

NATIONAL GMDSS IMPLEMENTATION TASK FORCE

Newsletter and Summary Record of 1 October 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 1 October 2009 in Fort Myers, Florida during the NMEA Annual Meeting. The documents listed below were distributed and are available on request:

Admiral Gilbert's Summary Paper on GMDSS Modernization Issues
Letter to Maritime Organizations re sponsorship of Small Vessel Safety Initiative
COMSAR.1/Circ.45 Guidance on Distress Alerts
RTCM Summary of IMO/MSC 86 Actions re Electronic Systems

1. **Summary Record of 6 August 2009 Meeting:** The Summary Record of the 6 August, 2009 meeting which had been distributed earlier, was noted.

2. **The Coast Guard Reports:**

a. **Status Report on Rescue 21 VHF-DSC for Sea Area A1.** Chuck Husick provided an update for the Rescue 21 Program. The following are highlights:

1.) The Automated Test Call facility at operational Rescue 21 Sectors is working well but as reported before, the international specification for the service was not finalized until recently and some manufacturers have not yet incorporated it in their equipment. Hopefully it can be added with software downloads. Chuck noted that the new Standard Horizon handheld has the test call capability but the Lowrance handheld does not. Regarding handhelds, Chuck noted that handhelds were available for as low \$50.00 while a DSC version would run about \$200.00.

2.) One of the best features of the new Rescue 21 upgrade is the highly accurate direction finding capability which is proving to be a big assist in locating distress calls from vessels without DSC and from DSC capable vessels without a connected navigation receiver. The D/F has also enabled prompt resolution of several hoax calls.

3.) An issue was raised as to whether the Sector watchstanders will respond to routine DSC calls. They will definitely respond to Distress Alerts and should respond to routine calls proposing traffic on a working channel. The Coast Guard will clarify this in their Policy and Procedures Manual, but suggests that callers propose working channel 22A which is available at all Sectors. The Coast Guard will also address whether to precede Urgent Marine Broadcasts with an alerting signal on channel 70 to

activate DSC receivers on vessels.

b. Status Report on Safety of Navigation Issues Including Automatic Identification Systems (AIS) and Electronic Chart Display Systems (ECDIS). Joe Hersey provided an update with the following highlights:

1.) The IMO Safety of Navigation Subcommittee met recently and agreed on 21 different binary messages which could be transmitted via AIS including such shore to ship topics as vessel clearance, marine traffic reports, weather observations, and area notices. Vessel originated messages could deal with such topics as vessel cargo, persons on board, and route information. The Subcommittee also asked the International Association of Lighthouse Authorities (IALA) to recommend enforcement procedures to reduce data entry and static ship data errors which have been observed on about 4-5% of vessels checked.

2.) The Subcommittee also agreed to mandatory inspection of AIS and other safety equipment as a condition of issuing the Safety Certificate. This would appear to pave the way for conducting the inspection concurrently with the required annual inspection of GMDSS equipment. In the case of mandatory AIS fittings on non-SOLAS vessels, the inspection might be combined with the Bridge-to-Bridge Radiotelephone inspection.

3.) The IMO Maritime Safety Committee is expected to mandate Electronic Chart Display Systems (ECDIS) at its May 2010 meeting but if for some reason it does not, the U.S. will move forward with its rulemaking to mandate the use of ENC's (any Electronic Navigation Chart system approved by government hydrographic authorities) in the U.S. as part of its ongoing effort to implement recent SOLAS equipment requirements.

4.) The U. S. Notice of Proposed Rulemaking proposing to extend AIS carriage produced over 150 comments which are now being evaluated and considered in the drafting process of the Final Rule which should be published late this year or early next year. Bob Markle noted that over the course of several public meetings on the expanded carriage requirements, the mood of the attendees shifted from opposition to support.

5.) The Tampa Bay VTS Demonstration Project is evaluating the work of RTCM Special Committee 121 on binary messaging and has completed phase 1. This phase includes broadcast of NOAA's Physical Oceanographic Real Time System (PORTS) current and water level data and the pilots are very supportive of the project. Phase 2 will encompass safety zones and area notice messages.

c. Long Range Identification & Tracking (LRIT). LCDR Chris Shivery provided an update on implementation of LRIT. The following are highlights of his briefing:

1.) As of September, there are 428 U.S. vessels certified for LRIT of an expected total of about 600. In following 80 cases of failure to report, most were determined to

have gone out of service. The proper doctrine is to continue to transmit LRIT positions while in port unless going out of service for an extended period. The Coast Guard intends to clarify operational rules for participants. For more details, see the LRIT website at www.navcen.uscg.gov/lrit.

2.) The International Data Exchange (IDE), operated temporarily by the U.S., has been in operation since late 2008 and is committed through 31 December 2011. The U.S. National Data Center has also been operational since December 2008. The U.S. Application Service Provider, Polestar Applications Ltd, collects reports from U.S. flag ships and forwards them to the U.S. National Data Center. Polestar also provides the required conformance testing to verify ship's readiness to participate in LRIT.

d. Status of MF-DSC Coastal Network Upgrade to DSC for Sea Area A2. Joe Hersey gave an update on the Coast Guard study for upgrading the MF-DSC coastal network. The data analysis has been completed and the five decision options previously reported are being analyzed for cost and public safety impact. Meanwhile, hardware upgrades remain in place and watches are being stood on 2182 kHz and the DSC calling and distress channel, 2187.5 kHz. Since the coverage is uneven, the system remains in a pre-operational status with no declaration of Sea Area A2 in prospect. A final determination is not expected before the end of the year and the options will likely be further constrained by new budget realities.

e. Working Group Preparations for COMSAR 14. Russ Levin reported that Comsar 14 would meet in London on 8 March 2010. The primary issues for the U.S. will be GMDSS Modernization and a review of EPIRB performance standards with a view to incorporating AIS technology as an alternative to the local homing signal on 121.5 MHz. The SOLAS Working Group for COMSAR will have meetings at RTCM on November 4th, December 15th, and February 23rd, 2010. Anyone wishing to be accredited to the Working Group should contact Russ at 202-475-3555 or by email at russell.s.levin@uscg.mil.

3. The FCC Reports: Ghassan Khalek reported for the FCC, the following are highlights of his report:

a. Further Part 80 Rule Making. There were no further developments on outstanding items expected to be addressed in Part 80.

b. Task Force Petition to Authorize Use of Marine Handheld Radios ashore in Maritime Areas. In June, the FCC published the Task Force Petition requesting authority to use VHF handheld radios ashore in maritime areas allowing 30 days for comment. The public comment period has ended with no responses either pro or con. The FCC will now take the proposal under consideration and we will hope to have results in the near future.

c. RTCM Petition to Authorize Small Message Data Services on VHF Frequencies. The RTCM has petitioned the FCC to accept its recommendations for a

small message service on VHF frequencies using data techniques. The Petition has been published by the FCC and Public Comment is open until 15 October. The RTCM has sent a notice to Task Force members and others urging support for prompt authorizing action by the FCC.

d. FCC License Statistics. Ghassan reported the following License Statistics:

<u>Category of Operator Licenses</u>	<u>Number of License Holders</u>
General Radio Telephone Operator	289,806
GMDSS Operator	17,139
GMDSS Maintainer	1,423
GMDSS Operator & Maintainer	1,863
Restricted GMDSS Operator	12
Marine Radio Telephone Operator	33,011
Restricted Radio Telephone Operator	67,286

<u>Active Ship License Categories</u>	<u>Number 2007</u>	<u>Number 2009</u>
SA Vessel Station License	54,910	38,228
SB Compulsory Vessel License	20,533	18,840
SA with MMSI Assigned	29,908	34,408
SB with MMSI Assigned	13,977	17,273

e. Other Comments and Questions for the FCC. Ghassan noted that the Coast Guard was now receiving FCC MMSI assignments on a regular basis for incorporation in the master database. The FCC hopes to implement Task Force recommendations on MMSI management when the Universal Licensing System (ULS) is updated in the future. An old issue was raised again about the need for Station Licenses to visit Canada and other nearby countries. Despite a relief clause provided by the ITU, the FCC cannot change the rule without a change to the Communications Act which also contains other obsolete requirements such as carriage of shipboard direction finders. Since the FCC is obviously reluctant to propose changes to its Act, it will be up to Congress or others to propose any changes.

4. GMDSS Modernization Initiative. Russ Levin reported that the IMO Maritime Safety Committee (MSC) had authorized a two session ‘scoping’ exercise for review of GMDSS standards and technology by the COMSAR Subcommittee. Input from the Task Force is needed and may be submitted to Admiral Gilbert at gilbinc@aol.com or Jack Fuechsel at gmdss@comcast.net. The following points were emphasized:

a. The paper distributed is the first draft of a U.S. input paper which we will seek to have jointly sponsored by several other countries. It is hoped that it can be finalized early so that other countries will have an opportunity to comment before the meeting.

b. To be successful, we need good data about how well the current system is performing and if possible, data about specific shortcomings observed in practice. The

extensive Coast Guard records on SAR cases will be particularly useful but we would like to have any available data on distress cases where no alert was received.

c. Existing GMDSS functional requirements will be examined to see if all remain valid and vessels can still perform them. Similarly, data from cases involving all of the various long and short range systems will be reviewed in both voice and data modes to identify gaps in the overall system. Many consider support of emerging e-navigation services as a further motivation for GMDSS modernization

d. While outfitting of SOLAS vessels has apparently met expectations, foreign reports of Port State inspections frequently comment that the equipment is not used regularly and that operators are no longer proficient in its use. This may be partially due to the fact that the original concept called for emergency alerting on systems that ships used for routine communications but some of those systems are no longer available and ships are tending to use non-GMDSS systems to handle their routine communications.

e. The upgrading of shore networks for MF-DSC and VHF-DSC GMDSS communications has been slow in many countries and may never be accomplished in others. The volume of Marine Safety Information (MSI) broadcasts in coastal areas has grown to the point of overloading the system. Are new techniques required?

f. Improved outfitting of survival craft may also be needed but will require coordination with the Design and Equipment Subcommittee of IMO.

g. In reviewing the GMDSS we must keep in mind that non-SOLAS vessels account for the vast majority of SAR cases and we need to shape the GMDSS in ways which preserve interoperability.

5. Analysis of Differential GPS (DGPS) and Wide Area Augmentation System (WAAS) for Precise Navigation. Captain Ed Thiedeman, Commanding Officer of the Coast Guard's Navigation Center, presented an excellent review of the principal high accuracy GPS augmentation systems, DGPS and WAAS. The following are highlights:

a. DGPS Description. The Coast Guard operates the national DGPS system including 88 broadcast sites funded by the Coast Guard, Corps of Engineers, and Department of Transportation. DGPS is provided by MF broadcast for maritime and land users with an advertised horizontal accuracy of 10 meters but typically delivers 1-3 meter accuracy with an availability of 99.7% in single coverage areas or 99.9% in dual coverage areas. DGPS is a global standard adopted by IALA and 40 other coastal countries.

b. WAAS Description. The FAA operates the national WAAS service from 38 reference stations, mostly at airports. WAAS is provided for aircraft enroute and on approach above 200 feet with a nominal accuracy of 1.5-2 meters which varies with the distance from the reference station. The availability is 99% but since the corrections are delivered from a geostationary satellite, a clear line of sight to the satellite is required.

c. Notes on GPS Accuracy and Services. GPS has a nominal accuracy of 8-20 meters but future enhancements of the GPS constellation through an additional frequency available to civilian users will provide increased accuracy. The DOD has approved deployment of a Canadian provided Distress Alerting Satellite System (DASS) payload to enhance global Search and Rescue. Members interested in more detail should visit the Navigation Center's website, www.navcen.uscg.gov.

6. The RTCM Report: RTCM President Bob Markle reported on the status of Special Committees of interest to the Task Force are as follows:

a. RTCM SC 101/110 on Incorporating GPS in VHF Handhelds. The combined Special Committee continues to work on recommended specifications for a VHF handheld with integral GPS. SC110 on Emergency Beacons is also considering replacement of the 121.5 MHz homing beacon in EPIRBs with AIS for improved range of on scene location pending IMO action on a current work item.

b. RTCM SC-121 on Automatic Identification Systems (AIS). A Working Group of this committee has completed its work on expanded use of the binary messaging system in Vessel Traffic Service (VTS) areas. Their work was used in a U.S. submission to the IMO Subcommittee on Safety of Navigation. They will now turn their attention to preparing a standard.

c. RTCM SC-123 on Data over VHF Channels. RTCM has petitioned the FCC to adopt RTCM Standard 12301.1 for transmitting data on VHF channels. The method involves sending short data bursts on momentarily unused voice channels, thereby making those channels available for data while preserving their telephony function. Support for this petition by Task Force members is strongly encouraged, the comment period ends on 15 October.

d. RTCM SC-128 on Satellite Emergency Notification 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. A working group of the National Search and Rescue Committee is working with the RTCM Special Committee.

e. Other RTCM Announcements of Interest. The RTCM filed in opposition to a Riverside, California petition to the FCC to disaggregate MariTEL held Marine VHF channels for land mobile use near the California coast. The scarcity of marine VHF channels demands vigilance by the maritime community to protect our remaining spectrum assets. The 2010 RTCM Assembly including a Task Force meeting will be held at the Catamaran Hotel in San Diego, California May 16-21, 2010.

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 NMEA ad hoc group has been addressing this issue and will suggest the NMEA CMET qualification to the FCC.

b. NMEA Proposal for Master Database of MMSI Registrations. The first step proposed by the NMEA is to become an approved "registration agent" for issuance of MMSI numbers to vessels not requiring a station license. Afterward, the NMEA may elect to create a master database of MMSI assignments which is not available to the public elsewhere. In view of the economic recession, these proposals are temporarily on hold.

8. Reports and Issues: The Recreational Vessel Group Report. Chairman Chuck Husick made a general report including BOATUS having issued 64,291 MMSI numbers and encouraging indications that Congress intends to protect and continue e-Loran as a backup for GPS. Other discussion covered the following items:

a. Concern Over Lagging MMSI Registrations and GPS Connections. We continue to concentrate on a public awareness campaign seeking ways to encourage registrations and promote use of the publicly available "Can You Hear Me" tutorial on the use of DSC.

b. Small Vessel Radio Safety Initiative. This initiative, patterned after a Hawaiian law, urges all vessels going a mile or more offshore to voluntarily carry a VHF radio (handheld & non-DSC OK) or an EPIRB/PLB. This was endorsed by the Task Force at our August meeting which approved sending letters to all Maritime Organizations interested in maritime safety seeking their co-sponsorship. Letters have gone to 10 organizations to date and are planned to be released to another 19 in the near future. Since we are trying to protect amateur boaters, we will also try to reach sport fishing associations. Publicity surrounding both failed and successful rescues can help with this initiative and Coast Guard statistics will be sought for this purpose

9. Reports and Issues: the Commercial Vessel Group. The new IMO COMSAR.1/Circ.45 was distributed containing an updated graphic template "Guidance On Distress Alerts" suitable for posting on the bridge.

10. Reports and Issues: the GMDSS Training Group: The GMDSS Question Pools formerly posted separately on the Coast Guard's National Maritime Center website have been merged with the general Deck Watch Officer questions rendering them unavailable for study. To make them available for concentrated study, they have recently been posted on the Task Force website.

11. Other Business and the Next Meeting of the GMDSS Task Force: Minor updates have been made to the GMDSS Information Bulletins on our website. The next Task Force meeting will be held on Thursday morning 7 January 2010 at the RTCM Headquarters in Arlington, Virginia. The follow-on meeting will be held on Thursday morning 20 May 2010 at the RTCM Annual Meeting in San Diego, California.

GMDSS TASK FORCE CONTINUING WORK LIST

1 October 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 voluntary carriage of VHF or EPIRB/PLBs by 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. Recommend means to facilitate Distress Alerts by Cell Phone & Internet (TF)**
14. Advocate intership calling on HF GMDSS channels (CV)
15. Review 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. 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 7 January 2010 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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