

NATIONAL GMDSS IMPLEMENTATION TASK FORCE

Newsletter and Summary Record of 20 May 2010 Meeting and RTCM Conference.

1. The Coast Guard Reports:

a. Search and Rescue Issues Needing Task Force Support. Captain Dave McBride reported for the Office of Search and Rescue on new trends in the use of radio technology in SAR cases. An example is the RTCM work to set minimum standards for devices such as SPOT which advertise emergency alerting services. There was discussion of the pros and cons in the use of AIS Text Messaging for Distress Alerts (see the following sub paragraph) and whether it would be useful to publish the email addresses of RCCs for the convenience of the public.

b. New Regulatory Initiatives in AIS and ECDIS. Jorge Arroyo reported for the Office of Waterways Management that the U.S. has tracked 35,000 to 40,000 unique AIS vessels to date; just under 7000 per day. There were no new developments in the continuing rulemaking process regarding carriage of Automatic Identification Systems (AIS) and Electronic Chart Display Systems (ECDIS) to report at this time.

Jorge mentioned a forthcoming Coast Guard Safety Alert entitled "AIS Text Messaging Concerns: Usage During Navigation and Emergencies and Ensuring Accurate Data". This alert was released 27 May and reminds operators that use of AIS text messaging does not relieve them of other requirements such as Bridge-to-Bridge Radiotelephone Regulations or the requirements to sound whistle signals and display lights in accordance with the International or Inland Navigation Rules. The Safety Alert can be viewed at <http://navcen.uscg.gov/enav/ais/0510.pdf>. With respect to use of AIS Text Messaging during emergencies, the Safety Alert cautions operators that Text Messages may not be received, recognized, or acted upon by in the same fashion as alerts in the GMDSS system. It is acknowledged, however, that AIS text messaging can be a useful augmentation of GMDSS.

On May 25th, a Coast Guard San Diego News Release cited the reactivation of the Mission Bay Jetty fog signal which had been destroyed in a storm 10 years ago. The significance of this reactivated fog signal is that it is user activated by calling on VHF channel 79A and pressing the mike button 5 times. This is the second west coast installation of this type of boater activated fog signal but the technology has been used successfully throughout the Great Lakes and represents a more cost effective solution than the earlier cell phone activated fog signal which required a dedicated phone line.

c. Status Report on Rescue 21 VHF-DSC for Sea Area A1. CDR Steve Osgood 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.) The East Coast is largely completed except for some gaps in the North Carolina and Corpus Christi Sectors which need to be filled.

3.) The west coast is also filling in nicely with Sector San Diego declared operational last month. There are gaps to be filled in on San Clemente Island and the Big Sur area south of Carmel. Sector San Francisco is still outstanding as are some organizational changes in the 13th District.

4.) One of the first rescues involving DSC occurred recently and was quickly resolved with a helicopter dispatched to the scene.

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

Dave Fowler provided an in depth review of his study of the Coast Guard's reception of safety and distress calls on 2 MHz frequencies as determined from the Coast Guard database of SAR cases. Surprisingly, the study revealed more use of MF for safety communications than had been expected, especially from fishing vessels. There may be limited funding available to 'shore up' a few weak spots but the longer term upgrades will likely be further constrained by new budget realities. Some statistics from his report:

1.) The study looked at reception by MF/HF Voice and DSC as well as satellite (Inmarsat and other), VHF, EPIRB, and phone. The large number of phone notifications may be partially due to the RCC controller recording manner in which he was notified and not necessarily the radio system the distressed vessel used.

2.) Initial Notifications during the period 2003-2009 totaled 82K by phone; 61K by VHF; 19K by EPIRB; 2209 by MF/HF; and 1710 by Satellite (after discarding cases from outside U.S. SAR area and cases without lives saved or assisted).

3.) Fishing Vessels were the predominate type of vessel which accounts for relatively few of the MF/HF cases using DSC as F/V have not yet been required to upgrade to DSC.

e. Working Group Preparations for COMSAR 14. Russ Levin reported on the results of Comsar 14 which met in London on 8 March 2010 with the following highlights:

1). The authorized "scoping exercise" for GMDSS Modernization received relatively little attention as it was assigned to a heavily committed working group. The final decision was to refer the issue to a 2 day meeting of IMO and ITU experts scheduled for September 2010 in London.

2). There was discussion of the problem of retaining the priority for Inmarsat safety and distress messages in the shore to ship direction. The Intergovernmental Maritime Satellite Organization (IMSO) was requested to look into the issue and report to Comsar 15.

3). The Conference again declined to endorse replacement of the EPIRB 121.5 MHz homer with an AIS transmitter as few of the less developed countries had aircraft capable of homing on AIS. Future plans are to reopen the proposal as an optional alternative similar to the current alternative for Radar SARTs or AIS SARTs.

f. Coast Guard Safety Alert on VHF-DSC Automatic Channel Switching. Joe Hersey explained that an incident off New York prompted issuance of the Safety Alert to remind operators that on receipt of a VHF-DSC distress alert, distress acknowledgement, or other DSC call where a VHF channel number has been designated, the DSC radio automatically switches to channel 16 or the other designated channel. This could result in a vessel operator thinking he was still on the Bridge-to-bridge channel 13 making passing arrangements when the radio had shifted off of channel 13. To prevent this from happening, the Coast Guard strongly recommends disabling the automatic channel switching feature when actively engaged in bridge-to-bridge or Vessel Traffic Service (VTS) communications.

g. GMDSS Modernization. RADM Gilbert (Ret.) noted the presentations relating to modernization of the GMDSS during various sessions of the RTCM Assembly earlier in the week and invited interested parties to attend the GMDSS Modernization Workshop to be held that afternoon. The output from the Workshop will be sent to all Task Force members as a separate distribution soliciting input and comment on the conclusions reached. The resulting consensus will be recommended to governmental authorities as input for appropriate international conferences.

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

a. Further Part 80 Rule Making. New FCC Rulemaking is expected to be released soon dealing with such matters as the phase out of Inmarsat B and E, the Coast Guard Petition on several aspects of the Automatic Identification System (AIS), and several adjustments to reflect actions taken by the ITU. Hopefully, the following pending Petitions will also be resolved:

b. Task Force Petition to Authorize Use of Marine Handheld Radios ashore in Maritime Areas. In June 2009, 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.

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 was published by the FCC and Public Comment closed 15 October 2009. There were 28 comments, all favorable.

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.

e. Ship Station License Update. The following is a tabulation of active Ship Station Licenses:

54,920 SA	Voluntary Vessels;	29,908 of these also hold MMSI
20,533 SB	Compulsory Vessels,	13,977 of these also hold MMSI

3. Update Report by Satellite Service Provider Inmarsat. Chris Wortham provided an Inmarsat update with the following highlights:

a. Emergency Calling ‘505’ Implemented for the FleetBroadband Service. This emergency calling system has been implemented for use by all FleetBroadband (FB) terminals. The resemblance of ‘505’ to ‘SOS’ is intentional. Alerts via the ‘505’ system are routed to appropriate RCCs in each satellite ocean region and are free calls. Note that ‘505’ does not provide priority for Distress and Safety messages. Inmarsat will seek approval to qualify for GMDSS certification of the FB 500 (but probably not the FB 150 and FB 250) by 2014.

b. Marine Safety Information (MSI) Via Fleet Broadband. Fleet Broadband will make all SafetyNET MSI available for ships which want to “pull” the information rather than copying the broadcast. There will be no change to ships for pulling the MSI information.

c. General Inmarsat Statistics. Inmarsat operates 11 satellites and has over 500,000 terminals in service. Maritime accounts for about 55% of the revenue. Take up of the FleetBroadband service has been rapid with over 5,000 terminals already in service.

d. Inmarsat plans to introduce a new global handheld satellite phone called ‘IsatPhone Pro’ later this year. There is no likelihood that the handheld will be certified for GMDSS.

e. 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.

4. Update Report by Satellite Service Provider Thuraya. Fatima Sajwani provided an update on the Thuraya Regional Satellite System with the following highlights:

a. General Thuraya Statistics. Thuraya is a regional satellite service covering a broad expanse of the Pacific and Indian Oceans and the continents of Europe, Africa, and Asia from 2 geostationary satellites at 44 degrees East and 98.5 degrees East longitude. There are over 250,000 subscribers who utilize Voice, Fax, and Data to 9.6 kbps. Terminals can have integral GPS and maritime coverage includes 80% of the world ports.

b. Thuraya Plans to Request Certification for GMDSS Service. Thuraya has announced plans to apply to IM O to be certified to provide GMDSS Service. They are already able to provide Long Range Tracking and Identification (LRIT) and Ship Security and Alert Service (SSAS) services to ships within their coverage area since Thuraya meets the specified functional requirements. Their request to IMO for GMDSS certification could come as early as December of this year.

c. Thuraya Plans to Extend Coverage to the Atlantic Ocean. Thuraya's third generation expansion plans include establishing near global coverage (excluding polar regions) through new satellite deployments which will also provide redundancy using the existing constellation.

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 ERIPB 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). A Working Group of 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-127 on Enhanced Loran. This Committee continues to meet and work on specifications for a combined Loran/GPS receiver despite the recent termination of Loran service in the U.S.

f. RTCM SC-128 on Satellite Emergency Notification Devices. This 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.

g. Other RTCM Announcements of Interest. The 2011 RTCM Assembly including a Task Force meeting will be held at the Tradewinds Hotel in St. Pete Beach, Florida May 15-20, 2011.

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

Ralph Sponar's Group is following several 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 and NMEA has formed an ad hoc group to better define 'qualified'. Recent progress indicates that the NMEA's CMET certification will likely be accepted by the FCC as qualifying for the AIS installation and perhaps other requirements such as conducting GMDSS inspections.

b. Standard Color Coding for GPS/Radio hookups. The NMEA ad hoc group has plans to recommend adoption of a standard color coding which will then be recommended to manufacturers of both GPS receivers and the various marine equipments to which the receivers should be connected.

c. Recommendation that GMDSS Equipment Accept USB Interface Connections. The NMEA ad hoc group will also examine this proposal but any recommended solution will have to be submitted to IMO which manages the functional requirements for GMDSS equipment. In the past there has been reluctance on the part of IMO to permit use of the computers dedicated to GMDSS equipment for any other purpose.

7. **Reports and Issues: The Recreational Vessel Group Report.** Jack Fuechsel reported for Chairman Chuck Husick who was unable to attend. The following are highlights:

a. New Marine VHF Handbook from Mercator Publishing. A copy of the new Handbook was circulated to the group. The author, Laszlo Mercz has extensive ITU experience. The handbook comes with a disc enabling the user to set up a Marine VHF Radio Simulator on a computer. The cover shows a U.S. price of \$33.95.

b. Promoting MMSI Registrations and GPS Connections. The Task Force continues to pursue a public awareness campaign seeking ways to encourage MMSI registrations, GPS connections to the DSC radio, and advocating that boats going a mile or more offshore be equipped with VHF radios or EPIRB/PLB.

c. Sea Tow Proposal for an Automated Radio Check Service. Charlie Zaloom again 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.

d. San Diego Auxiliarists Exhibit VHF-DSC Demonstrator. Again in 2010 local members of the Coast Guard Auxiliary, Jim Davis and Joe Stevens, exhibited their portable VHF-DSC demonstrator which they take to boat shows and other events. Their assistance in promoting MMSI registration and connection of GPS receivers is greatly appreciated.

8. **Reports and Issues: the Commercial Vessel Group.** There were several items of interest to the Commercial Vessel Group as follows:

a. Failure of SOLAS Vessels to Respond to MAYDAY Messages. An April 2010 Notice from the UK Chief Inspector of Marine Accidents notes that in investigating the death of a seafarer they discovered evidence that some vessels within 10 miles of the incident had failed to respond to MAYDAY messages. In debriefing the ships, several claimed not to have seen the series of distress flares or not to have heard the VHF Alert. A few even claimed not to understand their legal and moral duty to respond. In such circumstances it is the duty of every “master of a ship at sea which is in a position to be able to provide assistance” to at least call the search and rescue service and respond.

b. Coast Guard Policy Letter re Inspection of Uninspected Towing Vessels. Coast Guard Policy Letter 10-02 of 11 March 2010 was distributed for information. Despite the title, many previously uninspected towing vessels are now subject to inspection and the policy letter provides guidance to marine inspectors and describes a “bridging” program to ease to towing vessel industry into a future inspection regime.

9. Other Business and the Next Meeting of the GMDSS Task Force: The next Task Force meeting will be held on Thursday morning 5 August 2010 at the RTCM Headquarters in Arlington, Virginia. The follow-on meeting will be held on Wednesday morning 29 September 2010 in Seattle, Washington during the NMEA Annual Meeting.

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