

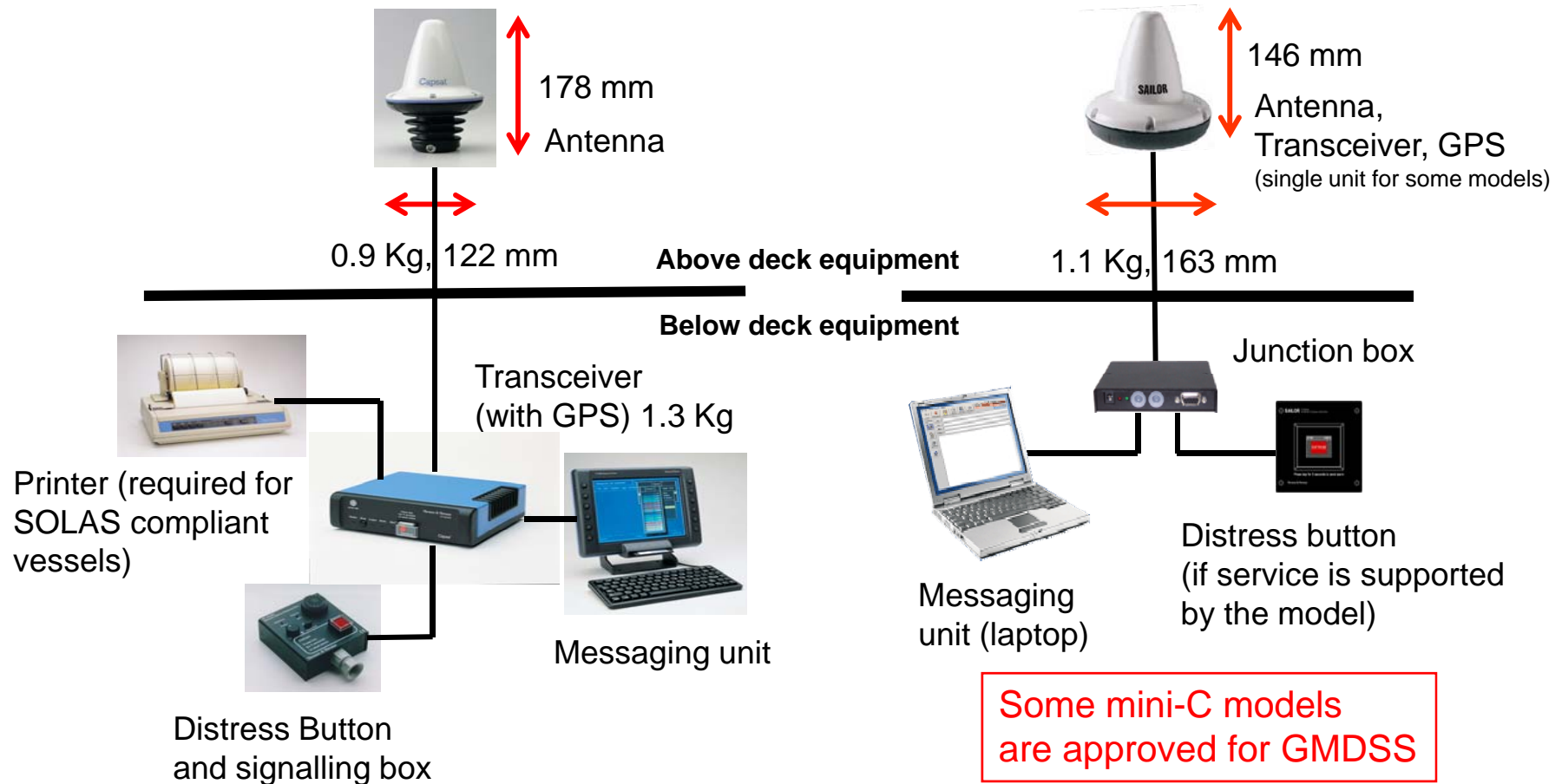


Inmarsat C EGC SafetyNET Status

IHO World-Wide Navigational Warning Sub-Committee
(WWNWS) 1st meeting
18-21 August 2009 Monaco

Vladimir Maksimov
Manager, Maritime Safety Operations
Inmarsat Maritime Safety Services

Inmarsat C and Inmarsat mini-C maritime terminals (with Distress capability)



Note: No power supply is shown for both configurations

Inmarsat C and Inmarsat Mini-C characteristics and services



Antenna Messaging unit Transceiver (with GPS) Distress button Printer

- Global coverage (between 76° North and 76° South under 5° antenna elevation angle)
- Store and Forward communication system (ship-to-shore, shore-to-ship and ship-to-ship)
 - messages delivered to telex, fax (text, one way only), PSDN/PSTN, another mobile, SAC, Internet (e-mail)
- Non-stabilised omnidirectional antenna, small size and weight
- Low power consumption, compatible with national alphabets
- Some mini-C models are approved for GMDSS and support Distress Calling and EGC functions
- More than 85,000 Maritime Inmarsat C and 49,000 Inmarsat mini-C SESs
- Main part of the GMDSS satellite equipment – required by SOLAS Convention, Chapter IV
 - Distress Calling - distress alerting and distress priority messaging
 - Enhanced Group Calling (EGC) EGC SafetyNET and EGC FleetNET
 - Ship Security Alerting service (SSAS)
 - Data reporting and polling service (position monitoring, tracking, LRIT)

Number of EGC SafetyNET messages & size per ocean region

(Sep'08 - Aug'09)

Month	AOR-E		AOR-W		IOR		POR		Total	
	Number	Size	Number	Size	Number	Size	Number	Size	Number	Size
Sep'08	6569	162417	5685	278105	8720	137594	9256	277226	30230	855342
Oct'07	6851	162833	4982	274956	10644	156888	7814	266307	30291	860984
Nov'07	6625	140630	4032	243736	10839	152756	8021	255223	29517	792372
Dec'07	6816	154377	4112	243040	12607	172937	7863	257727	31398	828081
Jan'09	5942	137082	3167	225543	13184	183245	7438	242041	29731	787911
Feb'09	5448	124980	3564	254732	9533	156196	6494	233594	25039	769502
Mar'09	6568	140787	3656	235318	10575	169029	7790	255505	28589	800639
Apr'09	6098	129403	3703	265624	11643	167334	7979	271528	29423	833889
May'09	6917	142204	3668	236927	11315	156353	8535	270325	30435	805809
Jun'09	6678	137749	3331	181778	11660	165162	7844	236537	29513	721226
Jul'09	6195	138861	3356	191325	14632	193387	8332	257473	32515	781046
Aug'09										

On average **820 - 1066** EGC SafetyNET messages of all service types are broadcast in all ocean regions per day, including repeated messages (**760-930 – last reporting period**), of which:

AOR-E: 178 - 226 messages per day (**112-165 – last reporting period**);

AOR-W: 103 – 189 messages per day (**79–160 – last reporting period**);

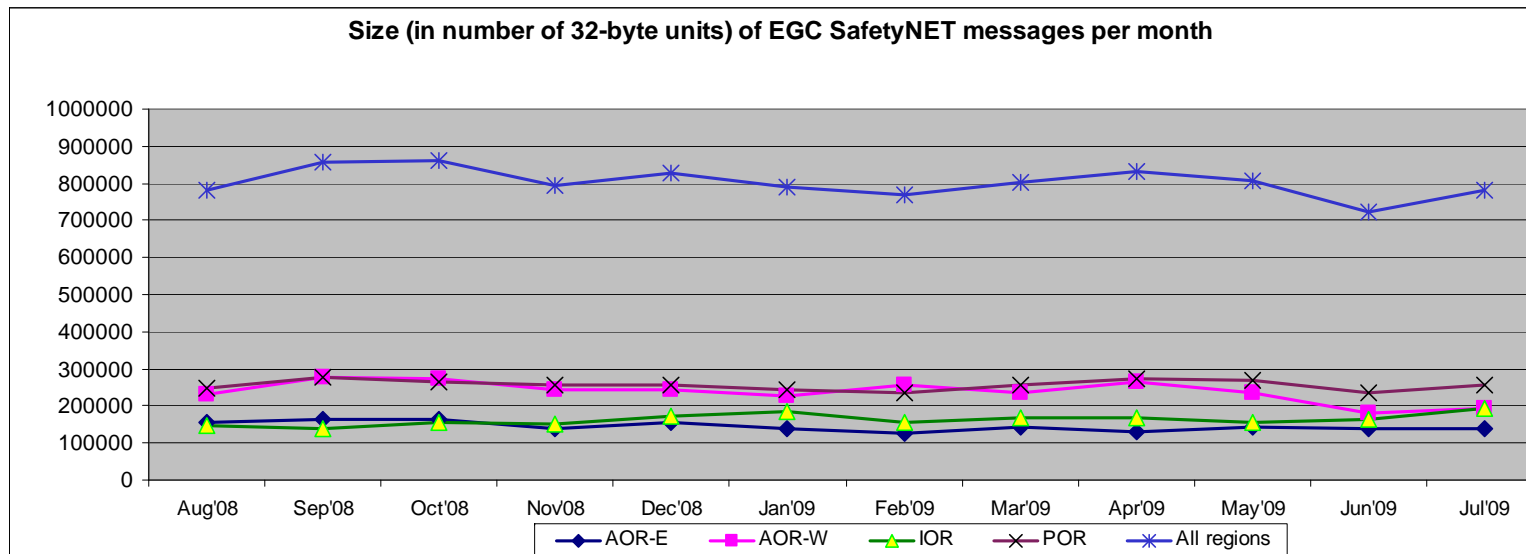
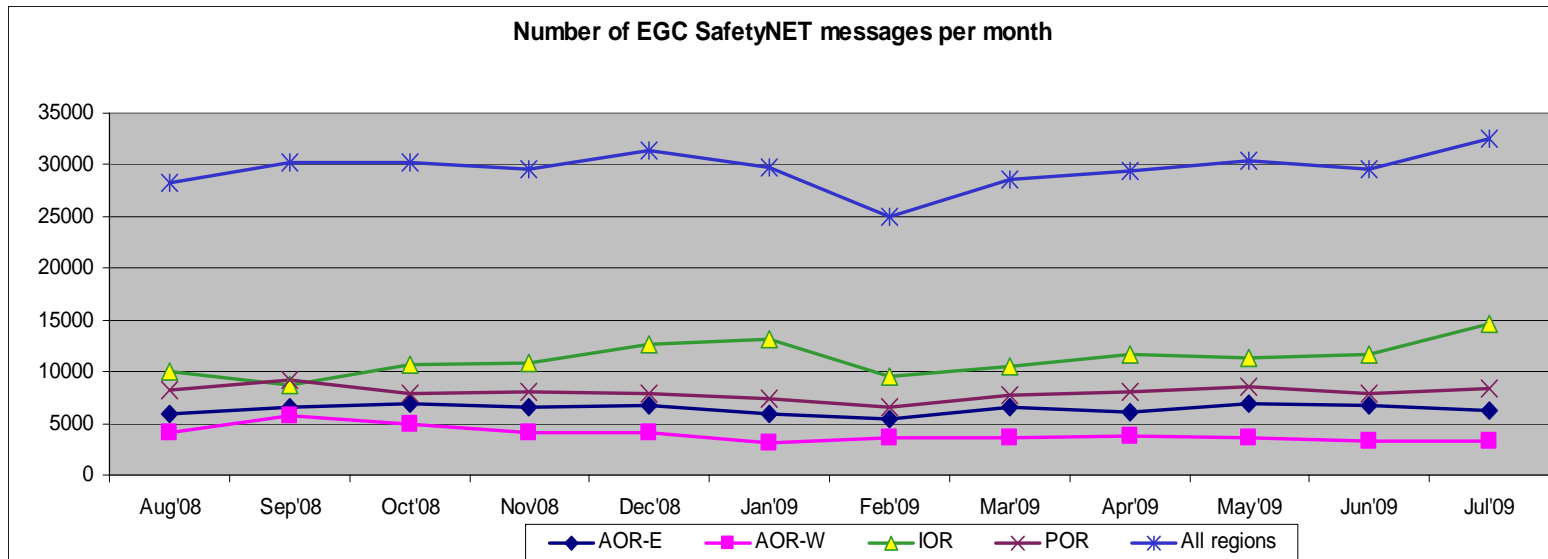
IOR: 285 – 479 messages per day (**262-365 – last reporting period**); and

POR: 212 – 303 messages per day (**abt 10% drop - 246-336 – last reporting period**).

(Size is given in number of units of 32 bytes/characters)



Number and size of EGC SafetyNET messages per ocean region



egc 1, 1, 04, 71n035w09066, 11, 00 - Message (HTML)

File Edit View Insert Format Tools Actions Help

Reply Reply to All Forward

From: Vladimir Maksimov
 To: egc@inmc.eik.com
 Cc:
 Subject: egc 1, 1, 04, 71n035w09066, 11, 00

Sent: Mon 25/02/2008 11:12

NAVAREA XIX (Arctic)

Test message nr 1.

This is a test message from Inmarsat to all ships in NAVAREA XIX (above 71 degrees North and between 35 degrees West and 30 degrees East) recently defined and approved by International Maritime Organisation and purpose of the test is to check performance of the system. Please reply back to e-mail: vladimir_maksimov@inmarsat.com to confirm reception. Information on your position would also be appreciated and treated as confidential.

Kind Regards and have a good voyage,

Vladimir Maksimov
 Inmarsat Maritime Safety Services Department

egc 3, 1, 04, 63n030e17095, 11, 00 - Message (HTML)

File Edit View Insert Format Tools Actions Help

Reply Reply to All Forward

From: Vladimir Maksimov
 To: egc@inmc.eik.com
 Cc:
 Subject: egc 3, 1, 04, 63n030e17095, 11, 00

Sent: Mon 25/02/2008 12:07

NAVAREA XX (Arctic)

Test message nr 1.

This is a test message from Inmarsat to all ships in NAVAREA XX (Arctic area between 30 degrees and 125 degrees East). NAVAREA XX was recently defined and approved by International Maritime Organisation, as well as NAVAREA XVII, XVIII, XIX and XXI, and purpose of the test is to check performance of the system. Please reply back to e-mail: vladimir_maksimov@inmarsat.com to confirm reception. Information on your position would also be appreciated and treated as confidential.

Kind Regards and have a good voyage,

Vladimir Maksimov
 Inmarsat Maritime Safety Services Department

Mobile status:

IMN: 400099947

East Atlantic

Antenne signal:

GPS:

PC connection:

Views:

Send

Contacts

Editor

Disk Filename	Modem Filename	LES	Service	Priority	Bits	Date & Time	Size	Ref.No.	Routing
08022522.egc	EGC.787	312	SAR Coordination	Distress	7 Bit IA5	08-02-25 23:12	410	2533	Prn+Mem
08022521.egc	EGC.786	312	SAR Coordination	Distress	7 Bit IA5	08-02-25 23:06	410	2531	Prn+Mem
08022520.egc	EGC.785	104	NAV Warning	Safety	7 Bit IA5	08-02-25 11:05	1527	2943	Prn+Mem
08022519.egc	EGC.794	004	MET/NAV Warning/Forecast	Safety	7 Bit IA5	08-02-25 10:16	5456	2939	Prn+Mem



Message: 08022520.egc

Print... Save... Forward Wrap text

LES 104 - MSG 2943 - NavWarn Safety Call to Area: 71+9 N 35+66 W - PosOK

Eik LES 25-FEB-2008 11:12:49 110096

NAVAREA XIX (Arctic)

Test message nr 1.

This is a test message from Inmarsat to all ships in NAVAREA XIX (above 71 degrees North and between 35 degrees West and 31 degrees East). NAVAREA XIX, as well as NAVAREA XX, XXI, XX and XXIII was recently defined and approved by International Maritime Organisation and purpose of the test is to check performance of the system.

Please reply back to e-mail: vladimir_maksimov@inmarsat.com to confirm reception. Information on your position would also be appreciated and treated as confidential.

Definition of EGC SafetyNET Service Codes (as in the IMO Manual)

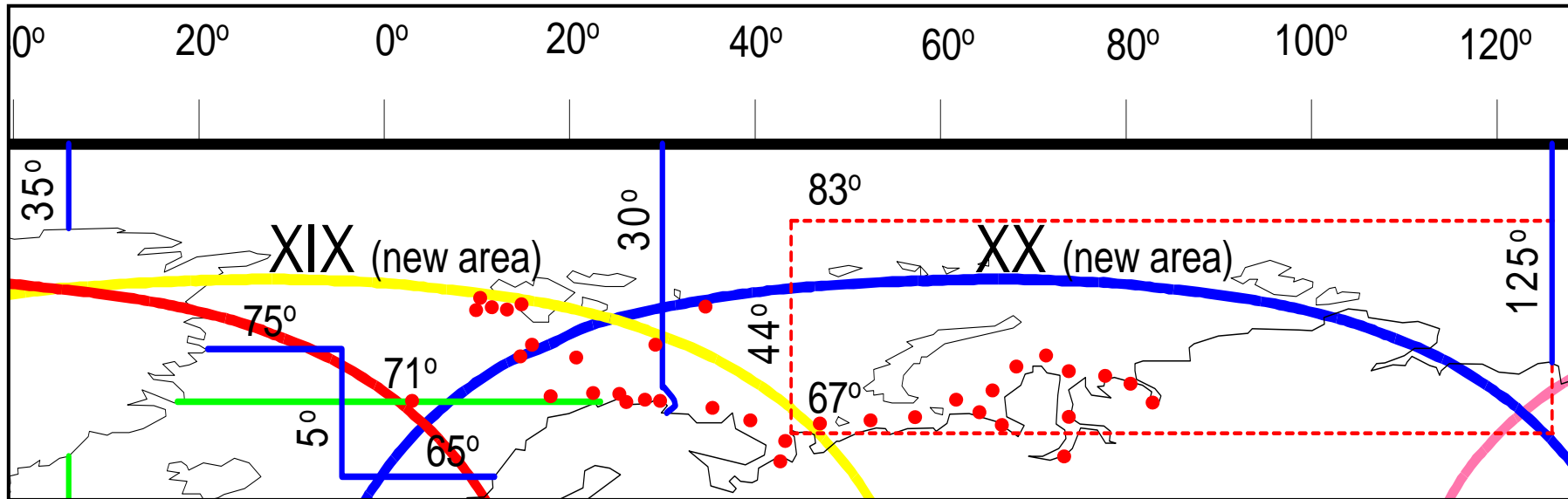
SafetyNET Service Code	Navigational information (2 codes are defined)	Meteorological information (3 codes are defined)	Search and Rescue (4 codes are defined)	Piracy countermeasures broadcast (1 code is defined)
00			All ships call	
04	Nav warnings to rectangular area*	Met warnings or forecasts to rectangular area*		Nav warnings to rectangular area
13	Coastal warnings	Met warnings or forecasts to coastal area		
14			Shore-to-ship distress alerts to circular area	
24	???	Met warnings to circular area		
31	NAVAREA warnings	Met warnings or forecasts to METAREA		
34			SAR coordination to rectangular area	
44			SAR coordination to circular area	
73**	Chart correction service to fixed areas			
21***		Weather graphical service (charts)		

* proposed (temporary) solution for Arctic areas for Navigational and Meteorological information

** service code is defined in the Inmarsat C SDM but not used

*** service code is reserved for future use

Positions of reporting vessels



Some positions from vessels:

- 71.15N 24.40E (AOR-E)
- 71.20N 02.61E (AOR-E)
-
- 74.30N 20.34E (IOR)
- 74.36N 16.24E (AOR-E)
- 75.18N 15.48E (AOR-E)
-
- 77.50N 14.00E (AOR-E)
- 78.00N 13.00E (AOR-E)
- 78.00N 35.00E (IOR)
- 78.15N 15.32E (AOR-E)
- 79.30N 09.15E (AOR-E)

68 position reports were received

General overview:

MSI reception is available up to 79° N (not 24 hrs)

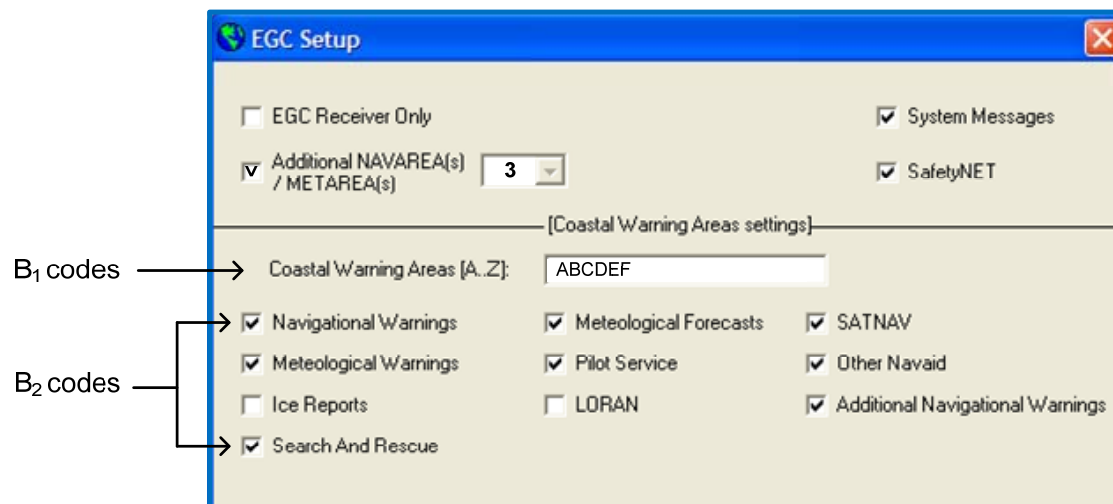
Trial may/should also be extended to the other Arctic areas



Reception of Coastal Warnings

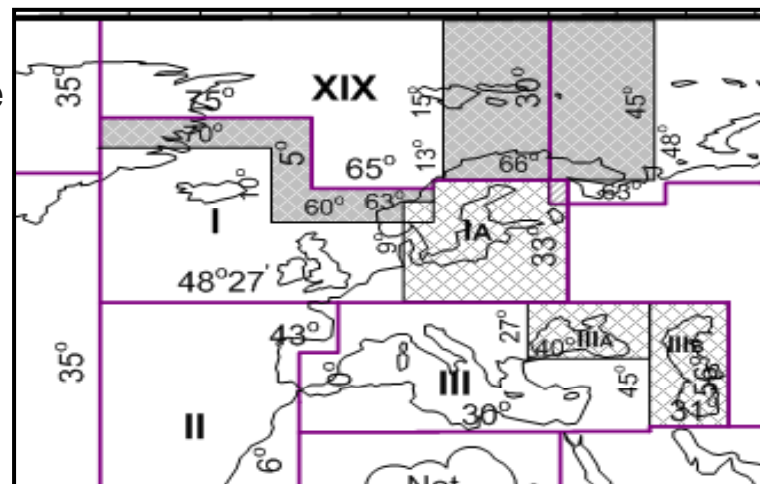
Draft Circular on reception of Coastal warnings and setting up Inmarsat C and mini-C MESs is ready

- ➔ Two possible scenarios of setting up MESs
 - Reception of Coastal warnings is not mandatory unlike reception of MSI addressed to fixed (NAVAREAs/METAREAs) or absolute geographical areas (Circular/Rectangular)
- ➔ B1 codes are set up, B2 codes are not set up
 - MES will still receive coastal warnings with B2=A, B and D – the same approach as on NAVTEX receivers
- ➔ B1 codes are not set up, B2 codes are/are not set up
 - MES will not receive coastal warnings



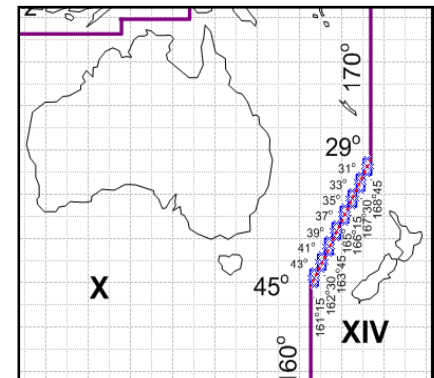
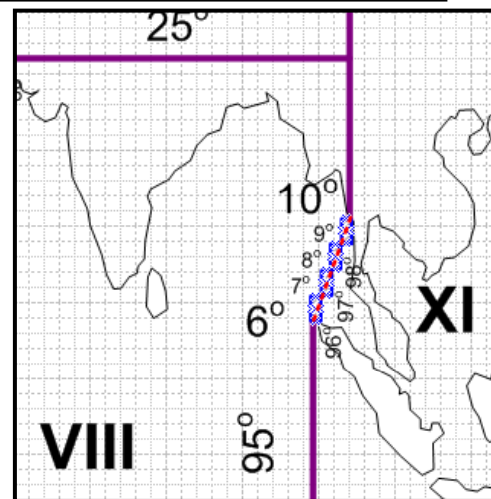
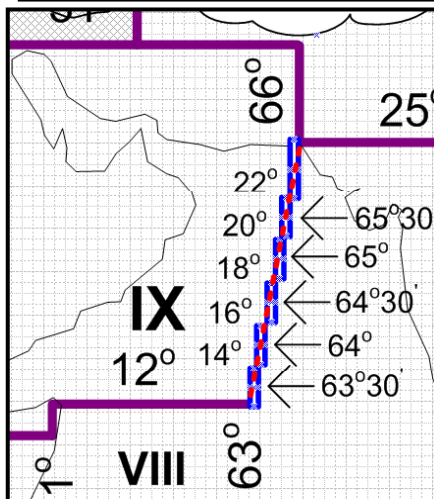
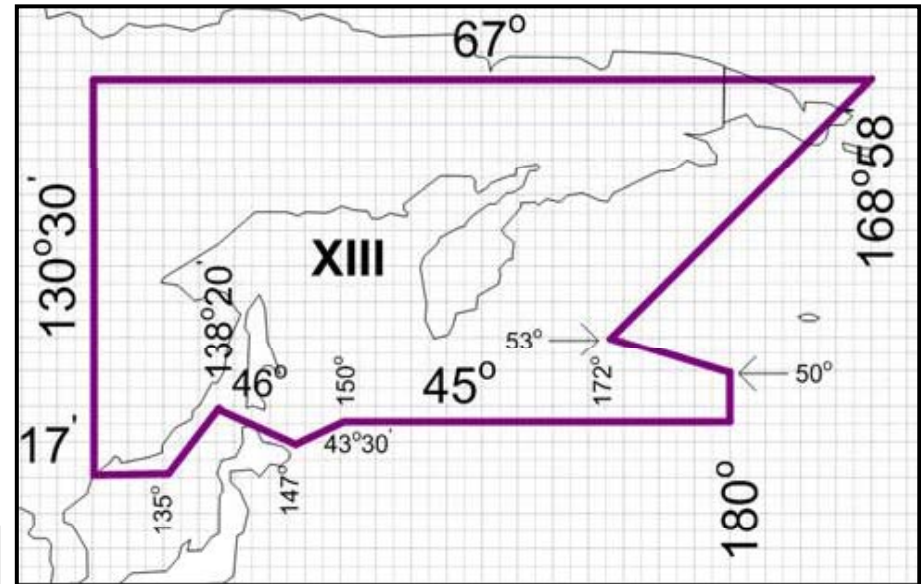
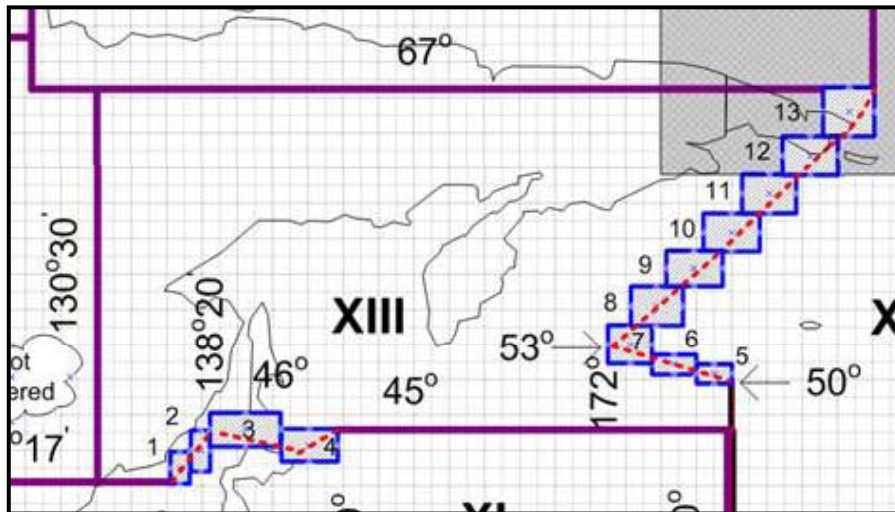
Sub-area arrangement and addressing (if decision on sub-areas is achieved)

- ➔ 2 ways to address sub-areas
 - directly to sub-area – 3 alphanumeric-character address, e.g. **01A**, **03B**, etc.
 - to main area with subject line in the text as, e.g. **“Call to sub-area 1A – Baltic Sea”**
- ➔ 1st way requires new C2 service code since existing service C2=13 can't be used
 - LES and MES software upgrade is required and MSI will be received only by MESs with new s/w.
 - MESs with old s/w – will not receive MSI since they will not recognise new service code
- ➔ 2nd way – MES s/ware upgrade is required - to “recognise” sub-area boundaries and ID or to “recognise subject line in the text (MSI providers to follow procedure)”
 - MESs with new s/w in Baltic – will receive MSI
 - MESs with old s/w in Baltic – will receive MSI
 - MESs with new s/w outside Baltic – will not receive MSI
 - MESs with old s/w outside Baltic – will receive MSI but the 1st line in the message will inform that the message is for sub-area
 - s/w upgrade would require 6-8 months and should be done with the major SafetyNET matrix upgrade
- ➔ **What is a decision???**
 - 1st way is selected during the meeting...



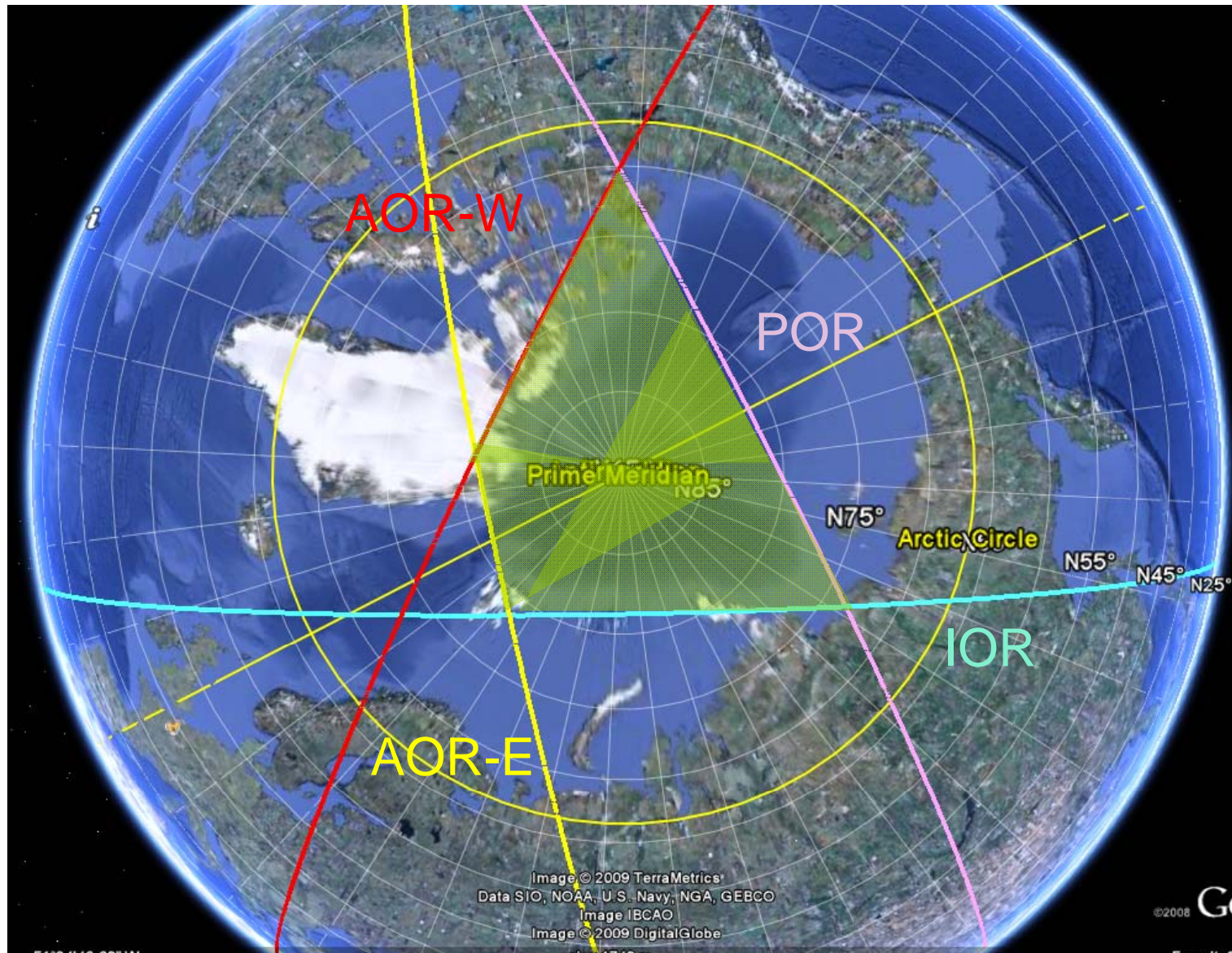
New arrangement for NAV/METAREAS within SafetyNET matrix (polygons)

- Some areas require modifications since existing boundaries do not match IMO defined limits, e.g. area XIII and proposal to manufactures is to use polygons (comprising straight lines only), where necessary, instead of combination of rectangles.
 - Agreement received from some manufacturers, awaiting from the others as well...

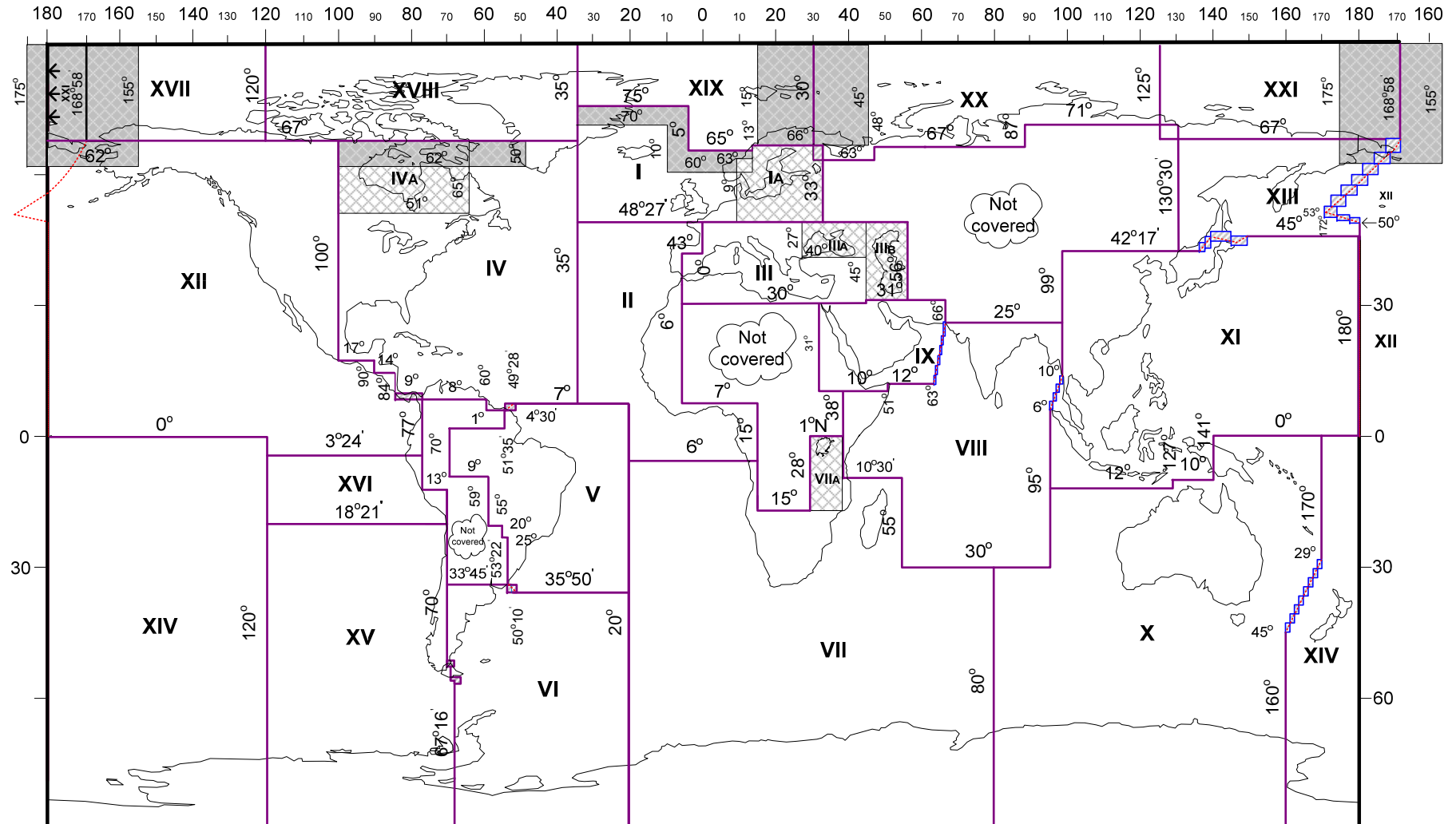


Areas affected:
VIII, IX, X, XI, XII,
XIII and XIV

Limits of Arctic areas within Inmarsat coverage (0° elevation angle)



Draft EGC SafetyNET Matrix (of 19 August 2009)



11



Thank you for your attention

Any Questions?

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