

Table 7.1 The Beaufort Scale

Force	Description	Sea criterion	Wind speed (knots)		Wind waves (sea state)		Plate
			Mean	Limits	Description	Height (metres)	
0	Calm	Sea like a mirror	0	< 1	Calm	0-0.1	30
1	Light air	Ripples with appearance of scales are formed, but without foam crests	2	1-3			31
2	Light breeze	Small wavelets, still short but more pronounced. Crests have a glassy appearance and do not break.	5	4-6	Smooth	0.1-0.5	32
3	Gentle breeze	Large wavelets. Crests begin to break. Foam of glassy appearance. Perhaps scattered white horses	9	7-10			33
4	Moderate breeze	Small waves, becoming longer; fairly frequent white horses	13	11-16	Slight	0.5-1.25	34
5	Fresh breeze	Moderate waves, taking a more pronounced long form; many white horses are formed. Chance of some spray	19	17-21	Moderate	1.25-2.5	35
6	Strong breeze	Large waves begin to form; the white foam crests are more extensive everywhere. Probably some spray.	24	22-27	Rough	2.5-4.0	36
7	Near gale	Sea heaps up and white foam from breaking waves begins to be blown in streaks along the direction of the wind.	30	28-33	Very rough	4.0-5.5	37
8	Gale	Moderately high waves of greater length; edges of crests begin to break into spindrift. The foam is blown in well-marked streaks along the direction of the wind.	37	34-40	High	5.5-7.5	38
9	Strong gale	High waves. Dense streaks of foam along the direction of the wind. Crests of waves begin to topple, tumble and roll over. Spray may affect visibility.	44	41-47	Very high	7.5-11.5	39
10	Storm	Very high waves with long overhanging crests. The resulting foam, in great patches, is blown in dense white streaks along the direction of the wind. On the whole the surface of the sea takes on a white appearance. The "tumbling" of the sea becomes heavy and shock-like. Visibility affected.	52	48-55			40
11	Violent storm	Exceptionally high waves (small and medium-sized ships might be for a time lost to view behind waves). The sea is completely covered with long white patches of foam lying along the direction of the wind. Everywhere the edges of the wave crests are blown into froth. Visibility affected.	60	56-63	Phenomenal	> 11.5	41
12	Hurricane	The air is filled with foam and spray. Sea completely white with driving spray; visibility very seriously affected.	—	> 64			42

Note:

Wave height data are for open sea conditions. In enclosed waters or when near land with an offshore wind, wave heights will be smaller and the waves steeper.