



INDIAN NOTICES TO MARINERS FOR 2007

(PUBLISHED ON NHO WEBSITE ON 1ST & 16TH OF EVERY MONTH)
EDITION No. 08 DATED 16 APR 2007
(CONTAIN NOTICES 192 TO 223)

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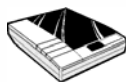
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Mariner's Obligation and A Chart Maker's Plea. Observing Changes at sea proactively and reporting them promptly to the concerned charting agency, is an obligation that all mariners owe to the entire maritime community towards SOLAS. Mariners are requested to notify the Chief Hydrographer to the Govt. of India at the following address/fax number, 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 to notify such changes. Specimen form is attached at Section X with N to M editions 1, 7, 13 and 19.

**Chief Hydrographer
to the Government of India**

National Hydrographic Office
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India

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For the Indian Ocean Area
INSIST ON 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 contain 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°. Bearings 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. SI Nos. of those in force are published quarterly on 01 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.

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

- (a) these corrections should be incorporated as per instructions given on page XI of the list of Lights.
- (b) Such correction notices to list of lights 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.
- (d) A star indicates that corresponding field to be amended and all stars indicate that new light to be inserted.

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 is 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 dangers.

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.

Indian ENC's are now available in IHO's S-63 Data Protection Scheme also, in addition to CM-93 SENC format.

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SECTION – I
List of charts affected by
The Notices 192 to 223 contained in this Edition

INDIAN H.O. Chart No.	Folio No.	Notice No.	ADMIRALTY Chart No.	Folio No.	Notice No.
23	4	222(T)	82	32	198
31	5	220(T)	158(INT 7008)	32	198
32(INT 754)	5	222(T)	262(INT 7115)	32	197
33	5	222(T)	713(INT 7738)	38	196
211	3	193	932	46	215
215	3	194	941A	46	212, 213, 214
216	3	194	1312	46	210
226	4	222(T)	2056	46	214
264	4	222(T)	2137	46	212
357(INT 7397)	5	217(P)	2149	46	212, 213, 214
358	4	222(T)	2373(INT 7136)	32	199
359	4	222(T)	2374	32	199
407	6	195	2403	45	207
2001	3	193	2523(INT 7250)	40	221(T)
2008	3	194	3175(INT 7212)	40	200
2009	3	194	3176(INT 7216)	40	200
2015(INT 7337)	3	193	3412(INT 7219)	40	200
2016(INT 7336)	3	193	3476	46	211
2028	3	216(P)	3492(INT 7129)	32	198
2050	2	202	3584	45	208
2057	2	192	3721	46	210
2064	4	222(T)	3729	46	213
2076	3	193	3736(INT 7258)	40	201
2077	3	216(P)	3791	40	221(T)
2081	2	192	3833	45	207
3031	5	218(P)	3937	45	209
4025	7	203	3944	45	204
4026	7	223(P)	3950	40	221(T)
4027	7	223(P)	4033	45	205
4032	6	195, 219(T)	4034	45	206
7704(INT 704)	1	222(T)	4035	45	206
			4036	45	206
			4040	45	207

SECTION – II: PERMANENT NOTICES
INDIAN HYDROGRAPHIC CHARTS AND PUBLICATIONS

***192(08/07) INDIA – West Coast – Plans on the Gujarat coast – Simar Anchorage – Leading Line.**

Source: ROS, INS Sutlej B(N) – 147
(HJ/1130/08)

Chart 2081 [*previous update 449/06*]

Delete	leading line (pecked)and associated legend		
	Khara GTS & similar Fort FS ≠ 250°	from:	20° 45′·39N., 71° 08′·12E.
		to:	20° 46′·78N., 71° 12′·12E.

Chart 2057 [*previous update 182/06*]

Delete	leading line (pecked and firm)and associated legend		
	Khara GTS & similar Fort FS ≠ 250°	from:	20° 45′·39N., 71° 08′·12E.
		to:	20° 46′·64N., 71° 11′·76E.

***193(08/07) INDIA – West Coast – Inner app to Mumbai – Wrecks.**

Source: ROS, INS Nirdeshak C(N) – 450
(HJ/1030/87)

Chart 211 [*previous update 147/07*]

Substitute	 for  PA	18° 56′·60N., 72° 52′·10E.
	 for 	18° 57′·53N., 72° 51′·86E.
Delete		18° 58′·12N., 72° 52′·32E
	 Wk	18° 51′·54N., 72° 50′·35E

Chart 2016 (INT 7336) [*previous update 173/07*]


Substitute	 for 	18° 56′·60N., 72° 52′·10E.
	 for 	18° 57′·53N., 72° 51′·86E.
Delete	 PA	18° 57′·78N., 72° 52′·19E
		18° 58′·12N., 72° 52′·32E
		18° 58′·10N., 72° 52′·23E
	 PA	18° 56′·30N., 72° 51′·10E
	 Wk	18° 51′·54N., 72° 50′·35E

Chart 2015(INT 7337) [*previous update 173/07*]

Substitute	 for 	18° 56′·60N., 72° 52′·10E.
	 for 	18° 57′·53N., 72° 51′·86E.
Delete	 PA	18° 57′·78N., 72° 52′·19E
		18° 58′·12N., 72° 52′·32E
		18° 58′·10N., 72° 52′·23E
	 PA	18° 56′·30N., 72° 51′·10E
		18° 51′·00N., 72° 53′·45E

Chart 2001[*previous update 147/07*]

Substitute	 for 	18° 56′·60N., 72° 52′·07E.
	 for 	18° 57′·53N., 72° 51′·86E.
Delete	 PA	18° 57′·78N., 72° 52′·19E
		18° 58′·12N., 72° 52′·32E
		18° 58′·10N., 72° 52′·23E
	 PA	18° 56′·30N., 72° 51′·10E
	 Wk	18° 58′·40N., 72° 51′·75E

Chart 2076[*previous update 147/07*]

Delete		18° 58′·12N., 72° 52′·32E
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***194(08/07) INDIA – West Coast – Karwar harbour and approaches – Shoal patch – Foul area.**

Source: ROS, INS Nirdeshak D(N) – 184
(HJ/1030/45)

Chart 2009 [*previous update NE 15 Jun 06*]



Insert  depth 1₆ m enclosed by 2m contour (a) 14° 42′.71N., 74° 15′.17E.
Delete  depth 3₂ (a) above

Chart 216 [*previous update 262/06*](WGS - 84 Datum)

Delete # 14° 49′.74N., 74° 05′.76E.

Chart 215 [*previous update NC 15 Apr 06*](WGS - 84 Datum)

Delete # 14° 49′.74N., 74° 05′.76E.

Chart 2008 [*previous update 54/07*](WGS - 84 Datum)

Delete # 14° 49′.74N., 74° 05′.76E.

***195(08/07) ANDAMAN SEA - India – Nicobar Islands – Sawai Bay & Malacca Anchorage – Conspicuous object.**

Source: Hydrographic Note - INS Darshak
(HJ/928/97)

Chart 407 [*previous update 236/05*]

Insert  (40) 09° 12′.74N., 092° 47′.34E.

Chart 4032 [*previous update NC 31 Jul 03*]

Insert  (40) 09° 12′.737N., 092° 47′.341E.

196(08/07) INDIAN OCEAN - Mauritius - Port Louis - English Channel and Approaches - Dredged depth.

Source: BA Notice 1384/07
INP 31 volume 6, 2005
(HJ/632/92)

BA Chart 713 (INT 7738) (plan, Port Louis) [*previous update 073/07*]

Amend legend to, *Dredged to 14.5m (2006)*, centred on: 20° 08′.210S., 57° 29′.030E.
20° 08′.240S., 57° 28′.700E.

BA Chart 713 (INT 7738) (plan, Approaches to Port Louis) *previous update 073/07*]

Insert legend to *14.5m (2006)*, centred on: 20° 08′.25S., 57° 28′.86E.

197(08/07) GULF OF ADEN – Port of Djibouti – Beacon.

Source: BA Notice 1462/07
(HJ/1033/16)

BA Chart 262 (INT 7115) (plan A, Port of Djibouti) [*previous update 520/06*]

Insert  11° 36′.49N., 43° 08′.24E.

198(08/07) SUDAN - Port Sudan Southwards - North Towartit Reef Westwards – Wreck.

Source: BA Notice 1392/07
(HJ/1034/92)

BA Chart 82 [*previous update 113/07*]

Insert  19° 30′.88N., 37° 16′.81E

BA Chart 158 (INT 7008) [*previous update 074/07*]

Insert  19° 30′.9N., 37° 16′.8E

BA Chart 3492 (INT 7129) [*previous update 521/06*]

Insert  19° 30′.88N., 37° 16′.81E

199(08/07) GULF OF SUEZ - Belayim Oilfield Northwards - Light.

Source: BA Notice 1370/07

(HJ/1134/86)

BA Chart 2373 (INT 7136) [*previous update 057/07*]

Delete ★ Pipe 28° 38'·60N., 33° 06'·40E.

BA Chart 2374 [*previous update 179/07*]

Delete ★ Pipe 28° 38'·60N., 33° 06'·40E.

200(08/07) UNITED ARAB EMIRATES - Sharjah North-westwards - Anchorage area.

Source: BA Notice 1433/07

(HJ/1132/54)

BA Chart 3175 (INT 7212) [*previous update 182/07*]

Insert limit of anchorage area, pecked line, joining: 25° 25'·00N., 55° 18'·08E.
 25° 28'·00N., 55° 18'·08E.
 25° 28'·00N., 55° 16'·00E.
 25° 25'·00N., 55° 16'·00E.

BA Chart 3176 (INT 7216) [*previous update 182/07*]

Insert limit of anchorage area, pecked line, joining: 25° 25'·00N., 55° 18'·08E.
 25° 28'·00N., 55° 18'·08E.
 25° 28'·00N., 55° 16'·00E.
 25° 25'·00N., 55° 16'·00E.

BA Chart 3412 (INT 7219) [*previous update 182/07*]

Insert limit of anchorage area, pecked line, joining: 25° 25'·00N., 55° 18'·08E.
 25° 28'·00N., 55° 18'·08E.
 25° 28'·00N., 55° 16'·00E.
 25° 25'·00N., 55° 16'·00E.


201(08/07) BAHRAIN - Mina' Salman and Approaches - Depths. Obstruction. Submarine pipeline. Legend.


Source: BA Notice 1353/07

(HJ/1132/69)

BA Chart 3736 (INT 7258) [*previous update 078/07*]

Insert legend, Jetties, orientated 345° - 165°, centred on: 26° 12'·42N., 50° 39'·43E.
 depth 0_1 (a) 26° 11'·880N., 50° 36'·240E.
 depth 1_8 and extend 2m contour SE to enclose 26° 11'·872N., 50° 36'·374E.
 depth 3_6 enclosed by 5m contour 26° 11'·560N., 50° 37'·190E.
 depth 4_6 enclosed by 5m contour 26° 11'·220N., 50° 37'·210E.
 depth 4_9 enclosed by 5m contour 26° 11'·220N., 50° 37'·070E.
 depth 10 (b) 26° 11'·010N., 50° 41'·720E.
 10m contour to enclose (b)above, joining: (c) 26° 11'·095N., 50° 41'·600E.
 (d) 26° 10'·989N., 50° 41'·915E

submarine pipeline, , joining: 26° 11'·400N., 50° 39'·830E.
 (shore)
 26° 11'·160N., 50° 39'·310E.
 (shore)

Delete depth 2_2 and associated contour, adjacent to: (a)above
 depth 10_1 , close NW of: (b)above
 *Obstn* 26° 10'·41N., 50° 42'·87E.
 former 10m contour, joining: (c)above
 (d)above

202(09/07) PAKISTAN - Karachi Harbour - Upper Harbour - Dredged depths.

Source: BA Notice 1439/07
(HJ/1131/43)

Chart 2050 [*previous update 080/07*] INDIAN DATUM

Amend legend to, *Dredged to 10.7m*, centred on: 24° 49′.800N., 66° 58′.540E.
24° 50′.500N., 66° 59′.110E.

203(08/07) THAILAND - West Coast - Phuket and Approaches - Depths. Less water.

Source: BA Notice 1321/07
(HJ/000/00)

Chart 4025 (Plan) [*previous update 156/07*] INDIAN 1975 DATUM

Insert depth 8₉ and extend 10m contour SE to enclose 7° 50′.07N., 98° 26′.35E.
depth 10₈ 7° 49′.81N., 98° 26′.48E.
depth 2₁ 7° 49′.79N., 98° 24′.82E.
depth 0₉ 7° 49′.29N., 98° 24′.91E.
depth 0₅ 7° 49′.08N., 98° 24′.69E.
legend, *Less water reported (2006)*, centred on: 7° 47′.90N., 98° 24′.33E.

Chart 4025 (Approaches to phuket) [*previous update 156/07*] INDIAN 1975 DATUM

Insert depth 8₉ and extend 10m contour SE to enclose 7° 50′.07N., 98° 26′.35E.
depth 10₈ 7° 49′.81N., 98° 26′.48E.
depth 0₅ 7° 49′.08N., 98° 24′.69E.
legend, *Less water reported (2006)*, centred on: 7° 50′.35N., 98° 26′.15E.

204(08/07) MALAYSIA - Peninsular Malaysia, West Coast - Perak - Taiping Westwards -Kuala Gula -Light.

Source: BA Notice 1492/07
Indian List of Light Vol. F & K 2003 - F 1548
(HJ/927/49)

BA Chart 3944 [*previous update 153/06*]

Insert ★ Q.R.10m6M 4° 55′.19N., 100° 27′.89E.

205(08/07) SINGAPORE - Singapore Island - West Jurong Channel - JTC Marine Base South-eastwards - Berth.

Source: BA Notice 1275/07
(HJ/927/16)

BA Chart 4033 [*previous update 133/07*]

Insert berth number YFQ5, centred on: 1° 17′.992N., 103° 41′.201E.
Delete berth number YFQ5, centred on: 1° 17′.922N., 103° 41′.201E.


206(00/07) SINGAPORE - Pulau Sebarok - Pasir Panjang Terminal - Dredged depths. Depths.

Source: BA Notice 1274/07
Indian List of Light Vol. F & K 2003 - F 1695.1, F 1695.2
(HJ/927/16)

BA Chart 4034 [*previous update 131/07*]

Insert limit of dredged area, pecked line, joining: 1° 16′.476N., 103° 46′.468E.
(shore)
1° 16′.459N., 103° 46′.496E.
(existing limit)
dredged depth, *16.0m (2007)*, centred on: 1° 16′.444N., 103° 46′.469E.
Move berth number, P25, from: 1° 16′.534N., 103° 46′.482E.
to: 1° 16′.491N., 103° 46′.453E.

206(00/07) SINGAPORE - Pulau Sebarok - Pasir Panjang Terminal - Dredged depths. Depths.(continued)**BA Chart 4035** [*previous update 131/07*]

Insert  limit of dredged area, pecked line, joining: 1° 16′.476N., 103° 46′.468E.
(shore)
1° 16′.459N., 103° 46′.496E.
(existing limit)

Move dredged depth, 16.0m (2007), centred on: 1° 16′.444N., 103° 46′.469E.
berth number, P25, from: 1° 16′.534N., 103° 46′.482E.
to: 1° 16′.491N., 103° 46′.453E.

Delete leading line, pecked line, extending for 540m in direction 220°, from: (a) 1° 11′.91N., 103° 47′.73E.

legend, 040.1°, seaward end of: (a)above

BA Chart 4036 [*previous update 162/07*]

Delete leading line, pecked line, extending for 540m in direction 220°, from: (a) 1° 11′.91N., 103° 47′.73E.

legend, 040.1°, seaward end of: (a)above

207(08/07) SINGAPORE STRAIT - Western Approaches - Nipa Transit Anchorage - Buoyage.

Source: BA Notice 1277/07

(HJ/927/16)

BA Chart 2403 [*previous update 164/07*]

Move  Fl(4)Y.10s from: 1° 09′.50N., 103° 35′.60E.
to: 1° 09′.40N., 103° 36′.60E.

 Fl.Y.4s from: 1° 07′.30N., 103° 34′.20E.
to: 1° 06′.80N., 103° 35′.00E.


BA Chart 3833 [*previous update 162/07*]

Move  Fl(4)Y.10s from: 1° 09′.50N., 103° 35′.60E.
to: 1° 09′.40N., 103° 36′.60E.

Move  Fl.Y.4s from: 1° 07′.30N., 103° 34′.20E.
to: 1° 06′.80N., 103° 35′.00E.

BA Chart 4040 [*previous update 134/07*]

Insert  Fl(4)Y.10s 1° 09′.40N., 103° 36′.60E.


Delete Former  Fl(4)Y.10s 1° 09′.50N., 103° 35′.60E.

208(08/07) INDONESIA - Sumatera - North East Coast - Approaches to Belawan - Buoy.

Source: BA Notice 1455 /07

(HJ/928/31)

BA Chart 3584 (plan, Approaches to Belawan) [*previous update 183/07*]

Insert  FLR.5s No 6 3° 50′.67N., 98° 44′.29E.

209(08/07) INDONESIA - Sumatera - Pulau Batam - Selat Riau - Tanjung Butan Eastwards - Buoy.

Source: BA Notice 1276/07

(HJ/927/15)

BA Chart 3937 (plan D, Tanjunguban and Approaches) [*previous update 163/07*]

Insert  FLR.4s 1° 06′.83N., 104° 09′.83E.

210(08/07) INDONESIA - Kalimantan - West Coast - Pulau Padangtikar South-westwards - Karang Erikson - Depths. Legends.

Source: BA Notice 1486/07

(HJ/827/81)

BA Chart 1312 [*previous update 165/07*]

Insert depth 7 enclosed by 10m contour (a) 1° 04'·00S., 108° 32'·55E.

Delete former depth 7 enclosed by 10m contour, close NNW of: (a)above

depth 16, adjacent to: (a)above

BA Chart 3721 [*previous update 165/07*]

Insert depth 7 enclosed by 10m contour, *Karang Erikson* (a) 1° 04'·00S., 108° 32'·55E.

Delete former depth 7 enclosed by 10m contour and associated legend, *Karang Erikson*, close NW of: (a)above

depth 16, close E of: (a)above

211(08/07) INDONESIA - Sumatera - East Coast - Approaches to Sungai Palembang - Sungai Banyuasin Eastwards - Buoy.

Source: BA Notice 1337/07

(HJ/827/75)

BA Chart 3476 (Panel A) [*previous update 548/05*]

Insert  2° 11'·9S., 104° 57'·4E.

212(08/07) INDONESIA - Java Sea - Belitung Southwards - Karang Genting North-eastwards - Legend.

Source: BA Notice 1506/07

Indian List of Light Vol. F & K 2003 - K 1021

(HJ/827/62)

BA Chart 941A [*previous update 165/07*]

Delete legend, (exting), at light 3° 33'·25S., 107° 41'·25E.

BA Chart 2137 [*previous update 165/07*]

Delete legend, (exting), at light 3° 33'·25S., 107° 41'·25E.

BA Chart 2149 [*previous update 165/07*]

Delete legend, (exting), at light 3° 33'·25S., 107° 41'·25E.

213(08/07) INDONESIA - Java Sea - Selat Sunda North-eastwards - Depths. Moored storage tanker. Mooring buoy. Platforms.

Source: BA Notice 1268/07

(HJ/827/63)

BA Chart 941A [*previous update 212/07*]

Insert depth 2¾ enclosed by 3fm contour 3° 40'·5S., 106° 05'·7E.

depth 4¼ enclosed by 5fm contour 4° 23'·3S., 106° 20'·7E.

 4° 05'·3S., 108° 04'·8E.

 5° 17'·5S., 107° 07'·3E.

 5° 19'·2S., 107° 02'·6E.

BA Chart 2149 [*previous update 212/07*]

Insert depth 5 enclosed by 5m contour, *PA* 3° 40'·5S., 106° 05'·7E.

depth 8 enclosed by 10m contour, *PA* 4° 23'·3S., 106° 20'·7E.

 *PA* 5° 44'·8S., 107° 05'·5E.

 *PA* 4° 05'·3S., 108° 04'·8E.

 *PA* 5° 17'·5S., 107° 07'·3E.

 *PA* 5° 19'·2S., 107° 02'·6E.

BA Chart 3729 [*previous update 141/07*]

 *PA* 5° 44'·8S., 107° 05'·5E.

 *PA* 5° 17'·5S., 107° 07'·3E.

 *PA* 5° 19'·2S., 107° 02'·6E.

214(08/07) INDONESIA - Java Sea - Tita Oilfield Eastwards and Intan NE Oilfield Eastwards - Wrecks.

Source: BA Notice 1267/07

(HJ/827/43)

BA Chart 941A [*previous update 213/07*]

Insert



5° 08'·3S., 106° 26'·6E.



4° 33'·9S., 107° 05'·5E.

BA Chart 2056 [*previous update 166/07*]

Insert



PA

5° 08'·30S., 106° 26'·60E.

BA Chart 2149 [*previous update 213/07*]

Insert



PA

5° 08'·3S., 106° 26'·6E.



PA

4° 33'·9S., 107° 05'·5E.

215(08/07) INDONESIA - Jawa - North Coast - Pelabuhan Tanjungpriok - Legend.

Source: BA Notice 1338/07

Indian List of Light Vol. F & K 2003 – K 1076.4

(HJ/827/33)

BA Chart 932 (plan A, Pelabuhan Tanjungpriok) [*previous update 572/05*]

Delete

legend, (exting), at light-beacon

6° 05'·65S., 106° 53'·30E.

BA Chart 932 (plan B, Approaches to Pelabuhan Tanjungpriok) [*previous update 572/05*]

Delete

legend, (exting), at light-beacon

6° 05'·65S., 106° 53'·30E.

SECTION – III: TEMPORARY AND PRELIMINARY NOTICES

***216(P) (08/07) INDIA - West Coast – Pavas Anchorage - Buoy.**

Source: Silver port service private limited.

(HJ/1030/66)

1. Cautionary buoys marking restricted area have been laid in the Pavas bay (Finolex sea terminal) as mentioned below. (WGS 84 datum).
 - (a) Yellow colour buoy, 600mm dia, rotationally moulded conforming to IALA standards in position 16°53′.20N., 073° 17′.15E.
 - (b) Yellow colour buoy, type can, 550mm dia set in position 16°53′.30N., 073° 17′.08E.
2. Both the buoys have no topmark and are not lit at this moment.
3. Both the buoys mark the 10mtr depth contour line.
4. Mariners to exercise caution.

Charts affected – 2077 - 2028

***217(P) (08/07) INDIA - East Coast – Point Calimere to Chennai (Madras) – Karaikal – Work in progress.**

Source: INS Darshak. Fax message

(HJ/1030/00)

1. New construction of berthing, mooring dolphins and other works in progress.
2. Chart will be updated when ongoing survey is completed.
3. Mariners to exercise caution.

Charts affected – 357(INT 7397)

***218(P) (08/07) INDIA – East Coast – Krishnapatnam Anchorages – Work in progress.**

Source: Krishnapatnam Port Company Limited

(HJ/1029/49)

1. Details on development of Krishnapatnam port work in progress as follows:
 - (a) Three berths for Coal, Iron ore and other cargos being constructed.
 - (b) Breakwater
 - (c) Dredging – upto (-) 13.2 M
 - (d) Stock yard and conveyor system of Coal and Iron ore.
2. Phase (I) of Work is expected to complete by 01 Jun 2008.
3. Mariners to exercise caution.

Chart affected - 3031

***219(T) (08/07) INDIA – Nicobar Islands Sawai Bay & Malacca Anchorage – Transit mark – Beacon.**

Source: Hydrographic Note -INS Darshak

(HJ/928/97)

Refer to INM 343(P)/(18/03)

1. The shore beacon in position 09° 14′.55N., 92° 46′.69E in transit with beacon No. 3 leading into the harbour on course 140° at Mus harbour is fallen off.
2. The beacon No. 4 in position 09° 14′.50N., 92° 46′.63E at Mus harbour is fallen off but visible above the water line.
3. Mariners to exercise caution while navigating in this area.

Charts affected – 4032

***220(T) (08/07) INDIAN OCEAN – Bay of Bengal – Northern Position (Krishnapatnam to Bassein River) – Data buoy.**

Source: Hydrographic Note -INS Darshak

(HJ/1029/42)

1. A yellow coloured data buoy (MB 11) 2.2 mtr diameter and 3.5 mtr height mast carrying sensor fitted with radar reflector characteristics Fl(4)15s4M is laid in position 15° 00′.00N., 087° 21′.18E.
2. Mariners are advised to keep clear by 1000 mtrs.
3. Cancel former INM 427(P)/06.

Chart affected - 31

221(T) (08/07) QATAR - Ras Laffan - Anchorage areas.

Source: BA Notice 1423(T)/07
(HJ/1132/58)

1. Mariners are advised that Ras Laffan Anchorage Area Number 1 (25° 57'·0N., 51° 41'·0E.) is closed. All vessels should now use Anchorage Area Number 2 (25° 54'·75N., 51° 46'·00E.) until further notice.

BA Charts affected – 2523 (INT 7250) - 3791 - 3950**222(T) (08/07) SRI LANKA - South Coast - Little Basses Reef - Light.**

Source: BA Notice 1331(T)/07
(HJ/0000/00)

1. Little Basses Reef light in position 6° 24'·4N., 81° 43'·8E. is extinguished until further notice.
2. Former Notice 134(T)/05 is cancelled.

Charts affected – 23 – 32(INT 754) – 33 – 226 –264– 358 – 359 – 2064 – 7704 (INT 704)**223(P) (08/07) MALAYSIA - Peninsular Malaysia, West Coast - Pinang Harbour - Coastline. Works. Lights. Beacons. Depths. Drying patch. Wrecks. Obstructions. Dredged areas. Marine farms.**

Source: BA Notice 1441(P)/07
(HJ/927/59)

1. There have been many harbour developments and changes to coastline in the vicinity of Pinang Harbour.
 - a. The bulk cargo terminal jetty (5° 22'·03N., 100° 22'·02E.) has been extended seaward by 100 metres. Berth 11 is now located between positions 5° 22'·27N., 100° 21'·94E. and 5° 21'·93N., 100° 21'·99E.
 - b. The coastline immediately north and south of the bulk cargo terminal has been reclaimed up to 310 metres seaward of the existing coastline.
 - c. Works are in progress to extend the container terminal (5° 22'·03N., 100° 22'·02E.) 300 metres northward.
 - d. The coastline immediately south of the container terminal has been reclaimed up to 140 metres seaward of the existing coastline.
 - e. The coastline immediately south of Tanjung Tokong (5° 27'·83N., 100° 18'·59E.) has been reclaimed up to 800 metres seaward of the existing coastline.
 - f. The coastline between Swettenham Pier (5° 25'·15N., 100° 20'·83E.) and the western end of the Pinang Bridge (5° 21'·55N., 100° 19'·10E.) has been reclaimed up to 750 metres seaward of the existing coastline. These areas of reclamation have resulted in the removal of the 2 loading platforms and associated pipelines in the vicinity of position 5° 23'·78N., 100° 19'·81E. and the APC Pier (5° 23'·54N., 100° 19'·57E.). Numerous small finger and “T” shaped jetties have been built out from the new coastline.
 - g. The coastline on the eastern side of Palau Pinang between latitudes 5° 21'·0N. and 5° 18'·0N. has been reclaimed up to 1100 metres seaward of the existing coastline.
 - h. The floating dock to the south east of Pulau Jerejak in position 5° 18'·75N., 100° 19'·40E. has been removed.
2. There have been many changes to the navigational aids within Pinang Harbour; the most significant are as follows:

Description	Name	Position	Charted Change
Fl.5s13m10M	Wellesley South	5° 25'·80N., 100° 22'·42E.	Now an unlit beacon
Fl(3)R.5s		5° 24'·94N., 100° 21'·70E.	Light removed
Q.6m4M		5° 24'·45N., 100° 20'·38E.	Light removed
Q.6m4M		5° 24'·43N., 100° 20'·33E.	Light removed
Fl.2s13m6M	No2	5° 22'·91N., 100° 19'·67E.	Now Fl.G 'Submarine cable transit No1'
Fl.2s12m6M	No3	5° 22'·83N., 100° 20'·18E.	Now Fl.G 'Submarine cable transit No1'

3. There are numerous changes to depths in the harbour area which has been totally resurveyed. The following significant depths less than charted now exist:

9.8m	5° 28'·62N., 100° 20'·39E.
5.3m	5° 25'·39N., 100° 21'·90E.
10.7m	5° 24'·41N., 100° 21'·65E.
12.4m	5° 23'·08N., 100° 21'·14E.
9m	5° 21'·54N., 100° 21'·83E.
3.3m	5° 21'·18N., 100° 20'·80E.

223(P) (08/07) MALAYSIA - Peninsular Malaysia, West Coast - Pinang Harbour - Coastline. Works. Lights. Beacons. Depths. Drying patch. Wrecks. Obstructions. Dredged areas. Marine farms. (continued)

4. The following drying banks now exist:
 - a. In the vicinity of Tel Ayer Tawar ($5^{\circ} 29' 15\text{N.}, 100^{\circ} 22' 85\text{E.}$) the drying bank has extended up to 1000 metres seaward of the existing drying area.
 - b. On the north-western side of Tanjung Bunga ($5^{\circ} 28' 15\text{N.}, 100^{\circ} 17' 62\text{E.}$) the drying bank has extended up to 400 metres seaward of the existing drying area.
 - c. The drying bank called Middle Bank ($5^{\circ} 23' 00\text{N.}, 100^{\circ} 19' 90\text{E.}$) has extended southwards in the vicinity of the Pinang Bridge and closed off the channel between it and the bank to the south of the bridge. This bank has also extended southwards usually closing the channel between it and Pulau Jerejak.
 5. There have been numerous changes to the wrecks, obstructions and fouls within Pinang Harbour. The most significant are as follows:
 - a. The hulk in position $5^{\circ} 27' 43\text{N.}, 100^{\circ} 22' 89\text{E.}$ has been removed.
 - b. The stranded wreck in position $5^{\circ} 23' 66\text{N.}, 100^{\circ} 19' 62\text{E.}$ has been removed.
 - c. The dangerous wreck in position $5^{\circ} 23' 43\text{N.}, 100^{\circ} 19' 51\text{E.}$ has been removed.
 - d. A 7.8m wreck now exists in position $5^{\circ} 25' 77\text{N.}, 100^{\circ} 20' 89\text{E.}$
 - e. A 15.8m wreck now exists in position $5^{\circ} 25' 52\text{N.}, 100^{\circ} 21' 34\text{E.}$
 6. The dredged channel centred on $5^{\circ} 23' 80\text{N.}, 100^{\circ} 21' 67\text{E.}$ no longer exists.
 7. Marine farms have been established in the following positions:
 - $5^{\circ} 23' 85\text{N.}, 100^{\circ} 20' 22\text{E.}$
 - $5^{\circ} 23' 75\text{N.}, 100^{\circ} 20' 08\text{E.}$
 8. Mariners are advised to proceed with due caution and to contact to local authorities for the latest information.
- Charts affected – 4026 - 4027**

SECTION – IV: MARINE INFORMATION

Crossing of Vessels through Pamban Channel

Source: Tamilnadu Maritime Board

The southern railway had informed that the lifting of Scherzer rolling lift span of the railway bridge in the Pamban Channel will be suspended for undertaking gauge conversion of the Manamadurai – Rameshwaram section of the railway line from 15 Nov 2006 to Mar 2007. The ships, crafts etc will not be able to pass through the navigational span till completion. Further position shall be intimated depending upon the progress.

Charts affected: 3016 – 317 – 358 (INT 7394).

Distribution of Indian Paper Charts and Nautical Publications

Indian Nautical Charts and Publications from National Hydrographic Office, India are now available globally. Details of overseas chart agents are as follows:

C-Map India Pvt. Ltd. 505, Raheja Arcade, Sector-11, CBD Belapur, Navi Mumbai 400 614 Ph: 91 22 65103668 Fax: 91 22 67939504 Email: info@c-map.co.in	C-Map Norway AS Hovlandsveien 52, P.O. 212, N-4370, Egersund, Norway Ph: 0047 51 464700 Fax: 0047 51 464701 Email: market@c-map.no
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Mari-Sys Pte Ltd. 20 Ayer Rajah Crescent, #08-21, SE 139964, Republic of Singapore Ph: +65 6776 1898 Email: info@mari-sys.com	

Tsunami Notices

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

Source: NHO, Dehradun

(HJ/NM/Gen)

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)

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

(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

***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

***160 (T) (06/05) INDIA – Andaman Sea – Nicobar Island – Campbell Bay – Rock.**

Source: Hydrographic Note, INS Tillanchang, INS Sandhayak
(HJ/928/76)

1. It is reported that following rocks have been found at position

(a) New Rock 07° 01'.370N., 093° 55'.310E.

(b) Sunken boat 06° 59'.870N., 093° 55'.560E.

2. The Leading transit mark 323° on the beach was broken and damaged. The Chosen point light are non-operational. The seaward end of the breakwater is sunk.

Charts affected: 409 – 471 – 472 (INT 7032) – 4035.

SECTION – V: NAVIGATIONAL WARNINGS IN FORCE

- For details of NAVAREA limits and organization/ coordination, please refer to Notice No. 12 of the Special edition of Indian Notice to Mariners – 2004.
- NAVAREA Warnings in force:** - The serial numbers of all the NAVAREA warnings in force as on 13 Apr 2007, covering the entire world are listed below against the respective NAVAREA

<u>NAVAREA No.</u>	<u>LOCATION</u>	<u>LAST NAVAREA</u>	<u>NAVAREA IN FORCE</u>
I	N.E. Atlantic	074	2005 series: 402 468. 2006 series: 261 356. 2007 series: 019 035 039 042 045 049 050 056 074.
II	E. Atlantic	123	2006 series: 131 181 322. 2007 series: 099 103 106 117 118 121 122 123.
III	Mediterranean	139	2007 series: 075 080 081 093 100 108 114 115 116 121 122 123 124 130 131 134 138 139.
IV	N.W. Atlantic	104	2007 series: Nil.
V	W. Atlantic	179	2007 series: Nil.
VI	S.W. Atlantic	130	2007 series: Nil.
VII	S.E. Atlantic	046	2006 series: 086. 2007 series: 017 035 040 041 042 043 044 045 046.
VIII	Indian Ocean	230	2006 series - 745 753 794 803 2007 series – 012 014 035 044 072 085 092 094 106 112 131 160 161 170 174 178 179 183 184 185 192 200 201 202 203 204 212 216 217 218 219 222 225 226 227 228 230

201. India West Coast – Mumbai Harbour. Charts 21 22 211 255 292 293 2015 2016 INT 705 INT 706. Sunk Rock light 18-53.3N., 072-50.0E unlit. 2. Mariners to exercise caution.
202. India Andaman Sea – Batti Malv Island. Charts 33 41 407 472 4033 INT 706. Batti Malv light 08-50.2N., 092-51.5E unlit.
203. Cancel Navarea eight 121 of 2007. India East Coast- off Banda Murlanka . Charts 31 32 355 INT 706. Geophysical survey in progress by MV Logos Searcher in area bounded by: (a) 16-22.0N., 081-54.4E (b) 16-20.0N., 081-55.2E (c) 16-25.0N., 082-04.0E (d) 16-26.5N., 082-03.4E 2. Mariners to exercise caution.
204. India South Coast – Arabian Sea. Charts 22 23 32 260 261 263 273 INT 706. A 68 feet red coloured steel hull fishing vessel ‘Sri Krishna’ Reg No. RF-07-339 (ALP-2749) with 12 crew members ventured to sea Ex Kollam, kerala 07 Mar 2007. Vessel last sighted south of Rameshwaram fishing grounds 12 Mar 2007 and lost contact with owners. 2. All vessels operating in vicinity to keep sharp lookout and render assistance.
205 to 211. Cancelled.

212. Cancel Navarea eight 142 and 177 of 2007. India West Coast – Arabian Sea. Charts 21 22 211 217 253 255 258 291 292 293 INT 705 INT 706. Present position of Oil rigs / Drill ships as follows :		
	RONDOLF YOST	19-31.17 N., 071-19.85E
	HITDRILL	18-45.23N., 072-18.00E
	ABAN III	19-29.35N., 071-18.06E
	PRIDE PENNSYLVANIA	19-25.35N., 071-19.55E
	CE THORNTON	19-51.33N., 071-39.50E
	FG Mc CLINTOK	19-24.10N., 071-23.06E
	ABAN V	19-25.00N., 071-14.57E
	NOBLE CHARLIE	19-22.75N., 071-25.25E
	FRONTIER ICE	20-10.37N., 069-40.33E
	SAGAR SAMRAT	19-32.13N., 071-18.81E
	SAGAR RATNA	18-40.37N., 072-21.46E
	SAGAR LAXMI	18-36.15N., 071-01.63E
	SAGAR GAURAV	19-12.52N., 072-01.66E
	SAGAR UDAY	19-15.66N., 071-21.21E
	SAGAR PRAGATI	18-36.20N., 072-13.98E
	SAGAR SHAKTI	19-16.17N., 071-23.43E
	ENSCO-50	19-23.16N., 071-57.16E
	ENSCO-53	19-18.28N., 071-58.58E
	ACTINIA	19-45.10N., 070-48.16E
	NOBLE ED HOLT	18-33.75N., 072-17.61E
	RON TOPMEYER	19-23.38N., 071-12.43E
	TRIDENT – 12	19-26.83N., 071-15.45E
	JT ANGEL	18-36.35N., 072-15.78E
2.	Wide berth requested.	
213 to 215. Cancelled.		
216. India West Coast – Port of Mormugao. Charts 22 214 257 2020 2022 2078 INT 706. Break water light 15-25.08N., 073-47.55E unlit.		
2	Mariners to exercise caution.	
217. Bay of Bengal – off Myanmar Coast. Charts 31 321 361 371 INT 071 INT 706. 2-D Seismic survey in progress by SV Zephyr-I in area bounded by:		
	(a) 19-31.91N., 091-30.07E	(b) 19-31.80N., 092-22.67E
	(c) 20-11.16N., 092-22.44E	(d) 20-10.65N., 092-02.87E
	(e) 19-40.66N., 091-29.91E	
2.	Unauthorized navigation, anchoring, fishing and trawling are prohibited within a radius of 2.5 NM from survey area.	
3	Cancel this message on 26 Apr 2007.	
218. India West Coast – Arabian Sea. Charts 22 216 257 293 2008 2009 2024 2071 2072 2073 INT 705 INT 706. Hydrographic survey in progress by naval hydrographic vessel Nirdeshak in area bounded by:		
	(a)13-29.0N., 073-47.0E	(b)14-50.0N., 073-47.0E
	(c)14-50.0N., 074-07.30E	(d)14-44.8N., 074-14.0E
	(e)13-29.0N., 074-41.0E	
2.	All vessels operating in vicinity are to maintain a clearance of 03 NM all around the vessel and exercise caution.	
3.	Cancel this message on 16 May 2007.	
219. Cancel following Navarea eight messages 136 167 194 195 and 210 of 2007. India East Coast– Bay of Bengal. Charts 31 32 33 301 351 352 354 355 357 INT 706. Present position of Oil rigs / Drill ships as follows:		
	DEEP DRILLER - I	11-52.60N., 080-00.40E
	RIG-31	16-25.00N., 082-08.00E
	BELFORD DOLPHIN	17-54.50N., 084-30.40E
	ATWOOD BEACON	16-40.00N., 082-28.40E
	TRANSOCEAN NORDIC	20-02.00N., 086-54.00E
	PERRO NEGRO III	16-40.17N., 082-25.70E
	DEEP WATER FRONTIER	16-10.30N., 082-37.20E
	GALAXY DRILLER	20-45.90N., 088-19.60E
	DISCOVERER SEVEN SEAS	19-41.60N., 086-48.80E
	SAGAR VIJAY	16-35.60N., 082-27.20E
	C KIRK RHEIN JR	16-31.90N., 082-30.50E
2.	Wide berth requested	

220 to 221. Cancelled.
<p>222. India East Coast - Gopalpur. Charts 31 352 353 3005 INT 706. Firing exercise between 2330 UTC and 1230 UTC from 11 Apr to 14 Apr 2007. Danger area bounded by:</p> <p>(a) 19-14.6N., 084-53.7E (b) 19-37.05N., 085-27.85E (c) 18-46.05N., 085-22.86E</p> <p>And arc of 42 NM radius joining point (b) and (c).</p> <p>2. Safe flying height 6100 metres. 3. Cancel this message on 15 Apr 2007.</p>
223 to 224. Cancelled.
<p>225. India West Coast - Kochi. Charts 22 32 220 259 260 2004 2029 2045 INT 706. Firing exercise by Naval coast battery between 0330 UTC and 1530 UTC on 13 Apr 17 Apr and 20 Apr 2007. Danger area bounded by:</p> <p>(a) 09-57.5N., 075-59.5E (b) 09-57.7N., 076-14.2E (c) 09-44.0N., 076-17.5E (d) 09-42.5N., 076-09.5E</p> <p>2. Safe flying height 10000 metres. 3. Cancel this message on 21 Apr 2007.</p>
226. India Lakshadweep Sea – Bitra Island. Charts 22 268 272 INT 706. Bitra light 11-35.8N., 072-11.4E; Unlit.
<p>227. India East Coast –Off Sacramento Shoal. Charts 31 32 354 355 3009 INT 706. Hydrographic survey in progress by naval hydrographic vessel Nirupak till 21 Apr 2007 in the following area:</p> <p>(a) 16-49.5N., 082-27.5E (b) 16-30.5N., 082-22.8E (c) 16-12.4N., 081-53.0E (d) 16-06.0N., 081-30.0E (e) 16-23.2N., 081-30.0E</p> <p>2. All vessels operating in vicinity are to maintain a safe distance from survey vessel and exercise caution. 3. Cancel this message on 22 Apr 2007.</p>
<p>228. India West Coast – Approaches To Mumbai. Charts 21 22 211 255 292 293 2016 INT 705 INT 706. Seismic survey in progress by ‘Geco Topaz’ till 31 May 2007 in area bounded by:</p> <p>(a) 19-17.0N., 071-52.0E (b) 19-10.0N., 071-52.0E (c) 19-10.0N., 071-23.0E (d) 18-44.0N., 071-33.0E (e) 18-44.0N., 072-30.0E (f) 19-17.0N., 072-30.0E</p> <p>2. Vessel towing six seismic cables of length 04 NM and the cables are indicated by yellow tail buoy with flash light. 3. All vessels operating in vicinity are to maintain a clearance of 06 NM and exercise caution. 4. Cancel this message on 01 Jun 2007.</p>
229. Cancelled.
<p>230. Cancel Navarea eight 224 of 2007. India East Coast- Bay of Bengal. Charts 31 33 41 351 352 471 9001 INT 71 INT 706 INT 707. Experimental flight vehicle launch scheduled from launch pad 20-45.0N., 087-05.0E between 0330 UTC and 1130 UTC from 12 Apr to 14 Apr 2007.</p> <p>2. Danger zones Sector of 1512 NM radius between azimuth angles (from north) 157 degree and 189 degree from launch pad. 3. Mariners to exercise caution. 4. Cancel this message on 15 Apr 2007.</p>

<u>NAVAREA No.</u>	<u>LOCATION</u>	<u>LAST NAVAREA</u>	<u>NAVAREA IN FORCE</u>
IX	Persian Gulf, Red Sea, NW Arabian Sea	073	2006 series: 106 116 147 177 187 200 203 216 227 230 233 234. 2007 series: 003 006 018 022 025 027 028 040 041 042 045 047 048 050 054 061 062 064 066 071 072 073.
X	Australia, New Guinea	044	2007 series: 011 014 028 032 033 034 035 036 037 038 041 043 044.
XI	Malacca Strait, China Sea, N. Pacific	107	1996 series: 0925 1998 series: 0655 1999 series: 0053 0187 0310 2000 series: 0677 2001 series: 0182 0775 2003 series: 0106 0303 0304 2004 series: 0246 0271 0361 0571 2005 series: 0271 0307 2006 series: 0005 0050 0052 0058 0060 0075 0083 0090 0123 0224 0250 0251 0276 0303 0343 0471 0480 0561 0568 0580 0585 2007 series: 0002 0003 0004 0008 0009 0064 0085 0093 0098 0107.
XII	N.E. Pacific	083	2007 series: Nil
XIII	N.W. Pacific	Nil	2007 series: Nil
XIV	S.W. Pacific	007	2006 series: 018 049. 2007 series: 005 007.
XV	S.E. Pacific	037	Nil
XVI	E. Pacific	Nil	Nil
Hydropacs	Pacific, Indian Ocean	644	2006 series: 375 524 1049 1812. 2007 series: 444 463.
Hydrolants	Atlantic, Mediterranean	586	2006 series: 1394.

SECTION – VI: CORRECTIONS TO SAILING DIRECTION

-NIL-





SECTION – VII: CORRECTIONS TO INDIAN LIST OF LIGHTS

<u>No</u>	<u>Name & Location</u>	<u>Position (Lat-Long)</u>	<u>Charact- eristics</u>	<u>Ht. mts.</u>	<u>Range miles</u>	<u>Structure & Height (mts)</u>	<u>Remarks</u>
D6862-1	- Roche Boquet	4 21-13 S 55 46-61E	Oc(2)Y8s *	Post 8	
D6890-8	- Passe M'Zamboro	12 36-80 S 45 07-80E	Fl R 4s *	..	3		*
	*	*	*	*	*	*	*
D7038 DELETED	Remove from list						
D7038.1 DELETED	Remove from list						
D7318	Ras al Hadd (AMNAS)	22 31-98N 59 47-90E	Fl W 10s	42	16	Red and white metal framework tower 38	<i>fl 0-9.</i> Racon. Reduced Range 7M (T) 2007 *
D7649	- <i>Shahab 6 Lt F</i> *	29 40-60N 49 30-00E *	Fl R 6s	..	10	Red hull *	
F0476-2	- SURAT ANCHORAGE. Hazira. N Breakwater *	21 05-45N 72 36-84E *	Fl R 4s	11	4	Red beacon *	*
F0476-25	- SURAT ANCHORAGE. Hazira. S Breakwater *	21 05-09N 72 37-03E *	Fl G 4s	11	4	Green beacon *	
F0476-3	-SURAT ANCHORAGE. Hazira. Ldg Lts 69-5°. Front *	21 05-51N 72 37-49E *	Fl W 4s	23	22		*
F0476-31	-SURAT ANCHORAGE. Hazira. Ldg Lts 69-5°. Rear *	21 05-57N 72 37-65E *	Fl W 4s	28	22		*
F0476-7	- Surat Roads. Alhabob *	21 03-70N 72 36-45E *	Lit	Platform *	*

F0623	-MORMUGAO PORT. Vasco Bay	15 24-01N 73 48-54E *	F G	8	..	Beacon	*
F0623-1	-MORMUGAO PORT. Vasco Bay	15 23-99N 73 48-55E *	F G	10	..	Beacon	*
F0623-3	-MORMUGAO PORT. Vasco Bay	15 23-99N 73 48-58E *	F R	10	..	Beacon	*
F1379-5	- Ldg Lts 180°. Front	3 01-74 N 99 51-67E	Q(2)W3-5s *	13	12	White Δ on white beacon 9	
F1566	Pulau Jarak	3 58-62 N 100 06-09E *	Fl(2)W 15s	162	20	White metal framework tower, red bands	*

SECTION – VIII: CORRECTION TO LIST OF RADIO SIGNALS**INP 31(1), 2005***(Last correction: Edition No. 02 dated 16 Jan 2007)***PAGE 37, MALAYSIA, PENINSULAR, MALAYSIA MRCC (PENINSULAR).**

Delete entry and replace by

PUTRAJAYA MRCC (9MHF2)					
05°26'N 100°24'E		MMSI 005330108		DSC VHF	
	Putrajaya	MRCC: +60 3 89413140			Putrajaya MRCC: +60 3 89413129
				E-Mail:	mrccputrajaya@mmea.gov.my
Peninsular Malaysia			Sabah & Sarawak		
Associated MRSC DSC VHF MMSI and voice callsign in brackets		Johor Bahru MRSC: MMSI 005330035 (9MHE6) Kuantan MRSC: MMSI 005330045 (9MHE9) Langkawi MRSC: MMSI 005330025 (9MHE5)		Kota Kinabalu MRSC: MMSI 005330055 (9MHE7) Kuching MRSC: MMSI 005330075 (9MHE8)	
	Johor Bahru Kota Kinabalu Kuantan Kuching Langkawi	MRSC: +60 7 2219231 MRSC: +60 8 8429803 MRSC: +60 9 5734066 MRSC: +60 8 2367943 MRSC: +60 4 9665307		Johor Bahru Kota Kinabalu Kuantan Kuching Langkawi	MRSC: +60 7 2224739 MRSC: +60 8 8427075 MRSC: +60 9 5734177 MRSC: +60 8 2364941 MRSC: +60 4 9669543
The Malaysian Maritime Enforcement Agency (MMEA) is responsible for co-ordinating Search and Rescue operations. Additional radio watch--keeping on international Distress frequencies, including DSC VHF and MF, are maintained by a network of remote stations under the control of Penang Radio (9MG).The areas covered include the Malaysian Peninsular, Sabah and Sarawak.					
BA Notice- 13/07				08/07	

PAGE 37, MALAYSIA, PENINSULAR, PENANG (9MG), DSC Table.

Delete table and replace by:

Peninsular Malaysia					
DSC VHF	MMSI	DSC VHF	MMSI	DSC MF	MMSI
Bukit Kemuning 4°19'N103°28'E	005330008	Kuala Terengganu 5°18'N103°08'E	005330009	Kuantan 4°06'N103°23'E	005330008
Gunung Berinchang 4°31'N101°23'E	005330003	Machang 5°42'N102°17'E	005330010	Permatang Pauh 5°25'N100°24'E	005330002
Gunung Jerai 5°47'N100°26'E	005330001	Pulau Tioman 2°48'N104°12'E	005330006		
Gunung Ledang 2°03'N102°34'E	005330005	Ulu Kali 3°26'N101°47'E	005330004		
Kuala Rompin 2°48'N103°29'E	005330007				
Sabah & Sarawak					
DSC VHF	MMSI	DSC VHF	MMSI	DSC MF	MMSI
Bintulu 3°13'N113°05'E	005330012	Kota Kinabalu 6°02'N116°12'E	005330013	Kota Kinabalu 5°57'N116°02'E	005330013
Kuching 1°35'N110°11'E	005330011	Labuan 5°17'N115°15'E	005330014	Kuching 1°49'N109°46'E	005330011

BA Notice- 13/07**08/07****PAGE 38, MALAYSIA (SABAH), LABUAN MRCC (SABAH AND SARAWAK).**

Delete entry.

BA Notice- 13/07**08/07**

INP 31(2), 1995*(Last correction: Edition No. 07 dated 01 Apr 2007)***PAGE 37, INDIA section.**

Insert:

Azhikod Lt Racon¹ D 10°11'·87N, 76°09'·52E. **79075**

(1) On trial

(Delete from page No. 12)**BA Notice- 13/07****08/07****BA, VOLUME 3 Part 1, NP 283(1), 2006/07***(Last correction: Edition No. 15 dated 01Aug 2006)***NIL****INP 31(5), 1997***(Last correction: Edition No.01 dated 01 Jan 2007)***PAGE 188, MALAYSIA.**

Delete entry and replace by:

MALAYSIA.

National SAR Agency: Malaysian Maritime Enforcement Agency			
Address: Prime Minister's Department, 4--11th Floor, One IOI Square, IOI Resort, 62502 Putrajaya, Malaysia			
Tel: +60 3 89413140		Fax: +60 3 89413129	E--mail: mrcceputrajaya@mmea.gov.my
The Malaysian Maritime Enforcement Agency is responsible for co-ordinating Search and Rescue operations. A network of stations monitor VHF and MF DSC and 2182 kHz and VHF Ch 16.			
	Telephone +60	Fax +60	Others
MRCC PUTRAJAYA	3 89413140	3 89413129	E--mail mrcceputrajaya@mmea.gov.my
Peninsular Malaysia			
	Telephone +60	Fax +60	Others
MRSC JOHOR BAHRU	7 2219231	7 2224739	
MRSC KUANTAN	9 5734066	9 5734177	
MRSC LANGKAWI	4 9665307	4 9669543	
Sabah and Sarawak			
	Telephone +60	Fax +60	Others
MRSC KOTA KINABALU	88 429803	88 427075	
MRSC KUCHING	82 367943	82 364941	

BA Notice- 13/07**08/07****INP 31, VOLUME 6, 2005***(Last correction: Edition No. 07 dated 01 Apr 2007)***NIL****BA, VOLUME 7, 1999/00-PART 2***(Last correction: Edition No. 16 dated 16 Aug 2000)***NIL****INP 31(8), 1999***(Last correction: Edition No. 05 dated 01 Mar 2006)***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) [Enclosed with editions 1,7,13 & 19 of N to M]

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: - incho@dataone.in; incho_marinesafety@dataone.in
incho_navwarnings@dataone.in; incho_helpdesk@dataone.in
Fax No.: (0135) 2748373
WEB: www.hydrobharat.nic.in

Instructions for filling up Form IH 102 (Enclosed with editions 1,7,13 & 19 of N to M)

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.	a) NAME OF THE PORT : b) Location : Lat: , Long: c) Listing in Guide to Port Entry: Yes/No. Sl. No.:	
2.	NAME AND ADDRESS OF PORT AUTHORITIES a) Name b) Address c) Phone d) Fax e) E-mail	
3.	GENERAL REMARKS 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.	ANCHORAGES a) Type / Purpose b) Minimum Depth at anchorage c) Shelter afforded d) Holding ground e) Recommended pilotage to the anchorage	
5.	PILOTAGE a) Authority for requests. b) Embarkation position c) Regulations d) Documents to be provided	
6.	DIRECTIONS a) Entry and berthing information. b) Tides (Height) c) Tidal Streams. d) Navigational aids.	
7.	POLLUTION CONTROL a) Local regulations in force (if any)	

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

18. PORT AUTHORITY Designation, address and telephone number.	
19. SMALL CRAFT FACILITIES a) Information and facilities for small craft /yachts visiting the port. b) Yacht clubs, berths etc.	
20. SHORE LEAVE	
21. CLUBS / RECREATION / INFORMATION KIOSKS – Their location.	
22. VIEWS (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 : incho@dataone.in / incho_marinesafety@dataone.in

incho_navwarnings@dataone.in / incho_helpdesk@dataone.in

Fax No.: 91- 0135- 2748373

WEB : www.hydrobharat.nic.in

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. **Object of Change:**

	Date/Time of observation	Charted	Observed	Position/Area
(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 to the Government of India

National Hydrographic Office

107 A, Rajpur Road

PO Box No. 75,

Dehradun- 248001

(UTTARANCHAL), INDIA

E Mail : inho@dataone.in / inho_marinesafety@dataone.in

inho_navwarnings@dataone.in / inho_helpdesk@dataone.in

Fax No.: 91- 0135- 2748373

WEB : www.hydrobharat.nic.in

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	Metres	Inches	
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	Inches	Feet	Metres	Factors		
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	Fthms	Metres	Feet	Metres		
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	Factor = 1 m = 3.280839895 feet or					
37	121.391	20.232	93	305.118	50.853	39370078740 inches = 0.546806649 fthm					
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						