

NATIONAL GMDSS TASK FORCE

Newsletter and Summary Record of 19 September 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 19 September 2019 at the Renaissance Hotel in Portsmouth, Virginia during the Joint Annual Meetings of the NMEA and the RTCM

4. **Distribution of Information Papers:** The following Papers of interest were distributed and are available to all on the website: <https://www.joecel.com/GMDSSTaskForce>

Coast Guard Marine Safety Bulletin 04-19 on Cyber Adversaries Targeting Ships
Coast Guard Marine Safety Alert 06-19 on Cyber Incident on Commercial Vessel
Coast Guard Maritime Commons New Web Address: [www://mariners.coastguard.blog/](http://www.mariners.coastguard.blog/)
Coast Guard Maritime Commons 14 June – FCC Enforcement Advisory on AIS Devices
Maritime Executive Extract of 14 June – VDES Upgrade to AIS
NOAA/NWS High Seas Forecasts
Coast Guard Proposal to Terminate Navtex Broadcasts and Shift to Satellite
Draft Comments to Coast Guard on NAVTEX Federal Register Notice
Coast Guard CY2018 Recreational Boating Safety Statistics

5. **Task Force Comment on Coast Guard Proposal to Terminate NAVTEX Broadcasting and Shift Coastal MSI to IMO Approved Satellite Systems.** The Task Force approved the draft comments subject to final editing by the working group during a planned conference call on 8 October to make final edits. Email edits from Joe Hersey and Chris Hoffman were incorporated in the draft and three additional members were added to the working

group. The RTCM has also decided to comment and the Task Force working group that includes several RTCM Board members will do preliminary work on the RTCM Comment.

6. **Listening Session with Local Coast Guard Communications and Search and Rescue Personnel on Issues which Impede Effective Rescue Operations.** The Task Force was pleased to have a good turnout from local Coast Guard personnel including the District and Area RCCs, Boating Safety staff, and the Search and Rescue School representatives. Their primary concerns included the following:

a. **Unregistered VHF Radios and Radios with fake MMSI Numbers.** Registration is mandatory for SOLAS vessels and required for all vessels by FCC Rules. Failure to assure current registration delays SAR response, clearly a hazard to boaters in distress. Voluntary inspections by Coast Guard Auxiliary and others need to emphasize the importance of proper registration.

b. **EPIRBs, PLBs and Radios Registered to a Prior Owner.** Since RCCs routinely seek to verify distress calls before launching response assets, the resulting delay is clearly a hazard to boaters in distress. EPIRBs and Personal Locator Beacons (PLB) are registered with NOAA which does a good job of following up with registered owners every two years but responses from owners who no longer own the beacon are disappointing. A recent change to FCC procedures permits a new owner of a VHF radio to re-register the radio with the same MMSI number if it was issued by an Assignment Agent such as Boat US or the CG Auxiliary. Here again, explanation by a voluntary inspector can be helpful.

c. **VHF Radios Without a Connected GPS Receiver.** It is admittedly difficult to connect an external GPS receiver to a VHF radio, and non-technical owners should have this done by a service agent. Connection of a GPS Receiver to the radio is mandatory for SOLAS ships and highly recommended for voluntary users since searches can go on for hours without a good starting position. A good solution for recreational vessels is a handheld VHF radio with integral GPS since they are becoming more affordable and will survive a capsizing whereas a fixed mount VHF is lost if the boat capsizes. This is another great opportunity for voluntary inspectors to make a contribution.

d. **Smart Phone Alerts Via '911' Operator often lose the Position.** The Coast Guard R&D Center has been working to overcome this problem. There is an approved upgrade to the 911 networks that overcomes the problem but has not yet been implemented in many coastal 911 networks. The best solution if the position is lost in transferring the alert is to call back and attempt to get the position directly from the boat. The Task Force will attempt to get more information on which coastal 911 networks have been upgraded and attempt to expedite the process.

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

a. **Report of 15th IMO/ITU Experts Group Meeting July.** The experts group advanced the preparation for GMDSS Modernization by addressing many of the issues associated with

Iridium having been accepted as an additional GMDSS satellite system. The group also took note of LED lighting's potential for interfering with VHF communications and welcomed the U.S. initiative to create a check list to minimize LED interference.

b. R&D Project to Improve Distress Response to Cell Phone Alerts. Lee Luft of the Coast Guard R&D Center briefed the Task Force on past efforts to provide direction finding on cell phone transmissions that had generally been unsuccessful due to privacy concerns. New work is aimed at enhancing 911 Call Centers capability to keep position data associated with the call for help as it is being passed to the Coast Guard for action.

c. Report on MMSI's for Diver Radios – Joe Hersey reported that discussions at the joint FCC/USCG meeting revealed that the FCC has not yet agreed that MMSI assignment agents have the legal authority to grant MMSI's to radios used by divers but not associated with a specific boat. A number of solutions have been advanced and the Coast Guard and the FCC will continue to study the situation and attempt to select a workable solution.

d. Use of Four Digit Channel Numbers on VHF Marine Radios – Joe Hersey reported that some manufacturers had recently begun to include at least as an option, four-digit channel numbering as decided by the ITU. These four-digit channels are displayed on the NAVCEN website and could help eliminate confusion in the U.S. caused by Duplex Channels being used as Simplex channels because the other halves of the duplex channels were allocated to land mobile uses by the FCC. Now that radios capable of displaying four-digit channels are beginning to become available, the Task Force will continue to monitor developments and consider means to keep the public advised. Even as other channels move to four-digit identities, channels 13 and 16 will continue as two-digit identities.

e. Enabling Aircraft to Contact Merchant Ships in Emergency – Jim Stabile of Aeronautical Data Systems (ADS) outlined a new system he developed that uses marine VHF-DSC handheld radios on Aircraft to alert merchant ships that an aircraft in distress is approaching the ship's position and may need to ditch alongside. This presentation was made to the Task Force in May and was presented to the RTCM earlier this week. Merchant ship locations are made available to the aircraft from a near real time database of AIS derived positions. Aircraft in distress can legally use any means of communications available but to create an approved system for pre-positioning equipment on aircraft is more complicated, for instance how to assign an MMSI number for use in emergency. The presentation had been refined and incorporated features suggest at the earlier Task Force meeting.

f. Update on LED Lighting and Interference to VHF Radios – Joe Hersey reported on this problem that had also been discussed by the IMO/ITU Experts. Subsequent to the May Task Force meeting, the RTCM Board of Directors authorized a new Special Committee chaired by Joe Hersey to address the issue and recommend standards.

g. IMO's MSC Session 101 will Revise Resolution A.1001 in Light of Iridium Acceptance – Joe Hersey noted that revisions were found to be needed due to shortcomings discovered during the review of the Iridium system. The Resolution sets the conditions for acceptance of new providers of satellite service in the GMDSS. The Iridium System has been

provisionally accepted and IMO MSC 101 has taken the revision of the Resolution as a work item.

h. Iridium Introduces New SafetyCast Service to distribute Maritime Safety Information (MSI). MSC 101 approved the draft SafetyCAST Manual proposed by Iridium as part of its readiness to offer full GMDSS service. Equipment development is also moving ahead with new Iridium Ship Earth Stations ready for GMDSS certification. It is believed that it will be necessary to obtain a new GMDSS certified Iridium terminal to be able to copy the SafetyCAST MSI broadcasts and that existing non-GMDSS Iridium terminals lack this capability.

i. ITU will consider New AMRD Devices – New devices such as AIS and mobile Aids to Navigation devices will be considered as part of the Autonomous Maritime Radio Devices (AMRD). It was reported that ITU WARC-19 will address the matter of Fish Net Marker Buoys.

j. Update on Visual Distress Systems to Replace Flares. An earlier presentation at RTCM by Anthony Cavelli of Sirius Signals summarized by Marty Jackson for the Task Force, demonstrated a visual distress device for nighttime use consisting of a bright handheld, two color, electronic flashing light. The two colors were chosen for maximum visibility and while the device has potential for being accepted for daytime use, that has yet to be certified. The motivation was to provide a regulatory alternative to flares that are more dangerous to handle and have a spotty record of effectiveness.

k. RTCM SC-119 and IEC TC-80 to Review Man Overboard Devices. These organizations will review the standards to determine whether such devices using AIS need to also use DSC?

l. Availability of Coast Guard HF Communications Stations for HF Test Calls. This item originated from a complaint by a GMDSS Inspector that it was difficult to get the Coast Guard Communications Stations to answer test calls on 4207.5 KHz. There have been instances when this supposedly automatic system has been down for maintenance, etc but there has not been a readily available way for the inspectors to reach the Communication Station Operator to resolve the issue. It has been recommended that an email address and an 800 phone number for each network of stations be posted on the NAVCEN website for this purpose. Note that the Coast Guard Communications Command in the Atlantic Area has assumed responsibility for all stations including Boston, Portsmouth VA, New Orleans, Pt. Reyes CA, Kodiak and Hawaii. The 24x7 contact info for the Communications Watch Officer is: phone 1-757-421-6240, email: com-dg-m-cwowatchstanders@uscg.mil and Communications Command website: <https://www.atlanticarea.uscg.mil/Our-Organization/Area-Units/Communications-Command/Contact/>

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

a. MMSI's not Registered with ITU MARS for all R/Vs Going Foreign: This issue has been known for some time but is currently being addressed to see if there is some way to screen the FCC database to determine those earlier MMSIs that still should be notified to ITU.

b. 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.

c. RTCM Petition for Extensive Update to FCC Rules, Part 80: There has been no new action on this long pending issue but an extensive update to the Aeronautical Rules was recently published that raises hope that the Maritime Rules Update will soon follow.

9. 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. This issue has been on hold pending completion of updates to a series of mandatory GMDSS Checklists that has now been completed. A new checklist was added for AIS. It is likely that the list of items to discuss with boat operators may need to be expanded to include more items such as those discussed in paragraph 6 above.

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. Coast Guard Boating Safety Statistics for 2018. The Coast Guard Office of Boating Safety recently published a summary of safety statistics for 2018 with the following highlights. There were 4145 accidents with 633 deaths (a 3.6% decrease), 2511 injuries and property damage of \$46,000,000. 84% of the fatalities were NOT wearing life jackets. 80% of the drownings were from R/Vs under 21 feet. The states registered 11,852,969 R/Vs in 2018, down slightly from 2017.

d. Sea Tow Discontinuing Issue of MMSI Numbers. George Hallenbeck 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 but so far that meeting has not been held.

10. Reports and Issues of the Service Agents and Manufacturers Group: Hugh Lupo reported with the following highlights:

a. Watch Continuity should be Maintained when VHF Radios are used in the Public Address Mode. 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 that renders the channel 16 guard inoperative. A survey of the various VHF manufacturers is still needed to determine which radio models fail to guard channel 16 when the radio is in the PA mode.

b. 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 was prohibited by Rec. ITU-R M. 493-14 in class D, E, and H (handheld) radios. ITU-R M 493-15 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.

c. 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 may find on ships operating in all areas.

d. Are Solid State Radars Incompatible with Racons and Radar SARTs? This item is a copy of the report from the January 2019 report and is retained while the Task Force determines whether further action is needed: 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

e. NMEA Extensive Exhibits Enjoyed by Attendees Along with Manufacturer Demo Boats, Coast Guard Small Rescue Boats and the New 154 foot Fast Response Cutter. The Task Force is appreciative that this waterfront location enabled multiple afloat demonstrations.

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

a. Revised Radio Inspection Checklists for GMDSS; Small Passenger Vessels; Bridge to Bridge; Great Lakes Vessels; and a New Checklist for AIS Inspections: This project has been underway for some time by email and the final editing was done in a special afternoon session following the morning Task Force meeting in May. We can now report that the final versions of the checklists have been posted at: <https://www.fcc.gov/eb-ship-inspection-checklists>. The USCG has posted the AIS Check List at: [https://www.navcen.uscg.gov/pdf/AIS/USCG AIS Inspection Checklist19 10 01.pdf](https://www.navcen.uscg.gov/pdf/AIS/USCG_AIS_Inspection_Checklist19_10_01.pdf),

b. Modified Voluntary 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.

c. Developments in Cybersecurity. There were no new reports under this item. 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. The RTCM Annual Assembly included a Cybersecurity Session followed by a workshop.

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

a. GMDSS Question Pool Revisions: The Training Group is making good progress with the updated Question Pool and Kurt expected to complete the draft shortly after the meeting. In fact, the finished product was delivered to the FCC early in October.

b. Whether COLEMs and Training Schools are Actually Following Coast Guard and FCC Guidance in Generating 100 questions Exams is Under Review. This item is copied from the January 2019 report pending government guidance: Kurt has raised issues that have not yet been fully addressed by the government sponsors. Russ Levin will contact the responsible parties at the 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.

13. GMDSS Modernization. Bob Markle noted briefly that modernization was still an active project at the International Maritime Organization. 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 1 January 2020. Among issues yet to be resolved is a new draft of SOLAS Chapter

IV. 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.

14. Highlights of the NOAA Beacon Manufacturers Workshop. A few highlights from the Beacon Manufacturer's Workshop held on Friday 20 September. This is an open forum hosted by the National Oceanic and Atmospheric Agency (NOAA) and there is no registration fee. The Cospas-Sarsat report cited 2185 people saved in 2018 and 48,738 overall since commencing service. The transition to MEO satellites is going well with 60 MEOs expected in the constellation by 2021 and 80 by 2030. The IMO has recently changed EPIRB specifications to enable use of AIS for homing with a reduced percentage of service time for the 121.5 MHz homing signal to conserve battery power. The ICAO is also advocating that aircraft in distress activate ELTs while still airborne to enable tracking and give a better position to commence the search.

15. Review Summary Record of 16 May 2019 and Continuing Work List. The summary record of this meeting 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. The Task Force will review the Continuing Work List in a special afternoon session after the next regular Task Force meeting and consider needed updates to the website.

16. Next Meetings of the GMDSS Task Force: The next regular Task Force meeting will be held at 9:30 am on 9 January 2020 at the RTCM Headquarters in Arlington, Virginia. This meeting will include an afternoon workshop session to review the Continuing Work List and the website. The follow-on meeting will be at the RTCM Headquarters in Arlington, Virginia on Thursday 14 May (suggested). The next meeting is scheduled for 24 September during the Joint NMEA/RTCM Annual meetings in Orlando, Florida at the DoubleTree Universal Resort 21-25 September 2020. NOAA's Beacon Manufacturers Workshop Friday 25 September 2019.

GMDSS TASK FORCE CONTINUING WORK LIST

19 September 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 Mfgs. 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:

and:

- gmdsstf@gmail.com
- Chairman_GMDSS_Task_Force@mail.vresp.com

File: TFSR-97.doc