

## NATIONAL GMDSS TASK FORCE

### Newsletter and Summary Record of 9 October 2014 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 makes recommendations to government authorities to improve safety at sea.

2. **Task Force membership.** Membership is open to individuals associated with commercial vessel operations, recreational vessel interests, training institutions, service agents, manufacturers, and government authorities. Membership is open to 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](mailto:gmdss@comcast.net). Members who are unable to attend Task Force meetings are invited to participate by email.

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](http://www.navcen.uscg.gov/?pageName=MaritimeTelecomms) (click GMDSS, then GMDSS Task Force). The summary record is also distributed to all Task Force members to serve as a Newsletter summarizing GMDSS developments and other issues in marine telecommunications. The GMDSS Task Force met on 9 October 2014 at the Sanibel Harbor Resort in Fort Myers, Florida during the Annual Meeting of the National Marine Electronics Association (NMEA). The documents listed below were distributed and are available on request:

Inspection and Check List for Class A AIS on mandatory vessels  
Inspection and Check List for Bridge to Bridge Radio Inspections (Draft)  
Coast Guard Statement on Planned Declaration of Sea Area A1  
A Guide to Boating Electronics and Installations (NMEA)

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

a. **The Coast Guard Statement on Planned Declaration of Sea Area A1.** Russ Levin introduced the statement that is expected to be published in the Federal Register in the near future. Sea Area A1 is declared when coastal regions are covered by a continuous shore watch on the VHF-DSC distress and calling channel 156.525 MHz. Declaring Sea Area A1 operational has the effect of eliminating DSC waivers for vessels otherwise required to carry VHF-DSC within one year of the date of the declaration. The Coast Guard intends to declare A1 along the Atlantic, Gulf and Pacific coasts and the islands of Puerto Rico, the U.S. Virgin Islands, Hawaii, Guam, and the Northern Mariana Islands of Saipan, Tinian, and Rota. A1 will not be declared in Alaska at this time. While GMDSS Rules do not technically apply to the Great Lakes, the U.S. Rescue 21 stations in the Great Lakes also maintain continuous VHF-DSC watch

**b. Developments in E-Navigation and AIS/ECDIS Regulations.** Joe Ryan reported with the following highlights:

**1.) NOAD and (AIS) Phase 2 Rulemaking:** The Coast Guard "Vessel Requirements for Notices of Arrival and Departure (NOAD) and Automatic Identification System (AIS) (USCG-2005-21869)" Final Rule regarding expansion of NOAD and AIS carriage requirements (to all navigable waters) is currently under E.O. 12886 Regulatory Review at the Office of Information and Regulatory Affairs (OIRA). This is the final review hurdle prior to its publication, so it is still hoped that this rule can be published prior to its current December 2014 forecast, but there has been no action on this issue since the last report.

**2.) Developments in the U.S. Nation-wide AIS Network (NAIS):** AIS virtual targets are now being deployed on bridges and locks in selected areas. There is extensive AIS testing being conducted in Pittsburgh, San Francisco and Tampa. As more and more Aids to Navigation are augmented with AIS, there is concern over running out of the Maritime Mobile Service Identity (MMSI) numbers used to identify VHF radio and AIS installations. Work is underway in the navigation community to resolve conflicts between IMO and RTCM ASM formats used in Radar, ECDIS and ECS standards.

**c.) Developments in Rescue 21 Coastal VHF-DSC Network:** Tim Strickland reported that Rescue 21 would start upgrading its VHF Direction Finding equipment in the next few years. He also noted that while Coast Guard fixed wing aircraft carry AIS as a locating tool for search and rescue, the helicopters were not so equipped and this might be an issue the Task Force might wish to study. In the course of Rescue 21 discussion, Joe Ryan noted the considerable improvements to the limited Rescue 21 network in Alaska that could be achieved if it could extend its coverage through the already extensive AIS monitoring network operated by the Marine Exchange of Alaska (MXAK).

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

**a. Comments on Docket 14-36, NPRM on changes to Part 80:** The FCC has reviewed the comments received and plans to make adjustments to the Rules on the following issues:

- 1.) Use of hand held VHF radios ashore within 3 miles of the vessel
- 2.) Recognize the AIS SART.
- 3.) Enable Digital messaging on voice channels.
- 4.) Selected changes to part 80 relating to license transfer.
- 5.) Update Rules to recognize new specifications for SEND devices
- 6.) Clarify rules on radar
- 7.) Require EPIRBs to be able to send position data when activated.
- 8.) Update Rules to recognize new specifications for MSLD devices

**b. Management of MMSI Numbers:** As noted before, MMSIs for SOLAS vessels seem to be managed with only minor problems. Non-SOLAS vessels and recreational vessels present more of a problem. The FCC and the Coast Guard have entered into Memoranda Of

Understandings (MOU)s with several private sector agencies to issue MMSIs to vessels not requiring a Station License. These agencies are obliged to maintain their block of numbers and query the holders periodically to verify that the assignments are still in use. This is being done but has become somewhat of a burden for the issuing agencies. We have also had reports that the Coast Guard often calls these agencies to obtain registration data since there seems to be no central database that contains all of the U.S. MMSI numbers. The Task Force plans to explore this issue in more detail at the January meeting.

**c. Action on the Task Force Petition regarding Small Passenger Vessels.** Neither the Coast Guard nor the FCC has reported planning with respect to the Petition but the Coast Guard acknowledged receipt and 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 within 30 days. This period expired on 17 August, but there was no report on the substance of comments received. The discussion produced a clarification of the proposed conditions under which the FCC might grant a waiver to use a non-Inmarsat satellite system. It was suggested that in addition to the criteria proposed in the Task Force Petition, the vessel should have an external antenna and a docking station to keep the satellite phone charged.

**6. Reports and Issues of the Service Agents and Manufacturers Group:** Ralph Sponar moderated the discussion that covered the following issues:

**a. Standardized Inspection Checklists.** The Group has worked with the Coast Guard, the FCC, and Classification Society inspectors to update checklists for mandatory inspections of selected vessel types. At this point all of the checklists have been completed and posted on the NMEA website. Once the FCC has accepted the additional checklists and posted them, they will be linked to the Task Force website.

**b. Continuing Issue – Should “3 Strikes Rule” be Rescinded?** It is now clear that almost everyone agrees that the rule limiting to three the number of ‘tries’ to enter MMSI numbers in VHF-DSC radios is proving counter productive. Discussion at an earlier meeting suggested that a manufacturer furnished passcode that could be furnished to dealers and service agents would be a more convenient arrangement. The Coast Guard and FCC discussed the issue and had no objection to removing the “three strikes” rule. It appears that input papers proposed for ITU Working Party 5B, if accepted, may give us more flexibility to work around the “3 strikes” limitation. Russ Levin has been working with manufacturers to come up with a plan to make it easier for their customers to enter a new MMSI, hopefully without having to return the equipment to the Dealer or Manufacturer.

**c. Task Force Members Conducted Training for NMEA Technicians.** During the NMEA Conference, several Task Force members conducted training classes in EPIRBs, Voyage Data Recorders (VDR), Ship Security Alert Systems (SSAS) and Long Range Identification and Tracking (LRIT) system maintenance.

**d. Inadvisability of Using Antenna Splitters on Installations.** At the August meeting there was extended discussion of the problems with using antenna splitters on VHF radios and

AIS Transmitters. At the October meeting it was confirmed that the NMEA does not recommend use of antenna splitters and does not use them in any of its installation standards.

**7. Reports and Issues, Recreational Vessel Group:** George Hallenbeck of the U.S. Power Squadrons (USPS) reported for the Group. The USPS requested 50 copies of the NMEA Guide To Boating Electronics and Installations for distribution within the USPS. The USPS is reviewing their participation as an MMSI Assignment Agency and will have a status report at the next meeting along with a summary of problems encountered. The USPS is developing a virtual boating safety training program.

**a. The Case for Emergency Beacons for R/Vs Offshore.** There was no further information on the status of the Task Force recommendation that the Coast Guard implement its new Congressional Authorization to require “emergency beacons” on recreational vessels more than 3 miles offshore. The recommendation has been endorsed by the National Boating Safety Advisory Council (NBSAC) which also suggested that a broad interpretation of “emergency beacons” could include several devices in addition to EPIRBs such as PLBs, SPOT, Inreach, and for vessels remaining within 20 miles of the coast, a VHF-DSC with integral or connected satellite positioning service (GNSS).

At the previous meeting we were advised that NBSAC had been given a grant to promote safety features on recreational vessels. The safety features included in the scope of the grant include promoting the wearing of life jackets, restraining consumption of alcoholic beverages on board, promoting the value of taking boating safety courses, and promoting the use of Emergency Beacons on boats offshore. The Task Force has offered to assist the NBSAC effort, especially with respect to the Emergency Beacons. If it’s within the scope of their grant, we will also seek their help in promoting the benefits of VHF-DSC radios including proper registration and connection to a GPS navigation receiver.

**8. Reports and Issues, Commercial Vessel Task Group.** There was no report from this group, but one of the pending issues is the need for further changes to Carriage Requirements for Other Mandatory Non-SOLAS Vessels as a Result of the Coast Guard Discontinuing 2 MHz Watches Ashore. The Task Force will be upgrading its earlier recommendations regarding Fishing Vessels, Towing Vessels and other mandatory commercial vessels needing to go farther than 20 miles offshore. The main upgrades recommended will be patterned after those in the Petition for Small Passenger Vessels and in most cases will probably be to eliminate any watches on 2 MHz channels and require alternative watch on HF or satellite systems.

**9. Reports and Issues: Training Task Group.** There have been no new developments on training issues recently, but there was some discussion on one of the continuing issues “**Should the U.S. Have a Certified Path to Qualification as a GMDSS Maintainer?**” It was noted in the discussion that there is no requirement for experience to receive certification. One of the candidate qualifications the Task Force has been considering is the NMEA CMET qualification that requires experience, a General Radio Operators License (GROL) License and RADAR certification. It was also noted that no course leading to certification as a GMDSS Maintainer

was currently being offered in the U.S. and that few locations in the US have equipment available for hands on experience.

**10. Report of the IMO/ITU Joint Experts Group Meeting in London 6-10 October 2014:**

During the week of the Task Force meeting, several Task Force members were in London attending the Experts Group meeting intended to harmonize issues of interest to both organizations. The Group reviewed the outcome of IMO's Navigation, Communication and Search and Rescue Subcommittee (NCSR) and its parent Maritime Safety Committee (MSC) that relies on support by the ITU. The Experts also reviewed the outcomes of ITU's various Working Parties that develop technical rules to implement the operational requirements established by the IMO.

The major Experts Group tasking of interest to the Task Force was a detailed review of plans for GMDSS Modernization. This included a review of the work of NCSR 1 that left some questions unresolved and review of the proposals made by the Modernization Correspondence Group including a draft preliminary text of SOLAS Chapter IV. The Correspondence Group was asked to take these discussions into account and make a further report to NCSR 2 by 19 December 2014. The Report of the Joint IMO/ITU Experts Group will be provided to interested parties on request.

**11. The RTCM Report:** RTCM Director Joe Ryan provided the following updates on the continuing work of the RTCM Special Committees. The following are highlights:

**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. Prompt approval by the FCC is expected.

**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 group met in Tampa in September and considered promulgation of differential corrections by AIS broadcast and Internet web sites.

**c. RTCM SC-109 on Electronic Charting Technology.** The Committee is working on a new version of the standard and plans to include provisions for Voyage Data Recorder (VDR) functionality in Electronic Charting Systems. The Committee is expected to circulate the latest version for approval shortly.

**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 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.

**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 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 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 taking place in the United Kingdom under the General Lighthouse Authorities.

**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.

**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.

**n. RTCM SC-132 on Visual Emergency 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. The U.S. Coast Guard Research and Development Center is studying the most effective light characteristics for this purpose.

**12. Next Meeting of the GMDSS Task Force:** The next Task Force meeting will be held at the RTCM Headquarters in Arlington, Virginia at 9:30 am on Thursday 8 January 2015.

## **GMDSS TASK FORCE CONTINUING WORK LIST**

9 October 2014

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. Review GMDSS concepts and make modernization recommendations (MOD)
17. Advocate intership calling on HF GMDSS channels (CV)
18. Recommend Safety Radio and VMS Requirements for Small Fishing Vessels (CV)
19. Recommend Safety Radio & Navigation Requirements for Towing Vessels (CV)
20. Recommend Safety Radio & Nav. Outfit for Small Passenger Vessels (CV)
21. Advocate applications for new MF/HF Digital Communications Service (CV)
22. Advocate voluntary training programs for users of GMDSS systems (RV)
23. Encourage GMDSS handbooks and Internet and video training aids (RV)
24. Encourage users of VHF-DSC to Register for MMSI and connect GPS (RV)
25. Advocate FCC let R/Vs retain existing MMSI when applying for Station Lic. (RV)
26. Recommend through NASBLA that State's boat Registrations include MMSIs (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](mailto:gmdss@comcast.net). If you have an Internet server with spam filters, please authorize receipt of messages from [gmdss@comcast.net](mailto:gmdss@comcast.net)**

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