

Institute of Oceanographic Sciences Report No 104

Errata:

Cover subtitle should read: Tidal currents: observed tidal and residual circulations.

Pages 1 and 10

Please replace the final paragraphs with the correct ones as enclosed.

Page 17

Please replace the first paragraph with the correct one as enclosed.

Pages 30 to 33

Please insert correct tables as enclosed.

Analysis of current meter and tidal elevation data has shown that the tides in this area may be considered as a mixture of standing wave and progressive wave oscillations, consistent with the proximity of the study area to an amphidrome. For both the M_2 and S_2 tides the standing wave component is dominant.

1.

In the case of S_2 constituent also, the standing wave appears to dominate over the progressive component (Table 9). Although Macqueen and Parker (1979) only carried out an analysis of the M_2 constituent, Pugh and Vassie (1976) found a difference in dominance for the two constituents at the Inner Dowsing Station, with $W_p > W_s$ for the M_2 and for the S_2 , $W_p < W_s$.

10

Analysis of current meter and tidal elevation data has shown that the tides in the Sizewell-Dunwich Bank area may be considered as a mixture of standing and progressive wave oscillations. For the M_2 and S_2 currents, standing wave tides are dominant with a standing wave/progressive wave ratio of about 3:2. Maximum tidal streaming ($M_2 + S_2$) at mid depth is of the order 100 cm s^{-1} over the area as a whole.

17.

TABLE 9

Progressive and standing wave amplitudes and directions
for the S_2 constituent

Station	Record	Progressive wave		Standing wave	
		Amplitude W_p ($m\ s^{-1}$)	Direction λ (degrees from true N)	Amplitude W_s ($m\ s^{-1}$)	Direction ϕ (degrees from true N)
A	238 H6	.236	191	.054	26
A	232 K6	.014	97	.246	9
A	260 E7	.175	195	.206	15
A	534 D8	.043	178	.184	11
A	560 F8	.101	189	.178	13
A	260 H8	.107	180	.165	10
A	560 K8	.144	188	.174	15
D	669 H8	.110	199	.220	26
E	667 H6	.167	200	.208	23
F	232 G7	.175	201	.195	23
J	626 H6	.095	181	.194	7
M	267 H6	.079	181	.185	10
P	534 J6	.038	183	.118	15
S	232 H6	.055	186	.169	9
W	534 H8	.143	207	.195	30
X	560 G7	.069	204	.171	23
Z	237 G7	.181	211	.193	28

TABLE 10

Progressive and standing wave amplitudes and directions
for the O_1 constituent

Station	Record	Progressive wave		Standing wave	
		Amplitude W_p ($m s^{-1}$)	Direction λ (degrees from true N)	Amplitude W_s ($m s^{-1}$)	Direction ϕ (degrees from true N)
A	238 H6	.020	195	.010	9
A	232 K6	.014	199	.019	1
A	260 E7	.020	183	.022	22
A	534 D8	.020	191	.008	347
A	560 F8	.019	188	.005	286
A	260 H8	.024	184	.018	22
A	560 K8	.019	186	.011	10
D	669 H8	.027	202	.028	31
E	667 H6	.034	208	.018	28
F	232 G7	.024	205	.017	29
J	626 H6	.029	208	.021	353
M	267 H6	.026	198	.014	13
P	534 J6	.005	205	.009	6
S	232 H6	.023	212	.015	28
W	534 H8	.016	209	.019	56
X	560 G7	.014	200	.012	47
Z	237 G7	.023	214	.014	27

TABLE 11

Progressive and standing wave amplitudes and directions
for the K_1 constituent

Station	Record	Progressive wave		Standing wave	
		Amplitude W_p ($m\ s^{-1}$)	Direction λ (degrees from true N)	Amplitude W_s ($m\ s^{-1}$)	Direction ϕ (degrees from true N)
A	238 H6	.018	188	.008	84
A	232 K6	.021	182	.017	1
A	260 E7	.021	194	.001	4
A	534 D8	.018	193	.009	34
A	560 F8	.024	197	.006	40
A	260 H8	.023	203	.010	47
A	560 K8	.024	186	.002	36
D	669 H8	.045	198	.016	37
E	667 H6	.044	211	.009	321
F	232 G7	.040	201	.011	22
J	626 H6	.029	224	.022	270
M	267 H6	.016	197	.003	165
P	534 J6	.011	259	.004	256
S	232 H6	.028	274	.015	278
W	534 H8	.034	208	.014	37
X	560 G7	.021	205	.008	44
Z	237 G7	.036	210	.012	42

TABLE 12

Progressive and standing wave amplitudes and directions
for the N₂ constituent

Station	Record	Progressive wave		Standing wave	
		Amplitude W_p (m s ⁻¹)	Direction λ (degrees from true N)	Amplitude W_s (m s ⁻¹)	Direction ϕ (degrees from true N)
A	238 H6	.015	193	.023	187
A	232 K6	.090	191	.015	30
A	260 E7	.103	191	.120	16
A	534 D8	.073	184	.126	8
A	560 F8	.066	190	.108	14
A	260 H8	.098	186	.111	12
A	560 K8	.116	189	.096	17
D	669 H8	.064	199	.123	28
E	667 H6	.108	201	.115	24
F	232 G7	.087	201	.116	24
J	626 H6	.084	183	.117	10
M	267 H6	.081	186	.116	9
P	534 J6	.036	186	.083	12
S	232 H6	.058	186	.107	10
W	534 H8	.075	207	.140	29
X	560 G7	.032	204	.099	22
Z	237 G7	.097	212	.113	29