NATIONAL GMDSS IMPLEMENTATION TASK FORCE

Newsletter and Summary Record of 11 January 2012 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: www.navcen.uscg.gov/?pageName=MaritimeTelecomms (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 11 January 2012 at the new RTCM Headquarters in Arlington, Virginia. The documents listed below were distributed and are available on request:

Draft Task Force position on Equipment for Small Passenger Vessels
Coast Guard First District Press Release on Dangers of Accidental Distress Calls
RTCM summary of recently published Part 80 Rules under docket 00-48
Coast Guard Status Report of 5 Jan on Task Force proposal for Beacons on RVs
Final version: VHF-DSC-MMSI-GPS Brochure by National Boating Federation
New National Boating Federation Brochure on Cell Phone use
New Coast Guard Automatic Identification System (AIS) Encoding Guide

1. The Coast Guard Reports: The following updates were provided by the indicated presenters:

a. Rescue 21 Upgrade of VHF Coastal Watch for DSC and Direction Finding. Gene Lockhart provided a presentation with the following highlights:

1.) Project status: Rescue 21 is operational on the entire east, west and gulf coasts and the Great Lakes. Rescue 21 has aided 34,079 Search and Rescue cases, a number growing by over 900 per month. All remaining work should be completed by the end of fiscal year 2012. Two of the Great Lakes sites have been delayed due to theft of copper. A remote tower at South Padre Island will complete the Texas coast and a new site at Dry Tortugas is being planned to extend coverage for Sector Key West, Florida. A long standing tower location issue at Lake Tahoe will be resolved with the use of two gap filler sites.

The projects outside the Conus and their target dates are Sector Honolulu (8 of 10 remote sites by April 2012), Sector San Juan (January 2012) except for St. Croix, and Sector Guam (June 2012). Alaska is a special case with expected coverage in Southeast Alaska, Anchorage, Kodiak and other locations with a concentration of maritime activity. Inland coverage on the Western Rivers is another special case with planned upgrades not including all services provided in the coastal zones.

2.) Project Capabilities: There is a V-Sat capability at 76 sites now with 120 planned. This Ku Band service allows instant backup when the primary landlines fail so that there is no loss of capability from the principal watchstanding sites at the Sector

Offices to their various remote facilities. Single point of failure in landlines has been the most significant factor in causing outages. Two California sites at Catalina and Cambria are currently operating over V-Sat due to slow response by landline providers. Over the Air Rekeying (OTAR) is another capability of the Rescue 21 system which provides an automated and encrypted interconnection with Customs and Border Patrol facilities through the National Law Enforcement Communications Center in Orlando. OTAR is for government operations and does not involve service to the public.

b. Coast Guard Boating Safety Division Addressing Task Force Proposal on Beacons for Recreational Craft Offshore. Mr. Jeff Hoedt, Chief of the Boating Safety Division at Coast Guard Headquarters, provided a status report with the following highlights:

1). The Boating Safety Division manages safety concerns related to an estimated 12.4 registered boats, millions of vessels not required to be registered (canoes, kayaks, etc.), 80 million adults and millions more youth who engage in recreational boating. Although the Coast Guard has long had authority to regulate required "associated equipment" on recreational vessels, radio equipment, including emergency transmission devices, was specifically exempted by statute. The new authority contained in the 2010 Authorization Act changed this by including emergency locator beacons for recreational vessels operating more than 3 NM offshore in "associated equipment." This prompted the Task Force's 10 January 2011 letter to the Commandant recommending regulatory implementation of this new authority. An interim response to the Task Force dated 5 January 2012 has been posted on the Task Force website and copies were made available at the meeting. The letter acknowledges that the Coast Guard now has the authority to require emergency locator beacons on recreational vessels more than 3 NM offshore and is analyzing available data to determine the potential costs and benefits such as the number of additional lives which might be saved.

2). The Coast Guard presented the issue to the National Boating Safety Advisory Council (NBSAC) at its October 2011 meeting and the issue was assigned to its Boats and Associated Equipment Subcommittee. The NBSAC will meet again 13-15 April 2012 and the Task Force has been invited to attend. It is expected that the Subcommittee may ask the Coast Guard for data relating to costs and benefits of promulgating such a regulation including such items as lives saved, injuries and property damage prevented, and search and rescue cost savings. The costs may include the cost borne by the recreational boating community to purchase and maintain the emergency beacons, additional cost to the Coast Guard to respond to false alerts, and other societal costs.

3). Jeff also reported generally on the statistical data base maintained by the Boating Safety Division which differs considerably from the Coast Guard's operational database, MISLE. In 2010 the Boating Safety statistics included 672 deaths with some increase expected in the not yet complete 2011 report. The data on location is limited however regarding distance offshore in some cases; data suggest that up to 90% of the fatalities occur on inland waters and involve small craft not expected to operate offshore.

SCUBA accidents are not “reportable” data in the Coast Guard’s Boating Accident Report Database Managed by the Boating Safety Division, but are accounted for in MISLE. The Coast Guard is required by law to consult NBSAC on issues such as this and the Council’s analysis may take some time. In addition, assuming a recommendation to proceed with implementing regulations, it could well take 6-8 years to complete the regulatory procedure.

4). Joe Carro mentioned that a new GMDSS Brochure was under development by the National Safe Boating Institute, which produced an earlier version under contract to the Coast Guard. An effort will be made to have copies of the new brochure available for the next meeting

c. The Benefits to Search and Rescue Operations if R/Vs Offshore Reported Accurate Positions. Captain David McBride and Commander Mark Turner reported on the fact that only about 10% of distress cases originating on VHF included an accurate position which in most cases resulted in excessive aircraft searches and a delay in locating survivors. Given the high cost of fuel, these extended searches are consuming a disproportionate share of the Coast Guard’s budget. As brought out in earlier meetings, the Task Force has mounted a major campaign to encourage vessel operators to take advantage of the new Rescue 21 capabilities by registering their DSC radios for the MMSI identifiers and connecting GPS receivers so that a much higher percentage of distress alerts will be received with good positions.

The Coast Guard is also concerned that database statistics record false alerts but do not include non-alerts when mariners vanish offshore and no distress call is received. Since R/Vs are not presently required to carry radios or beacons, the Task Force has sponsored the proposal that R/Vs offshore be required to carry emergency beacons. What qualifies as an “emergency beacon” has not been defined but is generally accepted to include EPIRBs, Personal Locator Beacons (PLB), Satellite Emergency Notification Devices (SEND) such as SPOT, and either a fixed mount or handheld VHF-DSC radio with integral GPS for R/Vs remaining within Rescue 21 coverage. Captain McBride indicated that this may be his last meeting as he plans to retire in early summer. The Task Force will miss his significant contributions to maritime safety but will look forward to welcoming his successor, Captain Peter Martin.

d. Coast Guard Use of Collected AIS Data for Quality Control. Mr. David Winkler of the Coast Guard’s Operations System Center (OSC) in Martinsburg, West Virginia briefed the Task Force on their capability with the following highlights:

1). The OSC monitors AIS broadcasts by ships in the U.S. coastal areas and follows up on those broadcasting incorrect or incomplete information. This capability, referred to as the Authoritative Vessel Identification System (AVIS) has enabled follow up on vessels broadcasting incorrect information which has resulted in significantly reduced AIS anomalies. The AIS broadcasts many forms of ship

identification including Name, MMSI, Radio Call Sign, and IMO registration. The AVIS signal correlation procedure looks for 4 discreet identifiers to constitute an AIS vessel signature. The ability to correlate most AIS vessel signatures greatly facilitates the Coast Guard's Maritime Domain Awareness (MDA) mission.

2). The ability to eliminate errors through follow up with vessels broadcasting AIS errors is a major accomplishment of AVIS. Examples of AIS errors include the following:

Use of an MMSI assigned to a different vessel

Use of a phony MMSI numbers such as 111111111 or 123456789

Call sign errors

Vessel name errors

Errors in IMO number

Vessels not registered with IMO

e. Developments in E-Navigation and AIS/ECDIS Regulations. Mr. Jorge Arroyo reported with the following highlights:

1). Further developments in electronic chart requirements were not yet on the Coast Guard's regulatory agenda and he could not predict when that would occur. The Coast Guard expects to utilize the standard produced by RTCM Special Committee 109.

2). The Coast Guard is considering how to implement the amendments to Chapter V of the Safety of Life at Sea (SOLAS) Convention which will require a new policy statement on implementing requirements for Electronic Chart Display Systems by the 1 July 2012 effective date.

3). Jorge distributed a new Coast Guard AIS Encoding Guide which provides detailed guidance on setting up the static data and voyage related data. It also addresses Safety related text messaging. The Guide provides 1st and 2nd digit codes for vessel type and cargo as well as a list of 2 digit codes describing specific vessels operating in USA waters, the activities they are engaged in, and codes for special craft. The Guide reminds mariners that they are required to provide accurate input to all AIS data fields. Copies of the Guide are available from the website www.navcen.uscg.gov.

f. U.S. SOLAS Working Group to Prepare for IMO COMSAR 16. Russ Levin indicated that there was one more scheduled meeting of the SOLAS Working Group to prepare for Comsar 16. That meeting was held the following day, 12 January at Coast Guard Headquarters. New documents received afterward would be circulated by email for comment.

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

a. Further Part 80 Rule Making. On 2 November the FCC published final Rules on selected items in Part 80. These revisions became effective on 3 January 2012 and included the following items:

1). Prohibits sale, importation and use of Inmarsat E EPIRBs

2). Concludes that VHF-DSC handhelds should have integral GPS but defers adoption until RTCM concludes work on a new standard

3). Requires that small passenger vessels without reserve power carry at lease one VHF handheld transceiver

4). Declines at this time to provide additional spectrum for Fax and data on maritime voice channels but promises to address the RTCM recommendation for a VHF Digital Small Message Service in a subsequent proceeding

5). Eliminates the limits on the number of frequencies assignable to private coast stations or marine utility stations

6). Incorporates by reference international standards for radar and other equipment promulgated by the IMO, the ITU, the IEC, and RTCM

7). Revises the Operator License Codes in para. 80.151(b)

b. Pending Further Changes to FCC Rules. In addition, there are petitions from RTCM and the Task Force which have already been through the public comment phase and are ready for approval but are being held to be consolidated with a new Petition expected from the Coast Guard. The various actions being held up for these reasons include the following:

1.) RTCM petition to enable the VHF-FM Digital Small Message Services

2.) Task Force Petition to permit use of marine VHF handhelds ashore.

3.) Require vessels subject to GMDSS to test radiotelephone equipment daily

4.) Require vessels with mandatory EPIRBs to upgrade to GPIRBs

c. FCC Decision on the Riverside, California Petition to Use Marine VHF Channels for Land Mobile Applications. The FCC has still not announced a decision in this case.

3. **Reports and Issues: The Recreational Vessel Group Report**. Jack Fuechsel reported for this group on the main issues including:

a. ad hoc Group to Promote Proper Use of VHF-DSC Radios Including Registration for MMSI and Connection to GPS Receiver. There has been a noticeable slowdown in reported progress on this broad based effort to encourage boaters to responsibly configure their VHF-DSC radios to maximize the Coast Guard's ability to respond to their distress alerts. This may be due in part to the purely voluntary nature of the project. The following are highlights of reported activity:

1). NBF Trifold Handout Emphasizing Benefits of DSC/MMSI/GPS Project. The National Boating Federation (NBF) has developed an excellent brochure promoting our ad hoc group project. The brochure has been revised somewhat since advance copies were distributed at the May Task Force meeting. Copies of the final version were distributed at this meeting along with a separate NBF brochure promoting the use of VHF Radio and providing a discussion of the disadvantages of relying on cell phones for emergency use.

2). Status of Task Force Proposal for Beacons on Offshore R/Vs**.** See paragraph 1, sub paragraphs a, b and c above reporting near completion of Rescue 21 deployment (which should be a strong incentive for R/V to equip with VHF-DSC), status of the Task Force proposal for emergency beacons on R/Vs offshore, and an interpretation of what might be included in the category of emergency beacons.

3). An excellent suggestion was made that the Task Force approach the National Association of State Boating Law Administrators (NASBLA) with a suggestion that their model registration format for States to use in registering boats include a column for MMSI numbers. Hopefully, NASBLA would also encourage states to promote transition to VHF-DSC radios and registration for the MMSI number as necessary steps for vessel operators to achieve the full benefits of Rescue 21 capability.

4). First Coast Guard District Press Release on Dangers of Accidental Distress Calls. Copies of this excellent Press Release written by Charles Rowe of Sector New York were distributed at the meeting. The release outlined a case of an inadvertent activation of the VHF-DSC Distress feature by the owner. Fortunately, the radio was registered and the Coast Guard was able to contact the owner and ascertain that the vessel was not in distress before launching aircraft. It was not as easy as it sounds however, the owner contacted had sold the boat 4 years previously and the new owner had not reregistered the radio. He too, had sold the boat shortly before the incident but was able to provide the identity of the current owner who had also failed to reregister the radio. It was fortunate that the previous owners could be contacted but the correct procedure is for each new owner to register his own contact information for validating distress alerts. The press release also includes advice on registering for MMSIs and reference to VHF-DSC websites.

b. BOATUS New Sponsor of Vessel Safety Check Program. On 8 February, BOATUS released a press release announcing that they would sponsor, for the next 3 years, the Vessel Safety Check Program conducted by the Coast Guard Auxiliary and the U.S. Power Squadrons. The vessel safety checks are done as a courtesy at no-cost, no-risk to the boater. The voluntary safety checks are done at boat ramps, marinas, and boat clubs and typically number over 200,000 each year.

4. <u>Reports and Issues, Service Agents and Manufacturers Task Group</u>. Ralph Sponar reported for his group with the following highlights:

a. Standardized Inspection Check Lists. The Group has worked with the Coast Guard, the FCC, and Classification Society inspectors to update check lists for mandatory inspections of selected vessel types. A final version of a new check list for vessels on the Great Lakes was made available at the May 2011 Task Force meeting and is now on the NMEA and FCC websites along with the Check Lists for GMDSS and Small Passenger Vessel inspections. The three Inspection Check Lists on the FCC website are linked to the Task Force website. Further review is being conducted on Check Lists for Bridge-to-Bridge Radiotelephone and AIS Class A and B. The Fishing Vessel Check List published in 2003 is being reviewed prior to posting on the web sites along with the other check lists.

b. New Standard Horizon Fixed Mount VHF Radio with Integral GPS. The Task Force is pleased to note the availability of the Standard Horizon VHF-DSC Radio GX1700 with integral GPS. The availability of fixed mount radios with integral GPS removes the difficulty of interconnecting to a separate GPS receiver.

5. <u>Reports and Issues, Commercial Vessel Task Group.</u> Nino Martini reported for the Commercial Vessel Group with the following highlights:

a. Coast Guard Notice of Proposed Rulemaking (NPRM) on Towing Vessels. The Task Force comments on this Rulemaking were submitted on 8 December 2011 and can be viewed on the Task Force website. This is part of an extended Rulemaking initiative and early results cannot be expected.

b. Review of the Standards for Safety Radio Equipment on Small Passenger Vessels. One of the handouts at this meeting was a draft outline of principles to consider in recommending updated radio carriage requirements for small passenger vessels. The Working Group members were identified earlier and plan to conduct most of their work by email. Since this is not in response to a Rulemaking procedure, there is no deadline for completion.

6. <u>Reports and Issues: Training Task Group.</u> Owen Anderson reported by email that his ad hoc group to update the GMDSS Question Pools had slowed considerably due to the holiday season but that a final draft for the GOC and ROC test pools has been released to the working group for final approval which is envisioned within 5-6 weeks. Work is also continuing on the GMDSS Maintainer test pool.

7. **Reports and Issues: GMDSS Modernization Group.** RADM Ed Gilbert and Bob Markle both attended the IMO/ITU Experts Group meeting in London in September. The Experts Group had been charged with review of the scoping exercise for GMDSS Modernization and has made its report to the COMSAR 16 meeting in March of 2012 along with the report of the International Correspondence Group chaired by Bob Markle. The Group of Experts also reviewed the initial submission by the Correspondence Group which was limited to the work plan by its Terms of Reference. Once COMSAR 16 completes its review of the scoping exercise, it is expected to recommend to the parent Maritime Safety Committee (MSC) a plan to commence work on modernization. The MSC will meet in May and will hopefully approve the Comsar plan with broadened guidance to the Correspondence Group.

8. **The RTCM Report:** RTCM President Bob Markle reported on the status of Special Committees of interest to the Task Force. His report is summarized here:

a. RTCM SC 101 on GPS in VHF-DSC Handhelds. The Committee completed a first draft edition of its standard on GPS in handhelds. They decided to align it with a new European standard, and circulated the revised standard for Committee vote in early February.

b. RTCM SC 104 on Global Navigation Satellite Systems (GNSS). This Committee is working on incorporating Galileo and Glonass into the standards which have been developed for GPS.

c. RTCM SC 109 on Electronic Charting. The Committee is working on a new version of the standard and plans to include provisions for Voyage Data Recorder (VDR) functionality in Electronic Charting Systems.

d. RTCM SC 110 on Emergency Beacons. The Committee is working on a new EPIRB standard with accompanying test standards for EPIRBs with GPS. They are also working on standards for a new generation of EPIRBs that will take advantage of certain characteristics of the next generation of Search and Rescue satellites. Existing EPIRBs will be compatible with the new satellite system.

e. RTCM SC-119 on Maritime Survivor Locating Devices. This Committee was reactivated to consider man overboard AIS applications and other relevant technologies. The initial work of the reactivated Committee has been completed.

f. RTCM SC-121 on Automatic Identification Systems (AIS). This Committee continues work on AIS messaging and has a Working Group addressing AIS Application Specific Messages such as those used in harbors and at locks.

g. 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 comment period closed with all comments favorable to the proposal. Early approval action by the

FCC was expected but is still pending. The Committee is expanding its work to include data messaging on MF and HF channels.

h. RTCM SC 127 on Enhanced Loran. The work of this Committee is now centered in the United Kingdom which provides the chairman.

i. RTCM SC-128 on Satellite Emergency Notification Devices (SEND). This Committee was chartered at the request of the Coast Guard to develop performance standards for emergency notification systems using private satellite systems such as SPOT. The Committee has completed and approved its new standard. The FCC will be petitioned to include the new standard in its Rules.

j. RTCM SC 129 on Portrayal of Nav-Related Information on Shipboard Displays. This Committee is just beginning its work.

k. RTCM SC 130 on Electro-Optical Imaging Systems (EOIS). The work of this Committee deals primarily with night vision systems.

l. Other RTCM Announcements of Interest. The 2012 RTCM Assembly including a Task Force meeting will be held concurrently with the NMEA International Marine Electronics Conference and Exposition at Lowes Royal Pacific Hotel in Orlando, Florida the week of 23-29 September 2012. It is expected that this joint meeting including a combined exhibit will prove popular with members of both organizations.

9. Summary Record of 11 January Meeting: The Summary Record of the 28 September 2011 meeting which had been distributed earlier and posted on our website, was noted without change.

10. Communication from the Association For Rescue At Sea (AFRAS): AFRAS is a non-profit Association dedicated to support of voluntary maritime rescue services in all corners of the globe. AFRAS is known for its recognition of worthy rescues by members of the Coast Guard, the Coast Guard Auxiliary, Vessel Assist Operators, and AMVER vessels as well as assistance to voluntary rescue services. In view of the Task Force dedication to safety at sea, it is considered that Task Force members may be interested in membership in AFRAS and the opportunity to support their programs. For more information see the AFRAS website at www.afras.org.

11. Other Business and the Next Meeting of the GMDSS Task Force: The next Task Force meeting will be held at 9:00 a.m. on Wednesday morning 10 May 2012 at the **New RTCM Headquarters in Arlington, Virginia at 1611 North Kent Street, Suite 605** (the earlier start time is to accommodate the RTCM Board meeting that afternoon). The follow-on meeting will be held tentatively on Thursday morning 27 September 2012, at Lowes Royal Pacific Hotel on the grounds of Universal Studios in Orlando, Florida during the joint RTCM/NMEA Annual meetings. For more information see the RTCM website at www.rtcm.org and the NMEA website at www.nmea.org . Government attendees are encouraged to request travel orders early due to scheduling near the end of

the government's fiscal year which is sometimes accompanied by a freeze on unscheduled travel.

GMDSS TASK FORCE CONTINUING WORK LIST

11 January 2012

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. Advocate voluntary carriage of VHF or EPIRB/PLBs by all vessels offshore (TF)
9. Advocate overhaul of FCC policy and practice on MMSI assignments (TF)
10. Monitor non-GMDSS systems: AIS, LRIT, SSAS, VDR, VMS, & E-Navigation (TF)
11. Recommend updates for Coast Guard NVIC on GMDSS Requirements (TF)
12. Recommend means to facilitate Distress Alerts by Cell Phone & Internet (TF)
13. Advocate GPIRBs for U.S. Vessels Required to Carry EPIRBs (TF)
14. Advocate mandatory Distress Beacons on R/V more than 3 miles offshore (TF)
15. Review GMDSS concepts and make modernization recommendations (MOD)
16. Advocate intership calling on HF GMDSS channels (CV)
17. Recommend Safety Radio and VMS Requirements for Small Fishing Vessels (CV)
18. Recommend Safety Radio & Navigation Requirements for Towing Vessels (CV)
19. **Recommend Safety Radio & Nav. Outfit for Small Passenger Vessels (CV)**
20. Recommend training programs for non-mandatory users of GMDSS systems (RV)
21. Encourage GMDSS handbooks and Internet and video training aids (RV)
22. **Encourage users of VHF-DSC Register for MMSI and connect GPS (RV)**
23. Advocate FCC let R/Vs keep existing MMSI when applying for Station Lic. (RV)
24. **Request through NASBLA that State's boat Registrations include MMSIs (RV)**
25. Encourage Mfgrs. to upgrade GMDSS explanations in equipment manuals (SA)
26. Monitor guidelines for GMDSS equipment maintenance & maintainer standards (SA)
27. Recommend proper interconnection of GPS receivers with DSC Radios (SA)
28. Advocate better FCC & USCG management of annual GMDSS inspections (SA)
29. **Develop Inspection Guidelines and Check Lists for selected vessel types (SA)**
30. 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
(MOD) Modernization Task Group

Attachment: Draft Agenda for Task Force Meeting 10 May 2012 in Arlington, Virginia at the **New RTCM Headquarters; 1611 North Kent Street, Suite 605.**

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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