Table 1: Heights of wind instruments at different stations in India
[Source: Sharma M. C., State of the art report on wind zoning in India, Proceedings of Indo-US workshop on wind disaster mitigation, Vol. 1, 17-20 December, 1985, pp. 47-60]

Sl. No	Station		Height in meters	Period considered	Years of data availability	Maximum wind in gust observed at sensor's height (kmph)
1.	Gopalpur	**CALCUTTA REGION**	10.3	1948-80	33	144
2.	Port Blalr		10.7	1961-82	21	132
3.	Dum Dum		20.0	1948-82	35	147
4.	Alipore		26.5	1948-82	35	143
5.	Sagar Island		15.5	1949-82	34	161
6.	Jamshedpur		15.5	1948-80	31	150
7.	Gaya		13.9	1948-74	27	130
8.	Jharsuguda		10.1	1961-71	11	120
9.	Gauhati		18.0	1975-80	6	100
10.	Agartala		19.3	1975-80	6	169
11.	Bagdogra (AF)		15.9	1973-82	8	107
12.	Kalaikunda (AF)		9.7	1969-82	13	148
13.	Hashimara (AF)		20.1	1970-82	11	141
14.	Jaipur	**DELHI**	7.2	1950-83	30	144
15.	Lucknow (Amausi)		13.6	1954-82	28	142
16.	New Delhi (SFD)		19.8	1948-83	36	159
17.	New Delhi (Palam)		6.1	1966-80	15	108
18.	JOdhpur		18.3	1949-65	17	152
19.	Allahabad (Bamhrauli)		6.1	1948-70	23	163
20.	Amritsar		20.4	1958-83	24	145
21.	Bhopal	**NAGPUR**	10.6	1952-81	30	120
22.	Nagpur CAP)		15.6	1950-81	32	138
23.	Jagdalpur		14.0	1958-78	20	125
24.	Raipur		13.0	1970-81	12	108
25.	Indore		10.9	1972-81	10	134
26.	Bombay (Colaba)	**BOMBAY**	18.5	1948-82	35	123
27.	Bombay (SCZ)		15.1	1953-82	30	113
28.	Marmugao		11.7	1969-82	14	103
29.	Pune		7.5	1948-82	35	108
30.	New Khandla		33.3	1963-80	15	132
31.	Veraval		14.0	1958-77	18	112
32.	Ahmedabad		14.6	1953-80	28	131
33.	Jamnagar		13.0	1970-81	12	182
34.	Baroda College		22.0	1948-81	31	91
35.	Bangalore C.O.	**MADRAS**	19.2	1949-83	35	106
36.	Bangalore (AP)		16.1	1953-83	31	114
37.	Hyderabaa		15.8	1954-83	30	145
38.	Kodalkanal		13.2	1948-81	34	114
39.	Madras (Meenambakkam)		26.3	1951-82	32	136
40.	Madras (Harbour)		26.9	1953-82	26	150
41.	N.A.S. Cochin		16.0	1968-83	15	124
42.	Panambur		16.5	1965-83	19	106
43.	Tiruchirapalli		23.0	1966-82	17	167
44.	Tuticorin		10.0	1967-82	16	104
45.	Visakhapatnam(AP)		12.2	1948-83	35	146
46	Trivandrum City'		11.5	1973-82	10	108
47.	Trivandrum (AP)		15.6	1973-82	10	66

Table 2: Wind speeds (kmph) at 10 m height above ground level for various return periods

[Source: Sharma M. C., State of the art report on wind zoning in India, Proceedings of Indo-US workshop on wind disaster mitigation, Vol. 1, 17-20 December, 1985, pp. 47-60]

Sl. No	Station	2	5	10	25	50	75	100
	Calcutta Region							
1	Gopalpur	91	109	121	136	147	154	158
2	Port Blair	93	107	117	129	139	144	148
3	Dum Dum	94	111	121	135	145	151	155
4	Alipore	92	103	110	118	125	129	131
5	Sagar Island	93	114	127	144	156	164	169
6	Jamshedpur	97	115	127	141	152	158	163
7	Gaya	93	105	113	124	131	135	139
8	Jharsuguda	91	106	115	128	137	142	146
9	Gauhati *	67	96	115	139	157	167	175
10	Agartala *	114	149	172	201	223	235	244
11	Bagdogra (AF) *	80	99	110	126	137	143	148
12	Kalaikundra (AF) *	106	126	138	155	167	174	179
13	Hashimara (AF)	84	106	120	138	151	159	164
	Delhi Region							
14	Jaipur	97	115	128	143	154	161	166
15	Lucknow (Amausi)	99	115	125	139	149	154	158
16	New Delhi (SFD)	96	114	126	141	152	158	163
17	New Delhi (Palam)	99	107	111	117	122	124	126
18	Jodhpur	97	115	128	143	155	162	167
19	Allahabad (Bamhrauli)	98	123	139	160	175	184	190
20	Amritsar	111	125	134	145	153	158	161
	Nagapur Region							
21	Bhopal	95	107	114	124	132	136	139
22	Nagpur (AP)	97	112	122	135	145	150	154
23	Jagdalpur	84	99	109	122	131	136	140
24	Raipur	82	97	107	119	129	134	138
25	Indore	92	110	122	136	147	154	158
	Bombay Region							
26	Bombay (Colaba)	79	87	93	100	106	109	111
27	Bombay (SCZ)	74	85	93	102	109	113	116
28	Marugao	82	92	98	106	111	115	117
29	Pune	76	91	100	111	119	124	128
30	New Khandla	83	99	110	124	135	141	145
31	Veraval	87	100	109	120	128	132	136
32	Ahmedabad	82	98	109	123	134	140	145
33	Jamnagar	84	112	131	155	172	183	190
34	Baroda College	63	75	82	92	99	103	105
	Madras Region							
35	Bangalore C. O.	71	81	87	95	101	104	106
36	Bangalore (AP)	78	88	94	102	108	111	113
37	Hyderabad	90	108	120	135	146	153	157
38	Kdaikanal	85	96	103	112	119	122	125
39	Madras (Meenambakkam)	82	95	104	115	123	128	132
40	Madras (Harbour)	82	100	112	127	138	144	149
41	N. A. S. Cochin	82	98	109	122	132	138	142
42	Panambur	75	88	97	108	116	121	124
43	Tiruchirapalli	96	120	135	153	167	175	180
44	Tuticorin	91	99	104	110	115	118	120
45	Visakhapatnam	94	111	122	136	146	152	156
46	Trivandrum City	59	82	97	116	130	138	144
47	Trivandrum (AP)	69	79	85	94	100	104	106

Some points of concern as regards to Indian Wind Loading Standard [IS: 875 (Part 3) – 1987] recommendations

- Previous Indian Standard Code IS: 875 1964 did not include the factors such as life of structure, risk, topography, terrain, height and gust size. Revised Code IS: 875 (Part 3) – 1987 includes wind zoning map taking into consideration the probability factor, topography factor and terrain, height and gust effects.

  Earlier as well as the new code are based on peak wind speeds, mean wind speed approach associated with gust factor is also included in the revised IS code.

- Every year a large number of residential and industrial buildings are raged to ground by the cyclone associated with extreme wind speed particularly in coastal region of India.

  East coast has experienced severe cyclones in the past and recently on 29th October, 1999 [Super cyclone] , studies by S. C. Jain, V. K. Gupta and S. P. Chakraborty (2002) report wind speed during cyclones being far in excess of the basic wind speed of 50 m/s for Paradip region as stipulated by IS: 875 (Part 3) – 1987.

  What is the basic wind speed to be used for cyclonic winds? What are the values of the parameter A and B to be used in the estimation of k_1 given in IS: 875 (Part 3)?

- Whether the cyclonic wind characteristics are the same particularly with respect to spectral characteristics? Is there any perceptible change in intensity of turbulence during cyclones?

- Studies made by [Navee Kwatra, P. N. Godbole and Premakrishna, 2002] for comparing the results with different codes and standards have indicated that pressure coefficients obtained from the experimental studies for different zones of the roof are of the same order as given in different codes. However, there exists some difference between the codal values and experimental values, as also amongst the codal values themselves, this could be due to,

  The values given in different standards are usually based on experimental values from different studies, which yield some difference amongst themselves.

  Either deterministic or different statistical approaches have been used in different codes to deduce the design pressure coefficients from the experimentally obtained pressure fluctuations,

  Therefore there is a need for standardization in the experimentation as well as the codification process for assigning design pressure coefficients.

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