GMDSS TASK FORCE

Newsletter and Summary Record of 11 May 2022 Meeting

1. **The Task Force Meeting.** This Newsletter reports on the recent live 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. The GMDSS Task Force held a live meeting on 11 May 2022 during the live RTCM Assembly in Tampa, Florida. Both meetings were supported by Microsoft Teams virtual meeting application for members not attending in person.

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

- MSC 105-3 SOLAS Chapter IV as modified for GMDSS Modernization
- MSC 105-3-3 References to Associated new provisions for GMDSS as Modernized
- MSC 105-12-1 Costs of Multiple Satellite Providers (Australia)
- MSC 105-3-6 HF-Navtex (China)
- MSC 105-12-3 MSI Providers should forward new items to other Broadcasters (China)
- MSC 105-12-2 MSI Providers should send to Iridium (USA co-sponsor)
- BoatUS.org/Fire-Extinguishers Summary of Rules effective 20 April 2022
- National Academies of Science Study on Wind-farms vs Maritime Radar
- USCG Federal Register request for comments on Electronic Charts and Nav Equipment
- USCG MSIB 02-22: CyberSecurity Awareness and Action
- USCG MSIB 03-22 LED Interference to VHF Radio and AIS
- NCSR 9-INF.11 A review of false Alerts n Distress Systems
- IEC Man Overboard Standard 63239 Adopted
- Proposed Iridium Operator Competencies
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. 93 papers have already been posted for the upcoming meeting. 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, incorporating the change in FCC Regulations and educating the public. The Task Force plans to query manufacturers to ascertain their plans to implement the change in their equipment. This item will be retained on the Agenda.

   c. **Reliability of VHF and other communications in Alaska:** Pat Gallagher 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, C5I Capabilities, earlier 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.k. below on Arctic Communications. Since management of VHF coverage is doing its best under the circumstances, this agenda item will be discontinued.

   d. **NDAA Act re AK F/V & FV use of AIS:** Pat Gallagher 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:** Al Knox of NOAA/Sarsat reported 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 is being recommended as an optional feature. SC-110 is expected to take on this issue in the near future. The RLS when sent, acknowledges that the alert has been received but does not indicate that rescue forces have been dispatched. Separately it was learned that the long term forecast for the SARSAT Program involves a transfer of the Program from NOAA to the Coast Guard on the basis that the Coast Guard’s Statutory Missions are more appropriate than NOAA’s for the SARSAT mission. This Agenda item will be continued. [GMDSS TF Note: on June 1st RTCM published an updated standard RTCM 11010.4 on PLBs that aligns more closely with RTCM 11000.5 on EPIRBs, accounts for RLS, and aligns with IMO doctrine and IEC standards. Per NOAA Federal Register Notice of 3/02/2022, RLS capable beacons are now allowed to be used and sold in the U.S.]

f. SC-101 Action on Class D DSC: Joe Hersey, the chairman of SC-101 reported that they were meeting regularly to produce recommended changes to the standard to deal with operational problems such as Distress Alerts received with no position and no MMSI number. The current Coast Guard position on these ‘bare bones’ alerts is not to acknowledge them but some felt that this was inappropriate and should be reviewed. The Coast Guard could acknowledge the Alert and make a Marine Safety Broadcast. Rescue 21 shore stations can D/F on channel 70 but it was uncertain if Coast Guard A/C could D/F on channel 70? The SC-101 recommendations will be submitted to appropriate International Committees for consideration. This item will be retained on the Agenda.

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 has been meeting regularly and the voluntary standard has been released as MSIB 03-22. This item will be retained on the Agenda pending action by International Groups.

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. Shine Micro is now assigning MMSIs and the NMEA is considering becoming an MMSI Assignment Agency.

There is still work to do in the area of public education since users are frequently bypassing mandatory registration and don’t seem to understand how to properly transfer the registration when selling a radio to a new owner. A recent study estimated that only 40% of the MMSIs in use were registered, the balance were not. Similarly, 24% of DSC Radios have GPS and the rest do not. We have not yet gotten all manufacturers to adopt a code for changing of MMSI numbers to avoid sending the unit back to the manufacturer to change MMSI. This item will be retained on the Agenda.

i. National Academies Study of Wind-farms vs Maritime Radar: This study was prompted by sporadic reports of reduced radar performance in the Wind-farms and confirmed
that there might be some degradation of performance in detecting small targets. Since this does not seem to be a serious problem, this item will be dropped from the Agenda.

**j. Planning for IMO/ITU Experts Group-18:** Ed Thiedeman reported that there will be a virtual meeting of the NCSR 9 on 21-30 June 2022. The 18th session for IMO/ITU JEG is scheduled for 5-9 December 2022. The Group will review pertinent output from the 106th session of the Maritime Safety Committee in November and the ICAO session in October. Principal topics for the Experts Group include the following:

1.) Modernization of the GMDSS  
2.) Mobile Satellites in the GMDSS  
3.) Improved Promotion of Marine Safety Information  
4.) Non-SOLAS Ships in Polar Waters  
5.) Rafts Associated with Non-SOLAS Ships in Polar Waters

**k. Long Term Improvement in Alaskan and Arctic Communications.** This is a joint effort by the Coast Guard and the State of Alaska that the RTCM has agreed to support and the Task Force has agreed to follow the issue and contribute as appropriate. The following are highlights of the presentation at the RTCM Assembly supplemented by a few presentations made at the Task Force meeting:

1.) MGEN Key, USAF Ret. provided a summary of the activity to date involving a survey commissioned by the Coast Guard conducted by the Arctic Domain Awareness Center (ADAC) supported by the University of Alaska and the Marine Exchange of Alaska (MXAK).

2.) CDR Sam Nassar of CG-761 repeated his earlier assertion that long term coverage of the Arctic, including Alaska, was not going to be based on the relatively short range systems such as VHF and that instead satellite communications should be examined to determine the best fit for the program goals.

3.) Captain Steve White, Director of MXAK outlined their extensive network linking ports and major population centers, he also followed up on Bryan Hinderberger’s earlier report to the Task Force that the MXAK had acquired several more VHF terminals to add to their network of 130 coastal sites that supplement Coast Guard coverage.

4.) Kyle Hurst pointed out that Iridium was now offering full GMDSS services globally including full coverage of the Arctic and Antarctic. The Iridium system offers affordable service to remote locations and transient individuals equipped with handhelds. This supplements the safety services provided by the Cospas-Sarsat system to EPIRPs and PLBs.

**l. Comments on Electronic Charts and Navigation Equipment Carriage:** This item is to remind members that a recently published Request for Comment in the Federal Register invites comments from all interested parties. Comments are due by 27 June 2022.

**m. Listening Session on Search and Rescue Challenges:** The Task Force scheduled this session with SAR experts to review current challenges in rescue operations. CDR Matthew
Mitchell and LCDR Ashley Dufresne joined us virtually from SAR Headquarters. Among the
issues discussed were the following:

1.) Failure to get an accurate position with many alerts. This is a well known
problem that the Task Force hopes to improve with a public education program and already
improving technology such as more VHF radios with integral GPS. Coast Guard programs such
as assuring that 911 operators can forward positions from smart cell phones should help. PLBs
and EPIRBs with integral GPS will also be helpful.

2.) MMSI issues also complicate SAR response when the alert cannot be
validated from the database. Too many owners are failing to properly register their beacons,
entering bogus MMSI Numbers, and failing to properly transfer MMSIs to new owners when a
radio equipped boat is sold.

3.) AIS based Man Overboard Devices can also present problems since the same
MMSI issues arise. AIS is not intended as an Alerting system but AIS is now accepted as an
EPIRB locating feature. Here again a public education Program can be helpful and regulatory
work to tighten the requirements for MOB devices etc.

4.) The success of mandatory beacon programs such as used by Australia and the
U.S. Hawaiian Islands are attractive but so far, the Task Force has not been successful in efforts
to expand mandatory carriage of beacons to recreational craft.

5.) Locating vessels in distress by direction finding is helpful when position is not
otherwise available, including D/F from Rescue 21 shore stations and airborne D/F by Coast
Guard A/C although the latter increases cost of response.

n. Current Canadian Maritime Issues of Interest: Alexandre Lavoie reported that
Canada shared the concerns of the Task Force on most items on the Agenda. He also noted that
both Canada and the U.S. have expressed interest in updating the Great Lakes Agreement. This
has not been an active issue due to the difficulty of working with the Foreign Offices in both
countries. The Canadian view is that a revised Agreement is no longer needed and that the treaty
could simply be discontinued by mutual agreement.

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

a. 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.

b. 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.
C. 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.

D. Waiver of Rules to allow use of IEC Standard for MOB in the U.S: Ghassan indicated that after discussions with the Coast Guard, the FCC agrees that the quickest was to allow use of the new International Standard in the U.S. would be through a waiver of the Rules. This item will be continued on the Agenda until completed.

7. Reports and Issues, Recreational Vessel Group: George Hallenbeck reported that Gene Danko would be assisting with R/V issues and that he has moved to Delaware and is now using the email address gene.danko@snet.net. George’s Report included following highlights:

A. New Coast Guard Rules re Fire Extinguishers for R/Vs: George called attention to new Coast Guard regulations on Fire Extinguishers that became effective on 20 April 2022. See the BoatUS.org/fire-extinguisher document in para. 4 above for more information. This item will be dropped from the 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 had been working with the Coast Guard Office of Boating Safety to hopefully modify the latter’s checklist for voluntary inspections. The intent has been 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. There are also other issues such as Four Digit Channel numbers (see 5.b. above), LED lighting interference (see 5.g. above) and MMSI Management generally (see 5.h. above) that suggest mounting a more formal Public Education Program. 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. The members were undecided as to reopening the proposal without further justification. 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.

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. Requirements for MF/DSC on Small Passenger Vessels: This item had been placed on the Agenda at the request of a Coast Guard Marine Inspector to better understand the requirement. Russ Levin had explained that the requirement had been retained to provide small passenger vessels cruising more than 20 miles offshore with an alternate means of transmitting an alert that would be heard by SOLAS class vessels even though a shore watch on MF/DSC is no longer maintained by the Coast Guard. The MF/DSC requirement also constitutes a secondary means of alerting to use of the EPIRB. This item will be dropped from the Agenda.

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 now providing SSAS service and LRIT service.

c. Inmarsat update Including New Relationship with ViaSat: Peter Broadhurst reported that Inmarsat has committed to supporting the Standard C service for at least 15 years noting that there were some 140,000 terminals in service. Inmarsat is providing LRIT and SSAS services. The new Orchestra Service is moving ahead integrating Global Express, L Band service and LEO satellite Service with 5G terrestrial service. The acquisition of Inmarsat by the larger ViaSat system is not yet complete but appropriate assurances of continuing all Safety Services have been confirmed.

d. NCSR 9-INF11 False Alerts in Satellite Distress Systems: This item is self explanatory and is provided for information, see the document in para. 4 above. This item will be dropped from the Agenda pending further developments.

e. MSIB 02-22k on CyberSecurity Awareness and Action: MSIB 02-22 was published as an update and is self explanatory, See document in para. 4 above. This item will be dropped until new information is available.

f. 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. 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: The NMEA had previously announced a live Annual Meeting and Exhibition for Anaheim, California in late September 2022. Subsequent to this Task
b. Corrosion on exposed surfaces can disable the equipment: This item was listed to call attention to an excellent Article by John Barry published in a recent issue of MARINE ELECTRONICS.

c. Garmin 700 provides Distress Alerting and texting but subscription is needed: There was limited discussion of this item but several members indicated that they did not think it appropriate to charge for distress services citing the Inmarsat and Iridium precedents of offering Distress services free to the user as prescribed by the IMO. This item will be carried over for further discussion.

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

a. New Issue - Training Group will review FCC Elements 3, 8 and 9 Relating to GMDSS Maintainers: Most of the work of maintaining the question pool for Operator Licenses is based on FCC Element 7 but the other Elements contain guidance appropriate to Maintainer Licenses. This item will be carried on the Agenda until the review has been completed.

b. Do New STCW Regulations affect GMDSS Licenses? This question was raised as a result of recent changes in the STCW Regulations. At this date a review of the new Regulations had not been completed. This item will be carried on the Agenda until completed.

c. Need to expand carriage requirements so that trainees can be trained on all equipment appropriate for Sea Areas A1, A2, A3 and A4. This issue had been raised by the former leader of the Service Agents Group but was just transferred to the Training Group as a better ‘fit’. The Task Force will develop a Petition recommending special equipment requirements for Schools and Training Vessels to enable students to train on all GMDSS 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.

d. Iridium and STCW Lab Proficiencies: Kyle Hurst of Iridium has been working with the Training Group to develop appropriate Lab Proficiencies as Iridium enters full GMDSS Service and the Question Pools for Operator Licenses need to be adjusted accordingly. This item will be retained on the Agenda pending further developments.

e. Task Force Information Bulletin on Iridium Services: It had been intended to develop a new GMDSS Information Bulletin to provide additional information to prospective users as Iridium takes up full GMDSS service. This also presents an opportunity to answer often asked questions. The proposed new Bulletin is not yet ready for review, however, so this item will be continued on the Agenda until complete.
f. F/V Exemptions, Waivers & Tonnage Issues: It is clear that the many exemptions and waivers issued and the sometimes confusing tonnage rules complicate the training of new operators and this item was intended as a discussion of these issues. Since time available did not enable a full discussion, this item will be carried over on the Agenda.

g. GMDSS Operator Requirements, Checks During Inspections: This new item was intended to open a full discussion of the knowledge a GMDSS Maintainer should possess in order to function as an inspector of GMDSS equipped ships including an evaluation of the adequacy of the training of those ships GMDSS Operators. Although allowed by the Regulations, the Task Force is on record as considering the mere holding a Maintainer License inadequate preparation for an inspector. Since time available did not enable a full discussion, this item will be carried over on the Agenda.

h. Iridium Operator Competencies: Kyle Hurst has been working with Kurt Anderson to develop a summary of the competencies a GMDSS Operator should possess in order to be considered fully qualified. This document was presented at the meeting for approval but the time available did not enable a full discussion. The Task Force gave tentative approval subject to suggestions that may be received later. This item will be carried over on the Agenda for one more session. Anyone needing a copy of the Competencies should contact Kurt Anderson or Jack Fuechsel.

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 104th session of the IMO Maritime Safety Committee in the Spring of 2022 and adoption at the 105th 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. The U.S. will 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 carried forward on the Task Force agenda.

12. Review Summary Record of 13 January 2022 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: The Task Force tentatively planned a live meeting the week of 3 October 2022 in Anaheim, California during the NMEA Annual Meeting.
GMDSS TASK FORCE CONTINUING WORK LIST

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)
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 Mfgrs. 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

File: TFSR-105.doc