ANNUAL SUMMARY OF
SOUTH AFRICAN NOTICES TO MARINERS

2002 EDITION

IN FORCE ON 1 JANUARY 2002

Published by the Hydrographic Office, SA Navy, Cape Town.

COOPER LIGHTHOUSE

PORT NATAL (DURBAN) LIGHTHOUSE
(Forerunner of the Cooper Lighthouse)

Amid much pomp and ceremony the foundation stone of the Port Natal (Durban) Lighthouse was laid on the Bluff by his Excellency, Governor John Scott, on 22 November 1864. However it took three years before the construction of the tower was completed. The tower comprised a hundred or more curved segments of cast iron, measuring a half-meter by one meter and weighing about 300 kilograms each. The optic, comprising the glass prisms, was also of considerable mass.

Whatever method was used, the light which flashed for the first time on 23 January 1867 saw unbroken service until July 1922, when the optic equipment was replaced. This optic, equipped with a petroleum vapour burner, had a candlepower of approximately 150000 cd. Ten years later, on 15 September 1932, electricity came to the Bluff Lighthouse.

A 4 kw incandescent lamp replaced the petroleum vapour burner and the candlepower was increased to 3000000 cd. This enormous increase in candlepower resulted in both favorable and adverse reactions. One comment in the press read as follows;

> *When the power of the light was increased there was a considerable outcry from residents of Durban who complained that the bright beam shining on the white walls and through windows disturbed their slumber.*

The complaints of the long suffering sleepless citizens of Durban presented only a minor problem to the Lighthouse engineer, Mr. HC Cooper, compared with the deterioration of the cast-iron tower and its foundation. Cooper proceeded with his scheme to encase the original cast-iron tower in reinforced concrete, resulting in an extremely imposing structure. Notwithstanding Cooper's reconstruction efforts and the blessing for the safety of the structure by the colonial chaplain, the fate of the Bluff Lighthouse was sealed on the morning of 5 May 1938, when a detail of the Cape Garrison Artillery fired their six inch guns from a site near the base of the lighthouse. Cooper recommended:

> *One definite solution to the problem would be to abandon the existing site and put up two small automatic lights, one on the site of the new radio station and Radio Beacon (Brighton Beach), and the other to be on a site four to five miles north of the Bluff.*

COOPER LIGHTHOUSE

Work on the South Light (Cooper Light), commenced early in 1953 and the main structure, the twenty-three-meter concrete column, was constructed in the very short space of six days. The lighthouse was at last ready for commissioning on 31 July 1953. The light was named after Mr. Harry Claude Cooper.

Character of light:	One flash every 10 seconds.
Type of light:	Revolving-electric.
Candlepower:	1 300 000 C.D.
Range:	26 sea miles.
Height of focal plane:	134 meters.
Structure:	21-meter circular concrete tower painted red with white band.
Position:	latitude: 29°56'.1 S longitude: 31°00'.3 E
Differential GPS:	292 kHz

The original cost of the installation was R55 413.

Photograph and information supplied by
National Ports Authority : Lighthouse Services.

IMPORTANT

In the interests of surface and submarine navigation, mariners and others are invited to forward to the Hydrographer, Private Bag X1, Tokai 7966, or per fax +27 21 787 2228 or E-Mail : *hydrosan@iafrica.co.za*, any information that may come to their notice which would be useful for the correction of charts and Hydrographic publications with respect to South African waters. Early advice with all available particulars of newly discovered dangers, the establishment of or changes in any aids to navigation, is specially requested.

L.D.V. REEDER, Captain
Hydrographer, SA Navy
Area Co-ordinator NAVAREA VII

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Former Notice 1/2001 is cancelled.

AGENTS FOR THE SALE OF SOUTH AFRICAN CHARTS AND HYDROGRAPHIC PUBLICATIONS

NATIONAL AGENTS

Cape Town	**Charts International Ltd**	9B, Foregate Square, Foreshore, 8001 or PO Box 3557 , Cape Town, 8000	Tel : (021) 4197700 Fax : (021) 4190580
Cape Town	**Technical Books (Pty) Ltd**	10th Floor, Anreith Corner, Hans Strijdom Avenue, 8001 or PO Box 2866 , 8000	Tel : (021) 4216540 /1/2 Fax : (021) 4216593
Cape Town	**Chart World cc**	25A Forgate Square, 1 Harbour House , Foreshore, 8001 or PO Box 6605, Roggebaai, 8012	Tel : (021) 419 8814/5 Fax : (021) 4198816 E-mail: chartworld@mweb.co.za
Deneysville	**Boatique**	10 Wall Street or PO Box 132, Denysville 9412	Tel : (016) 3711299 Fax : (016) 3711498
Durban	**The Tyneside**	Shop 5, John Ross House, 22 Victoria Embankment , Durban 4001	Tel : (031) 3377005 Fax : (031) 3328139 E-mail: tyneside@global.co.za
Durban	**Agenda Yacht Services cc**	120 Victoria Embankment , 4001 or PO Box 3764, 4000:	Tel : (031) 3012130 : (031) 3014630 Fax : (031) 3054832
Jeffrey's Bay	**Commercial Marine**	18 Schelde Street, Jeffrey's Bay 6330 or PO Box 959, Jeffrey's Bay, 6330	Tel : (0423) 2932991 Fax : (0423) 2931305
Johannesburg	**Carte Afrique**	PO Box 1943, Houghton, 2041	Tel : (011) 4872680 Fax : (011) 6486935 E-Mail : info@carte.co.za
Mossel Bay	**Bolt Man cc**	c/o Gys Smalberger & Mitchel Street, Mossel Bay, 6500 or PO Box 2980, Mossel Bay, 6500	Tel : (044) 6908122 Fax : (044) 6903884
Port Elizabeth	**Demas Bros.**	PO Box 1625, 6000	Tel : (041) 5861476/7 Fax : (041) 5861478
Port Elizabeth	**Star Marine**	Sklar House, 33 Crawford Street, North End, Port Elizabeth, 6001 or PO Box 3361, North End, Port Elizabeth, 6054	Tel : (041) 4847465/7 Fax : (041) 4843792 E-mail :

star-marine@freemail.absa.co.za

NATIONAL AGENTS (Continued)

Richards Bay	**Sailor's Corner**	Captain's Loft Building, Pioneer Road, Meerensee, 3901 or PO Box 102049, Meerensee, 3901	Tel : (035) 7880962 Fax : (035) 7880663
Struisbaai	**NSRI Overberg Area**	PO Box 213, Stuisbaai, 7285	Tel : (028) 4357070 Fax : (028) 4357777

INTERNATIONAL AGENTS

Namibia	**Viggo Lund (Pty) Ltd**	162, 7th Street, Walvis Bay or PO Box 183 Walvis Bay	Tel : (09264) 64203016 Fax (09264) 64206712
Namibia	**Namibian Maritime Services cc**	P.O. Box 2300, Walvis Bay	Tel : (09264) 64206274 or (09264) 64205192 Fax : (09264) 64206273 A/H : (09264) 64205509 or (09264) 64202582
Namibia	**Trust Market & Bakery**	PO Box 1324, Walvis Bay, Namibia	Tel : (09264) 64204246 (09264) 64204857 (09264) 64203042 Fax :(09264) 64206816 (09264) 64207810 (09264) 64207812 E-mail : trustmarket@namibnet.com
Netherlands	**Kelvin Hughes Observor B.V.**	Nieuwe Langeweg 41,Rotterdam, Netherlands or PO Box 613, 3190 AN. H oogvliet/Rotterdam	Tel : 31 104130060 Fax : 31 104332518
Portugal (Lisbon)	**J. Garrio & Co**	Avenida 24 de Julho2, 1 o.d. - Lisbon 2, Portugal	Tel : 01 347 3081/2/3 Fax : 01 342 8950
USA	**The Armchair Sailor Bookstore**	543 Thames Street, Newport, Rhode Island, 02840, USA	Tel : 091 401 847 4252 Fax : 091 401 847 1219

SOUTH AFRICAN NOTICE TO MARINERS
NO 2 OF 2002

Former Notice 2/2001 is cancelled.

PRACTICE AND EXERCISE AREAS

Introduction

1. In accordance with international chart specifications, military practice and exercise areas have been removed from SAN navigational charts. Charts of the PEXA SAN Series show the areas. A note has been placed on the relevant navigational charts to inform mariners about the PEXA Series and this Annual Notice.

2. Sailing Directions Volume I, SAN HO-21, contains information on range safety warning signals, safety of navigation in exercise areas and instructions regarding explosives picked up at sea.

3. Coastal navwarnings (see Annual Notice to Mariners No 3) are broadcast whenever military exercises take place.

4. Bearings are given as seen from seaward.

5. Test firings of minor illuminants of various colours, with or without parachutes, frequently occur without warning on the coast in the vicinity of Swartklip (34°04.'5 S, 18°41.'2 E on PEXA SAN 150 and PEXA SAN 1016).

6. Practice and exercise areas are established as follows:

Practice and Exercise Areas

	Name and Function	Location	Limits (S)	Limits (E)	Charts
(a)	**PAPENDORP** Anti-aircraft Weapons	Doringbaai	31°42.'4 31°37.'5 31°44.'0 31°50.'0 31°52.'0 31°43.'5 31°42.'4 Closed area	18°11.'7 18°05.'0 18°02.'0 18°06.'0 18°13.'5 18°12.'5 18°11.'7	SAN 116 SAN 117
(b)	**LANGEBAAN ROAD RANGE** Air to Air weapons	Saldanha	32°45.'0 32°45.'0 32°58.'0 33°06.'0 33°08.'2 33°14.'9 33°21.'0 33°29.'0 33°27.'0 33°00.'0 32°45.'0 Closed area	17°40.'0 17°49.'0 17°55.'0 17°56.'0 17°58.'0 18°05.'8 18°09.'0 18°04.'5 17°59.'0 17°40.'0 17°40.'0	PEXA SAN 1010 PEXA SAN 2062
(c)	**SALDANHA** Air to Air weapons	Saldanha	32°45.'0 33°26.'0 33°29.'0 32°48.'0 32°45.'0 Closed area	17°49.'0 18°05.'0 17°54.'0 17°38.'0 17°49.'0	PEXA SAN 1010 PEXA SAN 2062
(d)	**NORTH HEAD** Weapons	Saldanha	33°03.'01 33°03.'01 33°00.'70 33°01.'23 33°03.'01 Closed area	17°54.'51 17°53.'23 17°53.'13 17°54.'25 17°54.'51	PEXA SAN 1010 PEXA SAN 2062
(e)	**TOOTH ROCK** Air to Ground weapons. Jacobs Reef Bombing. Test firing of illuminants.	Saldanha	Circle, radius 3.5 nautical miles, centred at 32°59' S, 17°51' E		PEXA SAN 1010 PEXA SAN 2062

	Name and Function	Location	Limits (S) (E)	Charts
(f)	**WESTERN CAPE** Naval Exercises	Cape Point	34°15.'0 18°23.'0 34°24.'0 17°44.'5 Arc of circle, radius 50 nautical miles, centred at 33°58.'1 S, 18°36.'0 E 18°36.'0 E from 34°24.'0 S, 17°44.5' E to 34°44.'0 S, 19°00.'0 E. 34°30.'0 19°00.'0 34°30.'0 18°48.'0 34°15.'0 18°48.'0 34°15.'0 18°28.'3 34°15.'0 18°23.'0 Closed area	PEXA SAN 2062
(g)	**BELLOWS ROCK** Naval Weapons	Cape Point	34°23.'3 18°29.'6 (Rock as target)	PEXA SAN 150 PEXA SAN 1016
(h)	**GARDEN NO 1** Sound Testing Range	False Bay	34°08.'60 18°27.'08 34°08.'62 18°28.'25 34°09.'60 18°28.'22 34°09.'57 18°27.'05 34°08.'60 18°27.'08 Closed area	PEXA SAN 150 SAN 1016, 1017 PEXA SAN 1016
	GARDEN NO2 Sound Testing Range	False Bay	34°10.'86 18°27.'11 34°10.'88 18°27.'14 34°10.'88 18°27.'01 34°10.'90 18°27.'12 34°10.'86 18°27.'11 Closed area	
(i)	**PROOF NORTH** Proof Range	False Bay	2.2 nautical miles (4 000m) from 34°11.'13 S, 18°26.'32 E between bearings 235° and 243°	PEXA SAN 150 PEXA SAN 1016
	PROOF SOUTH Proof Range	False Bay	8.5 nautical miles (15 500m) from 34°11.'13 S, 18°26.'32 E between bearings 265° and 275°	PEXA SAN 150 PEXA SAN 1016
(j)	**LOWER NORTH** Weapons Testing	False Bay	11 nautical miles (20 384m) from 34°10.'50 S, 18°25.'75 E between bearings 254° and 283°	PEXA SAN 150 PEXA SAN 1016
(k)	**STRANDFONTEIN** Proof Range	False Bay	34°05.'50 18°32.'00 34°04.'50 18°41.'50 34°05.'50 18°47.'75 34°15.'00 18°44.'00 34°16.'50 18°31.'50 34°05.'50 18°32.'00 Closed area	PEXA SAN 150 PEXA SAN 1016
(l)	**SWARTKLIP** Proof Range	False Bay	34°04.'40 18°42.'10 34°05.'00 18°41.'00 34°18.'00 18°44.'00 34°18.'00 18°48.'00 34°05.'00 18°45.'00 34°04.'50 18°43.'90	PEXA SAN 150 PEXA SAN 1016
(m)	**MACASSAR** Anti-aircraft Weapons	False Bay	8 nautical miles (14 830m) from 34°04.'4 S, 18°42.'2 E between bearings 314°20' and 046°20'	PEXA SAN 150 PEXA SAN 1016
(n)	**SIMON'S TOWN SHALLOW WATER DEMOLITION RANGE**	False Bay	34°11.'266 18°26.'650 34°11.'317 18°26.'991 34°11.'417 18°26.'940 34°11.'383 18°26.'700 34°11.'266 18°26.'650 Closed area	SAN 1017
(o)	**SIMON'S TOWN DEEP WATER DEMOLITION RANGE**	False Bay	34°11.'3 18°30.'0 34°11.'5 18°32.'0 34°10.'0 18°32.'0 Arc of circle, radius 1 nautical mile, centred at 34°09.'0 S, 18°32.'0 E from 34°10.'0 S, 18°32.'0 E to 34°09.'25 S, 18°30.'85 E. 34°09.'5 18°30.'0 34°11.'3 18°30.'0 Closed area	PEXA SAN 150 PEXA SAN 1016

	Name and Function	Location	Limits (S) (E)	Charts
(p)	**DE HOOP (POTBERG)** Weapons Testing Range	Cape Agulhas	Sea area at right angles to coast for a distance of 500m from 34°30’28"S, 20°26’56"E to the point 34°35’05"S, 20°21’50"E and the sea area that runs at right angles from the shore for a distance of 5000m (5km) from the latter point to 34°38’03"S, 20°16’10"E’. Closed area	PEXA 2062
(q)	**CAPE RECIFE** Rifle Range	Port Elizabeth	34°01.’0 25°39.’0 34°01.’0 25°40.’0 34°03.’0 25°40.’0 34°03.’0 25°39.’0 34°01.’0 25°39.’0 Closed area	PEXA SAN 2063
(r)	**DURBAN** Naval Weapons	Durban	29°51.’90 31°03.’87 29°47.’60 31°20.’40 30°00.’00 31°18.’80 30°08.’20 31°07.’70 29°53.’75 31°02.’48 29°51.’90 31°03.’87 Closed area	PEXA SAN 2064
(s)	**ST LUCIA** Naval Weapons	St Lucia	27°42.’95 32°37.’75 27°40.’33 32°31.’00 27°52.’58 32°24.’20 27°55.’58 32°24.’50 28°03.’83 32°23.’00 28°05.’00 32°27.’82 28°05.’50 32°29.’63 28°06.’67 32°33.’58 28°07.’33 32°48.’00 27°38.’00 32°54.’00 27°38.’00 32°45.’75 27°42.’95 32°37.’75 Closed area	PEXA SAN 2064

SOUTH AFRICAN NOTICE TO MARINERS
NO 3 OF 2002

Former Notice 3/2001 is cancelled.

WORLD WIDE NAVIGATIONAL WARNING SERVICE (WWNWS) - NAVAREA VII - PROMULGATION OF IMMEDIATE NAVIGATIONAL WARNINGS

Definitions

Navigational warning - A broadcast message containing urgent information relevant to safe navigation.

Maritime Safety Information (MSI) - Navigational and meteorological warnings, meteorological forecasts, and other urgent safety-related messages.

NAVAREA - A geographical sea area, established for the purpose of co-ordinating the transmission of radio navigational warnings. Where appropriate, the term NAVAREA followed by an identifying Roman numeral may be used as a short title.

Region - That part of a NAVAREA established for the purpose of co-ordinating the transmission of coastal warnings, by NAVTEX or INMARSAT-C EGC Broadcast.

NAVAREA co-ordinator - The authority charged with responsibility for co-ordinating, collating and issuing long range navigational warnings and NAVAREA warnings bulletins to cover the whole of the NAVAREA.

National co-ordinator - The national authority charged with responsibility for co-ordinating, collating and issuing coastal warnings in a region.

NAVAREA warning - A navigational warning issued by the NAVAREA Co-ordinator for the NAVAREA.

NAVAREA warnings bulletin - A list of serial numbers of those NAVAREA warnings in force, issued and broadcast by the NAVAREA Co-ordinator during at least the previous six weeks.

Coastal navwarning - A navigational warning promulgated by a national co-ordinator to cover a region.

Local navwarning - A navigational warning which covers inshore waters within the limits of jurisdiction of a harbour or port authority.

INTRODUCTION

1. WWNWS is an International Maritime Organization (IMO) / International Hydrographic Organization (IHO) service established as part of the global maritime distress and safety system (GMDSS) adopted by the *International Convention for the Safety of Life at Sea (SOLAS), 1974*, to which the RSA is a signatory.

2. To provide for the promulgation of Maritime Safety Information on a geographic basis the world has been divided into 16 NAVAREAS.

NAVAREA VII

3. The South Atlantic and South Indian Ocean area around Southern Africa has been designated NAVAREA VII. It is described as the area bounded by the parallel of latitude 6°S, drawn from the West Coast of Africa to longitude 20°W, thence south to Antarctica; and the parallel of latitude 10° 30'S drawn from the East Coast of Africa to long. 55°E, thence south to the parallel of latitude 30°S, thence eastward to longitude 80°E and thence south to Antarctica. The accompanying diagram shows this delimitation. The partial limits of adjoining NAVAREAS are also shown.

NAVAREA VII CO-ORDINATOR

4. The RSA has been designated NAVAREA VII Co-ordinator and the national agency charged with executing the RSAs responsibilities in this regard is the Hydrographer, SA Navy. His responsibilities *inter alia* are:

a. To endeavor to be informed of all events affecting the safety of navigation in NAVAREA VII.

b. To expertly assess all received information affecting navigation safety.

c. To draft NAVAREA warning messages iaw IHO/IMO guidance on standardization of texts and message drafting.

d. To direct and control the broadcast of NAVAREA warnings via national broadcast facilities.

e. To pass NAVAREA warnings to adjacent NAVAREA co-ordinators where appropriate.

f. To transmit periodical NAVAREA warnings bulletins.

g. To promulgate the cancellation of NAVAREA warnings no longer valid.

h. To act as the central point of contact on MSI within the NAVAREA.

i. To promote the use of established international standards and practices in the promulgation of navigational warnings within the NAVAREA.

NAVAREA VII WARNINGS

5. NAVAREA VII warnings are issued by the Hydrographer from time to time for broadcast by Coast Radio Stations. Details of this service are to be found in *SA List of Lights, Fog Signals and Radio Services, SAN HO-1.* The warnings are in English and are drafted in the format specified in *IHO/IMO Guide to Drafting Radio Navigational Warnings for the WWNWS*. The warnings are numbered consecutively throughout the calendar year, commencing with 001 at 0000 UTC on 1 January.

SOUTH AFRICAN REGION

6. The coastal waters out to 150 nautical miles of the Republic of South Africa are designated the South African Region. For the present, for navigational warning purposes, the coastal waters out to 150 nautical miles of the Republic of Namibia are included in the South African Region.

SOUTH AFRICAN REGION CO-ORDINATOR

7. Within the South African Region the Hydrographer, SA Navy, is appointed as the national agency responsible for discharging the responsibilities of National co-ordinator. These responsibilities, *inter alia,* are:

a. To endeavor to be informed of all events affecting safety of navigation in the region.

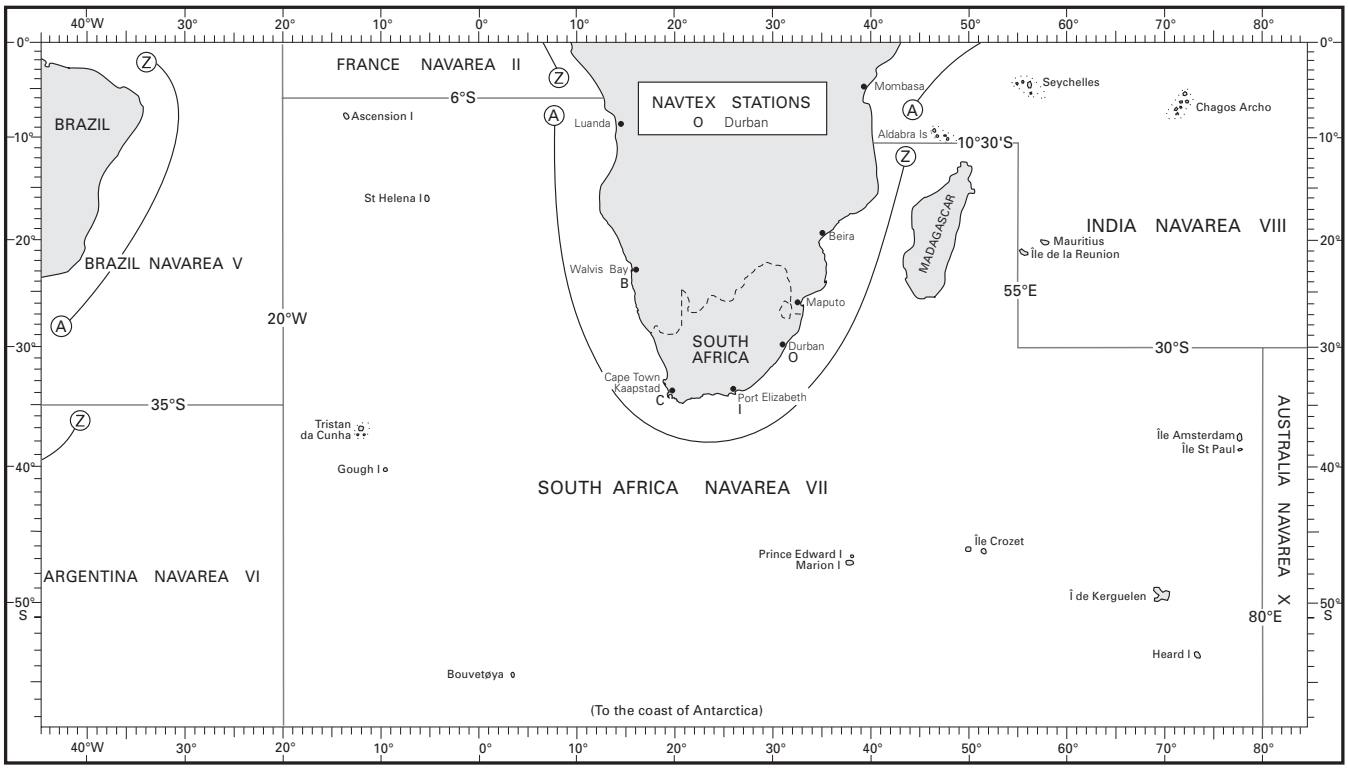
b. To expertly assess all safety information received.

c. To draft Coastal navwarnings in accordance with established international standards.

d. To direct and control the broadcast of Coastal navwarnings by the national broadcast system adopted for the WWNWS.

e. To act as the central point of contact on matters relating to navigational warnings within the Region.

LIMITS OF NAVAREAS AND NAVTEX STATIONS



COASTAL NAVWARNINGS : SOUTH AFRICAN REGION

8. Coastal navwarnings are issued by the Hydrographer from time to time for broadcast by Coast Radio Stations. Details of this service are to be found in *SA List of Lights, Fog Signals and Radio Services, SAN HO-1.* The warnings are in English and are drafted in the format specified in *IHO/IMO Guide to Drafting Radio Navigational Warnings for the WWNWS*. The warnings are numbered consecutively throughout the calendar year, commencing with 001 at 0000 UTC on 1 January.

LOCAL NAVWARNINGS

9. Port Captains of South African ports are responsible for the issue of Local navwarnings pertaining to MSI within the port limits of their respective ports. Where it is considered that such warnings are of significance outside these port limits, the Hydrographer, SA Navy, may issue NAVAREA VII or Coastal navwarnings in lieu, in which case the Local navwarning is then cancelled.

NAVTEX

10. NAVTEX is an international automated direct-printing service for the promulgation of navigational and meteorological warnings and urgent information to ships. A fully operational NAVTEX service exists in the RSA and Namibia, details of which are given in the *SA List of Lights, Fog Signals and Radio Services (SAN HO-1), Section 3*.

SAFETYNET

11. SafetyNET is a service of INMARSAT 's enhanced group call system (EGC) designed specifically for promulgation of MSI as a part of the GMDSS. SafetyNET provides shipping with navigational and meteorological warnings, meteorological forecasts, shore-to-ship distress alerts, and other urgent information. At present meteorological information pertaining to NAVAREA VII and NAVAREA VII warnings are transmitted via this service. Details are given in the *SA List of Lights, Fog Signals and Radio Services (SAN HO-1)* .

SOURCES FOR NAVIGATION WARNINGS

12. From the above it is clear that the navigation warning service provided by the Hydrographer is dependent to a large extent upon the provision of timely and accurate source information that must be forthcoming from the maritime community itself. Masters, Port and other Maritime Authorities are requested to send all such information as rapidly as possible (by mail, radio, telex, telephone or fax) to :

The Hydrographic Office
Private Bag X1
Tokai
7966

Tel : (021) 787 2445 / 787 2445
Fax : (021)787 2228
Telex: 527946 HYDROSAN
e-mail : hydrosan@iafrica.co.za.

The attention of Masters is drawn to the necessity for making arrangements to ensure that all radio messages received concerning Navigational warnings or other matters relating to safety of life at sea are brought to his notice immediately on receipt, or to that of the Navigating Officer on watch.

SOUTH AFRICAN NOTICE TO MARINERS
NOTICE NO 4 OF 2002

Former Notice 4/2001 is cancelled.

REPORTS OF SHOALS OBTAINED BY ECHO SOUNDING

Instructions regarding rendering

1. Now that all ships are fitted with echo-sounding equipment, numerous reports of shoal sounding are being received by the Hydrographer. A large proportion of these reports are of little value as insufficient information is forwarded with them.

2. False soundings may be obtained from correctly adjusted E/S sets due to one of the following causes:

   a. The returning echo being received after the transmission interval has been completed once or perhaps twice, eg with a rotary type E/S set having a maximum scale reading of 600 metres, a reading on the trace of 50 metres might in fact be a sounding of 50 or 650 or even 1250 metres. (In the case of E/S sets fitted with transmitter ON/OFF switches, such doubts can easily be resolved. By breaking the transmission circuit, with the set still running, and then re-making it, it is only necessary to note the number of subsequent stylus revolutions occurring before the echo re-appears.)

   b. Dense shoals of fish or layers of plankton which sometimes give an echo completely masking that from the bottom. Such a layer is usually known as a "deep scattering layer" and is often found to rise towards the surface at dusk and, after remaining during the night close to the surface, descends again at dawn. The deep scattering layer is frequently encountered at or near the edge of the continental shelf and is frequently mistaken for shoal water.

   c. Layers of water of different density from that of the surrounding water.

   d. Strong tidal streams or eddies with solid particles in suspension which may give feathery echoes.

   e. It is possible in the more powerful types of E/S sets now being developed that double echoes may be obtained even in depths of several hundred metres. The second echo caused by the rebounding ultrasonic waves will appear at twice the depth of true echo. Care should be taken when phasing and using the ON/OFF switch, as described above, that in fact the true echo is being recorded. The second echo is invariably weaker than the first and can be faded by turning down the sensitivity of the receiver.

3. When unexpected shoal soundings are obtained in waters where the charted depth gives no indication, even though discoloured water may be seen, the only certain method of confirming their existence is by taking a cast with the lead. Where, however, the charted depth is nowhere more than the scale reading of the set and the shoal is seen to rise from the bottom on the trace, provided speed and setting of the set is correct, the shoal sounding may be accepted conditionally.

4. When reports of shoal sounding are received in the Hydrographic Office, they are carefully considered in the light of accompanying or other evidence before any action is taken to amend charts. Unless reports are confirmed by the cast of the lead, chart action is usually withheld until the area can be examined by a surveying vessel. In the past much time and effort has been wasted searching for non-existent shoals.

5. In order that the Hydrographer can make full use of reports of soundings, the Echo Trace should always be forwarded, together with Form HO-16 (Hydrographic Note), which appears on the next two pages. Navigating Officers are requested to note the following points regarding essential details:

   a. Mark the trace each time a fix is obtained by drawing a line along the curved edge of the scale, taking care not to foul the stylus arm meanwhile.

   b. Number the fix and insert the time. (The time is important since the height of the tide must be found in order to obtain the correct depth.)

   c. Insert the recorded depth of all peak soundings.

   d. On completion of soundings, and before rolling up the paper, draw in the bottom trace and transmission line and dry the paper, preferably in a dim light if a wet paper machine is used.

   e. Mark any change of phase conspicuously.

   f. Insert the make and type of echo-sounding machine.

   g. It is recommended that an indelible pencil or ball-point pen should be used in all writing on the trace.

6. It is important to note that the draught of the ship should be the same as the depth of the transmission line. If the latter is set to zero a note to this effect should be made on the trace, giving the draught of the ship.

7. In sets which have two operating speeds (eg metre or metre x 10) the transmission line must be separately adjusted to show the correct scale reading in each speed.

8. Attention is drawn to Admiralty Publications NP 100 (1999) ECHO SOUNDING - Paras 2-79 to 2-103 and NP 139 Echo Sounding Correction Tables.

SOUTH AFRICAN NOTICE TO MARINERS
NOTICE NO 5 OF 2002

Former Notice No 5/2001 is cancelled.

RULES FOR THE NAVIGATION OF LADEN TANKERS OFF THE SOUTH AFRICAN COAST

1. Two IMO approved Traffic Separation Schemes (*IMO Resolution A.858 (20)*) are in force on the Agulhas Bank. Details as follows. They are obligatory for Laden Tankers. Cargo vessels may use the inshore routes but if they navigate in the vicinity of the Traffic Separation Schemes they shall comply with the provision of Routeing Schemes as laid down in the IMO Publication *Ships Routeing*.

2. **TRAFFIC SEPARATION SCHEME OFF FA PLATFORM** 47 MILES SOUTH OF MOSSEL BAY
(Reference Charts: SAN 4, SAN 57, INT 7510 SAN 81, INT 7520 SAN 82, SAN 122
Note: The SAN charts are based on Cape Datum (Clarke 1880 Mod).

Description of traffic separation scheme.

a. A **separation zone** is bounded by a line connecting the following geographical points:

(1) 34°50'.11 S; 022°00'.00 E (2) 34°47'.39 S; 022°20'.00 E
(3) 35°04'.06 S; 022°00'.00 E (4) 35°03'.37 S; 022°10'.86 E (5) 35°01'.77 S; 022°20'.00 E

b. A traffic lane for **eastbound traffic** is established between the separation zone and the separation line connecting the following geographical points:

(6) 35°07'.16 S; 022°00'.00 E (7) 35°06'.35 S ; 022°11'.18 E (8) 35°04'.81S; 022°20'.00 E

c. A traffic lane for **westbound traffic** is established between the traffic separation zone and the separation line connecting the following geographical points:

(9) 34°47'.07 S; 022°00'.00 E (10) 34°44'.75 S ; 022°20'.00 E

3. **TRAFFIC SEPARATION SCHEME OFF ALPHARD BANKS** 34 MILES SOUTH OF CAPE INFANTA
(Reference Charts: SAN 4, SAN 56, SAN 57, INT 7510 SAN 81, SAN 121
Note: The SAN charts are based on Cape Datum (Clarke 1880 Mod).

Description of traffic separation scheme.

a. A **separation zone** is bounded by a line connecting the following geographical points:

(1) 34°58'.79 S; 020°45'.00 E (2) 34°56'.48 S; 021°05'.00 E
(3) 35°09'.54 S; 020°45'.00 E (4) 35°08'.10 S; 021°05'.00 E

b. A traffic lane for **westbound traffic** is established between the traffic separation zone and the separation line connecting the following geographical points:

(5) 34°55'.76 S; 020°45'.00 E (6) 34°53',45 S; 021°05'.00 E

c. A traffic lane for **eastbound traffic** is established between the separation zone and the separation line connecting the following geographical points:

(7) 35°12'.55 S; 020°45'.00 E (8) 35°11'.11 S; 021°05'.00 E

4. **Definition** : "*Laden tanker*" means any tanker other than a tanker in ballast having in its cargo tanks residual cargo only.

5. In accordance with *IMO Resolution A.858(20)* the Maritime Safety Committee adopted the following routeing measures which come into force on 0000UTC 1 December 1998.

6. Laden tankers, when **westbound**, when off the South African coasts, should adhere to the following :

a. Laden tankers should maintain a **minimum distance of 20 (twenty) nautical miles** off the following landmarks:

i. South Sand Bluff (Z6228) (D6446)

ii. Mbashe Point (Z6222) (D6438)

iii. Hood Point (Z6170) (D6420)

iv. Cape Recife (Z6100) (D6390)

b. These tankers should then steer to pass through the westbound or northern lanes of the traffic separation schemes off the FA Platform and the Alphard Banks and then maintain a **minimum distance of 20 (twenty) nautical miles** from the following landmarks:

i. Cape Agulhas (Z5980) (D6370)

ii. Quoin Point (Z5972) (D6332)

iii. Cape Point (Z5873) (D6120)

iv. Slangkop Point (Z5870) (D6110)

v. Cape Columbine (Z5670) (D5810)

7. Laden tankers when **eastbound** off the South African coast, should similarly maintain a **minimum distance of 25 (twenty five) nautical miles** when passing the points listed in 6.a. and 6.b. and when between Cape Agulhas and Cape Recife, steer a course to pass through the eastbound or southern lanes of the traffic separation schemes off the Alphard Banks and FA platform.

EXEMPTIONS

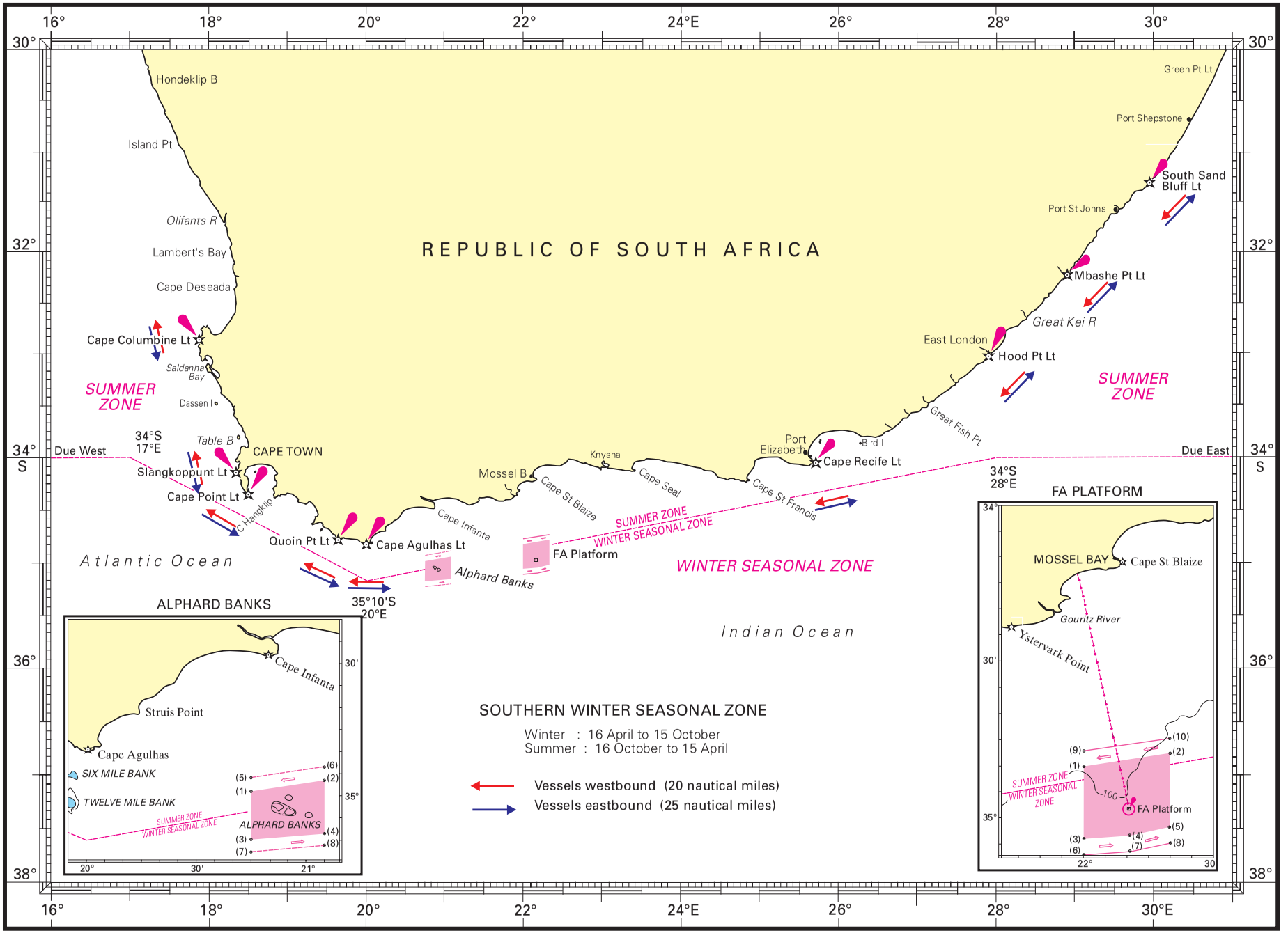
8. The following **exemptions to the laden tanker rules** apply:

a. Vessels calling at Cape Town (Table Bay) to **rendezvous with service craft or helicopters** should follow the recommended routes until, in the case of laden tankers, when proceeding Westbound, Cape Point Light bears 000°(T) x 20 nautical miles, thence altering course to position, Slangkop Point Light 250°(T) x 20 nautical miles. From this position course may be altered to the rendezvous area 6 nautical miles westward of Green Point Light (Z5834) (D5900) (replenishment area shown on charts SAN 118, 119, 1013).

b. Laden tankers **engaged on voyages solely between ports in the Republic of South Africa** are exempted from the provisions of paragraphs 6 and 7 of these regulations and are to maintain a distance of 10 (ten) nautical miles off salient points of the coast subject to weather, sea and current conditions, when setting courses to their ports of loading and discharging.

c. During the **winter season** (16 April to 15 October) westbound laden tankers should maintain the minimum distance of 20 miles off the appropriate landmarks in paragraph 6.a. However, on approaching the winter zone, they may remain within the summer zone as close to the separation line as possible, and for the minimum period necessary, to ensure that they can remain on their summer loadline throughout. In the vicinity of the FA Platform and Alphard Banks, they are to adjust their course to pass through the westbound traffic lanes.

Source : SAMSA


16°
18°
20°
22°
24°E
26°
28°
30°
30°
32°
34°
S
36°
38°
REPUBLIC OF SOUTH AFRICA
Hondeklip B
Island Pt
Olifants R
Lambert's Bay
Cape Deseada
Cape Columbine Lt
Saldanha Bay
Dassen I
SUMMER ZONE
34°S
17°E
Due West
Table B
CAPE TOWN
Slangkoppunt Lt
Cape Point Lt
C Hangklip
Quoin Pt Lt
Cape Agulhas Lt
35°10'S
20°E
Atlantic Ocean
Indian Ocean
Cape Infanta
Mossel B
Knysna
Cape Seal
Cape St Blaize
Alphard Banks
FA Platform
SUMMER ZONE
WINTER SEASONAL ZONE
WINTER SEASONAL ZONE
Port Elizabeth
Bird I
Cape Recife Lt
Cape St Francis
Great Fish Pt
Due East
34°S
28°E
Green Pt Lt
Port Shepstone
South Sand Bluff Lt
Port St Johns
Mbashe Pt Lt
Great Kei R
East London
Hood Pt Lt
SUMMER ZONE
ALPHARD BANKS
Cape Infanta
Struis Point
Cape Agulhas
SIX MILE BANK
TWELVE MILE BANK
ALPHARD BANKS
SUMMER ZONE
WINTER SEASONAL ZONE
20°
30'
21°
FA PLATFORM
MOSSEL BAY
Cape St Blaize
Gouritz River
Ystervark Point
SUMMER ZONE
WINTER SEASONAL ZONE
FA Platform
100
22°
30
SOUTHERN WINTER SEASONAL ZONE
Winter : 16 April to 15 October
Summer : 16 October to 15 April
Vessels westbound (20 nautical miles)
Vessels eastbound (25 nautical miles)

SOUTH AFRICAN NOTICE TO MARINERS
NO 6 OF 2002

Former Notice No 6/2001 is cancelled.

SOUTH AFRICA, Oil Pollution - Observation and Reporting

1. The South African Maritime Safety Authority (SAMSA) is the responsible authority for the administration of the *Marine Pollution (Control and Civil Liability) Act 6 of 1981*, as amended.

2. As the prevention of the pollution of the sea by oil is of international importance it is considered that vessels on passage along the coastline of the Republic of South Africa or lying in an anchorage off the various ports can be of invaluable assistance to the Department by reporting:

a. Oil slicks sighted;

b. Oil accidently discharged;

c. Oil discharged in the interests of Safety of Life at Sea;

d. Vessels in distress likely to cause oil pollution.

3. Agreement has been reached with Telcom that radiotelephone or radiotelegraphy reports of this nature passed through South African Coast Radio Stations, depending on the locality, radio reports may be addressed to The Principal Officer of SAMSA via port control (VHF Channel 16) at the following ports: Richards Bay, Durban, East London, Port Elizabeth, Mossel Bay, Cape Town and Saldanha Bay.

4. The following is a guide as to the appearance of oil on the sea and the method of reporting such oil:

a. a. Effect of oil on appearance of the water:

i. Condition 1 :Barely visible under most favourable light conditions.

ii. Condition 2 :Visible as a silvery sheen on the water surface.

iii. Condition 3 :First trace of colour may be observed.

iv. Condition 4 :Bright bands of colour.

v. Condition 5 :Colours begin to turn dull natural to colour ofoil.

vi. Condition 6 :Colours natural to colour of oil.

Note: Conditions 4, 5 and 6 would require immediate action by the Oil Pollution Organisation.

b. b. Information required in the text of a report of an oil sighting:

i. Condition as stated above;

ii. Position;

iii. Extent of oil slick;

iv. Weather or wind direction;

v. Vessel involved.

5. Thus a typical message would read as follows:

PRINCIPAL OFFICER SAMSA
DURBAN
OIL SIGHTED 35-03 S 020-31 E CONDITION 6 STOP 3 BY 3 MILES
FORCE 3 SE
OIL TANKER SEA CARRIER - MASTER

Note : Insert word STOP between phrases only when confusion may occur.

6. No Master or member of the crew making or associated with a report of this nature would be called upon to give evidence in a court of law if his vessel is due to sail before the trial.

Reporting discharge of oil and/or damage to a vessel

7. The following information is required from the Master for a radio report of discharge of oil and/or damage to his vessel when navigating within 50 nautical miles of the coasts of South Africa:

a. Name and Call sign, Official Number and Port of Registry;

b. Position, Course and Speed;

c. Nature of Damage (See Note below);

d. Prevailing weather and sea conditions;

e. Whether bound for a port in the Republic of South Africa.

8. If applicable, the particulars contained in the certificate which, in terms of *Article VII of the International Convention on Civil Liability for Oil Pollution, 1969*, is required to be carried on board.

Note : Damage to a vessel shall be deemed to have created the likelihood of a discharge of oil if it is of such a nature as to detrimentally affect in any way the vessel's seaworthiness or efficient working.

9. The above information is required in terms of *Act No 6 of 1981(as amended)* .

SOUTH AFRICAN NOTICE TO MARINERS
NO 7 OF 2002

Former Notice No 7/2001 is cancelled.

STORM WARNINGS TO SHIPPING

1. Storm warnings to shipping will be broadcast immediately on receipt on 518 kHz (NAVTEX), 2182 kHz and VHF Ch 16.

2. Storm warnings will be repeated on the working frequencies after the first silent period after receipt, preceded by an announcement on the distress frequencies.

RADIO TRANSMISSIONS OF WEATHER BULLETINS FOR SHIPPING

Schedules and frequencies of weather bulletins for shipping can be found in the *SA List of Lights, Fog Signals and Radio Services (SAN HO-1). SAN HO-1* is

Note : **The attention of Masters of South African Ships is drawn to the requirements of the** *Merchant Shipping Act, 1951 (Act 57 of 1951), Section 249***. This section states that the Master, meeting with a dangerous storm or any other direct danger to navigation, shall immediately send information, accordingly, by all possible means of communication at his disposal.**

SOUTH AFRICAN NOTICE TO MARINERS
NO 8 OF 2002

Former Notice No 8/2001 is cancelled.

SOUTH AFRICAN SHIP REPORTING SYSTEM(SAFREP)

1. The South African Ship Reporting System (SAFREP) has been established by the Department of Transport to assist in search and rescue at sea and to provide up-to-date information on shipping in the event of a maritime casualty. This is achieved by the submission of movement reports, via radio or satellite, by vessels within the South African Maritime Area of Responsibility (See diagram in Annual Notice No. 15) to the SAFREP Co-ordination Centre at Silvermine.

2. Participation during this trial period is not compulsory.

3. See *SA List of Lights (HO-1)* for working details. For further information contact :

Any **Coast Radio Station** as listed in *SA List of Lights, Fog Signals and Radio Services (SAN HO-1)*; or

Maritime Rescue Co-ordination Centre (MRCC)
Signal Address : SAFREPCC CAPE TOWN
Telephone : (021) 7872245
Fax : (021) 7872473
Telex : 527722 or 527946

SAMSA
Telephone : (012) 3423049
Fax : (012) 3423160

AUTOMATED MUTUAL ASSISTANCE VESSEL RESCUE (AMVER)

1. The AMVER System, operated by the United States Coast Guard, is a maritime mutual assistance organisation which provides important aid to the development and co-ordination of search and rescue (SAR) efforts in many offshore areas of the world. Merchant vessels of all nations making offshore voyages are encouraged to send movement reports and periodic position reports to the AMVER centre at Coast Guard New York via selected radio stations or INMARSAT. Information from these reports is entered into a computer which supplies dead reckoning positions for vessels while they are within the plotting area. Characteristics of vessels which are valuable for determining SAR capability are also entered into the computer from available sources of information. Appropriate information concerning the predicted location and SAR characteristics of each vessel known to be within the area of interest is made available upon request to recognized SAR agencies of any nation or person in distress, for use during an emergency. Predicted locations are only disclosed for reasons connected with maritime safety.

2. Messages sent within the AMVER System are at no cost to the ship or owner if sent via COMSAT-C using the AMVER/SEAS softwear and designated COMSAT erath stations. Benefits to shipping include improved chances of aid in emergencies, reduced number of calls for assistance to vessels not favourably located and reduced time lost for vessels responding to calls for assistance. An AMVER participant is under no greater obligation to render assistance during an emergency than a vessel who is not participating.

3. Details of radio stations through which AMVER messages may be passed are given in *SA List of Lights, Fog Signals and Radio Services (SAN HO-1)*.

4. Details in English and many other languages are contained in the AMVER User's Manual which may be obtained free of charge from Chief, AMVER Maritime Relations, US Coast Guard, Battery Park Bldg., New York, N.Y. 10004-1499, USA. Telephone (212) 668-7762 (e-mail : rkenney@batteryny.uscg.mil), or at U.S. Coast Guard Offices, Marine Inspection Offices or, at, Captain of the Port Offices in major U.S.Ports.

(See USA Notice to Mariners #1 Section 1 para 10).

SOUTH AFRICAN NOTICE TO MARINERS
NO 9 OF 2002

Former Notice No 9/2001is cancelled.

INSTRUCTIONS TO SHIP RADIO STATIONS

Official messages to RSA registered merchant ships - the ZTOB Organisation.

This ZTOB Orginisation is put in abeyance until further notice.

SOUTH AFRICAN NOTICE TO MARINERS
NO 10 OF 2002

Former Notice No 10/2001 is cancelled.

MARITIME BOUNDARIES AND ZONES

1. 1. The *Maritime Zones Act, 1994*, defines the Maritime Zones of the RSA (see diagram on page 20) as follows :

Baselines

2. Subject to subsections a. and b. below, the low water line shall be the baseline.

   a. Notwithstanding the above, straight lines joining the grouped co-ordinates mentioned in Schedule 2 of this Act (detailed at the end of this Notice), shall be the baselines of the relevant part of the coast.

   b. Notwithstanding the above, the outer limits prescribed or determined in accordance with subsections c. and d. below shall be the baselines.

   c. Outer limits of internal waters referred to in para 2.b. below shall be established in the prescribed manner.

   d. In the absence of any outer limits of internal waters prescribed in accordance with c. above, the outer limits shall be the outermost harbour works which form an integral part of the harbour system.

   e. In any proceedings before a court of law any prescribed chart or map shall be admissible as *prima facie* proof of the contents thereof.

Internal Waters

3. The internal waters of the Republic shall comprise:

   a. all waters landward of the baselines; and

   b. all harbours.

4. Any law in force in the Republic, including the common law, shall also apply in its internal waters and the airspace above its internal waters.

5. The right of innocent passage shall not exist in the internal waters, except if the internal waters concerned were territorial before the commencement of this Act.

Territorial Waters

6. The sea within a distance of twelve nautical miles from the baselines shall be the territorial waters of the Republic.

7. Any law in force in the Republic, including the common law, shall also apply in its territorial waters and the airspace above its territorial waters.

8. The right of innocent passage shall exist in the territorial waters.

Contiguous Zone

9. The sea beyond the territorial waters referred to in para 6 above, but within a distance of twenty four nautical miles from the baselines, shall be the contiguous zone of the Republic.

10. Within the contiguous zone and the airspace above it, the Republic shall have the right to exercise any powers which may be considered necessary to prevent contravention of any fiscal law or any customs, emigration, immigration or sanitary law and to make such contravention punishable.

Maritime Cultural Zone

11. The sea beyond the territorial waters referred to in para 6, but within a distance of twenty four nautical miles from the baselines, shall be the maritime cultural zone of the Republic.

12. Subject to any other law the Republic shall have, in respect of objects of an archaeological nature found in the maritime cultural zone, the same rights and powers as it has in respect of its territorial waters.

Exclusive Economic Zone

13. The sea beyond the territorial waters referred to in para 6, but within a distance of two hundred nautical miles from the baselines, shall be the exclusive economic zone of the Republic.

14. Subject to any other law the Republic shall have, in respect of objects of all natural resources in the exclusive economic zone, the same rights and powers as it has in respect of its territorial waters.

Continental Shelf

15. The continental shelf as defined in *Article 76 of the United Nations Convention on the Law of the Sea, 1982*, adopted at Montego Bay on 10 December 1982, shall be the continental shelf of the Republic.

16. Subject to any other law the outer limits of the continental shelf shall consist of a series of straight lines joining the co-ordinates mentioned in Schedule 3 of this Act (not detailed).

17. For the purposes of :

a. exploration of natural resources, as defined in *paragraph 4 of Article 77 of the United Nations Convention on the Law of the Sea, 1982,* and

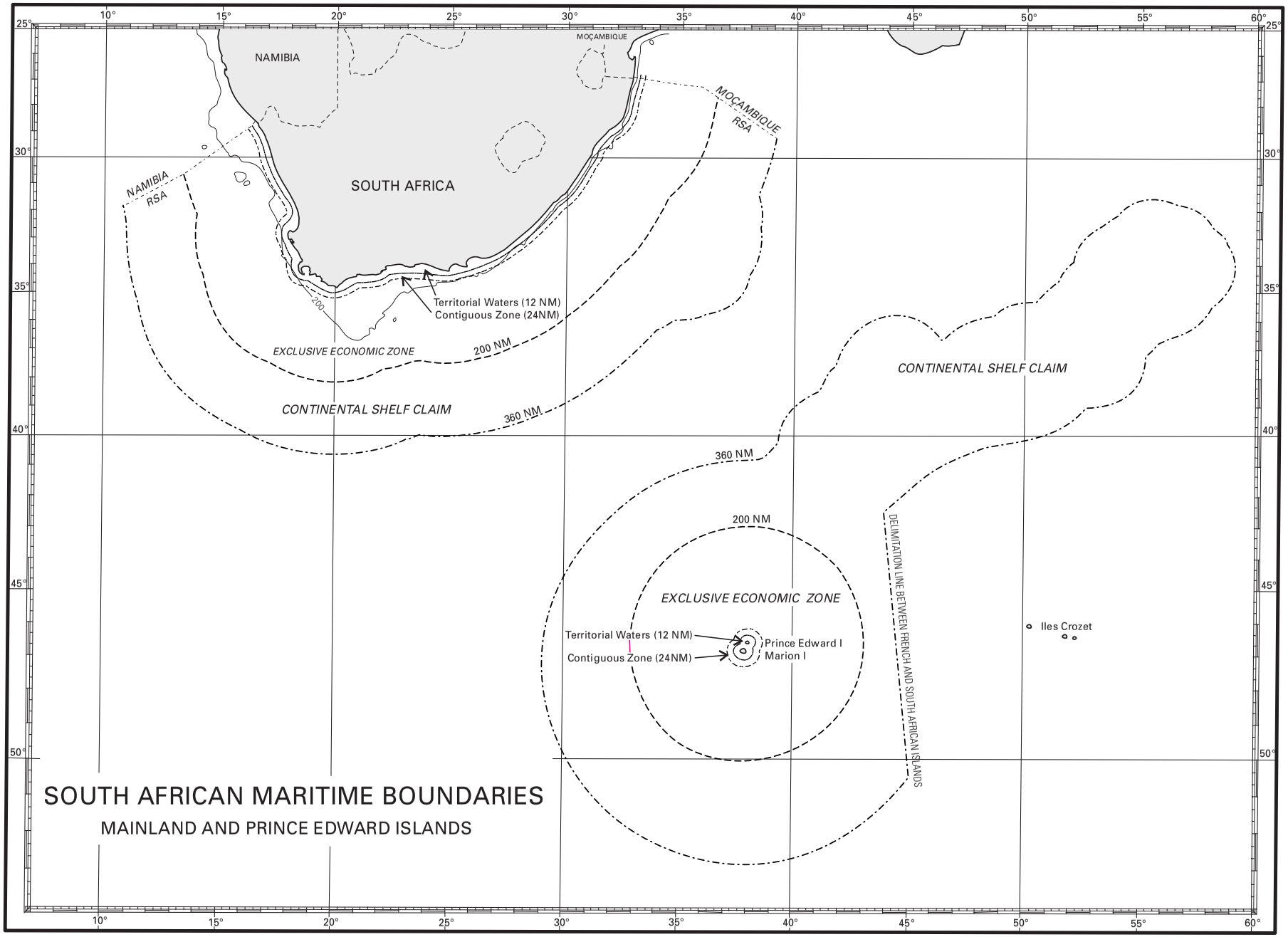
b. any law relating to mining of precious stones, metals or minerals, including natural oil,

the continental shelf shall be deemed to be unalienated State land.

Schedule 2 : Straight Baselines of the Republic of South Africa

(These co-ordinates are based on the WGS 84 Spheroid to an accuracy of 1" (arc)

Latitude S ° ' "	Longitude E ° ' "	Latitude S ° ' "	Longitude E ° ' "	Latitude S ° ' "	Longitude E ° ' "	Latitude S ° ' "	Longitude E ° ' "
32 19 01.04	18 18 54.50	34 01 44.04	18 18 19.82	34 49 52.73	19 58 04.62	34 26 18.93	21 18 10.18
32 44 12.00	17 52 06.00	34 01 44.33	18 18 19.78	34 49 53.34	19 58 07.83	34 26 16.04	21 18 38.90
32 44 12.00	17 52 06.00	34 01 44.33	18 18 19.78	34 49 53.34	19 58 07.83	34 26 16.04	21 18 38.90
32 49 06.25	17 50 47.43	34 02 12.78	18 18 18.31	34 50 06.29	19 59 26.45	34 26 15.54	21 18 40.94
32 49 06.25	17 50 47.43	34 02 12.78	18 18 18.31	34 50 06.29	19 59 26.45	34 26 15.54	21 18 40.94
32 49 29.09	17 50 40.60	34 02 42.02	18 18 23.37	34 50 06.26	19 59 27.04	34 23 43.55	21 43 48.63
32 49 29.09	17 50 40.60	34 02 42.02	18 18 23.37	34 50 06.26	19 59 27.04	34 20 18.88	21 54 54.01
32 49 30.75	17 50 40.34	34 03 56.86	18 18 35.74	34 50 04.57	19 59 51.13	34 11 15.44	22 09 39.74
32 49 30.75	17 50 40.34	34 03 56.86	18 18 35.74	34 50 04.57	19 59 51.13	34 11 15.44	22 09 39.74
32 49 41.32	17 50 44.24	34 08 45.60	18 19 09.69	34 50 02.46	20 00 22.48	34 05 43.00	22 58 48.00
32 49 41.32	17 50 44.24	34 21 28.20	18 29 52.50	34 50 02.46	20 00 22.48	34 05 43.00	22 58 48.00
33 00 02.00	17 51 48.00	34 23 15.31	18 49 37.02	34 50 01.59	20 00 26.57	34 06 40.43	23 24 25.37
33 00 02.00	17 51 48.00	34 23 15.31	18 49 37.02	34 50 01.59	20 00 26.57	34 06 40.43	23 24 25.37
33 02 29.08	17 53 30.62	34 38 23.66	19 17 19.40	34 49 53.62	20 00 52.57	34 12 49.36	24 50 12.70
33 02 29.08	17 53 30.62	34 38 23.66	19 17 19.40	34 49 53.62	20 00 52.57	34 12 49.36	24 50 12.70
33 09 07.08	17 58 48.10	34 38 24.23	19 17 21.14	34 48 48.42	20 03 19.31	34 12 49.81	24 50 14.69
33 09 07.08	17 58 48.10	34 38 24.23	19 17 21.14	34 48 48.42	20 03 19.31	34 12 49.81	24 50 14.69
33 24 51.08	18 04 23.49	34 41 24.43	19 24 09.05	34 48 47.51	20 03 21.27	34 12 49.28	24 50 16.66
33 24 51.08	18 04 23.49	34 41 24.43	19 24 09.05	34 48 47.51	20 03 21.27	34 12 49.28	24 50 16.66
33 26 00.50	18 04 23.59	34 46 53.08	19 38 05.33	34 48 42.82	20 03 29.04	34 02 58.11	25 37 41.59
33 26 00.50	18 04 23.59	34 46 53.08	19 38 05.33	34 48 42.82	20 03 29.04	34 02 58.11	25 37 41.59
33 26 08.45	18 04 24.91	34 47 19.28	19 39 09.17	34 28 28.22	20 50 53.92	34 01 56.36	25 42 10.97
33 26 08.45	18 04 24.91	34 47 19.28	19 39 09.17	34 28 28.22	20 50 53.92	34 01 56.36	25 42 10.97
33 26 08.58	18 04 25.24	34 47 19.82	19 39 10.62	34 26 18.84	21 17 58.22	33 50 34.37	26 17 18.45
33 26 08.58	18 04 25.24	34 47 19.82	19 39 10.62	34 26 18.84	21 17 58.22	33 50 34.37	26 17 18.45
33 48 07.47	18 21 28.13	34 47 19.88	19 39 11.86	34 26 19.51	21 18 00.22	33 50 34.29	26 17 22.50
33 48 07.47	18 21 28.13	34 47 19.88	19 39 11.86	34 26 19.51	21 18 00.22	33 50 34.29	26 17 22.50
34 01 44.04	18 18 19.82	34 49 52.73	19 58 04.62	34 26 18.93	21 18 10.18	33 46 23.96	26 28 07.66



Prepared in the Hydrographic Office on 12 September 1994 under the supervision of Captain B.H. Teuteberg, Hydrographer, SA Navy

SOUTH AFRICAN NOTICE TO MARINERS
NO 11 OF 2002

Former Notice No 11/2001 is cancelled.

INFORMATION CONCERNING SUBMARINES

Part I - SUBMARINE WARNING SIGNALS

1. Mariners are warned that considerable hazard to life may result from disregarding the following warning signals, which denote the presence of submarines:

Visual Signals

2. South African warships fly the *International Code Group* ***NE2*** to denote that submarines, which may be submerged, are in the vicinity. Other vessels are cautioned to steer a course so as to give a wide berth to any vessel flying this signal. If, for any reason, it is necessary to approach her, a good lookout must be kept for submarines, whose presence may be indicated only by their periscopes or snort masts showing above water.

3. A submarine submerged at periscope depth at night, may sometimes indicate her position by means of an underwater lantern, which will illuminate the sea surface from below.

Pyrotechnics and Smoke Candles

4. The following signals are used by submerged submarines:

a. *White smoke candles (with flame)* - indicates position in response to a request from a ship or as required.

b. *Green pyro flares* - used to indicate the position from which a practice torpedo has been fired. All vessels are requested to keep clear as the submarine may want to surface after the firing.

c. *Red pyro flares* - which may be accompanied by smoke candles repeated as often as possible, mean - "Keep clear. I am carrying out an emergency surfacing procedure, Do not stop propellers. Clear the area immediately. Stand by to render assistance".

Note: If the *red pyro flare* is sighted and the submarine does not surface within 5 minutes, it should be assumed that the submarine is in distress and has sunk. An immediate attempt should be made to fix the position in which the signal was sighted, after which action in accordance with Part IV should be taken.

d. Two *white smoke candles* released 3 minutes apart mean - "Keep clear. I am preparing to surface. Do not stop propellers. Clear the immediate vicinity."

5. It must not be inferred from the above that submarines exercise only when in company with escorting vessels.

6. In certain circumstances warnings that submarines are exercising in specified areas may be broadcast by a Coast Radio Station.

Part II - NAVIGATION LIGHTS

7. Submarines may be encountered on the surface by night, particularly in the vicinity of the following ports: Saldanha Bay, Cape Town, Simon's Town, Hout Bay, Port Elizabeth, East London and Durban.

8. The steaming and side lights of South African submarines appear to be placed well forward and very low above the water in proportion to the length and tonnage of these vessels. In particular, the emergency steaming light is lower than the side lights. The emergency overtaking light is also placed low down and may at times be obscured by spray and wash. South African submarines are fitted with an *amber quick flashing light* situated 1 to 2 m above the steaming light as an aid to identification. it will also be used when snorting. While at anchor or at a buoy by night submarines display normal anchor lights.

9. The overall arrangements of submarines lights are therefore unusual and may well give the impression of being markedly smaller and shorter vessels than they are. Their vulnerability to collision when proceeding on the surface dictates particular caution when approaching them.

Part III - COLLISIONS WITH SUBMARINES

10. Most submarine losses during peace time have been caused by collision with other vessels. Submarines, with their low buoyancy factor, if involved in a collision, may sink or be unable to surface because of their buoyancy (ballast) tanks having been ruptured.

11. Because of their size and low profile, surfaced submarines are often difficult to see. Submarines operating at periscope depth are obviously even more difficult to detect.

12. Collision or suspected collision, with a submarine must be reported by the fastest means available to the nearest Coast Radio Station. The position of the collision together with the estimated current, wind force and sea state, as well as any other relevant particulars, must be included in the report.

13. The report should be sent by radio using Emergency Clearance Procedure on distress or normal frequencies. The message can be passed direct to NAVCOMCENCAPE, via a Coast Radio Station or harbour radio network, whichever is considered the faster, as speed of handling is essential. The message will then be sent to the Chief of the Navy, Naval Headquarters, Pretoria, or, signals address, Force Preparation Operation Centre, telephone (Cape Town) 021 787 4126/4129, fax (Cape Town) 021 787 4002.

Part IV - SUNKEN SUBMARINES

14. A bottomed submarine which is unable to surface will try to indicate its position by the following methods:

a. Releasing an indicator buoy, which carries a vertical whip aerial, as soon as the accident occurs.

b. On the approach of surface vessels, and at regular intervals, by firing candles giving off *white smoke*.

c. Pumping out oil fuel or lubricating oil.

d. Blowing out air.

Note : It should be remembered that it may be impossible for a submarine to fire her smoke candles. A partially flooded submarine may only have a few of her smoke candles available and searching ships should not therefore expect many to appear.

15. It is vitally important that surface ships refrain from discharging any oil or debris which might appear to have come from a submarine. Searching ships and aircraft can waste valuable time investigating such false contacts.

16. Some submarine pyrotechnics may carry messages. These may be recovered as soon as they have finished burning and the contents of messages together with the position and time of recovery of the pyrotechnic must be passed to :

a. Any Naval vessel in the vicinity, or

b. NAVCOMCENCAPE, Private Bag X1, TOKAI, 7966, telephone (Cape Town) 021 787 2911, or

c. COMFLEET, Naval Base, Simonstown.

d. the nearest branch of the South African Police Service.

Messages should be passed by the most rapid means of communication available.

17. South African submarines are fitted with an **Indicator Buoy (EPIRB)** which can be released from inside in case of emergency or if for any reason the submarine is unable to surface. The Indicator buoy is described in Part V.

18. In any submarine accident, time is the most vital factor affecting the chances of rescue of survivors, and, as the sighting of an Indicator Buoy may be the first intimation that an accident has in fact occurred, it is vital that no time should be lost in taking action.

19. The sighting of any buoy answering the description should be reported at once to the Naval authorities or a Port Office. But if a vessel is unable to establish communication without leaving the vicinity of the sunken submarine, she should stand by to rescue survivors and not leave the scene of the accident.

20. South African submarines are equipped with free floating indicator buoys. It is therefore of the utmost importance that the position, together with the estimated current and the strength and direction of the wind at the position, and the time of first sighting of the buoy be accurately and speedily reported to any of the authorities mentioned in *para 16* above.

21. At any time after a submarine accident survivors may start attempting to escape. Current policy dictates that survivors will wait before escaping until :

a. rescue vessels are known to be standing by, or

b. conditions inside the submarine deteriorate to such an extent that an attempt at escape must be made.

22. It should be noted that the air supply in a sunken submarine may last for several days, in which case situation b. may not arise for a considerable time after the sinking. However, if the submarine is badly damaged, survivors may have to make an immediate escape attempt. Any ship finding a Submarine Indicator Buoy should stand by well clear of it ready to pick up survivors who will probably surface at a distance from it dependent upon how much the buoy has drifted because of the wind and current. On arrival on the surface men may be exhausted or ill, and the presence of a boat already lowered is very desirable should weather conditions permit.. Some men may require a decompression chamber and the Naval authorities will try to get such a chamber to the scene as soon as possible.

23. In order that those trapped in the submarine shall be made aware that help is at hand, Naval vessels drop small charges into the sea which can be heard from inside the submarine. It is vital that they are not dropped too close since men in the process of making ascents are particularly vulnerable to underwater explosions, and may easily be fatally injured. A distance of 0.25 mile is considered safe. If no small charges are available, the running of an echo sounder or the banging of the outer skin of the ship's hull with a hammer from a position below the water-line is likely to be heard in the submarine, and such banging and/or sounding should be carried out at frequent intervals.

24. Submarines may at any time release pyrotechnic floats which, on reaching the surface, burn with flames and/or smoke, thus serving to mark the position. They are likely to acknowledge sound signals by this means.

25. Summing up, the aims of a Submarine Rescue Operation are:

a. To fix the exact position of the submarine.

b. To get a ship standing by to pick up survivors, if practicable, with boats already lowered.

c. To get medical assistance to survivors picked up.

d. To get a diver's decompression chamber to the scene in case this is required by those seriously ill after being exposed to great pressure.

e. To inform the trapped men that help is at hand.

26. There is a Naval organization designed to fulfill these aims, which is always kept at instant readiness for action. It is clear, however, that any ship may at any time find evidence of a submarine disaster, and if she takes prompt and correct action as described above, she may be in a position to play a vital part.

Part V - SUBMARINE INDICATOR BUOY (EPIRB)

27. The Submarine Indicator Buoy (EPIRB) is described as follows *(see Figure 1)*:

a. It is free floating.

b. The body of the buoy, painted a *bright orange* colour, is 62 cm long and approximately 20 cm in diameter. It has a flat base and a round upper end. A plastic label *(see Figure 2)* is fixed to the side of the buoy near the base.

c. Around the buoy there are two reinforcing extentions and between them a mounting flange protrudes where a socket contains salt water sensors.

d. If the buoy is taken out of the water and salt water no longer connects the sensors, the buoy will stop transmitting.

28. When released the buoy will float to the surface and transmit on 121.5 MHz and on 406 MHz (VHF Emergency Frequency and Satellite locating frequency). The signal transmitted is a series of warbling notes. Ships hearing this signal should report the fact giving their position and if possible, an indication of signal strength.

29. *White Smoke Candles* fired from submarines to indicate their position burn for up to 15 minutes emitting white smoke and flame and can thus be seen by day or night. They can easily be confused with the smoke and flame of aircraft markers and floats.

30. Sonobuoys are dropped from aircraft to detect submarines and may be encountered anywhere at sea. They may frequently be seen in areas where warships and aircraft exercise whether or not submarines are present, and should not be confused with submarine indicator buoys. In case of doubt the object should be approached to confirm, visually, whether or not it is a submarine indicator buoy before reporting it.

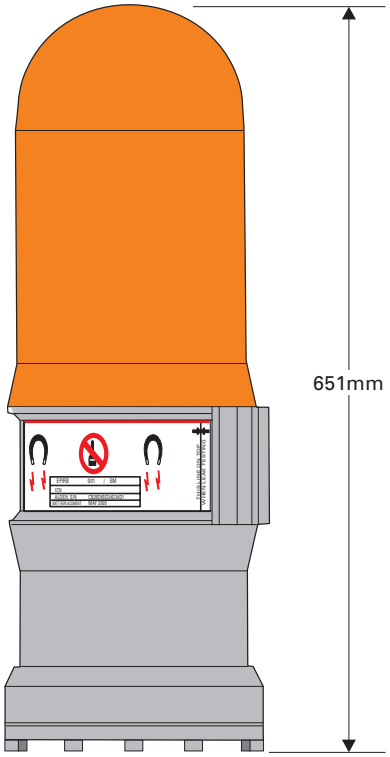


Figure 1 : Submarine Indicator Buoy (EPIRB)

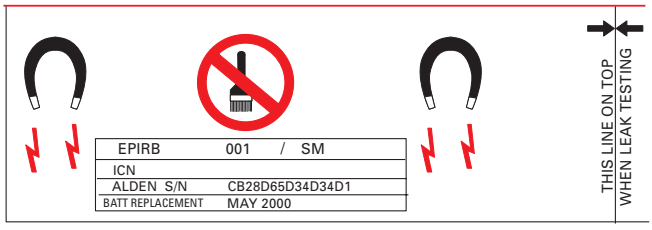


Figure 2 : Plate on Submarine Indicator Buoy (EPIRB)

SOUTH AFRICAN NOTICE TO MARINERS
NO 12 OF 2002

Former Notice No 12/2001 is cancelled.

SAFETY OF NAVIGATION: Safety, Distress and Nautical Publications for Merchant Ships, Fishing Vessels and Sea-going Boats.

1. All vessels intending to go to sea, except those small vessels operating very close inshore and in a local area, should carry charts and nautical publications to show navigation marks, known hazards and other specified information in detail appropriate to each part of the intended voyage. The publications listed below are a guide to ensure a basis for good and safe navigation.

NAUTICAL PUBLICATIONS

International Code of Signals	List of Radio Signals
Merchant Ship Notices	List of Lights and Radio Services
Mariners Handbook	Sailing Directions
Notices to Mariners	Nautical Almanac
Navigational Tables	Operating and maintenance instructions for navigational aids carried
Tide Tables	Tidal Stream Atlas

2. Attention is drawn to the danger involved in navigation on charts of too small a scale and in failing to keep proper charts and other relevant publications up to date.

3. One of the factors in the arrangements for the rescue of people in distress at sea is the radio watch on the international distress frequencies which certain classes of ships are required to keep when at sea. All Coast Radio Stations, the SA Navy and Port Authorities keep a continuous watch on these distress frequencies. All those who go to sea should be familiar with the operation of radio equipment, if carried, for the purpose of radio distress calls. These have absolute priority over all other traffic.

4. Statutory distress signals are contained in Annex IV of the *International Regulations for Preventing Collisions at Sea, 1972*, obtainable from agents for the sale of South African Charts and Hydrographic Publications (*Notice No 1* of this issue).

5. A South African search and rescue organisation (SASAR) has been established and is administered by the SAMSA. Details of SASAR are to be found in *Notice to Mariners 15* in this publication.

6. The National Sea Rescue Institute (NSRI) provides sea rescue facilities inshore and offshore at a number of harbours in South Africa. Full details are available from port and harbour authorities in the Republic or at any coastal police station.

7. The attention of small-boat owners and crew is drawn to the necessity of carrying adequate life-saving equipment for each person aboard and the means of making distress signals. The requirements applicable to small boats are contained in :

a. *The Standards of Seaworthiness, Manning and Licensing of Vessels Regulations, 1986 (for commercial boats*); and

b. *The Regulations Regarding Ships or Small Vessels used Solely for Sport or Recreation, 1985*.

Note : Attention is drawn to *South African List of Lights, Fog Signals and Radio Services, SAN HO-1*, which contains information on Distress Signals, Radio Telephone Voice Distress Transmitting Procedures, Reception of Safety Messages and Air Distress Search and Rescue. To be obtained from Chart Agents listed in *Annual Notice to Mariners No 1*.

SOUTH AFRICAN NOTICE TO MARINERS
NO 13 OF 2002

Former Notice No 13/2001 is cancelled.

WEATHER REPORTS FROM SHIPS

Publications available for supply to ships

1. The following publications are distributed by the Weather Bureau of the Department of Environment Affairs for use on board ships:

Form	Title	Description
MET 1/3/10	Radio Weather Reports	Signal message forms
MET 1/1/6	Weather Forecast Areas	Chart
MET 5/2	Weather Codes	Booklet
MET 3/3/1/2	Record of Weather Observations	Pad of forms
P.M.O:10	Requisition Form (Eng only)	Form

Radio Transmissions and Frequencies are available in a TELKOM booklet which is available from the Met Office (Title: *Telkom Maritime Radio Services*).

Facsimile Transmisson details are coverd in HO 1 *S.A.List of Lights and Radio Signals.* They are also available on the FAXBACK service, Fax Number 082 232 5600 (follow instructions).

For further information visit the Weather Bureau Website at the following address: *www.sawb.gov.za*

2. Ships should obtain their requirements direct from :

Port Meteorological Officer,
Weather Office
Box 21
Cape Town Airport,
Cape Town, 7525.

Tel : (021) 934-0450
Fax : (021) 934-3296, or
e-mail: *http://metcape@intekom.co.za*

Port Meteorological Officer,
Weather Office,
Durban Airport,
Durban, 4029.

Tel : (031) 42-4224/5
Fax : (031) 42-6830.
e-mail: *http://metdurban@intekom.co.za*

SOUTH AFRICAN NOTICE TO MARINERS
NO 14 OF 2002

Former Notice No 14/2001 is cancelled.

SOUTH AFRICA, Coastal Areas and Approaches to Harbours - Mine Clearance (Minesweeping) Operations - Collision Regulations.

1. Mine countermeasures in coastal areas and approaches to harbours may be carried out at any time without warning.

2. International signals of shapes and lights are exhibited during mine clearance operations in accordance with Rule 27f of the *International Regulations for Preventing Collisions at Sea, 1972* (*SAN HO-15*) as follows:

> **27f. A vessel engaged in mine clearance operations shall, in addition to the lights prescribed for a power-driven vessel in Rule 23 or to the lights or shape prescribed for a vessel at anchor in Rule 30 as appropriate, exhibit three all-round green lights or three balls.** One of these lights or shapes shall be exhibited near the foremast head and one at each end of the fore yard. These lights or shapes indicate that it is dangerous for another vessel to approach within 1000 metres of the mine clearance vessel.

Attention is particularly drawn to Rule 3 g.v. of the Collision Regulations which states that a vessel engaged in mine clearance operations is a vessel restricted in her ability to manoeuvre and is therefore unable to keep out of the way of another vessel.

3. Incidents have occurred where vessels have passed dangerously close to vessels engaged in mine countermeasure exercises. Vessels disregarding the provisions of the Collision Regulations (vide Rule 2) are guilty of an offence.

SOUTH AFRICAN NOTICE TO MARINERS NO 15 OF 2002

Former Notice No 15/2001 is cancelled.

SOUTH AFRICAN SEARCH AND RESCUE ORGANISATION (SASAR)

INTRODUCTION

1. The introduction of an Air Service between South Africa and Australia in November 1957, together with the Search and Rescue (SAR) obligations accepted by South Africa as a member of the International Civil Aviation Organisation (ICAO) resulted in the Department of Transport, on 1 October 1958, assuming responsibility for the co-ordination of South African Search and Rescue services. A committee known as "The Permanent Committee for the Co-ordination of Air/Sea Rescue Services" was established shortly thereafter by the Secretary for Transport.

2. The terms of the *International Convention for the Safety of Life at Sea (LONDON) 1974 (SOLAS)*, to which South Africa is a signatory, are enacted in *Schedule 2 of the Merchant Shipping Act (Act 57/51 as amended)*. This convention has placed further SAR obligations upon the South African Government. Furthermore, South African registered merchant shipping, in terms of this enactment, became legally obliged to assist persons in distress at sea.

3. In 1979, in order to conform with the manner in which other national SAR organisations are named, the South African Search and Rescue Organisation was established. It is known as the SASAR Organisation.

THE FUNCTIONS OF THE SASAR ORGANISATION

4. The primary function of search and rescue operations in the Southern African area is to search for, to assist and, if necessary, rescue:

a. Survivors of aircraft accidents or forced landings.

b. Crew and Passengers of Vessels in distress and Survivors of maritime accidents.

5. SASAR is also charged with co-ordinating the efforts of various Government Departments, voluntary organisations and, private aircraft and shipping companies in the field of search and rescue and, with formulating policy and procedures.

COMPOSITION OF SASAR

6. The Executive Committee of SASAR is made up of representatives from those Government Departments which are able to contribute services and/or facilities for use by SASAR. These include Transport, SAMSA, South African Airways (SAA), Defence, Police, Dept of Constitutional Development (Civil Protection) (DOCD), PORTNET and TELKOM. The Director-General : Transport appoints the Chairman for the Executive Committee and provides secretarial services to the Executive Committee and its sub-committees.

7. In addition to the Executive Committee two sub-committees exist:

a. **SASAR - Aviation Sub-committee:** This consists of representatives of the SAMSA, SAA, South African Air Force (SAAF), DOCD, TELKOM.

b. **SASAR - Marine Sub-committee**: This consists of representatives of SAMSA, PORTNET, SAAF, South African Navy (SAN), National Sea Rescue Institute (NSRI), DOCD, Court Helicopters and Pentow Marine.

SOUTH AFRICAN AREA OF SAR RESPONSIBILITY

8. The RSA's area of responsibility for SAR embraces the sea and land areas as indicated in *Diagram 1* on the following page, including the independent states situated therein, and corresponds to that as laid down by the International Civil Aviation Organisation (ICAO).

SAR REGIONS AND ASSOCIATED RESCUE CO-ORDINATION CENTRES

9. The Southern African area is divided into two SAR Regions (SRRs) with the control of SAR operations in each region being centred at Rescue Co-ordination Centres (RCCs) namely *(see Diagram 1)*:

a. **Inland SRR** - Aeronautical Rescue Co-ordination Centre (ARCC), located at Johannesburg International Airport; and

b. **Maritime SRR** - Maritime Rescue Co-ordination Centre (MRCC), located at Silvermine, near Cape Town.

Note : Silvermine MRCC is primarily concerned with ocean SAR missions and air searches over the sea.

10. For maritime purposes SAR missions may be classed as:

a. **OCEAN :** An incident in which only ships and long range aircraft may be available although, in the more remote ocean areas, only ships may be available.

b. **COASTAL :** Incidents in which some or all of the following may be available to assist: ships, aircraft, helicopters and shore based lifesaving facilities.

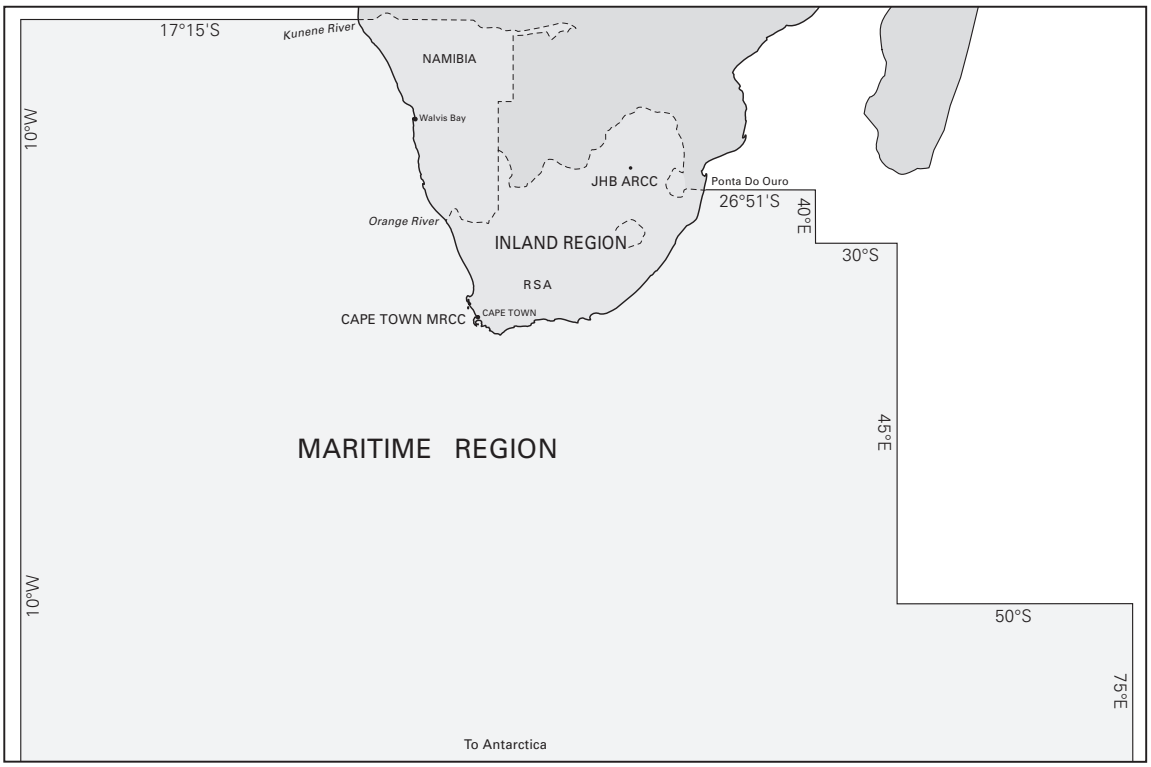


Diagram 1

GEOGRAPHICAL BOUNDARIES OF THE SRRs

11. The coastal area of the Maritime SRR as well as the seaward extension of the Inland SRR is sub-divided into seven sub-areas for SAR purposes *(see Diagram 2)*, each under the control of a Port Captain (PC).

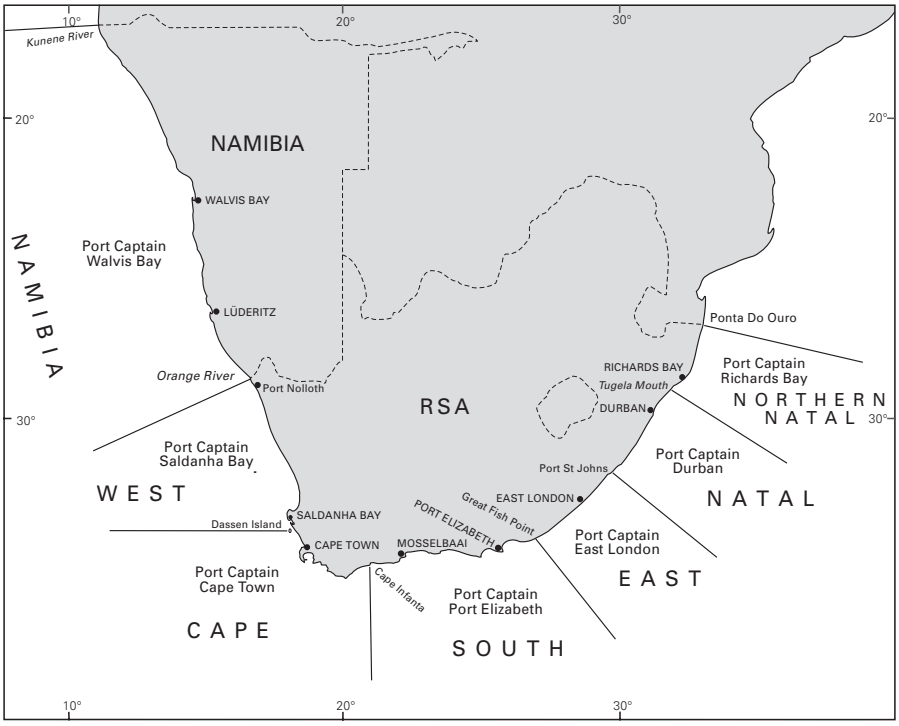


Diagram 2

12. These sub-areas are:

Sub-area	From	To	Co-ordinating PC
Namibia	Kunene River	Orange River	Walvis Bay
West	Orange River	Dassen Island	Saldanha Bay
Cape	Dassen Island	Cape Infanta	Cape Town
South	Cape Infanta	Great Fish Point	Port Elizabeth
East	Great Fish Pt	Port St Johns	
East London			

Natal	Port St Johns	Tugela River	Durban
North Natal	Tugela River	Ponto Do Ouro	Richards Bay

13. The Port Captain of a sub-area is the authority for co-ordinating a search and rescue operation in that sub-area. Therefore, any distress signal in a region must be relayed to the Port Captain of that sub-area. His office will relay the message on to the MRCC.

14. As the above sub-areas are large, each primary co-ordinating Port Captain has within his zone one or more Secondary Authorities to whom SAR responsibilities can be delegated. This delegation of responsibility may only take place after the co-ordinating Port Captain has consulted the Secondary Authority concerned and is satisfied that the latter is more suited to handle the particular SAR incident.

15. It must be remembered that finite seaward boundaries to the above sub-areas are difficult to lay down. Close liaison between Port Captains and between Port Captains and Cape Town MRCC is therefore done on a regular basis.

AIRCRAFT, VESSELS, VEHICLES AND EQUIPMENT AVAILABLE FOR SEARCH AND RESCUE PURPOSES

16. **Aircraft** : The South African Air Force, South African Airways and Court Helicopters provide suitable aircraft on request.

17. **Vessels Owned or Chartered by the State** : The Department of Transport has two oil pollution combat vessels. These vessels patrol between Saldanha Bay and Richards Bay. They can be called upon by the Port Captain(s) concerned, or through Pentow - Special Ships Division. Their daily positions are supplied to Cape Town MRCC.

18. **The SA Navy** will provide suitable vessels and personnel where and when required. Requests for assistance may be initiated by the Port Captain(s) through the Cape Town MRCC or local Naval Area Commander.

19. **PORTNET** will provide tugs and other suitable vessels on the instructions of the Port Captain(s) concerned.

20. **Deep Sea Rescue Tugs** : Two large, fast (20 knot) rescue tugs are operated by Smit Pentow Marine. These craft are ideally suited for OCEAN type missions. Due to their extensive communications equipment, hospital facilities and speed they are also well suited for COASTAL missions. Survivor capacity is + 200.

21. **National Sea Rescue Institute (NSRI) Stations** : The NSRI operates Stations at the following locations:- Saldanha Bay, Table Bay, Bakoven, Hout Bay, Kommetjie, Simon's Town, Strandfontein, Gordons Bay, Hermanus, Mossel Bay, Wilderness, Knysna, Plettenberg Bay, St Francis Bay, Port Elizabeth, Port Alfred, East London, Port St Johns, Shelly Beach, Durban and Richards Bay. Auxiliary Stations at St Helena Bay, Melkbosstrand, Coffee Bay, Kleinmond and Struisbaai . In addition there is one inland operation station on the Vaal Dam at Deneysville.

22. **NSRI Fleet** : The fleet consists of some 50 boats varying from 13 metre vessels used for deep sea operations, to 3 metre inshore rescue vessels. The majority of these are either 5 or 7 metre semi rigid inflatables and 8 metre longer range craft.

23. **NSRI Coast Watching Auxiliary** : The NSRI Stations are assisted by volunteer "Coast Watchers" who report on incidents observed off shore.

24. **Other Vessels** : Shipmasters are obliged by custom, as well as National and International Statute, to render assistance to persons in distress at sea. In such cases assisting vessels are expected to report their intentions and actions to the nearest Port Captain via a Coastal Radio Station.

THE NATIONAL SEA RESCUE INSTITUTE

25. The South African Society of Master Mariners, in 1966, brought into being an inshore sea rescue service similar to that of the Royal National Lifeboat Institution of Great Britain. This service was called the South African Inshore Sea Rescue Service.

26. In June 1967 the name was formally changed to the National Sea Rescue Institute of South Africa (NSRI). The Institute's Parton is the State President.

27. The NSRI is officially recognized internationally and by the SAMSA as an organization undertaking Search and Rescue. Operationally it comes under the control of the SASAR Organization through the Port Captains of the sea areas concerned. It operates in conjunction with other means of search and rescue at the Port Captains' disposal.

28. The Headquarters are in Cape Town. The NSRI provides an inshore rescue service from Saldanha Bay to Richards Bay. The positions of NSRI Stations are indicated on SAN charts by the NSRI symbol . In addition to launches and boats, the NSRI operates "Landrover" type vehicles fitted with radio and rescue equipment.

29. The main objectives for which the NSRI was formed are briefly:

a. To provide efficient life-saving craft at various locations in specific zones along the coast of The RSA.

b. To establish centres at such locations for the training of crews capable of manning the life-saving craft at all times.

c. To encourage all boat owners to accept adequate safety standards and to adhere to recognized rules of conduct and seamanship.

30. All NSRI boats are equipped with VHF radios and some with HF radios. They are controlled by the NSRI's own shore-based radio transmitters operating on a frequency exclusive to NSRI which ensures uninterrupted contact during search and rescue missions. For joint operations other frequencies are used as appropriate.

31. NSRI crews are all unpaid volunteers but are adequately insured at the Institute's expense.

32. Whilst the main centres of boating activity are adequately covered other centres will be covered in due course when the need has been established.

33. Reports of boats or persons in distress should be made direct to the Port Captains, when possible, otherwise to the SA Police who will alert the Port Captains, or whoever else may be responsible for alerting the rescue services in the area concerned.

34. Control of NSRI Units is normally exercised by its own co-ordinators but is always under the overall control of the Port Captains.

35. A sea rescue service, similar to the South African NSRI, exists in Namibia. It is called **Sea Rescue of Namibia** and has one station at Walvis Bay

DISTRESS ALERTING

36. In the event of distress at sea, any one of the following authorities should be alerted :

Coast Radio Stations
Cape Town MRCC
Other vessels at sea
Port Control Offices
Police Stations
Naval Bases
Lighthouses
NSRI Bases
The Sea Rescue telephone number in any major coastal city's telephone directory.

SOUTH AFRICAN NOTICE TO MARINERS
NO 16 OF 2002

Former Notice No 16/2001 is cancelled.

SOUTH AFRICA, Offshore Underwater Obstructions.

1. Numerous underwater obstructions - abandoned or suspended well heads, anchors and other equipment - are situated on the seabed in areas between the Orange River and Port Alfred.

2. The well heads are constructed of ferrous metal and are up to 4 m long, 4 m wide and extend up to a height of 4.57 m above the sea floor. See diagram on following page.

3. These obstructions do not constitute any hazard to surface vessels but do present a potential threat to the seafloor mining and to the nets of bottom trawlers. These obtructions are shown on charts of the 1: 150 000 and 1: 300 000 series.

4. **Wellhead Status** :

A=Abandoned — Wellhead elevation 4.57m above seafloor, 3.66m diameter, except :
* Partially recovered (Temporary guide-base remains) : elevation 0.91m.
** O-A1 only : Wellhead elevation : 2.51m, diameter 1.52m.

S=Suspended — Wellhead (4.57 m high) remains on seafloor pending future action (e.g. further drilling or production) except :
* Suspended wellhead capped casing stub is 2.5 m high..

5. The positions in the following tables are referred to theClark 1880 (Mod) Spheroid. The accuracy of the positions are within 3m except for those postions marked with a † which are within 30m of position.

6. This information is supplied by Petroleum Agency SA.

ABANDONED AND SUSPENDED WELL HEADS

ATLANTIC OCEAN - WEST COAST OF SOUTHERN AFRICA

(In order of increasing Latitude)

Name	S.			E.		
Kudu 2	28	29	00.72	14	34	25.97
Kudu 9A-1	28	32	53.22	14	34	44.87
Kudu 3	28	34	54.27	14	35	54.89
Kudu 5	28	37	58.25	14	40	29.05

Name	S.			E.			Status
A-F1	29	13	27.7	16	11	58.4	S
A-D1	30	20	35.75	16	51	38.5	A
A-H1	30	28	13.26	15	50	46.15	A
A-J1	30	36	7.66	17	10	2.49	A
K-E1	30	37	55.83	15	26	3.01	A
K-B1	30	42	38.67	15	26	52.18	A†
K-A1	30	48	27.5	16	0	59.89	A
A-V1	30	49	44.01	16	34	51.92	S*
K-A2	30	50	3.21	16	0	32.78	A†
A-Y1	30	50	48.08	16	39	6.34	S
A-K1	30	51	30.69	16	35	50.69	A
A-K2	30	52	23.3	16	36	44.06	S*
K-H1	31	2	20.96	15	55	23.98	A
A-A1	31	13	9.19	16	55	16.23	A†
A-L1	31	18	4.28	16	45	14.05	A
A-I1	31	18	57.33	16	22	50.18	A
A-U1	31	38	50.14	16	30	23.31	A
K-D1	31	43	52.65	16	20	13.88	A
Ba-A1	31	52	0.59	17	36	37.25	A†
Ba-A2	31	54	30.02	17	41	13.35	A†
A-C2	32	19	55.4	16	49	25.27	A
A-C1	32	30	29.53	16	53	29.97	A
A-C3	32	32	43.04	16	47	38.24	A
P-A1	32	41	21.88	17	13	59.27	A
P-F1	32	44	52.38	17	24	15.96	A
O-A1	33	9	40.64	16	49	23.46	A**
C-B1	34	51	59.15	18	23	5.4	A

INDIAN OCEAN - SOUTH AND EAST COAST OF SOUTH AFRICA

(In order of increasing Latitude)

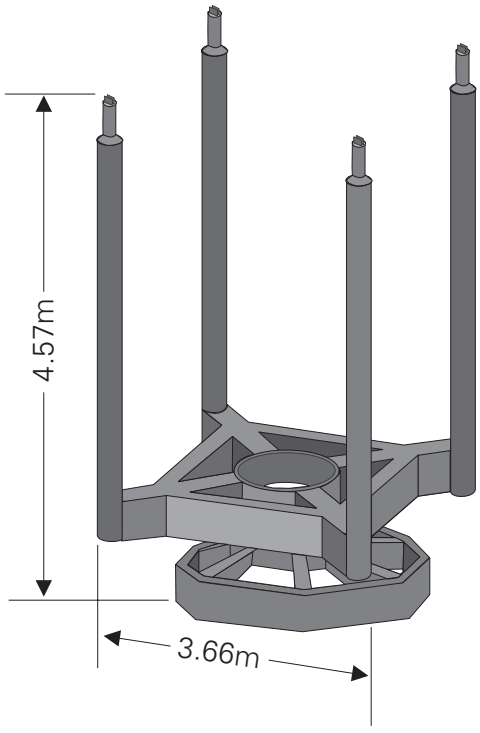
Name	S.			E.			Status
Jc-A1	29	27	41.3	31	35	39.7	A†
Jc-B1	29	30	25.3	31	37	28.4	A
Jc-C1	29	44	8.1	31	18	35.3	A
Hb-D1	34	0	50.47	26	11	16.32	A
Hb-P1	34	1	31.58	26	5	16.42	A
Ha-F1	34	4	48.15	25	22	20.62	A*
Hb-H1i	34	9	11.54	25	54	17.45	A†
Hb-H1	34	9	12	25	54	18	A†
PB-A1	34	9	39.9	23	20	12.13	A†
Hb-G1	34	11	6.32	25	51	34.51	A†
Ha-N1	34	13	38.7	25	40	50.5	A
MB-A1	34	13	52.89	22	11	54.09	A†
Ha-D1	34	15	1.8	25	23	47.7	A
Ha-I1	34	15	21.9	25	42	31.7	A†
Hb-Hart	34	16	38.48	25	55	19.66	A
Gb-H1	34	16	44.3	24	8	27.4	A
Hb-C1	34	16	50.61	26	12	6.75	A†
Ga-D1	34	20	50.28	23	25	52.88	A†
Ha-A1	34	21	24.01	25	40	23.87	A†
Ga-B1	34	22	50.64	23	47	52.15	A†
Ha-K1	34	23	44.88	25	41	14.19	A†
Ha-B2	34	24	21.17	25	36	32.86	A
F-B1	34	24	22.03	22	48	40.22	A
Gb-C1	34	24	37.4	24	24	0.9	A
Ga-X1	34	24	50.57	23	26	12.62	A
Gb-N1	34	26	10.15	24	39	23.29	A
Gb-Gem	34	29	3	24	14	36	A†
Ha-J1	34	30	18.65	25	9	7.61	A*
Ga-H1	34	31	3.96	23	45	46.13	A
Ga-A1	34	33	8.2	23	43	14.67	A†
Ga-A4	34	33	36.07	23	43	17.05	S†
Ga-A3	34	33	46.76	23	46	17.55	A†
Ga-A2	34	34	26.9	23	45	37.5	A†
Ga-G1	34	34	39.35	23	27	0.56	A†
Ga-G1a	34	34	40.52	23	27	0.75	A†
Ga-W1	34	35	38.37	23	15	11.74	A
Ga-Q2	34	36	5.2	23	42	54.5	A
Gb-Spr	34	37	6.39	24	17	8.52	A†
Ga-Q1	34	37	10	23	46	53.6	A
D-B1	34	38	29.84	20	55	9.45	A†
E-1	34	39	46.18	21	15	6.13	A
Ga-E2	34	41	13.58	23	46	6.68	A†
F-N1	34	41	55.7	22	49	25.6	A
Ga-E1	34	42	3.13	23	49	56.6	A†
Ga-V1	34	43	1.96	23	25	21.31	A*
Ga-C1	34	43	2.71	23	2	56.92	A†
D-C1	34	43	48.25	20	49	29.36	A†
E-B1	34	44	12.01	21	10	0.97	A
Gb-M1	34	44	26.47	24	11	54.37	A†
E-I1	34	50	9.69	21	45	45.15	A
F-D1	34	51	23.77	22	56	39.12	A
E-S2	34	51	39.4	21	51	20.93	A
E-S5	34	52	31.56	21	51	4.37	A
E-S1	34	52	42.97	21	49	56.23	A
F-AH2	34	52	45.69	22	0	3.61	S†
F-AH02P	34	52	45.69	22	0	4.43	S
E-S4	34	52	56.79	21	48	50.34	S
F-AH4	34	52	59.18	22	1	53.5	S
F-AH05P	34	52	59.18	22	1	53.28	S
E-S6	34	53	1.19	21	50	37.18	A
F-AN1	34	53	10.23	22	16	35.07	A
E-S3	34	53	15.7	21	55	10.4	A
E-C1	34	53	16.5	21	25	31.4	A
E-AG1	34	53	16.56	21	46	45.61	S
E-H1	34	53	44.1	21	43	15.25	A
E-M5	34	53	59.78	21	41	40.08	A
F-AZ2	34	54	10.5	22	5	42.6	A
E-M2	34	54	14	21	39	11.5	A
E-H2	34	54	16.03	21	42	57.06	S
F-AR3	34	54	43.01	22	3	22.62	A
E-M1	34	54	47.98	21	38	12.33	A
E-BF01P	34	54	50.25	21	42	46.68	S
E-M03P	34	54	56.39	21	39	6.38	S
E-AF1	34	54	57.9	21	57	17.52	A
E-BF1	34	55	0.55	21	43	21.11	S
E-MO1P	34	55	7.01	21	38	7.55	S
E-M02Pa	34	55	8.34	21	38	7.2	S
E-MO2P	34	55	8.69	21	38	7.6	A
F-AR2	34	55	16	22	5	41.13	S
F-AR01P	34	55	16.81	22	5	41.73	S
F-E1	34	55	30.27	22	22	3.22	A
E-M3	34	55	45.21	21	38	13.56	A
F-AR1	34	56	11.9	22	10	10.2	A
E-E1	34	56	16.36	21	50	38.19	A*
F-E2	34	56	23.9	22	20	41.4	A
F-AV1	34	56	25.8	22	19	17.4	A
E-AB1	34	56	29.09	21	38	15.83	A
E-V1	34	56	48.37	21	25	29.09	A
F-AD1	34	57	31.46	22	5	31.54	S
F-A11	34	57	44.51	22	12	19.29	A

ABANDONED AND SUSPENDED WELL HEADS cont./

Name	S.	E.	Status	Name	S.	E.	Status	Name	S.	E.	Status
E-BR1	34 57 44.58	21 34 58.01	A†	E-BA1	35 09 29.67	21 28 31.19	S	E-BT1	35 13 58.64	21 29 56.48	S
F-AD01P	34 57 46.96	22 05 52.14	S	E-BH1	35 09 41.57	21 43 13.12	S	E-BT01P	35 13 59.38	21 29 54.55	S
E-AP1	34 58 07.65	21 10 31.12	A†	E-CC1	35 09 44.87	21 22 33.96	A	E-BB1	35 14 15.33	21 41 41.08	S
F-BE1	34 58 18.85	22 07 37.00	S	E-N1	35 10 10.84	21 17 54.39	A	E-BB2	35 14 17.61	21 41 22.55	S
F-A5	34 59 01.15	22 11 01.14	S	E-AA2	35 10 23.78	21 33 32.73	A	E-G2	35 15 58.01	21 28 21.83	A
F-AX1	34 59 12.10	22 19 08.45	A	E-AM1	35 10 42.23	21 48 48.23	A*†	E-G1	35 16 48.03	21 27 40.40	A
F-A2	34 59 13.98	22 12 38.78	S	E-AA1	35 11 08.80	21 35 36.18	S†	E-CR1	35 19 25.64	21 54 54.21	S
F-A4	34 59 39.26	22 16 02.59	A	E-CE1	35 11 09.34	21 19 52.76	S	F-F2	35 19 38.25	22 17 50.00	A
E-K1	34 59 45.07	21 36 14.80	A*	E-CE2	35 11 25.34	21 20 34.62	S	E-BK1	35 21 19.70	21 53 04.70	S
F-A1	35 00 04.19	22 14 33.90	A†	E-CBD6	35 11 28.84	21 18 09.42	S	E-P2	35 21 48.86	21 23 52.08	A*
F-A7	35 00 23.89	22 12 01.11	A	E-CE5	35 11 29.83	21 18 09.52	S	E-CB2	35 21 53.25	21 46 47.38	S
E-AS1	35 00 32.01	21 52 50.78	A	E-CE3	35 11 31.88	21 18 34.03	S	E-CB1	35 22 25.16	21 47 55.49	S
F-A9	35 00 33.40	22 14 19.00	A	E-AR2	35 11 33.22	21 32 17.29	S	E-BL1	35 23 19.35	21 59 14.67	A
F-A8	35 01 01.17	22 18 08.07	A	E-CE4	35 11 36.60	21 20 02.82	S	E-T1	35 24 01.22	21 32 02.57	A
F-A3	35 01 44.70	22 16 38.60	S	E-ARO3P	35 11 55.62	21 32 20.06	S	F-P2	35 26 01.17	22 04 16.73	A†
F-AF1	35 03 21.70	22 13 39.40	A	E-ARO1P	35 11 56.12	21 32 20.70	S	E-R1	35 26 25.10	21 39 24.10	A
E-BO1	35 05 05.93	22 02 00.80	A	E-ARO2P	35 11 56.75	21 32 20.44	S	E-P1	35 27 07.60	21 29 14.20	A
D-A1	35 05 30.87	20 55 07.98	A	E-AD1	35 11 59.08	21 38 58.25	S†	E-D1	35 27 11.99	21 50 34.00	A
E-L1	35 06 08.20	21 11 43.46	A	E-AR1	35 12 13.72	21 32 42.43	S	E-D2	35 28 10.27	21 52 08.68	A
E-CN1	35 06 51.10	21 46 36.10	A	E-BD1	35 12 20.44	21 17 49.23	S	F-P1	35 28 21.09	22 10 57.58	A†
F-O4	35 06 59.48	22 32 27.49	S	E-BD3	35 12 23.63	21 17 17.46	S	E-D4	35 28 36.70	21 46 38.20	A
F-O2	35 07 10.99	22 33 33.34	S	E-BD4	35 12 37.27	21 16 36.85	S	E-D3	35 28 45.91	21 56 16.16	A
E-Z1	35 07 37.50	21 23 14.45	A	E-CJ1	35 12 43.02	22 01 08.48	A	E-O1	35 30 09.40	21 46 03.70	A
F-O3	35 08 15.54	22 33 32.46	S	E-BD2	35 12 57.57	21 16 04.94	A	E-DQ1	35 31 11.07	21 43 50.34	S*
E-BA3	35 08 34.05	21 28 50.22	S	E-BD6	35 12 58.22	21 17 28.98	S	E-F1	35 31 19.20	21 45 56.10	A
E-BW1	35 09 12.04	21 11 25.85	A	E-BD8	35 12 58.22	21 17 27.79	S	F-L2	35 33 48.30	22 13 33.70	A
E-CA1	35 09 20.09	21 33 34.96	S	E-BX1	35 13 21.10	21 25 08.45	A*	F-L1	35 34 17.61	22 13 18.55	A†
F-R1	35 09 25.27	22 36 01.98	S†	E-AK1	35 13 34.75	21 12 15.35	A	E-Q1	35 43 20.70	21 45 22.30	A
F-S1	35 09 29.07	22 41 45.88	S	E-BT5	35 13 37.79	21 31 22.48	S	F-Q1	35 44 41.50	22 13 52.10	A†
								E-Q2	35 47 49.90	21 58 59.50	A

LIST OF LOST EQUIPMENT and ANCHORS (12 to 20 tonnes).

Name	Object	Lat (S)	Long (E)	Error Radius
K-A3	anchor	30 48 43.2	16 04 11.2	± 200m
A-V1	anchor	30 49 21.58	16 35 23.08	± 20m
K-A2	anchor	30 50 21.4	15 59 56.2	± 200m
K-A2	anchor	30 50 38.2	16 00 50	± 200m
Ga-H1	anchor S3	34 31 34.6	23 45 32.6	± 40m
Ga-W1	anchor	34 35 34.79	23 15 8.21	± 50 m
Ga-W1	anchor	34 35 41.95	23 15 19.66	± 30 m
Ga-Q2	anchor S1	34 36 22.3	23 44 52	± 100m
F-AH3	anchor No.7	34 52 31.83	21 56 37.16	± 200m
F-A Platform anchor		34 58 14.46	22 09 27.88	± 25m
E-AP1	anchor	34 58 9.54	21 10 16.96	± 10m
F-A12	anchor S1	34 59 45.07	22 09 50.61	± 15m
Hb-H1i	27 ft of 9"drill collars (steel pipe)	34 9 11.54	25 54 17.45	± 20m
ORCA ± 100m	anchor	35 14.48	21 30.91	
E-G3	BOP stack (5.5x3.5m)	35 17 29.1	21 30 30	± 15m
E-AJ2	anchor	35 19 35.45	21 58 3.97	± 10m
E-CB1	anchor No.8	35 23 4.7	21 47 37.9	± 50m
E-DQ2	anchor	35 31 37.43	21 42 25.05	± 15m
E-DQ2	anchor	35 31 41.13	21 43 9.67	± 15m
E-DC1	anchor	35 33 55.67	21 46 10.6	± 30m
F-O4	anchor No.3	35 8 21.93	22 32 13.51	± 20m
F-O1	anchor P2 & 1300m chain	35 9 13.6	22 47 14.56	± 10m



Wellhead Structure

SOUTH AFRICAN NOTICE TO MARINERS
NO 17 OF 2002

Former Notice No 17/2001 is cancelled.

KWAZULU-NATAL COAST, Shark Nets

1. The Sharks Board presently deploys nets at 38 beaches along the coastline of KwaZulu-Natal.

2. Historically these nets comprised of panels of 106 metres in length with a 6.2 metre drop and are referred to as "single nets". However, as it has been found that "double nets" (213.5 metres) and, in some cases "triple nets" (304.8 metres) are more stable in certain areas. Various configurations are used.

3. Single nets are secured by 2 x 35kg anchors (one on each end of the net), double nets by 4 x 35kg anchors (two on each end), and triple nets by 6 x 35kg anchors (three on each end).

4. All nets are manufactured from polyethylene rope and twine and are indicated by orange marker buoys.

5. Yellow buoys indicate the anchor positions at either end of the nets which are laid approximately 20 metres apart and parallel to the coastline between 200 and 300 metres offshore in approximately 11 to 15 metre water depth.

6. Vessels passing these beaches are advised to sail at least 1 nautical mile offshore to allow for safe passage.

7. Following is a list of netted beaches from north to south :

NORTH COAST

Richards Bay (N of Harbour Entrance)	5 x D, 1 x T
Zinkwazi	5 x D
Blythedale	2 x D
Salt Rock	3 x D
Thompsons Bay	2 x D
Ballito Bay/Clark Bay	5 x D
Westbrook	2 x D
Umdloti	2 x D
Umhlanga Rocks	6 x D

DURBAN

Durban (North of Harbour Entrance)	21 x T
Ansteys Beach	2 x T
Brighton Beach	2 x T

UPPER SOUTH COAST

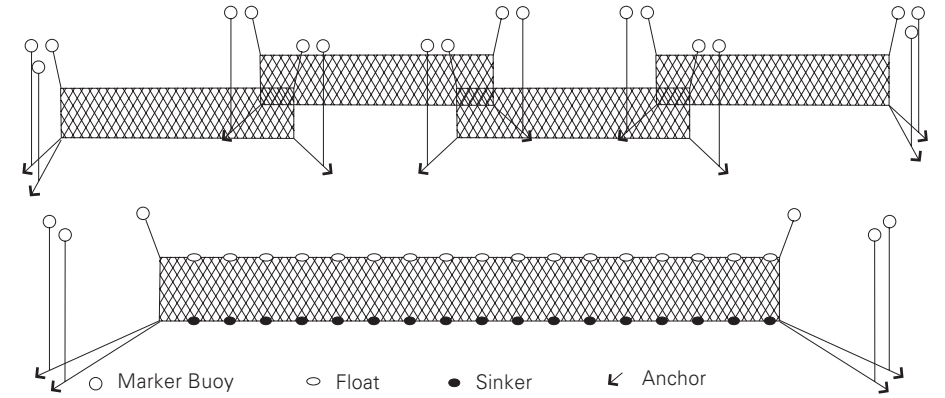
Isipingo Beach	4 x D
Amanzimtoti	13 x D
Warner Beach	4 x D
Winklespruit	3 x D
Karridene	3 x D
Scottburgh	4 x D
Park Rynie	2 x D

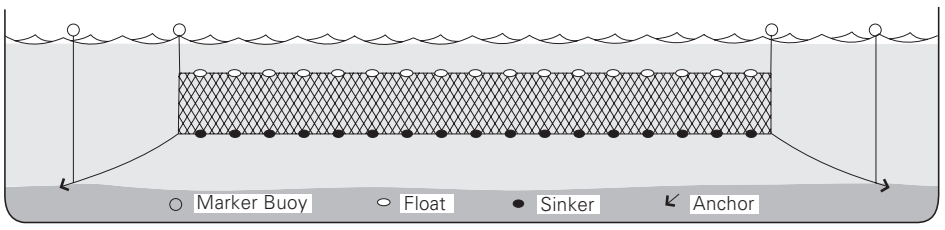
LOWER SOUTH COAST

Hibberdene	2 x D
Umzumbe	2 x D
Banana Beach	2 x D
Sunwich	2 x D
Southport	1 x D
Umtentweni	2 x D
St Michael's	3 x D
Uvongo	3 x D
Margate	8 x D
Ramsgate/Skiboat Bay	5 x D
Southbroom	2 x D
Umkobi/Marina Beach	3 x D
San Lameer	3 x D
Trafalgar	2 x D
Glenmore	2 x D
Leisure Bay	3 x D
T O Strand	3 x D

T = Triple

D = Double





SOUTH AFRICAN NOTICE TO MARINERS
NO 18 OF 2002

Former Notice No 18/2001 is cancelled.

VESSEL TRAFFIC SERVICE (VTS)

GENERAL NOTES.

Navigation around the South African Coast which takes place in areas covered by a Vessel Traffic Service will be obliged to comply with the provisions of the *SOUTH AFRICAN MARINE TRAFFIC ACT, 1981 (ACT No. 2 OF 1981) MARINE TRAFFIC (INSHORE VESSEL TRAFFIC SERVICES) REGULATIONS 1999.*

1. **Listening Watch**: All vessels in South African waters are to maintain a constant listening watch on VHF Ch 16, unless in the area of a VTS System when the watch should be on the appropriate designated frequency.

2. **Navigational Safety Calls**: Safety calls, comprising vessels name, position and intended course of action, are to be made on the frequency in (1) above, in the event of any of the following;

a. Risk of collision.

b. A call from another vessel indicating that a close quarters situation is developing.

c. Overtaking, or being overtaken, in a narrow channel.

d. Doubt about another vessels intentions.

e. An obstruction or bend in the channel which may obscure approaching vessels.

f. In restricted visibility, approaching charted routes or groups of vessels.

g. If vessel is restricted in its ability to manoeuvre.

h. Approaching dredgers and floating plant in restricted waters, which are not covered by a VTS system.

i. Leaving a berth, anchorage, mooring area, etc.

j. Any other occasion when a call could contribute to safe navigation.

3. **Vessel Traffic Services:** The following information applies to all South African Inshore VTS systems (as distinct from the off-shore system ie. for Laden Tankers off the Alphard Bank), unless otherwise stated:

a. **DESCRIPTION:** Participation in these VTS systems is **mandatory** for the following;

i. Vessels of 15 m or more in length.

ii. Towing vessels where the tow is 15 m or more in length, or the overall length of vessel and tow is 30 m or more.

iii. Any passenger carrying vessels.

iv. All vessels carrying dangerous or pollutant cargoes.

b. **PROCEDURE:** Vessels may be required to report the following information :

i. Vessels Name.

ii. Call sign.

iii. Position.

iv. ETA of vessel entering the VTS zone.

v. Destination.

vi. ETA at destination.

vii. Whether any pollutant or dangerous goods cargo is carried on board, or carried on any Vessel or object being towed or pushed.

viii. ETD from a berth.

ix. ETA at a location requiring a report (such as a reporting system).

The above information must be reported as follows, when;

(1) **Entering a VTS Zone**. Fifteen minutes before entering a VTS zone, a vessel must apply for Traffic Clearance, stating: (i), (ii), (iii), (iv), (v), (vi), (vii) above.

(2) **Arriving at a Reporting in Point (RP).** On arriving at a Reporting Point a vessel must report: (i), (iii), (ix) above.

(3) **Arriving at a berth.** As soon as practicable after arriving a vessel must report: (i), (iii) above.

(4) Departing a berth. 5 min prior to departing a berth a vessel must apply for Traffic Clearance stating: (i), (ii), (iii), (v), (vi), (vii), (viii) above.

(5) **Immediatly prior to departing a berth** a vessel must report: (i), (iii), (ix) above.

(6) **Manoeuvres**. Fifteen min prior to commencing any manoeuvre listed below, vessels must apply for Traffic Clearance stating: (i), (iii) above plus a description of their intended manoeuvre.

Listed manoeuvres.

(a) Compass adjustment.
(b) The calibration and servicing of navigational aids.
(c) A sea trial.
(d) A dredging operation.
(e) The laying, picking up and servicing of a submarine cable or navigation mark.
(d) Or any other manoeuvre that may be detrimental to safe navigation.

As soon as possible after the manoeuvre is completed, a description of the manoeuvre (just completed) must be communicated to the VTS Centre.

4. **INCIDENT REPORTS:** Vessels should immediatly report any of the following and include (i) and (iii) as specified under Procedure.

a. An on board fire, that may impair safe navigation.

b. The involvement of the vessel in a collision, grounding or striking that may impair safe navigation.

c. Any defect to the vessels hull, main propulsion equipment, steering, radars, compass, radio equipment, anchors or cables that may impair safe navigation.

d. Any discharge or threat of discharge of a pollutant from the vessel.

e. Another vessel in apparent difficulty.

f. The presence of any other vessel which may impede the movement of other vessels.

g. Any obstruction to navigation.

h. Any aid to navigation that is functioning improperly, damaged, off position or missing.

i. The presence of any pollutant in the water.

j. Any weather condition which may impair safe navigation.

Items (f), (g), and (h) need not be reported if the information has been previously reported by Notices to Mariners or Coastal NavWarnings.

5. **VHF EQUIPMENT FAILURE:** In the event of VHF radio failure, the VTS Centre should be alerted as soon as possible, by sending a message by MF, RT or WT through a Coast Radio Station (CRS) or another vessel, or by other means, stating that there is a failure and giving the vessel's position and destination.

6. **NOTE:** All times should be given in local time (UTC +2).

For further details and working frequencies for each port see *SA List of Lights and Radio Signals (SAN HO-1)*.

APPENDIX A - SALDANHA BAY AND APPROACHES

1. NOTE. This VTS was established on 1st November 1998 to ensure the safe and efficient entry and exit for deep draft ore vessels to the Port of Saldanha Bay.

2. DESCRIPTION. Radar and VHF radio Stations are installed at the PORTNET Office and on Malgaskop to improve the navigational safety within the Port Control Limits. The radars cover a radius of about 20nm offshore.

3. CALL. Saldanha Bay Port Control.

4. LOCATION. VTS Control Centre is situated in the Port Office at Hoedjies Point 33°01'.7 S., 17°57'.8 E.

5. FREQUENCY. Channel 12.

6. HOURS. H 24.

7. PROCEDURE. Vessels should call Saldanha Bay Port Control on Ch 12

a. 15 minutes before arrival at the TSS.
b. 15 minutes before departure from her berth.
c. At the designated Reporting in Points.

8. REPORTING POINTS.

a. INBOUND.

i. Vessels Approaching from the South.

1B.	In	33°21'.0 S.,	17°53'.9 E.
2B.	In	33°10'.6 S.,	17°49'.3 E.
3.	In	33°06'.7 S.,	17°50'.1 E.
4.	In	33°04'.1 S.,	17°55'.5 E.
5.	In	33°03'.3 S.,	17°58'.3 E.
2A.	In	33°05'.9 S.,	17°45'.0 E.
3.	In	33°06'.7 S.,	17°50'.1 E.
4.	In	33°04'.1 S.,	17°55'.5 E.
5.	In	33°03'.3 S.,	17°58'.3 E.

ii. Vessels Approaching from the North.

1A.	In	32°59'.1 S.,	17°38'.2 E.
2A.	In	33°05'.9 S.,	17°45'.0 E.
3.	In	33°06'.7 S.,	17°50'.1 E.
4.	In	33°04'.1 S.,	17°55'.5 E.
5.	In	33°03'.3 S.,	17°58'.3 E.

iii. Vessels Approaching from the West.

1C(N).	In	33°06'.8 S.,	17°34'.8 E.
1C(M).	In	33°13'.4 S.,	17°36'.3 E.
1C(S).	In	33°19'.5 S.,	17°43'.0 E.
2C.	In	33°06'.7 S.,	17°50'.1 E.
4.	In	33°04'.1 S.,	17°55'.5 E.
5.	In	33°03'.3 S.,	17°58'.3 E.

b. OUTBOUND

i. Vessels Departing to the South.

5.	Out	33°03'.3 S.,	17°58'.3 E.
4.	Out	33°04'.1 S.,	17°55'.5 E.
3.	Out	33°06'.7 S.,	17°50'.1 E.
2B.	Out	33°11'.3 S.,	17°47'.1 E.
1B.	Out	33°21'.7 S.,	17°51'.6 E.

ii. Vessels Departing to the North.

5.	Out	33°03'.3 S.,	17°58'.3 E.
4.	Out	33°04'.1 S.,	17°55'.5 E.
3.	Out	33°06'.7 S.,	17°50'.1 E.
2A.	Out	33°04'.6 S.,	17°46'.8 E.
1A.	Out	32°57'.8 S.,	17°40'.1 E.

iii. Vessels Departing to the West

5.	Out	33°03'.3 S.,	17°58'.3 E.

4.	Out	33°04'.1 S.,	17°55'.5 E.
3.	Out	33°06'.7 S.,	17°50'.1 E.
2C.	Out	33°09'.0 S.,	17°45'.3 E.

c. INSHORE ROUTES: INBOUND OR OUTBOUND.

1D.	In/Out	32°53'.7 S.,	17°45'.9 E.
2D.	In	33°02'.2 S.,	17°50'.1 E.
1E.	In/Out	33°20'.8 S.,	18°01'.8 E.
2E.	In	33°09'.1 S.,	17°54'.3 E.
4.	In/Out	33°04'.1 S.,	17°55'.5 E.
5.	In/Out	33°03'.3 S.,	17°58'.3 E.

9. PILOT BOARDING PLACE. 33°06'.4 S., 17°49'.9 E.

10. INFORMATION REQUIRED.

a. The following information relating to vessels entering the harbour will be transmitted to the Centre:

i. Particulars of cargo on board.
ii. Last and next Port of Call.
iii. GRT, LOA, Draft, or any other information as requested.

b. The Control Centre will provide the vessel with more accurate information of other vessel's postions and the density of traffic converging on the same positions.

11. NOTE. The System is linked to the Cape Town VTS Centre, the Maritime Rescue Coordination Centre the Port Control, Pilots Offices and the local Coast Radio Station.

APPENDIX B - CAPE TOWN AND APPROACHES

1. NOTE. This VTS was established on 1st November 1998 to ensure the safe and efficient entry and exit forvessels to the Port of Cape Town.

2. DESCRIPTION. Radar and VHF radio Stations are installed at the PORTNET Office and on Robben Island to improve the navigational safety within the Port Control limits.
The radars cover a radius of about 20 nm offshore.

3. CALL. Cape Town Port Control.

4. LOCATION. VTS Control Centre is situated in the Port Office at 33°54'.3 S., 18°25'.9 E.

5. FREQUENCY. Channel 14.

6. HOURS. H 24.

7. PROCEDURE. Vessels should call Cape Town Port Control on Ch 14;

   a. 15 minutes before arrival at the TSS.
   b. 15 minutes before departure from her berth.
   c. At the designated Reporting Points.
   d. Pilot boarding and berthing instructions will be given and vessels will be assigned to an anchorage, if necessary.

8. REPORTING POINTS.

   a. INBOUND.

      i. Vessels Approaching from the South;

1B.	In	34°00'.8 S.,	18°15'.1 E.
2B.	In	33°53'.9 S.,	18°19'.8 E.
3.	In	33°52'.5 S.,	18°24'.0 E.

      ii. Vessels Approaching from the North ;

1A.	In	33°41'.4 S.,	18°07'.8 E.
2A.	In	33°50'.7 S.,	18°17'.1 E.
3.	In	33°52'.5 S.,	18°24'.0 E.

   b. OUTBOUND

      i. Vessels Departing to the South.

4.	Out	33°53'.9 S.,	18°26'.3 E.
3.	Out	3°51'.3 S.,	18°24'.0 E.
2B.	Out	33°52'.9 S.,	18°17'.7 E.
1B	Out	33°59'.4 S.,	18°13'.2 E.

      ii. Vessels Departing to the North.

4.	Out	33°53'.9 S.,	18°26'.3 E.
3.	Out	33°51'.3 S.,	18°24'.0 E.
2A.	Out	33°49'.4 S.,	18°19'.0 E.
1A.	Out	33°40'.1 S.,	18°09'.6 E.

   c. INSHORE ROUTES: INBOUND OR OUTBOUND.

1D.	In/Out	34°01'.9 S.,	18°17'.3 E.
1C.	In/Out	33°36'.8 S.,	18°14'.4 E.
2C.	In/Out	33°48'.9 S.,	18°24'.3 E.
4.	Out	33°53'.9 S.,	18°26'.3 E.

9. PILOT BOARDING PLACE. 33°52'.4 S., 18°24'.0 E.

10. INFORMATION REQUIRED.

   a. The following information relating to vessels entering the harbour will be transmitted to the Centre:
      i. Particulars of cargo on board.
      ii. Last and next Port of Call.
      iii. GRT, LOA, Draft, or any other information as requested.

   b. The Control Centre will provide the vessel with more accurate information of other vessel's positions and the density of traffic converging on the same positions.

11. NOTE. The System will be linked to the Saldanha Bay VTS Centre, the Maritime Rescue Coordination Centre, the Port Control, Pilots Offices and the local Coast Radio Station.

APPENDIX C - PORT ELIZABETH AND APPROACHES

1. NOTE. This VTS was established during July 2000 to ensure efficient entry and exit for vessels to the Port of Port Elizabeth.

2. DESCRIPTION. Radar and VHF radio stations installations on the Port Control Office are installed to improve the Navigation safety within the Port Control Limits. Radar coverage, out to a radius of 30nm, is expected.

3. CALL. Port Elizabeth Port Control.

4. LOCATION. The VTS Control Centre at Port Control Building Office is at 33° 57'.3 S., 025° 38'.3 E.

5. FREQUENCY. Channel 12 .

6. HOURS. H 24.

7. PROCEDURE. Vessels should call Port Elizabeth Port Control ON cH 12 when;

a. 15 minutes from the Entry points for the Approach Traffic Lanes.
b. 15 minutes before departure from her berth.

8. REPORTING POINTS.

a. VESSEL APPROACHING FROM THE WEST / SOUTH.

i. When 15 minutes from Reporting Point 1A
ii When passing Reporting Points
1A. 34°01'.7 S., 25°47'.4 E.
2A . 33°57'.3 S., 25°42'.3 E.
3. 33°57'.2 S., 25°38'.5 E.

b. VESSEL APPROACHING FROM THE EAST.

i. When 15 minutes away from Reporting Point 1B (approximately when crossing the 25° 55' E meridian.)

ii. When passing Reporting Points

1B.	In	33°54'.3 S.,	25°50'.0 E.
2B.	In	33°55'.8 S.,	25°43'.7 E.
3.	In	33°57'.2 S.,	25°38'.5 E.

c. VESSEL DEPARTING FOR THE HIGH SEAS.

When passing Reporting Points

3.	Out	33°57'.2 S.,	25°38'.5 E.
2A.	Out	33°57'.3 S.,	25°42'.3 E.
1A.	Out	34°01'.7 S.,	25°47'.4 E.
2B.	Out	33°55'.8 S.,	25°43'.7 E.
1B.	Out	33°56'.3 S.,	25°50'.0 E.
1C.	Out	34°01'.7 S.,	25°43'.7 E.
1D.	Out	33°49'.5 S.,	25°47'.3 E.

d. INSHORE TRAFFIC.

When passing Reporting Points

1C.	In/Out	34°01'.7 S.,	25°43'.7 E.
1D.	In/Out	33°49'.5 S.,	25°47'.3 E.
3.	In/Out	33°57'.2 S.,	25°38'.5 E.

9. PILOT BOARDING PLACE. 33°55'.6 S., 25°40'.9 E.

10. INFORMATION.

a. The following information relating to the vessel shall be passed when making the initial report ;
i. Name.
ii. Callsign, GRT, LOA, Draught.
iii. Position.
iv. ETA of Vessel when entering the VTS Zone.
v. Destination
vi. ETA at Destination.
vii. Whether any Hazardous Cargo is carried on board.

b. The VTS will provide the vessel with up to date information on berthing arrangements, Pilots, and relevant traffic movements in the area.

11. NOTE. The VTS is linked to the Port Control and Administration Offices, MRCC, Pilot Station, and the local Coast Radio Station.

APPENDIX D - DURBAN AND APPROACHES

1. NOTE. This VTS was established during April 2002 to ensure efficient entry and exit for vessels to the Port of Durban.

2. DESCRIPTION. Radar and VHF installations on the Port Control/VTS Centre are installed to improve the Navigation safety within the Port Control Limits. Radar coverage out to a 25nm radius is expected.

3. CALL. “Durban Port Control”.

4. LOCATION. The Port Control/VTS centre is situated in the millennium building at 29°52’31" S, 031°03’27" E.

5. FREQUENCY. VHF Channel 12. (This will change to VHF Channel 9).

6. HOURS. H24.

7. PROCEDURE : Vessels should call Durban Port Control on Ch 12

i. 15 minutes before crossing the 12 nm Reporting Line.
ii. 15 minutes before departure from her berth
iii. When crossing the 12 nm Reporting Line.
iv. When crossing the 6 nm Reporting Line.

8. REPORTING POINTS

INBOUND

1. Vessels should call Durban Port Control on Ch 12 at the following Reporting Points;

a. VESSEL APPROACHING FROM ANY DIRECTION.

In 15 minutes before crossing the 12 nm Reporting Line.
In When crossing the 12 nm Reporting Line.
In When crossing the 6 nm Reporting Line.

b. VESSEL ENTERING OR LEAVING THE HARBOUR.

9. INFORMATION REQUIRED

1. The following information relating to the vessel shall be passed when making the initial report;

i. Name
ii. Callsign, GRT, LOA, Draught.
iii. Position.
iv. ETA of Vessel when entering the VTS zone.
v. Destination.
vi. ETA at Destination.
vii. Whether any Hazardous Cargo is carried on board.
viii. Suitability of vessel for the transfer of Pilot by Helicopter.

2. The VTS will provide the vessel with up to date information on berthing arrangements, Pilot, Helicopter Service and relevant traffic movement in the area.

Note: The system is linked to the Port Control and Administation Offices, MRCC, Pilot Station and Helicopter Service.

APPENDIX E - RICHARDS BAY AND APPROACHES.

1. NOTE. This VTS was established during April 2002 to ensure efficient entry and exit for vessels to the Port of Richards Bay.

2. DESCRIPTION. Radar and VHF radio stations installations on the Port Control Office are installed to improve the Navigation safety within the Port Control Limits. Radar coverage out to 30nm radius is expected.

3. CALL. Richards Bay Port Control.

4. LOCATION. The VTS Control Centre at Port Control Building Office is at 28° 47'.6 S, 032° 05'.9E.

5. FREQUENCY. Channel 12.

6. HOURS. H 24.

7. PROCEDURE. Vessels should call Richards Bay Port Control on Ch 12;

i. 15 minutes before crossing the 15nm Reporting Line.
ii. 15 minutes before departure from her berth.
iii. When crossing the 15 nm Reporting Line.
iv. When crossing the 6 nm Reporting Line.

8. REPORTING POINTS.

a. VESSEL APPROACHING FROM ANY DIRECTION.

i. 15 minutes before crossing the 15 nm Reporting Line.
ii. When crossing the 15 nm Reporting Line.
iii. When crossing the 6 nm Reporting Line.

b. VESSEL ENTERING OR LEAVING THE HARBOUR.

i. At Reporting Point 3. (When entering/leaving the Deep Draught Route, 4 nm from the S Breakwater).
ii. At Reporting Point 4. (When passing the S Breakwater).
iii. On Departure when crossing the 6nm Reporting Line.

9. INFORMATION.

a. The following information relating to the vessel shall be passed when making the initial report ;

i. Name.
ii. Callsign, GRT, LOA, Draught.
iii. Position.
iv. ETA of Vessel when entering the VTS Zone.
v. Destination.
vi. ETA at Destination.
vii. Whether any Hazardous Cargo is carried on board.

b. The VTS will provide the vessel with up to date information on berthing arrangements, Pilots, Helicopter Service and relevant traffic moevments in the area.

10. NOTE. The VTS is linked to the Port Control and Administration Offices, MRCC, Pilot Station Helicopter Services and the local Coast Radio Station.

SOUTH AFRICAN NOTICE TO MARINERS
NO 19 OF 2002

Former Notice No 19/2001 is cancelled.

CRAYFISH TRAP FISHING

1. Following the fatal running down of a fishing craft by an unknown vessel it is deemed necessary to draw the attention of mariners to the situation existing within 3 nautical miles off the South African coast from a position abeam of the Orange River to a position South of Cape Agulhas, where small fishing vessels lay lines of, and/or individual, traps on the ocean bottom. These traps are marked by floating recovery lines and a marker buoy displaying a coloured flag.

2. The lines are serviced during the day when the fishing vessel can recognise her marker buoys and flags. During the night the crayfish are processed whilst the vessel remains at anchor or drifts with the current. During this period the lighting on board may be poor and a large vessel not keeping a good lookout could easily run down a small vessel without even being aware of it.

3. Crayfishing is carried out seasonally and these vary both anually and in different areas, but as a general rule it extends over the period;

PORT NOLLOTH Area.

From 15 October until 30 June.

All Other Areas.

From 1 November until 30 June.

SOUTH AFRICAN NOTICE TO MARINERS
NO 20 OF 2002

Former Notice No 20/2001 is cancelled.

DIFFERENTIAL GLOBAL POSITIONING SYSTEM (DGPS)

GENERAL NOTES

1. The South African Lighthouse Services of PORTNET established a DGPS system at certain lighthouses along the South African Coast in mid 2000, these DGPS Stations are still under trial.

2. Further DGPS stations may be established if the need arises. There will initially be 4 transmitters situated in strategically positioned sites where poor visibility, presence of Vessel Traffic Services and high concentrations of traffic can be expected. They will be in operation at the following old Radio Beacon Stations :

	Beacon Light List number	*Beacon Listing*	
a.	Cape Columbine	1823	Z5670 (D5810)
b.	Cape Agulhas	1831	Z5980 (D6370)
c.	Cape Recife	1839	Z6100 (D6390)
d.	Cooper Lt. Ho	1857	Z6245 (D6458)

3. These are intended to provide coverage out to a distance of at least 100 nm. All the stations will initially be transmitting on a trial basis. Details will be promulgated by Coastal NavWarning and/or Notice to Mariners.

4. Details of the locations, ranges and transmission characteristics are given in the accompanying table.

5. Such information will be amended as and when necessary as a result of the preliminary trials. Accurate positions of stations will be promulgated when these have been surveyed and the final positions of the station have been accurately established.

6. The service is being provided primarily for the use in monitoring the integrity of the GPS and to enable greater accuracy for marine navigation as a secondary feature.

7. In order to make use of the DGPS corrections, users will require a GPS Receiver which can accept differential corrections data in the RTCM SC 104 format and an Auto Tuning MSK Beacon Receiver, compatible with conventional IALA-standard radio beacon transmissions.

8. These receivers will tune into the strongest available DGPS signal. The receiver should meet the technical standards of the International Telecommunications Union (ITU) for such receivers. A combined Beacon/GPS receiver with combined antennae incorporated can also be used. With a field strength throughout the coverage area designed to be at least 75 micro V per metre, the DGPS corrections will be updated at intervals of not more than 10 seconds.

9. Regular announcements will be made through the normal channels giving further details of the progress of the introduction of the DGPS system.

Station Reference Number	*Station Name*	*DGPS Corrections*		*Identification No. of*		*Range in Nautical Miles*	*Integrity Monitoring*	*Status*	*Transmitted Message Types*	*Station Position*
		tx fx (in kHz)	*tx rate (in bps)*	*Reference Station(s)*	*Transmit Station*					
	Cape Columbine					µ				32° 49’ S 017° 51’ E
	Cape Agulhas					µ				34° 49’ S 020° 00’ E
	Cape Recife					µ				34° 01’ S 025° 42’ E
	Cooper Lighthouse					µ				29° 56’ S 031° 00’ E

CORRECTIONS TO BE APPLIED TO POSITIONS OBTAINED FROM GPS SATELLITE RECEIVERS (BASED ON THE GLOBAL POSITIONING SYSTEM (WGS84) SPHEROID) FOR PLOTTING ON SAN NAUTICAL CHARTS BASED ON THE CLARKE 1880 (MOD) SPHEROID.

1 : 150 000 AND LARGER SCALE CHARTS

CHART NUMBER	SHIFTS (m) Latitude	Longitude
SAN 113	-38	69
SAN 114	-33	68
SAN 115	-29	65
SAN 117	-33	65
SAN 118	-19	64
SAN 119	-8	63
SAN 120	-7	60
SAN 121	-7	56
SAN 122	-8	53
SAN 123	-11	50
SAN 124	-11	46
SAN 125	-13	42
SAN 126	-14	40
SAN 127	-16	37
SAN 128	-21	34
SAN 129	-25	31
SAN 130	-30	28
SAN 131	-35	26
SAN 132	-27	23
SAN 133	-47	21
SAN 134	-55	22
SAN 135	-38	24
SAN 150	-10	62
SAN 1001	-82	73
SAN 1002	-53	72
SAN 1009	-16	64
SAN 1010	-15	65
SAN 1011	-15	64
SAN 1013	-11	63
SAN 1014	-11	62
SAN 1016	-9	62
SAN 1020	-11	52
SAN 1021	-12	49
SAN 1022	-12	48
SAN 1025	-14	43
SAN 1027	-20	35
SAN 1029	-37	26
SAN 1030	-39	24
SAN 1031	-39	25
SAN 2003	22	5
SAN 2051	-57	34
SAN 2052	-15	63

1 : 300 000 AND SMALLER SCALE CHARTS

Positions obtained from a GPS Receiver can be plotted directly on these charts as the shift is of such a small nature that it is not plottable.

SOUTH AFRICAN NOTICE TO MARINERS
NO 21 OF 2002

Former Notice No 21/2001 is cancelled.

MARINE RESERVES

1. The information contained in this Notice is not complete, but comprises guidelines for the exploitation of marine organisms only, and may change from time to time. For full details of the Marine Living Resources Act (Act No 18 of 1998) and regulations promulgated thereunder, contact your local fishery control officer.

2. Special regulations govern river mouths, national parks, estuaries, and the KwaZulu-Natal coastline. These can be obtained from the Chief Directorate Environmental Management, Cape Nature Conservation, the KwaZulu-Natal Nature Conservation Service, and the South African National Parks.

3. Help us to look after our marine resources.

4. The national marine living resources of South Africa, as well as the marine environment, are national assets and the heritage of our people.

5. Our marine resources are limited. We must therefore manage them properly so that our people will be able to benefit from them in the future. To do this, we need two things: research on substantial utilisation (how much we can take from a resource without damaging it), and control over utilisation.

6. In terms of the Marine Living Resources Act (Act 18 of 1998), the Department of Environmental Affairs and Tourism is responsible for the management of marine living resources and their environment. Part of this function is delegated to other authorities (e.g. KwaZulu Natal Nature Conservation Service), and research is sometimes contracted out to other institutions.

7. In terms of the above mentioned Act, each user must pay for the right to use a marine resource for commercial, subsistence or recreational purposes by buying a permit. These funds will be used for research, control and management - without which, South Africa's marine living resources cannot be managed effectively.

MARINE PROTECTED AREAS AND CLOSED AREAS ***(See Diagram 1)***

1. A general marine protected area is an area proclaimed by the Minister of Environmental Affairs and Tourism where no marine organism may be disturbed, caught or killed, except in the case where an organism is specifically excluded.

2. The possession of a permit does not absolve the holder from the onus of obtaining permission from any controlling authority within whose area of jurisdiction they wish to operate.

i. **A. St Lucia Marine Protected Area**

From beacon **N3** (27°26'.75 S., 032°42'.13 E) north of Ngoboseleni Stream to beacon **N4** (28°08'.25 S., 032°33'.47E) south of Cape Vidal, extending three nautical miles seaward from the high-water mark. Shore anglers may catch fish, but skiboat anglers and spearfishers may respectively only catch or shoot pelagic bony fish.

ii. **B. St Lucia Sanctuary Area**

From beacon **N5** (27°43'.40 S., 032°37'.50 E) at Red Cliffs to beacon **N6** (27°55'.30 S., 032°35'.63 E) at Leven Point, extending three nautical miles seawards from the high-water mark. This area is a general marine protected area.

iii. **C. Maputaland Marine Protected Area**

From beacon **N7** (26°51'.30 S., 032°53'.28 E) at the Mocambique border to beacon **N3** (27°26'.75 S., 032°42'.13E) north of Ngoboseleni Stream, extending three nautical miles seawards from the high-water mark. Only skiboat anglers and spearfishers may respectively catch or shoot pelagic bony fish.

D. Maputaland Sanctuary Area

iv. From beacon **N8** (27°00'.46 S., 032°51'.55 E) at Boteler Point to beacon **N9** (27°06'.30 S., 032°50'.33 E) at Dog Point, extending three nautical miles seawards from the high-water mark. This area is a general marine protected area.

GENERAL REGULATIONS

i. No person may engage in recreational fishing or collect for recreational purposes and for own use of any marine living organisms without a permit.

ii. No person shall use any artificial breathing apparatus (except a snorkel) for recreational fishing.

iii. No person shall engage in the fishing, collection or disturbing of any fish by means of a gaff, spear, club, flail, stick, stone or similar instrument, but any person may, with the authority of a permit, catch (for own use) sole with a spear or similar implement in quantities not exceeding five per day.

iv. No person shall engage in fishing, except for octopus, cuttlefish or squid, by the jerking of a hook or jig in the sea (jigging), with the intention of impaling the fish thereon.

v. No person shall engage in the fishing, collection or disturbing of any fish with a speargun in a tidal river or tidal lagoon.

vi. No person shall use any cast net for fishing from sunset to sunrise.

vii. No person shall disturb, catch, kill or be in possession of any dolphin or any part or product derived thereof.

viii. No personal shall, except with the authority of a permit, disturb, catch or kill any whales at any time, or approach closer than 300 m to a whale.

ix. No person shall, except with the authority of a permit, attract by using bait or any other means, any great white shark, or catch, attempt to catch, kill or attempt to kill any great white shark, or purchase, sell or offer for sale any part or product derived thereof.

x. No person shall, except with the authority of a permit, damage, uproot, collect or land or attempt to damage, uproot, collect or land any live or dead coral.

xi. No person shall, except with the authority of a permit, engage in fishing, collecting or disturbing any live or empty pansy shell.

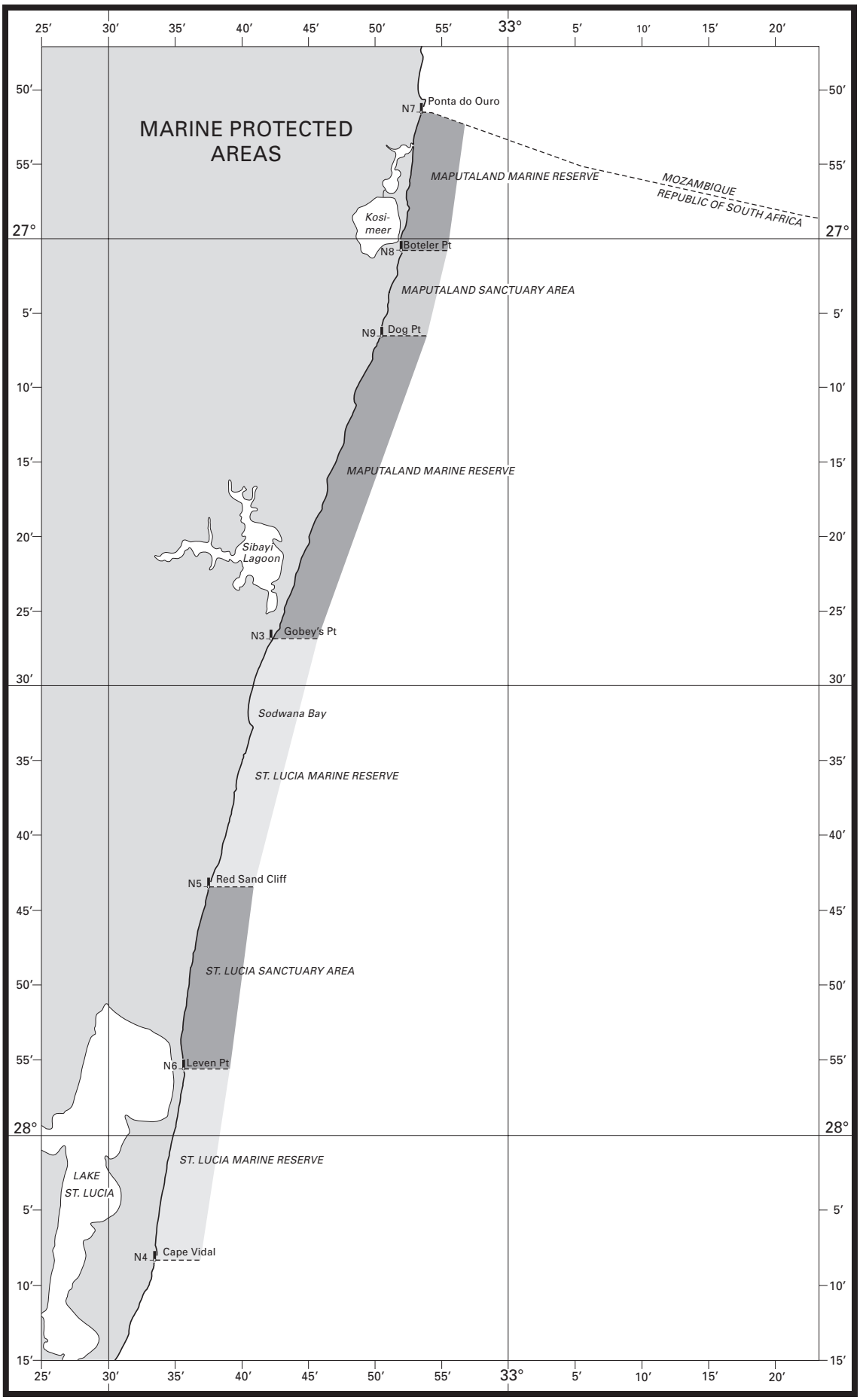
xii. No person shall, except with the authority of a permit, engage in fishing, collecting or removing any aquatic plants, shells or shellgrit from the sea or the seashore, except for own use and in quantities not exceeding 10 kg aquatic plants, 1 kg dead shells or 50 kg shellgrit per day.

xiii. No person shall, except with the authority of a permit, damage, pick, uproot, collect or land or attempt to damage, pick, uproot, collect or land any live or dead sea fans or sea pens.

xiv. No person shall, without a permit issued by the Director-General, culture any marine organisms.

xv. No person shall, except with the authority of a permit, catch any fish or collect any aquatic plans for commercial purposes.

Diagram 1. KwaZulu Natal Marine Reserve



HO-16

Ship's Name :

Consec No :

Date and Year :

HYDROGRAPHIC NOTE

(for instructions, see overleaf)

General Locality :

Subject :

Approx Position : Latitude : Longitude :

South African Chart affected :

Publications affected :

(quote Volume, Supplement and Page)

Full details :

A replacement copy of Chart No ..... is required.

Navigating Officer or Observer :

Captain or Master :

Ship (or address) :

If Merchant Vessel add Line or Company :
with Head Office address

Note : An acknowledgement of 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 in a foreign Notice to Mariners.

HYDROGRAPHIC NOTE

FORWARDING INFORMATION FOR SOUTH AFRICAN CHART AND HYDROGRAPHIC PUBLICATIONS

Instructions :

1. Mariners are requested to notify the Hydrographer of the South African Navy, Private Bag X1, Tokai, 7966, or by Fax 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 seem to be necessary.

2. Copies of this Form may be obtained gratis from the Hydrographer, Private Bag X1, Tokai, 7966 or the Chart Agents listed in Annual Summary of South African Notices to Mariners.

3. When a position is defined by sextant angles or bearing (true or magnetic north being specified) more than two should be used in order to provide a check. Any distances observed by radar should be quoted. When however there is a series of fixes along a ship's course, only the method of fixing and the objects used need to be indicated.

4. For positions obtained using GPS equipment the type of receiver and reference spheroid used must be included under Full Details.

5. A tracing from the largest scale chart or a cutting from it may be the best medium for forwarding details, and the alterations and additions should be shown thereon in red. A new copy of the chart will be sent if requested.

6. When soundings are forwarded the method used should be stated. If it is echo sounding, details should be forwarded as in Annual Notice to Mariners No 4. It is important to state whether echo depths are referred to the surface of the sea or to a transmitter at a specified depth below it. Time and date will be necessary to correct sounding for tidal height; and if any correction has already been made details must be given.

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, navigation aids out of order, should be made by radio to the nearest coast radio station and addressed to HYDROSAN, CAPE TOWN. These reports should then be followed by documentary evidence on this form accompanied by the relevant echo sounder traces.

Former Notice No 22/2001.

MARINE INFORMATION

METEOROLOGICAL AND OCEANOGRAPHIC DATA BUOYS

The Data Buoy Cooperation Panel working under the auspices of the World Meteorological Organization and the Intergovernmental Oceanographic Commission maintains arrays of instrumented drifting and moored buoys in the world oceans.These automated buoys make routine measurements and transmit their data in real time through satellites. Such measurements include wind speed and direction, air humidity, atmospheric pressure, currents, sea surface temperature, but also water temperature at various depths to 500 meters. All buoys transmit their positions along with the data.

Both drifting and moored buoys provide valuable information to many communities, including fisherman and mariners.

What are the buoys used for?

Weather forecasts. Meteorological models routinely assimilate observations from various sources (including satellites, weather balloons, land stations, ships and data buoys) around the planet to make their national forecasts. Buoy data are crucial because they are deployed in ocean areas where no other source of valuable data is available.

Marine forecast. For similar reasons, buoy data are essential for producing improved marine forecasts.

Assistance to fisheries. Sea surface temperature is an important tool to find many different species of fish. The buoys provide further information to weather centers, which produce charts of sea surface temperature and distribute them to fisherman. Knowing where to look for fish saves both fuel and time. Using data buoys and other instruments such as subsurface floats, oceanographic models now permit the prediction of the impact of EL NINO events and other signals on the ocean environment, these predictions can help fisherman to plan their operation in advance.

Safety at sea. Several nations have successfully used wind and ocean current information from the buoys to help locate missing or overdue boats.

Climate predictions, meteorological and oceanographic research. Researches use the data from the buoys to learn how to predict future changes in the worlds climate. For example, buoys were deployed to learn how to predict the EL NINO / Southern Oscillation phenomenon which causes disruptions in the ocean surface winds and the upper ocean temperature pattern and leads to seasonal climate variations and changes in fish migration patterns in many areas of the world oceans.

Advice to fisherman and mariners

DO NOT pick up drifting buoys. Buoy operators do not refurbish the drifting buoys once deployed. They would continue to transmit their position along with erroneous meteorological and oceanographic data from the deck of the ship.

DO keep watch for the moored buoys at sea, they should be visible on radar and can be avoided. During fishing operations keep a safe distance from the buoys in order to avoid entanglement of your net with the buoys.

DO NOT moor to, damage, or destroy any part of the buoys.

DO educate your fellow community about the use of data buoys.