Maritime Safety Information Update

Submitted by IHO Secretariat

SUMMARY

Executive Summary: This document provides details of relevant outcomes from the 99th and 100th sessions of the Maritime Safety Committee and the 6th session of the Navigation, Communications, and Search and Rescue Sub-Committee related to Maritime Safety Information.

Action to be taken: 6

Related documents: IHO CL 34/2018 dated 11 June 2018, IHO Bulletin reports December 2018, IHO CL 13/2019 dated 4 March 2019

1. Maritime Safety Information (MSI) and maritime services

1.1 Maritime Safety Information (MSI) includes navigational and meteorological warnings, meteorological forecasts and other urgent safety-related messages broadcast to ships. Amendments to SOLAS adopted in 2018 (entering into force on 1 January 2020) provide for new mobile satellite services recognized by the International Maritime Organization (IMO) to be used in the Global Maritime Distress and Safety System (GMDSS), and allow the broadcast of MSI to a defined geographical area through those newly recognized services, in addition to the existing Inmarsat services.

1.2 In this context, the NCSR 6 approved draft amendments to the following MSI-related instruments to accommodate these developments, to be effective from 1 January 2020:

International SafetyNET Manual (MSC.1/Circ.1364/Rev.1);
Promulgation of maritime safety information (resolution A.705(17), as amended);
World-Wide Navigational Warning Service (resolution A.706(17), as amended); and
IMO/WMO Worldwide Met-Ocean Information and Warning Service guidance document (resolution A.1051(27)).

1.3 The NCSR 6 also finalized *Interim guidance on technical requirements for Fleet Safety enhanced group call receivers for SOLAS compliant mobile earth stations*, pending future inclusion in the International SafetyNET Manual.

2. Inmarsat

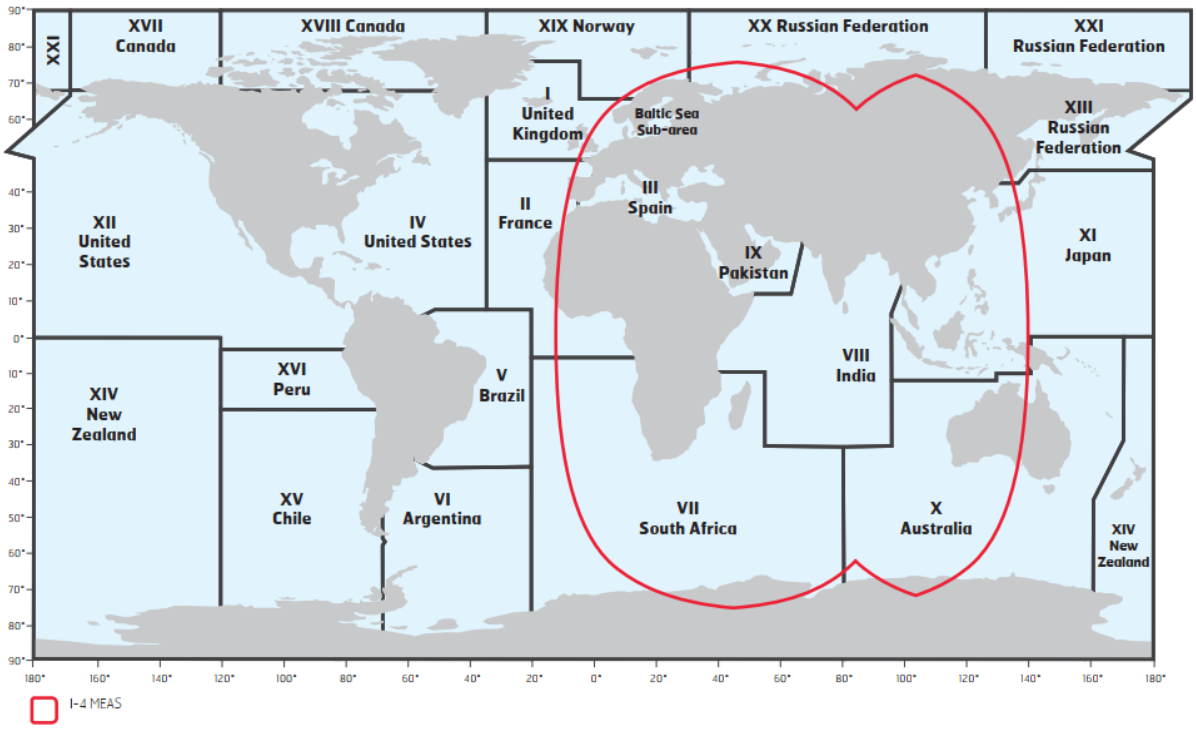
2.1 Inmarsat stated operational coverage is 76°N - 76°S via three geo-stationary I4 satellites, although up to 78°N has been achieved.

2.2 SafetyNET Services have two systems which are now available and in use by all information providers (NAV and MET Area Coordinators and RCCs):

SafetyNET – SafetyNET messages are submitted by registered information providers for promulgation to the appropriate satellite Ocean Region(s) via an Inmarsat C Land Earth Station (LES) through the I4 satellites to vessels at sea; and

SafetyNET II – provides an interactive web portal for MSI providers to promulgate their MSI messages over the Inmarsat EGC system direct to I4 satellites via web interface. SafetyNET II messages are submitted by registered information providers via a secure interface to the Inmarsat network.

2.3 Fleet Safety – MSC 99 adopted resolution MSC.450(99) on *Statement of Recognition of Maritime Satellite Services provided by Inmarsat Global Ltd*. The Committee noted that the Inmarsat Fleet Safety service was at present a regional service covering the Indian Ocean region, it is anticipated that it will become a global service in late 2019.



Fleet Safety GMDSS approved area until Inmarsat 6 satellite constellation deployed

2.4 Fleet Safety is the digital satellite communications system comprising of a FleetBroadband Ship Earth System, (SES) and type approved Maritime Safety Terminal (MST) for use within the GMDSS, enabling ships to meet the majority of the satellite communications requirements of the GMDSS including distress alerting, reception of MSI and SAR related information, voice distress and general communications.

3. **Iridium**

3.1 Iridium provides global coverage through a constellation of low orbiting satellites. The constellation is nearly completed with spare satellites.

3.2 MCS 99 adopted resolution MSC.451(99) on *Statement of Recognition of the Maritime Mobile Satellite Services provided by Iridium Satellite LLC*, which recognized the maritime mobile satellite services provided by the Iridium Safety Voice, Short-Burst Data and enhanced group calling services, for use in GMDSS.

3.3 The system service manual was comprehensively reviewed at Document Review Work Group immediately after NCSR 6. Draft interim preliminary text was agreed and will be presented to MSC 101 for wider publication to allow Initial Operational Certificates (IOC) to be issued to selected NAV and MET Area Coordinators and RCCs, which will enable operational testing of the system and services. It is proposed that an expanding number of certificates will be issues throughout 2019 so that Full Operational Certificates (FOC) can be issued around the end of 2019.

3.4 The necessary SOLAS amendments are planned to come into force on 1 January 2020, after which Iridium can commence full operational service on receipt of the IMSO Letter of Compliance and the signing of the Public Service Agreement.

3.5 All NAV and MET Area Coordinators and RCCs will be required to provide MSI and SAR services via all recognized mobile satellite service providers, a point which will be included in the new FOCs issued by the IMO Enhanced Group Call (EGC) Coordinating Panel (formerly the International SafetyNET Coordinating Panel).

3.6 Iridium have named their service the Iridium SafetyCast service.

4. **BeiDou Message Service System (BDMSS)**

4.1 The MCS 99 considered an application by China for the recognition of the BeiDou Message Service System (BDMSS) and use in GMDSS. The Committee referred the application to the NCSR Sub-Committee for evaluation of the detailed information, to be provided to the Sub-Committee in due course, and authorized the Sub-Committee to invite Internatonal Mobile Satellite Organization (IMSO) to conduct the Technical and Operational Assessment, as appropriate. BeiDou is the Chinese developed version of Inmarsat and Iridium, they intend to provide GMDSS services as well as other communications capabilities in the same manner that Inmarsat and Iridium do.

5. To meet their SOLAS requirements, ships will be required to carry either a type approved Inmarsat or Iridium receiver, they can of course carry one of each to meet the spare backup requirement. All information providers will be required to transmit their messages via both Inmarsat and Iridium, and in the future via all other IMO appropriate recognized mobile satellite service providers, global or regional coverage, such as BeiDou and the UAE based Thuraya satellite system, which has applied for recognition for the Gulf region. It should be noted at present, unlike GNSS, there are no multi-system capable ship receivers available.

6. **Actions**

6.1 The Commission is invited to:

a. **note** the information provided and take action as appropriate.