

標題

2002年7月1日前に建造された船舶に対するS-VDRの搭載、及び船舶に搭載された衛星 EPIRB の陸上整備の取り扱いについて(日本籍船を除く)

# ClassNK

## テクニカル インフォメーション

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各位

SOLAS 条約 2004 年改正が 2006 年 7 月 1 日から発効するのに伴い、2002 年 7 月 1 日前に建造された船舶に対する S-VDR の搭載、及び船舶に搭載された衛星 EPIRB の整備の取扱いは、次の通りとなりますのでお知らせいたします。

### 1. S-VDR の搭載

#### (1) 実施時期

改正 SOLAS 条約第 V 章 20 規則 2 により、S-VDR は次の時期までに備えられることが規定されております。

- (i) 総トン数 20,000トン以上の貨物船は、2006年7月1日より後の最初のドライドッキング、ただし 2009年7月1日まで。
- (ii) 総トン数 3,000トン以上 20,000トン未満の貨物船は、2007年7月1日より後の最初のドライドッキング、ただし 2010年7月1日まで。

#### (2) 性能基準及び装備要領

S-VDR は、性能基準 IMO 決議 MSC.163(78) の要件を満たす型式承認を受けた機種であることが要求されます。なお、S-VDR の代わりに VDR を搭載する場合には、性能基準 IMO 決議 A.861(20) の要件を満たす型式承認を受けた機種であることが要求されます。

装備上の注意点は、次のとおりです。

- (i) 最終記録媒体の格納は、固定式保護カプセル又は浮上式保護カプセルによる。
- (ii) S-VDR の故障の場合は、可視可聴警報を操舵室に出す。
- (iii) レーダー製造者が提供するインターフェイス装置が、そのレーダーに組み込み可能な場合にはレーダーデータを記録する。S-VDR にレーダーが接続できない場合は、AIS を接続する。レーダーが接続できる場合であっても、さらに AIS も接続してもよい。
- (iv) S-VDR の電源は、主電源及び非常電源より給電する。非常電源からの給電時間は 18 時間とする。非常電源がバッテリーの船舶は、(4)の(i)から(v)に記載する図面に加えて、バッテリー容量計算書を提出する。

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#### NOTES:

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## (3) 記録データ

S-VDR に記録すべきデータ項目は(i)の通りとする。(i)に追加してもよいその他のデータ項目は(ii)による。

- (i) 記録すべきデータ項目  
日時及び時刻、船舶の位置、速力、船首方位、船橋音声、通信音声、レーダー情報及び/又は AIS 情報
- (ii) その他のデータ項目  
VDR の性能要件 IMO 決議 A.861(20)に記載された(a)以外のデータ(水深、舵角、エンジンテレグラフ指令応答、プロペラ回転数、警報など)が国際的デジタルフォーマット(IEC61162-1 センテンス)に従って利用できる場合は、その情報を記録してもよい。

## (4) 図面承認

次の承認図面 3 部を本部材料艙装部に提出して下さい。承認後 1 部提出者に返却いたします。

- (i) S-VDR 構成機器リスト (S-VDR Components List)
- (ii) 接続機器及び記録データのリスト  
(List of Connected Equipment and Recording Data Description)
- (iii) 機器接続図 (Connection Diagram)
- (iv) S-VDR 配置図 (Arrangement of S-VDR components)
- (v) 型式承認書の写し (Copy of Certificate of Type Approval)

## (5) 検査の方法

S-VDR の装備後、製造メーカーが指定した書式に従って「船舶情報記録書」及び「試験・計測結果を記載した試験成績書」を作成し、検査員に提出して下さい。

航海機器情報、船橋音声、通信音声を再生装置により、検査員の確認を受けて下さい。

検査終了後、S-VDR の搭載が記載された SE 証書及び記録書 (Form-E) が発給されます。

## 2. 衛星 EPIRB の整備

改正 SOLAS 条約の第 IV/15.9 規則により、2006 年 7 月 1 日以降、衛星 EPIRB には、従来の年次試験に加えて、次の陸上整備が必要になります。

## (1) 陸上整備の実施

5 年を超えない間隔で、本会が承認した事業所による陸上整備が必要です。この整備は、IMO の MSC/Circ.1039 に従って行われます。

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## (2) 陸上整備の時期

次のいずれかのうち、最も早く到来する時期までに陸上整備を実施し、以後 5 年を超えない間隔で陸上整備を実施して下さい。

- 2006 年 7 月 1 日以降最初の EPIRB の電池の交換時。
- 2006 年 7 月 1 日以降最初の貨物船安全無線証書の更新(HSSC の場合)時。
- 2011 年 6 月 30 日前直近の貨物船安全無線証書(非 HSSC の場合)又は旅客船安全証書の更新時。

## (3) 陸上整備を行う事業所

本会は、承認した無線検査事業所のうちで設備等の条件を満たした事業所及び衛星 EPIRB の製造者を、衛星 EPIRB の陸上整備を行う事業所として認めます。

陸上整備が出来る事業所は、弊会ホームページの「承認リスト」内の「Table 1.2.3 無線検査事業所」で確認することができます。

(URL : [http://www.classnk.or.jp/hp/appr\\_list/svd/searchj.asp](http://www.classnk.or.jp/hp/appr_list/svd/searchj.asp))

陸上整備を実施した事業所は、本船に対して「陸上整備報告書」を発行します。

## (4) 陸上整備の検査の方法

SR 検査において、最新の「陸上整備報告書」を確認します。

## (5) 年次試験

年次試験の実施時期が次のとおり変更されます。

- 旅客船は、旅客船安全証書の有効期限の前 3 月以内
- 貨物船は、貨物船安全無線証書の有効期限の前 3 月以内、又は、検査基準日の前後 3 月以内

年次試験は、今までと同様に、IMO の MSC/Circ.1040 に従い実施されます。ただし、陸上整備の試験項目は年次試験の試験項目全てを含んでおりますので、陸上整備は年次試験の一つとして認められます。

なお、本件に関してご不明な点は、以下の部署にお問い合わせ下さい。

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添付:

1. IMO 決議 MSC.163(78)
2. IMO MSC/Circ.1039
3. IMO MSC/Circ.1040

**ANNEX 26****RESOLUTION MSC.163(78)  
(adopted on 17 May 2004)****PERFORMANCE STANDARDS FOR SHIPBORNE SIMPLIFIED  
VOYAGE DATA RECORDERS (S-VDRs)**

THE MARITIME SAFETY COMMITTEE,

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

RECALLING ALSO resolution A.886(21), by which the Assembly resolved that the functions of adopting performance standards for radio and navigational equipment, as well as amendments thereto, shall be performed by the Maritime Safety Committee on behalf of the Organization,

NOTING that the provisions of regulation V/20 of the International Convention for the Safety of Life at Sea, 1974, as amended, do not apply to the existing cargo ships with respect to the carriage requirements of voyage data recorders (VDRs),

RECALLING FURTHER resolution MSC.109(73), by which the Committee decided that a study should be carried out, as a matter of urgency, to assess the feasibility for existing cargo ships to carry VDRs and instructed the Sub-Committee on Safety of Navigation accordingly,

NOTING ALSO that the report on the feasibility study clearly demonstrates the compelling need for mandatory carriage of a simplified version of VDRs on existing cargo ships,

HAVING CONSIDERED the recommendation made by the Sub-Committee on Safety of Navigation at its forty-ninth session,

1. ADOPTS the Recommendation on Performance Standards for Shipborne Simplified Voyage Data Recorders (S-VDRs);
2. INVITES Governments to encourage shipowners and operators of the existing cargo ships entitled to fly their flag to install S-VDRs on such ships, as soon as possible, especially considering that the carriage of S-VDRs may soon be mandatory under the SOLAS Convention;
3. RECOMMENDS Governments to ensure that S-VDRs installed on board the existing cargo ships flying their flag conform to performance standards not inferior to those specified in the Annex to this resolution.

## ANNEX

### **RECOMMENDATION ON PERFORMANCE STANDARDS FOR SHIPBORNE SIMPLIFIED VOYAGE DATA RECORDERS (S-VDRs)**

#### **1 PURPOSE**

1.1 The purpose of a simplified voyage data recorder (S-VDR) is to maintain a store, in a secure and retrievable form, of information concerning the position, movement, physical status, command and control of a vessel over the period leading up to and following an incident having an impact thereon. Information contained in a S-VDR should be made available to both the Administration and the shipowner. This information is for use during any subsequent investigation to identify the cause(s) of the incident.

#### **2 APPLICATION**

2.1 A S-VDR with capabilities not inferior to those defined in these performance standards is required to be fitted to ships of classes defined in SOLAS chapter V, as amended.

#### **3 REFERENCES**

##### 3.1 SOLAS:

- 1995 SOLAS Conference, resolution 12.

##### 3.2 IMO resolutions:

- A.662(16) Performance Standards for Float-free Release and Activation Arrangements for Emergency Radio Equipment
- A.694(17) General Requirements for Shipborne Radio Equipment Forming Part of the GMDSS and for Electronic Navigational Aids
- A.802(19) Performance Standards for Survival Craft Radar Transponders for use in Search and Rescue Operations
- A.810(19) Performance Standards for Float-free Satellite Emergency Position-Indicating Radio Beacons Operating on 406 MHz
- A.812(19) Performance standards for float-free satellite emergency position indicating radio beacons operating through the geostationary Inmarsat satellite system on 1.6 GHz
- A.824(19) Performance Standards for Devices to Indicate Speed and Distance
- A.830(19) Code on Alarms and Indicators, 1995
- A.861(20) Performance Standards for Shipborne Voyage Data Recorders (VDRs)

- MSC.64(67), Performance Standard for Heading Control Systems annex 3
- MSC.64(67), Performance Standards for Navigational Radar Equipment, annex 4 as amended.

## 4 DEFINITIONS

4.1 *Simplified Voyage data recorder (S-VDR)* means a complete system, including any items required to interface with the sources of input data, for processing and encoding the data, the final recording medium, the power supply and dedicated reserve power source.

4.2 *Sensor* means any unit external to the S-VDR, to which the S-VDR is connected and from which it obtains data to be recorded.

4.3 *Final recording medium* means the item of hardware on which the data is recorded such that access to it would enable the data to be recovered and played back by use of suitable equipment.

4.4 *Playback equipment* means the equipment, compatible with the recording medium and the format used during recording, employed for recovering the data. It includes also the display or presentation hardware and software that is appropriate to the original data source equipment.<sup>1</sup>

4.5 *Dedicated reserve power source* means a secondary battery, with suitable automatic charging arrangements, dedicated solely to the S-VDR, of sufficient capacity to operate it as required by 5.3.2.

## 5 OPERATIONAL REQUIREMENTS

### 5.1 General

5.1.1 The S-VDR should continuously maintain sequential records of preselected data items relating to the status and output of the ship's equipment, and command and control of the ship, referred to in 5.4.

5.1.2 To permit subsequent analysis of factors surrounding an incident, the method of recording should ensure that the various data items can be co-related in date and time during playback on suitable equipment.

#### 5.1.3 Final recording medium

5.1.3.1 The final recording medium should be installed in a protective capsule of either a fixed or float-free type, which should meet all of the following requirements:

- .1 be capable of being accessed following an incident but secure against tampering;

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<sup>1</sup> Playback equipment is not normally installed on a ship and is not regarded as part of a S-VDR for the purposes of these performance standards.

- .2 maintain the recorded data for a period of at least 2 years following termination of recording;
- .3 be of a highly visible colour and marked with retro-reflective materials; and
- .4 be fitted with an appropriate device to aid location.

5.1.3.2 The fixed type protective capsule should comply with the requirements set out in resolution A.861(20) with the exception of the resulting requirements for withstanding penetration.

5.1.3.3 The float-free type protective capsule should:

- .1 be fitted with means to facilitate grappling and recovery;
- .2 be so constructed as to comply with the requirements specified in resolutions A.810(19) or A.812(19) and to minimize risk of damage during recovery operations; and
- .3 the device should be capable of transmitting an initial locating signal and further locating homing signal for at least 48 hours over a period of not less than 7 days/168 hours.

5.1.4 The design and construction, which should be in accordance with the requirements of resolution A.694(17) and international standards acceptable to the Organization<sup>2</sup>, should take special account of the requirements for data security and continuity of operation as detailed in 5.2 and 5.3.

## **5.2 Data selection and security**

5.2.1 The minimum selections of data items to be recorded by the S-VDR are specified in 5.4. Optionally, additional items may be recorded provided that the requirements for the recording and storage of the specified selections are not compromised.

5.2.2 The equipment should be so designed that, as far as is practical, it is not possible to tamper with the selection of data being input to the equipment, the data itself nor that which has already been recorded. Any attempt to interfere with the integrity of the data or the recording should be recorded.

5.2.3 The recording method should be such that each item of the recorded data is checked for integrity and an alarm given if a non-correctable error is detected.

## **5.3 Continuity of operation**

5.3.1 To ensure that the S-VDR continues to record events during an incident, it should be capable of operating from the ship's emergency source of electrical power.

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<sup>2</sup> Refer to publication IEC 60945 - Maritime navigation and radiocommunication equipment and systems - General requirements, methods of testing and required test results.

5.3.2 If the ship's emergency source of electrical power supply fails, the S-VDR should continue to record Bridge Audio (see 5.4.5) from a dedicated reserve source of power for a period of 2 h. At the end of this 2 h period all recording should cease automatically.

5.3.3 Recording should be continuous unless interrupted briefly in accordance with 6 or terminated in accordance with 5.3.2. The time for which all stored data items are retained should be at least 12 h. Data items which are older than this may be overwritten with new data.

## **5.4 Data items to be recorded**

### **Date and time**

5.4.1 Date and time, referenced to UTC, should be obtained from a source external to the ship or from an internal clock. The recording should indicate which source is in use. The recording method should be such that the timing of all other recorded data items can be derived on playback with a resolution sufficient to reconstruct the history of the incident in detail.

### **Ship's position**

5.4.2 Latitude and longitude, and the datum used, should be derived from an electronic position-fixing system (EPFS). The recording should ensure that the identity and status of the EPFS can always be determined on playback.

### **Speed**

5.4.3 Speed through the water or speed over the ground, including an indication of which it is, derived from the ship's speed and distance measuring equipment.

### **Heading**

5.4.4 As indicated by the ship's compass.

### **Bridge Audio**

5.4.5 One or more microphones positioned on the bridge should be placed so that conversation at or near the conning stations, radar displays, chart tables, etc., are adequately recorded. As far as practicable, the positioning of microphones should also capture intercom, public address systems and audible alarms on the bridge.

### **Communications Audio**

5.4.6 VHF communications relating to ship operations should be recorded.

### **Radar data, post-display selection**

5.4.7 This should include electronic signal information from within one of the ship's radar installations which records all the information which was actually being presented on the master display of that radar at the time of recording. This should include any range rings or markers, bearing markers, electronic plotting symbols, radar maps, whatever parts of the SENC or other electronic chart or map that were selected, the voyage plan, navigational data, navigational

alarms and the radar status data that were visible on the display. The recording method should be such that, on playback, it is possible to present a faithful replica of the entire radar display that was on view at the time of recording, albeit within the limitations of any bandwidth compression techniques that are essential to the working of the S-VDR.

### **AIS Data**

5.4.8 If it is impossible to obtain radar data<sup>3</sup> then AIS target data should be recorded as a source of information regarding other ships. If radar data is recorded, AIS information may be recorded additionally as a beneficial secondary source of information on both other and own ship.

### **Other items**

5.4.9 Any additional data items listed by IMO with the requirements set out in resolution A.861(20) should be recorded when the data is available in accordance with the international digital interface standards<sup>4</sup> using approved sentence formatters.

## **6 OPERATION**

6.1 The unit should be entirely automatic in normal operation. Means should be provided whereby recorded data may be saved by an appropriate method following an incident, with minimal interruption to the recording process.

## **7 INTERFACING**

7.1 Interfacing to the various sensors required should be in accordance with the relevant international interface standards, where possible. Any connection to any item of the ship's equipment should be such that the operation of that equipment suffers no deterioration, even if the S-VDR system develops faults.

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<sup>3</sup> Where commercial off the shelf (COTS) interfaces are not available.

<sup>4</sup> Refer to publication IEC 61162

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Ref. T2/6.01

MSC/Circ.1039  
28 May 2002

## **GUIDELINES FOR SHORE-BASED MAINTENANCE OF SATELLITE EPIRBs**

- 1 The Maritime Safety Committee, at its seventy-fifth session (15 to 24 May 2002), approved Guidelines for shore-based maintenance of satellite EPIRBs, for the purpose of establishing standardized procedures and minimum levels of service for the testing and maintenance of satellite EPIRBs to ensure maximum reliability whilst minimizing the risk of false distress alerts.
- 2 Member Governments are invited to bring the annexed Guidelines to the attention of shore-based maintenance providers, equipment manufacturers, classification societies, shipping companies, shipowners, ship operators, shipmasters and all other parties concerned.

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## ANNEX

### GUIDELINES FOR SHORE-BASED MAINTENANCE OF SATELLITE EPIRBs

#### 1 Introduction

1.1 The purpose of these guidelines is to establish standardised procedures and minimum levels of service for the testing and maintenance of satellite EPIRBs to ensure maximum reliability whilst minimising the risk of false distress alerting.

1.2 The guidelines are intended to be applicable both to 406 MHz EPIRBs and to L-band EPIRBs, as either type may be carried to comply with the requirements of SOLAS regulation IV/7.1.6. EPIRBs may include 121.5 MHz transmitters, or Global Navigation Satellite System (GNSS) receivers.

1.3 The guidelines also apply to service exchange EPIRBs which should be properly encoded to match the appropriate registration database.

#### 2 Shore-based maintenance (SBM) provider

2.1 The SBM provider should:

- .1 have a quality control system audited by a competent authority in respect of its servicing operation;
- .2 have access to adequate calibrated test equipment and facilities to carry out the SBM in accordance with these guidelines;
- .3 have access to batteries and other spare parts to the original equipment specification;
- .4 have access to up-to-date technical manuals, service bulletins and the latest software versions as provided by the original equipment manufacturer;
- .5 keep records of maintenance, available for inspection by the Administration as may be required;
- .6 ensure that all personnel responsible for supervising and for carrying out the maintenance procedures are adequately trained and fully competent to perform their duties; and
- .7 issue a shore-based maintenance report with a list of the test results and maintenance performed.

### **3 Prevention of false distress alerts**

3.1 Throughout the testing and maintenance process, **great care must be taken to avoid the transmission of false distress alerts.** The transmissions may be picked up by aircraft as well as satellites.

3.2 A radio-frequency-screened room or enclosure should be used for all maintenance procedures involving, or likely to involve, any transmission from an EPIRB.

3.3 Provision of a 121.5 MHz monitor receiver is required; this will pick up the homing transmitter and give a warning if the EPIRB is accidentally activated outside the screened enclosure.

3.4 If a distress signal is transmitted accidentally, the local RCC should be contacted immediately and informed of the co-ordinates of the test site.

### **4 Maintenance service interval**

4.1 406 MHz satellite EPIRBs should be inspected and tested in accordance with MSC/Circ.1040.

4.2 Shore-based maintenance of all satellite EPIRBs, as defined in paragraph 1.2, should be carried out in accordance with these guidelines at intervals specified by the flag Administration and not exceeding 5 years. It is recommended that the maintenance be performed at the time when the battery is to be changed.

### **5 Self-test**

5.1 Prior to carrying out any maintenance and, upon completion, a self-test should be performed, following the instructions on the equipment, and the results noted.

5.2 Attention is drawn to paragraph 3 on the prevention of false distress alerts. Avoidance of live transmissions is required to prevent unnecessary loading of the satellite channels.

5.3 It should be verified that the self-test mode operates properly. This check could be performed by holding the switch in self-test mode position for 1 min after the first self-test mode burst transmission. All transmissions should cease after releasing the self-test mode switch. Additionally, for 406 MHz satellite EPIRBs which received the COSPAS-SARSAT type approval after October 1998 (Type Approval Certificates 106 and higher) the number of self-test bursts should be verified to be no more than one.

### **6 Battery change**

6.1 The main battery should be changed in accordance with the manufacturer's recommendations, including the replacement of any other routine service parts (e.g. seals, memory battery, desiccant).

6.2 The removed batteries should be disposed of in accordance with the manufacturer's and/or national/local recommendations.

6.3 After having changed the battery, the new expiration date should be displayed on the exterior surface of the EPIRB.

## **7 Satellite distress transmission**

7.1 The satellite EPIRB should be activated in its normal transmitting mode (i.e. not just self-test). Attention is drawn to paragraph 3 on the prevention of false distress alerts. Where seawater contacts are fitted, these should be connected together to activate the EPIRB.

7.2 The transmitted signal should be checked with a suitable test receiver to verify the signal integrity and coding.

7.3 The frequency of the transmitted signal should be recorded and verified to be within the limits required by the specification to which it is approved.

7.4 The output power of the transmitter should be checked in the self-test mode. A simple method of the emission verification, such as a low sensitivity receiver placed at an unobstructed distance of at least 3 m from the EPIRB antenna, may be used for this check. The original equipment manufacturer may suggest an appropriate method to verify the output power. Attention is drawn to paragraph 3 on the prevention of false distress alerts.

## **8 121.5 MHz homing transmission**

8.1 The satellite EPIRB should be activated in its normal transmitting mode (i.e. not just self-test). Attention is drawn to paragraph 3 on the prevention of false distress alerts. Where seawater contacts are fitted, these should be connected together to activate the EPIRB.

8.2 The transmitted signal should be checked with a suitable test receiver for the characteristic swept tone modulation.

## **9 Global Navigation Satellite System (GNSS)**

9.1 Some satellite EPIRBs are designed to transmit a position derived from a GNSS receiver, which may be internal or external to the EPIRB.

9.2 The original equipment (EPIRB) manufacturer should be consulted for a method of testing the correct operation of this function, e.g.: by using a GNSS repeater/simulator or external input. This test may involve a live transmission from the EPIRB and should be performed in a screened room or enclosure in accordance with paragraph 3.2. Attention is drawn to paragraph 3 on the prevention of false distress alerts.

9.3 A test receiver should be used to verify that the signal transmitted by the satellite EPIRB contains the correctly encoded position data derived from the GNSS receiver. Attention is drawn to paragraph 3 on the prevention of false distress alerts.

## 10 Waterproof integrity

10.1 The satellite EPIRB should be inspected for any signs of damage or cracks to the casing, or of water ingress. Any damaged item should be replaced in accordance with the manufacturer's recommended procedures.

10.2 The satellite EPIRB should be tested for waterproof integrity at the end of the SBM. The equipment manufacturer may suggest an appropriate method to test the integrity of the EPIRB.

10.3 One method involves immersing the equipment in hot water (20-30°C above ambient) for a period of 1 min. It can be readily seen if there are any problems with the seals, as the air inside the beacon expands and escapes as a stream of bubbles. This test should not be carried out with cool water, as the water may be drawn into the equipment without showing significant release of air bubbles.

10.4 Satellite EPIRBs equipped with seawater switches should have this function disabled during the immersion test to prevent activation, unless the complete test is performed inside a screened room. This disabling may be achieved by immersing the EPIRB complete with a mounting bracket if the bracket includes an interlock to prevent activation before release. In some cases the EPIRB contains an inversion switch, so it will not be activated if immersed in the inverted position. The manufacturer should be consulted for specific guidance.

## 11 Labelling

11.1 As a minimum, the equipment external labelling should be checked for the following details:

- .1 manufacturer's serial number. This identifies the equipment, even if the programmed data (e.g. MMSI or callsign) is later changed;
- .2 the transmitted identification code:
  - for L-band EPIRBs, it will be the Inmarsat System Code; and
  - for 406 MHz EPIRBs, this will be the beacon 15 Hexadecimal Identification (15 Hex ID) and other encoded identification information (MMSI / callsign) as required by the Administration. It should be verified that the label matches the information decoded from the self-test mode transmission using the test receiver. For the COSPAS-SARSAT location protocol beacons, the 15 Hex ID should correspond to position data set to default values;
- .3 the expiration date of the battery; and
- .4 the date when the next shore-based maintenance is due (see paragraph 12.1).

11.2 The above checks also apply if a replacement EPIRB is provided by the SBM provider.

## **12 Shore-based maintenance report and other documentation**

12.1 The results of shore-based maintenance should be provided in the form of a shore-based maintenance report, a copy of which is to be kept on board, and a label affixed to the exterior of the beacon detailing the name of the SBM provider and the date when the next shore-based maintenance is due.

12.2 The SBM provider may affix a tamperproof seal or similar device on completion of the SBM.

12.3 Before returning the beacon to the owner, or when providing a replacement beacon, the SBM provider should check the registration details with the beacon registry, where practicable.

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Ref. T2/6.01

MSC/Circ.1040  
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## **GUIDELINES ON ANNUAL TESTING OF 406 MHZ SATELLITE EPIRBs**

- 1 The Maritime Safety Committee, at its seventy-fifth session (15 to 24 May 2002), approved the annexed Guidelines on annual testing of 406 MHz satellite EPIRBs, as required by new SOLAS regulation IV/15.9, which enters into force on 1 July 2002.
- 2 Member Governments are invited to bring these Guidelines to the attention of shipping companies, shipowners, ship operators, equipment manufacturers, classification societies, shipmasters and all parties concerned.
- 3 This circular supersedes MSC/Circ.882.

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**ANNEX**

**GUIDELINES ON ANNUAL TESTING OF 406 MHz SATELLITE EPIRBs**

- 1 The annual testing of 406 MHz satellite EPIRBs is required by new SOLAS regulation IV/15.9 entering into force on 1 July 2002.
- 2 The testing should be carried out using suitable test equipment capable of performing all the relevant measurements required in these guidelines. All checks of electrical parameters should be performed in the self-test mode, if possible.
- 3 The examination of the installed 406 MHz satellite EPIRB should include:
  - .1 checking position and mounting for float-free operation;
  - .2 verifying the presence of a firmly attached lanyard in good condition; the lanyard should be neatly stowed, and must not be tied to the vessel or the mounting bracket;
  - .3 carrying out visual inspection for defects;
  - .4 carrying out the self-test routine;
  - .5 checking that the EPIRB identification (15 Hex ID and other required information) is clearly marked on the outside of the equipment;
  - .6 decoding the EPIRB 15 Hexadecimal Identification Digits (15 Hex ID) and other information from the transmitted signal, checking that the decoded information (15 Hex ID or MMSI/callsign data, as required by the Administration) is identical to the identification marked on the beacon;
  - .7 checking registration through documentation or through the point of contact associated with that country code;
  - .8 checking the battery expiry date;
  - .9 checking the hydrostatic release and its expiry date, as appropriate;
  - .10 checking the emission in the 406 MHz band using the self-test mode or an appropriate device to avoid transmission of a distress call to the satellites;
  - .11 if possible, checking emission on the 121.5 MHz frequency using the self-test mode or an appropriate device to avoid activating the satellite system;
  - .12 checking that the EPIRB has been maintained by an approved shore-based maintenance provider at intervals required by the Administration;
  - .13 after the test, remounting the EPIRB in its bracket, checking that no transmission has been started; and
  - .14 verifying the presence of beacon operating instructions.