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MARITIME SAFETY COMMITTEE
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REPORT OF THE MARITIME SAFETY COMMITTEE ON ITS 101ST SESSION

(Extract)

ANNEX 20 RESOLUTION MSC.468(101) – AMENDMENTS TO PROMULGATION OF
MARITIME SAFETY INFORMATION (RESOLUTION **A.705(17)**, **AS
AMENDED**)

ANNEX 20

RESOLUTION MSC.468(101)
(adopted on 14 June 2019)

AMENDMENTS TO PROMULGATION OF MARITIME SAFETY INFORMATION
(RESOLUTION A.705(17), AS AMENDED)

THE MARITIME SAFETY COMMITTEE,

RECALLING Article 28(b) of the Convention on the International Maritime Organization concerning the functions of the Committee,

RECALLING ALSO that, by resolution A.705(17), the Assembly adopted the *Recommendation on promulgation of Maritime Safety Information*,

RECALLING FURTHER that the Committee, at its eighty-fifth and ninety-second sessions, approved MSC.1/Circ.1287 and MSC.1/Circ.1287/Rev.1, respectively, on *Amendments to resolution A.705(17) – Promulgation of Maritime Safety Information*,

NOTING that the Assembly, at its seventeenth session, resolved that the procedures for the provision and promulgation of maritime safety information should be in accordance with resolution A.705(17) on *Promulgation of Maritime Safety Information*,

NOTING ALSO that the said Assembly resolution urged Member States to cooperate in providing maritime safety information in accordance with the structure established by the aforementioned Recommendation,

HAVING CONSIDERED the recommendation made by the Sub-Committee on Navigation, Communications and Search and Rescue, at its sixth session,

1 ADOPTS the *Revised recommendation on promulgation of Maritime Safety Information*, set out in the annex to the present resolution, which revises in its entirety the existing text of the annex to resolution A.705(17), as amended by MSC.1/Circ.1287 and MSC.1/Circ.1287/Rev.1;

2 RESOLVES that the procedures for the provision and promulgation of maritime safety information should be in accordance with the *Revised recommendation on promulgation of Maritime Safety Information* set out in the annex to the present resolution;

3 DETERMINES that the *Revised recommendation on promulgation of Maritime Safety Information* should become effective on 1 January 2020.

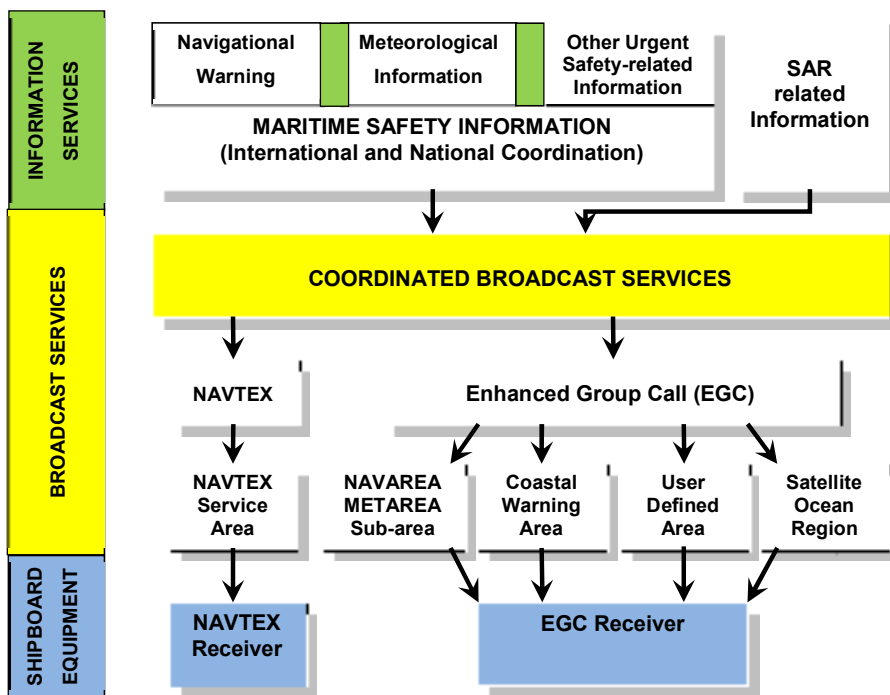
ANNEX

**REVISED RECOMMENDATION ON PROMULGATION OF
MARITIME SAFETY INFORMATION**

1 INTRODUCTION

1.1 The purpose of this Recommendation is to set out the organization, standards and methods which should be used for the promulgation and reception of Maritime Safety Information (MSI).

1.2 The Maritime Safety Information service of the Global Maritime Distress and Safety System (GMDSS) is the internationally and nationally coordinated network of broadcasts containing information which is necessary for safe navigation, received on ships by equipment which automatically monitors the appropriate transmissions, displays information which is relevant to the ship and provides a print capability. This concept is illustrated in figure 1.



**Figure 1 – The Maritime Safety Information service of the
Global Maritime Distress and Safety System**

1.3 MSI is of vital concern to all ships. It is therefore essential that common standards are applied to the collection, editing and dissemination of this information. Only by doing so will the mariners be assured of receiving the information they need, in a form which they understand, at the earliest possible time.

2 DEFINITIONS

For the purposes of this document, the following definitions apply:

- .1 Coastal and offshore waters apply to areas for which WMO Members issue weather and sea bulletins, governed by the procedures in the Manual on Marine Meteorological Services (WMO-No. 558).
- .1 Coastal warning means a navigational warning or in-force bulletin promulgated as part of a numbered series by a National Coordinator. Broadcast should be made by the International NAVTEX service to defined NAVTEX service areas and/or by an International Enhanced Group Call service to the coastal warning area (in addition, Administrations may issue coastal warnings by other means).
- .2 Coastal warning area means a unique and precisely defined sea area within a NAVAREA/METAREA or Sub-area established by a coastal State for the purpose of coordinating the broadcast of coastal Maritime Safety Information through an International Enhanced Group Call service.
- .3 Enhanced Group Call (EGC) means the broadcast of coordinated Maritime Safety Information and Search and Rescue related information, to a defined geographical area using a recognized mobile satellite service.
- .5 Expiry means the time and date, set by the information provider, where the system will stop the information being automatically transmitted to vessels. Expiry is a specific feature of the Iridium SafetyCast service and does not impact the information available on the Ship Earth Station as per the performance and test standards.
- .5 Fleet Safety means the digital satellite communications system comprising of a FleetBroadband Ship Earth Station and type approved Maritime Safety Terminal for use within the Global Maritime Distress and Safety System, enabling ships to meet the majority of the satellite communications requirements of the Global Maritime Distress and Safety System including distress alerting, reception of Maritime Safety Information, Search and Rescue related information, voice distress and general communications.
- .6 Gateway means a terrestrial part of a mobile satellite system that acts as an interface between the network and other communication networks.
- .4 Global Maritime Distress and Safety System (GMDSS) means a system that performs the functions set out in SOLAS regulation IV/4, as amended.
- .5 HF NBDP means High Frequency narrow-band direct-printing, using radio telegraphy as defined in Recommendation ITU-R M.688.
- .6 In-force bulletin means a list of serial numbers of those NAVAREA, Sub-area or coastal warnings in force issued and broadcast by the NAVAREA Coordinator, Sub-area Coordinator or National Coordinator.

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- .9 Inmarsat C means the digital satellite communications system for store-and-forward text or data messaging using mobile terminals with omni-directional antennas. Inmarsat C allows ships to meet the majority of the satellite communication requirements of the Global Maritime Distress and Safety System including distress alerting, reception of Maritime Safety Information, Search and Rescue related information and general communications.
- .12 Inmarsat Fleet means the digital satellite communication system that provides voice and flexible data communication services, email and secure internet access for maritime users, comprising of Fleet F77. The Inmarsat Fleet F77 system provides voice distress and safety functionality and meets the requirements of resolution A.1001(25).
- .13 Inmarsat FleetBroadband means the communication service that provides voice and high-speed data services, simultaneously, through compact terminals for maritime users.
- .10 Inmarsat Mini C means smaller terminals, based on the same technical requirements as Inmarsat C terminals. Some models are approved as Global Maritime Distress and Safety System compliant terminals.
- .7 International Enhanced Group Call service** means the coordinated broadcast and automatic reception of Maritime Safety Information and Search and Rescue related information via Enhanced Group Call, using the English language.
- .7 International Iridium Safetycast service means the coordinated broadcast and automatic reception of Maritime Safety Information and Search and Rescue related information via Enhanced Group Call, using the English language.
- .8 International NAVTEX service** means the coordinated broadcast and automatic reception on 518 kHz of Maritime Safety Information by means of narrow-band direct-printing telegraphy using the English language.¹
- .15 International RescueNET service means Inmarsat's SafetyNET service provided to Search and Rescue authorities for broadcasting and automated reception of Search and Rescue related messages on Inmarsat approved terminals including Inmarsat C, Mini C and Fleet Safety, via an interactive web based interface, using the English language, in accordance with the provisions of the International Convention for the Safety of life at Sea, 1974, as amended.
- .10 International SafetyNET service means the coordinated broadcast and automatic reception of Maritime Safety Information and Search and Rescue related information via Enhanced Group Call, using the English language.

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¹ As set out in the IMO NAVTEX Manual.

- .17 International SafetyNET II service means Inmarsat's enhancement to the SafetyNET service, providing coordinated broadcasting and automated reception of Maritime Safety Information on Inmarsat approved terminals including Inmarsat C, Mini C and Fleet Safety, via an interactive web-based interface, using the English language, in accordance with the provisions of the International Convention for the Safety of Life at Sea, 1974, as amended.
- .12 Iridium Safety Gateway means the central system responsible for managing GMDSS communications within the Iridium Network.
- .9 Issuing Service means a National Meteorological and Hydrological Service (NMHS) or National Authority which has accepted responsibility for ensuring that meteorological warnings and forecasts for shipping are disseminated through the International EGC service to the designated METAREA for which the NMHS or National Authority has accepted responsibility under the broadcast requirements of the GMDSS.²
- .19 Land Earth Station (LES) means a fixed terrestrial station acting as a gateway between terrestrial communication networks and the Inmarsat satellites in the maritime mobile-satellite service. This may also be referred to as a Coast Earth Station.
- .20 Land Earth Station Operator (LESO) means an Inmarsat service provider which owns and operates the Land Earth Station.
- .11 Local warning means a navigational warning which covers inshore waters, often within the limits of jurisdiction of a harbour or port authority.
- .11 Main shipping lanes means those routes used by international shipping.
- .9 **Maritime Safety Information (MSI)²** means navigational and meteorological warnings, meteorological forecasts and other urgent safety-related messages broadcast to ships.
- .10 **Maritime Safety Information service** means the internationally and nationally coordinated network of broadcasts containing information which is necessary for safe navigation.
- .11 **METAREA** means a geographical sea area³ established for the purpose of coordinating the broadcast of marine meteorological information. The term METAREA followed by a roman numeral may be used to identify a particular sea area. The delimitation of such areas is not related to and should not prejudice the delimitation of any boundaries between States.
- .13 METAREA Coordinator means the individual with the authority to coordinate marine meteorological information broadcasts by one or more National Meteorological and Hydrological Services acting as Preparation or Issuing Services within the METAREA.

² As defined in WMO-No. 558.

² As defined in SOLAS regulation IV/2.

- .12 *Meteorological information* means the marine meteorological warning and forecast information in accordance with the provisions of the International Convention for the Safety of Life at Sea, 1974, as amended.
- .27 *Maritime Safety Terminal (MST)* means an Inmarsat type approved safety terminal for use within the Fleet Safety system.
- .15 *National Coordinator* means the national authority charged with collating and issuing coastal warnings within a national area of responsibility.
- .13 *National NAVTEX service* means the broadcast and automatic reception of Maritime Safety Information by means of narrow-band direct-printing telegraphy using frequencies other than 518 kHz and languages as decided by the Administration concerned.
- .14 *National Enhanced Group Call service* means the broadcast and automatic reception of Maritime Safety Information via the EGC system, using languages as decided by the Administration concerned.
- .15 *NAVAREA* means a geographical sea area¹ established for the purpose of coordinating the broadcast of navigational warnings. The term NAVAREA followed by a roman numeral may be used to identify a particular sea area. The delimitation of such areas is not related to and should not prejudice the delimitation of any boundaries between States.
- .19 *NAVAREA Coordinator* means the authority charged with coordinating, collating and issuing NAVAREA warnings for a designated NAVAREA.
- .20 *NAVAREA warning* means a navigational warning or in-force bulletin promulgated as part of a numbered series by a NAVAREA Coordinator.
- .16 *Navigational warning* means a message containing urgent information relevant to safe navigation broadcast to ships in accordance with the provisions of the International Convention for the Safety of Life at Sea, 1974, as amended.
- .17 *NAVTEX* means the system for the broadcast and automatic reception of Maritime Safety Information by means of narrow-band direct-printing telegraphy.
- .24 *NAVTEX coordinator* means the authority charged with operating and managing one or more NAVTEX stations broadcasting maritime safety information as part of the International NAVTEX service.
- .18 *NAVTEX coverage area* means an area defined by an arc of a circle having a radius from the transmitter calculated according to the method and criteria given in resolution A.801(19), as amended.
- .19 *NAVTEX service area* means a unique and precisely defined sea area, wholly contained within the NAVTEX coverage area, for which

¹ Which may include inland seas, lakes and waterways navigable by seagoing ships.

Maritime Safety Information is provided from a particular NAVTEX transmitter. It is normally defined by a line that takes full account of local propagation conditions and the character and volume of information and maritime traffic patterns in the region, as given in resolution A.801(19), as amended.

.34 Network Coordination Station (NCS) means a fixed land station in the Inmarsat satellite communications system which controls channel assignments and provides the network management functions for each of the four ocean regions. NCSs also transmit EGC messages on the NCS common channel.

.20 Other urgent safety-related information means Maritime Safety Information broadcast to ships that is not defined as a navigational warning or meteorological information. This may include, but is not limited to, significant malfunctions or changes to maritime communications systems, and new or amended mandatory ship reporting systems or maritime regulations affecting ships at sea.

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.23 Preparation Service means a National Meteorological and Hydrological Service or National Authority which has accepted responsibility for the preparation of warnings and forecasts for parts of or an entire METAREA in the WMO system for the dissemination of meteorological forecasts and warnings to shipping under the GMDSS and for their transfer to the relevant Issuing Service for broadcast.

.28 Rescue coordination centre (RCC) means a unit responsible for promoting efficient organization of search and rescue services and for coordinating the conduct of search and rescue operations within a search and rescue region.

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.21 Recognized mobile satellite service (RMSS) means any service which operates through a satellite system and is recognized by IMO for use in the GMDSS.

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.29 Registered information provider means a Maritime Safety Information provider (MSI provider) or a Search and Rescue Information provider, authorized in accordance with annex 2 to the IMO Enhanced Group Call Coordinating Panel (MSC.1/Circ.1635).

.22 Search and Rescue (SAR) related information means distress alert relays and other urgent search and rescue related information broadcast to ships.

.32 Satellite Network Operations Center (SNOC) means a terrestrial part of the Iridium mobile-satellite system which controls the Iridium satellites and manages the Iridium system overall.

.33 Satellite Ocean Region² means the area on the earth's surface within which a mobile or fixed antenna can obtain line-of-sight communications with one

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² The Iridium system is not limited to specific Ocean Regions, therefore the Iridium SafetyCast equivalent for this would be a global transmission or sending to the Global Ocean Region. Other "Ocean Regions".

of the five primary Inmarsat geostationary satellites. This area may also be referred to as the "footprint":

- Atlantic Ocean Region – East (AOR-E)
- Atlantic Ocean Region – West (AOR-W)
- Indian Ocean Region (IOR)
- Pacific Ocean Region (POR)

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.34 Sea Area A1 means an area within the radiotelephone coverage of at least one VHF coast station in which continuous DSC³ alerting is available, as may be defined by a Contracting Government.

.35 Sea Area A2 means an area, excluding sea area A1, within the radiotelephone coverage of at least one MF coast station in which continuous DSC alerting is available, as may be defined by a Contracting Government.

.36 Sea Area A3 means an area, excluding sea areas A1 and A2, within the coverage of an Inmarsat geostationary satellite in which continuous alerting is available.

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.37 Sea Area A4 means an area outside sea areas A1, A2 and A3.

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.38 Ship Earth Station (SES) means a mobile earth station in the recognized maritime mobile satellite service located on board a ship. This may also be referred to as Mobile Earth Station (MES) or a maritime mobile terminal.⁴

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.23 Sub-area means a subdivision of a NAVAREA/METAREA in which a number of countries have established a coordinated system for the promulgation of Maritime Safety Information. The delimitation of such areas is not related to and should not prejudice the delimitation of any boundaries between States.

.29 Sub-area Coordinator means the authority charged with coordinating, collating and issuing Sub-area warnings for a designated Sub-area.

.30 Sub-area warning means a navigational warning or in-force bulletin promulgated as part of a numbered series by a Sub-area Coordinator. Broadcast should be made by the International NAVTEX service to defined NAVTEX service areas or by the International Enhanced Group Call service (through the appropriate NAVAREA Coordinator).

.42 Teleport means a terrestrial part of the Iridium mobile-satellite system which communicates between the Iridium satellites and the gateway and Satellite Network Operations Center terrestrial parts.

such as an Arctic Ocean Region, could also be created as predefined areas in the Iridium SafetyCast system.

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³ Digital selective calling (DSC) means a technique using digital codes, conforming to the technical structure and content set forth in the most recent version of Recommendations ITU R M.493 and ITU R M.541, which enables a radio station to establish contact with and transfer information to another station or group of stations.

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⁴ SES within this document refers to a type approved EGC capable ship earth station.

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- .24 *User defined area* means a temporary geographic area, either circular or rectangular, to which Maritime Safety Information or Search and Rescue-related information is addressed.
- .28 *UTC means Coordinated Universal Time which is equivalent to GMT (or ZULU) as the international time standard.*
- .25 *World-Wide Met-Ocean Information and Warning Service (WWMIWS)*⁵ means the internationally coordinated service for the promulgation of meteorological warnings and forecasts.
- .26 *World-Wide Navigational Warning Service (WWNWS)*⁶ means the internationally and nationally coordinated service for the promulgation of navigational warnings.
- .27 In the operating procedures, *coordination* means that the allocation of the time for data broadcast is centralized, the format and criteria of data transmissions are compliant as described in the Joint IMO/IHO/WMO Manual on Maritime Safety Information and that all services are managed as set out in resolutions A.705(17), as amended, A.706(17), as amended, and A.1051(27), as amended.

3 BROADCAST METHODS

3.1 The two principal methods used for broadcasting MSI in accordance with the provisions of the International Convention for the Safety of Life at Sea, 1974, as amended (the 1974 SOLAS Convention), in the areas covered by these methods, are as follows:

- .1 NAVTEX: broadcasts to coastal waters; and
- .2 Enhanced Group Call: broadcasts to the geographical sea areas covered by  recognized mobile satellite services.

3.2 Information should be provided for unique and precisely defined sea areas, each being served only by the most appropriate of the above methods. Although there will be some duplication to allow a ship to change from one method to another, the majority of MSI will be broadcast either on NAVTEX or by EGC.

3.3 NAVTEX broadcasts should be made in accordance with the standards and procedures set out in the NAVTEX Manual.

[3.4 Mobile satellite service providers recognized by the Organization should be used by all information providers broadcasting EGC, if sufficient to cover all NAVAREA/METAREA areas.]

⁵ As set out in resolution A.1051(27), as amended.

⁶ As set out in resolution A.706(17), as amended.

⁸ The term RCC will be used in this Manual to apply to either joint, aeronautical or maritime centres: JRCC, ARCC or MRCC will be used as the context warrants.

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3.45 EGC broadcasts should be made in accordance with the standards and procedures set out in the IMO manuals of the recognized mobile satellite service providers.

3.56 HF NBDP may be used to promulgate MSI in areas outside EGC and NAVTEX coverage (SOLAS regulation IV/7.1.5).

3.67 In addition, Administrations may also provide MSI by other means.

3.78 In the event of failure of normal transmission facilities, an alternative means of transmission should be utilized. A NAVAREA/METAREA warning and a coastal warning, if possible, should be issued detailing the failure, its duration and, if known, the alternative route for the dissemination of MSI.

4 SHIPBOARD EQUIPMENT

4.1 Ships are required to be capable of receiving MSI broadcasts for the area in which they operate in accordance with the provisions of the 1974 SOLAS Convention.⁷

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4.2 The NAVTEX receiver should operate in accordance with the technical specifications set out in Recommendation ITU-R M.540. Resolution MSC.148(77) recommends Governments to ensure that NAVTEX receiver equipment, if installed on or after 1 July 2005, conforms to performance standards not inferior to those specified in resolution MSC.148(77), and if installed before 1 July 2005, conforms to performance standards not inferior to those specified in the annex to resolution A.525(13).

4.3 Performance standards for EGC equipment are provided in resolution MSC.306(87), as amended by resolution MSC.431(98), for equipment installed on or after 1 July 2019; resolution MSC.306(87) for equipment installed on or after 1 July 2012 and before 1 July 2019; and resolution A.664(16) for equipment installed before 1 July 2012.

4.4 In sea area A4, outside of the coverage of NAVTEX, where MSI may be received using HF NBDP, the HF NBDP receiver should operate in accordance with the technical specifications set out in Recommendation ITU-R M.688 and should meet the performance standards adopted by the Organization by resolution A.700(17), as amended.

5 PROVISION OF INFORMATION

5.1 Navigational warnings should be provided in accordance with the standards, organization and procedures of WWNWS under the functional guidance of the International Hydrographic Organization (IHO) through its World-Wide Navigational Warning Service Sub-Committee (WWNWS-SC).

5.2 Meteorological information should be provided in accordance with the World Meteorological Organization (WMO) technical regulations, recommendations, and procedures defined for the World-Wide Met-Ocean Information and Warning Service (WWMIWS) through the ~~World-Wide Met-Ocean Information and Warning Service Committee (WWMIWS-C) of the Joint WMO-IOC⁸ Technical Commission for Oceanography and Marine Meteorology (JCOMM)~~WMO Services Commission (SERCOM).

⁷ Refer to MSC.1/Circ1645

⁸ IOC is the Intergovernmental Oceanographic Commission of UNESCO.

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~~[5.3 Other urgent safety related information should be provided by the relevant national or international authority responsible for managing the system or scheme.]~~

5.4 SAR related information should be provided by the various authorities responsible for coordinating maritime search and rescue operations in accordance with the standards and procedures established by the Organization.

5.5 Relevant national or international authorities should take into account the need for contingency planning.

6 COORDINATION PROCEDURES

6.1 In order to make the best use of automated reception facilities, and to ensure that the mariner receives at least the minimum information necessary for safe navigation, careful coordination is required.

6.2 In general, this requirement for coordination will be met by the standard operational procedures of IMO, IHO and WMO. Coordination issues should be referred, in the first instance, to the most appropriate parent body.

~~6.3 Administrations responsible for MSI providers should provide details of their services and any changes to their operational status to IMO, which will maintain and publish this as part of the GMDSS Master Plan [module of the Global Integrated Shipping Information System (GISIS)].~~

6.4 The coordination of changes to operational NAVTEX services and of the establishment of new stations is undertaken by the IMO NAVTEX Coordinating Panel on behalf of the Maritime Safety Committee.

6.5 The coordination of changes to operational EGC services and of the authorization and registration of information providers is undertaken by the IMO Enhanced Group Call Coordinating Panel on behalf of the Maritime Safety Committee.

6.6 MSI providers should arrange the content and means of their broadcast transmissions to suit specific service areas.⁹ The designation of service areas is an important part of the coordination process since it is intended that a ship should be able to obtain all the information relevant to a given area from a single source. The Maritime Safety Committee approves NAVAREAs/METAREAs and service areas for the International NAVTEX and EGC services as advised by IHO and WMO.

7 EGC SERVICE AVAILABILITY

~~7.1 The EGC system(s) of recognized mobile satellite service providers should provide continuous availability for broadcasting MSI and SAR related information in accordance with the relevant provisions of resolution A.1001(25).~~

7.21 Cases of difficulty affecting the broadcast of MSI and SAR related information through the EGC system(s) of a recognized mobile satellite service provider in ways that limit the ability of information providers to monitor the EGC broadcasts that they originate, or the ability of ships to receive EGC broadcasts intended for reception throughout their intended voyages, should be brought to the attention of IMSO as and when necessary for the purpose of

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⁹ Coordination of HF NBDP broadcasts in the Arctic should be undertaken by relevant MSI service providers.

discharging IMSO's technical oversight responsibilities in respect of the recognized satellite service provider(s) involved.

8 PROCEDURE FOR AMENDING THE MARITIME SAFETY INFORMATION SERVICE

8.1 Proposals for amendment or enhancement of the MSI service should be submitted for evaluation by the Sub-Committee on Navigation, Communications and Search and Rescue (NCSR). Amendments should only be adopted after consideration and approval by the NCSR Sub-Committee.

8.2 Amendments to the service should be adopted at intervals as determined by the Maritime Safety Committee. Amendments adopted by the Maritime Safety Committee will be notified to all concerned and will come into force on 1 January of the following year, or at another date as decided by the Committee.

8.3 The agreement of IHO, WMO, IMSO and ITU, as appropriate, and the active participation of other bodies should be sought, according to the nature of the proposed amendments.

