11. PRILOZI

11.1. Prilog 1: Klimatologija izmernog vetra na 10 m za GMO stanice:

1. Banatski Karlovac, 2. Kikinda, 3. Palić, 4. Novi Sad - Rimski Šančevi
5. Sombor, 6. Sremska Mitrovica, 7. Vršac, 8. Zrenjanin

11.2. Prilog 2: Atlas ekstrapolisanog vetra na 50 m iznad tla za GMO stanice:

1. Banatski Karlovac, 2. Kikinda, 3. Palić, 4. Novi Sad - Rimski Šančevi
5. Sombor, 6. Sremska Mitrovica, 7. Vršac, 8. Zrenjanin

11.3. Prilog 3: Detaljne mape brzine vetrova u m/s i srednje gustine snage vetrova u W/m^2 za GMO stanice:

1. Banatski Karlovac, 2. Kikinda, 3. Palić, 4. Novi Sad - Rimski Šančevi
5. Sombor, 6. Sremska Mitrovica, 7. Vršac, 8. Zrenjanin

11.4. Prilog 4: Sumarne vrednosti atlasa ekstrapolisanog vetra na 50 m iznad tla: a) za zamišljeni slučaj da su merenja vršena na stubovima 10 m iznad tla, da nema prepreka i da je hrapavost terena z0=0.03 , i b) za realne uslove za GMO stanice:

1. Banatski Karlovac, 2. Kikinda, 3. Palić, 4. Novi Sad - Rimski Šančevi
5. Sombor, 6. Sremska Mitrovica, 7. Vršac, 8. Zrenjanin

PRILOG 1

'IME MESTA' Observed Wind Climate

'IME MESTA' Klima izmerenog vetra

U ovom prilogu data je klimatologija izmernog vetra na 10 m iznad tla za sve stanice koje su obradjivane u Projetu:

1. Banatski Karlovac
2. Kikinda
3. Palić
4. Rimski Šančevi
5. Sombor
6. Sremska Mitrovica
7. Vršac
8. Zrenjanin

Site description: 'IME MESTA'; position: longituda°N latituda°E; visina anemometra: 10 m.

-	Unit Jedinice	Measured Merenja	Weibull-fit Fitovano Weib.	Discrepancy Neslaganje
Mean wind speed **Srednja brzina vetra**	m/s			
Mean power density **Srednja gustina snage vetra**	W/m²			

U ovom delu izveštaja nalaze se slike ruže vetra i histograma empirijske raspodele izmerenog vetra sa odgovarajućom krivom teorijske Weibullove raspodele.

Potom sledi tabela koja po sektorima opisuje veličine Weibullovih parametara ”A” i ”k”, prosečne brzine vetra ”U” i prosečne snage vetra ”P”.

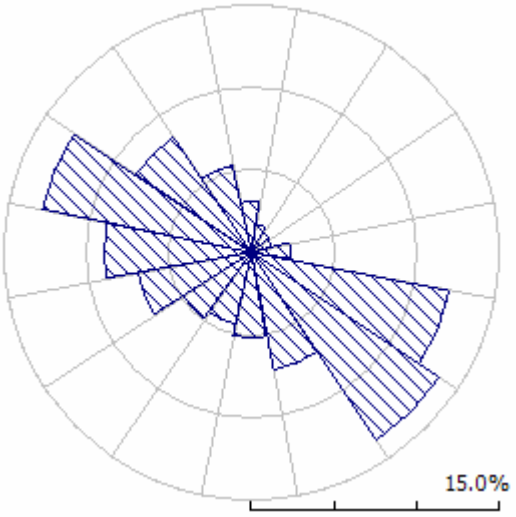
Poslednja tabela daje frekvenciju vetra po sektorima označenim masnim slovima u prvom redu tabele i ukupnu (Total) i po intervalima brzine vetra čiji je desni kraj naznačen masnim slovima u prvoj koloni tabele. Frekvencija vetra data je u promilima, s tim da prvi red frekvencija predtavljaju interpolisane frekvencije tišina.

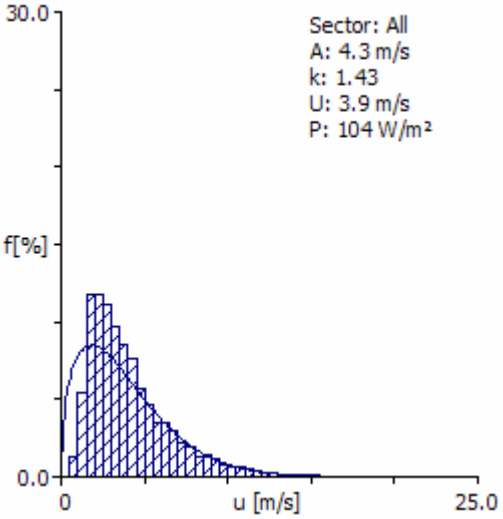
'BKARLOVAC' Observed Wind Climate

Report produced by WAsP OWC Wizard (version 2.0.66), on Wednesday, 29 October, 2008 at 15:41:31

Site description: 'BKARLOVAC'; position: 21.03722°N 45.05556°E; anemometer height: 10 m.

-	Unit	Measured	Weibull-fit	Discrepancy
Mean wind speed	m/s	4.13	3.87	6.29%
Mean power density	W/m²	104.67	103.51	1.11%





-	0	22.5	45	67.5	90	112.5	135	157.5	180	202.5	225	247.5	270	292.5	315	337.5	Total
A	3.2	2.5	2.4	2.7	3.5	5.8	5.7	5.3	4.4	3.2	3.7	4.0	3.8	4.0	3.9	3.9	4.3
k	1.48	1.73	1.74	1.42	1.20	1.49	1.60	1.87	1.72	1.76	1.90	2.00	1.77	1.77	1.73	1.60	1.43
U	2.91	2.22	2.13	2.47	3.29	5.22	5.15	4.74	3.97	2.83	3.29	3.51	3.37	3.58	3.51	3.53	3.87
P	42	15	13	28	87	238	208	134	86	31	44	51	51	61	60	66	104
Freq	3	2	1	1	2	12	14	7	5	4	5	7	9	13	8	5	100

U	0	22.5	45	67.5	90	112.5	135	157.5	180	202.5	225	247.5	270	292.5	315	337.5	Total
0.01	2	3	4	4	2	0	0	1	1	1	1	1	1	0	1	1	1
0.51	1	0	2	0	1	0	0	0	0	0	0	0	1	0	1	1	0
1.01	18	39	36	18	5	3	4	7	7	14	12	8	15	16	25	22	12
1.51	113	142	159	72	35	17	20	23	26	59	64	50	65	72	91	94	55
2.01	187	292	273	240	173	48	57	75	89	170	161	131	126	122	148	151	118
2.51	151	170	235	235	165	69	85	96	123	192	140	122	143	119	108	104	118
3.01	122	114	107	148	125	94	103	98	113	160	124	119	127	113	105	94	112
3.51	103	85	61	92	115	106	88	77	106	108	91	114	106	103	83	98	98
4.01	75	59	44	70	90	90	75	77	98	90	90	105	96	90	79	82	86
4.51	55	43	28	41	68	79	68	71	87	64	92	95	83	88	81	70	77

5.01	36	27	25	14	31	56	55	65	73	43	55	65	60	65	61	52	56
5.51	32	8	13	16	35	44	52	60	59	39	52	57	47	46	48	48	47
6.01	18	8	7	5	23	43	44	48	44	18	34	34	33	34	38	29	35
6.51	25	1	2	13	15	41	46	47	34	20	30	36	27	35	38	33	35
7.01	19	1	3	2	16	40	42	46	22	8	24	24	24	29	31	29	29
7.51	12	3	0	2	9	30	33	35	26	5	10	15	17	19	18	26	21
8.01	8	3	2	11	14	28	32	43	24	4	7	8	10	15	12	18	19
8.51	10	0	0	4	6	20	22	25	13	1	5	5	7	9	12	9	12
9.01	2	0	0	5	9	29	29	27	14	1	5	5	4	9	4	15	14
9.51	4	0	0	0	16	21	25	21	13	1	1	3	3	5	7	11	11
10.01	3	0	0	4	4	20	16	19	9	0	1	0	1	4	4	3	8
10.51	1	0	0	2	4	17	19	17	5	1	0	1	0	3	1	4	7
11.01	2	0	0	2	8	18	18	13	6	1	0	1	1	1	2	2	7
11.51	1	0	0	0	10	18	17	5	3	0	0	0	1	1	1	2	6
12.01	0	0	0	0	6	11	10	2	2	0	0	1	1	1	2	0	3
12.51	1	0	0	0	5	10	8	3	0	0	0	1	0	0	1	0	3
13.01	0	0	0	0	5	10	9	1	0	1	0	0	1	0	0	0	3
13.51	0	0	0	0	0	7	5	0	0	1	0	0	1	0	0	0	2
14.01	0	0	0	0	0	9	5	0	0	0	0	0	0	0	0	0	2
14.51	0	0	0	0	2	5	2	0	0	0	0	0	0	0	0	0	1
15.01	0	0	0	0	0	4	3	0	0	0	0	0	0	0	0	0	1
15.51	0	0	0	0	0	4	2	0	0	0	0	0	0	0	0	0	1
16.01	0	0	0	0	0	4	2	0	0	0	0	0	0	0	0	0	1
16.51	0	0	0	0	0	2	1	0	0	0	0	0	0	0	0	0	0
17.01	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0
17.51	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0
18.01	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
18.51	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
19.01	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
19.51	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
20.01	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
20.51	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
21.01	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
21.51	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
22.01	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
22.51	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
23.01	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
23.51	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
24.01	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

24.51	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

A (Weibull-A) and U (mean speed) are given in m/s, P (power density) in W/m² and F (frequencies of occurence) in per mille and per cent (total).

Source data summary - one data set was used.

The file and its contents

Source file name:	C:\Documents and Settings\Administrator\My Documents\Zlatica_wasp\Podaci.dat\BKARLOVAC\BK_row_2003_07.dat
Date last modified:	29-Oct-08 13:39:43
Number of header rows identified:	0
Number of data elements per row:	3
Index of speed column:	2
Index of direction column:	3
Number of raw data pairs:	42040

Speed data adjustment and filtering

Adjustment offset:	0 m/s
Adjustment multiplier:	1
Discretisation width:	0.0 m/s
Lower acceptance limit:	0.0 m/s
Upper acceptance limit:	99.0 m/s
Calm threshold:	0.1 m/s

Direction data adjustment and filtering

Adjustment offset:	0°
Adjustment multiplier:	1
Discretisation width:	0.01°
Lower acceptance limit:	0°
Upper acceptance limit:	360°

Data after processing

Number of rejected speed readings:	0
Number of rejected direction readings:	0
Number of rejected data pairs:	0 (0.0%)
Number of accepted data pairs:	42040 (100.0%)
Number of calms:	37 (0.09%)

Processed data ranges

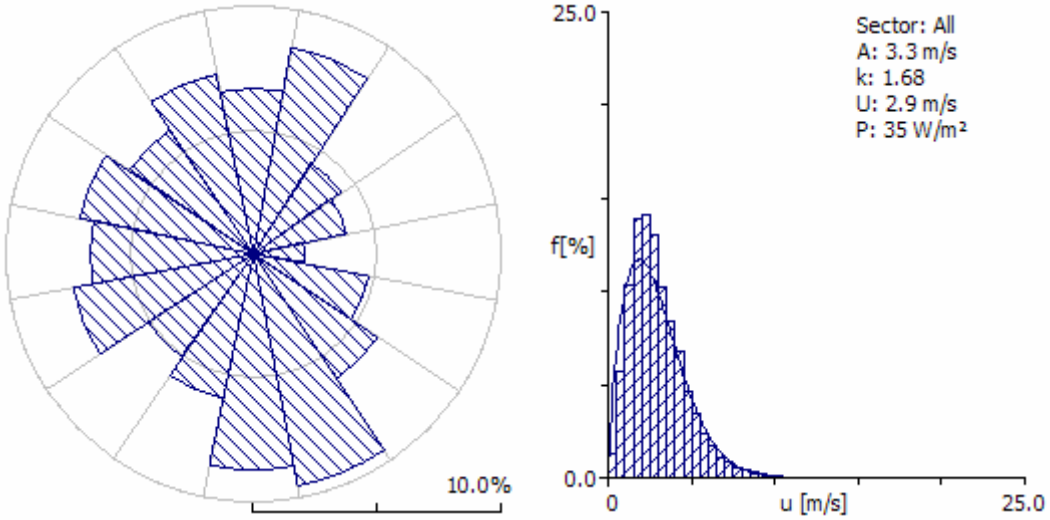
Minimum speed:	0.0 m/s
Maximum speed:	18.6 m/s
Minimum direction:	0°
Maximum direction:	338°

'KIKINDA' Observed Wind Climate

Report produced by WAsP OWC Wizard (version 2.0.66), on Wednesday, 29 October, 2008 at 15:31:48

Site description: 'KIKINDA'; position: 20.46431°N 45.8247°E; anemometer height: 10 m.

-	Unit	Measured	Weibull-fit	Discrepancy
Mean wind speed	m/s	3.01	2.90	3.70%
Mean power density	W/m²	35.43	34.83	1.71%



-	0	22.5	45	67.5	90	112.5	135	157.5	180	202.5	225	247.5	270	292.5	315	337.5	Total
A	3.4	3.4	2.7	2.4	2.4	3.0	3.7	3.6	4.1	3.5	3.0	2.9	3.0	3.0	3.3	3.4	3.3
k	1.66	1.61	1.39	1.68	1.96	2.38	1.67	1.82	1.85	2.03	2.10	1.90	1.79	1.68	1.73	1.72	1.68
U	3.03	3.01	2.47	2.18	2.15	2.67	3.28	3.24	3.62	3.06	2.69	2.6	2.67	2.67	2.99	2.99	2.9
P	40	41	28	15	12	19	51	44	60	33	22	22	25	27	36	37	35
Freq	7	8	4	4	2	5	6	9	9	6	5	7	7	7	6	7	100

U	0	22.5	45	67.5	90	112.5	135	157.5	180	202.5	225	247.5	270	292.5	315	337.5	Total
0.01	2	1	3	3	6	2	2	1	1	2	2	2	2	2	2	2	2
0.51	16	15	25	19	21	12	8	7	7	9	14	11	15	17	16	13	13
1.01	70	66	105	88	95	54	38	45	30	44	48	49	57	67	59	53	57
1.51	106	111	149	182	177	94	79	83	66	87	96	104	105	119	107	104	104
2.01	127	124	166	202	203	143	113	112	104	116	152	173	163	158	135	134	139
2.51	124	129	144	180	165	168	129	126	107	131	166	178	168	152	125	137	142
3.01	116	120	110	109	126	182	134	127	102	142	160	157	135	135	121	121	130
3.51	88	95	76	80	72	137	107	110	110	117	117	107	99	92	108	98	103
4.01	79	76	53	46	60	90	93	104	106	95	80	76	83	73	94	80	84
4.51	75	65	55	37	46	62	87	80	88	80	68	56	57	58	62	69	68
5.01	52	47	30	17	17	28	53	62	69	59	37	30	42	40	47	49	46

5.51	43	40	20	16	6	13	41	42	53	42	27	22	25	30	39	39	34
6.01	31	31	17	10	6	4	27	25	39	29	17	15	20	19	26	34	24
6.51	18	25	14	6	1	4	20	20	28	22	7	10	12	13	20	23	17
7.01	16	17	9	5	0	1	14	13	21	9	4	4	6	9	12	17	11
7.51	13	9	4	1	0	1	11	12	21	8	2	3	3	6	9	11	8
8.01	6	8	6	0	0	2	10	10	13	4	2	1	2	3	6	8	6
8.51	6	5	4	0	0	1	11	7	12	2	0	1	3	4	6	3	5
9.01	4	5	5	0	0	2	8	5	10	1	0	1	0	1	2	3	3
9.51	2	4	2	0	0	0	8	3	5	1	0	0	0	0	1	1	2
10.01	3	2	2	0	0	0	4	2	2	0	0	1	1	0	2	0	1
10.51	2	2	2	0	0	0	3	2	2	0	0	0	0	1	0	0	1
11.01	0	1	0	0	0	0	1	1	1	0	0	0	0	0	0	0	0
11.51	0	0	0	0	0	0	1	0	1	0	0	0	0	0	1	1	0
12.01	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0
12.51	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
13.01	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1	0	0
13.51	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
14.01	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
14.51	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
15.01	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
15.51	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
16.01	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
16.51	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
17.01	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
17.51	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
18.01	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
18.51	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
19.01	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
19.51	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
20.01	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
20.51	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
21.01	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
21.51	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
22.01	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
22.51	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
23.01	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
23.51	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
24.01	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
24.51	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

A (Weibull-A) and U (mean speed) are given in m/s, P (power density) in W/m² and F (frequencies of occurence) in per mille and per cent (total).

Source data summary - one data set was used.

The file and its contents

Source file name:	C:\Documents and Settings\Administrator\My Documents\Zlatica_wasp\Podaci.dat\KIKINDA\KI_row_2001_07.dat
Date last modified:	29-Oct-08 15:30:26
Number of header rows identified:	0
Number of data elements per row:	3
Index of speed column:	2
Index of direction column:	3
Number of raw data pairs:	61325

Speed data adjustment and filtering

Adjustment offset:	0 m/s
Adjustment multiplier:	1
Discretisation width:	0.0 m/s
Lower acceptance limit:	0.0 m/s
Upper acceptance limit:	99.0 m/s
Calm threshold:	0.1 m/s

Direction data adjustment and filtering

Adjustment offset:	0°
Adjustment multiplier:	1
Discretisation width:	0.01°
Lower acceptance limit:	0°
Upper acceptance limit:	360°

Data after processing

Number of rejected speed readings:	0
Number of rejected direction readings:	0
Number of rejected data pairs:	0 (0.0%)
Number of accepted data pairs:	61325 (100.0%)
Number of calms:	114 (0.19%)

Processed data ranges

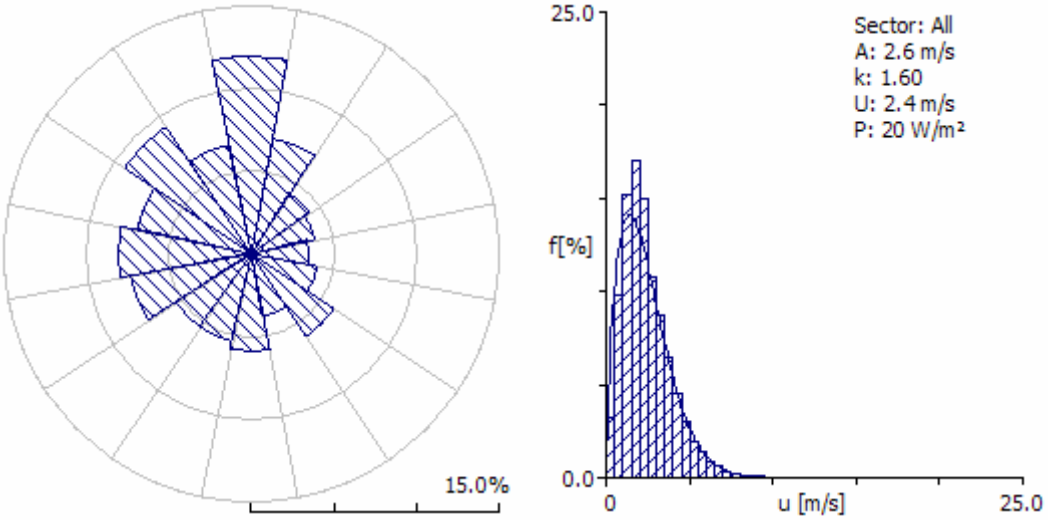
Minimum speed:	0.0 m/s
Maximum speed:	14.4 m/s
Minimum direction:	0°
Maximum direction:	338°

'PALIC' Observed Wind Climate

Report produced by WAsP OWC Wizard (version 2.0.66), on Thursday, 30 October, 2008 at 12:04:55

Site description: 'Untitled'; position: 19.76432°N 46.09734°E; anemometer height: 10 m.

-	Unit	Measured	Weibull-fit	Discrepancy
Mean wind speed	m/s	2.47	2.37	3.81%
Mean power density	W/m²	20.68	20.30	1.84%



-	0	22.5	45	67.5	90	112.5	135	157.5	180	202.5	225	247.5	270	292.5	315	337.5	Total
A	2.7	2.3	2.2	2.0	2.3	2.6	3.2	2.8	2.5	2.8	2.9	2.9	2.7	2.5	3.0	2.6	2.6
k	1.76	1.58	1.82	1.94	1.80	1.52	1.69	1.63	1.61	1.42	1.44	1.52	1.82	1.85	1.89	1.77	1.60
U	2.44	2.1	1.98	1.77	2.04	2.35	2.86	2.47	2.25	2.53	2.62	2.6	2.4	2.19	2.66	2.34	2.37
P	19	14	10	7	11	21	33	22	17	29	32	29	18	13	23	17	20
Freq	12	7	4	4	4	4	6	4	6	5	5	7	8	7	9	7	100

U	0	22.5	45	67.5	90	112.5	135	157.5	180	202.5	225	247.5	270	292.5	315	337.5	Total
0.01	1	2	4	4	5	4	3	5	3	3	3	2	2	2	2	3	3
0.51	30	32	34	55	24	32	15	34	43	34	37	30	34	33	24	36	32
1.01	88	111	112	153	114	101	75	106	105	101	97	116	88	102	65	97	98
1.51	143	206	193	221	186	163	105	142	171	174	154	136	126	149	105	154	152
2.01	160	192	221	216	212	171	147	149	174	148	156	143	169	200	155	164	170
2.51	155	138	159	162	179	147	142	141	143	121	114	128	171	178	162	154	150
3.01	115	91	103	84	110	106	107	103	98	96	93	108	135	110	121	116	108
3.51	103	65	74	50	70	90	94	95	80	71	86	95	100	84	102	88	87
4.01	72	63	43	31	44	50	77	71	61	62	65	69	68	58	84	67	64
4.51	51	38	31	14	23	46	55	51	46	48	50	49	42	37	68	48	46
5.01	31	29	17	5	9	26	55	29	27	41	35	36	22	25	43	32	31

5.51	19	13	7	1	11	20	35	20	17	25	29	25	15	14	27	18	19
6.01	13	8	2	1	6	16	34	18	17	24	20	18	13	4	19	13	15
6.51	6	5	0	0	3	11	21	16	6	19	21	15	4	3	9	5	9
7.01	4	1	1	0	2	5	17	12	5	10	13	10	6	1	6	4	6
7.51	4	1	0	0	1	3	8	5	2	10	7	6	2	1	3	3	3
8.01	2	1	0	0	0	2	4	1	1	5	6	4	1	1	2	1	2
8.51	2	0	0	0	0	4	2	1	1	2	5	4	1	0	2	0	2
9.01	0	0	0	0	0	1	3	0	0	3	3	2	0	0	0	0	1
9.51	0	0	0	0	0	1	1	0	0	2	2	2	1	0	0	0	1
10.01	0	0	0	0	0	1	0	0	0	1	2	2	0	0	0	0	0
10.51	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0
11.01	0	0	0	0	0	0	0	0	0	1	1	1	0	0	0	0	0
11.51	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12.01	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12.51	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
13.01	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
13.51	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
14.01	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
14.51	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
15.01	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
15.51	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
16.01	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
16.51	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
17.01	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
17.51	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
18.01	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
18.51	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
19.01	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
19.51	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
20.01	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
20.51	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
21.01	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
21.51	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
22.01	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
22.51	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
23.01	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
23.51	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
24.01	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
24.51	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

A (Weibull-A) and U (mean speed) are given in m/s, P (power density) in W/m² and F (frequencies of occurence) in per mille and per cent (total).

Source data summary - one data set was used.

The file and its contents

Source file name:	C:\Documents and Settings\Administrator\My Documents\Zlatica_wasp\Podaci.dat\PALIC\PA_row_2001_07.dat
Date last modified:	29-Oct-08 15:48:40
Number of header rows identified:	0
Number of data elements per row:	3
Index of speed column:	2
Index of direction column:	3
Number of raw data pairs:	60401

Speed data adjustment and filtering

Adjustment offset:	0 m/s
Adjustment multiplier:	1
Discretisation width:	0.0 m/s
Lower acceptance limit:	0.0 m/s
Upper acceptance limit:	99.0 m/s
Calm threshold:	0.1 m/s

Direction data adjustment and filtering

Adjustment offset:	0°
Adjustment multiplier:	1
Discretisation width:	0.01°
Lower acceptance limit:	0°
Upper acceptance limit:	360°

Data after processing

Number of rejected speed readings:	0
Number of rejected direction readings:	0
Number of rejected data pairs:	0 (0.0%)
Number of accepted data pairs:	60401 (100.0%)
Number of calms:	169 (0.28%)

Processed data ranges

Minimum speed:	0.0 m/s
Maximum speed:	13.0 m/s
Minimum direction:	0°
Maximum direction:	338°

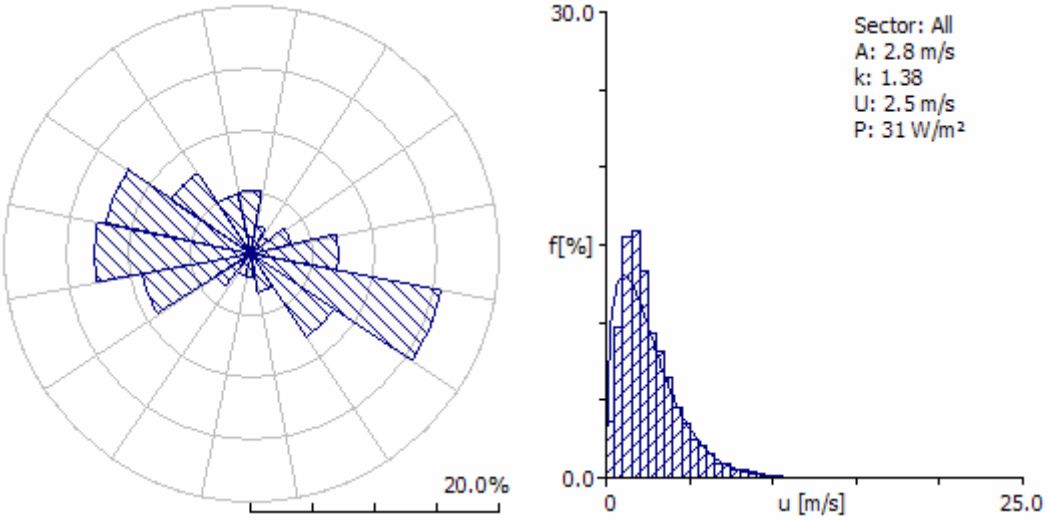
Licence 1, Faculty of Technical Sciences, Serbia using WAsP version: 9.00.0133.

'RSANCEVI' Observed Wind Climate

Report produced by WAsP OWC Wizard (version 2.0.66), on Thursday, 30 October, 2008 at 12:42:20

Site description: 'RSANCEVI'; position: 19.82952°N 45.32201°E; anemometer height: 10 m.

-	Unit	Measured	Weibull-fit	Discrepancy
Mean wind speed	m/s	2.65	2.53	4.66%
Mean power density	W/m²	31.05	30.65	1.28%



-	0	22.5	45	67.5	90	112.5	135	157.5	180	202.5	225	247.5	270	292.5	315	337.5	Total
A	3.3	2.8	2.4	2.4	2.5	3.4	3.3	2.3	1.8	1.5	1.6	2.1	2.6	3.1	3.4	3.2	2.8
k	1.70	1.39	1.56	1.68	1.68	1.48	1.30	1.18	1.29	1.20	1.42	1.56	1.71	1.68	1.60	1.45	1.38
U	2.96	2.56	2.15	2.16	2.25	3.06	3.08	2.15	1.62	1.39	1.47	1.86	2.36	2.75	3.08	2.93	2.53
P	36	31	16	14	16	49	61	25	9	7	6	10	18	30	44	44	31
Freq	5	2	2	3	7	16	8	3	2	2	3	9	13	12	8	5	100

U	0	22.5	45	67.5	90	112.5	135	157.5	180	202.5	225	247.5	270	292.5	315	337.5	Total
0.01	3	7	10	5	2	1	2	5	9	9	5	2	1	1	2	3	3
0.51	30	38	43	49	35	19	35	71	136	123	88	35	21	21	33	36	36
1.01	74	111	119	117	86	59	98	144	229	269	207	113	78	72	84	93	96
1.51	120	148	200	172	156	113	139	191	191	244	297	245	155	131	116	127	156
2.01	109	158	160	173	197	139	131	158	134	124	182	231	194	151	122	130	160
2.51	128	117	136	155	172	133	107	115	87	80	98	154	154	135	117	118	133
3.01	108	82	99	110	117	101	74	65	72	47	46	79	105	105	85	88	93
3.51	100	76	84	79	81	96	71	68	49	42	30	54	96	97	78	86	81
4.01	89	69	49	58	63	72	54	43	43	26	20	35	76	80	78	73	64
4.51	59	43	33	31	31	55	47	29	21	15	13	19	47	63	63	51	45
5.01	52	47	16	18	19	48	42	23	14	9	6	16	27	43	54	47	35

5.51	36	30	21	11	11	33	34	28	6	5	4	7	15	30	40	37	24
6.01	32	23	11	8	9	29	31	17	2	4	3	4	12	25	38	28	20
6.51	17	13	11	5	9	24	29	12	2	2	0	2	8	17	32	20	15
7.01	9	12	3	4	3	17	21	6	3	0	0	1	4	10	18	13	9
7.51	12	3	3	1	3	18	19	8	1	1	0	1	2	7	14	12	9
8.01	8	3	1	0	1	11	14	4	0	0	0	0	1	3	8	7	5
8.51	5	3	1	0	1	12	18	7	0	1	0	1	1	3	6	9	6
9.01	4	6	0	0	1	9	13	2	0	0	0	0	1	3	4	8	4
9.51	2	5	0	0	0	5	6	1	0	0	0	0	0	1	3	4	2
10.01	2	1	0	0	0	3	6	0	0	0	0	0	0	1	2	5	2
10.51	0	2	0	0	0	2	3	1	0	0	0	0	0	0	0	2	1
11.01	0	1	0	0	0	2	2	0	1	0	0	0	0	1	1	1	1
11.51	0	0	0	0	0	1	2	2	0	0	0	0	0	0	0	1	0
12.01	0	0	0	0	0	0	1	0	0	0	0	0	0	0	1	0	0
12.51	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	1	0
13.01	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
13.51	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
14.01	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
14.51	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
15.01	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
15.51	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
16.01	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
16.51	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
17.01	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
17.51	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
18.01	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
18.51	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
19.01	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
19.51	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
20.01	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
20.51	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
21.01	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
21.51	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
22.01	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
22.51	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
23.01	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
23.51	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
24.01	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
24.51	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

A (Weibull-A) and U (mean speed) are given in m/s, P (power density) in W/m² and F (frequencies of occurence) in per mille and per cent (total).

Source data summary - one data set was used.

The file and its contents

Source file name:	C:\Documents and Settings\Administrator\My Documents\Zlatica_wasp\Podaci.dat\RSANCEVI\NS_row_2001_07.dat
Date last modified:	30-Oct-08 12:40:22
Number of header rows identified:	0
Number of data elements per row:	3
Index of speed column:	2
Index of direction column:	3
Number of raw data pairs:	61344

Speed data adjustment and filtering

Adjustment offset:	0 m/s
Adjustment multiplier:	1
Discretisation width:	0.0 m/s
Lower acceptance limit:	0.0 m/s
Upper acceptance limit:	99.0 m/s
Calm threshold:	0.1 m/s

Direction data adjustment and filtering

Adjustment offset:	0°
Adjustment multiplier:	1
Discretisation width:	0.01°
Lower acceptance limit:	0°
Upper acceptance limit:	360°

Data after processing

Number of rejected speed readings:	0
Number of rejected direction readings:	0
Number of rejected data pairs:	0 (0.0%)
Number of accepted data pairs:	61344 (100.0%)
Number of calms:	167 (0.27%)

Processed data ranges

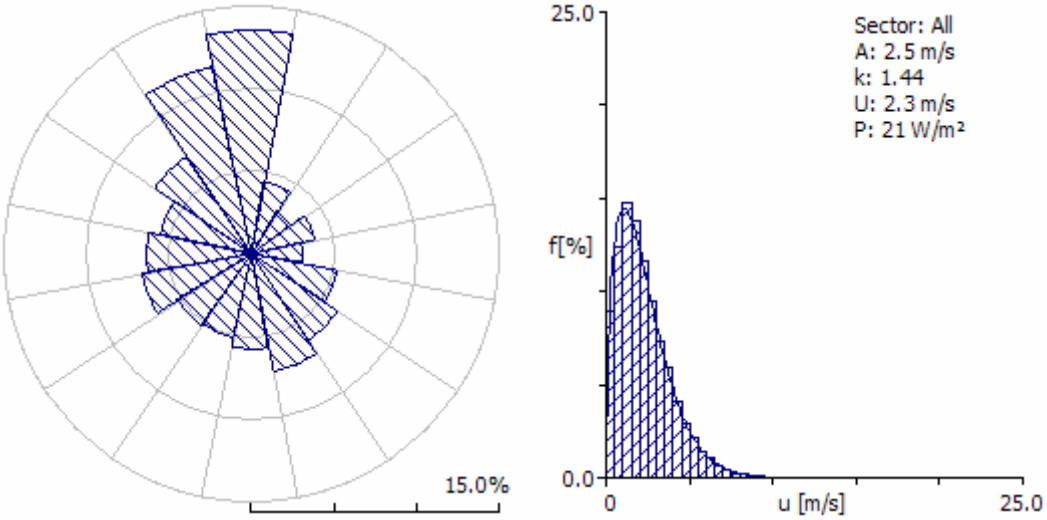
Minimum speed:	0.0 m/s
Maximum speed:	13.8 m/s
Minimum direction:	0°
Maximum direction:	338°

'SOMBOR' Observed Wind Climate

Report produced by WAsP OWC Wizard (version 2.0.66), on Thursday, 30 October, 2008 at 13:34:04

Site description: 'SOMBOR'; position: 19.14337°N 45.76724°E; anemometer height: 10 m.

-	Unit	Measured	Weibull-fit	Discrepancy
Mean wind speed	m/s	2.28	2.27	0.39%
Mean power density	W/m²	21.27	20.93	1.58%



-	0	22.5	45	67.5	90	112.5	135	157.5	180	202.5	225	247.5	270	292.5	315	337.5	Total
A	3.4	2.0	2.2	2.0	2.4	2.3	2.9	1.9	2.1	1.5	2.1	2.3	2.8	2.6	3.0	2.8	2.5
k	1.67	1.24	1.30	1.39	1.59	1.28	1.41	1.22	1.64	1.50	1.59	1.62	1.96	1.75	1.76	1.49	1.44
U	3.03	1.85	2.03	1.83	2.12	2.14	2.68	1.78	1.91	1.32	1.91	2.07	2.46	2.29	2.68	2.51	2.27
P	40	15	18	12	15	21	35	14	10	4	11	13	18	16	26	26	21
Freq	14	4	3	4	3	5	6	7	6	5	5	7	6	6	7	12	100

U	0	22.5	45	67.5	90	112.5	135	157.5	180	202.5	225	247.5	270	292.5	315	337.5	Total
0.01	9	28	41	32	40	23	20	17	21	24	24	18	19	22	17	11	20
0.51	48	168	156	122	94	117	73	101	92	168	102	82	54	86	55	68	89
1.01	69	177	150	177	120	141	117	181	128	237	130	124	71	111	85	113	124
1.51	101	147	125	167	136	152	132	208	175	240	173	163	117	129	116	146	148
2.01	110	117	115	138	147	135	113	165	188	153	177	164	147	137	123	124	138
2.51	117	92	99	111	140	107	97	100	138	81	121	141	156	125	120	114	117
3.01	104	73	89	73	99	94	94	61	99	42	85	105	147	111	122	93	95
3.51	93	54	56	55	75	64	76	44	68	28	76	76	111	83	100	71	74
4.01	89	46	44	43	47	42	57	32	43	13	54	47	74	76	88	68	59
4.51	70	29	40	28	33	25	57	31	20	9	22	28	40	47	56	49	41
5.01	52	23	29	23	24	23	37	19	10	3	16	21	26	34	40	41	30

5.51	38	17	21	14	23	20	37	11	5	1	8	12	15	22	27	32	21
6.01	26	9	13	9	10	14	23	9	5	1	4	7	10	10	18	21	14
6.51	23	8	9	5	6	17	15	8	5	0	5	4	4	6	11	21	11
7.01	16	2	6	2	3	8	15	4	2	0	1	1	2	1	8	13	7
7.51	11	3	2	0	1	8	10	3	1	0	1	3	2	1	5	5	4
8.01	6	1	0	0	0	4	8	3	0	0	0	0	1	0	3	3	2
8.51	6	3	2	0	1	3	9	1	1	0	0	1	1	0	1	3	2
9.01	4	2	1	0	1	1	2	0	0	0	0	0	1	0	2	2	1
9.51	2	0	1	0	0	1	2	0	0	0	0	0	1	0	0	0	1
10.01	2	0	1	0	0	0	2	0	0	0	0	0	0	0	1	0	1
10.51	1	0	1	0	0	0	2	0	0	0	0	0	0	0	1	0	0
11.01	1	0	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0
11.51	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12.01	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12.51	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
13.01	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
13.51	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
14.01	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
14.51	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
15.01	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
15.51	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
16.01	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
16.51	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
17.01	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
17.51	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
18.01	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
18.51	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
19.01	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
19.51	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
20.01	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
20.51	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
21.01	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
21.51	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
22.01	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
22.51	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
23.01	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
23.51	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
24.01	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
24.51	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

A (Weibull-A) and U (mean speed) are given in m/s, P (power density) in W/m² and F (frequencies of occurence) in per mille and per cent (total).

Source data summary - one data set was used.

The file and its contents

Source file name:	C:\Documents and Settings\Administrator\My Documents\Zlatica_wasp\Podaci.dat\SOMBOR\SO_row_2001_07.dat
Date last modified:	30-Oct-08 13:10:19
Number of header rows identified:	0
Number of data elements per row:	3
Index of speed column:	2
Index of direction column:	3
Number of raw data pairs:	60211

Speed data adjustment and filtering

Adjustment offset:	0 m/s
Adjustment multiplier:	1
Discretisation width:	0.0 m/s
Lower acceptance limit:	0.0 m/s
Upper acceptance limit:	99.0 m/s
Calm threshold:	0.1 m/s

Direction data adjustment and filtering

Adjustment offset:	0°
Adjustment multiplier:	1
Discretisation width:	0.01°
Lower acceptance limit:	0°
Upper acceptance limit:	360°

Data after processing

Number of rejected speed readings:	0
Number of rejected direction readings:	0
Number of rejected data pairs:	0 (0.0%)
Number of accepted data pairs:	60211 (100.0%)
Number of calms:	1190 (1.98%)

Processed data ranges

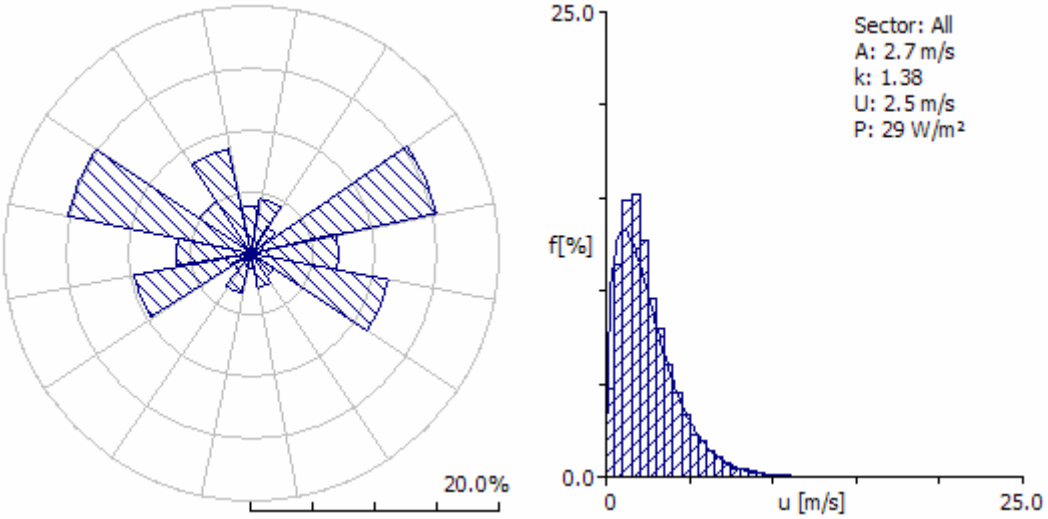
Minimum speed:	0.0 m/s
Maximum speed:	16.0 m/s
Minimum direction:	0°
Maximum direction:	338°

'SMITROVICA' Observed Wind Climate

Report produced by WAsP OWC Wizard (version 2.0.66), on Thursday, 30 October, 2008 at 13:23:54

Site description: 'SMITROVICA'; position: 19.55486°N 45.00966°E; anemometer height: 10 m.

-	Unit	Measured	Weibull-fit	Discrepancy
Mean wind speed	m/s	2.57	2.48	3.82%
Mean power density	W/m²	29.10	28.72	1.28%



-	0	22.5	45	67.5	90	112.5	135	157.5	180	202.5	225	247.5	270	292.5	315	337.5	Total
A	3.4	1.9	2.0	2.9	3.6	3.3	3.4	2.3	2.1	1.9	2.1	2.0	2.6	2.5	3.4	3.0	2.7
k	1.52	1.18	1.28	1.49	1.69	1.48	1.44	1.46	1.51	1.14	1.14	1.39	1.60	1.46	1.83	1.44	1.38
U	3.09	1.78	1.82	2.64	3.17	3.01	3.1	2.11	1.89	1.81	2.02	1.82	2.36	2.27	2.98	2.71	2.48
P	48	14	13	31	45	46	53	16	11	16	22	11	20	20	34	35	29
Freq	4	4	3	15	7	11	2	3	1	3	2	10	6	15	5	9	100

U	0	22.5	45	67.5	90	112.5	135	157.5	180	202.5	225	247.5	270	292.5	315	337.5	Total
0.01	4	4	6	1	2	1	7	6	12	5	10	2	3	1	3	2	3
0.51	47	101	115	34	30	25	37	41	60	63	78	49	49	50	45	58	48
1.01	86	214	191	81	59	71	78	131	164	203	180	165	101	132	61	122	115
1.51	104	201	183	124	97	107	114	191	193	222	202	233	131	171	98	130	149
2.01	108	156	160	157	117	133	111	181	191	185	138	203	176	159	112	130	152
2.51	113	96	110	147	118	131	131	139	143	115	113	132	152	126	134	103	128
3.01	96	78	66	117	107	108	88	83	81	69	67	77	111	91	106	91	96
3.51	103	47	52	89	97	94	85	64	46	46	49	48	85	82	110	83	80
4.01	83	25	32	64	83	75	69	55	47	25	34	30	62	58	100	73	61
4.51	61	21	25	52	68	60	54	34	25	22	28	21	37	38	74	56	46
5.01	46	14	17	35	54	45	51	27	18	12	29	10	33	29	47	41	33

5.51	33	12	9	24	39	29	25	21	10	10	15	9	20	20	31	27	22
6.01	28	10	12	20	33	30	30	10	4	6	18	9	15	15	25	23	19
6.51	19	6	10	14	30	23	30	9	3	5	8	5	9	10	17	19	14
7.01	17	6	6	13	22	17	24	5	3	4	11	3	7	7	11	13	11
7.51	11	3	3	7	15	14	16	3	0	1	5	2	5	6	11	9	8
8.01	8	1	1	6	8	10	16	1	0	2	3	1	2	3	5	3	5
8.51	11	1	1	5	9	9	6	0	0	2	1	1	2	1	3	5	4
9.01	7	1	1	5	3	7	9	1	0	1	4	0	1	0	5	3	3
9.51	4	1	0	2	2	4	9	1	0	1	2	0	0	1	1	3	2
10.01	2	0	0	1	2	4	6	0	0	2	2	0	0	0	2	3	1
10.51	2	0	0	1	1	1	2	0	0	0	0	0	0	0	1	1	1
11.01	1	1	0	1	0	2	2	0	1	2	1	0	0	0	0	1	1
11.51	2	0	0	0	1	1	1	0	0	0	1	0	0	0	0	1	0
12.01	3	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0
12.51	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
13.01	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
13.51	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
14.01	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
14.51	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0
15.01	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
15.51	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
16.01	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
16.51	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
17.01	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
17.51	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
18.01	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
18.51	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
19.01	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
19.51	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
20.01	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
20.51	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
21.01	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
21.51	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
22.01	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
22.51	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
23.01	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
23.51	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
24.01	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
24.51	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

A (Weibull-A) and U (mean speed) are given in m/s, P (power density) in W/m² and F (frequencies of occurence) in per mille and per cent (total).

Source data summary - one data set was used.

The file and its contents

Source file name:	C:\Documents and Settings\Administrator\My Documents\Zlatica_wasp\Podaci.dat\SMITROVICA\SM_row_2001_07.dat
Date last modified:	30-Oct-08 13:09:13
Number of header rows identified:	0
Number of data elements per row:	3
Index of speed column:	2
Index of direction column:	3
Number of raw data pairs:	61189

Speed data adjustment and filtering

Adjustment offset:	0 m/s
Adjustment multiplier:	1
Discretisation width:	0.0 m/s
Lower acceptance limit:	0.0 m/s
Upper acceptance limit:	99.0 m/s
Calm threshold:	0.1 m/s

Direction data adjustment and filtering

Adjustment offset:	0°
Adjustment multiplier:	1
Discretisation width:	0.01°
Lower acceptance limit:	0°
Upper acceptance limit:	360°

Data after processing

Number of rejected speed readings:	0
Number of rejected direction readings:	0
Number of rejected data pairs:	0 (0.0%)
Number of accepted data pairs:	61189 (100.0%)
Number of calms:	153 (0.25%)

Processed data ranges

Minimum speed:	0.0 m/s
Maximum speed:	15.0 m/s
Minimum direction:	0°

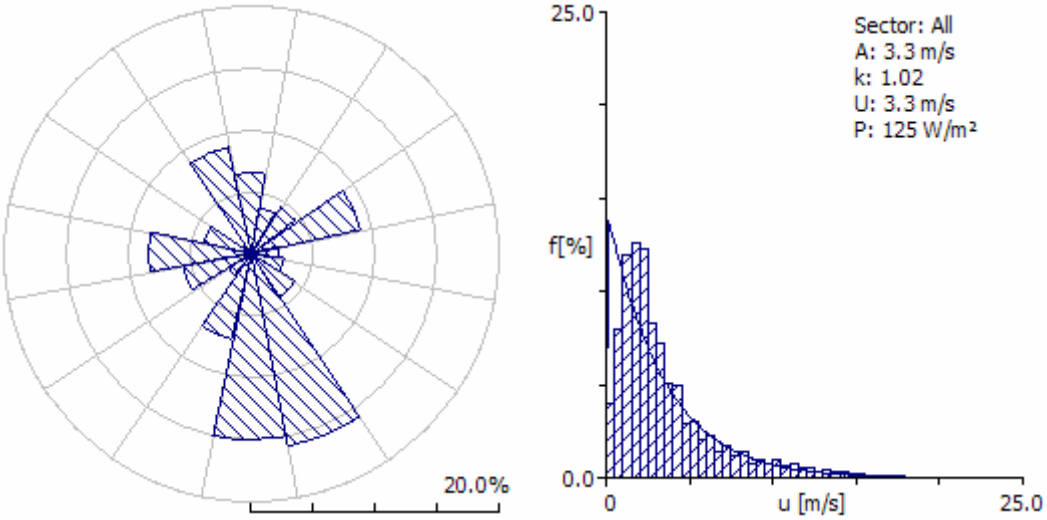
maximum direction: 338°

'VRSAC' Observed Wind Climate

Report produced by WAsP OWC Wizard (version 2.0.66), on Thursday, 30 October, 2008 at 13:37:34

Site description: 'VRSAC'; position: 21.30611°N 45.14472°E; anemometer height: 10 m.

-	Unit	Measured	Weibull-fit	Discrepancy
Mean wind speed	m/s	3.60	3.28	8.77%
Mean power density	W/m²	126.41	124.54	1.48%



-	0	22.5	45	67.5	90	112.5	135	157.5	180	202.5	225	247.5	270	292.5	315	337.5	Total
A	3.0	2.3	2.1	1.9	1.6	2.0	9.5	8.8	4.4	2.8	2.4	2.4	2.5	2.9	2.3	2.8	3.3
k	1.67	1.81	1.63	1.64	1.45	1.01	2.47	2.18	2.09	1.87	1.20	1.45	1.57	1.72	1.69	1.87	1.02
U	2.64	2.03	1.89	1.71	1.44	1.98	8.44	7.76	3.92	2.49	2.27	2.14	2.29	2.61	2.09	2.5	3.28
P	26	11	10	7	5	28	587	503	68	19	29	17	19	24	13	20	125
Freq	7	4	4	9	2	3	4	16	15	7	2	6	8	4	1	9	100

U	0	22.5	45	67.5	90	112.5	135	157.5	180	202.5	225	247.5	270	292.5	315	337.5	Total
0.01	12	20	17	8	35	29	19	5	5	11	34	14	9	19	83	9	12
0.51	33	75	69	86	144	89	12	7	19	21	38	44	61	35	55	30	40
1.01	62	110	134	169	193	167	19	16	43	67	100	98	107	74	111	73	79
1.51	128	169	203	220	247	189	26	22	61	113	172	176	152	137	166	125	120
2.01	138	173	189	209	174	158	18	26	79	157	192	202	164	132	120	146	126
2.51	160	181	153	133	102	103	28	29	93	188	209	182	138	142	189	172	122
3.01	119	111	90	76	40	43	17	26	84	135	108	103	96	103	82	115	83
3.51	94	64	58	41	26	53	29	34	89	125	67	70	89	103	80	111	73
4.01	67	41	34	23	14	39	23	31	80	73	35	40	54	68	27	77	51
4.51	67	25	25	17	10	26	35	43	97	52	14	29	47	68	48	66	50
5.01	34	8	12	7	8	20	21	35	64	24	7	13	27	39	14	27	29

5.51	27	10	8	4	5	15	43	49	74	15	7	7	21	31	11	23	30
6.01	16	5	2	3	1	11	19	40	54	7	4	5	14	15	5	10	21
6.51	15	3	4	1	2	12	56	57	48	7	0	6	10	15	5	7	23
7.01	10	3	0	1	1	9	23	41	28	1	0	2	3	6	2	4	14
7.51	9	1	1	0	0	9	59	52	34	3	1	2	3	5	0	3	18
8.01	4	0	0	0	0	7	34	44	18	1	0	1	2	2	0	2	12
8.51	3	1	0	0	1	7	55	54	16	1	1	2	2	3	0	1	14
9.01	1	0	0	0	0	2	30	33	6	0	1	0	0	1	0	0	7
9.51	0	0	0	0	0	2	49	43	4	0	0	0	0	0	0	0	10
10.01	0	0	0	0	0	1	36	38	2	0	0	0	0	0	0	0	8
10.51	0	0	0	0	0	1	52	45	2	0	0	1	0	0	0	0	9
11.01	0	0	0	0	0	1	29	34	0	0	0	0	0	0	2	0	7
11.51	0	0	0	0	0	1	48	32	0	0	0	0	0	0	0	0	7
12.01	0	0	0	0	0	2	34	26	0	0	1	0	0	0	0	0	6
12.51	0	0	0	0	0	1	38	27	0	0	0	0	0	0	0	0	6
13.01	0	0	0	0	0	0	22	16	0	0	3	0	0	0	0	0	3
13.51	0	0	0	0	0	0	21	20	0	0	1	0	0	0	0	0	4
14.01	0	0	0	0	0	0	17	15	0	0	1	1	0	0	0	0	3
14.51	0	0	0	0	0	0	23	13	0	0	1	0	0	0	0	0	3
15.01	0	0	0	0	0	0	15	9	0	0	1	0	0	0	0	0	2
15.51	0	0	0	0	0	0	19	9	0	0	1	0	0	0	0	0	2
16.01	0	0	0	0	0	0	13	5	0	0	1	0	0	0	0	0	1
16.51	0	0	0	0	0	0	12	6	0	0	0	0	0	0	0	0	2
17.01	0	0	0	0	0	0	3	4	0	0	0	0	0	0	0	0	1
17.51	0	0	0	0	0	0	4	4	0	0	1	0	0	0	0	0	1
18.01	0	0	0	0	0	0	0	3	0	0	0	0	0	0	0	0	0
18.51	0	0	0	0	0	0	0	3	0	0	0	0	0	0	0	0	0
19.01	0	0	0	0	0	0	1	2	0	0	0	0	0	0	0	0	0
19.51	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0
20.01	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0
20.51	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0
21.01	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
21.51	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
22.01	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
22.51	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
23.01	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
23.51	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
24.01	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
24.51	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

A (Weibull-A) and U (mean speed) are given in m/s, P (power density) in W/m² and F (frequencies of occurence) in per mille and per cent (total).

Source data summary - one data set was used.

The file and its contents

Source file name:	C:\Documents and Settings\Administrator\My Documents\Zlatica_wasp\Podaci.dat\VRSAC\VS_row_2001_07.dat
Date last modified:	30-Oct-08 13:09:55
Number of header rows identified:	0
Number of data elements per row:	3
Index of speed column:	2
Index of direction column:	3
Number of raw data pairs:	60942

Speed data adjustment and filtering

Adjustment offset:	0 m/s
Adjustment multiplier:	1
Discretisation width:	0.0 m/s
Lower acceptance limit:	0.0 m/s
Upper acceptance limit:	99.0 m/s
Calm threshold:	0.1 m/s

Direction data adjustment and filtering

Adjustment offset:	0°
Adjustment multiplier:	1
Discretisation width:	0.01°
Lower acceptance limit:	0°
Upper acceptance limit:	360°

Data after processing

Number of rejected speed readings:	0
Number of rejected direction readings:	0
Number of rejected data pairs:	0 (0.0%)
Number of accepted data pairs:	60942 (100.0%)
Number of calms:	741 (1.22%)

Processed data ranges

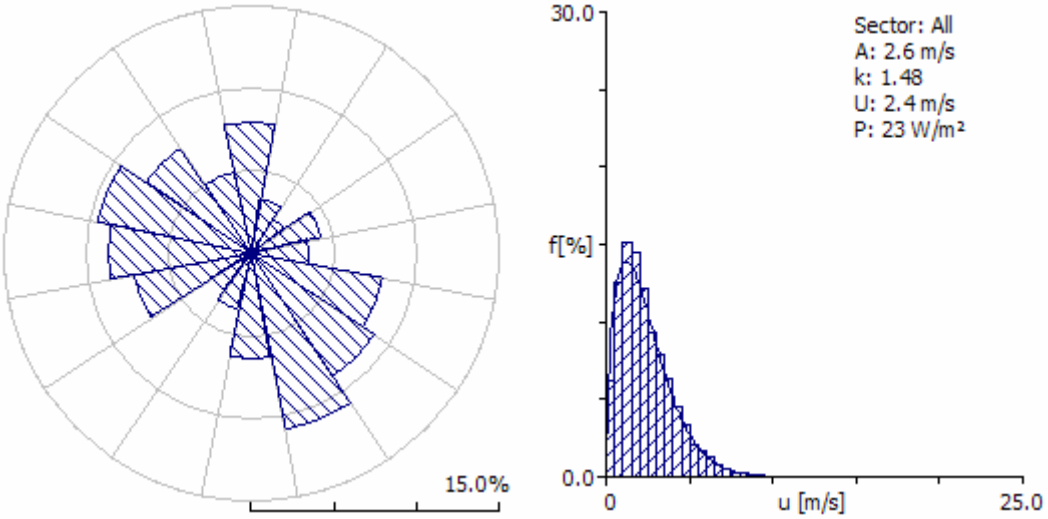
Minimum speed:	0.0 m/s
Maximum speed:	24.2 m/s
Minimum direction:	0°
Maximum direction:	338°

'ZRENJANIN' Observed Wind Climate

Report produced by WAsP OWC Wizard (version 2.0.66), on Thursday, 30 October, 2008 at 13:44:25

Site description: 'ZRENJANIN'**;** position: 20.37639°N 45.39889°E; anemometer height: 10 m.

-	Unit	Measured	Weibull-fit	Discrepancy
Mean wind speed	m/s	2.42	2.37	2.27%
Mean power density	W/m²	22.95	22.59	1.57%



-	0	22.5	45	67.5	90	112.5	135	157.5	180	202.5	225	247.5	270	292.5	315	337.5	Total
A	3.0	1.4	1.3	1.3	1.6	2.2	3.5	3.5	3.2	2.1	2.1	2.3	2.9	2.9	3.0	2.0	2.6
k	1.83	1.43	1.29	1.58	1.67	1.50	1.65	1.97	2.36	1.55	1.57	1.53	1.67	1.57	1.49	1.37	1.48
U	2.64	1.3	1.21	1.2	1.42	2.0	3.16	3.11	2.8	1.85	1.88	2.05	2.61	2.62	2.74	1.86	2.37
P	24	4	4	3	4	13	46	36	22	10	10	14	26	28	34	12	23
Freq	8	3	2	4	3	8	9	11	6	3	3	7	9	9	8	5	100

U	0	22.5	45	67.5	90	112.5	135	157.5	180	202.5	225	247.5	270	292.5	315	337.5	Total
0.01	4	9	12	7	9	4	3	3	5	9	11	4	3	3	4	6	5
0.51	48	180	219	169	100	45	32	25	22	58	77	48	40	53	66	92	63
1.01	75	257	296	297	231	160	71	67	46	159	147	107	88	106	114	192	125
1.51	112	234	174	255	269	198	98	100	89	208	191	190	132	143	114	189	152
2.01	141	147	133	143	168	172	112	114	129	197	195	208	147	129	123	151	145
2.51	143	77	85	78	106	129	118	110	152	138	131	164	130	114	113	109	122
3.01	121	45	31	30	63	86	101	105	145	86	93	89	109	94	92	82	93
3.51	103	25	20	10	35	71	95	110	152	47	57	64	87	84	81	54	79
4.01	82	12	12	4	13	47	79	101	100	40	34	47	78	76	81	41	64
4.51	60	6	10	3	4	31	57	77	69	22	27	26	56	59	52	32	45
5.01	44	4	6	2	1	23	55	58	44	14	18	17	45	45	40	22	34

5.51	21	2	1	0	2	13	43	37	19	11	9	12	26	32	29	7	21
6.01	16	1	0	1	0	11	34	32	14	6	4	8	22	21	27	7	17
6.51	14	0	0	0	0	8	30	24	6	3	3	7	14	14	18	6	12
7.01	8	0	0	0	0	2	24	16	5	1	2	4	9	8	15	3	8
7.51	5	0	0	0	0	1	16	10	1	1	2	1	6	5	9	5	5
8.01	3	0	0	0	0	0	8	6	1	0	0	1	3	6	7	1	3
8.51	1	0	1	0	0	0	9	4	1	0	0	0	2	2	6	0	2
9.01	0	0	0	0	0	0	7	1	0	0	0	1	1	1	3	0	1
9.51	0	0	0	0	0	0	4	1	0	0	0	0	1	1	1	0	1
10.01	0	0	0	0	0	0	1	0	0	0	0	0	0	0	1	0	0
10.51	0	0	0	0	0	0	1	0	0	0	0	0	0	1	1	0	0
11.01	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0
11.51	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12.01	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12.51	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
13.01	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
13.51	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
14.01	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
14.51	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
15.01	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
15.51	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
16.01	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
16.51	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
17.01	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
17.51	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
18.01	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
18.51	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
19.01	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
19.51	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
20.01	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
20.51	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
21.01	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
21.51	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
22.01	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
22.51	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
23.01	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
23.51	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
24.01	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
24.51	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

A (Weibull-A) and U (mean speed) are given in m/s, P (power density) in W/m² and F (frequencies of occurence) in per mille and per cent (total).

Source data summary - one data set was used.

The file and its contents

Source file name:	C:\Documents and Settings\Administrator\My Documents\Zlatica_wasp\Podaci.dat\ZRENJANIN\ZR_row_2001_07.dat
Date last modified:	30-Oct-08 13:10:06
Number of header rows identified:	0
Number of data elements per row:	3
Index of speed column:	2
Index of direction column:	3
Number of raw data pairs:	61269

Speed data adjustment and filtering

Adjustment offset:	0 m/s
Adjustment multiplier:	1
Discretisation width:	0.0 m/s
Lower acceptance limit:	0.0 m/s
Upper acceptance limit:	99.0 m/s
Calm threshold:	0.1 m/s

Direction data adjustment and filtering

Adjustment offset:	0°
Adjustment multiplier:	1
Discretisation width:	0.01°
Lower acceptance limit:	0°
Upper acceptance limit:	360°

Data after processing

Number of rejected speed readings:	0
Number of rejected direction readings:	0
Number of rejected data pairs:	0 (0.0%)
Number of accepted data pairs:	61269 (100.0%)
Number of calms:	293 (0.48%)

Processed data ranges

Minimum speed:	0.0 m/s
Maximum speed:	15.0 m/s
Minimum direction:	0°
Maximum direction:	338°

PRILOG 2

'IME MESTA' Wind atlas
'IME MESTA' Atlas vetra

U ovom prilogu dat atlas ekstrapolisanog vetra na 50 m iznad tla za sve stanice koje su obradjivane u Projektu:

1. Banatski Karlovac
2. Kikinda
3. Palić
4. Rimski Šančevi
5. Sombor
6. Sremska Mitrovica
7. Vršac
8. Zrenjanin

'IME MESTA' Wind atlas
Licenca

Reference conditions
Referentni uslovi

Wind atlas sadrži podatke za 4 refentne aerodinamičke klase hrapavosti terena (0.000 m, 0.030 m, 0.100 m, 0.400 m) i 5 referentnih visina (10 m, 25 m, 50 m, 100 m, 200 m) iznad nivoa tla. Ruža Weibullovih parametara data je u 16 pravaca.

Prva tabela predstavlja sumarni izvetaj za svih 16 pravaca.
Potom sledi naziv projekta iz kog su uzimani parametri za Wind atlas. Svi parametri uradjeni u ovom projektu prihvatili su WASP standardne vrednosti.

Posle sumarnog izveštaja za svaku klasu hrapavosti terena data je frekvenca vetra po pravcima i ruža Weibullovih parametara, na svih 5 referentnih visina.

'BKARLOVAC' Wind atlas

Produced on 13-Dec-08 at 18:57:29 by licenced user: Educational Licence 1, Faculty of Technical Sciences, Serbia using WAsP version: 9.00.0133.

Reference conditions

The wind atlas contains data for 4 reference roughness lengths (0.000 m, 0.030 m, 0.100 m, 0.400 m) and 5 reference heights (10 m, 25 m, 50 m, 100 m, 200 m) above ground level. The roses of Weibull parameters have 16 sectors each.

Regional wind climate summary

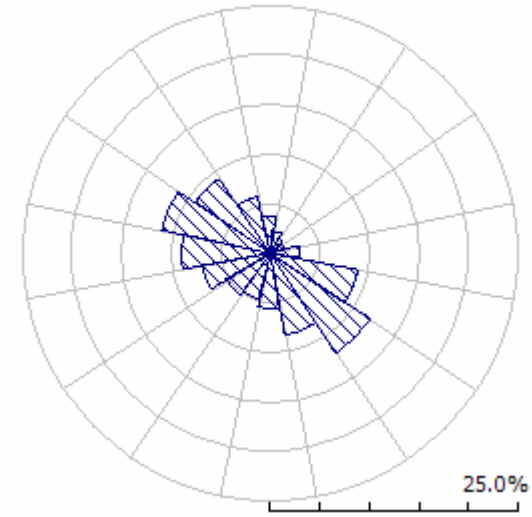
Height	Parameter	0.00 m	0.03 m	0.10 m	0.40 m
10.0 m	Weibull A [m/s] Weibull k Mean speed U [m/s] Power density E [W/m²]	6.10 1.78 5.43 213	4.19 1.54 3.77 86	3.65 1.55 3.28 56	2.88 1.56 2.58 27
25.0 m	Weibull A [m/s] Weibull k Mean speed U [m/s] Power density E [W/m²]	6.68 1.82 5.94 271	5.03 1.64 4.50 134	4.52 1.63 4.04 97	3.80 1.64 3.39 57
50.0 m	Weibull A [m/s] Weibull k Mean speed U [m/s] Power density E [W/m²]	7.18 1.87 6.37 326	5.83 1.80 5.19 183	5.31 1.78 4.72 140	4.59 1.76 4.09 92
100.0 m	Weibull A [m/s] Weibull k Mean speed U [m/s] Power density E [W/m²]	7.76 1.83 6.89 422	6.90 1.93 6.12 277	6.32 1.95 5.60 211	5.55 1.97 4.92 141
200.0 m	Weibull A [m/s] Weibull k Mean speed U [m/s] Power density E [W/m²]	8.52 1.76 7.59 586	8.48 1.89 7.53 528	7.72 1.90 6.85 396	6.73 1.94 5.97 258

Project parameters

The wind atlas is in a project called BANATSKI KARLOVAC.
Here is a list of all the parameters with non-default values:
All of the parameters in the project are default values.

Detailed descriptions

Wind rose for roughness length 0.00 m



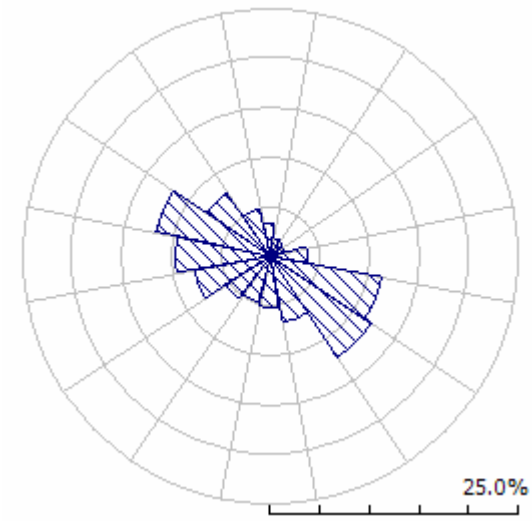
Sector frequencies for roughness length 0.00 m

Sector index	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Sector centre angle [°]	0	23	45	68	90	113	135	158	180	203	225	248	270	293	315	338
Frequency [%]	3.8	2.4	1.7	1.6	3.0	9.1	12.1	8.5	5.6	4.8	5.2	7.0	9.1	11.2	9.1	5.9

Sector-wise Weibull distributions table for roughness length 0.00 m

Height		1 0	2 23	3 45	4 68	5 90	6 113	7 135	8 158	9 180	10 203	11 225	12 248	13 270	14 293	15 315	16 338
10.0 m	A k U E	4.8 1.89 4.29 98	4.1 1.87 3.68 63	3.6 2.04 3.21 38	4.1 1.68 3.62 67	5.9 1.39 5.35 286	7.8 1.70 6.97 476	7.7 1.87 6.88 410	7.4 2.10 6.59 319	6.8 2.16 6.05 241	5.5 2.01 4.87 134	5.5 2.23 4.83 119	5.9 2.40 5.27 146	5.6 2.28 4.98 129	5.5 2.21 4.85 121	5.3 2.17 4.68 111	5.2 2.04 4.60 112
25.0 m	A k U E	5.3 1.95 4.70 125	4.5 1.93 4.03 79	4.0 2.10 3.51 48	4.4 1.73 3.96 85	6.4 1.42 5.84 359	8.5 1.73 7.60 603	8.5 1.91 7.52 521	8.1 2.17 7.21 406	7.5 2.23 6.62 307	6.0 2.07 5.33 171	6.0 2.31 5.29 152	6.5 2.48 5.77 186	6.2 2.35 5.45 164	6.0 2.28 5.31 155	5.8 2.23 5.12 142	5.7 2.10 5.03 142
50.0 m	A k U E	5.7 2.00 5.05 151	4.9 1.98 4.33 96	4.3 2.16 3.77 58	4.8 1.78 4.25 102	6.9 1.46 6.25 424	9.1 1.78 8.12 710	9.1 1.96 8.05 621	8.7 2.22 7.75 493	8.0 2.29 7.11 372	6.5 2.13 5.72 207	6.4 2.37 5.69 185	7.0 2.54 6.19 227	6.6 2.41 5.86 200	6.4 2.34 5.70 188	6.2 2.29 5.50 172	6.1 2.16 5.41 172
100.0 m	A k U E	6.2 1.94 5.47 198	5.3 1.92 4.70 126	4.6 2.09 4.09 77	5.2 1.72 4.61 135	7.4 1.43 6.73 547	9.8 1.74 8.71 899	9.8 1.91 8.67 798	9.5 2.15 8.40 646	8.7 2.21 7.71 488	7.0 2.06 6.21 271	7.0 2.29 6.16 242	7.6 2.46 6.71 296	7.2 2.33 6.35 261	7.0 2.27 6.18 246	6.7 2.22 5.97 226	6.6 2.09 5.86 226
200.0 m	A k U E	6.8 1.83 6.05 284	5.8 1.82 5.19 181	5.1 1.98 4.52 109	5.7 1.63 5.10 195	8.0 1.37 7.34 757	10.6 1.69 9.45 1197	10.7 1.83 9.47 1091	10.5 2.04 9.28 918	9.6 2.10 8.52 692	7.7 1.95 6.86 387	7.7 2.17 6.81 343	8.4 2.33 7.42 417	7.9 2.21 7.02 369	7.7 2.15 6.83 349	7.4 2.10 6.60 320	7.3 1.98 6.48 321

Wind rose for roughness length 0.03 m



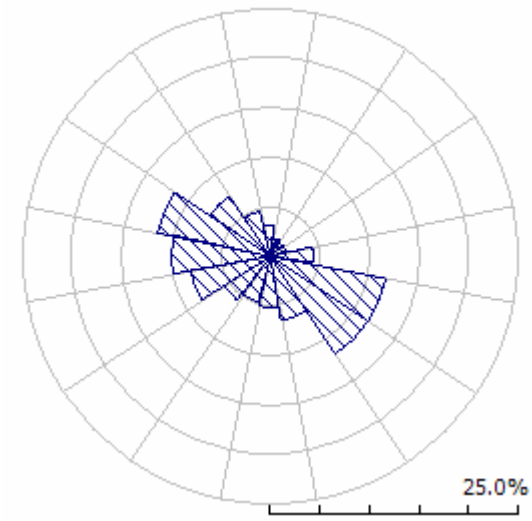
Sector frequencies for roughness length 0.03 m

Sector index	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Sector centre angle [°]	0	23	45	68	90	113	135	158	180	203	225	248	270	293	315	338
Frequency [%]	3.3	2.0	1.6	1.6	3.6	11.4	12.3	6.8	5.2	4.7	5.4	7.8	9.7	11.9	7.8	5.0

Sector-wise Weibull distributions table for roughness length 0.03 m

Height		**1 0**	**2 23**	**3 45**	**4 68**	**5 90**	**6 113**	**7 135**	**8 158**	**9 180**	**10 203**	**11 225**	**12 248**	**13 270**	**14 293**	**15 315**	**16 338**
10.0 m	A k U E	3.2 1.54 2.85 37	2.7 1.70 2.41 20	2.6 1.97 2.26 14	2.9 1.38 2.65 35	4.3 1.28 3.98 137	5.5 1.53 4.95 197	5.3 1.64 4.72 154	5.1 1.90 4.48 111	4.5 1.78 4.04 88	3.4 1.72 3.06 39	3.9 1.96 3.49 51	4.2 2.04 3.68 57	3.8 1.86 3.35 48	3.8 1.85 3.36 48	3.6 1.78 3.19 43	3.6 1.69 3.23 48
25.0 m	A k U E	3.8 1.67 3.41 57	3.2 1.83 2.89 31	3.1 2.12 2.71 22	3.5 1.49 3.17 54	5.1 1.35 4.72 207	6.5 1.60 5.84 303	6.3 1.75 5.61 239	6.1 2.05 5.37 177	5.5 1.92 4.84 138	4.1 1.85 3.66 62	4.7 2.12 4.18 81	5.0 2.20 4.41 92	4.5 2.01 4.01 75	4.5 2.00 4.02 76	4.3 1.92 3.81 67	4.3 1.83 3.86 74
50.0 m	A k U E	4.4 1.87 3.94 77	3.8 2.06 3.34 42	3.5 2.39 3.13 31	4.1 1.67 3.67 71	6.0 1.47 5.39 270	7.4 1.72 6.63 403	7.3 1.94 6.45 325	7.0 2.30 6.21 246	6.3 2.15 5.60 191	4.8 2.08 4.23 85	5.5 2.38 4.83 113	5.7 2.47 5.10 129	5.2 2.26 4.64 105	5.2 2.25 4.65 105	5.0 2.16 4.41 93	5.0 2.05 4.47 102
100.0 m	A k U E	5.3 1.99 4.68 121	4.5 2.19 3.96 67	4.2 2.54 3.72 49	4.9 1.78 4.36 111	7.0 1.57 6.26 383	8.6 1.85 7.64 567	8.5 2.07 7.57 491	8.3 2.45 7.37 393	7.5 2.29 6.64 303	5.7 2.22 5.02 134	6.5 2.53 5.74 181	6.8 2.63 6.06 207	6.2 2.40 5.51 167	6.2 2.39 5.52 168	5.9 2.30 5.24 148	6.0 2.18 5.31 161
200.0 m	A k U E	6.6 1.90 5.82 243	5.6 2.09 4.93 134	5.2 2.43 4.63 98	6.1 1.70 5.42 224	8.3 1.51 7.53 704	10.2 1.78 9.06 984	10.4 1.98 9.25 935	10.3 2.34 9.17 783	9.3 2.19 8.26 605	7.1 2.12 6.25 270	8.0 2.42 7.14 360	8.5 2.51 7.53 411	7.7 2.29 6.86 333	7.7 2.28 6.86 335	7.4 2.20 6.51 296	7.5 2.08 6.60 324

Wind rose for roughness length 0.10 m



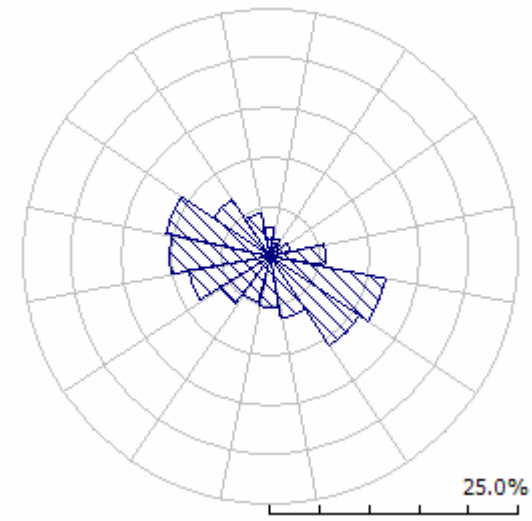
Sector frequencies for roughness length 0.10 m

Sector index	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Sector centre angle [°]	0	23	45	68	90	113	135	158	180	203	225	248	270	293	315	338
Frequency [%]	3.1	1.9	1.6	1.7	4.4	11.7	11.8	6.5	5.2	4.7	5.6	8.1	9.9	11.5	7.4	4.8

Sector-wise Weibull distributions table for roughness length 0.10 m

Height		**1 0**	**2 23**	**3 45**	**4 68**	**5 90**	**6 113**	**7 135**	**8 158**	**9 180**	**10 203**	**11 225**	**12 248**	**13 270**	**14 293**	**15 315**	**16 338**
10.0 m	A k U E	2.8 1.59 2.49 24	2.3 1.66 2.05 12	2.2 1.71 1.94 10	2.7 1.31 2.53 33	3.9 1.31 3.59 96	4.8 1.54 4.29 126	4.6 1.67 4.10 99	4.3 1.89 3.86 71	3.9 1.78 3.46 55	3.0 1.81 2.71 26	3.4 1.95 3.04 34	3.6 2.03 3.17 37	3.3 1.84 2.90 31	3.3 1.84 2.91 31	3.1 1.79 2.79 29	3.1 1.67 2.79 31
25.0 m	A k U E	3.4 1.70 3.07 41	2.8 1.78 2.53 22	2.7 1.83 2.39 18	3.4 1.40 3.12 56	4.8 1.37 4.39 162	5.8 1.61 5.24 216	5.7 1.77 5.04 171	5.4 2.02 4.76 125	4.8 1.90 4.27 96	3.8 1.94 3.34 45	4.2 2.09 3.75 59	4.4 2.17 3.92 65	4.0 1.97 3.57 54	4.0 1.97 3.59 55	3.9 1.91 3.44 50	3.9 1.79 3.44 54
50.0 m	A k U E	4.1 1.88 3.61 59	3.3 1.97 2.97 31	3.2 2.02 2.81 26	4.1 1.54 3.66 78	5.6 1.47 5.08 225	6.8 1.72 6.05 306	6.6 1.94 5.89 247	6.3 2.24 5.59 184	5.7 2.10 5.01 140	4.4 2.15 3.92 66	5.0 2.31 4.40 87	5.2 2.40 4.59 96	4.7 2.18 4.19 80	4.8 2.18 4.21 81	4.6 2.12 4.04 73	4.6 1.97 4.04 78
100.0 m	A k U E	4.9 2.06 4.30 90	4.0 2.16 3.54 48	3.8 2.22 3.35 40	4.9 1.69 4.36 117	6.6 1.61 5.94 315	7.9 1.88 7.04 434	7.9 2.13 6.97 373	7.5 2.46 6.66 289	6.7 2.31 5.97 218	5.3 2.36 4.67 103	5.9 2.54 5.25 138	6.2 2.64 5.48 153	5.6 2.39 5.00 125	5.7 2.39 5.02 126	5.4 2.33 4.81 114	5.4 2.17 4.82 121
200.0 m	A k U E	6.0 1.97 5.31 177	4.9 2.07 4.37 94	4.7 2.12 4.13 78	6.0 1.62 5.38 233	7.9 1.56 7.10 566	9.4 1.82 8.36 755	9.6 2.04 8.51 705	9.3 2.35 8.22 562	8.3 2.21 7.36 425	6.5 2.26 5.76 201	7.3 2.43 6.47 268	7.6 2.53 6.76 296	7.0 2.29 6.17 243	7.0 2.29 6.19 246	6.7 2.22 5.94 222	6.7 2.08 5.94 237

Wind rose for roughness length 0.40 m



Sector frequencies for roughness length 0.40 m

Sector index	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Sector centre angle [°]	0	23	45	68	90	113	135	158	180	203	225	248	270	293	315	338
Frequency [%]	2.9	1.9	1.6	2.1	5.6	11.9	10.9	6.3	5.1	4.8	6.0	8.4	10.3	10.9	6.9	4.5

Sector-wise Weibull distributions table for roughness length 0.40 m

Height		**1 0**	**2 23**	**3 45**	**4 68**	**5 90**	**6 113**	**7 135**	**8 158**	**9 180**	**10 203**	**11 225**	**12 248**	**13 270**	**14 293**	**15 315**	**16 338**
10.0 m	A k U E	2.1 1.51 1.89 11	1.9 1.87 1.69 6	1.9 1.81 1.67 6	2.3 1.26 2.18 23	3.2 1.37 2.95 49	3.7 1.57 3.34 58	3.6 1.71 3.22 47	3.4 1.88 2.98 33	2.9 1.75 2.62 24	2.4 1.82 2.17 13	2.7 2.02 2.43 17	2.8 2.01 2.46 17	2.6 1.87 2.29 15	2.6 1.87 2.29 15	2.5 1.79 2.20 14	2.5 1.69 2.19 15
25.0 m	A k U E	2.8 1.60 2.48 23	2.5 1.98 2.22 13	2.5 1.92 2.20 13	3.1 1.33 2.86 47	4.2 1.42 3.85 103	4.9 1.63 4.36 122	4.8 1.80 4.23 99	4.4 1.99 3.93 71	3.9 1.85 3.45 52	3.2 1.93 2.85 28	3.6 2.14 3.20 36	3.7 2.13 3.24 37	3.4 1.98 3.02 32	3.4 1.98 3.02 32	3.3 1.90 2.89 30	3.2 1.79 2.89 32
50.0 m	A k U E	3.4 1.73 3.00 37	3.0 2.15 2.68 21	3.0 2.08 2.66 21	3.8 1.44 3.46 73	5.1 1.51 4.61 161	5.8 1.73 5.21 194	5.7 1.95 5.10 159	5.4 2.16 4.74 116	4.7 2.01 4.16 84	3.9 2.10 3.44 46	4.4 2.33 3.86 59	4.4 2.31 3.91 61	4.1 2.15 3.64 53	4.1 2.15 3.64 53	3.9 2.06 3.49 48	3.9 1.94 3.49 51
100.0 m	A k U E	4.1 1.97 3.62 56	3.7 2.46 3.24 33	3.6 2.37 3.21 33	4.7 1.63 4.17 107	6.1 1.67 5.47 236	7.0 1.91 6.19 290	6.9 2.21 6.13 246	6.5 2.46 5.73 184	5.7 2.29 5.03 131	4.7 2.38 4.16 72	5.2 2.65 4.67 94	5.3 2.63 4.72 98	5.0 2.46 4.40 83	5.0 2.45 4.40 83	4.8 2.35 4.22 76	4.8 2.21 4.21 79
200.0 m	A k U E	5.0 1.90 4.42 107	4.5 2.37 3.96 62	4.4 2.28 3.92 62	5.7 1.58 5.10 206	7.3 1.64 6.54 410	8.3 1.89 7.38 500	8.4 2.13 7.46 456	7.9 2.37 6.99 344	6.9 2.21 6.14 247	5.7 2.30 5.08 135	6.4 2.56 5.70 176	6.5 2.54 5.76 183	6.1 2.37 5.37 156	6.1 2.36 5.37 156	5.8 2.26 5.15 143	5.8 2.13 5.14 150

'KIKINDA' Wind atlas

Produced on 13-Dec-08 at 18:23:37 by licenced user: Educational Licence 1, Faculty of Technical Sciences, Serbia using WAsP version: 9.00.0133.

Reference conditions

The wind atlas contains data for 4 reference roughness lengths (0.000 m, 0.030 m, 0.100 m, 0.400 m) and 5 reference heights (10 m, 25 m, 50 m, 100 m, 200 m) above ground level. The roses of Weibull parameters have 16 sectors each.

Regional wind climate summary

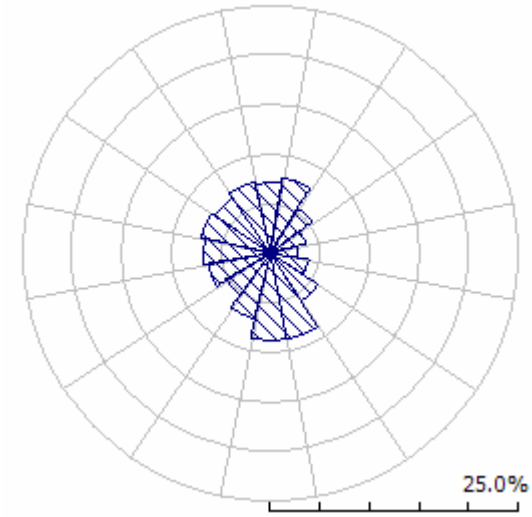
Height	Parameter	0.00 m	0.03 m	0.10 m	0.40 m
10.0 m	Weibull A [m/s] Weibull k Mean speed U [m/s] Power density E [W/m²]	4.45 1.87 3.95 77	3.08 1.63 2.76 31	2.69 1.64 2.41 21	2.12 1.65 1.90 10
25.0 m	Weibull A [m/s] Weibull k Mean speed U [m/s] Power density E [W/m²]	4.88 1.92 4.32 98	3.70 1.73 3.30 49	3.33 1.74 2.97 36	2.80 1.74 2.50 21
50.0 m	Weibull A [m/s] Weibull k Mean speed U [m/s] Power density E [W/m²]	5.24 1.97 4.65 119	4.30 1.90 3.82 69	3.93 1.88 3.49 53	3.40 1.87 3.02 35
100.0 m	Weibull A [m/s] Weibull k Mean speed U [m/s] Power density E [W/m²]	5.68 1.91 5.04 157	5.12 1.99 4.53 109	4.69 2.03 4.16 83	4.11 2.08 3.64 54
200.0 m	Weibull A [m/s] Weibull k Mean speed U [m/s] Power density E [W/m²]	6.26 1.83 5.57 222	6.36 1.92 5.64 218	5.78 1.96 5.13 161	5.02 2.02 4.45 102

Project parameters

The wind atlas is in a project called KIKINDA.
Here is a list of all the parameters with non-default values:
All of the parameters in the project are default values.

Detailed descriptions

Wind rose for roughness length 0.00 m



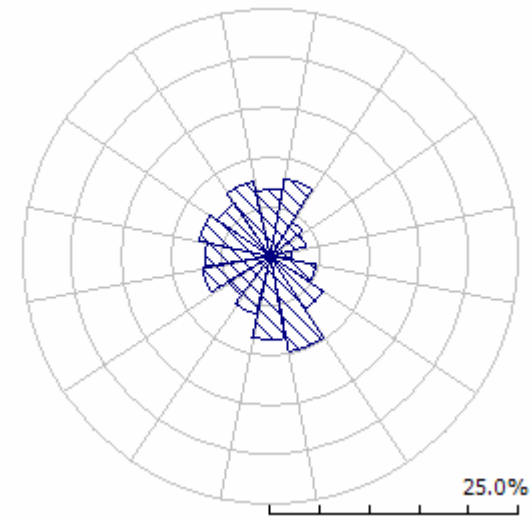
Sector frequencies for roughness length 0.00 m

Sector index	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Sector centre angle [°]	0	23	45	68	90	113	135	158	180	203	225	248	270	293	315	338
Frequency [%]	7.1	7.7	5.4	3.8	2.7	3.9	5.9	8.7	8.9	6.7	5.2	6.3	6.7	7.1	6.8	7.3

Sector-wise Weibull distributions table for roughness length 0.00 m

Height		1 0	2 23	3 45	4 68	5 90	6 113	7 135	8 158	9 180	10 203	11 225	12 248	13 270	14 293	15 315	16 338
10.0 m	A k U E	4.2 2.14 3.70 56	4.1 2.06 3.61 54	3.6 1.84 3.16 40	3.1 1.98 2.71 23	2.9 2.31 2.58 18	3.5 2.78 3.12 27	4.4 2.11 3.86 64	4.6 2.24 4.11 73	6.5 2.03 5.78 222	6.0 2.14 5.34 167	4.1 2.35 3.60 47	3.6 2.39 3.19 32	4.2 2.23 3.69 53	4.6 2.13 4.10 76	4.7 2.14 4.20 82	4.4 2.18 3.87 63
25.0 m	A k U E	4.6 2.21 4.05 71	4.5 2.12 3.96 68	3.9 1.90 3.46 51	3.3 2.04 2.97 30	3.2 2.39 2.83 23	3.8 2.87 3.42 35	4.8 2.18 4.22 81	5.1 2.31 4.50 94	7.1 2.10 6.32 283	6.6 2.21 5.84 213	4.4 2.42 3.94 60	3.9 2.47 3.49 41	4.6 2.30 4.04 68	5.1 2.19 4.49 97	5.2 2.21 4.60 104	4.8 2.25 4.24 80
50.0 m	A k U E	4.9 2.26 4.35 86	4.8 2.18 4.25 83	4.2 1.94 3.72 62	3.6 2.10 3.19 36	3.4 2.45 3.04 27	4.1 2.95 3.67 43	5.1 2.24 4.53 98	5.5 2.37 4.83 114	7.7 2.15 6.79 342	7.1 2.26 6.28 258	4.8 2.49 4.23 73	4.2 2.53 3.75 50	4.9 2.36 4.33 82	5.4 2.25 4.82 118	5.6 2.26 4.94 126	5.1 2.31 4.55 97
100.0 m	A k U E	5.3 2.19 4.72 113	5.2 2.11 4.61 109	4.5 1.88 4.03 81	3.9 2.03 3.45 48	3.7 2.38 3.29 36	4.5 2.85 3.98 56	5.5 2.17 4.91 129	5.9 2.29 5.24 149	8.3 2.08 7.36 449	7.7 2.19 6.81 338	5.2 2.41 4.58 96	4.6 2.46 4.07 66	5.3 2.28 4.70 108	5.9 2.18 5.23 155	6.1 2.19 5.36 165	5.6 2.24 4.94 127
200.0 m	A k U E	5.9 2.08 5.21 160	5.7 2.00 5.09 155	5.0 1.78 4.45 117	4.3 1.92 3.82 68	4.1 2.25 3.64 51	4.9 2.70 4.40 78	6.1 2.05 5.43 183	6.5 2.17 5.79 210	9.2 1.97 8.14 640	8.5 2.08 7.52 480	5.7 2.28 5.07 135	5.1 2.32 4.49 93	5.9 2.16 5.19 152	6.5 2.06 5.78 219	6.7 2.08 5.92 235	6.2 2.12 5.46 180

Wind rose for roughness length 0.03 m



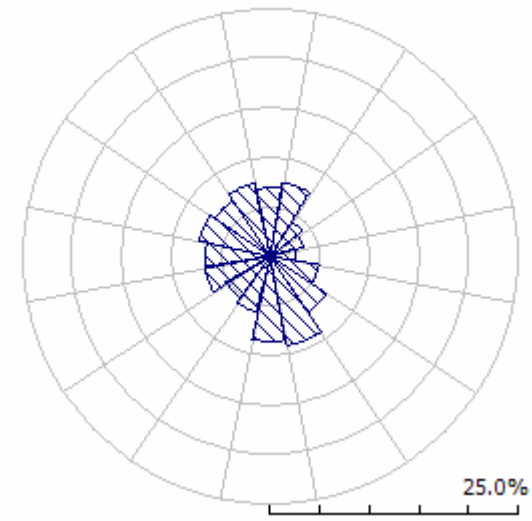
Sector frequencies for roughness length 0.03 m

Sector index	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Sector centre angle [°]	0	23	45	68	90	113	135	158	180	203	225	248	270	293	315	338
Frequency [%]	6.9	8.0	4.1	3.7	2.1	4.7	6.4	9.8	8.3	6.0	4.9	7.0	6.5	7.3	6.5	7.8

Sector-wise Weibull distributions table for roughness length 0.03 m

Height		**1 0**	**2 23**	**3 45**	**4 68**	**5 90**	**6 113**	**7 135**	**8 158**	**9 180**	**10 203**	**11 225**	**12 248**	**13 270**	**14 293**	**15 315**	**16 338**
10.0 m	A k U E	2.9 1.79 2.59 23	2.8 1.74 2.52 22	2.2 1.45 2.01 14	2.0 1.74 1.80 8	2.0 2.01 1.81 7	2.6 2.44 2.28 12	3.2 1.77 2.82 30	3.2 1.90 2.85 29	5.2 1.94 4.63 120	3.6 2.02 3.16 36	2.5 2.21 2.23 12	2.6 2.05 2.27 13	3.1 1.92 2.73 25	3.3 1.76 2.90 33	3.3 1.80 2.93 33	2.9 1.85 2.60 22
25.0 m	A k U E	3.5 1.94 3.09 36	3.4 1.88 3.01 34	2.7 1.56 2.40 22	2.4 1.88 2.15 12	2.4 2.17 2.17 11	3.1 2.64 2.72 19	3.8 1.91 3.37 47	3.9 2.05 3.41 45	6.3 2.10 5.54 190	4.3 2.18 3.78 58	3.0 2.39 2.67 19	3.1 2.22 2.71 21	3.7 2.07 3.27 40	3.9 1.90 3.46 51	4.0 1.95 3.51 52	3.5 2.00 3.11 35
50.0 m	A k U E	4.0 2.18 3.58 50	3.9 2.11 3.48 47	3.1 1.75 2.78 29	2.8 2.11 2.49 17	2.8 2.44 2.51 16	3.5 2.97 3.15 27	4.4 2.15 3.91 65	4.5 2.30 3.95 63	7.2 2.35 6.41 266	4.9 2.46 4.37 82	3.5 2.69 3.09 27	3.5 2.49 3.14 30	4.3 2.33 3.79 55	4.5 2.13 4.01 71	4.6 2.19 4.06 72	4.1 2.25 3.60 49
100.0 m	A k U E	4.8 2.32 4.25 79	4.7 2.24 4.13 74	3.7 1.87 3.30 45	3.3 2.24 2.96 27	3.4 2.59 2.98 25	4.2 3.16 3.74 44	5.2 2.29 4.64 103	5.3 2.46 4.69 101	8.6 2.51 7.61 425	5.8 2.61 5.19 131	4.1 2.86 3.67 44	4.2 2.65 3.73 48	5.1 2.48 4.49 88	5.4 2.28 4.76 112	5.4 2.33 4.82 114	4.8 2.39 4.28 78
200.0 m	A k U E	6.0 2.22 5.29 157	5.8 2.14 5.14 149	4.6 1.78 4.11 92	4.2 2.14 3.68 55	4.2 2.47 3.70 49	5.2 3.02 4.65 86	6.5 2.19 5.77 206	6.6 2.34 5.83 202	10.7 2.39 9.46 845	7.3 2.49 6.45 260	5.1 2.73 4.56 86	5.2 2.53 4.64 95	6.3 2.37 5.59 176	6.7 2.17 5.92 225	6.8 2.22 5.99 228	6.0 2.29 5.32 156

Wind rose for roughness length 0.10 m



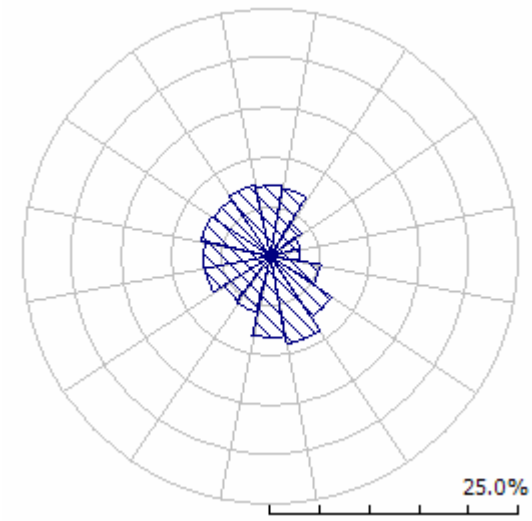
Sector frequencies for roughness length 0.10 m

Sector index	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Sector centre angle [°]	0	23	45	68	90	113	135	158	180	203	225	248	270	293	315	338
Frequency [%]	7.0	7.6	4.1	3.5	2.4	4.9	6.8	9.3	8.5	5.8	5.1	6.9	6.6	7.3	6.7	7.6

Sector-wise Weibull distributions table for roughness length 0.10 m

Height		**1 0**	**2 23**	**3 45**	**4 68**	**5 90**	**6 113**	**7 135**	**8 158**	**9 180**	**10 203**	**11 225**	**12 248**	**13 270**	**14 293**	**15 315**	**16 338**
10.0 m	A k U E	2.5 1.76 2.23 15	2.4 1.69 2.15 14	2.0 1.54 1.78 9	1.8 1.90 1.63 5	1.9 2.12 1.69 5	2.3 2.09 2.03 9	2.8 1.83 2.48 20	2.9 1.82 2.60 23	4.4 1.90 3.92 74	3.0 2.10 2.64 21	2.2 2.09 1.91 8	2.2 1.90 1.98 10	2.7 1.95 2.43 17	2.9 1.83 2.56 22	2.8 1.83 2.53 21	2.5 1.84 2.26 15
25.0 m	A k U E	3.1 1.88 2.75 26	3.0 1.81 2.66 24	2.5 1.64 2.20 16	2.3 2.04 2.02 9	2.4 2.28 2.08 9	2.8 2.24 2.50 16	3.5 1.96 3.06 34	3.6 1.95 3.20 40	5.5 2.04 4.84 130	3.7 2.25 3.26 36	2.7 2.24 2.36 14	2.8 2.03 2.44 17	3.4 2.08 3.00 30	3.6 1.96 3.16 38	3.5 1.96 3.12 36	3.2 1.97 2.80 26
50.0 m	A k U E	3.6 2.08 3.23 38	3.5 2.00 3.11 35	2.9 1.81 2.58 22	2.7 2.26 2.37 14	2.8 2.52 2.44 14	3.3 2.48 2.93 25	4.1 2.17 3.59 50	4.2 2.15 3.76 58	6.4 2.26 5.68 192	4.3 2.49 3.82 54	3.1 2.48 2.76 21	3.2 2.25 2.87 25	4.0 2.31 3.51 45	4.2 2.17 3.71 55	4.1 2.16 3.66 53	3.7 2.18 3.28 38
100.0 m	A k U E	4.3 2.29 3.85 59	4.2 2.19 3.71 55	3.5 1.99 3.08 34	3.2 2.48 2.82 22	3.3 2.77 2.91 22	3.9 2.72 3.50 39	4.8 2.38 4.28 79	5.1 2.37 4.48 91	7.6 2.48 6.77 302	5.1 2.74 4.56 86	3.7 2.72 3.30 33	3.9 2.47 3.42 39	4.7 2.53 4.19 70	5.0 2.38 4.42 87	4.9 2.38 4.37 84	4.4 2.39 3.91 60
200.0 m	A k U E	5.4 2.19 4.75 115	5.2 2.10 4.58 107	4.3 1.91 3.79 67	3.9 2.37 3.48 42	4.0 2.65 3.59 43	4.9 2.61 4.31 75	6.0 2.28 5.28 153	6.2 2.27 5.53 176	9.4 2.37 8.35 585	6.3 2.62 5.62 166	4.6 2.61 4.07 63	4.8 2.37 4.22 75	5.8 2.42 5.17 136	6.2 2.28 5.46 168	6.1 2.28 5.39 163	5.4 2.29 4.82 116

Wind rose for roughness length 0.40 m



Sector frequencies for roughness length 0.40 m

Sector index	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Sector centre angle [°]	0	23	45	68	90	113	135	158	180	203	225	248	270	293	315	338
Frequency [%]	7.2	6.9	4.0	3.2	2.9	5.1	7.4	9.0	8.2	5.7	5.5	6.7	6.7	7.2	6.9	7.5

Sector-wise Weibull distributions table for roughness length 0.40 m

Height		**1 0**	**2 23**	**3 45**	**4 68**	**5 90**	**6 113**	**7 135**	**8 158**	**9 180**	**10 203**	**11 225**	**12 248**	**13 270**	**14 293**	**15 315**	**16 338**
10.0 m	A k U E	2.0 1.80 1.76 7	1.9 1.74 1.70 7	1.6 1.68 1.44 4	1.5 1.99 1.32 3	1.6 2.30 1.42 3	1.9 1.99 1.68 6	2.2 1.79 1.92 9	2.5 1.73 2.21 15	3.3 1.85 2.96 33	2.2 1.95 1.96 9	1.8 2.26 1.56 4	1.9 2.02 1.66 5	2.1 1.84 1.89 9	2.2 1.76 1.98 11	2.2 1.77 1.93 10	2.0 1.85 1.79 7
25.0 m	A k U E	2.6 1.90 2.32 15	2.5 1.84 2.24 14	2.1 1.78 1.90 9	2.0 2.11 1.74 6	2.1 2.44 1.87 6	2.5 2.10 2.21 12	2.9 1.90 2.53 20	3.3 1.83 2.91 32	4.4 1.96 3.89 70	2.9 2.06 2.58 19	2.3 2.40 2.06 9	2.5 2.14 2.19 11	2.8 1.95 2.49 19	2.9 1.86 2.61 22	2.9 1.88 2.54 20	2.7 1.96 2.35 16
50.0 m	A k U E	3.2 2.07 2.80 25	3.1 2.00 2.71 23	2.6 1.94 2.29 15	2.4 2.29 2.10 9	2.5 2.65 2.26 11	3.0 2.29 2.66 20	3.5 2.06 3.06 32	4.0 1.99 3.51 51	5.3 2.13 4.70 114	3.5 2.24 3.11 32	2.8 2.61 2.48 14	3.0 2.33 2.64 19	3.4 2.12 3.01 30	3.6 2.02 3.15 36	3.5 2.04 3.06 33	3.2 2.13 2.84 25
100.0 m	A k U E	3.8 2.36 3.38 39	3.7 2.28 3.27 36	3.1 2.21 2.77 23	2.8 2.62 2.53 15	3.1 3.02 2.73 17	3.6 2.60 3.22 31	4.2 2.35 3.69 51	4.8 2.26 4.24 79	6.4 2.42 5.67 180	4.2 2.56 3.76 50	3.4 2.97 3.00 23	3.6 2.65 3.19 30	4.1 2.41 3.63 48	4.3 2.30 3.81 57	4.2 2.33 3.70 52	3.9 2.42 3.43 40
200.0 m	A k U E	4.7 2.27 4.13 73	4.5 2.19 3.99 68	3.8 2.12 3.38 43	3.5 2.52 3.09 28	3.7 2.91 3.33 32	4.4 2.51 3.93 58	5.1 2.26 4.51 96	5.8 2.18 5.18 149	7.8 2.33 6.93 339	5.2 2.46 4.59 94	4.1 2.86 3.66 43	4.4 2.56 3.89 56	5.0 2.33 4.44 89	5.2 2.22 4.65 107	5.1 2.24 4.52 97	4.7 2.33 4.19 75

'PALIC' Wind atlas

Produced on 13-Dec-08 at 14:38:00 by licenced user: Educational Licence 1, Faculty of Technical Sciences, Serbia using WAsP version: 9.00.0133.

Reference conditions

The wind atlas contains data for 4 reference roughness lengths (0.000 m, 0.030 m, 0.100 m, 0.400 m) and 5 reference heights (10 m, 25 m, 50 m, 100 m, 200 m) above ground level. The roses of Weibull parameters have 16 sectors each.

Regional wind climate summary

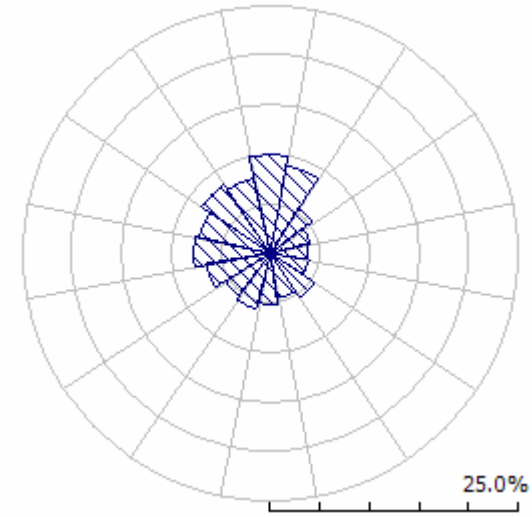
Height	Parameter	0.00 m	0.03 m	0.10 m	0.40 m
10.0 m	Weibull A [m/s] Weibull k Mean speed U [m/s] Power density E [W/m²]	4.61 1.70 4.12 98	3.18 1.49 2.87 40	2.75 1.49 2.49 26	2.20 1.54 1.98 13
25.0 m	Weibull A [m/s] Weibull k Mean speed U [m/s] Power density E [W/m²]	5.06 1.74 4.51 125	3.83 1.59 3.43 62	3.42 1.57 3.07 45	2.92 1.61 2.61 27
50.0 m	Weibull A [m/s] Weibull k Mean speed U [m/s] Power density E [W/m²]	5.44 1.78 4.84 151	4.46 1.74 3.97 86	4.04 1.70 3.60 66	3.54 1.72 3.15 43
100.0 m	Weibull A [m/s] Weibull k Mean speed U [m/s] Power density E [W/m²]	5.89 1.73 5.25 198	5.31 1.82 4.72 136	4.83 1.82 4.30 102	4.29 1.90 3.81 68
200.0 m	Weibull A [m/s] Weibull k Mean speed U [m/s] Power density E [W/m²]	6.49 1.66 5.80 283	6.59 1.76 5.86 271	5.95 1.76 5.30 200	5.23 1.85 4.65 128

Project parameters

The wind atlas is in a project called PALIC.
Here is a list of all the parameters with non-default values:
All of the parameters in the project are default values.

Detailed descriptions

Wind rose for roughness length 0.00 m



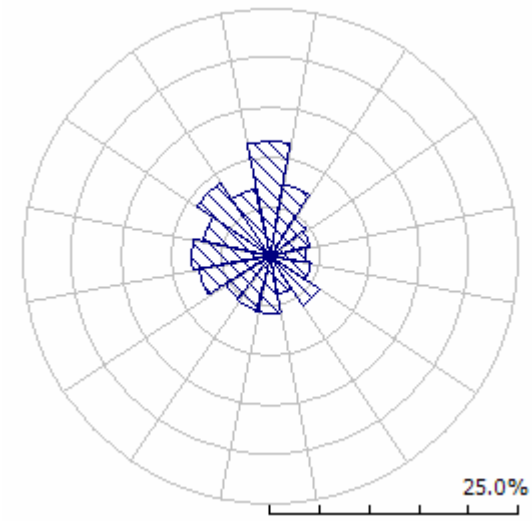
Sector frequencies for roughness length 0.00 m

Sector index	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Sector centre angle [°]	0	23	45	68	90	113	135	158	180	203	225	248	270	293	315	338
Frequency [%]	9.9	8.9	5.4	4.1	3.8	3.9	5.4	4.6	5.1	5.7	5.4	6.6	7.8	7.3	8.4	7.8

Sector-wise Weibull distributions table for roughness length 0.00 m

Height		1 0	2 23	3 45	4 68	5 90	6 113	7 135	8 158	9 180	10 203	11 225	12 248	13 270	14 293	15 315	16 338
10.0 m	A k U E	5.9 2.11 5.25 161	5.4 1.99 4.79 129	5.1 2.01 4.54 109	4.4 2.13 3.90 65	3.7 2.19 3.31 39	3.6 1.90 3.23 42	4.0 1.97 3.55 53	3.9 1.98 3.45 48	3.4 1.92 3.05 35	3.3 1.78 2.93 33	3.4 1.71 3.02 38	3.5 1.78 3.15 42	3.5 2.02 3.10 35	4.1 2.10 3.63 53	6.6 1.98 5.83 234	6.9 2.16 6.10 247
25.0 m	A k U E	6.5 2.17 5.74 205	5.9 2.06 5.25 164	5.6 2.08 4.97 138	4.8 2.21 4.27 83	4.1 2.26 3.62 50	4.0 1.96 3.54 53	4.4 2.03 3.89 68	4.3 2.04 3.77 62	3.8 1.98 3.34 44	3.6 1.83 3.20 42	3.7 1.77 3.31 49	3.9 1.84 3.45 53	3.8 2.08 3.40 44	4.5 2.17 3.97 68	7.2 2.04 6.38 298	7.5 2.23 6.68 315
50.0 m	A k U E	7.0 2.23 6.17 248	6.4 2.11 5.64 199	6.0 2.13 5.34 167	5.2 2.26 4.59 101	4.4 2.32 3.89 60	4.3 2.01 3.80 64	4.7 2.08 4.18 82	4.6 2.09 4.05 75	4.0 2.03 3.59 53	3.9 1.88 3.44 51	4.0 1.81 3.56 58	4.2 1.89 3.71 63	4.1 2.13 3.65 53	4.8 2.23 4.27 82	7.7 2.10 6.86 360	8.1 2.29 7.18 383
100.0 m	A k U E	7.6 2.16 6.69 325	6.9 2.04 6.11 261	6.5 2.06 5.79 220	5.6 2.19 4.97 132	4.8 2.24 4.22 79	4.6 1.95 4.12 84	5.1 2.02 4.53 108	5.0 2.03 4.39 98	4.4 1.97 3.89 70	4.2 1.82 3.73 67	4.3 1.76 3.86 77	4.5 1.83 4.02 84	4.5 2.07 3.96 70	5.2 2.15 4.63 108	8.4 2.03 7.43 473	8.8 2.22 7.78 500
200.0 m	A k U E	8.3 2.04 7.39 463	7.6 1.94 6.76 373	7.2 1.96 6.40 313	6.2 2.07 5.50 188	5.3 2.12 4.66 112	5.1 1.85 4.55 120	5.6 1.91 5.01 154	5.5 1.92 4.86 140	4.8 1.86 4.30 100	4.6 1.72 4.13 97	4.8 1.66 4.26 112	5.0 1.73 4.45 121	4.9 1.96 4.37 100	5.8 2.04 5.11 153	9.3 1.92 8.22 675	9.7 2.10 8.60 711

Wind rose for roughness length 0.03 m



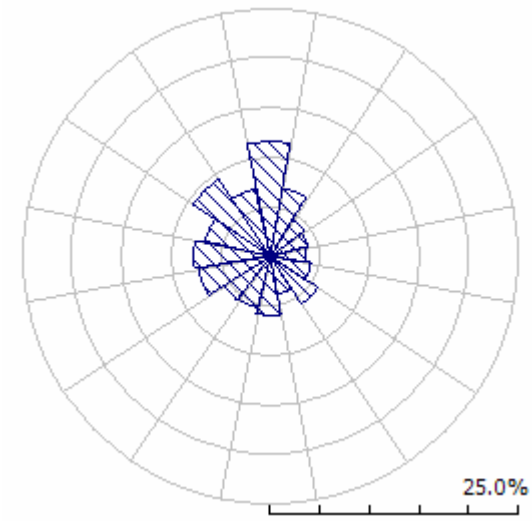
Sector frequencies for roughness length 0.03 m

Sector index	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Sector centre angle [°]	0	23	45	68	90	113	135	158	180	203	225	248	270	293	315	338
Frequency [%]	11.6	7.4	4.5	4.0	3.6	4.1	6.0	3.9	5.8	5.5	5.4	7.3	8.0	6.9	9.0	7.0

Sector-wise Weibull distributions table for roughness length 0.03 m

Height		**1 0**	**2 23**	**3 45**	**4 68**	**5 90**	**6 113**	**7 135**	**8 158**	**9 180**	**10 203**	**11 225**	**12 248**	**13 270**	**14 293**	**15 315**	**16 338**
10.0 m	A k U E	4.0 1.80 3.55 58	3.6 1.62 3.22 50	3.6 1.82 3.18 42	2.8 1.89 2.47 19	2.6 1.87 2.30 15	2.5 1.58 2.27 18	2.9 1.72 2.56 23	2.6 1.69 2.36 18	2.3 1.62 2.07 13	2.2 1.43 2.03 15	2.4 1.44 2.14 17	2.5 1.54 2.22 18	2.4 1.83 2.17 13	3.1 1.84 2.74 26	5.1 1.86 4.52 117	4.4 1.76 3.96 83
25.0 m	A k U E	4.8 1.94 4.25 92	4.3 1.74 3.85 78	4.3 1.96 3.80 66	3.3 2.04 2.95 30	3.1 2.01 2.76 24	3.0 1.71 2.71 28	3.4 1.86 3.06 36	3.2 1.83 2.82 29	2.8 1.74 2.48 21	2.7 1.54 2.42 23	2.9 1.55 2.56 27	3.0 1.66 2.66 27	2.9 1.98 2.60 21	3.7 1.98 3.28 42	6.1 2.01 5.41 185	5.3 1.90 4.73 131
50.0 m	A k U E	5.5 2.19 4.91 128	5.0 1.96 4.45 106	5.0 2.21 4.40 91	3.9 2.29 3.42 41	3.6 2.26 3.19 34	3.5 1.92 3.14 38	4.0 2.08 3.54 50	3.7 2.05 3.26 40	3.2 1.96 2.87 28	3.1 1.73 2.80 30	3.3 1.74 2.97 36	3.5 1.87 3.08 37	3.4 2.22 3.01 29	4.3 2.23 3.80 58	7.1 2.26 6.26 257	6.2 2.13 5.48 181
100.0 m	A k U E	6.6 2.33 5.83 203	6.0 2.09 5.29 166	5.9 2.35 5.23 145	4.6 2.44 4.06 66	4.3 2.41 3.79 54	4.2 2.04 3.73 60	4.7 2.22 4.21 79	4.4 2.19 3.87 63	3.8 2.08 3.41 45	3.7 1.84 3.33 47	4.0 1.85 3.52 56	4.1 1.98 3.65 58	4.0 2.37 3.57 46	5.1 2.37 4.51 92	8.4 2.40 7.43 409	7.3 2.27 6.51 287
200.0 m	A k U E	8.2 2.22 7.25 405	7.4 1.99 6.58 334	7.3 2.24 6.50 289	5.7 2.33 5.05 131	5.3 2.30 4.71 107	5.2 1.95 4.64 120	5.9 2.12 5.23 158	5.4 2.09 4.82 125	4.8 1.99 4.24 90	4.7 1.76 4.14 96	4.9 1.77 4.38 113	5.1 1.89 4.54 116	5.0 2.26 4.44 92	6.3 2.26 5.61 184	10.4 2.29 9.24 817	9.1 2.17 8.09 573

Wind rose for roughness length 0.10 m



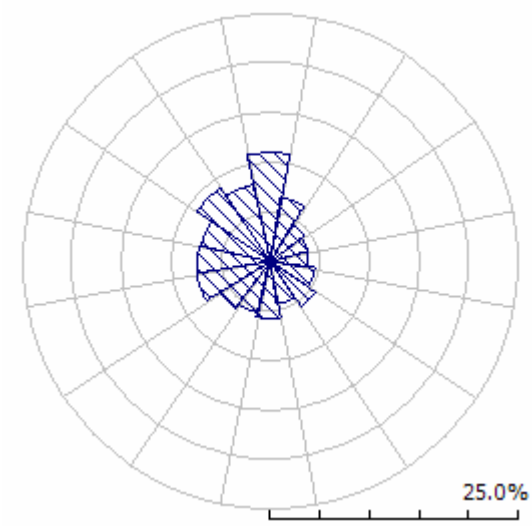
Sector frequencies for roughness length 0.10 m

Sector index	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Sector centre angle [°]	0	23	45	68	90	113	135	158	180	203	225	248	270	293	315	338
Frequency [%]	11.7	7.0	4.3	4.0	3.6	4.2	5.9	4.0	5.9	5.4	5.6	7.4	7.7	6.9	9.4	7.1

Sector-wise Weibull distributions table for roughness length 0.10 m

Height		**1 0**	**2 23**	**3 45**	**4 68**	**5 90**	**6 113**	**7 135**	**8 158**	**9 180**	**10 203**	**11 225**	**12 248**	**13 270**	**14 293**	**15 315**	**16 338**
10.0 m	A k U E	3.4 1.76 3.03 38	3.1 1.61 2.78 32	3.1 1.84 2.75 26	2.3 1.91 2.07 11	2.2 1.73 1.96 10	2.2 1.53 1.96 12	2.5 1.71 2.21 15	2.2 1.60 1.97 12	2.0 1.61 1.80 9	2.0 1.46 1.80 10	2.1 1.46 1.88 12	2.1 1.53 1.92 11	2.1 1.76 1.90 9	2.8 1.88 2.47 19	4.5 1.87 3.97 79	3.8 1.79 3.37 51
25.0 m	A k U E	4.2 1.88 3.74 65	3.8 1.72 3.43 56	3.8 1.97 3.39 46	2.9 2.04 2.56 19	2.7 1.85 2.42 18	2.7 1.63 2.42 21	3.1 1.83 2.73 26	2.7 1.71 2.43 20	2.5 1.72 2.22 15	2.5 1.56 2.22 17	2.6 1.56 2.32 20	2.6 1.64 2.37 20	2.6 1.89 2.34 16	3.4 2.01 3.05 33	5.5 1.99 4.90 138	4.7 1.92 4.17 88
50.0 m	A k U E	5.0 2.08 4.39 95	4.5 1.90 4.02 80	4.5 2.18 3.98 68	3.4 2.26 3.00 28	3.2 2.05 2.84 26	3.2 1.80 2.84 30	3.6 2.02 3.21 38	3.2 1.89 2.85 29	2.9 1.90 2.61 22	2.9 1.72 2.61 25	3.1 1.73 2.72 28	3.1 1.81 2.78 28	3.1 2.09 2.74 23	4.0 2.22 3.58 49	6.5 2.21 5.75 202	5.5 2.12 4.89 129
100.0 m	A k U E	5.9 2.29 5.24 149	5.4 2.09 4.80 124	5.4 2.40 4.74 106	4.0 2.49 3.58 44	3.8 2.25 3.38 41	3.8 1.98 3.38 46	4.3 2.22 3.82 59	3.8 2.08 3.40 44	3.5 2.09 3.11 34	3.5 1.88 3.11 37	3.7 1.90 3.25 42	3.7 1.99 3.32 43	3.7 2.29 3.27 36	4.8 2.44 4.27 76	7.7 2.42 6.85 318	6.6 2.33 5.83 202
200.0 m	A k U E	7.3 2.19 6.46 290	6.7 2.00 5.92 243	6.6 2.29 5.85 207	5.0 2.38 4.41 86	4.7 2.16 4.17 79	4.7 1.89 4.17 90	5.3 2.12 4.71 116	4.7 1.99 4.19 87	4.3 2.00 3.84 66	4.3 1.81 3.84 74	4.5 1.81 4.01 83	4.6 1.90 4.09 84	4.6 2.20 4.04 71	5.9 2.34 5.26 148	9.5 2.32 8.45 617	8.1 2.23 7.19 393

Wind rose for roughness length 0.40 m



Sector frequencies for roughness length 0.40 m

Sector index	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Sector centre angle [°]	0	23	45	68	90	113	135	158	180	203	225	248	270	293	315	338
Frequency [%]	10.9	6.5	4.3	3.9	3.7	4.6	5.5	4.4	5.9	5.4	5.9	7.5	7.5	7.1	9.0	7.9

Sector-wise Weibull distributions table for roughness length 0.40 m

Height		**1 0**	**2 23**	**3 45**	**4 68**	**5 90**	**6 113**	**7 135**	**8 158**	**9 180**	**10 203**	**11 225**	**12 248**	**13 270**	**14 293**	**15 315**	**16 338**
10.0 m	A k U E	2.7 1.81 2.41 18	2.5 1.67 2.21 16	2.3 1.81 2.08 12	1.8 1.92 1.64 5	1.8 1.82 1.58 5	1.8 1.68 1.65 6	2.0 1.75 1.76 7	1.8 1.72 1.57 5	1.7 1.71 1.47 4	1.6 1.55 1.47 5	1.7 1.56 1.52 6	1.7 1.67 1.55 5	1.8 1.86 1.60 5	2.4 1.65 2.15 14	3.4 1.85 3.06 36	2.9 1.79 2.58 23
25.0 m	A k U E	3.6 1.92 3.17 39	3.3 1.77 2.91 33	3.1 1.92 2.74 25	2.4 2.03 2.16 12	2.4 1.93 2.09 11	2.4 1.78 2.17 13	2.6 1.85 2.31 16	2.3 1.83 2.07 11	2.2 1.81 1.94 9	2.2 1.64 1.94 11	2.2 1.65 2.01 12	2.3 1.76 2.04 11	2.4 1.97 2.11 11	3.2 1.75 2.82 31	4.5 1.96 4.03 78	3.8 1.90 3.40 48
50.0 m	A k U E	4.3 2.09 3.83 63	4.0 1.92 3.51 53	3.7 2.08 3.31 41	2.9 2.21 2.61 19	2.8 2.10 2.52 18	2.9 1.93 2.61 22	3.1 2.01 2.79 25	2.8 1.98 2.50 18	2.6 1.97 2.34 15	2.6 1.78 2.34 17	2.7 1.79 2.42 19	2.8 1.92 2.46 18	2.9 2.14 2.54 18	3.8 1.90 3.41 49	5.5 2.13 4.86 126	4.6 2.06 4.10 78
100.0 m	A k U E	5.2 2.38 4.62 99	4.8 2.19 4.24 82	4.5 2.37 3.99 64	3.5 2.52 3.15 30	3.4 2.39 3.04 28	3.6 2.20 3.16 34	3.8 2.29 3.37 39	3.4 2.26 3.02 29	3.2 2.24 2.82 24	3.2 2.03 2.83 26	3.3 2.04 2.93 29	3.4 2.18 2.97 28	3.5 2.44 3.07 28	4.6 2.16 4.12 76	6.6 2.43 5.87 200	5.6 2.35 4.96 123
200.0 m	A k U E	6.4 2.29 5.64 185	5.9 2.11 5.18 155	5.5 2.28 4.88 120	4.3 2.42 3.84 56	4.2 2.30 3.71 53	4.4 2.12 3.86 63	4.6 2.21 4.11 74	4.2 2.17 3.68 54	3.9 2.16 3.45 45	3.9 1.96 3.45 49	4.0 1.96 3.57 54	4.1 2.10 3.63 53	4.2 2.35 3.75 53	5.7 2.08 5.03 143	8.1 2.34 7.17 374	6.8 2.26 6.05 231

Produced on 10-Dec-08 at 13:26:09 by licenced user: Educational Licence 1, Faculty of Technical Sciences, Serbia using WAsP version: 9.00.0133.

'RSANCEVI' Wind atlas

Produced on 13-Dec-08 at 19:33:23 by licenced user: Educational Licence 1, Faculty of Technical Sciences, Serbia using WAsP version: 9.00.0133.

Reference conditions

The wind atlas contains data for 4 reference roughness lengths (0.000 m, 0.030 m, 0.100 m, 0.400 m) and 5 reference heights (10 m, 25 m, 50 m, 100 m, 200 m) above ground level. The roses of Weibull parameters have 16 sectors each.

Regional wind climate summary

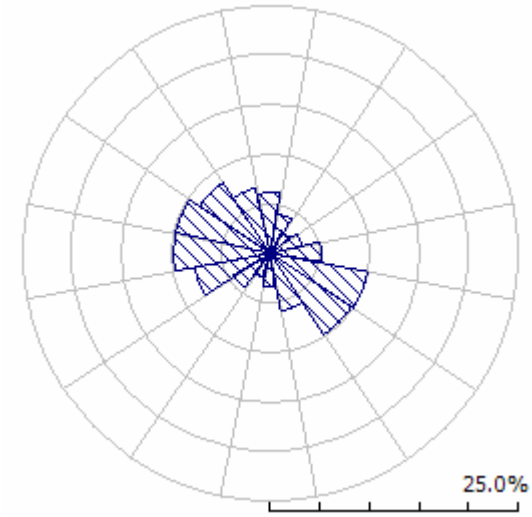
Height	Parameter	0.00 m	0.03 m	0.10 m	0.40 m
10.0 m	Weibull A [m/s] Weibull k Mean speed U [m/s] Power density E [W/m²]	4.17 1.52 3.76 87	2.86 1.33 2.63 37	2.50 1.34 2.30 24	2.00 1.37 1.83 12
25.0 m	Weibull A [m/s] Weibull k Mean speed U [m/s] Power density E [W/m²]	4.58 1.56 4.11 110	3.45 1.41 3.14 57	3.11 1.42 2.83 41	2.65 1.44 2.41 25
50.0 m	Weibull A [m/s] Weibull k Mean speed U [m/s] Power density E [W/m²]	4.93 1.60 4.42 131	4.03 1.55 3.63 76	3.69 1.54 3.32 59	3.22 1.54 2.90 39
100.0 m	Weibull A [m/s] Weibull k Mean speed U [m/s] Power density E [W/m²]	5.32 1.57 4.78 171	4.81 1.67 4.30 114	4.42 1.68 3.95 88	3.92 1.72 3.50 59
200.0 m	Weibull A [m/s] Weibull k Mean speed U [m/s] Power density E [W/m²]	5.85 1.52 5.28 240	5.94 1.65 5.32 220	5.44 1.66 4.86 166	4.78 1.71 4.26 108

Project parameters

The wind atlas is in a project called RSANCEVI.
Here is a list of all the parameters with non-default values:
All of the parameters in the project are default values.

Detailed descriptions

Wind rose for roughness length 0.00 m



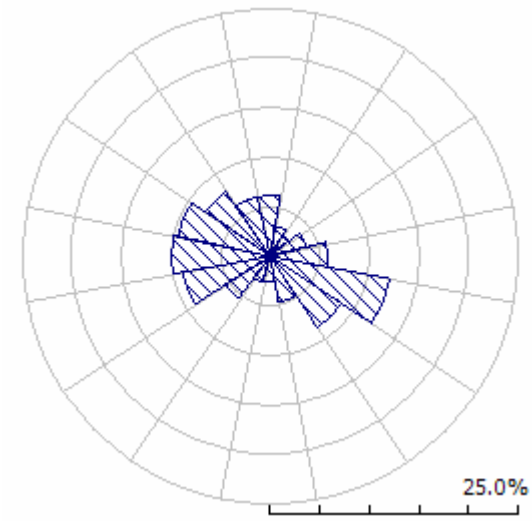
Sector frequencies for roughness length 0.00 m

Sector index	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Sector centre angle [°]	0	23	45	68	90	113	135	158	180	203	225	248	270	293	315	338
Frequency [%]	6.1	4.1	2.6	3.3	5.1	10.0	9.9	6.1	3.3	2.6	4.4	7.7	9.7	9.9	8.5	6.7

Sector-wise Weibull distributions table for roughness length 0.00 m

Height		**1 0**	**2 23**	**3 45**	**4 68**	**5 90**	**6 113**	**7 135**	**8 158**	**9 180**	**10 203**	**11 225**	**12 248**	**13 270**	**14 293**	**15 315**	**16 338**
10.0 m	A k U E	4.9 1.97 4.37 99	4.8 1.88 4.29 99	4.0 1.77 3.57 61	3.2 2.08 2.81 25	3.0 2.11 2.64 20	3.8 1.79 3.42 53	4.3 1.71 3.83 78	4.9 1.48 4.40 144	6.1 1.24 5.67 415	6.4 1.35 5.91 406	4.1 1.49 3.66 83	3.2 1.98 2.82 26	3.4 2.04 3.04 32	4.2 2.06 3.70 58	4.6 2.04 4.07 77	4.7 1.92 4.19 90
25.0 m	A k U E	5.4 2.04 4.78 126	5.3 1.94 4.70 125	4.4 1.82 3.90 77	3.5 2.14 3.07 32	3.3 2.18 2.89 26	4.2 1.84 3.74 67	4.7 1.76 4.19 99	5.3 1.53 4.82 182	6.6 1.26 6.17 521	7.0 1.37 6.44 514	4.5 1.54 4.01 104	3.5 2.04 3.08 34	3.8 2.11 3.33 41	4.6 2.13 4.05 73	5.0 2.10 4.45 99	5.2 1.97 4.58 114
50.0 m	A k U E	5.8 2.09 5.14 152	5.7 1.99 5.04 151	4.7 1.87 4.19 93	3.7 2.20 3.30 39	3.5 2.24 3.10 32	4.5 1.89 4.02 80	5.1 1.80 4.50 119	5.8 1.56 5.18 217	7.1 1.29 6.58 607	7.5 1.40 6.87 598	4.8 1.58 4.31 124	3.7 2.10 3.31 41	4.0 2.17 3.58 50	4.9 2.19 4.35 89	5.4 2.16 4.79 119	5.6 2.03 4.92 138
100.0 m	A k U E	6.3 2.03 5.57 200	6.2 1.92 5.47 199	5.1 1.81 4.55 122	4.0 2.13 3.58 51	3.8 2.17 3.37 41	4.9 1.83 4.36 106	5.5 1.75 4.88 158	6.2 1.52 5.61 289	7.6 1.28 7.04 759	8.1 1.38 7.36 751	5.2 1.53 4.67 165	4.1 2.03 3.59 53	4.4 2.10 3.88 65	5.3 2.12 4.72 117	5.9 2.09 5.19 157	6.0 1.96 5.34 181
200.0 m	A k U E	6.9 1.92 6.16 286	6.8 1.82 6.04 285	5.6 1.72 5.03 176	4.5 2.02 3.96 72	4.2 2.05 3.72 59	5.4 1.73 4.81 153	6.0 1.65 5.39 228	6.8 1.44 6.20 423	8.1 1.24 7.58 994	8.7 1.35 7.95 995	5.7 1.45 5.16 241	4.5 1.92 3.97 76	4.8 1.99 4.29 93	5.9 2.00 5.22 166	6.5 1.98 5.74 223	6.6 1.86 5.90 259

Wind rose for roughness length 0.03 m



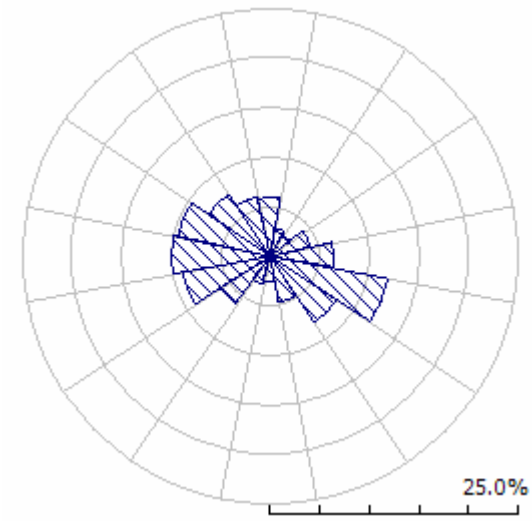
Sector frequencies for roughness length 0.03 m

Sector index	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Sector centre angle [°]	0	23	45	68	90	113	135	158	180	203	225	248	270	293	315	338
Frequency [%]	6.1	3.1	2.4	3.8	5.8	12.1	8.5	4.8	2.6	2.7	5.4	8.9	10.1	9.6	7.9	6.2

Sector-wise Weibull distributions table for roughness length 0.03 m

Height		**1 0**	**2 23**	**3 45**	**4 68**	**5 90**	**6 113**	**7 135**	**8 158**	**9 180**	**10 203**	**11 225**	**12 248**	**13 270**	**14 293**	**15 315**	**16 338**
10.0 m	A k U E	3.5 1.70 3.08 41	3.2 1.49 2.93 42	2.5 1.63 2.27 17	2.1 1.73 1.85 9	2.0 1.73 1.81 8	2.8 1.57 2.51 25	3.1 1.42 2.79 40	3.6 1.25 3.34 84	5.0 1.20 4.72 259	4.1 1.25 3.82 126	2.5 1.43 2.26 21	2.1 1.63 1.88 10	2.6 1.85 2.28 15	3.1 1.78 2.75 28	3.2 1.69 2.87 34	3.3 1.58 2.93 39
25.0 m	A k U E	4.1 1.83 3.68 64	3.9 1.60 3.50 65	3.1 1.77 2.72 27	2.5 1.87 2.22 14	2.4 1.87 2.17 13	3.4 1.69 3.01 38	3.7 1.53 3.34 61	4.4 1.35 4.00 126	5.9 1.23 5.53 394	4.9 1.33 4.53 189	3.0 1.54 2.70 32	2.5 1.76 2.25 15	3.1 1.99 2.73 24	3.7 1.92 3.29 43	3.9 1.83 3.44 52	3.9 1.70 3.51 61
50.0 m	A k U E	4.8 2.06 4.26 88	4.6 1.80 4.06 87	3.6 1.98 3.15 37	2.9 2.10 2.57 19	2.8 2.10 2.51 18	3.9 1.90 3.48 52	4.3 1.71 3.87 81	5.1 1.51 4.62 164	6.7 1.28 6.19 517	5.7 1.45 5.19 245	3.5 1.73 3.13 42	2.9 1.97 2.61 21	3.6 2.24 3.16 33	4.3 2.16 3.81 60	4.5 2.05 3.98 72	4.6 1.91 4.06 82
100.0 m	A k U E	5.7 2.19 5.06 139	5.4 1.91 4.82 137	4.2 2.11 3.74 58	3.4 2.24 3.05 30	3.4 2.23 2.98 28	4.7 2.02 4.13 82	5.2 1.83 4.59 125	6.1 1.60 5.49 251	7.6 1.36 6.97 657	6.7 1.55 6.04 351	4.2 1.84 3.71 65	3.5 2.10 3.09 33	4.2 2.38 3.75 53	5.1 2.30 4.52 95	5.3 2.19 4.73 114	5.4 2.04 4.82 129
200.0 m	A k U E	7.1 2.10 6.30 279	6.7 1.83 5.99 277	5.2 2.02 4.65 116	4.3 2.13 3.79 60	4.2 2.13 3.71 56	5.8 1.93 5.14 164	6.4 1.74 5.71 254	7.6 1.53 6.83 513	8.7 1.33 7.95 1016	8.1 1.49 7.31 656	5.2 1.76 4.61 133	4.3 2.01 3.85 66	5.3 2.28 4.67 105	6.3 2.19 5.62 190	6.6 2.09 5.88 228	6.8 1.94 6.00 260

Wind rose for roughness length 0.10 m



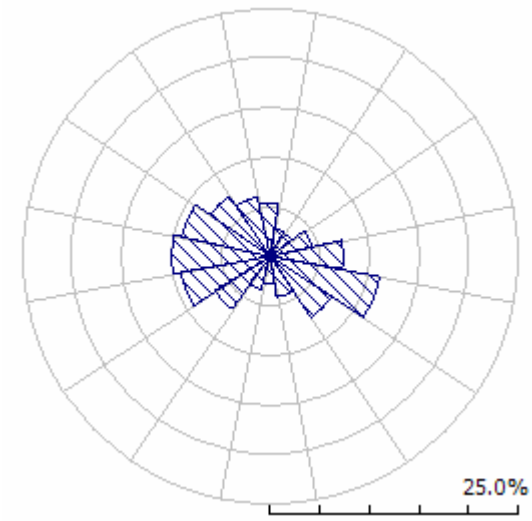
Sector frequencies for roughness length 0.10 m

Sector index	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Sector centre angle [°]	0	23	45	68	90	113	135	158	180	203	225	248	270	293	315	338
Frequency [%]	5.9	2.9	2.5	4.1	6.3	12.0	8.0	4.7	2.5	2.9	6.0	9.0	10.0	9.5	7.6	6.1

Sector-wise Weibull distributions table for roughness length 0.10 m

Height		**1 0**	**2 23**	**3 45**	**4 68**	**5 90**	**6 113**	**7 135**	**8 158**	**9 180**	**10 203**	**11 225**	**12 248**	**13 270**	**14 293**	**15 315**	**16 338**
10.0 m	A k U E	3.0 1.73 2.71 27	2.8 1.50 2.54 27	2.1 1.68 1.88 10	1.8 1.84 1.64 6	1.9 1.68 1.70 7	2.5 1.57 2.22 17	2.7 1.44 2.48 27	3.1 1.24 2.92 58	4.6 1.23 4.32 187	3.4 1.30 3.17 67	2.1 1.51 1.85 10	1.9 1.76 1.70 7	2.2 1.75 1.98 11	2.7 1.78 2.42 19	2.8 1.69 2.52 23	2.9 1.60 2.58 26
25.0 m	A k U E	3.8 1.85 3.34 47	3.5 1.60 3.13 47	2.6 1.79 2.32 16	2.3 1.97 2.03 10	2.4 1.79 2.10 12	3.1 1.68 2.75 30	3.4 1.54 3.06 46	3.9 1.32 3.61 96	5.6 1.26 5.23 318	4.3 1.38 3.91 113	2.5 1.62 2.28 18	2.4 1.88 2.10 12	2.8 1.87 2.44 18	3.4 1.91 2.99 33	3.5 1.81 3.11 39	3.6 1.71 3.18 45
50.0 m	A k U E	4.4 2.05 3.92 69	4.1 1.77 3.68 66	3.1 1.98 2.72 24	2.7 2.18 2.38 14	2.8 1.98 2.47 18	3.6 1.85 3.22 42	4.0 1.70 3.59 65	4.7 1.46 4.23 132	6.5 1.30 5.96 444	5.1 1.53 4.59 157	3.0 1.78 2.68 25	2.8 2.08 2.46 17	3.2 2.07 2.87 27	4.0 2.11 3.51 48	4.1 2.00 3.64 57	4.2 1.89 3.73 65
100.0 m	A k U E	5.3 2.25 4.68 107	4.9 1.94 4.38 101	3.7 2.18 3.25 37	3.2 2.39 2.83 23	3.3 2.18 2.94 27	4.3 2.04 3.84 65	4.8 1.87 4.29 99	5.6 1.60 5.04 196	7.4 1.38 6.78 588	6.1 1.67 5.47 234	3.6 1.96 3.19 39	3.3 2.29 2.94 26	3.9 2.28 3.42 42	4.7 2.32 4.18 75	4.9 2.20 4.35 88	5.0 2.07 4.45 100
200.0 m	A k U E	6.5 2.15 5.77 209	6.1 1.86 5.41 200	4.5 2.09 4.01 72	3.9 2.29 3.49 44	4.1 2.09 3.63 54	5.3 1.95 4.74 128	5.9 1.79 5.29 195	6.9 1.53 6.22 390	8.5 1.37 7.76 895	7.5 1.60 6.73 462	4.4 1.87 3.94 77	4.1 2.19 3.62 51	4.8 2.18 4.22 81	5.8 2.22 5.16 146	6.1 2.11 5.36 171	6.2 1.99 5.49 195

Wind rose for roughness length 0.40 m



Sector frequencies for roughness length 0.40 m

Sector index	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Sector centre angle [°]	0	23	45	68	90	113	135	158	180	203	225	248	270	293	315	338
Frequency [%]	5.4	2.8	2.8	4.4	7.4	11.3	7.4	4.1	2.6	3.5	6.5	9.1	9.9	9.2	7.3	6.1

Sector-wise Weibull distributions table for roughness length 0.40 m

Height		**1 0**	**2 23**	**3 45**	**4 68**	**5 90**	**6 113**	**7 135**	**8 158**	**9 180**	**10 203**	**11 225**	**12 248**	**13 270**	**14 293**	**15 315**	**16 338**
10.0 m	A k U E	2.4 1.70 2.12 13	2.1 1.45 1.91 12	1.6 1.77 1.47 4	1.5 1.88 1.31 3	1.7 1.67 1.48 5	2.0 1.57 1.79 9	2.2 1.38 1.98 15	2.6 1.27 2.42 31	3.5 1.23 3.28 82	2.3 1.26 2.18 23	1.7 1.77 1.47 4	1.6 1.91 1.45 4	1.9 1.92 1.69 6	2.1 1.77 1.91 9	2.2 1.66 1.98 11	2.3 1.60 2.03 13
25.0 m	A k U E	3.1 1.80 2.79 28	2.8 1.53 2.51 26	2.2 1.88 1.93 9	1.9 1.99 1.73 6	2.2 1.77 1.95 10	2.6 1.67 2.35 19	2.9 1.46 2.60 31	3.5 1.34 3.19 65	4.6 1.26 4.25 172	3.1 1.33 2.87 48	2.2 1.88 1.94 9	2.1 2.03 1.90 8	2.5 2.04 2.22 13	2.8 1.88 2.52 20	2.9 1.76 2.60 24	3.0 1.69 2.67 27
50.0 m	A k U E	3.8 1.96 3.37 46	3.4 1.66 3.03 40	2.6 2.04 2.33 15	2.4 2.17 2.08 10	2.7 1.92 2.36 16	3.2 1.81 2.84 30	3.5 1.58 3.14 48	4.2 1.45 3.85 100	5.4 1.29 5.02 269	3.8 1.44 3.47 74	2.6 2.04 2.34 15	2.6 2.21 2.30 13	3.0 2.21 2.68 21	3.4 2.04 3.04 32	3.5 1.91 3.14 38	3.6 1.84 3.23 43
100.0 m	A k U E	4.6 2.22 4.07 71	4.1 1.89 3.66 61	3.2 2.33 2.81 23	2.8 2.47 2.52 16	3.2 2.19 2.85 25	3.9 2.06 3.43 46	4.3 1.80 3.79 72	5.2 1.65 4.65 147	6.4 1.36 5.85 389	4.7 1.63 4.19 108	3.2 2.32 2.83 23	3.1 2.51 2.77 21	3.6 2.52 3.24 33	4.1 2.33 3.67 50	4.3 2.18 3.79 59	4.4 2.09 3.89 66
200.0 m	A k U E	5.6 2.15 4.97 134	5.0 1.82 4.47 115	3.9 2.24 3.44 43	3.5 2.38 3.07 29	3.9 2.11 3.48 47	4.7 1.98 4.19 87	5.2 1.74 4.63 136	6.3 1.59 5.67 280	7.4 1.38 6.80 594	5.7 1.58 5.11 207	3.9 2.24 3.45 43	3.8 2.42 3.39 38	4.5 2.43 3.95 61	5.1 2.24 4.48 95	5.2 2.10 4.63 111	5.4 2.01 4.76 125

'SOMBOR' Wind atlas

Produced on 13-Dec-08 at 17:51:06 by licenced user: Educational Licence 1, Faculty of Technical Sciences, Serbia using WAsP version: 9.00.0133.

Reference conditions

The wind atlas contains data for 4 reference roughness lengths (0.000 m, 0.030 m, 0.100 m, 0.400 m) and 5 reference heights (10 m, 25 m, 50 m, 100 m, 200 m) above ground level. The roses of Weibull parameters have 16 sectors each.

Regional wind climate summary

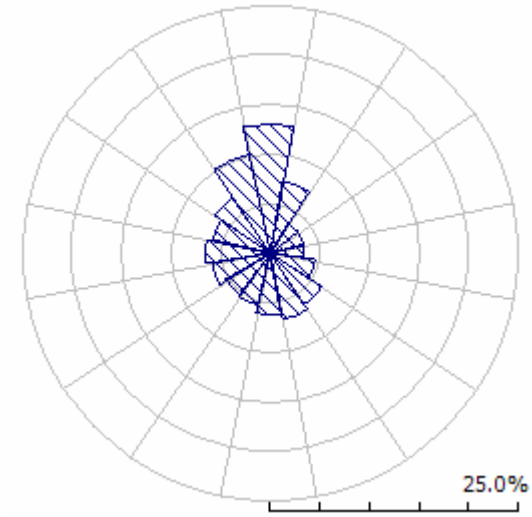
Height	Parameter	0.00 m	0.03 m	0.10 m	0.40 m
10.0 m	Weibull A [m/s] Weibull k Mean speed U [m/s] Power density E [W/m²]	4.46 1.72 3.98 87	3.05 1.47 2.76 36	2.66 1.48 2.41 24	2.11 1.51 1.90 11
25.0 m	Weibull A [m/s] Weibull k Mean speed U [m/s] Power density E [W/m²]	4.89 1.76 4.36 111	3.68 1.58 3.31 56	3.31 1.57 2.97 41	2.79 1.59 2.51 24
50.0 m	Weibull A [m/s] Weibull k Mean speed U [m/s] Power density E [W/m²]	5.26 1.81 4.68 134	4.29 1.74 3.82 76	3.91 1.71 3.48 59	3.39 1.71 3.03 39
100.0 m	Weibull A [m/s] Weibull k Mean speed U [m/s] Power density E [W/m²]	5.70 1.76 5.07 176	5.11 1.83 4.54 120	4.68 1.85 4.15 91	4.12 1.91 3.65 60
200.0 m	Weibull A [m/s] Weibull k Mean speed U [m/s] Power density E [W/m²]	6.28 1.67 5.61 253	6.34 1.77 5.65 241	5.76 1.79 5.12 178	5.02 1.85 4.46 113

Project parameters

The wind atlas is in a project called SOMBOR.
Here is a list of all the parameters with non-default values:
All of the parameters in the project are default values.

Detailed descriptions

Wind rose for roughness length 0.00 m



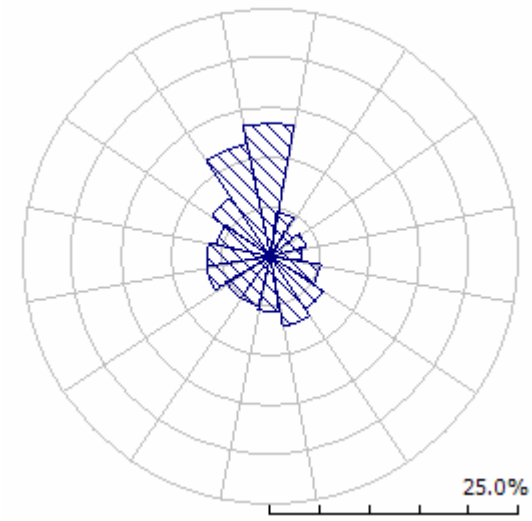
Sector frequencies for roughness length 0.00 m

Sector index	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Sector centre angle [°]	0	23	45	68	90	113	135	158	180	203	225	248	270	293	315	338
Frequency [%]	13.0	7.4	3.5	3.5	3.4	4.5	6.1	6.8	6.3	5.3	5.2	6.0	6.5	5.9	6.7	10.1

Sector-wise Weibull distributions table for roughness length 0.00 m

Height		1 0	2 23	3 45	4 68	5 90	6 113	7 135	8 158	9 180	10 203	11 225	12 248	13 270	14 293	15 315	16 338
10.0 m	A k U E	5.2 1.98 4.62 117	4.3 1.81 3.82 72	3.1 1.56 2.75 33	3.0 1.69 2.69 28	3.5 1.79 3.12 40	4.0 1.66 3.55 65	4.2 1.68 3.72 74	3.7 1.56 3.34 59	4.5 1.73 4.03 90	3.9 1.69 3.49 60	3.3 1.90 2.93 31	3.6 1.98 3.17 38	4.3 2.19 3.81 60	5.2 2.13 4.63 109	6.3 2.13 5.58 192	5.8 1.96 5.12 160
25.0 m	A k U E	5.7 2.04 5.06 148	4.7 1.87 4.18 92	3.4 1.61 3.01 41	3.3 1.74 2.95 35	3.8 1.85 3.41 51	4.4 1.71 3.89 82	4.6 1.73 4.08 93	4.1 1.60 3.65 74	5.0 1.78 4.41 114	4.3 1.74 3.82 76	3.6 1.96 3.21 39	3.9 2.04 3.47 48	4.7 2.26 4.18 76	5.7 2.19 5.07 140	6.9 2.19 6.11 245	6.3 2.02 5.60 203
50.0 m	A k U E	6.1 2.10 5.43 179	5.1 1.92 4.49 111	3.6 1.65 3.23 49	3.6 1.78 3.17 42	4.1 1.89 3.67 61	4.7 1.76 4.18 99	4.9 1.78 4.38 112	4.4 1.65 3.92 88	5.3 1.83 4.74 137	4.6 1.79 4.10 91	3.9 2.01 3.45 48	4.2 2.10 3.73 58	5.1 2.32 4.49 92	6.1 2.25 5.44 169	7.4 2.25 6.56 296	6.8 2.08 6.02 246
100.0 m	A k U E	6.7 2.03 5.89 236	5.5 1.85 4.87 146	3.9 1.60 3.51 65	3.8 1.73 3.43 56	4.5 1.83 3.98 81	5.1 1.70 4.53 130	5.3 1.72 4.75 148	4.7 1.60 4.25 117	5.8 1.77 5.14 181	5.0 1.73 4.45 121	4.2 1.95 3.74 63	4.6 2.03 4.04 76	5.5 2.25 4.86 121	6.7 2.18 5.90 222	8.0 2.18 7.11 389	7.4 2.01 6.52 323
200.0 m	A k U E	7.3 1.92 6.51 337	6.0 1.76 5.38 210	4.3 1.52 3.87 95	4.2 1.64 3.79 80	4.9 1.74 4.39 116	5.6 1.61 5.01 189	5.9 1.63 5.25 214	5.2 1.51 4.70 171	6.4 1.68 5.68 262	5.5 1.64 4.92 174	4.7 1.85 4.13 90	5.0 1.92 4.47 109	6.1 2.13 5.38 171	7.4 2.06 6.52 315	8.9 2.06 7.86 551	8.1 1.90 7.21 461

Wind rose for roughness length 0.03 m



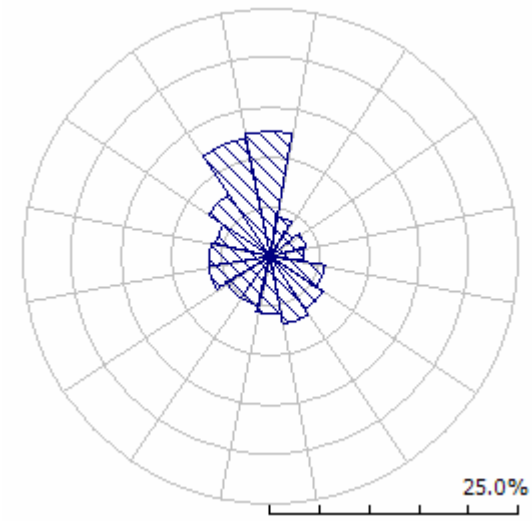
Sector frequencies for roughness length 0.03 m

Sector index	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Sector centre angle [°]	0	23	45	68	90	113	135	158	180	203	225	248	270	293	315	338
Frequency [%]	13.4	4.6	3.0	3.8	3.1	5.2	6.4	7.1	5.6	5.2	5.2	6.5	6.4	5.6	7.2	11.6

Sector-wise Weibull distributions table for roughness length 0.03 m

Height		**1 0**	**2 23**	**3 45**	**4 68**	**5 90**	**6 113**	**7 135**	**8 158**	**9 180**	**10 203**	**11 225**	**12 248**	**13 270**	**14 293**	**15 315**	**16 338**
10.0 m	A k U E	3.5 1.71 3.16 44	2.2 1.29 2.00 17	2.1 1.35 1.97 15	2.0 1.44 1.83 11	2.7 1.63 2.42 21	2.7 1.36 2.45 29	2.9 1.44 2.64 33	2.4 1.30 2.22 23	3.6 1.66 3.23 49	2.1 1.41 1.95 14	2.4 1.64 2.15 15	2.5 1.68 2.23 16	3.2 1.96 2.86 28	3.8 1.81 3.42 52	4.5 1.79 3.98 83	3.7 1.58 3.34 58
25.0 m	A k U E	4.3 1.85 3.78 69	2.6 1.39 2.39 26	2.6 1.45 2.36 23	2.4 1.55 2.19 17	3.3 1.76 2.90 33	3.2 1.46 2.93 44	3.5 1.56 3.16 50	2.9 1.40 2.66 35	4.3 1.79 3.86 76	2.6 1.52 2.33 21	2.9 1.77 2.57 23	3.0 1.81 2.67 25	3.9 2.12 3.42 44	4.6 1.95 4.09 82	5.4 1.93 4.76 131	4.5 1.71 4.00 89
50.0 m	A k U E	4.9 2.07 4.37 94	3.1 1.55 2.76 33	3.0 1.63 2.73 30	2.8 1.74 2.54 22	3.8 1.98 3.36 45	3.8 1.64 3.39 57	4.1 1.74 3.66 67	3.4 1.57 3.08 45	5.0 2.01 4.47 104	3.0 1.71 2.70 27	3.4 1.99 2.97 31	3.5 2.04 3.09 34	4.5 2.38 3.96 62	5.3 2.19 4.73 114	6.2 2.17 5.51 180	5.2 1.92 4.63 121
100.0 m	A k U E	5.9 2.21 5.19 149	3.7 1.65 3.28 51	3.6 1.73 3.24 47	3.4 1.85 3.01 35	4.5 2.11 3.98 70	4.5 1.74 4.03 89	4.9 1.86 4.35 104	4.1 1.67 3.66 70	6.0 2.14 5.31 164	3.6 1.81 3.20 43	4.0 2.12 3.53 49	4.1 2.17 3.67 53	5.3 2.54 4.70 99	6.3 2.34 5.62 180	7.4 2.31 6.54 286	6.2 2.04 5.49 190
200.0 m	A k U E	7.3 2.11 6.45 299	4.5 1.58 4.08 105	4.5 1.65 4.03 95	4.2 1.77 3.75 70	5.6 2.01 4.95 141	5.6 1.67 5.01 181	6.1 1.78 5.41 210	5.1 1.60 4.55 143	7.4 2.04 6.60 329	4.5 1.74 3.99 87	5.0 2.02 4.39 98	5.1 2.07 4.56 107	6.6 2.42 5.84 197	7.9 2.23 6.98 360	9.2 2.21 8.13 573	7.7 1.95 6.83 383

Wind rose for roughness length 0.10 m



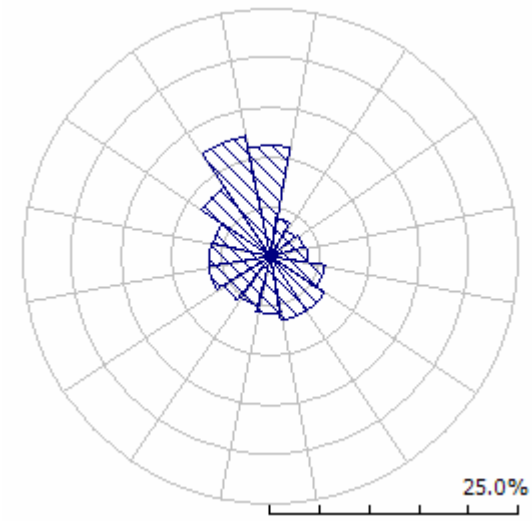
Sector frequencies for roughness length 0.10 m

Sector index	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Sector centre angle [°]	0	23	45	68	90	113	135	158	180	203	225	248	270	293	315	338
Frequency [%]	12.6	4.2	3.0	3.7	3.3	5.5	6.3	6.9	5.9	5.2	5.2	6.5	6.2	5.8	7.7	12.2

Sector-wise Weibull distributions table for roughness length 0.10 m

Height		**1 0**	**2 23**	**3 45**	**4 68**	**5 90**	**6 113**	**7 135**	**8 158**	**9 180**	**10 203**	**11 225**	**12 248**	**13 270**	**14 293**	**15 315**	**16 338**
10.0 m	A k U E	3.1 1.74 2.74 28	1.8 1.32 1.69 10	1.9 1.38 1.73 10	1.8 1.48 1.65 8	2.4 1.58 2.11 15	2.3 1.34 2.12 19	2.5 1.44 2.29 21	2.0 1.26 1.90 15	3.1 1.65 2.80 32	1.8 1.58 1.65 7	2.1 1.64 1.89 10	2.2 1.67 1.97 11	2.9 1.99 2.53 19	3.4 1.81 3.01 36	3.8 1.78 3.42 53	3.2 1.58 2.86 36
25.0 m	A k U E	3.8 1.86 3.38 49	2.3 1.41 2.08 17	2.4 1.47 2.13 17	2.3 1.58 2.04 13	2.9 1.69 2.61 25	2.9 1.43 2.62 32	3.1 1.54 2.82 36	2.6 1.34 2.35 26	3.9 1.77 3.45 55	2.3 1.69 2.04 12	2.6 1.75 2.33 17	2.7 1.79 2.43 19	3.5 2.12 3.13 34	4.2 1.94 3.72 62	4.8 1.90 4.23 93	4.0 1.69 3.53 62
50.0 m	A k U E	4.5 2.06 3.97 71	2.7 1.55 2.44 23	2.8 1.63 2.50 23	2.7 1.75 2.39 19	3.4 1.87 3.06 36	3.4 1.58 3.07 45	3.7 1.71 3.31 51	3.1 1.48 2.76 36	4.6 1.96 4.05 79	2.7 1.86 2.39 17	3.1 1.94 2.73 25	3.2 1.98 2.85 27	4.1 2.35 3.67 50	4.9 2.14 4.36 91	5.6 2.10 4.96 136	4.7 1.86 4.14 90
100.0 m	A k U E	5.3 2.26 4.73 111	3.3 1.71 2.91 35	3.3 1.79 2.98 35	3.2 1.92 2.85 28	4.1 2.05 3.65 55	4.1 1.73 3.66 67	4.4 1.87 3.95 77	3.7 1.62 3.29 53	5.5 2.15 4.83 123	3.2 2.04 2.85 27	3.7 2.13 3.26 38	3.8 2.17 3.40 43	4.9 2.58 4.37 79	5.9 2.35 5.20 142	6.7 2.31 5.91 212	5.6 2.04 4.94 138
200.0 m	A k U E	6.6 2.16 5.83 216	4.0 1.63 3.59 68	4.1 1.71 3.67 69	4.0 1.84 3.52 56	5.1 1.96 4.50 108	5.1 1.66 4.52 133	5.5 1.79 4.87 152	4.5 1.56 4.06 105	6.7 2.06 5.96 241	4.0 1.96 3.52 52	4.5 2.04 4.02 74	4.7 2.08 4.20 83	6.1 2.47 5.39 153	7.2 2.25 6.42 277	8.2 2.21 7.29 413	6.9 1.96 6.09 270

Wind rose for roughness length 0.40 m



Sector frequencies for roughness length 0.40 m

Sector index	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Sector centre angle [°]	0	23	45	68	90	113	135	158	180	203	225	248	270	293	315	338
Frequency [%]	11.1	3.9	3.2	3.5	3.7	5.6	6.5	6.6	5.8	5.2	5.5	6.4	6.1	6.0	8.4	12.4

Sector-wise Weibull distributions table for roughness length 0.40 m

Height		**1 0**	**2 23**	**3 45**	**4 68**	**5 90**	**6 113**	**7 135**	**8 158**	**9 180**	**10 203**	**11 225**	**12 248**	**13 270**	**14 293**	**15 315**	**16 338**
10.0 m	A k U E	2.3 1.68 2.10 13	1.5 1.35 1.35 5	1.5 1.41 1.35 4	1.5 1.53 1.38 4	1.8 1.54 1.66 7	1.9 1.40 1.72 9	1.9 1.43 1.75 10	1.8 1.40 1.67 9	2.3 1.56 2.06 14	1.5 1.65 1.37 4	1.7 1.77 1.53 5	1.9 1.77 1.65 6	2.3 1.88 2.03 10	2.7 1.82 2.43 19	2.9 1.73 2.57 23	2.5 1.60 2.24 17
25.0 m	A k U E	3.1 1.78 2.76 28	2.0 1.43 1.78 10	2.0 1.49 1.77 9	2.0 1.62 1.81 9	2.4 1.63 2.18 15	2.5 1.49 2.26 20	2.6 1.51 2.30 20	2.4 1.48 2.20 18	3.0 1.65 2.71 29	2.0 1.75 1.80 8	2.3 1.87 2.02 10	2.5 1.87 2.18 13	3.0 1.99 2.67 22	3.6 1.93 3.20 40	3.8 1.83 3.38 50	3.3 1.70 2.94 36
50.0 m	A k U E	3.8 1.93 3.33 45	2.4 1.55 2.14 16	2.4 1.62 2.14 15	2.5 1.76 2.19 14	3.0 1.76 2.64 25	3.0 1.61 2.73 31	3.1 1.64 2.78 32	3.0 1.61 2.66 28	3.7 1.79 3.27 46	2.4 1.90 2.17 13	2.8 2.03 2.44 17	3.0 2.03 2.63 21	3.6 2.17 3.22 36	4.4 2.10 3.86 64	4.6 1.99 4.08 80	4.0 1.85 3.55 57
100.0 m	A k U E	4.5 2.20 4.03 70	2.9 1.76 2.59 23	2.9 1.84 2.58 22	3.0 2.00 2.64 22	3.6 2.01 3.18 38	3.7 1.83 3.30 46	3.8 1.86 3.35 48	3.6 1.83 3.21 43	4.5 2.04 3.94 70	3.0 2.17 2.62 20	3.3 2.32 2.94 26	3.6 2.32 3.17 33	4.4 2.47 3.89 57	5.3 2.39 4.66 101	5.6 2.26 4.93 125	4.8 2.10 4.29 88
200.0 m	A k U E	5.6 2.12 4.92 132	3.5 1.70 3.16 44	3.5 1.77 3.15 42	3.6 1.93 3.23 41	4.4 1.94 3.89 71	4.5 1.76 4.03 88	4.6 1.79 4.10 90	4.4 1.76 3.92 81	5.4 1.97 4.82 133	3.6 2.09 3.20 37	4.1 2.23 3.59 49	4.4 2.23 3.87 61	5.4 2.38 4.75 107	6.4 2.30 5.69 190	6.8 2.18 6.02 235	5.9 2.03 5.24 166

'SMITROVICA' Wind atlas

Produced on 12-Dec-08 at 20:23:58 by licenced user: Educational Licence 1, Faculty of Technical Sciences, Serbia using WAsP version: 9.00.0133.

Reference conditions

The wind atlas contains data for 4 reference roughness lengths (0.000 m, 0.030 m, 0.100 m, 0.400 m) and 5 reference heights (10 m, 25 m, 50 m, 100 m, 200 m) above ground level. The roses of Weibull parameters have 16 sectors each.

Regional wind climate summary

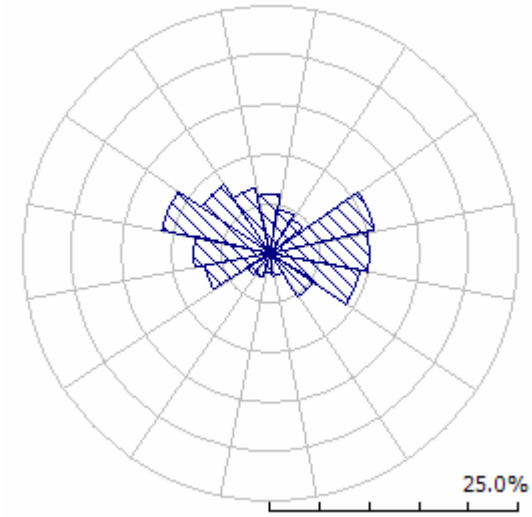
Height	Parameter	0.00 m	0.03 m	0.10 m	0.40 m
10.0 m	Weibull A [m/s] Weibull k Mean speed U [m/s] Power density E [W/m²]	4.53 1.66 4.05 96	3.09 1.42 2.81 40	2.71 1.44 2.46 26	2.14 1.46 1.94 13
25.0 m	Weibull A [m/s] Weibull k Mean speed U [m/s] Power density E [W/m²]	4.97 1.71 4.43 122	3.74 1.52 3.37 62	3.37 1.53 3.04 45	2.84 1.53 2.56 27
50.0 m	Weibull A [m/s] Weibull k Mean speed U [m/s] Power density E [W/m²]	5.35 1.74 4.76 147	4.36 1.69 3.90 84	3.99 1.67 3.57 65	3.45 1.65 3.09 43
100.0 m	Weibull A [m/s] Weibull k Mean speed U [m/s] Power density E [W/m²]	5.78 1.69 5.16 194	5.20 1.78 4.63 131	4.78 1.81 4.25 100	4.20 1.86 3.73 65
200.0 m	Weibull A [m/s] Weibull k Mean speed U [m/s] Power density E [W/m²]	6.37 1.62 5.71 279	6.45 1.71 5.75 265	5.89 1.75 5.24 196	5.12 1.79 4.55 124

Project parameters

The wind atlas is in a project called Project 1.
Here is a list of all the parameters with non-default values:
All of the parameters in the project are default values.

Detailed descriptions

Wind rose for roughness length 0.00 m



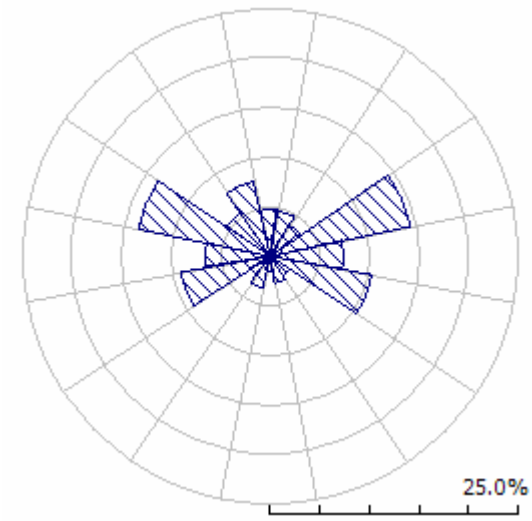
Sector frequencies for roughness length 0.00 m

Sector index	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Sector centre angle [°]	0	23	45	68	90	113	135	158	180	203	225	248	270	293	315	338
Frequency [%]	5.9	4.5	4.0	10.8	10.0	9.2	5.1	2.4	1.9	2.6	2.7	6.7	7.7	11.2	8.4	6.8

Sector-wise Weibull distributions table for roughness length 0.00 m

Height		1 0	2 23	3 45	4 68	5 90	6 113	7 135	8 158	9 180	10 203	11 225	12 248	13 270	14 293	15 315	16 338
10.0 m	A k U E	6.1 1.77 5.45 216	4.7 1.50 4.26 129	3.6 1.51 3.28 58	4.3 1.84 3.81 71	4.6 1.88 4.06 83	5.0 1.87 4.45 110	4.8 1.75 4.32 109	4.2 1.69 3.72 73	3.5 1.75 3.10 40	3.2 1.48 2.91 42	3.1 1.44 2.84 41	3.2 1.71 2.89 34	3.9 1.72 3.49 59	4.6 1.83 4.05 86	5.0 1.82 4.41 111	6.1 1.90 5.42 197
25.0 m	A k U E	6.7 1.83 5.97 274	5.2 1.54 4.66 161	4.0 1.55 3.59 73	4.7 1.90 4.17 89	5.0 1.94 4.45 106	5.5 1.93 4.87 140	5.3 1.80 4.72 138	4.6 1.74 4.08 92	3.8 1.81 3.39 51	3.5 1.53 3.19 52	3.4 1.48 3.11 51	3.6 1.76 3.16 43	4.3 1.78 3.82 74	5.0 1.89 4.44 109	5.4 1.88 4.82 140	6.7 1.96 5.93 250
50.0 m	A k U E	7.2 1.88 6.41 329	5.6 1.58 5.01 193	4.3 1.60 3.86 88	5.0 1.95 4.48 108	5.4 1.99 4.78 128	5.9 1.98 5.23 169	5.7 1.85 5.08 166	4.9 1.78 4.38 111	4.1 1.85 3.64 61	3.8 1.57 3.42 63	3.7 1.52 3.34 61	3.8 1.80 3.40 51	4.6 1.83 4.11 89	5.4 1.94 4.77 131	5.8 1.93 5.18 169	7.2 2.01 6.37 302
100.0 m	A k U E	7.8 1.82 6.95 434	6.0 1.53 5.43 258	4.6 1.54 4.18 117	5.5 1.88 4.85 142	5.8 1.93 5.18 168	6.4 1.92 5.67 223	6.2 1.79 5.50 220	5.3 1.73 4.75 147	4.4 1.79 3.95 81	4.1 1.52 3.71 83	4.0 1.47 3.62 81	4.1 1.75 3.69 68	5.0 1.77 4.45 118	5.8 1.88 5.17 173	6.3 1.87 5.62 223	7.8 1.94 6.91 397
200.0 m	A k U E	8.6 1.72 7.68 626	6.6 1.46 6.00 376	5.1 1.47 4.62 170	6.0 1.79 5.36 204	6.4 1.83 5.72 241	7.1 1.81 6.27 320	6.8 1.70 6.08 317	5.9 1.64 5.25 213	4.9 1.70 4.37 117	4.5 1.44 4.10 122	4.4 1.40 4.00 119	4.6 1.65 4.07 98	5.5 1.67 4.92 171	6.4 1.78 5.71 248	7.0 1.77 6.21 320	8.6 1.84 7.64 569

Wind rose for roughness length 0.03 m



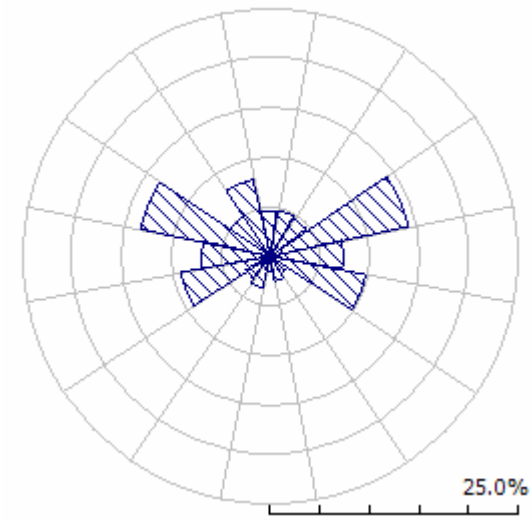
Sector frequencies for roughness length 0.03 m

Sector index	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Sector centre angle [°]	0	23	45	68	90	113	135	158	180	203	225	248	270	293	315	338
Frequency [%]	4.7	4.6	3.7	14.5	7.4	10.3	2.4	2.7	1.5	3.2	2.3	9.2	6.6	13.7	5.3	7.8

Sector-wise Weibull distributions table for roughness length 0.03 m

Height		**1 0**	**2 23**	**3 45**	**4 68**	**5 90**	**6 113**	**7 135**	**8 158**	**9 180**	**10 203**	**11 225**	**12 248**	**13 270**	**14 293**	**15 315**	**16 338**
10.0 m	A k U E	4.4 1.53 3.97 101	2.7 1.23 2.51 37	2.5 1.37 2.29 23	3.0 1.57 2.65 29	3.4 1.68 3.08 42	3.4 1.53 3.03 45	3.5 1.47 3.19 56	2.6 1.49 2.36 22	2.3 1.53 2.11 15	2.0 1.17 1.94 19	2.1 1.21 1.99 19	2.1 1.40 1.94 13	3.1 1.60 2.81 34	3.1 1.51 2.76 35	4.1 1.79 3.66 65	4.0 1.52 3.64 79
25.0 m	A k U E	5.3 1.65 4.75 156	3.3 1.33 3.00 55	3.0 1.47 2.74 35	3.6 1.69 3.17 45	4.1 1.81 3.68 65	4.1 1.65 3.63 70	4.3 1.59 3.82 85	3.2 1.61 2.83 34	2.8 1.65 2.53 24	2.5 1.26 2.32 28	2.6 1.29 2.38 29	2.6 1.51 2.32 21	3.8 1.73 3.37 52	3.7 1.63 3.30 53	4.9 1.93 4.38 102	4.9 1.64 4.36 122
50.0 m	A k U E	6.2 1.85 5.49 210	3.8 1.48 3.48 71	3.5 1.65 3.17 47	4.1 1.90 3.67 61	4.8 2.03 4.26 89	4.7 1.85 4.20 94	5.0 1.79 4.42 114	3.7 1.81 3.27 46	3.3 1.85 2.92 32	2.9 1.41 2.68 35	3.0 1.45 2.75 37	3.0 1.69 2.68 27	4.4 1.94 3.90 71	4.3 1.83 3.82 72	5.7 2.17 5.07 141	5.7 1.84 5.05 164
100.0 m	A k U E	7.4 1.97 6.52 329	4.6 1.58 4.13 109	4.2 1.75 3.76 72	4.9 2.02 4.36 96	5.7 2.17 5.06 140	5.6 1.97 4.99 147	5.9 1.90 5.25 178	4.4 1.92 3.88 71	3.9 1.97 3.47 50	3.5 1.50 3.19 54	3.6 1.54 3.27 56	3.6 1.80 3.18 42	5.2 2.06 4.63 112	5.1 1.95 4.54 112	6.8 2.31 6.01 224	6.8 1.96 5.99 258
200.0 m	A k U E	9.1 1.88 8.11 664	5.7 1.51 5.13 223	5.2 1.67 4.68 147	6.1 1.93 5.42 193	7.1 2.07 6.29 282	7.0 1.88 6.20 297	7.3 1.81 6.52 361	5.4 1.84 4.83 144	4.9 1.88 4.32 100	4.4 1.44 3.96 111	4.5 1.47 4.06 115	4.4 1.72 3.96 86	6.5 1.97 5.75 226	6.4 1.86 5.64 227	8.4 2.20 7.48 447	8.4 1.87 7.45 519

Wind rose for roughness length 0.10 m



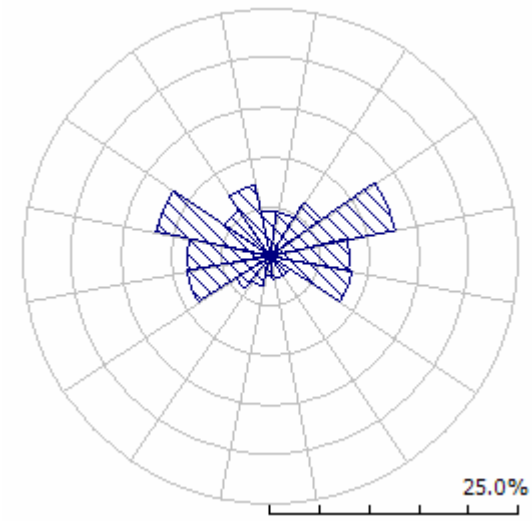
Sector frequencies for roughness length 0.10 m

Sector index	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Sector centre angle [°]	0	23	45	68	90	113	135	158	180	203	225	248	270	293	315	338
Frequency [%]	4.5	4.7	4.5	14.3	7.4	9.8	2.1	2.6	1.6	3.3	2.8	9.2	7.0	13.5	4.9	7.9

Sector-wise Weibull distributions table for roughness length 0.10 m

Height		**1 0**	**2 23**	**3 45**	**4 68**	**5 90**	**6 113**	**7 135**	**8 158**	**9 180**	**10 203**	**11 225**	**12 248**	**13 270**	**14 293**	**15 315**	**16 338**
10.0 m	A k U E	3.8 1.51 3.41 66	2.2 1.21 2.07 21	2.2 1.39 2.02 16	2.6 1.60 2.34 20	3.0 1.70 2.72 28	3.0 1.55 2.67 30	3.1 1.47 2.76 36	2.2 1.46 1.99 14	2.0 1.49 1.81 10	1.9 1.25 1.75 12	1.9 1.29 1.77 12	2.0 1.48 1.77 9	2.8 1.66 2.52 23	2.7 1.54 2.44 23	3.7 1.83 3.31 46	3.5 1.49 3.15 52
25.0 m	A k U E	4.7 1.61 4.21 112	2.8 1.29 2.55 35	2.8 1.48 2.50 26	3.2 1.71 2.89 34	3.8 1.82 3.35 49	3.7 1.65 3.30 52	3.8 1.57 3.41 62	2.7 1.55 2.45 23	2.5 1.59 2.23 17	2.4 1.33 2.16 20	2.4 1.38 2.18 20	2.4 1.58 2.19 16	3.5 1.78 3.11 40	3.4 1.65 3.01 40	4.6 1.96 4.08 81	4.3 1.60 3.89 89
50.0 m	A k U E	5.6 1.78 4.94 160	3.3 1.43 2.99 48	3.3 1.63 2.93 37	3.8 1.88 3.39 48	4.4 2.01 3.93 71	4.4 1.83 3.87 74	4.5 1.73 4.00 88	3.2 1.72 2.88 33	2.9 1.76 2.62 24	2.8 1.47 2.53 28	2.8 1.52 2.56 27	2.9 1.75 2.57 23	4.1 1.97 3.65 58	4.0 1.82 3.53 57	5.4 2.17 4.79 119	5.1 1.77 4.56 127
100.0 m	A k U E	6.6 1.96 5.89 245	4.0 1.56 3.57 71	3.9 1.79 3.49 56	4.6 2.07 4.04 74	5.3 2.21 4.69 110	5.2 2.01 4.61 114	5.4 1.90 4.77 134	3.9 1.88 3.43 50	3.5 1.94 3.12 37	3.4 1.62 3.02 41	3.4 1.67 3.05 41	3.4 1.92 3.06 35	4.9 2.16 4.35 89	4.8 2.00 4.21 87	6.4 2.39 5.71 186	6.1 1.94 5.44 194
200.0 m	A k U E	8.2 1.87 7.27 481	4.9 1.50 4.40 142	4.8 1.72 4.31 110	5.6 1.98 4.98 146	6.5 2.12 5.79 215	6.4 1.92 5.69 224	6.6 1.82 5.88 264	4.8 1.80 4.23 99	4.3 1.85 3.85 72	4.1 1.55 3.73 82	4.2 1.60 3.76 81	4.2 1.84 3.77 69	6.1 2.07 5.36 175	5.9 1.92 5.20 172	8.0 2.28 7.04 362	7.6 1.86 6.71 382

Wind rose for roughness length 0.40 m



Sector frequencies for roughness length 0.40 m

Sector index	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Sector centre angle [°]	0	23	45	68	90	113	135	158	180	203	225	248	270	293	315	338
Frequency [%]	4.6	4.5	6.4	12.9	7.9	8.4	2.2	2.4	1.9	3.1	4.1	8.6	8.3	11.9	5.4	7.3

Sector-wise Weibull distributions table for roughness length 0.40 m

Height		**1 0**	**2 23**	**3 45**	**4 68**	**5 90**	**6 113**	**7 135**	**8 158**	**9 180**	**10 203**	**11 225**	**12 248**	**13 270**	**14 293**	**15 315**	**16 338**
10.0 m	A k U E	2.8 1.44 2.51 28	1.8 1.30 1.68 10	1.9 1.53 1.69 8	2.1 1.58 1.86 10	2.4 1.66 2.11 14	2.4 1.55 2.12 15	2.2 1.40 2.02 15	1.8 1.60 1.63 7	1.6 1.52 1.44 5	1.6 1.32 1.44 6	1.6 1.45 1.41 5	1.7 1.58 1.52 5	2.1 1.57 1.90 11	2.2 1.52 1.95 12	2.9 1.76 2.56 23	2.8 1.53 2.53 26
25.0 m	A k U E	3.7 1.52 3.30 59	2.4 1.38 2.21 21	2.5 1.62 2.23 17	2.7 1.67 2.45 21	3.1 1.76 2.77 29	3.1 1.65 2.79 32	2.9 1.48 2.66 32	2.4 1.69 2.15 14	2.1 1.61 1.90 10	2.1 1.40 1.89 13	2.1 1.53 1.86 10	2.2 1.67 2.01 12	2.8 1.66 2.51 23	2.9 1.61 2.56 25	3.8 1.86 3.36 48	3.7 1.62 3.33 55
50.0 m	A k U E	4.5 1.65 3.98 92	3.0 1.49 2.67 32	3.0 1.75 2.69 26	3.3 1.81 2.95 34	3.8 1.90 3.35 46	3.8 1.79 3.37 51	3.6 1.60 3.21 50	2.9 1.83 2.59 22	2.6 1.75 2.29 16	2.5 1.51 2.28 20	2.5 1.66 2.25 16	2.7 1.82 2.42 18	3.4 1.80 3.03 36	3.5 1.74 3.09 40	4.6 2.02 4.06 77	4.5 1.76 4.02 87
100.0 m	A k U E	5.4 1.87 4.81 139	3.6 1.69 3.22 47	3.7 1.99 3.25 40	4.0 2.06 3.57 51	4.6 2.17 4.04 72	4.6 2.03 4.07 78	4.4 1.82 3.87 75	3.5 2.09 3.13 34	3.1 1.99 2.76 25	3.1 1.72 2.76 29	3.1 1.89 2.71 25	3.3 2.07 2.93 28	4.1 2.05 3.65 56	4.2 1.98 3.73 61	5.5 2.30 4.90 121	5.5 2.00 4.85 133
200.0 m	A k U E	6.6 1.81 5.87 264	4.4 1.63 3.93 90	4.5 1.92 3.97 76	4.9 1.99 4.35 97	5.6 2.09 4.94 135	5.6 1.96 4.97 147	5.3 1.76 4.73 143	4.3 2.01 3.82 65	3.8 1.92 3.38 47	3.8 1.66 3.37 55	3.7 1.82 3.31 47	4.0 1.99 3.57 54	5.0 1.98 4.46 105	5.1 1.91 4.56 116	6.8 2.22 5.99 228	6.7 1.93 5.92 252

'VRSAC' Wind atlas

Produced on 13-Dec-08 at 15:07:06 by licenced user: Educational Licence 1, Faculty of Technical Sciences, Serbia using WAsP version: 9.00.0133.

Reference conditions

The wind atlas contains data for 4 reference roughness lengths (0.000 m, 0.030 m, 0.100 m, 0.400 m) and 5 reference heights (10 m, 25 m, 50 m, 100 m, 200 m) above ground level. The roses of Weibull parameters have 16 sectors each.

Regional wind climate summary

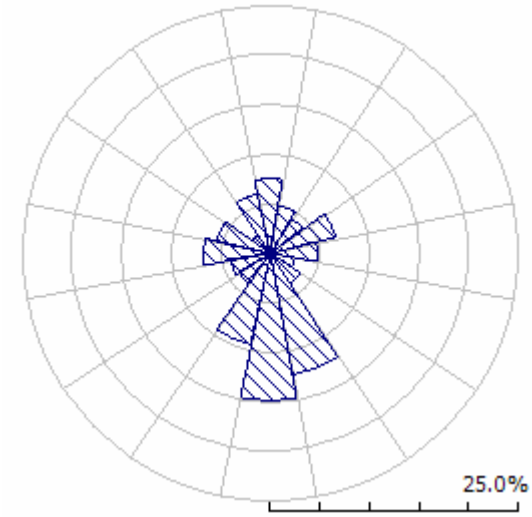
Height	Parameter	0.00 m	0.03 m	0.10 m	0.40 m
10.0 m	Weibull A [m/s] Weibull k Mean speed U [m/s] Power density E [W/m²]	6.43 1.24 6.00 492	4.51 1.19 4.26 193	3.94 1.19 3.71 126	3.07 1.19 2.89 60
25.0 m	Weibull A [m/s] Weibull k Mean speed U [m/s] Power density E [W/m²]	7.03 1.26 6.55 628	5.38 1.22 5.04 302	4.84 1.22 4.53 219	4.03 1.22 3.78 127
50.0 m	Weibull A [m/s] Weibull k Mean speed U [m/s] Power density E [W/m²]	7.54 1.28 6.99 745	6.19 1.28 5.74 409	5.65 1.27 5.24 315	4.85 1.26 4.51 203
100.0 m	Weibull A [m/s] Weibull k Mean speed U [m/s] Power density E [W/m²]	8.11 1.28 7.51 911	7.26 1.37 6.64 566	6.66 1.35 6.11 446	5.81 1.33 5.34 306
200.0 m	Weibull A [m/s] Weibull k Mean speed U [m/s] Power density E [W/m²]	8.82 1.29 8.16 1155	8.75 1.44 7.94 888	8.00 1.42 7.27 693	6.96 1.39 6.35 479

Project parameters

The wind atlas is in a project called VRSAC.
Here is a list of all the parameters with non-default values:
All of the parameters in the project are default values.

Detailed descriptions

Wind rose for roughness length 0.00 m



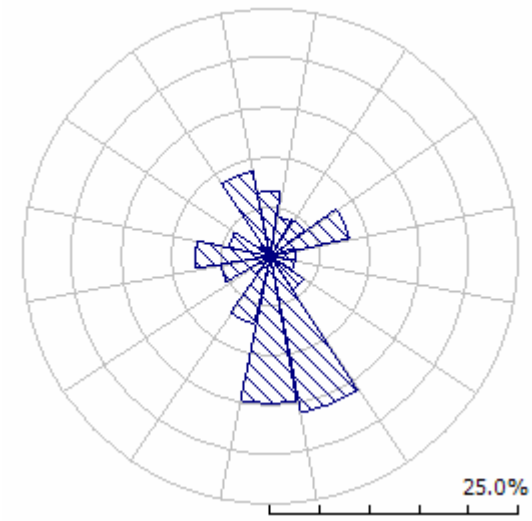
Sector frequencies for roughness length 0.00 m

Sector index	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Sector centre angle [°]	0	23	45	68	90	113	135	158	180	203	225	248	270	293	315	338
Frequency [%]	7.5	4.9	4.2	6.8	4.7	2.6	3.8	12.5	14.9	9.4	3.8	4.1	6.7	5.6	2.4	6.1

Sector-wise Weibull distributions table for roughness length 0.00 m

Height		**1 0**	**2 23**	**3 45**	**4 68**	**5 90**	**6 113**	**7 135**	**8 158**	**9 180**	**10 203**	**11 225**	**12 248**	**13 270**	**14 293**	**15 315**	**16 338**
10.0 m	A k U E	6.0 1.90 5.32 186	5.5 1.81 4.90 153	3.5 1.91 3.14 38	2.9 1.97 2.61 21	2.7 1.88 2.41 17	3.1 1.19 2.95 64	12.3 1.81 10.91 1691	14.0 2.29 12.36 1950	8.9 1.64 7.94 738	5.6 1.94 4.95 146	4.2 1.79 3.69 66	3.6 1.63 3.19 48	4.5 1.73 4.02 89	6.0 1.79 5.31 197	6.3 1.86 5.62 224	5.1 2.24 4.49 96
25.0 m	A k U E	6.6 1.97 5.83 235	6.0 1.87 5.36 193	3.9 1.97 3.44 48	3.2 2.04 2.86 27	3.0 1.94 2.63 22	3.4 1.22 3.23 79	13.3 1.82 11.86 2155	15.2 2.31 13.43 2489	9.7 1.66 8.65 938	6.1 2.01 5.41 185	4.6 1.85 4.04 84	3.9 1.68 3.49 60	4.9 1.78 4.40 113	6.5 1.85 5.81 249	6.9 1.92 6.15 285	5.6 2.31 4.92 122
50.0 m	A k U E	7.1 2.02 6.26 284	6.5 1.92 5.76 233	4.2 2.03 3.69 58	3.5 2.09 3.07 32	3.2 1.99 2.83 27	3.7 1.25 3.47 94	14.2 1.84 12.60 2551	16.1 2.33 14.27 2960	10.3 1.69 9.21 1106	6.6 2.06 5.82 224	4.9 1.90 4.34 101	4.2 1.72 3.75 73	5.3 1.83 4.73 136	7.0 1.89 6.24 301	7.5 1.97 6.61 343	6.0 2.37 5.28 148
100.0 m	A k U E	7.7 1.96 6.79 374	7.0 1.86 6.25 307	4.5 1.96 4.00 76	3.8 2.03 3.33 43	3.5 1.93 3.07 35	4.0 1.21 3.76 127	15.1 1.85 13.37 3045	17.1 2.34 15.16 3541	11.0 1.68 9.83 1356	7.1 1.99 6.31 294	5.3 1.84 4.71 133	4.5 1.67 4.06 96	5.8 1.77 5.12 180	7.6 1.83 6.76 397	8.1 1.90 7.16 452	6.5 2.29 5.73 194
200.0 m	A k U E	8.4 1.85 7.50 536	7.8 1.76 6.90 442	5.0 1.86 4.42 109	4.1 1.92 3.68 61	3.8 1.83 3.39 50	4.4 1.15 4.15 191	16.0 1.82 14.23 3720	18.2 2.31 16.14 4313	11.8 1.64 10.56 1734	7.9 1.89 6.97 420	5.8 1.74 5.21 192	5.0 1.58 4.49 140	6.3 1.68 5.66 259	8.4 1.74 7.48 572	8.9 1.81 7.92 648	7.1 2.17 6.33 275

Wind rose for roughness length 0.03 m



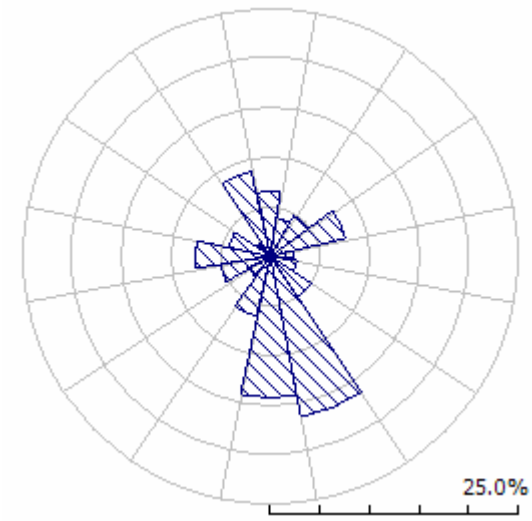
Sector frequencies for roughness length 0.03 m

Sector index	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Sector centre angle [°]	0	23	45	68	90	113	135	158	180	203	225	248	270	293	315	338
Frequency [%]	6.6	4.1	4.4	8.2	2.6	2.6	4.1	16.0	14.8	6.9	2.4	5.1	7.5	4.4	1.5	8.7

Sector-wise Weibull distributions table for roughness length 0.03 m

Height		**1 0**	**2 23**	**3 45**	**4 68**	**5 90**	**6 113**	**7 135**	**8 158**	**9 180**	**10 203**	**11 225**	**12 248**	**13 270**	**14 293**	**15 315**	**16 338**
10.0 m	A k U E	4.6 1.64 4.09 100	3.2 1.62 2.85 35	2.2 1.58 1.97 12	2.0 1.62 1.75 8	1.8 1.51 1.66 8	2.3 1.05 2.30 40	10.4 2.25 9.25 831	9.8 2.13 8.67 718	5.1 1.79 4.49 119	3.2 1.74 2.82 31	2.6 1.27 2.44 32	2.4 1.47 2.19 18	3.4 1.55 3.02 44	4.8 1.66 4.30 115	3.7 1.55 3.34 59	3.5 1.85 3.07 37
25.0 m	A k U E	5.5 1.77 4.89 156	3.8 1.74 3.41 54	2.6 1.71 2.36 18	2.4 1.74 2.10 13	2.2 1.63 1.99 12	2.9 1.13 2.76 58	12.2 2.29 10.77 1294	11.4 2.17 10.10 1119	6.1 1.94 5.38 188	3.8 1.88 3.38 48	3.2 1.37 2.92 48	2.9 1.58 2.62 28	4.0 1.67 3.62 68	5.8 1.79 5.15 179	4.5 1.67 3.99 91	4.1 2.00 3.67 58
50.0 m	A k U E	6.4 1.99 5.66 213	4.4 1.96 3.94 73	3.1 1.92 2.73 25	2.7 1.96 2.43 17	2.6 1.83 2.30 16	3.4 1.26 3.19 73	13.5 2.34 11.98 1748	12.7 2.22 11.25 1509	7.0 2.18 6.22 260	4.4 2.12 3.91 66	3.7 1.53 3.38 63	3.4 1.78 3.04 37	4.7 1.88 4.18 91	6.7 2.01 5.96 246	5.2 1.87 4.62 123	4.8 2.25 4.24 80
100.0 m	A k U E	7.6 2.12 6.72 336	5.3 2.08 4.68 115	3.7 2.04 3.25 39	3.3 2.08 2.88 27	3.1 1.95 2.74 25	4.1 1.33 3.79 109	15.0 2.44 13.31 2316	14.1 2.33 12.52 1998	8.3 2.32 7.39 413	5.2 2.25 4.64 105	4.5 1.62 4.01 96	4.1 1.89 3.60 58	5.6 2.00 4.97 143	8.0 2.15 7.07 387	6.2 1.99 5.48 193	5.7 2.40 5.04 128
200.0 m	A k U E	9.4 2.02 8.36 677	6.6 1.99 5.82 232	4.6 1.95 4.04 79	4.0 1.99 3.58 54	3.8 1.86 3.40 50	5.1 1.28 4.71 227	16.8 2.44 14.85 3228	15.8 2.32 14.02 2822	10.4 2.21 9.18 825	6.5 2.15 5.77 210	5.5 1.55 4.99 197	5.0 1.80 4.48 118	7.0 1.91 6.18 289	9.9 2.05 8.80 777	7.7 1.90 6.82 390	7.1 2.29 6.27 255

Wind rose for roughness length 0.10 m



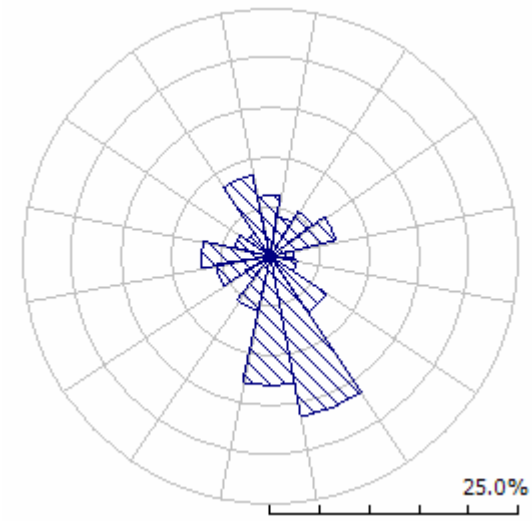
Sector frequencies for roughness length 0.10 m

Sector index	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Sector centre angle [°]	0	23	45	68	90	113	135	158	180	203	225	248	270	293	315	338
Frequency [%]	6.6	4.0	4.7	7.8	2.4	2.7	4.9	16.6	14.3	6.2	2.5	5.2	7.5	4.3	1.7	8.8

Sector-wise Weibull distributions table for roughness length 0.10 m

Height		**1 0**	**2 23**	**3 45**	**4 68**	**5 90**	**6 113**	**7 135**	**8 158**	**9 180**	**10 203**	**11 225**	**12 248**	**13 270**	**14 293**	**15 315**	**16 338**
10.0 m	A k U E	4.1 1.68 3.62 67	2.6 1.75 2.28 16	1.9 1.66 1.69 7	1.8 1.69 1.56 5	1.7 1.42 1.53 6	2.3 0.88 2.41 72	9.0 2.26 8.00 535	8.2 2.04 7.28 442	4.2 1.99 3.72 60	2.7 1.91 2.39 17	2.1 1.21 2.01 20	2.1 1.40 1.92 13	3.0 1.59 2.69 30	4.3 1.69 3.85 80	2.9 1.67 2.60 25	3.1 1.91 2.73 25
25.0 m	A k U E	5.0 1.80 4.47 117	3.2 1.87 2.82 28	2.3 1.77 2.09 12	2.2 1.81 1.93 9	2.1 1.51 1.89 11	2.8 0.92 2.94 118	10.9 2.29 9.64 925	9.9 2.08 8.78 764	5.2 2.13 4.59 106	3.3 2.05 2.95 29	2.7 1.29 2.49 33	2.6 1.50 2.37 22	3.7 1.70 3.32 51	5.3 1.81 4.75 139	3.6 1.78 3.21 44	3.8 2.04 3.37 44
50.0 m	A k U E	5.9 1.99 5.24 169	3.7 2.07 3.30 41	2.8 1.96 2.45 17	2.6 2.00 2.26 14	2.5 1.67 2.21 16	3.3 0.96 3.38 157	12.3 2.34 10.93 1326	11.3 2.13 9.97 1093	6.1 2.36 5.38 157	3.9 2.27 3.45 43	3.2 1.42 2.92 45	3.1 1.66 2.78 31	4.4 1.88 3.89 73	6.3 2.01 5.57 202	4.3 1.97 3.77 64	4.5 2.26 3.95 65
100.0 m	A k U E	7.1 2.19 6.25 262	4.4 2.27 3.94 64	3.3 2.15 2.92 27	3.0 2.20 2.70 21	3.0 1.83 2.64 24	4.0 1.04 3.91 198	13.9 2.43 12.31 1842	12.7 2.22 11.26 1513	7.2 2.59 6.42 249	4.6 2.49 4.12 68	3.9 1.56 3.48 66	3.7 1.82 3.32 47	5.2 2.06 4.64 113	7.5 2.21 6.64 313	5.1 2.17 4.49 98	5.3 2.49 4.71 102
200.0 m	A k U E	8.7 2.10 7.71 512	5.5 2.17 4.86 124	4.1 2.06 3.60 53	3.8 2.10 3.33 41	3.7 1.76 3.25 47	4.6 1.02 4.60 343	15.6 2.46 13.88 2617	14.4 2.24 12.73 2174	8.9 2.48 7.91 482	5.7 2.38 5.08 131	4.7 1.49 4.29 133	4.6 1.74 4.09 93	6.5 1.97 5.72 222	9.3 2.11 8.20 612	6.3 2.07 5.54 192	6.6 2.38 5.82 197

Wind rose for roughness length 0.40 m



Sector frequencies for roughness length 0.40 m

Sector index	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Sector centre angle [°]	0	23	45	68	90	113	135	158	180	203	225	248	270	293	315	338
Frequency [%]	6.2	4.1	5.4	6.7	2.4	2.8	6.7	16.5	13.1	5.5	3.0	5.6	6.9	3.8	3.0	8.3

Sector-wise Weibull distributions table for roughness length 0.40 m

Height		1 0	2 23	3 45	4 68	5 90	6 113	7 135	8 158	9 180	10 203	11 225	12 248	13 270	14 293	15 315	16 338
10.0 m	A k U E	3.1 1.64 2.74 30	1.9 1.69 1.71 7	1.5 1.72 1.32 3	1.4 1.72 1.26 3	1.4 1.28 1.30 5	2.6 0.95 2.68 80	6.8 2.15 5.98 233	5.9 1.85 5.25 185	3.2 1.92 2.83 27	2.1 1.76 1.83 8	1.7 1.33 1.61 8	1.8 1.47 1.67 8	2.5 1.58 2.22 17	3.3 1.66 2.97 38	2.3 1.75 2.04 12	2.5 1.82 2.24 15
25.0 m	A k U E	4.0 1.74 3.60 64	2.5 1.79 2.25 15	2.0 1.82 1.74 7	1.9 1.82 1.66 6	1.9 1.36 1.72 10	3.4 0.97 3.46 166	8.7 2.19 7.72 495	7.6 1.87 6.79 391	4.2 2.04 3.72 59	2.7 1.87 2.42 18	2.3 1.41 2.12 17	2.4 1.56 2.20 17	3.3 1.68 2.92 35	4.4 1.76 3.90 80	3.0 1.85 2.69 25	3.3 1.93 2.95 31
50.0 m	A k U E	4.9 1.89 4.35 102	3.1 1.94 2.72 24	2.4 1.97 2.10 11	2.3 1.98 2.00 9	2.3 1.47 2.07 15	4.0 0.99 4.07 257	10.2 2.22 9.07 791	9.0 1.91 7.98 623	5.1 2.22 4.49 96	3.3 2.03 2.92 29	2.8 1.53 2.56 27	3.0 1.69 2.66 27	4.0 1.82 3.52 56	5.3 1.91 4.71 129	3.7 2.01 3.24 40	4.0 2.09 3.56 50
100.0 m	A k U E	5.9 2.15 5.25 158	3.7 2.21 3.28 38	2.9 2.25 2.54 17	2.7 2.26 2.41 15	2.8 1.67 2.50 22	4.8 1.02 4.72 368	11.8 2.30 10.49 1192	10.4 1.98 9.25 934	6.1 2.53 5.42 153	4.0 2.31 3.52 45	3.5 1.74 3.09 40	3.6 1.92 3.21 40	4.8 2.08 4.25 87	6.4 2.17 5.69 200	4.4 2.29 3.91 62	4.8 2.38 4.29 79
200.0 m	A k U E	7.2 2.07 6.41 298	4.5 2.13 4.01 71	3.5 2.17 3.10 32	3.3 2.17 2.95 28	3.4 1.61 3.06 43	5.5 1.04 5.44 532	13.6 2.36 12.04 1761	12.0 2.03 10.64 1385	7.5 2.43 6.62 286	4.9 2.23 4.30 84	4.2 1.68 3.77 76	4.4 1.85 3.92 76	5.9 2.00 5.19 164	7.8 2.09 6.95 376	5.4 2.21 4.78 116	5.9 2.29 5.24 149

'ZRENJANIN' Wind atlas

Produced on 13-Dec-08 at 13:56:18 by licenced user: Educational Licence 1, Faculty of Technical Sciences, Serbia using WAsP version: 9.00.0133.

Reference conditions

The wind atlas contains data for 4 reference roughness lengths (0.000 m, 0.030 m, 0.100 m, 0.400 m) and 5 reference heights (10 m, 25 m, 50 m, 100 m, 200 m) above ground level. The roses of Weibull parameters have 16 sectors each.

Regional wind climate summary

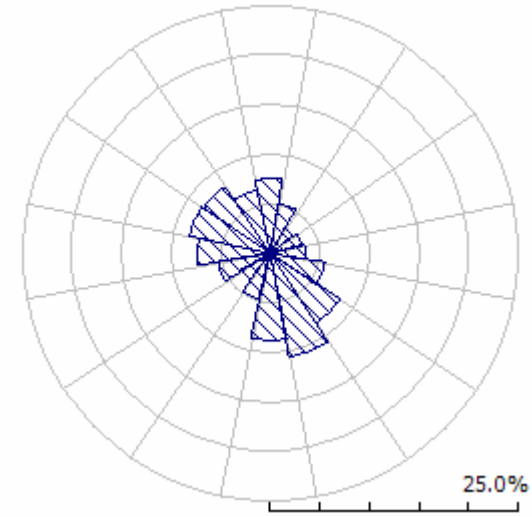
Height	Parameter	0.00 m	0.03 m	0.10 m	0.40 m
10.0 m	Weibull A [m/s] Weibull k Mean speed U [m/s] Power density E [W/m²]	4.66 1.46 4.22 130	3.19 1.31 2.94 52	2.79 1.33 2.56 34	2.22 1.35 2.03 16
25.0 m	Weibull A [m/s] Weibull k Mean speed U [m/s] Power density E [W/m²]	5.11 1.49 4.62 166	3.85 1.38 3.51 82	3.46 1.38 3.16 60	2.94 1.41 2.67 35
50.0 m	Weibull A [m/s] Weibull k Mean speed U [m/s] Power density E [W/m²]	5.50 1.51 4.96 201	4.49 1.48 4.06 113	4.09 1.47 3.70 87	3.57 1.48 3.22 57
100.0 m	Weibull A [m/s] Weibull k Mean speed U [m/s] Power density E [W/m²]	5.95 1.49 5.37 261	5.34 1.55 4.80 176	4.90 1.57 4.40 133	4.34 1.61 3.89 88
200.0 m	Weibull A [m/s] Weibull k Mean speed U [m/s] Power density E [W/m²]	6.53 1.44 5.93 368	6.60 1.52 5.95 343	6.01 1.54 5.41 255	5.28 1.58 4.74 164

Project parameters

The wind atlas is in a project called Project 1.
Here is a list of all the parameters with non-default values:
All of the parameters in the project are default values.

Detailed descriptions

Wind rose for roughness length 0.00 m



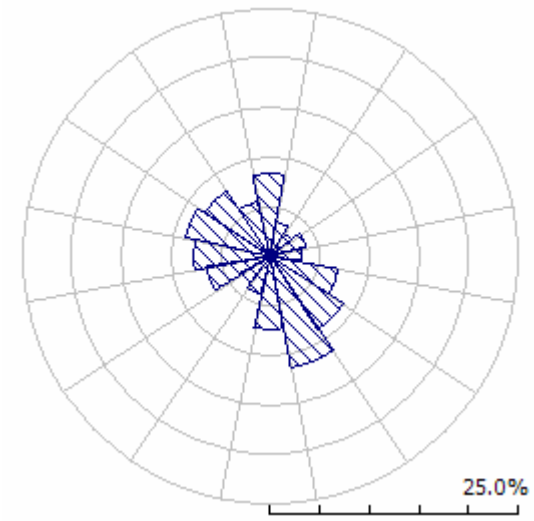
Sector frequencies for roughness length 0.00 m

Sector index	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Sector centre angle [°]	0	23	45	68	90	113	135	158	180	203	225	248	270	293	315	338
Frequency [%]	7.5	5.1	3.0	3.4	3.4	5.6	8.3	10.6	8.8	4.8	3.4	5.4	7.4	8.4	8.3	6.5

Sector-wise Weibull distributions table for roughness length 0.00 m

Height		1 0	2 23	3 45	4 68	5 90	6 113	7 135	8 158	9 180	10 203	11 225	12 248	13 270	14 293	15 315	16 338
10.0 m	A k U E	4.0 2.05 3.57 52	3.3 1.78 2.90 32	2.1 1.71 1.84 9	2.3 1.84 2.02 11	2.7 1.99 2.41 17	4.5 1.77 3.97 83	7.0 1.71 6.20 333	8.2 2.19 7.24 408	7.4 2.41 6.56 281	5.2 2.06 4.62 112	3.3 1.94 2.91 30	3.1 1.93 2.79 26	3.6 1.92 3.15 38	4.0 1.97 3.50 51	4.2 1.88 3.69 63	3.6 1.69 3.22 47
25.0 m	A k U E	4.4 2.12 3.91 66	3.6 1.83 3.17 41	2.3 1.76 2.01 11	2.5 1.90 2.22 13	3.0 2.05 2.64 21	4.9 1.83 4.35 105	7.6 1.75 6.78 422	8.9 2.25 7.92 522	8.1 2.48 7.18 360	5.7 2.12 5.05 143	3.6 2.00 3.19 38	3.4 1.99 3.06 34	3.9 1.98 3.45 49	4.3 2.03 3.84 65	4.6 1.94 4.04 80	4.0 1.75 3.53 60
50.0 m	A k U E	4.7 2.17 4.20 80	3.8 1.88 3.41 49	2.4 1.81 2.16 13	2.7 1.95 2.38 16	3.2 2.10 2.84 26	5.3 1.88 4.67 127	8.2 1.79 7.26 503	9.6 2.31 8.50 630	8.7 2.55 7.72 438	6.1 2.18 5.43 173	3.9 2.06 3.42 46	3.7 2.04 3.28 41	4.2 2.03 3.71 59	4.7 2.09 4.12 79	4.9 1.99 4.34 96	4.3 1.79 3.79 71
100.0 m	A k U E	5.1 2.10 4.56 106	4.2 1.82 3.70 65	2.6 1.75 2.34 17	2.9 1.88 2.58 21	3.5 2.04 3.08 34	5.7 1.82 5.06 168	8.8 1.75 7.84 653	10.4 2.24 9.19 816	9.4 2.47 8.37 572	6.6 2.11 5.89 227	4.2 1.99 3.71 60	4.0 1.98 3.56 53	4.5 1.97 4.02 77	5.0 2.02 4.47 103	5.3 1.92 4.71 127	4.6 1.74 4.11 95
200.0 m	A k U E	5.7 1.99 5.04 150	4.6 1.72 4.08 94	2.9 1.66 2.59 25	3.2 1.79 2.85 31	3.8 1.93 3.40 48	6.3 1.72 5.59 242	9.6 1.67 8.59 910	11.4 2.13 10.11 1135	10.4 2.34 9.25 805	7.3 2.00 6.51 323	4.6 1.88 4.10 86	4.4 1.87 3.93 76	5.0 1.86 4.44 111	5.6 1.92 4.94 147	5.9 1.82 5.20 182	5.1 1.65 4.54 137

Wind rose for roughness length 0.03 m



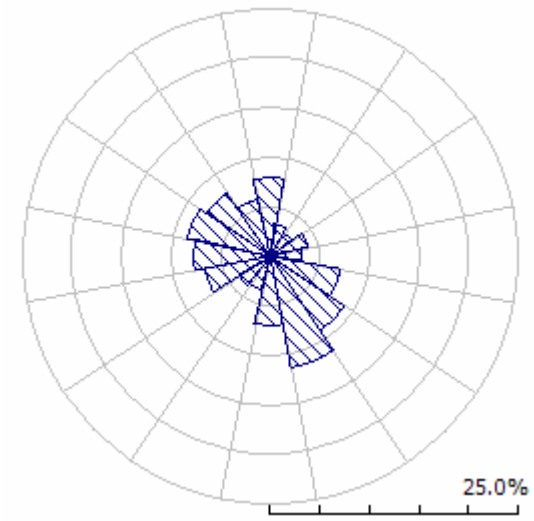
Sector frequencies for roughness length 0.03 m

Sector index	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Sector centre angle [°]	0	23	45	68	90	113	135	158	180	203	225	248	270	293	315	338
Frequency [%]	8.3	3.6	2.7	3.8	3.1	6.9	8.7	11.4	7.4	3.9	3.3	6.6	7.7	8.7	8.0	5.8

Sector-wise Weibull distributions table for roughness length 0.03 m

Height		**1 0**	**2 23**	**3 45**	**4 68**	**5 90**	**6 113**	**7 135**	**8 158**	**9 180**	**10 203**	**11 225**	**12 248**	**13 270**	**14 293**	**15 315**	**16 338**
10.0 m	A k U E	3.0 1.87 2.63 23	1.6 1.46 1.41 5	1.4 1.40 1.28 4	1.7 1.69 1.50 5	2.1 1.71 1.84 9	3.2 1.53 2.91 40	5.4 1.60 4.84 173	5.6 1.94 5.00 151	4.8 2.21 4.27 83	2.6 1.54 2.38 22	2.2 1.58 1.94 11	2.1 1.55 1.90 11	2.7 1.76 2.38 18	2.8 1.66 2.48 22	2.9 1.58 2.64 28	2.2 1.37 2.02 16
25.0 m	A k U E	3.6 2.01 3.15 36	1.9 1.57 1.69 8	1.7 1.51 1.53 6	2.0 1.82 1.80 8	2.5 1.85 2.20 13	3.9 1.65 3.48 61	6.4 1.69 5.74 267	6.8 2.10 5.99 240	5.8 2.39 5.11 133	3.2 1.67 2.85 33	2.6 1.70 2.32 17	2.5 1.67 2.28 17	3.2 1.89 2.85 29	3.3 1.79 2.97 35	3.5 1.71 3.16 44	2.7 1.47 2.42 24
50.0 m	A k U E	4.1 2.26 3.64 51	2.2 1.76 1.96 10	2.0 1.70 1.78 8	2.4 2.04 2.08 10	2.9 2.07 2.54 19	4.5 1.85 4.03 83	7.4 1.85 6.56 359	7.8 2.36 6.93 336	6.6 2.69 5.91 190	3.7 1.87 3.30 45	3.0 1.91 2.68 24	3.0 1.88 2.64 23	3.7 2.13 3.30 40	3.9 2.01 3.44 47	4.1 1.92 3.65 60	3.1 1.65 2.80 32
100.0 m	A k U E	4.9 2.41 4.33 80	2.6 1.87 2.33 16	2.4 1.81 2.11 12	2.8 2.18 2.47 16	3.4 2.21 3.02 29	5.4 1.97 4.78 129	8.6 1.98 7.63 525	9.3 2.51 8.23 536	7.9 2.86 7.02 306	4.4 1.99 3.91 70	3.6 2.03 3.19 37	3.5 2.00 3.13 36	4.4 2.27 3.92 63	4.6 2.14 4.08 74	4.9 2.04 4.34 94	3.7 1.76 3.33 50
200.0 m	A k U E	6.1 2.30 5.38 160	3.3 1.79 2.89 32	2.9 1.72 2.62 25	3.5 2.08 3.07 33	4.2 2.11 3.75 59	6.7 1.88 5.94 261	10.4 1.90 9.20 959	11.5 2.40 10.23 1068	9.8 2.73 8.73 606	5.5 1.90 4.87 142	4.5 1.94 3.96 75	4.4 1.91 3.89 72	5.5 2.16 4.87 125	5.7 2.05 5.08 149	6.1 1.95 5.39 189	4.6 1.68 4.14 101

Wind rose for roughness length 0.10 m



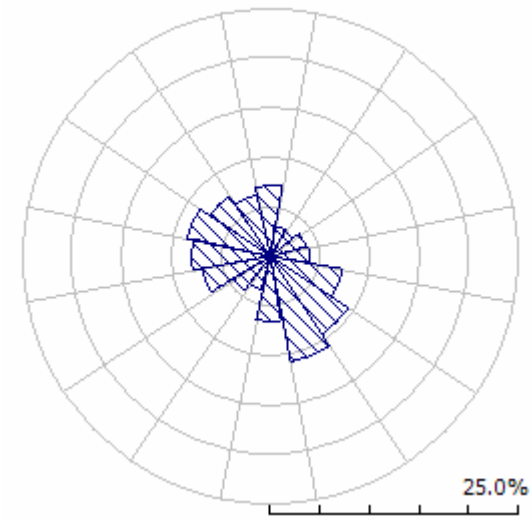
Sector frequencies for roughness length 0.10 m

Sector index	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Sector centre angle [°]	0	23	45	68	90	113	135	158	180	203	225	248	270	293	315	338
Frequency [%]	7.9	3.4	2.7	3.8	3.2	7.2	9.0	11.5	7.0	3.6	3.7	6.7	7.8	8.7	7.8	6.0

Sector-wise Weibull distributions table for roughness length 0.10 m

Height		**1 0**	**2 23**	**3 45**	**4 68**	**5 90**	**6 113**	**7 135**	**8 158**	**9 180**	**10 203**	**11 225**	**12 248**	**13 270**	**14 293**	**15 315**	**16 338**
10.0 m	A k U E	2.5 1.83 2.27 15	1.3 1.49 1.16 3	1.3 1.41 1.14 3	1.5 1.69 1.34 3	2.0 1.63 1.76 8	2.9 1.53 2.65 30	4.8 1.64 4.29 116	4.9 1.96 4.33 97	4.1 2.27 3.60 49	2.1 1.60 1.85 10	1.9 1.65 1.72 7	1.9 1.62 1.73 8	2.3 1.70 2.06 12	2.4 1.62 2.16 15	2.5 1.55 2.26 18	2.0 1.45 1.85 11
25.0 m	A k U E	3.2 1.96 2.80 26	1.6 1.59 1.44 5	1.6 1.51 1.41 5	1.9 1.80 1.66 6	2.4 1.75 2.17 14	3.7 1.63 3.27 52	5.9 1.73 5.25 199	6.0 2.10 5.34 170	5.0 2.43 4.44 87	2.6 1.71 2.29 17	2.4 1.77 2.12 13	2.4 1.73 2.13 13	2.9 1.81 2.54 21	3.0 1.73 2.66 26	3.1 1.65 2.78 31	2.5 1.55 2.28 19
50.0 m	A k U E	3.7 2.16 3.28 38	1.9 1.76 1.69 6	1.8 1.66 1.65 6	2.2 1.99 1.95 9	2.9 1.93 2.54 20	4.3 1.81 3.84 74	6.9 1.87 6.10 284	7.1 2.33 6.26 251	5.9 2.69 5.21 130	3.0 1.88 2.68 24	2.8 1.96 2.48 18	2.8 1.92 2.50 19	3.4 2.01 2.98 31	3.5 1.92 3.12 37	3.7 1.83 3.27 45	3.0 1.72 2.68 27
100.0 m	A k U E	4.4 2.38 3.91 60	2.3 1.93 2.01 10	2.2 1.83 1.97 10	2.6 2.19 2.32 13	3.4 2.12 3.03 31	5.2 1.99 4.58 113	8.1 2.05 7.15 416	8.4 2.56 7.47 396	7.0 2.96 6.21 208	3.6 2.07 3.20 37	3.3 2.15 2.96 28	3.4 2.10 2.98 30	4.0 2.21 3.55 48	4.2 2.10 3.72 58	4.4 2.01 3.89 69	3.6 1.88 3.20 41
200.0 m	A k U E	5.4 2.28 4.82 117	2.8 1.85 2.48 19	2.7 1.75 2.43 19	3.2 2.10 2.86 26	4.2 2.03 3.74 60	6.4 1.90 5.65 222	9.7 1.97 8.60 753	10.4 2.45 9.22 768	8.6 2.83 7.66 401	4.5 1.98 3.94 72	4.1 2.06 3.65 56	4.2 2.01 3.68 58	5.0 2.11 4.38 94	5.2 2.01 4.59 113	5.4 1.92 4.80 135	4.4 1.80 3.94 80

Wind rose for roughness length 0.40 m



Sector frequencies for roughness length 0.40 m

Sector index	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Sector centre angle [°]	0	23	45	68	90	113	135	158	180	203	225	248	270	293	315	338
Frequency [%]	7.2	3.2	2.9	3.7	3.9	7.3	9.4	10.8	6.6	3.5	4.3	6.9	8.0	8.5	7.4	6.4

Sector-wise Weibull distributions table for roughness length 0.40 m

Height		**1 0**	**2 23**	**3 45**	**4 68**	**5 90**	**6 113**	**7 135**	**8 158**	**9 180**	**10 203**	**11 225**	**12 248**	**13 270**	**14 293**	**15 315**	**16 338**
10.0 m	A k U E	1.9 1.76 1.72 7	1.0 1.39 0.89 1	1.0 1.42 0.92 1	1.2 1.63 1.09 2	1.8 1.58 1.60 6	2.5 1.46 2.31 21	3.8 1.70 3.37 54	3.8 1.97 3.34 44	3.1 2.16 2.71 22	1.7 1.73 1.50 5	1.6 1.77 1.39 4	1.7 1.77 1.47 4	1.9 1.78 1.67 6	1.9 1.67 1.74 8	1.9 1.56 1.75 8	1.8 1.60 1.57 6
25.0 m	A k U E	2.6 1.86 2.27 15	1.3 1.47 1.17 3	1.3 1.51 1.21 3	1.6 1.72 1.43 4	2.4 1.67 2.11 13	3.4 1.54 3.04 45	5.0 1.79 4.41 114	5.0 2.08 4.40 96	4.0 2.29 3.57 47	2.2 1.83 1.98 10	2.1 1.87 1.83 8	2.2 1.88 1.94 9	2.5 1.88 2.20 13	2.6 1.77 2.29 16	2.6 1.65 2.30 18	2.3 1.70 2.07 12
50.0 m	A k U E	3.1 2.02 2.74 24	1.6 1.60 1.42 4	1.6 1.63 1.47 5	1.9 1.87 1.73 6	2.9 1.81 2.54 21	4.1 1.67 3.67 71	6.0 1.91 5.30 182	6.0 2.26 5.31 156	4.9 2.49 4.31 77	2.7 1.99 2.39 16	2.5 2.03 2.21 12	2.6 2.04 2.34 15	3.0 2.05 2.66 21	3.1 1.92 2.77 26	3.1 1.79 2.78 28	2.8 1.85 2.49 20
100.0 m	A k U E	3.7 2.30 3.30 37	1.9 1.81 1.71 7	2.0 1.86 1.77 7	2.4 2.13 2.09 10	3.5 2.06 3.07 33	5.0 1.90 4.43 107	7.1 2.15 6.33 277	7.2 2.58 6.41 249	5.8 2.84 5.20 125	3.3 2.26 2.88 25	3.0 2.32 2.67 19	3.2 2.33 2.83 23	3.6 2.33 3.21 34	3.8 2.19 3.34 40	3.8 2.04 3.36 44	3.4 2.10 3.01 30
200.0 m	A k U E	4.6 2.22 4.04 70	2.3 1.75 2.09 12	2.4 1.79 2.16 13	2.9 2.06 2.55 19	4.2 1.99 3.75 62	6.1 1.84 5.41 203	8.6 2.09 7.63 498	8.8 2.49 7.83 466	7.1 2.73 6.35 233	4.0 2.18 3.52 47	3.7 2.23 3.26 36	3.9 2.24 3.46 43	4.4 2.25 3.92 63	4.6 2.11 4.08 75	4.6 1.96 4.10 82	4.2 2.03 3.68 57

PRILOG 3

U ovom prilogu su date detaljne mape vetra za sve obradjivane stanice u Projektu:

1. Banatski Karlovac
2. Kikinda
3. Palic
4. Rimski Šančevi
5. Sombor
6. Sremska Mitrovica
7. Vrsac
8. Zrenjanin

Mape sadrže informacije o granicama u metrima. Prostiru se uglavnom 20-ak kilometara oko stanice imaju rezoluciju 1200 m i mreža u kojoj intermpretiraju rezultat je 34 X 34 tačke.

'IME STANICE' Resource grid

Grid Setup

Structure: Struktura	34 columns and 34 rows at 1200 resolution gives 1156 calculation sites.
Boundary: Granice:	(479500, 4969500) to (520300, 5010300)
Nodes: Čvorne tačke	(480100, 4970100) to (519700, 5009700)

Rezultati će biti dati za srednje brzine i gustinu snage vetra. Prvo je na karti Vojvodine prikazan obradjivani region. Zatim su dati rezulatai za taj region sa maksimumom i minimum,
Potom će ista karta biti preikazana uvećana sa odgovarajućom legendom boja.

'BANATSKI KARLOVAC' Resource grid

Produced on 13-Dec-08 at 19:04:35 by licenced user: Educational Licence 1, Faculty of Technical Sciences, Serbia using WAsP version: 9.00.0133.

Grid Setup

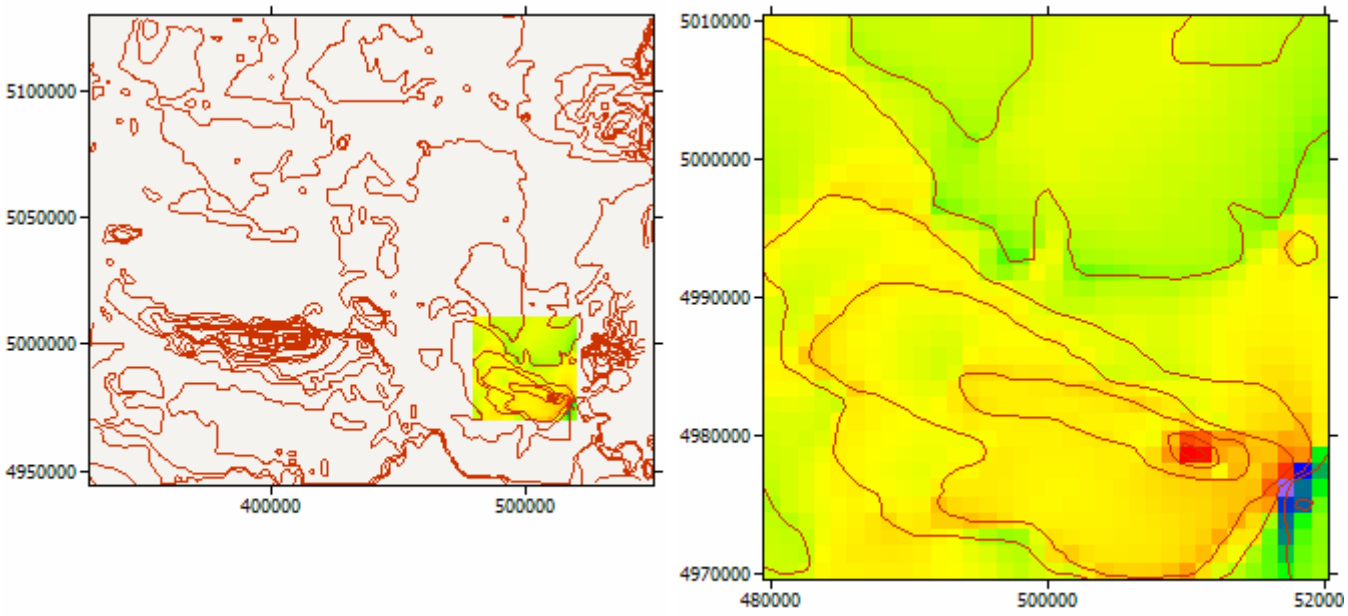
Structure: 34 columns and 34 rows at 1200 resolution gives 1156 calculation sites.

Boundary: (479500, 4969500) to (520300, 5010300)

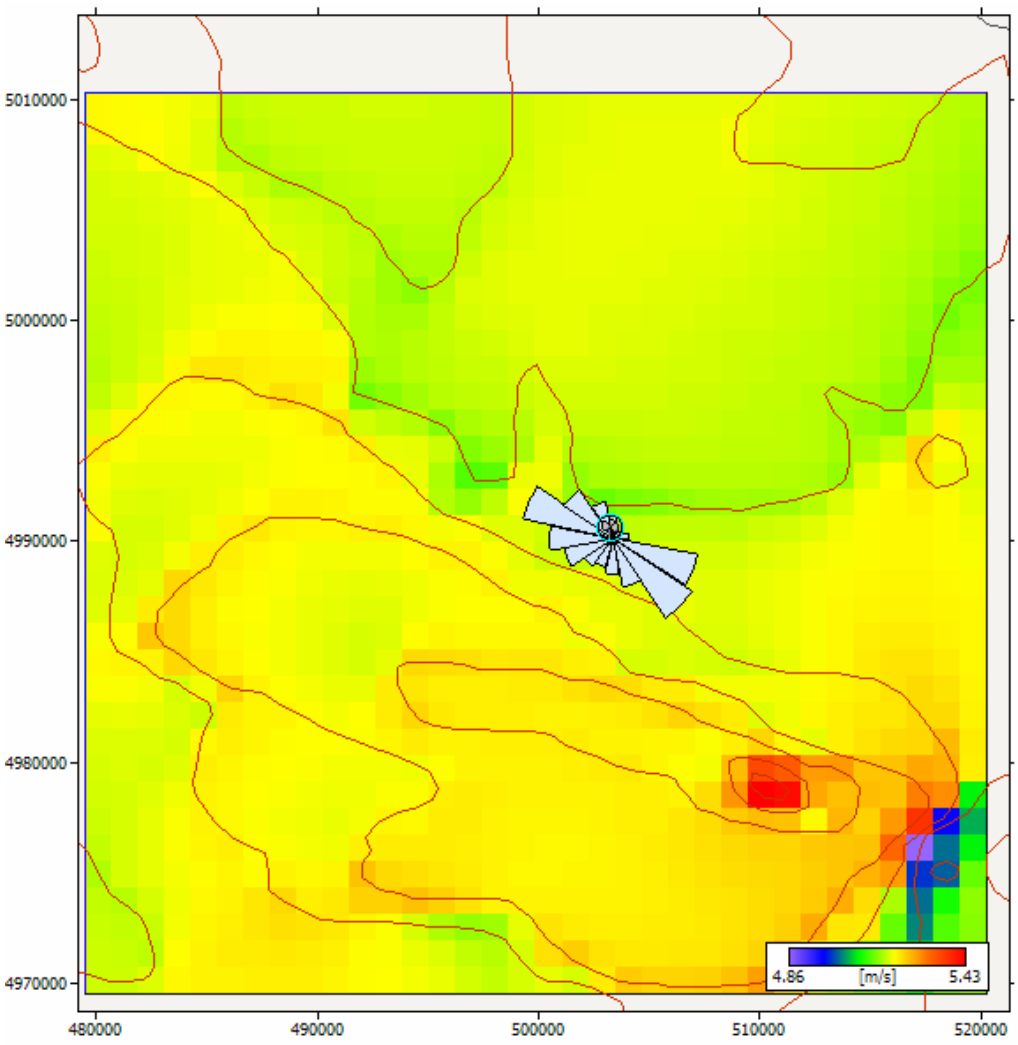
Nodes: (480100, 4970100) to (519700, 5009700)

Results

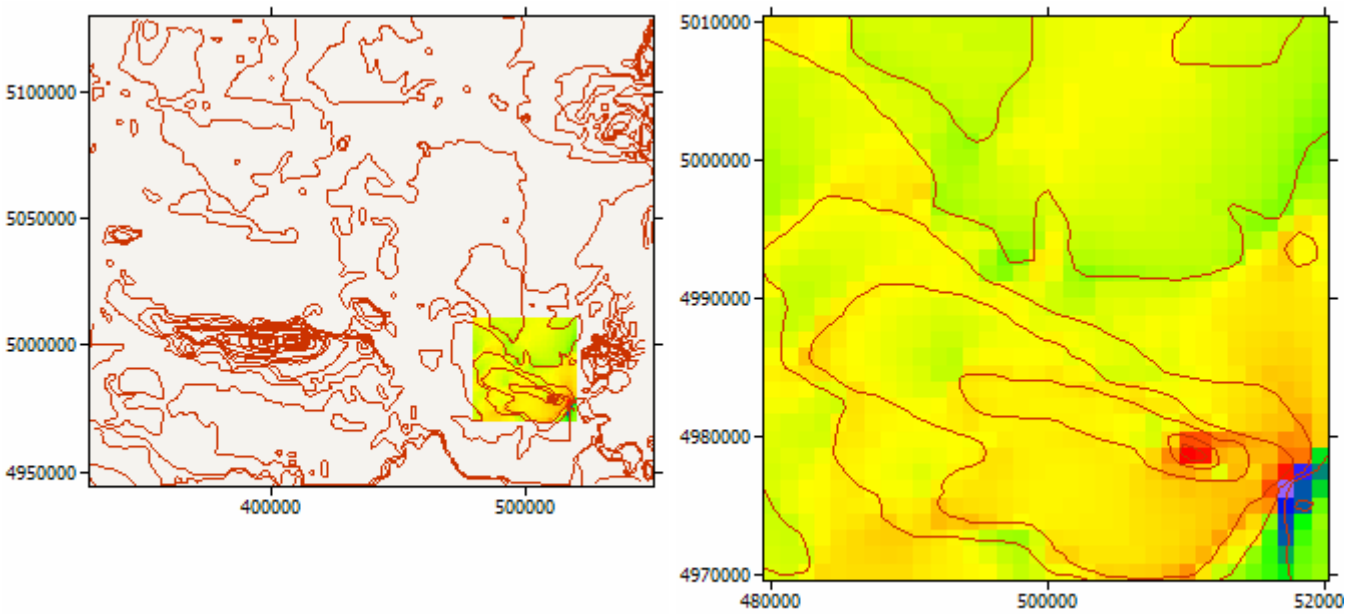
Mean Speed [m/s]



Maximum Value:	5.43 m/s at (510100.0,4978500.0)
Minimum Value:	4.86 m/s at (517300.0,4976100.0)
Mean Value:	5.19 m/s


5010000
5000000
4990000
4980000
4970000
480000
490000
500000
510000
520000
4.86
[m/s]
5.43

Power Density [W/m²]



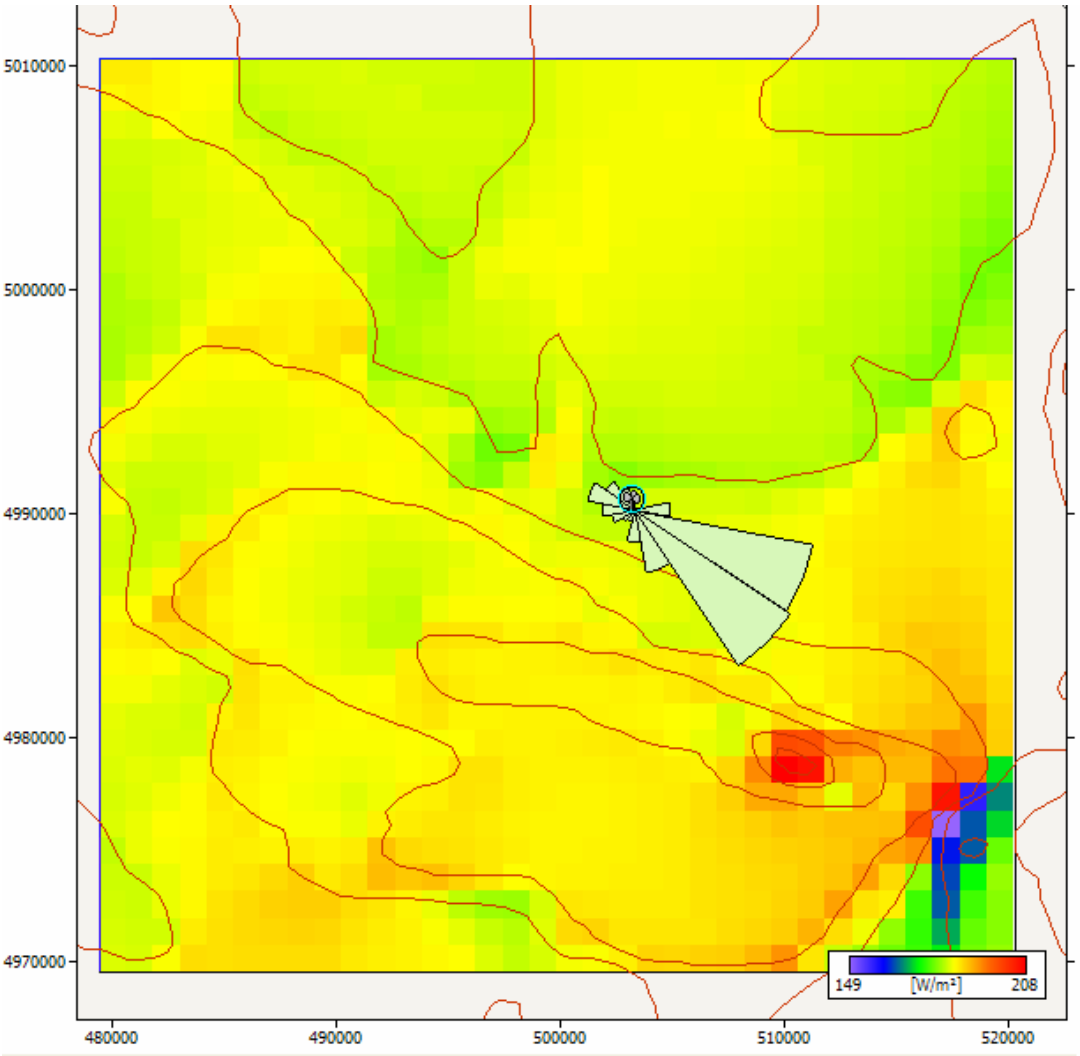
Maximum Value:	208 W/m² at (510100.0,4978500.0)
Minimum Value:	149 W/m² at (517300.0,4976100.0)
Mean Value:	184 W/m²

Project parameters

The resource grid is in a project called BANATSKI KARLOVAC.
Here is a list of all the parameters with non-default values:
All of the parameters in the project are default values.

Data origins information

The map was imported by 'Administrator' from a file called 'C:\Documents and Settings\Administrator\My Documents\Zlatica_wasp\Mape_Vojvodine\STANICE\KIKNDA_mape\Vojvodina_kikinda_1km.map', on a computer called 'KATIC'. The map file data were last modified on the 07-Dec-08 at 12:39:48
There is no information about the origin of the wind atlas file.


5010000
5000000
4990000
4980000
4970000
480000
490000
500000
510000
520000
149
[W/m²]
208

'KIKINDA' Resource grid

Produced on 10-Dec-08 at 13:13:30 by licenced user: Educational Licence 1, Faculty of Technical Sciences, Serbia using WAsP version: 9.00.0133.

Grid Setup

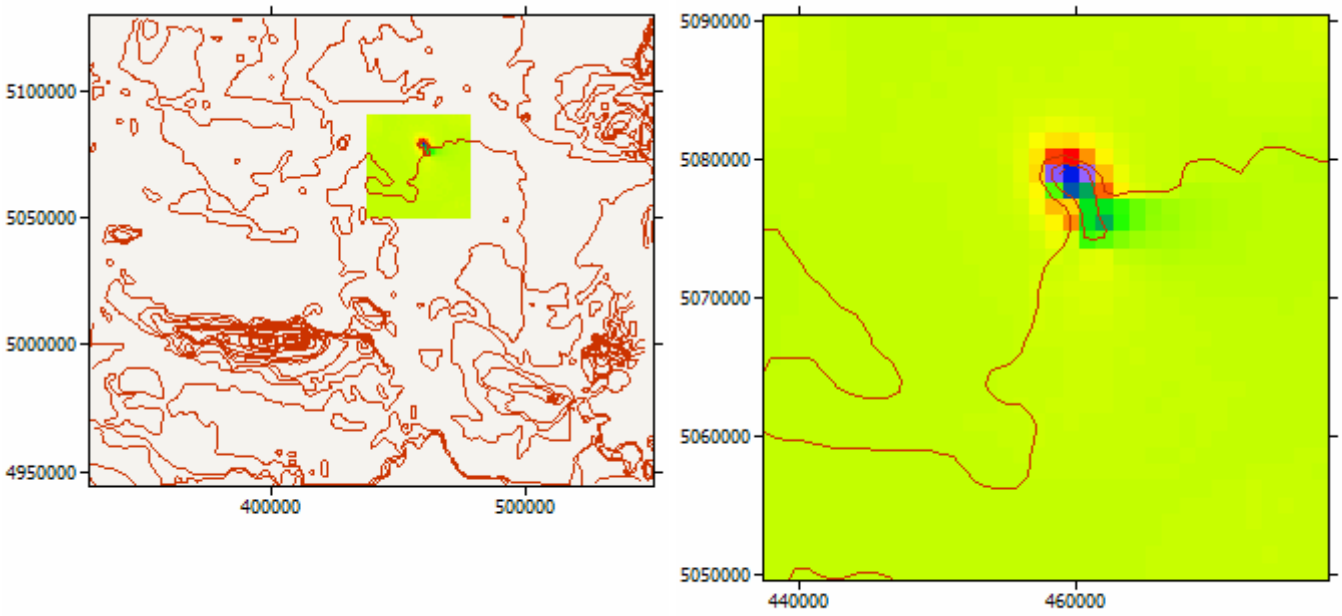
Structure: 34 columns and 34 rows at 1200 resolution gives 1156 calculation sites.

Boundary: (437500, 5049500) to (478300, 5090300)

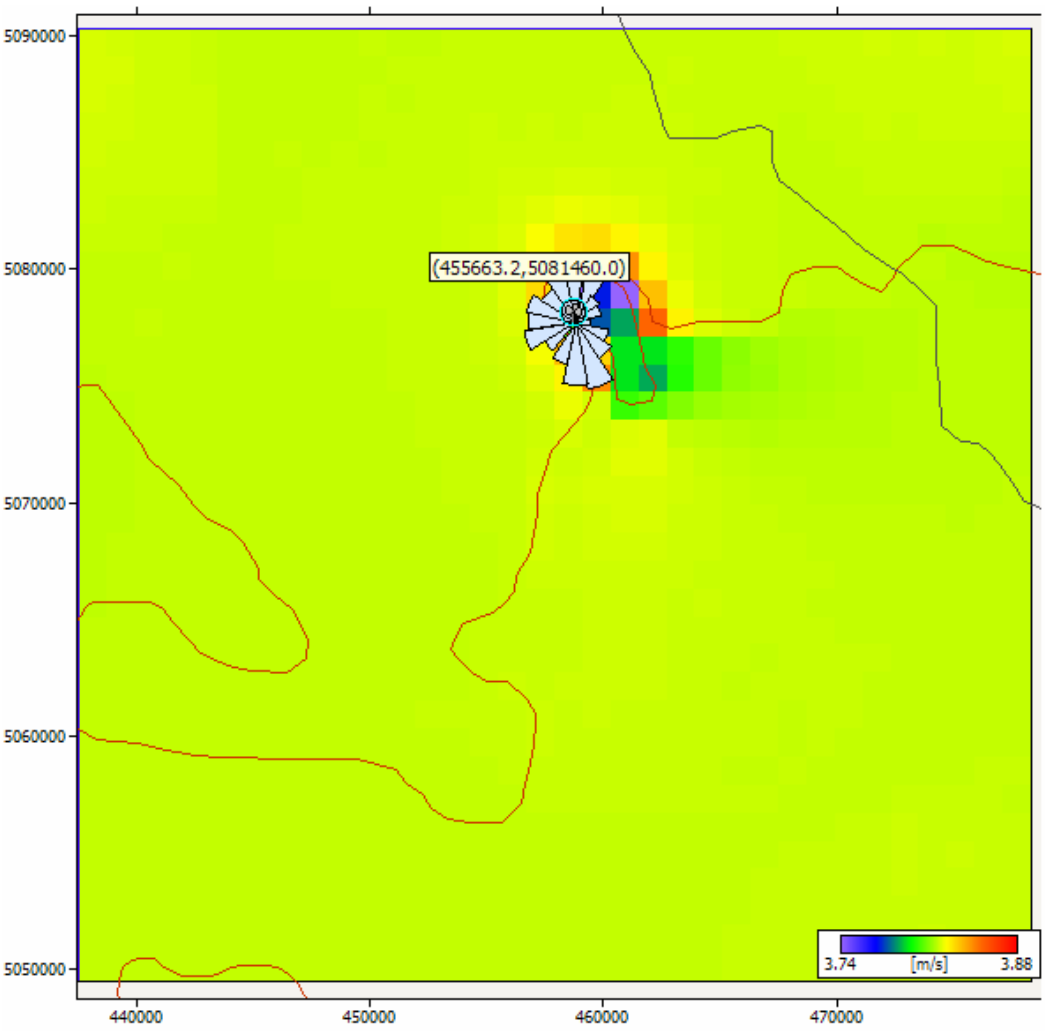
Nodes: (438100, 5050100) to (477700, 5089700)

Results

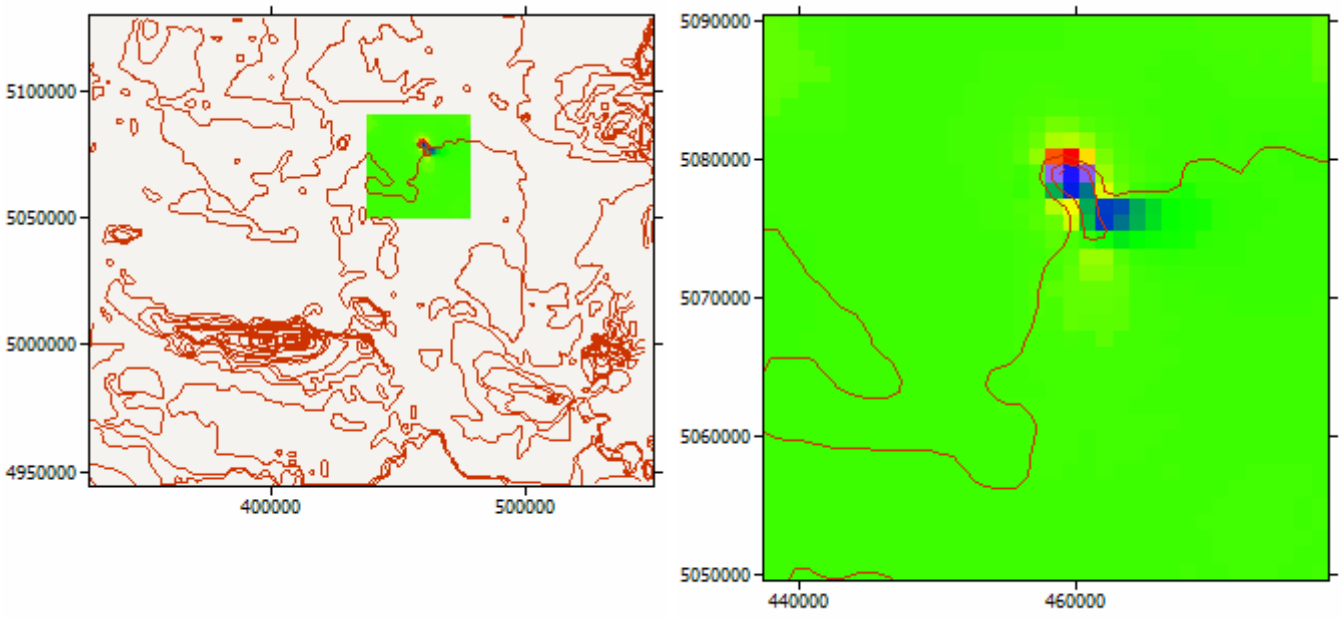
Mean Speed [m/s]



Maximum Value:	3.88 m/s at (459700.0,5080100.0)
Minimum Value:	3.74 m/s at (460900.0,5078900.0)
Mean Value:	3.82 m/s


5090000
5080000
5070000
5060000
5050000
440000
450000
460000
470000
(455663.2,5081460.0)
3.74
[m/s]
3.88

Power Density [W/m²]



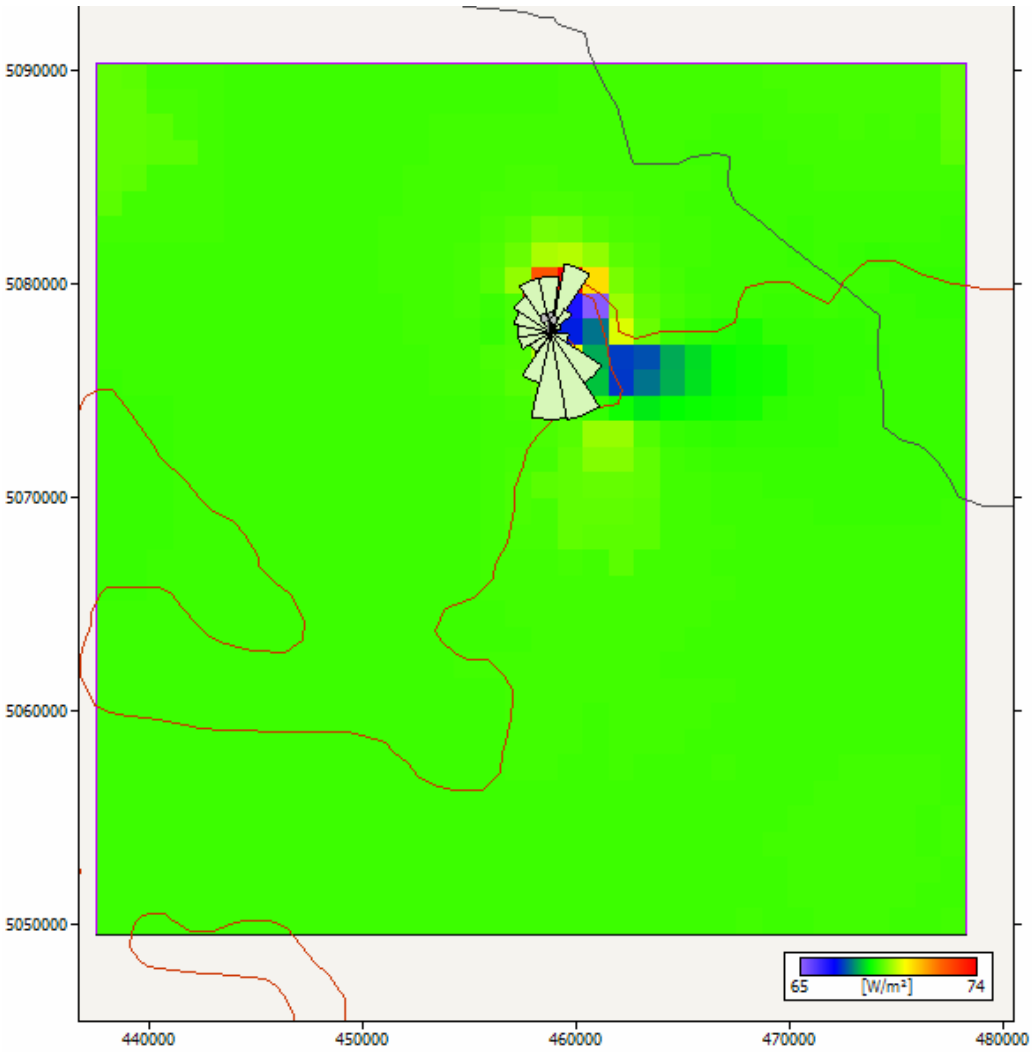
Maximum Value:	74 W/m² at (459700.0,5080100.0)
Minimum Value:	65 W/m² at (458500.0,5078900.0)
Mean Value:	69 W/m²

Project parameters

The resource grid is in a project called Project 1.
Here is a list of all the parameters with non-default values:
All of the parameters in the project are default values.

Data origins information

The map was imported by 'Administrator' from a file called 'C:\Documents and Settings\Administrator\My Documents\Zlatica_wasp\Mape_Vojvodine\Vojvodina_tacke_1km.map', on a computer called 'KATIC'. The map file data were last modified on the 25-Jul-08 at 15:57:55
There is no information about the origin of the wind atlas file.


5090000
5080000
5070000
5060000
5050000
440000
450000
460000
470000
480000
65
[W/m²]
74

'Palic' Resource grid

Produced on 10-Dec-08 at 13:28:20 by licenced user: Educational Licence 1, Faculty of Technical Sciences, Serbia using WAsP version: 9.00.0133.

Grid Setup

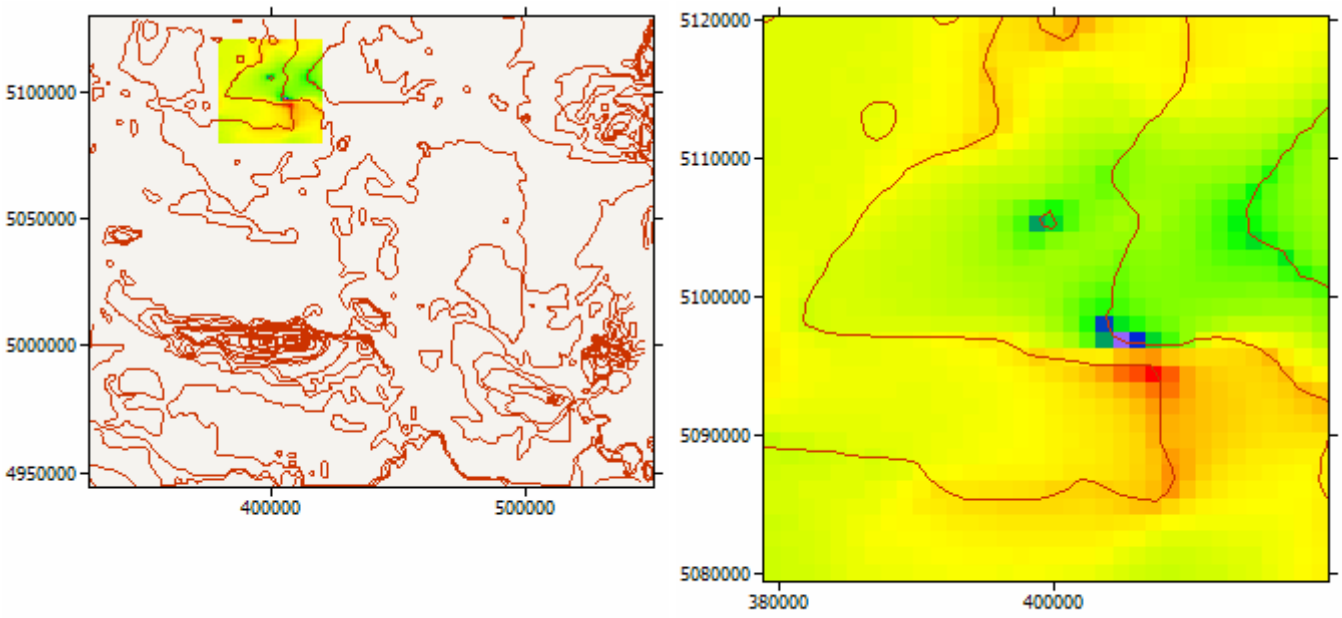
Structure: 34 columns and 34 rows at 1200 resolution gives 1156 calculation sites.

Boundary: (379040, 5079400) to (419840, 5120200)

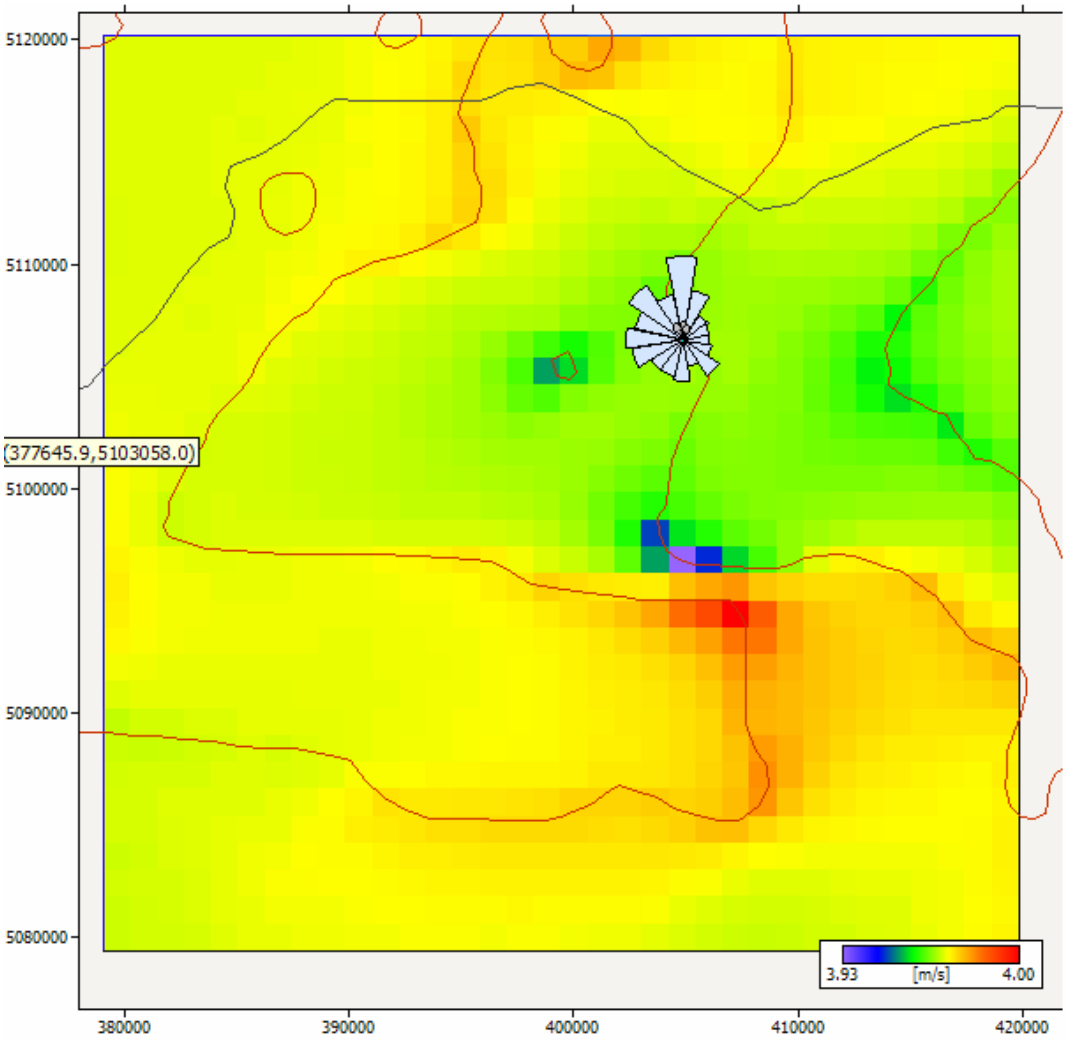
Nodes: (379640, 5080000) to (419240, 5119600)

Results

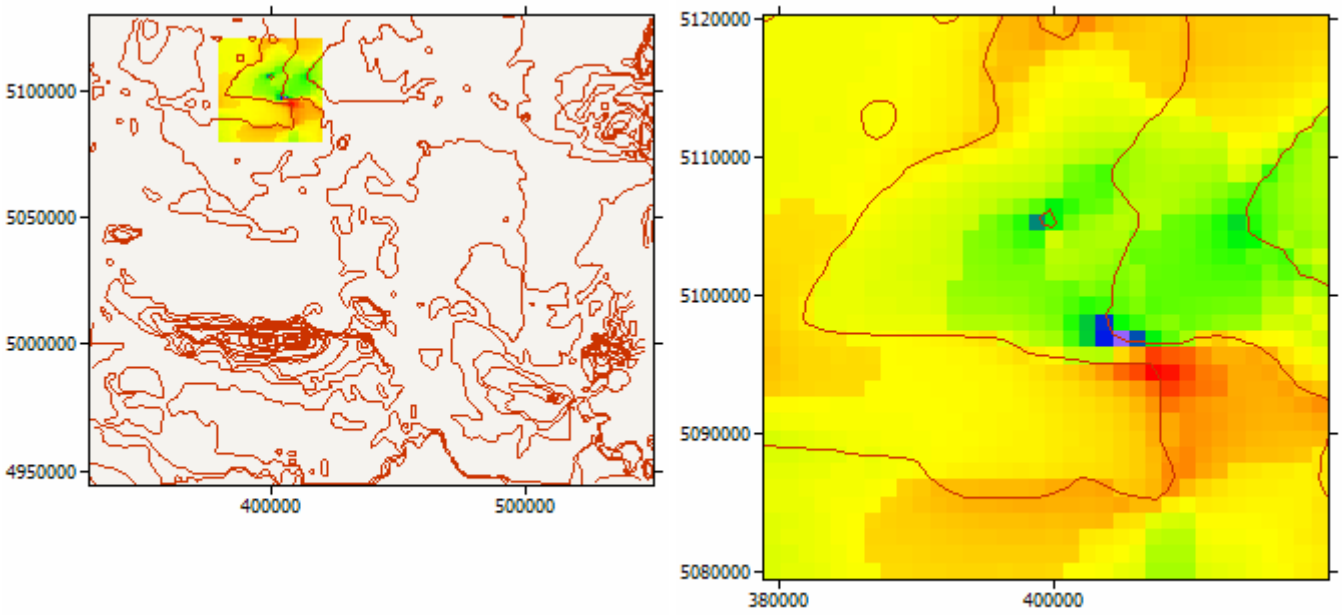
Mean Speed [m/s]



Maximum Value:	4.00 m/s at (407240.0,5094400.0)
Minimum Value:	3.93 m/s at (404840.0,5096800.0)
Mean Value:	3.97 m/s


5120000
5110000
(377645.9,5103058.0)
5100000
5090000
5080000
380000
390000
400000
410000
420000
3.93
[m/s]
4.00

Power Density [W/m²]



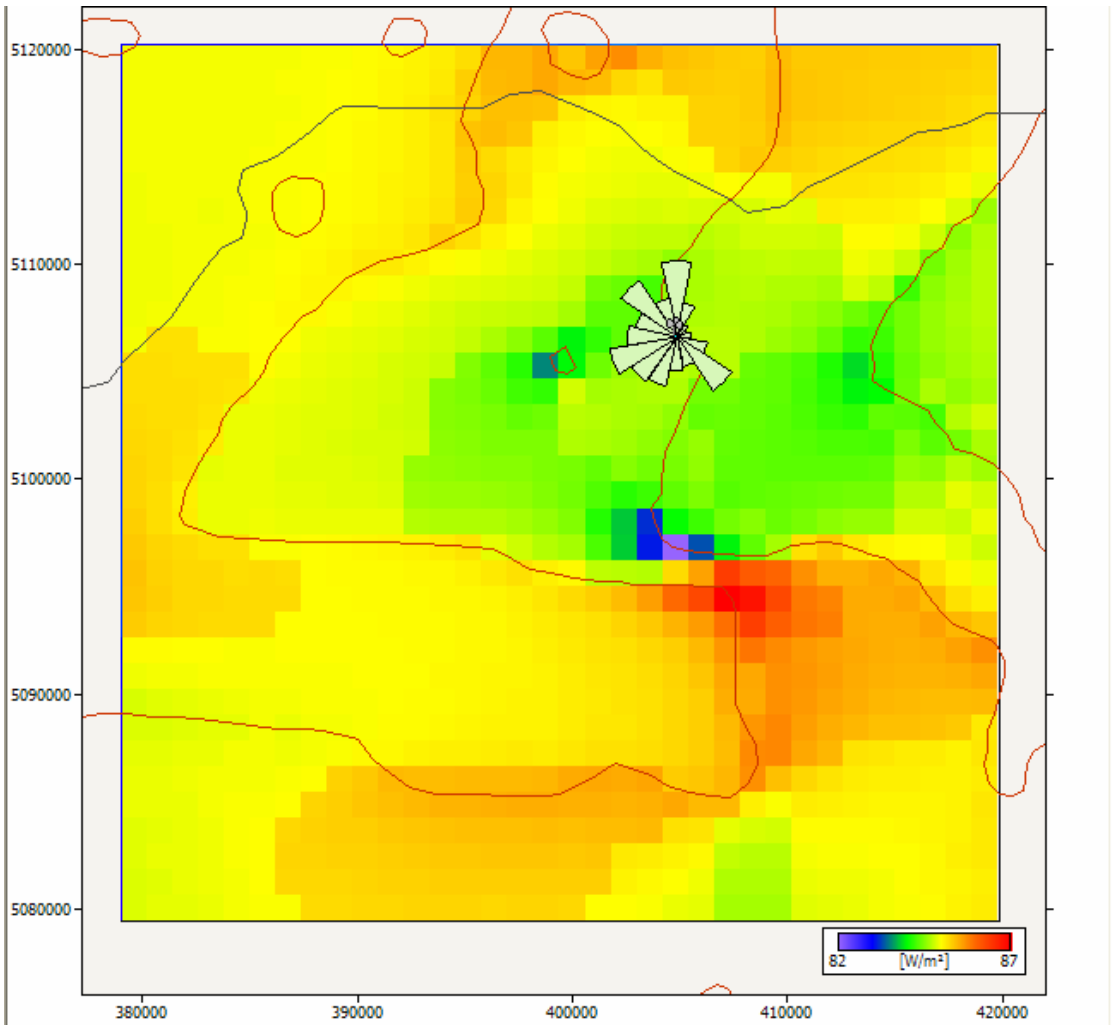
Maximum Value:	87 W/m² at (407240.0,5094400.0)
Minimum Value:	82 W/m² at (404840.0,5096800.0)
Mean Value:	85 W/m²

Project parameters

The resource grid is in a project called Project 1.
Here is a list of all the parameters with non-default values:
All of the parameters in the project are default values.

Data origins information

The map was imported by 'Administrator' from a file called 'C:\Documents and Settings\Administrator\My Documents\Zlatica_wasp\Mape_Vojvodine\Vojvodina_tacke_1km.map', on a computer called 'KATIC'. The map file data were last modified on the 25-Jul-08 at 16:57:55
There is no information about the origin of the wind atlas file.


5120000
5110000
5100000
5090000
5080000
380000
390000
400000
410000
420000
82
[W/m²]
87

'RSANCEVI' Resource grid

Produced on 13-Dec-08 at 19:44:00 by licenced user: Educational Licence 1, Faculty of Technical Sciences, Serbia using WAsP version: 9.00.0133.

Grid Setup

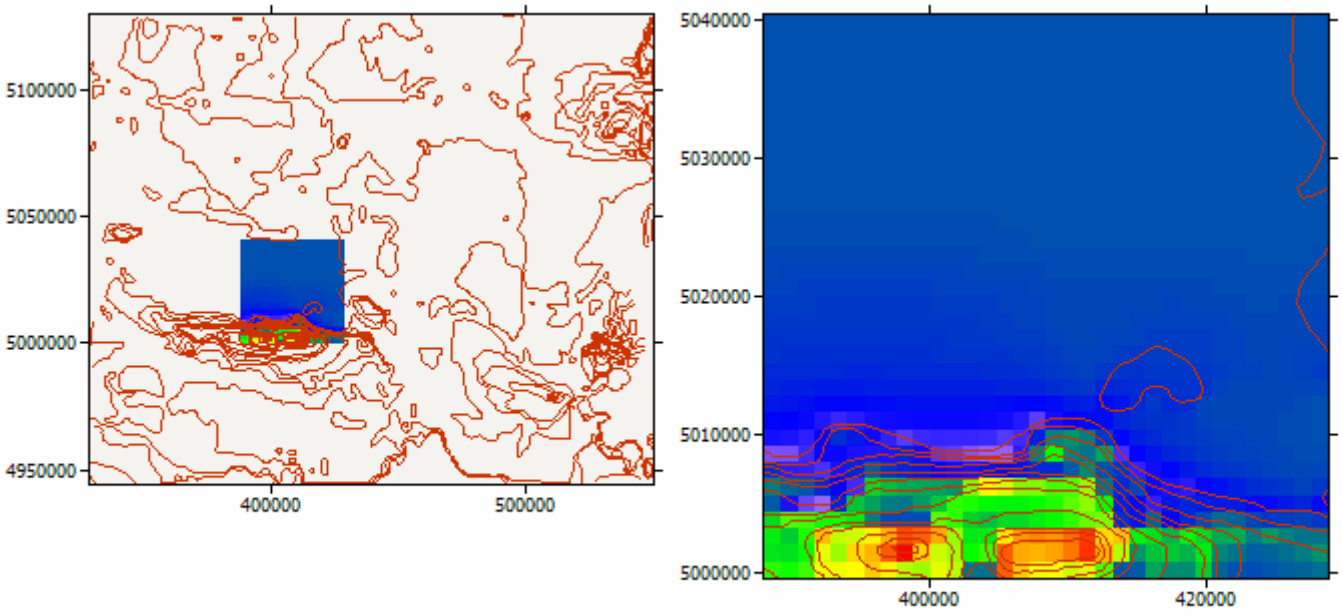
Structure: 34 columns and 34 rows at 1200 resolution gives 1156 calculation sites.

Boundary: (388100, 4999500) to (428900, 5040300)

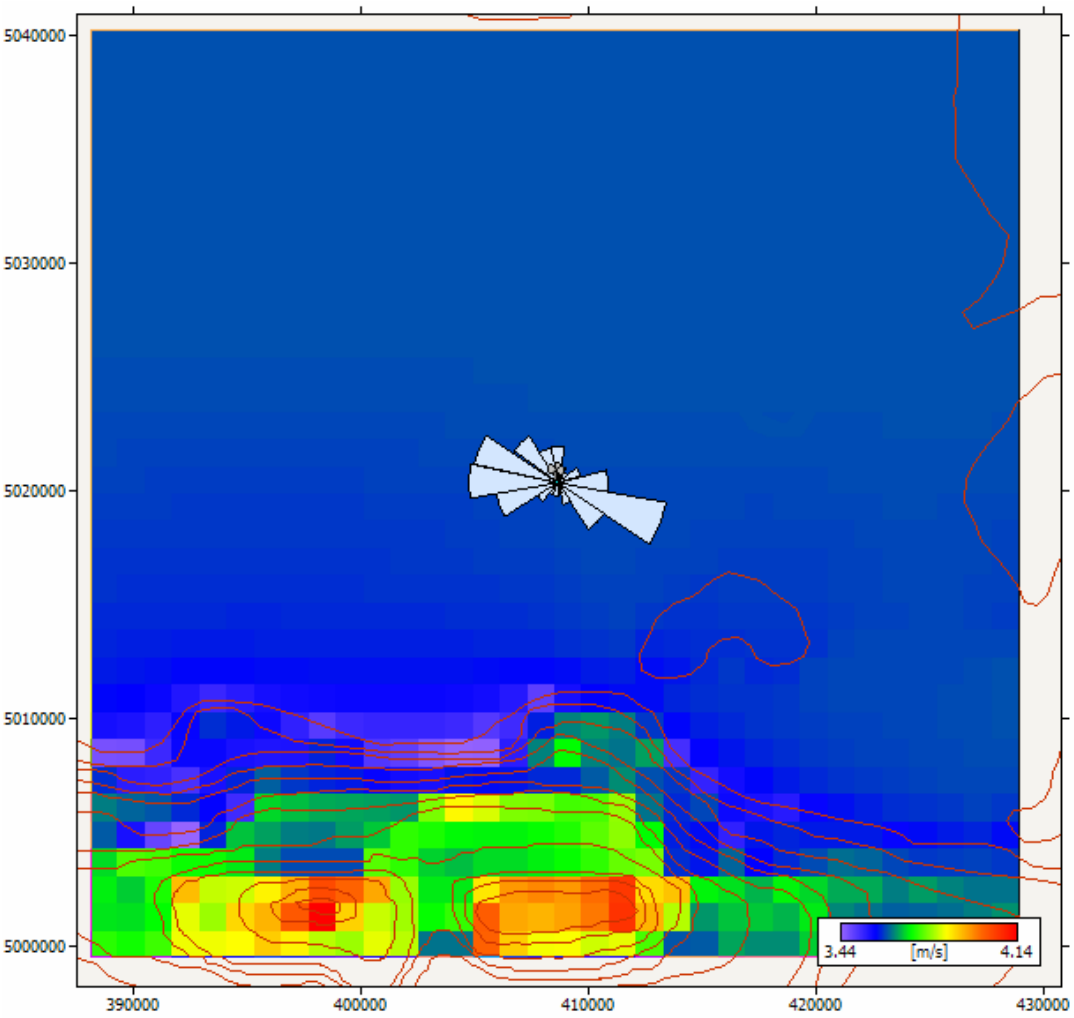
Nodes: (388700, 5000100) to (428300, 5039700)

Results

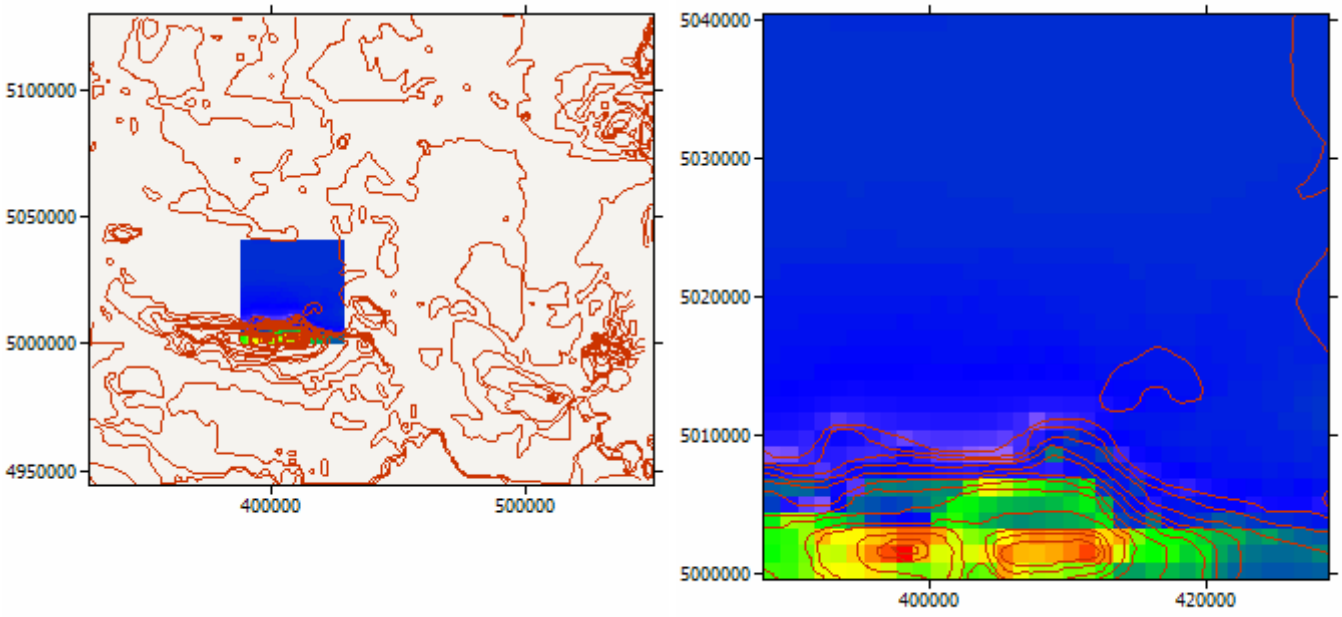
Mean Speed [m/s]



Maximum Value:	4.14 m/s at (398300.0,5001300.0)
Minimum Value:	3.44 m/s at (392300.0,5004900.0)
Mean Value:	3.63 m/s


5040000
5030000
5020000
5010000
5000000
390000
400000
410000
420000
430000
3.44
[m/s]
4.14

Power Density [W/m²]



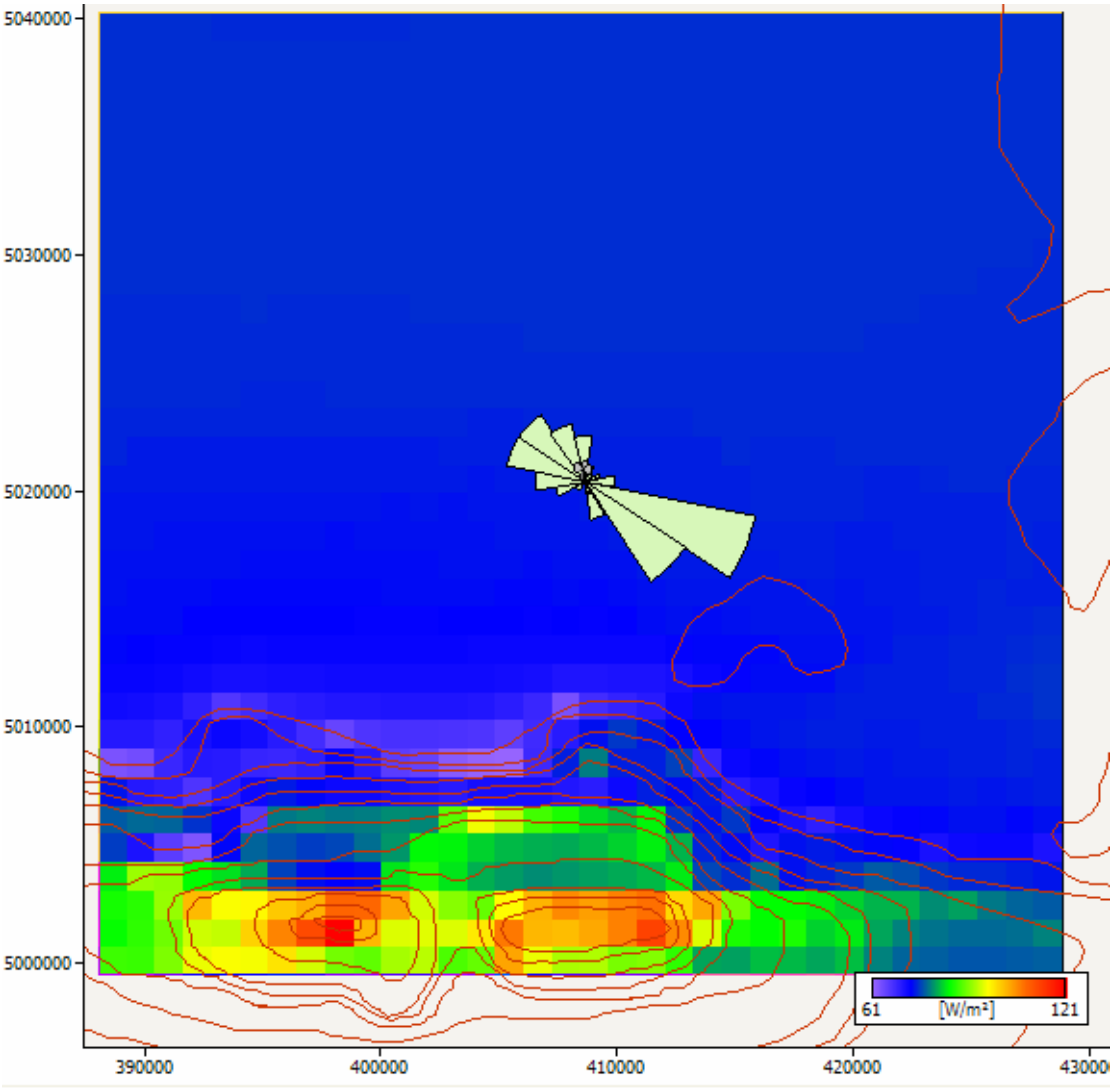
Maximum Value:	121 W/m² at (398300.0,5001300.0)
Minimum Value:	61 W/m² at (405500.0,5008500.0)
Mean Value:	76 W/m²

Project parameters

The resource grid is in a project called RSANCEVI.
Here is a list of all the parameters with non-default values:
All of the parameters in the project are default values.

Data origins information

The map was imported by 'Administrator' from a file called 'C:\Documents and Settings\Administrator\My Documents\Zlatica_wasp\Mape_Vojvodine\Vojvodina_tacke_1km.map', on a computer called 'KATIC'. The map file data were last modified on the 25-Jul-08 at 15:57:55
There is no information about the origin of the wind atlas file.


5040000
5030000
5020000
5010000
5000000
390000
400000
410000
420000
43000
61
[W/m²]
121

'SOMBOR' Resource grid

Produced on 10-Dec-08 at 15:15:24 by licenced user: Educational Licence 1, Faculty of Technical Sciences, Serbia using WAsP version: 9.00.0133.

Grid Setup

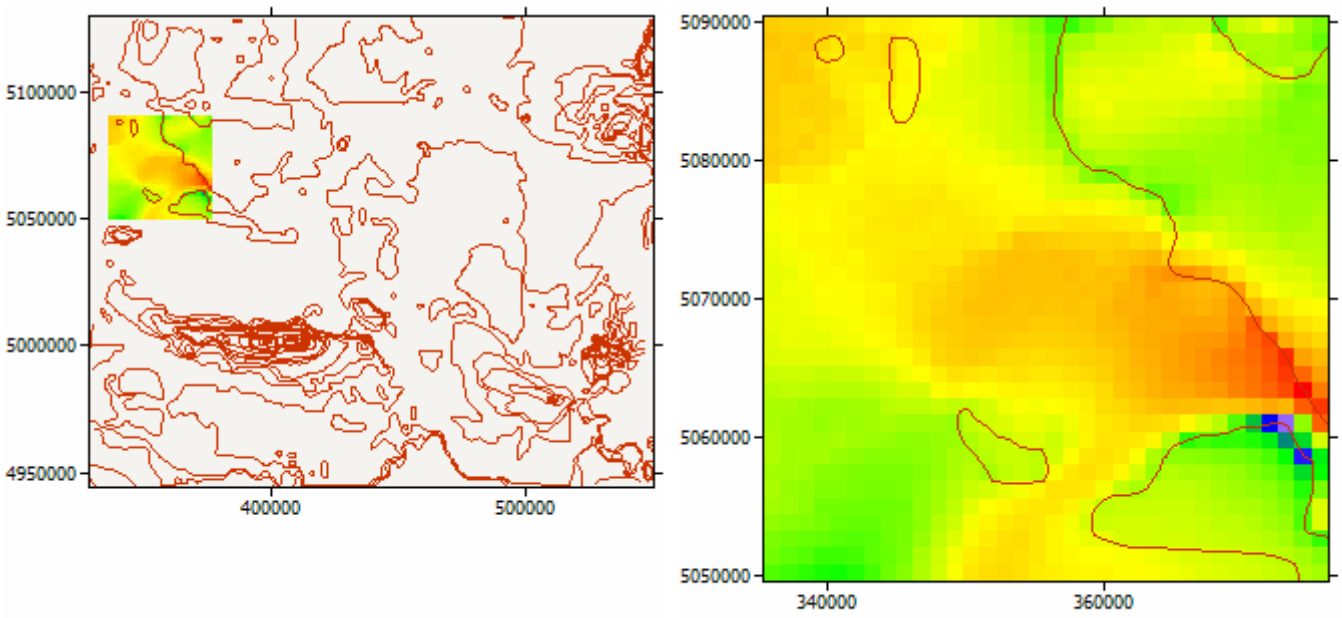
Structure: 34 columns and 34 rows at 1200 resolution gives 1156 calculation sites.

Boundary: (335500, 5049500) to (376300, 5090300)

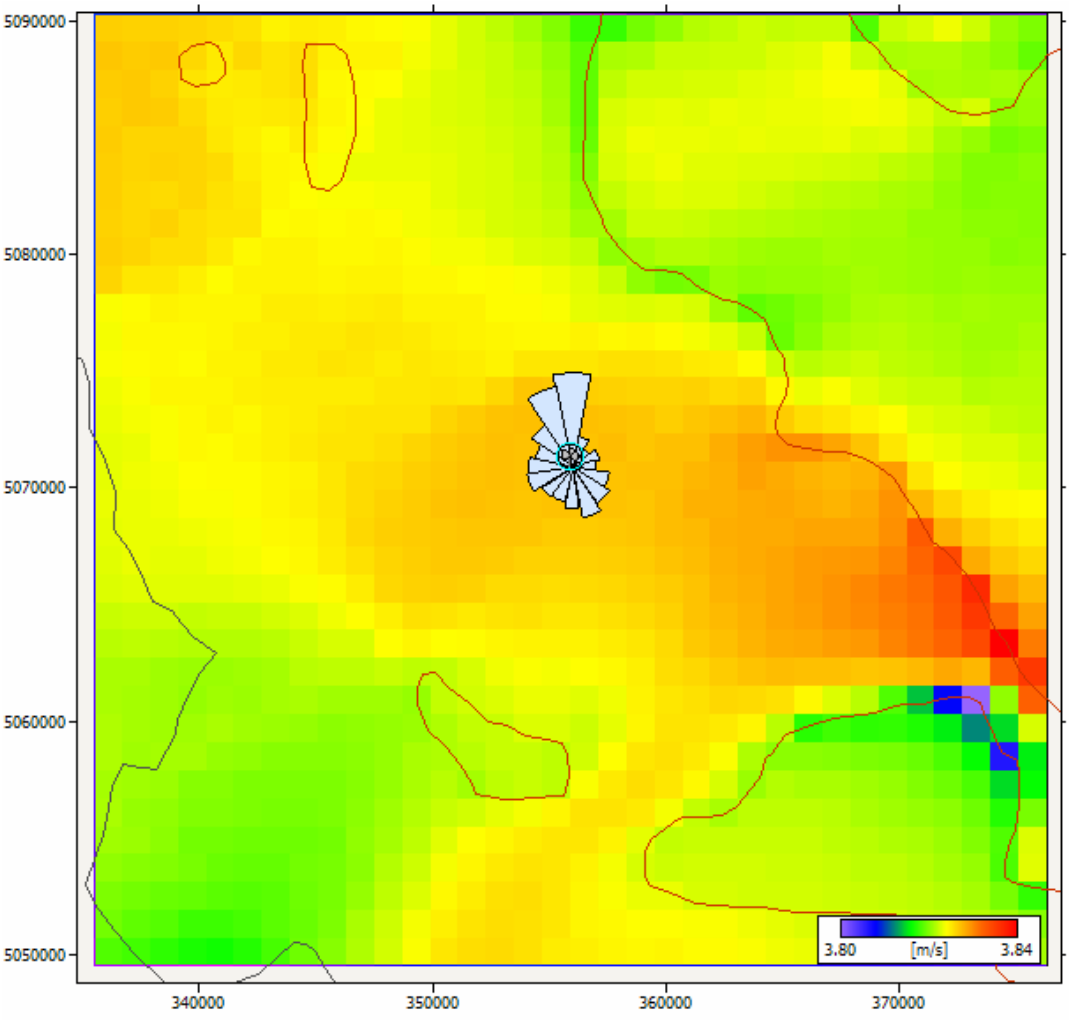
Nodes: (336100, 5050100) to (375700, 5089700)

Results

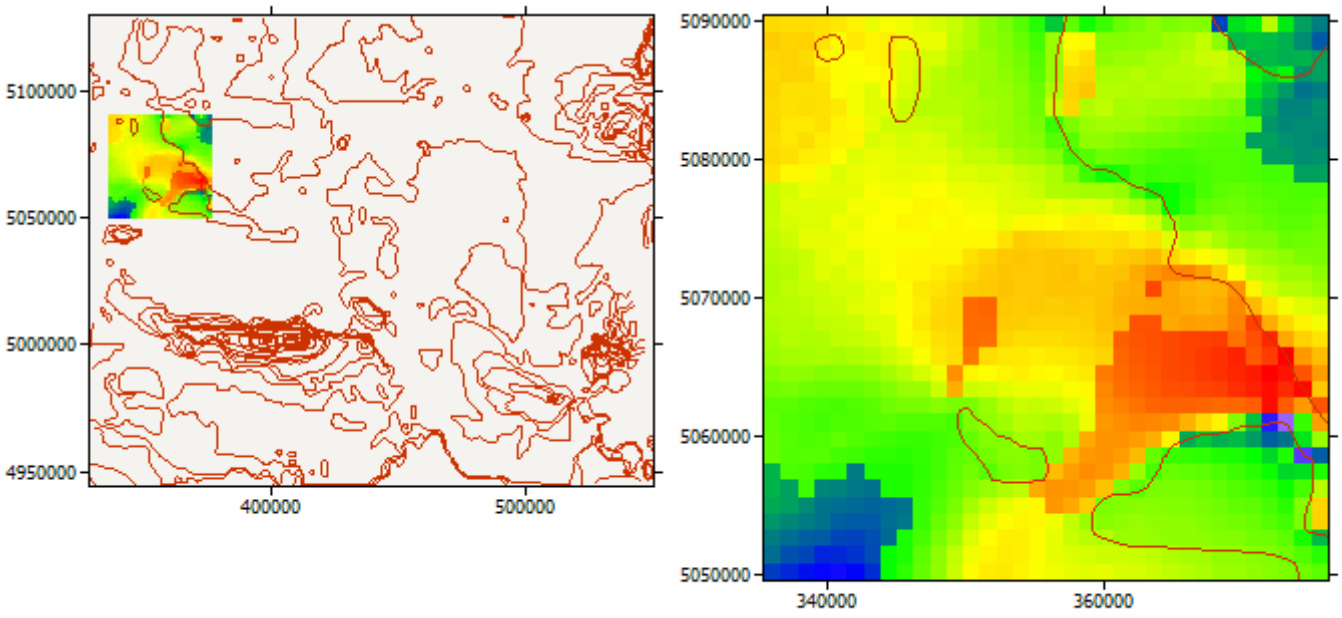
Mean Speed [m/s]



Maximum Value:	3.84 m/s at (374500.0,5063300.0)
Minimum Value:	3.80 m/s at (373300.0,5060900.0)
Mean Value:	3.82 m/s


5090000
5080000
5070000
5060000
5050000
340000
350000
360000
370000
3.80
[m/s]
3.84

Power Density [W/m²]



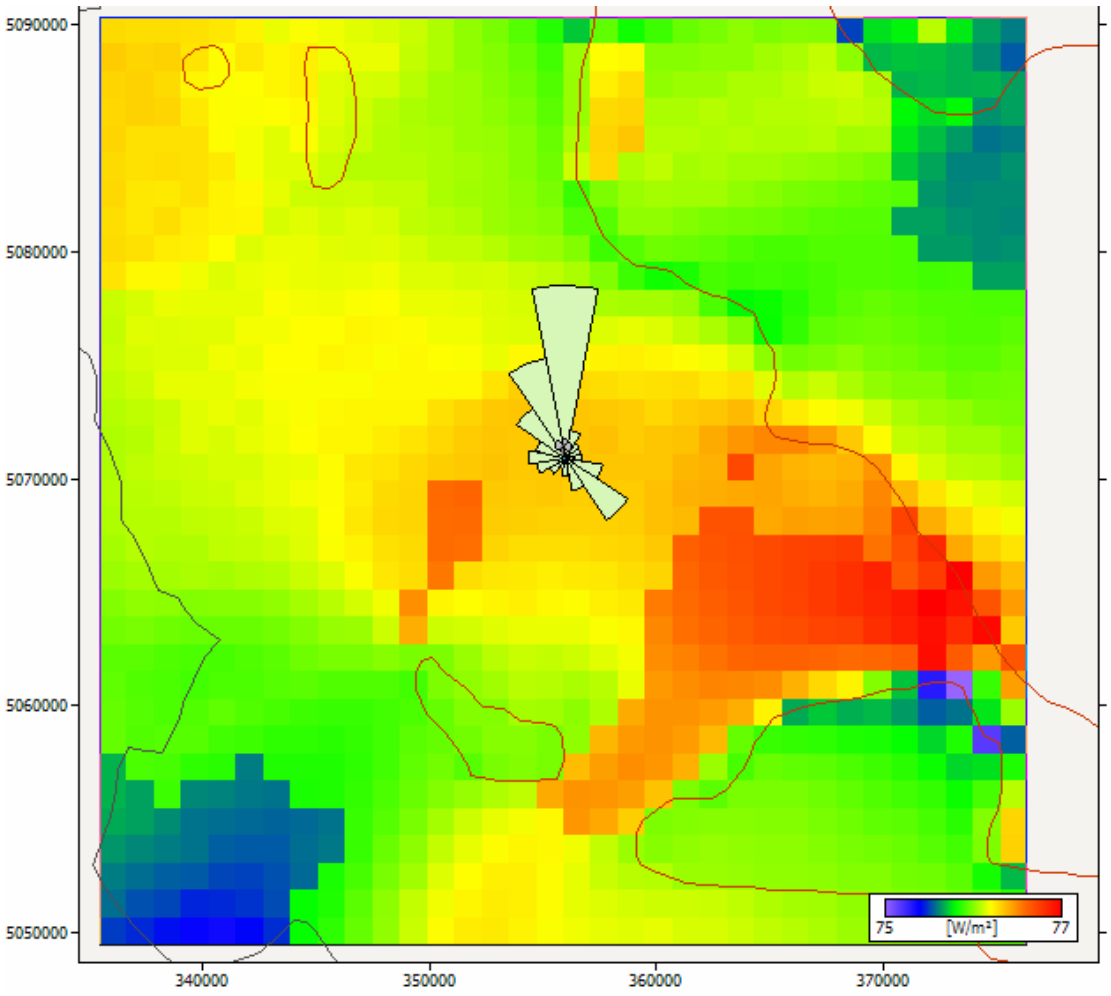
Maximum Value:	77 W/m² at (372100.0,5064500.0)
Minimum Value:	75 W/m² at (373300.0,5060900.0)
Mean Value:	76 W/m²

Project parameters

The resource grid is in a project called SOMBOR.
Here is a list of all the parameters with non-default values:
All of the parameters in the project are default values.

Data origins information

The map was imported by 'Administrator' from a file called 'C:\Documents and Settings\Administrator\My Documents\Zlatica_wasp\Mape_Vojvodine\Vojvodina_tacke_1km.map', on a computer called 'KATIC'. The map file data were last modified on the 25-Jul-08 at 15:57:55
There is no information about the origin of the wind atlas file.


5090000
5080000
5070000
5060000
5050000
340000
350000
360000
370000
75
[W/m²]
77

'SREMSKA MITROVICA' Resource grid

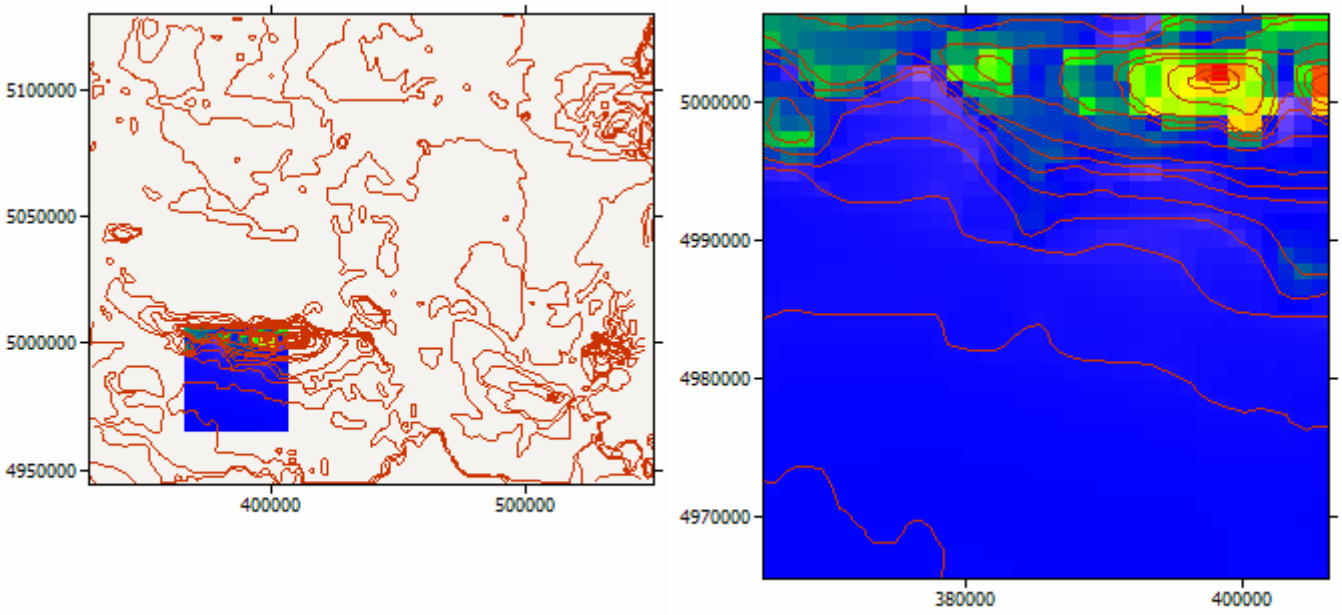
Produced on 12-Dec-08 at 20:13:12 by licenced user: Educational Licence 1, Faculty of Technical Sciences, Serbia using WAsP version: 9.00.0133.

Grid Setup

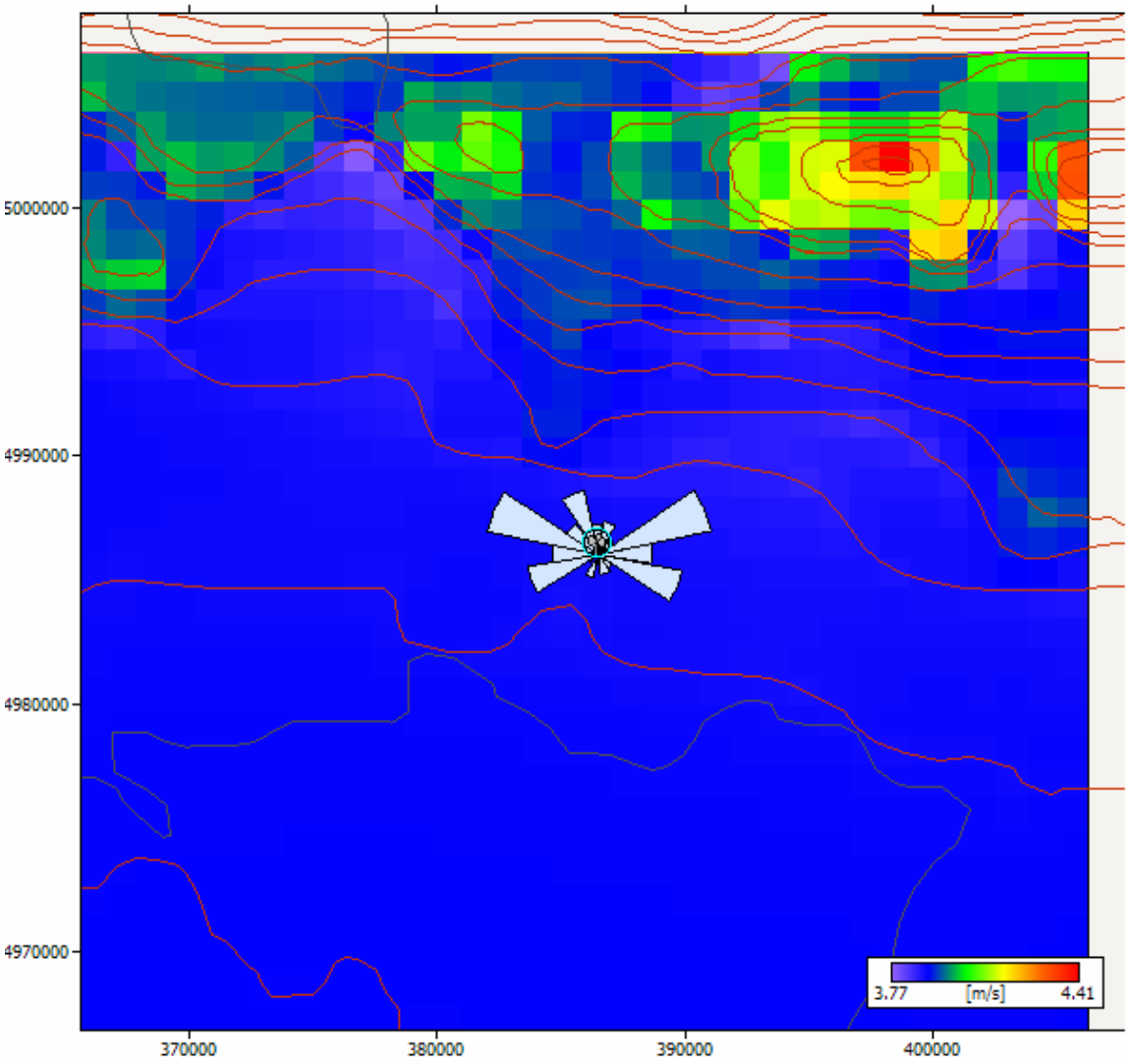
Structure: 34 columns and 34 rows at 1200 resolution gives 1156 calculation sites.
Boundary: (365500, 4965500) to (406300, 5006300)
Nodes: (366100, 4966100) to (405700, 5005700)

Results

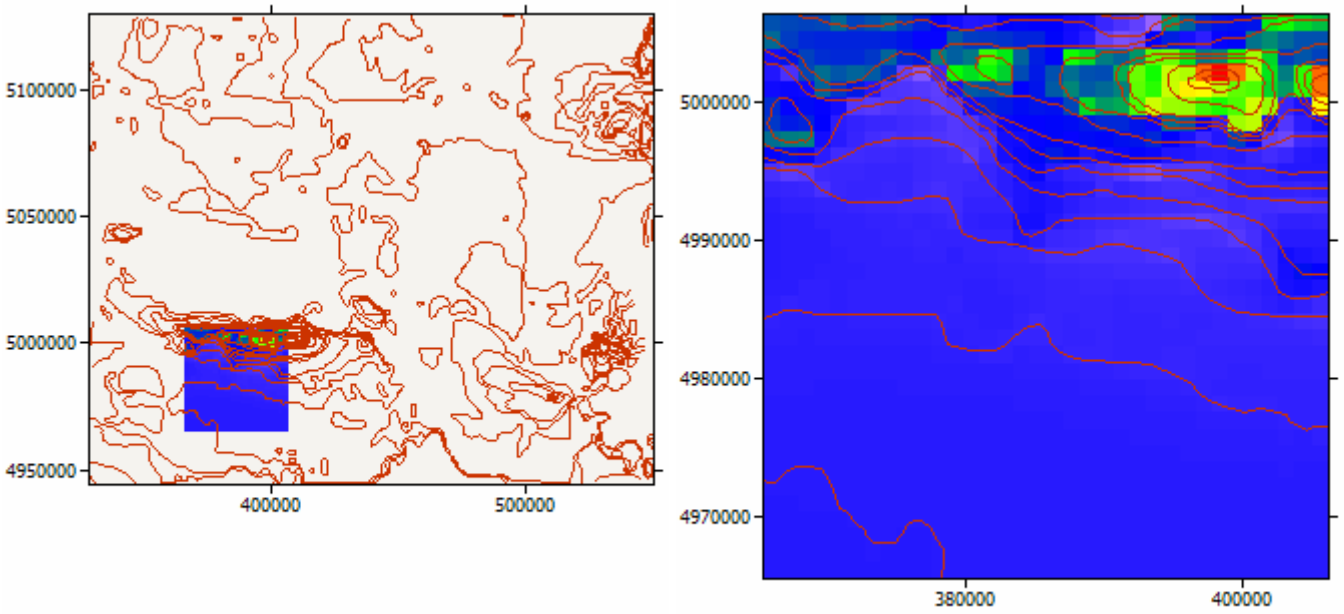
Mean Speed [m/s]



Maximum Value:	4.41 m/s at (398500.0,5002100.0)
Minimum Value:	3.77 m/s at (403300.0,4999700.0)
Mean Value:	3.90 m/s


5000000
4990000
4980000
4970000
370000
380000
390000
400000
3.77
[m/s]
4.41

Power Density [W/m²]



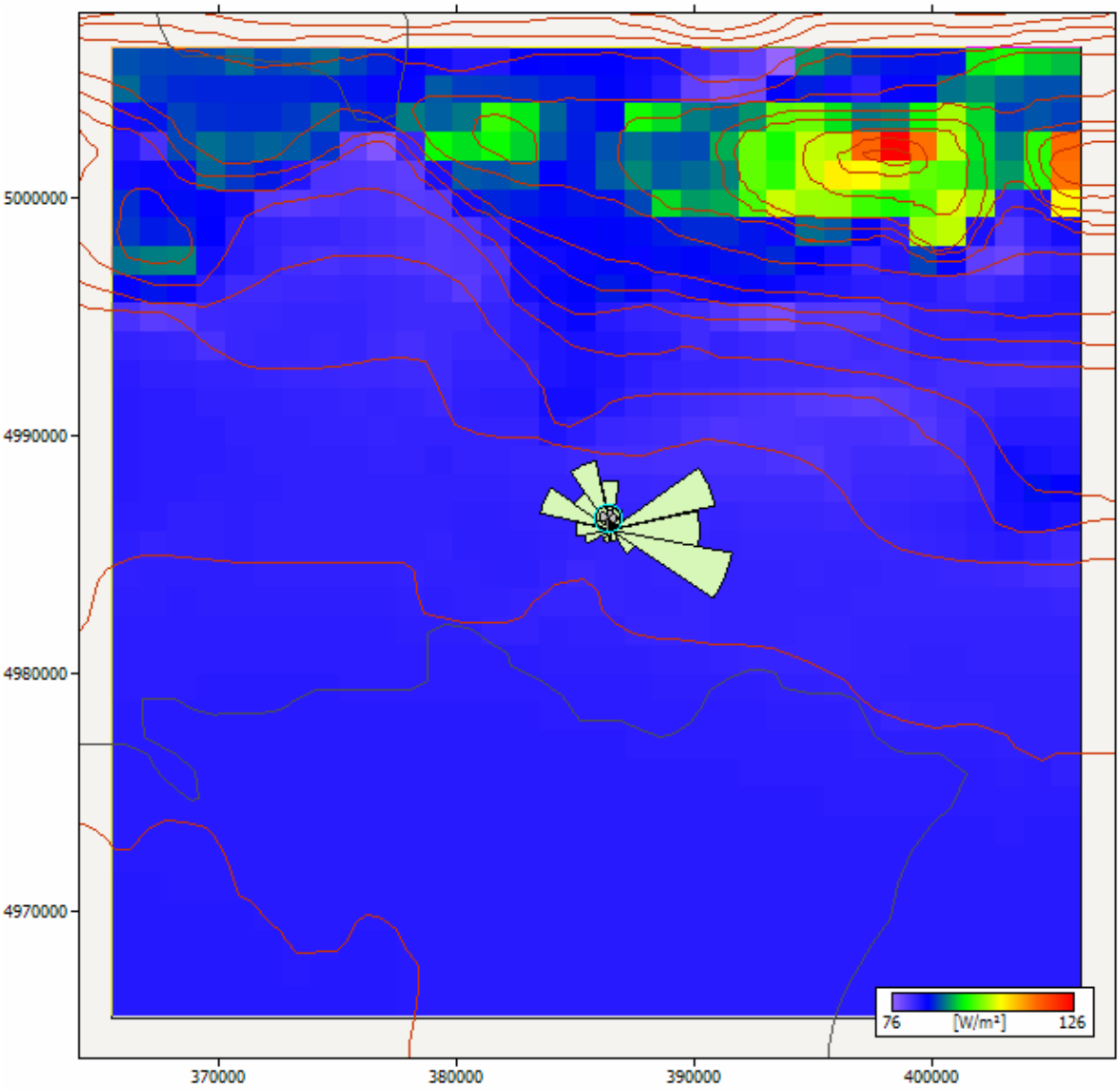
Maximum Value:	126 W/m² at (398500.0,5002100.0)
Minimum Value:	76 W/m² at (393700.0,5005700.0)
Mean Value:	85 W/m²

Project parameters

The resource grid is in a project called Project 1.
Here is a list of all the parameters with non-default values:
All of the parameters in the project are default values.

Data origins information

The map was imported by 'Administrator' from a file called 'C:\Documents and Settings\Administrator\My Documents\Zlatica_wasp\Mape_Vojvodine\Vojvodina_tacke_1km.map', on a computer called 'KATIC'. The map file data were last modified on the 25-Jul-08 at 15:57:55



There is no information about the origin of the wind atlas file.

'VRSAC' Resource grid

Produced on 10-Dec-08 at 15:21:40 by licenced user: Educational Licence 1, Faculty of Technical Sciences, Serbia using WAsP version: 9.00.0133.

Grid Setup

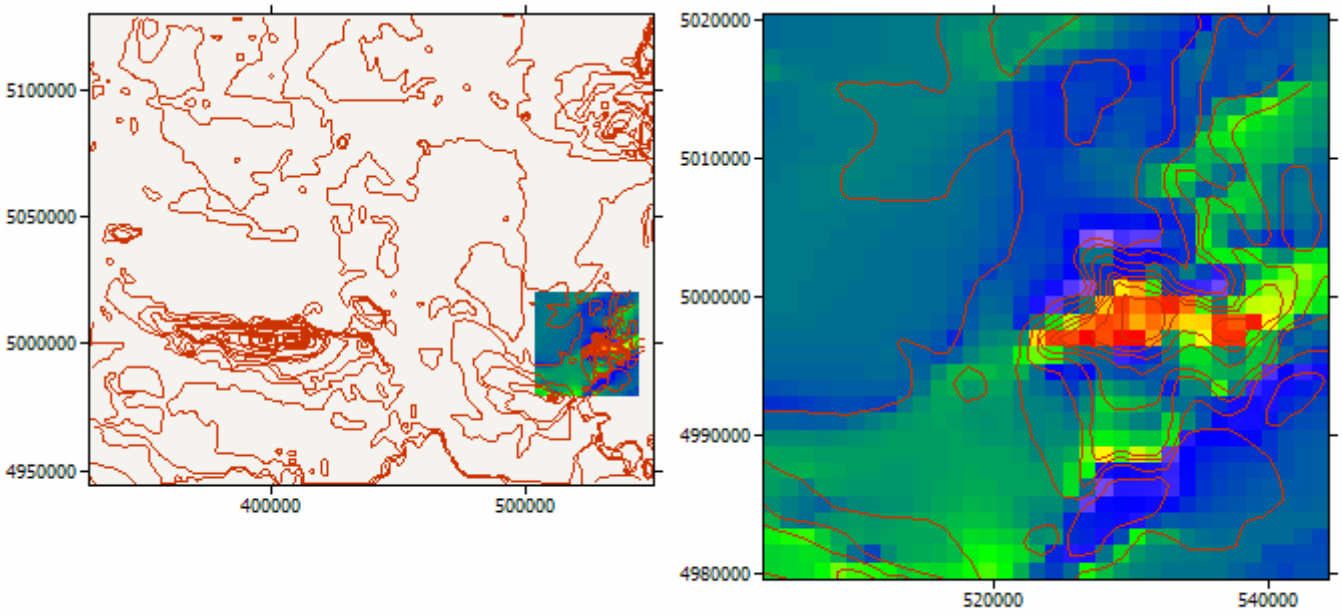
Structure: 34 columns and 34 rows at 1200 resolution gives 1156 calculation sites.

Boundary: (503500, 4979500) to (544300, 5020300)

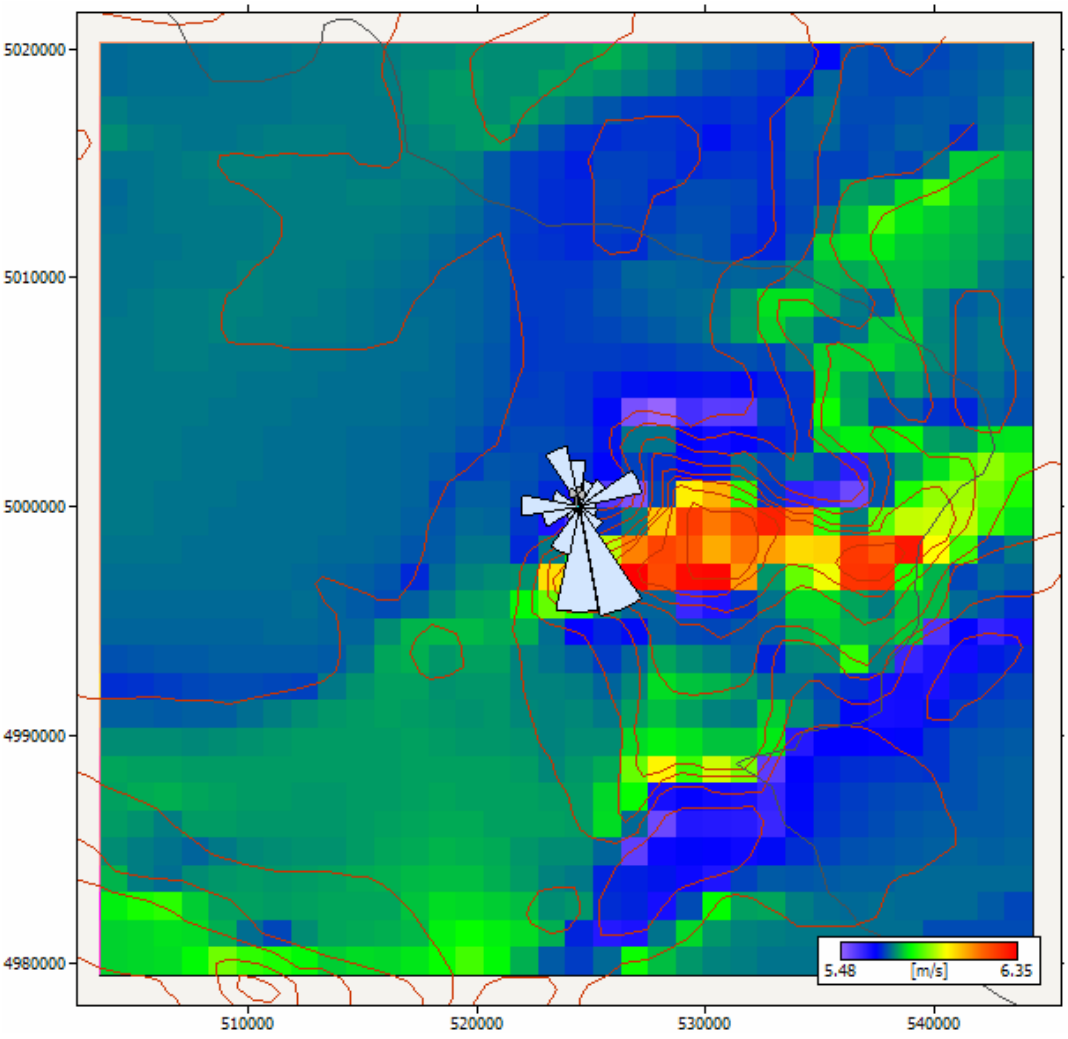
Nodes: (504100, 4980100) to (543700, 5019700)

Results

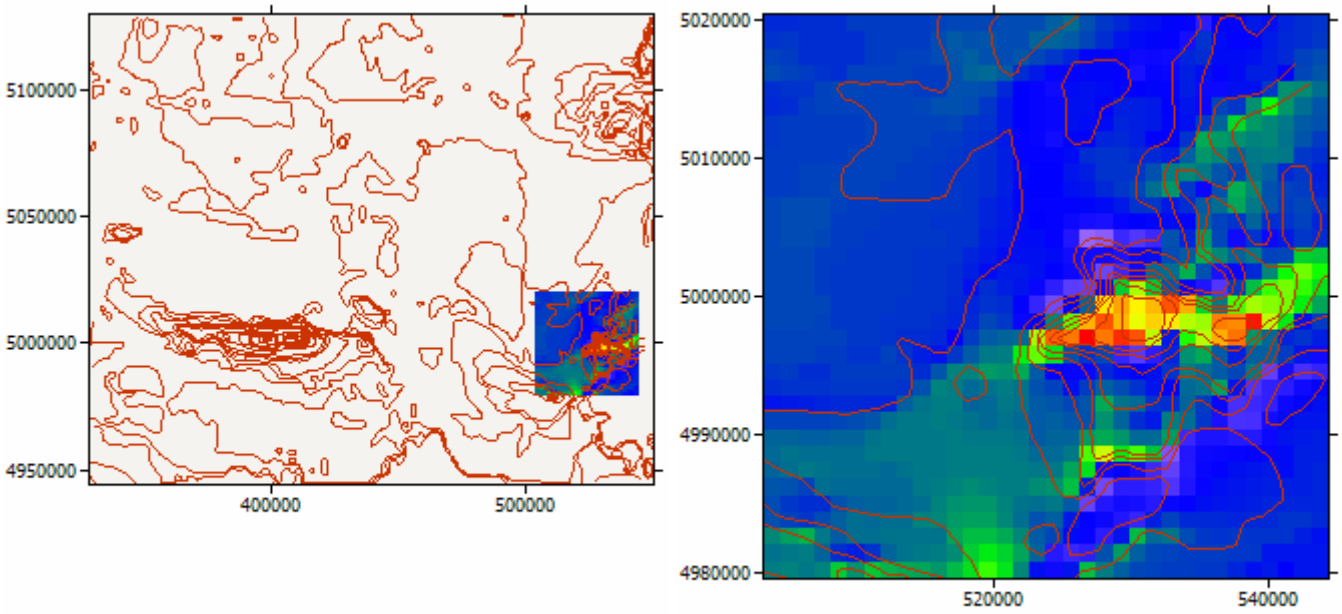
Mean Speed [m/s]



Maximum Value:	6.35 m/s at (526900.0,4996900.0)
Minimum Value:	5.48 m/s at (528100.0,5004100.0)
Mean Value:	5.74 m/s


5020000
5010000
5000000
4990000
4980000
510000
520000
530000
540000
5.48
[m/s]
6.35

Power Density [W/m²]



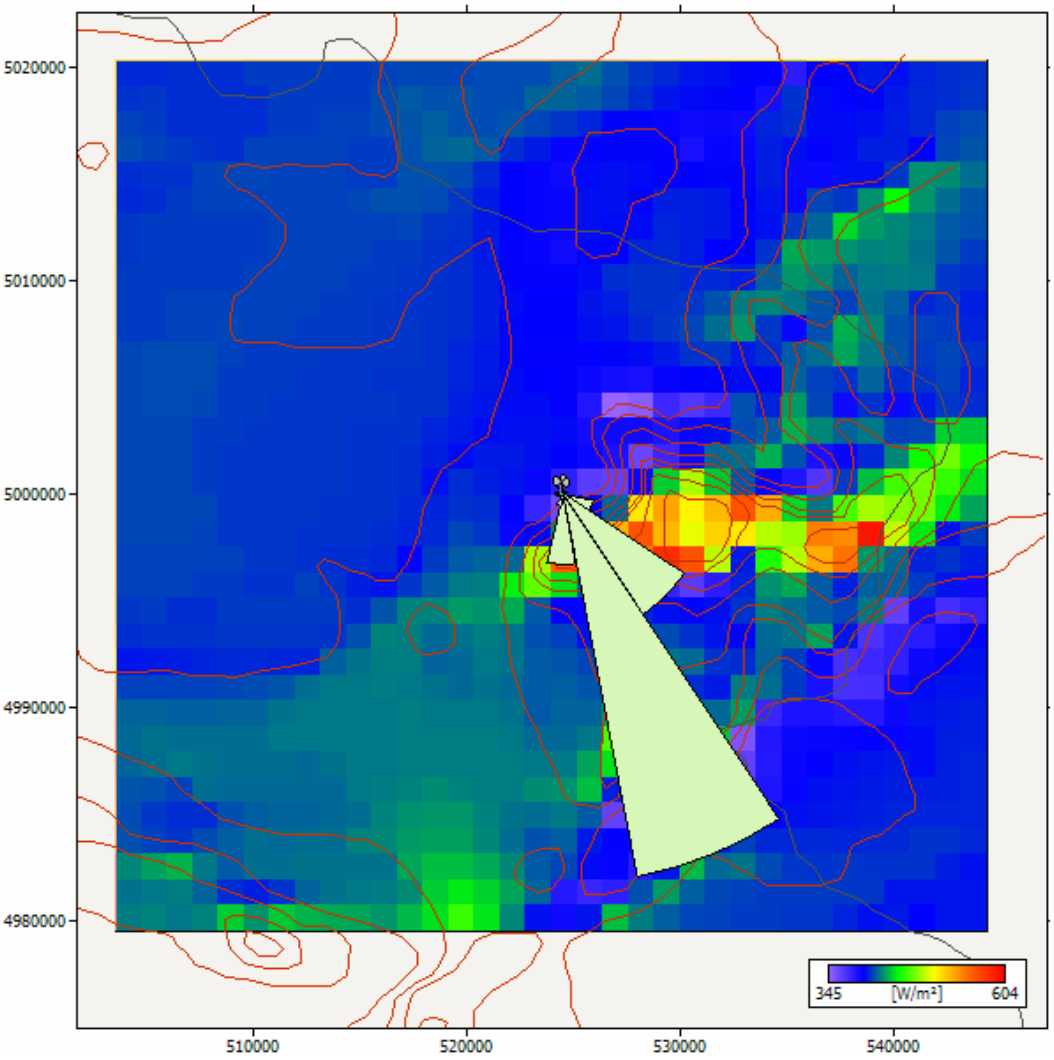
Maximum Value:	604 W/m² at (526900.0,4996900.0)
Minimum Value:	345 W/m² at (526900.0,5004100.0)
Mean Value:	411 W/m²

Project parameters

The resource grid is in a project called Project 1.
Here is a list of all the parameters with non-default values:
All of the parameters in the project are default values.

Data origins information

The map was imported by 'Administrator' from a file called 'C:\Documents and Settings\Administrator\My Documents\Zlatica_wasp\Mape_Vojvodine\Vojvodina_tacke_1km.map', on a computer called 'KATIC'. The map file data were last modified on the 25-Jul-08 at 15:57:55
There is no information about the origin of the wind atlas file.


5020000
5010000
5000000
4990000
4980000
510000
520000
530000
540000
345
[W/m²]
604

'ZRENJANIN' Resource grid

Produced on 13-Dec-08 at 14:09:20 by licenced user: Educational Licence 1, Faculty of Technical Sciences, Serbia using WAsP version: 9.00.0133.

Grid Setup

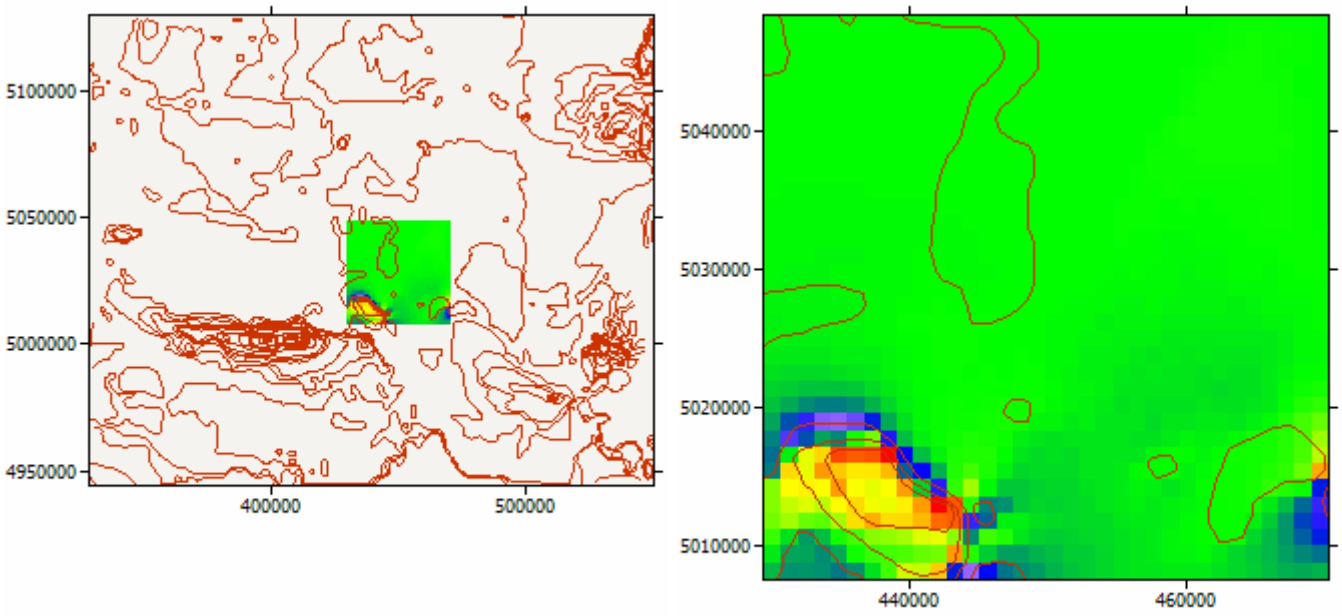
Structure: 34 columns and 34 rows at 1200 resolution gives 1156 calculation sites.

Boundary: (429500, 5007500) to (470300, 5048300)

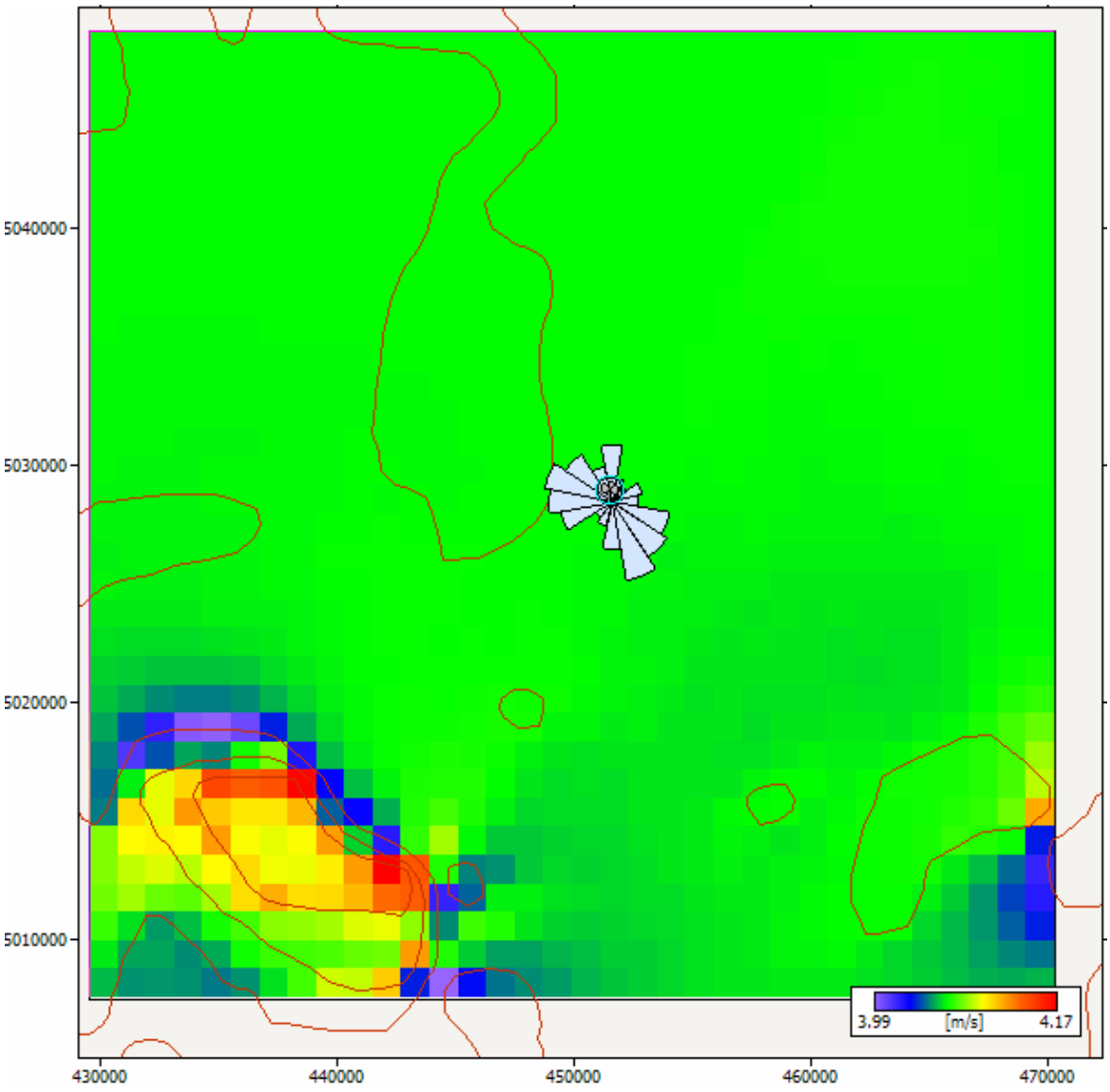
Nodes: (430100, 5008100) to (469700, 5047700)

Results

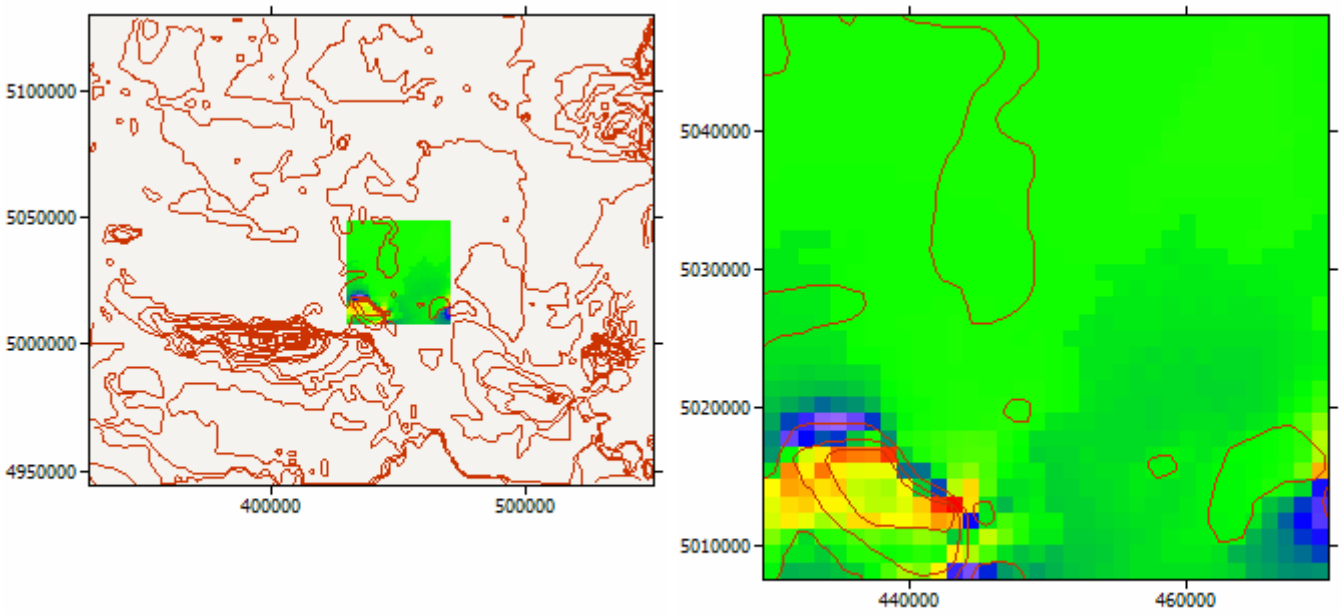
Mean Speed [m/s]



Maximum Value:	4.17 m/s at (442100.0,5012900.0)
Minimum Value:	3.99 m/s at (444500.0,5008100.0)
Mean Value:	4.06 m/s


5040000
5030000
5020000
5010000
430000
440000
450000
460000
470000
3.99
[m/s]
4.17

Power Density [W/m²]



Maximum Value:	124 W/m² at (443300.0,5012900.0)
Minimum Value:	106 W/m² at (434900.0,5018900.0)
Mean Value:	113 W/m²

Project parameters

The resource grid is in a project called Zrenjanin.
Here is a list of all the parameters with non-default values:
All of the parameters in the project are default values.

Data origins information

The map was imported by 'Administrator' from a file called 'C:\Documents and Settings\Administrator\My Documents\Zlatica_wasp\Mape_Vojvodine\Vojvodina_tacke_1km.map', on a computer called 'KATIC'. The map file data were last modified on the 25-Jul-08 at 15:57:55
There is no information about the origin of the wind atlas file.

PRILOG 4

'IME MESTA' Wind atlas

'IME MESTA' Atlas vetra

U ovom prilogu date su sumarne vrednosti atlasa ekstrapolisanog vetra na 50 m iznad tla: a) za zamišljeni slučaj da su merenja vršena na stubovima 10 m iznad tla, da nema prepreka I da je hrapavost terena z0=0.03 , I b) za realne uslove. Ponovo su obradjivane sve postojeće GMS.:

9. Banatski Karlovac
10. Kikinda
11. Palić
12. Rimski Šančevi
13. Sombor
14. Sremska Mitrovica
15. Vršac
16. Zrenjanin

Reference conditions

Referentni uslovi

Wind atlas sadrži podatke za 4 refentne aerodinamičke dužine hrapavosti terena (0.000 m, 0.030 m, 0.100 m, 0.400 m) i 5 referentnih visina (10 m, 25 m, 50 m, 100 m, 200 m) iznad nivoa tla. Ruža Weibullovih parametara data je u 16 pravaca.

Stanice Banatski Karlovac i Rimski šančevi imaju više od 2 sumarna atlasa, što je komentarisano u tekstu o preprekama.

'BKARLOVAC 10m STUB' wind atlas

Produced on 13-Dec-08 at 18:59:26 by licenced user: Educational Licence 1, Faculty of Technical Sciences, Serbia using WAsP version: 9.00.0133.

Reference conditions

The wind atlas contains wind distributions for 4 reference roughness lengths (0.000 m, 0.030 m, 0.100 m, 0.400 m) and 5 reference heights (10 m, 25 m, 50 m, 100 m, 200 m) above ground level. The roses of Weibull parameters have 16 sectors each.

Regional wind climate summary

Height	Parameter	0.00 m	0.03 m	0.10 m	0.40 m
10.0 m	Weibull A [m/s] Weibull k Mean speed U [m/s] Power density E [W/m²]	6.36 1.69 5.68 260	4.37 1.48 3.96 105	3.81 1.49 3.44 68	3.00 1.51 2.71 33
25.0 m	Weibull A [m/s] Weibull k Mean speed U [m/s] Power density E [W/m²]	6.96 1.72 6.21 331	5.24 1.57 4.71 162	4.70 1.56 4.22 118	3.96 1.57 3.55 70
50.0 m	Weibull A [m/s] Weibull k Mean speed U [m/s] Power density E [W/m²]	7.48 1.77 6.65 394	**6.07** **1.71** **5.41** **220**	5.52 1.69 4.93 169	4.78 1.67 4.27 112
100.0 m	Weibull A [m/s] Weibull k Mean speed U [m/s] Power density E [W/m²]	8.07 1.74 7.19 506	7.15 1.85 6.35 325	6.55 1.86 5.82 249	5.76 1.86 5.12 170
200.0 m	Weibull A [m/s] Weibull k Mean speed U [m/s] Power density E [W/m²]	8.84 1.69 7.89 692	8.73 1.83 7.76 601	7.96 1.83 7.07 453	6.97 1.86 6.19 300

Project parameters

The wind atlas is in a project called BANATSKI KARLOVAC 10m STUB.
Here is a list of all the parameters with non-default values:
All of the parameters in the project are default values.

'BKARLOVAC' wind atlas

Produced on 13-Dec-08 at 19:01:33 by licenced user: Educational Licence 1, Faculty of Technical Sciences, Serbia using WAsP version: 9.00.0133.

Reference conditions

The wind atlas contains wind distributions for 4 reference roughness lengths (0.000 m, 0.030 m, 0.100 m, 0.400 m) and 5 reference heights (10 m, 25 m, 50 m, 100 m, 200 m) above ground level. The roses of Weibull parameters have 16 sectors each.

Regional wind climate summary

Height	Parameter	0.00 m	0.03 m	0.10 m	0.40 m
10.0 m	Weibull A [m/s] Weibull k Mean speed U [m/s] Power density E [W/m²]	6.10 1.78 5.43 213	**4.19** **1.54** **3.77** **86**	**3.65** **1.55** **3.28** **56**	2.88 1.56 2.58 27
25.0 m	Weibull A [m/s] Weibull k Mean speed U [m/s] Power density E [W/m²]	6.68 1.82 5.94 271	**5.03** **1.64** **4.50** **134**	**4.52** **1.63** **4.04** **97**	3.80 1.64 3.39 57
50.0 m	Weibull A [m/s] Weibull k Mean speed U [m/s] Power density E [W/m²]	7.18 1.87 6.37 326	**5.83** **1.80** **5.19** **183**	**5.31** **1.78** **4.72** **140**	4.59 1.76 4.09 92
100.0 m	Weibull A [m/s] Weibull k Mean speed U [m/s] Power density E [W/m²]	7.76 1.83 6.89 422	**6.90** **1.93** **6.12** **277**	**6.32** **1.95** **5.60** **211**	5.55 1.97 4.92 141
200.0 m	Weibull A [m/s] Weibull k Mean speed U [m/s] Power density E [W/m²]	8.52 1.76 7.59 586	**8.48** **1.89** **7.53** **528**	**7.72** **1.90** **6.85** **396**	6.73 1.94 5.97 258

Project parameters

The wind atlas is in a project called BANATSKI KARLOVAC.
Here is a list of all the parameters with non-default values:
All of the parameters in the project are default values.

'BKARLOVAC pomeren anemograf' wind atlas

Produced on 13-Dec-08 at 19:16:55 by licenced user: Educational Licence 1, Faculty of Technical Sciences, Serbia using WAsP version: 9.00.0133.

Reference conditions

The wind atlas contains wind distributions for 4 reference roughness lengths (0.000 m, 0.030 m, 0.100 m, 0.400 m) and 5 reference heights (10 m, 25 m, 50 m, 100 m, 200 m) above ground level. The roses of Weibull parameters have 16 sectors each.

Regional wind climate summary

Height	Parameter	0.00 m	0.03 m	0.10 m	0.40 m
10.0 m	Weibull A [m/s] Weibull k Mean speed U [m/s] Power density E [W/m²]	6.02 1.78 5.35 203	4.14 1.55 3.72 82	3.60 1.55 3.23 54	2.84 1.57 2.55 26
25.0 m	Weibull A [m/s] Weibull k Mean speed U [m/s] Power density E [W/m²]	6.59 1.83 5.86 259	4.97 1.65 4.44 128	4.45 1.64 3.98 93	3.75 1.65 3.35 55
50.0 m	Weibull A [m/s] Weibull k Mean speed U [m/s] Power density E [W/m²]	7.08 1.87 6.28 311	**5.76** **1.82** **5.12** **174**	5.24 1.79 4.66 134	4.53 1.77 4.04 88
100.0 m	Weibull A [m/s] Weibull k Mean speed U [m/s] Power density E [W/m²]	7.65 1.83 6.80 403	6.82 1.95 6.05 266	6.24 1.96 5.53 202	5.48 1.98 4.86 135
200.0 m	Weibull A [m/s] Weibull k Mean speed U [m/s] Power density E [W/m²]	8.41 1.77 7.49 562	8.40 1.90 7.46 513	7.64 1.91 6.78 382	6.66 1.94 5.91 248

Project parameters

The wind atlas is in a project called BKARLOVAC pomeren anemograf 2 m po krovu kuce.
Here is a list of all the parameters with non-default values:
All of the parameters in the project are default values.

'KIKINDA 10m STUB' wind atlas

Produced on 13-Dec-08 at 18:24:54 by licenced user: Educational Licence 1, Faculty of Technical Sciences, Serbia using WAsP version: 9.00.0133.

Reference conditions

The wind atlas contains wind distributions for 4 reference roughness lengths (0.000 m, 0.030 m, 0.100 m, 0.400 m) and 5 reference heights (10 m, 25 m, 50 m, 100 m, 200 m) above ground level. The roses of Weibull parameters have 16 sectors each.

Regional wind climate summary

Height	Parameter	0.00 m	0.03 m	0.10 m	0.40 m
10.0 m	Weibull A [m/s] Weibull k Mean speed U [m/s] Power density E [W/m²]	4.84 2.02 4.29 92	3.35 1.72 2.98 37	2.93 1.74 2.61 24	2.30 1.73 2.05 12
25.0 m	Weibull A [m/s] Weibull k Mean speed U [m/s] Power density E [W/m²]	5.31 2.08 4.70 117	4.02 1.85 3.57 58	3.63 1.86 3.23 42	3.03 1.83 2.70 25
50.0 m	Weibull A [m/s] Weibull k Mean speed U [m/s] Power density E [W/m²]	5.70 2.13 5.05 141	**4.66** **2.06** **4.13** **80**	4.27 2.05 3.78 62	3.67 1.98 3.25 41
100.0 m	Weibull A [m/s] Weibull k Mean speed U [m/s] Power density E [W/m²]	6.18 2.07 5.47 186	5.54 2.19 4.91 127	5.09 2.24 4.51 97	4.44 2.24 3.93 64
200.0 m	Weibull A [m/s] Weibull k Mean speed U [m/s] Power density E [W/m²]	6.82 1.96 6.05 264	6.89 2.10 6.10 254	6.28 2.15 5.57 188	5.42 2.16 4.80 120

Project parameters

The wind atlas is in a project called KIKINDA.
Here is a list of all the parameters with non-default values:
All of the parameters in the project are default values.

'KIKINDA' wind atlas

Produced on 13-Dec-08 at 18:26:40 by licenced user: Educational Licence 1, Faculty of Technical Sciences, Serbia using WAsP version: 9.00.0133.

Reference conditions

The wind atlas contains wind distributions for 4 reference roughness lengths (0.000 m, 0.030 m, 0.100 m, 0.400 m) and 5 reference heights (10 m, 25 m, 50 m, 100 m, 200 m) above ground level. The roses of Weibull parameters have 16 sectors each.

Regional wind climate summary

Height	Parameter	0.00 m	0.03 m	0.10 m	0.40 m
10.0 m	Weibull A [m/s] Weibull k Mean speed U [m/s] Power density E [W/m²]	4.45 1.87 3.95 77	**3.08** **1.63** **2.76** **31**	**2.69** **1.64** **2.41** **21**	2.12 1.65 1.90 10
25.0 m	Weibull A [m/s] Weibull k Mean speed U [m/s] Power density E [W/m²]	4.88 1.92 4.32 98	**3.70** **1.73** **3.30** **49**	**3.33** **1.74** **2.97** **36**	2.80 1.74 2.50 21
50.0 m	Weibull A [m/s] Weibull k Mean speed U [m/s] Power density E [W/m²]	5.24 1.97 4.65 119	**4.30** **1.90** **3.82** **69**	**3.93** **1.88** **3.49** **53**	3.40 1.87 3.02 35
100.0 m	Weibull A [m/s] Weibull k Mean speed U [m/s] Power density E [W/m²]	5.68 1.91 5.04 157	**5.12** **1.99** **4.53** **109**	**4.69** **2.03** **4.16** **83**	4.11 2.08 3.64 54
200.0 m	Weibull A [m/s] Weibull k Mean speed U [m/s] Power density E [W/m²]	6.26 1.83 5.57 222	**6.36** **1.92** **5.64** **218**	**5.78** **1.96** **5.13** **161**	5.02 2.02 4.45 102

Project parameters

The wind atlas is in a project called KIKINDA.
Here is a list of all the parameters with non-default values:
All of the parameters in the project are default values.

'Palic 10m STUB' wind atlas

Produced on 13-Dec-08 at 14:43:11 by licenced user: Educational Licence 1, Faculty of Technical Sciences, Serbia using WAsP version: 9.00.0133.

Reference conditions

The wind atlas contains wind distributions for 4 reference roughness lengths (0.000 m, 0.030 m, 0.100 m, 0.400 m) and 5 reference heights (10 m, 25 m, 50 m, 100 m, 200 m) above ground level. The roses of Weibull parameters have 16 sectors each.

Regional wind climate summary

Height	Parameter	0.00 m	0.03 m	0.10 m	0.40 m
10.0 m	Weibull A [m/s] Weibull k Mean speed U [m/s] Power density E [W/m²]	3.91 1.94 3.47 50	2.71 1.66 2.43 21	2.36 1.64 2.11 14	1.89 1.69 1.68 7
25.0 m	Weibull A [m/s] Weibull k Mean speed U [m/s] Power density E [W/m²]	4.29 2.00 3.80 64	3.26 1.78 2.90 32	2.93 1.76 2.61 24	2.49 1.79 2.22 14
50.0 m	Weibull A [m/s] Weibull k Mean speed U [m/s] Power density E [W/m²]	4.61 2.05 4.08 78	**3.79** **2.00** **3.36** **44**	3.45 1.94 3.06 35	3.02 1.94 2.68 23
100.0 m	Weibull A [m/s] Weibull k Mean speed U [m/s] Power density E [W/m²]	4.99 1.99 4.42 102	4.50 2.12 3.99 70	4.12 2.12 3.65 54	3.65 2.21 3.23 36
200.0 m	Weibull A [m/s] Weibull k Mean speed U [m/s] Power density E [W/m²]	5.51 1.88 4.89 146	5.60 2.03 4.96 141	5.08 2.03 4.50 105	4.46 2.13 3.95 68

Project parameters

The wind atlas is in a project called PALIC 10 m STUB.
Here is a list of all the parameters with non-default values:
All of the parameters in the project are default values.

'PALIC' wind atlas

Produced on 13-Dec-08 at 14:44:37 by licenced user: Educational Licence 1, Faculty of Technical Sciences, Serbia using WAsP version: 9.00.0133.

Reference conditions

The wind atlas contains wind distributions for 4 reference roughness lengths (0.000 m, 0.030 m, 0.100 m, 0.400 m) and 5 reference heights (10 m, 25 m, 50 m, 100 m, 200 m) above ground level. The roses of Weibull parameters have 16 sectors each.

Regional wind climate summary

Height	Parameter	0.00 m	0.03 m	0.10 m	0.40 m
10.0 m	Weibull A [m/s] Weibull k Mean speed U [m/s] Power density E [W/m²]	4.61 1.70 4.12 98	**3.18** **1.49** **2.87** **40**	**2.75** **1.49** **2.49** **26**	2.20 1.54 1.98 13
25.0 m	Weibull A [m/s] Weibull k Mean speed U [m/s] Power density E [W/m²]	5.06 1.74 4.51 125	**3.83** **1.59** **3.43** **62**	**3.42** **1.57** **3.07** **45**	2.92 1.61 2.61 27
50.0 m	Weibull A [m/s] Weibull k Mean speed U [m/s] Power density E [W/m²]	5.44 1.78 4.84 151	**4.46** **1.74** **3.97** **86**	**4.04** **1.70** **3.60** **66**	3.54 1.72 3.15 43
100.0 m	Weibull A [m/s] Weibull k Mean speed U [m/s] Power density E [W/m²]	5.89 1.73 5.25 198	**5.31** **1.82** **4.72** **136**	**4.83** **1.82** **4.30** **102**	4.29 1.90 3.81 68
200.0 m	Weibull A [m/s] Weibull k Mean speed U [m/s] Power density E [W/m²]	6.49 1.66 5.80 283	**6.59** **1.76** **5.86** **271**	**5.95** **1.76** **5.30** **200**	5.23 1.85 4.65 128

Project parameters

The wind atlas is in a project called PALIC.
Here is a list of all the parameters with non-default values:
All of the parameters in the project are default values.

'RSANCEVI 10 m STUB' wind atlas

Produced on 13-Dec-08 at 19:35:13 by licenced user: Educational Licence 1, Faculty of Technical Sciences, Serbia using WAsP version: 9.00.0133.

Reference conditions

The wind atlas contains wind distributions for 4 reference roughness lengths (0.000 m, 0.030 m, 0.100 m, 0.400 m) and 5 reference heights (10 m, 25 m, 50 m, 100 m, 200 m) above ground level. The roses of Weibull parameters have 16 sectors each.

Regional wind climate summary

Height	Parameter	0.00 m	0.03 m	0.10 m	0.40 m
10.0 m	Weibull A [m/s] Weibull k Mean speed U [m/s] Power density E [W/m²]	4.15 1.66 3.71 74	2.85 1.44 2.59 31	2.49 1.44 2.26 21	1.98 1.47 1.79 10
25.0 m	Weibull A [m/s] Weibull k Mean speed U [m/s] Power density E [W/m²]	4.55 1.71 4.06 93	3.44 1.54 3.10 48	3.10 1.53 2.79 35	2.63 1.55 2.36 21
50.0 m	Weibull A [m/s] Weibull k Mean speed U [m/s] Power density E [W/m²]	4.89 1.75 4.36 112	**4.02** **1.71** **3.59** **64**	3.67 1.68 3.28 50	3.19 1.67 2.85 33
100.0 m	Weibull A [m/s] Weibull k Mean speed U [m/s] Power density E [W/m²]	5.29 1.70 4.72 148	4.79 1.81 4.26 101	4.40 1.83 3.91 77	3.88 1.88 3.44 51
200.0 m	Weibull A [m/s] Weibull k Mean speed U [m/s] Power density E [W/m²]	5.83 1.62 5.22 214	5.94 1.73 5.29 204	5.41 1.76 4.82 151	4.73 1.82 4.20 96

Project parameters

The wind atlas is in a project called RSANCEVI 10m.
Here is a list of all the parameters with non-default values:
All of the parameters in the project are default values.

'RSANCEVI' wind atlas

Produced on 13-Dec-08 at 19:36:30 by licenced user: Educational Licence 1, Faculty of Technical Sciences, Serbia using WAsP version: 9.00.0133.

Reference conditions

The wind atlas contains wind distributions for 4 reference roughness lengths (0.000 m, 0.030 m, 0.100 m, 0.400 m) and 5 reference heights (10 m, 25 m, 50 m, 100 m, 200 m) above ground level. The roses of Weibull parameters have 16 sectors each.

Regional wind climate summary

Height	Parameter	0.00 m	0.03 m	0.10 m	0.40 m
10.0 m	Weibull A [m/s] Weibull k Mean speed U [m/s] Power density E [W/m²]	4.17 1.52 3.76 87	**2.86** **1.33** **2.63** **37**	**2.50** **1.34** **2.30** **24**	2.00 1.37 1.83 12
25.0 m	Weibull A [m/s] Weibull k Mean speed U [m/s] Power density E [W/m²]	4.58 1.56 4.11 110	**3.45** **1.41** **3.14** **57**	**3.11** **1.42** **2.83** **41**	2.65 1.44 2.41 25
50.0 m	Weibull A [m/s] Weibull k Mean speed U [m/s] Power density E [W/m²]	4.93 1.60 4.42 131	**4.03** **1.55** **3.63** **76**	**3.69** **1.54** **3.32** **59**	3.22 1.54 2.90 39
100.0 m	Weibull A [m/s] Weibull k Mean speed U [m/s] Power density E [W/m²]	5.32 1.57 4.78 171	**4.81** **1.67** **4.30** **114**	**4.42** **1.68** **3.95** **88**	3.92 1.72 3.50 59
200.0 m	Weibull A [m/s] Weibull k Mean speed U [m/s] Power density E [W/m²]	5.85 1.52 5.28 240	**5.94** **1.65** **5.32** **220**	**5.44** **1.66** **4.86** **166**	4.78 1.71 4.26 108

Project parameters

The wind atlas is in a project called RSANCEVI.
Here is a list of all the parameters with non-default values:
All of the parameters in the project are default values.

'RSANCEVI_displ-dist as hill' wind atlas

Produced on 13-Dec-08 at 19:37:42 by licenced user: Educational Licence 1, Faculty of Technical Sciences, Serbia using WAsP version: 9.00.0133.

Reference conditions

The wind atlas contains wind distributions for 4 reference roughness lengths (0.000 m, 0.030 m, 0.100 m, 0.400 m) and 5 reference heights (10 m, 25 m, 50 m, 100 m, 200 m) above ground level. The roses of Weibull parameters have 16 sectors each.

Regional wind climate summary

Height	Parameter	0.00 m	0.03 m	0.10 m	0.40 m
10.0 m	Weibull A [m/s] Weibull k Mean speed U [m/s] Power density E [W/m²]	3.89 1.71 3.47 58	2.67 1.46 2.42 25	2.35 1.48 2.12 16	1.89 1.53 1.70 8
25.0 m	Weibull A [m/s] Weibull k Mean speed U [m/s] Power density E [W/m²]	4.27 1.76 3.80 74	3.22 1.56 2.89 38	2.92 1.57 2.62 28	2.50 1.61 2.24 17
50.0 m	Weibull A [m/s] Weibull k Mean speed U [m/s] Power density E [W/m²]	4.59 1.79 4.08 89	**3.76** **1.73** **3.35** **52**	3.45 1.72 3.08 40	3.03 1.74 2.70 27
100.0 m	Weibull A [m/s] Weibull k Mean speed U [m/s] Power density E [W/m²]	4.97 1.74 4.42 118	4.48 1.83 3.98 81	4.13 1.88 3.67 62	3.68 1.96 3.26 41
200.0 m	Weibull A [m/s] Weibull k Mean speed U [m/s] Power density E [W/m²]	5.47 1.66 4.89 170	5.55 1.76 4.94 163	5.09 1.80 4.52 121	4.48 1.90 3.98 78

Project parameters

The wind atlas is in a project called RSANCEVI_displ_dist.
Here is a list of all the parameters with non-default values:
All of the parameters in the project are default values.

'RSANCEVI displacement distance' wind atlas

Produced on 13-Dec-08 at 19:41:00 by licenced user: Educational Licence 1, Faculty of Technical Sciences, Serbia using WAsP version: 9.00.0133.

Reference conditions

The wind atlas contains wind distributions for 4 reference roughness lengths (0.000 m, 0.030 m, 0.100 m, 0.400 m) and 5 reference heights (10 m, 25 m, 50 m, 100 m, 200 m) above ground level. The roses of Weibull parameters have 16 sectors each.

Regional wind climate summary

Height	Parameter	0.00 m	0.03 m	0.10 m	0.40 m
10.0 m	Weibull A [m/s] Weibull k Mean speed U [m/s] Power density E [W/m²]	4.82 1.62 4.32 121	3.30 1.40 3.01 51	2.88 1.40 2.62 33	2.28 1.43 2.07 16
25.0 m	Weibull A [m/s] Weibull k Mean speed U [m/s] Power density E [W/m²]	5.29 1.67 4.73 152	3.99 1.50 3.60 78	3.58 1.49 3.23 57	3.02 1.50 2.73 34
50.0 m	Weibull A [m/s] Weibull k Mean speed U [m/s] Power density E [W/m²]	5.69 1.71 5.08 183	**4.66** **1.66** **4.16** **104**	4.24 1.63 3.79 81	3.68 1.62 3.29 53
100.0 m	Weibull A [m/s] Weibull k Mean speed U [m/s] Power density E [W/m²]	6.16 1.65 5.51 243	5.55 1.76 4.95 163	5.08 1.77 4.52 124	4.47 1.82 3.98 81
200.0 m	Weibull A [m/s] Weibull k Mean speed U [m/s] Power density E [W/m²]	6.78 1.58 6.09 350	6.89 1.69 6.15 330	6.25 1.71 5.58 243	5.45 1.76 4.86 154

Project parameters

The wind atlas is in a project called RSANCEVI 10m.
Here is a list of all the parameters with non-default values:
All of the parameters in the project are default values.

'RSANCEVI zakrivljenje toka +gust.anal.' wind atlas

Produced on 15-Dec-08 at 12:20:42 by licenced user: Educational Licence 1, Faculty of Technical Sciences, Serbia using WAsP version: 9.00.0133.

Reference conditions

The wind atlas contains wind distributions for 4 reference roughness lengths (0.000 m, 0.030 m, 0.100 m, 0.400 m) and 5 reference heights (10 m, 25 m, 50 m, 100 m, 200 m) above ground level. The roses of Weibull parameters have 16 sectors each.

Regional wind climate summary

Height	Parameter	0.00 m	0.03 m	0.10 m	0.40 m
10.0 m	Weibull A [m/s] Weibull k Mean speed U [m/s] Power density E [W/m²]	4.39 1.56 3.94 96	3.01 1.37 2.75 40	2.63 1.38 2.41 27	2.09 1.40 1.90 13
25.0 m	Weibull A [m/s] Weibull k Mean speed U [m/s] Power density E [W/m²]	4.82 1.60 4.32 122	3.63 1.46 3.29 62	3.28 1.46 2.97 46	2.77 1.47 2.51 27
50.0 m	Weibull A [m/s] Weibull k Mean speed U [m/s] Power density E [W/m²]	5.18 1.64 4.64 147	**4.25** **1.60** **3.81** **84**	3.88 1.58 3.48 65	3.37 1.58 3.03 43
100.0 m	Weibull A [m/s] Weibull k Mean speed U [m/s] Power density E [W/m²]	5.61 1.60 5.03 194	5.07 1.69 4.53 131	4.66 1.71 4.16 100	4.10 1.76 3.65 66
200.0 m	Weibull A [m/s] Weibull k Mean speed U [m/s] Power density E [W/m²]	6.17 1.53 5.56 279	6.29 1.63 5.63 265	5.73 1.65 5.13 196	5.00 1.70 4.46 125

Project parameters

The wind atlas is in a project called RSANCEVI_displ_dist.
Here is a list of all the parameters with non-default values:
All of the parameters in the project are default values.

'SOMBOR 10m STUB' wind atlas

Produced on 13-Dec-08 at 18:00:47 by licenced user: Educational Licence 1, Faculty of Technical Sciences, Serbia using WAsP version: 9.00.0133.

Reference conditions

The wind atlas contains wind distributions for 4 reference roughness lengths (0.000 m, 0.030 m, 0.100 m, 0.400 m) and 5 reference heights (10 m, 25 m, 50 m, 100 m, 200 m) above ground level. The roses of Weibull parameters have 16 sectors each.

Regional wind climate summary

Height	Parameter	0.00 m	0.03 m	0.10 m	0.40 m
10.0 m	Weibull A [m/s] Weibull k Mean speed U [m/s] Power density E [W/m²]	3.70 1.70 3.30 50	2.52 1.45 2.29 21	2.23 1.47 2.01 14	1.76 1.48 1.59 7
25.0 m	Weibull A [m/s] Weibull k Mean speed U [m/s] Power density E [W/m²]	4.05 1.75 3.61 64	3.05 1.55 2.74 33	2.77 1.56 2.49 24	2.33 1.56 2.10 14
50.0 m	Weibull A [m/s] Weibull k Mean speed U [m/s] Power density E [W/m²]	4.36 1.79 3.88 77	**3.55** **1.72** **3.17** **44**	3.27 1.71 2.92 35	2.84 1.69 2.53 23
100.0 m	Weibull A [m/s] Weibull k Mean speed U [m/s] Power density E [W/m²]	4.72 1.74 4.21 102	4.23 1.81 3.76 69	3.92 1.86 3.48 53	3.44 1.90 3.06 35
200.0 m	Weibull A [m/s] Weibull k Mean speed U [m/s] Power density E [W/m²]	5.20 1.65 4.65 146	5.25 1.74 4.68 139	4.82 1.79 4.29 104	4.20 1.84 3.73 67

Project parameters

The wind atlas is in a project called SOMBOR 10m STUB.
Here is a list of all the parameters with non-default values:
All of the parameters in the project are default values.

'SOMBOR' wind atlas

Produced on 13-Dec-08 at 18:02:55 by licenced user: Educational Licence 1, Faculty of Technical Sciences, Serbia using WAsP version: 9.00.0133.

Reference conditions

The wind atlas contains wind distributions for 4 reference roughness lengths (0.000 m, 0.030 m, 0.100 m, 0.400 m) and 5 reference heights (10 m, 25 m, 50 m, 100 m, 200 m) above ground level. The roses of Weibull parameters have 16 sectors each.

Regional wind climate summary

Height	Parameter	0.00 m	0.03 m	0.10 m	0.40 m
10.0 m	Weibull A [m/s] Weibull k Mean speed U [m/s] Power density E [W/m²]	4.46 1.72 3.98 87	**3.05** **1.47** **2.76** **36**	**2.66** **1.48** **2.41** **24**	2.11 1.51 1.90 11
25.0 m	Weibull A [m/s] Weibull k Mean speed U [m/s] Power density E [W/m²]	4.89 1.76 4.36 111	**3.68** **1.58** **3.31** **56**	**3.31** **1.57** **2.97** **41**	2.79 1.59 2.51 24
50.0 m	Weibull A [m/s] Weibull k Mean speed U [m/s] Power density E [W/m²]	5.26 1.81 4.68 134	**4.29** **1.74** **3.82** **76**	**3.91** **1.71** **3.48** **59**	3.39 1.71 3.03 39
100.0 m	Weibull A [m/s] Weibull k Mean speed U [m/s] Power density E [W/m²]	5.70 1.76 5.07 176	**5.11** **1.83** **4.54** **120**	**4.68** **1.85** **4.15** **91**	4.12 1.91 3.65 60
200.0 m	Weibull A [m/s] Weibull k Mean speed U [m/s] Power density E [W/m²]	6.28 1.67 5.61 253	**6.34** **1.77** **5.65** **241**	**5.76** **1.79** **5.12** **178**	5.02 1.85 4.46 113

Project parameters

The wind atlas is in a project called SOMBOR.
Here is a list of all the parameters with non-default values:
All of the parameters in the project are default values.

'SMITROVICA 10m STUB' wind atlas

Produced on 12-Dec-08 at 20:26:41 by licenced user: Educational Licence 1, Faculty of Technical Sciences, Serbia using WAsP version: 9.00.0133.

Reference conditions

The wind atlas contains wind distributions for 4 reference roughness lengths (0.000 m, 0.030 m, 0.100 m, 0.400 m) and 5 reference heights (10 m, 25 m, 50 m, 100 m, 200 m) above ground level. The roses of Weibull parameters have 16 sectors each.

Regional wind climate summary

Height	Parameter	0.00 m	0.03 m	0.10 m	0.40 m
10.0 m	Weibull A [m/s] Weibull k Mean speed U [m/s] Power density E [W/m²]	4.04 1.66 3.61 68	2.76 1.42 2.51 29	2.42 1.43 2.20 19	1.93 1.46 1.75 9
25.0 m	Weibull A [m/s] Weibull k Mean speed U [m/s] Power density E [W/m²]	4.43 1.71 3.95 86	3.33 1.52 3.00 44	3.02 1.52 2.72 33	2.56 1.54 2.30 20
50.0 m	Weibull A [m/s] Weibull k Mean speed U [m/s] Power density E [W/m²]	4.77 1.74 4.25 104	**3.89** **1.69** **3.48** **60**	3.57 1.67 3.19 47	3.11 1.67 2.78 31
100.0 m	Weibull A [m/s] Weibull k Mean speed U [m/s] Power density E [W/m²]	5.16 1.69 4.60 138	4.64 1.78 4.13 93	4.28 1.82 3.80 71	3.78 1.88 3.35 47
200.0 m	Weibull A [m/s] Weibull k Mean speed U [m/s] Power density E [W/m²]	5.68 1.61 5.09 198	5.76 1.71 5.13 188	5.27 1.75 4.69 140	4.61 1.81 4.10 89

Project parameters

The wind atlas is in a project called SMITROVICA bez.
Here is a list of all the parameters with non-default values:
All of the parameters in the project are default values.

'SMITROVICA' Wind atlas

Produced on 12-Dec-08 at 20:32:55 by licenced user: Educational Licence 1, Faculty of Technical Sciences, Serbia using WAsP version: 9.00.0133.

Reference conditions

The wind atlas contains data for 4 reference roughness lengths (0.000 m, 0.030 m, 0.100 m, 0.400 m) and 5 reference heights (10 m, 25 m, 50 m, 100 m, 200 m) above ground level. The roses of Weibull parameters have 16 sectors each.

Regional wind climate summary

Height	Parameter	0.00 m	0.03 m	0.10 m	0.40 m
10.0 m	Weibull A [m/s] Weibull k Mean speed U [m/s] Power density E [W/m²]	4.53 1.66 4.05 96	**3.09** **1.42** **2.81** **40**	**2.71** **1.44** **2.46** **26**	2.14 1.46 1.94 13
25.0 m	Weibull A [m/s] Weibull k Mean speed U [m/s] Power density E [W/m²]	4.97 1.71 4.43 122	**3.74** **1.52** **3.37** **62**	**3.37** **1.53** **3.04** **45**	2.84 1.53 2.56 27
50.0 m	Weibull A [m/s] Weibull k Mean speed U [m/s] Power density E [W/m²]	5.35 1.74 4.76 147	**4.36** **1.69** **3.90** **84**	**3.99** **1.67** **3.57** **65**	3.45 1.65 3.09 43
100.0 m	Weibull A [m/s] Weibull k Mean speed U [m/s] Power density E [W/m²]	5.78 1.69 5.16 194	**5.20** **1.78** **4.63** **131**	**4.78** **1.81** **4.25** **100**	4.20 1.86 3.73 65
200.0 m	Weibull A [m/s] Weibull k Mean speed U [m/s] Power density E [W/m²]	6.37 1.62 5.71 279	**6.45** **1.71** **5.75** **265**	**5.89** **1.75** **5.24** **196**	5.12 1.79 4.55 124

Project parameters

The wind atlas is in a project called SMITROVICA.
Here is a list of all the parameters with non-default values:
All of the parameters in the project are default values.

'VRSAC 10m STUB' wind atlas

Produced on 13-Dec-08 at 15:12:05 by licenced user: Educational Licence 1, Faculty of Technical Sciences, Serbia using WAsP version: 9.00.0133.

Reference conditions

The wind atlas contains wind distributions for 4 reference roughness lengths (0.000 m, 0.030 m, 0.100 m, 0.400 m) and 5 reference heights (10 m, 25 m, 50 m, 100 m, 200 m) above ground level. The roses of Weibull parameters have 16 sectors each.

Regional wind climate summary

Height	Parameter	0.00 m	0.03 m	0.10 m	0.40 m
10.0 m	Weibull A [m/s] Weibull k Mean speed U [m/s] Power density E [W/m²]	5.71 1.19 5.39 389	3.99 1.13 3.82 152	3.47 1.14 3.31 99	2.73 1.15 2.60 47
25.0 m	Weibull A [m/s] Weibull k Mean speed U [m/s] Power density E [W/m²]	6.25 1.20 5.88 496	4.76 1.17 4.52 239	4.27 1.17 4.05 172	3.58 1.17 3.39 101
50.0 m	Weibull A [m/s] Weibull k Mean speed U [m/s] Power density E [W/m²]	6.70 1.22 6.28 590	**5.49** **1.22** **5.14** **324**	4.99 1.21 4.68 246	4.31 1.21 4.05 160
100.0 m	Weibull A [m/s] Weibull k Mean speed U [m/s] Power density E [W/m²]	7.21 1.22 6.75 722	6.44 1.30 5.95 443	5.89 1.29 5.45 347	5.17 1.27 4.80 242
200.0 m	Weibull A [m/s] Weibull k Mean speed U [m/s] Power density E [W/m²]	7.85 1.23 7.33 915	7.77 1.37 7.11 690	7.08 1.35 6.49 539	6.21 1.33 5.71 378

Project parameters

The wind atlas is in a project called VRSAC 10m STUB.
Here is a list of all the parameters with non-default values:
All of the parameters in the project are default values.

'VRSAC' wind atlas

Produced on 13-Dec-08 at 15:13:09 by licenced user: Educational Licence 1, Faculty of Technical Sciences, Serbia using WAsP version: 9.00.0133.

Reference conditions

The wind atlas contains wind distributions for 4 reference roughness lengths (0.000 m, 0.030 m, 0.100 m, 0.400 m) and 5 reference heights (10 m, 25 m, 50 m, 100 m, 200 m) above ground level. The roses of Weibull parameters have 16 sectors each.

Regional wind climate summary

Height	Parameter	0.00 m	0.03 m	0.10 m	0.40 m
10.0 m	Weibull A [m/s] Weibull k Mean speed U [m/s] Power density E [W/m²]	6.43 1.24 6.00 492	**4.51** **1.19** **4.26** **193**	**3.94** **1.19** **3.71** **126**	3.07 1.19 2.89 60
25.0 m	Weibull A [m/s] Weibull k Mean speed U [m/s] Power density E [W/m²]	7.03 1.26 6.55 628	**5.38** **1.22** **5.04** **302**	**4.84** **1.22** **4.53** **219**	4.03 1.22 3.78 127
50.0 m	Weibull A [m/s] Weibull k Mean speed U [m/s] Power density E [W/m²]	7.54 1.28 6.99 745	**6.19** **1.28** **5.74** **409**	**5.65** **1.27** **5.24** **315**	4.85 1.26 4.51 203
100.0 m	Weibull A [m/s] Weibull k Mean speed U [m/s] Power density E [W/m²]	8.11 1.28 7.51 911	**7.26** **1.37** **6.64** **566**	**6.66** **1.35** **6.11** **446**	5.81 1.33 5.34 306
200.0 m	Weibull A [m/s] Weibull k Mean speed U [m/s] Power density E [W/m²]	8.82 1.29 8.16 1155	**8.75** **1.44** **7.94** **888**	**8.00** **1.42** **7.27** **693**	6.96 1.39 6.35 479

Project parameters

The wind atlas is in a project called VRSAC.
Here is a list of all the parameters with non-default values:
All of the parameters in the project are default values.

'ZRENJANIN 10m stub' wind atlas

Produced on 13-Dec-08 at 13:59:08 by licenced user: Educational Licence 1, Faculty of Technical Sciences, Serbia using WAsP version: 9.00.0133.

Reference conditions

The wind atlas contains wind distributions for 4 reference roughness lengths (0.000 m, 0.030 m, 0.100 m, 0.400 m) and 5 reference heights (10 m, 25 m, 50 m, 100 m, 200 m) above ground level. The roses of Weibull parameters have 16 sectors each.

Regional wind climate summary

Height	Parameter	0.00 m	0.03 m	0.10 m	0.40 m
10.0 m	Weibull A [m/s] Weibull k Mean speed U [m/s] Power density E [W/m²]	3.86 1.75 3.44 55	2.66 1.51 2.40 23	2.33 1.52 2.10 15	1.85 1.54 1.66 7
25.0 m	Weibull A [m/s] Weibull k Mean speed U [m/s] Power density E [W/m²]	4.24 1.80 3.77 70	3.20 1.62 2.87 35	2.89 1.61 2.59 26	2.45 1.62 2.19 16
50.0 m	Weibull A [m/s] Weibull k Mean speed U [m/s] Power density E [W/m²]	4.56 1.84 4.05 85	**3.73** **1.78** **3.32** **49**	3.41 1.75 3.04 38	2.97 1.74 2.64 25
100.0 m	Weibull A [m/s] Weibull k Mean speed U [m/s] Power density E [W/m²]	4.93 1.79 4.39 112	4.44 1.87 3.94 77	4.08 1.90 3.62 59	3.60 1.94 3.19 39
200.0 m	Weibull A [m/s] Weibull k Mean speed U [m/s] Power density E [W/m²]	5.44 1.71 4.85 160	5.51 1.80 4.90 154	5.03 1.83 4.47 115	4.39 1.88 3.90 74

Project parameters

The wind atlas is in a project called Zrenjanin10m.
Here is a list of all the parameters with non-default values:
All of the parameters in the project are default values.

'ZRENJANIN' wind atlas

Produced on 13-Dec-08 at 13:58:18 by licenced user: Educational Licence 1, Faculty of Technical Sciences, Serbia using WAsP version: 9.00.0133.

Reference conditions

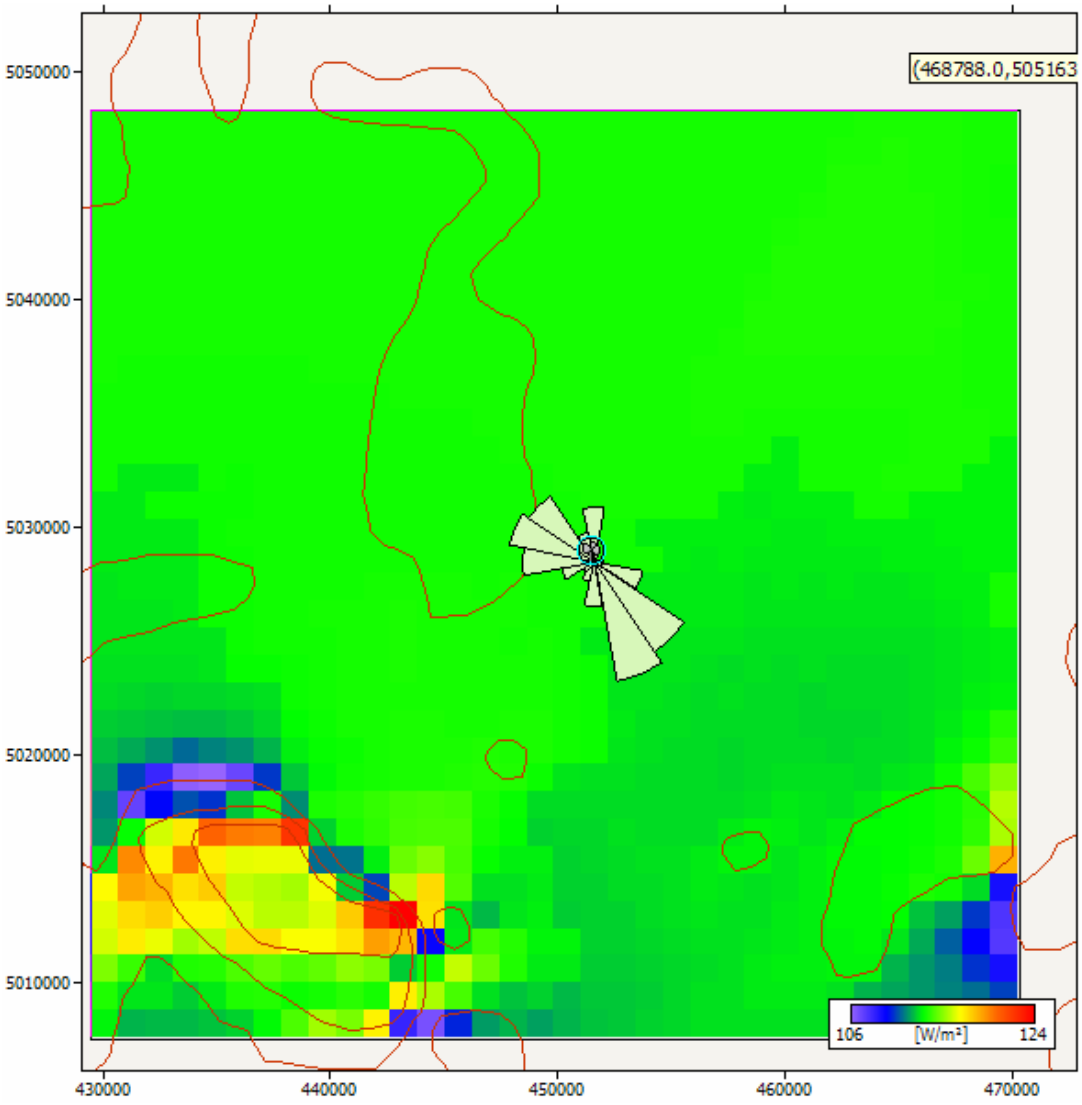
The wind atlas contains wind distributions for 4 reference roughness lengths (0.000 m, 0.030 m, 0.100 m, 0.400 m) and 5 reference heights (10 m, 25 m, 50 m, 100 m, 200 m) above ground level. The roses of Weibull parameters have 16 sectors each.

Regional wind climate summary

Height	Parameter	0.00 m	0.03 m	0.10 m	0.40 m
10.0 m	Weibull A [m/s] Weibull k Mean speed U [m/s] Power density E [W/m²]	4.66 1.46 4.22 130	**3.19** **1.31** **2.94** **52**	**2.79** **1.33** **2.56** **34**	2.22 1.35 2.03 16
25.0 m	Weibull A [m/s] Weibull k Mean speed U [m/s] Power density E [W/m²]	5.11 1.49 4.62 166	**3.85** **1.38** **3.51** **82**	**3.46** **1.38** **3.16** **60**	2.94 1.41 2.67 35
50.0 m	Weibull A [m/s] Weibull k Mean speed U [m/s] Power density E [W/m²]	5.50 1.51 4.96 201	**4.49** **1.48** **4.06** **113**	**4.09** **1.47** **3.70** **87**	3.57 1.48 3.22 57
100.0 m	Weibull A [m/s] Weibull k Mean speed U [m/s] Power density E [W/m²]	5.95 1.49 5.37 261	**5.34** **1.55** **4.80** **176**	**4.90** **1.57** **4.40** **133**	4.34 1.61 3.89 88
200.0 m	Weibull A [m/s] Weibull k Mean speed U [m/s] Power density E [W/m²]	6.53 1.44 5.93 368	**6.60** **1.52** **5.95** **343**	**6.01** **1.54** **5.41** **255**	5.28 1.58 4.74 164

Project parameters

The wind atlas is in a project called Zrenjanin.
Here is a list of all the parameters with non-default values:
All of the parameters in the project are default values.


(468788.0,505163
5050000
5040000
5030000
5020000
5010000
430000
440000
450000
460000
470000
106
[W/m²]
124