

JANUARY 2025

HOURLY TIDAL HEIGHTS

HEIGHTS IN METRES

WEST TUAS

LAT 01° 20.7'N LONG 103° 38.0'E

DAY\HR	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23	
1	2.4	2.5	2.3	1.9	1.4	1.1	0.9	1.0	1.3	2.0	2.8	3.4	3.5	3.3	2.9	2.2	1.5	1.0	0.7	0.5	0.4	0.6	1.2	1.9	
2	2.3	2.5	2.5	2.2	1.7	1.2	1.0	0.9	1.1	1.5	2.3	3.1	3.6	3.6	3.3	2.7	1.9	1.3	0.9	0.6	0.4	0.4	0.8	1.5	
3	2.1	2.5	2.6	2.4	2.1	1.5	1.1	0.9	0.9	1.2	1.7	2.5	3.3	3.6	3.5	3.1	2.4	1.7	1.1	0.7	0.5	0.4	0.5	1.1	
4	1.8	2.4	2.6	2.6	2.4	1.9	1.4	1.0	0.9	0.9	1.3	1.9	2.7	3.4	3.6	3.4	2.9	2.2	1.5	1.0	0.6	0.5	0.4	0.7	
5	1.4	2.1	2.5	2.7	2.6	2.3	1.8	1.3	1.0	0.9	1.0	1.4	2.0	2.8	3.3	3.4	3.1	2.6	1.9	1.3	0.9	0.6	0.5	0.6	
6	1.0	1.7	2.3	2.7	2.7	2.6	2.2	1.7	1.3	1.0	0.9	1.0	1.4	2.0	2.6	3.0	3.0	2.8	2.3	1.7	1.2	0.9	0.7	0.7	
7	▷	0.9	1.4	2.0	2.5	2.8	2.8	2.6	2.2	1.7	1.3	1.0	1.0	1.1	1.4	1.9	2.4	2.6	2.7	2.5	2.1	1.6	1.2	1.0	0.9
8	0.9	1.2	1.6	2.2	2.6	2.8	2.8	2.6	2.2	1.7	1.3	1.1	1.0	1.1	1.3	1.6	2.0	2.3	2.3	2.2	2.0	1.6	1.4	1.2	
9	1.1	1.2	1.4	1.8	2.3	2.7	2.9	2.9	2.6	2.3	1.8	1.4	1.1	1.0	1.0	1.3	1.6	1.9	2.1	2.1	2.0	1.8	1.5		
10	1.3	1.3	1.3	1.5	1.8	2.3	2.7	2.9	2.9	2.7	2.4	2.0	1.5	1.2	0.9	0.8	0.8	1.0	1.3	1.7	1.9	2.1	2.1	1.9	
11	1.7	1.5	1.4	1.4	1.5	1.8	2.3	2.7	3.0	3.1	2.9	2.5	2.1	1.5	1.2	0.9	0.6	0.6	0.7	1.1	1.6	2.0	2.2	2.2	
12	2.1	1.8	1.5	1.3	1.3	1.4	1.7	2.3	2.8	3.2	3.2	3.1	2.6	2.1	1.5	1.1	0.8	0.5	0.4	0.6	1.1	1.7	2.1	2.3	
13	2.4	2.2	1.8	1.4	1.2	1.2	1.3	1.7	2.3	3.0	3.4	3.4	3.1	2.7	2.0	1.4	1.0	0.7	0.4	0.3	0.6	1.2	1.8	2.2	
14	○	2.4	2.4	2.1	1.6	1.3	1.1	1.1	1.3	1.7	2.5	3.2	3.5	3.4	3.1	2.6	1.9	1.3	0.9	0.6	0.4	0.4	0.8	1.5	2.1
15	2.4	2.5	2.4	2.0	1.5	1.1	1.0	1.1	1.3	1.9	2.7	3.4	3.6	3.4	3.0	2.4	1.7	1.2	0.8	0.5	0.3	0.5	1.1	1.8	
16	2.3	2.5	2.5	2.2	1.7	1.3	1.0	1.0	1.1	1.4	2.1	3.0	3.5	3.6	3.3	2.8	2.1	1.4	1.0	0.7	0.5	0.4	0.8	1.5	
17	2.2	2.5	2.5	2.4	2.0	1.5	1.1	0.9	1.0	1.1	1.6	2.4	3.2	3.5	3.4	3.0	2.4	1.7	1.2	0.8	0.6	0.5	0.6	1.2	
18	2.0	2.5	2.6	2.5	2.3	1.8	1.3	1.0	0.9	1.0	1.3	1.9	2.7	3.3	3.4	3.1	2.7	2.0	1.4	1.0	0.7	0.6	0.6	1.0	
19	1.7	2.3	2.6	2.6	2.5	2.1	1.5	1.1	0.9	1.0	1.1	1.5	2.2	2.8	3.1	3.1	2.8	2.3	1.6	1.1	0.8	0.7	0.6	0.9	
20	1.4	2.1	2.6	2.7	2.6	2.3	1.8	1.4	1.1	1.0	1.0	1.3	1.7	2.3	2.7	2.8	2.7	2.4	1.8	1.3	1.0	0.8	0.8	0.9	
21	1.3	1.9	2.4	2.6	2.7	2.5	2.1	1.7	1.3	1.1	1.0	1.1	1.4	1.9	2.3	2.5	2.5	2.3	1.9	1.5	1.2	1.0	0.9	1.0	
22	▷	1.2	1.6	2.1	2.5	2.6	2.6	2.4	2.0	1.6	1.4	1.2	1.2	1.2	1.5	1.8	2.0	2.1	1.9	1.6	1.4	1.2	1.1	1.1	
23	1.2	1.5	1.9	2.3	2.5	2.6	2.5	2.3	2.0	1.7	1.5	1.3	1.2	1.3	1.4	1.6	1.7	1.8	1.7	1.5	1.4	1.3	1.3		
24	1.3	1.4	1.6	2.0	2.2	2.4	2.5	2.5	2.3	2.1	1.8	1.6	1.4	1.3	1.2	1.2	1.3	1.4	1.5	1.6	1.6	1.6	1.5		
25	1.4	1.4	1.5	1.6	1.9	2.2	2.4	2.5	2.6	2.5	2.3	2.0	1.7	1.4	1.2	1.0	1.0	1.2	1.4	1.6	1.7	1.8	1.7		
26	1.6	1.5	1.4	1.4	1.5	1.8	2.1	2.5	2.7	2.8	2.7	2.4	2.0	1.7	1.3	1.0	0.8	0.7	0.8	1.1	1.4	1.7	2.0	2.0	
27	1.9	1.7	1.5	1.3	1.3	1.4	1.7	2.2	2.6	2.9	3.0	2.9	2.5	2.0	1.5	1.2	0.9	0.6	0.6	0.8	1.2	1.7	2.0	2.2	
28	2.2	2.0	1.6	1.3	1.2	1.2	1.3	1.7	2.3	2.9	3.2	3.2	3.0	2.5	1.9	1.4	1.0	0.7	0.5	0.5	0.8	1.4	2.0	2.3	
29	●	2.4	2.3	1.9	1.4	1.1	1.0	1.1	1.3	1.8	2.6	3.2	3.5	3.3	2.9	2.3	1.7	1.1	0.8	0.5	0.3	0.5	1.1	1.8	2.3
30	2.5	2.5	2.3	1.8	1.3	1.0	0.9	1.0	1.3	2.0	2.9	3.5	3.6	3.3	2.8	2.1	1.4	0.9	0.6	0.4	0.3	0.6	1.4	2.2	
31	2.6	2.7	2.6	2.2	1.6	1.1	0.8	0.8	1.0	1.4	2.3	3.2	3.7	3.6	3.2	2.6	1.8	1.2	0.7	0.5	0.3	0.4	0.9	1.8	

FEBRUARY 2025
HOURLY TIDAL HEIGHTS

HEIGHTS IN METRES

WEST TUAS

LAT 01° 20.7'N LONG 103° 38.0'E

DAY\HR	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23	
1	2.5	2.8	2.8	2.6	2.0	1.4	0.9	0.7	0.7	1.0	1.6	2.6	3.4	3.7	3.5	3.1	2.3	1.5	1.0	0.6	0.4	0.3	0.6	1.4	
2	2.3	2.8	3.0	2.8	2.5	1.8	1.2	0.8	0.6	0.7	1.0	1.8	2.7	3.4	3.6	3.3	2.8	2.0	1.3	0.8	0.5	0.4	0.5	1.0	
3	1.9	2.7	3.0	3.0	2.8	2.3	1.6	1.1	0.7	0.6	0.7	1.2	2.0	2.8	3.2	3.3	3.0	2.4	1.7	1.1	0.7	0.5	0.5	0.8	
4	1.5	2.3	2.9	3.1	3.0	2.6	2.0	1.4	1.0	0.7	0.6	0.8	1.3	2.0	2.6	2.9	2.6	2.0	1.4	1.0	0.8	0.7	0.8	0.8	
5	▷	1.3	2.0	2.6	3.0	3.1	2.9	2.4	1.8	1.3	1.0	0.8	0.7	0.9	1.4	1.9	2.3	2.5	2.4	2.1	1.7	1.3	1.0	0.9	1.0
6	1.2	1.7	2.2	2.7	3.0	3.0	2.7	2.3	1.8	1.4	1.1	0.9	0.9	1.0	1.3	1.7	1.9	2.1	2.0	1.8	1.6	1.4	1.2	1.2	
7	1.3	1.5	1.9	2.3	2.7	2.8	2.8	2.6	2.3	1.9	1.5	1.3	1.1	1.0	1.0	1.1	1.3	1.5	1.7	1.7	1.6	1.5	1.5	1.5	
8	1.4	1.5	1.6	1.9	2.2	2.5	2.7	2.8	2.7	2.4	2.1	1.8	1.5	1.2	1.0	0.9	0.8	0.9	1.2	1.4	1.6	1.8	1.8	1.8	
9	1.7	1.6	1.5	1.6	1.7	1.9	2.3	2.6	2.8	2.8	2.7	2.4	2.0	1.6	1.2	0.9	0.7	0.6	0.7	1.0	1.4	1.7	2.0	2.1	
10	2.0	1.8	1.6	1.4	1.4	1.5	1.7	2.2	2.6	3.0	3.1	2.9	2.6	2.1	1.6	1.2	0.8	0.5	0.4	0.6	1.0	1.6	2.0	2.2	
11	2.3	2.1	1.7	1.4	1.2	1.2	1.3	1.6	2.2	2.8	3.2	3.3	3.1	2.6	2.0	1.5	1.0	0.7	0.4	0.3	0.7	1.3	1.9	2.3	
12	○	2.4	2.4	2.0	1.5	1.2	1.0	1.0	1.2	1.6	2.4	3.1	3.4	3.3	3.0	2.5	1.8	1.3	0.9	0.6	0.3	0.4	1.0	1.7	2.3
13	2.5	2.5	2.3	1.8	1.3	1.0	0.9	0.9	1.2	1.8	2.7	3.3	3.4	3.3	2.8	2.2	1.5	1.0	0.7	0.5	0.3	0.7	1.5	2.2	
14	2.6	2.6	2.5	2.1	1.5	1.1	0.9	0.9	0.9	1.3	2.2	3.0	3.4	3.4	3.1	2.5	1.8	1.2	0.8	0.6	0.4	0.5	1.2	2.1	2.7
15	2.6	2.7	2.7	2.4	1.8	1.2	0.9	0.8	0.8	1.0	1.7	2.6	3.2	3.4	3.2	2.7	2.1	1.4	0.9	0.6	0.4	0.5	0.9	1.8	
16	2.5	2.8	2.8	2.6	2.1	1.5	1.0	0.8	0.7	0.8	1.2	2.0	2.8	3.2	3.2	2.9	2.3	1.6	1.1	0.7	0.5	0.4	0.7	1.6	2.4
17	2.3	2.8	2.9	2.8	2.4	1.8	1.2	0.9	0.7	0.7	0.9	1.6	2.3	2.9	3.0	2.9	2.5	1.9	1.2	0.8	0.6	0.5	0.6	1.2	2.2
18	2.1	2.7	2.9	2.9	2.6	2.1	1.5	1.0	0.8	0.7	0.8	1.2	1.9	2.5	2.7	2.5	2.0	1.4	1.0	0.8	0.7	0.6	0.6	1.0	1.8
19	1.8	2.5	2.9	2.9	2.7	2.3	1.7	1.3	1.0	0.8	0.8	1.0	1.5	2.0	2.4	2.4	2.3	2.0	1.6	1.1	0.9	0.8	0.9	1.1	
20	1.6	2.2	2.7	2.8	2.7	2.5	2.0	1.5	1.2	1.0	0.9	0.9	1.2	1.6	2.0	2.1	2.1	1.9	1.6	1.3	1.0	0.9	1.1		
21	⌚	1.4	2.0	2.4	2.7	2.7	2.5	2.3	1.9	1.5	1.3	1.2	1.1	1.1	1.3	1.6	1.7	1.7	1.5	1.4	1.1	1.1	1.2		
22	1.4	1.7	2.1	2.4	2.5	2.5	2.4	2.2	1.9	1.7	1.5	1.3	1.2	1.2	1.3	1.4	1.4	1.3	1.3	1.3	1.3	1.2	1.3		
23	1.4	1.5	1.8	2.0	2.2	2.4	2.4	2.3	2.1	1.9	1.7	1.5	1.3	1.1	1.1	1.0	1.1	1.2	1.3	1.4	1.4	1.3	1.3	1.2	
24	1.5	1.5	1.5	1.6	1.8	2.0	2.2	2.4	2.6	2.6	2.4	2.2	1.8	1.5	1.2	1.0	0.8	0.8	0.9	1.1	1.4	1.7	1.9	1.9	
25	1.8	1.6	1.4	1.3	1.4	1.5	1.8	2.2	2.6	2.9	2.9	2.7	2.3	1.8	1.4	1.0	0.7	0.6	0.6	0.8	1.3	1.8	2.2		
26	2.1	1.8	1.4	1.2	1.1	1.2	1.4	1.8	2.4	2.9	3.2	3.1	2.8	2.2	1.6	1.2	0.9	0.8	0.7	0.8	1.2	1.7	1.3	1.0	
27	2.5	2.2	1.7	1.2	1.0	0.9	1.0	1.3	1.9	2.7	3.3	3.4	3.2	2.7	2.1	1.4	0.9	0.6	0.4	0.3	0.6	1.5	2.2	2.6	
28	●	2.7	2.6	2.2	1.5	1.0	0.8	0.7	0.8	1.2	2.1	3.0	3.5	3.5	3.2	2.6	1.8	1.1	0.7	0.4	0.3	0.5	1.1	2.1	2.7

MARCH 2025
HOURLY TIDAL HEIGHTS

HEIGHTS IN METRES

WEST TUAS

LAT 01° 20.7'N LONG 103° 38.0'E

DAY\HR	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23
1	2.9	2.9	2.6	2.0	1.3	0.8	0.6	0.6	0.7	1.3	2.3	3.3	3.6	3.5	3.0	2.3	1.5	0.9	0.5	0.3	0.2	0.6	1.5	2.5
2	3.0	3.1	3.0	2.5	1.8	1.1	0.6	0.4	0.4	0.7	1.5	2.6	3.4	3.5	3.3	2.8	2.0	1.3	0.8	0.4	0.3	0.4	1.0	2.0
3	2.																							

APRIL 2025**HOURLY TIDAL HEIGHTS**

HEIGHTS IN METRES

WEST TUAS

LAT 01° 20.7'N LONG 103° 38.0'E

DAY\HR 00 01 02 03 04 05 06 07 08 09 10 11 12 13 14 15 16 17 18 19 20 21 22 23

1	3.4	3.4	3.2	2.7	1.9	1.1	0.6	0.2	0.1	0.2	0.8	1.8	2.6	3.0	3.0	2.7	2.1	1.4	0.9	0.6	0.5	0.7	1.3	2.2
2	3.1	3.5	3.4	3.0	2.4	1.6	0.9	0.5	0.2	0.1	0.3	1.1	1.9	2.5	2.7	2.7	2.3	1.7	1.2	0.9	0.7	0.7	1.0	1.8
3	2.7	3.3	3.4	3.2	2.7	2.1	1.3	0.9	0.5	0.3	0.2	0.6	1.3	1.9	2.3	2.4	2.3	1.9	1.5	1.1	0.9	0.9	1.0	1.5
4	2.2	2.9	3.2	3.2	2.9	2.5	1.8	1.3	0.9	0.6	0.5	0.5	0.8	1.3	1.7	1.9	2.0	1.9	1.6	1.3	1.1	1.0	1.1	1.4
5	▷	1.8	2.3	2.8	3.0	2.9	2.7	2.3	1.8	1.4	1.1	0.9	0.8	0.8	1.0	1.2	1.4	1.6	1.6	1.5	1.3	1.2	1.3	1.4

6	1.6	1.9	2.2	2.5	2.7	2.7	2.5	2.2	1.9	1.6	1.4	1.1	1.0	0.9	0.9	1.0	1.1	1.3	1.4	1.5	1.5	1.5	1.5	1.5
7	1.6	1.7	1.8	2.0	2.2	2.4	2.4	2.4	2.3	2.1	1.9	1.6	1.3	1.1	0.9	0.7	0.8	0.9	1.2	1.5	1.7	1.8	1.7	1.7
8	1.6	1.5	1.5	1.5	1.6	1.8	2.1	2.4	2.6	2.6	2.4	2.1	1.7	1.3	1.0	0.7	0.6	0.6	0.9	1.3	1.7	2.0	2.1	2.0
9	1.8	1.6	1.4	1.2	1.2	1.2	1.5	2.0	2.5	2.7	2.8	2.5	2.1	1.6	1.2	0.8	0.6	0.5	0.7	1.1	1.7	2.1	2.4	2.4
10	2.2	1.8	1.4	1.1	0.9	0.9	1.0	1.5	2.1	2.7	2.9	2.8	2.5	2.0	1.4	1.0	0.7	0.5	0.5	0.9	1.6	2.2	2.6	2.6

11	2.5	2.1	1.5	1.1	0.9	0.7	0.7	1.0	1.7	2.4	2.8	2.9	2.7	2.3	1.6	1.1	0.8	0.6	0.5	0.7	1.4	2.2	2.7	2.8
12	2.7	2.4	1.8	1.3	0.9	0.7	0.6	0.7	1.2	2.0	2.6	2.9	2.8	2.5	1.9	1.3	0.9	0.6	0.5	0.6	1.1	2.0	2.7	3.0
13	○	2.9	2.7	2.2	1.5	1.0	0.7	0.5	0.5	0.8	1.5	2.3	2.8	2.9	2.7	2.2	1.6	1.0	0.7	0.5	0.8	1.6	2.5	3.0
14	3.1	2.9	2.4	1.8	1.2	0.7	0.5	0.4	0.5	1.1	1.9	2.5	2.8	2.7	2.4	1.9	1.3	0.9	0.6	0.5	0.7	1.3	2.2	2.6
15	3.1	3.0	2.7	2.1	1.4	0.9	0.6	0.4	0.3	0.7	1.5	2.2	2.6	2.7	2.6	2.1	1.5	1.0	0.7	0.6	0.6	1.0	1.8	2.7

16	3.1	3.1	2.9	2.4	1.7	1.1	0.7	0.5	0.3	0.4	1.0	1.8	2.4	2.5	2.5	2.3	1.8	1.2	0.9	0.7	0.6	0.8	1.5	2.4
17	3.0	3.1	3.0	2.6	2.0	1.3	0.9	0.6	0.4	0.4	0.7	1.4	2.0	2.3	2.3	2.2	1.9	1.4	1.0	0.8	0.7	0.9	1.3	2.0
18	2.8	3.1	3.1	2.8	2.3	1.6	1.1	0.8	0.6	0.5	1.0	1.6	2.0	2.1	2.1	1.9	1.5	1.1	0.9	0.7	0.9	1.1	1.6	1.6
19	2.5	3.0	3.1	2.9	2.6	2.0	1.4	1.0	0.8	0.7	0.6	0.8	1.2	1.7	1.9	1.9	1.8	1.6	1.3	1.0	0.9	0.9	1.1	1.3
20	2.1	2.7	3.0	3.0	2.8	2.4	1.8	1.4	1.1	0.9	0.8	0.8	1.0	1.3	1.5	1.7	1.7	1.6	1.4	1.2	1.0	1.0	1.3	1.3

21	○	1.7	2.2	2.6	2.8	2.8	2.6	2.3	1.9	1.5	1.3	1.1	0.9	0.9	1.0	1.2	1.3	1.5	1.6	1.5	1.3	1.2	1.2	1.2
22	1.4	1.7	2.0	2.3	2.5	2.6	2.5	2.3	2.0	1.7	1.4	1.2	1.0	0.9	0.9	1.0	1.2	1.4	1.6	1.5	1.4	1.4	1.4	1.4
23	1.3	1.4	1.5	1.7	2.0	2.3	2.5	2.6	2.5	2.3	1.9	1.5	1.2	0.9	0.7	0.7	0.8	1.1	1.5	1.8	2.1	2.4	2.3	1.9
24	1.4	1.2	1.2	1.2	1.4	1.7	2.1	2.5	2.7	2.7	2.4	2.0	1.5	1.1	0.8	0.6	0.6	0.8	1.2	1.6	1.1	0.8	0.7	1.0
25	1.8	1.4	1.1	0.9	0.9	1.0	1.4	2.0	2.6	2.9	2.9	2.5	2.0	1.4	0.9	0.6	0.5	0.8	1.5	2.2	2.8	2.7	2.7	2.7

26	2.3	1.7	1.2	0.8	0.6	0.6	0.8	1.3	2.1	2.8	3.0	2.9	2.5	1.9	1.2	0.8	0.6	0.5	0.6	1.1	1.9	2.1	2.1	2.0

<tbl_r cells="24" ix="1" maxc

JUNE 2025

HOURLY TIDAL HEIGHTS

HEIGHTS IN METRES

WEST TUAS

LAT 01° 20.7'N LONG 103° 38.0'E

DAY\HR	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23
1	2.5	3.1	3.4	3.3	2.9	2.4	1.8	1.3	0.9	0.7	0.5	0.5	0.9	1.4	1.8	2.0	2.0	1.9	1.6	1.3	1.1	1.1	1.2	1.4
2	1.9	2.5	3.0	3.1	3.0	2.7	2.2	1.7	1.3	1.0	0.7	0.6	0.7	1.1	1.5	1.8	2.0	2.0	1.8	1.5	1.3	1.1	1.2	1.3
3	▷	1.6	1.9	2.4	2.7	2.8	2.7	2.4	2.0	1.6	1.3	1.0	0.8	0.7	0.9	1.2	1.6	1.9	2.0	1.9	1.6	1.4	1.3	1.3
4	1.4	1.5	1.8	2.2	2.4	2.5	2.5	2.3	1.9	1.6	1.3	1.1	0.9	0.9	1.0	1.3	1.7	1.9	2.1	2.1	2.0	1.8	1.5	1.4
5	1.3	1.3	1.4	1.6	1.9	2.1	2.3	2.3	2.1	1.9	1.6	1.3	1.1	0.9	0.9	1.1	1.4	1.8	2.1	2.3	2.3	2.2	1.9	1.6
6	1.4	1.3	1.2	1.2	1.3	1.6	1.9	2.1	2.2	2.1	1.9	1.6	1.3	1.0	0.9	1.0	1.2	1.5	2.0	2.3	2.5	2.5	2.3	2.0
7	1.6	1.3	1.1	1.0	1.0	1.1	1.4	1.8	2.1	2.2	2.1	1.9	1.5	1.2	1.0	0.9	1.0	1.3	1.7	2.2	2.6	2.7	2.4	2.1
8	2.0	1.5	1.2	0.9	0.8	0.8	1.0	1.4	1.8	2.1	2.2	2.1	1.8	1.5	1.1	0.9	0.9	1.0	1.4	2.0	2.5	2.9	2.7	2.8
9	2.3	1.8	1.3	1.0	0.7	0.6	0.7	1.1	1.5	2.0	2.2	2.3	2.1	1.7	1.3	1.0	0.8	0.8	1.1	1.6	2.3	2.8	3.0	3.0
10	2.7	2.2	1.6	1.1	0.8	0.6	0.5	0.7	1.2	1.7	2.1	2.3	2.3	2.0	1.6	1.2	0.9	0.8	0.9	1.2	1.9	2.6	3.0	3.1
11	○	3.0	2.5	1.9	1.4	1.0	0.7	0.5	0.5	0.9	1.4	1.9	2.2	2.4	2.3	1.9	1.4	1.1	0.8	0.8	1.0	1.5	2.3	3.2
12	3.1	2.8	2.3	1.7	1.2	0.9	0.6	0.4	0.6	1.0	1.6	2.1	2.3	2.3	2.1	1.7	1.3	0.9	0.8	1.2	1.8	2.6	2.6	2.4
13	3.3	3.1	2.7	2.1	1.5	1.0	0.8	0.5	0.4	0.7	1.3	1.8	2.1	2.3	2.2	2.0	1.5	1.1	0.9	0.8	1.0	1.5	2.2	3.1
14	3.3	3.3	3.0	2.5	1.8	1.3	0.9	0.6	0.5	0.5	0.9	1.5	1.9	2.2	2.2	2.1	1.8	1.3	1.0	0.8	0.9	1.3	2.0	3.1
15	3.2	3.4	3.3	2.9	2.2	1.6	1.1	0.8	0.6	0.4	0.6	1.1	1.6	2.0	2.2	2.2	2.0	1.6	1.2	0.9	0.8	1.0	1.4	2.1
16	2.8	3.3	3.4	3.2	2.7	2.0	1.4	1.0	0.7	0.5	0.5	0.7	1.3	1.8	2.1	2.2	2.2	1.9	1.5	1.1	0.9	0.9	1.1	1.6
17	2.2	2.9	3.2	3.3	3.0	2.5	1.8	1.3	0.9	0.6	0.5	0.6	0.9	1.5	1.9	2.2	2.3	2.2	1.8	1.4	1.0	0.9	0.7	1.2
18	1.6	2.3	2.8	3.1	3.1	2.8	2.3	1.7	1.2	0.8	0.6	0.5	0.7	1.1	1.6	2.1	2.3	2.4	2.1	1.5	1.0	1.0	0.8	0.8
19	⌚	1.2	1.6	2.1	2.6	2.8	2.6	2.1	1.6	1.2	0.9	0.7	0.7	0.9	1.3	1.8	2.2	2.5	2.5	2.3	2.0	1.6	1.2	1.0
20	1.0	1.1	1.4	1.9	2.3	2.5	2.6	2.4	2.0	1.6	1.2	0.9	0.8	0.8	1.0	1.4	1.9	2.4	2.6	2.7	2.5	2.4	1.9	1.5
21	1.0	0.9	1.0	1.2	1.5	2.0	2.3	2.4	2.3	2.0	1.7	1.3	1.0	0.9	0.9	1.1	1.5	2.0	2.5	2.9	2.6	2.2	1.7	
22	1.3	1.0	0.8	0.8	0.9	1.2	1.7	2.1	2.3	2.1	1.7	1.3	1.1	0.9	1.0	1.2	1.6	2.2	2.0	1.7	1.5	1.2	1.9	2.9
23	1.7	1.2	0.9	0.7	0.6	0.7	1.0	1.5	2.0	2.3	2.3	2.2	1.8	1.4	1.1	1.0	1.0	1.2	1.6	2.3	2.2	2.1	1.7	1.3
24	2.4	1.7	1.2	0.8	0.6	0.4	0.5	0.9	1.5	2.0	2.3	2.4	2.2	1.9	1.4	1.1	1.0	1.2	1.7	2.5	3.1	3.4	3.3	
25	●	2.9	2.4	1.7	1.1	0.8	0.5	0.3	0.4	0.8	1.5	2.0	2.3	2.4	2.2	1.9	1.4	1.1	0.9	1.0	1.3	2.0	2.9	3.4
26	3.3	2.9	2.3	1.6	1.1	0.7	0.5	0.3	0.4	0.9	1.6	2.1	2.3	2.4	2.2	1.8	1.3	1.0	0.9	1.0	1.3	2.0	2.2	3.1
27	3.6	3.3	2.9	2.2	1.5	1.0	0.7	0.4	0.2	0.4	1.0	1.7	2.2	2.3	2.1	1.6	1.2	0.9	0.9	1.0	1.6	2.5	2.5	
28	3.5	3.5	3.2	2.7	2.0	1.4	1.0	0.7	0.4	0.3	0.6	1.3	1.9	2.2	2.3	1.9	1.4	1.1	0.9	1.2	1.9	2.6	2.8	2.9
29	3.2	3.5	3.4	3.1	2.5	1.8	1.3	0.9	0.6	0.4	0.4	0.9	1.6	2.1	2.3	2.1	1.7	1.2	1.0	0.9	1.0	1.3	1.9	2.6
30	2.6	3.2	3.4	3.2	2.8	2.2	1.6	1.1	0.8	0.6	0.4	0.7	1.2	1.8	2.2	2.3	2.2	2.0	1.5	1.1	1.0	1.1	0.9	0.8

JULY 2025

HOURLY TIDAL HEIGHTS

HEIGHTS IN METRES

WEST TUAS

LAT 01° 20.7'N LONG 103° 38.0'E

DAY\HR	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23
1	2.0	2.7	3.1	3.2	3.0	2.5	1.9	1.4	1.0	0.8	0.6	0.6	1.0											

AUGUST 2025

HOURLY TIDAL HEIGHTS

HEIGHTS IN METRES

WEST TUAS

LAT 01° 20.7'N LONG 103° 38.0'E

DAY\HR	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23	
1	▷	1.3	1.8	2.3	2.5	2.4	2.2	1.8	1.4	1.1	0.9	0.8	0.9	1.2	1.7	2.3	2.6	2.6	2.5	2.2	1.8	1.4	1.1	1.0	1.0
2		1.1	1.4	1.8	2.0	2.1	2.0	1.8	1.5	1.2	1.1	1.0	1.0	1.1	1.5	2.0	2.3	2.5	2.5	2.4	2.1	1.7	1.5	1.3	1.1
3		1.1	1.2	1.4	1.6	1.7	1.7	1.6	1.4	1.3	1.2	1.2	1.2	1.4	1.7	2.0	2.2	2.4	2.4	2.3	2.1	1.9	1.6	1.4	
4		1.2	1.1	1.2	1.2	1.3	1.4	1.5	1.5	1.5	1.4	1.3	1.3	1.3	1.4	1.6	1.9	2.1	2.3	2.4	2.3	2.0	1.8		
5		1.5	1.3	1.1	1.0	1.0	1.1	1.2	1.3	1.5	1.6	1.7	1.6	1.5	1.4	1.3	1.4	1.5	1.8	2.1	2.3	2.5	2.6	2.5	2.2
6		1.9	1.5	1.2	1.0	0.8	0.8	0.9	1.1	1.4	1.7	1.9	1.9	1.7	1.5	1.3	1.2	1.2	1.4	1.7	2.1	2.5	2.8	2.8	2.6
7		2.3	1.8	1.4	1.1	0.8	0.6	0.6	0.8	1.2	1.7	2.0	2.1	2.0	1.7	1.4	1.1	1.1	1.3	1.7	2.3	2.8	3.0	3.0	
8		2.7	2.2	1.7	1.2	0.9	0.6	0.5	0.6	1.0	1.5	2.0	2.2	2.3	2.0	1.6	1.2	0.9	0.9	1.0	1.3	1.9	2.6	3.1	3.3
9	○	3.1	2.7	2.0	1.4	1.0	0.7	0.5	0.4	0.6	1.2	1.9	2.3	2.4	2.3	2.0	1.4	1.0	0.8	0.8	1.0	1.4	2.1	2.9	3.4
10		3.4	3.1	2.5	1.8	1.2	0.8	0.6	0.4	0.4	0.9	1.7	2.3	2.6	2.5	2.3	1.8	1.2	0.8	0.7	0.7	1.0	1.6	2.5	3.2
11		3.5	3.4	2.9	2.2	1.5	1.0	0.6	0.4	0.3	0.5	1.3	2.1	2.6	2.7	2.6	2.2	1.6	1.0	0.7	0.6	0.7	1.0	1.8	2.8
12		3.4	3.5	3.3	2.7	1.9	1.2	0.8	0.5	0.3	0.4	0.9	1.7	2.5	2.8	2.8	2.6	2.1	1.4	0.9	0.6	0.5	1.1	2.0	
13		2.9	3.4	3.4	3.0	2.4	1.6	1.0	0.6	0.4	0.3	0.6	1.3	2.2	2.8	3.0	2.8	2.4	1.8	1.2	0.7	0.5	0.4	1.3	
14		2.2	3.0	3.2	3.1	2.7	2.0	1.3	0.9	0.6	0.4	0.5	1.0	1.8	2.6	3.0	3.0	2.7	2.2	1.6	1.0	0.7	0.5	0.8	
15		1.5	2.3	2.8	2.9	2.8	2.3	1.7	1.1	0.8	0.6	0.6	0.9	1.5	2.3	2.8	3.0	2.9	2.6	2.0	1.4	0.7	0.5	0.6	
16	⌚	1.0	1.6	2.1	2.5	2.5	2.4	1.9	1.4	1.1	0.9	0.8	0.9	1.3	1.9	2.5	2.9	3.0	2.8	2.4	1.9	1.4	1.0	0.8	0.7
17		0.8	1.1	1.5	1.9	2.1	2.1	2.0	1.7	1.4	1.1	1.0	1.0	1.2	1.6	2.0	2.5	2.8	2.7	2.3	1.9	1.5	1.2	0.8	0.4
18		0.9	0.9	1.0	1.2	1.5	1.7	1.8	1.7	1.6	1.5	1.3	1.3	1.4	1.7	2.0	2.3	2.6	2.4	2.1	1.8	1.4	1.2	0.8	0.5
19		1.2	1.0	0.9	0.8	0.9	1.1	1.3	1.5	1.7	1.7	1.6	1.5	1.4	1.4	1.5	1.8	2.1	2.4	2.7	2.6	2.4	2.1	1.8	1.4
20		1.7	1.3	1.0	0.8	0.6	0.6	0.8	1.2	1.5	1.8	2.0	1.9	1.8	1.5	1.4	1.3	1.5	1.8	2.3	2.7	2.9	2.7	2.7	
21		2.3	1.8	1.3	0.9	0.6	0.4	0.4	0.7	1.2	1.7	2.1	2.2	2.1	1.8	1.5	1.2	1.1	1.3	1.7	2.3	2.9	3.2	3.1	
22		2.8	2.3	1.7	1.2	0.8	0.5	0.3	0.4	0.9	1.5	2.0	2.3	2.4	2.2	1.7	1.3	1.0	0.9	0.9	1.1	1.7	2.6	3.2	3.3
23	●	3.2	2.8	2.2	1.5	1.0	0.7	0.4	0.3	0.5	1.2	1.9	2.3	2.5	2.4	2.1	1.5	1.0	0.8	0.8	1.2	2.0	2.7	3.0	
24		3.4	3.1	2.6	1.9	1.3	0.9	0.6	0.3	0.4	0.9	1.8	2.3	2.6	2.6	2.4	1.8	1.2	0.8	0.7	0.7	1.0	1.4	2.3	
25		3.4	3.3	2.9	2.3	1.5	1.0	0.7	0.5	0.4	0.7	1.5	2.3	2.7	2.7	2.5	2.1	1.5	1.0	0.7	0.6	1.0	1.7	2.7	
26		3.2	3.3	3.0	2.5	1.8	1.2	0.8	0.6	0.4	0.6	1.2	2.1	2.7	2.8	2.7	2.4	1.8	1.2	0.7	0.6	0.7	1.2	2.1	2.8
27		2.9	3.1	3.1	2.7	2.1	1.4	0.9	0.7	0.5	0.5	0.9	1.8	2.5	2.9	2.9	2.6	2.1	1.5	1.0	0.7	0.6	0.6	1.0	
28		2.4	2.9	2.9	2.7	2.3	1.7	1.1	0.8	0.6	0.6	0.8	1.5	2.3	2.8	2.9	2.8	2.4	1.8	1.2	0.8	0.7	0.8	1.0	
29		1.9	2.5	2.7	2.6	2.3	1.8	1.3	0.9	0.7	0.7	0.8	1.2	2.0	2.6	2.9	2.8	2.5	2.1	1.5	1.0	0.8	0.7	0.6	0.9
30		1.5	2.0	2.3	2.3	2.2	1.9	1.4	1.0	0.8	0.8	0.8	1.1	1.7	2.4	2.7	2.8	2.6	2.3	1.8	1.3	1.0	0.9	0.8	0.8
31	▷	1.2	1.6	1.9	2.0	2.0	1.8	1.5	1.2	1.0	0.9	1.0	1.1	1.5	2.0	2.5	2.6	2.6	2.4	2.1	1.7	1.3	1.2	1.0	1.0

SEPTEMBER 2025

HOURLY TIDAL HEIGHTS

HEIGHTS IN METRES

WEST TUAS

LAT 01° 20.7'N LONG 103° 38.0'E

DAY\HR</th

OCTOBER 2025

HOURLY TIDAL HEIGHTS

HEIGHTS IN METRES

WEST TUAS

LAT 01° 20.7'N LONG 103° 38.0'E

DAY	HR	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23
1		1.0	1.1	1.3	1.3	1.4	1.4	1.4	1.3	1.3	1.2	1.3	1.3	1.5	1.7	2.0	2.2	2.3	2.3	2.1	2.0	1.8	1.6	1.4	
2		1.2	1.0	1.0	1.0	1.1	1.2	1.3	1.5	1.5	1.5	1.4	1.4	1.5	1.6	1.7	1.9	2.1	2.2	2.3	2.4	2.3	2.0	1.8	
3		1.4	1.1	0.9	0.8	0.8	0.9	1.2	1.5	1.8	1.9	1.9	1.7	1.5	1.4	1.3	1.3	1.4	1.6	1.9	2.3	2.6	2.7	2.5	2.2
4		1.8	1.3	1.0	0.7	0.6	0.6	0.9	1.4	1.9	2.2	2.3	2.2	1.8	1.4	1.1	1.0	1.0	1.1	1.4	2.0	2.5	2.9	2.7	2.7
5		2.2	1.6	1.1	0.8	0.5	0.5	0.6	1.2	1.9	2.4	2.7	2.6	2.3	1.8	1.2	0.9	0.7	0.7	0.9	1.4	2.1	2.8	3.1	3.0
6		2.6	2.0	1.3	0.9	0.6	0.4	0.5	0.8	1.6	2.4	2.9	3.0	2.7	2.2	1.5	0.9	0.6	0.4	0.5	0.8	1.5	2.4	3.1	3.3
7	○	3.0	2.5	1.8	1.1	0.7	0.5	0.4	0.6	1.2	2.2	3.0	3.3	3.1	2.7	2.0	1.2	0.7	0.3	0.2	0.3	0.8	1.7	2.7	3.2
8		3.2	2.9	2.3	1.5	0.9	0.6	0.5	0.5	0.8	1.7	2.7	3.4	3.4	3.1	2.5	1.7	1.0	0.5	0.2	0.1	0.3	0.9	2.0	2.8
9		3.2	3.1	2.7	2.0	1.3	0.8	0.6	0.5	0.6	1.2	2.2	3.2	3.5	3.4	3.0	2.3	1.4	0.7	0.3	0.1	0.0	0.3	1.2	2.2
10		2.8	3.0	2.9	2.5	1.8	1.2	0.8	0.6	0.6	0.9	1.7	2.7	3.4	3.5	3.2	2.7	1.9	1.2	0.6	0.3	0.1	0.1	0.6	1.4
11		2.2	2.7	2.8	2.6	2.1	1.5	1.1	0.8	0.7	0.8	1.3	2.2	3.0	3.4	3.4	3.0	2.4	1.7	1.0	0.6	0.4	0.2	0.3	0.8
12		1.5	2.1	2.4	2.4	2.3	1.8	1.3	1.0	0.9	0.9	1.1	1.7	2.5	3.1	3.3	3.1	2.7	2.1	1.5	1.0	0.7	0.5	0.4	0.6
13		1.0	1.5	1.9	2.1	2.1	1.9	1.6	1.3	1.1	1.1	1.2	1.5	2.0	2.6	3.0	3.0	2.9	2.5	2.0	1.5	1.2	0.9	0.7	0.7
14	⌚	0.8	1.0	1.4	1.6	1.7	1.8	1.7	1.5	1.3	1.2	1.3	1.4	1.7	2.0	2.4	2.7	2.7	2.6	2.4	2.0	1.7	1.4	1.0	1.0
15		0.9	0.8	0.9	1.1	1.3	1.5	1.6	1.6	1.6	1.5	1.5	1.6	1.7	1.8	2.1	2.3	2.4	2.5	2.4	2.2	2.0	1.7	1.4	
16		1.2	0.9	0.8	0.8	0.9	1.2	1.4	1.7	1.8	1.8	1.7	1.6	1.5	1.5	1.5	1.7	1.9	2.2	2.4	2.5	2.2	1.9		
17		1.5	1.2	0.8	0.6	0.6	0.8	1.2	1.6	2.0	2.1	2.1	2.0	1.7	1.5	1.3	1.1	1.1	1.0	0.9	0.7	0.6	0.8	1.3	1.9
18		1.9	1.5	1.1	0.7	0.5	0.6	0.9	1.5	2.0	2.3	2.5	2.4	2.0	1.6	1.3	1.0	0.8	0.8	1.1	1.7	2.3	2.7	2.7	
19		2.3	1.8	1.3	0.9	0.6	0.5	0.7	1.3	1.9	2.5	2.7	2.7	2.4	1.9	1.4	1.0	0.7	0.6	0.7	1.1	1.8	2.3	2.5	
20		2.6	2.1	1.5	1.0	0.7	0.6	0.6	1.0	1.8	2.5	2.9	2.9	2.7	2.3	1.6	1.1	0.7	0.5	0.4	0.7	1.3	2.1	2.9	
21	●	2.8	2.4	1.8	1.2	0.8	0.6	0.6	0.8	1.5	2.3	2.9	3.1	3.0	2.6	2.0	1.3	0.8	0.5	0.4	0.4	0.9	1.7	2.8	
22		2.8	2.6	2.1	1.5	1.0	0.7	0.6	0.7	1.2	2.0	2.8	3.2	3.1	2.8	2.3	1.6	1.0	0.8	0.8	1.1	1.8	2.6	3.1	
23		2.8	2.7	2.4	1.8	1.2	0.8	0.6	0.6	0.9	1.7	2.6	3.1	3.2	3.0	2.6	1.9	1.2	0.7	0.3	0.4	0.9	1.6	2.3	
24		2.6	2.7	2.5	2.0	1.4	1.0	0.7	0.6	0.8	1.3	2.2	2.9	3.2	3.1	2.8	2.2	1.5	0.9	0.6	0.4	0.3	1.2	2.0	
25		2.4	2.6	2.5	2.2	1.7	1.2	0.9	0.7	0.7	1.1	1.8	2.6	3.1	3.2	2.9	2.5	1.8	1.2	0.8	0.4	0.8	1.6	2.6	
26		2.1	2.3	2.4	2.2	1.9	1.4	1.0	0.8	0.8	1.0	1.5	2.3	2.9	3.1	3.0	2.7	2.1	1.5	0.6	0.5	0.6	1.2	1.7	
27		1.8	2.1	2.2	2.1	1.9	1.5	1.1	0.9	0.9	1.0	1.3	1.9	2.7	3.0	3.0	2.8	2.4	1.8	1.3	0.7	0.6	0.9	1.3	
28		1.4	1.8	1.9	1.9	1.8	1.6	1.3	1.0	1.0	1.2	1.6	2.3	2.8	3.0	2.9	2.6	2.2	1.7	1.3	1.0	0.9	1.3		
29		1.1	1.4	1.7	1.7	1.7	1.6	1.4	1.2	1.1	1.2	1.4	1.9	2.3	2.7	2.8	2.7	2.4	2.1	1.4	1.2	1.0	0.9	1.1	
30	⌚	0.9	1.1	1.3	1.5	1.6	1.6	1.5	1.4	1.3	1.2	1.3	1.5	1.9	2.2	2.4	2.5	2.4	2.1	1.8	1.6	1.3	1.1		
31		1.0	0.9	1.0	1.2	1.4	1.5	1.7	1.8	1.8	1.6	1.5	1.4	1.4	1.5	1.6	1.9	2.1	2.3	2.4	2.3	2.0	1.7	1.4	

NOVEMBER 2025

HOURLY TIDAL HEIGHTS

HEIGHTS IN METRES

WEST TUAS

LAT 01° 20.7'N LONG 103° 38.0'E

DAY	HR	00	01	02	03
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DECEMBER 2025

HOURLY TIDAL HEIGHTS

HEIGHTS IN METRES

WEST TUAS

LAT 01° 20.7'N LONG 103° 38.0'E

DAY\HR	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23	
1	1.1	1.0	0.9	1.0	1.4	1.8	2.3	2.7	2.8	2.7	2.3	1.8	1.4	1.1	0.9	0.9	1.0	1.4	1.8	2.2	2.5	2.5	2.2	1.8	
2	1.4	1.1	1.0	0.9	1.1	1.4	2.1	2.7	3.0	3.1	2.9	2.4	1.8	1.3	0.9	0.7	0.6	0.7	1.1	1.7	2.3	2.6	2.6	2.3	
3	1.9	1.4	1.1	0.9	0.9	1.1	1.6	2.3	3.0	3.4	3.3	3.0	2.4	1.7	1.1	0.7	0.5	0.4	0.5	1.0	1.8	2.4	2.6	2.6	
4	2.4	1.9	1.4	1.1	0.9	0.9	1.2	1.8	2.6	3.3	3.6	3.4	3.0	2.3	1.5	0.9	0.6	0.3	0.2	0.4	1.1	1.9	2.4	2.7	
5	○	2.7	2.4	1.9	1.3	1.0	0.9	1.0	1.3	2.0	2.9	3.5	3.7	3.4	2.9	2.1	1.4	0.8	0.5	0.2	0.1	0.4	1.2	2.0	2.5
6	2.7	2.6	2.3	1.8	1.3	1.0	0.9	1.0	1.4	2.3	3.2	3.7	3.7	3.3	2.7	2.0	1.3	0.8	0.4	0.2	0.1	0.5	1.3	2.0	
7	2.5	2.6	2.6	2.2	1.7	1.2	1.0	1.0	1.1	1.6	2.5	3.3	3.7	3.6	3.2	2.6	1.8	1.2	0.8	0.4	0.2	0.2	0.7	1.5	
8	2.1	2.4	2.5	2.4	2.0	1.5	1.2	1.0	1.1	1.3	1.9	2.7	3.4	3.7	3.5	3.1	2.4	1.7	1.1	0.8	0.5	0.3	0.4	0.9	
9	1.6	2.1	2.4	2.4	2.3	1.9	1.4	1.1	1.1	1.1	1.4	2.0	2.8	3.4	3.5	3.3	2.8	2.2	1.6	1.1	0.8	0.6	0.4	0.6	
10	1.2	1.8	2.2	2.3	2.3	2.1	1.7	1.3	1.2	1.2	1.3	1.6	2.2	2.8	3.2	3.3	3.0	2.6	2.0	1.5	1.1	0.9	0.7	0.6	
11	0.9	1.4	1.9	2.2	2.3	2.2	2.0	1.6	1.3	1.2	1.3	1.4	1.7	2.2	2.7	3.0	3.0	2.7	2.3	1.9	1.5	1.2	0.9	0.8	
12	○	0.8	1.1	1.6	2.0	2.2	2.3	2.2	2.0	1.6	1.4	1.3	1.3	1.4	1.6	2.0	2.4	2.6	2.6	2.4	2.1	1.8	1.5	1.2	1.1
13	1.0	1.0	1.3	1.7	2.1	2.3	2.3	2.0	1.7	1.5	1.4	1.4	1.4	1.5	1.8	2.0	2.2	2.3	2.2	2.0	1.8	1.5	1.3		
14	1.1	1.1	1.2	1.5	1.8	2.2	2.4	2.5	2.4	2.2	1.9	1.6	1.4	1.3	1.2	1.3	1.4	1.7	1.9	2.1	2.1	2.0	1.8	1.6	
15	1.3	1.2	1.2	1.3	1.6	2.0	2.3	2.6	2.6	2.5	2.3	1.9	1.6	1.3	1.1	1.0	1.0	1.2	1.5	1.8	2.0	2.1	2.0	1.8	
16	1.6	1.3	1.2	1.2	1.3	1.6	2.1	2.5	2.8	2.8	2.7	2.4	1.9	1.5	1.2	0.9	0.8	0.8	1.0	1.4	1.8	2.1	2.2	2.1	
17	1.9	1.5	1.3	1.1	1.1	1.3	1.8	2.3	2.7	3.0	3.0	2.7	2.3	1.8	1.3	1.0	0.7	0.6	0.7	1.1	1.5	1.9	2.2	2.3	
18	2.1	1.8	1.4	1.2	1.0	1.1	1.4	1.9	2.5	3.0	3.1	3.0	2.7	2.2	1.6	1.1	0.8	0.6	0.5	0.8	1.2	1.7	2.1	2.4	
19	2.4	2.1	1.7	1.3	1.0	1.0	1.1	1.5	2.2	2.8	3.1	3.2	3.0	2.5	1.9	1.4	1.0	0.6	0.5	0.5	0.9	1.5	2.0	2.3	
20	●	2.5	2.3	2.0	1.5	1.2	1.0	0.9	1.2	1.8	2.5	3.0	3.3	3.2	2.9	2.3	1.7	1.2	0.8	0.5	0.4	0.6	1.1	1.7	2.2
21	2.4	2.5	2.2	1.8	1.3	1.0	0.9	1.0	1.4	2.1	2.8	3.2	3.3	3.1	2.7	2.0	1.4	1.0	0.7	0.5	0.4	0.8	1.4	2.0	
22	2.3	2.5	2.4	2.1	1.6	1.2	1.0	0.9	1.2	1.7	2.4	3.1	3.4	3.3	3.0	2.4	1.7	1.2	0.8	0.6	0.4	0.5	1.0	1.7	
23	2.2	2.4	2.4	2.3	1.8	1.4	1.0	0.9	1.0	1.4	2.0	2.8	3.3	3.5	3.2	2.8	2.1	1.5	1.0	0.7	0.5	0.5	0.7	1.3	
24	1.9	2.3	2.4	2.4	2.1	1.6	1.2	1.0	0.9	1.2	1.6	2.3	3.0	3.4	3.4	3.1	2.5	1.8	1.2	0.9	0.6	0.5	0.6	1.0	
25	1.6	2.1	2.4	2.4	2.3	1.9	1.5	1.1	0.9	1.0	1.3	1.8	2.5	3.1	3.4	3.2	2.8	2.2	1.6	1.1	0.8	0.6	0.6	0.8	
26	1.3	1.9	2.3	2.5	2.4	2.2	1.8	1.4	1.1	1.0	1.1	1.4	2.0	2.6	3.1	3.2	3.0	2.6	1.9	1.4	1.0	0.7	0.6	0.7	
27	1.0	1.6	2.1	2.5	2.6	2.5	2.2	1.7	1.4	1.1	1.0	1.1	1.4	2.0	2.5	2.8	2.9	2.7	2.3	1.7	1.3	1.0	0.8	0.8	
28	○	0.9	1.3	1.8	2.3	2.6	2.7	2.5	2.2	1.8	1.4	1.1	1.0	1.1	1.4	1.8	2.2	2.5	2.6	2.4	2.1	1.7	1.3	1.0	0.9
29	0.9	1.1	1.5	2.0	2.4	2.7	2.8	2.6	2.3	1.9	1.5	1.2	1.0	1.1	1.2	1.5	1.9	2.2	2.3	2.3	2.0	1.7	1.4	1.1	
30	1.1	1.1	1.3	1.6	2.1	2.5	2.8	2.9	2.8	2.4	2.0	1.5	1.2	1.0	0.9	1.0	1.2	1.5	1.9	2.1	2.2	2.1	1.8	1.5	
31	1.3	1.2	1.2	1.3	1.6	2.1	2.6	3.0	3.1	2.9	2.6	2.1	1.6	1.2	0.9	0.8	0.7	0.9	1.3	1.7	2.1	2.2	2.2	2.0	