

NATIONAL GMDSS IMPLEMENTATION TASK FORCE

Newsletter and Summary Record of 19 August 2004 Meeting

1. 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. For those of you who receive this Newsletter by Email, please note that we have recently been troubleshooting apparently bad email addresses. Many of these were still good but spam filters at the receiving server may have blocked delivery. Please note that our support contractor's new agent is Peter Gibson and that emailed Newsletters will come from his address: pgibson@potomacmgmt.com. Please note also the new email address for Task Force Director, Jack Fuechsel, given at the end of this report and ask your email manager to arrange to accept email from both Peter and Jack.

The GMDSS Task Force met in Washington DC on 19 August 2004. The documents listed below were distributed and copies are available on request. Some are also posted on websites:

- Summary record of Task Force meeting of 20 May 2003
- AWO 26 May 04 Letter to FCC seeking special MMSI action
- USCG MOC Policy Letter 04-02, GMDSS Operator Requirements
- USCG MOC Policy Letter 06-03, GMDSS Maintainer Endorsements
- USCG MOC Policy Letter 04-05, Voyage Data Recorder Exemptions
- USCG NVIC 8-04 Nav Equipment approvals per EC Mutual Recog. Agreement
- IMO COMSAR/Circ.34 on use of Navtex B3B4 characters
- IMO COMSAR/Circ.35 on MF/HF DSC Test Calling
- IMO MSC.4/Circ.52 on Acts of Piracy Against Ships
- IMO MSC/Circ.1110 on Clarification of SSAS Regulations
- IMO MSC/Circ.1123 on Testing of L Band EPIRBs

2. The Summary Record of the 20 May Task Force meeting was approved.

3. **The Coast Guard Reports:**

a. Coast Guard Recognition of the BOAT US Foundation. Captain Steve Sawyer, USCG, Chief of Search and Rescue, read a citation commending the BOATUS Foundation for its outstanding contributions to Boating Safety, especially for the EPIRB Rental Program which is administered by BOATUS and which has facilitated numerous successful Search and Rescue cases. Chris Edmonston accepted for the BOATUS Foundation.

b. Upgrade of MF Coastal Network to DSC for Sea Area A2. Russ Levin reported that the necessary antenna designs and hardware selections had been made for upgrade of the Coast Guard's coastal Medium Frequency network to accommodate

Digital Selective Calling (DSC). Funding is available for implementation and the study for required changes and installation work is underway. At this time, no target date is available for declaring the upgraded network operational in order to implement GMDSS Sea Area A2.

c. Upgrade of the VHF Coastal Network to DSC for Sea Area A1. No formal status report on the Rescue 21 project to upgrade the network to accommodate DSC was available at the meeting but CDR Ken Marien reported afterward that Initial Operational Capability (IOC) testing is now underway at Groups Atlantic City and Eastern Shore, the prototype Group headquarters. IOC is approximately one year behind schedule. There has also been some slippage in the program timetable due primarily to software and tower site acquisition problems and a completion date of 2007 now appears likely. As each station becomes operational, the personnel are trained and the station boats are upgraded to VHF-DSC, the station will then remain on watch for DSC communications even though Sea Area A1 will not be declared until all CONUS installations have been completed. As a related matter, Earle Ingalls reported that Canada had let contracts to extend their VHF-DSC upgrade to the Great Lakes with an expected completion by the spring of 2005.

d. Status Report on Implementation of the Automatic Identification System (AIS). Jorge Arroyo provided an update on implementation of the AIS system. As expected, there have been a number of implementation problems in the roll out of this new technology. A case in point is that tugs which predominately operate under an FCC 'fleet' license and are not required to have VHF-DSC, often lack the MMSI number needed for AIS installation and proper identification. This matter is being addressed and a no cost solution is being sought in consultation with the AWO and the FCC (see FCC report). Installation problems have been encountered on smaller vessels regarding gyros and interfacing with navigation receivers (see Service Agents Reports). Note that the majority of these smaller vessels do not require AIS installations. Most DSC radios limit users to two attempts to enter a new MMSI number which then need to be reset by a service technician. This is not the case with AIS equipment, the user thus has the ability to reset or update the AIS without the services of a technician or a factory representative; it does however, increase the potential for erroneous or invalid entries. Work is proceeding smartly on a less costly AIS (Class B) equipment for voluntary vessels. Jorge also announced that a new Coast Guard webpage (www.navcen.uscg.gov) had been developed dealing with waterway navigation requirements query-able by state, Captain of the Port zone, or subject matter, and solicited Task Force members input and comments.

e. Status Report on Implementation of the Ship Security Alert System (SSAS). Craig Burch provided a status report on the SSAS implementation. This is another system that was mandated for early fitting due to security concerns and is causing some concerns among vessel operators. The Coast Guard is treating the year following the 1 July 2004 outfitting date as an implementation period. While the Coast Guard does not approve individual systems, it is understood that Ship Security Plans will be approved for SSAS installations utilizing: a modified COSPAS-SARSAT 406 EPIRB system;

special addressing protocols for Inmarsat GMDSS approved systems (A, B, C, Mini-C, and Fleet 77), and other Non-GMDSS Inmarsat systems such as D Plus, M, Mini-M, Fleet 33, and Fleet 55 as long as the ship stays in the spot beam coverage area; the Iridium satellite system; and some non-DSC HF solutions. It is expected that the FCC will officially authorize use of Inmarsat-D in a forthcoming Order. This is also a training period for Coast Guard personnel in how to process a SSAS alert from a U.S. vessel. As is the case with AIS, recreational vessels are permitted to install and use SSAS systems on a voluntary basis but are advised to furnish the Coast Guard with contact and other appropriate details in lieu of a formal Ship Security Plan.

f. Invitation to attend the SOLAS Working Group meeting for the Communications, Search and Rescue (COMSAR) Subcommittee. Russ Levin as Secretary, invited members present to stay for the afternoon meeting of the Working Group. Russ also briefly outlined the scope of the work being addressed.

4. The FCC Reports:

a. Changes to Part 80 of the Radio Regulations. Ghassan Khalek reported that the comment period had closed for the changes proposed under the Notice of Further Proposed Rule Making discussed at the May meeting and that a Report and Order was being prepared to announce the decisions. In response to a question, Ghassan acknowledged that the Coast Guard, the RTCM, and the Task Force had recommended that the SC-101 standard for VHF-DSC be discontinued in favor of the new International Class D standard and that this would be addressed in a new Notice of Proposed Rulemaking. Another new Notice of Proposed Rulemaking (WT Docket No. 04-257, RM-10743) has been released with a comment date of 12 October 2004. The issues raised in this docket deal with increased flexibility proposed by MariTEL for VHF Public Coast Stations and by Mobex Network Services for the Automated Maritime Telecommunications System (AMTS) stations. The proposed rule changes would enable these stations to serve land mobile customers in areas remote from maritime users of the bands.

b. Proposed Task Force Comment on the New Rule Making. The FCC Notice raises issues of fundamental interest to the maritime community which deserve our support. Specifically, the Commission takes the position that no rule changes “undermine the purpose of providing for the unique distress, operational, and personal communications needs of vessels at sea and on inland waterways” and will not “enable a defacto reallocation or otherwise remove this spectrum from the maritime community.” The Commission also asks for comments as to whether they should “align allocation of this spectrum with that of the ITU with respect to use of the spectrum for port operations and ship movement services in the interest of promoting compatibility with international shipping and increased flexibility”. A draft Task Force comment supporting these views was distributed and members desiring to contribute to the final version should contact Jack Fuechsel prior to 8 October 2004.

c. Retention of MMSI Numbers by Recreational Vessels Dropping FCC Station Licenses. Ghassan Khalek acknowledged that many recreational vessels no longer needed individual radio station licenses since they are now 'licensed by rule'. The Commission has decided to let such vessels retain their present MMSI number used for identification in the VHF-DSC and AIS systems. This will avoid the need to apply for a new MMSI number via BOATUS or Sea Tow and have the new number embedded in the radio. Instead, they will be permitted to continue to use the same number provided they re-register with BOATUS or Sea Tow. This is a necessary step to insure that the vessel identity is available to the Coast Guard in emergency and is also highly desirable since the earlier vessel identity collected by the FCC did not collect all of the information currently being provided for owner contact etc. The Commission plans to notify expiring license holders of the procedure to be followed should they not plan to renew the license.

d. New MMSI Numbers for Vessels Using 'Fleet' MMSI Numbers. Ghassan Khalek acknowledged that to comply with AIS regulations, each vessel must have an individual MMSI number and cannot continue to use the 'fleet' number previously provided to a group of vessels owned by the same licensee. This issue was raised by the American Waterway Operators (AWO) on behalf of their members, primarily tug boats. There have been several discussions with the Coast Guard as to how the new numbers can be issued with a minimum of cost and inconvenience to the licensees but a definitive solution is not yet available.

5. The RTCM Report:

RTCM President Bob Markle noted that their website program that enables ship operators to enter vessel parameters and read out all SOLAS Chapter V requirements for Navigational equipment. This program has been extended to include the Chapter IV requirements for Radiocommunications equipment required to participate in the GMDSS. This new program is nearly ready for beta testing and several Task Force members volunteered to participate in the testing program. Both the navigational and GMDSS programs will initially be limited to the international SOLAS requirements but it is planned to extend both to incorporate any additional domestic requirements. Bob also announced that the 2005 RTCM Annual Assembly would be held in St Pete Beach, Florida at the Trade Winds hotel 15-20 May. The GMDSS Task Force will likely be invited to meet on Thursday 19 May.

6. The GMDSS Modernization Initiative.

RADM Ed Gilbert provided a status report on the Task Force's new initiative concerning GMDSS modernization. There are currently about 15 names on the ad hoc committee that will conduct the review by email. Since the initial document identified numerous issues to be examined, the first order of business will be to select a few high priority issues to address initially. One such item that is considered ready for review is the possible acceptance of alternative satellite systems (i.e. other than Inmarsat and COSPAS-SARSAT) to provide GMDSS services. This issue needs to be addressed since it is on the agenda for discussion at the next IMO COMSAR Subcommittee meeting and

is being addressed by the U.S. SOLAS working Group. Certain other possible changes to GMDSS standards are also under discussion in IMO and ITU including the provision of ship-to-ship calling arrangements on HF-DSC and provision of HF Email service to replace MF/HF public correspondence services that have been largely discontinued. Other current issues include a review of possible recognition of cellular radio systems that have largely replaced VHF public correspondence and the proliferation of simultaneous bridge watches on several VHF channels.

7. **The Recreational Vessel Group Report:**

a. BOATUS MMSI Registrations Reach 18,355. Elaine Dickinson reported that BOATUS has issued 18,355 MMSI numbers to date and is prepared to cooperate with the FCC by re-registering those recreational boats which are not renewing station licenses. They hope that the FCC will notify expiring license holders of their options and emphasize the need to re-register.

b. Boating Safety Grant to Produce DSC Tutorial. Chris Edmonston of the BOATUS Foundation briefed the Task Force on their recent award of a Coast Guard Boating Safety Grant to be used to develop a tutorial on the proper use of Digital Selective Calling (DSC). This has long been a Task Force goal since recreational vessel operators are permitted to use DSC systems but are not required to receive training. This tutorial will greatly facilitate the voluntary training we continue to recommend. Chris indicated that Chuck Husick would develop the tutorial and that it would be in the public domain freely available to all users. It is planned to format the training aid for print media and a CD as well as for internet interactive training. The print versions will be in plain covers suitable for use by manufacturers who will be encouraged to customize it for shipping with their products.

c. TowBoatUS Surveys Members for Task Force. Jerry Cardarelli briefed the Task Force on the operation of TowBoatUS which provides towing services to about 575,000 members, half of whom have chosen higher option towing contracts. In a typical year about 60,000 boats will be towed, started, floated or otherwise assisted. TowBoatUS has facilities in 250 ports with some 400 tow boats on the east coast and inland lakes and rivers and another 100 boats on the west coast through their recent acquisition of the Vessel Assist organization. 24 hour dispatch services are available from two call centers in Virginia and California. TowBoatUS would like the FCC and the Coast Guard to investigate assigning a 'fleet' MMSI number which could be used anywhere to connect to their closest towing facility. A quick survey of their franchisees produced the following statistics from those responding:

- (1) 70% of their fleet is already DSC equipped
- (2) 2% of the operators have a high site with a 24/7 watch
- (3) 60% of the calls for assistance come by radio on channel 16
- (4) 40% of the calls for assistance come to the call centers via 800 numbers
- (5) All are aware of DSC and say they will have it by the time Rescue 21 is done
- (6) Only 20% of DSC calls received include a GPS or Loran position

- (1) Most complain about Ch 16 congestion, excessive test calls, and hoaxes
- (8) Some have recommended a special MMSI number for DSC testing

d. C-Port, the National Association Representing TowBoat Industry. The Task Force also received a briefing from Fiona Morgan, the Chief Executive of C-Port, the National Association representing the towboat industry including TowBoatUS, Sea Tow, and independent operators. C-Port has entered into a partnership agreement with the Coast Guard in the interest of promoting boating safety among its members and with the boating public. C-Port also has a standards program for certifying members who meet the criteria as “accredited for commercial assistance and professional towing.” Fiona had also conducted a quick poll among members with the following results from those responding:

- (2) The typical operator had been in the business for about 15 years
- (2) The typical operator handles 250-300 assists per year
- (3) The typical operator has 3 vessels, with 5 operators, all licensed captains
- (4) 90% of the operators are aware of the Rescue 21 program
- (5) All operators are aware of DSC but only 20% use it at this time
- (6) Most replace equipment every few years due to hard use and exposure
- (7) 25% of the operators carry EPIRBs
- (3) Most operators consider education of boaters the number one problem

e. NOAA Report on Personal Locator Beacons (PLB). Lt Dan Karlson reported that marine PLBs have been available for about a year now and that some 1400 have been registered with NOAA. A planned separate coding scheme to identify marine PLBs has not yet been implemented but those alerts which decode as located in maritime areas are passed to the Coast Guard for action. Dan noted that some pilots are beginning to carry PLBs, sometimes to supplement fitted Emergency Locating Transponders (ELT). He distributed two brochures sponsored by NOAA, NASA, the Air Force, and the Coast Guard, one dealing with ELTs and EPIRBs transitioning from 121.5 to 406 MHz, and the other dealing with PLBs. Both are available in quantity for further distribution.

8. The Report of the GMDSS Training Group:

a. GMDSS training of cadets at the SUNY Maritime Academy. Captain Joe Ahlstrom made a presentation on the GMDSS training of cadets at the Maritime Academy operated by the State University of New York (SUNY). GMDSS training meets all established course criteria but is spread through the years of instruction including sea time during the first class cruise. With the introduction of a 2 year course, some changes are desirable to better fit that curricula. They plan to submit proposed changes to the Coast Guard’s National Maritime Center for approval but are asking the Task Force to review 3 issues outlined below. The press of time did not permit a detailed discussion of the proposal which will be undertaken outside the meeting with members of the Training Group. Members with an opinion on the issues raised are invited to contact Jack Fuechsel to express their opinion which will be consolidated into a consensus under the leadership of Training Group Chairman, Chris Krusa:

- (1) Is it feasible to move more of the required 70 hours instruction to the Cruise or Sea Project?
- (2) Is it feasible to use Cadet Sea Projects for the required time noting that time on small vessels or tugs may not have a certified instructor aboard?
- (3) In the future could the Academy submit qualified candidate's names direct to the FCC (for the Operator's License) and the Coast Guard (for the GMDSS Certification) rather than via an FCC COLEM who is involved by mail only?

b. Criteria for USCG Endorsement as GMDSS Radio Maintainer. A query has been received from a Task Force member seeking such an endorsement from a Coast Guard Regional Examination Center (REC). The criteria for such an endorsement is spelled out in MOC Policy Letter 06-03 and provides generally that the candidate must present more evidence of competency than the FCC Maintainer License. The criteria appears to have been developed on the assumption that schools teaching a GMDSS Maintainer course would be available but this is not the case in the U.S. The Training Group will also be asked to review this criteria and make recommendations for revision if appropriate.

9. The Report of the GMDSS Commercial Vessel Group: The planned SSAS presentation from Absolut Software was not available due to airline schedule disruption. The Task Group noted that the new MOC Policy Letter 04-05 spelled out procedures for seeking exemptions from the requirements for Voyage Data Recorders (VDR).

10. The Report of the GMDSS Service Agents & Manufacturers Group:

a. Interconnection of Navigation Receivers with DSC and AIS Equipment. Chairman Ralph Sponar reported that problems with do-it-yourself interconnection of navigation receivers with DSC radios and AIS equipment are still being observed. To get very technical, a common problem involves different versions of the NMEA 0183 Interface Standards. Versions 1.5 and below used prior to 1995 were based on the RS-232 protocol using 5 volts and ground. The later update versions 2.0 and above are based on the RS-422 protocol using a plus or minus 5 volt differential. The RS-232 and 422 protocols cannot be interconnected unless the navigation receiver provides separate ports for versions 1.5 and 2.0 as do some of the later models. Another way to resolve the interface problem is to contact the equipment manufacturers for interconnect information. The Noland Engineering Co. (www.nolandengineering.com) can furnish technical information and a converter with buffered outputs that accepts both protocols.

b. Testing of EPIRBs a Continuing Challenge. Ralph provided further information on the testing of 406 MHz EPIRBs. At present the most successful EPIRB testing is done in a shielded bag or enclosure to preclude broadcast of an unintended alert. This procedure requires breaking the seal on the switch but extra seals are not provided and many servicing agents do not have shielded bags to carry out the test. This procedure adequately tests the 406 MHz alerting and the 121.5 MHz homing functions. It is felt that manufacturers should be required to provide a test procedure for both the 406

alerting and the 121.5 homing functions without the necessity of breaking the seal. At present, most manufacturers provide a test function only for the 406 alerting function. The IMO has issued MSC/Circ.1123 on the testing of L Band EPIRBs that is similar in content to the procedure for testing 406 MHz EPIRBs.

c. New International Specifications - DSC Radios without MMSI numbers.

Recent changes to the DSC specifications provide that DSC Radios without an embedded MMSI for identification revert to voice operation and do not broadcast a digital alert on channel 70 without identification. Since most existing equipment does broadcast a digital alert without an MMSI number, it may be some time before the models adhering to the new standard show up in the market place.

d. AIS Installations on vessels without VHF-DSC Radios. Ralph noted that many vessels that were required to fit AIS were not required to have VHF-DSC and in some cases were not even required to have radios. They must obtain an MMSI number for the AIS installation but will be severely handicapped in conducting communications with other vessels using the AIS system. They can receive a brief digital message on the AIS display but may not notice it or have time to answer it by typing out a response on the keyboard. If they are VHF equipped they can receive voice calls if the caller can correlate the MMSI number with a ship name. As noted before, AIS will do little to enhance the safety of a vessel which does not have it connected to an ECDIS or Radar display.

11. The Next Meeting of the GMDSS Task Force: The Task Force agreed to meet next in Naples, Florida on Friday 22 October 2004 at the Registry Resort during the Annual Meeting of the National Marine Electronics Association. Individuals or organizations desiring to present briefings during the August meeting should contact Jack Fuechsel.

GMDSS TASK FORCE CONTINUING WORK LIST

19 August 2004

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. Disseminate GMDSS Information Bulletins and IMO GMDSS Documents (TF)
8. Advocate Canadian coordination to extend GMDSS services and requirements to the Great Lakes (TF)
9. Assist RTCM to expand its interactive website to include GMDSS equipment requirements (TF)
10. Review GMDSS concepts and make modernization recommendations (TF)
11. Review GMDSS publications and recommend updates to keep the data current (TR)
12. Encourage AMVER & VOS participation to supplement GMDSS (CV)

13. Publicize availability of NAVTEX receivers without printers for all vessel categories (CV)
14. Advocate changing GMDSS rules to permit ship calling on Distress and Safety channels (CV)
15. Encourage Manufacturers to upgrade GMDSS explanations and guidance in equipment manuals (SA)
16. Recommend to FCC clarifications to their List of Approved GMDSS Equipment (SA)
17. Monitor development of guidelines for GMDSS equipment maintenance and maintainer standards (SA)
18. Develop recommendations to ensure proper interconnection of GPS receivers with DSC Radios (SA)
19. Recommend training programs for non-mandatory users of GMDSS systems (RV)
20. Encourage development of GMDSS handbooks and Internet and video training aids (RV)
21. Recommend Class 'D' VHF-DSC for voluntary vessels as superior to RTCM SC-101 format (RV)
22. Advocate suspension of FCC Station License requirement for short international voyages (RV)
23. Advocate that FCC modify ULS to accept MMSI numbers assigned by BOAT US and Sea Tow (RV)
24. Recommend voluntary use of Marine Personal Locator Beacons (RV)

Key to cognizant group:

- (TF) Task Force
- (TR) Training Task Group
- (CV) Commercial Vessel Task Group
- (SA) Service Agents and Manufacturers Task Group
- (RV) Recreational Vessel Task Group

Please refer questions and proposals to Captain Jack Fuechsel at 703-941-1935 or gmdsstf@cox.net

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