

NATIONAL GMDSS IMPLEMENTATION TASK FORCE

Newsletter and Summary Record of 7 January 2010 Meeting

1. The Coast Guard Reports:

a. Introduction of Captain Dave Dermanelian. The new Chief of Coast Guard Telecommunications, Captain Dave Dermanelian, was introduced to the group and commented on the Headquarters organization. He indicated that RDML Robert Day had been detailed temporarily to the new Cyber Security Command and was therefore unable to attend but would attend a future meeting. There will no doubt be other organizational and personnel changes in the coming months as a new Commandant, VADM _____ Papp has been named to succeed ADM Thad Allen in May.

b. Search and Rescue Issues Needing Task Force Support. Dave Edwards reported for the Office of Search and Rescue that a more definitive response to the Task Force inquiry as to priorities for Task Force support of Search and Rescue would be provided at the next meeting. Possible initiatives raised by the Task Force previously included use of cell phones and use of the Internet in initiating Distress Alerts.

c. New Regulatory Initiatives in AIS and ECDIS. There were no new regulatory initiatives to report with respect to the Automatic Identification System (AIS) or Electronic Chart Display Systems (ECDIS).

d. Status Report on 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 December 2009 511 U.S. vessels have been certified for LRIT of an expected total of about 600. There are probably less than 10 U. S. vessels which transit Sea Area A4 areas (the Arctic Ocean) and will thus use an Iridium based terminal for LRIT participation. Some non-SOLAS vessels are required to participate in LRIT due to their tonnage or the fact that they make international voyages.

2.) As of December 2009 there are 40 Data Centers representing 70 flag administrations in production. The U.S. National Data Center tracks approximately 1900 foreign flag vessels at any given time. Since September 2009, the U.S. National Data Center has received nearly 500,000 foreign flag vessel position reports.

3.) 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.

4.) For more details, see the LRIT website at www.navcen.uscg.gov/lrit or contact the USCG LRIT Project Officer, LCDR Chris Shivery at 202-372-2522 or via email at

christopher.j.shivery@uscg.mil

e. Status Report on Rescue 21 VHF–DSC for Sea Area A1. Gene Lockhart provided an update for the Rescue 21 Program. The following are highlights:

1.) 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.

2.) Security patches and software updates are now being done with block upgrades for greater efficiency. Direction Finder data can now be ported to appropriate Search and Rescue Centers for faster response. Block 10 Upgrades will enable the system to remain operational while upgrades are being installed.

3.) Tower site acquisition continues to be the most time consuming aspect of the new installations and is the reason completion has been delayed in Sectors Northern New England and North Carolina.

4.) The characteristics of Rescue 21 sites in the Western Rivers and Alaska will be somewhat different from the rest of the system. The Western Rivers system essentially upgrades legacy sites with improved clarity, simultaneous channel monitoring, automated marine information broadcasts, and more supportable technology but does not provide (Digital Selective Calling (DSC) capability. Planning for Alaskan sites provides the same enhancements as Western Rivers but will also support DSC for registered users.

5.) In response to questions, Gene acknowledged that due to current budgetary limitations, the Alaskan upgrades may be in jeopardy. Similarly, the tower upgrades to add a 406 MHz D/F capability is currently unfunded.

f. 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. Surprisingly, the study revealed more use of MF for safety communications than had been expected, especially from fishing vessels. 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 current coverage is uneven, the system remains in a pre-operational status with no declaration of Sea Area A2 in prospect. There may be limited funding available to ‘shore up’ a few weak spots but the long range options will likely be further constrained by new budget realities.

g. Working Group Preparations for COMSAR 14. Russ Levin reported that Comsar 14 would meet in London on 8 March 2010 and that there were six U.S. input

papers. 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 a final preparatory meeting at RTCM on 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.

h. GMDSS Modernization. RADM Gilbert (Ret.) reported on the new IMO initiative at COMSAR to scope the need for modernization of the GMDSS. The following are highlights:

1.) There are already several input papers advocating many approaches to the issue. The U.S. joined with Australia, Chile, and France in co-sponsoring a United Kingdom paper advocating a format for the scoping exercise. While only 2 sessions were allowed for the scoping exercise, completing the recommended modernization of the GMDSS may well require a correspondence group to develop proposals between sessions.

2.) Among the issues expected to be raised are the following:

- How far into the future should GMDSS modernization be projected?
- Will new Radio Spectrum be required?
- Do the GMDSS functional requirements need updating?
- Should EPIRBs be augmented with AIS for on-scene homing?
- Is there a role for satellite monitoring of AIS transmissions?
- Should the Cospas-Sarsat system provide a return link for acknowledgement?
- Should SSAS be a part of GMDSS? Perhaps also AIS and LRIT?
- Should 'man overboard' systems be brought into GMDSS?
- Should crew calling be recognized as general communications under GMDSS?
- Could the role of MF-DSC be extended to alternative satellite systems?
- Must new satellite systems, if accommodated, help fund IMSO?
- Should new Inmarsat Broadband systems be certified for GMDSS?
- Should GMDSS requirements for lifeboats and survival craft be updated?

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

a. 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 has taken the proposal under consideration and we will hope to have their determination in the near future.

b. 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 was published by the FCC and Public Comment closed 15 October. There were 28 comments, all favorable and we should expect a determination in the near future.

c FCC Public Notice DA 10-6, WT Docket No. 10-2. The FCC published a request for comments on a Shipcom LLC proposal to waive Section 80.123 of the Rules to permit use of HF Public Coast Station frequencies by first responders ashore. Comments are due by 4 February and reply comments by 19 February 2010. Comments may be filed via the Electronic Comment Filing System (ECFS).

d. Task Force Petition Urging Improved MMSI Management. The FCC denied the Task Force petition earlier but now hopes to implement many of the Task Force recommendations when the Universal Licensing System (ULS) is updated in the near future.

3. The Inmarsat Report. Frank August provided an Inmarsat update with the following highlights:

a. Emergency Calling '505' Implemented in all Fleet Broadband Systems. This emergency calling system has been implemented in all of the Fleet Broadband (FB) systems but at present does not provide priority for Distress and Safety messages. The resemblance of '505' to 'SOS' is intentional. Alerts via the '505' system are routed to the associated RCCs and are free calls. Inmarsat will seek enhancements to qualify for GMDSS certification of the FB 500 (but probably not the FB 150 and FB 250) by 2014 including the following steps:

- Provide priority routing and preemption (both ship to shore and shore to ship)
- Configure constellation so that redundant satellites are available
- Provide emergency voice services for non-SOLAS vessels on all FB services
- Provide GMDSS voice service on FB 500 for SOLAS vessels by end of 2014
- Add Red distress buttons on FB terminals

b. Termination of Inmarsat B Service. Inmarsat plans to terminate Inmarsat B service on 31 December 2014 in view of declining use of the service by ships.

c. General Inmarsat Statistics. The global Inmarsat constellation is complete with four Inmarsat-4 satellites as the primary operational satellites with others in back up and special service roles. Take up of the Fleet Broadband service has been rapid with 10,000 terminals already in service. With the new Arctic Navareas coming into play, Inmarsat is getting reports that the SafetyNET service via Inmarsat C is operational up to 79 degrees north latitude in many areas. Inmarsat plans to introduce a new global handheld system in about two years.

4. Report on Globe Wireless Communications Systems. Deborah McCormac reported on the various Globe Wireless communications systems with the following highlights:

a. General Globe Wireless Statistics: Globe Wireless is the only global company offering customers vertically integrated services including High Frequency radio, Inmarsat, V-SAT and Iridium and use the most efficient path. 80-90% of all traffic is small messages which is ideal for HF. Delivery of large files and attachments is usually handled by appropriate satellite systems. Delivery confirmation is available as is paging to alert to traffic waiting.

c. Proposed Restructuring of Appendix 17 HF Channels: Globe Wireless has made proposals for amending Appendix 17 of the ITU Radio Regulations to facilitate use of wideband channels for greater efficiency. The ITU Working Party has accepted a different approach but it may prove acceptable for the same goal.

5. 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 DSC handheld with integral GPS.

b. RTCM SC 110 on Emergency Beacons. The Committee is considering the role of new U.S. GPS satellites which carry the Distress Alerting Satellite System (DASS), an EPIRB transponder which could be configured to provide an acknowledgement back to the EPIRB that the alert has been received. While this technology enhancement could be provided, it is not currently included in the design because of lack of a clear requirement. The Galileo Navigation Satellite System will also support EPIRB alerting and is reportedly being designed with response acknowledgement capability. The U.S. needs to make a clear statement of requirement. It appears to the Task Force that the capability would be especially desirable in maintaining morale of the survivors pending rescue.

c. RTCM SC-121 on Automatic Identification Systems (AIS). This Committee has been working on expanded use of AIS in Port areas. The Port of Tampa is now broadcasting 3 digital messages on the AIS communications channel including the NOAA Physical Oceanographic Real Time System (PORTS) information on currents and water levels. The Corps of Engineers is also experimenting with the use of the AIS channel to broadcast similar information in the vicinity of locks.

d. RTCM SC-123 on Data over VHF Channels. As reported earlier, RTCM has petitioned the FCC to adopt RTCM Standard 12301.1 for transmitting data on VHF channels. The comment period closed with all comments favorable to the proposal. Early approval action by the FCC is expected.

e. 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. Note that BOATUS is now offering SPOT service to its members.

f. Coast Guard to Terminate Loran-C Service. The RTCM and other organizations have been active in supporting the need for continuing Loran-C service upgraded to e-Loran as a backup to GPS for both navigation and timing services. Unfortunately, recent determinations by the Secretaries of Transportation and Homeland Security that Loran is no longer needed leave no maneuvering room unless Congress steps in to prevent the shut down.

g. 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 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 NMEA has formed an ad hoc group to better define 'qualified'. The issue currently being debated is whether to define qualifications or rely on a manufacturer's certification of individuals.

b. NMEA Proposal for Master Database of MMSI Registrations. The proposal to create a master database of MMSI registrations is still on hold and may ultimately depend on government regulatory determinations.

7. Reports and Issues: The Recreational Vessel Group Report. Chairman Chuck Husick submitted a general report covering the following items augmented by discussions at the meeting:

a. BOATUS and Product Statistics:

1.) BOATUS has issued 65,284 MMSI numbers and will conduct the periodic canvass of their registrants in May to verify and update information on file.

2.) Approximately 50,000 people typically take the BOATUS on line Boating Safety Course each year. Over 51,000 have taken the course in 2009.

3.) A total of 20,000 CDs of the "Can You Hear Me" VHF-DSC tutorial have been produced and 16,500 have been distributed, largely to USCG Auxiliary and

USPS instructors for use in class or at boat shows. 47,000 people have viewed the tutorial on line.

4.) The new Standard Horizon GX2100 VHF/DSC/AIS radio provides a full function Class D radio with integral dual channel AIS receivers and an on screen AIS readout plus transfer of AIS data to a compatible chart plotter/radar. The recommended price for this 4 receiver (80 sdb) radio is \$399.99. A companion model, the GX2000 provides the same capability when connected to an external AIS receiver and sells for \$229.99.

b. Concern Over Lagging MMSI Registrations and GPS Connections. The Task Force continues to advocate a public awareness campaign seeking ways to encourage MMSI registrations, GPS connections to the DSC radio, and use of the publicly available “Can You Hear Me” tutorial on the use of DSC.

c. 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. The Task Force approved sending letters to all Maritime Organizations interested in maritime safety seeking their co-sponsorship. Letters have gone to 28 organizations to date; the next step will be to approach the Coast Guard for an official endorsement of the recommendation. The group also discussed briefly a document showing United Kingdom recommended and required carriage of radio equipment for different sizes of small craft.

d. Sea Tow Proposal for an Automated Radio Check Service. Charlie Zaloom outlined a proposal that Sea Tow is considering for automated radio checks. If implemented, there would be a designated channel in each port area which a boater could call requesting a radio check. His transmission would then be played back to him on the same channel so that he could also evaluate his transmission for clarity etc. Charlie demonstrated the system at the meeting using two handheld low power units.

8. Reports and Issues: the Commercial Vessel Group. A Coast Guard Marine Safety Alert was distributed which warned mariners that the Coast Guard had received several reports of EPIRBs with unauthorized battery replacements which did not meet manufacturer’s specifications. Unless EPIRBs are serviced by trained representatives of the manufacturer, they do not meet SOLAS and Coast Guard requirements.

9. Other Business and the Next Meeting of the GMDSS Task Force: The next Task Force meeting will be held on Thursday morning 20 May 2010 at the Catamaran Hotel in San Diego, California during the RTCM Annual Assembly. The follow-on meeting will be held on Thursday morning 5 August 2010 at the RTCM Headquarters in Arlington, Virginia

GMDSS TASK FORCE CONTINUING WORK LIST

7 January 2010

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 20 May 2010 during the RTCM Annual Assembly at the Catamaran Hotel in San Diego, California.

Revised for NMEA

Ralph Sponar

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