



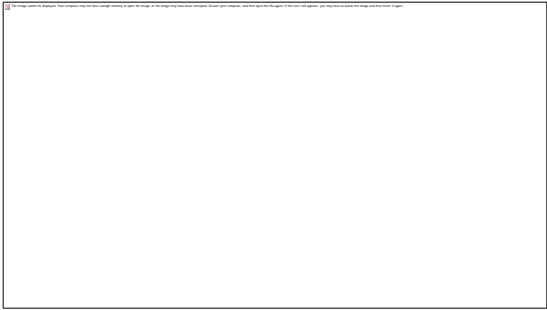
# RCN HF Communications Now ... And For The Future

CPO1 Art Forward

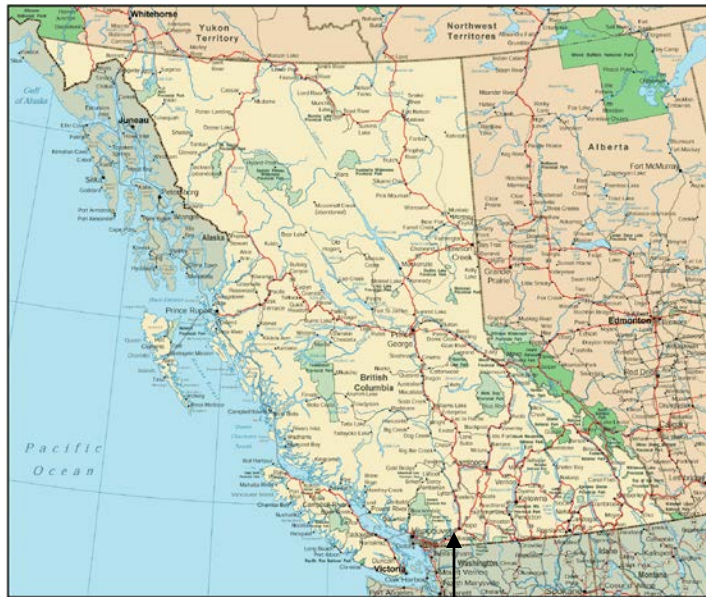
DNRS 6-2



# The Fleet



# Current Naval HF infrastructure



NRS Esquimalt:  
TX – Matsqui  
RX – Aldergrove



Ottawa



NRS Halifax:  
TX – Newport Corner  
RX – Mill Cove



# HF Broadcast

**Up to 5 frequencies**



**Up to 7 broadcasts**



# RCN Broadcast Support

Broadcast	Area Served	# Freqs		Remarks
		Continuous	On Request	
C11L/C11LS MARLANT Area On-Line Surface / Sub-Surface Broadcast (NATIONAL-CANEYES ONLY)	Western Atlantic & CANLANT Area	5	1	Frequencies do not radiate until 48 hours prior to the time of a ship intending to set watch.
C14L Halifax Area Meteorological Broadcast (Facsimile / RATT)	Western Atlantic & CANLANT Area	4	-	Only activated when specifically ordered by command in support of operations or exercises.
C21L/C21LS Halifax Area On-Line Surface/Sub-Surface Broadcast (Allied)	Western Atlantic & CANLANT Area	5	1	Used for Multi-National exercises and support of non-Canadian units. Frequencies do not radiate until 48 hours prior to the time of a ship intending to set watch.
C31L/C31LS MARLANT Area On-Line Sub-Surface/Small Ship Broadcast	Western Atlantic & CANLANT Area	5	1	Frequencies do not radiate until 48 hours prior to the time of a ship intending to set watch.
C54L GCCS/HITS B (NATIONAL CANEYES ONLY)	Western Atlantic & CANLANT Area	3	2	Only activated when specifically ordered by command in support of operations or exercises.
C72L MARLANT Contingency Broadcast	Western Atlantic & CANLANT Area (may be extended to Eastern Atlantic/Mediterranean if required)	As required when activated.		Used for operational and exercise support of Canadian and Allied/NATO as required.
X11A Westlant Area On-Line Broadcast (Allied)	Western Atlantic & CANLANT Area	4	-	Broadcast activated as required for NATO forces operating in WESTLANT.
C11E/C11ES Esquimalt Area On-Line Surface/Sub-Surface Broadcast (NATIONAL/CANEYES ONLY)	Eastern Pacific	3*	4*	
C21E/C21ES Esquimalt Area On-Line Surface/Sub-Surface Broadcast (Allied)	Eastern Pacific	3*	3*	Only activated when specifically ordered by command in support of operations or exercises.
C31E/C31ES Esquimalt Area On-Line Submarine Broadcast.	Eastern Pacific	As required when activated.		Only activated when specifically ordered by command in support of operations or exercises.
C41E/C41ES Esquimalt Area On-Line Surface Broadcast (NATIONAL/CANEYES ONLY)	Eastern Pacific	4	-	
C72E Esquimalt Area On-Line Surface/Special Broadcast (NATIONAL CANEYES ONLY) (GCCS/HITS B)	Eastern Pacific	3*	4*	

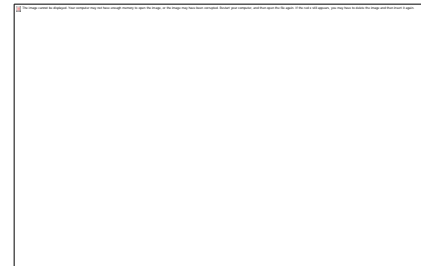
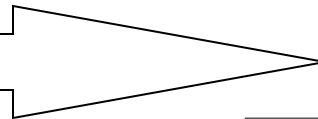
Note: \* Under normal operations, frequency management will be practiced. The optimum frequency is supplemented by two adjacent HF frequencies, one above and one below.



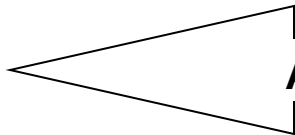
# RATT SHIP/ShORE

ZKR

Up to 3 frequencies



Available frequency selected from ZKR



Up to 12 available frequencies for ship/shore.

Up to 8 simultaneous:

2,

4,

~~6,~~

8 ... ETC





## Other HF requirements

- Maritime Rear Link
- Link 11 (and multi-link?)
- AGA(?)
- Tactical voice and data circuits



# The future of HF in the RCN

Command and Control in a Denied or Degraded Environment (C2D2E)

For HF communications the RCN must have an ACT:

Accessibility

Coverage

Throughput

Maritime Next generation Communications suite - MENACE

MARitime Communications Upgrade Ashore - MARCUA





# New construction



- Questions/discussion