

Project:
Keweenaw Bay Indian Community

Description:
Data from file(s)
Y:\5000\IS\shared\Anemometer_Loan_Programs\Native American Loans\MI - KBIC\WindData\KBIC 070607.csv
Y:\5000\IS\shared\Anemometer_Loan_Programs\Native American Loans\MI - KBIC\WindData\KBIC 070713.csv
Y:\5000\IS\shared\Anemometer_Loan_Programs\Native American Loans\MI - KBIC\WindData\KBIC 070814.csv
Y:\5000\IS\shared\Anemometer_Loan_Programs\Native American Loans\MI - KBIC\WindData\KBIC 080128.csv
Y:\5000\IS\shared\Anemometer_Loan_Programs\Native American Loans\MI - KBIC\WindData\KBIC 080414.csv

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Meteo data report, height: 66.0 Feet

Name of meteo object: Keweenaw Bay Indian Community

Data from: 06/07/2007 7:40 AM Data to: 06/16/2008 11:40 AM Observations: 54025 Observations per day: 144 Recovery rate: 100%

day	06/07	07/07	08/07	09/07	10/07	11/07	12/07	01/08	02/08	03/08	04/08	05/08	06/08	07/08
1		(97)	144	(102)	(102)	144	(141)	144	(95)	(135)	144	(107)	144	
2		(113)	144	144	(130)	144	(140)	144	(87)	(134)	144	144	(140)	
3		(140)	(139)	(140)	144	(141)	144	144	(136)	144	(142)	(140)	(138)	
4		(133)	(140)	144	(139)	144	144	144	(120)	(141)	144	(133)	(134)	
5		(141)	(131)	(102)	(121)	144	144	(143)	(53)	144	144	(141)	(129)	
6		(143)	144	144	(113)	144	144	144	(86)	144	144	(120)	144	
7	(96)	(142)	(123)	(138)	(104)	144	144	(124)	(133)	144	144	(126)	(142)	
8	144	(135)	(133)	(126)	(143)	(140)	144	(102)	(142)	(118)	(104)	(109)	(130)	
9	144	(138)	(100)	(107)	144	(142)	144	(143)	(119)	(132)	(121)	(99)	(140)	
10	(132)	(119)	(108)	(140)	144	144	144	(124)	144	(134)	(108)	(100)	(134)	
11	(108)	144	(79)	144	(138)	144	144	(133)	(139)	144	(117)	(133)	(135)	
12	(61)	144	(117)	(137)	(138)	144	(143)	(119)	(121)	(142)	144	(137)	(138)	
13	(70)	(143)	(139)	144	144	144	144	(124)	144	(118)	(131)	(139)	(143)	
14	(59)	144	(143)	144	(131)	144	(131)	144	(106)	144	(135)	(142)	(142)	
15	(101)	(142)	(121)	144	(102)	144	(142)	(138)	(143)	144	144	(120)	(143)	
16	(123)	(139)	144	144	(142)	144	144	(141)	(124)	(140)	144	(143)	(70)	
17	(78)	(74)	144	(125)	(104)	144	144	144	(117)	(117)	(138)	144		
18	(138)	(74)	(141)	(128)	(143)	(142)	(135)	144	144	(109)	(123)	144		
19	144	(139)	(131)	(139)	144	144	144	144	144	(143)	(125)	144		
20	(143)	(84)	144	(127)	144	(136)	(143)	144	144	(134)	(101)	(143)		
21	(106)	(122)	(143)	144	(112)	144	(141)	144	144	(117)	(103)	144		
22	(99)	144	(110)	(138)	(143)	(142)	(110)	144	(137)	(116)	(115)	(139)		
23	(126)	(139)	(126)	(137)	144	144	(59)	144	(120)	(127)	(117)	(125)		
24	(112)	(90)	(101)	144	(143)	144	(0)	144	(131)	144	(118)	(134)		
25	(120)	(82)	(138)	(137)	144	144	(70)	(135)	(130)	144	(129)	(143)		
26	(127)	(89)	(122)	(130)	(110)	144	(108)	144	144	(142)	(143)	144		
27	144	(117)	144	(90)	(136)	144	144	144	(138)	(126)	(132)	(129)		
28	(141)	(82)	(134)	(142)	144	144	(106)	(136)	(143)	(117)	(123)	(138)		
29	(133)	(91)	(137)	(138)	(130)	144	144	144	144	(130)	(143)	(142)		
30	(107)	(120)	(137)	(143)	(105)	144	(135)	144		144	(140)	(138)		
31		(125)	(137)		144		(143)	(126)		(132)		144		
%	(81)	(84)	(90)	(93)	(91)	(100)	(90)	(96)	(88)	(93)	(90)	(92)	(50)	(0)

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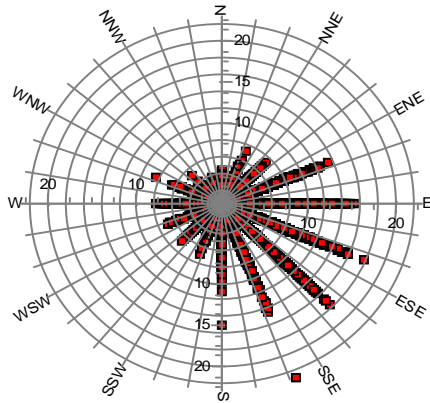
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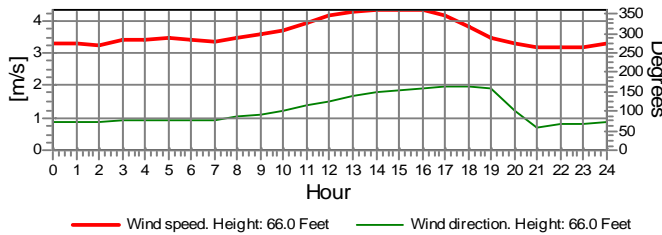
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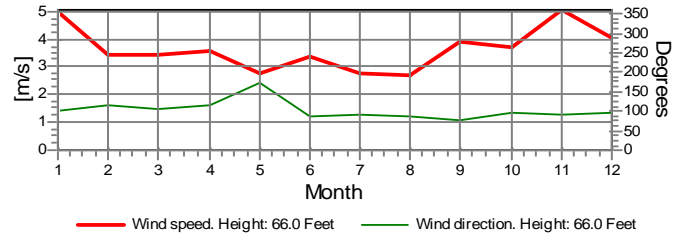
Wind speed [m/s]

Monthly mean values of wind speed in m/s

Month	2007	2008	mean	mean of months
Jan		5.0	5.0	5.0
Feb		3.5	3.5	3.5
Mar		3.4	3.4	3.4
Apr		3.5	3.5	3.5
May		2.7	2.7	2.7
Jun	3.4	3.4	3.4	3.4
Jul	2.8		2.8	2.8
Aug	2.7		2.7	2.7
Sep	3.9		3.9	3.9
Oct	3.7		3.7	3.7
Nov	5.0		5.0	5.0
Dec	4.0		4.0	4.0
mean, all data	3.7	3.6	3.7	
mean of months	3.7	3.6		3.6

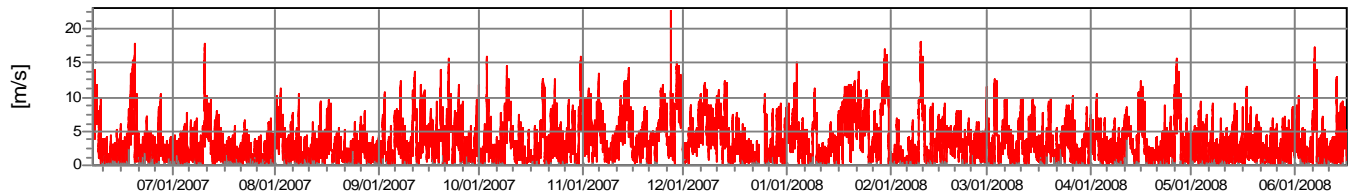


— Wind speed. Height: 66.0 Feet — Wind direction. Height: 66.0 Feet

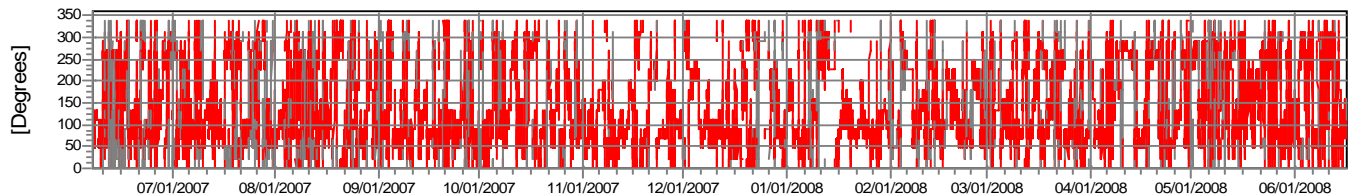


— Wind speed. Height: 66.0 Feet — Wind direction. Height: 66.0 Feet

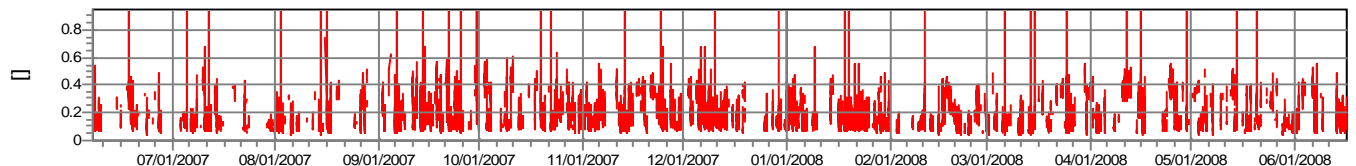
Wind speed



Wind direction



**Turbulence intensity
V>4.0 m/s**



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Frequency

Wind speed m/s	Sum	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW
0.00 - 0.49	1,976	102	135	231	280	163	67	59	47	60	73	103	105	169	123	132	127
0.50 - 1.49	10,621	501	584	1,208	1,841	910	422	297	224	238	321	457	868	1,218	711	444	377
1.50 - 2.49	9,082	174	389	1,043	1,788	691	315	225	152	248	404	567	1,223	1,074	525	169	95
2.50 - 3.49	7,762	91	208	802	1,402	756	286	266	194	349	521	623	1,204	759	197	65	39
3.50 - 4.49	5,313	27	66	413	1,218	794	313	278	263	407	335	318	460	316	81	11	13
4.50 - 5.49	3,620	1	31	206	1,058	665	284	369	303	328	66	89	41	132	42	3	2
5.50 - 6.49	3,009	0	20	104	862	743	311	372	252	164	9	31	30	87	24	0	0
6.50 - 7.49	2,234	0	2	34	564	620	280	346	208	119	3	2	7	43	6	0	0
7.50 - 8.49	1,636	0	1	12	296	463	239	386	160	70	1	0	0	7	1	0	0
8.50 - 9.49	1,274	0	0	0	187	374	267	302	127	17	0	0	0	0	0	0	0
9.50 - 10.49	972	0	0	0	79	382	240	219	42	10	0	0	0	0	0	0	0
10.50 - 11.49	724	0	0	0	52	287	213	134	34	4	0	0	0	0	0	0	0
11.50 - 12.49	358	0	0	0	24	158	104	56	14	2	0	0	0	0	0	0	0
12.50 - 13.49	204	0	0	0	6	72	56	49	21	0	0	0	0	0	0	0	0
13.50 - 14.49	212	0	0	0	0	68	46	81	17	0	0	0	0	0	0	0	0
14.50 - 15.49	118	0	0	0	0	18	31	58	10	1	0	0	0	0	0	0	0
15.50 - 16.49	43	0	0	0	0	1	2	15	22	3	0	0	0	0	0	0	0
16.50 - 17.49	9	0	0	0	0	2	2	5	0	0	0	0	0	0	0	0	0
17.50 - 18.49	7	0	0	0	0	1	1	3	0	2	0	0	0	0	0	0	0
18.50 - 19.49	1	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0
19.50 - 20.49	1	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0
20.50 - 21.49	1	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0
21.50 - 22.49	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
22.50 - 23.49	1	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0
Sum	49,178	896	1,436	4,053	9,658	7,169	3,492	3,528	2,074	2,019	1,733	2,190	3,938	3,805	1,710	824	653

Turbulence

Wind speed	Sum	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW
0.00 - 0.49	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
0.50 - 1.49	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
1.50 - 2.49	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
2.50 - 3.49	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
3.50 - 4.49	0.260	0.485	0.491	0.392	0.256	0.136	0.135	0.150	0.171	0.300	0.373	0.378	0.354	0.362	0.362	0.490	0.374
4.50 - 5.49	0.220	0.493	0.473	0.401	0.244	0.123	0.125	0.135	0.156	0.277	0.363	0.336	0.366	0.358	0.374	0.353	0.362
5.50 - 6.49	0.190		0.437	0.398	0.238	0.116	0.125	0.124	0.171	0.247	0.325	0.184	0.359	0.380	0.354		
6.50 - 7.49	0.153		0.419	0.382	0.213	0.102	0.104	0.112	0.146	0.217	0.362	0.354	0.344	0.352	0.336		
7.50 - 8.49	0.136		0.381	0.353	0.201	0.104	0.106	0.112	0.138	0.231	0.351		0.349	0.361			
8.50 - 9.49	0.128				0.199	0.108	0.110	0.116	0.141	0.215							
9.50 - 10.49	0.116				0.199	0.101	0.107	0.114	0.129	0.204							
10.50 - 11.49	0.115				0.190	0.104	0.107	0.114	0.144	0.187							
11.50 - 12.49	0.116				0.188	0.104	0.113	0.114	0.129	0.269							
12.50 - 13.49	0.117				0.164	0.105	0.115	0.125	0.130								
13.50 - 14.49	0.114					0.098	0.121	0.121	0.122								
14.50 - 15.49	0.115					0.105	0.120	0.115	0.110	0.234							
15.50 - 16.49	0.115				0.116	0.098	0.116	0.115	0.114								
16.50 - 17.49	0.114					0.105	0.111	0.119									
17.50 - 18.49	0.124					0.121	0.117	0.116		0.141							
18.50 - 19.49	0.115								0.115								
19.50 - 20.49	0.119							0.119									
20.50 - 21.49	0.146								0.146								
21.50 - 22.49																	
22.50 - 23.49	0.115								0.115								
Sum	0.180	0.486	0.469	0.395	0.232	0.112	0.115	0.121	0.153	0.263	0.368	0.338	0.356	0.364	0.364	0.439	0.368

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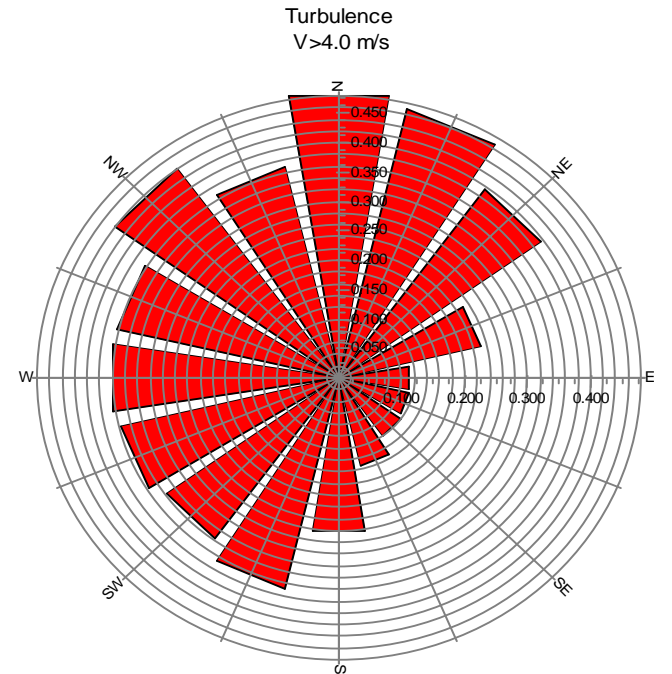
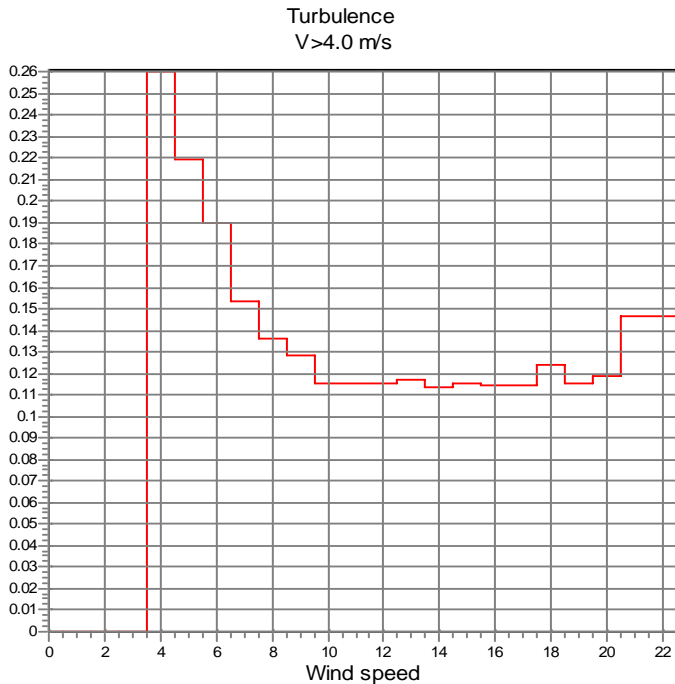
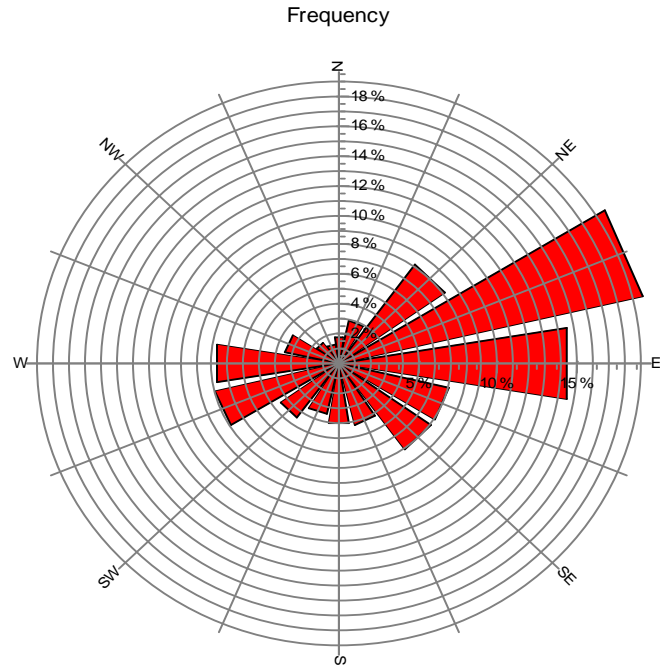
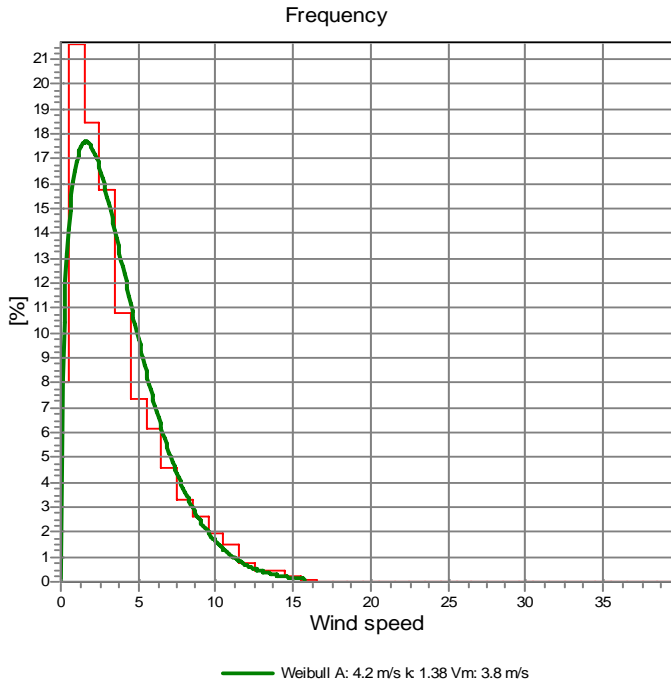
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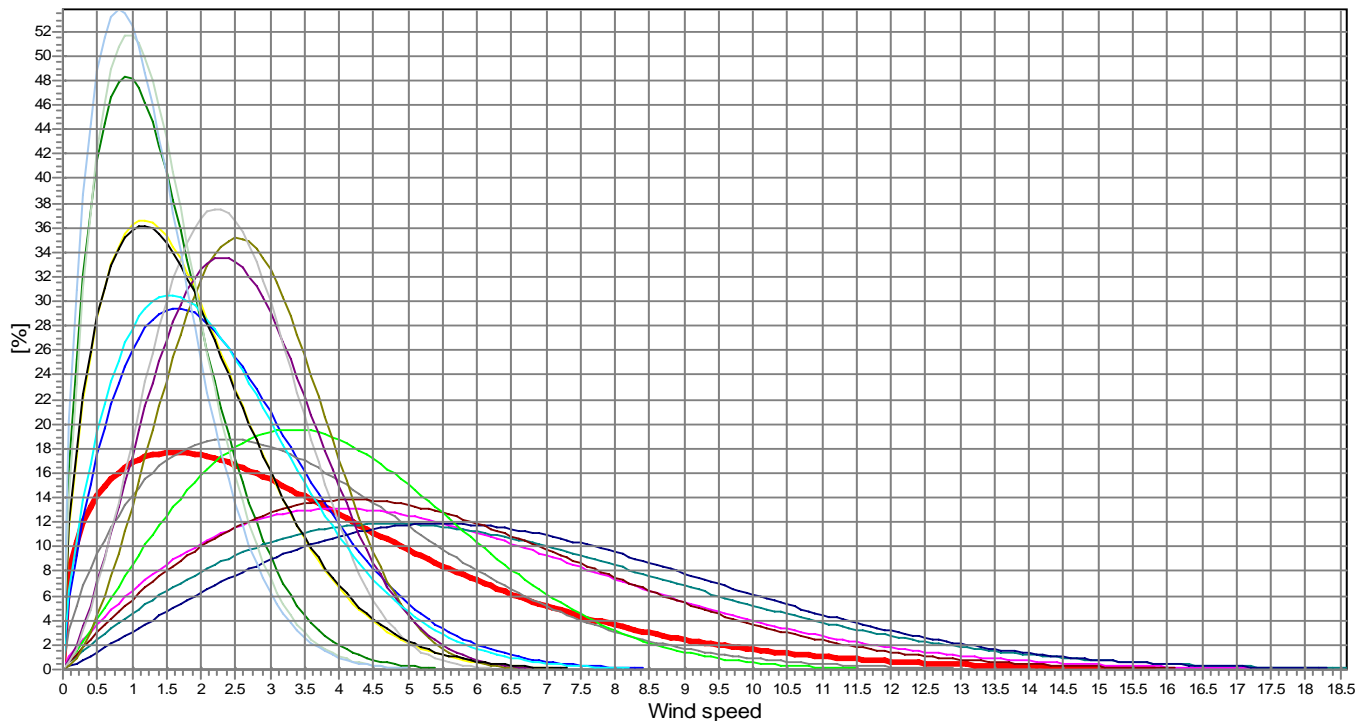
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Weibull Data

k-parameter correction: 0.0080/m

Sector	A- parameter [m/s]	Mean wind speed [m/s]	k- parameter	Frequency	Frequency [%]	Wind shear
0-N	1.60	1.43	1.663	1.82	1.8	0.00
1-NNE	2.09	1.88	1.629	2.92	2.9	0.00
2-NE	2.69	2.40	1.745	8.24	8.2	0.00
3-ENE	4.14	3.70	1.676	19.64	19.6	0.00
4-E	6.18	5.49	1.821	14.58	14.6	0.00
5-ESE	7.00	6.21	1.908	7.10	7.1	0.00
6-SE	7.45	6.60	2.098	7.17	7.2	0.00
7-SSE	6.08	5.39	1.939	4.22	4.2	0.00
8-S	4.53	4.01	2.098	4.11	4.1	0.00
9-SSW	3.02	2.69	2.663	3.52	3.5	0.00
10-SW	2.90	2.57	2.386	4.45	4.5	0.00
11-WSW	2.72	2.41	2.535	8.01	8.0	0.00
12-W	2.58	2.30	1.719	7.74	7.7	0.00
13-WNW	2.11	1.89	1.607	3.48	3.5	0.00
14-NW	1.54	1.37	1.767	1.68	1.7	0.00
15-NNW	1.43	1.28	1.648	1.33	1.3	0.00
mean	4.16	3.80	1.376	100.00	100.0	0.00

Frequency



— Total A: 4.2 m/s k 1.38 Vm: 3.8 m/s	— N A: 1.6 m/s k 1.66 Vm: 1.4 m/s	— NNE A: 2.1 m/s k 1.63 Vm: 1.9 m/s	— NE A: 2.7 m/s k 1.75 Vm: 2.4 m/s
— ENE A: 4.1 m/s k 1.68 Vm: 3.7 m/s	— E A: 6.2 m/s k 1.82 Vm: 5.5 m/s	— ESE A: 7.0 m/s k 1.91 Vm: 6.2 m/s	— SE A: 7.5 m/s k 2.10 Vm: 6.6 m/s
— SSE A: 6.1 m/s k 1.94 Vm: 5.4 m/s	— S A: 4.5 m/s k 2.10 Vm: 4.0 m/s	— SSW A: 3.0 m/s k 2.66 Vm: 2.7 m/s	— SW A: 2.9 m/s k 2.39 Vm: 2.6 m/s
— WSW A: 2.7 m/s k 2.54 Vm: 2.4 m/s	— WA: 2.6 m/s k 1.72 Vm: 2.3 m/s	— WNW A: 2.1 m/s k 1.61 Vm: 1.9 m/s	— NW A: 1.5 m/s k 1.77 Vm: 1.4 m/s
— NNW A: 1.4 m/s k 1.65 Vm: 1.3 m/s			