

# Beaufort Scale – Wind Force

## 0 - Calm

**Wind speeds:** less than 1 knot (

**At sea:** Sea like a mirror, calm

**Sea disturbance number:** 0

**Probable wave height:** flat (0 ft; 0 m)

**On land:** Smoke rises vertically

**Notes:** Boring, boring, boring...

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## Beaufort number 1 - Light Air

**Wind speeds:** 1-3 knots (1-3 mph; 1-5 kph; 0.3-1.5 mps)

**At sea:** Ripples with the appearance of scales are formed but without foam crests

**Sea disturbance number:** 0

**Probable wave height:** 5-10 cm (2-4 in) (0 ft; 0 m)

**On land:** Direction of wind shown by smoke drift, but not by vanes

**Notes:** Yachts just have steerage way

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## Beaufort number 2 - Light Breeze

**Wind speeds:** 4-6 knots (4-7 mph; 6-11 kph; 1.6-3.3 mps)

**At sea:** Small wavelets, still short but more pronounced; crests have a glassy appearance and do not break

**Sea disturbance number:** 1

**Probable wave height:** 10-15 cm (4-6 in); (0-1 ft; 0-0.3 m)

**On land:** Wind felt on face; leaves rustle; ordinary vane moved by wind

**Notes:** Wind fills sails of yacht, which then may move at 1-2 knots

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## Beaufort number 3 - Gentle Breeze

**Wind speeds:** 7-10 knots (8-12 mph; 12-19 kph; 3.4-5.4 mps)

**At sea:** Large wavelets; crests begin to break; foam of glassy appearance; perhaps scattered white horses

**Sea disturbance number:** 2

**Probable wave height:** 60 cm (2 ft); (1-2 ft; 0.3-0.6 m)

**On land:** Leaves and small twigs in constant motion; wind extends light flag

**Notes:** Yachts start to careen and travel at 3-4 knots

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## **Beaufort number 4 - Moderate Breeze**

**Wind speeds:** 11-16 knots (13-18 mph; 20-28 kph; 5.5-7.9 mps)

**At sea:** small waves, becoming longer; fairly frequent white horses

**Sea disturbance number:** 3

**Probable wave height:** 1 m (3.5 ft); (2-4 ft; 0.6-1.2 m)

**On land:** Raises dust and loose paper; small branches are moved

**Notes:** Good working breeze for yachts; carry all sail with good list

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## **Beaufort number 5 - Fresh Breeze**

**Wind speeds:** 17-21 knots (19-24 mph; 29-38 kph; 8.0-10.7 mps)

**At sea:** Moderate waves taking a more pronounced long form; many white horses are formed; chance of some spray

**Sea disturbance number:** 4

**Probable wave height:** 2 m (6-7 ft); (4-8 ft; 1.2-2.4 m)

**On land:** Small trees in leaf begin to sway; crested wavelets form on inland waters

**Notes:** Yachts shorten sail

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## **Beaufort number 6 - Strong Breeze**

**Wind speeds:** 22-27 knots (25-31 mph; 39-49 kph; 10.8-13.8 mps)

**At sea:** Large waves begin to form; the white foam crests are more extensive everywhere; probably some spray

**Sea disturbance number:** 5

**Probable wave height:** 3 m (9-10 ft); (8-13 ft; 2.4-4 m)

**On land:** Large branches in motion; whistling heard in telegraph wires; umbrellas used with difficulty

**Notes:** Yachts with double reef in mainsail; care required when fishing

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## **Beaufort number 7 - Near Gale / Moderate Gale**

**Wind speeds:** 28-33 knots (32-38 mph; 50-61 kph; 13.9-17.1 mps)

**At sea:** Sea heaps up and white foam from the breaking waves begins to be blown in streaks along the direction of the wind

**Sea disturbance number:** 6

**Probable wave height:** 4 m (13-14 ft); (13-20 ft; 4-6 m)

**On land:** Whole trees in motion; inconvenience felt when walking against wind

**Notes:** Yachts remain in harbour, those at sea lie to

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## Beaufort number 8 - Gale / Fresh Gale

**Wind speeds:** 34-40 knots (39-46 mph; 62-74 kph; 17.2-20.7 mps)

**At sea:** Moderately high waves of greater length; edges crests begin to break into spindrift; the foam is blown in well-marked streaks along the direction of the wind

**Sea disturbance number:** 6

**Probable wave height:** 5.5 m (18 ft); (13-20 ft; 4-6 m)

**On land:** Breaks twigs off trees; generally impedes progress

**Notes:** All yachts make for harbour if possible

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## Beaufort number 9 - Strong Gale

**Wind speeds:** 41-47 knots (47-54 mph; 75-88 kph; 20.8-24.4 mps)

**At sea:** High waves; dense streaks of foam along the direction of wind; crests of waves begin to topple, tumble and roll over; spray may affect visibility

**Sea disturbance number:** 6

**Probable wave height:** 7 m (23 ft); (13-20 ft; 4-6 m)

**On land:** Slight structural damage occurs (chimney post and slates removed)

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## Beaufort number 10 - Storm / Whole Gale

**Wind speeds:** 48-55 knots (55-63 mph; 89-102 kph; 24.5-28.4 mps)

**At sea:** Very high waves with long overhanging crests; 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 a white appearance; tumbling of the sea becomes heavy and shock-like; visibility affected

**Sea disturbance number:** 7

**Probable wave height:** 9 m (29 ft); (20-30 ft; 6-9 m)

**On land:** Seldom experienced inland; trees uprooted; considerable structural damage occurs

**Notes:**

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## Beaufort number 11 - Violent Storm / Storm

**Wind speeds:** 56-63 knots (64-75 mph; 103-117 kph; 28.5-32.6 mps)

**At sea:** Exceptionally high waves (small and medium size ships might be for a time lost from view behind waves); sea is completely covered with long white patches of foam lying along the direction of wind; everywhere the edges are blown into froth; visibility affected

**Sea disturbance number:** 8

**Probable wave height:** 11 m (37 ft); (30-45 ft; 9-14 m)

**On land:** Very rarely experienced; accompanied by widespread damage

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## **Beaufort number 12 (-17) - Hurricane**

**Wind speeds:** 64 knots and greater (> 75 mph; >117 kph; >32.7 mps)

**At sea:** The air is filled with foam and spray; sea completely white with driving spray; visibility very seriously affected

**Sea disturbance number:** 9

**Probable wave height:** 11 m and more (> 37 ft); (>45 ft; >14 m)

**On land:** Very rarely experienced; accompanied by widespread damage