

Conversion table for knots to miles per hour	Beaufort Wind Scale	
<b>KTS to MPH</b>	Windspeed in MPH	Description - Visible Condition
5 Knots= 5.8 MPH	0	Calm smoke rises vertically
10 Knots= 11.5 MPH	1 - 4	Light air direction of wind shown by smoke but not by wind vanes
15 Knots= 17.3 MPH	4 - 7	Light breeze wind felt on face; leaves rustle; ordinary wind vane moved by wind
20 Knots= 23.0 MPH	8 - 12	Gentle breeze leaves and small twigs in constant motion; wind extends light flag
25 Knots= 28.8 MPH	13 - 18	Moderate breeze raises dust and loose paper; small branches are moved
30 Knots= 34.6 MPH	19 - 24	Fresh breeze small trees in leaf begin to sway; crested wavelets form on inland water
35 Knots= 40.3 MPH	25 - 31	Strong breeze large branches in motion; telephone wires whistle; umbrellas used with difficulty
40 Knots= 46.1 MPH	32 - 38	Moderate gale whole trees in motion; inconvenience in walking against wind
45 Knots= 51.8 MPH	39 - 46	Fresh gale breaks twigs off trees; generally impedes progress
50 Knots= 57.6 MPH	47 - 54	Strong gale slight structural damage occurs; chimney pots and slates removed
55 Knots= 63.4 MPH	55 - 63	Whole gale trees uprooted; considerable structural damage occurs
60 Knots= 69.1 MPH	64 - 72	Storm very rarely experienced; accompanied by widespread damage
65 Knots= 74.9 MPH	73+	Hurricane devastation occurs
70 Knots= 80.6 MPH		
75 Knots= 86.4 MPH		
80 Knots= 92.2 MPH		
85 Knots= 97.9 MPH		
90 Knots=103.7MPH		
95 Knots=109.4MPH		
100Knots=115.2MPH		
105Knots=121.0MPH		
110Knots=126.7MPH		
115Knots=132.5MPH		
120Knots=138.2MPH		
125Knots=144.0MPH		
130Knots=149.8MPH		
135Knots=155.5MPH		
140Knots=161.3MPH		
145Knots=167.0MPH		
150Knots=172.8MPH		

Windspeed in MPH	Description	Visible Condition
0	Calm	Smoke rises vertically
1 - 4	Light Air	Direction of wind shown by smoke but not by wind vanes
4 - 7	Light Breeze	Wind felt on face; leaves rustle; ordinary wind vane moved by wind
8 - 12	Gentle Breeze	Leaves and small twigs in constant motion; wind extends light flag
13 - 18	Moderate Breeze	Raises dust and loose paper; small branches are moved
19 - 24	Fresh Breeze	Small trees in leaf begin to sway; crested

	<b>wavelets form on inland water</b>
<b>25 - 31</b>	<b>Strong Breeze Large branches in motion; telephone wires whistle; umbrellas used with difficulty</b>
<b>32 - 38</b>	<b>Moderate Gale Whole trees in motion; inconvenience in walking against wind</b>
<b>39 - 46</b>	<b>Fresh Gale Breaks twigs off trees; generally impedes progress</b>
<b>47 - 54</b>	<b>Strong Gale Slight structural damage occurs; chimney pots and slates removed</b>
<b>55 - 63</b>	<b>Whole Gale Trees uprooted; considerable structural damage occurs</b>
<b>64 - 72</b>	<b>Storm Very rarely experienced; accompanied by widespread damage</b>
<b>73+</b>	<b>Hurricane Devastation occurs</b>

Read down the knots on left then across. At intersection is the miles per hour.

KNOTS	⇔⇔	0	1	2	3	4	5	6	7	8	9
	⇓⇓⇓	⇓⇓	⇓⇓	⇓⇓	⇓⇓	⇓⇓	⇓⇓	⇓⇓	⇓⇓	⇓⇓	⇓⇓
0	⇔⇔	0	1	2	3	5	6	7	8	9	10
10	⇔⇔	12	13	14	15	16	17	18	20	21	22
20	⇔⇔	23	24	25	26	28	29	30	31	32	33
30	⇔⇔	35	36	37	38	39	40	41	43	44	45
40	⇔⇔	46	47	48	50	51	52	53	54	55	56
50	⇔⇔	58	59	60	61	62	63	64	66	67	68
60	⇔⇔	69	70	71	73	74	75	76	77	78	79
70	⇔⇔	81	82	83	84	85	86	88	89	90	91
80	⇔⇔	92	93	94	96	97	98	99	100	101	102
90	⇔⇔	104	105	106	107	108	109	111	112	113	114
100	⇔⇔	115	116	117	119	120	121	122	123	124	126
110	⇔⇔	127	128	129	130	131	132	134	135	136	137
120	⇔⇔	138	139	140	142	143	144	145	146	147	149
130	⇔⇔	150	151	152	153	154	155	157	158	159	160
140	⇔⇔	161	162	164	165	166	167	168	169	170	172
150	⇔⇔	173	174	175	176	177	178	180	181	182	183
160	⇔⇔	184	185	187	188	189	190	191	192	193	195
170	⇔⇔	196	197	198	199	200	202	203	204	205	206
180	⇔⇔	207	208	210	211	212	213	214	215	216	218
190	⇔⇔	219	220	221	222	223	225	226	227	228	229
200	⇔⇔	230	231	233	234	235	236	237	238	240	241

By GySgt K. M. Boutin  
 Email: [boutinkm@hotmail.com](mailto:boutinkm@hotmail.com)

**MPH** is statute miles per hour (used in many runabout speedometers). Canada marks its boat speed limits in **kph** or **km/hr**, which is kilometres per hour. **Knots** is nautical miles per hour and is measured by knotmeters in small boats and ships. A nautical mile is the distance of 1 minute of latitude, with 60 nautical miles in 1 degree of latitude. (Notice that you can divide km/hr in half to get an approximate speed in knots.)

KNOTS multiplied by 1.1507771555 = MPH  
 MPH divided by 1.150777155 = KNOTS  
 MPH multiplied by 1.609344 = km/hr  
 km/hr divided by 1.609344 = MPH

Convert Knots			Convert km/hr		
Knots	mph	km/hr	km/hr	mph	Knots
1	1.2	1.9	1	0.6	0.5
2	2.3	3.7	2	1.2	1.1
3	3.5	5.6	3	1.9	1.6
4	4.6	7.4	4	2.5	2.2
5	5.8	9.3	5	3.1	2.7
6	6.9	11.1	6	3.7	3.2
7	8.1	13.0	7	4.3	3.8
8	9.2	14.8	8	5.0	4.3
9	10.4	16.7	9	5.6	4.9
Knots	mph	km/hr	km/hr	mph	Knots
10	11.5	18.5	10	6.2	5.4
11	12.7	20.4	11	6.8	5.9
12	13.8	22.2	12	7.5	6.5
13	15.0	24.1	13	8.1	7.0
14	16.1	25.9	14	8.7	7.6
15	17.3	27.8	15	9.3	8.1
16	18.4	29.6	16	9.9	8.6
17	19.6	31.5	17	10.6	9.2
18	20.7	33.3	18	11.2	9.7

19	21.9	35.2	19	11.8	10.3
20	23.0	37.0	20	12.4	10.8
<b>Knots</b>	<b>mph</b>	<b>km/hr</b>	<b>km/hr</b>	<b>mph</b>	<b>Knots</b>
25	28.8	46.3	25	15.5	13.5
30	34.5	55.6	30	18.6	16.2
35	40.3	64.8	35	21.7	18.9
40	46.0	74.1	40	24.9	21.6
45	51.8	83.3	45	28.0	24.3
50	57.5	92.6	50	31.1	27.0