

NATIONAL GMDSS TASK FORCE

Newsletter and Summary Record of 14 January 2016 Meeting

1. **The Task Force Meeting.** This Newsletter reports on the recent meeting of the Global Maritime Distress and Safety System (GMDSS) Task Force, a group 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 gmdss@comcast.net. Members who are unable to attend Task Force meetings are invited to participate by email and to connect with Task Force meetings by webcast or conference call. This Newsletter goes out to over 5000 members after each quarterly meeting.

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: www.navcen.uscg.gov/?pageName=MaritimeTelecomms (click GMDSS, then GMDSS Task Force). The GMDSS Task Force met on 14 January 2016 at the RTCM Headquarters n Arlington, Virginia

4. **The Coast Guard Reports:** The following presentation summaries were made by the persons indicated:

a. Review of IMO/ITU Joint Experts Group Meeting in London October 2015: Derrick Croinex reported on the scope of the work that included preparation for WRC-15 and WRC-19. The work on GMDSS Modernization included a further review of a new SOLAS Chapter IV that if adopted by 2018 would come into force in 2020. There were also the usual complaints about potential additional costs to administrations if additional GMDSS providers should be certified. The Experts Group also confirmed designated use of the AIS-1 and AIS-2 frequencies. A report from Germany indicated possible interference between Solid State Radars and Radars using Magnetrons that was inconclusive but the Coast Guard plans to conduct follow-up tests and will report further at the May meeting.

b. Status of the Task Force Petition to Upgrade Radio Safety Equipment on Small Passenger Vessels. Tim Brown and Paul Large provided a status report on the Petition that has had an initial hearing before the Coast Guard Safety and Security Council that raised several questions about the impact of the proposed changes. They will be responding to the questions raised by the Council. A usual practice in supporting proposals for regulatory change, their office

will also be working on developing a matrix outlining the impact on various categories of passenger vessels for each change recommended. The Task Force offered to assist as needed.

c. The Task Force Petition to Require Emergency Beacons on Recreational Vessels Offshore. Joe Carro reported for the Office of Boating Safety that their review was still ongoing. It appeared from comments of other members in attendance that this Petition had also received an initial hearing by the Safety and Security Council and there was now some consideration of exempting R/Vs carrying Emergency Beacons from also being required to carry flares.

d. Table of MMSI Problems and suggested solutions. Joe Hersey had produced a Table outlining MMSI problems that was distributed at the meeting and copies are available on request. Joe reported that it had been discussed with FCC representatives at a meeting on 13 January. A review of problems encountered suggests that 7% of vessels near shore were using improper MMSI numbers and that number was probably larger for vessels farther offshore. The FCC sends new FCC MMSI registrations to the ITU monthly (not including contact information or USCG and Navy vessels). Hugh Lupo noted that vessel inspectors need the authority to check MMSIs during annual inspections and that will be addressed in the review of proposed FCC Rules changes in the afternoon session. It was also pointed out that Power Squadron and CG Auxiliary voluntary inspections could include MMSI compliance if added to their check lists. One issue is the absence of a publically accessible database showing all U.S. MMSI registrations. Hugh Lupo indicated that the NMEA was anxious to provide such a database if a grant is approved to cover expenses. The MMSI Problem issues will be reviewed at each subsequent Task Force meeting.

e. Coast Guard Future Planning for Marine Safety Information (MSI) Broadcasting. Freddy Montoya reported with the following highlights:

1.) All long range broadcasts on HF will be managed by the new Communications Command in Portsmouth, Virginia and remotely keyed to broadcast from the Communications Stations in the Atlantic and Pacific as previously done. The Communications Station in Kodiak will continue to be manned with operators but could also be remoted to Portsmouth as early as late 2016.

2.) Weather facsimile and voice broadcast on multiple HF frequencies remains a capability and will be continued even though not required under GMDSS. A remaining issue is whether to continue the SITOR capability that is little used but still technically a GMDSS requirement.

3.) The NAVTEX medium range broadcast system will be continued under the management of District and Sector Operations Centers. Recapitalization of the NAVTEX facilities as presently configured is being proposed. Standardized formats to facilitate machine readability are being undertaken in accordance with IMO planning guidelines. At present there are no plans to utilize the new high throughput NAVDAT system but testing could be undertaken for evaluation.

f. E-Navigation, AIS and ECDIS/ECS Developments. There was no report at the meeting but shortly afterward there was an announcement that the Coast Guard had released NVIC 01-16 dated 3 February 2016 entitled USE OF ELECTRONIC CHARTS AND PUBLICATIONS IN LIEU OF PAPER CHARTS, MAPS AND PUBLICATIONS. The stated purpose of the Circular is to provide USCG Marine Inspectors and the maritime Industry with uniform guidance on equivalency of chart and publication carriage requirements in Titles 33 and 46 of the CFR. The full text can be downloaded at http://www.uscg.mil/hq/cg5/nvic/pdf/2016/NVIC_01-16_electronic_charts_and_publications.pdf

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

a. Action on the Task Force Petition regarding Small Passenger Vessels. The FCC issued a Public Notice (Report No. 3006, RM No. 11726) inviting interested persons to file statements opposing or supporting the petition for Rulemaking. Responses to the Notice were generally positive and the FCC has been in discussion with the Coast Guard to coordinate their positions. The FCC plans to initiate regulatory proceedings as appropriate on completion of Coast Guard coordination.

b. 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 format has not yet been published. The new Draft MOU is being coordinated with those assignment agencies also known as Licensed By Rule (LBR) agencies.

c. Status of Task Force Petition for use of handheld VHF's ashore within 3 miles of the vessel: In response to a question, Ghassan confirmed that this petition is still pending and a final determination has not yet been made.

d. End to FCC Waivers for VHF-DSC and Class A VHF for non-SOLAS Vessels. Ghassan noted that the waiver of VHF-DSC capability for mandatory non-SOLAS vessels provided by the Rules would be ending effective 20 January 2016, the one year anniversary of the Coast Guard's declaration of Sea Area A1. He also noted that the FCC had been in discussion with the Coast Guard on granting waivers to non-SOLAS mandatory vessels to use Class D VHF Radios in lieu of the Class A VHF Radios. They plan to incorporate this change in the FCC Rules to avoid acting on numerous waiver requests.

e. Waiver Request for PLB with Iridium in Lieu of 121.5 Homing. This waiver request was granted on 8 December 2015.

f. Use of VHF Handhelds in Lieu of Reserve Power. The FCC is concurring with the recommendations of the National Transportation Safety Board (NTSB), the RTCM and the Task Force that small mandatory vessels without Reserve Power capability should carry a VHF Handheld for emergency use.

6. Reports and Issues of the Training Task Group. Kurt Anderson reported on his Group's activity that includes reopening review of the Question Pools for GMDSS Operator

exams and assisting the Task Force effort to completely revise the FCC Rules to update them and arrange them in a more logical order. The basic issues are as follows:

a. Revision of the GMDSS Question Pools. Some of the issues being watched are the role of SITOR which is rarely used but accounts for about 8% of the questions, display of Navtex and SafetyNET Marine Safety Information (MSI) on various integrated display devices and Inmarsat-C which appears destined to become the only GMDSS qualified Inmarsat system once Inmarsat-B is terminated at the end of 2016. Kurt has contacted all of the schools teaching GMDSS courses and invited input from their instructors. One new issue assuming IMO acceptance of Iridium as a GMDSS provider is when simulators will be retrofitted to teach Iridium procedures?

b. General Revision of the FCC Rules for Improved Clarity and More Logical Arrangement. This Rules Revision project is listed under the Training Group since most of the suggestions for revision have come from that source. Mr. Joe Hersey is the project leader for this effort and progress to date can be viewed on his personal website, www.joecel/documents.htm. Additional input is welcomed addressed to Joe@joecel.com. Joe distributed a summary of proposed changes and encouraged those present to join the review scheduled for the afternoon session.

7. Reports and Issues, Recreational Vessel Group: David Kennedy moderated the discussion on Recreational Vessels with the following highlights:

a. New Coast Guard Smart Phone App Getting Good Reviews. The new Coast Guard App for Smart Phones was released on 16 May in recognition that about 65% of calls for assistance were originating from cell phones. The take up of smart phones by the public indicates that position information is available in about 80% of such calls. The Coast Guard R&D project, NG911, is also demonstrating that position information can be passed through modernized 911 Call Centers to the Coast Guard.

b. New BOATUS Foundation/U.S. Power Squadrons On-Line Course on VHF Communications. Time did not permit discussion of this new course but Task Force members are encouraged to review the synopsis on-line (www.boatus.org/marine-radio/) and encourage boat operators to take the course.

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. It is expected that RTCM Committee 112 on Radar standards will use the new standard along with NMEW 0183 and NMEA 2000. International Agencies are also expected to take up the new “One Net” standard..

b. NMEA has strong Interest in building a Master Website for U.S. Issued MMSI Numbers: As reported in paragraph 4.b. above, the NMEA is quite interested in developing a master on-line database of all U.S. issued MMSI Numbers. If funding for the project is approved

it could be operational as early as 2017. This would provide a source for MMSI numbers assigned by LBR agencies that are currently only available to Coast Guard personnel.

c. New Issue: Are Voyage Data Recorders (VDR) Vulnerable to Hacking? A question was raised at the meeting of reports that certain VDR equipment was vulnerable to hacking but very little information was available at the meeting. It was agreed to research the issue and report further at the next meeting.

9. Reports and Issues of the Commercial Vessel Task Group. Rich Beattie was unable to join the meeting by Conference Call due to business priorities but the following comments apply to the principal issues this group is pursuing:

a. Cybersecurity is becoming a Major Issue in the Maritime Community. The Commandant of the Coast Guard has promulgated his Cybersecurity Policy and the IMO has begun to address the issue. In the commercial sector, the RTCM, BIMCO and CIRM are developing plans for recommended action. The Task Force has added a new Cybersecurity item to its work program and will monitor developments to report to the membership.

b. Updating of Task Force Radio Carriage Proposals for Fishing and Towing Vessels. The Group is prepared to recommend updates to the earlier Task Force proposals on these vessel categories. The intent is to wait to see if the Coast Guard and the FCC accept the proposals for Small Passenger Vessels since any further recommendations would likely be similar to those proposed for small passenger vessels.

c. New Policy Letter from USCG Headquarters Summarizes VHF-DSC Radio Requirements for Inspected Passenger Vessels and Commercial Fishing Vessels: On 15 December 2015 the Coast Guard released CG-CVC Policy Letter 15-06 which is primarily addressed to the Coast Guard Inspection staff reminding them that the DSC waiver in place for VHF Radios had ended on 20 January 2016, the one year anniversary of the Coast Guard declaration of Sea Area A1 (with the exception of Alaska). Since the coastal Rescue 21 system has fully implemented the shore watch on VHF-DSC, the waiver is no longer appropriate except in Alaska and the allowed one year transition time has expired. Copies of the letter were distributed at the meeting and are available to members on request.

10. GMDSS Modernization. Bob Markle, Chairman of the International GMDSS Modernization Correspondence Group and Delegate to the Joint IMO/ITU Experts Group and the IMO NCSR Subcommittee provided the following report:

a. Progress at the Experts Group meeting 5-9 October 2015: The Experts Group conducted a comprehensive review of the Correspondence Group's report on the GMDSS Modernization's Detailed Review including a complete day on the Revised Chapter IV of the SOLAS Convention. The Expert Group's Report has been forwarded for consideration by the NCSR Subcommittee meeting February 29-4 March 2016 along with a new report from the Correspondence Group.

b. Expected Action at the NCSR-3 Subcommittee meeting 29 February - 4 March 2016: The NCSR Subcommittee is expected to attempt to finalize preliminary approval for changes to SOLAS Chapter IV so as to allow approximately one year before final approval of the Chapter IV changes by NCSR-4.

c. Expected Action at the NCSR-4 Subcommittee meeting in 2017: NCSR-4 will be expected to complete the final approval of changes to SOLAS Chapter IV for forwarding to the Maritime Safety Committee. If all this goes according to schedule, final changes could be approved by the IMO in 2018 to become effective in 2020. If any of these ‘gates’ are missed the process will be delayed for four years. Of special interest to many users is the Iridium application to be designated as an approved GMDSS provided of satellite services. A tight reading of the timetable suggests that this could be approved as early as 2019 but there are differences in opinion and the U.S. representatives will need to press for an ‘Unplanned Output’ to enable the best timetable.

11. The RTCM Report: RTCM President Bob Markle provided the following updates on the continuing work of the RTCM Special Committees:

a. RTCM SC-101 on GPS in VHF-DSC Handhelds. The Committee has completed an edition of its standard on GPS in VHF-DSC handhelds. Incorporation in the FCC regulations is awaited.

b. RTCM SC-104 on Differential Global Navigation Satellite Systems (GNSS). This Committee is working on incorporating new differential GNSS messages to accommodate new global and regional systems such as the Chinese BeiDou System (BDS) and the Japanese QZSS System into its standards that were originally developed for GPS. The committee met in Tampa in September 2015 and considered the Coast Guard’s notice regarding closure of some of the Nationwide Differential GPS system. RTCM subsequently filed comments in opposition to the closure of the stations, especially those that serve maritime navigation. The May 2015 meeting was in Xi’an, China, which emphasized the committee’s commitment to include all operating GNSS systems.

c. RTCM SC-109 on Electronic Charting Technology. The committee has completed and published a new version of the standard (RTCM 10900.6), including provisions for Voyage Data Recorder (VDR) functionality in Electronic Charting Systems.

d. RTCM SC-110 on Emergency Beacons. Current work is on beacons that will be optimized for the new Second Generation MEOSAR Satellite System. Existing beacons will also work with the new satellite system. A new standard is being developed to allow homing on both 121.5 MHz and AIS in the same EPIRB. A new PLB standard has been approved which includes integral GNSS. This is not expected to be a problem since virtually all PLBs on the market already include GNSS receivers. The Committee will meet again 8 and 9 February 2016.

e. RTCM SC-112 on Marine Radar Standards. This Committee is developing language for this and other standards to require the use of “NMEA Network” messages, worded in such a way that NMEA OneNet can be used when it is ready along with NMEA 2000 and

NMEA 0183. The Committee met again during the RTCM Assembly and a revised standard is expected to be out for vote soon.

f. RTCM SC-119 on Maritime Survivor Locating Devices (MSLD). This Committee amended the man overboard standard to accept either closed or open loop networks. The Committee voted approval prior to the 2015 RTCM Assembly and the amendment is now published. The group was advised that Australia has accepted the RTCM MSLD Standard.

g. RTCM SC-121 on Automatic Identification Systems (AIS) and Digital Messaging. This Committee has completed the standard that establishes the process for developing Application Specific Messages (ASM). The new standard is expected to be out for Committee vote soon.

h. RTCM SC-123 on Digital Small Messaging Services on Maritime Frequencies. In response to an RTCM petition, the FCC has proposed to adopt RTCM Standard 12301.1 for transmitting data on VHF channels. The Committee may expand its work to include data messaging on MF and HF channels as well as Encrypted AIS (EAIS).

i. RTCM SC-127 on E-Loran. This Committee is developing an eLoran standard in connection with the eLoran demonstration project that took place in the United Kingdom under the General Lighthouse Authorities. The RTCM and the GMDSS Task Force commented on the DOT Notice seeking comments on e-Loran as a back up for GPS that closed on 22 May 2015.

j. RTCM SC-128 on Satellite Emergency Notification Devices (SEND). This Committee was chartered at the request of the Coast Guard to develop performance standards for emergency notification systems using private satellite systems such as SPOT. The Committee has completed and approved a clarifying amendment to this standard. The FCC initially declined to include the revised standard in its Rules, but RTCM has asked for reconsideration.

k. RTCM SC-129 on Portrayal of Nav-Related Information on Shipboard Displays. This Committee has completed a first draft of the portrayal standard but the issues are very complex. Additional input will likely be required from SC-112. This Committee will meet at RTCM 11 February.

l. RTCM SC-130 on Electro-Optical Imaging Systems (EOIS). The work of this Committee deals primarily with night vision systems but the Committee work has been suspended pending industry resources to support it.

m. RTCM SC-131 on Multi System Shipborne Navigation Receivers. This new Special Committee has been approved by the RTCM Board to develop a standard incorporating space based and terrestrial navigation systems, and to possibly include inertial systems as well. The standard will include provisions for resistance to interference, spoofing, and jamming. In cooperation with IALA, RTCM has been developing an IMO performance standard and will begin work on an IEC technical standard. The Committee met during the 2015 RTCM Assembly.

n. RTCM SC-132 on Electronic Visual Distress Signaling Devices. This new Committee was chartered at the request of the Coast Guard to review devices that might be used to replace flares on vessels. In addition to safety factors, it has been reported that in 87% of reported flare sightings, no distressed vessel was found. The U.S. Coast Guard Research and Development Center has reported on the most effective light characteristics for this purpose. The draft standard is now out for vote.

o. RTCM SC-133 on Data Exchange for Navigation-Related Applications for Mobile Devices. This new Committee will meet at RTCM 11 February.

p. The Next RTCM Assembly will be held at the Duval Conference Center in Clearwater Beach, Florida 15-20 May 2016 and will include several Committee Meetings, The GMDSS Task Force Meeting and the NOAA Beacon Manufacturer's Workshop. See the RTCM Website www.rtc.org for more details.

12. Afternoon Session on Proposed Revisions of FCC Rules for Improved Clarity and More Logical Arrangement. As mentioned in paragraph 6.b. above, a special afternoon session was scheduled to work through remaining issues in the draft proposals. A summary of the more significant proposals being addressed was distributed in the morning session and is available to members on request. The afternoon session went smoothly under the leadership of Joe Hersey and the updated proposals are on his personal website at www.joecel/documents.htm. The next step is a final review by the Coast Guard after which it will be passed to the RTCM with the recommendation that they Petition the FCC for adoption of the changes. The Task Force has been serving as a working group with the invited participation of RTCM members. The RTCM is considered the preferred sponsor of the Petition in view of their long history of developing standards for incorporation into the FCC Rules.

13. Next Meeting of the GMDSS Task Force: The next Task Force meeting will be held on Thursday 19 May 2016 during the RTCM Annual Assembly at the Duval Conference Center in Clearwater Beach, Florida. The follow-on meeting will be held at the RTCM Headquarters in Arlington, Virginia on 21 July 2016.

GMDSS TASK FORCE CONTINUING WORK LIST

14 January 2016

1. Monitor FCC 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 Mfgs. 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 703-527-0484 or gmdss@comcast.net. If you have an Internet server with spam filters, please authorize receipt of messages from gmdss@comcast.net

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