Summary and Results of the MMMS Survey 2009

The following tables show the results of 883 questionnaires of the MMMS Survey 2009 (650 in 2001 and 507 in 2005). After each table the comments given to the particular subject are summarized. The number in brackets states the total amount of comments having the same intention.

In general the quality of reception and the information provided was rated better than in 2005. Especially the accuracy gets results about 10% higher for “good”, but needs still to be improved.

Summary of survey, comments and suggestions

GMDSS Information: The reception of GMDSS information via Inmarsat SafetyNET has been judged to be excellent, whereas the reception via NAVTEX, although evaluated better than last time, was seen to require some improvement. An examination of the specific comments indicates geographic areas, e.g. off Australia or Brazil, where improvements would have a significant beneficial effect for mariners. Suggested items requiring attention are concentrated in the areas of (1) additional coverage in neglected marine areas, and (2) improved transmission reliability for stations that already exist.

Reception of other Safety Information: VHF Radio is the most used service for receiving further safety information followed by e-mail and national NAVTEX, the far less used, and probably less known, service is the GMDSS web site. The reception was rated almost well solely via HF Radio occur some more problems. Best to receive are e-mails and the web sites. Some ships do not have access to internet. English information instead of information in local language is desired.

Storm and Gale Warnings: Most mariners are satisfied by the available information. Nevertheless used terminology and accuracy could be improved. The latter is already rated much better than 4 years ago (2009: 78.1&, 2005: 66.9%).

Sea Ice and Icebergs Information: Good service provides clear and mostly accurate information on time.

Wave and Storm Surge Information: Clear information written with appropriate terminology. Timeliness and even more accuracy are improvable.

Other Parameters in Weather and Sea Bulletins: Rated quite well, much better than last survey. But there are still a lot of request concerning the presentation and availability of the information, or the terminology used especially same areas should have same names in every bulletin.

Graphic/Numeric Broadcasts: This information source has much better results than in 2005. Nevertheless the reception is still a problem which needs to be solved. Besides this problem 87.8% have the opinion that this is a useful service. Although many mariners use charts from web sites or send by mail, they see the necessity of a backup system if the internet connection breaks down.

Land Earth Stations Inmarsat: Contacting LES is almost no problem, some experienced short delays only few had no success with sending OBs.

Suggestions to adapt or clarify the questionnaire for future surveys :

- Some shipmasters indicated that they did not use Wave and Storm Surge Information, probably having in mind specific coastal bulletins. But some probably use the information on sea state contained in scheduled forecasts. A

clarification is needed in the questionnaire.

- - Some shipmasters seem to have provided evaluation of non-MSI products, or a mixture between MSI and additional met-ocean products, in the tables. There is a need for a a clear and apparent statement recalling that evaluation is related to MSI only. Information on non-MSI information can of course be added in Comments.
- - too many questionnaires evaluate as “average” or “poor” some reception (NAVTEX, HF or others) without providing the name(s) of station(s) concerned. It should be made clear that this information is needed. If the shipmaster thinks that it is a general evaluation (for instance that many or ALL the stations used are concerned), suggest to use word ALL for example.
- The fields “Station” and “Issuing Met. Service” had different types of answers. Some wrote the city, where the station is located, some the Navarea, some the identification letter, some a number and some the country. It should be made clear, how to fill in these fields, maybe by showing an example.
- Some masters made two crosses for one answer, e.g. one for “good” and one for “average”. This is difficult for the analysis. A comment should be included to avoid multiple answers.

Type of ship	number
SOLAS	739
non-SOLAS	33
No Answer	111

Operational area	number
Near JAPAN	47
ASIA	30
AUSTRALIA, NZ	13
EUROPE	30
PACIFIC OCEAN	56
ATLANTIC OCEAN	79
INDIAN OCEAN	31
WORLD WIDE	233
OCEAN GOING	55
A1	2
A3	13
A2, A3	2
A1, A2, A3	88
A1, A2, A3, A4	6
NAVAREA V	10
Others	181
No Answer	7

			Not used	Good	Average	Poor	No Answer
1	**Reception of GMDSS info. Please rate the quality of reception:** (should be filled at least by SOLAS vessels)						
A	via INMARSAT SafetyNET		36	621 90.7%	64 9.3%	0 0.0%	162
B	via Navtex (518 kHz)	1st station	73	633 86.0%	91 12.4%	12 1.6%	74
		2nd station	119	478 84.0%	77 13.5%	14 2.5%	195
		3rd station	127	348 81.5%	66 15.5%	13 3.0%	329

Comments

- **Weather information and its reception are satisfactory. (48)**
  - In Europe areas, we received good reception.
  - Naha [G] station has good long range reception.
  - INMARSAT Weather information of Pakistan, India and Japan are useful.
  - METAREA: Mumbai, Port Klang, Singapore, Hong Kong, Shanghai, Moji, Otaru provide appropriate safety information.
  - Weather information is useful especially during typhoon season.
  - The date of Navtex is later than other system.
  - Sufficient and up to date information are well broadcast and received on time to assist mariners on the safety voyage.

- **The requests for weather information (11)**
  - We hope that information can be focused on every the area of sea. (3)
  - We hope that the list on available Safety net will be available.
  - On Navtex, NX is useful but WX is not.
  - METAREA XI is only useful but NAVAREA XI is not.
  - INMARSET Safety Net EGC Msg is required to be more specific, detailed and has to be highlighted for any storm warnings and system is required to be modified as per the current advance technology. There has to be one equipment which should provide all the Met and Safety Information in Digital and Electronic Form. (2)

- **The dissatisfactions with condition of reception (40)**
  - No message received from Mumbai [G].
  - Occasional lack of signal in vicinity Eaclir Island and ??? Unable to log in consequently
  - No Navtex stations in Australasia / off Australia. (7)
  - No Navtex stations are found south of the Islas Canarias relative to our port rotation.
  - Should have Navtex messages and weather forecast in West Africa Navarea II. And must be in English. (4)
  - NAVTEX are prone to be corrupt. (8)
  - We are too far of Miri and Ho Chi Minh Ville's station to have a good reception.
  - The reception of NAVTEX is not-available in Brazil area. (6)
  - It is only irritating to receive the same weather forecast twice within one or two minutes.
  - Not possible to use Navtex in the middle of Pacific.
  - No Navtex weather forecasts available on East coast South America.
  - During summer time and with good weather conditions NAVTEX has not satisfying signal level.
  - Occasionally experienced areas of poor Sat C reception at extreme Latitude, particularly at area near 100 E Longitude.
  - Provide more navigational warnings + meteorological forecast via Inmarsat.
  - Navtex msg. at all not received.

			Not used	Good	Average	Poor	No Answer
2	**Reception of other Safety information** (This section should be filled at least by non-SOLAS vessels)						
A	via Navtex (490 or 4209.5 kHz)	1st station	280	262 79.2%	61 18.4%	8 2.4%	272
		2nd station	287	172 77.8%	42 19.0%	7 3.2%	375
		3rd station	288	141 78.8%	33 18.4%	5 2.8%	416
B	via HF Radio		284	202 61.8%	98 30.0%	27 8.3%	272
C	via VHF Radio		105	437 72.6%	145 24.1%	20 3.3%	176
D	via visual signals		420	169 70.7%	58 24.3%	12 5.0%	224
E	via e-mail		280	372 88.4%	43 10.2%	6 1.4%	182
F	via GMDSS web site (http://weather.gmdss.org)		557	69 81.2%	15 17.6%	1 1.2%	241
G	Via any other web interface		448	143 87.2%	20 12.2%	1 0.6%	271

Comments

- **Weather information and its reception are satisfactory. (62)**
  - WNI ORION PRO (BRIDGE DATA) is requested for the whole voyage, and has a good recommendation.
  - Information obtained from the Kodiak, Pt. Reyes, Yokohama, Hong Kong and Singapore stations were very useful and accurate. VHF broadcasts can give vital and fast information in coastal navigation.
  - Information via SPOS (Meteo Consult, NL, www.spos.eu or via email) is very good. (33)
  - Receiving all weather information from WNI weather (3)
  - Weather forecast issued by Wilkens Weather Technologies.
  - Receiving Weather Maps via FMTPMAIL service on request
  - Vessel is equipped with installed “BonVoyage System” software by “Applied Weather Technology”. Almost perfect system. (2)
  - Using www.ugrip.us by internet , by network as overlay on ecdis.
  - BRIDGE (Bridge Risk Information Data Gathering Engine) software used. (2)
  - Chartco Ocean Master used. (2)
  - Local nowcasting service in NZ is v. Good
- **Internet is not available. (17)**
  - We don’t have access via GMDSS to web site. We use Orion Weather Services and receive weather forecast at every 24 hours.
  - We can’t use web site because of its high cost and low communication speed.
- **The reception of weather information is not good. (12)**
  - The weather facsimile in the Atlantic Ocean is poor reception.
  - Navtex stations are not available, out of VHF range.
  - Range or distance between transmitter and receiver is a big factor that affects VHF broadcasts efficiency.
  - Broadcasts not clear enough. (2)
  - Weather.gmdss.org - not available for area XV.
- **Requests. (15)**

- Request of an approved list of weather services available in the internet.
- In Europe, North Sea area, each and very message is triggering DSC alarms. This may cause that really important messages are overlooked.
- Broadcasts only in local language. Should also be available in English. (8)
- Too much weather forecasts send in short time for Navarea IV, also Reunion.
- Transmit weather situation, forecast and tidal information as AIS messages.
- Would be helpful if Queensland Australia coastal weather forecasts could be transmitted on SafetyNet sat C similar to Northern Territory and Western Australia.

		Not used	Good	Average	Poor	No Answer
3	**Storm and Gale warnings. Please rate the following:**					
A	Comprehension of warnings	12	738 86.7%	108 12.7%	5 0.6%	20
B	Accuracy of warnings	10	667 78.1%	185 21.7%	2 0.2%	19
C	Terminology used	19	681 81.5%	152 18.2%	3 0.4%	28
D	Usefulness (anticipation, parameters, thresholds…)	24	648 79.8%	159 19.6%	5 0.6%	47

Comments

- **Weather information is satisfactory. (64)**
  - WNI Weathernews program connected with Ocean Route is good and reliable.
  - Chartco proved to be a very useful tool, issuing accurate storm warnings and forecasts, comparing with five other sources of meteorological information.
  - The weather FAX received from JMA and EGC message are accurate and useful.
  - It is very useful in monitoring Storm & Gale Warnings in anticipation for ships trading route and Typhoon Avoidance.
  - Accuracy is satisfactory. (6)
  - Chartco (2) or SPOS (9) used as additional information. (11)

- **Information cannot be received on time. (2)**
  - Inmarsat EGC is useful than Navtex because weather information of Navtex (518kHz) always pass the long time from the observation , on the other hand, EGC can be received an hour later from the observation.

- **The accuracy of information is not good (5)**
  - Warnings are not so appropriate for safe navigation, especially the movement of Low Pressure or Tropical Depression.
  - Weather information via EGC is not accurate in some area, because its information source may vary from area to area.
  - The weather messages received from ORION are accurate but the actual position of TRS and their position have a difference.

- **Information is not easy to understand. (4)**
  - It is not easy to understand which range is represented by the name of the area of sea in weather information.
  - Weather information of foreign countries (not Japan), for example Australia, Hawaii and so on are not easy to understand and read.

- **Weather information is insufficient. (4)**
  - Weather information on Pakistan, India, Arabian Sea, the south of South China Sea is insufficient.
  - We hope that another route transmitting weather warnings will be added.
  - In the area around Australia and New Zealand the forecasted winds are always to low scaled.

- **Requests. (7)**
  - Title should refer to the areas of the forecast.
  - For the Bay of Bengal and the Arab Sea (North Indian Ocean) more info is desirable.
  - Warnings are sometimes sent too often. (3)

- In Europe some Navtex stations have a far greater reach than necessary.
- Off Africa no great amount of weather info was available through Navtex or HF/MF or VHF.

		Not used	Good	Average	Poor	No Answer
4	**Sea Ice and Icebergs Information (for mariners in areas with floating ice). Please rate the following:**					
A	Clarity of information	534	135 84.4%	23 14.4%	2 1.3%	189
B	Accuracy of information	525	130 81.3%	27 16.9%	3 1.9%	198
C	Timeliness	524	128 82.1%	23 14.7%	5 3.2%	203
D	Terminology used	525	136 87.7%	16 10.3%	3 1.9%	203

Comments

- **Weather information is satisfactory. (10)**
  - Ice chart on NOAA web site is the most useful.
  - Ice Condition Forecast Charts of JMH are useful and accessible.
  - SPOS as source of further information.
  - Ice info from Navtex Station U and J issued by Swedish Ice Service and by the Finnish Meteorological Institute are fairly accurate, understandable and on time.

- **Requests. (5)**
  - Very little coverage of the information on Australian Antarctic sea coast.
  - Is it possible that you could provide service of sending ice / iceberg Charts by email on request to vessels?
  - Ice charts are too small to get all the information for Bohai Sea.
  - Terminology used for ice is not easy to understand (Sat-C, Facsimile for St. Lawrence Gulf).
  - For Ross Sea ISSM charts & NOAA ice charts do not come often enough. More detailed charts would be better.

		Not used	Good	Average	Poor	No Answer
5	**Wave and Storm Surge Information. Please rate the following:**					
A	Clarity of information	118	593 82.5%	123 17.1%	3 0.4%	46
B	Accuracy of information	120	531 74.4%	178 24.9%	5 0.7%	49
C	Timeliness	122	552 77.9%	153 21.6%	4 0.6%	52
D	Terminology used	126	572 81.4%	129 18.3%	2 0.3%	54

Comments

- **Weather information and its reception are satisfactory. (29)**
  - WNI Weathernews program connected with Ocean Route is good and reliable.
  - The estimation of ocean current in seas adjacent to Japan is useful.
  - Vessels timely received all the above information satisfactorily and fully understood. Wave analysis complete description of wave, swell condition and significant wave height/total sea of the affected areas.
  - Appropriate terminology used.
  - SafetyNet gives good forecast.
  - SPOS & Wise Weather Routing are highly accurate.
- **The requests for the timeliness of broadcast (4)**
  - The weather information by JMH facsimile is not good timing because information schedule is fixed. However, forecast charts are helpful.
  - We hope that information on the strong wind, wave and so on, accompanied with Low Pressure which develops rapidly and moves fast will be sent more quickly.
  - We hope that information will update every about 3 hours during bad weather.
  - We hope that the forecast charts of wave height will be sent every 6 hours in seas adjacent to Japan.
- **Information is not easy to understand (5)**
  - Area description given by words doesn't meet the real one situation.
  - Weather information of foreign countries (not Japan) is not easy to understand.
  - Information only in local language.
  - Around Spain incomprehensive information.
- **The requests for the contents of information (7)**
  - Add more information of wave height.
  - Wave information doesn't include the direction of wave.
  - Rx information would be useful.
  - In western North Atlantic warnings too often.
  - Local information should be provided on VHF.
  - In Kenya coastal water lack of such service.
- **Actual whether observation on board is priority for safe navigation. (1)**

		Not used	Good	Average	Poor	No Answer
6	**Other parameters in Weather and Sea bulletins. Please rate the following:**					
A	Comprehension of bulletins (including abbreviations)	58	544 80.5%	126 18.6%	6 0.9%	149
B	Accuracy of bulletins	62	621 79.8%	155 19.9%	2 0.3%	43
C	Are bulletins on time?	61	642 82.4%	133 17.1%	4 0.5%	43
D	Terminology used in bulletins?	66	623 80.9%	142 18.4%	5 0.6%	47
E	Usefulness (parameters,…)	63	599 80.0%	145 19.4%	5 0.7%	71

Comments

- **Weather information is useful. (46)**
  - WNI Weathernews program connected with Ocean Route is good and reliable on accuracy and forecast.
  - Typhoon information is useful.
  - Information sent from Japan, Hawaii, Australia and Taiwan is on time, easy to understand and useful.
  - Arvi - Short brief meteorological information for basic needs. It is easy to understand by un-experienced users.
  - Used too Brazilian websites as Surfguru, CPTEC or Centro de Hidrografia da Marinha, that show wave's highs and wind's force and direction information.
  - SPOS gives good and accurate information.

- **The requests for timeliness of broadcast. (4)**
  - We hope that information will update every about 3 hours during bad weather.
  - We hope that the forecast charts of wave height will be sent every 6 hours in seas adjacent to Japan.
  - Sometimes weather bulletins are delayed due to strikes.
  - Sometimes information that is RX is old.

- **The requests for contents or representation of information. (17)**
  - We hope information on ocean current will be provided in real time for shipping route.
  - Officers give more preference to Graphic presentations & Weather Software data.
  - More helpful if the accuracy of information on the affected area and the forecast areas with reference to the well known landmarks.
  - Some stations do not update their info: e.g. H.KONG met center always use the same bulletin all over the year except when typhoon. Chinese stations bulletins clarity to be improved seriously.
  - Metarea 4 extremely complicated to use. Improve by using zone separation like in Europe.
  - No information for the Baltic.
  - Shorten bulletins to important information.
  - Campos Oil field should be considered an Area to have an specific broadcast, due the amount of vessels and rigs on that area.
  - Inmarsat does not give an user friendly layout.
  - Process/ method to identify area affected should be more user friendly.
  - Forecasted visibility differs a lot from real visibility.
  - Shanghai makes us often await wind that never comes.
  - System of weather charts on demand as one available in U.S.A. is the one close to being ideal.
  - Often wind force in weather predictions is too high.

- Universal area coding system instead of each Met service having its own names for areas.
- Bulletins often lack comprehension due to excessive technical terms and unclear abbreviations.
- The titles could be changed to give an indication of what we are referencing. E.g. coastal warning xxxxx where? Naw warning xxxxxx where? Coastal forecast xxxxxx where?
- Could we not have an outlook for a further 24+?

		Not used	Good	Average	Poor	No Answer
7	**Graphic/numeric broadcasts (e.g. Facsimile). Please rate the following:**					
A	Are charts received on time?	165	563 82.4%	103 15.1%	17 2.5%	35
B	Accuracy of information on charts	163	548 80.9%	126 18.6%	3 0.4%	43
C	Comprehension of symbols	163	531 78.7%	141 20.9%	3 0.4%	45
D	Quality of reception	163	414 61.2%	236 34.9%	27 4.0%	43

		Yes	No	No Answer
E	Is this a useful service?	657 87.8%	91 12.2%	135

Comments

- **Weather information and its reception are satisfactory. (53)**
  - It is very useful especially during periods of adverse weather condition.
  - It is very useful in a way that mariners have to relay on broadcast in order to monitor every movements of weather pattern change.
  - JMA weather facsimile charts are quick, reliable and excellent for the safety voyage.
  - It is useful even not clear as WNI weather program because of possibility to compare both data.
  - The reception is reliable, because the broadcast is repeated even if the automatic reception is failed.
  - Wave height forecast is very important, useful and reliable.
  - Very good backup for the information via email and from websites.

- **The reception is not good. (51)**
  - The reception of weather information is sometimes difficult because of bad weather, interference problem, sferics noise etc.
  - Reception of weather fax is not good particularly when vessel is far from coast. Sometimes reception is very poor signal in all frequencies even very closed to land both in JMA TOKYO and CAMSPAC (USA).
  - Poor or no reception of weather facsimile chart in the South Indian Ocean.
  - A lot of mariners would be happy if the NZ MF/HF fax service could please broadcast on all frequencies simultaneously on short handed vessels in areas where ground + sky wave meet one sometimes has to wait 15 mins to try all the frequencies as they come on.
  - Poor coverage of Area below 17N and some difficulties to get signal from station.
  - Coverage should be better.
  - Works well on N. Atlantic and Japan area, but poor in Indian and South Pacific.
  - Have tried on numerous occasions to pick up Rio De Janeiro Facsimile service with no success.
  - Halifax often not received at all even when vessel is on western side of the ocean.

- **The broadcast of weather facsimile is insufficient. (24)**
  - In Indian Ocean, Arabian Sea, Gulfs Area and East and West Coast of Africa, information of the weather facsimile is not accurate, not on time and poor reception.
  - Honolulu of USA (KVM70) sometimes doesn't send weather facsimile and sometimes send wrongly previous day information.
  - Broadcast more often especially during bad weather conditions.
  - Vessel trading on Gulf ~ Japan route. Tokyo is the only station on this route, which is sending accurate & consistent weather fax service. Beijing is not very consistent. And we are unable to receive any fax service from other stns in this area.
  - In area 8(n) there are no facsimile charts available.

- Faximile should be transferred to a Met service provided by email.
- Service provided in Indian Ocean (Arabian Sea; Bay of Bengal) are not reliable.

- **The requests for internet and E-mail service. (4)**
  - The weather charts got through internet is clearer to see than that by facsimile.
  - We hope that weather information can be received by E-mail because facsimile can not be received occasionally.

- **The requests for representation of information. (14)**
  - It is difficult to use because the letters of observational data is small in weather facsimile.
  - We request to produce graphical information of weather forecast which can be understood in an instant by a Mariner.
  - Time of analysis on fax would be useful.
  - Make it color & auto update.
  - If possible must show the limits of bad weather area.
  - Service could be improved by providing weather fax well in advance with clarity.
  - Wider Range of surface analysis should be provided.
  - Frontal movement prediction information.
  - Larger title block for better understanding.
  - This is the most useful and accurate weather information service. I would omit small signs and numbers, and it would be great to have charts for smaller regions. I would add also more information on sea/swell state/height.
  - Mention limits of the charts and also scale. Improve clarity.

- **Other comments (10)**
  - We hope that facsimile broadcast will be continued because this service is free.
  - We hope that facsimile broadcast on 16 MHz will be sent.
  - I hope FAX Weather Chart would be provided timely in 30 minutes.
  - Reception interrupted when GLOBE E-MAIL WIRELESS acquisition is in progress.
  - We request KUROSHIO current information via JMH weather FAX.
  - We have onboard a new type of facsimile which is more readable than the previous printer (Furuno Fax 30). Quality of reception is much better, and we print only the necessary chart. This service is useful as associated with other messages we are able to understand the present weather situation. And it gives more information for the expected forecast over 24 hours.
  - I feel that this service has become somewhat obsolete on this vessel, with greater dependence on SPOS.
  - With the progress made in recent years with vessel satellite communications this has become a little used piece of equipment, but its value in the event of failure of the internet cannot be underestimated. The downscaling of the system for Merchant vessels to reduce costs and so keep the system running is a possibility with the vast majority of vessels only printing the synoptic charts it would be useful to have these printed every 6 hours and some (if not all) of the other charts omitted.
  - Service could be provided with less charge to be able to use everyone.
  - It will be great to update list of stations with codes which in used in present time (for Facsimile receivers)

		Not used	Good	Average	Poor	No Answer
8	**Land Earth Stations (LES) Inmarsat** (This section should be filled only by Voluntary Observing Ships)					
A	Rate your success in contacting a LES to send your weather observation messages (OBs)		313 94.3%	19 5.7%	0 0.0%	

		Yes	No	No Answer
B	Do you experience delays in sending your OBs?	64 17.3%	307 82.7%	512
C	Do any LES refuse to accept your OBs?	21 5.8%	342 94.2%	520

Comments

- **Always good service. (32)**
  - Land Earth Station (03 YAMAGUCHI) is responding in ample time.
  - TurboWin very useful tool.
  - OBS send via email.

- **Problems with sending OBS. (22)**
  - The signal from LES(210) sometimes is missed. Difficulty to sent OBS and msgs.
  - Some times so busy that even after 15 minutes behind the hour it is not possible to send.
  - All my msgs are accepted but some stations like Arvi and Eik are charging too much for an OBS.
  - Encountered some problems in the past with sending OBS. LES stations changed there ID, most recently station 012 was off air without any notice so OBS send probably lost in “space”.
  - Have tried on many LES to Tx OBS but always fails to send/accept.
  - Sending OBS to fax at Bureau of Met Darwin will not go through due to problems with LES.
  - "Tangara" only sends Obs Meteo messages when south of 60°South. As AWS footprint does not extend beyond 60°South.
  - Cannot deliver OBS on code '???' through Arvi LES.

- **All info we send by OBS is directly published by all kind of internet sites. So the privacy of ships is absolutely not respected. This info is fully available to third parties, including pirates. So sometimes it is better not to send OBS messages. (1)**

List of stations where problems occurred.

Station	Delay	Not accepted
unspecified	16	
Arvi / India (306)		1
Arvi / India		4
Yamaguchi / Japan		2
Yamaguchi / Japan (103)	1	
Stratos / Netherlands (121)^	2	
Stratos / Netherlands		1
Stratos / Netherlands (102)	1	1
VSNI (Mumbai)		1
Telekomunikacja Polska / Poland (116)		1
Telekomunikacja Polska / Poland (316)		1
OTE / Greece (120)	2	1
Station 12 / Australia Perth (212)	1	

Embratel / Brazil (114)	1	
002*	1	1
Goonhilly	2	
Sentosa / Singapore (328)	1	
Sentosa / Singapore (210)	4	
Singapore		1
Aussaguel / France	1	
Aussaguel / France (321)	1	1
Burum-2 / Netherlands (302)	2	
Netherlands** (312)	3	
Eik / Norway (304)		1
204***	1	
Burum (112)	2	1
Southbury / USA (101)	2	
Southbury / USA (201)	2	
455^	1	
KTA (Kumsan)^	1	
212****	5	1

***** Goonhilly or Burum-2
****** Station 12 or Burum
*** Santa Paula or Norway
**** Station 12 / Australia or Burum
^ not possible but stated by mariners

9 Other related problems (if any) – include ship's position, date and time.

- **Comments to forecasts (6)**
  - Weather forecasts in Indian Ocean/Arabian sea are not very comprehensive - especially from India or Pakistan.
  - I find the weather forecasts for North Sea often not correct. Wave height and wind forces are often more than, forecasted. Also extra large waves are not forecasted on the line Hanstholmà Vlieland center buoy. There can be extraordinary large waves in this area, which are not forecasted.
  - It would possibly be easier to understand forecasts if the moderate size forecast areas were world-wide. In most areas they appear to be common but in North Atlantic there only appears to be 2 areas spreading from Greenland to South American coast and the southern one lumps the Gulf of Mexico and Caribbean in with it. It would be much quicker to see the weather if there were individually named arrears with forecasts and a general synopsis covering the entire area as with Metarea2. Metarea4 forecasts are just major synopsis with a small forecast hidden inn the middle.
  - It makes a lot of difference. The wind prediction is NE 8, so now it can be NNE 8, in which case the ship will pitch heavily. See A. It can be also ENE 8, so the ship will roll heavily. See B. This is the reason for asking 16 wind directions instead of only 8. (see figure in questionnaire no. 57)
  - During times of anchorage in N.S.W. waters, forecasts via Inmarsat are rare. This vessel relies on forecasts from coastal radio stations via vhf radio. Waters north of Sydney are difficult to gain forecasts even via coast radio stations.
  - Australian faxes: (1) new radio fax a day SFC prognosis - great idea! Would be improved by lat/long overlay to plot position. (2) existing surface charts - make ???/dotted lines between parallels of latitude in division of tenths to facilitate plotting of vessels' position - currently non decimal! (11 1/2 divisions between parallels) (3) re-installation of geostrophic wind force diagram top l.n corner of fax. Tks!

- **Comments to ice charts (1)**
  - ICE: The international (WMO) ice reporting codes Group 21: c, S, b, D, z are quite inappropriate for Antarctic ice conditions. Table: c is acceptable./ S (stage of development needs notification)/ b: (ice of land origin) needs notification/ D: (Bearing of principal ice edge) ?/ Z: Present ice situation - does this tell WMO what they wish to know?

10 Any other comments not considered under the previous items and suggested improvements (e.g. met-ocean information in ECDIS, other required met-ocean parameters not mentioned under previous items)

- **Weather information is useful. (10)**
  - All information in ECDIS is very useful to mariners for safety in all operation.
  - JMA Weather forecast, charts and information for West Pacific Ocean are excellent.
  - Daily weather reports and forecast including charts via Bridge/Orion program weathernews are extremely useful and accurate.
  - Introduction of graphic pictures in INMARSAT-C along with other normal text message can be very useful as vessel can receive INMARSAT-C messages at any time at any place within the area whether the vessel is near or far from coast even when the weather fax is out of reach.

- **More improvements are needed. (2)**

- **Other comments (19)**
  - Receiving regular update of meteorological warnings from ECDIS, but in heavy traffic situations, the frequent alarms is causing distractions.
  - Weather bulletins meteorological warnings being issued on INMARSAT-C is a bit excessive and continuous broadcasts results in a huge amount of telex paper being used.
  - We hope you cooperate with WNI (OCEAN ROUTE).

- For prevention of a maritime accident, we request to consider effect of local wind particularly near inshore and provide highly accurate forecast as accurate as it on land.
- The broadcast from the countries but Japan can't be received on time.
- Consideration should be given to the supply of high resolution real time and forecast current data for accurate voyage speed planning purposes.
- Provide Met-ocean information in ECDIS and ChartCo (Ocean Master-MetManager).
- The ship currently uses two programs;
- Chartco Met Manager which receives frequent forecasts by satellite and entails data being decompressed from Satellite and displayed on a windows type server. This program is extremely useful and is updated frequently. The main drawback with the program is that it gives the user no indication of precipitation or expected visibility. In terms of Ocean Date and currents; the vessel uses Met Office Turbo Win software to code and send weather reports. This software has a number of additional functions including pilotage routing charts for all the main oceans for each month of the year. This is a handy extra. In terms of inclusion of date into ECDIS. The risk is that an already brimming ECDIS will become saturated with information and as such, we believe that information is best kept separate and allowed to be interpreted by the individuals.
- To be able to load met specific information on to the VMS would be a valuable aid.
- On every cross Ocean passage, we have a weather man from Danish Metrology Institute appointed to the vessel. He is guarding the weather for us, and recommending routing and sending weather forecasting along the route. Believe we are saving a huge amount of Fuel this way. For verifying his recommendations, it is good to have both the facsimile and SPOS to back it up.
- Yes, It Should be very interesting to provide grib sat via Sat C. This service is already available by private provider. Regarding ECDIS evolution I believe this service must be free.
- In our ECDIS system on board, we do receive automatically NAVTEX messages, therefore all coastal NAVTEX weather bulletins are there as well. "BonVoyage" system installed on board once it is integrated with ECDIS would be optimal.
- SPOS program is widely used for weather prediction information and route planning as it gives visually easy and clear information on all aspects of weather and provides with prediction of main ocean currents according to seasonal climatology. Also user may decide how often per day he will receive weather forecast updates.
- On board we have an internet access which allows us to have more readable information with active charts, unfortunately this solution is not available for everyone so please continue to improve the system. Thanks for your good job. I do not believe to get weather on ECDIS is a solution as it will add more details, reducing the readability of this equipment. With the mail system available now on lot of ship a request to get a dedicated weather (like the updated system for ECDIS) can maybe studied.
- More frequent updates of TRS position should be provided.
- The production of an Additional layer to Edins incorporating weather charts would be ideal. Overlaying fronts, pressure systems over a ships position would give the mariner and "hands on view"
- (1) Weather bulletins broadcast by RTE radio I are not always on time as per schedule in admiralty list of radio signals Volume 3 CD pg 124, particularly the 1253hrs and 1650hrs bulletins. (2) some met Eireann broadcasters when reading the bulletin on RTE radio I tend to read the bulletin very fast, making it impossible for the mariner to note down the forecast.