NATIONAL GMDSS TASK FORCE

Newsletter and Summary Record of 27 July 2017 Meeting

1. The Task Force Meeting. This Newsletter reports on the recent meeting of the Global Maritime Distress and Safety System (GMDSS) Task Force sponsored by the U.S. Coast Guard and dedicated to monitoring the success and shortcomings of the GMDSS. The Task Force is also active in current efforts to modernize the GMDSS and monitors related developments in maritime radio and electronic navigation (e-navigation). The Task Force advocates voluntary use of radio safety equipment by all vessels and makes recommendations to government authorities to improve safety at sea regulations for vessels subject to those regulations.

2. Task Force membership. Membership is open to individuals associated with commercial vessel operations, recreational vessel interests, training institutions, service agents, manufacturers, government authorities and any interested person or organization and there is no fee for participation. New members are welcome, to join, send your name, organization (if any), email address, and telephone number (optional) to gmdsstf@gmail.com. Members who are unable to attend Task Force meetings are invited to participate by email and to connect with Task Force meetings by conference call. This Newsletter goes out to about 4000 members after each quarterly meeting. The Task Force also maintains a website at: https://www.navcen.uscg.mil/?pageName=MaritimeTelecomms (click GMDSS/TF)

3. The summary record. This record of the meeting is provided for information and will be posted on the Task Force portion of the Coast Guard web site. The GMDSS Task Force met on 27 July 2017 at the RTCM's new Headquarters at 1621 North Kent Street, Suite #705 in Arlington, Virginia.

4. Distribution of Information Papers: The following Papers of interest were distributed:

USCG NVIC 01-16, Change 1, Equivalence of Charts & Publications
USCG Safety Alert 01-16 on GNSS Systems (Trust but Verify)
USCG NVIC 05-17 Draft Guidelines for Cyber Risk at Maritime Facilities
Guidelines on Cyber Security Onboard Ships (BIMCO and 6 partners)
FCC Public Notice DA 17-670, Disaster Use of High Seas Marine Frequencies
KNL Networks Global Digital Terrestrial Radio with Cognitive MESH Network
Summary of NTSB VTS Safety Recommendations to the Coast Guard

5. The Coast Guard Reports: Derrick Croinex and others reported with the following highlights:

a. Report on the Joint IMO/ITU Experts, London, July 2017: Bob Markle reported that the Experts Group had approved most of the text submitted by his Correspondence Group but had tabled the issue of whether Security should be included in the draft of SOLAS Chapter IV pending a decision by the Maritime Safety Committee. The Correspondence Group was asked to prepare a further submission to the next session of the NCSR Subcommittee. Bob further reported that 1 January 2020 is the effective date for Iridium's acceptance as a GMDSS provider

assuming everything continues as expected. A review of pertinent Resolutions pending by the Correspondence Group was reassigned to various volunteering Administrations.

Derrick Croinex explained that the U.S. paper submitted to improve MMSI management found the Delegates sympathetic but not ready to adopt further changes without referring the matter to NCSR-5 and the U.S. will make that submission accordingly. The Group recommended that on sale of a vessel, the MMSI number should stay with the vessel but be registered to the new owner. Some Experts Group Delegates were concerned about the possibility of spoofing if MMSI rules were relaxed to make it easier to update the number on DSC radios. The Japanese delegation is promoting NAVDAT as a superior system for coastal broadcasting of Marine Safety Information (MSI). The Experts Group is beginning to address the issues associated with autonomous ships and will meet next on Labor Day week in 2018.

b. MMSI Management and Assignment Policy Issues. Joe Hersey moderated this discussion noting that the pending changes to the FCC's Part 80 included a number of improvements in MMSI management. Since the failure to properly register for an MMSI number is greatest among recreational vessels, the Task Force is working with the Coast Guard Office of Boating Safety to modify the latter's check list for voluntary inspections. The intent is not to collect more data but to open a dialog between the inspector and boat operators on the importance of following proper registration procedures and the need to connect GPS receivers. The FCC is cooperating with this effort by adding contact information to MMSI registrations going to the ITU and requiring the vessel registration number on Ship Station Licenses.

c. The Task Force Petition to Require Emergency Beacons on Recreational Vessels Offshore. There were no new developments on this Petition and no new report from the Office of Boating Safety at this meeting except to note that the decision point was now above the Office of Boating Safety. It is expected that the Coast Guard will permit satellite beacons to satisfy the requirement to carry pyrotechnic flares. Meanwhile, the Task Force continues to advocate voluntary carriage of some version of satellite emergency beacon by all vessels going more that 20 miles offshore and voluntary carriage of VHF radios, preferably with DSC within 20 miles of the coast.

d. NTSB Recommendations to NOAA/NWS & USCG re Weather Warnings: The NTSB has been reviewing the loss of the EL FARRO during a hurricane and has concluded that the ship was probably not getting sufficient weather warnings. Her track toward Puerto Rico probably took her outside of NAVTEX range but she should have been getting SafetyNET warnings. Their recommendations were to the Weather Service to improve forecasts and warnings and to the Coast Guard to improve dissemination to the extent possible.

e. NTSB Study of the Effectiveness of Coast Guard VTS Operations Produces Many Recommendations. The National Transportation Safety Board (NTSB) announced completion of a comprehensive study of Coast Guard Vessel Traffic System (VTS) operations. The NTSB analyzed collisions, groundings and allisions with bridges and piers over the period 2010-2014 and studied VTS operations to see if improvements could be recommended. The study resulted in numerous recommendations to the Coast Guard, a few to the Pilots and one the RTCM. The

Coast Guard assisted in the NTSB survey of procedures and training and is implementing the recommendations.

f. ITU WARC 12 and 15 Requires New Four Digit Channel Numbers for Simplex Use of Duplex VHF Channels. The new numbering system is displayed on a new posting on the Coast Guard website (http://www.navcen.uscg.gov/?pageName=mtVhf). The Coast Guard has requested the assistance of the NMEA and the Task Force to help in understanding when and how manufacturers implement this change and help in preparing users for this four digit channel numbering change. While GMDSS radio manufacturers have indicated they have adopted a four digit channel capability in new radio models, IMO's Navigation, Communications and Search & Rescue (NCSR) Subcommittee agreed at its 4th session earlier this year to delay four channel implementation in SOLAS ships until after 2024."

g. Potential Interference between Digital and Magnetron Radars. This issue originated with a report from Germany at the 11th meeting of the IMO/ITU EG in 2015. The Coast Guard has contracted a study with the Institute for Telecommunication Sciences in Boulder CO but results won't be available for some time. Bob Achatz, who is performing the study, briefed RTCM SC112 on the approach for the study. So far there have been no reports of actual interference between these different radar types and Hugh Lupo reported that he knew of no case of interference between the two types of radar if they had been properly installed.

h. Is more R&D work needed to determine NAVDAT feasibility in the U.S? This question was posed to the group who were enthusiastic about the prospective improved range and throughput of NAVDAT as opposed to NAVTEX. However, they felt that it was unrealistic to expect funding to implement the new system and didn't feel that much R&D was needed. If anything, a demonstration trial broadcast should be considered.

i. NVIC 01-16, Change 1 on the Equivalence of Charts and Publications: Jorge Arroyo reported on this publication that was announced in the Federal Register on July 18th. Feedback and questions should be addressed to Matthew Walter at 202-372-1565 or by email addressed to cgnav@uscg.mil. Jorge also re-introduced Marine Safety Alert 01-16 of 19 January 2016 addressing global satellite navigation systems and warning to "Trust but Verify" and report any disruptions immediately.

6. Special Skype Briefing on KLN Networks: Toni Linden briefed the Task Force via Skype to explain this global high frequency communications system with the following highlights:

a. KLN Networks is headquartered in Finland and has had success in combining multiple technologies to provide an intelligent autonomous network providing a cost-effective alternative to satellite communications.

b. Radios connect to each other and to the internet through digitized high frequency forming a MESH Network which automatically selects the best communications channel making good use of the under utilized HF spectrum.

c. KLN's Network uses a Cognitive Software Defined Radio that acts as a base station on individual ships but also functions as a node in service to other ships when connected to the internet.

d. The maximum data rate is 153 Kbits/sec on the high seas but they always select the optimal data rate based on the amount of data, network availability and current shortwave propagation. Broadband service is available at Ports and within 20 miles of a coast offering Cellular service. The MESH network automatically selects the optimum communications channel.

e. The system offers good security with all communications encrypted and while the reliability is very good, it is not being advertised as a Distress and Safety system.

7. The FCC Reports: Ghassan Khalek reported with the following highlights:

a. FCC Second Further NPRM of 30 December 2016 Proposing that FCC No Longer Perform International Accounting Authority Role for U.S. The FCC has still not taken final action on this issue but is expected to discontinue its role as an accounting authority. Operators whose terminals were commissioned using FCC as international accounting authority (US01) will need to make other arrangements for payment, and recomission their terminal, otherwise they will find their terminal barred by Inmarsat once FCC's role as accounting authority ends and a call is attempted. A barred Inmarsat C terminal can still be used for distress alerting and will receive SafetyNET messages but cannot be used for Long Range Identification and Tracking (LRIT) or Ship Security Alert System (SSAS) including piracy alerts via SSAS. The comment period ended 14 March 2017 and we await the FCC's decision.

b. ICOM AMERICA Inc. Request for Waiver to Permit Manufacture, Importation, Sale, and installation of Class E Digital Selective Calling Radio. Ghassan explained that ITU R M. 493-13, Annex 4 establishes new requirements which are not met by the Icom M802 radio commonly used by vessels needing an HF/DSC radio. Icom has applied for a waiver to continue selling this popular radio to non-SOLAS vessels.. The Task Force agreed to support the request for a waiver. The FCC has not yet acted but is expected to approve the waiver request.

c. FCC Public Notice DA 17-670 of 13 July 2017 Request to use High Seas Marine Frequencies During Disasters. Ghassan explained that this waiver for Shipcom was originally granted in 2010 and a renewal had been requested to include Global HF Net that is now commonly owned. There is every indication that the waiver will be approved and the Task Force expressed no objection in principal to the waiver. The comment period ended 14 August and reply comments are accepted until 29 August.

d. Progress on the RTCM Petition to Update the FCC Rules. This very sizeable Petition would not only update the Rules but would reformat them in a more logical manner and incorporate all references to standards, which have been approved. The Petition was put out for Public Comment that closed 31 May 2016. The public responses have been generally positive and early action is anticipated. More recently it was reported that a few sections had been adopted through action on other proceedings.

e. Action on the Task Force Petition regarding Small Passenger Vessels. The FCC has included their portion of the Small Passenger Vessel recommendations with the larger RTCM Petition now awaiting adoption.

f. Further developments in GMDSS Requirements for Alaskan F/V below 300 tons: Alaskan fishing vessels in Alaska have often cited waivers from full GMDSS outfitting when it is apparent that in locations such Dutch Harbor, the vessels must have transited at least Sea Areas A1 and A3. In 2014 the Coast Guard required non-SOLAS F/V to carry Inmarsat-C and have at least 2 licensed GMDSS Radio Operators.

8. Reports and Issues of the Service Agents and Manufacturers Group: Hugh Lupo moderated the discussion with the following highlights

a. NMEA "One Net" Standard nearly ready for release. Hugh reported that Beta testing of the standard is underway and likely to take about a year to complete.

b. IMEA has strong Interest in building a Master Website for MMSI Numbers: The NMEA and the IMEA are quite interested in developing a master on-line database of all U.S. issued MMSI Numbers. The IMEA applied for grant funding for the project endorsed by the Task Force letter of 13 January but were not successful. The thrust of the request for grant funding was to support a project to facilitate the connection of GPS receivers to DSC radios, long a key Task Force goal.

c. Testing during inspections should verify that DSC Radios transmit Position: Hugh reported that during inspections his Company had observed that not all radios transmit the position information automatically. This is a requirement for Class A radios but should also be available in Class E Radios. The Task Force agreed to take on this issue and determine whether a revised standard is needed for Class E radios. ETSI Standard EN 300 338-4 applies.

d. Training Vessel Incident Involving the U.S. and Canada reveals possible need to expand carriage requirements so that trainees can be trained on all equipment appropriate for Sea Areas A1, A2, A3 and A4. Hugh recommended that the Task Force undertake a new issue regarding special equipment requirements for Training Vessels

9. <u>Reports and Issues of the Commercial Vessel Task Group.</u> Rich Beattie reported with the following highlights:

a. Task Force Petition to the FCC relative to Safety Equipment on Small Passenger Vessels. As noted in paragraph 7.e. above, the FCC has included their portion as part of the larger RTCM Petition.

b. Modified Check Lists to Include MMSI Registrations for GMDSS Inspections. This item has been accomplished with respect to formal GMDSS Inspections for U.S. SOLAS ships. The Task Force plans to add this item to dockside examinations for commercial fishing vessels. With respect to voluntary safety inspections conducted on recreational vessels by the

Coast Guard Auxiliary and the U.S. Power Squadrons, see paragraph 5.b. above regarding working with the Coast Guard Office of Boating Safety to revise their official form.

c. Continuing efforts to Publicize Sources of Information on Dealing with Cyber Security Issues. Rich noted that IMO had approved the Guidelines on Cyber Security Onboard Ships complied by BIMCO with 6 partners. Separately, the Coast Guard published NVIC 05-17 providing Guidelines for addressing Cyber Risks at Maritime Transportation Security Act Regulated Facilities. The latter was handed out at the Task Force meeting.

10. Reports and Issues, Recreational Vessel Group: George Hallenbeck moderated the discussion on Recreational Vessels with the following highlights:

a. Management of MMSI Numbers Being Assigned by Agents: The FCC and the Coast Guard have entered into Memoranda of Understanding (MOU) with several private sector agencies to issue MMSIs to vessels not requiring a Station License. Those MOUs are being revised but the new data format has not yet come into effect with all of the designated agents. These assignment agents are also known as Licensed By Rule (LBR) agents.

b. Modify Voluntary Inspection Check List to Invite Discussion on MMSI Registration and Connection of GPS: The object is to include an item on the voluntary check lists mentioned in para. 5.b above, George noted that they were looking for background notes with which to brief the inspectors and were advised to check the NASBLA model course on Boating Safety. The Power Squadrons reported that they would soon need a new block of MMSI numbers.

c. MMSIs for Radios Used to Support Diving Operations: U.S. policy for assignment of MMSI numbers to divers who use their own radio but do not have their own boat needs to be finalized. A proposal to address the situation was included in the Coast Guard's and RTCM's Part 80 Petition to the FCC.

11. <u>Reports and Issues of the Training Task Group.</u> Kurt Anderson reported with the following highlights:

a. Question Pool Revisions and Policy on Publishing Questions and Answers: The Training Group is proceeding with plans to review the Question Pools for GMDSS Operator exams and they welcome input by all GMDSS Training Personnel. A question has also be raised as to whether the Questions and Answers should be published together making it easier for applicants to memorize answers, this will be discussed further at the next meeting.

b. Tightening Qualification Requirements to Ensure Competency of Holders of the GMDSS Maintainers License: The Task Force has long felt that holding a GMDSS Maintainers License was insufficient evidence of competency for persons conducting GMDSS inspections.

c. Applicants for GMDSS Radio Licenses can take on line courses but must be properly identified when taking exams. Kurt reported that some Colems were offering to test

applicants for GMDSS Licenses remotely without taking steps to verify identity of the person purportedly taking the test. The FCC took prompt action to remind Colems that identification of persons taking the exams was required.

12. <u>Next Meeting of the GMDSS Task Force:</u> The next Task Force meeting will be held at the Bellevue Hilton in Bellevue, Washington on 27 September 2017 during the annual Conference and Expo of the National Marine Electronics Association (NMEA). There was discussion at the Task Force meeting of ta plan to broaden the scope of field meetings to include a meeting in New Orleans, Louisiana on 30 November 2017 during the Workboat Show. The intent is to hold a different kind of meeting appealing to all groups of the membership and focusing on educational efforts to improve Search and Rescue operations with participation by the local Coast Guard District Headquarters. If approved, there would still be four Task Force meetings during fiscal year 2018.

GMDSS TASK FORCE CONTINUING WORK LIST

27 July 2017

1. Monitor IMO continuing action to update GMDSS Rules (TF)
2. Recommend actions to reduce false alerts in GMDSS systems (TF)
3. Monitor Coast Guard Port State GMDSS inspection program (TF)
4. Monitor MSI broadcasting programs for compliance with GMDSS Standards (TF)
5. Review GMDSS Internet Web Sites and update Task Force portion of USCG site (TF)
6. Support SOLAS Working Group planning for IMO NAVCOMSAR meetings (TF)
7. Advocate Canadian coordination to extend GMDSS services to the Great Lakes (TF)
8. Advocate voluntary carriage of VHF and EPIRB/PLBs by all vessels offshore (TF)
9. Advocate overhaul of FCC policy and practice on MMSI assignments (TF)
10. Monitor non-GMDSS systems: AIS, LRIT, SSAS, VDR, VMS, & E-Navigation (TF)
11. Recommend updates for Coast Guard NVIC on GMDSS Requirements (TF)
12. Recommend means to facilitate Distress Alerts by Cell Phone & Internet (TF)
13. Advocate GNSS for U.S. EPIRB and PLB Standards (TF)
14. Advocate mandatory Distress Beacons on R/V more than 3 miles offshore (TF)
15. Advocate use of the Alaska AIS Monitor Network for VHF Distress Guard (TF)
16. Monitor Developments in Cybersecurity and advise membership (TF)
17. Review GMDSS concepts and make modernization recommendations (MOD)
18. Advocate intership calling on HF GMDSS channels (CV)
19. Recommend Safety Radio and VMS Requirements for Small Fishing Vessels (CV)
20. Recommend Safety Radio & Navigation Requirements for Towing Vessels (CV)
21. Recommend Safety Radio & Nav. Outfit for Small Passenger Vessels (CV)
22. Advocate applications for new MF/HF Digital Communications Service (CV)
23. Advocate voluntary training programs for users of GMDSS systems (RV)
24. Encourage GMDSS handbooks and Internet and video training aids (RV)
25. Encourage users of VHF-DSC to Register for MMSI and connect GPS (RV)
26. Advocate FCC let R/Vs retain existing MMSI when applying for Station Lic. (RV)
27. Encourage Mfgrs. to upgrade GMDSS explanations in equipment manuals (SA)
28. Recommend proper interconnection of GPS receivers with DSC Radios (SA)
29. Advocate better FCC & USCG management of annual GMDSS inspections (SA)

30. Maintain Inspection Guidelines and Check Lists for selected vessel types (SA)
31. Recommend Certification Path For GMDSS Maintainer (SA) and (TR)
32. Maintain GMDSS Question Pools for FCC and Coast Guard Examinations (TR)
33. Advocate 5 Year USCG Recertification Training of GMDSS Operators (TR)

Key to cognizant groups:
(TF) Task Force
(CV) Commercial Vessel Task Group
(RV) Recreational Vessel Task Group
(SA) Service Agents and Manufacturers Task Group
(TR) Training Task Group
(MOD) Modernization Task Group

Please refer questions and proposals to Captain Jack Fuechsel at 703-963-3747 or gmdsstf@gmail.com. If you have an Internet server with spam filters, please authorize receipt of messages from gmdsstf@gmail.com

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