

## BEAUFORT SCALE OF WIND

| BEAUFORT NUMBER | DESCRIP-TIVE TERM | VELOCITY EQUIVALENT AT A STANDARD HEIGHT OF 10 METRES ABOVE OPEN FLAT GROUND |                   |                    |             | SPECIFICATIONS   |   |   | Probable wave height* in metres | Probable wave height* in feet |
|-----------------|-------------------|--|-------------------|--------------------|-------------|--|---|---|---------------------------------|-------------------------------|
|                 |                   | Mean velocity in knots   | m s <sup>-1</sup> | km h <sup>-1</sup> | m.p.h.      | Land   | Sea   | Coast   |                                 |                               |
| 0               | Calm              | < 1  | 0-0.2             | < 1                | < 1         | Calm; smoke rises vertically   | Sea like a mirror   | Calm  | —                               | —                             |
| 1               | Light air         | 1-3  | 0.3-1.5           | 1-5                | 1-3         | Direction of wind shown by smoke drift but not by wind vanes                                 | Ripples with the appearance of scales are formed, but without foam crests   | Fishing smack just has steerage way                                 | 0.1 (0.1)                       | ¼ (¼)                         |
| 2               | Light breeze      | 4-6  | 1.6-3.3           | 6-11               | 4-7         | Wind felt on face; leaves rustle; ordinary vanes moved by wind                               | Small wavelets, still short but more pronounced; crests have a glassy appearance and do not break   | Wind fills the sails of smacks which then travel at about 1-2 knots | 0.2 (0.3)                       | ½ (1)                         |
| 3               | Gentle breeze     | 7-10   | 3.4-5.4           | 12-19              | 8-12        | Leaves and small twigs in constant motion; wind extends light flag                           | Large wavelets; crests begin to break; foam of glassy appearance; perhaps scattered white horses  | Smacks begin to careen and travel about 3-4 knots                   | 0.6 (1)                         | 2 (3)                         |
| 4               | Moderate breeze   | 11-16  | 5.5-7.9           | 20-28              | 13-18       | Raises dust and loose paper; small branches are moved  | Small waves, becoming longer; fairly frequent white horses  | Good working breeze, smacks carry all canvas with good list         | 1 (1.5)                         | 3½ (5)                        |
| 5               | Fresh breeze      | 17-21  | 8.0-10.7          | 29-38              | 19-24       | Small trees in leaf begin to sway; crested wavelets form on inland waters                    | Moderate waves, taking a more pronounced long form; many white horses are formed (chance of some spray)   | Smacks shorten sail   | 2 (2.5)                         | 6 (8½)                        |
| 6               | Strong breeze     | 22-27  | 10.8-13.8         | 39-49              | 25-31       | Large branches in motion; whistling heard in telegraph wires; umbrellas used with difficulty | Large waves begin to form; the white foam crests are more extensive everywhere (probably some spray)  | Smacks have double reef in main-sail; care required when fishing    | 3 (4)                           | 9½ (13)                       |
| 7               | Near gale         | 28-33  | 13.9-17.1         | 50-61              | 32-38       | Whole trees in motion; inconvenience felt when walking against wind                          | Sea heaps up and white foam from breaking waves begins to be blown in streaks along the direction of the wind   | Smacks remain in harbour and those at sea lie to                    | 4 (5.5)                         | 13½ (19)                      |
| 8               | Gale              | 34-40  | 17.2-20.7         | 62-74              | 39-46       | Breaks twigs off trees; generally impedes progress   | Moderately high waves of greater length; edges of crests begin to break into the spindrift; the foam is blown in well-marked streaks along the direction of the wind  | All smacks make for harbour, if near                                | 5.5 (7.5)                       | 18 (25)                       |
| 9               | Strong gale       | 41-47  | 20.8-24.4         | 75-88              | 47-54       | Slight structural damage occurs (chimney pots and slates removed)                            | 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   | —   | 7 (10)                          | 23 (32)                       |
| 10              | Storm             | 48-55  | 24.5-28.4         | 89-102             | 55-63       | Seldom experienced inland; trees uprooted; considerable structural damage occurs             | 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  | —   | 9 (12.5)                        | 29 (41)                       |
| 11              | Violent storm     | 56-63  | 28.5-32.6         | 103-117            | 64-72       | Very rarely experienced; accompanied by wide-spread damage                                   | Exceptionally high waves (small and medium-sized ships might be for a time lost to view behind the 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 | —   | 11.5 (16)                       | 37 (52)                       |
| 12              | Hurricane         | 64 and over  | 32.7 and over     | 118 and over       | 73 and over | —  | The air is filled with foam and spray; sea completely white with driving spray; visibility very seriously affected  | —   | 14 (—)                          | 45 (—)                        |

\* This table is only intended as a guide to show roughly what may be expected in the open sea, remote from land. It should never be used in the reverse way; i.e., for logging or reporting the state of the sea. In enclosed waters, or when near land, with an off-shore wind, wave heights will be smaller and the waves steeper. Figures in brackets indicate the probable maximum height of waves.