

NATIONAL GMDSS TASK FORCE

Newsletter and Summary Record of 19 May 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 19 May 2016 in Clearwater Beach, Florida during the Annual Meeting of the at the Radio Technical Commission for Maritime Services (RTCM).
4. **Distribution of Information Papers:** The following Papers of interest were distributed:
 - a. **A Coast Guard Announcement Recalling certain EPIRBs manufactured by Kannad:** The EPIRBs affected are the models SAFELINK Manual + GPS and Auto GPS. Operators are urged to check their Kannad EPIRBs against an online serial number list to determine if it is one of the models affected: <http://www.safelinkepirbsupport.co.uk>.
 - b. **FCC Enforcement Advisory No. 2016-04 issued 9 May 2016 (DA 16-513) reminding Mariners of Marine Radio Rules concerning Maritime Mobile Service Identity (MMSI) Numbers used in DSC Radios and Automatic Identification Systems (AIS).** The Advisory cites the need for proper registration of the MMSI including supporting information needed for Search and Rescue cases. See the full notice at <https://www.fcc.gov/document/maritime-mobile-service-identity-reminder-public-notice>.
 - c. **Proposal for Area-wide non-Distress use of Worldwide Group Call Numbers in VHF and MF/HF DSC Radios.** This innovative system has been proposed for use by Terry Sparks, author of the User Guide series found at www.Made-Simplefor-Cruisers.com. Recreational Vessels (R/Vs) in remote areas are advised to alert other participating R/Vs in a mutual support network using the Digital Selective Calling (DSC) capability. The Proposal

includes Group Call IDs for each of the 21 Navareas. A copy of the proposal has been posted on the Task Force website.

d. Public Release by Sea Tow promoting the use of VHF Radio by R/V Operators. A good example of the support of boating safety principles by Task Force member companies.

e. Extract from February WORKBOAT Magazine promoting the use of VHF Handhelds with integral GPS. The Task Force is especially supportive of these new handhelds that are becoming more affordable and solve the problem of connecting GPS to fixed mount VHF/DSC radios. Further, especially for R/V operators, these waterproof handhelds will survive a capsize which disables fixed mount radios.

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

a. Review of IMO NCSR-3 Meeting in London March 2016: Bob Markle and others reported a disappointing outcome at that meeting in that procedural rules will delay full implementation of GMDSS modernization from 2020 until 2024. On the other hand, a later meeting of IMO's Maritime Safety Committee advanced the prospects for earlier adoption of Iridium as a GMDSS system by directing NCSR-4 to expedite completion of its review at their next meeting in 2017. The rest of the NCSR-3 agenda covered the usual items and those of significance to the Task Force are mentioned under other headings below.

b. Status of the Task Force Petition to Upgrade Radio Safety Equipment on Small Passenger Vessels. Russ Levin reported on this joint petition to both the Coast Guard and the FCC. Both agencies have conducted internal reviews and seem ready to proceed to regulatory action but the FCC will probably wait for the Coast Guard to declare their action before proceeding to rule-making.

The only issue in question is the Task Force's suggestion regarding 'six Packs', unregulated party boats that can take up to 6 persons on fishing trips. Since these boats are carrying passengers for hire, the Task Force reasoned that their passengers should be protected by requiring carriage of emergency beacons. No doubt many of these vessels carry emergency beacons voluntarily but the Task Force felt this should be a formal requirement. Since these vessels are unregulated with respect to radio systems, if the Coast Guard concurs, they would probably need to use their new authority to require beacons on R/Vs offshore.

c. The Task Force Petition to Require Emergency Beacons on Recreational Vessels Offshore. Jack Fuechsel reported that over 5 years ago, the Task Force recommended to the Coast Guard that they implement their new authority to require Emergency Beacons on recreational vessels going more than 3 miles offshore. That proposal was referred to the National Boating Safety Advisory Council (NBSAC), which strongly endorsed the proposal in November 2012 and recommended that it be implemented expeditiously. The Office of Boating Safety has been analyzing statistics for some time and seems ready to proceed with a limited regulatory authority for R/Vs with Emergency Beacons to be considered to have met the requirement for visual alerting by flares (which have had a mixed success and present problems of handling and

disposing of hazardous material). It is hoped that the Boating Safety Office will also go forward with a broader implementation of the proposal for Emergency Beacons on R/Vs offshore. The state of Florida has enacted a boat registration discount for R/Vs with emergency beacons.

d. Table of MMSI Problems and suggested solutions. At the January meeting, Joe Hersey had produced a Table outlining MMSI problems that were being experienced and were being discussed with the FCC. The FCC Enforcement Advisory issued 9 May is a first step toward correcting these deficiencies. There was extended discussion of problems such as the correct procedure to re-register radios and AIS units when a boat is sold and especially the actions to be taken by both the buyer and seller. No consensus was reached but the issue will be revisited at each subsequent Task Force meeting. An associated issue is the as yet unreleased new Memorandum of Understanding (MOU) between the FCC and the LBR Agents that issue MMSI Numbers to R/Vs that do not need an FCC License (so called Licensed By Rule or LBR).

At the January meeting it was also pointed out that Power Squadron and CG Auxiliary voluntary inspections could include MMSI compliance if added to their check lists. Another issue is the lack 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.

e. RTCM Petition to Update FCC Rules. Joe Hersey has been the lead on this project and reported that the FCC had acted promptly to put the Petition out for Public Comment. Task Force members made contributions to the RTCM Petition and look forward to working with a better organized and updated Part 80. The comment period closed on 31 May 2016.

f. E-Navigation, AIS & ECDIS Update. Jorge Arroyo provided updates with the following highlights:

1.) AIS Installations and current issues: The new AIS carriage regulations for non-SOLAAS vessels are now in force with about 12,000 new installations of the expected 17,000. There are still a number of problem areas with about 50% of units reporting zero length. The approximately 480 U.S. SOLAS vessels do not seem to be a problem. More Electronic Aids to Navigation (E-ATONS) have been deployed, especially in areas where visual Aids are hard to keep on station. There is also increasing government broadcast of Application Specific Messages (ASM) that are displayed on AIS receivers for safety purposes.

2.) ECDIS Rules and current issues: The latest version of the ECDIS NPRM is the 6th version. The recent NVIC Circular 01-16 was issued to clearly authorize use of ECDIS while sorting out other issues about required publications. ECDIS is a requirement for all U.S. vessels required to carry AIS and the ECDIS chart base must be kept current through updates.

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

a. FCC Enforcement Advisory on MMSI Management. This recent release makes a good start in trying to resolve the many discrepancies noted in MMSI Management and compliance. In some respects the new Advisory doesn't appear to go far enough in spelling out

the responsibilities of the buyer and seller when a boat with MMSI coded equipment changes ownership. It has been estimated that as many as 10,000 MMSIs have errors or inadequate registration data and that 3700 Class B AIS units are operating without an MMSI. See also items 5.b. above and 6.b. below.

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 is still being reviewed by the Coast Guard. The new Draft MOU is being coordinated with those assignment agents also known as Licensed By Rule (LBR) agents.

c. 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. The FCC has been granting waivers to non-SOLAS vessels to use satellite phone systems in lieu of MF-DSC provided they operate within the satellite coverage area, the satellite system is manned to respond 24x7 and an external antenna is used to assure connectivity.

d. Waiver Requests by non-SOLAS vessels to use Class D VHF/DSC Radios in lieu of Class A. Ghassan 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 have handled close to 1000 such waiver requests and plan to incorporate this change in the FCC Rules to avoid acting on numerous waiver requests.

7. Reports and Issues of the Training Task Group. Kurt Anderson's Training Group is proceeding with plans to review the Question Pools for GMDSS Operator exams and they welcome input by all GMDSS Training Personnel. Kurt has personally recommended many of the FCC Rules revisions contained in the RTCM Petition to the FCC mentioned above.

8. 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 developed 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. The 'LBR' Registration Agents are awaiting the new MOU that will govern their registration procedures. The registration agents are anxious to finalize the new MOU since it has a strong impact on their operations. Almost 200,000 of U.S. MMSIs have been assigned by

LBR agents and they need clarification beyond the guidance contained in the FCC Enforcement Advisory, see also items 6.a. and 6.b. above.

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.

c. Gordon Garrett's Review of Significant SAR Cases supporting the Task Force Recommendation for Emergency Beacons on R/Vs Offshore. Gordon's excellent presentation was made to the whole RTCM Assembly on the day before the Task Force meeting. See item 5.c. above for status of the Task Force recommendation.

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

a. NMEA "One Net" Standard nearly ready for release. Steve Spitzer reported that RTCM Committee 112 on Radar standards will use the new standard along with NMEA 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 5.d. 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. Potential Interference between Digital and Magnetron Radars. This issue originated with a report from Germany at the NCSR-2 IMO conference. It was agreed to investigate the potential for such interference through Coast Guard tests and referral to Radar Manufacturers but so far, no further information has been made available.

10. Reports and Issues of the Commercial Vessel Task Group. Rich Beattie moderated discussion of the following issues:

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 recommended guidelines. 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 fully accept the proposals for Small Passenger Vessels since any further recommendations would likely be similar to those proposed for small passenger vessels.

c. Modification of Vessel Inspection Check Lists to Include MMSI Compliance. In support of the broad effort to deal with MMSI problems, inspection check lists will be reviewed to include this item. SOLAS vessels are for the most part in compliance but more data is needed on the state of compliance on non-SOLAS commercial vessels subject to inspection. As noted in item 5.d. above, the most pressing need is compliance by R/Vs and adding MMSI compliance to the voluntary inspection check lists used by the Coast Guard Auxiliary and U.S. Power Squadrons will assist in this effort.

11. 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. Action at the NCSR-3 Subcommittee meeting 29 February - 4 March 2016: NCSR-3 was informed that as a result of the policy adopted by the Maritime Safety Committee (MSC), GMDSS Modernization could not be completed in time for adoption of SOLAS Chapter IV amendments in 2018 and coming into force on 1 January 2020. As a result, the new target date for completion of any proposed SOLAS amendments and related instruments under GMDSS Modernization is no later than 1 July 2021, to allow for adoption by 1 July 2022 and coming into force on 1 January 2024.

Despite the setback in modernization timetable, The MSC agreed to include in the agenda for NCSR 4, a priority output to "Review SOLAS chapters IV and appendix to accommodate additional mobile satellite systems", with a target completion year of 2017. This is good news for the Iridium application to become a recognized GMDSS service provider.

b. Expected Action at the IMO/ITU Group of Experts Meeting 11-15 July 2016: The GMDSS Modernization Correspondence Group expects to submit an interim report, containing the preliminary draft of the Modernization Plan of the GMDSS, to the Joint IMO/ITU Experts Group for its consideration; and taking into account the outcome of discussions at the meeting of the Joint IMO/ITU Experts Group, submit a report, including the document containing a preliminary draft of the Modernization Plan of the GMDSS, for consideration at 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 along with the Appendix to accommodate additional mobile satellite systems for forwarding to the Maritime Safety Committee. Pete Doherty of the National Geospatial Agency (NGA) pointed out that there were other actions associated with GMDSS Modernization that need to be considered. The new GMDSS arrangements must be approved by the International Hydrographic Organization (IHO) as well as the IMO and both the NAVTEX and SafetyNET Manuals for dissemination of Maritime Safety Information will need to be revised. Pete suggested that the Experts Group might make a start on this.

12. The RTCM Report: RTCM President Bob Markle provided the following updates on the continuing work of the RTCM Special Committees. This is Bob's final presentation as President of RTCM. He has retired from that position and has been replaced by the new

President, Kate Duffy. We are appreciative of the strong support Bob has provided to the Task Force over the years and wish him well in retirement. Bob will continue to head the International Correspondence Group on GMDSS Modernization under a separate contract with the Coast Guard.

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 2016 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. SC-109 met again during the 2016 RTCM Assembly.

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 met again during the 2016 RTCM Assembly..

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 2016 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. SC-127 met again during the 2016 RTCM Assembly.

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. SC-129 met again during the 2016 RTCM Assembly.

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 SC-131 met during the 2016 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. SC-133 met at RTCM 11 February and there was a presentation on their new standard during the 2016 RTCM Assembly.

13. Highlights of NOAA's Beacon Manufacturers Workshop: On Friday following the Task Force meeting the NOAA SARSAT Office hosted a day-long workshop, primarily for manufacturers of emergency beacons. By way of statistics there were 1.77 million beacons at the end of 2015. Of these maritime accounted for 57%, aviation for 34% and land Use 9%. In 2014 there were 685 alerts and 2354 persons were rescued. Overall, since initiation of the service there have been 11,070 SAR events with 39,566 persons rescued.

13. Next Meeting of the GMDSS Task Force: The next Task Force meeting will be held on Thursday 21 July 2016 at the RTCM Headquarters in Arlington, Virginia. The follow-on meeting will be held on Wednesday 21 September 2016 in Naples, Florida during the Annual Meeting of the National Marine Electronics Association (NMEA).