

PREFACE

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1 National Hydrographic Office (NHO) endeavours to provide the latest nautical charts and other related products for safe navigation of vessels in the Indian waters in accordance with Allocation of Business Rules of Govt. of India and International Hydrographic Organization (IHO)/International Maritime Organization (IMO) conventions. The office coordinates with various government agencies to provide latest data.

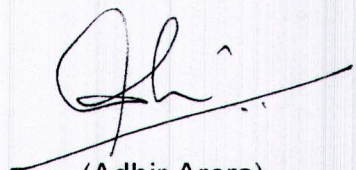
2 The marine traffic is on the rise each year and with the development of new ports, this traffic is bound to increase further. The size and draught of vessels calling on these ports is also increasing making the under-keel clearance a significant facet. Further, Naval and Coast Guard vessels are also calling on these ports as part of their operational deployment.

3 Information about tides assist mariners to calculate accurate under keel clearance, thus playing a pivotal role in maximizing the output of ports. Therefore, there is a need for tidal predictions for the mariners to ensure safety of navigation and for optimisation of operation. NHO has been predicting tides for various minor ports for use by the navigators. This year's edition of INP-12 contains tidal prediction for 93 Indian ports.

4 Tidal predictions are based on observations of tide data by NHO, data provided by civil ports, NIO and INCOIS. In addition, prediction for 24 non major ports has also been obtained from Sol. Tidal prediction of some ports provided in this Tide Table are based on short period observations. Hence, variations between the predicted and observed tides may be encountered.

5 Variations may also arise due to local weather phenomenon, geographical peculiarities of the area, non-tidal phenomena such as wind, atmospheric pressure, river discharge, changing salinity and water temperature (steric effects) which cannot be catered for whilst the tidal predictions are computed. The quality of the predicted tides is also the function of accuracy of observations on which data is predicted. Mariners are advised to seek tidal data from the Port Authorities while operating within respective port limits for safe operations. Mariners and Port Authorities are requested to exercise caution and also inform this office of any inaccuracies observed in the tidal information or send feedback and suggestions to further refine the predictions.

6 The last edition of the tidal prediction for Indian ports by NHO was well received by a large number of mariners. I thank the port authorities for their continued support by forwarding their tidal data which has enabled mariners to utilize the tidal predictions for better management of the resources in the larger interest of the nation.



(Adhir Arora)
Vice Admiral
Chief Hydrographer
to the Govt. of India

Dehradun
26 December 2023

DAHEJ - 2024

LATITUDE 21° 43'N, LONGITUDE 072° 35'E

TIMES AND HEIGHTS OF HIGH AND LOW WATERS

MAY		JUN		JUL		AUG									
TIME	Ht	TIME	Ht	TIME	Ht	TIME	Ht								
h m	m	h m	m	h m	m	h m	m								
0407	2.84	0546	2.77	0603	1.67	0615	2.52	0624	1.38	0548	2.63	0159	6.57	0106	5.94
1 0946 1557	6.62 2.68	16 1154 1744	6.39 3.95	1 1214 1828	7.91 2.65	16 1253 1902	7.39 3.75	1 1254 1919	8.61 2.83	16 1237 1910	7.55 3.89	1 0816 1445	6.57 2.00 8.72	16 0717 1349	5.94 2.77 8.02
WED 2223	8.21	THU 2342	7.28	SAT		SUN		MON		TUE		THU 2132	2.37	FRI 2059	3.17
0530	2.66	0644	2.64	0015	8.01	0035	6.77	0050	7.23	0036	6.15	0309	6.77	0217	6.38
2 1114 1729	6.77 2.81	17 1308 1903	6.85 3.74	2 0703 1318	1.34 8.52	17 0706 1344	2.40 7.82	2 0727 1355	1.37 8.92	17 0651 1333	2.64 7.85	2 0917 1538	1.87 8.85	17 0829 1446	2.26 8.54
THU 2341	8.18	FRI		SUN 1939	2.40	MON 2007	3.43	TUE 2030	2.58	WED 2024	3.58	FRI 2224	1.98	SAT 2150	2.49
0642	2.19	0048	7.21	0117	7.90	0134	6.70	0157	7.08	0141	6.18	0403	7.04	0314	6.99
3 1237 1853	7.34 2.53	18 0733 1359	2.40 7.43	3 0759 1414	1.01 9.09	18 0754 1426	2.21 8.21	3 0827 1450	1.30 9.16	18 0753 1423	2.43 8.21	3 1009 1623	1.71 8.95	18 0929 1536	1.58 9.07
FRI		SAT 2003	3.32	MON 2043	2.07	TUE 2059	3.08	WED 2132	2.25	THU 2121	3.15	SAT 2306	1.71	SUN 2233	1.80
0049	8.30	0143	7.27	0214	7.84	0225	6.74	0259	7.10	0239	6.42	0445	7.30	0402	7.64
4 0742 1343	1.59 8.13	19 0816 1439	2.11 7.99	4 0851 1504	0.71 9.53	19 0839 1503	1.96 8.54	4 0922 1540	1.23 9.31	19 0850 1510	2.05 8.61	4 1052 1658	1.59 9.02	19 1021 1622	0.93 9.52
SAT 2003	2.03	SUN 2052	2.87	TUE 2139	1.74	WED 2143	2.77	THU 2226	1.94	FRI 2209	2.69	SUN 2343	1.54	MON 2314	1.15
0148	8.46	0229	7.37	0307	7.83	0310	6.85	0354	7.20	0329	6.79	0519	7.51	0446	8.25
5 0835 1437	0.98 8.90	20 0854 1513	1.80 8.46	5 0940 1550	0.51 9.79	20 0921 1539	1.67 8.82	5 1012 1625	1.19 9.36	20 0942 1555	1.58 9.02	5 1129 1728	1.54 9.08	20 1109 1705	0.43 9.82
SUN 2102	1.51	MON 2133	2.49	WED 2230	1.50	THU 2224	2.51	FRI 2314	1.74	SAT 2252	2.22	MON		TUE 2352	0.59
0240	8.59	0309	7.46	0357	7.83	0350	7.00	0441	7.32	0414	7.22	0015	1.42	0530	8.76
6 0923 1524	0.44 9.54	21 0928 1544	1.51 8.80	6 1025 1633	0.46 9.89	21 1002 1615	1.37 9.07	6 1057 1706	1.24 9.35	21 1031 1639	1.11 9.39	6 0549 1203	7.70 1.56	21 1154 1746	0.18 9.93
MON 2154	1.10	TUE 2210	2.21	THU 2317	1.39	FRI 2303	2.28	SAT 2356	1.63	SUN 2333	1.76	TUE 1756	9.12	WED	
0328	8.65	0345	7.52	0444	7.80	0429	7.19	0523	7.41	0458	7.63	0045	1.34	0030	0.16
7 1007 1608	0.03 9.99	22 1000 1613	1.25 9.03	7 1107 1715	0.57 9.84	22 1043 1652	1.11 9.29	7 1138 1742	1.37 9.31	22 1118 1722	0.73 9.68	7 0619 1234	7.87 1.66	22 0613 1238	9.13 0.22
TUE 2242	0.85	WED 2244	2.06	FRI		SAT 2343	2.08	SUN		MON		WED 1825	9.09	THU 1827	9.81
0414	8.64	0419	7.54	0002	1.41	0509	7.38	0036	1.61	0014	1.33	0112	1.28	0108	-0.08
8 1048 1650	-0.18 10.22	23 1033 1642	1.06 9.16	8 0528 1147	7.73 0.85	23 1125 1732	0.92 9.47	8 0600 1215	7.46 1.57	23 0542 1204	8.00 0.54	8 0650 1305	7.99 1.85	23 0659 1322	9.33 0.53
WED 2327	0.79	THU 2318	2.00	SAT 1755	9.68	SUN		MON 1815	9.23	TUE 1805	9.83	THU 1856	8.93	FRI 1909	9.48
0458	8.54	0452	7.53	0046	1.54	0025	1.88	0112	1.64	0054	0.96	0138	1.29	0147	-0.06
9 1128 1732	-0.14 10.23	24 1105 1712	0.94 9.25	9 0611 1226	7.59 1.28	24 0551 1208	7.55 0.87	9 0637 1250	7.47 1.84	24 0628 1250	8.29 0.57	9 0725 1337	8.02 2.14	24 0747 1408	9.33 1.08
THU		FRI 2353	2.01	SUN 1834	9.43	MON 1815	9.57	TUE 1849	9.10	WED 1847	9.80	FRI 1930	8.58	SAT 1953	8.92
0011	0.92	0526	7.51	0129	1.74	0108	1.70	0146	1.69	0135	0.69	0205	1.38	0228	0.24
10 0542 1206	8.33 0.16	25 1140 1745	0.90 9.31	10 0654 1304	7.38 1.80	25 0636 1254	7.67 0.98	10 0714 1324	7.46 2.16	25 0716 1337	8.49 0.83	10 0803 1413	7.95 2.54	25 0839 1459	9.14 1.79
FRI 1814	10.04	SAT		MON 1913	9.11	TUE 1900	9.55	WED 1924	8.88	THU 1931	9.56	SAT 2006	8.06	SUN 2042	8.17
0055	1.22	0030	2.05	0213	1.98	0154	1.53	0218	1.77	0217	0.57	0235	1.61	0313	0.82
11 0627 1245	8.00 0.72	26 0602 1217	7.46 0.99	11 0738 1342	7.13 2.37	26 0726 1344	7.75 1.26	11 0755 1401	7.42 2.54	26 0807 1426	8.57 1.31	11 0844 1452	7.80 3.00	26 0940 1600	8.80 2.52
SAT 1856	9.67	SUN 1823	9.31	TUE 1953	8.72	WED 1948	9.37	THU 2001	8.53	FRI 2017	9.10	SUN 2044	7.43	MON 2140	7.34
0141	1.63	0112	2.10	0257	2.20	0241	1.40	0251	1.88	0300	0.64	0308	1.95	0408	1.59
12 0713 1323	7.56 1.46	27 0644 1258	7.39 1.22	12 0826 1426	6.90 2.93	27 0821 1438	7.80 1.68	12 0840 1443	7.35 2.96	27 0904 1519	8.56 1.93	12 0930 1539	7.62 3.47	27 1053 1723	8.44 3.05
SUN 1940	9.17	MON 1907	9.24	WED 2037	8.28	THU 2039	9.04	FRI 2043	8.04	SAT 2107	8.46	MON 2129	6.76	TUE 2257	6.61
0232	2.09	0159	2.16	0343	2.38	0331	1.32	0326	2.04	0348	0.91	0349	2.36	0522	2.31
13 0801 1404	7.06 2.29	28 0732 1345	7.28 1.58	13 0922 1519	6.75 3.43	28 0924 1538	7.87 2.16	13 0932 1532	7.29 3.38	28 1008 1621	8.49 2.56	13 1026 1638	7.46 3.87	28 1215 1900	8.23 3.06
MON 2027	8.60	TUE 1958	9.05	THU 2127	7.80	FRI 2134	8.57	SAT 2129	7.45	SUN 2204	7.73	TUE 2227	6.18	WED	
0331	2.50	0254	2.18	0432	2.50	0425	1.31	0405	2.25	0443	1.31	0442	2.75	0039	6.29
14 0857 1454	6.58 3.10	29 0829 1442	7.18 2.04	14 1032 1626	6.76 3.79	29 1035 1646	8.01 2.59	14 1030 1630	7.27 3.75	29 1120 1738	8.44 3.02	14 1133 1807	7.43 4.04	29 0653 1332	

DAHEJ - 2024

LATITUDE 21° 43'N, LONGITUDE 072° 35'E

TIMES AND HEIGHTS OF HIGH AND LOW WATERS

SEP			OCT			NOV			DEC														
TIME	Ht		TIME	Ht		TIME	Ht		TIME	Ht		TIME	Ht										
h m	m		h m	m		h m	m		h m	m		h m	m										
0402	7.31		0256	7.52		0412	8.08		0319	8.96		0433	8.95										
1	1001 1.95	16	0915 1.49		1	1019 1.83		16	0947 0.92	1	1057 1.76		16	1103 0.81									
	1609 8.66		1512 9.06			1610 8.42			1526 9.03		1635 7.88			1632 8.33									
SUN	2245 1.52	MON	2204 1.25	TUE	2240 1.19	WED	2210 0.17	FRI	2253 0.91	SAT	2303 -0.24	SUN	2249 1.10	MON	2330 0.54								
0436	7.65		0344	8.32		0438	8.44		0403	9.63		0459	9.06		0508	10.26							
2	1040 1.70	17	1007 0.79		2	1051 1.60		17	1034 0.50	2	1128 1.76		17	1149 0.80		2	1141 2.12						
	1640 8.78		1558 9.45			1638 8.51			1611 9.13		1705 7.80			1720 8.23			1713 7.21						
MON	2317 1.32	TUE	2244 0.54	WED	2307 0.98	THU	2250 -0.31	SAT	2320 0.84	SUN	2345 -0.07	MON	2323 1.04	TUE									
0504	7.94		0427	9.02		0504	8.72		0445	10.10		0526	9.08		0552	10.15		0532	9.04				
3	1114 1.53	18	1053 0.30		3	1122 1.48		18	1119 0.31	3	1158 1.87		18	1236 0.96		3	1217 2.12		18	1217 2.12			
	1707 8.88		1640 9.66			1705 8.54			1654 9.09		1736 7.66			1807 8.01			1749 7.21		18	1313 1.28			
TUE	2345 1.15	WED	2323 -0.03	THU	2332 0.81	FRI	2330 -0.55	SUN	2348 0.88	MON		TUE	2359 1.07	WED	1841 7.51								
0530	8.21		0509	9.56		0529	8.90		0528	10.33		0554	9.03		0027	0.36		0607	9.07		0055	1.34	
4	1144 1.46	19	1138 0.08		4	1151 1.50		19	1203 0.37	4	1229 2.02		19	0637 9.85		4	1256 2.11		19	0701 9.24		19	0701 9.24
	1732 8.95		1721 9.68			1733 8.45			1738 8.91		1807 7.47			1323 1.25			1827 7.20			1357 1.43			1357 1.43
WED		THU		FRI	2356 0.74	SAT		MON		TUE	1855 7.69	WED		THU	1926 7.33								
0010	1.00		0000	-0.41		0556	8.96		0009	-0.51		0018	1.03		0109	1.01		0038	1.22		0137	1.89	
5	0556 8.43	20	0552 9.91		5	1219 1.65		20	0613 10.31	5	0625 8.95		20	0723 9.40		5	0647 9.05		20	0742 8.88		20	0742 8.88
	1214 1.49		1221 0.14			1802 8.24			1247 0.65		1303 2.21			1414 1.61			1339 2.09			1441 1.64			1441 1.64
THU	1800 8.91	FRI	1802 9.50	SAT		SUN	1823 8.57	TUE	1842 7.25	WED	1946 7.28	THU	1911 7.16	FRI	2014 7.13								
0035	0.91		0038	-0.52		0021	0.79		0048	-0.14		0051	1.29		0154	1.81		0123	1.49		0221	2.47	
6	0625 8.55	21	0636 10.01		6	0624 8.90		21	0659 10.03	6	0700 8.83		21	0812 8.86		6	0732 8.95		21	0824 8.43		21	0824 8.43
	1243 1.64		1304 0.47			1249 1.90			1334 1.11		1343 2.41			1511 1.96			1428 2.05			1525 1.85			1525 1.85
FRI	1829 8.71	SAT	1845 9.11	SUN	1832 7.91	MON	1911 8.07	WED	1922 7.00	THU	2042 6.86	FRI	2001 7.11	SAT	2107 6.96								
0059	0.92		0116	-0.32		0048	0.98		0130	0.55		0130	1.66		0246	2.62		0214	1.86		0310	3.01	
7	0655 8.55	22	0723 9.87		7	0653 8.77		22	0747 9.54	7	0743 8.65		22	0904 8.28		7	0823 8.74		22	0910 7.92		22	0910 7.92
	1313 1.91		1350 1.02			1320 2.20			1426 1.68		1431 2.60			1612 2.22			1521 1.96			1609 2.06			1609 2.06
SAT	1900 8.35	SUN	1931 8.53	MON	1904 7.52	TUE	2003 7.46	THU	2011 6.76	FRI	2152 6.56	SAT	2102 7.12	SUN	2209 6.90								
0124	1.07		0157	0.22		0117	1.29		0215	1.47		0218	2.13		0353	3.30		0315	2.25		0408	3.46	
8	0727 8.44	23	0813 9.49		8	0725 8.58		23	0842 8.91	8	0837 8.41		23	1005 7.74		8	0920 8.45		23	1002 7.37		23	1002 7.37
	1345 2.29		1441 1.72			1356 2.55			1530 2.23		1533 2.71			1715 2.35			1619 1.83			1656 2.24			1656 2.24
SUN	1933 7.84	MON	2021 7.79	TUE	1940 7.08	WED	2104 6.82	FRI	2114 6.58	SAT	2322 6.55	SUN	2212 7.27	MON	2320 7.00								
0152	1.36		0241	1.06		0150	1.71		0310	2.47		0321	2.59		0516	3.66		0425	2.56		0520	3.72	
9	0801 8.24	24	0911 8.93		9	0804 8.34		24	0946 8.26	9	0944 8.16		24	1113 7.34		9	1024 8.12		24	1103 6.87		24	1103 6.87
	1420 2.73		1544 2.42			1439 2.92			1650 2.55		1648 2.62			1813 2.34			1719 1.64			1747 2.36			1747 2.36
MON	2007 7.27	TUE	2122 7.00	WED	2024 6.64	THU	2229 6.36	SAT	2232 6.65	SUN		MON	2327 7.64	TUE									
0224	1.78		0337	2.05		0232	2.23		0433	3.27		0443	2.85		0039	6.88		0541	2.68		0028	7.27	
10	0840 7.99	25	1023 8.35		10	0857 8.06		25	1106 7.76	10	1058 8.03		25	0635 3.63		10	1129 7.83		25	0640 3.73		25	0640 3.73
	1502 3.19		1711 2.87			1539 3.25			1808 2.55		1800 2.27			1220 7.11			1819 1.40			1208 6.51			1208 6.51
TUE	2048 6.67	WED	2246 6.36	THU	2126 6.26	FRI		SUN	2355 7.09	MON	1906 2.24	TUE		WED	1840 2.39								
0302	2.28		0500	2.90		0330	2.76		0018	6.40		0610	2.73		0136	7.37		0035	8.18		0124	7.61	
11	0932 7.73	26	1149 7.97		11	1008 7.83		26	0611 3.52	11	1208 8.04		26	0742 3.35		11	0657 2.57		26	0752 3.51		26	0752 3.51
	1558 3.61		1844 2.80			1708 3.34			1224 7.54		1903 1.76			1319 7.03			1233 7.62			1313 6.33			1313 6.33
WED	2146 6.14	THU		FRI	2249 6.15	SAT	1913 2.35	MON		TUE	1952 2.06	WED	1919 1.12	THU	1931 2.32								
0356	2.79		0042	6.28		0457	3.07		0133	6.83		0105	7.81		0220	7.86		0136	8.75		0211	7.93	
12	1042 7.55	27	0641 3.17		12	1130 7.82		27	0728 3.32	12	0725 2.33		27	0836 2.97		12	0807 2.28		27	0850 3.20		27	0850 3.20
	1727 3.83		1309 7.88			1840 2.95			1328 7.53		1310 8.13			1409 7.03			1335 7.52			1410 6.32			1410 6.32
THU	2310 5.87	FRI	1956 2.45	SAT		SUN	2006 2.08	TUE	1959 1.19	WED	2033 1.85	THU	2016 0.83	FRI	2019 2.15								
0517	3.10		0205	6.69		0021	6.52		0226	7.37		0202	8.60		0257	8.29		0230	9.25		0252	8.22	
13	1203 7.64	28	0759 2.95		13	0634 2.85		28	0826 2.92	13	0829 1.82		28	0921 2.62		13	0909 1.91		28	0937 2.90		28	0937 2.90
	1917 3.51		1413 7.98			1245 8.08			1418 7.61		1405 8.24			1453 7.07			1434 7.51			1459 6.43			1459 6.43
FRI		SAT	2052 2.05	SUN	1947 2.29	MON	2049 1.80	WED	2050 0.64	THU	2110 1.62	FRI	2109 0.57	SAT	2104 1.90								
0042	6.08		0301	7.20		0134	7.27		0305	7.89		0252	9.30		0330	8.60		0321	9.60		0329	8.46	
14	0654 2.91	29	0857 2.56		14	0752 2.24		29	0912 2.50	14	0925 1.35		29	1000 2.36		14	1004 1.57		29	1017 2.63		29	1017 2.63
	1318 8.02		1502 8.13			1347 8.45			1459 7.73		1456 8.32			1531 7.12			1529 7.56			1541 6.62			1541 6.62

Time/Day	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31
00:00	3.00	4.01	5.12	6.10	6.85	7.31	7.40	7.09	6.36	5.14	3.43	1.65	0.49	0.43	1.40	3.02	4.88	6.61	7.83	8.26	7.86	6.87	5.59	4.25	3.03	2.12	1.65	1.61	1.91	2.52	3.45
01:00	2.32	3.06	4.12	5.27	6.30	7.10	7.64	7.84	7.61	6.91	5.64	3.81	1.87	0.60	0.53	1.59	3.29	5.19	6.89	8.02	8.36	7.96	7.06	5.96	4.81	3.67	2.68	2.00	1.74	1.90	2.47
02:00	2.34	2.60	3.29	4.33	5.49	6.54	7.39	8.03	8.34	8.19	7.52	6.23	4.35	2.34	1.00	0.92	1.99	3.72	5.58	7.18	8.21	8.49	8.14	7.42	6.55	5.60	4.56	3.52	2.67	2.20	2.19
03:00	3.21	2.87	2.99	3.59	4.56	5.69	6.75	7.66	8.40	8.83	8.76	8.12	6.85	4.97	2.96	1.60	1.50	2.56	4.23	5.98	7.44	8.36	8.63	8.39	7.88	7.26	6.49	5.55	4.51	3.54	2.89
04:00	4.74	3.87	3.38	3.37	3.85	4.74	5.82	6.89	7.88	8.73	9.26	9.25	8.62	7.36	5.54	3.57	2.25	2.15	3.17	4.74	6.33	7.61	8.43	8.73	8.65	8.37	7.95	7.32	6.46	5.43	4.41
05:00	6.40	5.31	4.35	3.75	3.62	4.00	4.81	5.84	6.94	8.02	8.98	9.58	9.59	8.95	7.69	5.92	4.04	2.78	2.70	3.68	5.14	6.53	7.64	8.38	8.74	8.84	8.76	8.49	7.94	7.10	6.09
06:00	7.71	6.70	5.59	4.58	3.90	3.68	3.99	4.74	5.76	6.89	8.05	9.09	9.74	9.75	9.06	7.76	6.03	4.24	3.08	3.05	4.00	5.33	6.54	7.48	8.16	8.61	8.88	8.97	8.78	8.24	7.41
07:00	8.48	7.73	6.70	5.58	4.56	3.82	3.54	3.81	4.54	5.57	6.73	7.94	9.02	9.69	9.66	8.91	7.56	5.84	4.15	3.10	3.14	4.07	5.28	6.30	7.09	7.73	8.27	8.68	8.88	8.75	8.21
08:00	8.56	8.24	7.49	6.47	5.36	4.33	3.56	3.24	3.48	4.22	5.26	6.44	7.67	8.75	9.39	9.32	8.50	7.11	5.42	3.83	2.90	2.99	3.87	4.95	5.81	6.47	7.09	7.69	8.19	8.48	8.39
09:00	7.93	8.09	7.81	7.09	6.10	5.04	4.01	3.19	2.81	3.03	3.77	4.83	6.01	7.22	8.27	8.87	8.76	7.89	6.48	4.85	3.38	2.56	2.66	3.46	4.39	5.10	5.67	6.27	6.91	7.46	7.80
10:00	6.81	7.30	7.51	7.29	6.64	5.73	4.73	3.71	2.81	2.32	2.48	3.21	4.28	5.46	6.64	7.65	8.21	8.06	7.18	5.81	4.28	2.96	2.21	2.25	2.88	3.63	4.23	4.75	5.35	6.01	6.59
11:00	5.44	6.14	6.68	6.94	6.81	6.28	5.49	4.57	3.53	2.50	1.85	1.88	2.57	3.64	4.82	6.00	6.99	7.52	7.36	6.53	5.26	3.88	2.69	1.97	1.87	2.26	2.80	3.28	3.80	4.44	5.12
12:00	4.03	4.81	5.56	6.14	6.47	6.47	6.10	5.46	4.61	3.53	2.34	1.46	1.31	1.91	2.98	4.20	5.40	6.40	6.94	6.81	6.07	4.96	3.78	2.73	1.98	1.67	1.75	2.04	2.42	2.94	3.63
13:00	2.81	3.49	4.31	5.11	5.75	6.18	6.34	6.16	5.67	4.89	3.75	2.37	1.23	0.85	1.35	2.41	3.69	4.95	5.99	6.55	6.49	5.89	5.00	4.03	3.11	2.31	1.75	1.50	1.52	1.79	2.31
14:00	2.05	2.46	3.12	3.97	4.81	5.52	6.07	6.41	6.42	6.08	5.34	4.14	2.59	1.20	0.61	1.00	2.07	3.40	4.73	5.81	6.41	6.43	6.00	5.35	4.60	3.79	2.94	2.16	1.62	1.39	1.52
15:00	2.04	2.00	2.30	2.92	3.77	4.64	5.43	6.11	6.63	6.82	6.59	5.88	4.63	2.94	1.37	0.62	0.93	2.01	3.39	4.74	5.83	6.45	6.57	6.33	5.91	5.36	4.64	3.77	2.85	2.09	1.65
16:00	2.88	2.31	2.10	2.29	2.85	3.66	4.55	5.42	6.25	6.93	7.26	7.10	6.40	5.11	3.35	1.68	0.85	1.13	2.21	3.59	4.91	5.96	6.60	6.82	6.76	6.53	6.13	5.49	4.64	3.67	2.79
17:00	4.25	3.33	2.82	2.27	2.34	2.80	3.56	4.46	5.42	6.39	7.22	7.66	7.54	6.82	5.49	3.71	2.03	1.19	1.48	2.55	3.86	5.09	6.06	6.71	7.04	7.15	7.08	6.78	6.21	5.40	4.46
18:00	5.62	4.67	3.71	2.91	2.41	2.34	2.69	3.38	4.30	5.35	6.46	7.44	7.97	7.86	7.09	5.73	3.96	2.33	1.53	1.83	2.85	4.05	5.11	6.00	6.67	7.12	7.40	7.47	7.25	6.72	5.98
19:00	6.62	5.88	4.97	4.00	3.10	2.45	2.20	2.43	3.07	4.02	5.19	6.46	7.56	8.15	8.03	7.21	5.81	4.08	2.52	1.77	2.05	2.98	4.01	4.90	5.70	6.42	7.02	7.46	7.65	7.50	7.04
20:00	7.05	6.71	6.05	5.19	4.21	3.19	2.34	1.91	2.02	2.65	3.67	4.97	6.38	7.59	8.23	8.08	7.19	5.76	4.07	2.59	1.88	2.10	2.88	3.72	4.46	5.21	6.00	6.73	7.31	7.62	7.57
21:00	6.82	7.00	6.77	6.19	5.38	4.37	3.20	2.12	1.48	1.51	2.17	3.31	4.76	6.30	7.59	8.23	8.03	7.08	5.63	3.99	2.58	1.86	1.97	2.57	3.23	3.88	4.63	5.50	6.35	7.04	7.46
22:00	6.10	6.70	6.99	6.87	6.38	5.61	4.54	3.19	1.86	1.03	1.00	1.74	3.04	4.65	6.29	7.60	8.21	7.94	6.94	5.49	3.92	2.57	1.82	1.76	2.16	2.68	3.29	4.09	5.05	5.98	6.74
23:00	5.11	6.02	6.71	7.08	7.07	6.67	5.92	4.78	3.24	1.67	0.66	0.60	1.46	2.93	4.68	6.39	7.68	8.21	7.87	6.84	5.45	3.97	2.69	1.86	1.60	1.79	2.20	2.81	3.68	4.71	5.69

Jan-24

DAHEJ (21° 43'N, 072° 35'E)

Time/Day	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31
00:00	4.52	5.54	6.41	7.12	7.55	7.52	6.92	5.68	3.84	1.80	0.35	0.08	1.01	2.65	4.54	6.31	7.80	8.13	7.84	6.96	5.80	4.60	3.45	2.45	1.74	1.43	1.56	2.07	2.89	-	-
01:00	3.39	4.48	5.53	6.47	7.30	7.86	7.91	7.32	6.05	4.16	2.06	0.53	0.21	1.14	2.82	4.72	6.44	7.63	8.08	7.80	7.06	6.14	5.16	4.13	3.10	2.23	1.70	1.63	2.02	-	-
02:00	2.65	3.51	4.57	5.65	6.69	7.64	8.31	8.43	7.87	6.63	4.77	2.68	1.10	0.70	1.57	3.20	5.04	6.65	7.74	8.13	7.94	7.41	6.76	6.00	5.11	4.09	3.12	2.40	2.11	-	-
03:00	2.69	3.00	3.74	4.76	5.88	7.02	8.08	8.83	9.00	8.47	7.29	5.52	3.50	1.90	1.44	2.22	3.76	5.46	6.91	7.89	8.27	8.21	7.91	7.50	6.94	6.16	5.20	4.20	3.34	-	-
04:00	3.62	3.25	3.39	4.02	5.00	6.16	7.39	8.53	9.32	9.50	8.99	7.85	6.18	4.24	2.69	2.22	2.93	4.35	5.88	7.14	8.00	8.42	8.52	8.44	8.21	7.75	7.04	6.15	5.17	-	-
05:00	5.06	4.19	3.68	3.70	4.24	5.20	6.41	7.70	8.88	9.68	9.84	9.31	8.18	6.55	4.70	3.25	2.82	3.52	4.83	6.16	7.23	7.99	8.47	8.73	8.82	8.70	8.29	7.60	6.76	-	-
06:00	6.41	5.38	4.46	3.86	3.80	4.32	5.29	6.52	7.82	9.01	9.79	9.93	9.36	8.19	6.56	4.79	3.46	3.14	3.85	5.06	6.19	7.07	7.75	8.29	8.69	8.92	8.87	8.47	7.79	-	-
07:00	7.36	6.39	5.36	4.40	3.75	3.67	4.19	5.18	6.40	7.68	8.83	9.60	9.73	9.11	7.87	6.23	4.54	3.35	3.14	3.86	4.96	5.90	6.60	7.21	7.80	8.31	8.64	8.65	8.29	-	-
08:00	7.87	7.05	6.09	5.07	4.08	3.38	3.29	3.84	4.83	6.01	7.23	8.34	9.09	9.21	8.56	7.27	5.64	4.05	3.01	2.89	3.57	4.52	5.28	5.84	6.40	7.01	7.58	7.98	8.08	-	-
09:00	7.78	7.32	6.57	5.66	4.63	3.58	2.82	2.70	3.26	4.24	5.37	6.53	7.60	8.34	8.45	7.79	6.50	4.93	3.48	2.58	2.47	3.03	3.78	4.38	4.86	5.39	6.01	6.59	7.04	-	-
10:00	6.98	7.05	6.72	6.08	5.22	4.17	3.02	2.14	1.94	2.48	3.45	4.56	5.70	6.76	7.49	7.60	6.95	5.73	4.28	3.00	2.18	1.99	2.33	2.85	3.32	3.76	4.31	4.93	5.53	-	-
11:00	5.73	6.18	6.38	6.23	5.73	4.93	3.84	2.56	1.49	1.13	1.58	2.55	3.70	4.89	5.99	6.73	6.83	6.23	5.14	3.89	2.78	1.99	1.63	1.66	1.91	2.25	2.69	3.29	3.95	-	-
12:00	4.37	5.03	5.58	5.95	6.00	5.66	4.92	3.77	2.33	1.03	0.43	0.75	1.71	2.96	4.26	5.44	6.20	6.32	5.80	4.90	3.89	2.96	2.16	1.58	1.26	1.21	1.40	1.84	2.48	-	-
13:00	3.05	3.85	4.60	5.29	5.85	6.10	5.90	5.23	4.04	2.45	0.89	0.04	0.20	1.16	2.51	3.95	5.20	5.98	6.13	5.74	5.08	4.34	3.56	2.75	1.96	1.33	0.98	1.00	1.37	-	-
14:00	2.00	2.76	3.61	4.46	5.31	6.05	6.48	6.42	5.81	4.61	2.91	1.15	0.07	0.09	1.04	2.48	4.00	5.28	6.07	6.26	6.04	5.62	5.12	4.50	3.70	2.78	1.93	1.33	1.13	-	-
15:00	1.62	2.02	2.74	3.63	4.59	5.58	6.49	7.06	7.09	6.53	5.34	3.60	1.73	0.51	0.44	1.39	2.85	4.35	5.59	6.36	6.62	6.56	6.37	6.07	5.56	4.81	3.88	2.92	2.13	-	-
16:00	2.18	1.98	2.24																												

Time/Day	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31
00:00	3.88	4.86	5.81	6.75	7.51	7.79	7.35	6.17	4.35	2.23	0.54	-0.03	0.66	2.19	4.02	5.77	7.11	7.79	7.72	7.11	6.21	5.18	4.10	3.03	2.11	1.54	1.43	1.77	2.46	3.34	4.30
01:00	2.77	3.73	4.77	5.85	6.94	7.82	8.15	7.73	6.56	4.78	2.69	0.94	0.25	0.83	2.31	4.11	5.81	7.07	7.67	7.67	7.22	6.56	5.76	4.82	3.80	2.82	2.09	1.75	1.86	2.28	3.21
02:00	2.29	2.90	3.82	4.92	6.14	7.35	8.31	8.66	8.27	7.18	5.50	3.49	1.71	0.90	1.35	2.72	4.42	6.00	7.17	7.76	7.83	7.57	7.15	6.56	5.77	4.83	3.87	3.02	2.44	2.28	2.59
03:00	2.83	2.78	3.23	4.10	5.26	6.58	7.87	8.84	9.20	8.83	7.82	6.26	4.35	2.59	1.73	2.08	3.33	4.88	6.28	7.33	7.92	8.11	8.05	7.82	7.36	6.69	5.87	4.97	4.05	3.26	2.84
04:00	4.23	3.54	3.29	3.61	4.45	5.65	7.03	8.33	9.29	9.62	9.26	8.29	6.81	4.99	3.31	2.47	2.80	3.95	5.31	6.51	7.43	8.04	8.36	8.47	8.37	8.00	7.39	6.66	5.82	4.86	3.91
05:00	5.81	4.82	4.00	3.63	3.88	4.72	5.94	7.31	8.59	9.51	9.83	9.47	8.49	7.01	5.25	3.68	2.95	3.31	4.37	5.55	6.55	7.35	7.98	8.42	8.67	8.65	8.33	7.77	7.08	6.28	5.27
06:00	6.97	6.04	5.00	4.10	3.67	3.92	4.77	5.97	7.28	8.50	9.41	9.74	9.38	8.36	6.84	5.12	3.69	3.10	3.50	4.47	5.47	6.26	6.96	7.61	8.15	8.50	8.57	8.32	7.81	7.15	6.32
07:00	7.63	6.83	5.88	4.80	3.82	3.38	3.66	4.52	5.67	6.89	8.05	8.96	9.34	8.98	7.92	6.38	4.72	3.43	2.96	3.35	4.20	5.01	5.65	6.26	6.91	7.50	7.93	8.12	7.99	7.57	6.94
08:00	7.80	7.22	6.43	5.46	4.30	3.26	2.80	3.11	3.97	5.04	6.18	7.31	8.23	8.65	8.31	7.24	5.72	4.17	3.02	2.61	2.93	3.60	4.23	4.75	5.31	5.94	6.55	7.04	7.36	7.42	7.14
09:00	7.26	7.14	6.67	5.93	4.91	3.66	2.53	2.01	2.30	3.14	4.19	5.29	6.42	7.37	7.80	7.47	6.44	5.03	3.63	2.61	2.18	2.31	2.75	3.22	3.68	4.22	4.84	5.44	6.00	6.49	6.76
10:00	6.04	6.41	6.48	6.17	5.48	4.40	3.04	1.76	1.12	1.33	2.16	3.23	4.39	5.57	6.54	6.96	6.65	5.71	4.47	3.27	2.33	1.80	1.67	1.84	2.15	2.57	3.13	3.77	4.41	5.06	5.73
11:00	4.59	5.21	5.75	6.04	5.89	5.25	4.13	2.64	1.17	0.31	0.38	1.19	2.36	3.66	4.94	5.93	6.63	6.05	5.26	4.25	3.25	2.36	1.67	1.24	1.10	1.24	1.63	2.22	2.91	3.63	4.43
12:00	3.22	3.96	4.72	5.46	5.95	5.95	5.38	4.25	2.64	0.95	-0.17	-0.29	0.49	1.77	3.24	4.63	5.64	6.03	5.82	5.22	4.48	3.67	2.83	1.99	1.28	0.84	0.76	1.04	1.62	2.37	3.24
13:00	2.03	2.84	3.71	4.65	5.59	6.25	6.38	5.89	4.78	3.11	1.24	-0.14	-0.46	0.28	1.65	3.23	4.69	5.70	6.10	6.00	5.63	5.14	4.52	3.73	2.81	1.90	1.19	0.86	0.96	1.45	2.25
14:00	1.37	1.98	2.84	3.85	4.97	6.07	6.87	7.10	6.68	5.61	3.93	1.96	0.42	-0.05	0.64	2.03	3.62	5.05	6.03	6.47	6.51	6.36	6.08	5.61	4.91	4.01	3.02	2.11	1.50	1.35	1.70
15:00	1.71	1.75	2.26	3.13	4.26	5.54	6.77	7.64	7.93	7.55	6.53	4.89	2.91	1.33	0.81	1.45	2.78	4.26	5.57	6.50	7.00	7.20	7.23	7.09	6.72	6.12	5.32	4.35	3.30	2.42	2.00
16:00	3.10	2.45	2.27	2.66	3.54	4.77	6.17	7.49	8.41	8.71	8.33	7.32	5.71	3.81	2.30	1.81	2.41	3.61	4.90	6.03	6.92	7.51	7.86	8.01	7.95	7.64	7.15	6.48	5.56	4.40	3.28
17:00	4.98	3.92	3.04	2.67	2.96	3.86	5.18	6.69	8.08	9.03	9.32	8.90	7.84	6.25	4.45	3.07	2.66	3.21	4.24	5.29	6.25	7.10	7.80	8.29	8.55	8.54	8.29	7.87	7.29	6.38	5.10
18:00	6.57	5.58	4.36	3.27	2.76	3.01	3.96	5.36	6.95	8.41	9.41	9.68	9.19	8.04	6.44	4.74	3.50	3.16	3.63	4.45	5.28	6.10	6.96	7.76	8.37	8.73	8.80	8.62	8.27	7.71	6.73
19:00	7.55	6.85	5.76	4.35	3.09	2.49	2.78	3.80	5.28	6.93	8.45	9.48	9.74	9.17	7.93	6.32	4.72	3.59	3.25	3.60	4.23	4.89	5.63	6.50	7.37	8.07	8.52	8.67	8.38	7.78	7.78
20:00	8.01	7.59	6.83	5.57	3.96	2.55	1.95	2.34	3.47	5.02	6.71	8.26	9.29	9.51	8.86	7.57	5.98	4.46	3.40	3.01	3.20	3.66	4.22	4.94	5.83	6.72	7.46	8.02	8.39	8.50	8.26
21:00	7.89	7.87	7.47	6.59	5.14	3.33	1.83	1.27	1.79	3.06	4.69	6.40	7.93	8.90	9.05	8.35	7.05	5.52	4.10	3.05	2.56	2.57	2.90	3.43	4.17	5.07	5.95	6.72	7.39	7.95	8.22
22:00	7.14	7.60	7.70	7.30	6.29	4.65	2.68	1.11	0.60	1.25	2.65	4.37	6.10	7.58	8.45	8.50	7.77	6.54	5.13	3.80	2.74	2.10	1.93	2.14	2.67	3.44	4.34	5.22	6.03	6.84	7.58
23:00	6.03	6.82	7.44	7.64	7.22	6.09	4.32	2.25	0.62	0.12	0.83	2.33	4.12	5.87	7.29	8.05	8.02	7.31	6.21	4.97	3.76	2.68	1.89	1.51	1.59	2.07	2.83	3.74	4.64	5.55	6.51

Mar-24

DAHEJ (21° 43'N, 072° 35'E)

Time/Day	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31
00:00	5.35	6.48	7.50	8.02	7.78	6.75	5.10	3.09	1.27	0.33	0.62	1.85	3.48	5.10	6.43	7.27	7.51	7.28	6.74	5.95	4.96	3.89	2.88	2.11	1.73	1.78	2.24	3.01	3.98	5.11	-
01:00	4.25	5.45	6.72	7.81	8.35	8.10	7.13	5.59	3.66	1.82	0.76	0.88	1.99	3.53	5.08	6.35	7.16	7.46	7.37	7.01	6.40	5.57	4.61	3.66	2.83	2.23	2.00	2.24	2.91	3.92	-
02:00	3.35	4.45	5.77	7.13	8.23	8.75	8.53	7.65	6.23	4.42	2.60	1.45	1.44	2.41	3.82	5.22	6.39	7.19	7.58	7.64	7.44	6.99	6.30	5.49	4.64	3.76	2.96	2.44	2.45	3.02	-
03:00	2.97	3.66	4.80	6.17	7.54	8.62	9.11	8.92	8.12	6.80	5.09	3.33	2.19	2.11	2.97	4.21	5.43	6.47	7.26	7.74	7.94	7.88	7.54	6.96	6.28	5.53	4.63	3.64	2.89	2.71	-
04:00	3.30	3.31	3.97	5.11	6.47	7.80	8.83	9.33	9.17	8.40	7.13	5.48	3.82	2.75	2.68	3.45	4.52	5.55	6.46	7.23	7.80	8.11	8.16	7.91	7.43	6.84	6.14	5.20	4.06	3.13	-
05:00	4.20	3.48	3.44	4.10	5.21	6.51	7.77	8.78	9.31	9.20	8.45	7.16	5.54	3.98	3.03	3.00	3.68	4.58	5.43	6.22	6.98	7.62	8.02	8.17	8.03	7.65	7.12	6.41	5.39	4.12	-
06:00	5.24	4.08	3.30	3.27	3.94	5.00	6.20	7.40	8.43	9.03	8.98	8.23	6.92	5.33	3.88	3.04	3.02	3.59	4.32	5.01	5.71	6.45	7.12	7.60	7.87	7.88	7.62	7.14	6.39	5.26	-
07:00	6.06	4.88	3.62	2.81	2.79	3.47	4.47	5.59	6.75	7.81	8.49	8.50	7.77	6.48	4.96	3.63	2.86	2.78	3.20	3.76	4.32	4.95	5.65	6.32	6.87	7.29	7.49	7.40	6.98	6.17	-
08:00	6.55	5.61	4.32	2.96	2.10	2.07	2.73	3.71	4.79	5.95	7.05	7.77	7.82	7.13	5.92	4.53	3.33	2.58	2.37	2.58	2.97	3.44	4.02	4.69	5.36	5.97	6.54	6.97	7.07	6.71	-
09:00	6.66	6.12	5.12	3.73	2.26	1.29	1.19	1.83	2.82	3.94	5.15	6.26	7.10	7.07	6.45	5.39	4.18	3.09	2.31	1.91	1.97	2.08	2.48	3.02	3.71	4.38	5.08	5.83	6.48	6.75	-
10:00	6.22	6.29	5.81	4.79	3.30	1.69	0.54	0.31	0.92	1.97	3.20	4.51	5.67	6.37	6.43	5.91	5.05	4.04	3.06	2.20	1.59	1.28	1.30	1.61	2.15	2.83	3.57	4.40	5.33	6.19	-
11:00	5.29	5.99	6.21	5.80	4.77	3.21	1.45	0.08	-0.34	0.20	1.33	2.72	4.13	5.31	5.99	6.07	5.70	5.06	4.26	3.36	2.44	1.62	1.04	0.83							

Time/Day	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31
00:00	6.35	7.49	8.15	8.06	7.22	5.81	4.03	2.25	1.07	0.95	1.79	3.10	4.44	5.64	6.56	7.10	7.26	7.08	6.55	5.72	4.74	3.77	2.93	2.30	2.02	2.19	2.81	3.75	4.89	6.12	7.25
01:00	5.17	6.50	7.65	8.29	8.20	7.43	6.14	4.48	2.74	1.49	1.22	1.91	3.08	4.31	5.44	6.35	6.95	7.21	7.14	6.75	6.07	5.24	4.40	3.56	2.75	2.19	2.13	2.62	3.55	4.73	5.99
02:00	4.05	5.35	6.70	7.83	8.45	8.39	7.72	6.55	5.01	3.34	2.07	1.69	2.22	3.22	4.31	5.34	6.24	6.90	7.25	7.31	7.05	6.51	5.85	5.13	4.27	3.29	2.46	2.16	2.53	3.43	4.62
03:00	3.20	4.22	5.50	6.82	7.92	8.54	8.55	7.97	6.89	5.44	3.85	2.62	2.19	2.59	3.42	4.34	5.26	6.14	6.85	7.30	7.46	7.32	6.94	6.41	5.77	4.88	3.74	2.68	2.19	2.46	3.33
04:00	2.84	3.29	4.28	5.52	6.78	7.85	8.52	8.62	8.11	7.08	5.68	4.18	3.02	2.58	2.86	3.52	4.29	5.11	5.96	6.71	7.23	7.49	7.50	7.26	6.84	6.23	5.28	3.98	2.74	2.12	2.35
05:00	3.08	2.74	3.18	4.13	5.30	6.51	7.60	8.35	8.54	8.09	7.10	5.74	4.32	3.23	2.77	2.94	3.44	4.06	4.79	5.62	6.39	6.97	7.36	7.52	7.44	7.10	6.48	5.44	4.00	2.63	1.94
06:00	3.87	2.75	2.39	2.83	3.76	4.86	6.04	7.16	8.00	8.28	7.90	6.95	5.66	4.33	3.29	2.78	2.81	3.15	3.65	4.31	5.09	5.86	6.50	7.02	7.37	7.46	7.21	6.55	5.41	3.87	2.41
07:00	4.92	3.43	2.23	1.85	2.29	3.20	4.27	5.44	6.60	7.50	7.85	7.54	6.67	5.48	4.25	3.25	2.66	2.51	2.69	3.09	3.68	4.42	5.17	5.86	6.53	7.09	7.36	7.19	6.50	5.28	3.66
08:00	5.86	4.52	2.92	1.64	1.20	1.62	2.53	3.62	4.81	6.00	6.91	7.29	7.06	6.32	5.28	4.16	3.18	2.48	2.14	2.14	2.43	2.96	3.65	4.40	5.17	5.99	6.76	7.20	7.11	6.41	5.13
09:00	6.47	5.59	4.18	2.49	1.10	0.55	0.92	1.86	3.01	4.25	5.45	6.35	6.73	6.58	6.01	5.14	4.15	3.16	2.34	1.81	1.62	1.77	2.23	2.89	3.67	4.55	5.54	6.50	7.09	7.06	6.36
10:00	6.61	6.39	5.51	4.06	2.29	0.75	0.04	0.34	1.29	2.52	3.83	5.04	5.92	6.33	6.28	5.88	5.20	4.32	3.34	2.41	1.67	1.25	1.23	1.59	2.24	3.10	4.14	5.32	6.45	7.14	7.15
11:00	6.23	6.76	6.60	5.74	4.28	2.44	0.75	-0.14	0.04	0.99	2.27	3.63	4.86	5.74	6.20	6.28	6.06	5.54	4.76	3.81	2.80	1.87	1.20	0.94	1.17	1.81	2.79	4.02	5.40	6.65	7.41
12:00	5.48	6.63	7.23	7.11	6.30	4.86	2.99	1.18	0.13	0.17	1.06	2.34	3.69	4.92	5.84	6.39	6.61	6.54	6.16	5.49	4.60	3.56	2.47	1.52	0.98	1.04	1.68	2.79	4.22	5.77	7.11
13:00	4.58	6.07	7.30	7.94	7.85	7.08	5.69	3.85	2.01	0.85	0.76	1.54	2.72	4.00	5.21	6.19	6.85	7.19	7.24	6.97	6.39	5.60	4.60	3.39	2.17	1.34	1.22	1.85	3.08	4.67	6.34
14:00	3.67	5.24	6.83	8.10	8.74	8.66	7.91	6.59	4.82	3.04	1.86	1.67	2.30	3.32	4.47	5.65	6.68	7.43	7.87	7.99	7.79	7.32	6.65	5.71	4.41	2.96	1.88	1.61	2.25	3.57	5.26
15:00	2.94	4.28	5.94	7.58	8.84	9.47	9.37	8.63	7.35	5.70	4.03	2.90	2.64	3.11	3.94	4.95	6.07	7.13	7.95	8.44	8.62	8.49	8.13	7.57	6.68	5.31	3.69	2.43	2.08	2.73	4.11
16:00	2.68	3.41	4.80	6.49	8.13	9.38	9.98	9.86	9.11	7.87	6.33	4.80	3.74	3.43	3.74	4.39	5.26	6.32	7.39	8.24	8.77	9.01	8.98	8.73	8.24	7.36	5.92	4.18	2.83	2.47	3.16
17:00	3.05	2.89	3.68	5.10	6.77	8.38	9.61	10.20	10.08	9.33	8.12	6.67	5.26	4.26	3.88	4.04	4.54	5.31	6.31	7.36	8.21	8.79	9.13	9.24	9.10	8.65	7.73	6.20	4.38	3.01	2.70
18:00	4.06	2.91	2.83	3.71	5.14	6.76	8.31	9.51	10.11	10.01	9.28	8.11	6.74	5.42	4.43	3.96	3.99	4.38	5.08	6.02	7.02	7.87	8.51	9.00	9.28	9.26	8.80	7.79	6.18	4.32	2.98
19:00	5.45	3.64	2.53	2.56	3.53	4.96	6.51	7.98	9.14	9.74	9.67	8.99	7.90	6.60	5.32	4.31	3.74	3.65	3.98	4.63	5.53	6.47	7.30	8.03	8.69	9.16	9.23	8.74	7.62	5.93	4.07
20:00	6.75	4.91	3.08	2.03	2.15	3.19	4.62	6.11	7.50	8.60	9.17	9.13	8.53	7.53	6.30	5.05	3.99	3.33	3.15	3.43	4.06	4.91	5.81	6.65	7.48	8.31	8.94	9.05	8.50	7.28	5.54
21:00	7.68	6.26	4.36	2.53	1.51	1.68	2.75	4.19	5.64	6.96	7.98	8.52	8.50	7.99	7.10	5.95	4.71	3.62	2.88	2.62	2.85	3.45	4.26	5.14	6.03	6.97	7.94	8.66	8.77	8.15	6.85
22:00	8.17	7.35	5.86	3.95	2.13	1.10	1.24	2.30	3.73	5.16	6.43	7.40	7.90	7.92	7.51	6.73	5.66	4.47	3.38	2.58	2.23	2.35	2.88	3.65	4.55	5.51	6.57	7.63	8.38	8.47	7.78
23:00	8.10	8.03	7.18	5.70	3.83	2.02	0.93	0.96	1.94	3.33	4.74	5.98	6.91	7.42	7.49	6.53	5.57	4.46	3.41	2.58	2.10	2.06	2.44	3.15	4.08	5.14	6.30	7.41	8.14	8.19	-

May-24

DAHEJ (21° 43'N, 072° 35'E)

Time/Day	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31
00:00	7.96	7.99	7.31	6.11	4.58	2.98	1.77	1.41	1.91	2.84	3.83	4.77	5.64	6.35	6.80	6.93	6.69	6.10	5.29	4.44	3.59	2.75	2.12	1.99	2.42	3.28	4.36	5.52	6.60	7.36	-
01:00	7.11	7.81	7.87	7.28	6.20	4.80	3.29	2.07	1.58	1.88	2.63	3.49	4.36	5.24	6.00	6.52	6.73	6.62	6.19	5.56	4.84	3.99	2.99	2.10	1.71	2.00	2.81	3.91	5.10	6.22	-
02:00	5.88	6.99	7.70	7.82	7.34	6.39	5.12	3.72	2.51	1.90	2.00	2.55	3.26	4.07	4.95	5.76	6.34	6.65	6.69	6.44	5.99	5.36	4.49	3.33	2.18	1.54	1.67	2.45	3.57	4.81	-
03:00	4.50	5.74	6.85	7.61	7.82	7.46	6.64	5.48	4.17	2.98	2.29	2.20	2.55	3.13	3.87	4.74	5.58	6.23	6.65	6.84	6.77	6.47	5.92	5.01	3.70	2.32	1.46	1.48	2.23	3.37	-
04:00	3.19	4.33	5.55	6.68	7.51	7.82	7.58	6.86	5.80	4.57	3.43	2.66	2.41	2.59	3.03	3.70	4.55	5.40	6.11	6.64	7.00	7.10	6.92	6.40	5.45	4.02	2.47	1.46	1.40	2.15	-
05:00	2.14	2.98	4.10	5.31	6.47	7.36	7.77	7.63	7.02	6.05	4.90	3.79	2.96	2.57	2.59	2.92	3.52	4.32	5.17	5.93	6.57	7.10	7.37	7.29	6.78	5.77	4.25	2.60	1.51	1.41	-
06:00	1.67	1.86	2.70	3.81	5.01	6.18	7.12	7.61	7.57	7.06	6.20	5.14	4.06	3.18	2.67	2.54	2.74	3.25	4.00	4.83	5.63	6.41	7.10	7.54	7.54	7.03	5.97	4.38	2.68	1.55	-
07:00	2.13	1.34	1.52	2.37	3.48	4.66	5.82	6.77	7.31	7.37	6.99	6.25	5.28	4.24	3.33	2.69	2.41	2.48	2.89	3.56	4.37	5.24	6.15	7.02	7.61	7.68	7.16	6.05	4.43	2.70	-
08:00	3.45	1.86	1.01	1.15	1.99	3.10	4.27	5.40	6.34	6.93	7.09	6.85	6.25	5.38	4.38	3.43	2.67	2.21	2.13	2.41	3.02	3.83	4.79	5.86	6.90	7.62	7.75	7.22	6.05	4.40	-
09:00	5.05	3.32	1.66	0.73	0.81	1.62	2.72	3.87	4.98	5.92	6.54	6.81	6.72	6.26	5.49	4.54	3.56	2.67	2.01	1.73	1.88	2.44	3.30	4.30	5.62	6.82	7.65	7.81	7.24	6.03	-
10:00	6.44	5.12	3.37	1.65	0.60	0.58	1.33	2.40	3.53	4.64	5.59	6.28	6.66	6.70	6.37	5.70	4.81	3.80	2.77	1.89	1.37	1.39	1.92	2.87	4.11	5.52	6.85	7.75	7.91	7.29	-
11:00	7.43	6.72	5.40	3.65	1.88	0.73	0.58	1.22	2.23	3.33	4.44	5.46	6.23	6.72	6.88	6.66	6.07	5.24	4.22	3.06	1.93	1.16	1.02	1.56	2.63	4.05	5.62	7.05	7.95	8.07	-
12:00	7.89	7.90	7.19	5.89	4.18	2.41	1.18	0.88	1.38	2.28	3.33	4.45	5.54	6.41	6.99	7.23	7.10	6.61	5.85	4.83	3.55	2.18	1.16	0.88	1.43	2.63	4.22	5.91	7.38	8.26	-
13:00	7.72	8.48	8.47	7.76	6.51	4.88	3.18	1.92	1.48	1.80	2.55	3.53	4.65	5.80	6.75	7.39	7.70	7.64	7.25	6.57	5.58	4.21	2.63	1.39	0.99	1.56	2.87	4.57	6.33	7.79	-
14:00	6.97	8.34	9.06	9.03	8.34	7.16	5.65	4.06	2.81	2.26	2.40	2.99	3.86	4.96	6.13	7.12	7.81	8.16	8.20	7.91	7.33	6.38	4.95	3.22	1.80	1.31	1.89	3.27	5.03	6.79	-
15:00	5.83	7.52	8.85	9.52	9.47	8.82	7.73	6.37	4.91	3.71	3.07	3.04	3.46	4.22	5.27	6.42	7.42	8.12	8.54	8.68	8.51	8.03	7.11	5.65	3.82	2.30	1.76	2.36	3.76	5.50	-
16:00	4.56	6.25	7.88	9																											

Time/Day	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31
00:00	7.53	7.00	5.95	4.60	3.22	2.12	1.63	1.84	2.43	3.09	3.75	4.49	5.25	5.86	6.23	6.32	6.07	5.53	4.82	3.94	2.89	1.89	1.37	1.56	2.31	3.34	4.49	5.63	6.53	6.88	6.53
01:00	7.00	7.22	6.79	5.87	4.69	3.44	2.36	1.72	1.66	2.00	2.52	3.15	3.93	4.74	5.41	5.88	6.11	6.06	5.71	5.11	4.23	3.03	1.77	0.97	0.86	1.65	2.75	4.01	5.25	6.20	6.58
02:00	5.96	6.80	7.08	6.78	6.03	5.03	3.91	2.83	2.05	1.73	1.82	2.18	2.78	3.58	4.44	5.18	5.75	6.15	6.31	6.14	5.64	4.75	3.42	1.92	0.84	0.63	1.28	2.44	3.82	5.15	6.14
03:00	4.65	5.85	6.74	7.10	6.93	6.35	5.52	4.52	3.47	2.57	2.02	1.89	2.11	2.65	3.44	4.33	5.14	5.82	6.39	6.72	6.70	6.28	5.39	3.98	2.29	1.00	0.64	1.22	2.49	3.94	5.31
04:00	3.32	4.63	5.85	6.76	7.20	7.15	6.74	6.06	5.18	4.16	3.18	2.48	2.17	2.25	2.70	3.44	4.33	5.20	6.00	6.71	7.20	7.29	6.92	6.04	4.57	2.78	1.36	0.93	1.55	2.82	4.27
05:00	2.18	3.37	4.66	5.87	6.79	7.28	7.36	7.09	6.55	5.75	4.78	3.78	2.99	2.54	2.48	2.81	3.47	4.33	5.25	6.17	7.02	7.63	7.81	7.47	6.56	5.06	3.24	1.79	1.35	1.99	3.25
06:00	1.46	2.23	3.42	4.66	5.81	6.71	7.26	7.46	7.34	6.91	6.19	5.26	4.28	3.43	2.86	2.64	2.83	3.40	4.23	5.20	6.24	7.24	7.97	8.21	7.86	6.91	5.38	3.56	2.14	1.74	2.40
07:00	1.56	1.47	2.24	3.37	4.53	5.59	6.48	7.10	7.42	7.44	7.12	6.48	5.60	4.64	3.75	3.03	2.64	2.67	3.14	3.96	5.00	6.17	7.32	8.17	8.46	8.08	7.05	5.48	3.69	2.33	1.98
08:00	2.67	1.53	1.41	2.14	3.20	4.24	5.22	6.10	6.80	7.26	7.41	7.20	6.63	5.81	4.87	3.91	3.03	2.44	2.31	2.71	3.55	4.69	6.00	7.29	8.25	8.57	8.13	7.02	5.40	3.65	2.36
09:00	4.36	2.63	1.48	1.31	1.95	2.90	3.84	4.76	5.67	6.46	7.04	7.32	7.21	6.71	5.95	5.01	3.95	2.88	2.06	1.80	2.17	3.08	4.34	5.80	7.21	8.24	8.56	8.05	6.84	5.20	3.49
10:00	6.03	4.36	2.65	1.48	1.22	1.74	2.56	3.42	4.33	5.29	6.17	6.85	7.23	7.21	6.59	6.08	5.13	3.95	2.66	1.63	1.25	1.65	2.66	4.07	5.66	7.17	8.22	8.49	7.88	6.60	4.97
11:00	7.40	6.12	4.48	2.82	1.62	1.24	1.59	2.27	3.08	4.01	5.05	6.02	6.77	7.22	7.28	6.95	6.29	5.31	4.00	2.49	1.26	0.79	1.23	2.39	3.96	5.67	7.22	8.23	8.40	7.72	6.42
12:00	8.32	7.60	6.34	4.78	3.20	1.98	1.46	1.61	2.15	2.90	3.87	4.99	6.03	6.82	7.32	7.47	7.23	6.62	5.63	4.20	2.51	1.09	0.54	1.03	2.31	4.02	5.81	7.36	8.29	8.37	7.64
13:00	8.60	8.60	7.88	6.70	5.28	3.81	2.59	1.92	1.86	2.24	2.93	3.92	5.07	6.15	6.97	7.52	7.77	7.65	7.11	6.13	4.63	2.80	1.23	0.59	1.09	2.46	4.25	6.08	7.58	8.41	8.41
14:00	8.19	8.92	8.88	8.22	7.18	5.94	4.61	3.41	2.61	2.33	2.54	3.14	4.10	5.25	6.33	7.18	7.80	8.17	8.16	7.72	6.77	5.26	3.36	1.69	0.95	1.43	2.82	4.63	6.42	7.83	8.55
15:00	7.19	8.49	9.15	9.12	8.57	7.71	6.67	5.49	4.32	3.41	2.95	2.99	3.48	4.35	5.45	6.51	7.40	8.11	8.60	9.28	8.36	7.46	5.99	4.08	2.35	1.55	1.99	3.35	5.10	6.78	8.06
16:00	5.90	7.47	8.65	9.26	9.29	8.89	8.22	7.35	6.29	5.15	4.17	3.57	3.46	3.82	4.59	5.61	6.65	7.59	8.41	9.02	9.23	8.93	8.08	6.64	4.77	3.04	2.21	2.62	3.93	5.57	7.09
17:00	4.61	6.16	7.57	8.64	9.23	9.35	9.12	8.63	7.88	6.89	5.76	4.73	4.04	3.82	4.07	4.74	5.68	6.71	7.71	8.63	9.35	9.63	9.35	8.49	7.07	5.24	3.56	2.76	3.17	4.44	5.94
18:00	3.51	4.82	6.23	7.48	8.44	9.03	9.27	9.20	8.85	8.16	7.18	6.06	5.02	4.28	3.97	4.14	4.73	5.62	6.66	7.72	8.73	9.51	9.83	9.53	8.63	7.19	5.40	3.79	3.07	3.52	4.74
19:00	2.87	3.56	4.81	6.10	7.18	8.05	8.67	9.02	9.09	8.82	8.16	7.16	6.04	5.01	4.25	3.90	4.01	4.55	5.42	6.46	7.56	8.62	9.45	9.78	9.44	8.46	6.97	5.22	3.71	3.10	3.61
20:00	3.04	2.70	3.40	4.60	5.75	6.70	7.48	8.12	8.57	8.74	8.53	7.87	6.88	5.78	4.78	4.02	3.62	3.68	4.20	5.06	6.10	7.20	8.27	9.12	9.45	9.07	8.02	6.49	4.77	3.38	2.89
21:00	3.96	2.70	2.41	3.08	4.19	5.22	6.05	6.78	7.44	7.94	8.18	8.01	7.38	6.43	5.39	4.44	3.66	3.19	3.19	3.69	4.54	5.56	6.64	7.70	8.55	8.87	8.46	7.36	5.83	4.19	2.92
22:00	5.17	3.55	2.36	2.06	2.64	3.63	4.54	5.29	6.00	6.68	7.22	7.49	7.38	6.82	5.97	5.02	4.11	3.28	2.70	2.60	3.04	3.87	4.88	5.94	6.99	7.83	8.14	7.72	6.63	5.15	3.62
23:00	6.25	4.78	3.27	2.14	1.77	2.20	3.01	3.80	4.49	5.21	5.92	6.49	6.80	6.77	6.34	5.63	4.80	3.91	2.99	2.23	1.96	2.30	3.10	4.10	5.18	6.25	7.10	7.43	7.03	6.00	4.62

Jul-24

DAHEJ (21° 43'N, 072° 35'E)

Aug-24

Time/Day	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31
00:00	5.61	4.41	3.21	2.20	1.59	1.47	1.71	2.09	2.58	3.23	3.98	4.67	5.24	5.66	5.85	5.68	5.15	4.25	3.01	1.62	0.61	0.39	0.96	2.02	3.30	4.64	5.77	6.35	6.20	5.47	4.46
01:00	6.32	5.56	4.58	3.56	2.60	1.82	1.39	1.31	1.52	1.97	2.67	3.49	4.27	4.96	5.55	5.94	5.96	5.55	4.68	3.33	1.72	0.41	-0.06	0.43	1.57	3.03	4.51	5.69	6.26	6.17	5.61
02:00	6.57	6.40	5.84	5.10	4.26	3.34	2.43	1.72	1.37	1.39	1.77	2.47	3.23	4.20	5.02	5.79	6.36	6.54	6.23	5.41	4.01	2.23	0.66	-0.02	0.40	1.61	3.18	4.74	5.92	6.48	6.46
03:00	6.31	6.76	6.71	6.35	5.82	5.15	4.28	3.30	2.43	1.86	1.70	1.96	2.59	3.45	4.39	5.35	6.26	6.97	7.27	7.05	6.28	4.87	3.00	1.28	0.47	0.85	2.10	3.70	5.22	6.33	6.89
04:00	5.60	6.57	7.04	7.11	6.93	6.59	6.03	5.23	4.26	3.32	2.62	2.28	2.37	2.88	3.71	4.71	5.78	6.83	7.64	8.02	7.84	7.08	5.69	3.80	2.40	1.21	1.59	2.84	4.36	5.74	6.75
05:00	4.63	5.86	6.76	7.27	7.48	7.47	7.25	6.77	6.03	5.11	4.18	3.38	2.87	2.77	3.15	3.93	4.98	6.16	7.32	8.23	8.65	8.48	7.69	6.27	4.04	2.70	1.93	2.35	3.54	4.89	6.08
06:00	3.60	4.84	5.91	6.75	7.34	7.69	7.83	7.72	7.29	6.60	5.74	4.82	3.93	3.23	2.95	3.20	3.95	5.06	6.35	7.64	8.64	9.11	8.89	8.02	6.54	4.70	3.11	2.44	2.89	3.96	5.10
07:00	2.62	3.70	4.76	5.68	6.49	7.17	7.69	7.98	7.95	7.56	6.92	6.11	5.17	4.15	3.25	2.80	2.97	3.73	4.91	6.32	7.72	8.83	9.33	9.06	8.06	6.50	4.69	3.22	2.65	3.07	4.00
08:00	2.03	2.60	3.53	4.41	5.21	6.02	6.81	7.47	7.89	7.95	7.63	7.03	6.24	5.23	4.03	2.93	2.34	2.49	3.32	4.59	6.10	7.61	8.80	9.31	8.96	7.84	6.21	4.45	3.09	2.57	2.91
09:00	2.26	1.91	2.37	3.13	3.87	4.61	5.46	6.36	7.12	7.62	7.78	7.55	7.00	6.19	5.05	3.65	2.38	1.69	1.89	2.82	4.21	5.82	7.41	8.62	9.09	8.64	7.42	5.77	4.09	2.82	2.29
10:00	3.33	2.14	1.72	2.01	2.61	3.26	4.02	4.94	5.91	6.73	7.30	7.55	7.42	6.92	6.06	4.78	3.18	1.72	1.01	1.28	2.35	3.88	5.59	7.21	8.39	8.76	8.21	6.94	5.33	3.76	2.56
11:00	4.85	3.31	2.14	1.60	1.69	2.13	2.74	3.54	4.54	5.56	6.41	7.03	7.38	7.37	6.92	6.01	4.59	2.81	1.21	0.45	0.79	2.00	3.67	5.47	7.10	8.19	8.43	7.80	6.56	5.09	3.66
12:00	6.40	4.97	3.56	2.41	1.72	1.56	1.83	2.40	3.24	4.30	5.34	6.22	6.92	7.39	7.49	7.10	6.16	4.66	2.76	1.03	0.19	0.54	1.84	3.62	5.48	7.09	8.07	8.21	7.57	6.45	5.18
13:00	7.71	6.62	5.40	4.16	3.02	2.17	1.78	1.85	2.33	3.17	4.22	5.29	6.21	7.00	7.61	7.83	7.51	6.59	5.02	3.12	1.30	0.35	0.64	1.96	3.78	5.65	7.19	8.06	8.14	7.57	6.67
14:00	8.53	7.94	7.07	6.10	5.04	3.93	2.96	2.35	2.22	2.56	3.31	4.32	5.38	6.38	7.28	8.01	8.35	8.10	7.24	5.77	3.84	1.97	0.90	1.09	2.36	4.14	5.94	7.38	8.16	8.23	7.81
15:00	8.70	8.71	8.29	7.68	6.94	6.03	4.97	3.93	3.16	2.84	3.01	3.61	4.54	5.60	6.67	7.69	8.52	8.93	8.75	7.95	6.57	4.70	2.82	1.68							

CAUTIONARY NOTE

Tidal predictions obtained from Survey of India.

Tidal predictions using long period observations from Inter Governmental Oceanographic Commission Sea Level Monitoring (IOC) website www.ioc-sealevelmonitoring.org.

Tidal predictions based on observations forwarded by Civil port authority

Tidal predictions have been carried out using analysis of short period observations. Mariners are advised to exercise caution while using these predictions.

Tidal predictions using long period observations from National Institute of Oceanography (NIO) Goa

Tidal predictions using observations obtained from Indian National Centre for Ocean Information Services (INCOIS)

Any discrepancies observed may be intimated to Cdr - H (Hydrographic Data Management) National Hydrographic Office, Dehradun.