MSI Assessment for NAVAREA XVII/XVIII

Reporting period from 1st Jan 2023 to 31st December 2023

Submitted by Canada, Canadian Coast Guard

SUMMARY

Executive Summary: Synopsis of activities within NAVAREA XVII_XVIII since WWNWS15.

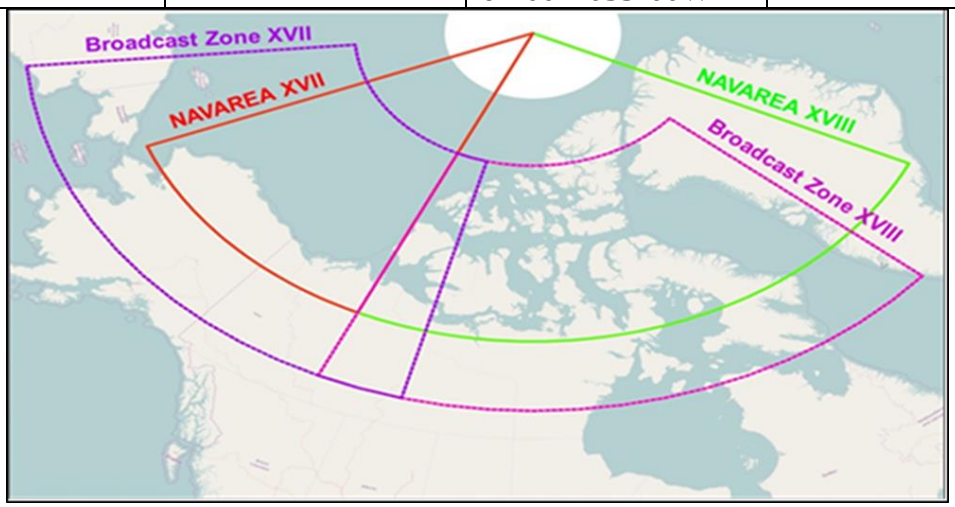
Action to be taken: Note the report, especially the change of contact information for the NAVAREA Operational Desk.

Related documents: None.

1. General information:

1.1. Geographic Boundaries of NAVAREAs XVII/XVIII and the associated rectangular broadcast zones for Inmarsat, are depicted below.

NAVAREA XVII	METAREA Broadcast Zone (Inmarsat)	NAVAREA XVIII	METAREA Broadcast Zone (Inmarsat)
90°00N 168°58W 90°00 120°00W Thence, south to the Canadian coastline along the 120°00W meridian	82°00N 175°00E 82°00N 120°00W 62°00N 120°00W 62°00N 175°00E	A position on the Canadian coastline at the 120°00W meridian to: 90°00N 120°00W 90°00N 035°00W 67°00N 035°00W	82°00N 120°00E 82°00N 035°00W 62°00N 035°00W 62°00N 120°00E



1.2. Points of Contact for National Co-ordinators within the NAVAREAs:

COUNTRY	INSTITUTION	TELEPHONE	FACSIMILE	EMAIL
Canada	NAVAREA XVII_XVIII Coordinator, National NAVTEX Coordinator	+1-343-548-1868		valerie.marquette@dfo-mpo.gc.ca
Canada	**MCTS Iqaluit**	**+1-867-979-5269**	**+1-867-979-4264**	**iqanordreg@innav.gc.ca**
Canada	MCTS Prescott*****	+1-613-925-0666	+1-613-925-4519	navarea17.18@innav.gc.ca
Greenland	**JRCC Nuuk**	**+299 364012**		**jrcc@jrcc.gl**

*Note – designated alternate Centre

1.3. GMDSS Master Plan:

As of 1 January 2024, Canada has discontinued the use of NAVAREA rectangular broadcasts for vessels with older Inmarsat terminals although METAREA broadcasts are still promulgated this way.

NAVAREA duties transitioned from Prescott MCTS to Iqaluit MCTS in May 2024. Prescott MCTS has been designated the alternate Centre when Iqaluit closes at the end of the Arctic navigational season in mid-December.

Canada has proposed to discontinue the use of NAVTEX stations within the Great Lakes region in Canada, this includes stations located in Ferndale and Pass Lake, which are both located within NAVAREA IV. This has been a very lengthy process and we have already advised the general public about our intent via the Spring 2022 Canadian Marine Advisory Council which is hosted by Transport Canada. All the remaining NAVTEX stations will receive an upgrade in 2024/2025 as Canada proceeds with a renewal project, having awarded a contract to a supplier.

Changes to GISIS:

- Added in the broadcast schedule for EGC services promulgated via SafetyCast.
- Added in the contact information for Iqaluit MCTS as operational desk from May to Dec and amended the Prescott MCTS information to indicate they are operational desk from Dec to May.

2. NAVAREA EGC broadcast and monitoring equipment or software:

<u>NAVAREA XVII</u>:

Broadcast Equipment/Software	Broad cast schedule/Satellite	Manufacturer/Location (LES)/Implementation
SafetyNET II web app	1130 and 2330; I-4 F3 (AOR-W) I-3 F5 (AOR-E) I-4 F1 (POR)	
Iridium SafetyCast web app	1130 and 2330;	

	Appropriate Iridium satellites	
Monitoring Equipment/Software		**Manufacturer/Software**
SafetyNET II		Sailor TT-3026/s mini-c
Iridium SafetyCast web app		Iridium web app

NAVAREA XVIII:

Broadcast Equipment/Software	**Broad cast schedule/Satellite**	**Manufacturer/Location (LES)/Implementation**
SafetyNET II web app	1100 and 2300; I-4 F3 (AOR-W) I-3 F5 (AOR-E)	
Iridium SafetyCast web app	1100 and 2300; Appropriate Iridium satellites	
Monitoring Equipment/Software		**Manufacturer/Software**
SafetyNET II		Sailor TT-3026/s mini-c
Iridium SafetyCast web app		Iridium web app

2.1. Details of EGC services:

NAVAREA XVII_XVIII promulgates all warnings on all IMO Recognized Mobile Satellite Service Providers (RMSS) as per the scheduled broadcast times noted in the table above. Additional, as warranted by the necessity, navigational warnings may also be promulgated as soon as possible.

2.2. NAVTEX:

There are no NAVTEX transmitters located in NAVAREA XVII.

NAVTEX information for NAVAREA XVIII:

B_1 518 kHz	**B_1 490 kHz**	**NAVTEX Station**	**Email**	**Telephone**	**Status**
I		**Upernavik**	**navtex@tusass.gl**	**38-9454**	**Operational**

2.3. Other methods of promulgation:

Canada provides an HF-NBDP supplemental EGC service from Iqaluit on a seasonal basis.

Time (UTC)	System	Frequency
0330	HF-NBDP	8416.5 kHz*
1530	HF-NBDP	8416.5 kHz*

*HF NBDP available from mid-May to mid-December (navigational season)

3. NAVAREA Metrics

3.1. Coastal Warnings issued by International NAVTEX or EGC coastal warning area:

				2022			
Country	NAVTEX station name	B1 Character or Coastal Warning Area	Broadcast schedule times UTC (only for EGC)	Total number of warnings broadcast	Number of warnings broadcast with a vital priority (NAVTEX) or urgent priority (EGC)	Total number of warnings broadcast, including repetitions	Broadcast data in megabytes
Canada				0	0**	0	0
Greenland	**Upernavik**	**I**	**0120, 0520, 0920, 1320, 1720, 2120**	**Approx. 213**	**0**	**Data not available**	**Data not available**

** Canada does not normally use the urgency priority for navigational warnings.

				2023			
Country	NAVTEX station name	B1 Character or Coastal Warning Area	Broadcast schedule times UTC (only for EGC)	Total number of warnings broadcast	Number of warnings broadcast with a vital priority (NAVTEX) or urgent priority (EGC)	Total number of warnings broadcast, including repetitions	Broadcast data in megabytes
Canada				0	0**	0	0
Greenland	**Upernavik**	**I**	**0120, 0520, 0920, 1320, 1720, 2120**	**Approx. 92**	**0**	**Data not available**	**Data not available**

** Canada does not normally use the urgency priority for navigational warnings.

3.2 NAVAREA Warnings broadcasts:

NAVAREA XVII

	2022			*2023*			*2024*		
Provider	Total number of warnings issued	Total number of warnings broadcast, including repetitions	Broadcast data in megabytes	Total number of warnings broadcast	Total number of warnings broadcast, including repetitions	Broadcast data in megabytes	Total number of warnings broadcast	Total number of warnings broadcast, including repetitions	Broadcast data in megabytes
SafetyNet	119	-	0.195	97	-	0.084	-	-	-
SafetyCast	119	-	0.195	97	-	0.084	-	-	-

NAVAREA XVIII

	2022			*2023*			*2024*		
Provider	Total number of warnings issued	Total number of warnings broadcast, including repetitions	Broadcast data in megabytes	Total number of warnings broadcast	Total number of warnings broadcast, including repetitions	Broadcast data in megabytes	Total number of warnings broadcast	Total number of warnings broadcast, including repetitions	Broadcast data in megabytes
SafetyNet	155	-	0.253	121	-	0.102	-	-	-
SafetyCast	155	-	0.253	121	-	0.102	-	-	-

3.3. Urgent EGC Warnings: Nil.

3.4. VITAL Coastal Warnings: Nil.

3.5. In-force warnings.

3.5.1. In-force bulletins issued:

In Force Bulletins are issued every Friday at 1100 UTC for NAVAREA XVIII and 1130 UTC for NAVAREA XVII. The text of In Force warning that are more than 42 days old can be found on the Canadian Coast Guard website:
Navigational and NAVAREA warnings (ccg-gcc.gc.ca)

3.5.2. Requests for In-force warnings:

2022	**2023**	**2024***
Total	Total	Total
10	8	0

*Note – as of 04 JULY 2024

3.6. Arctic navigational warnings broadcast by HF NBDP.

2022	**2023**	**2024***
Total	Total	Total
224	168	31

*Note – as of 09 JUL 2024

4. Operational Issues:

   The following issues with GMDSS infrastructure were reported in 2022/23:

   a. Canada finalized incorporating NAVAREA warnings into our domestic Navigational Warning Issuing System (NIS) platform in March 2024.

   b. The Supplemental EGC service provided seasonally by Iqaluit MCTS Centre experienced the following outages:

HF-NBDP Transmitter	**Off Air**	**On Air**	**Duration (HH:MM)**
	2023		
Power outage TX site	08-19	08-19	06:00
Power outage TX site	08-23	08-23	04:00
Power outage citywide	09-16	09-16	09:00
Power outage TX site	10-02	10-02	06:00
Power outage citywide	10-28	10-28	02:00
Total:			**27:00**
	2024		
None so far			
Total:			**00:00**

5. National Co-ordinator Communication:

   5.1. IRCC Strategic Performance Indicator: Nil.

   5.2. Procedures: Nil.

6. Contingency Planning:

   Discussions have begun with adjacent NAVAREA XIX (Norway) about a contingency arrangement although nothing formal is in place yet.

7. S-124 Navigational Warnings Development:

- Chaired the IHO Correspondence Group on S-124 testing issues, commencing Fall 2023. This CG was tasked to produce testing schema using either tabletop exercises or exercises using a production system to conduct operational and technical testing. This resulted in a list of 7 tests which outlined the pre-conditions for testing, configuration of the test system, the participants involved, the test cases (i.e. how the components interact) and a set of parameters to be gathered and methods used. This document was submitted to IHO in January 2024.
- Chaired the ad hoc splinter group of discussions and outcomes of the actual testing of converting S-53 data into S-124 and vice versa, which met twice in December 2023 and February 2024.
- Participates in the ongoing international Digital Incubator meetings
- Participates in the Data Capture and Encoding Guide meetings
- Participates in the S-124 Project Team meetings

- Submitted an INF paper to NCSR11 outlining the progress made by Canada, and challenges encountered, in establishing an S-124 e-Navigation service prior to IHO's deadline of 01 January 2026.
- Implemented the dev version of the version 1.0.0 of the S124 standard (https://s124.dev.ccg-gcc.gc.ca/api/secom/v1/object). So far, the GetSummary and the Get requests have been implemented. We use the SECOM library developed by Nikolaos Vastardis in the S124 service. The NAVWARNs of the S124 dev service come from our lab environment. We need the IP addresses of the users who want to connect to our S124 dev service to unblock them in our firewall;
- Generated a public certificate with our account from the Service Identity Provider (created by the Digital Incubator) and have added it to our S124 service along with the signature of the data. It means that the users who connect to our S124 service can validate the signature of our data with that public certificate.
- We are currently updating our navigational warning issuing system (NIS) to be able to map all the S124 categories with the categories in NIS. So far, we have mapped approximately 30% of the S124 categories. We are using the "other" S124 category for the other 70% unmapped categories in NIS. Our goal is to update the categories and templates in NIS to map all the S124 categories relevant to the Canadian context;
- We have also deployed the prod version of the S124 service in Aug 2024 (https://s124.ccg-gcc.gc.ca/api/secom/v1/object). The NAVWARNs of the prod S124 service are connected to the up-to-date NAVWARNs from the prod environment. The S124 prod service is currently open for the public, so they don't need authorization to connect;
- After having updated NIS to map all the S124 categories, the version 1.5.0 of the S124 standard and the subscription feature should be the next elements we will work on.

8. Capacity Building: Nil.

9. Other Activities:

IHO WWNWS15, Canadian Delegation, in person, Monaco – Sept 2023
IMO/ITU Joint Experts Group, Canadian Delegation, Virtual – Oct 2023
IHO WWNWS S-124 Testing Outcomes CG, Virtual – Fall 2023
IMO EGC Coordinating Panel, Virtual – Jan 2024
USCG GMDSS Task Force Meeting, Virtual – Jan 2024
IHO S-124 DCEG Meeting, Virtual – Feb 2024
IHO DRWG 22 Meeting, Virtual – Mar 2024
IMO MSC 108, Canadian Delegation, Virtual – May 2024
IMO NCSR 11, Canadian Delegation, in person London UK – June 2024

10. NAVAREA Website:

Canada has added NAVAREA warnings to its Navigational Warning Issuing System (NIS), so only one link is needed to find full text warnings and "in-force" bulletins. This provides the user with options to search results and also export the information in various formats (i.e. pdf, csv, or print format). The webpage is updated automatically as information is entered so it can always be considered to be current and accurate.
Navigational and NAVAREA warnings (ccg-gcc.gc.ca)

The complete text of all NAVAREA XVII and XVIII broadcast warning messages, including in-force messages may also be requested by email from the NAVAREA Operations desk at:

NAVAREA17.18@INNAV.gc.ca

The information on how to find these warnings is promulgated as part of the text of the "In Force" bulletin.

11. NAVAREA Contact Information:

NAVAREA XVII & XVIII **Operational Desk** (available 24/7 May-December)
Iqaluit MCTS Centre
Telephone: +1 867-979-5269
Facsimile: + 1 867-979-4264
E-mail: iqanordreg@innav.gc.ca

NAVAREA XVII & XVIII **Operational Desk** (available 24/7 December-May)
Prescott MCTS Centre
Telephone: +1-613-925-0666
Facsimile: +1-613-925-4519
E-mail: navarea17.18@innav.gc.ca

NAVAREA XVII & XVIII **Coordinator** (business hours)
Valerie Marquette
Marine Navigation Programs
Canadian Coast Guard
222 Nepean St., Ottawa
Ontario K2P 0B8
Tel: + 1 343-548-1868
E-mail: Valerie.Marquette@dfo-mpo.gc.ca

12. Recommendations: None.

13. Actions requested: Note the report, especially the change of contact information for the NAVAREA Operational Desk.

14. Summary: As of 1 January 2024, Canada has discontinued the use of NAVAREA rectangular broadcasts for vessels with older Inmarsat terminals although METAREA broadcasts are still promulgated this way. NAVAREA duties transitioned from Prescott MCTS to Iqaluit MCTS in May 2024. Prescott MCTS has been designated the alternate Centre when Iqaluit closes at the end of the Arctic navigational season in mid-December. Canada had not previously reported on NAVTEX station Upernavik, located in Greenland so data is supplied for 2022 and 2023. The NAVAREA warnings are now promulgated on the national Navigational Warning Issuing System (NIS) website. Canada is undergoing a NAVTEX renewal project for 2024/25. Work is ongoing in an effort to be ready for S124 implementation with a target date of Dec 2025.