



# INDIAN NOTICES TO MARINERS FOR 2005

(PUBLISHED FORTNIGHTLY ON 1<sup>ST</sup> & 16<sup>TH</sup> OF EVERY MONTH)

EDITION No. 05 DATED 01 MAR 2005

(CONTAIN NOTICES 107 TO 135)

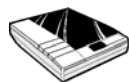
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**Mariner's Obligation and A Chart maker's Plea:** Observing Changes at sea proactively and reporting them promptly to the concerned charting agency, is an obligation that all mariners owe to the entire maritime community towards SOLAS. Mariners are, therefore, requested to notify the Chief Hydrographer to the Govt. of India at the following address/fax No, immediately on discovering new or suspected dangers to navigation, on observing changes/defects to navigational aids, and of short comings in Indian charts or publication. The Hydrographic Note [Form IH – 102] is a convenient form on which to notify such changes. Specimen form is attached at Section X with this notice.

**Chief Hydrographer  
to the Government of India**

**National Hydrographic Office  
Post Box No. 75  
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For the Indian Ocean Area  
**INSIST OF INDIAN CHARTS AND  
PUBLICATIONS**  
(Original, Authentic and Most Up-to-date)

## EXPLANATORY NOTES

**Corrections to Charts and Publications** The Notices in section I provide information on new Indian Charts and Publications where as section II and III contains information for correcting the charts and publications. Mariners should insist on corrected charts from their chart distributors/agents.

- (a) Geographical positions given are in the horizontal datum of the current edition of the chart, unless otherwise stated.
- (b) Bearings are True, reckoned clockwise from 000° to 359°. Bearing to lights are from seaward.
- (c) Symbols referred to are those shown on the chart INT 1 (5020).
- (d) Alterations to depth contours, deletion of depths to make way for new detail, etc; are not normally mentioned, unless they have some navigational significance.
- (e) Blocks and notes, if any, accompanying the Notices in Sections II and III are placed after Section X.

**Temporary and Preliminary Notices** These are indicated by (T) and (P) after the Notice number, and are placed in Section III. A SI Nos. of those in force published quarterly on 1<sup>st</sup> Jan, 01 Apr, 01 Jul and 01 Oct, and their text are published in Annual Edition of Indian Notices to Mariners. These corrections are not inserted on the charts before they are issued to the users. They should be inserted in pencil, by the user, on receipt.

**Source of Information** A star adjacent to the number of a Notice indicates that the notice is based on original source of information.

**Sailing Directions** Corrections for the Sailing Directions are given in Section VI. A summary of corrections in force will be issued in Section VI of the Edition dated 1st January, 1st April, 1st July and 1st October.

**Lights** Corrections to Light List is given in Section VII, where affected Light List number is quoted.

- (a) these corrections should be incorporated as per instructions given on page 11 of the list of Lights.
- (b) Such correction notices to light of list may be published in either an earlier or a later Edition of N to M than the Edition containing the Notice to the chart correction.
- (c) the range of a light given is its nominal range. Its geographical range is given in parenthesis only, if it is less than the nominal range.

**Radio Signals** The corrections in Section VIII should be cut and pasted in the appropriate volumes of the List of Radio Signals.

**Radio Navigational Warnings** (a) These are broadcast as serially numbered NAVAREA warnings by the concerned NAVAREA coordinator through GMDSS and Area Radio Broadcasts.

- (b) They contain important information affecting navigational safety, which cannot await the publication of the next edition of N to M.
- (c) It should be borne in mind that they may be based on reports which can not always be verified before promulgation.
- (d) It is therefore necessary to be selective, and promulgate only the more important warnings to avoid over loading users; the less important information should be included in the forthcoming edition of N to M or the Chart/publication concerned.

**Laws and Regulations** While in the interest of the safety of shipping, the Hydrographic Office makes every endeavour to include in its publications details of the laws and regulations of all countries pertaining to navigation, it must be clearly understood: -

- (a) that no liability whatsoever can be accepted for failure to publish details of any particular law or regulation, and
- (b) that publication of details of a law or regulation is solely for the safety and convenience of shipping and implies no recognition of the International validity of the law or regulation.

**Correction of Charts and Publications by the users** Notices to Mariners contain important information concerning safety of navigation at sea, hence, they should be used to keep the specified Charts and publications up to date.

**Reliance on Charts and Associated Publications** While every effort is made by the Hydrographic Office to ensure the accuracy of the information on Charts and Publications before they are published, it should be appreciated that it may not always be complete and up-to-date. The mariner must be the final judge for the reliance he can place on the information available, bearing in mind his particular circumstances, local pilotage guidance and judicious use of available navigational aids.

**Use of Global Positioning System (WGS 84) positions**

(a) The positions of Hydrographic objects shown on Indian charts and publications are in Everest datum. However, the positions of vessels obtained from Global Positioning System (GPS) are on World Geodetic System 1984 datum. There will always exist a difference in the position values obtained by visual fixing (Everest Datum) and GPS position (WGS 84 datum).

(b) Where ever these differences have been ascertained, their average values are published as a cautionary Note on the chart concerned, as shifts in Latitude and Longitude values whilst plotting GPS positions on charts, the shift values as given on the chart must be applied, before making any assessment of the navigational situation vis-à-vis the other charted information.

(c) These datum shift values are not uniform, particularly in areas off Andaman & Nicobar and Lakshadweep Islands, as these places are not linked to mainland network ( Everest datum). Mariners are advised to use alternate source of position information such as Visual or Radar, particularly when closing the shore or navigating in the vicinity of danger.

**Source Data on Charts** All Indian charts contain specific information on their source of hydrographic data. In areas where the source data is very old, incomplete and less reliable, the mariner must use such Charts with prudence. Mariner should always use the largest scale charts available for the area. Apart from being the most detailed, the larger scale charts are usually corrected first.

Hydrographic information may be sparse on small scale charts. On such charts, a charted shoal may be in error as regards position, least depth and extent. Uncharted dangers may also exist, particularly in areas away from well-established routes. Mariners must exercise due caution.

**Further Guidance** The Mariner's Hand Book (NP 100) gives full explanation on the use of charts and the type of information contained on charts. In their own interest, all users of charts should refer to it.

## SECTION – I

**List of charts affected by**  
**the Notices 107 to 135 contained in this Edition**

<b>INDIAN H.O. Chart No.</b>	<b>Folio No.</b>	<b>Notice No.</b>	<b>ADMIRALTY Chart No.</b>	<b>Folio No.</b>	<b>Notice No.</b>
20	1	113, 114, 116	262 (INT 7118)	32	109
23	4	134(T)	1235 (INT 7289)	40	111
31	5	122	1265 (INT 7291)	40	111
32 (INT 754)	5	134(T)	1353	45	123
33	5	134(T)	2403	45	126,127
203	2	118	2523	40	112,113,114
209	2	107, 129(P)	2851	40	117
223	4	132(T)	2886	40	113
245	1	117	2887	40	114,128(P)
263	4	132(T)	2888	40	128(P)
264	4	134(T)	2889	40	115,128(P)
268 (INT 7353)	4	107	3175	40	128(P)
288	1	113	3176	40	128(P)
289	1	113,114,115,116,117	3179	40	115
308	5	121, 133(T)	3411	40	128(P)
313	5	120	3412	40	128(P)
354 (INT 7408)	5	121, 133(T)	3660	32	110
356	5	120	3789	40	112
357 (INT 7397)	5	120	3831	45	125
359	4	134(T)	3833	45	125
361	7	122	3950	40	112
2015 (INT 7337)	3	130(T)	4033	45	124
2016 (INT 7336)	3	130(T)	4038	46	124
2019	2	107,108,129(P)	4040	46	124
2022 (INT 7345)	3	131(T)	4041	46	125
2068	2	118,129(P)			
2078 (INT 7346)	3	119,131(T)			
2101	2	129(P)			
3001 (INT 7402)	5	120,133(T)			
3002 (INT 7410)	5	121			
3012 (INT 7411)	5	121,133(T)			
3021	7	122			
4010	6	135(T)			
8004	1	116,128(P)			

**SECTION – II: PERMANENT NOTICES.****INDIAN HYDROGRAPHIC CHARTS AND PUBLICATIONS****\*107 (05/05)**Source: NHO, Dehradun.  
(HJ/NM/Pub)**(a) NEW INDIAN CHARTS**

<i>Chart No.</i>	<i>Date of Publication</i>	<i>Title, Limits &amp; Description</i>	<i>Scale</i>	<i>Folio</i>	<i>Price</i>
268 (INT 7353)	15.09.04	INDIAN OCEAN <b>CENTRAL LAKSHADWEEP</b> <u>Limits:</u> 9° 57'.00N; 71° 48'.00E. 11° 44'.00N; 74° 34'.00E.	1: 300 000	4	Rs. 1360.00
2019	15.09.04	INDIA – WEST COAST <b>APPROACHES TO MAGDALLA</b> <u>Limits:</u> 20° 55'.75N; 72° 30'.40E. 21° 05'.82N; 72° 48'.51E.	1: 50 000	2	Rs. 1360.00
		<b>MAGDALLA PORT</b> <u>Limits:</u> 21° 01'.35N; 72° 36'.69E. 21° 09'.70N; 72° 45'.80E.	1: 25 000		

**(b): INDIAN CHARTS PERMANENTLY WITHDRAWN**

<b>Chart to be withdrawn</b>	<b>Main Title</b>	<b>On Publication of New Chart</b>
268 (INT 7353)	CENTRAL LAKSHADWEEP	268 (INT 7353)
2019	MAGDALLA PORT	2019
	APPROACHES TO MAGDALLA	

## (c): CHARTS AFFECTED BY THE FOREGOING

<u>Chart No.</u>	<u>Last Correction</u>	<u>Details</u>
209	(190/03)	Delete existing magenta limit and chart number 2019 as follows: Limits: North 21° 05'. 82N East 72° 48' .60E. South 20° 55'. 75N; West 72° 30' .40E.

Insert new magenta limit and chart number 2019 as follows:

Limits:  
North 21° 05'. 82N East 72° 48' .51E.  
South 20° 55'. 75N; West 72° 30' .40E.

\*108 (05/05) MISCELLANEOUS UPDATES TO CHARTS

<u>Chart No.</u>	<u>Last correction</u>	<u>Details</u>
2019	(107/05)	Read Eastern limit longitude 72° 45'.85E. as 72° 45'.80E. in MAGDALLA PORT (PLAN)

(NHO Dehradun: HJ/NM/Pub)

109 (05/05) **DJIBOUTI – Approaches to the Port of Djibouti – Recif d' Ambouli Westwards – Wreck.**

Source: B.A. notice 733/05

(HJ/1033/16)

**B.A. chart 262 (INT 7115) (plan A, Port of Djibouti) [previous update 36/05]**

Insert  (a) 11° 36'.77N., 43° 06'.31E.

Delete , close SE of: (a) above

**B.A. chart 262 (INT 7115) [previous update 36/05]**

Insert  (a) 11° 36'.77N., 43° 06'.31E.

Delete N, close SE of: (a) above

110 (05/05) **YEMEN – Aden Inner Harbour – Ma'allah Wharf North-westwards - Legend. Works. Dredged area.**

Source: B.A. notice 761/05

(HJ/1033/24)

**B.A. chart 3660 [previous update 195/99]**

Insert legend, Works in progress (2005), centred on: 12° 47'.930N., 45° 00'.170E.

Delete legend, Dredged to 7.6m (1989), centred on: 12° 47'.920N., 45° 00'.220E.

limit of dredged area, pecked line, joining: 12° 47'.862N., 45° 00'.229E. (shore)

12° 47'.875N., 45° 00'.198E.

12° 47'.982N., 45° 00'.170E. (η)

**111 (05/05) ARABIA – Approaches to the Shatt al 'Arab – Khawr al Amaya – Khawr al Amaya Terminal South-eastwards and North-north-westwards – Depths.**

Source: B.A. notice 731/05

(HJ/1133/21)

**B.A. chart 1235 (INT 7289)** [previous update 37/05]

Insert	depth 9 <sub>7</sub>		29° 45'.52N., 48° 50'.07E.
	10m contour, joining:	(a)	29° 46'.00N., 48° 49'.75E. (existing contour)
			29° 45'.60N., 48° 50'.30E.
			29° 45'.38N., 48° 50'.10E.
		(b)	29° 45'.75N., 48° 49'.75E. (existing contour)
Delete	former 10m contour, joining:	(a)	above
		(b)	above

**B.A. chart 1265 (INT 7291)** [previous update 37/05]

Insert	depth 9 <sub>7</sub>	(a)	29° 45'.52N., 48° 50'.07E.
	depth 16	(b)	29° 47'.70N., 48° 48'.15E.
	10m contour, joining:	(c)	29° 46'.00N., 48° 49'.75E. (existing contour)
			29° 45'.60N., 48° 50'.30E.
			29° 45'.38N., 48° 50'.10E.
		(d)	29° 45'.75N., 48° 49'.75E. (existing contour)
Delete	depth 10 <sub>4</sub> , close SW of:	(a)	above
	depth 18 <sub>5</sub> , close SW of:	(b)	above
	former 10m contour, joining:	(c)	above
		(d)	above

**112 (05/05) QATAR – Ra's Laffan – Harbour limit. Legend.**

Source: B.A. notice 802/05

(HJ/1133/58)

**B.A. chart 2523** [previous update 39/05]

Insert	harbour limit, pecked line, joining:		25° 56'.54N., 51° 31'.55E. (shore)
		(a)	25° 58'.00N., 51° 33'.50E.
		(b)	25° 56'.00N., 51° 43'.00E.
			25° 54'.00N., 51° 43'.00E.
			25° 50'.60N., 51° 35'.23E. (shore)
	legend, Ra's Laffan Port Limit, along:	(a)-(b)	above

112 (05/05) QATAR – Ra’s Laffan – Harbour limit. Legend (continued).

**B.A. chart 3789** [previous update 71/05]

Delete	harbour limit, pecked line, and associated legend, <i>Ra’s Laffan Port Limit</i> , joining:	25° 54'.280N., 51° 35'.950E. (S border) 25° 54'.957N., 51° 37'.900E. (E border) and 25° 56'.400N., 51° 37'.192E. (N border) 25° 56'.120N., 51° 37'.900E. (E border) and 25° 55'.307N., 51° 34'.000E. (W border) 25° 56'.370N., 51° 35'.314E. (scale)
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**B.A. chart 3950** [previous update 40/05]

Insert	harbour limit, pecked line, joining:	25° 56'.44N., 51° 31'.45E. (shore)
		(a) 25° 57'.90N., 51° 33'.40E.
		(b) 25° 55'.90N., 51° 42'.90E.
		25° 53'.90N., 51° 42'.90E.
		25° 50'.50N., 51° 35'.13E. (shore)
	legend, <i>Ra’s Laffan Port Limit</i> , along:	(a)-(b) above
Delete	former harbour limit, pecked line, and associated legend, <i>Ra’s Laffan Port Limit</i> , joining:	25° 55'.20N., 51° 33'.95E. (shore) 25° 53'.80N., 51° 34'.60E. (shore)

113 (05/05) QATAR – Ra’s Laffan North-eastwards – Shah Allum South-westwards – Platform. Well.

Light List Vol. D, 9178

Source: B.A. notice 804/05

(HJ/1132/67)

**Chart 20** [previous update 40/05]

Insert	 (lighted)	26° 12'.9N., 52° 08'.3E.
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**Chart 288** [previous update 56/05]

Substitute	 (lighted) for  Well	26° 12'.9N., 52° 08'.3E.
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**Chart 289** [previous update 40/05]

Substitute	 (lighted) for  Well	26° 12'.9N., 52° 08'.3E.
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**113 (05/05) QATAR – Ra’s Laffan North-eastwards – Shah Allum South-westwards – Platform. Well (continued).**

**B.A. chart 2523** [previous update 112/05]

Substitute  (lighted) DOL-2 for  Well 26° 12'.93N., 52° 08'.25E.

**B.A. chart 2886** [previous update 40/05]

Substitute  (lighted) DOL-2 for  Well 26° 12'.9N., 52° 08'.3E.

**114 (05/05) IRAN – Shah Allum Shoal – Buoy.**

Source: B.A. notice 805/05  
(HJ/1132/67)


**Chart 20** [previous update 113/05]

Insert  Fl(2) 26° 25'.00N., 52° 31'.00E.

**Chart 289** [previous update 113/05]

Insert  Fl(2) 26° 25'.00N., 52° 31'.00E.

**B.A. chart 2523** [previous update 113/05]

Insert  Fl(2)6s 26° 25'.00N., 52° 31'.00E.

**B.A. chart 2886** [previous update 113/05]

Insert  Fl(2)6s 26° 25'.00N., 52° 31'.00E.

**B.A. chart 2887** [previous update 58/05]

Insert  Fl(2)6s 26° 24'.90N., 52° 30'.95E.


**115 (05/05) UNITED ARAB EMIRATES – Creagh Shoal North-westwards – Wreck.**

Source: B.A. notice 806/05  
(HJ/1132/47)

**Chart 289** [previous update 114/05]

Insert  24° 47'.2N., 52° 53'.2E.

**B.A. chart 2889** [previous update 58/05]

Insert  PA 24° 47'.2N., 52° 53'.2E.

**B.A. chart 3179** [previous update 40/05]

Insert  PA 24° 47'.2N., 52° 53'.2E.

**116 (05/05) UNITED ARAB EMIRATES – Approaches to Dubayy – Approaches to Mina’ Jabal ’Ali – Restricted area. Reclamation area. Legends. Buoy.**

ALRS Vol. 2, 7696

Source: B.A. notice 801/05

(HJ/1132/54)

**Chart 20** [previous update 114/05]

Insert



*RW LFl*, and radar beacon, *Racon (T)*

25° 18'.50N., 55° 10'.00E.

Delete



*RW LFl*

25° 21'.11N., 55° 14'.07E.

**Chart 289** [previous update 115/05]

Move



*RW LFl*, and associated radar beacon, *Racon (T)*

(3 & 10cm), from:

25° 21'.11N., 55° 14'.07E.

to:

25° 18'.50N., 55° 10'.00E.

**Chart 8004** [previous update 33/05]

Move



*RW LFl*, and associated radar beacon, *Racon (T)*, from:

25° 21'.11N., 55° 14'.07E.

to:

25° 18'.50N., 55° 10'.00E.

**117 (05/05) OMAN – Al Batinah – Saham – Light.**

Light List Vol. D, 7325.8

Source: B.A. notice 803/05

(HJ/1132/43)

**Chart 245** [previous update 326/04]

Insert



Fl(3)12s10M

24° 09'.22N., 56° 54'.56E.

**Chart 289** [previous update 116/05]

Insert



Fl(3)12s10M

24° 09'.22N., 56° 54'.56E.

**B.A. chart 2851** [previous update 59/05]

Insert



Fl(3)12s10M

24° 09'.22N., 56° 54'.56E.

**\*118 (05/05) INDIA – West Coast – Gulf of Kachchh – Deep Water Route – Buoy.**

Source: Hydrographic Note, INS Sarvekshak

(HJ/1131/20)

**Chart 203** [previous update 74/05]

Move



*R* Q.R. Sonar, from:

22° 41'.60N., 69° 35'.0E.

to:

22° 44'.77N., 69° 32'.35E.

**Chart 2068** [previous update 493/04]

Move



*R* Q.R. Sonar, from:

22° 41'.60N., 69° 35'.0E.


to:

22° 44'.77N., 69° 32'.35E.

**\*119 (05/05) INDIA – West Coast – Port of Mormugao – Depth. Dredging limit**

Source: Mormugao Port Trust.

*(HJ/1030/56)***Chart 2078** [*previous update 76/05*]

Insert	limit of dredged area, pecked line, joining:	<p>(a) 15° 24'.883N., 73° 47'.725E.</p> <p>(b) 15° 25'.040N., 73° 47'.890E. </p> <p>and</p> <p>15° 24'.830N., 73° 47'.800E.</p> <p>(c) 15° 24'.940N., 73° 47'.910E. (existing limit)</p> <p>and</p> <p>(d) 15° 24'.733N., 73° 47'.925E. 15° 24'.715N., 73° 48'.073E. 15° 24'.540N., 73° 48'.170E.</p> <p>and</p> <p>15° 24'.390N., 73° 48'.362E. 15° 24'.470N., 73° 48'.420E.</p> <p>(e) 15° 24'.890N., 73° 48'.218E.</p> <p>and</p> <p>(d) above</p> <p>(f) 15° 24'.72N., 73° 47'.95E.</p>
	legend, <i>maintained depth 13.1m</i> , centred on:	<p>15° 24'.67N., 73° 48'.05E.</p> <p>15° 24'.92N., 73° 47'.82E.</p>
Amend	10m contour, to join:	<p>15° 25'.02N., 73° 47'.86E. (a) above</p>
Delete	pecked line, joining:	<p>(c)-(f)above</p> <p>and</p> <p>(e) above</p> <p>15° 24'.55N., 73° 48'.50E.</p> <p>and</p> <p>15° 24'.41N., 73° 48'.34E.</p> <p>15° 24'.58N., 73° 48'.47E.</p>
	all hydrographic details, within:	<p>(a),(b),(f) above</p>

**\*120 (05/05) INDIA – East Coast – Approaches to Chennai (Madras) – Racon.**

Source: DLL, Chennai

(HJ/1029/39)

**Chart 313** [previous update 61/05]

Insert Racon (K), at light 13° 02'.34N., 80° 16'.85E.

**Chart 356** [previous update 377/04]

Insert Racon (K), at light 13° 02'.34N., 80° 16'.85E.

**Chart 357 (INT 7397)** [previous update 78/05]

Insert Racon (K), at light 13° 02'.34N., 80° 16'.85E.


**Chart 3001 (INT 7402)** [previous update 61/05]

Insert Racon (K), at light 13° 02'.34N., 80° 16'.85E.

**\*121 (05/05) INDIA – East Coast – Vishakhapatnam Harbour – Wreck.**

Source: Vishakhapatnam Port Trust

(HJ/1029/76)

**Chart 308** [previous update 467/04]0Insert  PA 17° 41'.70N., 83° 18'.53E.**Chart 354 (INT 7408)** [previous update 403/03]Insert  PA 17° 41'.70N., 83° 18'.53E.**Chart 3002 (INT 7410)** [previous update 467/04]Insert  PA 17° 41'.70N., 83° 18'.53E.**Chart 3012 (INT 7411)** [previous update 499/04]Insert  PA 17° 41'.70N., 83° 18'.53E.**122 (05/05) BANGLADESH – Chittagong Southwards – Kutubdia Island – Light.**

Light List Vol. F, 1054

Source: B.A. notice 900/05

(HJ/1128/18)

**Chart 31** [previous update 402/04]

Amend light to, Fl(3)10s20M 21° 51'.8N., 91° 50'.7E.

**Chart 361** [previous update 402/04]

Amend light to, Fl(3)10s39m20M 21° 51'.8N., 91° 50'.7E.

**Chart 3021** [previous update 402/04]

Amend light to, Fl(3)10s39m20M 21° 51'.84N., 91° 50'.71E.

**123 (05/05) INDONESIA – Sumatera – East Coast – T. Sibungabunga – Gosong-Gosong Bunga – Depth.**

Source: B.A. notice 777/05

(HJ/928/30)

**B.A. chart 1353** [previous update 501/04]

Insert depth 2 3° 43'.15N., 99° 04'.50E.

**124 (05/05) SINGAPORE – West Jurong Channel – Tuas Bay – Depths.**

Source: B.A. notice 712/05

(HJ/927/16)

**B.A. chart 4033** [previous update 213/04]Insert depth 5<sub>4</sub> (a) 1° 18'.193N., 103° 38'.822E.Delete depth 4<sub>9</sub> enclosed by 5m contour, close N of: (a) above**B.A. chart 4038** [previous update 332/04]

Delete circular 5m contour, centred on: 1° 18'.20N., 103° 38'.82E.

**B.A. chart 4040** [previous update 81/05]

Delete circular 5m contour, centred on: 1° 18'.20N., 103° 38'.82E.

**125 (05/05) SINGAPORE STRAIT – Singapore – Bedok Lighthouse South-eastwards – Buoy.**

Source: B.A. notice 713/05

(HJ/927/16)

**B.A. chart 3831** [previous update 99/05]Insert  Fl(2)10s, close S of: 1° 16'.98N., 103° 57'.84E. (9 Wk)**B.A. chart 3833** [previous update 98/05]Insert  Fl(2)10s, close S of: 1° 16'.98N., 103° 57'.84E. (9 Wk)**B.A. chart 4041** [previous update 82/05]Insert  Fl(2)10s, close S of: 1° 16'.98N., 103° 57'.84E. (9 Wk)**126 (05/05) INDONESIA – Sumatera – Selat Riau – Less water.**

Source: B.A. notice 775/05

(HJ/927/05)

**B.A. chart 2403** [previous update 99/05]Insert legend, *Less water rep* (2001), between: 0° 56'.50N., 104° 13'.50E.

0° 53'.00N., 104° 16'.50E.

Delete legend, *Less water rep* (2001), between: 1° 56'.50N., 104° 13'.50E.

1° 53'.00N., 104° 16'.50E.

**127 (05/05) SINGAPORE STRAIT – Indonesia – Selat Riau – Tanjungpinang Westwards – Wreck.**

Source: B.A. notice 774/05

(HJ/927/05)

**B.A. chart 2403** [previous update 126/05]Delete  PA 0° 54'.7N., 104° 22'.5E.

**SECTION – III: TEMPORARY AND PRELIMINARY NOTICES**

**128 (P) (05/05) UNITED ARAB EMIRATES – Approaches to Dubayy – Approaches to Mina’ Jabal ’Ali – Reclamation areas. Buoyage. Works. Restricted areas. Anchorage areas. Pilot boarding place. Submarine cables.**

Source: B.A. notice 800(P)/05  
(HJ/1132/44)

1. Work is in progress on five reclamation projects off the coast of Dubayy. To maintain safety and to assist craft working on these projects each is surrounded by an exclusive zone. Appropriate warning lights will be exhibited and all vessels are warned to keep well clear of these area.
2. Palm Island One, Palm Jumeirah (25° 07'.00N., 55° 08'.00E.)
  - a. An exclusion zone surrounding Palm Jumeirah is of 2.5M radius centred on position 25° 07'.86N., 55° 06'.97E. Mariners are to keep at least 3M seaward of this central position.
3. Palm Island Two, Palm Jebel Ali (25° 01'.50N., 54° 58'.30E.)
  - a. An exclusion zone has been established and is marked by cardinal and lateral light-buoys.
  - b. Mariners are to exercise special care in the vicinity of 25° 03'.30N., 55° 00'.60E. where barge and construction traffic cross the Jabal ’Ali Approach Channel.
  - c. The two submarine cables which leave the UAE coast in position 24° 59'.19N., 55° 01'.15E. have been relocated to avoid the ’Palm Jebel Ali’ development. The new routes for these cables join the following positions:
  - d. Fibre Optic Gulf (FOG) Cable.
    - 24° 59'.19N., 55° 01'.15E. (shore)
    - 24° 59'.30N., 55° 01'.09E.
    - 24° 59'.78N., 55° 01'.45E.
    - 25° 01'.21N., 55° 01'.91E.
    - 25° 02'.12N., 55° 01'.36E.
    - 25° 02'.60N., 55° 00'.36E.
    - 25° 02'.70N., 54° 59'.20E.
    - 25° 02'.37N., 54° 58'.12E.
    - 25° 01'.17N., 54° 56'.34E. (existing cable)
  - e. Abu Dhabi – Dubai Diversity Cable.
    - 24° 59'.19N., 55° 01'.15E. (shore)
    - 24° 59'.30N., 55° 01'.09E.
    - 24° 59'.79N., 55° 01'.43E.
    - 25° 01'.22N., 55° 01'.84E.
    - 25° 02'.02N., 55° 01'.28E.
    - 25° 02'.51N., 55° 00'.28E.
    - 25° 02'.59N., 54° 59'.18E.
    - 25° 02'.26N., 54° 58'.17E.
    - 25° 01'.14N., 54° 56'.51E.
    - 24° 59'.90N., 54° 55'.23E. (existing cable)
  - f. The replaced cables have been largely recovered and re-laid on the new routes above. Mariners are advised not to anchor or trawl in the vicinity of submarine cables.
4. The World Project (25° 13'.50N., 55° 10'.00E.).
  - a. An exclusion zone has been established and is marked by cardinal and lateral buoys. All vessel’s are required to pass at least 3M clear of this work, which is centred on position 25° 13'.50N., 55° 10'.00E.
5. Dubai Maritime City.
  - a. This project covers approximately 2,500,000 square metres and will be located on reclaimed land between Mina’ Rashid (25° 16'.7N., 55° 16'.7E.) and Dubayy Dry Dock (25° 15'.2N., 55° 15'.8E.).
  - b. An exclusion area has been established.
  - c. This exclusion zone does not apply to vessels entering or leaving Mina’ Rashid under port control.
  - d. Phase 1 involves the construction of a new breakwater 300m north-westwards of the seaward end of the Dubayy Dry Dock Main Breakwater.

**128 (P) (05/05) UNITED ARAB EMIRATES – Approaches to Dubayy – Approaches to Mina' Jabal 'Ali – Reclamation areas. Buoyage. Works. Restricted areas. Anchorage areas. Pilot boarding place. Submarine cables (continued).**

6. \* Palm Island Three, The Palm Deira.
- This project extending 15km from the shore, will be located between Mina' Rashid (25° 16'.7N., 55° 16'.7E.) and Mina Khalid (25° 21'.9N., 55° 22'.5E.).
  - An exclusion zone has been established joining the following positions:
    - 25° 16'.53N., 55° 17'.70E. (shore)
    - 25° 18'.50N., 55° 17'.20E.
    - 25° 18'.50N., 55° 13'.27E.
    - 25° 20'.48N., 55° 11'.05E.
    - 25° 23'.85N., 55° 11'.05E.
    - 25° 23'.85N., 55° 15'.50E.
    - 25° 22'.15N., 55° 17'.85E.
    - 25° 20'.35N., 55° 20'.55E.
  - The following light-buoys have been established to mark the exclusion zone:
 

'Charlie'	West Cardinal	25° 20'.50N., 55° 11'.05E.
'Delta'	North Cardinal	25° 23'.84N., 55° 11'.02E.
'Echo'	North Cardinal	25° 23'.81N., 55° 15'.41E.
'George'	East Cardinal	25° 20'.38N., 55° 20'.55E.
  - All coastal traffic must steer North of the 'delta' and 'Echo' light-buoys.
  - The North Cardinal Mark in position 25° 19'.20N., 55° 18'.20E. has been removed.
  - For a safe approach to Mina Hamriyah, all vessels should now steer to pass close North of the 'Echo' Cardinal Mark above, turning to 135° to pass close East of the 'George' Cardinal Mark. They should then steer 200° to the Starboard Hand Lateral Mark (25° 18'.30N., 55° 20'.55E.) and Mina Hamriyah Entrance.
  - Departing vessels should steer 020° for 2.5' to the 'George' cardinal mark. Then follow 315° for 6' to the 'Echo' cardinal mark, before setting a passage course, clear of the exclusion zone.
  - The Dubai Approach buoy (25° 21'.11N., 55° 14'.07E.) has been re-located to new position 25° 18'.50N., 55° 10'.00E.
  - The pilot boarding position for Dubayy will now be north-west of the re-located Dubai approach buoy, in the vicinity of 25° 19'.00N., 55° 09'.50E.
  - The Port Rashid/Dubayy Dry Docks long term (25° 18'.45N., 55° 11'.93E.) and short term (25° 21'.02N., 55° 17'.86E.) anchorages have been discontinued. The new recommended anchorage is to the North-west of the re-located Dubai Approach buoy (25° 18'.50N., 55° 10'.00E.) but well clear of the charted gas pipeline.
  - Inward and outward traffic for Khawr Dubayy must of necessity pass close to both the re-located Duabai Approach Buoy (25° 18'.50N., 55° 10'.00E.) and Khor Dubai Fairway buoy (25° 17'.55N., 55° 17'.30E.) on a heading of 098°/278°. This involves crossing the fairway of a major port. Vessels must take effective action to avoid obstructing the fairway and must also keep radio watch for "Dubai Port Control" on channels 16 & 18.
- \* Indicates new entry
- For the latest information about these projects, mariners are advised to contact the local port authority and refer to Navigational Warnings issued by the Control and Marine Guidance Office of the Ports, Customs and Free Zone Corporation.
  - Further information will be promulgated as it becomes available.
  - Former Notices 338 (P)/04 and 411(P)/03 are cancelled.

**Charts affected: 8004 – B.A. 2887 – 2888 – 2889 – 3175 – 3176 – 3411 - 3412.**

**\*129 (P) (05/05) INDIA – West Coast – Approaches to Hazira – Magdalla Port and approaches – Buoy. Light. Jetty. Mooring.**

Source: Hazira Port Pvt Ltd, Hydrographic Note INS Survekshak  
(HJ/1130/17)

1. Numerous changes have been reported to charted details within Magdalla port and approaches.
2. Surat (Magdalla and Hazira) port is bifurcated to two ports namely Magdalla (Surat) port and Hazira (Surat) port.
3. Following buoys/lights reported laid in position:
 

(a) Red Channel marker buoy	Fl R.5s	21° 05'.10N., 72° 36'.14E.
(b) Green Channel marker buoy	Fl G.5s	21° 04'.90N., 72° 36'.22E.
(c) Red Beacon (North Spur marker)	Fl R.4s	21° 05'.42N., 72° 36'.85E.
(d) Green Beacon (South Spur marker)	Fl G.4s	21° 05'.06N., 72° 37'.04E.
(e) Sectored light P1 (front)	Fl W.4s	21° 05'.48N., 72° 37'.50E.
(f) Sectored light P2 (rear)	Fl W.4s	21° 05'.53N., 72° 37'.67E.
4. LNG jetty centred on approximate position 21° 05'.60N., 72° 37'.10E; Essar Jetty centred on approximate position 21° 06'.40N., 72° 39'.60E. and Tug mooring centred on approximate position 21° 05'.68N., 72° 37'.30E. have been reported.

**Charts affected: 209 – 2019 – 2068 – 2101**

**\*130 (T) (05/05) INDIA – West Coast – Port of Mumbai – Submarine pipeline.**

Source: Mumbai Port Trust  
(HJ/1030/87)

1. Pipeline barge 'Hyundai 289' will be in the process of laying submarine pipe close to existing ONGC submarine pipelines from approximate position 18° 51'.65N., 072° 54'.58E. in south easterly direction towards port limit.
2. The said barge will be on her eight anchors when laying the pipeline and will be assisted by 2 tugs.
3. Mariners navigating in the vicinity to take caution and give wide berth.

**Charts affected: 2015 (INT 7337) – 2016 (INT 7336)**

**\*131 (T) (05/05) INDIA – West Coast – Mormugao Harbour – Wreck.**

Source: Nav VIII 102/05  
(HJ/1030/56)

1. Barge MV Kartik capsized and sank off berth 5A at approx position 15° 24'.88N., 073° 47'.83E. Extend of wreck marked by three white painted drum buoys and centre of wreck marked by Red can buoy.
2. Mariners are advised to exercise caution.

**Charts affected: 2022 (INT 7345) – 2078 (INT 7346)**

**\*132 (T) (05/05) INDIA – South Coast – Kolachel to Manappad – Seismic Survey.**

Source: RV Sagar Sandhani  
(HJ/930/71)

1. RV Sagar Sandhani is carrying out 3-D seismic survey from 01 Mar 05 to 31 Jul 05 in area bounded by:
 

(a) 07° 49'.5N., 78° 10'.0E.
(b) 07° 29'.0N., 78° 29'.0E.
(c) 07° 45'.9N., 78° 48'.0E.
(d) 08° 01'.4N., 78° 51'.1E.
(e) 08° 15'.0N., 78° 38'.5E.
2. Vessel towing two seismic cables of length 6,500 metres each with green and yellow buoys with flashing light to mark the tail end of the cable.
3. All vessels in the area are requested to keep clear and give a wide berth of atleast 05 NM all around clearance.
4. Mariners to exercise caution.

**Charts affected: 223 – 263.**



**\*133 (T) (05/05) INDIA – East Coast – Visakhapatnam Harbour – Wreck.**

Source: Visakhapatnam Port Trust

(HJ/1029/76)

1. A fishing trawler reported capsized and adrift in approximate position 17° 38'.25N., 83° 23'.9E.
2. Mariners are to exercise caution.

**Charts affected: 308 – 354 (INT 7408) – 3002 (INT 7410) – 3012 (INT 7411).****134 (T) (05/05) SRILANKA – South Coast – Great Basses Reef and Little Basses Reef – Lights.**

Source: B.A. notice 746(T)/05

(HJ/929/68)

1. The lights at Great Basses Reef (6° 10'.9N., 81° 28'.8E.) and Little Basses Reef (6° 24'.4N., 81° 43'.8E.) have been extinguished until further notice.

**Charts affected: 23 – 32 (INT 754) – 33 – 264 – 359.****\*135 (T) (05/05) ANDAMAN SEA – INDIA – Little Andaman Islands – Hut Bay – Coast line. Jetty. Light.**

Source: INS Sandhayak

(HJ/1028/07)

1. It is reported that the coastline in the area had undergone drastic changes. The Hut Bay breakwater has been breached at several places. The entire approach road and breakwater light at position 10° 35'.81N., 92° 33'.83E. has been destroyed. The passenger jetty is not safe to approach as the wreck of the fallen crane is a hazard to navigation.
2. Mariners are to exercise caution while navigating through this area.

**Charts affected: 4010**

## SECTION – IV: MARINE INFORMATION

### Ship Reporting System (INDSAR)

A ship reporting system INDSAR has been activated w.e.f 01 Feb 2003 in the Indian Search and Rescue Region (ISRR), for timely position reporting which is critical for quick response and ensuring safety of life at sea. Mariners in the ISR Region are requested to pass relevant rescue information to the Maritime Rescue Coordinating Centre (MRCC) Mumbai on INMARSAT Code 43, or using any of the following Contact details:-

#### MRCC Mumbai contact details

Tel : 022-24376133  
 Fax : 022-24333727  
 INMARSAT : 00583 441 907 210  
 E-mail : indsar@vsnl.net

### Tsunami Notices

#### **52 (T) (01/05) INDIAN OCEAN, BAY OF BENGAL – Changes in bathymetry and Coastline.**

Source: NHO, Dehradun

(HJ/NM/Gen)

1. Major changes likely to have occurred in topography of coastline and bathymetry in Andaman & Nicobar islands, coasts of Andhra Pradesh, Tamilnadu, Kerala, Maldives and Srilanka as a consequence of recent earthquakes followed by Tsunami waves in South Asia. Number of uncharted wrecks/obstructions may also be encountered. Mariners are advised to exercise utmost caution and contact local authorities while approaching these areas.

**Charts affected: All Indian charts of Andaman & Nicobar Islands, coast of Andhra Pradesh, Tamilnadu, Kerala, Maldives and Srilanka**

#### **\*88 (T) (03/05) INDIA – Nicobar Islands – Katchall Island – Approaches to East Bay – Beacon.**

Source: PMB A & N Islands

(HJ/928/76)

1. It is informed that all the three sets of beacons/buoys in East Bay including the jetty and approach has been totally damaged and sunk.
2. Mariners are advised to exercise caution and contact local port authorities for the latest information.
3. Former INM 339 (P)/04 is cancelled.

**Charts affected: 4011 - 4017**

#### **\*105 (T) (03/05) INDIA – Andaman Sea – Nicobar islands – Approaches to East Bay – Jetty..**

Source: Hydrographic Note, INS Sandhayak

(HJ/928/76)

1. It is reported that East Bay Jetty at approx position 07° 58'.68N., 93° 23'.73E. is destroyed due to Tsunami disaster.

**Charts affected: 4011**

**\*106 (T) (03/05) INDIA – Andaman Sea – Andaman and Nicobar islands – Beacon. Buoy.**

Source: Port Management Board, Andaman and Nicobar & Hydrographic Note, INS Sandhayak  
(HJ/928/86)

1. Following buoys/beacons were reported totally damaged and sunk post Tsunami disaster:

Nancowry Island

- |                               |                            |
|-------------------------------|----------------------------|
| (a) Stbd hand mark No. 1      | 08° 01'.96N., 93° 32'.85E. |
| (b) Port hand mark No. 2      | 08° 01'.80N., 93° 32'.86E. |
| (c) Port hand mark No. 4      | 08° 01'.82N., 93° 32'.30E. |
| (d) North east lighted beacon | 08° 01'.60N., 93° 33'.80E. |
| (e) Reid Point beacon         | 08° 01'.48N., 93° 33'.35E. |
| (f) Mayo Point beacon         | 08° 01'.60N., 93° 32'.53E. |

Mayabundar Island

- |                       |                            |
|-----------------------|----------------------------|
| (g) Takla west beacon | 12° 55'.53N., 92° 53'.46E. |
|-----------------------|----------------------------|

Port Blair

- |                        |                            |
|------------------------|----------------------------|
| (h) Bamboo flat beacon | 11° 41'.33N., 92° 43'.20E. |
| (i) Range flat beacon  | 11° 41'.21N., 92° 43'.06E. |

2. Mariners to exercise caution while navigating through this area.

**Charts affected: 4005 – 4006 – 4008 – 4012 – 4016**

**134 (T) (05/05) SRILANKA – South Coast – Great Basses Reef and Little Basses Reef – Lights.**

Source: B.A. notice 746(T)/05

(HJ/929/68)

1. The lights at Great Basses Reef (6° 10'.9N., 81° 28'.8E.) and Little Basses Reef (6° 24'.4N., 81° 43'.8E.) have been extinguished until further notice.

**Charts affected: 23 – 32 (INT 754) – 33 – 264 – 359.**

**\*135 (T) (05/05) ANDAMAN SEA – INDIA – Little Andaman Islands – Hut Bay – Coast line. Jetty. Light.**

Source: INS Sandhayak

(HJ/1028/07)

1. It is reported that the coastline in the area had undergone drastic changes. The Hut Bay breakwater has been breached at several places. The entire approach road and breakwater light at position 10° 35'.81N., 92° 33'.83E. has been destroyed. The passenger jetty is not safe to approach as the wreck of the fallen crane is a hazard to navigation.
2. Mariners are to exercise caution while navigating through this area.

**Charts affected: 4010**

**SECTION – V: NAVIGATIONAL WARNINGS IN FORCE**

1. For details of NAVAREA limits and organization/coordination, please refer to Notice No. 12 of the Special edition of Indian Notice to Mariners – 2004.
2. NAVAREA Warnings in force :- The serial numbers of all the NAVAREAS warnings in force as on 01 Mar 2005, covering the entire world are listed below against the respective NAVAREA

<b><u>NAVAREA No.</u></b>	<b><u>Location</u></b>	<b><u>Last NAVAREA Sl. received</u></b>	
I	N.E. Atlantic	019	2001 series: 510 2003 series: 417. 2004 series: 242 317 356 385 394 404 432 449 463. 2005 series: 007 013 030 037 039 041 046 048 049 050 051 052.
II	E. Atlantic	Nil	Nil.
III	Mediterranean	048	2004 series: 688 691 694 709 712 715 721. 2005 series: 004 005 006 007 008 033 036 041 042 044 045 046 047 048.
IV	N.W. Atlantic	393	2003 series: 108. 2004 series: 128 198 243 323 364 369 383 388 389 390.
V	W. Atlantic	Nil	2004 series: 606
VI	S.W. Atlantic	Nil	2004 series: 370
VII	S.E. Atlantic	008	2005 Series: 001 006 007.
VIII	Indian Ocean	132	2004 series: 630 645 659 678 697 698 712 718 723 738 740 801. 2005 series : 007 008 009 010 012 017 020 023 028 029 040 041 043 045 046 047 049 050 051 054 057 058 062 064 072 075 076 088 089 092 094 097 098 102 105 106 108 111 112 113 117 119 120 121 122 123 124 125 126 127 128 129 130 131.
IX	Persian Gulf, Red Sea, NW Arabian Sea	056	2001 series : 312. 2003 series : 023 120 177 236 237 239 273. 2004 series : 025 036 070 079 088 107 109 134 135 151 184 206 207 224 239 249 259 260 268 269 280 284 288 . 2005 series : 009 013 014 017 020 022 026 027 030 034 037 038 039 040 045 046 047 048 049 050 051 052 053 054 055 056.
X	Australia, New Guinea	010	2004 series: 007.
XI	Malacca Strait, China Sea, N. Pacific	0065	1996 series: 0925. 1998 series: 0655 1999 series: 0053 0187 0310 0613. 2000 series: 0555 0677 0687. 2001 series: 0182 0775. 2002 series: 0839.

			2003 series: 0106 0273 0303 0304. 2004 series: 0091 0246 0267 0271 0272 0283 0285 0321 0338 0339 0361 0366 0402 0474 0484 0555 0571 0583 0600. 2005 series: 0004 0005 0016 0018 0022 0024 0025 0026 0027 0028 0029 0030 0033 0034 0035 0036 0037 0038 0044 0045 0047 0051 0059 0060 0061 0062 0063 0064.
XII	N.E. Pacific	044	2004 series: 186 258 270 316 324 325 328 329 331.
XIII	N.W. Pacific	Nil	Nil
XIV	S.W. Pacific	093	2004 series: 086 087 093.
XV	S.E. Pacific	Nil	Nil
XVI	E. Pacific	Nil	2004 series: 166
Hydropacs	Pacific, Indian Ocean	1884	2001 series: 1976. 2002 series: 205 206. 2003 series: 207 506 993 1041 1330 1395 1699 1911 1982 2265. 2004 series: 23 455 694 727 754 763 778 795 801 890 891 904 932 948 967 981 988 996 1000 1011 1025 1033 1050 1052 1066 1076 1081 1084 1092 1112 1115 1123 1124 1138 1151 1152 1153 1155 1156 1157 1215 1238 1239 1254 1271 1273 1295 1305 1324 1349 1363 1365 1390 1399 1400 1409 1453 1455 1458 1471 1472 1475 1490 1495 1497 1507 1533 1589 1597 1621 1628 1633 1634 1636 1640 1648 1652 1653 1654 1656 1657 1658 1663 1677 1683 1686 1688 1692 1697 1704 1721 1729 1731 1740 1743 1744 1745 1747 1752 1754 1765 1767 1771 1781 1782 1786 1790 1791 1792 1796 1798 1799 1805 1809 1810 1818 1825 1827 1831 1835 1836 1837 1846 1850 1855 1856 1857 1860 1862 1865 1866 1867 1869 1871 1872 1873 1876 1877 1878 1880 1881 1882 1884.
Hydrolants	Atlantic, Mediterranean	1970	2002 series: 245 246 . 2003 series: 604 1422 1472 2203 2406 2407 2408 2409 2410 2413 2414 2416 2418 2419 2420. 2004 series: 224 272 649 650 850 1033 1084 1136 1214 1256 1279 1389 1404 1454 1474 1510 1624 1651 1659 1673 1714 1723 1773 1778 1787 1790 1792 1803 1805 1812 1816 1817 1828 1842 1844 1853 1861 1863 1864 1875 1876 1883 1888 1891 1896 1900 1911 1921 1924 1925 1930 1931 1932 1934 1935 1936 1937 1942 1947 1951 1952 1954 1956 1957 1959 1960 1961 1963 1965 1968 1969 1970.

**SECTION – VI: CORRECTIONS TO SAILING DIRECTION**

NIL

**SECTION – VII: CORRECTIONS TO INDIAN LIST OF LIGHTS**

<u>No.</u>	<u>Name &amp; Location</u>	<u>Position (Lat-Long)</u>	<u>Charact- eristics</u>	<u>Ht. mts.</u>	<u>Range miles</u>	<u>Structure &amp; Height (mts)</u>	<u>Remarks</u>
<b>D 7586.7</b>	- Bitumen Pier. Head. N end --- --- S end ---	29 04.1 48 09.3 --- ---	3 Fl G 10s Horn 20s 3 Fl G 10s Horn 20s	... ... ... --	... ... ... ---	... ... ... ---	In shape of $\Delta$  In shape of $\Delta$  <i>bl 2</i>
	*		*				*
<b>D 7588</b>	Jazirat Awhah (MENAS)	29 22.7 48 26.4	Fl (3) W10s	23	12	White metal framework tower, black bands 20	  *
<b>D 7601.2</b>	- Al Hishan.M2 *	29 22.99 47 53.85 *	Fl R 3s	3	5	Red beacon	<b>Damaged; red light buoy Fl W in situ (T) 2005</b> *
<b>F 0362</b>	Marine Control Tower (Navinal Pt)	22 43.9 69 42.4	Fl(2)W 15s	32	19	Black & white bands 30	<i>fl 0.3, ec 3.5, fl 0.3, ec 10.9.</i> Unserviceable *
<b>F 0384</b>	Kalubhar Tapu	22 26.3 69 35.2	Fl(3)W 15s	27	12	White round stone tower 20	<i>fl 0.75, ec 2.25, fl 0.75, ec 2.25, fl 0.75, ec 8.25</i>  *
<b>F 0936</b>	<b>-Madras (Chennai)</b>	13 02.4 80 16.8	Fl(2)W 10s	57	<b>28</b>	White triangular tower, red bands 46	<i>fl 0.3, ec 2.2, fl 0.3, ec 7.2</i> Racon.  *
<b>F 1031.46</b>	- Inner Column	21 58.4 88 01.6	Fl W 1.5s *	18	6	Round masonry tower	
<b>F 1054</b>	<b>Kutubdia Island</b>	21 51.80 91 50.72	Fl(3) W 10s *	39	<b>20</b>	Red and white $\subset$ on metal framework tower	Racon  *
<b>F 1178</b>	Ko Nom Sao Noi	8 18.5 98 31.2	Fl W 3s	24	7	White concrete tower 2	<i>fl 0.3. TE 2005</i>  *
<b>F 1223.2</b>	-- No 1	7 58.76 93 24.56	Fl G	...	...	Green beacon	<b>Destroyed (T) 2005</b>  *
<b>F 1223.22</b>	-- No 2	7 58.51 93 24.23	Fl R	...	...	Red beacon	<b>Destroyed (T) 2005</b>  *
<b>F 1223.23</b>	-- No 3	7 58.75 93 23.98	Fl G 5s	...	...	Green beacon	<b>Destroyed (T) 2005</b>  *
<b>F 1223.24</b>	-- No 4	7 58.46 93 24.55	Fl R 5s	...	...	Red beacon	<b>Destroyed (T) 2005</b>  *

No.	Name & Location	Position (Lat-Long)	Charact- eristics	Ht. mts.	Range miles	Structure & Height (mts)	Remarks
<b>F 1226.1</b>	--- Rear. 200m from front	7 00.4 93 54.9	Fl W 5s	22	5	White $\Delta$ on white square concrete tower, red bands 19	<b>Destroyed (T) 2005.</b> See F1 228 and F 1228.1 *
<b>F 1228</b>	- Lts in line 324°. <b>Sunk Rock. Front</b> *	6 58.74 93 56.80 *	Fl W 6s	...	...	...	<b>Destroyed (T) 2005.</b> Not to be confused with Campbell Bay Harbour entrance Ldg Lts F 1226 and F 1226.1 *
<b>F 1251</b>	- Goso Uma *	1 28.0 97 12.2	Fl W 2s	15	10	White Beacon	<b>Destroyed (T) 2005</b> *
<b>F 1254.2</b>	--	0 52.0 97 20.6	LFl W 6s	10	5	Mast 6	<i>fl 2.</i> <b>Destroyed (T) 2005</b> *
<b>F 1254.4</b>	- <b>Tanjung Sirombu</b> *	0 56.18 97 24.17 *	Fl (4) W 18s	32	<b>16</b>	White beacon	<i>(fl 0.3, ec 3.6) <math>\times</math> 3, fl 0.3, ec 6.0</i> <b>Destroyed (T) 2005</b> *
<b>F 1255</b>	- Teluk Dalam. <b>Tg Hele</b>	0 32.67 97 49.22 *	Fl W 5s	168	<b>19</b>	White metal framework tower 8 *	<i>ft 0.5</i> <b>Destroyed (T) 2005</b> *
<b>F 1267</b>	- <b>Singkel</b> *	2 15.25 97 45.58 *	Fl W 6s	33	<b>17</b>	White metal framework tower 30	<i>fl 1</i> <b>Destroyed (T) 2005</b> *
<b>F 1270</b>	- Pulau Panjang	2 16.95 97 24.10 *	Q (3) W 6s	10	12	White beacon	<i>(fl 0.5, ec ) <math>\times</math> 2, fl 0.5, ec 3.5.</i> <b>Destroyed (T) 2005</b> *
<b>F 1270.5</b>	--	2 16.95 97 24.10 *	Fl W 3s	31	7	White beacon 10	<b>Destroyed (T) 2005</b> *
<b>F 1271.5</b>	- <b>Pulau Bagu</b> *	2 17.67 97 23.75 *	Fl (4) W 18s	...	<b>16</b>	...	<b>Destroyed (T) 2005</b> *
<b>F 1273</b>	- <b>Pulau Sarangalu</b> *	1 58.67 97 23.00 *	Fl W 5s	41	<b>17</b>	White metal framework structure 40 *	<i>fl 0.25.</i> <b>Destroyed (T) 2005</b> *
<b>F 1279</b>	- Pulau Salaut Besar (Pulau-Pulau Kokos) *	2 57.58 95 24.00 *	Fl (3) W 20s	23	14	White beacon	<i>(fl 0.5, ec 1.5) <math>\times</math> 2, fl 0.5, ec 15.5.</i> <b>Destroyed (T) 2005</b> *



<u>No.</u>	<u>Name &amp; Location</u>	<u>Position (Lat-Long)</u>	<u>Charact- eristics</u>	<u>Ht. mts.</u>	<u>Rang e miles</u>	<u>Structure &amp; Height (mts)</u>	<u>Remarks</u>
F 1289	Ujang Raja *	3 43.83 96 31.50 *	Fl (4) W 20s	42	25	White metal framework structure 40 *	<b>Destroyed (T) 2005</b> *
F 1290	Susoh. Ujang Seurangga *	3 42.80 96 48.43 *	Fl G 5s	10	12	Green beacon 7	<i>fl 0.5</i> <b>Destroyed (T) 2005</b> *
F 1292	Teluk Meulaboh. Ujang Karueng *	4 07.5 96 07.5	LFl W 8s	27	11	White metal framework tower 25	<i>fl 2.</i> Vis 269° - 124° (215°). <b>Destroyed (T) 2005</b> *
F 1292.3	Pulau Rangas	4 38.17 95 30.97	Fl W 5s	50	17	White beacon	<i>fl 0.9.</i> <b>Destroyed (T) 2005</b>
F 1293	Pulau Rusa. Aceh Besar	5 16.67 95 12.00	Fl W 3s	119	11	White beacon 10	<i>fl 0.5.</i> Ra refl. <b>Destroyed (T) 2005</b> *
F 1296	Pualu Deudab. Ujang Eumpee	5 36.42 95 11.25	Fl W 4s	40	10	White GRP tower 10	<i>fl 0.5</i> Ra Refl. <b>Destroyed (T) 2005</b> *
F 1315	Buro	5 41.33 95 23.00	Fl W 3s	14	10	White beacon 15	<i>fl 0.5.</i> <b>Destroyed (T) 2005</b> *
F1317	Kruengraya (Malahayati) *	5 35.1 95 30.1	Fl W 3s	16	9	White metal framework structure 15	<i>fl 0.5.</i> <b>Destroyed (T) 2005</b> *
F 1319	Ujang Pidie *	5 30.33 95 52.83	Fl (3) W 20s	60	41	White metal framework structure 40	<b>Destroyed (T) 2005</b> *
F 1326	-- Pier	5 11.5 97 09.0	FR	...	4	White structure 15	<b>Destroyed (T) 2005</b> *
F 1417.5	Tg Rambut *	0 59.68 103 26.63	Fl (3) W 7.5s	41	18 *	White framework tower 40	*
F 9518	- MIPQ-A *	5 22.7 111 01.0 *	Lit *	... *	... *	Platform *	*

<u>No.</u>	<u>Name &amp; Location</u>	<u>Position (Lat-Long)</u>	<u>Charact- eristics</u>	<u>Ht. mts.</u>	<u>Range miles</u>	<u>Structure &amp; Height (mts)</u>	<u>Remarks</u>
<b>K 0839</b>	- Pulau Batumakele. Ldg Lts 186'. Front *	0 03.3 98 17.6 *	Fl W 3s	13	10	Beacon 12	<i>fl 0.3</i> Ra refl. <b>Destroyed (T) 2005</b> *
<b>K 0839.1</b>	--- Rear	0 03.67 98 17.60	Fl W 5s	19	8	Beacon 18	<i>fl 0.5.</i> <b>Destroyed (T) 2005</b> *
<b>K 0839.4</b>	- Pulau Tello	0 03.1 98 16.8	Fl W 4s	8	6	White framework tower 16	<i>fl 0.5.</i> <b>Destroyed (T) 2005</b>

**SECTION – VIII: CORRECTION TO LIST OF RADIO SIGNALS**

**VOL. 1, 1987**

*(Last correction: Edition No. 17 dated 01 Sep 2004)*

**NIL**

**VOL. 2, 1995**

*(Last correction: Edition No.01 dated 01 Jan 2005)*

**NIL**

**B.A. VOL. 3 Part 1, NP 283(1), 2002/03**

*(Last correction: Edition No. 19 dated 01 Oct 2003)*

**NIL**

**VOL. 5, 1997/98**

*(Last correction: Edition No. 20 dated 15 Oct 2004)*

**NIL**

**VOL. 6, 1987**

*(Last correction: Edition No. 18 dated 15 Sep 2003)*

**NIL**

**B.A, VOL. 7, 1997/98-PART 2**

*(Last correction: Edition No. 16 dated 15 Aug 2000)*

**NIL**

**VOL. 8, 1999**

*(Last correction: Edition No. 03 dated 01 Feb 2005)*

**NIL**

**SECTION – IX: PLOTTING OF GPS POSITIONS IN INDIAN CHARTS**

All mariners are advised to exercise extreme caution while using the Global Positioning System positions in WGS 84 datum on the Indian navigational charts produced in Everest datum. The variation in these parameters is considerable along the Indian coast and in Andaman & Nicobar and Lakshadweep islands (300 to 800 metres variations). Mariners are also advised to apply datum shift parameters (if available) on the Indian navigational charts before using Global Positioning System positions on Indian charts. These shift parameters are specified on the charts where observed, at a suitable position under legend note. Mariners are advised to use alternate methods of fixing while operating in restricted waters and in vicinity of dangers.

The Chief Hydrographer to the Govt. of India shall not be responsible for any marine accidents arising as a result of usage of GPS positions in WGS 84 datum in Indian navigational charts in Everest datum without the application of Datum Transformation Parameters/corrections where available or listed in the charts.

## **SECTION – X: REPORTING OF NAVIGATIONAL DANGERS**

### **Instructions for raising Hydrographic Note (Form IH 102)**

#### **Appeal to all Mariners:**

1. Mariners at sea whilst on passage, or whilst entering / leaving ports / harbours and other waterways, are requested to look out for new or suspected dangers to navigation, changes in aids to navigation, or corrections to published charts and Sailing Directions. Whenever any such changes / dangers are observed, mariners are requested to notify the same to the Chief Hydrographer to the Government of India at the following address: -

National Hydrographic Office  
107-A, Rajpur Road,  
Post Box No. 75, Dehradun - 248 001  
(UTTARANCHAL), INDIA  
e-mail: - [nho@sancharnet.in](mailto:nho@sancharnet.in)  
Fax No.: (0135) 2748373  
WEB: [www.hydrobharat.org](http://www.hydrobharat.org)

#### **Instructions for filling up Form IH 102 (Overleaf)**

2. Kindly follow the instructions below in order to help the Hydrographic Office (the recipient) to quickly issue NAVAREA warning / Notice to Mariners for the benefit of all other mariners at sea.

#### **Position Reporting**

3. When a position is defined by bearings (true or magnetic to be specified) more than two bearings should be used in order to provide a check. Distances observed by Radar should be corrected for index errors. Latitude and Longitude obtained from GPS / DGPS should specify the datum (WGS 84 or other). A copy / tracing from the largest scale chart may be used for forwarding details, with the corrections and additions being shown thereon in red.

#### **Depth Reporting**

4. When soundings are obtained using Echo Sounders, the echo-gram should be duly annotated with date, time, position and depth, etc., before enclosing it with the Form IH 102. It is important to state whether echo sounder is set to register depths below the surface or below the keel; in the latter case the vessel's draught should be given. Time and date should be given in order that corrections for the height of the tide may be applied where necessary. The make, name and type of echo sounder should also be given. Care should be taken to set the echo sounder to the largest scale / phase, so as to obtain maximum details of echo of the feature. Efforts should be made to identify and negate false echoes if any.

5. Reports, which cannot be confirmed or are lacking in certain details should not be withheld. Limitations or shortcomings should be duly notified in the form.

6. Reports on shoal soundings, uncharted dangers and navigational aids out of order should be reported through fastest available means at the mariner's discretion, and also be made by radio to the nearest coast radio station. The draught of modern tankers is such that any uncharted depth under 50 metres should be of sufficient importance to justify a radio message.

7. Port information should be forwarded on form IH 102a together with IH 102. Form 102a contains the information required for Sailing Direction and should be used as an *aide memoir*. Where there is insufficient space on the form, additional sheet should be used.

*Please Note:* - The receipt of all Hydrographic Notes will be duly acknowledged by the Hydrographic Office. Normally, the sender's ship or name is quoted as the source when the Notices to Mariners reporting the change is issued, unless the information is received through a foreign Notices to Mariners. Further communication from the Hydrographic Office to the sender of the hydrographic note will only be necessary to verify unusual features or abnormal values reported.

**I.H. 102a (Revised 2003)**

**HYDROGRAPHIC NOTE FOR PORT INFORMATION**

**(For Reporting Changes to Port Information)**

(To accompanying Form I.H. 102)

Name and address of ship / sender:

\_\_\_\_\_ **Ref No.:** \_\_\_\_\_  
 \_\_\_\_\_ **Date :** \_\_\_\_\_  
 \_\_\_\_\_

**Fax No.:** \_\_\_\_\_, **E-mail:** \_\_\_\_\_

1.	<b>a) NAME OF THE PORT</b> : <b>b) Location</b> : <b>Lat:</b> _____, <b>Long:</b> _____ <b>c) Listing in Guide to Port Entry: Yes/No.</b> <b>Sl. No.:</b> _____	
2.	<b>NAME AND ADDRESS OF PORT AUTHORITIES</b> a) Name b) Address c) Phone d) Fax e) E-mail	
3.	<b>GENERAL REMARKS</b> a) Principal activities and trade b) Latest population figures and date c) Number of ships and tonnage handled per year d) Maximum size and draught of vessels handled. e) Copy of Port Handbook <i>if available.</i>	
4.	<b>ANCHORAGES</b> a) Type / Purpose b) Minimum Depth at anchorage c) Shelter afforded d) Holding ground e) Recommended pilotage to the anchorage	
5.	<b>PILOTAGE</b> a) Authority for requests. b) Embarkation position c) Regulations d) Documents to be provided	
6.	<b>DIRECTIONS</b> a) Entry and berthing information. b) Tides (Height) c) Tidal Streams. d) Navigational aids.	
7.	<b>POLLUTION CONTROL</b> a) Local regulations in force (if any)	

<p>8. <b>TUGS</b></p> <ul style="list-style-type: none"> <li>a) Number available</li> <li>b) Max. hp.</li> <li>c) Requesting authority</li> <li>d) Availability times</li> <li>e) Communication with Tugs</li> <li>f) Hiring Charges</li> </ul>	
<p>9. <b>BERTHING AND WHARVES</b></p> <ul style="list-style-type: none"> <li>a) Number of berths available</li> <li>b) Length,</li> <li>c) Depth alongside</li> <li>d) Facilities available.</li> <li>e) Procedures for requesting berthing and hiring charges</li> </ul>	
<p>10. <b>CARGO HANDLING</b></p> <ul style="list-style-type: none"> <li>a) Containers</li> <li>b) Lighters</li> <li>c) Roll on/ roll off, etc.</li> </ul>	
<p>11. <b>CRANES</b></p> <ul style="list-style-type: none"> <li>a) Brief details and max. capacity.</li> <li>b) Container handling facilities</li> </ul>	
<p>12. <b>BRIDGES</b></p> <p>Vertical clearances</p>	
<p>13. <b>REPAIRS</b></p> <ul style="list-style-type: none"> <li>a) Hull, machinery and underwater</li> <li>b) Ship and boat yards</li> <li>c) Docking or Slipway facilities (Give size of vessels handled or dimensions)</li> <li>d) Hards and ramps.</li> <li>e) Divers / Diving Assistance</li> </ul>	
<p>14. <b>RESCUE AND DISTRESS</b></p> <p>Salvage, lifeboat, coastguard, etc.</p>	
<p>15. <b>SUPPLIES</b></p> <ul style="list-style-type: none"> <li>a) Fuel with type and quantities available.</li> <li>b) Freshwater and rate of supply.</li> <li>c) Provisions</li> <li>d) Chart Agents</li> </ul>	
<p>16. <b>SERVICES</b></p> <ul style="list-style-type: none"> <li>a) Radio Telegrams/Telephony</li> <li>b) Medical.</li> <li>c) Quarantine</li> <li>d) Consuls.</li> <li>e) Ship chandlery and stevedores,</li> <li>f) Compass adjustment,</li> <li>g) Tank cleaning,</li> <li>h) Hull painting.</li> <li>j) Diving and underwater examination</li> <li>k) Police / Ambulance / Fire</li> <li>l) Navigational warnings and weather bulletins</li> <li>m) Garbage Disposal</li> <li>n) Telephones</li> <li>p) Waste oil disposal</li> </ul>	
<p>17. <b>COMMUNICATIONS</b></p> <ul style="list-style-type: none"> <li>a) Road, rail and air services available</li> <li>b) Nearest airport or airfield.</li> <li>c) Port Radio and Information service (Frequencies and operating hours)</li> </ul>	

18. <b>PORT AUTHORITY</b> Designation, address and telephone number.	
19. <b>SMALL CRAFT FACILITIES</b> a) Information and facilities for small craft /yachts visiting the port. b) Yacht clubs, berths etc.	
20. <b>SHORE LEAVE</b>	
21. <b>CLUBS / RECREATION / INFORMATION KIOSKS</b> – Their location.	
22. <b>VIEWS</b> (duly annotated) Photographs (where permitted) of the approaches, leading marks, the entrance to the harbour, etc. (Picture postcards may also be useful).	

*Signature of Observer/Reporter.....*

**To**

*The Chief Hydrographer to the Government of India*

National Hydrographic Office  
107 A, Rajpur Road  
PO Box No. 75,  
Dehradun- 248001  
(UTTARANCHAL), INDIA

E Mail : [nho@sancharnet.com](mailto:nho@sancharnet.com)

Fax No.: 91- 0135- 2748373

WEB: [www.hydrobharat.org](http://www.hydrobharat.org)



I.H. 102 (Revised 2003)

HYDROGRAPHIC NOTE

(For Reporting Navigational Dangers/ Changes observed at Sea by Mariners)

Date : .....

Ref. No: .....

**Details of the Sender / Originator**

1. **Name of ship or sender:** .....
2. **Address of sender:** .....  
.....  
e-mail; Fax No.; Tel. No.:.....  
.....
3. **General Locality:** .....
4. **Chart / Publication Affected:**
  - a) Chart published by INHO / UKHO / other (Specify): .....
  - b) Chart No.: ..... Edition Date: .....
  - c) Latest Edition of Indian N to M held:.....

**Details of Changes / Dangers Observed**

- | 5. <b>Object of Change:</b>          | <b>Date/Time of<br/>observation</b> | <b>Charted</b> | <b>Observed</b> | <b>Position/Area</b> |
|--------------------------------------|-------------------------------------|----------------|-----------------|----------------------|
| (a) Bathymetry:                      |                                     |                |                 |                      |
| (i) Depth - .....                    | .....                               | .....          | .....           | .....                |
| (ii) Depth Contour - .....           | .....                               | .....          | .....           | .....                |
| (iii) Channel Depth - .....          | .....                               | .....          | .....           | .....                |
| (b) Navigational Dangers:            |                                     |                |                 |                      |
| (i) New Shoals.....                  | .....                               | .....          | .....           | .....                |
| (ii) New Rocks.....                  | .....                               | .....          | .....           | .....                |
| (iii) New Reefs.....                 | .....                               | .....          | .....           | .....                |
| (iv) New Wrecks.....                 | .....                               | .....          | .....           | .....                |
| (v) New Nav-aid (Specify) - .....    | .....                               | .....          | .....           | .....                |
| (c) Casualties to existing Nav-Aids: |                                     |                |                 |                      |
| (i) Buoys.....                       | .....                               | .....          | .....           | .....                |
| (ii) Lights.....                     | .....                               | .....          | .....           | .....                |
| (iii) Fog signals.....               | .....                               | .....          | .....           | .....                |
| (iv) Racons.....                     | .....                               | .....          | .....           | .....                |
| (v) Transit Marks .....              | .....                               | .....          | .....           | .....                |
| (vi) Leading Lines.....              | .....                               | .....          | .....           | .....                |
| (vii) Clearance bearings.....        | .....                               | .....          | .....           | .....                |
| (d) Designated Areas:                |                                     |                |                 |                      |
| (i) Exercise Areas .....             | .....                               | .....          | .....           | .....                |
| (ii) Prohibited Areas .....          | .....                               | .....          | .....           | .....                |
| (iii) Pilot Station .....            | .....                               | .....          | .....           | .....                |
| (iv) Anchorage .....                 | .....                               | .....          | .....           | .....                |
| (v) Foul Ground .....                | .....                               | .....          | .....           | .....                |

- (e) Port Information:
- (i) Berthing .....
  - (ii) Cranage .....
  - (iii) Tugs .....
  - (iv) Dry Docks .....
  - (v) Repair Facilities .....
  - (vi) Pilotage .....
  - (vii) Fuel .....
  - (viii) Water .....
  - (ix) Any other (Specify) :.....
- (f) Environmental Data:
- (i) Met information .....
  - (ii) Tides and Tidal Stream .....
  - (iii) Pollutants .....
  - (iv) Effluents.....
  - (v) Marine Life / Habitats
- (g) Other changes, if any, with Details: .....
6. **Information on the Positions of Danger / Changes Reported above:**
- (a) Positioning System used: .....
  - (b) Datum (WGS/Everest/ Local (Specify) : .....
  - (c) Accompanying plots / photographs if any: .....
7. **Information on the Soundings / Depths Reported above:**
- a) Echo Sounder (Type) used: .....
  - b) Draught of Vessel set on Echo Sounder: .....
  - c) Observed water depth vis-à-vis charted depth: .....
  - d) Echo-gram accompanying this report: Yes / No .....
  - e) Whether voltage drop existed in equipment at observation time .....
  - f) Data and Time of depth observation .....
8. **Limitations if any in Reporting the changes above** .....

Signature of the Master / Reporter

Date:

To

The Chief Hydrographer  
National Hydrographic Office  
107-A, Rajpur Road,  
Post Box No. 75, Dehradun - 248 001  
(UTTARANCHAL), INDIA

E-mail: - [nho@sancharnet.in](mailto:nho@sancharnet.in)  
Fax No.: (0135) 2748373  
WEB: - [www.hydrobharat.org](http://www.hydrobharat.org)

*Please Note:*

1. Please see over leaf for Instructions for filling up this form.
2. Photograph / Sketches / Diagram, etc duly annotated will be useful supporting document.
3. Please rush this information to the Chief Hydrographer to the Govt. of India at the address given above, by the fastest available means.

**TABLE FOR CONVERTING FEET AND FATHOMS TO METRES**

Feet	Fms	Metres	Feet	Fms	Metres	Feet	Fms	Metres	Feet	Fms	Metres
1		0.305	55		16.764	162	27	49.378	498	83	151.790
1.5	¼	0.457	56		17.069	168	28	51.206	504	84	153.619
2		0.610	57	9½	17.374	174	29	53.035	510	85	155.448
3	½	0.914	58		17.678	180	30	54.864	516	86	157.277
4		1.219	59		17.983	186	31	56.693	522	87	159.106
4.5	¾	1.372	60	10	18.288	192	32	58.522	528	88	160.934
5		1.524	61		18.593	198	33	60.350	534	89	162.763
6	1	1.829	62		18.898	204	34	62.179	540	90	164.992
7		2.134	63	10½	19.202	210	35	64.008	546	91	166.421
8		2.438	64		19.507	216	36	65.837	552	92	168.250
9	1½	2.743	65		19.812	222	37	67.666	558	93	170.078
10		3.048	66	11	20.117	228	38	69.494	564	94	171.907
11		3.353	67		20.422	234	39	71.323	570	95	173.736
12	2	3.658	68		20.726	240	40	73.152	576	96	175.565
13		3.962	69	11½	21.031	246	41	74.981	582	97	177.394
14		4.267	70		21.336	252	42	76.810	588	98	179.222
15	2½	4.572	71		21.641	258	43	78.638	594	99	181.051
16		4.877	72	12	21.946	264	44	80.467	600	100	182.880
17		5.182	73		22.250	270	45	82.296			
18	3	5.486	74		22.555	276	46	84.125	<b>Metres</b>	<b>Inches</b>	
19		5.791	75	12½	22.860	282	47	85.954			
20		6.096	76		23.165	288	48	87.782	0.10	3.937	
21	3½	6.401	77		23.470	294	49	89.611	0.20	7.874	
22		6.706	78	13	23.774	300	50	91.440	0.30	11.811	
23		7.010	79		24.079	306	51	93.469	0.40	15.748	
24	4	7.315	80		24.384	312	52	95.098	0.50	19.685	
25		7.620	81	13½	24.689	318	53	96.926	0.60	23.622	
26		7.925	82		24.994	324	54	98.755	0.70	27.559	
27	4½	8.230	83		25.298	330	55	100.584	0.80	31.496	
28		8.534	84	14	25.603	336	56	102.413	0.90	35.433	
29		8.839	85		25.908	342	57	104.242	1.00	39.370	
30	5	9.144	86		26.213	348	58	106.070			
31		9.449	87	14½	26.518	354	59	107.899			
32		9.754	88		26.822	360	60	109.728			
33	5½	10.058	89		27.127	366	61	111.557			
34		10.363	90	15	27.432	372	62	113.386			
35		10.668	91		27.737	378	63	115.214			
36	6	10.973	92		28.042	384	64	117.043			
37		11.278	93	15½	28.346	390	65	118.872			
38		11.582	94		28.651	396	66	120.701			
39	6½	11.887	95		28.956	402	67	122.530			
40		12.192	96	16	29.261	408	68	124.358			
41		12.497	97		29.566	414	69	126.187			
42	7	12.802	98		29.870	420	70	128.016			
43		13.106	99	16½	30.175	426	71	129.845			
44		13.411	100		30.480	432	72	131.674			
45	7½	13.716	102	17	31.090	438	73	133.502			
46		14.021	108	18	32.918	444	74	135.381			
47		14.326	114	19	34.747	450	75	137.160			
48		14.630	120	20	36.576	456	76	138.989			
49		14.935	126	21	38.405	462	77	140.818			
50		15.240	132	22	40.234	468	78	142.646			
51	8½	15.545	138	23	42.062	474	79	144.475			
52		15.850	144	24	43.891	480	80	146.304			
53		16.154	150	25	45.720	486	81	148.133			
54	9	16.459	156	26	47.549	492	82	149.962			

## TABLE FOR CONVERTING METRES TO FEET AND FATHOMS

Mtrs	Feet	Fms	Metres	Feet	Fms	Metres	Feet	Fms	Metres	Feet	Fms
1	3.281	0.547	57	187.008	31.168						
2	6.562	1.094	58	190.289	31.715	5000	16404.20	2734.03			
3	9.843	1.640	59	193.570	32.262	6000	19685.04	3280.84			
4	13.123	2.187	60	196.850	32.808	7000	22965.88	3827.65			
5	16.404	2.734	61	200.131	33.355	8000	26246.72	4374.45			
6	19.685	3.281	62	203.412	33.902	9000	29527.56	4921.26			
7	22.966	3.828	63	206.693	34.449	10000	32808.40	5468.07			
8	26.247	4.374	64	209.974	34.996						
9	29.528	4.921	65	213.255	35.542	<b>Inches</b>	<b>Feet</b>	<b>Metres</b>	<b>Factors</b>		
10	32.808	5.468	66	216.535	36.089						
11	36.089	6.015	67	219.816	36.636	1	0.083	0.025	1 Inch=0.0254 m		
12	39.370	6.562	68	223.097	37.183	2	0.167	0.051	1 Foot=0.3048 m		
13	42.652	7.108	69	226.378	37.730	3	0.250	0.076	1 Fthm=1.8288 m		
14	45.932	7.655	70	229.659	38.276	4	0.333	0.102	or 6 feet		
15	49.213	8.202	71	232.940	38.823	5	0.417	0.127			
16	52.493	8.749	72	236.220	39.370	6	0.500	0.152			
17	55.774	9.296	73	239.501	39.197	7	0.583	0.178			
18	59.055	9.843	74	242.782	40.464	8	0.667	0.203			
19	62.336	10.389	75	246.063	41.010	9	0.750	0.229			
20	65.617	10.936	76	249.344	41.557	10	0.833	0.254			
21	68.898	11.483	77	252.625	42.104	11	0.917	0.279			
22	72.178	12.030	78	255.906	42.651	12	1.000	0.305			
23	75.459	12.577	79	259.186	43.198						
24	78.740	13.123	80	262.467	43.745	<b>Fthms</b>	<b>Metres</b>	<b>Feet</b>	<b>Metres</b>		
25	82.021	13.670	81	265.748	44.291						
26	85.302	14.217	82	269.029	44.838	200	365.760	700	213.360		
27	88.583	14.764	83	272.310	45.385	300	548.640	800	243.840		
28	91.864	15.311	84	275.591	45.932	400	731.520	900	274.320		
29	95.144	15.857	85	278.871	46.479	500	914.400	1000	304.800		
30	98.425	16.404	86	282.152	47.025	600	1097.280				
31	101.706	16.951	87	285.433	47.572	700	1280.160				
32	104.987	17.498	88	288.714	48.119	800	1463.040				
33	108.268	18.045	89	291.995	48.666	900	1645.920				
34	111.549	18.591	90	295.276	49.213	1000	1828.800				
35	115.829	19.138	91	298.556	49.759						
36	118.110	19.685	92	301.837	50.306	<b>Factor = 1 m = 3.280839895 feet or</b>					
37	121.391	20.232	93	305.118	50.853	<b>39370078740 inches = 0.546806649 fthm</b>					
38	124.672	20.779	94	308.399	51.400						
39	127.953	21.325	95	311.680	51.947						
40	131.234	21.872	96	314.961	52.493						
41	134.514	22.419	97	318.241	53.040						
42	137.795	22.966	98	321.522	53.587						
43	141.076	23.513	99	324.803	54.134						
44	144.357	24.059	100	328.084	54.658						
45	147.638	24.606	200	656.17	109.36						
46	150.919	25.153	300	984.25	164.04						
47	154.199	25.700	400	1312.34	218.72						
48	157.480	26.247	500	1640.42	273.40						
49	160.761	26.794	600	1968.50	328.08						
50	164.042	27.340	700	2296.59	382.76						
51	167.323	27.887	800	2624.67	437.45						
52	170.604	28.434	900	2952.76	492.13						
53	173.885	28.981	1000	3280.84	546.81						
54	177.165	29.528	2000	6561.68	1093.61						
55	180.446	30.074	3000	9842.52	1640.42						
56	183.727	30.621	4000	13123.36	2187.23						