

GMDSS TASK FORCE

Newsletter and Summary Record of 13 January 2022 Meeting

1. **The Task Force Meeting.** This Newsletter reports on the recent virtual meeting of the Global Maritime Distress and Safety System (GMDSS) Task Force sponsored by the U.S. Coast Guard and dedicated to monitoring the success and shortcomings of the GMDSS. The Task Force is also active in current efforts to modernize the GMDSS and monitors related developments in maritime radio and electronic navigation (e-navigation). The Task Force advocates voluntary use of radio safety equipment by all vessels and makes recommendations to government authorities to improve safety at sea regulations.

2. **Task Force membership.** Membership is open to individuals associated with commercial vessel operations, recreational vessel interests, training institutions, service agents, manufacturers, government authorities and any interested person or organization, and there is no fee for participation. New members are welcome, to join, send your name, organization (if any), email address, and telephone number (optional) to gmdsstf@gmail.com. Members who are unable to attend Task Force meetings are invited to participate by email and to connect with Task Force meetings by conference call. This Newsletter goes out to over 6000 members after each quarterly meeting. The Task Force also maintains a website at: <https://www.navcen.uscg.gov/?pageName=gmdssTaskForce>

3. **The Summary Record.** This record of the meeting is provided for information and will be posted on the Task Force portion of the Coast Guard web site. Due to the Corona Virus Pandemic, the GMDSS Task Force held a virtual meeting on 13 January 2022 supported by the RTCM on Microsoft Teams Meeting with over 70 members and guests participating.

4. **Distribution of Information Papers:** The following Papers of interest were displayed and are available to all on the website: <https://www.joecel.com/GMDSSTaskForce>

Comsar Circ.32 (NCSR 8 Markup) (See item 5.i below)

Comsar Circ.33 on Coast Station Operators Certificate (See item 8.a below)

FCC-21-69A1 AIS Fishnet.pdf (in Doc. archive)

MSC Circ. 803: Participation of non-SOLAS vessels in GMDSS (in Doc. archive)

DHS Inspector General Recommendations re VHF Reliability in Alaska (in Doc.archive)

UK Study of Impact of Renewable Energy installations Offshore on shipping (See 5.k)

NTSB Collision Report on M/V Bow Fortune (See item 5.m below)

IMO/ITU Experts Group 17 (See item 5.n below)

USCG HF Voice Distress Watchstanding. proposed discontinuance (see 5.o below)

IMO Resolution A 1001, Proposed for revision (see 5.a & 5.p below)

Revised GMDSS Information Bulletin for Recreational Boats (see 7.a below)

5. **The Coast Guard Reports:** Jerry Ulcek and others reported with the following highlights:

a. Planning for the NCSR-9 Conference: Pat Gallagher supplied the following report: The International Maritime Organization (IMO) sub-committee for Navigation, Communications, and Search & Rescue (NCSR-9) will meet in June 2022. The U.S. report on electromagnetic interference effects of light emitting diodes (LED) and the impact on maritime safety will also be submitted for discussion at NCSR-9. A new issue, Revision of Resolution A-1001 to better reflect the addition of Iridium as a recognized GMDSS service provider, will be introduced at NCSR-9. This issue will remain on the Task Force agenda.

b. Update on Four Digit Numbering of VHF Channels: Joe Hersey reported that we now have a new date for implementation since SOLAS ships must be able to use four-digit numbering by the first survey after 2024. Actions remaining to implement this change include a revised GMDSS Circular for SOLAS ships, amending the SC-101 standard for class D radios and incorporating the change in FCC Regulations. This item will be retained on the Agenda.

c. Reliability of VHF and other communications in Alaska: Jeff Taboada reported that this issue began with an intervention by the DHS Inspector General about the known unreliability of the existing VHF network in Alaska based on the remote locations and difficulty of servicing in winter conditions. Since then good progress has been made with upgrading microwave links, transmitters and power generators with more planned for the summer months. Despite this progress, Rescue 21 in Alaska was never planned to cover the whole coastline as it does in the other states. CDR Sam Nassar of CG-761, C5 Capabilities, raised an issue suggesting that terrestrial solutions would continue to present difficulties and that other solutions such as satellite systems might be a better solution that would be able to cover the whole state including unserved communities. See also new item 5.q. below on Arctic Communications. This agenda item will be continued.

d. NDAA Act re AK F/V & FV use of AIS: Jerry Ulcek reported that the NDAA exempted F/V over 300 tons in Alaska from the requirement to be fitted with VHF and MF DSC that could require changes to the FCC Rules. There is also a provision extending use of AIS by F/V that could require similar action. With respect to F/V use of AIS to mark fishing nets, a proposal has been put forth in RTCM to legalize such use by adopting a special code to be used for that purpose but the FCC has not yet finalized the agreement. With respect to the F/V waivers, the FCC has already granted waivers until January 2023 pending clarification. The definition of Alaska Region is interpreted as including F/V that transit from Seattle to Alaska. The Task Force will continue this item on the Agenda.

e. Whether U.S. should implement Return Link Service (RLS) on EPIRB Alerts: NOAA/Sarsat representatives were not available to join the meeting but provided input. It was previously noted that the RLS could be implemented on EPIRBs and PLBs but that implementation on aeronautical ELTs was more problematic. The RTCA has not taken a position on ELTs. RLS on maritime beacons will likely be recommended as an optional feature. The RLS when sent, acknowledges that the alert has been received but does not indicate that rescue forces have been dispatched. This Agenda item will be continued.

f. New Issue: ViaSat buys Inmarsat: Peter Broadhurst reported that the buy-out was more like a merger with little cash involved and that few details could be reported until the

merger becomes final later this year. Of 35 satellite operating companies, ViaSat is number 1 and Inmarsat is number 7. Thus the merger should result in expanded services to users. Continuity of Inmarsat's commitments to the IMO on safety services is also assured. The corporate headquarters will be in California with a business office in London. This item will be continued on the Agenda until the merger is completed.

g. LED Lighting – Report from SC-137: Joe Hersey the Chair of RTCM SC-137, gave an update on progress toward developing a standard to deal with LED lighting interference to VHF maritime radios and Automatic Identification Systems (AIS). The Special Committee met in December and plans to meet again in February and hopes to complete a draft standard soon. This item will be retained on the Agenda.

h. Report of MMSI Management ad hoc group: Joe Hersey reported that assignment of MMSIs to handheld radios, especially to handhelds that are not used exclusively on a particular vessel, remains an issue. The FCC has agreed to an interim solution in use by which the primary agents for assignment to vessels licensed by rule, BOATUS and the U.S. Power Squadrons, are assigning MMSIs to handhelds, either fixed or portable. This is an interim solution since neither assignment agent is ready to sign a new agreement that requires an overhaul of their assignment software. This item will be retained on the Agenda.

i. Recommendations on Addressing DSC Problems (NCSR 8/Inf.9): Joe Hersey reported that a recent paper from Max Moser in Search and Rescue confirms that most Distress Alerts received by DSC lack a position. Continuing action on this issue will be included in the work of SC-101 and future reports will be included with that action item.

j. SC-101 Action on Class D DSC: RTCM President, Ed Wendlandt reported that Special Committee 101 was being reactivated with Joe Hersey as Chairman. The next meeting has been called for 15 February with a goal of revising the class D DSC standard to deal with most of the current problems. This item will be continued on the Agenda.

k. UK Study of Renewable Energy Navigational Hazards Offshore: Jack Fuechsel reported that this item called attention to a recent UK Study that noted offshore renewable energy installations were becoming so numerous as to warrant a reminder to ship operators that these installations were hazards to navigation which warranted increased attention. This item will be dropped from the Agenda pending further developments.

l. China Restricts Dissemination of AIS Signals Collected Terrestrially: Andy Loretta reported that China had recently taken action to shut down release of AIS data generated terrestrially in China. The reasons for this action are unclear but it is suspected that many of the consumers of this data were tracking ships involved in the slow down of the supply chain. This item will be dropped from the Agenda pending further developments.

m. NTSB Report on Collision in Poor Visibility, Communications Failure: The NTSB released its report of a collision involving the M/V Bow Fortune, in addition to citing pilot error and poor visibility, it was noted that of the three VHF sets onboard, only one was in working order.

n. Report of IMO/ITU EG-17: Ed Thiedeman reported with the following highlights:

1.) Received input from WARC-23 on GMDSS Modernization and reviewed Comsar Circ.32 addressing Class D DSC updates and Comsar Circ.33 addressing a model course for Coast Station Operators. The EG-17 markups were sent to NCSR-9 for approval.

2.) The group also reviewed ITU R 1371/5, WP5B's work on Deactivation of Distress Alerting Devices as part of post recovery at the end of distress recovery action. Further proposals were considered on the Digitalization of the VHF Maritime Band.

3.) Reviewed the Correspondence Group Report on the Dissemination of MSI and SAR information. 5 or 6 NAV/MET Areas are testing new procedures and more are expected to join the effort. Separately, the Task Force has been concerned that some MSI providers have been slow in sending broadcast alerts to Iridium for broadcast on their SafetyCast system.

o. Discontinuance of USCG HF Voice Watchstanding: Pat Gallagher reported that the Coast Guard had discontinued monitoring the non-DSC Voice Distress Channels with the exception of Guam and Kodiak. The reason given was that for 7 years there had been no alerts except for one in Alaska. There was no immediate explanation for retaining Guam. This item will be dropped from the Task Force Agenda unless there are further developments.

p. NCSR-9 Issue - Revision of IMO Resolution A.1001: Bob Markle reported that the U.S. would sponsor a recommendation to revise IMO Resolution A.1001 to better align with the new Chapter IV of SOLAS. The revised Resolution would also better accommodate the addition of Iridium as a GMDSS satellite service provider. This item will be retained on the Agenda until approved.

q. New Issue – Long Term Improvement in Arctic & Alaska Communications: Rudy Peschel, RTCM Board member (and advisor to ADAC's Executive Director) introduced not a new issue, but one in need of additional focus, as the maritime communications needs of remote Alaska, extending into the Arctic, have seemingly not been fully understood. That it is much more than a Rescue-21 problem of "mountain top locations" which limits distress coverage. Graphics extracted from DHS' Inspector General Report show just how limited and disparate are those capabilities. With the graphic from a TRB/CMTS conference in 2014 then showing the concept of a satellite-based system to project not only USCG but also NOAA services delivery as a possible dream to be fulfilled. Another graphic showed cell phone coverage of maritime distress areas, all CONUS, as Alaska is portrayed as totally in the dark. A graphic from R&D Center reinforced the idea that the time is right for further collaboration to define and solve not just Alaska/Arctic's communications shortfalls, but future voiceless capabilities that not only immediately save lives but also prevent/preclude a life-threatening environment.

q.1. CDR Sam Nassar of Coast Guard CG-761, C5 Capabilities reported on resources available for their mission of long-term improvement in Alaska/Arctic as follows:

1. University of Alaska's Arctic Domain Awareness Center (ADAC)
2. MITRE Corp. is doing high latitude Modeling with DOD's Northcom
3. ADAC has done a survey on needs of Mariners operating in Alaskan waters
4. The Marine Exchange of Alaska (MXAK) has offered cooperation
5. Satellite systems such as Star Link and One Web offer good potential
6. USCG must decide whether to expand MF/HF and VDES in the Arctic region

q.2. Jason (Olaf) Roe of the Arctic Domain Awareness Center (ADAC), a Department of Homeland Security (DHS) Center of Excellence hosted by the University of Alaska, gave a presentation on their work addressing the need to improve maritime communications in Alaskan waters under a contract with the Coast Guard. He pointed out that their work under the contract was now completed.

q.3. Bryan Hinderberger of the Alaska Marine Exchange (MXAK) noted that the Marine Exchange was cooperating with ADAC and had been active in supporting the survey of mariners in Alaskan waters. Subsequent to the meeting it was learned that MXAK recently purchased 5 VHF/DSC VoIP communications systems to install in strategic locations in Alaska. These communications systems will provide a demonstration of the currently available VHF/DSC technologies worth pursuing to USCG D17 to help address OIG-21-65. In addition to addressing OIG-21-65 the capacity to expand communications capabilities to additional communities is possible as we have a presence and relationship in over 130 locations throughout Alaska. MXAK will look to install the initial 5 VHF/DSC systems in 2022/23 with the goal to increase number of installations at our existing 130 coastal maritime safety sites going forward.

q.4. The RTCM has offered to support the Alaska initiative and the Task Force has joined in this commitment. This item will be continued on the Agenda.

r. Current Canadian Maritime Issues: Alexandre Lavoie had no new information to report but this item will be retained on the Agenda as usual.

s. USCG Proposed Fire Safety Changes for Small Passenger Vessels: Jack Fuechsel reported that this new item had just been announced in the Federal Register. The proposed changes were designed to deal with major shortcomings recognized in the fire and sinking of the Dive Boat Conception. The Coast Guard point of contact is LCDR Carmine Faul (contact info carmine.a.faul@uscg.mil 202-475-1357). This item will be retained on the Agenda.

6. The FCC Reports: Ghassan Khalek reported with the following highlights:

a. Falsified Inspection Documentation Found on Some Vessels: Janet Moran of FCC's Enforcement Bureau assured the Group that they would follow up on such situations but

needed to be alerted with more details when falsified documents are discovered. This agenda item will be dropped unless more incidents recur.

b. FCC Enforcement on Unauthorized AIS Devices: a suggested solution to legitimize use of AIS to mark fishing nets has been proposed (see para 5.d.) above. This item will be continued on the Agenda until completed.

c. FCC Rules now Require EPIRBs Sold in U.S. to Have Integral GNSS: Ed Thiedeman reported that the Coast Guard was preparing a petition to amend the FCC Rules as appropriate and will consult with Ghassan Khalek to assure that all aspects are covered. This item will be continued on the Agenda until completed.

d. Small Passenger Vessel Inspection Checklist Needs Updating to include Iridium: The Task Force prepared Checklist has already been updated. This checklist has been updated on the FCC's Wireless Bureaus website but updating the Enforcement Bureaus website is still pending. This item will be continued on the Agenda until completed.

e. Report on USCG/FCC Meeting in October 2021: Ghassan and others reported that the meeting reached agreement on how to handle legalizing F/V use of AIS to mark fishing nets and continued discussions on how to handle MMSI problems including the recent discovery that some foreign owned vessels have used the USPS assignment website to obtain MMSI numbers. There is also an unresolved issue regarding some duplicate MMSI assignments made by Sea Tow when they were an assignment agent. This item will be continued on the Agenda.

7. **Reports and Issues, Recreational Vessel Group:** George Hallenbeck reported with the following highlights:

a. Revised GMDSS Information Bulletins for Recreational Vessels: There were two Bulletins dealing with recreational vessels, one dealing with GMDSS as a whole and the other addressing R/Vs using VHF only. The updated Bulletin combines both. The updated version was approved by the Task Force and has been placed on the Website replacing the two former Bulletins. This item is closed and will be deleted from the continuing Agenda.

b. Modify Voluntary Inspection Check List to Invite Discussion on MMSI Registration and Connection of GPS. Because the failure to properly register for an MMSI number is greatest among recreational vessels, the Task Force is working with the Coast Guard Office of Boating Safety to hopefully modify the latter's checklist for voluntary inspections. The intent is not to collect more data but to open a dialog between the inspector and boat operators on the importance of registering for an MMSI number and the need to connect GPS receivers to VHF radios to provide often-missing position. The reluctance of Boating Safety to modify their checklist and the possibility that other issues (such as LED lighting interference) may also need to be highlighted suggests that a separate check list for voluntary inspectors may be an alternative solution. This Agenda item will be carried over until resolved.

c. Some Foreign Flag Commercial Vessels have registered for MMSIs from the USPS Number Block: This violation was apparently done by foreign agents seeking to obtain

MMSI identity at no cost and is still under investigation. This is a suggested topic for the next Coast Guard/FCC meeting. This item will be continued on the Agenda until resolved.

d. Should Task Force reopen Beacon Proposal for R/Vs Operating Offshore? Jack Fuechsel noted that the original proposal was dated 2006 and the proposal was sent to NBSAC for review and Recommendation. In 2012 the NBSAC made a very positive recommendation to proceed with regulatory action. The results of a 2018 survey identified a sizeable number of R/Vs that acknowledge going more than 20 miles offshore, of these only about half were fitted with an appropriate beacon system. At the previous meeting Verne Gifford was asked for his view of reopening the beacon proposal and he replied that it would be difficult to develop meaningful statistics to support such a new carriage requirement. The Task Force will consult with NBSAC and consider how and when the earlier proposal might be reopened. This item will be carried forward on the Agenda.

e. BOATUS Commended for stressing the importance of gifting safety equipment: This item was presented to signify Task Force approval of BOATUS recent news items suggesting holiday gifts of important safety items to boaters. This item will be dropped from the Agenda.

f. Virtual Open NBSAC Meeting scheduled for 20 January 2022: This item was presented so that attendees could join in the virtual meeting as desired. Jack Fuechsel and George Hallenbeck were among those who registered for the meeting that provided an excellent review of pending issues. This item will be dropped from the Agenda.

8. Report and Issues of the Commercial Vessel Task Group. Jack Fuechsel reported for Johnny Lindstrom who was unable to attend. The following are highlights:

a. The Coast Guard Outlook on Cyber Security: CDR Michael Chien indicated that there was no new information since his presentation at the September meeting. This item will be dropped until new information is available.

b. Update on Iridium Implementation of GMDSS Services: Kyle Hurst reported that Maritime Safety Information (MSI) is an important part of the Iridium GMDSS service with SafetyCast fully operational and global in coverage. There are still a few MSI providers who have not yet started sending content to Iridium despite IMO having made it clear that this is a requirement. Iridium is broadcasting to 17 Navareas and 18 Metareas while the registration process is very slow. IHO has registered 12 Navareas and 16 Metareas and IMO has registered 9 Navareas and 8 Metareas. Iridium is now providing SSAS service and will be providing LRIT service by February

c. New Issue: Can the Task Force Assist in Getting More Ships to Report Environmental Observations: This is a modest program at present but has the potential to greatly assist high seas weather forecasting in the future. The Task Force should consider ways it might assist this program such as encouraging participating AMVER vessels to join the program. We should also look at the feasibility of broadcasting such data on AIS for collection by satellite. This issue is also a work item for MSC 105. Greg Johnson is working with USACE and the

Coast Guard to transmit environmental data via AIS and recommended a white paper on the subject that has since been provided to Jack Fuechsel. This Agenda item will be carried forward.

9. Reports and Issues of the Service Agents and Manufacturers Group: Jack Fuechsel reported for John Barry who was unable to attend with the following highlights:

a. Update on NMEA Activities: There was no update on NMEA Activities since no NMEA members were participating: This agenda item will be carried forward as a standard for each meeting.

b. Need to expand carriage requirements so that trainees can be trained on all equipment appropriate for Sea Areas A1, A2, A3 and A4. The Task Force will develop a Petition recommending special equipment requirements for Schools and Training Vessels to enable students to train on all equipment they may find on ships operating in all Sea Areas. This item has become very timely with the addition of Iridium as a GMDSS service provider. There is also a new reason to expedite this issue since Marad has recently announced the acquisition of five new research vessels for state maritime training schools in California, Maine, Massachusetts, New York and Texas A&M. This Agenda item will be carried forward.

10. Reports and Issues of the Training Task Group. Kurt Anderson reported with the following highlights:

a. GMDSS Question Pool Revisions: The Training Group has noted the entry of Iridium as a GMDSS provider and will make necessary adjustments to the Question Pools in the next revision. This item will be retained on the Agenda.

b. Effective Date for Training Schools to Use the New Question Pool: At the last meeting it was agreed that the date to start using the new question pool should be 31 January 2021. After 6 April 2022 all schools should use only the new question pool. This item will be dropped from the Agenda.

11. GMDSS Modernization. Bob Markle made the following report on Modernization: The GMDSS Modernization project was essentially completed during the IMO NCSR 8 Subcommittee meeting held virtually 19-23 April 2021. All of these actions are scheduled to be considered for approval at the 105th session of the IMO Maritime Safety Committee in the Spring of 2022 and adoption at the 106th session of MSC in the Fall of 2022. All of these would come into force on 1 January 2024 unless enough negative votes are received during the adoption process, which is not expected. Exceptions are revisions to COMSAR/Circ.32 on guidelines for GMDSS installations and COMSAR/Circ.33 on the GMDSS Coast Station Operator's Certificate (CSOC) model course. We also expect work on revision of resolution A.1001 on GMDSS Satellite Communication Systems to begin at the NCSR 9 Subcommittee meeting in 2022. This item will be carried forward on the Task Force agenda.

12. Review Summary Record of 30 September 2021 and Continuing Work List. The summary record of that meeting is posted on the Task Force website and only minor corrections

have been made. The Continuing Work Program is appended to each agenda and updated as needed.

13. Next Meetings of the GMDSS Task Force: It is hoped that the current pandemic that motivated the virtual meeting on 13 January will have subsided sufficiently to enable a return to live meetings. The Task Force agreed to a live meeting the week of 9 May 2022 in Tampa Florida during the RTCM Annual Assembly. The follow-on meeting of the Task Force will be in Anaheim, California during the Annual Meeting of the NMEA 21-24 September 2022.

GMDSS TASK FORCE CONTINUING WORK LIST

13 January 2022

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 programs that broadcast MSI for GMDSS Standards conformance (TF)
5. Review GMDSS Internet Web Sites and update Task Force portion of NAVCEN site (TF)
6. Support SOLAS Working Group planning for IMO NCSR and Joint Experts meetings (TF)
7. Advocate replacement or update of current Great Lakes Agreement with an MOU or equivalent document. (TF)
8. Advocate voluntary carriage of VHF and EPIRB/PLBs by all vessels offshore (TF)
9. Monitor FCC policy and practice on MMSI assignments (TF)
10. Monitor non-GMDSS systems: AIS, LRIT, SSAS, VDES, VMS, & E-Navigation (TF)
11. Recommend means to improve Distress Alerts by Cell Phone & Internet (TF)
12. Advocate mandatory Distress Beacons on R/V more than 3 miles offshore (TF)
13. Advocate use of the Alaska AIS Monitor Network for VHF Distress Guard (TF)
14. Monitor Developments in Cybersecurity and educate membership (TF)
15. Review GMDSS concepts and make modernization recommendations (MOD)
16. Monitor automatic response from USCG HF Commstas to test calls for validation of

HF-DSC performance (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 & Navigation Outfit for Small Passenger Vessels (CV)
20. Advocate better FCC & USCG management of annual GMDSS inspections (CV)
21. Maintain Inspection Guidelines and Check Lists for selected vessel types (CV)
22. Advocate voluntary training programs for users of GMDSS systems (RV)
23. Encourage GMDSS handbooks and Internet and video training aids (RV)
24. Encourage users of VHF-DSC to Register for MMSI and connect GPS (RV)
25. Encourage Mfgs. to upgrade readability of GMDSS items in equipment manuals (SA)
26. Recommend proper interconnection of GPS receivers with DSC Radios (SA)
27. Coordinate with USCG-NMC and FCC on training uniformity (TR)
28. 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) GMDSS Modernization Task Group

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