WWNWS6/3/4/2 30 April 2014

WWNWS Survey Questionnaire Analysis

Submitted by IHB

SUMMARY

Executive Summary: This document provides details of the analysis of the WWNWS

Survey Questionnaire.

Action to be taken: Paragraph 2.

Related documents: WWNWS Survey Questionnaire Results

1. See attached document.

2. The Sub-Committee is invited to note the information provided and take action as appropriate.

WWNWS Survey 2014 – Summary Report

- 1. The WWNWS survey was broadcast to ships via SafetyNET and NAVTEX for a 12-month period between April 2013 and March 2014. Ships were asked to complete an online questionnaire, which was also available in pdf format on the IHO WWNWS-SC website, although no hard copy replies were received. The replies provide useful data, whilst the comments highlight a number of issues which the sub-committee may wish to consider in future refinements of the service as well as for longer term future development, including the GMDSS modernization.
- 2. The first reply was received on 4 March 2013 and the last one on 8 April 2014. The link on the IHO website was removed on 8 April 2014 and questionnaire was removed from the world-wide web on 9 April 2014. A total of 743 replies were received, which is considered to be statistically valid for analysis results. Not every questionnaire provided answers to every question, for instance some ships in areas where there is no NAVTEX coverage did not answer the section relating to NAVTEX. In some other cases some fields were just left blank. The number of "no answers" is shown in the tables; these have not been included in the calculation of the quoted percentages.
- 3. This document provides a summary of replies with respect to the 5 sections of the questionnaire:
 - NAVAREA via SafetyNET;
 - Coastal via NAVTEX;
 - Coastal via SafetyNET;
 - Breakdown of vessel types; and
 - Overall global Monkey Survey automated summary.
- 4. In each of the first 3 sections there is a summary of all replies followed by a breakdown by NAVAREA. An Excel spreadsheet accompanies this summary and provides the full dataset as submitted. Once again the spreadsheet may be consulted for "All Replies" and for each individual NAVAREA by clicking on the respective Tabs.
- 5. In this summary document no factual information has been changed, however some spelling corrections and formatting changes have been made and in the case of NAVAREA XV entries in Spanish have been translated into English, no grammatical amendments have been made so as not to alter meanings. Comments have vessel type added to aid analysis.
- 6. In the Breakdown of Vessel Types section, each NAVAREA for which replies were received has been split into percentage SOLAS and non-SOLAS and into vessel categories.
- 7. It is intended that this summary report be discussed at WWNWS 6.

ALL NAVAREAS

(Total replies = 743; use/receive: yes - 478, no - 129, nil - 136)

	Reception quality	Timeliness	Clarity of messages	Usefulness
Satisfied	466	471	471	462
(Good + Average)	(350+116)	(341+130)	(360+111)	(326+136)
Not satisfied - Poor	21	16	15	23
No answer	256	256	257	258
No NAVAREA quoted	30	30	30	30
%age Satisfied	97.5%	98.5%	98.5%	96.7%
Overall	97.8%			

NAVAREA I

(Total replies = 163; use/receive: yes - 118, no - 17, nil - 28)

	Reception quality	Timeliness	Clarity of messages	Usefulness
Satisfied	110	112	112	107
(Good + Average)	(79+31)	(78+34)	(88+24)	(63+44)
Not satisfied - Poor	5	3	3	8
No answer	47	47	47	48
%age Satisfied	93.2%	97.4%	94.9%	90.7%
Overall	94.1%			

- 1. Quality of reception depends on maker and model of the NAVTEX receiver. Information of floating/drifting objects is good SOLAS Ro-Pax.
- 2. Should be integrated as T'nPs SOLAS Tanker.
- 3. NAVAREA I weather warnings cannot be turned off. I am in the North Sea and do not use them yet I receive vast reams of them printed on valuable paper and immediately throw them in the bin with out even looking at them. What a waste, what a shameful waste. I use the local UK Metoffice forecast. The NAVAREA I forecast does not even apply to me SOLAS AHTS.
- 4. Onboard we use the internet service on a daily basis to keep us updated about the Nav Warnings. A very good service SOLAS Tanker.
- 5. I sail in inshore waters off Sweden in summer. We mainly receive warnings from the Riga NAVTEX transmitter. These are almost useless as they mainly deal with naval exercises off Kaliningrad and Poland. The MSI warnings on VHF are much more relevant to my needs non-SOLAS Recreational.
- 6. I am aware of NAVAREA warnings and wz's as I am a former ship's navigator. I am not sure that leisure mariners fully understand the nav warn system. There are a plethora of sources and I think that access via a single web portal would be a huge advantage non-SOLAS RNLI Lifeboats.
- 7. Warnings received in Sweden coastal region via NAVTEX are mainly irrelevant and concern mostly naval movements in regions of Kaliningrad and Poland non-SOLAS Recreational.
- 8. Almost no massages which confirm cancelling old warnings SOLAS Container!!!
- 9. It's very effective SOLAS Tanker.

- 10. Very important SOLAS Passenger.
- 11. Don't use Inmarsat non-SOLAS Recreational.
- 12. Messages include lot of error codes. We are also getting messages from far away stations, like the Mediterranean. The questionnaire would be better if all the terms were clarified (like what's the difference in NAVTEX/Safetynet) SOLAS Cargo.
- 13. Some un-useful information like, for example, depths of 0.5 mtrs registered in some remote place where most probably no cargo ship or fishing boat will ever go. We understand the importance of these depths for sailing vessels maybe SOLAS Tanker.
- 14. Good service compared to many NAVTEX informations, it is useful and in clear order SOLAS Tanker.
- 15. Clear designation of sector concerned (ex: SOUTHERN NORTH SEA, UK SECTOR, CHART....), easy to use. Rig lists very completed (maybe to much...) SOLAS Cargo.
- 16. The warnings received are quite after the change has been effected. The latest rig list that we have is a couple of weeks outdated as compared to the latest rig list available on the website. This could definitely do with some improvement SOLAS Tanker.
- 17. All messages should contain NAVAREA of transmitter to help filter messages non-SOLAS Technical.
- 18. The rig list is lacking information from time to time. Some new rigs are not marked with "new". Rigs that are removed from the list are not mentioned so we have to go through the list in detail to find which rigs are removed. I suggest that the removed rigs are marked (e.g. with "removed") so that we easily can maintain an updated rig list on our ECDIS SOLAS Tanker.
- 19. Often unnecessary and time-consuming Nav Warnings are received SOLAS Cargo.
- 20. I remark a problem about NAVAREA messages received on SAT-C. Even we are in France (Biscay Bay, NAVAREA II) we receive all messages from NAVAREA III (Mediterranean Sea), which are useless for us but it's impossible to reject NAVAREA III because of the automatic selection of the system. So we receive a lot of weather forecast and all warning message that we throw directly. It's also becoming expensive due to the lot of roll paper we have to order SOLAS Cargo.
- 21. Happy with the service SOLAS Ferry.
- 22. Just for personal monitoring from UK NAVTEX Monitor.
- 23. It's too many unnecessary warnings like broken bulbs etc. in various places. They should be a stricter scheme on what will be considered important and what should be left out. At the time being the printers print meters of spam and non important info that makes the important ones easy to oversee SOLAS Tanker.
- 24. In general good, but some lack of updates when it comes to rig list, rigs that are not indicated new are sometimes in a different position than previous rig list shows SOLAS Tanker.
- 25. To many informations regarding unlit light/buoys seldom useful aid to navigation SOLAS Tanker.
- 26. Good SOLAS Tanker.
- 27. Keep that quality no worse SOLAS Geotechnical Survey Vessel.

NAVAREA I Sub-Area Baltic

(Total replies = 17; use/receive: yes - 7, no - 7, nil - 3)

	Reception quality	Timeliness	Clarity of messages	Usefulness
Satisfied	6	7	6	7
(Good + Average)	(5+1)	(5+2)	(5+1)	(5+2)
Not satisfied - Poor	1	0	1	0
No answer	10	10	10	10
%age Satisfied	85.7%	100%	85.7%	100%
Overall	92.9%			

- 1. Keep that quality no worse SOLAS Geotechnical Survey Vessel.
- 2. Good SOLAS Cargo.

NAVAREA II

(Total replies = 55; use/receive: yes - 40, no - 7, nil - 8)

	Reception quality	Timeliness	Clarity of messages	Usefulness
Satisfied	40	42	42	41
(Good + Average)	(28+12)	(30+12)	(29+13)	(30+11)
Not satisfied - Poor	2	0	0	0
No answer	13	13	13	14
%age Satisfied	95.2%	100%	100%	100%
Overall	98.8%			

- 1. Not enough resend SOLAS Research.
- 2. Weekly in force list (all) should be sent for easier tracking SOLAS Tanker.
- 3. Very good SOLAS Tanker.
- 4. The NAVAREA navigational warnings available are short, clear and important SOLAS Oceanographic vessel.
- Need of better web support for navigational warnings at 1 place, at least on UKHO web page you can put links for all NAVAREA, example: NAVAREA III: http://www.classicsailbcn.eu/NAVTEX-warnings/ NAVAREA V:
 - http://www.mar.mil.br/dhn/chm/avgantes/avradioing.htm NAVAREA VIII: http://www.hydrobharat.nic.in/pdf/navarea_warnings_in_force.pdf This will help all of us to have all NAVAREAs at one place. The main issue methods of Radio Navigational Warnings and SAR warning will be still via satellite, by SafetyNET, but lot of times informations received on this way are too late or when vessel already pass area SOLAS Tanker.
- 6. Today I am searching intensively for a worldwide NAVAREA Zone Map (Forecast Area) . . . maybe I am not the best Google user . . .but I cannot found one map on a "official" web site . . . only private sites as well as private sailing guidelines list several maps for the different NAVAREAS non-SOLAS Recreational.

- We use NAVTEX the whole time. Wx forecasts are spot on. I thing the dating should be made a
 lot more clearer. Use full date i.e 14/04/13 as opposed to time and date combination SOLAS
 Ferry.
- 8. Query results by sub-region mostly result in ", (GEN) "HYDROLANT WARNINGS IN FORCE" and "WARNINGS ISSUED DURING THE LAST SIX WEEKS". There is already a separate query for messages in force. Recommend eliminating redundancy in "messages in force" non-SOLAS Military.
- 9. NAVAREA warnings are of immense use for navigating non-SOLAS Navy tanker.

NAVAREA III (Total replies = 62; use/receive: yes - 41, no - 13, nil - 8)

	Reception quality	Timeliness	Clarity of messages	Usefulness
Satisfied	36	37	37	37
(Good + Average)	(28+8)	(31+6)	(31+6)	(26+11)
Not satisfied - Poor	1	0	0	0
No answer	25	25	25	25
%age Satisfied	97.3%	100%	100%	100%
Overall	99.3%			

- Query results by sub-region mostly result in ", (GEN) "HYDROLANT WARNINGS IN FORCE" and
 "WARNINGS ISSUED DURING THE LAST SIX WEEKS". There is already a separate query for
 messages in force. Recommend eliminating redundancy in "messages in force" non-SOLAS
 Military.
- 2. Good x 2 SOLAS Bulk Carrier & Tanker.
- 3. You could write navigation warning which chart to establish because we are find difficult maybe you write CROATIA but I don't know where is place:) thanks.. SOLAS Tanker.
- 4. Perfect non-SOLAS Cargo.
- 5. It is very good tool for real time navigation SOLAS Tanker.
- 6. When Navigation Officer have many area of NW to draw in the charts, take a lot of time because most area are defined by many position, it's much better to provide area as circle with a radius and position of the centre SOLAS Tanker.
- 7. In general we collect in force nav warning messages from the internet sites SOLAS Tanker.
- 8. No comments, system works good SOLAS Ro-Ro.
- 9. Good no remarks SOLAS Tanker.
- 10. Clear warnings, sufficient and not too much. Good in addition to the NAVTEX broadcasts SOLAS Tanker.
- 11. Area too large perhaps, most of the warnings received don't apply to us SOLAS Passenger.

12. Everything is perfect. Thank you for your effort. Uğur Sal 3RD Officer of MT ISTANBUL KA – SOLAS Tanker.

NAVAREA IV

(Total replies = 90; use/receive: yes - 54, no - 21, nil - 15)

	Reception quality	Timeliness	Clarity of messages	Usefulness
Satisfied	56	55	57	55
(Good + Average)	(39+17)	(41+14)	(41+16)	(40+15)
Not satisfied - Poor	1	2	0	2
No answer	33	33	33	33
%age Satisfied	98.2%	96.5%	100%	96.5%
Overall	97.8%			

- Query results by sub-region mostly result in ", (GEN) "HYDROLANT WARNINGS IN FORCE" and "WARNINGS ISSUED DURING THE LAST SIX WEEKS". There is already a separate query for messages in force. Recommend eliminating redundancy in "messages in force" – non-SOLAS Military.
- 2. Very useful SOLAS Tanker.
- 3. NAVAREA navigational warnings are vital to operation of our ship. These essential broadcasts are in synoptic use onboard. We greatly appreciate the continued fine service provided to us SOLAS Passenger.
- 4. Provides critical information, backing up more modern electronics which tend to fail when you need them most non-SOLAS Fishing.
- 5. Sometimes we receive warnings from other area's while not selected in our SES SOLAS Cargo.
- 6. Their navigation warnings are crucial to smooth sailing of goods to their destination SOLAS Cargo.
- 7. More navigational warnings SOLAS Coast Guard.
- 8. Ships entering an area from another region after long time at sea do not get full list of all active warnings SOLAS Cargo.
- 9. Good SOLAS Tanker.
- 10. Would expect more to come through SafetNET SOLAS Passenger.
- 11. If areas were to be smaller we would receive less information, as at times we may receive too many unnecessary info when we are operating in certain areas and not covering much distance. However the system in general works well and we always receive information that we require SOLAS Military support and supply.

- 12. We operate in NAVAREA IV but continuously receive messages for NAVAREA III. Repeatedly each NAVAREA III message is received twice. You are killing so many trees needlessly since we cannot turn off our printer SOLAS Cargo.
- 13. NAVAREA warnings received regularly including weekly updates of all warnings in force. Meteo Forecasts received on time SOLAS Tanker.

NAVAREA V

(Total replies = 101; use/receive: yes - 56, no - 23, nil - 22)

	Reception quality	Timeliness	Clarity of messages	Usefulness
Satisfied	58	58	58	56
(Good + Average)	(40+18)	(40+18)	(41+17)	(38+18)
Not satisfied -	3	3	3	5
Poor	3	3	3	3
No answer	40	40	40	40
%age Satisfied	95.1%	95.1%	95.1%	91.8%
Overall	94.3%			

- 1. Very useful SOLAS Tanker.
- 2. Very good SOLAS Tanker.
- 3. NAVTEX would be easier as it is automated, free and recordable non-SOLAS Recreational.
- 4. Clear instructions on how to quickly report a new warning (practically new position of MODU) would be beneficial. At the moment, from advising the Navy to the rig list being updated takes a long period of time SOLAS MODU.
- 5. Average SOLAS Tanker.

NAVAREA VI

(Total replies = 11; use/receive: yes - 8, no - 2, nil - 1)

	Reception quality	Timeliness	Clarity of messages	Usefulness
Satisfied	8	9	9	9
(Good + Average)	(5+3)	(5+4)	(6+3)	(5+4)
Not satisfied - Poor	0	0	0	0
No answer	3	2	2	2
%age Satisfied	100%	100%	100%	100%
Overall	100%			

- 1. Sometimes warnings are so long that it is very difficult to get people involved in reading SOLAS Offshore supply.
- 2. Average SOLAS Surveyor.
- 3. Are all NAVTEX stations working properly? Doesn't seem to be in order non-SOLAS Recreational.

NAVAREA VII

(Total replies = 12; use/receive: yes - 10, no - 1, nil - 1)

	Reception quality	Timeliness	Clarity of messages	Usefulness
Satisfied	9	9	9	9
(Good + Average)	(8+1)	(9+0)	(9+0)	(8+1)
Not satisfied - Poor	0	0	0	0
No answer	3	3	3	3
%age Satisfied	100%	100%	100%	100%
Overall	100%			

- 1. Is good for navigation SOLAS Tanker.
- 2. Kindly state relevant transmission history of NAVAREA warnings sent via EGC. For example state that only 42weeks old Nav Warnings are sent via EGC. This is to explain to surveyors or vetting inspectors regarding Nav Warnings received via EGC. Create a website to download the old Nav Warnings still in force older than 42 weeks. Ships these days are well equipped with internet facilities SOLAS Tanker.

NAVAREA VIII

(Total replies = 26; use/receive: yes - 22, no - 2, nil - 2)

	Reception quality	Timeliness	Clarity of messages	Usefulness
Satisfied	22	21	21	20
(Good + Average)	(20+2)	(17+4)	(19+2)	(15+5)
Not satisfied - Poor	1	1	1	1
No answer	3	4	5	5
%age Satisfied	95.7%	95.5%	95.6%	95.2%
Overall	95.5%			

- 1. Very prompt and usually received well in time to effect in passage plan SOLAS Tanker.
- 2. Precise, crisp, clear and timely dissemination of information SOLAS Indian Coast Guard.
- 3. NAVAREA warnings issued for NAVAREA VIII have been prompt in keeping with the traditions of the sea faring world SOLAS Warship.
- 4. Good service SOLAS Tanker.
- 5. Good timely receipts of warnings SOLAS Naval.
- 6. A very healthy system of promulgating warnings and provides timely information about navigational warnings SOLAS Coast Guard.
- 7. Good non-SOLAS Ferry.
- 8. The warnings are prompt, timely and relevant SOLAS Cargo.
- 9. NAVAREA warnings are of immense use for navigating non-SOLAS Tanker.

NAVAREA IX

(Total replies = 35; use/receive: yes - 21, no - 3, nil - 11)

	Reception quality	Timeliness	Clarity of messages	Usefulness
Satisfied	20	18	19	19
(Good + Average)	(10+10)	(10+8)	(12+7)	(14+5)
Not satisfied - Poor	1	2	1	2
No answer	14	15	15	14
%age Satisfied	95.2%	90%	95%	90.5%
Overall	92.7%			

- Query results by sub-region mostly result in ", (GEN) "HYDROLANT WARNINGS IN FORCE" and
 "WARNINGS ISSUED DURING THE LAST SIX WEEKS". There is already a separate query for
 messages in force. Recommend eliminating redundancy in "messages in force" non-SOLAS
 Military.
- 2. Can only access warnings on the internet SOLAS LNG Carrier.
- 3. I appreciate to Pakistan Navy Hydro Office that they provide their NAVAREA's warnings with British Admiralty Chart number. Almost all vessels around the world are using BA chart and it will be a big help if all responsible Hydro Offices will issue their warnings with BA chart number identification. It will be very useful and quick finding mean for Navigational Officer x 3 SOLAS Tanker.
- 4. 1. Time limited warnings are rarely cancelled on time e.g. warnings about drifting buoys remain on system for several months.
 - 2. Many warnings do not use the format or the wordings that are recommended in the Revised Joint IHO/IMO/WHO MSI Manual SOLAS Naval.
- 5. Very useful and important for safety of navigation SOLAS Tanker.
- 6. Generally good and informative for safe conduct of transit SOLAS Destroyer.
- 7. Old Warnings from previous years not received when log in SOLAS Tanker.
- 8. Pakistani website very unhelpful. I would like a complete list of warnings to print rather than having to interrogate each one individually SOLAS Passenger.

NAVAREA X

(Total replies = 83; use/receive: yes - 48, no - 14, nil - 21)

	Reception quality	Timeliness	Clarity of messages	Usefulness
Satisfied	47	48	46	47
(Good + Average)	(43+4)	(41+7)	(39+7)	(40+7)
Not satisfied - Poor	2	1	3	1
No answer	34	34	34	35
%age Satisfied	95.9%	98.0%	93.9%	97.9%
Overall	96.4%			

- 1. Good x 2 SOLAS Cargo & Tanker.
- 2. Usefulness SOLAS Tanker.
- 3. Once requested, provide navigational warnings immediately SOLAS Tanker.
- 4. Too much blurb at start, takes ages to read each one to find out if it's appropriate for vessel /area/ops SOLAS Offshore supply AHTS.
- 5. Only available on internet, not available via NAVTEX SOLAS Passenger.
- 6. In time and very accurate. Index of Warnings in force easily readable and understood SOLAS Tanker.

NAVAREA XI (Total replies = 51; use/receive: yes - 34, no - 6, nil - 11)

	Reception quality	Timeliness	Clarity of messages	Usefulness
Satisfied	33	33	34	34
(Good + Average)	(37+6)	(22+11)	(26+8)	(24+10)
Not satisfied - Poor	3	3	1	1
No answer	15	15	16	16
%age Satisfied	91.7%	91.7%	97.1%	97.1%
Overall	94.4%			

- 1. Very prompt and to the point SOLAS Tanker LNG Carrier.
- 2. 1. Weather warnings during cyclones are too slow usually about 6 hours delay.
 - 2. Please do not write the Nav Warnings all in capital letters; this is very difficult to read.
 - 3. In the last few years it has become 'fashionable' particularly in SE Asia to issue URGENT warnings for rather trivial local issues (like a change of buoyage in Vietnam recently) all the time, promulgating it throughout, almost to the point of abuse of the system SOLAS Cargo.
- 3. Some NAVAREA warnings are useful and definitely necessary for the safety of life at sea and safety of navigation. However these messages are usually masked by hordes of unnecessary low priority messages with no relevance to ones current voyage. I think the GMDSS system in general needs some serious revision. We are in the year 2014 yet in shipping we still use equipment that takes "Floppy Disks"? I suggest a system similar to that used for ECDIS updating would probably be allot better as one can set your voyage parameters and receive only warnings that is relevant to your passage? I currently use the following web sight (http://www1.kaiho.mlit.go.jp/TUHO/nwe.html) to quickly check for relevant messages for my voyage and it's a great aid as they have a map showing all the current messages for my area of operations. At a glance and with very little effort I can see exactly which messages I need to pay attention to SOLAS Cargo PVS.
- 4. When issue the warning, please be more considering the affect to the shipping SOLAS Tanker.
- 5. Because it is such a large area, the majority of the warnings received are irrelevant. There is also a huge difference in quality between Chinese and Japanese warnings; the Japanese warnings tend to be more thorough and received in sufficient time, while the only Chinese

warnings received in good time tend to be those related to military exercises – SOLAS Bulk Carrier.

- 6. NAVAREA XI is divided between IOR and POR. Most of voyages are concerning both regions at once e.g. routes from Japan to Singapore, Singapore to China. And due to many factors you must switch Inm-C between two regions. But NAVAREA messages are separated mostly between them, so until you switch another region, you will not get part of messages SOLAS Tanker.
- 7. Vessel has to ask NAVAREA warning in force to shore guys. Guys who are sitting in office will download the warnings in force and will send to ship. As we are unaware that for NAVAREA XI there are warning in force from year 2007 and vessel has not received single NAVAREA. During vetting inspection by oil major he observed that (as he checked NAVAREA warnings in force for NAVAREA XI on internet before boarding vessel) vessel has received only two NAVAREA warnings. As we try to explain him that we have not received any NAVAREA warnings. But he refused to accept that, his suggestion is you should ask the office to send NAVAREA warnings in force. But how the ship guys will know that there are warning are in force for that area. Ship has not received NAVAREA bulletin also. So I request you to please find some solution to this so that we navigate safely. As this problem is faced by some other ships from the fleet and my friends too SOLAS Tanker.
- 8. 1. Old Nav Warning already in force but can not receive, you should go to website to download this warning.
 - 2. Weather forecast not organised very well, required to be more easier to understand and should be organised to sectors in this area SOLAS Bulk Carrier.
- 9. The index of warnings "in force" should be done better/for longer period and not only send an index of warnings issued last 6 weeks. Luckily the online service is excellent, but not all the ships are connected to internet SOLAS Tanker.
- 10. NAVAREA warnings are of immense use for navigating SOLAS Tanker Navy.

NAVAREA XII (Total replies = 16; use/receive: yes - 9, no - 5, nil - 2)

	Reception quality	Timeliness	Clarity of messages	Usefulness
Satisfied	8	9	9	8
(Good + Average)	(7+1)	(8+1)	(6+3)	(5+3)
Not satisfied -	1	0	0	1
Poor	1	U	O	1
No answer	7	7	7	7
%age Satisfied	88.9%	100%	100%	88.9%
Overall	94.5%			

- 1. Too much irrelevant information hampering the usefulness of the system SOLAS Fishing.
- 2. Weather warnings are good clear and effective, weather forecasts are cryptic and technical to decipher, NTS are received haphazardly and not always timely non-SOLAS Buoy tender.

3. Very few NAVAREA warnings found to be in force considering the size of ocean area covered. When using website maintained by New Zealand, the date of currency had not been updated for more than a month recently – SOLAS Passenger.

NAVAREA XIII

(Total replies = 1; use/receive: yes - 0, no - 1, nil - 0)

	Reception quality	Timeliness	Clarity of messages	Usefulness
Satisfied (Good + Average)	0	0	0	0
Not satisfied - Poor	0	0	0	0
No answer	1	1	1	1
%age Satisfied	-	-	-	-
Overall	-			

1. No comments received.

NAVAREA XIV

(Total replies = 4; use/receive: yes - 3, no - 0, nil - 1)

	Reception quality	Timeliness	Clarity of messages	Usefulness
Satisfied	3	3	2	3
(Good + Average)	(3+0)	(2+1)	(1+1)	(2+1)
Not satisfied -	0	0	1	0
Poor	-		_	
No answer	0	0	0	0
%age Satisfied	100%	100%	66.7%	100%
Overall	91.7%	_		

1. Receiving printed warnings from SAT-C are difficult to read when it comes in one giant paragraph. Also should be able to choose not to have routine SafetyNET messages printed as it uses over 30m paper per day — SOLAS Offshore supply.

NAVAREA XV

(Total replies = 14; use/receive: yes - 10, no - 3, nil - 1)

	Reception quality	Timeliness	Clarity of messages	Usefulness
Satisfied	9	9	9	9
(Good + Average)	(7+2)	(7+2)	(7+2)	(9+0)
Not satisfied -	0	0	0	0
Poor	U	U	U	U
No answer	5	5	5	5
%age Satisfied	100%	100%	100%	100%
Overall	100%			

- 1. We receive them periodically though Magallanes radio SOLAS apoyo de practicos.
- 2. Good and timely SOLAS Bulk Carrier.

- 3. No comments, received via Chile Navy HF message delivery system SOLAS Scientific Research.
- 4. The information is clear, accurate and on time SOLAS Tanker.
- 5. Received on time and smoothly SOLAS Tanker.
- 6. Seemingly thorough and comprehensive SOLAS Passenger.

NAVAREAS XVI

(Total replies = 1; use/receive: yes - 0, no - 1, nil - 0)

	Reception quality	Timeliness	Clarity of messages	Usefulness
Satisfied (Good + Average)	0	0	0	0
Not satisfied - Poor	0	0	0	0
No answer	1	1	1	1
%age Satisfied	-	-	-	-
Overall	-			

1. No comments received.

NAVAREA XVII

(Total replies = 1; use/receive: yes - 0, no - 1, nil - 0)

	Reception quality	Timeliness	Clarity of messages	Usefulness
Satisfied (Good + Average)	0	0	0	0
Not satisfied - Poor	0	0	0	0
No answer	1	1	1	1
%age Satisfied	-	-	-	-
Overall	-			

1. No comments received.

NAVAREA XVIII

(Total replies = 1; use/receive: yes - 1, no - 0, nil - 0)

	Reception quality	Timeliness	Clarity of messages	Usefulness
Satisfied	1	1	1	1
(Good + Average)	(0+1)	(0+1)	(0+1)	(0+1)
Not satisfied - Poor	0	0	0	0
No answer	0	0	0	0
%age Satisfied	100%	100%	100%	100%
Overall	100%			

1. No comments received.

NAVAREA XIX

(Total replies = 3; use/receive: yes - 3, no - 0, nil - 0)

	Reception quality	Timeliness	Clarity of messages	Usefulness
Satisfied	3	3	3	3
(Good + Average)	(1+2)	(1+2)	(1+2)	(2+1)
Not satisfied - Poor	0	0	0	0
No answer	0	0	0	0
%age Satisfied	100%	100%	100%	100%
Overall	100%			

1. In the remote region of the world is good that the NAVTEX-station also inform that they have no messages on hand – SOLAS ERRV.

NAVAREA XX

(Total replies = 2; use/receive: yes - 0, no - 2, nil - 0)

	Reception quality	Timeliness	Clarity of messages	Usefulness
Satisfied (Good + Average)	0	0	0	0
Not satisfied - Poor	0	0	0	0
No answer	2	2	2	2
%age Satisfied	-	-	-	-
Overall	-			

1. No comments received.

NAVAREA XXI: - No replies

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ALL NAVAREAS

(Total replies = 743; use/receive: yes - 395, no - 155, nil - 193)

	Reception quality	Timeliness	Clarity of messages	Usefulness
Satisfied	384	387	386	386
(Good + Average)	(273+111)	(271+116)	(270+116)	(260+126)
Not satisfied - Poor	25	19	19	18
No answer	334	337	338	339
No NAVAREA quoted	<mark>31</mark>	<mark>31</mark>	<mark>31</mark>	<mark>31</mark>
%age Satisfied	93.9%	95.3%	95.3%	95.5%
Overall	95%			

NAVAREA I

(Total replies = 163; use/receive: yes - 104, no - 24, nil - 35)

	Reception quality	Timeliness	Clarity of messages	Usefulness
Satisfied	104	102	99	102
(Good + Average)	(67+37)	(71+31)	(71+28)	(59+43)
Not satisfied -	4	4	7	4
Poor	4	4	,	4
No answer	55	57	57	57
%age Satisfied	96.3%	96.2%	93.4%	96.2%
Overall	95.5%			

- 1. Subjects vary in relevance. Anchors lost on anchorages for example are a common risk for seafarers. The plotting of lost anchors is useless on many anchorages and would especially during times of heavy weather very much overcrowd charts SOLAS Tanker.
- 2. Each station has its own numeration system (internal Nav Warn number or just the message number for others). List of in force message very often not received when transiting in several NAVTEX areas SOLAS Tanker.
- 3. I don't pay much attention to them, they are far too many and pointless SOLAS AHTS.
- 4. I do not understand what is meant by a coastal warning non-SOLAS Recreational.
- 5. NAVTEX is handy but I don't think anyone actually pays attention to it SOLAS Offshore.
- Some MSI services (e.g. Oostende Radio) don't provide clear information when warnings ceased to exist and can be cancelled. Nor they provide monthly list of messages in force. Thus charts become overburden with coastal warnings – SOLAS Ferry.
- 7. Same message send many times by coast station SOLAS Tanker.
- 8. It's too hard to get information about which NAVTEX messages are still in force. I've tried several times to get this information from the internet but without result. On the NAVTEX messages only the last messages which are in force are mentioned. Why it's not possible to give all the messages which are in force by this regular broadcasted messages SOLAS RORO?

- 9. Good SOLAS Tanker.
- 10. Very important SOLAS Passenger.
- 11. Four hourly time slots are too not frequent enough, particularly for gale warnings non-SOLAS Recreational.
- 12. Especially the warnings received from Oostende [T] are overdone. Every little detail about buoyage is transmitted; even the buoys close to the land where there is only a depth of 2 meters. Also is it unclear about the military training area "Lombardsijde", it is referred to by it's name instead of a position. It took me half an hour on the internet to find its location and again, it is far away from any shipping lane. So a lot of useless information is received SOLAS Cargo RoRo.
- 13. Some unusefull information like, for example, depths of 0.5 mtrs registered in some remote place where most probably no cargo ship or fishing boat will ever go. We understand the importance of these depths for sailing vessels maybe SOLAS Tanker.
- 14. The best construction of NAVTEX Service has English station G. It is very easy to follow NAVTEX messages delete old one and be up to date. Very easy to follow sequence of messages. But with Belgium T and Netherlands P are really difficult to keep only messages in force. Will be good to make construction of all stations like English station G SOLAS Tanker!
- 15. Double used ID numbering for messages, different number of national warning and transmitting station code (SA 67=Ger. warning 219), and summaries not regularly transmitted lead to confusion. Corrupted messages and unreliable cancellations lead to further confusion and over-marking of charts SOLAS Tanker.
- 16. Many errors in messages. Approximately 30% of the messages are corrupted SOLAS Cargo Passenger.
- 17. Most of the warnings broadcast pertain to incidents/changes very close to the coast or within harbour limits. As such they do not affect the bulk of the traffic using the main thoroughfare in that area e.g.: the Dover Strait TSS or Route T in the Baltic for NAVAREA I. This results in a lot of waste of time and paper. In light of this if the warnings could be segregated with distance from the coast it would be helpful SOLAS Tanker.
- 18. The NAVTEX service is generally good. Warnings and weather forecasts are usually written with an easy language. The British warnings sometimes contain difficult words. The language has to be simple and understandable since most users do not come from English speaking countries SOLAS Tanker.
- 19. Often unnecessary and time-consuming Nav Warnings are received SOLAS Cargo.
- 20. A lot of broken bulbs and broken navigational aids are fixed quicker than it takes the warning to come out. Also here it should be a stricter scheme on what should be considered important or not SOLAS Tanker.
- 21. Dear Sir Following a reading of IA94 requesting a reply regarding the quality of NAVTEX signals so at your request I've returned your NAVTEX messages as I've received them in the

UK - I am not a mariner just an interested Wxer and NAVTEX monitor. For the past 12 years I've used the NASA 518 kc/s Engine rx which ticks over 24/7, to improve the quality of signal I've wound a long wire over 2/3s the body of the Engine, Lc coupled to the internal ant which is then connected to a long wire interwoven in the loft. The quality of signals received from Grimeton very rarely fall below 100% and when it does it's down to local grm. - 73s -Anthony Lowe QTH - Haydock - St Helens - Merseyside - UK - (between Liverpool and Manchester) 150800 UTC APR BALTIC SEA NAV WARN 007 MARINERS ARE KINDLY REQUESTED TO TAKE PART IN A SURVEY CONCERNING THE QUALITY OF MSI BROADCAST VIA SAFETYNET AND NAVTEX. THE PURPOSE OF THE SYRVEY IS TO IMPROVE THE SERVICE. TWO SHORT QUESTIONNAIRES ARE AVAILABLE AS BELOW: 1. NAVIGATIONAL WARNINGS: WWW.SURVEYMONKEY.COM/S/IHOSURVEY 2. METEO INFO AND WARNINGS: WWW.JCOMM.INFO/MMMS (BALTICO, SWEDEN, ON BEHALF OF IHO/IMO/WMO) NNNN 08:29 17/04/13 IA43 291000 UTC JAN BALTIC SEA NAV WARN 001 THE SOUND AND WESTERN BALTIC. SEALEVEL SOUTH OF THE BRIDGE AND IN WESTERN BALTIC DROPS TO 100 CM BELOW MSL DURING WEDNESDAY AFTERNOON NNNN 08:07 30/01/13 IA80 231620 UTC MAR GERMAN NAV WARN 157 WESTERN BALTIC. FLENSBURGER FOERDE. AMMUNITION FOUND. 1 TORPEDO IN APPROX PSN: 54-50,3362N 009-30,5315E SHIPPING IS REQUESTED TO KEEP CLEAR OF THIS POSITION. NNNN 10:12 24/03/13 IA91 211446 UTC MAR DANISH NAV WARN 099 GREAT BELT.EGHOLM FLAK SAILING VESSEL SUNK 55-15.2N 011-05.9E DEPTH ABOVE WRECK 1 M. BLUE - YELLOW LIGHT BUOY 90 METER W BLACK - YELLOW BUOY 50 METER N BLACK - YELLOW - BLACK BUOY 100 METER E YELLOW - BLACK BUOY 70 METER SE NNNN 09:35 06/04/13 IA92 211446 UTC MAR SAILING VESSEL SUNK 55-15.2N DANISH NAV WARN 099 GREAT BELT.EGHOLM FLAK 011-05.9E DEPTH ABOVE WRECK 1 M. BLUE - YELLOW LIGHT BUOY 90 METER W BLACK - YELLOW BUOY 50 METER N BLACK - YELLOW - BLACK BUOY 100 METER E YELLOW - BLACK BUOY 70 METER SE NNNN 08:31 17/04/13 IA61 051530 UTC DEC BALTIC SEA NAV WARN 026 DUE TO WINTER CONDITIONS FLOATING AIDS TO NAVIGATION COULD BE WITHDRAWN, DAMAGED OR MOVED FROM CHARTED POSITIONS. AIS AND RACON COULD BE WITHDRAWN FROM BUOYS. LIGHTS AND BEACONS COULD BE COVERED WITH SNOW AND ICE. NAVIGATIONAL WARNING WILL NORMALLY NOT BE ISSUED IN AREAS COVERED BY ICE. MARINERS ARE ADVICED TO NAVIGATE WITH GREAT CAUTION NNNN 08:31 17/04/13 IA95 171830 UTC APR BALTIC SEA NAV WARN 008 THE SOUND AND WESTERN BALTIC THE SOUND: SEALEVEL DROPS SOUTH OF THE BRIDGE TO 60 CM BELOW MSL THURSDAY NIGHT WESTERN BALTIC: SEALEVEL DROPS TO 60 CM BELOW MSL THURSDAY NIGHT NNNN 22:36 17/04/13

- 22. Generally is very good with two remarks navigational warnings from Gislovshammar [J] are not received very well (sometimes there are navigational warnings in force but not received by NAVTEX certainly station is selected). Second remark is propagation concern stations [I] and [J]. Unit received navigational warnings from Varna [J] / Izmir [I] instead Gisloshammar [J] / Grimeton [I] (same broadcast time) SOLAS Tanker.
- 23. Would like more updates on which warnings are in force SOLAS Tanker.

..... – non-SOLAS Listener!!!!

24. Good - SOLAS Tanker.

- 25. NAVTEX is an old fashion system. Affected area and message should be shown on an Electronic chat non-SOLAS Recreational.
- 26. Give a list of NAVTEX SOLAS Tanker.
- 27. Still guite a lot messages with high error rate SOLAS Cargo.

NAVAREA I Sub-Area Baltic

(Total replies = 17; use/receive: yes - 12, no - 1, nil - 4)

	Reception quality	Timeliness	Clarity of messages	Usefulness
Satisfied	9	10	10	10
(Good + Average)	(6+3)	(8+2)	(8+2)	(8+2)
Not satisfied -	1	0	0	0
Poor				
No answer	7	7	7	7
%age Satisfied	90%	100%	100%	100%
Overall	97.5%			

- 1. NAVTEX is an old fashion system. Affected area and message should be shown on a Electronic chat non-SOLAS Recreational.
- 2. According to above questions, in Baltic Sea Sub-Area quality of NAVTEX information is good, also broadcasting time is on high level SOLAS Ferry.

NAVAREA II

(Total replies = 55; use/receive: yes - 29, no - 10, nil - 16)

	Reception quality	Timeliness	Clarity of messages	Usefulness
Satisfied	27	27	28	29
(Good + Average)	(19+8)	(21+6)	(21+7)	(20+9)
Not satisfied -	2	2	1	0
Poor				
No answer	26	26	26	26
%age Satisfied	93.1%	93.1%	96.6%	100%
Overall	95.7%			

- 1. Give a list of NAVTEX SOLAS Cargo.
- 2. Still quite a lot messages with high error rate SOLAS Cargo.
- 3. There is no common system for keep NAVTEX messages onboard, like in NAVAREA. Hard to follow messages that was cancelled or still in force SOLAS Tanker.
- 4. Good SOLAS Tanker.
- 5. At present, weather information isn't broadcast by MRCC Corsen non-SOLAS Recreational.

6. Same as navigational warnings via SafetyNET, there is need of better web support at one place. For example lots of informations coming too late or they are not coming at all – SOLAS Tanker.

NAVAREA III

(Total replies = 62; use/receive: yes - 35, no - 12, nil - 15)

	Reception quality	Timeliness	Clarity of messages	Usefulness
Satisfied	30	29	31	29
(Good + Average)	(28+2)	(24+5)	(24+7)	(23+6)
Not satisfied -	2	2	0	1
Poor	2	۷	U	1
No answer	30	31	31	32
%age Satisfied	93.8%	93.5%	100%	96.7%
Overall	96%			

- Not all NAVTEX messages clearly received SOLAS Tanker.
- 2. Good SOLAS Tanker.
- 3. It is also good for real time navigation SOLAS Tanker.
- 4. It will be better if the coastal stations broadcast cumulative list of NAVTEXT warning of their area weekly, and so easy to know the cancelled message in case if the ship is out of range during broadcasting of massage of cancel SOLAS Tanker.
- 5. We sail Marseille-Oran-Mostaganem-Marseille and receive messages only in between Mallorca and France. Stations in use W & X. Messages contain a lot of transmission errors SOLAS Ro-Ro.
- 6. Please use standard format for positions, as ECDIS systems automatic plot the messages; e.g. 34 40 12 N 012 30 11 E or 34-40.120N 012-30.11E. Do not use decimal positions, as these are not recognised and manual to be adjusted; e.g. 34.6680N 12.5003E SOLAS Tanker.
- 7. Different coastal stations have different ways of describing the same information. More uniformity would be nice. Also, stations such as Sellia Marina (V) repeat the same warnings over and over again with different numbers. This is a lot of waste of paper. General impression of the NAVTEX system in NAVAREA III is very good though SOLAS Tanker!
- 8. There are plenty errors in the msgs, such as invalid positions. Some warnings are written in bad English and un-readable. Some msgs are received on the day of the event. French coastal warnings are generally the best and are received in good time SOLAS Passenger.
- 9. Good when no industrial action limiting service SOLAS Passenger.
- 10. Thank you for your effort SOLAS Tanker.
- 11. No warnings in force list is transmitted form NAVTEX stations. Most warnings do not have cancellation dates and not all warnings in force are transmitted in every transmission time therefore it is never clear if it is safe to cancel old warning. Simple list of warnings in force list like on NAVAREA would solve the issue SOLAS Tanker.

NAVAREA IV (Total replies = 90; use/receive: yes - 42, no - 22, nil - 26)

	Reception quality	Timeliness	Clarity of messages	Usefulness
Satisfied	42	42	41	43
(Good + Average)	(27+15)	(29+13)	(30+11)	(31+12)
Not satisfied - Poor	1	1	2	0
No answer	47	47	47	47
%age Satisfied	97.7%	97.7%	95.3%	100%
Overall	97.7%			

- 1. Still quite a lot messages with high error rate SOLAS Cargo.
- 2. Hardcopy coastal warnings are useful when USGC VHF 16 broadcasts are broken, too soft, or missed during vessel operations non-SOLAS Fishing Federal Research.
- 3. It is generally ok SOLAS Cargo.
- 4. There is a need to repeat all active warnings regularly- as ships may not have the full details SOLAS Cargo.
- 5. Good SOLAS Tanker.
- 6. Very good system, works well and is easy to use SOLAS Military Support and supply.
- 7. Very few warnings received, very few stations transmitting SOLAS Passenger.
- 8. Not many NAVTEX stations available in this NAVAREA SOLAS Cargo.
- 9. Stations used frequently are [A] Miami & [G] New Orleans. No stations available in the Caribbean SOLAS Tanker.

NAVAREA V

(Total replies = 101; use/receive: yes - 48, no - 22, nil - 31)

	Reception quality	Timeliness	Clarity of messages	Usefulness
Satisfied	50	50	50	50
(Good + Average)	(27+23)	(29+21)	(28+22)	(29+21)
Not satisfied -	2	2	2	2
Poor	2	۷	۷	2
No answer	49	49	49	49
%age Satisfied	96.2%	96.2%	96.2%	96.2%
Overall	96.2%			

- 1. Still quite a lot messages with high error rate SOLAS Cargo.
- 2. Very useful SOLAS Tanker.
- 3. Average SOLAS Tanker.

4. This is an offshore vessel on service in Brazil. We do not receive NAVTEX warnings – SOLAS Cargo.

NAVAREA VI

(Total replies = 11; use/receive: yes - 4, no - 4, nil - 3)

	Reception quality	Timeliness	Clarity of messages	Usefulness
Satisfied	6	7	7	7
(Good + Average)	(3+3)	(3+4)	(4+3)	(3+4)
Not satisfied -	1	0	0	0
Poor			_	-
No answer	4	4	4	4
%age Satisfied	85.7%	100%	100%	100%
Overall	96.4%	_		

- 1. Average SOLAS Surveyor.
- 2. Are all NAVTEX stations working properly? Doesn't seem that all stations are working non-SOLAS Recreational.

NAVAREA VII

(Total replies = 12; use/receive: yes - 9, no - 2, nil - 1)

	Reception quality	Timeliness	Clarity of messages	Usefulness
Satisfied	7	8	8	8
(Good + Average)	(5+2)	(7+1)	(6+2)	(7+1)
Not satisfied -	1	0	0	0
Poor	_			
No answer	4	4	4	4
%age Satisfied	87.5%	100%	100%	100%
Overall	96.9%			

1. Reception in Mozambican Channel is poor/non-existant on NAVTEX equipment, however when operating close to Pemba, reception increases to 70% - 80% printability – SOLAS Warship.

NAVAREA VIII

(Total replies = 26; use/receive: yes - 12, no - 11, nil - 3)

	Reception quality	Timeliness	Clarity of messages	Usefulness
Satisfied	13	14	14	14
(Good + Average)	(12+1)	(11+3)	(11+3)	(10+4)
Not satisfied -	2	1	1	1
Poor	2	1	1	1
No answer	11	11	11	11
%age Satisfied	86.7%	93.3%	93.3%	93.3%
Overall	91.7%			

1. Well received in details – SOLAS Tanker.

2. Have used it off the coast and are very useful – SOLAS Warship.

NAVAREA IX

(Total replies = 35; use/receive: yes - 14, no - 7, nil - 14)

	Reception quality	Timeliness	Clarity of messages	Usefulness
Satisfied	12	13	12	12
(Good + Average)	(9+3)	(8+5)	(7+5)	(9+3)
Not satisfied - Poor	2	1	2	2
No answer	21	21	21	21
%age Satisfied	85.7%	92.9%	85.7%	85.7%
Overall	87.5%			

- 1. The warnings are never repeated on NAVTEX, and often not duplicated on SatC SOLAS Tanker.
- 2. Good SOLAS Cargo.
- 3. Very useful SOLAS Tanker.
- 4. Generally working good and informative for safe navigation SOLAS Destroyer.
- 5. Mumbai station it is still online? I'm passing on W-India coast pretty often but I never received a message SOLAS Tanker.
- 6. Little to no coverage for southern Red Sea including Bab el Mandeb strait despite being a busy shipping lane. Closest stations are Al Qusayr and Muscat SOLAS Military.

NAVAREA X

(Total replies = 83; use/receive: yes - 39, no - 16, nil - 28)

	Reception quality	Timeliness	Clarity of messages	Usefulness
Satisfied	37	38	38	38
(Good + Average)	(29+8)	(29+9)	(28+10)	(29+9)
Not satisfied - Poor	3	2	2	2
No answer	43	43	43	43
%age Satisfied	92.5%	95%	95%	95%
Overall	94.4%			

- Received via AMSA MMSI WEB site via satellite; NAVTEX unavailable in Australia SOLAS
 Offshore AHTS.
- 2. NAVTEX station in Australian coast not relevant. Only Safety Net SOLAS Tanker.
- 3. Good x 2 SOLAS Cargo & Tanker.
- 4. Usefulness SOLAS Tanker.
- 5. Useful SOLAS Bulk Carrier.

- 6. Very good SOLAS Tanker.
- 7. No NAVTEX available SOLAS Passenger.
- 8. AusCoast Warnings and Ts&Ps are not always synchronised; e.g. a vessel may be in one location by ACW and nearby by T&P before the ACW is cancelled. Also ACW cancellation can lag or be non existent; e.g. one vessel in two locations. The two services would do to cooperate more to the point of merging, having ACW and Ts&Ps via AusRep. Thank you SOLAS Cargo.

NAVAREA XI

(Total replies = 51; use/receive: yes - 27, no - 10, nil - 14)

	Reception quality	Timeliness	Clarity of messages	Usefulness
Satisfied	27	26	27	25
(Good + Average)	(19+8)	(16+10)	(22+5)	(18+7)
Not satisfied - Poor	2	3	2	4
No answer	22	22	22	22
%age Satisfied	93.1%	89.7%	93.1%	86.2%
Overall	90.5%			

- 1. Very often repeated and lesser chance of missing out SOLAS Tanker LNG Carrier.
- 2. 1. Please do not write NAVTEX messages all in capital letters. This is difficult to read.
 - 2. NAVTEX messages, particularly the LAT / LONG often is 'scrambled'.
 - 3. NAVTEX messages sometimes are doubled up with Sat C messages of the same but with another msg number; consequently the same message often is received twice but with a different ref. number.
 - 4. We are sometimes suffering from a 'total overload' of messages coming from Sat C / NAVTEX / email / constant TX on VHF + MF-HF radios etc etc etc with the effect that one gets 'numbed' to it over time SOLAS Cargo.
- 3. Being here in Asia this service is a Nightmare? Again the amount of low priority irrelevant messages received masks the important relevant messages by far. Pretty sure with all the fancy electronic capabilities currently available to man kind we can come up with something better than this? Again I would suggest a system that automatically filters messages according to their relevance for the ships planed voyage. Station selection could also easily be automated this way SOLAS Cargo PSV?
- 4. As for my comments about NAVAREA warnings: Chinese warnings tend to be of lower quality overall, particularly regarding location of new offshore installations SOLAS Bulk Carrier.
- 5. Good SOLAS Jackup barge.
- 6. Need to be more organised SOLAS Bulk Carrier.
- 7. We have been in the area for a while now but we are not getting anything in English only local languages SOLAS Recreational.

NAVAREA XII

(Total replies = 16; use/receive: yes - 7, no - 6, nil - 3)

	Reception quality	Timeliness	Clarity of messages	Usefulness
Satisfied	7	6	7	6
(Good + Average)	(7+0)	(5+1)	(6+1)	(5+1)
Not satisfied -	0	1	0	0
Poor	0	1	U	U
No answer	9	9	9	10
%age Satisfied	100%	85.7%	100%	100%
Overall	96.4%			

1. NAVTEX in the inner south coast would be most desirable – non-SOLAS Recreational.

NAVAREA XIII

(Total replies = 1; use/receive: yes - 0, no - 1, nil - 0)

	Reception quality	Timeliness	Clarity of messages	Usefulness
Satisfied (Good + Average)	0	0	0	0
Not satisfied - Poor	0	0	0	0
No answer	1	1	1	1
%age Satisfied	-	-	-	-
Overall	-			

1. No comments received.

NAVAREA XIV

(Total replies = 4; use/receive: yes - 2, no - 1, nil - 1)

	Reception quality	Timeliness	Clarity of messages	Usefulness
Satisfied	2	2	2	2
(Good + Average)	(2+0)	(1+1)	(1+1)	(1+1)
Not satisfied - Poor	0	0	0	0
No answer	2	2	2	2
%age Satisfied	100%	100%	100%	100%
Overall	100%			

1. No comments received.

NAVAREA XV

(Total replies = 14; use/receive: yes - 11, no - 2, nil - 1)

	Reception quality	Timeliness	Clarity of messages	Usefulness
Satisfied	9	10	10	9
(Good + Average)	(7+2)	(9+1)	(6+4)	(8+1)
Not satisfied -	1	0	0	1
Poor				
No answer	4	4	4	4
%age Satisfied	90%	100%	100%	90%
Overall	95%			

- 1. We receive them periodically and generally without problems SOLAS apoyo de practicos.
- 2. Generally good SOLAS Bulk Carrier.
- 3. Are important for safe navigation SOLAS Tanker.
- 4. We receive daily messages concerning both aids to navigation and meteorological ones, as usual SOLAS Tanker.

NAVAREAS XVI

(Total replies = 1; use/receive: yes - 0, no - 1, nil - 0)

	Reception quality	Timeliness	Clarity of messages	Usefulness
Satisfied (Good + Average)	0	0	0	0
Not satisfied - Poor	0	0	0	0
No answer	1	1	1	1
%age Satisfied	-	-	-	-
Overall	-			

1. No comments received.

NAVAREA XVII

(Total replies = 1; use/receive: yes - 0, no - 1, nil - 0)

	Reception quality	Timeliness	Clarity of messages	Usefulness
Satisfied (Good + Average)	0	0	0	0
Not satisfied - Poor	0	0	0	0
No answer	1	1	1	1
%age Satisfied	-	-	-	-
Overall	-			

1. No comments received.

NAVAREA XVIII

(Total replies = 1; use/receive: yes - 1, no - 0, nil - 0)

	Reception quality	Timeliness	Clarity of messages	Usefulness
Satisfied	1	1	1	1
(Good + Average)	(0+1)	(0+1)	(0+1)	(0+1)
Not satisfied - Poor	0	0	0	0
No answer	0	0	0	0
%age Satisfied	100%	100%	100%	100%
Overall	100%			

1. No comments received.

NAVAREA XIX

(Total replies = 3; use/receive: yes - 3, no - 0, nil - 0)

	Reception quality	Timeliness	Clarity of messages	Usefulness
Satisfied	3	3	3	3
(Good + Average)	(1+2)	(1+2)	(1+2)	(0+3)
Not satisfied - Poor	0	0	0	0
No answer	0	0	0	0
%age Satisfied	100%	100%	100%	100%
Overall	100%			

1. Is good that the NAVTEX station also inform when they have no messages on hand – SOLAS ERRV.

NAVAREA XX

(Total replies = 2; use/receive: yes - 0, no - 2, nil - 0)

	Reception quality	Timeliness	Clarity of messages	Usefulness
Satisfied (Good + Average)	0	0	0	0
Not satisfied - Poor	0	0	0	0
No answer	2	2	2	2
%age Satisfied	-	-	-	-
Overall	-			

1. No comments received.

NAVAREA XXI: - No replies

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ALL NAVAREAS

(Total replies = 743; use/receive: yes - 317, no - 177, nil - 249)

	Reception quality	Timeliness	Clarity of messages	Usefulness
Satisfied	306	307	307	305
(Good + Average)	(237+69)	(221+86)	(229+78)	(218+87)
Not satisfied - Poor	17	16	14	16
No answer	420	420	422	423
No NAVAREA quoted	31	<mark>31</mark>	31	<mark>31</mark>
%age Satisfied	94.7%	95.0%	95.6%	95%
Overall	95.1%			

NAVAREA I

(Total replies = 163; use/receive: yes - 71, no - 43, nil - 49)

	Reception quality	Timeliness	Clarity of messages	Usefulness
Satisfied	70	68	67	69
(Good + Average)	(48+22)	(48+20)	(44+23)	(40+29)
Not satisfied - Poor	2	4	4	3
No answer	91	91	92	91
%age Satisfied	97.2%	94.4%	94.4%	95.8%
Overall	95.5%			

- 1. Very important SOLAS Passenger.
- 2. Sorry, but I don't know the difference in SafetyNET/NAVTEX SOLAS Cargo.
- 3. Some unusefull information like, for example, depths of 0.5 mtrs registered in some remote place where most probably no cargo ship or fishing boat will ever go. We understand the importance of these depths for sailing vessels maybe SOLAS Tanker.
- 4. Most of the warnings broadcast pertain to incidents/changes very close to the coast or within harbour limits. As such they do not affect the bulk of the traffic using the main thoroughfare in that area e.g. the Dover Strait TSS or Route T in the Baltic for NAVAREA I. This results in a lot of waste of time and paper. In light of this if the warnings could be segregated with distance from the coast it would be helpful SOLAS Tanker.
- 5. Often unnecessary and time-consuming Nav Warnings are received SOLAS Cargo.
- 6. Happy with the service SOLAS Ferry.
- 7. Safeseanet (SafetyNET?) belong to the museum. It takes too long before a warning is received (items usually fixed before the waning that it's broken comes out). The warnings stay in force long time after the actual problem is gone and the printer prints meter upon meter of spam that makes important things easily overseen SOLAS Tanker.
- 8. Dear Sir Following a reading of IA94 requesting a reply regarding the quality of NAVTEX signals so at your request I've returned your NAVTEX messages as I've received them in the

UK - I am not a mariner just an interested Wxer and NAVTEX monitor. For the past 12 years I've used the NASA 518 kc/s Engine rx which ticks over 24/7. To improve the quality of signal I've wound a long wire over 2/3s the body of the Engine, Lc coupled to the internal ant which is then connected to a long wire interwoven in the loft The quality of signals received from Grimeton very rarely fall below 100% and when it does it's down to local qrm 73s - Anthony Lowe QTH - Haydock - St Helens - Merseyside - UK - (between Liverpool and Manchester)
150800 UTC APR BALTIC SEA NAV WARN 007 MARINERS ARE KINDLY REQUESTED TO TAKE PART IN A SURVEY CONCERNING THE QUALITY OF MSI BROADCAST VIA SAFETYNET AND NAVTEX. THE PURPOSE OF THE SYRVEY IS TO IMPROVE THE SERVICE. TWO SHORT QUESTIONNAIRES ARE AVAILABLE AS BELOW: 1. NAVIGATIONAL WARNINGS: WWW.SURVEYMONKEY.COM/S/IHOSURVEY 2. METEO INFO AND WARNINGS: WWW.JCOMM.INFO/MMMS (BALTICO, SWEDEN, ON BEHALF OF IHO/IMO/WMO) NNNN 08:29 17/04/13
SEA NAV WARN 001 THE SOUND AND WESTERN BALTIC. SEALEVEL SOUTH OF THE BRIDGE
AND IN WESTERN BALTIC DROPS TO 100 CM BELOW MSL DURING WEDNESDAY
AFTERNOON NNNN 08:07 30/01/13 IA80
231620 UTC MAR GERMAN NAV WARN 157 WESTERN BALTIC. FLENSBURGER FOERDE.
AMMUNITION FOUND. 1 TORPEDO IN APPROX PSN: 54-50,3362N 009-30,5315E SHIPPING IS
REQUESTED TO KEEP CLEAR OF THIS POSITION. NNNN 10:12 24/03/13
IA91 211446 UTC MAR DANISH NAV WARN 099
GREAT BELT.EGHOLM FLAK SAILING VESSEL SUNK 55-15.2N 011-05.9E DEPTH ABOVE
WRECK 1 M. BLUE - YELLOW LIGHT BUOY 90 METER W BLACK - YELLOW BUOY 50 METER N
BLACK - YELLOW - BLACK BUOY 100 METER E YELLOW - BLACK BUOY 70 METER SE NNNN 09:35 06/04/13
DANISH NAV WARN 099 GREAT BELT.EGHOLM FLAK SAILING VESSEL SUNK 55-15.2N
011-05.9E DEPTH ABOVE WRECK 1 M. BLUE - YELLOW LIGHT BUOY 90 METER W
BLACK - YELLOW BUOY 50 METER N BLACK - YELLOW - BLACK BUOY 100 METER E
YELLOW - BLACK BUOY 70 METER SE NNNN 08:31 17/04/13
IA61 051530 UTC DEC BALTIC SEA NAV WARN
026 DUE TO WINTER CONDITIONS FLOATING AIDS TO NAVIGATION COULD BE
WITHDRAWN, DAMAGED OR MOVED FROM CHARTED POSITIONS. AIS AND RACON COULD
BE WITHDRAWN FROM BUOYS. LIGHTS AND BEACONS COULD BE COVERED WITH SNOW
AND ICE. NAVIGATIONAL WARNING WILL NORMALLY NOT BE ISSUED IN AREAS COVERED BY
ICE. MARINERS ARE ADVICED TO NAVIGATE WITH GREAT CAUTION NNNN 08:31
17/04/13 IA95 171830 UTC APR BALTIC SEA
NAV WARN 008 THE SOUND AND WESTERN BALTIC THE SOUND: SEALEVEL DROPS SOUTH
OF THE BRIDGE TO 60 CM BELOW MSL THURSDAY NIGHT WESTERN BALTIC: SEALEVEL
DROPS TO 60 CM BELOW MSL THURSDAY NIGHT NNNN 22:36 17/04/13
— non-SOLAS Listener!!!

9. List NAVTEX – SOLAS Tanker.

NAVAREA I Sub-Area Baltic

(Total replies = 17; use/receive: yes - 6, no - 4, nil - 7)

	Reception quality	Timeliness	Clarity of messages	Usefulness
Satisfied	5	6	6	6
(Good + Average)	(4+1)	(3+3)	(4+2)	(4+2)
Not satisfied - Poor	1	0	0	0
No answer	11	11	11	11
%age Satisfied	83.3%	100%	100%	100%
Overall	95.8%			

1. No comments received.

NAVAREA II

(Total replies = 55; use/receive: yes - 28, no - 9, nil - 18)

	Reception quality	Timeliness	Clarity of messages	Usefulness
Satisfied	26	27	27	26
(Good + Average)	(22+4)	(21+6)	(19+8)	(19+7)
Not satisfied - Poor	1	0	0	0
No answer	28	28	28	28
%age Satisfied	96.3%	100%	100%	100%
Overall	99.1%			

- 1. List NAVTEX SOLAS Tanker.
- 2. Good SOLAS Tanker.
- 3. Not bad I guess SOLAS Ferry.

NAVAREA III

(Total replies = 63; use/receive: yes - 25, no - 19, nil - 19)

	Reception quality	Timeliness	Clarity of messages	Usefulness
Satisfied	22	22	22	22
(Good + Average)	(21+1)	(19+3)	(20+2)	(19+3)
Not satisfied -	0	0	0	0
Poor	U	U	U	U
No answer	40	40	40	40
%age Satisfied	100%	100%	100%	100%
Overall	100%			

- 1. Very good service SOLAS Tanker.
- 2. Different coastal stations have different ways of describing the same information. More uniformity would be nice. Also, stations such as Sellia Marina (V) repeat the same warnings over and over again with different numbers. This is a lot of waste of paper. General impression of the NAVTEX system in NAVAREA III is very good though SOLAS Tanker!

3. Thank you for your effort – SOLAS Tanker.

NAVAREA IV

(Total replies = 90; use/receive: yes - 34, no - 23, nil - 33)

	Reception quality	Timeliness	Clarity of messages	Usefulness
Satisfied	35	33	35	35
(Good + Average)	(25+10)	(24+9)	(29+6)	(27+8)
Not satisfied - Poor	0	2	0	0
No answer	55	55	55	55
%age Satisfied	100%	94.3%	100%	100%
Overall	98.6%			

- 1. The number of transmissions for say Hurricane warnings are way too much, and runs the vessels printer paper rolls out SOLAS Dive.
- 2. Very safe SOLAS Cargo.
- 3. Need to transmit full list of all active warnings at regular intervals SOLAS Cargo.
- 4. Good SOLAS Tanker.
- 5. Again good service and works well SOLAS Military Support and supply.

NAVAREA V

(Total replies = 101; use/receive: yes - 44, no - 17, nil - 40)

	Reception quality	Timeliness	Clarity of messages	Usefulness
Satisfied	41	40	41	40
(Good + Average)	(26+15)	(23+17)	(26+15)	(25+15)
Not satisfied -	4	5	4	4
Poor	4	ر	4	4
No answer	56	56	56	57
%age Satisfied	91.1%	88.9%	91.1%	90.9%
Overall	90.5%			

- 1. Very useful SOLAS Tanker.
- 2. Poor SOLAS Tanker.

NAVAREA VI

(Total replies = 11; use/receive: yes - 4, no - 2, nil - 5)

	Reception quality	Timeliness	Clarity of messages	Usefulness
Satisfied	5	5	5	5
(Good + Average)	(4+1)	(4+1)	(5+0)	(4+1)
Not satisfied -	0	0	0	0
Poor	U	U	U	U
No answer	6	6	6	6
%age Satisfied	100%	100%	100%	100%
Overall	100%			

1. No comments received.

NAVAREA VII

(Total replies = 12; use/receive: yes - 10, no - 1, nil - 1)

	Reception quality	Timeliness	Clarity of messages	Usefulness
Satisfied	9	9	9	9
(Good + Average)	(7+2)	(8+1)	(8+1)	(7+2)
Not satisfied - Poor	0	0	0	0
No answer	3	3	3	3
%age Satisfied	100%	100%	100%	100%
Overall	100%			

1. Good information – SOLAS Tanker.

NAVAREA VIII

(Total replies = 26; use/receive: yes - 13, no - 8, nil - 5)

	Reception quality	Timeliness	Clarity of messages	Usefulness
Satisfied	12	12	13	13
(Good + Average)	(10+2)	(9+3)	(10+3)	(9+4)
Not satisfied -	r	າ	1	1
Poor	2	2	1	1
No answer	12	12	12	12
%age Satisfied	85.7%	85.7%	92.9%	92.9%
Overall	89.3%			

- 1. Very prompt and updated SOLAS Tanker.
- 2. The way NAVAREA IV Nav Warnings are promulgated-list/text of all enforce Nav Warnings are broadcasted on daily basis is very useful SOLAS Tanker.
- 3. Good services SOLAS Naval.

NAVAREA IX

(Total replies = 35; use/receive: yes - 11, no - 8, nil - 16)

	Reception quality	Timeliness	Clarity of messages	Usefulness
Satisfied	9	9	9	10
(Good + Average)	(5+4)	(5+4)	(5+4)	(5+5)
Not satisfied - Poor	2	2	2	1
No answer	24	24	24	24
%age Satisfied	81.8%	81.8%	81.8%	90.9%
Overall	84.1%			

- 1. The warnings are never repeated on SatC, and there have been instances where in the Firing practice areas are never promulgated and vessels entering the area have been caught unaware as the message was never received on Sat C. The warnings are available well on time on the website which can only be accessed via internet. However this should also be repeated on Sat C, which is often missed out SOLAS Tanker LNG Carrier.
- 2. Good SOLAS Cargo.
- 3. Very important SOLAS Tanker.
- 4. Generally good and informative for safe navigation SOLAS Destroyer.

NAVAREA X

(Total replies = 83; use/receive: yes - 37, no - 11, nil - 35)

	Reception quality	Timeliness	Clarity of messages	Usefulness
Satisfied	36	37	37	36
(Good + Average)	(30+6)	(30+7)	(30+7)	(29+7)
Not satisfied - Poor	2	1	1	1
No answer	45	45	45	45
%age Satisfied	94.7%	97.4%	97.4%	97.3%
Overall	96.7%			

- 1. Good SOLAS Cargo.
- 2. All found satisfactory SOLAS Tanker.
- 3. Very good SOLAS Tanker.

NAVAREA XI

(Total replies = 51; use/receive: yes - 24, no - 13, nil - 14)

	Reception quality	Timeliness	Clarity of messages	Usefulness
Satisfied	27	27	26	24
(Good + Average)	(21+6)	(19+8)	(21+5)	(20+4)
Not satisfied - Poor	0	0	0	3
No answer	24	24	25	24
%age Satisfied	100%	100%	100%	88.9%
Overall	97.2%			

- 1. Well received and supported by the Notices to mariners office, prior entry into the area SOLAS Tanker LNG Carrier.
- 2. 1. Please do not write NAVTEX messages all in capital letters. This is difficult to read.
 - 2. NAVTEX messages, particularly the LAT / LONG often is 'scrambled'.
 - 3. NAVTEX messages sometimes are doubled up with Sat C messages of the same but with another msg.

Additional Note: I have been several times in a situation where all Nav Warnings & SafetyNET warnings about cyclones were simply too slow - received with a delay of about 4-6 hours - and that I had to revert to my husband at home, downloading the hourly tracking records off the Australian BOM website and emailing it to the ship. For example: Cyclone Lua off the WA Coast, where that virtual information was critical to our decision making en route to Lombok Strait, towing a huge, loaded barge under RAM conditions and max. speed of 6 knots - off course unable to outrun any weather system without releasing the tow. This is just one example – SOLAS Cargo.

- 3. I probably don't think this is the place for this but anyway here goes... The MF/HF and sometimes VHF DSC service is crap. I don't know how many times one has to acknowledge irrelevant messages before one will receive something with some relevance. Due to this flooding of crap I've seen people accepting alarms without even looking at what they are anymore. There is nothing more annoying than an HF receiver constantly alarming because some incompetent idiot is in "Distress" with no position or no info. For example a few nights ago we received "Distress" messages for a vessel in distress no more than 40 NM from Bitam, a small but busy port in Indonesia. We however are working offshore in China nearly 1000NM from this vessels position. How is this relevant to me? Why do I care what is happening to a vessel way out of my reach? Then there was the paper issue with this particular message we received. We went through, and I am not joking, 15 meters of paper, I stepped it off, and I could not switch of the printer as that then also gives me an alarm. Please, Please, Please can someone review this system SOLAS Cargo PSV?!!!
- 4. Good SOLAS Jackup barge.

NAVAREA XII

(Total replies = 16; use/receive: yes - 5, no - 8, nil - 3)

	Reception quality	Timeliness	Clarity of messages	Usefulness
Satisfied	5	5	5	5
(Good + Average)	(5+0)	(4+1)	(4+1)	(4+1)
Not satisfied -	0	0	0	0
Poor	U	U	U	U
No answer	11	11	11	11
%age Satisfied	100%	100%	100%	100%
Overall	100%			

1. No comments received.

NAVAREA XIII

(Total replies = 1; use/receive: yes - 0, no - 1, nil - 0)

	Reception quality	Timeliness	Clarity of messages	Usefulness
Satisfied (Good + Average)	0	0	0	0
Not satisfied - Poor	0	0	0	0
No answer	1	1	1	1
%age Satisfied	-	-	-	-
Overall	-			

1. No comments received.

NAVAREA XIV: - No replies

(Total replies = 4; use/receive: yes - 3, no - 0, nil - 1)

	Reception quality	Timeliness	Clarity of messages	Usefulness
Satisfied	3	3	3	3
(Good + Average)	(3+0)	(2+1)	(1+2)	(1+2)
Not satisfied -	0	0	0	0
Poor	U	U	U	U
No answer	0	0	0	0
%age Satisfied	100%	100%	100%	100%
Overall	100%			

1. Receiving printed warnings from SAT-C are difficult to read when it comes in one giant paragraph. Also should be able to choose not to have routine SafetyNET messages printed as it uses over 30m paper per day — SOLAS Offshore supply.

NAVAREA XV

(Total replies = 14; use/receive: yes - 4, no - 9, nil - 1)

	Reception quality	Timeliness	Clarity of messages	Usefulness
Satisfied	3	3	3	3
(Good + Average)	(3+0)	(3+0)	(3+0)	(3+0)
Not satisfied - Poor	0	0	0	0
No answer	11	11	11	11
%age Satisfied	100%	100%	100%	100%
Overall	100%			

- 1. Very good SOLAS Tanker.
- 2. Chilean website not easy at first to identify where MSI is located, but once found is a good webpage to use and easy to understand SOLAS Passenger.

NAVAREAS XVI

(Total replies = 1; use/receive: yes - 0, no - 1, nil - 0)

	Reception quality	Timeliness	Clarity of messages	Usefulness
Satisfied (Good + Average)	0	0	0	0
Not satisfied - Poor	0	0	0	0
No answer	1	1	1	1
%age Satisfied	-	•	-	-
Overall	-			

1. No comments received.

NAVAREA XVII

(Total replies = 1; use/receive: yes - 0, no - 1, nil - 0)

	Reception quality	Timeliness	Clarity of messages	Usefulness
Satisfied (Good + Average)	0	0	0	0
Not satisfied - Poor	0	0	0	0
No answer	1	1	1	1
%age Satisfied	-	-	-	-
Overall	-			

1. No comments received.

NAVAREA XVIII

(Total replies = 1; use/receive: yes - 1, no - 0, nil - 0)

	Reception quality	Timeliness	Clarity of messages	Usefulness
Satisfied	1	1	1	1
(Good + Average)	(0+1)	(0+1)	(0+1)	(0+1)
Not satisfied - Poor	0	0	0	0
No answer	0	0	0	0
%age Satisfied	100%	100%	100%	100%
Overall	100%			

1. No comments received.

NAVAREA XIX

(Total replies = 3; use/receive: yes - 2, no - 0, nil - 1)

	Reception quality	Timeliness	Clarity of messages	Usefulness
Satisfied	2	2	2	2
(Good + Average)	(1+1)	(1+1)	(1+1)	(0+2)
Not satisfied - Poor	0	0	0	0
No answer	1	1	1	1
%age Satisfied	100%	100%	100%	100%
Overall	100%			

1. No comments received.

NAVAREA XX

(Total replies = 2; use/receive: yes - 0, no - 2, nil - 0)

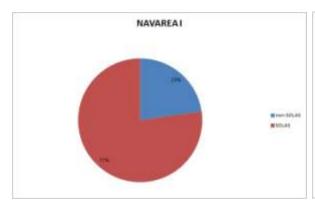
	Reception quality	Timeliness	Clarity of messages	Usefulness
Satisfied (Good + Average)	0	0	0	0
Not satisfied - Poor	0	0	0	0
No answer	2	2	2	2
%age Satisfied	-	-	-	-
Overall	-			

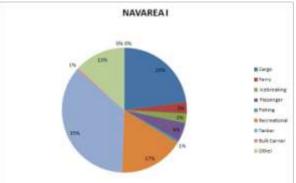
1. No comments received.

XXI: - No replies

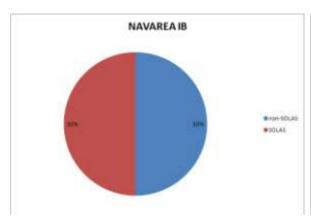
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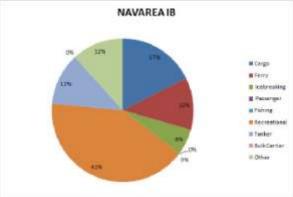
NAVAREA I



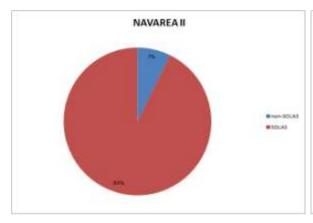


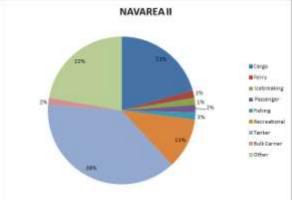
NAVAREA IB



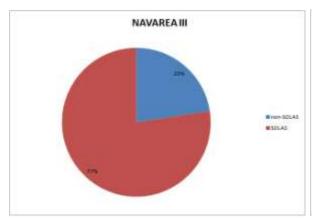


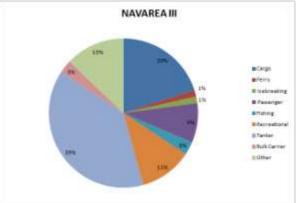
NAVAREA II



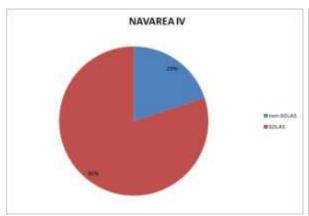


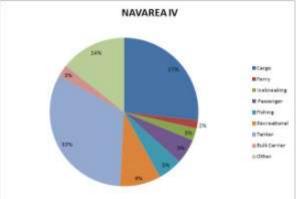
NAVAREA III



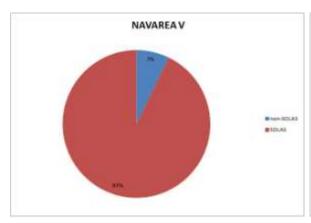


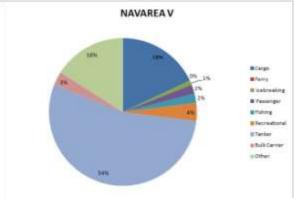
NAVAREA IV



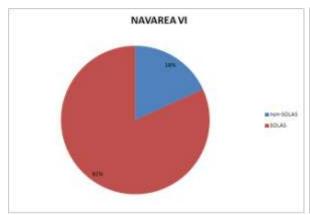


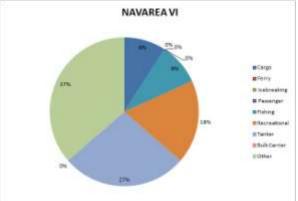
NAVAREA V



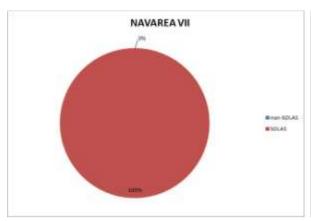


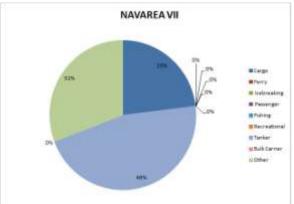
NAVAREA VI



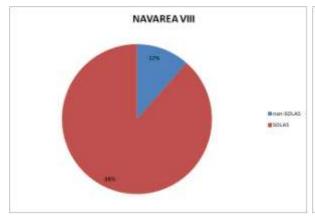


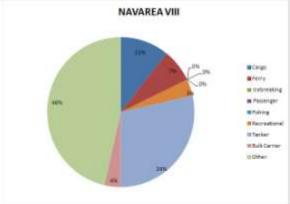
NAVAREA VII



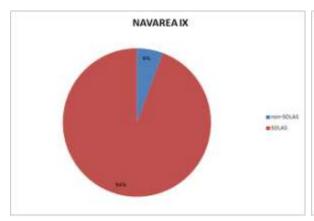


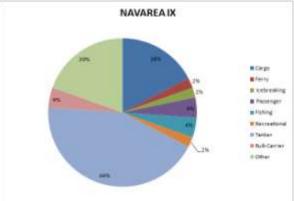
NAVAREA VIII



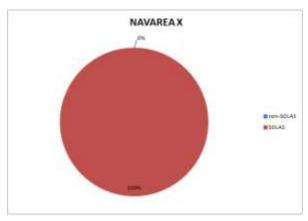


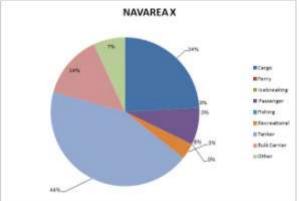
NAVAREA IX



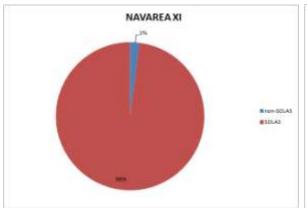


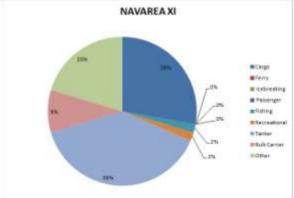
NAVAREA X



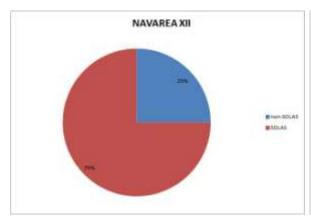


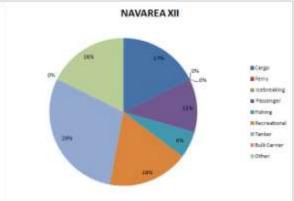
NAVAREA XI



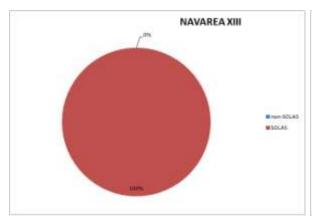


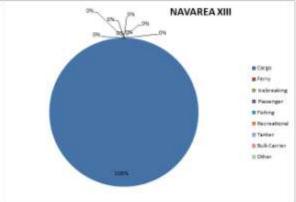
NAVAREA XII



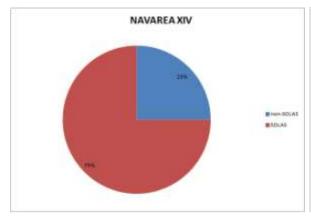


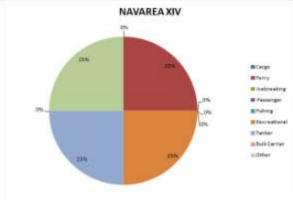
NAVAREA XIII



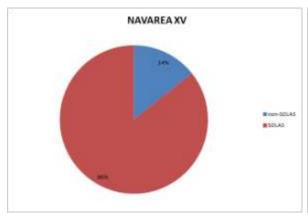


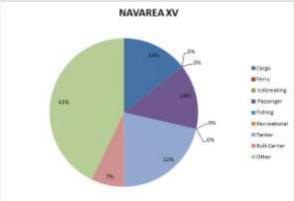
NAVAREA XIV



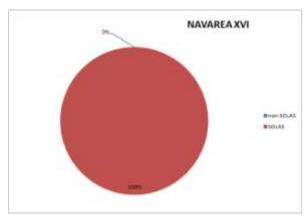


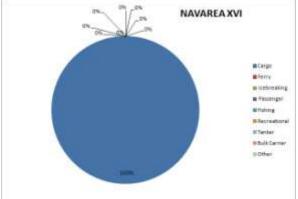
NAVAREA XV



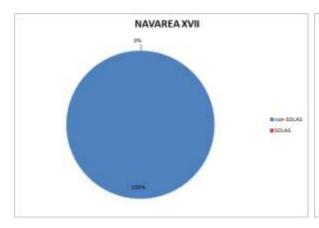


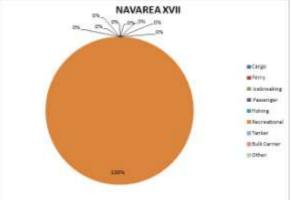
NAVAREA XVI



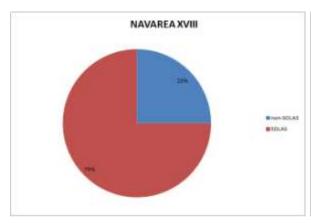


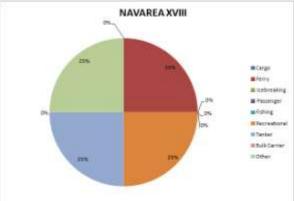
NAVAREA XVII



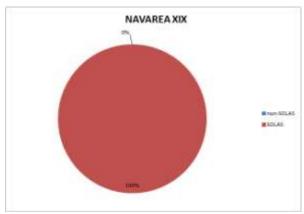


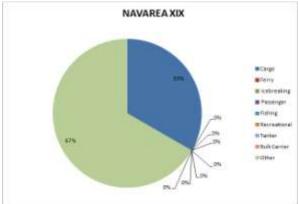
NAVAREA XVIII





NAVAREA XIX





NAVAREA XX

