



# **SOUTH AFRICAN NOTICE TO MARINERS**

## **January 2005 EDITION**

**PUBLISHED MONTHLY  
BY THE  
HYDROGRAPHIC OFFICE  
CAPE TOWN**

### **CONTENTS**

- I Explanatory Notes and Index
- II SAN Notices to Mariners. Updates to Standard Navigational Charts
- III SAN Charts and SAN HO Publications - New Charts / Editions
- IV Corrections to SAN HO Publications
- V Corrections to SA List of Lights and Radio Services
- VI Reprints of Radio Navigational Warnings

### **IMPORTANT**

Mariners are requested to inform the Hydrographer, Private Bag X1, Tokai 7966, immediately of the discovery of new dangers, or changes or defects in aids to navigation and of shortcomings in South African charts or publications. Copies of form HO-16, which is a convenient form on which to send in a report, may be obtained gratis from any Official Chart Agent or the reproduction at the end of Section VI of the monthly edition of Notices to Mariners.

In addition to postal methods, the following additional communication facilities are available :

Notices to Mariners Web site :	Web : <a href="http://www.sanho.co.za">http://www.sanho.co.za</a>
<b>Urgent navigational information :</b>	<b>Telex : 95 527946 (ANS BACK: NAVY SA)</b> <b>Fax : +27 21 787 2228</b> <b>Phone : +27 21 787 2445</b>
Other navigational information :	Fax : +27 21 787 2233 Phone : +27 21 787 2444 E-mail : <a href="mailto:hydrosan@iafrica.com">hydrosan@iafrica.com</a>
General information :	Phone : +27 21 787 2408

**Captain A. Kampfer**  
**Hydrographer, SA Navy**  
**NAVAREA VII Co-ordinator**

**I**

**INDEX OF CHARTS AND PUBLICATIONS AFFECTED**

---

<b>SAN Charts</b>	<b>Notices</b>	<b>Pages</b>
Nil		

<b>SAN Publications</b>	<b>Notices</b>	<b>Pages</b>
South African List of Lights and Radio Signals (SAN HO-1) 2005 New Edition	28	4,5

<b>SAN Charts - New Charts / Editions</b>	<b>Notices</b>	<b>Pages</b>
Annual Summary of South African Notices to Mariners - 2005 Edition	27	5
Cummulative List of South African Notices to Mariners - 2005 Edition	27	5

<b>SAN Charts - Permanently Withdrawn</b>	<b>Notices</b>	<b>Pages</b>
Nil		

<b>SANHO Publications - New / New Editions</b>	<b>Notices</b>	<b>Pages</b>
Nil		

---

### **Spheroid / GPS Positions**

All positions quoted in these Notices are referred to **Clarke 1880 (Mod) Spheroid** unless otherwise stated.

On chart scales of **1: 100 000 and smaller**, positions from **GPS receivers** set to **WGS 84** may be plotted directly on these charts. Mariners are warned that **insertion of Clarke 1880 (or other) positions on Automatic Plotters which are set to WGS 84 Spheroid can result in inaccurate navigation practices.**

### **Temporary and Preliminary Notices**

These are indicated by (T) or (P) after the notice number. These are printed on one side of the paper in order that they may be cut and filed and are placed at the end of Section II. To assist in filing, the year is indicated after the notice number. **Information from these notices is not included on charts before issue;** charts should be updated in pencil on receipt.

### **Permanent Notices**

Permanent corrections in Section II are marked by a star adjacent to the notice number to indicate that the notice is based on original information. Periodic lists of permanent corrections pertaining to affected navigational charts and publications are published annually and copies may be obtained from the Hydrographic Office or through a Chart Agent.

### **Chart Corrections**

Further details are contained in NP100 The Mariner's Handbook which should be consulted for the correct procedures of filing, inserting and noting all types of corrections on nautical charts and other hydrographic publications. The Handbook may be obtained from Admiralty Chart Agents in Cape Town and Durban. Consult SAN HO-6 for Symbols and Abbreviations used on SAN Charts and NP735 for an illustrated explanation of the IALA Maritime Buoyage System.

### **Provision of Notices to Mariners**

These Notices are *gratis* and may be obtained on request from the Hydrographic Office or through the approved Chart Agents. Additional copies required of "block" chart corrections can also be obtained through the above procedure.

### **Radio Navigational Warnings**

See Note at the start of Section IV.

## **GUIDANCE NOTES FOR VIEWING AND PRINTING NOTICES USING ADOBE ACROBAT**

For optimum results when viewing and printing material from the PDF digital files please note the following:

The minimum specification is a 486 PC with Windows 3.1 and 4MB of RAM.

When printing data from the files, ensure the Fit to Page icon in the Adobe Acrobat print menu is switched off before printing. Otherwise large text pages will be compressed, or large size Blocks may not fit the chart.

If printing text or monochrome NM Blocks, the minimum specification is an Inkjet or good quality Laser Postscript printer with at least 6 MB of memory. (NB. If using a Postscript printer, ensure the Postscript printer driver is installed).

For printing Colour NM Blocks the minimum specification of printer is a good quality Ink Jet/Laser printer with 300 dpi resolution or greater.

If using certain types of Ink Jet printer ensure the setting is set to Dithered screening not Pattern screening.

Printed colour copies should be compared with the colour image on screen to ensure that all the colours have reproduced correctly. Printer property resolution and ink density may need to be increased or adjusted to obtain the best results.

Ensure the Colour Ink Cartridge is in accordance with the printer manufacturers specifications. Minimum paper specification for printing Colour NM Blocks is International paper size A4, thickness/weight 80 gsm paper. (The same paper as used for NM Blocks in the NM Weekly). NB. (Ensure the paper quality is in accordance with the Printer manufacturers specifications).

**The Hydrographer does not accept any liability for the display and printing of these digital Notices to Mariners on the users equipment.**

**I**

**TEMPORARY NOTICES AND PRELIMINARY NOTICES  
In force 27 January 2005**

**TEMPORARY NOTICES**

**2002 Series**

78(T)	Namibia	Baker's Bay	Foul Area.
89(T)	Namibia	Bogenfels	Anchor Obstructions, Foul Area.

**2003 Series**

45(T)	RSA	Port Elizabeth	Construction of Ngqura harbour.
64(T)	RSA	Durban Oil Terminal SBM	Buoy laid.

**2004 Series**

25(T)	RSA	Simon's Bay	Submarine Mooring Buoy temporarily removed.
49(T)	RSA	Table Bay	Murray's Bay Harbour. Lights temporarily removed.
83(T)	Namibia	Lüderitz	Foul Area.
84(T)	RSA	Houtbaai	North Mole dangerous.

**2005 Series**

Nil

**PRELIMINARY NOTICES**

**2004 Series**

41(P)	RSA	Table Bay	Murray's Bay Harbour. Works in progress (2004).
-------	-----	-----------	---

**2005 Series**

Nil

## II

### ERRATUM

1. Amend SA Notices to Mariners 100 of 2004 : SAN 128 previous update to read 29/03.

### SA NAVY SAN CHARTS OF SOUTH AFRICA AND NAMIBIA THAT ARE REFERRED TO THE WGS 84 SPHEROID

27 (INT 204)	76 (INT 2640)	79 (INT 2670)	87 (INT 7570)
90 (INT 2051)	1001 (INT 2611)	1012 (INT 2672)	1020 (INT 7521)
1024 (INT 7531)	1025 (INT 7532)	1027 (INT 7541)	1030 (INT 7561)
1032 (INT 7572)	1033 (INT 7571)		
1	113	114	125
126	132	133	134
1003	1015	1017	2004
SC3	SC5		

### MISCELLANEOUS

1. Mariners are advised that the primary and most reliable means of communication with HYDROSAN for all messages is via Telex : 95 527946 (ANS BACK : NAVY SA) or alternatively via Facsimile number : +27 21 787 2228.
2. Current and archived South African Notices to Mariners is available in PDF format on the internet at Website : <http://www.sanho.co.za>

## IIA

### LIST OF TEMPORARY AND PRELIMINARY NOTICES TO MARINERS ISSUED BY THE MOZAMBIQUE INSTITUTE OF HYDROGRAPHY AND NAVIGATION (INAHINA) IN FORCE

Nil prior to these Notices.

#### 2003 Series

07MOZ(T)/03	Porto de Maputo	Buoys out of position.
-------------	-----------------	------------------------

#### 2004 Series

MOZ 20/04(T)	Port of Maputo	Cias de Bombagem temporarily unlit.
MOZ 25/04(T)	Port of Quelimane	Buoy 2 temporarily out of position.
MOZ 31/04(T)	Port of Quelimane	Buoy 3 temporarily out of position.
MOZ 45/04(T)	Port of Maputo	Lighthouse temporarily unlit.
MOZ 46/04(T)	Port of Maputo	Buoy 3N temporarily out of position.

#### 2005 Series

Nil

### III

## NEW CHARTS AND SAN HO PUBLICATIONS - NEW CHARTS/EDITIONS

### 27/05 NEW SAN HO PUBLICATIONS

**Annual Summary of South African Notices to Mariners** - 2005 Edition. The new edition is now available through approved Chart Agents and downloadable from the SANHO website. It supercedes the 2004 Edition which is now cancelled.

**Cumulative List of South African Notices to Mariners** - 2005 Edition. The new edition is now available through approved Chart Agents and downloadable from the SANHO website. It supercedes the 2004 Edition which is now cancelled.

### IV

## CORRECTION TO SAN HO PUBLICATIONS

Nil

### V

### 28/05 CORRECTION TO SA LIST OF LIGHTS AND RADIO SIGNALS - SAN HO-1

Source : Hydrographer

#### 1. Page 19 NEW ENTRY - SABLE OILFIELD

Insert : Under ORIBI OILFIELD

#### SABLE OILFIELD

Z6032 (new)	FPSO	35 12.4 21 19.2	Mo(U)15s Mo(U).R Horn Mo(U)30s	18	10-15 3	FPSO Vessel
----------------	------	--------------------	--------------------------------------	----	------------	-------------

#### 2. Page 33 GMDSS TRANSMISSION SCHEDULE FOR SAFETYNET (INMARSAT C) NAVAREA VII BULLETINS

Amend the following to read (Col 2, 3) :

MET AREA	COAST EARTH STATION	BROADCAST TIMES (UTC)
VII	Station 12 BURUM, Netherlands (primary)	1940; unscheduled
AOR-E, IOR	Goonhilly, UK (secondary)	1940; unscheduled

IOR = Indian Ocean Region  
AOR-E = Atlantic Ocean Region East

#### 3. Page 38 GMDSS TRANSMISSION SCHEDULE FOR SAFETYNET (INMARSAT C) NAVAREA VII BULLETINS

Amend the following to read (Col 2, 3) :

MET AREA	COAST EARTH STATION	BROADCAST TIMES (UTC)
VII	Station 12 BURUM, Netherlands (primary)	1940; unscheduled
AOR-E, IOR	Goonhilly, UK (secondary)	1940; unscheduled

IOR = Indian Ocean Region  
AOR-E = Atlantic Ocean Region East

**V cont/...**

4. Page 41 **DIGITAL SELECTIVE CALLING (DSC) ON HF (SOLAS SERVICE)**

Amend the following to read (Col 1) :

Cape Town Radio - Sea Area A3	HF DSC frequency in kHz
MMSI 006010001	4207.5, 6312, 8414.5, 12577, 16804.5

5. Page 47 para 4 **NAVTEX SERVICE**

Amend the following to read under (Col 4) :

Transmits	Emission Mode	Identifier	Times of Broadcast
518	F1B(FEC)	O	0220, 0620, 1020, 1420, 1820 and 2220 Coastal weather bulletins 1020, and 1820 only.

6. Page 53 - 55 **GLOBAL MARITIME DISTRESS AND SAFETY SYSTEMS (GMDSS)**

Insert accompanying block correction.

7. Page 80 **SYMBOLS AND ABBREVIATIONS**

Insert : New entry under F

Floating Production Storage Offloading FPSO

8. Page 83 **INDEX**

Insert : New entry under F

FPSO . . . . . 19

9. Page 84 **INDEX**

Insert : New entry under S

SABLE OILFIELD  
FPSO Light . . . . . 19

VI

**NAVAREA VII and Coastal Navigational Warnings Bulletin  
in force as at 27 January 2005**

See NM 3/2004. Broadcast Warnings are available at Port Offices and remain valid until cancelled or until superseded by this and/or other broadcast bulletins.

**NAVAREA VII MESSAGES**

**Nil Prior to these Messages**

**2005 Series**

001	South Indian Ocean	Crozet Island	1 Iceberg sighted.
006	South Atlantic SW Sector		Chamarel deployed buoy.
007	South Atlantic NE Sector	Angola	Riglist.

**COASTAL NAVWARNING MESSAGES**

**Nil Prior to these Messages**

**2004 Series**

586	RSA	Durban	Fairway Buoy light and racon inoperative.
599	Namibia		Sakawe Miner anchor spread.
603	Namibia	Baker's Bay	MV Namakwa left anchor spread and unlit marker buoys.
606	Namibia	Lüderitz	Swamped anchors.
607	RSA	Saldanha Bay	North Head light removed.
608	RSA	Ystervarkpunt	Lighthouse out of order. Standby light operational.
609	Namibia	West Coast	White and red cylinder buoy.
610	Namibia	Bogenfels	Swamped mining tools abandoned.
611	RSA	Umhlanga Rocks	Standby light operational light.
612	RSA	Gordon's Bay	Charted depth unreliable due to silting.

**2005 Series**

003	RSA	East Coast	Missile tests.
014	Namibia	South Coast	MV Kovambo left anchor spread.
015	RSA	Port Nolloth	Bell Buoy unlit.
018	RSA	East Coast	FA Platform racon, navigation lights and fog horn non-operational.
020	Namibia	Baker's Bay	MV Namakwa left anchor with marker buoy.
022	RSA	False Bay	Gunnery exercise.
023	RSA	Donkergat	MV Ivan Princep engaged in mining operations.
024	RSA	Durban Harbour	Lightning strike results in unreliable VTS radars.
025	RSA	Robben Island	Lighthouse out of order.
027	RSA	East London Harbour	Fog Horn inoperative.
029	RSA	Agulhas Bank	MV Polar Princess conducting seismic survey.
031	RSA	East Coast	Mossel Bay race 2005.

**VI**  
**ANNEX A**

USA Government Special Warning in force 24 August 2003

**SPECIAL WARNING NUMBER 120 WORLDWIDE**

1. Due to recent events in the Middle East and the American Homeland, U.S. Forces worldwide are operating at a heightened state of readiness and taking additional defensive precautions against terrorists and other potential threats. Consequently, all aircraft, surface vessels, and sub-surface vessels approaching U.S. Forces are requested to maintain radio contact with U.S. Forces on bridge-to-bridge channel 16, international air distress (121.5 Mhz VHF) or MILAIR distress (243.0 Mhz UHF).
2. U.S. Forces will exercise appropriate measures in self-defence if warranted by the circumstances. Aircraft, surface vessels, and sub-surface vessels approaching U.S. Forces will, by making prior contacts as described above, help make their intentions clear and avoid unnecessary initiation of such defensive measures.
3. U.S. Forces, especially when operating in confined waters, shall remain mindful of navigational considerations of aircraft, surface vessels, and sub-surface vessels in their immediate vicinity.
4. Nothing in the Special Warning is intended to impede or otherwise interfere with the freedom of navigation or overflight of any vessel or aircraft, or to limit or expand the inherent self-defence rights of U.S. Forces. This Special Warning is published solely to advise of the heightened state of readiness of U.S. Forces and to request that radio contact be maintained as described above. (Issued 16 Nov 2001).

**VI**

USA Government Special Warning in force 24 August 2003

**SPECIAL WARNING NUMBER 121 PERSIAN GULF**

1. Coalition Naval Forces may conduct military operations in the Eastern Mediterranean Sea, Red Sea, Gulf of Aden, Arabian Sea, Gulf of Oman and Arabian Gulf. The timely and accurate identification of all vessels and aircraft in these areas are, critical to avoid the inadvertent use of force.
2. All vessels are advised that coalition Naval Forces are prepared to exercise appropriate measures in self-defense to ensure their safety in the event they are approached by vessels or aircraft. Coalition Forces are prepared to respond decisively to any hostile acts or indications of hostile intent. All maritime vessels or activities that are determined to be threats to Coalition Naval Forces will be subject to defensive measures, including boarding, seizure, disabling or destruction, without regard to registry or location. Consequently, surface vessels, sub-surface vessels and all aircraft approaching Coalition Naval Forces are advised to maintain radio contact on Bridge-to-Bridge channel 16, International Air Distress (121.5 MHZ VHF) or Military Air Distress (243.0 MHZ UHF).
3. Vessels operating in the Middle East, Eastern Mediterranean Sea, Red Sea, Gulf of Oman, Arabian Sea and Arabian Gulf are subject to query, being stopped, boarded and searched by US/Coalition warships operating in support of operations against Iraq. Vessels found to be carrying contraband bound for Iraq or carrying and/or laying Naval mines are subject to detention, seizure and destruction. This notice is effective immediately and will remain in effect until further notice.

**HO-16 (July 2002)**

**HYDROGRAPHIC NOTE**

(for instructions, see overleaf)

Date .....

Ref. No .....

Name of ship or sender : .....

Address of sender : .....

.....

.....

Tel/Fax/Telex No. e-mail address of sender (if appropriate) : .....

General locality Subject : .....

Position : Lat : .....

Long :

.....

SAN Chart(s) affected : .....

Edition dated :

.....

Position fixing system used : .....

Datum set :

.....

Latest Monthly Edition of Notice to Mariners held : .....

Publications affected : (Edition No ..... date of latest supplement, page and Light List No. etc.)

Details:

A replacement copy of Chart(s) No(s) ..... is required, but see 4 overleaf.

Signature of observer/reporter : .....

# HYDROGRAPHIC NOTE

## Forwarding information for South African Charts and Hydrographic Publications

### INSTRUCTIONS

1. Mariners are requested to notify the Hydrographer of the South African Navy, Private Bag X1, Tokai, 7966, or by Facimile 021 7872228 or E-mail *hydrosan@iafrica.com* when new or suspected dangers to navigation are discovered, changes observed in aids to navigation, or corrections to publications seen to be necessary. The *Mariner's Handbook (NP 100) Chapter 8* gives general instructions. The provisions of international and national laws should be complied with when forwarding such reports.

2. This form and its instructions have been designed to help both the sender and the recipient. It should be used, or followed closely, whenever appropriate. Copies of this Form may be obtained gratis from the SAN Hydrographic Office at the above address or principal Chart Agents (see *Annual Notice to Mariners No.1*).

3. When a **position** is defined by sextant angles or bearings (true or magnetic being specified) more than two should be used in order to provide a check. Distances observed by radar and the readings of Loran, Decca, etc., should be quoted. Latitude and longitude should only be used specifically to position the details when they have been fixed by astronomical observations or GPS and a full description of the method, equipment and datum (where applicable) used should be given.

4. A cutting from the largest scale chart is the best medium for forwarding details, the alterations and additions being shown thereon in red. When requested, a new copy will be sent in replacement of a chart that has been used to forward information, or when extensive observations have involved defacement of the observer's chart. If it is preferred to show the amendments on a tracing of the largest scale chart (rather than on the chart itself) these should be in red as above, but adequate details from the chart must be traced in black ink to enable the amendments to be fitted correctly.

5. When **soundings** are obtained *The Mariner's Handbook (NP 100)* should be consulted. The echo sounding trace should be marked with times, depths, etc., and forwarded with the report. It is important to state whether the echo sounder is set to register depths below the surface or below the keel; in the latter case the vessel's draught should be given. Time and date should be given in order that corrections for the height of the tide may be made where necessary. The make, name and type of set should also be given.

6. Modern **echo sounders** frequently record signals from echoes received back after one or more rotations of the stylus have been completed. Thus with a set whose maximum range is 500m, an echo recorded at 50m may be from depths of 50m, 550m or even 1050m. Soundings recorded beyond the set's nominal range can usually be recognised by the following:

- (a) the trace being weaker than normal for the depth recorded,
- (b) the trace passing through the transmission line,
- (c) the feathery nature of the trace.

As a check that apparently shoal soundings are not due to echoes received beyond the set's nominal range, soundings should be continued until reasonable agreement with charted soundings is reached. However, soundings received after one or more rotations of the stylus can still be useful and should be submitted if they show significant differences from charted depths.

7. Reports which cannot be confirmed or are lacking in certain details should not be withheld. Shortcomings should be stressed and any firm expectation of being able to check the information on a succeeding voyage should be mentioned.

8. Reports of **shoal soundings**, uncharted dangers and navigational aids out of order should, at the mariner's discretion, also be made by radio to the nearest coast radio station. The draught of modern tankers is such that any uncharted depth under 30 metres or 15 fathoms may be of sufficient importance to justify a radio message.

9. **Port information** should be forwarded on Form HO-16a together with Form HO-16. Form HO-16a lists the information required for South African Sailing Directions and should be used as an *aide memoire*. Where there is insufficient space on the form an additional sheet should be used.

**Note :** An acknowledgement or receipt will be sent and the information then used to the best advantage which may mean immediate action or inclusion in a revision in due course. When a Notice to Mariners is issued, the sender's ship or name is quoted as authority unless (as sometimes happens) the information is also received from other authorities. An explanation of the use made of contributions from all parts of the world would be too great a task and a further communication should only be expected when the information is of outstanding value or has unusual features.

**HO-16a (March 2004)**

**HYDROGRAPHIC NOTE FOR PORT  
INFORMATION**

**(To accompany Form HO-16)**

Name of ship or sender : .....

Address of sender : .....

Ref. No. ....

.....

Date : .....

.....

1. NAME OF PORT	
2. GENERAL REMARKS Principal activities and trade. Latest population figures and date. Number of ships or tonnage handled per year. Maximum size of vessel handled. Copy of Port Handbook if available.	
3. ANCHORAGES Designation, depths, holding ground, shelter afforded.	
4. PILOTAGE Authority for requests. Embarkation position. Regulations.	
5. DIRECTIONS Entry and berthing information. Tidal Streams. Navigational aids.	
6. TUGS Number available and max. hp.	
7. WHARVES Names, numbers or positions. Lengths. Depths alongside. Heights above Chart Datum. Facilities available.	
8. CARGO HOLDING Containers, lighters, Ro-Ro etc.	
9. CRANES Brief details and max. capacity.	

<p>10. REPAIRS</p> <p>Hull, machinery and underwater. Ship and boat yards. Docking or slipping facilities. Give size of vessels handled or dimensions. Hards or ramps. Divers.</p>	
<p>11. RESCUE AND DISTRESS</p> <p>Salvage, lifeboat, NSRI, etc.</p>	
<p>12. SUPPLIES</p> <p>Fuel with type and quantities available. Fresh water with rate of supply. Provisions.</p>	
<p>13. SERVICES</p> <p>Medical. De-ratting. Consuls. Ship chandlery, compass adjustment, tank cleaning, hull painting.</p>	
<p>14. COMMUNICATIONS</p> <p>Road, rail and air services available. Nearest airport or airfield. Port radio and information service with frequencies and hours of operating.</p>	
<p>15. PORT AUTHORITY</p> <p>Designation, address and telephone number.</p>	
<p>16. SMALL CRAFT FACILITIES</p> <p>Information and facilities for small craft (eg yachts) visiting the port. Yacht Clubs, berths, etc.</p>	
<p>17. VIEWS</p> <p>Photographs (where permitted) of the approaches, leading marks, the entrance to the harbour etc. Picture postcards may also be useful.</p>	

Signature of observer/reporter

.....

## GLOBAL MARITIME DISTRESS AND SAFETY SYSTEMS (GMDSS)

### INTRODUCTION

The following paragraphs provide an operational guide for radio officers of vessels over 300 TGT (Tons Gross Tons) which are obliged to participate in the GMDSS. For complete details on all aspects of the system, including carriage requirements, the *Safety of Life at Sea (SOLAS) Convention, Chapter IV* should be consulted.

### GENERAL DESCRIPTION

1. The basic concept of the GMDSS is that on shore Search and Rescue authorities, in addition to shipping in the immediate vicinity of a vessel in distress, will be rapidly alerted to an incident so that they can assist in co-ordinating a search and rescue operation with the minimum of delay.
2. The system also provides for urgency and safety communications, and the dissemination of Maritime Safety Information including Navigational Warnings and Weather Messages.

### OPERATIONAL DETAILS

The worldwide communication coverage of the GMDSS is achieved by a combination of satellite (INMARSAT) and terrestrial systems. Based on the range limitations of each system, four sea areas (A1, A2, A3 and A4) have been defined according to the coverage of VHF, MF, HF coast radio services and INMARSAT services. The type of radio equipment required to be carried by a vessel is determined by its area of operations.

Area Description		Distance	Radio	Frequencies	*EPIRBs	Survival Craft
A1	Within range of shore-based VHF Stations	Depends on antenna height at shore-based VHF station (20 - 50 n miles)	VHF	156.525 MHz (Ch 70) for DSC 156.8 MHz (Ch 16) for RT	Either 406 MHz COSPAS-SARSAT or L-Band (1.6 GHz) or VHF EPIRB (after Feb 1999)	9 GHz radar transponder (SART) VHF Portable Radio (Ch 16 and one other frequency)
A2	Within range of shore-based MF Stations	about 100 n miles	MF VHF	As above, plus 2187.5 kHz DSC 2182 kHz TR 2174.5 NBDP 518 kHz NAVTEX	406 MHz COSPAS-SARSAT or L-Band (1.6 GHz)	as above
A3	Within geostationary satellite range (i.e. INMARSAT)	70°N - 70°S	HF or Satellite MF VHF	As above, plus 1.5 - 1.6 GHz Alerting or as A1 and A2 plus all HF frequencies	406 MHz COSPAS-SARSAT or L-Band (1.6 GHz)	as above
A4	Other areas (i.e. beyond INMARSAT range)	North of 70°N or South of 70°S	HF MF VHF		406 MHz COSPAS-SARSAT	as above

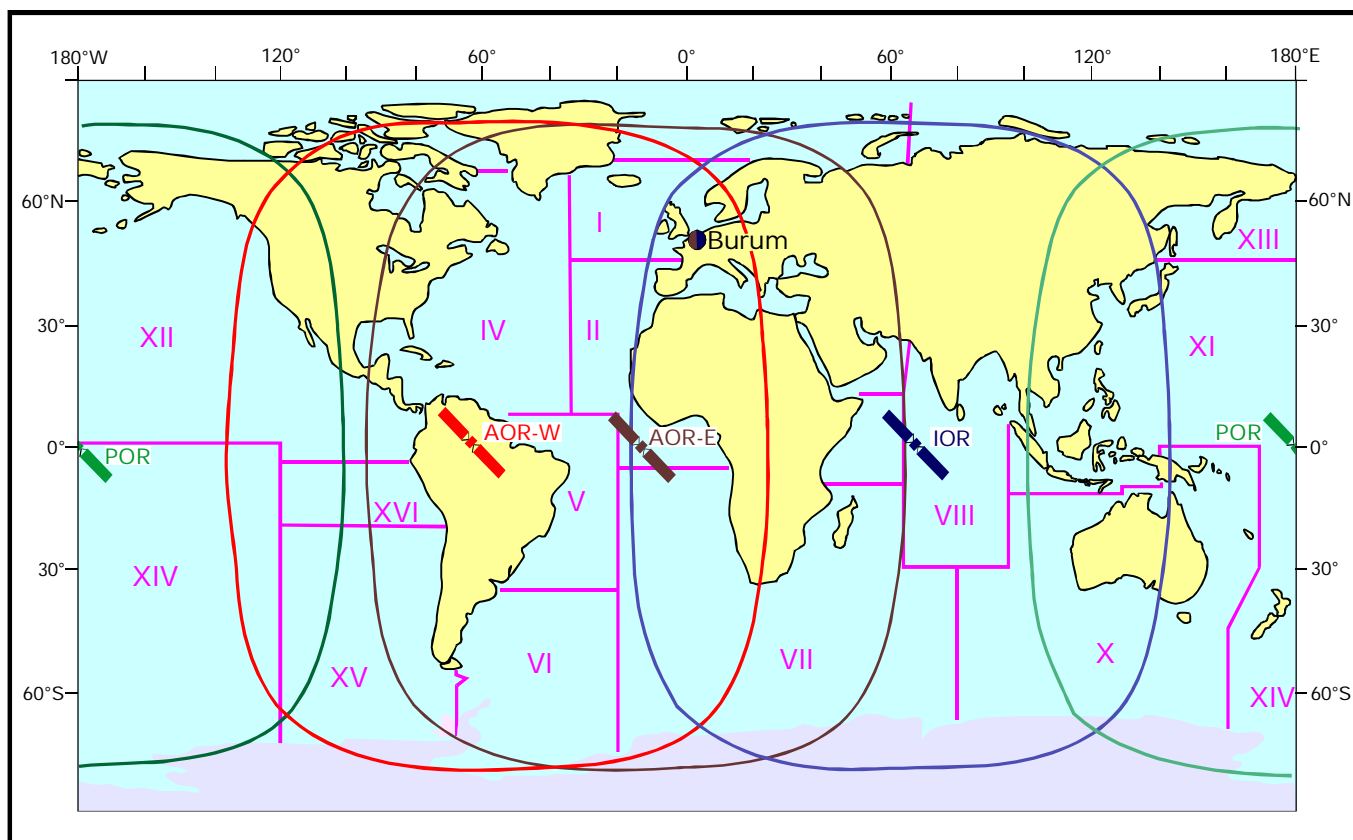
\* = Emergency Position Indicating Radio Beacon

### COMMUNICATIONS SYSTEMS

#### Satellite

1. The two types of ship-borne equipment to be used for satellite communications are:
  - INMARSAT approved Ship Earth Stations (SES); and
  - Satellite Emergency Position Indicating Radio Beacon (EPIRB's) capable of being activated manually and automatically on floating free from a vessel in distress.
2. For vessels equipped with an INMARSAT (SES), sending a distress alert only involves pressing a dedicated distress button or using a special abbreviated dialling code. These automatically give priority access to the system and establish contact with a Coast Earth Station (CES) through an INMARSAT satellite. The CES being part of the international search and rescue system, will immediately inform its linked Rescue Co-ordination Centre (RCC) thereby initiating a search and rescue operation. Direct contact can also be established with a RCC by telex or telephone. Maritime Safety Information will also be provided through the INMARSAT system using the International SafetyNET.
3. COSPAS-SARSAT, a near polar orbiting satellite service, operating in the 121.5 and 406.025 MHz band with a ground station at Cape Town, and the INMARSAT service operating in the 1.6 GHz band, provide the main means of distress alerting and determining the location of float-free satellite EPIRBs. The 121.5 MHz service will be discontinued in 2005.

## INMARSAT-C OCEAN REGIONS



### 406MHz EPIRB Beacon Registration

The Serial number of every beacon and other relevant details should be registered with an EPIRB registration centre. Any changes to the original information supplied on the registration cards should also be promptly provided. The registration centre in South Africa is :

SASAR  
 MRCC Cape Town  
 PO Box 532  
 Parow  
 7499  
 South Africa  
 Telephone : +27 021 938 3300  
 Facsimile : +27 021 938 3309

### Terrestrial Communications

1. **Digital Selective Calling (DSC)** will form the basis of distress-and-safety calling. The table below shows the frequencies in each band assigned for this purpose.
2. **Short Range** communications will be provided by VHF, Channel 16 continuing as the distress- and-safety channel.
3. **Medium range** communications will be provided in the 2 MHz band with 2182 kHz continuing to be used for distress alerting and safety purposes on RT.
4. **Long Range** communications will be provided by HF radio either as an alternative in those areas covered by INMARSAT or as the main

means of communication outside these regions. Vessels obliged to use HF, in areas not covered by INMARSAT or as an alternative, will watch on 8414.5 kHz and the HF frequency most suited to the area in which they may currently be operating.

Purpose	Long Range (kHz) HF		Medium Range (kHz) MF	Short Range VHF
	DSC / DSR	TELEX		
Distress and Safety Alerting / Calling	TX/RX 4207.5 6312.0 8414.5 12577.0 16804.5	INMARSAT C	2187.5 DSC DSR	Ch 70
SAR Co-ordination / On scene Communications	TX/RX 4125 6215 8291 12290 16420		2182 RT	Ch 16

### GMDSS Information on Internet

1. The US Coast Guard provides GMDSS information at no charge on the Internet at the following address :-
2. [Http://www.navcen.uscg.mil](http://www.navcen.uscg.mil)
3. INMARSAT has developed a "SafetyNET Users Handbook" which would be used in conjunction with the International SafetyNET Manual. The Handbook is currently available in electronic form from the Inmarsat Home Page.
4. The Internet address is [www.inmarsat.com/safety/](http://www.inmarsat.com/safety/) then follow the links : Inmarsat's Role - DISSEMINATION OF THE MARITIME SAFETY INFORMATION - SafetyNET - the link to the Handbook is at the bottom of the page.

## MARITIME SEARCH AND RESCUE

### Organisation and Responsibility

Attention is drawn to *South African Sailing Direction Volume I* and *South African Annual Notice to Mariners No 15*, for details of the *South African Search and Rescue Organization (SASAR)* and the *RSA's area of responsibility*.

### Communications

#### Use of Helicopters at Sea

1. Most of the South African Air Force (SAAF) helicopters used for search and rescue (SAR) can communicate on Ch 16 (156.8 MHz). Alternatively a message may be passed via a coast radio station or port control on 2182 kHz or Ch 16.
2. Court (Pty) Ltd helicopters can communicate on Ch 16 or 2182 kHz.

#### Use of Aircraft in assisting Ships

1. SAAF maritime patrol aircraft, diverted to SAR, are able to communicate on Ch 16 and 2182 kHz, but other SAAF aircraft may not be equipped with VHF.
2. South African Airways aircraft cannot communicate on Ch 16.
3. SAR aircraft of other nations may be able to communicate on 2182 kHz, 3023 kHz, 121.5 MHz and/or Ch 16.

### Ships and other Vessels

Vessels involved in SAR will initially communicate on either 500kHz, 2182 kHz or Ch 16. All NSRI vessels are equipped with VHF radios and some with HF radios.

### Avoiding False Distress Alerts

1. False alerts put a significant burden on Search and Rescue Centres. The chances of a false alert coinciding with an actual distress situation is possible, and responding to a false alert could delay the response by search and rescue resources to the real distress.
2. Most false alerts are caused by human error as well as problems caused by the inadvertent transmission of an alert on DSC, Inmarsat C and by 406 MHz EPIRBs.
3. Attention is drawn to extracts from *Resolution A.814(19) IMO Guidelines for Avoiding False Distress Alerts*.
  - a. Ensure all GMDSS certificated personnel responsible for sending a distress alert have been instructed about, and are competent to operate the particular radio equipment on the ship.
  - b. Ensure that the person(s) responsible for communications during distress incidents give the necessary instructions and information to all crew members on how to use GMDSS equipment to send a distress alert.
  - c. Ensure that as part of each "abandon ship" drill, instruction is given on how emergency equipment should be used to provide GMDSS functions.
  - d. Ensure that GMDSS equipment testing is only undertaken under the supervision of the person responsible for communications during distress incidents.
  - e. Ensure that GMDSS equipment testing or drills are never allowed to cause false distress alerts.
  - f. Ensure that encoded identities of satellite EPIRBs, which are used by SAR personnel responding to emergencies, are properly registered in a database accessible 24h a day or automatically provided to SAR authorities (masters should confirm that their EPIRBs have been registered with such a database, to help SAR services identify the ship in the event of distress and rapidly obtain other information which will enable them to respond appropriately).
  - g. Ensure that EPIRB, Inmarsat and DSC registration data is immediately updated if there is any change in information relating to the ship such as owner, name or flag, and that the necessary action is taken to reprogram the ship's new data in the GMDSS equipment concerned.
  - h. Ensure that, for new ships, positions for installing EPIRBs are considered at the earliest stage of ship design and construction.
  - i. Ensure that satellite EPIRBs are carefully installed in accordance with manufacturers' instructions and using qualified personnel (sometimes satellite EPIRBs are damaged or broken due to improper handling or installation. They must be installed in a location that will enable them to float free and automatically activate if the ship sinks. Care must be taken to ensure they are not tampered with or accidentally activated. If the coding has to be changed or the batteries serviced, manufacturers requirements must be strictly followed. There have been cases where EPIRB lanyards were attached to the ship so that the EPIRB could not float free; lanyards are only to be used by survivors for securing the EPIRB to a survival craft or person in water).
  - j. Ensure that EPIRBs are not activated if assistance is already immediately available (EPIRBs are intended to call for assistance if the ship is unable to obtain help by other means, and to provide position information and homing signals for SAR units).
  - k. Ensure that if a distress alert has been accidentally transmitted, the ship makes every reasonable attempt to communicate with the RCC by any means to cancel the false distress alert.
  - l. Ensure that, if possible, after emergency use, the EPIRB is retrieved and deactivated.
  - m. Ensure that when an EPIRB is damaged and needs to be disposed of, if a ship is sold for scrap, or if for any other reason a satellite EPIRB will no longer be used, the satellite EPIRB is made inoperable, either by removing its battery and, if possible, returning it to the manufacturer, or by demolishing it.

Note: If the EPIRB is returned to the manufacturer, it should be wrapped in tin foil to prevent transmission of signals during shipment.