR

PRECEDENCE - ACTION ROUTINE	PRECEDENCE - INFO DEFERRED <i>1</i>	DATE - TIME GROUP 28 1843Z	MESSAGE INSTRUCTIONS
FROM CANAVHED	TO CANCOMARLANT		PREFIX 9
INFO CANFLAGLANT CANAIRFAX CANJMW'S	BEST AVAILABLE COPY		SECURITY CLASSIFICATION 3 252 <i>Restricted</i>
			ORIGINATOR'S NUMBER

YOUR 272030Z. CIRCUIT CAN BE PROVIDED SUBJECT TO PERSONNEL, TELETYPE AND ON LINE EQUIPMENT BOTH TERMINALS BEING PROVIDED LOCAL RESOURCES. CONFIRM PERSONNEL AND EQUIPMENT AVAILABLE.

ACWS (ACW) 1

DIEN DO
28 1962
COMMUNICATIONS

PAGE 1 OF 1 PAGES	REFERS TO MESSAGE	DRAFTER'S NAME LCdr H. Hargreaves	OFFICE DNCOM	TEL. 2-3915
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				D

~~SECRET~~
PFW/DF

CK [unclear]
NSS 1300-166/10 (STAFF)

23 February, 1962.

BEST AVAILABLE COPY

MEMORANDUM TO: Director of Communications (ROAF)

*Sent [unclear]
23/2/62
SM*

MEETING OF STEERING GROUP ON MARITIME COMMUNICATIONS

Reference: (a) 950-16 (D Com) dated 8 February, 1962.

The following items are forwarded for the meeting on 14 March:

- (a) SSB for naval aircraft and LP aircraft - to discuss possibility of joint procurement
- (b) Trials of KW 37 in Argus - progress report
- (c) Procurement of KW 7 - progress report
- (d) Pacific Command facsimile broadcast - progress report

2. It is assumed that the agenda will include items outstanding from the last meeting. CANCOMARLANT's 221401Z and CANCOMARPAC's 142324Z, both February, contain items from the commands.

Original Signed by
E. J. Semmens

(E. J. SEMMENS)
COMMANDER, RCN

DIRECTOR OF NAVAL COMMUNICATIONS.

SECRET

M 221401Z

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CONFIDENTIAL

ACNS (A&W)
STAFF
DNPLANS
DNCOM
DPP

FM CANCOMARLANT

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TO CANAVHED

INFO CANAIRHED

CANFLAGLANT

CANAIRFAX

CANCOMARPAC

BT

NSC 1300-166/10 STAFF 6 FEB. FOLLOWING ARE AGENDA ITEMS
PROPOSED BY COMMANDS INDICATED.

- A. PROPOSED ALTERNATIVE MHQ COMMUNICATIONS (CANCOMARLANT)
- B. GENERAL DISCUSSION ON EMERGENCY COMMUNICATIONS IN SUPPORT OF
THE EDPS OF CANCOMARLANT, CANFLAGLANT, CANAIRFAX.
- C. DISCUSS USE OF KL7 AND KAC1 (CANAIRFAX).
- D. PROGRESS REPORT AND DISCUSSION ON PHASING IN OF JOINT TAPE
RELAY SYSTEM (CANFLAGLANT)
- E. SPACE REQUIREMENTS FOR AND AVAILABILITY DATES OF
IMPROVED COMMUNICATION FACILITIES (CANCOMARLANT).

BT

TOR 221459Z FEB 62

000363

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FM CANFLAGLANT
TO CANFLAGPAC
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REFERENCE.

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CNS
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ACNS (A&W)
FLAG
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DMPLANS
DNI
DNCOM
DGNS
CNP
PERS (N)
DOP
DNT

NSC 1300-166/10 (STAFF)

202117Z DNCOM RE-OTTAWA VISIT APPROVED
BY CANAVHED

BT
YOUR 191840Z AND CANAVHED 202117Z. VISIT LT CLARKE
QUITE CONVENIENT

BT

TOR 211455Z FEB 62

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NSC 1300-166/10 (STAFF)

"AC" - NO UNCLASSIFIED REPLY OR REFERENCE

20-2-62

PRECEDENCE - ACTION DEFERRED	PRECEDENCE - INFO DEFERRED	DATE - TIME GROUP 20 2117z	MESSAGE INSTRUCTIONS
FROM CANAVHEED			PREFIX GR
TO CANFLAGLANT			SECURITY CLASSIFICATION RESTRICTED
INFO CANFLAGPAC			ORIGINATOR'S NUMBER

CANFLAGPAC 191840Z. CANAVHEED HAS ALREADY APPROVED VISIT TO OTTAWA. REPLY DIRECT ON HALIFAX VISIT.

BEST AVAILABLE COPY

FEB 20 21 14 62
 NAVCOMMEN
 OTTAWA

[Handwritten Signature]
 OPERATIONS

PAGE OF PAGES	REFERS TO MESSAGE	DRAFTER'S NAME	OFFICE	TEL.
	CLASSIFIED YES <input type="checkbox"/> NO <input type="checkbox"/>	WILSON LCDR. P.F./DF	DN COM	2-5263
FOR OPR'S USE	DATE	TIME	SYSTEM	OPERATOR
R				D
	DATE	TIME	SYSTEM	OPERATOR

M 191840Z

FM CANFLAGPAC

TO CANAVHED

CANFLAGLANT

BT

GO 61.00/8

(A) HERBERT C CLARK O-14026 LIEUTENANT (STAR) STAFF OFFICER

COMMUNICATIONS (CANFLAGPAC)

(B) CANFLAGLANT CANAVHED

(C) (i) DISCUSSIONS AND OBSERVATIONS CANFLAGLANT SECURE LINE CRYPTO
EVALUATION FLEET BROADCAST. DISCUSSIONS DN COM - INTRODUCTION SECURE
LINE COMMUNICATION AND AUTO TRC PACIFIC COMMAND

(ii) VISIT CANAVHED ARRANGED TO COINCIDE WITH STEERING GROUP MEETING
ON MARITIME COMMUNICATIONS NSC 1300-166/10 (STAFF) DATED 6 FEB AND
CANAVHED 162122Z REFERS

(D) TOP SECRET

(E) CANFLAGLANT 2 DAYS - 12 - 13 MAR CANAVHED 2 DAYS 14 - 15 MAR

BT

TOR 192049Z FEB 62

DEFERRED
RESTRICTED
"AC" NO UNCLASSIFIED REPLY
OR REFERENCE

NSC 1300-166/10 (STAFF)

162122Z (DN COM) RE-
APPROVED STAFF OFFICER
CANFLAGPAC ATTEND
DISCUSSIONS

CNS
ACNS (P)
ACNS (AC)
FLAG
STAFF
DN PLANS
DNI
DN COM
DGNS
CNP
PEKS (N)
DOP
DNT
DPP
DGFE

MESSAGE FORM

FOR COMM/CEN/SIGNALS USE

FILE NUMBER
NSC 1300-166/10 (STAFF)

AC - NO UNCLASSIFIED REPLY OR REFERENCE

16-2-62

PRECEDENCE - ACTION DEFERRED	PRECEDENCE - INFO DEFERRED	DATE - TIME GROUP 16 21 22	MESSAGE INSTRUCTIONS
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FROM CANAVHED	PREFIX GR
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TO CANFLAGPAC	SECURITY CLASSIFICATION RESTRICTED
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INFO CANAIHED CANCOMARPAC CANCOMARLANE CANAIRFAX CANFLAGLANE	ORIGINATOR'S NUMBER 16 21 21 62
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BEST AVAILABLE COPY

CANCOMARPAC 142324Z PARA 2 APPROVED

Handwritten signature and a rectangular stamp with the letters 'NS' inside.

PAGE OF PAGES	REFERS TO MESSAGE	DRAFTER'S NAME WILSON LCDR. P.F./DF DN COM	OFFICE 2-5163	TEL.
CLASSIFIED YES <input type="checkbox"/> NO <input type="checkbox"/>		RELEASING OFFICER'S SIGNATURE		
FOR OPR'S USE R	DATE	TIME	SYSTEM	OPERATOR D

M 142324Z

DEFERRED
CONFIDENTIAL

FM CANCOMARPAC "AC" NO UNCLASSIFIED REPLY OR REFERENCE

TO CANAVHED

INFO CANAIRHED

CANCOMARLANT

CANFLAGLANT

CANAIRFAX

CANFLAGPAC

BT

NSC 1300-166/10 (STAFF) 6 FEB 62. PROPOSED AGENDA ITEMS

- A. BACK UP RADIO FACILITIES PACIFIC COMMAND
 - B. CALL SIGNS. GENERAL DISUCSSION
 - C. ACTIVE ECM POLICY. TRAINING AND EXERCISE REQUIREMENTS
2. REQUEST STAFF OFFICER COMMUNICATIONS CANFLAGPAC ALSO
ATTEND AS AN OBSERVER

BT

TOR 150420Z FEB 62

CNS
ACNS(A&W)
STAFF
DN PLANS
DN COM
DPP
DGFE

CIVIL AVIATION, TELECOMMUNICATIONS
AND ELECTRONICS, METEOROLOGICAL
AND CONSTRUCTION BRANCHES)



YOUR FILE No.

OUR FILE No. 3120-15

ASSISTANT DEPUTY MINISTER—AIR
DEPARTMENT OF TRANSPORT
OTTAWA, CANADA

BEST AVAILABLE COPY

February 14th, 1962.

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

Dear Sir: Attention: DNAR L/CMDR Brooman.

A meeting was held recently to discuss what drops will be required on Airops circuit #946 to enable a transfer of NOTAM traffic from Meteorological to Airops circuits east of Montreal.

The military representatives at this meeting indicated that there would appear to be an operational requirement for a drop from this circuit at Shearwater. A copy of the Minutes for the meeting are therefore enclosed for your information and it would be appreciated if confirmation as to the requirement for a drop at Shearwater could be received as soon as possible.

If a drop is required the following information would also be appreciated:

- 1) Whether "Receive Only" or "Send/Receive" drop required.
- 2) The physical location on the site where the teletype equipment would be located.
- 3) Whether the teletype equipment would be monitored on a 24 hour basis.

In view of the proposed April 1st, 1962 target date for installation of this equipment, your early reply would be appreciated.

Yours truly,

for A. de Niverville,
Assistant Deputy Minister, Air.

Referred to DNAR

FEB 20 1962

FILE NO. 1300-166/10

Mr. Conn 29-9

Attach *MS*

20-2
~~DNAR~~
~~DNAR~~
DNAR

950-16(DCom)

MEMORANDUM

8 Feb 62

DNCom

Communications - Joint Maritime
Meeting of Steering Group on Maritime Communications

1 The fourth meeting of the Steering Group on Maritime Communications will be held in the Conference Room, (Room 255), Directorate of Communications, Victoria Island, at 1400 hours, Wednesday, 14 Mar 62.

2 Items for the Agenda should be forwarded to the Secretary (DCom/Com 2-2-2) not later than Monday 26 Feb 62.

[Handwritten Signature] w/c
(A. Bowes) W/C
DCom
2-5302

Att: 3

GOVERNMENT
OF
CANADA

ACTION REQUEST

CGSB 6-GP-12
P.P. & S. Cat. 3433

TO *① ACNS (A+W)*
for concurrence
(6) for Sec

③ DN Com

LOCATION

FOR:

FILE NO.....

<input type="checkbox"/>

- ACTION
- APPROVAL
- COMMENTS
- DRAFT REPLY
- INFORMATION
- INVESTIGATION
- MORE DETAILS
- NOTE & FILE

<input type="checkbox"/>

- NOTE & FORWARD
- NOTE & RETURN
- REPLY, PLEASE
- SEE ME, PLEASE
- SIGNATURE
- TRANSLATION
- YOUR REQUEST

PREPARE MEMO TO:.....

REPLY FOR SIGNATURES OF:.....

REMARKS:

*Duplicate down
to be run off.*

FROM

PHONE

LOCATION

DATE

000371

~~april 2000~~
~~10/10/00~~
still to
despatch



J
JLC/DF

NSC 1300-166/10
(STAFF)

- ROYAL CANADIAN NAVY -

Ontario.

6 FEB 1962

ORIGINAL DAMAGED

MEETING OF STEERING GROUP ON MARITIME COMMUNICATIONS

The 1/62 meeting of the Steering Group on Maritime Communications is scheduled for Wednesday, 14 March, in Naval Headquarters.

2. It is requested that the following officers report to Naval Headquarters for the period 14-15 March:

- Staff Officer (Communications) to CANCOMARLANT
- Staff Officer (Communications) to CANCOMARPAC
- Staff Officer (Communications) to CANFLAGLANT
- Staff Officer (Communications) to CANAIRFAX

3. Visiting Officers will attend the Steering Group meeting as observers. Items for the agenda should arrive at Naval Headquarters by 23 February.

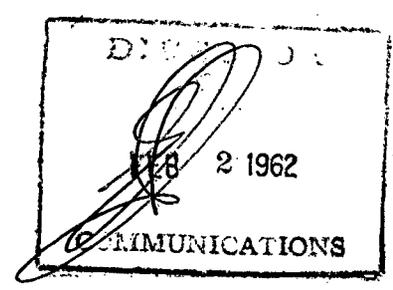
Original Signed by
J.P. Cash
NAVAL SECRETARY.

- Maritime Commander Atlantic.
- Maritime Commander Pacific.
- Flag Officer Atlantic Coast.
- Air Officer Commanding, Maritime Air Command.

Copy to: Chief of the Air Staff.

ACNS(A&W) - for concurrence.

Concur W.



to JMO
For Dispatch
Date 6.2.62
Initials *AF*

D COA (RCAF) Concurs.

2-2

DEPARTMENT OF NATIONAL DEFENCE

MINUTE SHEET

Referred to

REMARKS

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

DGFE (DSL)

NSS 1300-166/10 Vol. 2 (STAFF)

21 December, 1961.

SERVICE RESPONSIBILITIES FOR PROVISION OF
COMMUNICATIONS FACILITIES

The RCAF agrees with your proposed amendment to Joint Organization Orders 28 and 29.

2. Since provision and maintenance of equipment is a Technical Services Branch responsibility, please take the necessary steps to implement the change.

3. Provision of leased circuit also comes under the agreement and will affect our annual rental bills. This point should be noted by higher authority.



(E.J. SEMMENS)
COMMANDER, RCN
DIRECTOR OF NAVAL COMMUNICATIONS.

Directorate of Naval Communications.

[Faint stamp]
JWJ/DF

NSS 1315-1
NSS 1300-166/10
(STAFF)

- ROYAL CANADIAN NAVY -

, Ontario.

BEST AVAILABLE COPY

21 DEC 1961

MARITIME MOBILE FREQUENCIES EMERGENCY OPERATIONS

Reference: (a) NSS 1300-166/10 (STAFF) dated 13 December, 1961.

Reference is made to item 14 of reference (a), concerning a requirement for four Maritime Mobile frequencies for ship-shore-ship communications between ships and Maritime Headquarters.

2. The frequencies 4188, 4212, 6282, and 6318 kc/s, with a maximum power of 500 watts and 0.1A1 emission are assigned for this purpose.

3. It is noted that these are not exclusive assignments, but are also used as working frequencies for low traffic ships in accordance with Article 32 of the International Telecommunications Union, Radio Regulations, (Geneva 1959).

4. These frequencies may be used to meet exercise requirements subject to prior approval of Naval Headquarters.

[Signature]
NAVAL SECRETARY.

Maritime Commander Atlantic.

Copy to: Chief of the Air Staff.
Flag Officer Atlantic Coast.

mo
21.12.61
AK

CAS for concurrence. Concurred by telephone - see 1315-1

JIG/DE
SECRET

NSS 1300-166/10 (STAFF)

19 December, 1961.

MEMORANDUM TO: Director of Communications (RCAF) *sent loose*

BROADCAST CONTROL OF AIRCRAFT BY MEQs

- References: (a) NSS 1300-166/10 (STAFF) dated 7 December, 1961.
(b) RCAF Operation Order 302/61 (Revised).

In item 3 of reference (a) it is noted that the Steering Group on Maritime Communications agreed that the RCAF should be advised of the security aspects of receiving live traffic on broadcast LR for airborne KWR 37 trials.

2. Due to a shortage of trained dockyard technicians in the Atlantic Command, it will not be possible to commence on-line operation of broadcast LR by 8 January, 1962. The new target date is 1 July, 1962.

3. The present schedule of test runs on this broadcast will continue until on-line-operation is implemented. In view of the proposed completion date of the airborne trials, it appears that it will not be necessary to copy live traffic.

Original Signed by
E. J. Semmens
(E.J. SEMMENS)
COMMANDER, RCN
DIRECTOR OF NAVAL COMMUNICATIONS.

SECRET

S E C R E T

Our file ref.

JLG/DF

NSS 1300-166/10
(STAFF)

DEPARTMENT OF NATIONAL DEFENCE

- ROYAL CANADIAN NAVY -

OTTAWA

13 DEC 1961



MINUTES OF THE STEERING GROUP ON MARITIME COMMUNICATIONS

ENCLOSURE: (A) NSS 1300-166/10 (STAFF) dated 7 December, 1961.

Enclosure (A) is forwarded for information.

J. Cosh
NAVAL SECRETARY.

- Maritime Commander Atlantic. - 2 copies
- Maritime Commander Pacific. - 2 copies
- Flag Officer Atlantic Coast. - 2 copies
- Flag Officer Pacific Coast. - 2 copies
- Air Officer Commanding, Maritime Air Command. - 2 copies
- The Directors, Joint Maritime Warfare School. - 2 copies
- The Officer-in-Charge, Communication Division Fleet School,
HMCS CORNWALLIS. - 2 copies
- Naval Member Canadian Joint Staff, (LONDON). - 2 copies
- Naval Member Canadian Joint Staff, (WASHINGTON). - 2 copies
- Chief of the Air Staff. - 1 copy

S E C R E T

JLC/DF

SECRET

NSS 1300-166/10 (STAFF)

11 December, 1961.

MEMORANDUM TO: Director of Communications (RCAF)

*Sent loose
12/12/61
JLC*

MINUTES OF STEERING GROUP ON MARITIME COMMUNICATIONS 3/61

ENCLOSURE: (A) Minutes of Steering Group on Maritime
Communications 3/61 held 6 December, 1961.

Four (4) copies of enclosure (A) are forwarded for
your information and retention.

Creech
(G. L. Creech) LCDR. RCN
SECRETARY.
Steering Group on Maritime Communications.

SECRET

SD 1125

CONFIDENTIAL

Our file ref. NRWC 1300-1

DEPARTMENT OF NATIONAL DEFENCE



CANADA

Reply to
Naval Member

2450 Massachusetts Ave., N.W.
Washington 8 D.C.
U.S.A.

7 December, 1961

RADIO EQUIPMENT AND CIRCUITS - U.S. NAVAL STATION ARGENTIA

Reference: (a) NSC 1300-166/10 (STAFF)
dated 1 December, 1961

*Enclosure retained
by DAs com.*

no Enclosure: (A) OPNAVINST 02010.3 -
Enclosure (1) U.S. Naval Station
Argentina, Newfoundland

Submitted for the information of Naval Headquarters
as requested in reference (a), is enclosure (A).

2. This enclosure, which was received informally, may
be incorrect in some details, but it is believed that the major
part of it is accurate. The latest changes to circuits and
frequencies in use at Argentia will be shown in JANAP 195.

*12-12
DN COM
157-112*

[Signature]
COMMODORE

The Naval Secretary

[Signature]

Referred to	<i>Staff</i>
DEC 11 1961	
File No.	<i>C1300-166/10</i>
Sent to	<i>DN.COM. 29/7</i>

CONFIDENTIAL

S95C-116 TD1305P (DCom)

MEMORANDUM

4 Dec 61

Your NSS 1300-166/10(Staff) Vol 2
4 Oct 61

DNCom

Communications - Joint Maritime -
Division of Service Responsibilities

This confirms RCAF Telecommunications staff concurrence in the draft amendment to Joint Organization Orders 28 and 29, attached to your referenced memorandum.


(AC Bowes) W/C
DCom
2-5302

Directorate of Naval Communications.

~~SECRET~~
PW/DF

NSS 1300-166/10
(STAFF)

PA.
SD. 745

- ROYAL CANADIAN NAVY -

, Ontario.

4 DEC 1961

MARITIME COMMAND ATLANTIC
COMMUNICATION REQUIREMENTS

- References: (a) MCACS 1300-1 dated 8 February, 1961.
- (b) NSS 1300-166/10 (STAFF) dated 18 April, 1961.

Recommendation (h) of reference (a) includes the provision of alternative LF transmitters in the Atlantic command to cover the possible loss of Newport Corner. Reference (b) replied that, although it was extremely doubtful if alternative LF transmitters could be provided, Naval Headquarters would review the problem.

2. As a result of this study, it has been determined that the cost of installing a 10 KW low frequency transmitter at a suitable site (other than Newport Corner) would be in the order of \$450,000. After installation, regular maintenance would be needed to ensure reliable service.

3. In view of the cost, the installation of an alternative LF transmitter is not approved.

DIRECTOR
NAVY
NOV 15 1961
COMMUNICATIONS

DEPUTY NAVAL SECRETARY
(STAFF)

[Signature]
NAVAL SECRETARY.

To DMO
For Despatch
Date 4-12-61
Initials AK

Maritime Commander Atlantic.

Copy to: Chief of the Air Staff.

D Com (RCAP) *[Signature]* 20 Nov
DGEE DSE *[Signature]* 24/11
ACNS (A&M) for concurrence.
DN Plans *[Signature]* 24/11
ACNS (Plans) *[Signature]* 24/11
VCNS *[Signature]* 24/11

~~SECRET~~

2586

000381

Dep Sec Staff
for signature.

Records 57.20(16)(e)
refers.

1 Cook
Sec (H-w)
29/11

Directorate of Naval Communications.

~~CONFIDENTIAL~~
JLC/DF

HSC 1300-166/10
(STAFF)

- ROYAL CANADIAN NAVY -

, Ontario.

BEST AVAILABLE COPY

719 DEC 1961

RADIO TRANSMITTING AND RECEIVING EQUIPMENT -
NAVAL STATION ARGENTIA

Naval Headquarters is studying emergency plans for the Maritime Command Atlantic. No information is available on the communication facilities at Naval Station Argentia.

2. It is requested that details of radio equipment installed and circuits maintained at Naval Station Argentia be forwarded.

DEPUTY NAVAL SECRETARY
(STAFF)

R. Mc 30/11 Dep Sec Staff
NAVAL SECRETARY.

To Tmo
For Despatch
Date | 12 6/1
Initials AK

Naval Member Canadian Joint Staff, (WASHINGTON).

A/CNS (A.W) W 29/11

veas

~~CONFIDENTIAL~~

DIRECTORATE
NOV 27 1961
COMMUNICATIONS



DEPARTMENT OF NATIONAL DEFENCE

ROYAL CANADIAN NAVY

Office of the Flag Officer Atlantic Coast
Fleet Mail Office
Halifax, N.S.

ORIGINAL DAMAGED

NOV 10 1961

COMMUNICATIONS - SHIP/SHORE RATT

W Enclosure: (A) WTAL 9810-189/163 dated
20 October 1961

Enclosure (A) is submitted for the
information of Naval Headquarters.

2. A marked decrease in ship-shore RATT
occurred during August. Squadron Commanders and
Commanding Officers were advised of this decrease
and a noticeable increase in September resulted.
The lower totals during August and September can
be attributed in part to more ships in harbour,
leave period, maintenance, etc.

15-11
DW COM

M. Handyside
REAR ADMIRAL

The Naval Secretary

Copy to: Senior Canadian Officer Afloat(Atlantic)

Officer-in-Charge,
Albro Lake Naval Radio Station

Referred to...	<i>Staff</i>
NOV 14 1961	
File No.	<i>1300-166/10</i>
Chgd to...	<i>DW.COM 29/000384</i>

PA *eye*

SECRET

NSS 1300-166/10 (DGFE)

perused
11/12/61

MEMORANDUM TO: DNCOM

RCAF TYPE GT-28 10.KW. L/F TRANSMITTERS
R.C.N. ACQUISITION AND RE-INSTALLATION

- References:
- (a) DNCOM Note on Reference (b) dated 24 October, 1961.
 - (b) DCOM Minute dated 19 October, 1961.
 - (c) NSS 1300-166/10 (DGFE) dated 19 October, 1961.

Enclosure:(A) RCAF Type GT-28 L/F Transmitter Acquisition Discussion.

Enclosure (A) is forwarded as requested in Reference (a) and is based only on a short perusal of the relevant R.C.A.F. Engineering Order for the GT-28 equipment. No further consideration is intended at this time.

2. The acquisition and re-installation of the GT-28 equipment cannot be recommended without a detailed investigation. It is considered that there will be no cost advantage and very likely no time advantage when compared with the provision of a new installation including new transmitter.

3. Consequently the cost approximation contained in Reference (c) should not be significantly altered.

S.E. Paddon
for (S.E. Paddon)
Captain, RCN

DIRECTOR GENERAL OF FIGHTING EQUIPMENT.

OTTAWA,
6 November, 1961.

SECRET

ENCLOSURE (A) TO: NSS 1300-166/10(DGFE)
dated 6 November, 1961.

RCAF TYPE GT-28 L/F TRANSMITTER
DISCUSSION

1. GENERAL:

(a) The Engineering Order for the R.C.A.F. Type GT-28 10. kilowatt low-frequency radio transmitter has been studied briefly. The equipment was designed to cover a frequency range of 80. to 200. kc/s.

(b) The equipment design appears to date from the late 1930's and is basically sound for that period. As a consequence, the equipment was intended for Al c.w. telegraphy operation exclusively. The R.C.A.F. has apparently performed certain modifications chiefly to the Antenna Matching Unit to permit reasonably satisfactory narrow-shift F1 emission (40. cps shift \pm 20 cps deviation) using the existing antennas.

(c) The equipment is fairly large physically and it lacks a number of instrumentation features which R.C.N. experience has shown to be almost essential. Consequently a number of modifications should be excepted if the equipment is to be re-installed in a new site and the whole is to form a fairly balanced investment.

2. EQUIPMENT CONDITION:

It is assumed that the equipment has had good maintenance and is in first-class condition. Consequently a large equipment repair and overhaul bill would not be expected. Such requirements cannot be predicted without careful assessment of the specific equipments.

3. TRANSMITTER MODIFICATIONS:

The modifications to the transmitter would likely take the following form:

- (a) revision of the P.A. tank circuit to a single-Pi and different form of harmonic filter (or possibly double-Pi) in lieu of the inductive link coupling and shunt filter system. This would likely be required in order to provide a more symmetrical variation of plate load impedance over the operating bandwidth for F1 operation (assuming that conditions at the antenna end of the transmission line are satisfactory.)
- (b) provision of a 3-shot high-speed output-V.S.W.R.-actuated carrier interruption system. This is required for clearing incipient flashovers with F1 operation.

...../2

- 2 -

3. TRANSMITTERS MODIFICATIONS:(CONT'D)

- (c) provision of a P.A. tank phase indicator to simplify observation of tuning drift with minimum interruption of traffic service.
- (d) provision of V.S.W.R. indication at both the transmitter and in the antenna tuning house. This device would also act in (b) above. The device is necessary to minimize the risk of gross tuning errors in the system and to simplify and accelerate tuning correction. ~~Such a device would obviate the necessity.~~ Such a device would obviate the necessity for using impedance bridge equipment under most circumstances.
- (c) modification of the P.A. stage bias conditions to provide a reasonable static plate current (approx. 50% of the maximum plate dissipation)
 - (i) to improve main supply regulation conditions when using A1 emission.
 - (ii) to improve 892-R P.A. tube life under prolonged "hot" standby conditions.
- (f) replacement of the existing crystal oscillator stage with a new unit meeting modern frequency stability requirements for A1 operation.

4. FREQUENCY-SHIFT EXCITATION EQUIPMENT

The existing F.S. excitation equipment is either the Northern Radio Co. Model 109 or the Technical Material Corp. Model XFL. This equipment should be replaced with a unit having a higher order of frequency and frequency-shift stability such as the Topping Model FSE now in use in the R.C.N. L/F installations.

5. REMOTE CONTROL SYSTEM

The existing remote control system would require modification in order to provide all necessary switching functions. This is necessary if partially-unattended operation is required.

6. ANTENNA SYSTEM

Any new installation should require a new antenna capable of providing the essential performance to meet the operational requirement. In any case it must be satisfactory for the NATO L/F F1 emission standard which is 85. cps shift (plus/minus 42.5 cps deviation) with an information rate up to 75 bauds. Assuming the lowest frequency of 80. Kc/s, a target antenna efficiency of 50% and adequate bandwidth, it appears that a 600. to 700 feet high umbrella-loaded vertical antenna with an adequate ground system should be satisfactory. There should be no particular problem in achieving an adequate dynamic stability under adverse weather conditions except in some severe coastal areas. The antenna should preferably be fed as a folded unipole as in the recent R.C.N. L/F installations.

...../3

000387

- 3 -

7. ANTENNA TUNING NETWORK

(a) Inspection of the tuning network indicates that it is intended for antennas having fairly high values of both R and X with 3 ohms being mentioned as the lower limit of R. The original network has been modified by the R.C.A.F. to provide improved matching to the existing antennas for F1 operation using 40. cps shift. The network appears to have an excessive number of reactive elements which would contribute to the bandwidth problem. Some of the main inductors and variometers arrangement might be salvaged and reworked for use with a fairly high-efficiency antenna. However this would require a careful study of the existing parts.

(b) The final form of the antenna network would require:

(i) a phase indicate to simplify touch-up antenna tuning

(ii) a VSWR Indicator to simplify and accelerate tuning procedures without requiring specialized test equipment. See paras. 3 (b) and (d).

8. EQUIPMENT PACKING AND RE-INSTALLATION

(a) If a decision is made to utilize the existing GT-28 equipment, then the equipment must be carefully assessed and checked out, in situ. The equipment must then be carefully dismantled and plan packed with all separate parts and assemblies carefully identified.

(b) It is considered that this should be done by a competent contractor who should preferably hold an overall contract and full responsibility for modification, repair and overhaul. The same contractor should also have prime responsibility for producing a completely satisfactory final installation.

9. SPARE PARTS

The RCAF would likely turn over an adequate stock of parts peculiar from their holdings. It is likely that these would be chiefly electronic parts. Therefore, for protection against damaged or faulty mechanical parts and assemblies, a second equipment should be available as a source of non-stock parts peculiar.

...../4

- 4 -

10. NEW 10.Kw TRANSMITTER-COST

The cost of a new 10. Kw. transmitter meeting all requirements in the frequency range of 100. to 160. Kc/s is approximately \$60,000. The Antenna Matching Network complete with house and all auxiliary items would cost approximately \$150,000.

11. GT-28 RE-INSTALLATION - COST

It is extremely doubtful if the cost of a re-installed and re-worked GT-28 equipment would be less than that for a new TE-2159 equipment. A fairly large amount of the cost would be taken in direct non-productive engineering charges.

PA-

SECRET
JLJC/DF

NSS 1654-2
NSS 1300-166/10
(STAFF)

- ROYAL CANADIAN NAVY -

Ontario
31 OCT 1961

COMMUNICATION REQUIREMENTS FLAG OFFICER ATLANTIC COAST -
EMERGENCY DEFENCE PLAN (EDLANT)

References : (a) ACS 1400-1 Sub 1 dated 28 March, 1961.

(b) NSS 1654-2; NSS 1300-166/10 (STAFF) dated 2 May, 1961.

Reference (a) is approved in principle. Any measure involving financial expenditure must, however, be approved by Naval Headquarters prior to implementation.

2. Naval Headquarters is studying the requirements for land line and micro wave keying facilities to support both the Flag Officer Atlantic Coast and the Maritime Commander Atlantic. In the event that these facilities are not available at the declaration of an alert any available commercial services may be pre-empted under the authority of the National Defence Act.

3. When the installation of AN/PRT 507 and AN/PRT 501 at Eastern Passage is completed, five AT 3 transmitters will be returned to Naval Supply Depot, Halifax. These will be marked "strategic reserve" and will be available for use on the NOIC net.

4. It is not intended to provide a transportable HF transceiver for use at CANAS on the rearguard net. Equipment normally used on the CANAS-CHEZZETCOOK net should meet this requirement.

To Fmo
For Despatch
Date 31-10-61
Initials AK

L.R.B.
NAVAL SECRETARY.

INDEXED 1302
OCT 31 1961
COMMUNICATIONS

Flag Officer Atlantic Coast.

DN Plans - DCFE *for* for concurrence.

for
DSL 18/10

SECRET

P.A. **CONFIDENTIAL**

Directorate of Naval Communications

NS 1300-166/10
(Staff)
S.D. 1122

HH/jl

Royal Canadian Navy

Canada,
27 OCT 1961

SELECTIVE CALLING ON RATT HARBOUR
COMMON (UHF) CIRCUIT L7(a)

Reference: (a) ACS 7400-1 ACS 1868-1 Sub. 1
dated 5 October, 1961.

The Plessey Selective Calling Device
has been investigated to determine the practical
and economic aspects to the application suggested
in Reference (a).

2. It has been concluded that insufficient
advantages would be obtained to justify its intro-
duction.

P.B.
NAVAL SECRETARY

Flag Officer Atlantic Coast.

Copy to: Flag Officer Pacific Coast.

DIRECTOR
NAVAL
COMMUNICATIONS
OCT 20 1961

To Tmo
For Despatch
Date 27-10-61
Initials AK.

CONFIDENTIAL

SD. 1344

Directorate of Naval Communications.

~~CONFIDENTIAL~~
JLC/DF

NSC 1300-166/10
~~(STAFF)~~

- ROYAL CANADIAN NAVY -

Ontario.

24 OCT 1961

STEERING GROUP ON MARITIME COMMUNICATIONS MEETING 3/61

The 3/61 meeting of the Steering Group on Maritime Communications will be held 6 December, 1961.

- 2. Any items for inclusion in the agenda are to be forwarded by 20 November.
- 3. It is not intended to invite observers from the Commands for this meeting. Minutes will be forwarded for information.

R.C.
NAVAL SECRETARY.

Maritime Commander Atlantic.

Maritime Commander Pacific.

Copy to: Chief of the Air Staff.

To DMO

For Despatch

Date 24-10-61

Initials N.R.

DIRECTOR

[Signature]

OCT 23 1961

COMMUNICATIONS

CONFIDENTIAL

WTAL: 9810-189/163.

Albro Lake Naval Radio Station.

20 October, 1961.

COMMUNICATIONS - SHIP-SHORE RATT

Reference: (a) ACP 127(B) RCN Supp. #1.

Submitted for information of Flag Officer Atlantic Coast is the following report on Ship-Shore RATT communications for the first six months of operation in accordance with reference (a).

2. These statistics are based on the operator records compiled at this station.
3. The percentage of Naval Messages received via Ship-Shore RATT during the period was 23.5%.
4. The percentage of unsuccessful attempts due to propagation difficulties, poor signals, interference, etc. was 12.4%.
5. A marked advantage is being realized in the handling of long, detailed technical messages by RATT and the associated overall decrease in operating errors.


LIEUTENANT-COMMANDER,
OFFICER-IN-CHARGE.

Flag Officer Atlantic Coast.

SIX MONTH SHIP / SHORE RATT REPORT

	<u>APR</u>	<u>MAY</u>	<u>JUN</u>	<u>JUL</u>	<u>AUG</u>	<u>SEP</u>	<u>TOTAL</u>
NO. OF SHIPS USING RATT	17	19	11	15	9	18	89
NO. OF ATTEMPTS	275	327	256	133	46	120	1157
TIMES UNACCEPTABLE	41	23	29	24	2	25	144
NO. OF MSGS RCVD 4 Mcs	120	20	9	39	41	30	259
6 Mcs	354	454	410	262	86	220	1786
8 Mcs	26	235	144	11	18	18	452
12 Mcs	6	26	8	5	-	6	51
16 Mcs	<u>1</u>	<u>-</u>	<u>2</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>3</u>
TOTAL MSGS. RCVD	507	735	573	317	145	274	2551

INDIVIDUAL SHIP BREAKDOWN
MSGS. PER MONTH

	<u>APR</u>	<u>MAY</u>	<u>JUN</u>	<u>JUL</u>	<u>AUG</u>	<u>SEP</u>
ALGONQUIN	13	45	-	-	51	50
ATHABASKAN	-	52	-	-	5	-
BONAVENTURE	170	132	287	39	-	21
CAYUGA	-	-	-	-	-	-
CHAUDIERE	-	22	-	121	-	32
COLUMBIA	22	33	158	2	-	8
CRESCENT	19	3	16	15	-	-
GATINEAU	-	-	-	-	-	-
HAIDA	7	45	17	-	9	41
HURON	26	97	-	-	-	14
IROQUOIS	-	-	14	6	-	-
KOOTENAY	-	-	-	-	-	-
MICMAC	-	-	-	-	-	-
NOOTKA	2	-	-	1	-	-
RESTIGOUCHE	87	-	-	-	-	10
ST. CROIX	12	154	49	60	-	10
SIOUX	-	-	-	-	-	-
TERRA NOVA	21	80	-	43	-	-
BUCKINGHAM	-	1	-	-	-	-
CAP DE LA MADELEINE	30	9	12	10	17	3
FORT ERIE	17	4	-	3	-	-
INCH ARRAN	50	-	-	-	-	-
LA HULLOISE	-	-	-	-	-	-
LANARK	3	-	3	11	6	1
LAUZON	-	19	4	-	-	-
NEW WATERFORD	11	-	13	-	4	1
OUTREMONT	-	20	-	-	7	2
SWANSEA	11	18	-	14	-	-
VICTORIAVILLE	-	-	-	-	-	-
CAPE SCOTT	-	-	-	2	3	-
USS ESSEX	-	-	-	-	37	-
KAREL DOORMAN(DUTCH)	-	-	-	-	-	55
SHIPS USING INDEFINITE CALLSIGNS	6	-	-	-	-	3

DEPARTMENT OF NATIONAL DEFENCE

MINUTE SHEET

Referred to

REMARKS

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

~~D/DNCom~~

RCAF has four GT-28 transmitters (10 KW, 80-200 kc/s, telegraph) plus a considerable quantity of spares. Characteristics are described in accompanying EO.

DGFE (DSL)

Prospects of continued use in RCAF appears dim, and it is possible that some or all of the GT-28s, plus spares, will be up for grabs in the near future.

*Please comment
Could one of these
be used as the
alternate TX?*

At the moment, transmitters are installed at Goose Bay, Naino (Edmonton) St Margarets NB (loaned to RCAF for transAT RTT trials) and St Hubert Que.

*J
f-DWCCY
24-10*

The one at Goose might be considered as back-up for Hfx fleet broadcast (or extension of cover - into Davis Strait, for instance. One or more of the remainder may have MARPAC applications. Or, as J Creech suggests, there may be a requirement at Frobisher.

If enquiry sparks any RCN interest in these transmitters, please let me know, and I will raise formal correspondence

H
(HF Holgate) S/L
Com 2-2
67854

19 Oct 61

SECRET

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

NSS 1300-166/10(DGFE)

MEMORANDUM TO: DN COM

ALTERNATE L/F TRANSMITTER INSTALLATION
ATLANTIC COMMAND

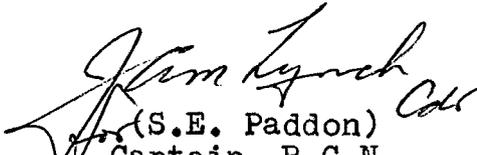
Reference: (a) NSS 1300-166/10(STAFF) dated 6 October, 1961.

Enclosure: (A) Alternate L/F Transmitter Installation Discussion
of Operational Factors.

Enclosure (A) is forwarded as requested in
Reference (a).

2. It is apparent that the operational requirements for such an installation are essential before any reasonably accurate cost estimate can be made. For a high power installation particularly, it will be necessary to have a competent engineering study made in order to determine the detailed technical requirements.

3. It is pointed out that the lead time can be very lengthy.


(S.E. Paddon)
Captain, R.C.N.

DIRECTOR GENERAL OF FIGHTING EQUIPMENT.

O T T A W A ,
19 October, 1961.

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ENCLOSURE (A) TO NSS 1300-166/10(DGFE)
DATED 19 OCTOBER, 1961

ALTERNATE L/F TRANSMITTER INSTALLATION - EAST COAST DISCUSSION OF OPERATIONAL FACTORS

1.0 GENERAL.

- 1.1 DN COM has proposed the investigation of the provision of an alternate low-frequency radio transmitter installation in the Atlantic Command at a site other than Newport Corner. The installation is intended to supplement the L/F facilities at Newport Corner for shore-to-surface ship broadcast services. The requirement has been suggested by CANCOMARLANT and is based on a need for dispersal of important transmission facilities.
- 1.2 The existing R.C.N. low-frequency transmitting facilities installed at Newport Corner Naval Radio Station are summarized as follows:

		POWER (Kw)		FREQ.	RANGE	SERVICE
		OUTPUT	RADIATED	(Kc/s)	(miles)	
(a)	TE-147K	250.	160.	73.6	2000	RATT BCST "LR"
(b)	TE-343J	25.	6.	115.3	1000	CW BCST "L"
(c)	TE-2159AL	10.	5.	133.15	900	BACKUP FOR (a) & (b).

Comparable facilities are not available in other establishments in Eastern Canada.

2.0 COVERAGE - RADIATED POWER - LOCATION

- 2.1 The basic consideration with respect to coverage of an L/F installation is radiated power and the transmission paths involved. DN COM has suggested that the requirement should be based on a 10. Kw. installation. For a 10. Kw. transmitter installation, a radiated power of some 4.0 to 5.0 kilowatts may be expected. Such an installation would employ a 450 feet high umbrella-loaded vertical mast for a lower frequency limit of 100 Kc/s. The 4.0 to 5.0 kilowatts radiated power could be expected to provide reliable shipboard reception out to some 900 miles using F1 emission. This estimate is based on the installation located in Nova Scotia and the fact that a considerable land path is involved along bearings North of approximately 060 degrees True. A good margin of signal-to-atmospheric noise ratio must be maintained to ensure reliability of reception.
- 2.2 It is suggested that the 900 miles range from a western Nova Scotia site falls short of providing coverage of the operational area. An inspection of the North Atlantic area indicates that the coverage requirement should be at least 1500 miles. This order of coverage would necessitate a radiated power of some 25 to 30 kilowatts.

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- 2 -

Further assumptions would demand that the transmitter output power be not less than 75 kilowatts. For a western Nova Scotia site this requirement cannot be scaled down without acknowledging a reduction of reliable coverage.

- 2.3 It is apparent that Eastern Newfoundland is some 500 miles closer to the centre of the operational area than the Halifax area. It is estimated that a 10 kilowatt installation on the Avalon peninsula could provide reliable coverage for a distance of virtually 1500 miles. The added improvement results from the fact that all important paths are almost completely over seawater.

3.0 FREQUENCY RANGE AND CHANGE

- 3.1 Possible frequency assignments should be carefully investigated. The frequency range requirement should not be unnecessarily broad as this affects transmitter and antenna tuning system cost and complexity. Presumably any assignments would be less than 160 Kc/s, the upper end of the useful coast station band. The lower limit is a major parameter affecting overall cost.
- 3.2 Normal frequency assignments for the installation should be clear and not interfere with other services. It should permit tuning, testing, operation, etc., at any time when the equipment is not in traffic service. It is most undesirable that the equipment should lie dormant for protracted periods.
- 3.3 The question of any rapid frequency-changing requirement must be considered. None of the existing R.C.N. high-power L/F installations are capable of rapid frequency change. Such changes could be expected to take several hours assuming that fully experienced personnel are available at the site. The provision of rapid frequency changing is expensive and complicated and therefore should not be incorporated unless the requirement is firm.

4.0 TYPE OF EMISSION

- 4.1 It is understood that both A1 and F1 types of emission are required. The F1 requirement would presumably be plus/minus 42.5 cps deviation with a keying speed of 75 bauds. The F1 bandwidth requirement in conjunction with the lowest operating frequency and the antenna efficiency target will determine the required antenna characteristics and form.

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- 3 -

4.2 An AI emission requirement necessitates examination of the supply regulation problems. This is often of only passing concern in a station which has a large basic continuous power load. In a station which has only one large transmitter, the keying fluctuations could be as large as 75% of the maximum demand. This type of service can be serious particularly for a standby emergency engine-driven generator. Special technical measures can be taken to provide improved load regulation but it is expensive and wasteful of energy.

5.0 REAL PROPERTY

5.1 For a 10 kilowatt installation operating at frequencies higher than 100 Kc/s, the recommended arrangement would require a cleared area approaching 35 acres. Such a space requirement is also valid for a 75 to 100 kilowatt installation at frequencies down to 100 Kc/s. At 50 Kc/s a comparable antenna system may require an area up to 200 acres.

5.2 No sites have been investigated; however it is considered unlikely that existing R.C.N. or R.C.A.F. establishments in Eastern Canada can provide the required space within existing boundaries. It is considered that an appropriate site may be found in the vicinity of CORNWALLIS or RCAF Station, GREENWOOD. It is understood that these establishments have been designated as alternate MHQ's. Control from the main MHQ or the above alternates on a demand basis would be feasible at reasonable cost.

5.3 It is possible that a suitable site may be found near Torbay which is also an alternate MHQ. However, the environmental conditions in this area are severe for high structures. Control of the installation from the main MHQ and the other alternate MHQ's will be difficult in terms of reliability. Continuous availability of the control circuits will be very expensive.

6.0 REMOTE CONTROL OF ALTERNATE INSTALLATION

6.1 Based on the experience obtained with the TE-2159AL installation at Newport Corner, it is considered that unattended operation and remote control of all functions may be considered after the initial installation problems have been corrected. Consequently, the installation could be served by a staff of two borne by a nearby establishment. Only one member need be a fully qualified experienced technician. The personnel need normally only be available during the working day. It is pointed out that two persons must be present when maintenance or repair work is being carried out. This is a safety requirement. It is considered that adequate frequency stability is provided by currently available excitation equipment to reduce frequency measuring to once per day.

SECRET

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- 4 -

6.2 It is more difficult to make a firm statement with regard to a 75 Kilowatt installation since the overall complexity is much higher. As the plant investment is high, it is considered that the services of a staff of 10 or 12 is justified.

7.0 COST ESTIMATES

7.1 The following cost figures are forwarded on a tentative preliminary basis only:

- | | | |
|-----|---|--------------|
| (a) | 10 Kw Transmitter Installation
100 to 160 Kc/s A1, F1, emission,
4-5 Kw radiated power. | \$ 450,000. |
| (b) | 75 Kw Transmitter Installation
100 to 160 Kc/s A1, F1 emission,
30 Kw radiated power. | \$2,000,000. |

7.2 It is emphasized that these figures are indicative of order only and do not represent any detailed consideration of the various factors involved.

SECRET

EJS/DF

NSS 1654-2
NSS 1300-166/10 (STAFF)

May CR PPa

16 October, 1961.

MEMORANDUM TO: DGFE

COMMUNICATION REQUIREMENTS EMERGENCY DEFENCE PLAN

- References: (a) NSS 1654-2; NSS 1300-166/10 (DGFE) dated 19 July, 1961.
- (b) NSS 1654-2; NSS 1300-166/10 (STAFF) dated 24 April, 1961.
- (c) ACS 1400-1 Sub 1 dated 28 March, 1961.

A further study of reference (c) and discussion with the Staff Officer (Communications), Flag Officer Atlantic Coast indicates that the requirements noted in reference (b) were excessive.

2. The five AT 3 transmitters now at Eastern Passage will be returned to Naval Supply Depot, Halifax, earmarked for "strategic reserve" when the installation of AN/FRT 501 and AN/FRT 507 has been completed. By local re-allocation of equipment now in the Atlantic Command and use of the AT3s, HF requirements can be met. No new UHF equipment will be provided for local command nets. UHF for air-ground-air circuits at remote air fields will be provided by CANAS under their EDP.
3. It was understood from the above mentioned discussions that there are no complement implications. Equipment and some spares will be crated and stored at chosen sites. It is not intended that regular routines be carried out prior to execution of the EDP.
4. Space has been found in existing naval or D.O.T. facilities. There are no requirements for new buildings or building alterations.
5. Permanent antennae installations are not required. When the equipment is set up emergency antennae arrangements will be used.
6. Power sources available at the chosen sites provided by the Nova Scotia Light and Power Company will be used. No emergency generating facilities will be provided.
7. It is not intended that equipment be procured and fitted prior to declaration of an emergency. For this reason I do not consider it necessary to get staff approval for this programme. All equipment required is now either in place or available in the Command.
8. Although I agree with your comments in (a) on the limitations of AN HF net I am prepared to accept these limitations noting that this is for emergency operation only.

Original Signed by
E. J. Semmens

(E.J. SEMMENS)

COMMANDER, RON

DIRECTOR OF NAVAL COMMUNICATIONS.

SECRET

NSS 1300-166/10 (STAFF)

6 October, 1961.

MEMORANDUM TO: DGFE (DSL)

ALTERNATE TRANSMITTERS FOR ATLANTIC COMMAND

- References: (a) MCACS 1300-1 dated 8 February, 1961.
(b) Minutes of 2/61 meeting of the Steering Group on Maritime Communications.

In his paper on communication requirements (reference (a)) CANCOMARLANT included back-up LF and HF transmitters to be installed at sites other than the main RCN and RCAF transmitting stations.

2. Insofar as HF transmitters are concerned the RCAF augmentation scheme, the DOT plans for Camperdown plus existing RCN facilities assure a reasonable dispersal already. The Steering Group on Maritime Communications agreed with this view at its 2/61 meeting but thought there was still a requirement for an alternate LF transmitter at some site other than NEWPORT CORNER.
3. My view is that the problem should be referred to Naval Staff and possibly to Naval Board for a decision. We should then inform the Maritime Commander of this decision. Before doing so I must have an estimated cost of such a project.
4. Using a 10 KW LF transmitter as a base, please estimate (very approximately) the cost of a new installation at a site other than NEWPORT CORNER. The possibility of using an existing DND site should be considered in addition to a brand new site.



(E.J. SEMMENS)
COMMANDER, RCN

DIRECTOR OF NAVAL COMMUNICATIONS

SECRET

CONFIDENTIAL

ACS: 7400-1
ACS: 1868-1 Sub. 1



DEPARTMENT OF NATIONAL DEFENCE

ROYAL CANADIAN NAVY

Office of the Flag Officer Atlantic Coast
Fleet Mail Office
Halifax, N.S.

OCT 5 1961

BEST AVAILABLE COPY

SELECTIVE CALLING ON RATT HARBOUR COMMON
(UHF) - CIRCUIT L7(a)

Reference: (a) NSC 1300-166/10 (Staff) dated 29 August, 1961.

Submitted for the consideration of Naval Headquarters that information is requested giving details of the Selective Calling Device (manufactured by Plessey) presented in paragraph 2, item 4 of reference (a).

2. It is believed this device might provide a practical adjunct to ships guarding circuit L7(a) in selecting stations called instead of operating all circuit teleprinters each time a circuit transmission is made. Selective calling would provide undoubtedly an effective economy in teletype paper.

3. Information is also desired whether it appears feasible to operate such a device in conjunction with the KW7 on-line equipment.

4. Subject to the foregoing, it is intended if this device can be used that trials be conducted at an early date.

*1110
D/Leon*

W. Handyside
REAR ADMIRAL

The Naval Secretary

Copy to: Flag Officer Pacific Coast

RECEIVED BY	<i>Staff</i>
DATE	OCT 16 1961
FILE NO.	<i>C1300-166/10</i>
DATE	<i>D/Leon 29/8/61</i>

CONFIDENTIAL

PFW/DF

NSS 1300-166/10 (STAFF)
Vol. 2

4 October, 1961.

MEMORANDUM TO: Director of Communications

SERVICE RESPONSIBILITIES FOR PROVISION OF
COMMUNICATIONS FACILITIES IN MARITIME COMMANDS

References: (a) 951-1 (D Com) dated 21 August, 1961.
(b) Minutes of the 2/61 meeting of the
Steering Group on Maritime Communications,
Item 11.

ENCLOSURES: (A) NSC 1300-166/10 (DGFE) Vol. 2 dated 27
September, 1961.
(B) Joint Organization Order 28
(C) Joint Organization Order 29

Since our initial discussions on this subject early in the year CANCOMARLANT's communicator has complained at meetings of the Steering Group on Maritime Communications that the arrangements for maintenance in MHQ's is unsatisfactory.

2. The Director General Fighting Equipment (DGFE), who is responsible for the provision and maintenance of shore communications equipment, has examined the problems of both provision and maintenance and recommends that we try for an amendment to Joint Organization Orders 28 and 29, which are the formal documents on the establishment of Maritime Headquarters.

3. DGFE's paper and the two Joint Organization Orders are attached.

4. If you concur in the proposed amendment I will get naval agreement and refer the problem to the Chiefs of Staff Committee for approval.

ORIGINAL SIGNED BY
PAUL F. WILSON

(E.J. SIMMONS)
COMMANDER, RCN
DIRECTOR OF NAVAL COMMUNICATIONS.

CONFIDENTIAL

NSC 1300-166/10(DGFE) VOL. 2

MEMORANDUM TO: DN COM

MAINTENANCE SUPPORT FOR MHQ'S

- References: (a) NSS 1300-166/10(STAFF) dated 20 July, 1961.
(b) Second Meeting, Steering Group on Maritime Communications, Item 11.
(c) Joint Organization Order 28.
(d) Joint Organization Order 29.
(e) 951-1(D Com) dated 21 August, 1961(~~not on file~~).

Enclosure : (A) Draft Amendment to References (c) and (d).

Reference (e) is a draft agreement for provision of Communication facilities in the Maritime Commands. It is recommended that a definition of responsibilities for maintenance be added to it, and the resulting agreement be incorporated in Joint Organization Orders 28 and 29.

2. It is recommended that Enclosure (A) form paragraphs 16 to 20 of the Joint Organization Orders (necessitating the renumbering of present paragraphs 16 and 17) and that no change be made to the relevant paragraphs 7(a)(iv) and 15.

3. It is understood that D Com (RCAF) may have reservations about the wording of the proposed paragraph 20 in Enclosure (A). However, it is advanced as a starting point. If it is not entirely acceptable to him or to yourself, DSL would be pleased to continue discussions with the object of resolving the wording.

4. Implementation of Enclosure (A) will have manning implications and it is recommended that DNOM be informed of the proposed changes to the Joint Organization Orders.


(S.E. Paddon)
Captain, RCN,

DIRECTOR GENERAL OF FIGHTING EQUIPMENT.

O T T A W A ,
27 September, 1961.

CONFIDENTIAL

RESTRICTED

ENCLOSURE (A) TO NSC 1300-166/10(DGFE) VOL. 2
DATED 27 SEPTEMBER, 1961.

PROPOSED AMENDMENT TO JOINT ORGANIZATION ORDERS (JOO's) 28 AND 29

16. The RCN shall be responsible for the provision of all communication facilities required by Maritime Commanders with the exception of those specifically indicated hereunder as the responsibility of the RCAF and those which may be jointly agreed from time to time as being the responsibility of the RCAF.
17. The RCAF shall be responsible for the provision of:
- (a) all ground equipment required for air-ground-air radio links, including control consoles located in the Maritime Headquarters, but excluding cryptographic and teletype terminal equipment;
 - (b) all airborne equipment used in RCAF aircraft;
 - (c) terminal equipment at RCAF terminals of circuits serving the Maritime Commanders.
18. Notwithstanding the basic assignment of responsibilities as described in the preceding paragraphs, all Service equipment currently used in satisfaction of Maritime communication requirements shall remain in use unless its removal is jointly agreed to.
19. Facilities established primarily in support of Maritime operations may be used by either Service in satisfaction on non-Maritime requirements: e.g. a microwave link established primarily for remote keying of Maritime radio facilities may be used to provide keying circuits or command circuits supporting non-Maritime operations.
20. The RCN shall be responsible for maintenance, including preventive maintenance, of all communications facilities installed in the Maritime Headquarters. The RCAF Service Commander shall provide assistance where skills peculiar to a particular equipment are more readily available from RCAF personnel.

RESTRICTED

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NSS 1300-166/10
(STAFF)

A

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- ROYAL CANADIAN NAVY -

Ontario.

26 SEP 1961

STEERING GROUP ON MARITIME COMMUNICATIONS

- ENCLOSURES: (A) NSC 1300-166/10 (STAFF) dated 8 March, 1961.
- (B) NSC 1300-166/10 (STAFF) dated 23 June, 1961.
- (C) NSS 1300-166/10 (STAFF) dated 15 September, 1961.

In order to improve the machinery for co-ordination of maritime communication problems at the NDHQ level a permanent steering group consisting of representatives of IN Com and D Com (RCAF) was set up in February, 1961.

2. Enclosures (A) to (C), the minutes of the first three meetings of this group, are forwarded for your information. Minutes of future meetings will be forwarded in order that you may be kept abreast of NDHQ plans for the improvement of maritime communications.

DEPUTY NAVAL SECRETARY
(STAFF)
NAVAL SECRETARY.

DIRECTOR
SEP 25 1961
COMMUNICATIONS

Naval Member Canadian Joint Staff, (LONDON) - (2 copies of enclosures).

Naval Member Canadian Joint Staff, (WASHINGTON) - (2 copies of enclosures).



To Jmo ✓

For Despatch

Date 26. 9. 61

Initials AK

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Directorate of Naval Communications.

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DEPARTMENT OF NATIONAL DEFENCE

CR Navy PPa

NSS 1300-166/10
(STAFF)

JLC/DF

- ROYAL CANADIAN NAVY -

Ontario.

25 SEP 1961

MINUTES OF THE STEERING GROUP ON MARITIME COMMUNICATIONS

ENCLOSURE: (A) NSS 1300-166/10 (STAFF) dated 15 September, 1961.

Enclosure (A) is forwarded for information.

J. H. ...
NAVAL SECRETARY.

- Maritime Commander Atlantic. - 2 copies
- Maritime Commander Pacific. - 2 copies
- Flag Officer Atlantic Coast. - 2 copies
- Flag Officer Pacific Coast. - 2 copies
- Air Officer Commanding, Maritime Air Command. - 2 copies
- The Director, Joint Maritime Warfare School. - 2 copies
- The Officer-in-Charge, Communications Division, Fleet School. - 2 copies

To TMD

For Despatch

Date 25 9 61

Initials AR

S E C R E T

SECRET

CRS PA → NSS 1300-166/10 (STAFF)

21 September, 1961.

MEMORANDUM TO: Director of Communications (RCAF)

MINUTES OF STEERING GROUP ON MARITIME COMMUNICATIONS
2/61

Enclosure (A) Minutes of Steering Group on Maritime
Communications 2/61 held 13 September,
1961.

Five (5) copies of enclosure (A) are forwarded
for your information and retention.



(J. L. Creech)
ICdr. R.C.N.
SECRETARY

STEERING GROUP ON MARITIME COMMUNICATIONS.

SECRET

*Despatched
21/9/61
J. L. Creech*

000409

SECRET

PEP/DF

CR to PA NSS 1300-166/10 (STAFF)

21 September, 1961.

MEMORANDUM TO: Director of Communications
(Attention: D/Com/Com 5-2)

KWR 37 TRIALS

Reference: (a) S1950-115 (D Com) dated 15 September, 1961.

This is to confirm the proposed arrangements in paragraph 3 of reference (a). Minutes of the Steering Group on Maritime Communications 2/61 dated 15 September, 1961 (NSS 1300/166/10 (STAFF)) are relevant.

[Signature]
E. J. SIMMONS)
COMMANDER, RCN
DIRECTOR OF NAVAL COMMUNICATIONS

*Despatched to ...
21/9/61*

SECRET

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NSS 1300-166/10 (STAFF)

19 September, 1961.

ACNS (P) This may be of help in your
MMQ study W 13/10

MEMORANDUM TO: ACNS (A&J)

THE COMMUNICATION PROBLEMS INVOLVED IN
A MOBILE HEADQUARTERS SHIP FOR AN OCA

INTRODUCTION

This paper explores some of the communication problems involved in a mobile headquarters ship for an OCA.

CONSIDERATIONS

2. The principal advantage of the headquarters ship over a shore headquarters is its relative immunity to destruction by nuclear attack on prime targets ashore. The key to this immunity is mobility - the ship must move about frequently, otherwise it is more immune to nuclear attack than a shore headquarters. Protecting and screening the headquarters ship at sea is a separate, but equally serious problem.
3. Full mobility imposes communication problems of a major order because of the large number of authorities and operating forces with whom the OCA must communicate. The headquarters ship cannot possibly communicate directly with all concerned because of interference and frequency problems; however, it is possible to make use of the established shore network to support the OCA at sea.
4. With the OCA ashore, tributary circuits connect his headquarters to a focal point in the shore communication network, usually a relay centre. In this way he has access to every other station in the network. The OCA ashore controls operating forces by means of fleet broadcasts, ship-shore and air/ground/air radio circuits. He has, in effect, direct two-way communication with his operating forces.
5. To give similar service to the OCA afloat we must connect the headquarters ship to a focal point ashore by a two-way communication system of very high traffic capacity and good reliability. The ship's mobility makes us look to medium and high frequency radio communication for this main artery between the OCA afloat and the shore network.
6. We envisage the main artery communications as follows:
 - (a) shore to ship by a multi-channel, on-line, radio teletype broadcast; and
 - (b) ship to shore by a multi-channel, on line, radio circuit.
7. The broadcast method is the only reliable way of communicating from shore to a ship at sea. Although radio teletype broadcasts are available in both Atlantic and Pacific commands, the transmitter plant cannot be converted to multi-channel operation for technical reasons; it would be necessary to install new transmitters and terminal equipment ashore for this purpose. The existing broadcasts could not cope with

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- 2 -

the traffic required by the OCA afloat in addition to normal operational traffic for the fleet.

8. The multi-channel ship-shore circuit would depend to some extent on the vagaries of medium and high frequency radio communication due to ionospheric disturbances, interference, ship's position and even jamming. The use of ionospheric sounding could increase the reliability of this circuit. Since the ship (when close to shore) could be at an awkward skip distance for medium and high frequency communication, the use of low frequency should be considered in addition to ground wave radiation of medium and high frequency signals.

9. Another method which the US Navy has attempted is directional micro-wave radio communication; but here the ship must be relatively close to the shore terminal, and the afloat and ashore must be pointing at one another. This system restricts the ship's mobility and is of doubtful value unless there are numerous shore terminals available.

10. The chief disadvantage of the main artery principle is that the OCA afloat is entirely dependent on vulnerable installations ashore, in particular the radio stations and the relay centre. But so is the OCA ashore.

11. Without the support of the shore communication network the OCA afloat is more or less impotent. However, assuming the loss of the shore network, he could continue to exercise a modicum of operational control if the headquarters ship had a large quantity of high frequency radio equipment in addition to that required for the main artery communications. Using this equipment, the OCA could communicate with operating forces and shore authorities in a random fashion which would probably be better than nothing under the circumstances.

12. It is believed that the foregoing represents the US Navy views on this problem as a result of experience with USS NORTHALPTON. In addition to the main artery type of communications, the US Navy provides equipment for direct voice communication with other commanders and the normal equipment required by a ship of the class for task force group communication at sea.

13. Much more information on this subject is available in the United States and, if the RCN becomes seriously interested in a headquarters ship, we should obtain it as a guide.

CONCLUSIONS

14. It is concluded that:

(a) the mobility of the headquarters ship imposes a complex communication problem;

(b) the OCA afloat depends on the shore network for communication with operating forces and other authorities;

(c) it is possible to link the OCA afloat to a focal point in the shore communication network by means of multi-channel radio communication circuits;

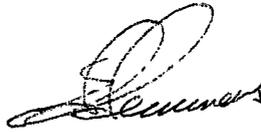
(d) loss of the shore network would leave the OCA afloat more or less impotent, but he could still exercise a modicum of operational control if the headquarters ship had adequate radio equipment.

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RECOMMENDATIONS

15. It is recommended that we ask the US Navy for detailed information if the RCN becomes seriously interested in a mobile headquarters ship.



(E.J. SEMMENS)
COMMANDER, RCN
DIRECTOR OF NAVAL COMMUNICATIONS

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MEMORANDUM

SECRET
SI950-115(DCom)

15 Sep 61

DNCom (Attn LCDR Palmer)

KWR37 Trials

- 1 Ref telecon 14 Sep LCDR Palmer-F/L Crew regarding pending RCAF air trials of KWR37.
- 2 CANFIAGLANT/SOCOM (LCDR Potter) has indicated informally that medium power "secure" test transmission on the LF broadcast frequency could be set up for RCAF air trials purposes within the Jul-Dec trial period, or later.
- 3 May it be confirmed that the RCN LF broadcast can be set up for short periods at specified times for the RCAF air trials of KWR37 equipment. Once agreed, local arrangements within the Maritime Command could establish firm test periods as dictated by conditions.
- 4 The above LF testing may not be necessary if RCAF plans to test on HF can be realized earlier, however, in any event it is important that the LF facility be available should the need arise. RCN co-operation in this regard is much appreciated.


(A Crew) F/L
DCom/Com 5-2
(20559)

cc: DATel

CR 7007 PPA n NSC 1300-186/10

CONFIDENTIAL
S951-100-69/20 (DCom)

Copy ...14...

MINUTES OF A MEETING

HELD AT AIR FORCE HEADQUARTERS

AT 0900 HRS 7 SEP 61

TO DISCUSS RCAF MARITIME HF COMMUNICATIONS

Ottawa Ont
11 Sep 61

Present

S/L	WD	Benton-	AFHQ/DCom/Com 2	Chairman
Dr.	JH	Meek	DRB/DRTE	
Mr.	WL	Hatton	DRB/DRTE	
Dr.	GW	Jull	DRB/DRTE	
Mr.	J	Murray	DRB/DRTE	
Mr.	CA	McKerrow	DRB/DPhysR	
Lt Col	EA	Shaefer	AFHQ/DCom/Com 3	
S/L	GG	Agnew	AFHQ/DMO/MO 4	
S/L	TE	Stewart	AFHQ/DCom/Com 5	
S/L	WJ	St Louis	MAC/SOTel/TelA	
S/L	KB	Lloyd	AFHQ/DATel/ATel 4-3	
F/L	JF	Power	AFHQ/DATR	
F/L	WG	Dunlop	MAC/SASO/SO RAD	
F/L	DW	Bassam	AFHQ/DCom/Com 3-3	
F/L	GA	Kerr-Wilson	AFHQ/ATSC/TSC 2-2-3	
F/L	J	Menton	AFHQ/DCom/Com 2-3-2	
Mr.	AL	Spackman	AFHQ/DCom/Com 3-2-2	
Mr.	WG	Torrington	AFHQ/DCom/Com 3-4-6	
F/L	JA	Hermiston	AFHQ/DCom/Com 2-3-2	Secretary

In Attendance

W/C AC Bowes AFHQ/DCom (Introduction)

Introduction

1 The Director of Communications welcomed the visitors. He expressed gratitude to the DRB representatives for their efforts which led to the report which the meeting was to consider, and also for their offer to meet with the RCAF to discuss the report and its ramifications. He hoped that this would be the fore-runner of similar get-togethers in the future. To this end he made mention of a letter which was going forward to DRB outlining RCAF views on this matter and proposing that representatives of DRTE and DCom should meet periodically, perhaps quarterly, to discuss items of mutual interest.

2 Dr. Meek said that he was certain that DRTE would welcome this suggestion and that the resulting exchange of views would benefit both parties. Among other things, it would assist DRTE in keeping current on RCAF operational concepts. It is important, he said, that research and operations maintain close relations since they are working towards a common goal.

3 DCom thanked Dr. Meek for his interest. He regretted that, because of other urgent tasks, he could not remain to take part in the discussions to follow. He asked S/L Benton to take the chair.

CONFIDENTIAL

- 2 -

4 The Chairman stated that the purpose of the meeting was to discuss DRTE Technical Memorandum No 358- Recommendations for Improvements of RCAF Maritime HF Communications System. He proposed that DRTE should introduce the report and that each recommendation would be discussed as it was presented. The meeting agreed to this approach.

5 Dr. Jull of DRTE reviewed the report, presenting background data in support of each recommendation and, together with his colleagues, provided answers to queries put to him by the RCAF representatives. Decisions arising out of this process are described below.

ITEM	SUBJECT	ACTION
1	<p><u>LECTURES TO OPERATING PERSONNEL</u></p> <p>6 <u>Recommendation.</u> Lectures and briefings should be prepared and delivered to air and ground operating personnel on the subject of HF communications and propagation.</p> <p>7 <u>Discussion.</u> It was agreed that this recommendation should be adopted, and that the lectures should be given by acknowledged experts in the field of radio propagation. DRTE offered to provide lecturers for this purpose on request. Lectures should be given to the Radio Officer courses at Winnipeg, Radio Operator courses at Clinton and to both the air and ground operators now on maritime operations. On the subject of training aids, DRTE referred to current correspondence on this subject with DCom and indicated that they will be prepared to provide technical assistance if the RCAF can arrange for production of a training film strip.</p> <p>8 <u>Decision.</u> It was decided that:</p> <p>(a) DCom will initiate action on arrangements for the lectures and will request DRTE to provide lecturers from time to time.</p> <p>(b) Upon receipt of DRTE's formal notification of their position regarding production of a film strip DCom will initiate further AFHQ action seeking authority for a National Film Board production.</p>	<p>DCom</p> <p>DRTE DCom</p>
2	<p><u>FREQUENCY MONITORING</u></p> <p>9 <u>Recommendation.</u> The number of assignments monitored and used for operational traffic to the Maritime Headquarters should be increased. It is recommended that provision should be made to monitor assignments in eight aeronautical bands from 3 to 15 Mc/s.</p>	

CONFIDENTIAL

- 3 -

ITEM	SUBJECT	ACTION
	<p>10 <u>Discussion.</u> It was brought out that until very recently the Maritime Commander did not have absolute control over the frequencies he requires to conduct operations. Frequencies have now been assigned to the Maritime Commander, exclusively. These will have maximum value only if the Radio Officers of MAC make full use of all assignments and if adequate monitoring is maintained at the ground stations. Automatic watch-keeping facilities would help and in this connection it was noted that a device which will provide this facility is being developed under CTel Project 60C140.</p> <p>11 <u>Decisions.</u> It was decided that:</p> <p>(a) MAC HQ (SORad) will issue instructions calling for full operational use of all assigned frequencies.</p> <p>(b) AFHQ will impress upon MHQ (through Naval HQ) the need to emphasize close monitoring of all operational frequencies. At the same time information will be provided concerning the status of CTel Project 60C140.</p>	<p>MAC</p> <p>DCom</p>
3	<p><u>ALTERNATE GROUND STATIONS</u></p> <p>12 <u>Recommendation.</u> Studies should be carried out to establish the value of Goose Bay as a second alternate ground station during propagation disturbances.</p> <p>13 <u>Discussion.</u> It was pointed out that there are organizational and administrative difficulties in the way of establishing communication facilities at Goose Bay in support of the Maritime Commander. It was noted however that MACS facilities at Goose Bay are available for use by operational maritime aircraft as required.</p> <p>14 <u>Decision.</u> It was decided that:</p> <p>(a) The recommendation will be noted by DCom and DMO and will be re-considered if other remedies do not produce the required improvements.</p>	<p>DCom</p> <p>DMO</p>
4	<p><u>CHANNEL SAMPLING</u></p> <p>15 <u>Recommendation.</u> Several channel sampling procedures should be considered to determine optimum operating frequencies in the aircraft.</p> <p>16 <u>Discussion.</u> Three proposals were advanced -</p> <p>(a) As an immediate step, Radio Officers should monitor RCN HF fleet broadcasts in the 4, 6, 8, 12, 16 and 22 Mc/s bands.</p>	

CONFIDENTIAL

- 4 -

ITEM	SUBJECT	ACTION
	<p>This will provide an indication of the relative merit of nearby maritime air assignments.</p> <p>(b) As a further step, arrangements should be made to key all operational frequencies simultaneously and automatically and the reception quality on each assignment determined using the airborne receiver. Regarding this proposal the Com 3 representatives pointed out that an automatic keyer which would meet this requirement is being developed and the prototype should be available shortly. It will be tested on an MACS installation and, if successful, can be made available for maritime operations.</p> <p>(c) As the final and most effective step, frequencies should be selected from information provided by an independent channel sampling receiver. This proposal was the subject of lengthy but inconclusive discussion.</p> <p>17 <u>Decisions.</u> It was decided that:</p> <p>(a) MAC will adopt immediately the technique proposed in para 16(a). MAC HQ will obtain from CANFLAGLANT the information needed by the Radio Officers and will issue appropriate direction to the operational squadrons.</p> <p>(b) The automatic keyer discussed in para 16(b) will be provided for maritime operations as soon as practicable.</p> <p>(c) Further consideration will be given by AFHQ concerning the adoption of the independent channel sampling technique.</p>	<p>MAC HQ</p> <p>DCom</p> <p>DATR DATel DMO DCom</p>
5	<p><u>OPERATING PROCEDURES</u></p> <p>18 <u>Recommendation.</u> During propagation disturbances, it is recommended that all air-ground messages should be as brief as possible and transmitted very shortly after operating frequencies are selected.</p> <p>19 <u>Discussion.</u> The DRTE representatives stressed the point that optimum frequencies are subject to very rapid fluctuations during disturbed conditions. It was agreed that this recommendation should be adopted.</p> <p>20 <u>Decisions.</u> It was decided that:</p> <p>(a) MAC HQ (SO RAD) would issue appropriate instructions to the operational squadrons.</p>	<p>MACHQ</p>

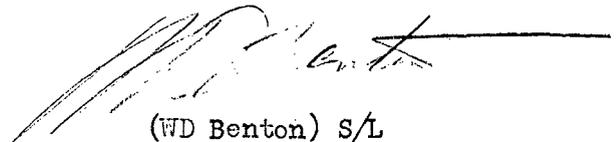
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- 5 -

ITEM	SUBJECT	ACTION
6	<u>GROUND RECEIVER BANDWIDTHS</u>	
	<p>21 <u>Recommendation.</u> The bandwidths of the receivers at the ground station should be reduced, which can be done after the frequency stability and resetability of both air and ground equipments is increased.</p>	
	<p>22 <u>Discussion.</u> The meeting agreed that this recommendation has much merit. It was pointed out, however, that by the time action could be taken to increase the frequency stability and resetability of the air and ground equipments the RCAF will have converted to SSB which means replacement of the present equipment. The Com 3 representatives felt that some improvements to the ground receivers and their control facilities would result from recently authorized modifications. This information would be available through EOs, the reference of which would be notified to MAC.</p>	
	<p>23 <u>Decisions.</u> It was agreed that:</p> <p>(a) Com 3 will inform MAC HQ of the reference and date of the relevant Engineering Order modification pamphlet.</p>	Com 3
7	<u>DIRECTIONAL RECEIVER ANTENNAS</u>	
	<p>24 <u>Recommendation.</u> A study should be made of the suitability of directional antennae at the ground receiver site to cover only azimuthal sectors important for maritime operations.</p>	
	<p>25 <u>Discussion.</u> The DCom representatives stated that the RCAF's SSB conversion programme includes directional antennas for receiving and transmitting ground installations. The relative qualities of various types of directional antennas were discussed briefly and it was agreed that further discussions would take place between Com 3 staff, DRTE and NRC.</p>	
	<p>26 <u>Decision.</u> It was decided that:</p> <p>(a) Com 3 will consult further with DRTE and other agencies concerning the selection of directional antennas.</p>	Com 3

Adjournment

27 The Chairman thanked the participants for their interest and cooperation. He adjourned the meeting at 1600 hrs.


(WD Benton) S/L
Chairman

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- 6 -

<u>Distribution</u>	<u>Copy No.</u>
DPhysR	1-2
DRTE	3-8
MAC HQ	9-13
DNCom	14-15
DATR	16-17
DMO	18-19
DATel	20-21
ATSC	22-23
DCom	24
D/DCom	25
Com 2	26-29
Com 3	30-33
Com 5	34
Com 2 - Spare	35-50

CONFIDENTIAL

NSC 1300-166/10 (STAFF)

PH

24 August, 1961.

MEMORANDUM TO: ACNIS (Plans)
Copy to: DGNS
DGSF
DEFE

PLANS

LOGISTIC AND MAINTENANCE SUPPORT
MARITIME HEADQUARTERS

Reference: (a) NSC 1300-166/10 (TS/Plans) dated 14 August, 1961.

The Steering Group on Maritime Communications will study this problem at its next meeting 13 September, following which we can take action if necessary.

Original Signed by
E. J. Semmens

(E. J. SEMMENS)
COMMANDER, RCN
DIRECTOR OF NAVAL COMMUNICATIONS

*(1) Noted for DGNS
[Signature]
[Signature]*

(2) CR to PA

CONFIDENTIAL

CONFIDENTIAL

VA- NSC 1300-166/10 (STAFF)

24 August, 1961.

MEMORANDUM TO: ACNITS (Plans)
Copy to: DGNS
DGSEF
DFFE

28.8 total Aug. 28/8.

LOGISTIC AND MAINTENANCE SUPPORT
MARITIME HEADQUARTERS

Reference: (a) NSC 1300-166/10 (TS/Plans) dated 14 August, 1961.

The Steering Group on Maritime Communications will study this problem at its next meeting 13 September, following which we can take action if necessary.



(E.J. SIEMENS)
COMMANDER, RCN
DIRECTOR OF NAVAL COMMUNICATIONS

CONFIDENTIAL

951-1(DCom)

MEMORANDUM

21 Aug 61

DNCom

Service Responsibilities for Provision
of Communications Facilities in the Maritime Commands

Further to my memo of 3 Jul 61, attached are four copies
of the draft inter-Service agreement, amended as proposed by
LCdr Wilson in discussion with S/L Holgate approx 25 Jul.

AC Bowes
(AC Bowes) W/C
Acting DCom
2-5302

Attach.(4)

*Superseded by correspondence
which follows. A. D. W. COM 11.12*

RCN - RCAF AGREEMENT

ON

RESPONSIBILITY FOR PROVISION OF COMMUNICATION FACILITIES

IN THE MARITIME COMMANDS

1 The RCN shall be responsible for the provision of all communication facilities required by Maritime Commanders with the exception of those specifically indicated hereunder as the responsibility of the RCAF and those which may be jointly agreed from time to time as being the responsibility of the RCAF.

2 The RCAF shall be responsible for the provision of:

- (a) all ground equipment required for air-ground-air radio links, including control consoles located in the Maritime Headquarters, but excluding cryptographic and teletype terminal equipment;
- (b) all airborne equipment used in RCAF aircraft;
- (c) terminal equipment at RCAF terminals of circuits serving the Maritime Commanders.

3 Notwithstanding the basic assignment of responsibilities as described in the preceding paragraphs, all Service equipment currently used in satisfaction of Maritime communication requirements shall remain in use unless its removal is jointly agreed to.

4 Facilities established primarily in support of Maritime operations may be used by either Service in satisfaction on non-Maritime requirements: e.g. a microwave link established primarily for remote keying of Maritime radio facilities may be used to provide keying circuits or command circuits supporting non-Maritime operations.

(EJ Semmens) Cdr
DNCom RCN

Albrow
(D Gooderham) G/C
DCom RCAF

DATED:

RCN - RCAF AGREEMENT

ON

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(EJ Semmens) Cdr
DNCOM RCN

A. C. Semmens w/c
(D Gooderham) G/C
for DCOM RCAF

DATED:

RCN - RCAF AGREEMENT

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(EJ Semmens) Cdr
DCom RCN

Al Gooderham
/s/ (D Gooderham) G/C
DCom RCAF

DATED:

RCN - RCAF AGREEMENT

ON

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(EJ Semmens) Cdr
DECom RCB

Al Lowe
AD Gooderham) O/C
DECom RCAF

DATED:

M 190108Z

DEFERRED

FM CANCOMARLANT

TO RCEPC/CANAVHED

INFO RFEFZ/CANAIRHED

BT

UNCLAS

YOUR NSS1300-166/10 (STAFF) OF 25 JUL X S/L RH CARVER
SO(C) CANCOMARLANT WILL ATTEND AS REQUESTED X REQUEST
ACCOMMODATION AT BYTOWN INN FOR PERIOD 11 TO 15 SEP

BT

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ACNS (P)
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FM CANCOMARPAC

TO RCEPC/CANAVHED

INFO RCEHM/CANCOMARLANT

RCEHC/CANFLAGLANT

RFEPT Z/CANAIRHED

BT

UNCLAS

NSS 1300-166/10 (STAFF) DATED 25 JUL X LCDR PG MAY RCN

O-47400 WILL ATTEND X REQUEST ACCOMMDATION BYTOWN INN

BT

TOR 142139Z AUG 61

ACNS (P)
ACNS (A&W)
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PERS (N)
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CONFIDENTIAL

NSC 1300-166/10 (TS/Plans)

14 August, 1961.

14-8
ORIGINAL DAMAGED

MEMORANDUM TO: DNBCOM ✓

cc: DGNS
DGSF
DGFE

LOGISTIC AND MAINTENANCE SUPPORT
MARITIME HEADQUARTERS

Reference is made to NSS 1300-166/10 (STAFF)
dated 20 July, 1961.

2. It is noted that Joint Organization Order No. 28 provides, inter alia, for supply and support services for the Maritime Headquarters, Atlantic, HMC Dockyard, Halifax, N.S..
3. The referenced memorandum proposes a single service responsibility for the provision of logistic and maintenance support of the Maritime Headquarters. As this proposal involves a change to Joint Organization Order No. 28, it will have to be submitted to the Vice Chiefs of Staff Committee for consideration and decision.
4. It is suggested therefore that the Steering Group on Maritime Communications would be the appropriate body to prepare the submission to the VCOS Committee.

J. F. Monroe
(J.F. Monroe),
ASSISTANT CHIEF OF NAVAL TECHNICAL
SERVICES (PLANS).

CONFIDENTIAL

CONFIDENTIAL

PA NSC 1300-166/10 (TS/Plans)

14 August, 1961.

MEMORANDUM TO: DNCOM

cc: DGNS
DGSP
DGFE

Handwritten notes and signatures:
16 8 61
22/8
25/8
27/8
27/8

ORIGINAL DAMAGED

LOGISTIC AND MAINTENANCE SUPPORT
MARITIME HEADQUARTERS

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Original Signed by

A. M. JENKINS

in/ (J.F. Monroe),

ASSISTANT CHIEF OF NAVAL TECHNICAL SERVICES (PLANS).

ER-11

CONFIDENTIAL

CONFIDENTIAL

PA to → NSC 1300-166/10 (TS/Plans)

14 August, 1961.

MEMORANDUM TO: DNCOM

BEST AVAILABLE COPY

cc: DGNS
DGSE
DGIE ✓ 14.8

LOGISTIC AND MAINTENANCE SUPPORT
MARITIME HEADQUARTERS

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Original Signed by
A. M. JENKINS

(J.F. Monroe),
ASSISTANT CHIEF OF NAVAL TECHNICAL
SERVICES (PLANS)

22/9
U. A/CNTS(Plans) Item on agenda at Steering Group Meeting 13 Sept. After discussion, recorded "Action - DNCom > DCom"; My contributions will be routed via DN Com. *John Lynch*
DSL for 000432
22/9/61.

M 111800Z

DEFERRED

FM CANFLAGLANT

TO RCEPC/CANAVHED

INFO RCEHM/CANCOMARLANT

RCWPC/CANCOMARPAC

RCEMB/COMBRAX HFX

RFEFZ/CANAIRHED

BT

UNCLAS

NSS 1306-166/10 (STAFF) DATED 25 JUL 61 PARA TWO X

LCDR WF POTTER RCN 0-59856 WILL ATTEND X NIL ACCOMMODATION

REQUIRED

TOR 111941Z AUG 61

BT

ACNS (P)
ACNS (A & S)
STAFF
DN COM
CNP
PERS (N)
DOP

DEPARTMENT OF NATIONAL DEFENCE

CONFIDENTIAL

TEMPORARY DOCKET

NAVY

2-1/2

MAIN FILE NUMBR C- 1300-166/10 T.D. No. 1220

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	INSPECTED
	WITH PAPERS CR	AUG 8 - 1961							
DNCOM		25/9/61	DB						
DNCOM		16/10	DB	1-11-61	DB			NOV - 3 1961	Δ
Staff	WITH PAPERS CR	FEB 1 3 1962		26-2-62	DB			FEB 20 1962	Δ
Staff	WITH PAPERS CR	MAR 2 6 1962		25-4-62	DB			APR 25 1962	Δ

INSTRUCTIONS

1. Temporary Dockets are to deal WITH ONE CASE ONLY.
2. T.D.'s NOT to be placed on main file UNLESS Central Registry informed by means of Form D.N.D. 710.
3. T.D. No. together with main file number to be quoted on all correspondence originated.
4. T.D.'s not to be passed from one service to another.
5. Action should be taken as soon as possible in order that main file may be kept up to date. If action cannot be taken within 48 working hrs., B.F. Docket.
6. T.D.'s to be requisitioned, passed, B.F.'d. etc., in the same manner as main files by means of Form D.N.D. 710.

CONFIDENTIAL

MCACS: 1300-1

DEPARTMENT OF NATIONAL DEFENCE



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

MAR 22 1962

ON-LINE TELETYPE CIRCUIT
BETWEEN CANCOMARLANT AND COMASWFORLANT

References: (a) MCACS: 1300-1 of 4 August 1961
(b) NS 1300-166/10 (Staff) TD 1220 of 26
February 1962

Reference (a) recommended the installation of an on-line teletype circuit connecting CANCOMARLANT with COMASWFORLANT prior to retermination of circuit NA5 in the tape relay centre. Reference (b) indicates that this requirement will be met by providing a simplex on-line teletype circuit between Halifax and Quonset, and that COMASWFORLANT agrees with this arrangement.

2. Therefore, although direct connection with Norfolk would have been preferred, it is confirmed that installation of the new circuit will enable NA5 to be re-terminated in the relay centre (RCEH).

3. As requested, CINWESTLANT will be informed of this decision.

[Handwritten Signature]
REAR ADMIRAL

The Naval Secretary

Copy to: Chief of the Air Staff

Referred to...	<i>Staff</i>
MAR 26 1962	
File No.	<i>C1300-166/10</i>
	<i>TD 1220</i>

27.3
24/4/62

CONFIDENTIAL

Directorate of Naval Communications

CONFIDENTIAL

ES 1300-166/10
(Staff)TD 1270

Royal Canadian Navy

Canada,

26 FEB 1962

ON LINE TELETYPE CIRCUIT
BETWEEN CANADA AND THE UNITED STATES

Reference: (a) "CACS 1300-1 dated 4 August, 1961.

The USN has agreed to meet an RCN teletype circuit at Calais, Maine to provide direct "On Line" working between Maritime Commander Atlantic and Commander Fleet Air Quonset. PYTHON equipment and keying material would be provided by the USN.

2. The Commander AS Force Atlantic has stated that a simplex circuit would meet the requirement. The traffic on this circuit is to be limited to AS traffic. The proposed date for activation is 1 May, 1962.

3. The negotiations and above agreement were reached based on the requirement stated in Reference (a), Para. 3.

4. It is not intended to install the new circuit unless circuit WA5 can be reterminated as it would be considered to be duplicating an available facility.

5. Confirmation is therefore requested that the installation of this circuit will enable WA5 to be reterminated in the relay centre to permit the interchange of traffic in accordance with the interchange of traffic agreements.

6. Should this be confirmed, it is requested that Commander in Chief Western Atlantic be informed of this decision to enable action to be commenced on the required retermination of WA5. An early reply is requested to permit contractual action to meet the 1 May, 1962 activation date.

To DMW
For Dispatch
Date 26.2.62
Initials AR

R.B.
NAVAL SECRETARY

Maritime Commander Atlantic.

Copy to: Chief of the Air Staff.

485

DIRECTOR
COMMUNICATIONS
FEB 23 1962

CONFIDENTIAL

Our file ref. NMWC 9810-1



DEPARTMENT OF NATIONAL DEFENCE

CANADIAN JOINT STAFF

2450 Massachusetts Ave., N.W.
Washington 8 D.C.
U.S.A.

Reply to
Naval Member

9 February, 1962

ON-LINE TELETYPE CIRCUIT
BETWEEN CANCOMARLANT AND COMASFORLANT

Reference: (a) NSC 1300-166/10 (Staff) TD 1220
dated 1 November, 1961

Submitted for the information of Naval Headquarters that the USN concur with the requirement stated in reference (a) for an on-line circuit for ASW purposes between Canada and the United States.

2. They have proposed that a half or full duplex 60 word per minute PYTHON covered circuit be established between CANCOMARLANT and Commander Fleet Air Quonset (COMFAIRQUONSET). PYTHON equipment and keying material would be provided by the USN. The first of May, 1962 has been proposed as the activation date for this circuit.

3. The Chief of Naval Operations has given approval for a full duplex circuit, however, Commander ASW Force Atlantic has said that he considers a half duplex circuit is all that would be necessary. The USN has left the decision as to which it should be to the RCN. The USN has stated, however, that it will be necessary to limit traffic on the proposed circuit to ASW traffic.

4. The land-line from Quonset Point to the border will be paid for by the USN. The designated point of interconnection is Calais, Maine. The USN will take no action to procure the land-line until they receive Canadian concurrence and the Canadian circuit number.

5. Because of SACLANT's disapproval, the USN will take no action at this time to reterminate NATO circuit NA5P2.

*13
over*

Robinson
COMMODORE

The Naval Secretary

BEST AVAILABLE COPY

Staff
1300-166/10 TD1220

CONFIDENTIAL

Directorate of Naval Communications

CONFIDENTIAL

NSC 1300-166/10
(Staff) TD 1220

Royal Canadian Navy

Canada,

1 NOV 1961

REQUIREMENT FOR ON-LINE TELETYPE CIRCUIT BETWEEN
CANCOMARLANT AND COMASFORLANT

The RCN intend to remove circuit NA5 from its present terminal in the crypto office of Maritime Commander Atlantic and place it in the RCN Major Relay in Halifax. This retermination is necessary to provide the Major Relay with facilities to meet its commitment as a NATO transfer point.

2. It is requested that the U.S. terminal of this circuit be reterminated in a relay station serving Commander in Chief Western Atlantic Area.

3. The RCN recognize that these reterminations will remove the "On-Line" capability of the circuit and consider that this is acceptable in the interest of providing the transfer capability required by the interchange of traffic agreement.

4. Maritime Commander Atlantic has submitted that a requirement exists for the establishing of an "On Line" circuit to replace NA5. This submission is approved subject to the USN providing an interconnection point for such a circuit at the Canadian/U.S. border. The "On-Line" equipment presently used on the RCN terminal of NA5 could be utilized on such a circuit.

5. The retermination of NA5 is not conditioned on its replacement by a circuit to meet the requirement of Maritime Commander Atlantic. The circuit will be reterminated on confirmation being received that the U.S. terminal serving Commander in Chief Western Atlantic Area is ready and a cut-over date is agreed upon.

6. It would be preferable if the change over could be carried out simultaneously with the installations of the proposed new circuit. The USN comments and intentions on the installation of a circuit to the Canadian/U.S. border are requested.

Akers (Aron) com. W 1/4

[Signature]
NAVAL SECRETARY

Naval Member of the Canadian Joint Staff
(Washington)

To DMO
For Dispatch
Date 11 61
Initials AK

CONFIDENTIAL

DIRECTOR
OCT 31 1961
COMMUNICATIONS

BEST AVAILABLE COPY

EXTRACT FROM

MINUTES OF THE 221st MEETING OF THE
NAVAL POLICY CO-ORDINATING COMMITTEE

3 October, 1961

223-4 REQUIREMENT FOR ON LINE TELETYPE CIRCUIT BETWEEN
CANGOMARLANT AND COMASFORLANT
(NSC 1300-166/10)

NPCC had for consideration ACNS(A&W)'s recommendation that approval be given to:

- (a) Enter into negotiations with the USN to enable the interconnection to be made at a cost not to exceed \$5,000.00;
- (b) Provide a duplex on line circuit at a recurring annual rental of \$29,000.00 per annum should negotiations in (a) above be unsuccessful;
- (c) Order the retermination of the Canadian terminal of the NATO circuit from the crypto centre to the Tape Relay Centre on conclusion of these negotiations irrespective of their result.

"DECISION

NPCC agreed that:

- (a) ACNS(A&W) could enter into negotiations with the USN for the establishment of an On Line Teletype Circuit between CANGOMARLANT and COMASFORLANT but that the RCN was not to be committed to paying for this circuit until it was established as a national requirement between Canada and the United States.
- (b) The retermination of the Canadian terminal of the NATO circuit could be moved from the crypto centre to the Tape Relay Centre."

Renewed decision 22nd mtg 17/10/61

DN Com -

*For n.a. please
see NPCC
3.10.61*

*NPCC
16/10*

Directorate of Naval Communications

C O N F I D E N T I A L

HH/DF

NSC 1300-166/10 (STAFF)

21 September, 1961.

MEMORANDUM TO: VCNS

REQUIREMENT FOR ON LINE TELETYPE CIRCUIT
BETWEEN CANCOMARLANT AND COMASFORLANT

Reference: (a) MCACS 1300-1 dated 4 August, 1961.

A teletype circuit was authorized by the Standing Group to interconnect COMCANLANT and CINCPACFLT/COMOCEANLANT for the passing of NATO traffic. This circuit is paid for by NATO and is designated as circuit NA5 in LANTCOMPLAN.

2. The terminals of this circuit were placed in the Crypto offices of both authorities.
3. Although not authorized for national traffic, by local arrangement national traffic between CANCOMARLANT and COMASFORLANT is being passed over the circuit. As the circuit is equipped with "On Line" equipment, this has proven an extremely fast method for the exchange of operational traffic.
4. The NATO authorities in all countries up to 1956 were supplied communications by such direct lines between authorities. In 1956 however it was agreed by NATO that a NATO network would be established tying together all such circuits into a relay network. In 1959 this was completed and the NATO network became an integral part of the world wide network.
5. Due to financial and procedural complications, it was agreed that certain relay stations would be designated as National/NATO transfer stations. These stations would be the gateway between national and NATO networks. A circuit linking the two networks is, of course, mandatory.
6. The RCN Halifax Relay was designated as the National/NATO relay in Canada to which messages from NATO authorities, destined for NATO mobile authorities and COMCANLANT would be passed. The circuit to be used for this traffic would be the NATO provided NA5. It was clearly pointed out in the interchange of traffic agreement to Standing Group that before the interchange of traffic could commence the terminals of NA5 would require retermination in the respective Tape Relay Centres and in addition the circuit would lose its "On Line" capability.
7. The interchange of traffic agreement has been implemented with the exception of that part concerning Halifax. The retermination of the circuit is the only measure required to implement the Halifax transfer.
8. CANCOMARLANT has submitted that a replacement national "On Line" circuit is essential to the conduct of anti-submarine operations in the Maritime Atlantic Area prior to the removal of the NATO circuit.

.... /2

C O N F I D E N T I A L

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C O N F I D E N T I A L

- 2 -

9. Failure to reterminate NA5 has necessitated NATO traffic from all 3 services and MOD Canada destined for NATO authorities in the U.S. having to be routed from Ottawa to Metz thence to Northwood (U.K.) and from there back into the United States which is operationally unacceptable due to the complex route and delays involved. It also necessitates the full Canadian participation in the NATO interchange of traffic agreement being withheld where traffic for NATO mobile authorities is concerned.

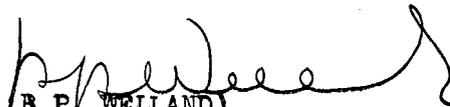
10. It is possible to satisfy the Maritime Commander's requirement in several ways. These are -

- (a) Interconnect the MHQ with the ASW Group Commanders net.
- (b) Interconnect the MHQ with the NAVOPNET.
- (c) Interconnect with a USN provided circuit at the border.
- (d) Interconnect with a Canadian circuit into COMASFORLANT direct.

11. The method in (d) would require an annual rental of \$29,000.00. It is estimated that the methods in (a), (b) and (c) would cost less than \$5,000.00 annually, subject to the USN permitting this interconnection into their circuits or, in the case of (c) subject to the USN providing a circuit to the border.

12. Approval is requested to

- (a) Enter to negotiations with the USN to enable the interconnection to be made at a cost not to exceed \$5,000.00.
- (b) Provide a duplex on line circuit at a recurring annual rental of \$29,000.00 per annum should negotiations in (a) above be unsuccessful.
- (c) Order the retermination of the Canadian terminal of the NATO circuit from the crypto centre to the Tape Relay Centre on conclusion of these negotiations irrespective of their result.


(R.P. WELLAND)
COMMODORE, RCN

ASSITANT CHIEF OF NAVAL STAFF (AIR AND WARFARE)

C O N F I D E N T I A L

NSC 1300-166/10 (STAFF)

22 September, 1961.

MEMORANDUM TO: ACNS (~~A&C/W~~) ^W

REQUIREMENT FOR ON LINE TELETYPE CIRCUIT
BETWEEN CANCOLARLANT AND COMASFORLANT

ENCLOSURE: (A) NSC 1300-166/10 (STAFF) dated 21 September,
1961.

Enclosure (A) is submitted for consideration.

2. The Maritime Commander has stated an urgent operational requirement for a direct on line circuit connecting his crypto room with CINCWESTLANT/COMOCEALANT crypto room.
3. This need was filled in past by using a NATO provided circuit the terminals of which we must now move to the respective tape relay centres in order to meet our international agreement.
4. Plans, Operations and DNOR support the requirement.



(E.J. SIEMENS)
COMMANDER, RCN
DIRECTOR OF NAVAL COMMUNICATIONS.

CONFIDENTIAL

6 September, 1961.

MEMORANDUM TO: ~~DN Ops~~
~~DN Plans~~
~~DN Or~~

Concur At 12/9/61
Concur at 14/9

CANCOMARLANT - COMASFORLANT

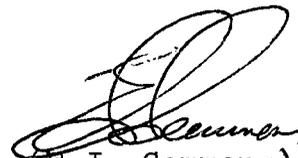
References: (a) MCACS 1300-1 dated 4 August, 1961.
(b) Draft submission to NPCC.

At present a NATO funded "On Line" circuit is being utilized by the Maritime Commander for direct communication to COMASFORLANT. This circuit is authorized for NATO traffic only but, by local agreement, national traffic is being passed.

2. To meet our NATO agreements, this circuit must be reterminated in the Halifax relay thus losing its point to point and "On Line" capability.

3. The Maritime Commander states in reference (a) that the facilities provided by this circuit are essential and requests a replacement circuit prior to its retermination.

4. Reference (b) is a draft submission to enable the Maritime Commanders requirement to be met and also to meet our NATO agreement. Comment or concurrence is requested.


(E.J. Semmens)

Commander, RCN

Director of Naval Communications

CONFIDENTIAL

CONFIDENTIAL

MCACS: 1300-1

DEPARTMENT OF NATIONAL DEFENCE

1220



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

AUG 4 1961

REQUIREMENT FOR ON-LINE TELETYPE CIRCUIT
BETWEEN CANCOMARLANT AND COMASFORLANT

MS Enclosures: (A) ✓ SACLANT Ser: 470 of 19 May 1961 with enclosure
(B) ✓ CINCWESTLANT Ser: 164 of 1 June 1961

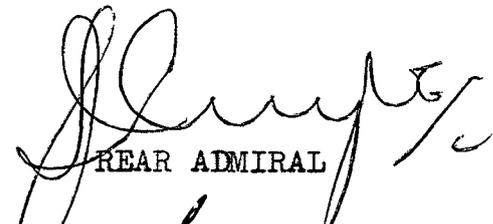
Enclosures (A) and (B) were received by COM-CANLANT with a request for comments on the recommendation made by CJS Washington for retermination of circuit NA5 in RCEH Halifax and the relay serving CINCWESTLANT. This circuit is currently terminated in the Crypto Centres of CANCOMARLANT/COMCANLANT and COMASFORLANT/COMNORASDEFORLANT and is used for national and NATO communications.

2. Loss of the existing on-line capability between these commands, which would automatically result if NA5 were reterminated as suggested by CJS, is operationally unacceptable. Essential to the conduct of antisubmarine operations in the Maritime Atlantic area, particularly in the light of the missile-launching submarine threat, is a rapid and secure communications link between the ASW commanders in Halifax and Norfolk. Consequently, the availability of an on-line circuit to these commanders on a continuous basis in peacetime is a vital operational requirement.

3. It is strongly recommended, therefore, that an on-line teletype circuit connecting CANCOMARLANT with COMASFORLANT be provided prior to retermination of NA5 in RCEH and the relay serving CINCWESTLANT.

4. In an interim reply to Enclosure (B), COM-CANLANT has informed CINCWESTLANT that the subject is under consideration.

*FR-7-
DNCOM*

for 
REAR ADMIRAL

→ The Naval Secretary

Copy to: Chief of the Air Staff

Referred to *Staff*
AUG 8 1961
File No. *C.1300-166/10*
Chgd to *D.G.F.E. 8/8*

CONFIDENTIAL

Enclosure (A) to MCACS: 1300-1 dated **AUG 4 1961**

NORTH ATLANTIC TREATY ORGANIZATION
HEADQUARTERS
OF
THE SUPREME ALLIED COMMANDER ATLANTIC
NORFOLK 11, VIRGINIA, U.S.A.

Ser: 470
19 May 1961

NATO CONFIDENTIAL

To: Commander in Chief Western Atlantic Area

Subj: NATO Supplement to ACP 117

Encl: (1) Canadian NLR Letter CJS 324 of 24 January 1961

1. Enclosure (1) recommends retermination of circuit NA-5 prior to establishment of HALIFAX as a national transfer station.
2. Your comments are requested.

FOR THE SUPREME ALLIED COMMANDER ATLANTIC:

L. J. SMITH
Chief of Communications
(Acting)

AUTHENTICATED:

Copy to:
COMCANLANT

Sgd. W. A. SWENSON
Assistant Secretary

NATO CONFIDENTIAL

Page 1 of 1

000445

NATO CONFIDENTIAL

Our file ref CJS 324

DEPARTMENT OF NATIONAL DEFENCE
Canadian Joint Staff

2450 Massachusetts Ave., N.W.,
Washington 8, D.C.
U.S.A.

24 Jan 61

Supreme Allied Commander Atlantic,
Norfolk 11, Va.

NATO Supplement to ACP 117

1 Reference SACLANT Serial 12 of 5 Jan 61. SGM-682-59 dated 2 Dec 59 indicated Halifax as a NATO transfer station. AG 3100.2 SIG/PT dated 24 Feb 60 amended SGM-682-59 to show that Halifax was a national transfer station only, except for transfer of traffic to mobile authorities using the Halifax Naval broadcast.

2 AG 3100.2 SIG/PT recommended that a circuit be established linking the Halifax RCN relay and a relay serving CINCPACFLT. The circuit NA5 now links the crypto offices of CANCOMARLANT and CINCPACFLT.
(COMCANLANT)?

3 Until NA5 is reterminated relay-to-relay it will be impossible for Halifax to meet its commitment as a transfer point for NATO mobile traffic, or in fact for any NATO traffic without special arrangements.

4 It is recommended that NA5 be reterminated in RCEH, Halifax, and the relay serving CINCPACFLT.

Sgd. (M. M. Hendrick)
Air Vice-Marshal
National Liaison Representative

ENCL: (1) to SACLANT
SER: 470 DTD 19 MAY 61

NATO CONFIDENTIAL

Enclosure (B) to MCACS: 1300-1 dated

JUN 4 1961

NORTH ATLANTIC TREATY ORGANIZATION
ALLIED COMMAND ATLANTIC
WESTERN ATLANTIC AREA
Headquarters of the Commander In Chief
Norfolk 11, Virginia, U.S.A.

Serial: 164

1 Jun 1961

~~NATO~~ CONFIDENTIAL

From: Commander in Chief Western Atlantic Area
To: Commander Canadian Atlantic Sub Area

Subj: NATO Supplement to ACP 117

Ref: (a) SACLANT ltr ser 470 of 19 May 1961

1. By reference (a) Supreme Allied Commander Atlantic requested Commander in Chief Western Atlantic Area to comment on the recommendation of the retermination of circuit NA5 prior to establishment of Halifax as a national transfer station.
2. Your comments are requested.

Sgd. A. R. JOSEPHSON
Assistant Chief of Staff

NATO CONFIDENTIAL

000447

CONFIDENTIAL

NSC 1300-166/10 SY(P)

ORIGINAL DAMAGED

MEMORANDUM TO: A/CNTS(P)

c.c. D.N. Com.

DGFE

DGSF

LOGISTIC AND MAINTENANCE SUPPORT
FOR MARITIME HEADQUARTERS

Enclosure: (A) NSS 1300-166/10 (Staff) dated 20
July, 1961.

A proposal to investigate the extent of RCN and RCAF responsibilities relating to the above mentioned subject has been received from D.N. Com. in enclosure (A). While it is the responsibility of Naval Technical Services to meet agreed naval commitments under multi-service agreements, the determination of these commitments, including organization and management, is surely not a technical responsibility. However, to ensure a co-ordinated TS review of the problem and to provide advice to other naval authorities concerned, enclosure (A) is referred for consideration and action. DGNS stands ready to assist and co-operate to whatever extent necessary in finding a solution to the problem presented by D.N. Com.



(D. McClure)

Commodore, RCN,
DIRECTOR GENERAL NAVAL SUPPLY

OTTAWA
26 July, 1961

CONFIDENTIAL

000448

CONFIDENTIAL

NSC 1300-166/10 SY(P)

MEMORANDUM TO: A/CNTS(P)

c.c. D.N. Com.

DGFE

DGSF

LOGISTIC AND MAINTENANCE SUPPORT
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(D. McClure)
Commodore, RCN,
DIRECTOR GENERAL NAVAL SUPPLY

OTTAWA
26 July, 1961

CONFIDENTIAL

000449

NSS 1900-166/10
(STAFF)

PFW/DF

- ROYAL CANADIAN NAVY -

Ontario.

25 JUL 1961

S.D 2166

ORIGINAL DAMAGED

MEETING OF STEERING GROUP
ON MARITIME COMMUNICATIONS

The second meeting of the Steering Group on Maritime Communications is scheduled for Wednesday, 13 September, in Naval Headquarters. In addition, it is intended to hold discussions on communication problems during the period 12-15 September.

2. It is requested that the following officers report to Naval Headquarters for the period 12-15 September:

Staff Officer (Communications) to CANCOMARLANF

Staff Officer (Communications) to CANCOMARPAC

Staff Officer (Communications) to CANFLAGLANF

Officer-in-Charge, Communication Division, Fleet School.

3. Visiting Officers will attend the Steering Group meeting as observers. Authorities addressed may send items for discussion either at the Steering Group meeting or outside it as appropriate. An agenda will be forwarded.

4. Officers shall use service air transport if practicable.

*A/A
for com
Sept 29*

D. Com (RCAF) Reviews

R-6
NAVAL SECRETARY

To FM D Maritime Commander Atlantic.
Comopac Maritime Commander Pacific.
Comopac Flag Officer Atlantic Coast.
Comopac Commodore, RCN Barracks, HMCS STADAGONA, HALIFAX.
Copy to: Chief of the Air Staff.

DIRECTOR
OF
COMMUNICATIONS
JUL 24 1961

ACNS (ACSW) for concurrence. 2 down

DEPARTMENT OF NATIONAL DEFENCE

MINUTE SHEET

REMARKS

Referred to

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

~~ACNS (ACSW)~~ W

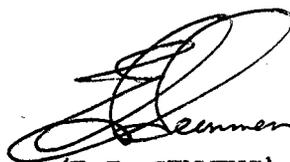
NSS 1300-166/10 (STAFF)

20 July, 1961.

In January, 1961, the RCAF Director of Communications and I formed the Steering Group on Maritime Communications to deal with communication problems affecting maritime operations.

2. The Steering Group, which meets approximately four times yearly, may call in interested officers as required.

3. After six months activity, I have no doubt as to the value of the Steering Group and recommend your approval of this letter.



(E.J. SIMMENS)

COMMANDER, RCN

DIRECTOR OF NAVAL COMMUNICATIONS

CONFIDENTIAL

NBS-1300-166/10 (STAFF)

20 July, 1961.

ORIGINAL DAMAGED

~~DS~~
MEMORANDUM TO: DGFE ✓)
 DCNS) Copy to each
 DGSF)

COPY TO: D Com (RCAF)

LOGISTIC AND MAINTENANCE SUPPORT FOR MARITIME HEADQUARTERS

At a recent meeting, the Steering Group on Maritime Communications discussed the problem of logistic and maintenance support for communications complexes in maritime headquarters. The representative of the Maritime Commander Atlantic pointed out that there is no single service authority to co-ordinate logistic and maintenance requirements in the Interim Maritime Headquarters. For this reason there are unacceptable delays in procurement and maintenance of equipment which adversely affect the efficiency of the communication centre.

2. Both the RCN and the RCAF supply the communication equipment in this facility. Civilian technicians on the staff of the Commodore Superintendent Atlantic Coast maintain RCN equipment while service personnel from 6 Communication Unit RCAF maintain RCAF equipment. As 6 CU is situated at Anderson Square, approximately three miles from dockyard, motor transport requirements can result in delays that are detrimental to maritime operations.
3. A similar problem area lies in the provision of equipment spares, replacements and general stores required for the communication centre. No allowance list exists for this facility nor is there a laid down service responsibility for the supply of equipment and stores.
4. It is considered that the provision of a central maintenance authority would greatly increase efficiency in the communication centre. The establishment of an allowance list for the Interim Maritime Headquarters would alleviate to a large extent the day to day problems in procurement of general stores and equipment spares. The provision of stores from one source, either a Naval or Air Force supply depot, would be most advantageous. Permanent MHQ's remote from dockyards will make such an organization more necessary for efficient operations.
5. It is recommended that RCN and RCAF authorities concerned investigate this problem with a view to establishing service responsibilities for provision of logistic and maintenance support for maritime headquarters.



(E.J. SEMMENS)
COMMANDER, RCN

DIRECTOR OF NAVAL COMMUNICATIONS

CONFIDENTIAL

JLC/DF *ppa*

NSS 1300-166/10 (STAFF)

CONFIDENTIAL

20 July, 1961.

MEMORANDUM TO: DCFE
DCNS
DCSF

1 - SD #
Copy to each } *needed*

COPY TO: D Com (RCAF)

LOGISTIC AND MAINTENANCE SUPPORT FOR MARITIME HEADQUARTERS

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5. It is recommended that RCN and RCAF authorities concerned investigate this problem with a view to establishing service responsibilities for provision of logistic and maintenance support for maritime headquarters.

Original Signed by
E. J. Semmens

(E.J. SEMMENS)
COMMANDER, RCN
DIRECTOR OF NAVAL COMMUNICATIONS

CONFIDENTIAL

SECRET

CRN/jsm

EX(N)PA ✓
NSS 1654-2
NSS 1300-166/10(DGFB)

MEMORANDUM TO: DN COM

COMMUNICATIONS REQUIREMENTS
EMERGENCY DEFENCE PLAN

- References: (a) NSS 1654-2
NSS 1300-166/10(Staff), dated 24 April, 1961.
(b) ACS: 1400-1 Sub 1 dated 28 March, 1961.

Before action is taken to procure the transmitting equipment noted in reference (a), it is considered that other facets of the EDP situation of the RCN should be studied and perhaps approved by higher authority.

2. On a service-wide basis, the entire requirement for communications equipment for an EDP should be formulated. Following this, an assessment would be required of:

- (a) How is this substantial increase in equipment to be maintained; operated on a regular routine and supported by spares? That is; are there any complement implications.
- (b) Is there space in all locations for the equipment? If not, is provision to be made in estimates for buildings and/or building alterations.
- (c) What provision is to be made for antennae; particularly for the P-to-P HF nets.
- (d) what power reliability, (emergency generating requirements) will be necessary at each site in order to achieve an effective EDP.

3. As a corollary to the queries of para 2 above, it is considered that the provision of communications installations for an EDP is a project much bigger than the equipment above. Consequently, it may be premature to investigate provision of equipment until the entire implications of the program are established.

4. It is understood that equipment and installations required to implement an E.D.P. must be dealt with and considered in the same manner as any other equipment or installation project. Consequently, it is considered that the communication requirements for the E.D.P. and all resulting implications, should be formulated and presented for the approval of higher authority as a Staff Project item. As the preparation of the necessary data for a complete coverage of all implications is a major project for DGFB/DSL, it is recommended that approval in principle, and in level of priority, be obtained so that personnel can be employed on the preparation without jeopardizing items of higher priority.

..../2

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DISPATCHED D.G.F.F.
DATE JUL 20 000454

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- 2 -

5. With particular reference to the NOIC NET outlined in reference (a), it is considered that such an H.F. net will be impractical on a single transmitter/Receiver/frequency basis owing to the H.F. propagation resulting from the geographical distribution of the member stations. Consequently it appears that a revised "modus operandi" should be considered.

ORIGINAL SIGNED BY
S. E. PADDON
CAPT. (L) R.C.N.

(S.E. Paddon)
Captain, R.C.N.
DIRECTOR GENERAL OF FIGHTING EQUIPMENT.

O T T A W A
19 July, 1961.

SECRET

CONFIDENTIAL

NSS 1300-166/10
Vol. 2 (STAFF)

- ROYAL CANADIAN NAVY -

Ontario.

BEST AVAILABLE COPY

12 JUL 1961

Department of Transport Montague Radio Station

References: (a) AC: 1300-1; AC: 1300-189/163 dated 14 June, 1961.

(b) NSS 8000-37 (DSRA) dated 5 May, 1960.

Information has been received from the Department of Transport that no direction finding facilities will be available at Montague Monitoring Station. Co-operation with the Royal Canadian Navy in matters of radio monitoring and frequency measuring will continue.

2. As submarine safety orders are held by stations of the Atlantic direction finding net and operational procedures were passed to these stations in reference (b), it is considered that there is no RCN requirement for HF/DF facilities at Hartlen Point or Montague.

T.M.W.
From catch
Date 12.7.61 ✓
Initials AR.

R.B.
NAVAL SECRETARY.

Flag Officer Atlantic Coast.

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

Concur 5/7
DSRA ?
ON 10 Jul.
for concurrence.

A/Coms (A/W)
Concur
W.
11/7.

CONFIDENTIAL

DIRECTOR
[Signature]
JUL 5 1961
COMMUNICATIONS

1183

RESTRICTED

DEPARTMENT OF NATIONAL DEFENCE

JR 1592



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

JUL 3 1961

Seen 10/7/61

MARITIME COMMUNICATIONS IMPROVEMENT PROGRAMME

Reference: (a) NSS: 1300-166/10 (Staff) of
21 June, 1961

This Command Headquarters concurs with
the minutes which were forwarded as Enclosure (A)
to reference (a).

f. Wm. Lead w/cdr
REAR ADMIRAL

NAVAL SECRETARY

Copy to: Chief of the Air Staff

Referred to	<i>Staff</i>
JUL 4 1961	
File no.	<i>1300-166/10</i>
Chgd to	<i>Staff 29/6</i>

RESTRICTED

(CIVIL AVIATION, TELECOMMUNICATIONS
AND ELECTRONICS, METEOROLOGICAL
AND CONSTRUCTION BRANCHES)



YOUR FILE No.....

OUR FILE No. 6801-233
6801-552

ASSISTANT DEPUTY MINISTER—AIR
DEPARTMENT OF TRANSPORT
OTTAWA, CANADA

June 27, 1961.

Dear Sir,

Attention: Commander E. J. Semmens, R.C.N.
Director of Naval Communications

This will confirm the telephone conversation on Friday,
June 23, 1961, between Lt. Cdr. Creach, D.N. Comm. and Mr. E. W.
Groves, Radio Regulations Engineering, concerning a letter from
the Flag Officer, Atlantic Coast, Royal Canadian Navy, pertaining
to the Hartlen Point D.F. Station, and the facilities formerly
available at that station.

The Department of Transport will be pleased to co-operate
with the Royal Canadian Navy in matters of radio monitoring or
frequency measurement at the new Montague Monitoring Station,
however direction finding equipment will not be installed at this
station, and this service, formerly provided at Hartlen Point,
will not be available at Montague.

Attached for your action is one copy of a letter on the
subject, file AC1300-1, AC1300-189-163 dated June 14, 1961, from the
Flag Officer, Atlantic Coast, addressed to our Moncton Regional
Office.

Yours truly,

E. J. Semmens

(A. de Niverville)
Assistant Deputy Minister, Air.

Att. *NA*

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

Referred to... *Staff*
JUN 29 1961
File No. 1300-166/10
Chgd to.....
000458

*30-8
NW COM*

ORIGINAL DAMAGED

COPY

ORIGINAL ON FILE..... 5866-43

COPY FOR FILE.....

DEPARTMENT OF NATIONAL DEFENCE
ROYAL CANADIAN NAVY

AC: 1300-1
AC: 1300-189/163

Office of the Flag Officer
Atlantic Coast
Fleet Mail Office,
Halifax, N. S.
June 14, 1961.

DEPARTMENT OF TRANSPORT MONTAGUE RADIO STATION

Information has been received that Hartlen Point Radio Station has closed down and on the first of July will be replaced by a new Department of Transport Radio Station at Montague, Prince Edward Island.

2. In the past the Naval Radio Station at Albro Lake and other components of the RCN, have required, on occasion, the use of the HF/DF for distress purposes, and monitoring facilities formerly provided by Hartlen Point.

3. As the requirement for the facilities in para (2) still exists, information is requested if these, and other facilities not previously supplied by Hartlen Point will be available to the Royal Canadian Navy when Montague is activated.

?????????
(Sig. not decipherable)
for REAR ADMIRAL

Department of Transport,
P.O.Box 217,
Halifax, N. S.

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

JLC/DF
C O N F I D E N T I A L

NSC 1300-166/10 (STAFF)

23 June, 1961.

MEMORANDUM TO: DN Com
D Com

SERVICE RESPONSIBILITIES FOR PROVISION OF
COMMUNICATION FACILITIES IN THE MARITIME COMMANDS

At a special meeting on Wednesday, 21 June, the Steering Group on Maritime Communications considered the division of responsibilities between the RCN and RCAF for provision of communication facilities in the Maritime Commands.

2. The Steering Group agreed that there was considerable merit in concentrating the provisioning function under one Service. Since the RCN has the prime responsibility for maritime warfare, it seemed logical to make the RCN responsible for providing the majority of communication facilities.

3. The Steering Group concluded that the following responsibilities should be assigned: -

(a) to the RCN

- (i) provision of all teletype, voice, data, facsimile, control and keying circuits serving the Maritime Commanders;
- (ii) provision of terminal equipment for (i) within the MHQ's and at RCN distant terminals;
- (iii) provision of all communication equipment for the MHQ's, including cryptographic, internal distribution, intercommunication and telephone systems (but excepting air/ground/air control consoles);
- (iv) provision of radio equipment and associated control facilities for all Naval broadcasts and ship/shore services.

(b) To the RCAF

- (i) provision of all air/ground/air radio equipment, (excepting cryptographic equipment) and control consoles within the MHQ;
- (ii) provision of terminal equipment for 3 (a) (i) at distant RCAF terminals.

4. The Steering Group agreed that the Logistic and Maintenance Support for Maritime Headquarters should be taken under study with a view to establishing a responsibility for all logistics and maintenance under one authority.

C O N F I D E N T I A L

...../2

C O N F I D E N T I A L

- 2 -

5. The Steering Group recommends that the appropriate authorities be asked to approve the conclusions noted in paragraphs 3 and 4.



(J. L. Creech)

Lieutenant-Commander

SECRETARY

STEERING GROUP ON MARITIME COMMUNICATIONS.

C O N F I D E N T I A L

Directorate of Naval Communications.

NSS 1300-166/10
(STAFF)

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- ROYAL CANADIAN NAVY -

110834
21 JUN 1961

MARITIME COMMUNICATIONS IMPROVEMENT PROGRAMME

ENCLOSURE: (A) Minutes of a Meeting to Discuss Proposed
Improvements to Maritime Atlantic
Communication Facilities. (4 copies)

Enclosure (A) is the minutes of a meeting held at
Maritime Headquarters, Halifax on 7-8 June to discuss proposed
air-ground-air communication improvements.

2. The final draft of these minutes was discussed with
appropriate Staff Officers of the Maritime Commander Atlantic
on completion of the meeting.

3. It is requested that concurrence with these
minutes may be forwarded.

[Signature]
NAVAL SECRETARY.

to *Imo* Maritime Commander Atlantic.
For Despatch
Date *21 6 61* Copy to: Chief of the Air Staff.
Info *to's* *AK*

Drafted by: LCdr. J.L. Creech/DF (2-5163)

DIRECTOR
OF
COMMUNICATIONS
JUN 19 1961
COMMUNICATIONS

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R 161901Z
FM CANCOMARLANT
TO CANAVHED
INFO CANAIRHED
BT

ROUTINE
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"AC" NO UNCLASSIFIED
REPLY OR REFERENCE
NSC 1300-166/10 (STAFF)
151338Z (DNCOM) RE
MEETING STEERING GROUP

ACNS (P)
STAFF
DNI
DN COM
DGNS
CNP
PERS (N)
DOP

YOUR 151338Z JUNE X S/L RHC CARVER WILL ATTEND AND REQUESTS HOTEL
RESERVATION LORD ELGIN FOR NIGHT OF 20 AND 21 JUNE
BT

TOR 161949Z JUN 61

JLC/DF

Harry CR (PPA)

1300-146/10

~~NSC-1300-146/10~~ (STAFF)

15 June, 1961.

MEMORANDUM TO: D/D Com

RCAP COMMUNICATIONS IMPROVEMENT AND AUGMENTATION
PROGRAMME

Reference: (a) S 951-106 TD 1157Q (D Com) dated 7 June, 1961.

The proposed changes in communications facilities at Greenwood and Comox as amended by common consent at our meeting Wednesday, 14 June are acceptable to this Headquarters.

2. It is noted that after discussions at this meeting and at MHQ Halifax, the equipment planned for Greenwood will be justified as an operational training commitment for MAC and not as an alternate MHQ facility.

Original Signed by
E. J. Semmens

(E.J. SEMMENS)
COMMANDER, RCN
DIRECTOR OF NAVAL COMMUNICATIONS.

To →

HARD COPY ON AIRFORCE

5951-106 TD 1157Q

MESSAGE FORM

FOR COMM/CEN/SIGNALS USE

NUMBER

NSC 1300-166/10
(STAFF)

"ACT" - NO UNCL. SERIALS, REPLY OR REFERENCE

NAVY
OTTAWA

1300-166/10

15-6-61

PRECEDENCE - ACTION ROUTINE	PRECEDENCE - INFO DEFERRED	DATE - TIME GROUP 15/338Z	MESSAGE INSTRUCTIONS
FROM CANAVHED			PREFIX GR
TO CANCOMARLAW			SECURITY CLASSIFICATION RESTRICTED
INFO CANAIRHED			ORIGINATOR'S NUMBER

SPECIAL MEETING STEERING GROUP ON MARITIME COMMUNICATIONS SCHEDULED FOR 0900 21 JUN TO DISCUSS COMMUNICATION LAYOUT NEW MEC X

2 X REQUEST S/LDR CARVER ATTEND X HE SHOULD BE PREPARED TO STAY TO DAYS X

DIRECTOR
OF
COMMUNICATIONS
JUN 15 1961

PAGE OF PAGES	REFERS TO MESSAGE	WRITER'S NAME	OFFICE	TEL.					
	CLASSIFIED YES <input type="checkbox"/> NO <input type="checkbox"/>	WILSON LCDR. P.F./DF IN Com		2-5163					
FOR OPN'S USE	DATE	TIME	SYSTEM	OPERATOR	DATE	TIME	SYSTEM	OPERATOR	RELEASING OFFICER'S SIGNATURE
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EJS/DF

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CRPA → NSS 1300-166/10 (STAFF)

7 June, 1961.

MEMORANDUM TO: / Director of Communication (RCAF)

COMMUNICATIONS IMPROVEMENT MHQ

Reference: (a) S951-106 (D Com) dated 6 June, 1961.

It is regretted that the date of Monday, 12 June is not convenient for the meeting suggested in reference (a) observing that the two staff officers concerned from DN Com will not return from MHQ Esquimalt until p.m. 12 June.

2. In view of the above it is recommended that this meeting be held either Tuesday 13 or Wednesday 14 June.

Original Signed by
E. J. Semmens

(E.J. SEMMENS)
COMMANDER, RCN
DIRECTOR OF NAVAL COMMUNICATIONS

PFW/LL

~~SECRET~~

pan → NSC 1300-166/10 (Staff)

24 May, 1961.

MEMORANDUM TO: Director of Communications

IMPROVEMENT AND AUGMENTATION OF THE RCAF
COMMUNICATIONS SYSTEM

Reference: (a) S 951-100-1 (D Com) dated
11 May, 1961.

Dn Com has studied D Com's staff paper on improvements to the RCAF communications system, with particular regard to the maritime air requirements.

2. The provisions made in the paper support the stated requirements of the Maritime Commanders and Dn Com agrees with the measures proposed.

3. The vulnerability of ground radio equipment and control lines, both Naval and RCAF, in the Maritime Commands is of considerable concern, and it is hoped that every consideration will be given to the dispersal of any new equipment to be installed.

Original Signed by
E. J. Semmens

(E. J. Semmens)
Commander, RCN,

Director of Naval Communications.

SECRET

Dispatched
25/5/61
SM
000467

NSS 1654-2,
NSS 1300-166/10 (STAFF)

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ROYAL CANADIAN NAVY

PA →

Canada.

22 MAY 1961

COMMUNICATION REQUIREMENTS
FLAG OFFICER ATLANTIC COAST -
EMERGENCY DEFENCE PLAN (EDLANT)

Reference: (a) ACS: 1400-1 Sub 1 dated 28 March, 1961.

Reference (a) is currently under study.
Information will be forwarded when available.

J.P.B.
NAVY SECRETARY.

The Flag Officer Atlantic Coast.

To Tmo
Fps Despatch
Date 2. 5. 61
Initials AK

DN PLANS - for concurrence, please.

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NSS 1654-2,
 NSS 1300-166/10 (STAFF)
 SSD # 725

24 April, 1961.

MEMORANDUM TO: DGFE

OUTSTANDING RADIO COMMUNICATION REQUIREMENTS TO
 FULFILL FLAG OFFICER ATLANTIC COAST'S SUPPORT
 EMERGENCY DEFENCE PLAN

Reference: (a) ACS: 1400-1 Sub 1 dated 28 March, 1961.

The following is a summary of the outstanding radio communication requirements to meet the Emergency Defence Plan of the Flag Officer Atlantic Coast. It is to be noted that this summary includes only radio requirements. Other requirements will be studied separately.

2. The outstanding radio requirements are:

<u>Line</u>	<u>Purpose</u>	<u>Location</u>	<u>Frequency</u>	<u>Range</u>	<u>Emission</u>
1	NOIC's net	Shelburne	2-10 mcs	200 miles	CW
2	NOIC's net	Sydney	2-10 mcs	200 miles	CW
3	NOIC's net	St. Johns	2-10 mcs	400 miles	CW
4	NOIC's net	York Redoubt (Halifax)	2-10 mcs	200 miles	CW
5.	NOIC's net	Quebec	2-10 mcs	300 miles	CW
6	NOIC's net	Montreal	2-10 mcs	400 miles	CW
7	Harbour Common	Shelburne	2-4 mcs	100 miles	CW
8	Harbour Common	Sydney	2-4 mcs	100 miles	CW
9	Harbour Common	St. Johns	2-4 mcs	100 miles	CW
10	Harbour Common	Montreal	2-4 mcs	100 miles	CW
11	Harbour Common	Quebec	2-4 mcs	100 miles	CW
12	Harbour Common	Shelburne	2-4 mcs	30 miles	Voice
13	Harbour Common	Montreal	2-4 mcs	30 miles	Voice
14	Harbour Common	Quebec	2-4 mcs	30 miles	Voice
15	Naval Air Co-ordination	Sydney	2-10 mcs	300 miles	UW
16	Naval Air Co-ordination	Yarmouth	2-10 mcs	300 miles	CW

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<u>Line</u>	<u>Purpose</u>	<u>Location</u>	<u>Frequency</u>	<u>Range</u>	<u>Emission</u>
17	Harbour Common	York Redoubt (Halifax)	225-400 mcs	Line of Sight	Voice
18	Harbour Common	Shelburne	225-400 mcs	Line of sight	Voice
19	Harbour Common	Sydney	225-400 mcs	Line of sight	Voice
20	Harbour Common	St. John's	225-400 mcs	Line of sight	Voice
21	Harbour Common	Montreal	225-400 mcs	Line of sight	Voice
22	Harbour Common	Quebec	225-400 mcs	Line of sight	Voice
23	Air/Ground/ Air	Sydney	225-400 mcs	Line of sight	Voice
24	Air/Ground/ Air	Yarmouth	225-400 mcs	Line of sight	Voice

3. DGFE is requested to investigate means by which the outstanding MF/HF transmitting requirements, in lines 1 to 16 inclusive, can be met without resorting to new procurement and without prejudicing existing commitments. In this connection, it is understood that there may be suitable equipment held by the RCAF and/or Army which is surplus to their requirements.

4. DN COM will investigate availability of suitable MF/HF receivers and UHF equipment.

5. Equipment provided to meet these requirements is to be supplied to NSD Halifax, marked "for Flag Officer Atlantic Coast, Support Emergency Defence Plan", for dispersal as arranged by the Flag Officer Atlantic Coast.

6. DGFE is requested to inform DN COM of the equipment to be provided in order that a co-ordinated reply to reference (a) can be prepared by DN COM

Original signed by
E. J. Semmens.
 (E. J. Semmens),
 Commander, RCN.,
 DIRECTOR OF NAVAL COMMUNICATIONS.

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DEPARTMENT OF NATIONAL DEFENCE ACS: 1400-1 Sub. 1

ROYAL CANADIAN NAVY

Office of the Flag Officer Atlantic Coast
Fleet Mail Office
Halifax, N.S.

MAR 28 1961

**COMMUNICATION REQUIREMENTS
FLAG OFFICER ATLANTIC COAST-
EMERGENCY DEFENCE PLAN (EDLANT)**

Reference: (a) NSS: 1654-2, NSS: 1300-166/10
(Staff) dated
15 December, 1960.
(b) CNCD 105 Section 8.

Enclosure: (A) Staff Study of Communications -
EDLANT with Appendix (A).

Submitted for the consideration of Naval
Headquarters is the above noted enclosure in reply
to reference (a).

2. The communication requirements in refer-
ence (b) have been put out as the objective to provide
reliable and adequate facilities to fulfil the concept
of EDLANT. There is no question that key points in
these facilities are not available. It has been the
intention that these requirements be met progressively
subject to circumstances and financial approval. In
this manner it is hoped to improve effectively EDLANT
communications step by step.

3. The main deficiencies have been in the
lack of landlines on an immediate call-up basis, and
being unable to earmark strategically vital communica-
tion equipment in dispersed locations. Without these,
an effective communication support for EDLANT is not
possible.

4. With the exception of landlines, and
locations or installations lacking communication equip-
ment, the remainder of the communications in reference
(b) are within the capability of the Command.

5. It is requested enclosure (A) be approved.

W. W. ...
REAR ADMIRAL

The Naval Secretary.

Referred to	<i>Staff</i>
MAR 29 1961	
File No.	<i>1654-2</i>
Chgd to	<i>staff 26/1</i>

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ENCLOSURE: (A) TO ACS: 1400-1 Sub. 1 dated

COMMUNICATIONS - FLAG OFFICER ATLANTIC COAST SUPPORT DEFENCE PLAN (EDLANT)

Reference: (a) CBCN 6904(59) - Emergency Defence Plan.
(b) CNCN 105 - EDLANT.
(c) CNCN 107 - MAROPEDLANT.
(d) COMCANLANT - Emergency Defence Plan.
(CNS 1640-11/19 dated 21 March, 1960).

Appendix: (A) Circuits, Callsigns & Frequency Allocations.

AIMS

The aim of this paper is to obtain approval to:

- (a) Fulfil the smooth and reliable flow of message traffic related to the logistic support of the Naval forces under the Operational Command of CANCOMARLANT.
- (b) Provide adequate and reliable communications to the Flag Officer Atlantic Coast in support of EDLANT.
- (c) Ensure communication equipment and facilities, or alternatives, are immediately available upon the implementation of EDLANT.
- (d) Seek financial approval where necessary to make provision for (a), (b) and (c).

BACKGROUND

2. The RCN Defence Plan is prescribed in CBCN 6904(59). The Maritime Commander Atlantic's Emergency Defence Plan is contained in CNCN 107. The Flag Officer Atlantic Coast Support Emergency Plan is promulgated in CNCN 105 complementary to both CBCN 6904(59) and CNCN 107.

3. Certain "call up" landlines, radio "back-up" circuits and ancillary communication facilities are essential to meet the EDLANT primary objective in supporting the operational command of CANCOMARLANT and COMCANLANT (reference (d)). These have been outlined in Part 8, "Communications," in CNCN 105.

DISCUSSION

4. To prepare a continuity of Command Communications and thereby ensure positive direction and guidance in preparing for war or an emergency, appendix one to Part 8 of CNCN 105 was promulgated. This appendix is subject to many conditions, but indicates an objective.

5. Normal peacetime Atlantic Command Communication facilities will be used as long as circumstances permit. When this becomes impossible, alternate communication facilities particularly in the Halifax Area will be immediately replaced by alternate means.

6. On the declaration of any ALERT or EMERGENCY (vide references (a) and (c)), all HMC Ships and Esta-

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- 2 -

Establishments in the Atlantic Command will set continuous watch on either Fleet Broadcast LIMA ROMEO (RATT), LIMA (CW), or LIMA ALFA. This will insure immediate Command direction. It will be the responsibility of individual Command Authorities to copy whichever Broadcast component is within their capability or provide an alternate arrangement.

7. To provide "back-up" radio circuits between NOIC's and CANFLAGLANT, a CW circuit is required between HALIFAX-CORNWALLIS-SHELBURNE-SYDNEY-QUEBEC CITY-MONTREAL-ST. JOHN'S NFLD. It will be necessary that NAVRADSTA ALBRO LAKE be in this circuit and act as Control Station as long as circumstances in the Halifax Area permit to ensure the timely flow of messages into the NSCS. The alternative net Control Station is CORNWALLIS.

8. Essential landline circuits on a "call up" basis for Inter-Command purposes on dispersal from Halifax are required as follows:

- (a) CANFLAGLANT (CORNWALLIS) - CANCOMARLANT (TORBAY), Duplex
- (b) CANFLAGLANT (CORNWALLIS) - Deputy CANFLAGLANT/NOIC Sydney (Sydney), Duplex
- (c) CANFLAGLANT (CORNWALLIS) - EASCOM (Debert), Half Duplex

9. On disruption of communication facilities at Halifax, Fleet Broadcast LIMA ALFA will be activated at CORNWALLIS or sooner if required. Fleet Broadcast LIMA ROMEO and LIMA will be under the operational control of CANCOMARLANT.

10. Harbour Common circuits at NOIC's Halifax, Shelburne, Sydney and St. John's, Nfld. must be activated on the implementation of EDLANT. NOIC's at Montreal and Quebec City should activate Harbour Common circuits as soon as resources permit.

11. All available Naval Aircraft are required for CANCOMARLANT operations on the declaration of an ALERT or when ordered. Since naval aviation resources are to be dispersed to ensure availability, an HF radio net will be required between CANAS-SYDNEY N.S.-Yarmouth N.S. plus a UHF A/G/A circuit at each location. The Sydney net unit will require a telephone link to NOIC Sydney. Sydney will also act as net control station.

12. On dispersal from the Halifax Area a rearguard HF net will be required - HMC DOCKYARD - HMCS STADACONA - CANAS. Present communication equipment in HMC DOCKYARD and HMCS STADACONA can be utilized. A transportable HF Transceiver will be required at CANAS.

13. On disruption of communications in the Halifax Area, CANFLAGLANT (CORNWALLIS) will maintain the radio link between NAVRADSTA Argentia and CANFLAGLANT (CGO's Part III, Crt. P7).

. . . /3

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14. A direct telephone inter-Command link will be required between NOIC Shelburne - HMCS SHELburne on the implementation of CNCD 105.

15. The circuits, callsigns and Frequency Allocations are attached in Appendix (A). Some of the frequencies selected have been designated under the provision of CGO Part III COM A1 Part I para (1)(e) as an emergency requirement to maintain communications pending other allocations.

16. A schematic layout of circuits under the concept of EDLANT are shown in Appendix One of Section 8 (CNCD 105).

17. A minimum of 12 landlines is required between CANFLAGLANT at CORNWALLIS and NAVRADSTA NEWPORT CORNER for remote radio keying lines and voice order circuits. These are:

- (a) Ship-Shore - 6 (4,6,8,12,22 Mcs)
(Minimum 4 bands to be covered)
 - (b) LIMA ALFA - 2 (LF & HF components)
 - (c) Circuit P1 - 1
 - (d) Circuit P3 - 1
 - (e) Circuit P7 - 1
 - (f) Order Circuit - 1
- Total 12

To allow for spares, it is believed 15 landlines are required. The transmitters at NEWPORT CORNER are not capable of being keyed directly from landlines at CORNWALLIS. To use the landline system, a keying adaptor would be required for each circuit. Alternatively, tone keying equipment similar to the Fisher equipment now at ALBRO LAKE would have to be provided at CORNWALLIS.

18. An order circuit between NAVRADSTAS ALBRO LAKE and NEWPORT CORNER already exists. None are available between CORNWALLIS and NAVRADSTA NEWPORT CORNER.

19. The strategic allocations of radio equipment to fulfil the circuitry of Appendix One (Section 8, CNCD 105) remains to be resolved. Atlantic Command Authorities concerned are expected to make do with whatever facilities are available or can be arranged to meet the intent of CNCD 105 in an emergency.

PRESENT STATUS

20. CIRCUIT 1.a. - No keying facilities to NEWPORT CORNER exist.
The installation of the AN/SRT 502 should provide an emergency transmitter for Best. LIMA ALFA.

CIRCUIT 1.b. - Known facilities exist at COPNWALLIS, Halifax and NAVRADSTA ALBRO LAKE. SYDNEY is expected to have a capability. No facilities are known to be earmarked for NOIC's at ST. JOHN'S NFLD, QUEBEC and MONTREAL (Naval Divisions might provide these services). *Shelburne - ? nothing*

CIRCUIT 1.c. - No keying facilities exist.

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- 4 -

- CIRCUIT 1.d. - Facilities exist.
- CIRCUIT 1.e. - Present operating facilities (YORK REDOUBT has capability of transceiving on one channel) are available. *Understand on 11/12/52*
- CIRCUIT 1.f. - Facilities can be made available for one channel.
- CIRCUIT 1.g. - Facilities CABOT could be utilized to provide one channel.
- CIRCUIT 1.h. - No earmarked facilities for NOIC SHELBURNE. Only the facilities at HMCS SHELBURNE might be used in an emergency. *req'd for SOSUS*
- CIRCUIT 1.i. - No earmarked or known facilities exist.
- CIRCUIT 1.j. - Emergency facilities can be provided. *see para 12*
- CIRCUIT 1.k. - Operating facilities are provided between NAVRADSTA ALBRO LAKE and OTTAWA. No terminal facilities exist at CORNWALLIS.
- CIRCUIT 1.l. - As in 1.k., no facilities at CORNWALLIS.
- CIRCUIT 1.m. - Emergency facilities could probably be provided by CORNWALLIS.
- CIRCUIT 1.n. - Emergency facilities can be provided.
- CIRCUIT 1.o. - No facilities or known earmarked equipment exists.
- CIRCUIT 1.p. - As in 1.n.
- CIRCUIT 1.q. - As in 1.n.
- CIRCUIT 1.r. - As in 1.n.

CONSIDERATIONS

21. In view of the location of NAVRADSTA NEWPORT CORNER from Halifax, and its transmitting potential, it is considered illogical not to provide a keying capability at the ALTERNATE HEADQUARTERS (CORNWALLIS) for CANFLAGLANT.

22. The nuclear threat to-day predicates a case of survival and the realistic dispersal of strategically earmarked communication equipment from target areas is mandatory to ensure a continuance of Command Communications.

23. The provision of emergency command alternate land-line facilities on a call-up basis, by-passing Halifax is essential in conjunction with para 22.

CONCLUSIONS

24. The Communications to support the concept of EDLANT can only be made effective, if provision is made for:

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- 5 -

- (a) The immediate call-up of a keying capability (15) between CORNWALLIS and NAVRADSTA NEWPORT CORNER;
- (b) The immediate call-up of landlines for Circuits l.n., l.o., l.p. and l.q., and;
- (c) Communication equipment being strategically earmarked and judiciously dispersed from target areas.

25. Approval to the communication requirements in para 24 is requested.

26. Lacking approval (para 25), communication in support of EDLANT will:

- (a) Have to resort entirely to radio communications (CW in most instances) in linking alternate Headquarters (CANAI PFAX, CANCOMARLANT and EASCOM);
- (b) Be denied the full and effective use of the transmitting potential at NAVRADSTA NEWPORT CORNER;
- (c) Not have vital communication equipment strategically dispersed from target areas in the event of an Emergency.
- (d) Be unable to meet the aims in paras 1(a), 1(b) and 1(c).

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APPENDIX (A) TO ACS: 1400-1 Sub. 1 dated

CIRCUIT, CALLSIGNS AND FREQUENCY ALLOCATIONS

1. General

EDLANT CIRCUIT BETWEEN

CALLSIGNS FREQUENCY

REMARKS

a. Flt. Best. (CORNWALLIS) Ships and Shore Establishments (where possible).	CFH	(1) CGO's Pt. III, Circuit Bl. 1. initially. (2) Circuit Bl. 2 when ordered.	(1) LIMA initially (2) LIMA ALFA when ordered.
b. CORNWALLIS (control) SHELBURNE NRS ALBRO LAKE SYDNEY ST. JOHN'S NFLD. HALIFAX (YORK REDOUBT) QUEBEC MONTREAL	CKJ CZQ22 CFH CFE CKS CFK11 CZO CZI	3293 Kcs (CW) (P) 7985 Kcs (CW) (S)	NOIC's to be activated as soon as possible.
c. NRS NEWPORT CORNWALLIS	- - -	15 Landline/Keying and Voice order circuits.	- - -
d. NRS ALBRO LAKE NRS NEWPORT	- - -	Landline (Existing Landline and Microwave facilities)	To be utilized until NRS ALBRO LAKE facilities disrupted.

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<u>EDLANT CIRCUIT BETWEEN</u>	<u>CALLSIGNS</u>	<u>FREQUENCY</u>	<u>REMARKS</u>
e. HALIFAX Local Harbour Common (Note 1)	CFH	2716 Kcs(V) Primary 2844 Kcs(CW) Secondary	283.4 Mcs to be made primary when resources become available.
f. SYDNEY Local Harbour Common	CFE	2716 Kcs(V) Primary 2844 Kcs(CW) Secondary	283.4 Mcs to be made primary when resources become available.
g. ST. JOHN'S NFLD. Local Harbour Common.	CKS	2716 Kcs(V) Primary 2844 Kcs(CW) Secondary	283.4 Mcs to be made primary when resources become available.
h. SHELBURNE Local Harbour Common	CZQ22	2716 Kcs(V) Primary 2844 Kcs(CW) Secondary	283.4 Mcs to be made primary when resources become available.
i. Naval Air at Sydney, AF (control)	CFE	3261 Kcs(CW)(P)	
Naval Air at Yarmouth AF	CFD22	5172 Kcs(CW)(S)	
CANAS Dartmouth	CFD		
j. Rear Guard HMCS STADACONA (Control)	CKB11		
Rear Guard HMC DOCKYARD	CKB22	2716 Kcs(V) (CW) (P)	For Voic callsign Establishment names are to be used.
Rear Guard HMCS SHEARWATER	CFD		
k. HALIFAX(or CORN- WALLIS) OTTAWA	CFH CFF	CGO's Part III Circuit P1 (RATT)	Reliability of circuit reception CORNWALLIS to be determined.

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<u>ANT CIRCUIT BETWEEN</u>	<u>CALLSIGNS</u>	<u>FREQUENCY</u>	<u>REMARKS</u>
1. HALIFAX(or CORNWALLIS) WHITEHALL	CFH GYA	CGO'S PART III Circuit P3 (RATT)	Reliability of circuit reception CORNWALLIS to be determined.
m. HALIFAX(or CORNWALLIS) ARGENTIA	CFH NWP	CGO'S PART III Circuit P7 (CW)	Reliability of Circuit reception CORNWALLIS to be determined.
n. STADACONA HMC SHIPS in Halifax Harbour	STADACONA Ship's name	307.4 Mcs (V) . (P)	Manning requirements for ships.
o. TORBAY CORNWALLIS	CHA CKJ	Duplex Landline (Point-to- Point)	- -
p. SYDNEY CORNWALLIS	CFE CKJ	Duplex Landline (Point-to- Point)	- -
q. DEBERT CORNWALLIS	CIH CKJ	Half Duplex Landline (Point-to- Point)	- -
r. NOIC SHELBURNE HMCS SHELBURNE	CZQ11 CZQ	Half Duplex Landline (Point-to- Point)	Circuit when resources permit.

2. In the event NAVRADSTA NEWPORT CORNER immobilized or facilities disrupted, HMC Ships are to shift to copy Fleet Broadcast WHISKEY (unless otherwise directed).

- NOTE:
1. YORK REDOUBT served by existing facilities so that requirement will be essentially for back-up purposes.
 2. 7985 Kcs., 5172 Kcs. and 3261 Kcs are authorized on the direction of CANFLAGLANT as an emergency allocation and are effective only for the duration of the emergency pending the assignment of other frequencies.

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main file

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000480

Director of Naval Communications.

NES 1300-166/10
(STAFF)

PFV/DF
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- ROYAL CANADIAN NAVY -

Ontario.

18 APR 1961

MARITIME COMMAND ATLANTIC
COMMUNICATION REQUIREMENTS

- References:
- (a) NCACS 1300-1 dated 8 February, 1961.
 - (b) NCACS 1300-1 dated 26 January, 1961.

Comments on the recommendations in reference (a) are as follows:-

RECOMMENDATION

- (a) MFQ Control circuits to ships and aircraft
 - (i) High power LF (LF/HF to ships) on-line radio teletype broadcast (primary).
 - (ii) Medium power HF/SSB/AM using voice or CW modes (secondary).

COMMENT

- (i) The high powered RATT LF/HF broadcast (LR) is available now. It will have on-line cryptography early in 1962. The RCAF is considering the installation of on-line RATT equipment in W/P aircraft so that they may use this broadcast. Ships will be so fitted. TRACKER aircraft can not be fitted with on-line RATT because of the weight problem.
- (ii) MFQ can meet this requirement, except for the SSB capability, with RCN and RCAF equipment now installed at the transmitter and receiver locations. All new equipment will have SSB capability.

RECOMMENDATION

- (b) Between MFQ and fixed stations
 - (i) On-line landline teletype, with direct hot line voice circuits as required.

COMMENT

This is approved policy, with each circuit to be justified on its own merits. Procurement of the on-line cryptographic equipment has started.

To 7mo
By Paratch
Date 15. 4 61
Initials AK

PA

Maritime Commander Atlantic.

Copy to: Chief of the Air Staff.

DIRECTOR/2
APR 5 1961
COMMUNICATIONS

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RECOMMENDATION

(c) Ships to MFR for direct working

- (1) Medium power HF/SWB/AM on-line radio teletype (primary).
- (11) Medium power HF/SWB/AM using CW or voice modes.

COMMENT

- (1) This requirement is assumed to be normal ship-shore RATT, patched electronically from the receiving station to MFR. The new MFR will have this facility and it is understood that a limited capability was arranged in the present MFR for exercise BEAGLE ONE. The on-line cryptography for ship-shore is a requirement for the future.
- (11) Naval Headquarters allocated frequencies for a trial of this system during exercise BEAGLE ONE. A report of the trial is required before establishing the system as a permanent requirement.

RECOMMENDATION

(d) Aircraft to MFR

- (1) Initially, HF/SWB/AM in the voice or CW modes, with oblique scander and, possibly, using "burst" technique.
- (11) Ultimately, HF/SWB on-line radio teletype or secure speech channels, backed up by the facilities in (1) above.

COMMENT

The RCAF intends to improve the present aircraft - MFR communication link by better frequency arrangements, the installation of ground and air SWB equipment and, if suitable airborne equipment is available, HF air-ground-air on-line RATT in ARGUS and NEPTUNE aircraft. The RCAF has also agreed to participate in forthcoming on-line LF RATT broadcast trials to determine the feasibility of equipping ARGUS and NEPTUNE aircraft with appropriate receiving equipment. It is impossible to say whether HF scandering or "burst" transmissions will be adopted, but both techniques are under study.

RECOMMENDATION

(e) Ship to ship

- (1) Initially, HF voice backed up by HF CW/voice.

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- (11) Ultimately HF/SSB/AM and UHF on-line radio teletype backed up by UHF/HF/SSB/AM in the voice/CW mode.

COMMENT

- (i) This is available now.
- (11) Procurement of SSB equipment for ships has started. Subject to the success of trials, procurement of ship-ship on-line equipment will be initiated. However, the extent to which ship-ship circuits will be converted to on-line RATT is under review.

RECOMMENDATION

- (f) Air to Air
 - (1) UHF voice, backed up by HF/SSB/AM in the voice or CW modes.
- (g) Ship to Air
 - (1) UHF voice, backed up by HF/SSB/AM in the voice or CW modes.

COMMENT

These requirements are agreed. There is a possibility of using on-line RATT for air to air and ship to air communications.

RECOMMENDATION

- (h) Ground Environment
 - (1) Conduct a study to determine the most efficient communication centre organization to complement the operational and tactical communication links.
 - (11) Provide alternate HF/SSB/AM transmitters and receivers and LF/HF broadcast transmitters to those installed as the primary facilities.

COMMENT

- (1) This will be done for the new MRF and CANCOM-RLANT's advice sought during the study.
- (11) It is assumed that what is needed is equipment located in sites separate from the primary facilities. There is a limited dispersal of HF equipment now, but the LF transmitters are all at Newport Corner. Although it is extremely doubtful that alternative LF transmitters could be provided, the problem will be reviewed.

2. The recommendations contained in paragraph 11 of reference (b) are under consideration. The chief problem is the matter of arranging the frequency assignments. Naval Headquarters will review the requirement for the ship - MRF frequencies on receipt of the

BRAGLE ONE report.

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3. Reference (a) is a good summary of the problem and has been most helpful.

P.6
MAIL SECRETARY.

DGFE - *CR Nixon 10/4/61.*
DNOR - *for concurrence.*
A/CNS(A&W) - *14/4*

D Com (RCAF) - *concurrence received. 1 down*

~~A/CNS(A&W)~~ *com W*
17/4.

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Taken from
Maurice Lide
Return to the
to replace

000485

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MCACS: 1300-1

DEPARTMENT OF NATIONAL DEFENCE



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

8 February 1961

MARITIME COMMAND ATLANTIC
COMMUNICATIONS REQUIREMENTS

NO Enclosure: (A) MCACS 1300-1 dated 7 February 1961

Submitted for the consideration of the
Chiefs of Staff Committee is Enclosure (A), which is
a staff paper prepared at this Headquarters on
Maritime Command Atlantic Communications Require-
ments.

16-2
JN com

[Signature]
REAR ADMIRAL
MARITIME COMMANDER ATLANTIC

The Naval Secretary.

Copy to: Chief of the Air Staff.

Submitted to	Staff
Date	FEB 15 1961
File No.	1300-166/10
Copied to	Staff 30/1

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Enclosure (A) to
MCACS: 1300-1 dated
8 February 1961

A STAFF PAPER

ON

MARITIME COMMAND ATLANTIC
COMMUNICATIONS REQUIREMENTS

7 February 1961

- References: (a) CANCOMARLANT OpORDER 1-61.
(b) MAROPEDLANT 1960.
(c) MCACS: 1300-1 dated 26 Jan 61.
(d) COMCANLANT EDP 1960.
(e) MCACS: 1300-1 dated 9 Jan 61.
(f) MCACS: 1300-1 dated 10 Jan 61.
(g) CANCOMARLANT 242015Z Jan 61.

INTRODUCTION

Review of the Situation

1. The Maritime Commander Atlantic (CANCOMARLANT) is responsible for the exercise of command and operational control of assigned forces in the Maritime Atlantic area. The primary mission of CANCOMARLANT is to combat the submarine threat; in the initial stage of general war the guided missile submarine threat in particular must be countered.
2. Assigned forces comprise: an aircraft carrier, RCN DDE and FFE Cortrons, RCN A/S and RCAF Argus aircraft. In time of emergency additional A/S forces consisting of MSC's, CS2Fs and Neptunes will probably be made available to CANCOMARLANT. Other forces over which CANCOMARLANT will exercise tactical control from time to time are USN ASW aircraft when they operate within the area of Canadian primary interest.
3. In peacetime and in the first phase of a general war, CANCOMARLANT intends to exercise centralized operational control from Maritime Headquarters (MHQ) over the assigned forces. Experience gained from operations conducted over the past 18 months and from ASW exercises indicates that the present Maritime communications organization is inadequate.

The Aim

4. The aim of this paper is to establish the requirements of the Maritime Command Atlantic operational and tactical communications system.

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Basic Assumption

5. For the purpose of this paper it is assumed that as the state of the ASW art progresses, the area of operations in peacetime and in war will extend to the operational radius of the assigned forces.

OVERRIDING CONSIDERATIONS

Reliability

6. Since communications provide the means by which control is exercised, the reliability of communications is of paramount importance to effective operations. Communications between MHQ and forces employed anywhere within the operational area in peacetime and in war must be technically and operationally reliable. Two-way communication between MHQ and aircraft must be possible, even though the aircraft are operating at very low altitudes at the outer limits of the operational area.

Speed

7. Contact reports, transmission of significant data, and tactical control of prosecuting or investigating forces demand rapid means of communication between MHQ and the assigned forces.

Security

8. The requirement for secure communications channels over which classified operational traffic and intelligence can be handled rapidly is an overriding factor.

Compatibility

9. Units operating in the Maritime sea, air, and ground environments must be capable of communicating with each other. Compatibility of operational control communications systems among RCN, RCAF, USN and NATO Maritime forces must be an overriding factor, although ability to communicate with each other's units in all modes is neither likely to be attained nor essential.

Capacity

10. The capacity of the operational communications system must be such that traffic can flow within the system on a timely, non-interfering, non-competing basis.

RADIO COMMUNICATIONS

Propagation Conditions

11. The North Atlantic area is a region that is frequently affected by ionospheric disturbances. The zones to the north and north-east of Newfoundland are particularly susceptible to disturbances and to communications black-outs.

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12. Experience has shown, however, that communications in the area within 250 to 500 miles of the Nova Scotian seaboard, can be satisfactorily maintained on frequencies within the 3 to 8 mcs band. Ionospheric sounding trials now being conducted by the RCAF indicate that reliability of communications at long ranges could be improved by selective use of frequencies covering the entire HF spectrum. Reliability also increases when high power low frequency propagation is employed. VHF and UHF communications are, of course, limited to "line of sight" ranges.

CURRENT OPERATIONAL CONCEPTS AND
COMMUNICATIONS ORGANIZATION

Peacetime

13. The present concept of peacetime operations devotes primary emphasis to improvement of the operational capabilities of SOSUS and to the abilities of CANCOMARLANT forces to operate in conjunction with the Sound Surveillance Stations. Reference (a) details the method of employment of participating units. Normally, aircraft and Naval ships are assigned specific patrol areas in which unknown SOSUS contacts are investigated and identified. Sea-air-ground communications are organized on the net principle, using frequencies in the 3 mcs and 6 mcs bands. The communications difficulties encountered stem mainly from the inherent limitations of the net organization; inflexibility, low capacity and mutual interference in particular.

14. Provision of separate air-ground-air, MHQ-to-ships, and ship-shore circuits will result in a much higher degree of communications efficiency. Reorganization along these lines is planned in the immediate future, as described in some detail in reference (c).

15. A serious deficiency in the present system of radio communications is the procedure for processing classified operational traffic. Off-line machine crypto and tactical codes are employed: security is achieved at the expense of speed.

Simple Alert

16. The advance warning of a general war most likely will be of short duration. At present, as detailed in reference (b), operations during this stage would consist primarily of A/S surveillance out to a range of not more than 500 miles from the eastern coast-line of Canada. In addition, clearance of the area within 250 miles of the coast of shipping and fishing vessels would be attempted. The communications circuits employed in CANCOMARLANT peacetime operations, with some augmentation, would form the basis of communications in wartime.

Reinforced Alert

17. Primary emphasis during this stage would be given to defence against submarines attempting to launch missiles against North-American targets. Under the present EDP, the Beartrap concept would form the basis of this defence

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and, as described in reference (b), it is likely that some 14 aircraft, together with at least as many Naval picket ships, would be employed in this defence off the coast of Nova Scotia. Once again existing circuits with some augmentation would form the basis of communications during this phase. Communications security would be sacrificed for speed.

*How many
on tanks at
a time?*

General Alert

18. In the current EDP (reference b), it is expected that the Beartrap defence would continue to be employed for some time after war begins. Accordingly, little change in air and surface operations is likely to occur during this stage.

Subsequent Phase

19. Following the short phase of intensive exchange of nuclear weapons, it is thought there could be a subsequent phase of much longer duration which would be characterized by more conventional operations. The concept of operations during this phase is described in reference (d); communications would be in accordance with current NATO doctrine, employing circuits and frequencies listed in the NATO supplements to ACP/176.

DISCUSSION OF MARITIME COMMUNICATIONS REQUIREMENTS

Ship-Shore-Ship Communications

20. The RCN operates a high-power, LF/HF, continuous radio teletype broadcast facility in the Halifax area. This broadcast can be taken over and keyed direct by MHQ, and it is intended to operate it in this manner as the primary operational circuit from MHQ to ships. Installation of synchronous on-line cryptographic equipment in the broadcast and in RCN ships is now being undertaken. USN and RN Naval broadcasts and ships will be similarly equipped.

21. Requirements for on-line radio teletype between ship and shore and for single side band capability have been established by the RCN. It is understood that the USN and RN will install similar facilities in their units as the equipment becomes available.

22. Upon completion of these Naval programmes, ship-to-shore and Naval broadcast operational circuits which will fulfil the five overriding considerations set out above, will be available to RCN-RN-USN Naval forces.

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Air-Ground-Air Communications

23. At present air-ground-air channels are provided by medium power HF/AM ground station equipment and low power HF/AM transceivers installed in Maritime aircraft. Communication is normally in the CW mode, classified traffic being processed in off-line machine crypto or tactical code systems. The inevitable product of this system of communications is unacceptable delay in processing operational and tactical messages.

24. The USN and RAF Maritime air forces have decided to install and use SSB as their main HF equipment, while retaining an HF/AM capability in order to be compatible with other NATO forces. It is mandatory, therefore, that CANCOMARLANT's air-ground-air communications system be provided with a similar HF/AM/SSB capability.

*This is part of
RCN's proposed
program
to improve
SSB*

25. It must be recognized, however, that SSB in itself will not meet the full requirement for reliable, secure and rapid communications. Moreover, the capacity and reliability of the system could be seriously reduced unless sufficient channels were made available for two-way communications. It can readily be seen that provision of an adequate number of channels to meet all operational requirements may not be feasible. Since 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, a more practical solution would be to provide separate ground-to-air and air-to-ground facilities.

*Frequency
problem?
Very few
freq. available*

26. In order to fulfill the five overriding considerations, it is considered that a high power, low frequency, on-line, ground to air, radio teletype, broadcast facility should be provided. Suitable airborne LF RTT equipment is available and has been given preliminary trial by the RCAF. It should be within the present state of the art to install on-line crypto receiver equipment in MP aircraft. The best approach would be to install airborne equipment which would be compatible with the RCN's LIMA ROMEO broadcast.

*RCAF is
programming
on low CW
equipment for
MP a/c.*

27. If this were done, HF/SSB/AM could be reserved for air to ground communications and for A/G/A circuits with aircraft not equipped with LF RTT receivers. It would then be possible to assign the necessary number of channels for use by aircraft, while retaining MHQ's ability to pass traffic to airborne MP aircraft on a non-competing, non-interfering basis. Security of air-to-ground communications would still present a problem. Ideally, cyphony equipment for secure voice operations or on-line cryptographic RTT would fulfill the requirement. However, it is understood that suitable cyphony equipment for use in aircraft has not yet been designed. Because of excessive equipment size and

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weight, LF transmission from air-to-ground is not feasible although suitable airborne HF on-line RTT equipment may become available within the next few years. Pending availability of such equipment, it is considered that the use of an oblique scander and the "burst technique" of communications merits study. Use of such a technique, it is believed, would provide a very high degree of reliability, increased speed, more channel capacity, and a secure method of communications. HF/SSB/AM would, in addition, meet the need for compatibility between Canadian and other Maritime forces when used in either the voice or CW mode.

*Remarks have
structure as drawings*

28. To increase reliability of communications, alternate HF/SSB/AM ground station facilities identical to those installed at Mount Uniacke should be provided at Torbay. Secondary high power, LF/HF, radio teletype transmitters to back up the RCN's LIMA ROMEO broadcast facility should also be provided.

Inter-Unit Communications

29. Tactical circuits are now available on UHF/VHF/HF for ship-to-ship, air-to-air and ship-to-air communications. The CAN/UK/US Navies have agreed on a staff requirement for total encryption, using on-line radio teletype on VHF/UHF/HF for inter-ship communications. The decision to equip naval units with SSB will provide yet another means of inter-unit communication.

30. It seems probable that by 1965 on-line radio teletype will become the primary method of ship-to-ship communications. For air-to-air and ship-to-air communications it is considered that UHF should be the primary means, with HF/SSB/AM as the alternate method; the latter to be used in tactical operations only when absolutely necessary.

Landline Communications

31. Within the Maritime environment on-line land-line teletype should continue as the primary means of communications between fixed stations. The requirements for teletype circuits and hot-line voice circuits have already been stated in separate correspondence (references e to g).

Data Link

32. It is probable that future concepts will require large volumes of raw data to be passed rapidly by A/S surveillance forces to an evaluation centre. Therefore, it is recognized that data link will become a requirement as the state of the ASW art progresses. The operational characteristics of the data link system and of the ground environment that complements it, will depend in large measure on the type of ASW Early Warning System that is established.

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Discussion of such a system is outside the scope of this paper. It is emphasized, however, that whatever system is adopted the method of transmitting raw data must not degrade other operational and tactical communications circuits. | yes

Ground Environment

33. It is quite evident that changes to the Maritime communications circuits as discussed above would require major changes in the MHQ communications ground environment. This discussion has been concerned with ways and means of providing more reliable, rapid, and secure communications between radio facilities. Experience has shown that a considerable percentage of the so-called communications delay - that is to say, the elapsed time between the origination of a message and its delivery to the addressee - has resulted from inadequacies in operational Comcen "in-station" handling procedures and techniques.

34. Regardless of the means of communication which may be provided, the purpose of the entire system should be to process messages between the originators and the addressees as quickly and as efficiently as possible. Important to the efficient functioning of the Comcen are such factors as the physical lay-out of equipment, the method of passing traffic between the OP CON and the Comcen, the format of messages, the operating staff required to guard all circuits, and the techniques employed in "in-station" handling of traffic. Most if not all of these factors will be shaped by the modes and characteristics of the various components of the communications system and must, therefore, be considered within those limits when the system requirements have been established.

CONCLUSION

Summary

35. In discussing the requirements for a reliable, rapid, and secure communications system with sufficient capacity to meet current and future needs, and which will provide compatibility in communications among Maritime forces, equipment which is now available and techniques which are within the current state of the art have been suggested. There is no doubt that the greatest room for improvement is within the sphere of air-ground-air communications.

36. The reliability of communications is of paramount importance to effective Maritime operations. It has been suggested that reliability can be improved by the use of high power LF ground-to-air propagation, by employing SSB as a primary means of HF communications, and by exploiting such techniques as ionospheric sounding and "burst" transmission and reception.

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37. To combat the guided missile submarine threat, rapid and secure communications are essential. The ultimate goal should be the total automatic encryption and decryption of all operational traffic, including traffic passed over tactical circuits. The CAN/UK/US Navies have already agreed on the staff requirement for total encryption. Pending the availability of suitable cyphony equipment, for tactical voice communications, two-way on-line radio teletype channels should be programmed for the air-ground-air environments. As a first step, ground-to-air LF on-line RTT, compatible with the RCN's LIMA ROMEO broadcast, should be provided. In order that operational traffic can be passed on a timely, non-interfering, non-competing basis within the communications system, an adequate number of separate operational control and reporting circuits should be established. It has been suggested that high-power, LF, on-line, radio teletype broadcast would best fill the need for operational control of CANCOMARLANT's forces; HF/SSB/AM could then be reserved for air-to-ground and ship-to-shore communications.

38. The ability of the NATO Maritime forces to communicate with each other and with the various Maritime operational control authorities is essential, but the ability to communicate in all modes is not. In any event, it is unlikely that complete communications compatibility in every mode can ever be attained. It is most desirable, however, that CAN/UK/US Maritime forces should strive to attain as complete compatibility as possible among their communications systems.

Recommendations

39. It is recommended, therefore, that the following be established as the requirements of CANCOMARLANT's operational and tactical communications system:

- (a) MHQ control circuits to ships and aircraft
 - (i) High power, LF (LF/HF to ships), on-line, radio teletype broadcast (primary).
 - (ii) Medium power HF/SSB/AM, using voice or CW modes (secondary).
- (b) Between MHQ and fixed stations
 - (i) On-line, land-line teletype, with direct hot line voice circuits as required.
- (c) Ships-to-MHQ for direct working
 - (i) Medium power HF/SSB/AM on-line radio teletype (primary)
 - (ii) Medium power HF/SSB/AM, using CW or voice modes (secondary)

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(d) Aircraft-to-MHQ:

- (i) Initially, HF/SSB/AM in the voice or CW modes, with oblique scunder and, possibly, using "burst" technique. ✓
- (ii) Ultimately, HF/SSB on-line radio teletype or secure speech channels, backed up by the facilities in (d)(i) above. ✓

(e) Ship-to-Ship:

- (i) Initially, UHF voice backed up by HF CW/voice. ✓
- (ii) Ultimately, HF/SSB/AM and UHF on-line radio teletype backed up by UHF/HF/SSB/AM in the voice/CW mode. ✓

(f) Air-to-Air:

- (i) UHF voice, backed up by HF/SSB/AM in the voice or CW mode. ✓

(g) Ship-to-Air:

- (i) UHF voice, backed up by HF/SSB/AM in the voice or CW mode. ✓

(h) Ground Environment:

- (i) Conduct a study to determine the most efficient Communications Centre organization to complement the operational and tactical communication links.
- (ii) Provide alternate HF/SSB/AM transmitters and receivers, and LF/HF broadcast transmitters to back up those installed as the primary facilities. ?

COPY

PC:S: 1300-166/11

DEPARTMENT OF NATIONAL DEFENCE
Royal Canadian Navy

Office of
The Flag Officer Pacific Coast.

19 April, 1961.

MAINTENANCE RCAF A/G/A FACILITY ESQUIMALT

Reference: (a) NS 1300-166/11 (Staff) TD 1072 dated
5 April, 1961.

Submitted for the information of Naval Headquarters that maintenance as requested in reference (a) can be undertaken by maintenance personnel on the staff of the Commodore Superintendent, Pacific Coast.

2. Confirmation is requested whether cost of maintenance is to be charged to RCN or RCAF funds. If the latter, financial coding is requested.

REAR-ADMIRAL,

The Naval Secretary,

cc: The Commodore Superintendent,
Pacific Coast.

Directorate of Naval Communications

NS 1300-166/11 (Staff)
T.D. 1072

Royal Canadian Navy

Canada,

5 April, 1961.

MAINTENANCE RCAF A/G/A
FACILITIES ESQUIMALT

The RCAF have requested that the maintenance of the equipment installed in the Pacific Naval Laboratory at Albert Head and in the Radio Operations room in Building 81, MHQ Esquimalt be undertaken by the RCN. This requirement is due to the widely dispersed installation and the manpower problem created if undertaken by the RCAF. The transmit portion of these facilities located at Lulu Island will be maintained by the RCAF.

2. The RCAF would provide all necessary and relevant technical instructions and schematics together with all spare components for the maintenance of the equipment.

3. Confirmation is requested that the maintenance responsibility specified can be undertaken. As the installation is now operational, an early reply is requested.

NAVAL SECRETARY.

Flag Officer Pacific Coast.

Copy to: Commodore Superintendent Pacific Coast.

DGFE (DSL))
DNOM) - For concurrence.

1300-166/10 *CPA*

CNS 2471 (REV. 1/59)
CAFC 2324 (REV. 1/59)
RCAF G 11 (REV. 1/59)

DEPARTMENT OF NATIONAL DEFENCE

DOCUMENT TRANSIT AND RECEIPT

TO **1**time Commander Atlantic,

H A L L I F A X , N.S.

SECURITY CLASSIFICATION
WITH DOCUMENT TOP SECRET SECRET
WITHOUT DOCUMENT CONFIDENTIAL RESTRICTED UNCLASSIFIED

FILE OR SERIAL NUMBER

QTY.	COPY No. (5)	REFERENCE	DESCRIPTION
2 letters		NSS 1300-166/10 (STAFF) dated 18.4.61	MARITIME COMMAND ATLANTIC COMMUNICATION REQUIREMENTS

FROM

RECEIVED YES NO

000498

SIGNATURE *A Rae* UNIT

DATE 19/4/61

NAVAL SECRETARY *Roberts* RANK DATE 18.4.61

File No:

Subject:

Date:

Staff Docket No:

To: Staff File Room

Please place the attached correspondence on a Staff Docket
and return this slip to DN COM.

Date

Secretary,
DN COM.

MESSAGE FORM

FOR COMMEN/SIGNALS USE

NUMBER
NSC 1300-166/10

BEST AVAILABLE COPY

OTTAWA

MAR 29 19 49

OUT

29/3/61

PRECEDENCE - ACTION PRIORITY	PRECEDENCE - INFO PRIORITY DEFERRED	DATE - TIME GROUP 291850Z	MESSAGE INSTRUCTIONS
FROM CANAVHED			PREFIX GR
TO CANCOMARLANT			SECURITY CLASSIFICATION
INFO CANAIRHED - CANFLAGLANT - CANARRFAX - COMBRAX HFX -			ORIGINATOR'S NUMBER

UNCLASSIFIED X

G.O. 61.00/8 X FOLLOWING VISIT PROPOSED IF CONVENIENT

- (A) S/L H.F. HOLGATE D COM RCAF MEMBER STEERING GROUP ON MARITIME COMMUNICATIONS
- (B) CANCOMARLANT SO(COM)
- (C) DISCUSS CANCOMARLANT COMMUNICATION REQUIREMENTS
- (D) SECRET
- (E) ARRIVING SERVICE AIR PM 29 MAR FOR ONEDAY
- (F) REQUEST ACCOMMODATION WARDROOM STADACONA X

D COM RCAF - FOR CONCURRENCE

G/C GOODERHAM CONCURRED BY TELEPHONE

DIRECTOR

MAY 29 1961

D. A. ROSS

PAGE	OF	PAGES	REFERS TO MESSAGE	DRAFTER'S NAME	OFFICE	TEL.				
			CLASSIFIED YES <input type="checkbox"/> NO <input type="checkbox"/>	GILL LCDR. J.A./DF	COM COM	2-5163				
FOR OPR'S USE	R	DATE	TIME	SYSTEM	OPERATOR	DATE	TIME	SYSTEM	OPERATOR	RELEASING OFFICER'S SIGNATURE
										D. A. ROSS

✓ NS 1300-166/10
TD 1089 (DGFE)

FGR/ay

ROYAL CANADIAN NAVY

18 April, 1961.

MICROWAVE TOWER - ALBRO LAKE
SECURITY FENCING

Reference: (a) CSAC 1950-189/163 (MCE) dated 28 March, 1961.

Enclosure: (A) Albro Lake Proposed Fencing Plan.

Enclosure (A) is forwarded as requested in
Reference (a).

NAVAL SECRETARY. *RM*

Commodore Superintendent,
Atlantic Coast.

cc: Flag Officer, Atlantic Coast.

(With Encl.)

(Without Encl.)

DISPATCHED D.G.F.E.

APR 17 1961

DATE

12

1089

CSAC: 1950-189/163 (MCE)

DEPARTMENT OF NATIONAL DEFENCE
Royal Canadian Navy

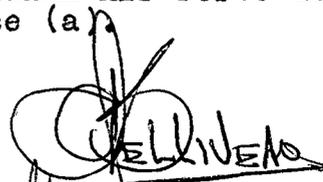
Commodore Superintendent Atlantic Coast,
28 March, 1961.

MICROWAVE TOWER - ALBRO LAKE
SECURITY FENCING

~~REP~~
DSE
13/4/61.

Reference (a) NSS 1300-166/10 (DGFE) of 24 March, 1961.

Submitted for the consideration of Naval Headquarters that a plan may be forwarded noting the area to be fenced by the Royal Canadian Air Force at the Albro Lake Microwave Tower, reference (a).


(H.G. Burchell)
COMMODORE

The Naval Secretary,
Naval Headquarters,
Dept. of National Defence,
Ottawa 4, Ont.

Copy to: The Flag Officer Atlantic Coast.

Forwarded to DGFE
MAR 30 1961
File No. 1300-166/10
Chgd to Staff 30/3

SECRET

ORIGINAL DAMAGED

SECRET

S951-69/20(DCom)

MEMORANDUM

27 Mar 61

Ref Your NSS 1300-166/10(Staff) 16 Mar 61

DNCom

Communications - Maritime Command Atlantic -
Requirements

1 With regard to the draft reply to CANCOMARLANT, forwarded under your referenced memo, the following amendments are suggested:

- ✓ (a) Under sub-para 2 of the Comment on Recommendation #1, insert "~~E~~xcept for SSB capability",
- (b) Replace comment on Recommendation #4 with the following:

"It is intended to improve the present aircraft-MHQ communications link by better frequency arrangements, the installation of ground and air SSB equipment and, if suitable airborne equipment is available, HF air-ground-air RATT secured by on-line crypto in Argus and Neptune aircraft. The RCAF has also agreed to participate in forthcoming LF RATT encrypted broadcast trials to determine the feasibility of equipping MF Argus and Neptune aircraft with appropriate receiving gear. It is impossible to say whether HF frequency sounding or "burst" transmissions will be adopted, but both techniques are under study."

AC Bowes
(AC Bowes) W/C
Deputy DCom
2-5588

Attach.

000505

PFC/DF

DEPARTMENT OF NATIONAL DEFENCE

MINUTE SHEET

SECRET REMARKS

Referred To

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

NSS 1300-166/10 (STAFF)

ORIGINAL DAMAGED

16
9 March, 1961.

D COM
RCAF

MARITIME COMMAND ATLANTIC
COMMUNICATION REQUIREMENTS

ENCLOSURE: (A) Draft reply to CANCOMARLANT.

A draft reply to CANCOMARLANT's two letters of 26 January and 7 February, 1961, is forwarded for your concurrence.

2. I understand the reply reflects the views of the Steering Group on Maritime Communications which discussed the MARLANT paper at the last Meeting.

[Handwritten signatures and initials]

Original Signed by
E. J. Semmens

(E. J. Semmens),
Commander, RCN

Director of Naval Communications.

SECRET

MESSAGE FORM

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

FOR COMM/CEN/SIGNALS USE

NUMBER

BEST AVAILABLE COPY REFERENCE
NO UNCLASSIFIED REPLY OR

1300-166/10

23/2/61

PRECEDENCE - ACTION DEFERRED	PRECEDENCE - INFO DEFERRED <small>DEFERRED</small>	DATE - TIME GROUP 23 2018	MESSAGE INSTRUCTIONS
FROM CANAVHED	TO CANCOMARLANT CANFLAGLANT	TO CANAIRHED CANCOMARPAC	PREFIX GR
INFO			SECURITY CLASSIFICATION CONFIDENTIAL
			ORIGINATOR'S NUMBER 5

DIRECTOR
 OF
 COMMUNICATIONS
 FEB 23 1961
 OTTAWA

REQUEST YOUR SCO'S VISIT OTTAWA FROM 6 TO 9 MAR FOR DISCUSSIONS WITH DN COM AND D COM X

- IN PARTICULAR D COM STAFF WISH TO STUDY IN CONJUNCTION WITH MARLANT ^ SCO THE COMMUNICATION REQUIREMENTS SUBMITTED BY MCASC 1300-1 OF 8 FEB 61 OBSERVING THAT THIS IS DIRECTLY RELATED TO RCAF COMMUNICATION STUDY IN PROGRESS X
- NOTED THAT SCO FROM MARPAC WILL BE IN OTTAWA DURING THIS PERIOD AND AN OPPORTUNITY WILL EXIST FOR EXCHANGE OF INFO X
- IN ADDITION A MEMBER OF MARLANT AIR OPERATIONS STAFF TO LEND SUPPORT TO SCO ON RELATED OPERATIONAL MATTERS WOULD BE WELCOME

PAGE 1 OF 1 PAGES	REFERS TO MESSAGE	DRAFTER'S NAME (DN COM) EJS	OFFICE 3627 "A"	TEL. 6-7146
CLASSIFIED YES <input type="checkbox"/> NO <input type="checkbox"/>				
FOR OPR'S USE R	DATE	TIME	SYSTEM	OPERATOR
				D
	DATE	TIME	SYSTEM	OPERATOR
				RELEASING OFFICER'S SIGNATURE HITTING OFFICER
				NUMBER 12

CFB 1719 (JSF) (REV 3/59)
CNS 1320 B (REV 3/59)
RCAF 542 (REV 3/59)
7530-21-562-1557

COPY 2

000507

✓ NSS 1300-166/10
1080 (DGFE)

RFD/ay

ROYAL CANADIAN NAVY

D.G.F.E

-24 March, 1961.

MICROWAVE TOWER - ALBRO LAKE
SECURITY FENCING

1300-166/10
20/3/61

- References: (a) 70-H4 (DCEC) dated 10 March, 1961.
- (b) NSS 1300-166/10 (EEC) dated 9 December, 1960.

The plans and specifications covering the erection of security fencing at the Albro Lake Microwave Tower are acceptable to the Royal Canadian Navy and are herewith approved. Construction may proceed at an early date.

2. The custody and control of the site is invested in the Officer-in-Charge, Albro Lake Naval Radio Station, while this facility remains at the site. Upon relocation of this facility in 1964/65 it is anticipated that there will be a continuing RCN requirement for the existing microwave relay tower. Consequently it is intended that future custody and control remain within the RCN Atlantic Command.

3. Satisfactory joint security arrangements can be made directly between the two commands concerned.

NAVAL SECRETARY. *CRM*

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

cc: Flag Officer Atlantic Coast. (With Copy of References)

cc: Commodore Superintendent,
Atlantic Coast. (With Copy of References)

[Handwritten signatures and initials]
DNCOM
DNI
DGSF/DNWORKS

- for concurrence before dispatch.

[Handwritten signature] 20/3/61

MAR 21 1961

000509

Our file ref. 70-H4(DCEC).....



DEPARTMENT OF NATIONAL DEFENCE

ROYAL CANADIAN AIR FORCE

Ottawa, Ont
10 Mar 61

Ref NSS1300-166/10(EEC) 9 Dec 60

Chief of the Naval Staff
Navy Headquarters
Ottawa, Ont.

Microwave Tower - Albro Lake
Security Fencing

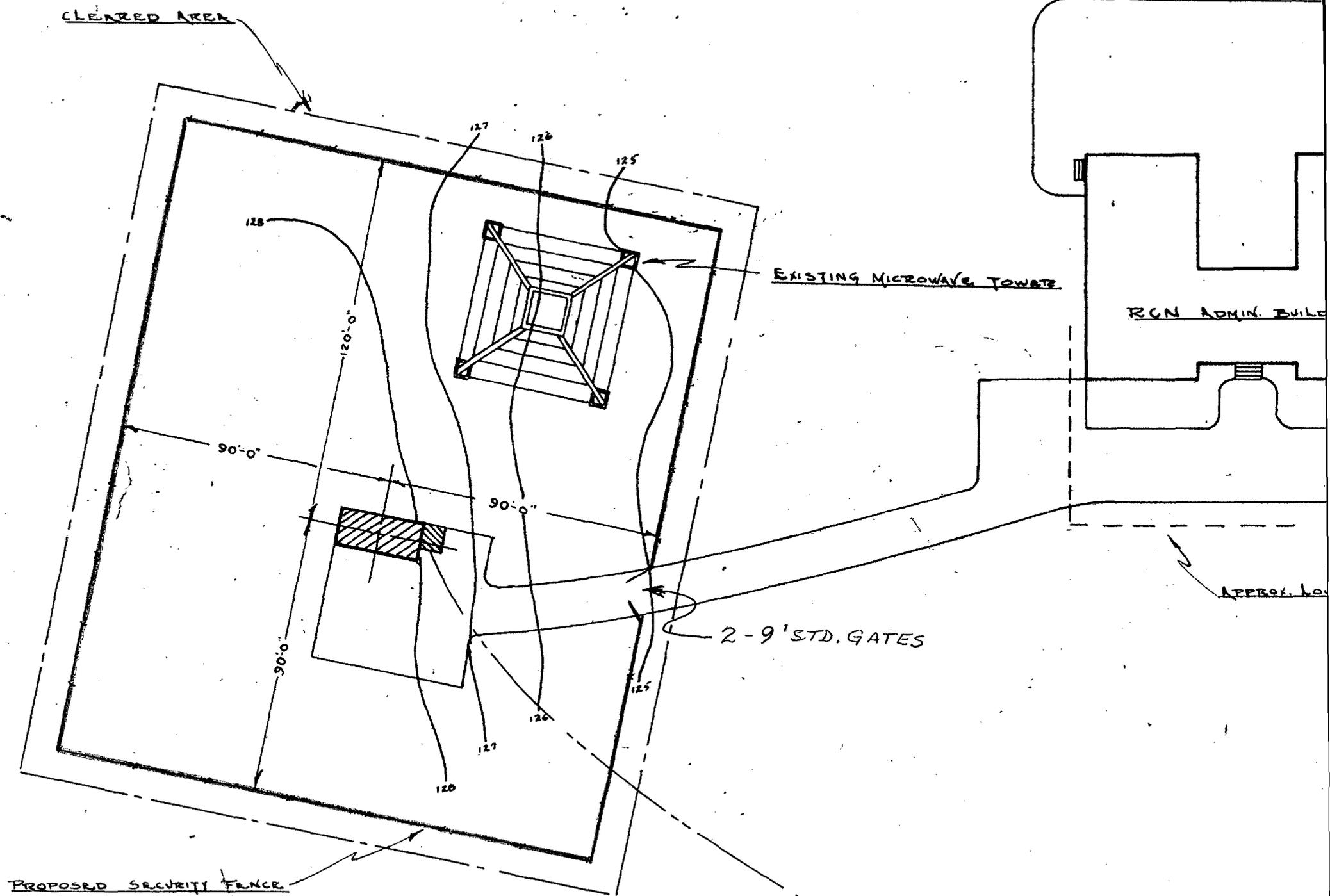
*To DCE
DGSF(A.D. Morice)
Mr Kavanagh
after dispatch
NSS1300-166/10
DGSF*

1 The conditions outlined in your referenced letter governing the erection of security fencing around the Albro Lake microwave tower are acceptable to the RCAF Director of Communications and Director of Air Force Security. Maritime Air Command Headquarters, the controlling agency, will be instructed to implement your requests regarding the custody of the site and access to the site by RCMP and Nova Scotia Lands and Forests Fire Watch personnel.

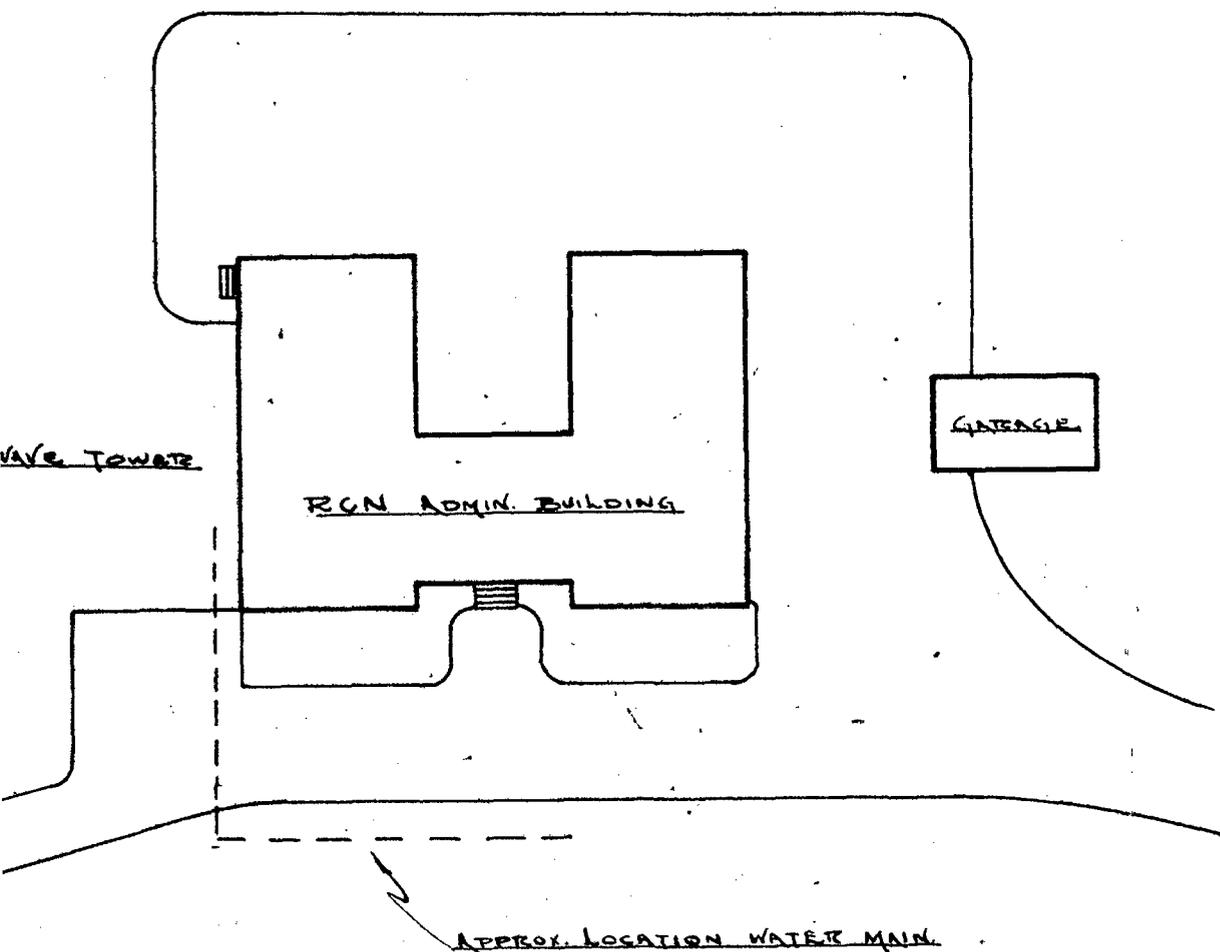
2 Enclosed for your approval is a marked-up site plan showing the proposed location of the fence. Also enclosed is a general specification for security fencing which will govern the construction standards thereof.

3 Early approval of this plan will permit us to commence this project while RCAF personnel are still working at the site.

[Handwritten Signature]
(CL Ingles) G/C
for CAS



NOTE:
THE TERRAIN FOUND IN AREA OF PROPOSED FENCING IS EXTREMELY ROCKY. LARGE ROCKS TO BE FOUND ANYWHERE FROM SURFACE TO 18" BELOW.



LEGEND

CHAIN LINK FENCE, 7 FT. OVERALL HEIGHT INCLUDING B.W.O. - TO BE SUPPLIED & ERECTED AS PER EO. 140-30A1-2

COMPILED FROM

DEPARTMENT OF NATIONAL DEFENCE

R.C.A.F. MARITIME AIR COMMAND

SITE

ALBRO LAKE

SUBJECT

PROPOSED FENCING MICROWAVE RELAY HUT

DETAIL

SCALE

1" = 40'

DATE

6-2-61

DWN. BY

R.G. DRES

CHECKED BY

J. B. Woy

SHEET No.

OF

FOR UNIT USE

SCEO *[Signature]*

ORIGINATOR

FOR COMMAND USE

ORIGINATOR

DWG. NO.

APPENDIX "A"

APPROX. LOCATION UNDERGROUND
POWER CABLE 2400V 1Ø

Revised 1 Apr 59

DEPARTMENT OF NATIONAL DEFENCE
ROYAL CANADIAN AIR FORCE
AIR FORCE HEADQUARTERS, OTTAWA

SPECIFICATIONS

FOR

----- FENCING

AT

RCAF STATION _____

MONTH _____

AFHQ JOB NO.

I N D E X

DEPARTMENT OF NATIONAL DEFENCE
ROYAL CANADIAN AIR FORCE
AIR FORCE HEADQUARTERS, OTTAWA

SPECIFICATIONS
FOR

AT

I N D E X

LIST OF DOCUMENTS

Section 1 - General Conditions & Instructions to Bidders:

- | | |
|---|-------------|
| (a) Construction Conditions (DCL Form 32) | (By DCL) |
| (b) General Conditions (Supplementary) | (4 Pages) |
| (c) Labour Conditions and Rates | (By DCL) |
| (d) Scope of Work, Generally | (Pages) |
| (e) Instructions to Bidders | (2 Pages) |

Section 2 - General Trades:

- (a) to (z) NIL

Section 3 - Building Services:

- (a) to (g) NIL

Section 4 - Utilities and Grounds:

- | | |
|----------------|----------|
| (a) to (h) NIL | |
| (i) Fencing | (Page) |
| (j) to (l) NIL | |

LIST OF DRAWINGS

AFHQ JOB NO.

DEPARTMENT OF NATIONAL DEFENCE
ROYAL CANADIAN AIR FORCE
AIR FORCE HEADQUARTERS, OTTAWA

Section 1 (d)

Page 1

SPECIFICATIONS
FOR
AT

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1. SCOPE OF WORK GENERALLY:

(a) The work to be done by the Contractor in accordance with this specification and its accompanying drawings shall comprise the erection of a;

A. Chain Link Fence 7 feet overall height including Barbed Wire Overhang, necessary Gates, Etc.

B. Chain Link Fence 6 feet overall height Fabric-Full-Height, necessary Gates, Etc.

C. Farm-Type Fence, Style 748 with Steel Posts, including 2-strands Barbed Wire Top, necessary Gates, Etc.

all as indicated on Drawing No.

(b) The Contractor shall furnish all labour and materials required to complete the work as shown on the drawings and described in the Sections of this specification.

2. INTENT AND MEANING OF DRAWINGS AND SPECIFICATIONS:

Mention in this Specification or indication on the drawings of articles, materials, operations or methods requires that the Contractor provide each item mentioned or indicated (of quality or subject to qualifications noted); perform (according to conditions stated) each operation prescribed; and provide therefore all necessary labour, equipment and incidentals.

3. TRADE NAMES:

In all instances in these Specifications where trade names or manufacturers' names are mentioned, it will be noted that these are given for reference and estimating purposes only and are not to be construed as meaning that the products as named are to be used to the exclusion of other products of similar quality which meet the Specification.

4. SCHEDULE OF QUANTITIES: CHAIN LINK FENCE 7 FEET OVERALL HEIGHT INCLUDING B.W.O.

(a) For the supply and erection of a Chain Link Fence 7 feet overall height including Barbed Wire Overhang, Gates and Special Fixtures, all in accordance with "Section 4 (i), Sub-Section A.

<u>Item</u>	<u>Description</u>	<u>Unit</u>	<u>Quantity</u>	<u>Unit Price</u>	<u>Am't.</u>
1	<u>CLEARING, GRUBBING & GRADING.</u>	Sq. Yd.			
2	<u>FENCE, including Fabric, Top Rail, Arms, Barbed Wire, Line Posts, Footings, all Fittings, etc.</u>	Lin. Ft.			
3	<u>END POSTS, with Braces and Footings</u>	Each			
4	<u>GATE POSTS, 3 1/2" dia., with Braces and Footings</u>	Each			
5	<u>GATE POSTS, 4 1/2" dia., with Braces and Footings</u>	Each			
6	<u>CORNER OR STRAINING POSTS with Braces and Footings</u>	Each			

DEPARTMENT OF NATIONAL DEFENCE
ROYAL CANADIAN AIR FORCE
AIR FORCE HEADQUARTERS, OTTAWA

Section 1 (d)

Page 2

SPECIFICATIONS
FOR

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AT

4. SCHEDULE OF QUANTITIES: (CONT'D)

<u>Item</u>	<u>Description</u>	<u>Unit</u>	<u>Quantity</u>	<u>Unit Price</u>	<u>Amt.</u>
7	<u>GATES (STANDARD)</u> with 3 rows of Barbed Wire and necessary Fittings				
	(a)	Lin.Ft.			
	(b)	Lin.Ft.			
	(c)	Lin.Ft.			
8	<u>GATES (SPECIAL)</u> with 3 rows of Barbed Wire and necessary Fittings				
	(a)	Lin.Ft.			
	(b)	Lin.Ft.			
9	<u>SECTION CROSSING DITCH</u> Extra	Each			
10	<u>FOOTINGS IN SOLID ROCK</u> Extra	Each			
11	<u>FOOTINGS IN PARTIAL ROCK</u> Extra	Each			
12	<u>REMOVAL OF OLD FENCE</u>	Lin.Ft.			

5. SCHEDULE OF QUANTITIES: CHAIN LINK FENCE 6 FEET OVERALL HEIGHT, F.F.H.

(a) For the supply and erection of a Chain Link Fence 6 feet overall height Fabric Full Height, including Gates, and Special Fixtures, all in accordance with Section 4 (i), Sub-Section B.

<u>Item</u>	<u>Description</u>	<u>Unit</u>	<u>Quantity</u>	<u>Unit Price</u>	<u>Amt.</u>
1	<u>CLEARING, GRUBBING & GRADING</u>	Sq.Yd.			
2	<u>FENCE</u> , including Fabric, Top Rail, Caps, Line Posts, Footings, all Fittings, etc.	Lin.Ft.			
3	<u>END POSTS</u> with Braces & Footings	Each			
4	<u>GATE POSTS</u> , 3 1/2" dia., with Braces and Footings	Each			
5	<u>GATE POSTS</u> , 4 1/2" dia., with Braces and Footings	Each			
6	<u>CORNER OR STRAINING POSTS</u> with Braces and Footings	Each			
7	<u>GATES (STANDARD)</u> with necessary Fittings				
	(a)	Lin.Ft.			
	(b)	Lin.Ft.			
	(c)	Lin.Ft.			
8	<u>GATES (SPECIAL)</u> with necessary Fittings				
	(a)	Lin.Ft.			
	(b)	Lin.Ft.			
9	<u>SECTION CROSSING DITCH</u> Extra	Each			
10	<u>FOOTINGS IN SOLID ROCK</u> Extra	Each			
11	<u>FOOTINGS IN PARTIAL ROCK</u> Extra	Each			
12	<u>REMOVAL OF OLD FENCES</u>	Lin.Ft.			

DEPARTMENT OF NATIONAL DEFENCE
ROYAL CANADIAN AIR FORCE
AIR FORCE HEADQUARTERS, OTTAWA

Section 1 (d)

Page 3

SPECIFICATIONS
FOR
AT

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~~6. SCHEDULE OF QUANTITIES - FARM TYPE FENCE WITH STEEL POSTS~~

(a) For the supply and erection of Farm Type Fence Style 748 with Steel Post Construction and including 2 strands of Barbed Wire at the top, Gates, etc., all in accordance with Section 4 (i), Sub-Section C.

<u>Item</u>	<u>Description</u>	<u>Unit</u>	<u>Quantity</u>	<u>Unit Price</u>	<u>Amt.</u>
1	<u>CLEARING, GRUBBING AND GRADING</u>	Sq.Yd.			
2	<u>FENCE, including Fabric, Barbed Wire, Line Posts, all Fittings, etc.</u>	Lin.Rod.			
3	<u>END OR GATE POSTS with Braces and Footings</u>	Each			
4	<u>CORNER OR STRAINING POSTS with Braces and Footings</u>	Each			
5	<u>GATES and necessary Fittings</u>				
	(a)	Each			
	(b)	Each			
6	<u>FOOTINGS IN SOLID ROCK Extra</u>	Each			
7	<u>FOOTINGS IN PARTIAL ROCK Extra</u>	Each			
8	<u>REMOVAL OF OLD FENCES</u>	Lin.Rod.			

(b) The above quantities are given solely as information to furnish an indication of the size and scope of the project and the Contractor is hereby advised that the Department of National Defence does not accept responsibility for them, except as such.

(c) Payment will be made for actual quantities placed and which are specified by these plans or specifications or authorized by the Engineer for the execution of this project.

DEPARTMENT OF NATIONAL DEFENCE
ROYAL CANADIAN AIR FORCE
AIR FORCE HEADQUARTERS, OTTAWA

Section 1 (e)

Page 1

SPECIFICATIONS
FOR
AT

BEST AVAILABLE COPY

INSTRUCTIONS TO BIDDERS:

1. INSPECTION:

The Contractor is required to visit the site and make a careful survey of all conditions before making his bid. He shall familiarize himself with the extent and requirements of this contract.

2. INQUIRIES:

Any inquiries regarding this specification shall be addressed to:

Defence Construction (1951) Limited,
No. 4 Temporary Bldg.,
56 Lyon Street,
Ottawa, Ontario.

3. SCHEDULE:

Before work is actually started, the Contractor shall submit a schedule of work for the Engineer's approval.

4. RESPONSIBILITY & CO-ORDINATION:

(a) The Contractor shall be responsible for the complete work and, to this end, for the co-ordination of all Sub-Contractors or trades among themselves and with his own forces and he shall make certain that all of the work is satisfactorily completed in accordance with the design.

(b) If plans or specifications have incomplete details, the Contractor shall request the necessary details from the Engineer.

5. SUB-CONTRACTORS:

The Contractor shall submit for approval of the Engineer, the names of any Sub-Contractors he proposes to use and, additionally, if requested, sufficient information to establish the ability of the Sub-Contractors to do the work. No Sub-Contractor shall be employed without the approval of the Engineer.

6. APPROVED MANUFACTURERS:

(a) The fencing material, as manufactured by Dosco, Frost, Lundy, and Stelco, are known to be satisfactory. Any other manufacturer's products must have the approval of Inter-Service Equivalents Board (Construction). The bidder for any and all contracts shall state, with his tender, the manufacturer of materials he proposes to use.

(b) Manufacturers or suppliers seeking a Certificate of Approval shall apply to:

Executive Secretary,
Inter-Service Equivalents Board (Construction),
Department of National Defence,
Building No. 18,
Victoria Island,
Ottawa, Ontario.

DEPARTMENT OF NATIONAL DEFENCE
ROYAL CANADIAN AIR FORCE
AIR FORCE HEADQUARTERS, OTTAWA

Section 1 (e)

Page 2

SPECIFICATIONS
FOR

BEST AVAILABLE COPY

AT

INSTRUCTIONS TO BIDDERS: (CONT'D)

7. MATERIAL & METHODS:

All materials shall be new and in accordance with the plans and specifications. All materials shall be supplied and erected in accordance with the best standard practice to meet the exact requirements of the manufacturer.

8. MODIFICATIONS:

Where deviations from plans and specifications occasioned by peculiarities of the site appear necessary, the Contractor shall make direct application to the Engineer in charge for approval of such modifications. This approval shall be valid only when given in writing.

9. EMPLOYEES:

The Contractor is advised that full cooperation with Station Security Officers may be required, in accordance with Clause 49, Page 13 of DCL Construction Conditions. This cooperation may include personal interview between Security Officers and personnel, background investigation, fingerprinting, etc., but such investigations will not interfere with operations of the Contractor to an extent greater than necessary for the security of the Station.

10. FOREMEN:

The Contractor shall be responsible for hiring foremen who are thoroughly experienced in this type of work and, should they prove otherwise, they will be replaced on the written request of the Engineer.

(7 FOOT, INCL. B.W.O.)

Section 4 (1)

SPECIFICATIONS
FOR

Sub-Section "A"

AT

Page 1

STANDARD DRAWING NO. S-49-1002-1

1. GENERAL:

(a) LOCATION:

The fence shall be placed, in all cases, inside the property line by an amount equal to any overhang. In locations where considerable grading is necessary in order to conform to Item 1, Para (c), the fence shall be placed from one (1) to five (5) feet inside the property line. Care must be exercised to make sure none of the graded material extends over an adjoining property that is not owned by the Department of National Defence.

(b) CLEARING:

The location of the fence shall be cleared, grubbed and cleaned up for approximately five (5) feet on both sides of the fence line. In locations where clearing is necessary along property boundaries, extreme care shall be exercised to ensure that the clearing operations do not extend beyond the Department of National Defence property limits; and in such cases, the fence shall be erected approximately five (5) feet inside the property line. All outtings shall be completely removed from the immediate area of the fence and disposed of to the satisfaction of the Engineer. In some locations, due to rock formations, grubbing may be impractical. In such areas, with the permission of the Engineer, growth shall be cut flush with the natural ground and the resultant stumps, etc., shall be treated with herbicide to kill or retard any regrowth.

(c) GRADING:

Prior to the erection of the fence, the location shall be rough graded to eliminate sudden small variations in elevation and shall produce a rolling profile as uniform as local conditions will permit.

(d) HEIGHT ABOVE GROUND:

The fence shall be constructed so that the bottom of the fabric shall not be more than three (3) inches from the ground level, at any point throughout the total length of the fence.

(e) STRAINING POSTS:

For straight, continuous lengths of fence exceeding 500 feet, on reasonably level ground, straining posts shall be installed at approximately 500 foot intervals, and/or as considered necessary by the Engineer, or as indicated on Drawing No.

(f) CHANGES IN GRADE:

All sharp changes in grade shall have sections constructed as shown on Drawing No. S-49-1002-1, Type "K", or according to manufacturer's standards.

(g) CROSSING DITCHES:

All sections that cross ditches that are greater in depth than six (6) inches below the general grade level, shall have sections constructed as shown on Drawing No. S-49-1002-1, Types "J" or "L", whichever is considered the most satisfactory and economical by the Engineer. Ditch crossings shall be constructed at locations as indicated on Drawing No. or as directed by the Engineer.

(7 FOOT, INCL. B.W.O.)'

Section 4 (i)

SPECIFICATIONS
FOR

Sub-Section "A"

AT

Page 2

2. MATERIALS & COMPONENT PARTS:

All component parts and accessories necessary for the proper erection of a Chain Link Fence 7 feet overall height including three (3) strands of Barbed Wire Overhang are to be supplied by an approved Fencing Manufacturer, as follows:

(a) Fabric:

Material : Chain Link made from copper-bearing steel.
Height : 72 inches.
Finish : Top barbed, bottom knuckled.
Size & Gauge : 2 inch, No. 9 gauge.
Galvanizing : 6 immersion hot-dipped after fabrication or 1.2 oz coating per sq. ft. Electro-galvanized.

(b) Barbed Wire:

Material : 12 $\frac{1}{2}$ gauge wire with 4 barbs spaced at 6 inch intervals.
Galvanizing : Hot-dipped or Electro-galvanized.
Supports : 45° overhang, facing outward.

(c) End, Gate, Corner & Straining

Post Footings:

Material : 3000 lb. concrete using entrained air. Special cement required in alkali soil regions.
Depth overall : 4 feet.
Top diameter : 12 inches.
Base diameter : 16 inches.

(d) End or Gate Posts:

Material : Scale-free, hot-dipped galvanized tubular steel.
Length overall : 10 feet 9 inches.
Depth in footing : 3 feet 6 inches.
Outside diameter : 3 $\frac{1}{2}$ inches. 4 $\frac{1}{2}$ inches for gates 70 sq. ft. or over.
Top Cap : Aluminum cast or malleable iron cast; ornamental type.
Brace : 1-11/16 inches OD. Single brace unit installed as shown on Drawing No. S-49-1002-1.

(e) Corner or Straining Posts:

Material : Scale-free, hot-dipped galvanized, tubular steel.
Length overall : 9 feet 9 inches.
Depth in footing : 3 feet 6 inches.
Outside diameter : 3 $\frac{1}{2}$ inches.
Top Cap : Aluminum cast or malleable iron cast with 45° B.W. bracket facing outward.
Braces : 1-11/16 inches OD. Double brace unit installed as shown on Drawing No. S-49-1002-1.

(7 FOOT, INCL. B.W.O.)

Section 4 (i)

SPECIFICATIONS
FOR

Sub-Section "A"

AT

Page 3

(f) Line Post Footings:

Material	:	3000 lb. concrete with entrained air. Special cement required in Alkali soil regions.
Depth overall	:	3 feet 6 inches.
Top diameter	:	10 inches.
Base diameter	:	14 inches.

(g) Line Posts:

Material	:	Scale-free, hot-dipped galvanized, tubular steel.
Length overall	:	8 feet 9 inches.
Depth in footing	:	3 feet.
Outside diameter	:	2-3/8 inches.
Spacing	:	10 feet o.c.
Top Cap	:	Aluminum cast, malleable iron cast or steel stamping, with 45° B.W. bracket facing outward.

(h) Top Rail & Brace Rail:

Material	:	Scale-free, hot-dipped galvanized, tubular steel.
Outside diameter	:	1-11/16 inches O.D.
Attaching top rail	:	Bands and sockets on Terminal posts, through eye of cap on Line posts.
Joining top rail	:	Sleeves as manufactured.
Attaching brace rail	:	Bands and sockets on all posts.

(j) Securing Fabric:

On Terminal posts	:	1/4" x 7/8" steel stretcher bar secured by steel tension bands placed 18 inches apart.
On Line posts, top rail and brace rails	:	No 9 gauge aluminum or galvanized steel tie-wires at 12 inch intervals.
At Bottom	:	No 6 gauge steel brace wire attached to the bottom of the fabric with No 14 gauge aluminum or galvanized steel tie-wires at 12 inch intervals.

(k) Gates:

Style and bracing	:	As shown on Drawing No S-49-1002-1.
Location	:	As shown on Drawing No.

(7 FOOT, INCL. B.W.O.)

Section 4 (i)

SPECIFICATIONS
FOR

Sub-Section "A"

AT

Page 4

(k) Gates: (Cont'd)

Frame & braces

- (i) Material : Scale-free, hot-dipped galvanized, tubular steel.
- (ii) Outside diameter : 1-11/16 inches OD.
- (iii) Construction : Electrically welded at all joints or according to manufacturers standards.
- Fabric type & gauge : Same as for fence.
- Securing fabric : Electrically welded to frame.
- Hinges, latches, etc. : Heavy-duty, galvanized steel.
- Double gates : Centre latch and drop-bolt.
Bolt anchor flush with ground.
- Hold-back : Automatic hold-back for open position on all gates.
- Padlock : Heavy duty, rust resistant lock with duplicate keys.

(m) Footings in Rock:

(i) All posts and footings placed in solid and/or partial rock, will be shortened to permit installation to the following depths:

(a) In solid rock:

(i) A minimum depth of 1 foot 6 inches.

(b) In partial rock:

(i) 1 foot in soil and 1 foot, 6 inches in rock.

(ii) 2 feet in soil and 1 foot, in rock.

(iii) 3 feet in soil and 6 inches in rock.

(ii) All footings in solid and/or partial rock are constructed as follows:

(a) Portion in Rock

: Drill a hole in the rock, a minimum of $\frac{1}{8}$ inch larger than the diameter of the posts; fill the hole with a thin cement grout and place the post in the hole to the required position.

(b) Portion in Soil

: Same dimensions as specified for standard concrete footings.

(n) Removal of Old Fencing:

Old Fencing shall be removed where specified and indicated on the relevant drawing or when instructed by the Engineer and in either case disposed of at his discretion.

(7 FOOT, INCL. B.W.O.)

Section 4 (i)

SPECIFICATIONS
FOR

Sub-Section "A"

AT

Page 5

3. PAYMENT:

(a) Clearing and Grubbing:

Payment for clearing, including grubbing and grading and disposal of all resultant debris, shall be at the tendered price per square yard, of area cleared.

(b) Fence:

Payment for the supply and erection of chain link fencing shall be at the tendered price per lineal foot, including fabric, barbed wire, top rail, bottom wire, line posts, footings (for average soil) and all necessary construction fittings, etc.

(c) End or Gate Posts:

Payment for the supply and erection of End or Gate Posts shall be at the tendered price per each, including the posts, brace, footings, (for average soil) and all necessary construction fittings, etc.

(d) Corner or Straining Posts:

Payment for the supply and erection of Corner or Straining posts, shall be at the tendered price per each, including the posts, braces, footings (for average soil) and all necessary construction fittings, etc.

(e) Gates (Standard):

Payment for the supply and erection of Standard Gates, as manufactured, shall be at the tendered price per lineal foot, including 3 strands of barbed wire at the top, construction as specified with all necessary fittings, etc.

(f) Gates (Special):

Payment for the supply and erection of Special Gates, as manufactured, shall be at the tendered price per lineal foot, including 3 strands of barbed wire at the top, special features as specified with all necessary fittings, etc.

(g) Crossing Ditches:

Payment for the supply and erection of special sections crossing ditches shall be on a lump sum basis, price per each extra.

(h) Footings in Solid Rock:

Payment for footings in solid rock shall be in addition to standard footings in average soil, price per each extra.

(j) Footings in Partial Rock:

Payment for footings in partial rock shall be in addition to standard footings in average soil, price per each extra.

(k) Removal of Old Fences:

Payment for the removal and disposal of Old Fences shall be at the tendered price per lineal rod.

PFW/DF

CR(Navy)

OPA NSC 1300-166/10 (STAFF)

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CONFIDENTIAL

27 February, 1961.

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MEMORANDUM TO: D Com

CO-ORDINATION OF MARITIME COMMUNICATIONS PROBLEMS

- References: (a) NSC 1300-166/10 (STAFF) dated 17 February, 1961.
 (b) S 951-169/20 (D Com) dated 23 February, 1961.

To confirm today's conversation between Group Captain Gooderham and Commander Semmens, it is agreed that the first meeting of the "Steering Group on Maritime Communications" be held at 1400 on Tuesday, 7 March, in the Naval Board room, 3719 "A" Building. The RCN will provide a chairman and a secretary for the first year (calendar 1961).

2. The naval representatives are:-
 Lieutenant Commander R.F. Wilson - Chairman
 Lieutenant H. Hargreaves - Member
 Lieutenant Commander K.W. Young - Secretary
3. The other points in your memo of 23 February are agreed.
4. An agenda for the first meeting will be forwarded.

Original Signed by
 E. J. Semmens
 (E.J. SEMMENS)
 COMMANDER, RCN
 DIRECTOR OF NAVAL COMMUNICATIONS

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1300-166/10

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VCNS
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ACNS (A&W)
STAFF
DN PLANS
DNOPS
EEC
DNCOM
DPP

MCACS 1300-1 OF 26 JAN X REQUEST ASSIGNMENT OF FOUR OF THE FREQUENCIES
RECOMMENDED IN PARA 11 (B) FOR DIRECT TACTICAL WORKING CW SHIPS TO
MHQ X REQUIRED FOR TWO PRIMARY AND TWO SECONDARY CRTS DURING BEARTRAP
PHASES OF EXERCISE BEAGLE ONE AND FOR TWO WAY COMMUNICATIONS BETWEEN
TORBAY AND TASK GROUPS WHEN ALTERNATE MHQ ACTIVATED AT TORBAY DURING
FINAL 48 HRS OF EXERCISE X DURING LATTER PHASE NEITHER LR NOR NORMAL
SHIP SHORE FACILITIES WILL BE AVAILABLE TO THE ALTERNATE MHQ X MAY
REQUEST BE TREATED AS URGENT REQUIREMENT X URGENT

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PFW/DF

PPA → NSC 1300-166/10 (STAFF)

CONFIDENTIAL

17 February, 1961.

MEMORANDUM TO: D COM

CO-ORDINATION OF MARITIME COMMUNICATION PROBLEMS

ENCLOSURE: (A) List of Maritime Communication Problems.

There is a need to improve the machinery for co-ordination of maritime communication problems at the NDHQ level. For this purpose, it is proposed to set up a permanent steering group consisting of representatives of D COM and DN COM.

2. At present, individual staff officers deal with maritime communication problems as they arise. This is satisfactory for specific problems, but does not provide for constant examination of the entire maritime communication field. Usually, our staffs are inclined to tackle the broad field from the point of view of their own Services; but, with increasingly complex equipment coming into service, it is very likely that such separate examination will lead to incompatibilities and operational difficulties.

3. The permanent steering group should consist of senior representatives of each of our directorates, one of whom would be chairman. The chairman would be empowered to call in experts in the various areas of communications as required. The permanent steering group would meet when necessary, but no less than four times a year. The Service providing the chairman would also provide a secretary.

4. The permanent steering group would report to D COM/DN COM, although there is no reason why it could not handle projects assigned by the Sea/Air Warfare Committee or Sub-Committee. In the latter event, the steering group would produce the necessary staff answers for the Directors of Communications.

5. A list of subjects which might form an agenda for the first meeting of the steering group is attached.

6. Please comment on this proposal.

Original Signed by

E. J. Semmens

(E. J. SEMMENS)

COMMANDER, RCN

DIRECTOR OF NAVAL COMMUNICATIONS.

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ENCLOSURE (A) to
NSC 1300-166/10 (STAFF)
dated 17 February, 1961.

LIST OF MARITIME COMMUNICATION PROBLEMS

1. Single sideband HF radio equipment for air/ground/air and air/ship communications.
2. Broadcast control of aircraft by MHQ.
3. Cryptography for tactical communications in A/S Warfare.
4. Status of MHQ communications - Atlantic Command.
5. Status of MHQ communications - Pacific Command.
6. Sounding and short signal techniques for air/ground and ship/shore communications.

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CONFIDENTIAL

MCACS: 1300-1 dated

8 February, 1961

Maritime Command Atlantic
Communication Requirements

placed on SD #

157/1/61.

File No:

Subject:

Date:

Staff Docket No:

To: Staff File Room

Please place the attached correspondence on a Staff Docket and return this slip to DN COM.

Date

Secretary,
DN COM.

SECRET FILE No. **S-**

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1300-166/10

VOL. 2

DEPARTMENT OF NATIONAL DEFENCE

COMMUNICATIONS

EAST COAST

GENERAL

FOR CROSS REFERENCES SEE INSIDE COVER

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REFERRED	REMARKS	DATE OF PASS	INITIALS	DATE OF P.A.	INITIALS	DATE OF B.F.	CANCEL B.F.	DATE RECEIVED	IN-SPECTE
staff	WITH PAPERS CR JUN 29 1961			13-7-61	MDB			JUL 13 1962	✓
staff	PER REQUISITION CR AUG 8 - 1961								
ON COM	SEP-29 1961		c.L.						
Plans (P)		12/7/62	Pb.						
Compt		16-7-62	P						
ANTS		17/7/62	B						
9275		20-7-62	MDB	17/8/62	⊕				⊕
ON COM	PER REQUEST CR AUG 21 1962			22/8/62	⊕			AUG 22 1962	
ON COM	PER REQUISITION CR OCT 10 1962								
ON COM		24-10	Sh						
ON COM		5-11-62	W						
Staff		6/11	PA						
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