

NATIONAL GMDSS TASK FORCE

Newsletter and Summary Record of 30 January 2019 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.
- 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 over 5000 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 30 January 2019 at the RTCM Headquarters in Arlington, Virginia.
- 4. Distribution of Information Papers:** The following Papers of interest were distributed and are available to non-attendees on the website: <http://joecel.com/GMDSSTaskForce/>:
Message from Gordon West re VHF Watch on radios in Public Address Mode
Coast Guard ALCOAST 004/18 on Unmanned Aircraft Systems (UAS)
Coast Guard News Release on Launch of CubeSats to improve Alaska Coverage
Coast Guard Blog on “Ready for Rescue Challenge” Finalists
Coast Guard Marine Safety Alert 15/18 on Diver Safety
BoatUS News on Improving 911 System for Boaters
BoatUS News on New In-Water Training Courses for 2019
Email from Joe Hersey Noting FCC Withdrawal as Accounting Authority
Coast Guard Policy Letter of 21 Dec 2018 on Electronic Visual Distress Signals
Coast Guard 3 January 2019 Blog on 2018 EPIRB False Alerts
Marine Electronics Journal on LED Interference to VHF Systems by Joe Hersey
Inside GNSS Extract on ATIS Request that Government Act on GPS Vulnerability
AIS Problems in East China Sea by Laura Kovary
- 5. The Coast Guard Reports:** Several presentations previously scheduled for the meeting on 10 January had to be deferred until the May meeting because the presenters were not available on the 30 January rescheduled date. Russ Levin and others reported with the following highlights:

a. Report on IMO NCSR-6 meeting – Bob Markle summarized the meeting with the following highlights:

1). Revision of SOLAS Chapter IV is nearly complete and the Subcommittee reauthorized the Correspondence Group led by Bob Markle for another year.

2). Some clarifications were made on Marine Safety Information (MSI) noting that SAR information was separate from MSI but MSI was often used to pass SAR Alerts. SOLAS vessels were still required to participate in the Navtex service but were not required to carry Navtex Receivers if they had access to Navtex broadcast info through other sources. Because SafetyNET is an Inmarsat term, it was agreed that the Manual title would remain and that Iridium would submit an “Interim Iridium EGC Manual” for approval. The International SafetyNET Coordinating Panel is renamed the “IMO International Enhanced Group Call Coordinating Panel”.

3). There was discussion but no solution regarding the impact on MSI Service providers having to broadcast on multiple Satellite systems. It was further noted that the present requirement to monitor broadcasts end to end would need to be modified for the Iridium system.

4). A question was raised as to how the Duplication of Equipment concept for ships not carrying a GMDSS Maintainer might be applied to GMDSS with two satellite service providers. Would a ship carry two Inmarsat terminals or two Iridium terminals for duplication or would they be required to carry one of each? This issue has not been addressed.

5). The report of the IMO/ITU Experts Group which met in July 2018 was accepted and the group was reauthorized for another year. The Experts Group will meet in London 8-12 July 2019.

6). The NCSR Subcommittee workload has gotten so heavy that additional days were allotted for their recent meeting 16 to 25 January 2019. The 2020 meeting of NCSR-7 is scheduled for 15-24 January 2020.

b. MMSIs for Diver Radios not Associated with a specific vessel. Joe Hersey reported that this item was still pending a recommendation from the joint FCC/USCG forum. A further report will be sought at the next meeting.

c. RTCM Standard for Visual Distress Signaling Devices. Joe Hersey reported that Policy Letter 16702 of 21 December 2019 provides guidance for acceptance and certification of electronic Visual Distress Signal Devices (eVDSDs) and adopts the RTCM Standard 13200.0 of 21 June 2018. Manufacturers of Distress Signals should use the RTCM Standard for future eVDSD evaluations and independent laboratories interested in testing eVDSDs are provided guidance. Effective 21 December 2018, eVDSDs that have been accepted as meeting the referenced RTCM Standard may be carried to meet regulatory requirements for nighttime distress signals per 33 CFR 175.130. The FCC/USCG Forum will consider whether further guidance is needed in applying the new standard.

d. A Coast Guard News Release Reported the Launch of CubeSats to Improve Distress Coverage in the Arctic Region. The News Release indicated that the satellites would monitor 406 MHz distress beacons and augment Search and Rescue capability. A special ground station in Fairbanks is part of the evaluation.

e. RTCM SC-119 will Reopen its Man Overboard Devices Standard to Address IMO and ITU Positions: Joe Hersey raised this issue since IMO and ITU have prohibited DSC from being used as man overboard devices unless they also use an AIS capability. AIS MOB devices must have DSC because those organizations don't want AIS used as a Distress Alerting system. The RTCM Standard permits both Open Loop and Closed Loop DSC man overboard systems. SC-119 will meet in March to address and reconcile, the differences between the RTCM and ITU standards.

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

a. Mobile Satellite Requirement for '911 type' Guard in U.S. Waters. The FCC has been receiving numerous requests from regulated but non-SOLAS vessels for waivers of the GMDSS requirements for MF-DSC capability in view of the Coast Guard's termination of coastal MF watches. These waivers usually propose substitution of a non-GMDSS satellite system. These requests are routinely coordinated with the Coast Guard before approval is granted. Required satellite system capabilities include back up power, external antenna, 24-hour service and a '911 type' ability to locate the vessel and route vessel calls to a responsible call center. In addition, a key issue is how far off the U.S. coasts the service is reliable. The FCC/USCG Forum will consider whether any further action is needed.

b. 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 but since station WLO has now closed there may be no need to complete this action. The FCC/USCG Forum will consider this item.

c. FCC Second Further NPRM of 30 December 2016 Proposing that FCC No Longer Perform International Accounting Authority Role for U.S. The FCC has taken final action on this issue and will 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 re-commission 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). The FCC/USCG Forum will further consider whether to request Inmarsat assistance in notifying individual users.

7. Reports and Issues, Recreational Vessel Group: George Hallenbeck reported with the following highlights:

a. Modify Voluntary Inspection Check List to Invite Discussion on MMSI

Registration and Connection of GPS. Because 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 hopefully 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 registering with NOAA for an MMSI number and the need to connect GPS receivers to VHF radios.

b. The Task Force Petition to Require Emergency Beacons on Recreational Vessels Offshore. The Task Force proposal to require emergency beacons on R/Vs offshore has been neither approved nor rejected but is not expected to advance during the current administration in view of their deregulatory policy. Meanwhile, the Task Force continues to advocate voluntary carriage of some version of satellite emergency beacon by all vessels going more than 20 miles offshore and voluntary carriage of VHF radios with DSC and connected GPS for use within 20 miles of the coast.

c. New DHS/Coast Guard “Ready for Rescue Challenge Competition.” This new effort is to come up with an innovative solution of locating persons in distress on or in the water. The Coast Guard Research and Development Center is partnered with the Homeland Security Science and Technology Directorate to manage the competition. The handout provided announced the selection of five Phase I winners who each received a \$5000.00 prize and 16 Honorable Mention winners. In Phase II winners can pitch their solutions in a “Piranha Pool” to compete for \$120,000.00 in prizes to assist winners in developing a working prototype for Phase III testing alongside standard USCG approved safety equipment with a further \$110,000.00 in prizes.

d. Sea Tow Discontinuing Issue of MMSI Numbers. George reported that Sea Tow had elected to stop issuing MMSI Numbers and that the Power Squadrons would take over that block and manage its existing MMSI holders. There was a problem however, in that a number of duplicate MMSI assignments had been made and the USPS did not want to take responsibility for the Sea Tow assignments until the duplicate assignments had been resolved. It was determined that George would meet with Russ Levin and David Kennedy at BOATUS in the near future to resolve the problem.

e. BoatUS News Release on Improving 911 Service for Recreational Boaters. David Kennedy reported that the Coast Guard Authorization Act of 2018 contained a provision aimed at improving the 911 system response to recreational boaters needing emergency help. The Act requires the Coast Guard to review its policies and procedures to “formulate a national maritime Public Safety Answering Points (PSAP) policy.” There are more than 6000 PSAPS in the U.S. – local 24/7 call centers that receive and route 911 calls. The Congressional effort was advocated by the Conference of Professional Operators for Response Towing (C-PORT) and other boating safety activists.

f. BoatUS News Release on Availability of In-Water Training Courses. David Kennedy reported that the BoatUS Foundation was extending a successful 2018 pilot program to 40 locations in 2019 where the on-water training courses would be available. The program is

supported by numerous safe boating partners and the curriculum created by the National Safe Boating Council has been approved by the National Association of State Boating Law Administrators (NASBLA).

8. Reports and Issues of the Service Agents and Manufacturers Group: Jack Fuechsel reported with the following highlights:

a. LED Lighting Emissions Possibly Interfering with AIS/VHF. As lighting using LED technology is becoming more common in maritime applications, there is concern that it may be severely desensitizing shipboard VHF radios and AIS. The USCG issued a Safety Alert on this issue, BOATUS made a news release to its members and the Marine Electronics Journal published an excellent article by Joe Hersey. Russ Levin and Ghassan Khalek reported that they had seen a demonstration by Orca Green Marine that featured special non-interfering LEDs. That demonstration has been invited for the May Task Force meeting. This issue also needs to be addressed by manufacturers. NMEA indicated that their NMEA 2000 standards committee did include representatives from maritime LED manufacturers who may be available to provide assistance in developing an appropriate EMC standard.

b. Watch Continuity should be Maintained when VHF Radios are used in the Public Address Mode. This issue was raised by Gordon West in an email to Bob Markle (See Handout). The issue applies to compulsory fitted small passenger vessels with more than six passengers such as whale watching vessels some of which operate their VHF in a public address mode for the entire trip which renders the channel 16 guard inoperative. A survey of the various VHF manufacturers is needed to determine which radio models fail to guard channel 16 in the PA mode.

c. Testing during inspections should verify that DSC Radios transmit Position: Inspections have revealed 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 recently published Rec. ITU-R M493-15 reinstates position report request capability in all Class D, E and H (handheld) VHF DSC radios. ETSI Standard EN 300 338-4 applies to Class E radios. The Task Force will review whether any further action is needed.

d. Need to expand carriage requirements so that trainees can be trained on all equipment appropriate for Sea Areas A1, A2, A3 and A4. The Task Force will develop a Petition recommending special equipment requirements for Training Vessels to enable students to train on equipment they will find on ships operating in all areas.

e. Are Solid State Radars Incompatible with Racons and Radar SARTs? Joe Hersey reported that unless the radar's peak transmitter power is high enough to trigger the racon or radar SART, the radar will not be compatible with either device. IMO requires that X-Band radars carried on ships subject to the SOLAS Convention be compatible with both racons and radar SARTs. Solid state radars of sufficient peak pulse power can be compatible with racons and SARTs, but lower power (e.g. FMCW)radars will not be compatible. Note that RTCM's recently adopted RTCM standard 11201,0 for Marine Radar Equipment for Ships Not Required

to Comply with SOLAS Radar Carriage Requirements does not require compatibility with racons or radar SARTs

f. Potential Interference between Solid State and Magnetron Radars? Joe Hersey reported that ITS Boulder completed their simulation study of this problem and presented its results at RTCM 2018. The report of this study has not yet been published but when published will be available at no charge on the ITS Boulder website. The report did demonstrate the potential for interference, with the degree of interference dependent upon the type of modulation used, frequency separation, physical separation between the two radars and signal processing design. The Task Force agreed to take this item off the agenda pending further developments, but will announce when the report is publically available.

g. Master Website for MMSI Numbers: IMEA and NMEA are still quite interested in developing a master on-line database of all MMSI Numbers. The present USCG/FCC Memorandum of Agreement with MMSI providers requirement for privacy protection may limit what information can be shared in a central database or made publically available.

9. Reports and Issues of the Commercial Vessel Task Group. Rich Beattie moderated the discussion with the following highlights:

a. Modified Check Lists to Include Discussion of MMSI Policy and GPS

Connections 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 the intent to open a dialog on the need to register with NOAA for MMSI numbers and connect GPS to DSC Radios.

b. Developments in Cybersecurity. There were no new reports under this item. CIRM and BIMCO have active Cybersecurity programs and the American Bureau of Shipping (ABS) is moving into that area. The Coast Guard has promulgated outlines of Cybersecurity goals for various segments of the maritime industry, most recently addressing port facilities. The Task Force is awaiting development of a Cybersecurity game plan by the RTCM to see how we might best support that plan.

c. Coast Guard Policy Regarding Inspections by Third Party Organizations. It had been planned to invite a senior Coast Guard official to brief the Task Force on inspection policy issues but we were unable to schedule an appropriate briefer for the delayed meeting. This item will be carried forward to the May meeting.

10. Reports and Issues of the Training Task Group. Kurt Anderson reported with the following highlights:

a. GMDSS Question Pool Revisions: 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. There are presently 10 GMDSS instructors participating in the review, and COLEMs were also invited to participate. GMDSS Modernization is creating a need to revise

many of the questions but the slow implementation of the new services is delaying the formal adoption of new questions.

b. Whether COLEMs and Training Schools are Actually Following Coast Guard and FCC Guidance in Generating 100 questions Exams is Under Review. Kurt has raised issues that have not yet been fully addressed by the government sponsors. Russ Levin will contact the responsible parties at their National Maritime Center (NMC) and then meet with the FCC to resolve any pending issues and provide guidance to the Task Force Training Group.

c. Tightening Qualification Requirements to Ensure Competency of Holders of the GMDSS Maintainers License: The Task Force has long believed that holding a GMDSS Maintainers License was insufficient evidence of competency for persons conducting GMDSS inspections. Requiring the NMEA's CMET certification is an attractive solution, but there may be other alternatives that should be considered. Because neither the Coast Guard nor the FCC wants copies of the inspection reports, it is hard to determine the qualifications of the persons actually doing the inspections.

11. GMDSS Modernization. Bob Markle noted briefly that modernization was still an active project at the International Maritime Organization, but their procedures require a lot of time. It is helpful that Iridium has been accepted as a GMDSS satellite service provider and will hopefully be able to provide formal GMDSS services by 2020. The Chinese are asking that their satellite navigation system, BeiDou, which also has a communication component, be accepted as a GMDSS service provider, this will be referred to NCSR for evaluation that will probably be assigned to IMSO.

12. Review Summary Record of 27 September 2018 Meeting and Continuing Work List. The summary record is posted on the Task Force website and no corrections have been suggested. The Continuing Work Program is appended to each agenda and updated as needed.

13. Next Meeting of the GMDSS Task Force: The next regular Task Force meeting will be held at 9:30 am at the RTCM Headquarters in Arlington, Virginia on 16 May 2019. The follow-on meeting will be held in Portsmouth, Virginia during the Joint Annual Assemblies of the RTCM and the NMEA scheduled for 16-20 September 2019 at the Renaissance Hotel.

GMDSS TASK FORCE CONTINUING WORK LIST

30 January 2019

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 better FCC & USCG management of annual GMDSS inspections (CV)
24. Maintain Inspection Guidelines and Check Lists for selected vessel types (CV)
25. Advocate voluntary training programs for users of GMDSS systems (RV)
26. Encourage GMDSS handbooks and Internet and video training aids (RV)
27. Encourage users of VHF-DSC to Register for MMSI and connect GPS (RV)
28. Advocate FCC let R/Vs retain existing MMSI when applying for Station Lic. (RV)
29. Encourage Mfgrs. to upgrade GMDSS explanations in equipment manuals (SA)
30. Recommend proper interconnection of GPS receivers with DSC Radios (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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