

Climatological Wind and Ocean Estimates for Oil Weathering Calculations

Launch Area	Wind Speed (mph)	Wind Direction (Degrees from)	Ocean Surface Temperature (Celsius)	Current Speed (knots)	Current Direction (Degrees toward)	Wind Speed (m/s)	Current Speed (m/s)
1	12.8	100	24.41	0.54	45	5.7	0.28
2	12.6	101	23.86	0.52	16	5.6	0.27
3	12.5	103	23.50	0.56	331	5.6	0.29
4	12.2	104	23.40	0.58	319	5.5	0.30
5	12.1	104	23.90	0.47	9	5.4	0.24
6	12.5	102	24.20	0.46	25	5.6	0.24
7	12.3	103	24.23	0.45	59	5.5	0.23
8	12.4	102	24.55	0.43	48	5.6	0.22
9	12.5	99	24.61	0.55	22	5.6	0.28
10	12.7	100	24.98	0.50	38	5.7	0.26
11	12.8	98	25.20	0.45	48	5.7	0.23
12	11.9	107	23.34	0.51	298	5.3	0.26
13	11.6	113	22.86	0.44	285	5.2	0.23
14	11.6	117	22.65	0.35	273	5.2	0.18
15	11.9	110	23.80	0.40	8	5.3	0.21
16	11.6	113	23.41	0.41	296	5.2	0.21
17	12.0	109	24.12	0.43	34	5.4	0.22
18	12.4	104	24.54	0.47	52	5.5	0.24
19	12.3	103	24.74	0.45	32	5.5	0.23
20	12.5	100	24.82	0.40	61	5.6	0.21
21	12.7	102	24.86	0.52	33	5.7	0.27
22	12.6	101	25.02	0.45	45	5.7	0.23
23	12.7	99	25.14	0.45	49	5.7	0.23
24	12.9	99	25.23	0.52	57	5.7	0.27
25	12.9	98	25.31	0.54	43	5.8	0.28
26	12.8	97	25.38	0.49	49	5.7	0.25
27	13.0	97	25.42	0.45	55	5.8	0.23
28	12.8	96	25.47	0.48	35	5.7	0.24
29	12.8	95	25.52	0.40	42	5.7	0.21
30	11.4	116	22.91	0.40	321	5.1	0.21
31	11.6	107	23.23	0.40	303	5.2	0.21
32	11.7	112	23.54	0.49	328	5.2	0.25
33	11.8	105	23.84	0.43	307	5.3	0.22
34	11.9	107	24.22	0.44	9	5.3	0.23
35	12.2	102	24.38	0.43	5	5.4	0.22
36	11.5	93	23.38	0.44	313	5.2	0.23
37	11.6	90	23.93	0.45	270	5.2	0.23
38	11.7	93	23.89	0.52	320	5.2	0.27
39	11.6	89	24.21	0.49	295	5.2	0.25
40	11.9	93	24.48	0.46	346	5.3	0.24
41	11.8	89	24.53	0.47	62	5.3	0.24
42	11.6	88	24.77	0.37	44	5.2	0.19

43	12.1	93	24.93	0.48	25	5.4	0.25
44	11.9	89	25.07	0.44	58	5.3	0.23
45	12.3	93	25.25	0.53	44	5.5	0.27
46	12.0	89	25.37	0.45	44	5.4	0.23
47	12.3	92	25.48	0.48	62	5.5	0.25
48	12.0	89	25.60	0.52	51	5.4	0.27
49	12.4	91	25.62	0.40	24	5.5	0.20
50	11.9	88	25.79	0.41	24	5.3	0.21
51	11.9	89	24.18	0.52	283	5.3	0.27
52	11.8	88	24.36	0.73	339	5.3	0.38
53	11.7	89	23.73	0.54	16	5.2	0.28
54	12.1	89	24.11	0.55	358	5.4	0.28
55	11.8	88	24.23	0.47	27	5.3	0.24
56	12.0	88	24.45	0.53	322	5.4	0.27
57	11.9	88	24.48	0.51	22	5.3	0.26
58	12.0	87	24.81	0.53	24	5.4	0.27
59	11.9	87	24.94	0.48	24	5.3	0.25
60	12.1	87	25.22	0.55	43	5.4	0.28
61	12.0	86	25.37	0.48	60	5.4	0.25
62	12.2	88	25.53	0.45	43	5.5	0.23
63	12.2	86	25.68	0.49	49	5.5	0.25
64	12.2	88	25.78	0.55	63	5.4	0.28
65	12.0	87	26.00	0.70	61	5.4	0.36
66	12.1	87	25.99	0.50	38	5.4	0.26
67	11.9	86	26.26	0.76	46	5.3	0.39
68	11.9	88	23.02	0.48	30	5.3	0.24
69	11.7	90	23.43	0.48	30	5.2	0.25
70	11.3	90	23.51	0.36	92	5.0	0.19
72	11.6	90	23.84	0.48	41	5.2	0.25
74	11.6	89	24.28	0.51	16	5.2	0.26
133	11.8	89	24.70	0.50	5	5.3	0.26
135	12.0	88	25.11	0.47	344	5.4	0.24
137	12.0	86	25.52	0.55	63	5.4	0.29

Notes:

The wind speed and direction, and the ocean current speed and direction estimates are averaged from an ocean modeling study by Oey, L.-Y., 2005: A Circulation Model of the Gulf of Mexico and the Caribbean Sea: Development of the Princeton Regional Ocean Forecast (& Hindcast) System - PROFS, and Hindcast Experiment for 1992-1999. Final Report, OCS Study MMS 2005-049, 174 pp. The ocean temperature estimates are from a NODC/NOAA climatological product available from the web site: "[Objective Analyses of Annual, Seasonal, and Monthly Temperature and Salinity for the World Ocean on a 1/4degree Grid](#)" (pdf, 2.1 MB) by T. Boyer, S. Levitus, H. Garcia, R. Locarnini, C. Stephens, and J. Antonov, accepted for publication in the International Journal of Climatology, 25, 931-945.