

NATIONAL GMDSS IMPLEMENTATION TASK FORCE

Newsletter and Summary Record of May 7, 2009 Meeting

The Summary Record. This summary record is provided for information and will be posted on the Task Force portion of the Coast Guard web site at www.navcen.uscg.gov/marcomms/ (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 7 May 2009 in St Pete Beach, Florida at the Tradewinds Hotel during the RTCM Annual Assembly. The documents listed below were distributed and are available on request:

Task Force comment on USCG Notice of Proposed Rulemaking on AIS & NAIS
FCC Order DA-09-612 Denying Task Force Petition on MMSI Management
FCC Order extending Operator Licenses for Life of the Holder
Draft Petition to the FCC to Authorize Use of VHF Handhelds ashore
Updated Gilbert Paper for COMSAR 14 on GMDSS Modernization
Revised Draft Task Force Issue Paper on MMSI Policy

1. **Summary Record of 8 January 2009 Meeting:** The Summary Record of the 8 January, 2009 meeting which had been distributed earlier, was noted.
2. **GMDSS Modernization Initiative:** RADM Ed Gilbert distributed the latest version of a paper he had prepared for Comsar 14 assuming the U.S. has been successful in their efforts to establish a new agenda item to keep the GMDSS under continuing review for better technology. In view of the presence of several members from foreign countries, RADM Gilbert invited several of them to make introductory statements. The following are highlights of their remarks and other comments:

a. Mr. Peter Blackhurst of the UK noted that his country was a co-sponsor of the paper submitted to IMO's Maritime Safety Committee (MSC) in an effort to get GMDSS Modernization on the agenda for the Communications Search & Rescue Sub Committee's (COMSAR) next session in March 2010. The paper requests two scoping sessions for COMSAR to identify systems which can have an outcome rather than specific hardware solutions. Subsequent to the Task Force meeting, the MSC agreed to the proposal and tasked the Comsar Subcommittee to conduct the review as proposed. Mr Blackhurst noted that countries needed to follow up by providing input papers to COMSAR 14. He pointed out that a significant GMDSS deficiency identified by the Paris Port State Group was operator confidence, especially with respect to systems seldom used. He also stressed the lengthy time table for adopting changes which must include any cooperative changes by the International Telecommunications Union (ITU) which also has limitations as to agenda items which can be discussed.

b. Mr. Christian Rissone of France noted the pressing need for Maritime VHF channels set out in Appendix 18 to the ITU Radio Regulations and pointed out that in

some countries, especially the U.S, many of those channels have been diverted to land mobile applications. He further noted that the channels identified for the Automatic Identification System (AIS) were not protected from interference as Safety Channels and that the IMO should request that ITU assign Safety protection to the AIS channels at their 2015 Conference. In this regard Mr. Rissone indicated that satellite detection of AIS was a promising technology but would need an additional frequency for optimum performance.

c. Mr. Glenn Dunstan of Australia raised the issue of whether the MF frequency band associated with 2182 kHz and digital signaling was needed as part of the GMDSS system. He noted that Australia, with an enormous coast line, had elected not to provide complete coastal coverage on VHF (Sea Area A1) or MF (Sea Area A2) but required all ships to equip for Sea Area A3 (Inmarsat or HF-DSC).

d. Mr. Russell Renaud of Canada stressed the growing need for communications in the Arctic region (Sea Area A4) which at present relied on HF-DSC as the only GMDSS qualified system available. He would like to see satellite systems such as Iridium which covers the polar regions approved for GMDSS. He also sees a need for improvement of Maritime Safety Information (MSI) services in the Arctic and would especially like to see a GMDSS approved graphic presentation for ice charts and weather charts much like the still used, but not GMDSS approved, Fax weather charts.

e. Mr. Ed Brady of the U.S. Coast Guard provided a briefing on the complexities of High Frequency (HF) communications noting that a relatively few coast stations can provide global coverage and there is no need for all nations to maintain HF Coast Stations. There are some days when atmospheric and sun spot conditions will render HF communications unavailable. One of the most difficult aspects of HF communications is operator training particularly with respect the changing propagation conditions which require shifting to alternative frequency bands. Some companies such as Globe Wireless have employed automation techniques to simplify the operation. Although the GMDSS treats MF and HF as separate systems, the technology is the same and as a practical matter most equipment is available only as a MF/HF combination and not as stand alone MF or HF.

f. Mr. Brian Mullan of Inmarsat observed that the GMDSS could be covered by only a short-range VHF and a long-range satellite system which can cover all requirements for Sea Areas A1-A3. If this can be achieved, he feels that MF and HF could potentially be dropped from the GMDSS in Sea Areas A1-A3, thus eliminating one of the most challenging problems, inability to keep operators adequately trained on systems which are not used routinely. As an alternative to HF radio in Sea Area A4, a separate satellite system could be provided, since geostationary satellites cannot “see” the small polar areas. He noted that Inmarsat has about 195,000 maritime terminals in use of which about 125,000 are Inmarsat C/mini-C. Brian also noted that the Ships Security Alerting System (SSAS), the Long Range Identification and Tracking system (LRIT), and the Automatic Identification System (AIS) all provide safety services but are not technically included in the GMDSS. The LRIT, in particular, could be configured to trigger an alert

if scheduled position reports are missed. Testing of Inmarsat's Fleet Broadband service to enable approval for GMDSS alerting is nearly complete.

g. Charlie Zaloom of Sea Tow provided some insight to the issue of safety for non-SOLAS vessels a major issue for the U.S. The U.S. is estimated to have 12-13 million small, mostly recreational, vessels but only about 150,000 MMSI assignments have been issued which indicates that the voluntary equipping with safety radio equipment is not a high priority of operators. In the case of those equipped with VHF it indicates that they are either using legacy equipment or haven't bothered to activate the emergency features of a Digital Selective Calling (DSC) radio. Charlie also indicated that a test capability is needed to make sure that DSC radios, EPIRBs, and Personal Locator Beacons (PLB) are operating properly. Education of boat operators is another deficient area since there is no federal requirement for knowledge or licensing although a few states issue operator licenses. The Task Force has advocated that all vessels going a mile or more offshore should carry as a minimum a VHF radio or an EPIRB/PLB but there is little evidence that this is being heeded.

h. Rich Beattie of Radio Holland USA reported that his experience in performing GMDSS inspections on SOLAS vessels is that the operators have difficulty with operating MF/HF NBDP equipment which is rarely used for daily communications and there is a tendency to replace it with a second Inmarsat C to meet GMDSS carriage requirements.

i. RADM Gilbert, the U.S. Leader for GMDSS Modernization summed up the session with a request to read his draft input paper to COMSAR 14 and offer edits. The paper should be submitted this fall to allow time for other delegations to study it. He advocated considering the needs of non-SOLAS vessels noting that ITU sets no tonnage limits and that the U.S. has a preponderance of non-SOLAS vessels

3. The Coast Guard Reports:

a. Long Range Identification & Tracking (LRIT). LCDR Chris Shivery provided an update on implementation of LRIT. To date there are 200 U.S. vessels certified for LRIT of an expected total of about 600. Two LRIT terminals (Thrane & Thrane and JRC) have been approved along with GMDSS equipment which does not require separate approval. The U.S. has selected Pole Star as its Applications Service Provider (ASP) with the responsibility to collect reports from U.S. ships and forward them to the National Data center. With respect to use of LRIT for Search & Rescue, Chris noted that the USCG will be monitoring the LRIT system and will be able to proactively investigate any ship that misses multiple reports. In such a case they may request more frequent reports from U.S. flagged ships or from ships within an area of U.S. entitlement. They may also request an LRIT SAR surface picture of all ships within a specified circular or rectangular area. At present there are no provisions for non-SOLAS ships to participate in LRIT voluntarily.

b. Status of MF-DSC Coastal Network Upgrade to DSC for Sea Area A2.

Captain Rambo gave an update on the Coast Guard study for upgrading the MF-DSC coastal network. He referred to the presentation by Dave Fowler, contractor for the study, who explained the methodology in detail earlier in the RTCM program. As reported in October, there were 3 decision options including repairing existing Sector sites; upgrading existing Sector sites and closing coverage gaps; or discontinuing 2 MHz watch at the Sectors and guarding all six International MF/HF Telephony Distress Frequencies and MF/HF DSC frequencies from the CAMS and COMMSTAs. A fourth study option was added recently which would include NOAA’s Vessel Monitoring System (VMS) and recognize one or more mobile satellite systems and discontinue MF operations. If that option should be chosen, carriage regulations would need to be changed for mandatorily equipped domestic vessels.

c. Status Report on Rescue 21 VHF–DSC for Sea Area A1. CDR Al Arsenault provided an update for the Rescue 21 Program. The following are highlights:

1.) Handouts were distributed showing operational Sectors and planning for the Western Rivers and Alaska. There are now some 28,000 miles of coastline covered by the upgraded Rescue 21 system. The Rescue 21 Disaster Recovery units can be quickly deployed to any Sector to provide a V-Sat link back to Martinsburg WV for continuity of operations. Completion of the CONUS coastline is projected for 2012.

2.) Most of the 49 legacy sites in the Western Rivers will likely be retained and DSC may be added but not direction finding.

3.) The Alaskan sites will have great range from mountain peaks but designing equipment which can survive winter conditions is proving difficult. Alaskan completion is now scheduled for 2017.

4.) The Coast Guard has activated a universal MMSI number at each Sector which can be used for establishing contact and reporting unusual incidents as requested under the Coast Guard’s Maritime Domain Awareness (MDA) Program. The Universal MMSI number is 003669999 for all Coast Guard Stations in the U.S. Rescue 21 stations will also respond to the International MMSI 009990000 for all Coast Stations. The MMSI Numbers for each operational Sector or Group are shown below:

Sector/Group	MMSI	Sector/Group	MMSI
Astoria OR	003669910	Miami FL	003669919
Baltimore MD	003669961	Mobile AL	003669914
Boston MA	003669901	New Orleans LA	003669908
Charleston SC	003669907	New York NY	003669929
Delaware Bay NJ	003669905	North Bend OR	003669911
Hampton Roads VA	003669922	North Carolina	003669906
Houston/Galveston	003669915	Port Angeles WA	003669904
Jacksonville FL	003669962	Portland OR	003669937
Key West FL	003669918	St. Petersburg FL	003669917

d. Working Group Preparations for COMSAR 14. Russ Levin reported that Comsar 14 would meet in London on 8 March 2010. The primary issue for the U.S. will be GMDSS Modernization which was discussed earlier. The SOLAS Working Group for COMSAR was scheduled to meet in the afternoon but expressed a preference to meet instead at the conclusion of the Task Force meeting.

4. The FCC Reports: Ghassan Khalek reported for the FCC, the following are highlights of his report and ensuing discussions:

a. Further Part 80 Rule Making. There were no further developments on outstanding items expected to be addressed in Part 80. We can hopefully expect further action prior to the Task Force meeting in August.

b. FCC Response to Task Force Petition and Recommendations on MMSI Policy. The Task Force Petition of 21 May 2007 advocated numerous actions which the FCC should take to better administer the MMSI registration procedure. The FCC published their Order DA 09-612 on 17 March 2009 denying the Task Force Petition. The Order notes that Petition was put out for public comment and that over 500 responses were received supporting the Task Force proposals. The FCC notes that they intend to implement most of the recommendations but are unable to do so at this time pending a major but so far unscheduled upgrade of the Universal Licensing System (ULS). The FCC does not, however, agree that it should periodically contact licensees to determine if the MMSI is still in use even though they require that validation process of their registration agents.

c. FCC Order DA 09-658 of 23 March 2009. This Notice reminds holders of certain Commercial radio operators licenses that the third Report and Order on WT Docket No. 00-48 effective 25 March 2008 extended the terms of the license from 5 years to life of the holder. The Licenses affected are:

- GMDSS Radio Operator Code DO
- Restricted GMDSS Radio Operator Code TG
- GMDSS Radio Maintainer Code DM
- GMDSS Operator/Maintainer Code DB
- Marine Radio Operator Permit Code MP

d. FCC Station License Trends. Ghassan Khalek published a comparison of Station Licenses and MMSIs between 2007 and 2009 as follows:

<u>Type of License</u>	<u>2007</u>	<u>2009</u>
Voluntary Ship Station SA	39524	54910
Compulsory Ship Station SB	20533	18526
SA with MMSI	29908	33349
SB with MMSI	13977	16526

5. **The RTCM Report:** RTCM President Bob Markle reported on the status of all Special Committees during the RTCM Business Session on opening day, those of special interest to the Task Force are as follows:

a. RTCM SC 101/110 on Incorporating GPS in VHF Handhelds. The handheld envisioned by the Special Committee has been recommended to the ITU as a new category, tentatively identified as Class H. At the same time the IMO has gone on record in a recommendation to ITU that Class D radios should be simplified. Another initiative of SC-110 is to consider replacing the 121 MHz homing beacon in an EPIRB with AIS for improved range of on scene location.

b. RTCM SC-121 on Automatic Identification Systems (AIS). A Working Group of this committee is exploring expanded use of the binary messaging system in Vessel Traffic Service (VTS) areas.

c. RTCM SC-123 on Data over VHF Channels. This committee is developing proposed guidelines for transmitting data on VHF channels in a manner which would best protect adjacent voice channels and utilize the unused space between channels.

d. RTCM SC-128 on Satellite Location Devices. This new Committee was chartered at the request of the Coast Guard to develop performance standards for new systems such as SPOT which are being advertised for emergency or life saving applications with the goal of enhancing reliability and consumer protection.

e. Other RTCM Announcements of Interest. The 2010 RTCM Assembly including a Task Force meeting will be held at the Catamaran Hotel in San Diego, California May 16-21, 2010.

6. **Reports and Issues: The Recreational Vessel Group Report.** The report of the Recreational Group included the following:

a. Use of Marine VHF Handhelds Ashore. The Task Force approved the draft Petition to the FCC recommending that VHF handhelds be permitted to transmit while on shore in the vicinity of maritime areas.

b. MMSI Policy for Identifying DSC Handhelds and Small Craft Associated with a Mother Vessel. The Task Force approved the draft MMSI Policy paper which had been updated from a paper presented at the January meeting. The recommendations will be sent to the Coast Guard and FCC for action.

c. Concern Over Lagging MMSI Registrations, GPS Connections and Task Force Advocacy that All Vessels Going a Mile Offshore Carry VHF or EPIRB/PLB. There was extended discussion about measures the Task Force could take to increase boaters awareness of the significant safety enhancement of registering for an MMSI number and connecting a GPS to the DSC radio. It was noted that with a small vessel population in the millions and only about 150,000 MMSIs issued, there is a serious need

for accelerated fitting of DSC radios and a continuing suspicion that many owners of DSC capable radios have not registered for an MMSI number. Similarly, the group feels that too few DSC equipped boats have connected a GPS receiver. It was decided to concentrate on a public awareness campaign at the next meeting including ways to encourage use of the publicly available “Can You Hear Me” tutorial on the use of DSC. The campaign should also emphasize the Task Force Advocacy that all vessels going a mile or more offshore should carry a VHF radio or an EPIRB/PLB.

7. Reports and Issues: the GMDSS Service Agents & Manufacturers Group:

Ralph Sponar’s Group is following two initiatives through an ad hoc group working with NMEA representatives as follows:

a. Better Definition of “Qualified” Technical Support. The FCC Rules relating to Class B AIS call for installation by a qualified technician but the public needs better guidance on who is a qualified technician. An ad hoc group has been addressing this problem with representatives from NMEA and will either bring a proposal back to the Task Force or decide that the NMEA will submit a petition to the FCC

b. NMEA Proposal for Master Database of MMSI Registrations. An ad hoc group met to discuss this proposal and concluded that privacy issues could be managed. The issue is now being followed by the Service Agents and Manufacturers Group which has the primary liaison with NMEA since it is the latter’s decision whether to proceed.

8. Reports from the Commercial Vessel Group. There are no issues currently pending from this group.

9. Reports and Issues: the GMDSS Training Group: There are currently no training issues outstanding.

10. The Next Meeting of the GMDSS Task Force: The next Task Force meeting will be held on Thursday morning 6 August 2009 at the RTCM Headquarters in Arlington, Virginia. The follow-on meeting will be held on Thursday morning October 1st at the Sanibel Harbor Resort in Fort Myers, Florida during the NMEA Annual Meeting.

GMDSS TASK FORCE CONTINUING WORK LIST

7 May 2009

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 COMSAR meetings (TF)
7. Advocate Canadian coordination to extend GMDSS services to the Great Lakes (TF)
8. Review GMDSS concepts and make modernization recommendations (TF)

9. Advocate regulatory action to require VHF or EPIRBs for all vessels offshore (TF)
10. Advocate overhaul of FCC policy and practice on MMSI assignments (TF)
11. Monitor non-GMDSS systems: AIS, LRIT, SSAS, VDR, VMS, & E-Navigation (TF)
12. Recommend updates for Coast Guard NVIC on GMDSS Requirements (TF)
13. Review the scope of distress alerting by cell phone and its implications (TF)
14. Advocate intership calling on HF GMDSS channels (CV)
15. Rationalize Safety Radio and VMS Requirements for Small Fishing Vessels (CV)
16. Recommend training programs for non-mandatory users of GMDSS systems (RV)
17. Encourage GMDSS handbooks and Internet and video training aids (RV)
18. Encourage voluntary users of VHF-DSC Register for MMSI and connect GPS (RV)
19. Advocate FCC enable R/Vs keep existing MMSI when applying for Station Lic. (RV)
20. Encourage Mfgs. to upgrade GMDSS explanations in equipment manuals (SA)
21. Monitor guidelines for GMDSS equipment maintenance & maintainer standards (SA)
22. Recommend proper interconnection of GPS receivers with DSC Radios (SA)
23. Advocate better FCC & USCG management of annual GMDSS inspections (SA)
24. Develop Technician Qualifications for GMDSS Inspections & Installation (SA)
25. Maintain GMDSS Question Pools for FCC and Coast Guard Examinations (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

Attachment: Draft Agenda for Task Force Meeting 6 August 2009 at the RTCM
 Headquarters in Arlington, Virginia

Please refer questions and proposals to Captain Jack Fuechsel at 703-527-0484 or gmdss@comcast.net If you have an Internet server with spam filters, please authorize receipt of messages from gmdss@comcast.net

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