

## Expanded Monthly Report – Cumulative Air Quality Monitoring Results - October 16th, 2017 to October 15th, 2018

### Springwater Corridor

#### Data quality key

Flag	Description
J1	Estimated value. Below the quantitation limit and above the detection limit.
J2	Estimated value. Flags applied during the validation process.
NA	No sample collected
R	Data of unacceptable quality

#### Comparison Values for Metals in Air

	Arsenic, Total (ng/m <sup>3</sup> )	Beryllium, Total (ng/m <sup>3</sup> )	Cadmium, Total (ng/m <sup>3</sup> )	Chromium, Total (ng/m <sup>3</sup> )	Cobalt, Total (ng/m <sup>3</sup> )	Hexavalent Chromium Cr(VI) (ng/m <sup>3</sup> )	Lead, Total (ng/m <sup>3</sup> )	Manganese, Total (ng/m <sup>3</sup> )	Nickel, Total (ng/m <sup>3</sup> )	Selenium, Total (ng/m <sup>3</sup> )
Urban Background from NATTS sites	0.2 - 1.4	< MDL	0.04 - 0.5	1.6 - 4	0.05 - 0.3	0.01 - 0.08	2 - 10	3.2 - 19.5	0.8 - 2.8	0.1 - 1
DEQ Ambient Benchmark	0.2	0.4	0.6	NA	100	0.08	150	90	4	NA
Risk Based Concentrations (RBC) acute	200	20	30	NA	NA	300	150	300	200	2,000

#### Statistics of Daily Values

	Arsenic, Total (ng/m <sup>3</sup> )	Beryllium, Total (ng/m <sup>3</sup> )	Cadmium, Total (ng/m <sup>3</sup> )	Chromium, Total (ng/m <sup>3</sup> )	Cobalt, Total (ng/m <sup>3</sup> )	Hexavalent Chromium Cr(VI) (ng/m <sup>3</sup> )	Lead, Total (ng/m <sup>3</sup> )	Manganese, Total (ng/m <sup>3</sup> )	Nickel, Total (ng/m <sup>3</sup> )	Selenium, Total (ng/m <sup>3</sup> )
Minimum Detected Amount	0.17	0.16	0.17	6.9	0.16	0.0208	0.21	0.55	1.6	NA
Maximum Detected Amount	11	0.19	6.7	51	2.5	0.4620	9.1	21	6.4	NA
Average <sup>1</sup>	0.91	0.16	0.27	6.67	0.28	0.0383	1.30	4.52	2.07	NA
Standard Deviation <sup>1</sup>	1.44	0.003	0.65	10.66	0.27	0.0524	1.36	5.18	0.98	NA
Times above the RBC acute	0	0	0	0	0	0	0	0	0	NA

<sup>1</sup> Calculated by using ProUCL 5, Kaplan Meier method with non-detects

## Daily Data

Sampled	Type	Arsenic, Total (ng/m <sup>3</sup> )	Beryllium, Total (ng/m <sup>3</sup> )	Cadmium, Total (ng/m <sup>3</sup> )	Chromium, Total (ng/m <sup>3</sup> )	Cobalt, Total (ng/m <sup>3</sup> )	Hexavalent	Lead, Total (ng/m <sup>3</sup> )	Manganese, Total (ng/m <sup>3</sup> )	Nickel, Total (ng/m <sup>3</sup> )	Selenium, Total (ng/m <sup>3</sup> )
							Chromium Cr(VI) (ng/m <sup>3</sup> )				
10/16/2017	24 hr	2.7	<0.16	0.33 J1	<1.6	0.54	<0.0347	5	9.7	4.8 J1	<6.2
10/19/2017	24 hr	0.18 J1	<0.16	<0.16	<1.6	<0.16	NA	0.28 J1	0.81	<1.6	<6.2
10/22/2017	24 hr	3	<0.16	<0.16	<1.6	0.26 J1	<0.0347	3	5.1	2 J1	<6.2
10/25/2017	24 hr	0.49 J1	<0.16	<0.16	<1.6	0.27 J1	<0.0347	1.4	11	<1.6	<6.2
10/28/2017	24 hr	5	<0.16	0.45 J1	<1.6	1	0.0771 J1	4.4	15	5.2 J1	<6.2
10/31/2017	24 hr	4.2	<0.16	0.21 J1	13	0.29 J1	<0.0347	3.5	8.5	1.9 J1	<6.2
11/03/2017	NA	NA	NA	NA	NA	NA	<0.0347	NA	NA	NA	NA
11/06/2017	24 hr	0.54	0.19 J1	<0.16	15	0.47 J1	0.0681 J1	0.97	3.2	3.5 J1	<6.2
11/09/2017	24 hr	1.1	<0.16	<0.16	9.8	<0.16	NA	0.95	1.4	<1.6	<6.2
11/12/2017	24 hr	0.52	<0.16	<0.16	11	<0.16	<0.0347	0.88	0.79	<1.6	<6.2
11/15/2017	24 hr	0.2 J1	<0.16	<0.16	<1.6	<0.16	<0.0347	<0.16	<0.16	<1.6	<6.2
11/18/2017	24 hr	11	<0.16	0.28 J1	<1.6	0.19 J1	<0.0347	3.5	<0.16	<1.6	<6.2
11/21/2017	24 hr	1.1	0.17 J2	<0.16	<1.6	0.28 J1	0.0431 J1	<0.16	<0.16	<1.6	<6.2
11/24/2017	24 hr	1.1	<0.16	<0.16	<1.6	0.17 J1	<0.0347	3	<0.16	<1.6	<6.2
11/27/2017	24 hr	<0.16	<0.16	0.32 J1	<1.6	<0.16	<0.0347	0.99	3.4	<1.6	<6.2
11/30/2017	24 hr	<0.16	<0.16	<0.16	<1.6	<0.16	<0.0312	2.4	3.7	<1.6	<6.2
12/03/2017	24 hr	1.9	<0.16	<0.16	<1.6	<0.16	<0.0347	1.6	1.3	<1.6	<6.2
12/06/2017	24 hr	<0.16	<0.16	<0.16	<1.6	<0.16	0.0896 J1	0.9	7.6	4.5 J1	<6.2
12/09/2017	24 hr	<0.16	<0.16	<0.16	<1.6	<0.16	0.0667 J1	1.2	3.8	2.7 J1	<6.2
12/12/2017	24 hr	<0.16	<0.16	0.3 J1	<1.6	<0.16	0.171 J1	3.4	4.9	3.9 J1	<6.2
12/15/2017	24 hr	6.2	<0.16	0.47 J1	<1.6	0.18 J1	<0.0347	4.	5.2	<1.6	<6.2
12/18/2017	24 hr	0.37 J1	<0.16	<0.16	<1.6	<0.16	<0.0347	0.26 J1	<0.16	<1.6	<6.2
12/21/2017	24 hr	2.6	<0.16	0.17 J1	<1.6	0.2 J1	<0.0347	2.7	6.3	<1.6	<6.2
12/24/2017	24 hr	0.32 J1	<0.16	<0.16	<1.6	<0.16	<0.0347	1.7	<0.16	<1.6	<6.2
12/27/2017	24 hr	2.5	<0.16	0.32 J1	<1.6	0.28 J1	<0.0347	4.8	17	1.9 J1	<6.2
12/30/2017	24 hr	1	<0.16	<0.16	<1.6	2.5	0.0965 J1	2.4	3.7	2.8 J1	<6.2
01/02/2018	24 hr	0.22 J1	<0.16	<0.16	<1.6	0.4 J1	0.115 J1	0.68	5.2	3.3 J1	<6.2
01/05/2018	24 hr	0.42 J1	<0.16	<0.16	<1.6	<0.16	<0.0347	0.36 J1	1.6	<1.6	<6.2
01/08/2018	24 hr	0.3 J1	<0.16	<0.16	<1.6	<0.16	0.0708 J1	0.71	2.2	<1.6	<6.2
01/11/2018	24 hr	<0.16	<0.16	<0.16	<1.6	<0.16	<0.0347	<0.16	<0.16	<1.6	<6.2
01/14/2018	24 hr	<0.16	<0.16	<0.16	<1.6	0.2 J1	0.059 J1	0.38 J1	3.7	1.8 J1	<6.2
01/17/2018	24 hr	0.43 J1	<0.16	<0.16	<1.6	0.16 J1	0.0354 J1	0.54	4.2	1.8 J1	<6.2
01/20/2018	24 hr	0.73	<0.16	<0.16	<1.6	<0.16	<0.0347	0.42 J1	0.78	<1.6	<6.2
01/23/2018	24 hr	0.72	0.16 J1	<0.16	<1.6	0.29 J1	<0.0347	0.77	3.8	<1.6	<6.2
01/26/2018	24 hr	0.57	0.16 J1	<0.16	<1.6	<0.16	<0.0347	0.27 J1	1.2	<1.6	<6.2
01/29/2018	24 hr	0.44 J1	<0.16	<0.16	<1.6	<0.16	<0.0347	0.47 J1	3	<1.6	<6.2
02/01/2018	24 hr	1.1	<0.16	<0.16	<1.6	<0.16	<0.0347	0.78	3.3	<1.6	<6.2

Sampled	Type	Arsenic, Total (ng/m <sup>3</sup> )	Beryllium, Total (ng/m <sup>3</sup> )	Cadmium, Total (ng/m <sup>3</sup> )	Chromium, Total (ng/m <sup>3</sup> )	Cobalt, Total (ng/m <sup>3</sup> )	Hexavalent Chromium Cr(VI) (ng/m <sup>3</sup> )	Lead, Total (ng/m <sup>3</sup> )	Manganese, Total (ng/m <sup>3</sup> )	Nickel, Total (ng/m <sup>3</sup> )	Selenium, Total (ng/m <sup>3</sup> )
02/04/2018	24 hr	0.76	<0.16	<0.16	<1.6	<0.16	<0.0347	0.42 J1	1.4	<1.6	<6.2
02/07/2018	24 hr	1.8	<0.16	0.22 J1	<1.6	0.23 J1	<0.0347	3.3	8.2	<1.6	<6.2
02/10/2018	24 hr	2.5	<0.16	0.88	<1.6	0.26 J1	<0.0347	9.1	13	2.4 J1	<6.2
02/13/2018	24 hr	0.97	<0.16	<0.16	<1.6	0.27 J1	<0.0347	1.7	6.8	3.6 J1	<6.2
02/16/2018	24 hr	0.35 J1	<0.16	0.37 J1	<1.6	<0.16	<0.0347	0.23 J1	0.55	<1.6	<6.2
02/19/2018	24 hr	6.50	<0.16	0.17 J1	<1.6	0.37 J1	<0.0347	1.8	5.9	2 J1	<6.2
02/22/2018	24 hr	0.88	<0.16	0.20 J1	<1.6	0.16 J1	0.0444 J1	1.4	6.3	1.6 J1	<6.2
02/25/2018	24 hr	0.46 J1	<0.16	<0.16	<1.6	<0.16	<0.0347	0.35 J1	0.56	<1.6	<6.2
02/28/2018	24 hr	0.24 J1	<0.16	<0.16	<1.6	<0.16	NA	0.21 J1	2.5	<1.6	<6.2
03/03/2018	24 hr	2.6	<0.16	0.2 J1	<1.6	0.17 J1	<0.0347	3.1	6.2	2.6 J1	<6.2
03/06/2018	24 hr	0.87	<0.16	<0.16	<1.6	0.86	0.156 J1	1.7	18	6.4	<6.2
03/09/2018	24 hr	1.5	<0.16	0.32 J1	<1.6	0.18 J1	<0.0347	4.8	9.8	3 J1	<6.2
03/12/2018	24 hr	0.34 J1	<0.16	<0.16	<1.6	0.53	0.161 J1	1.2	8.8	3.7 J1	<6.2
03/15/2018	24 hr	0.46 J1	<0.16	<0.16	<1.6	0.17 J1	0.0333 J1	1 J2	7.7 J2	<1.6	<6.2
03/18/2018	24 hr	0.98	<0.16	<0.16	48	0.26 J1	0.0271 J1	2.1 J2	6.1 J2	2.30 J1	<6.2
03/21/2018	24 hr	1.1	<0.16	0.95	<1.6	0.19 J1	<0.0208	1.7 J2	<0.16	<1.6	<6.2
03/24/2018	24 hr	0.65	<0.16	<0.16	41	<0.16	<0.0394	0.81 J2	1.3 J2	<1.6	<6.2
03/27/2018	24 hr	0.43 J1	<0.16	<0.16	<1.6	<0.16	0.0278 J1	0.69 J2	8.2 J2	<1.6	<6.2
03/30/2018	24 hr	0.84	<0.16	0.33 J1	51	0.34 J1	<0.0208	1.5 J2	7.6 J2	5.3	<6.2
04/02/2018	24 hr	0.72	<0.16	0.17 J1	<1.6	0.38 J1	NA	2.6 J2	11 J2	1.6 J1	<6.2
04/05/2018	24 hr	0.84	<0.16	2.8	36	0.28 J1	<0.0208	2.4 J2	3.5 J2	<1.6	<6.2
04/08/2018	24 hr	0.97	<0.16	<0.16	<1.6	0.24 J1	0.0299 J1	0.96 J2	4.1 J2	1.9 J1	<6.2
04/11/2018	24 hr	NA	NA	NA	NA	NA	<0.0208	NA	NA	NA	NA
04/14/2018	24 hr	0.32 J1	<0.16	<0.16	42	0.16 J1	<0.0208	0.7 J2	2.9 J2	<1.6	<6.2
04/17/2018	24 hr	<0.16	<0.78	<0.16	51	<0.16	<0.0208	2.3	3.2	<1.6	<6.2
04/20/2018	24 hr	<0.16	<0.78	<0.16	<1.6	<0.16	<0.0208	0.97	<0.16	<1.6	<6.2
04/23/2018	24 hr	<0.16	<0.78	0.55	38	0.94	0.214	1.1	12	5.20 J1	<6.2
04/26/2018	24 hr	<0.16	<0.78	<0.16	33	0.19 J1	<0.0208	1.7	11	<1.6	<6.2
04/29/2018	24 hr	<0.16	<0.78	<0.16	15	<0.16	<0.0208	0.76	1.1	<1.6	<6.2
05/2/2018	24 hr	<0.16	<0.78	<0.16	9.9	0.27 J1	<0.0208	2.8	9.6	<1.6	<6.2
05/5/2018	24 hr	<0.16	<0.78	<0.16	10	0.17 J1	<0.0208	3.8	6.2	<1.6	<6.2
05/8/2018	24 hr	<0.16	<0.78	<0.16	6.9	<0.16	<0.0208	0.97	4.3	<1.6	<6.2
05/11/2018	24 hr	<0.16	<0.78	<0.16	12	<0.16	<0.0208	0.95	3.6	<1.6	<6.2
05/14/2018	24 hr	<0.16	<0.78	<0.16	14	0.20 J1	<0.0208	1.4	12	<1.6	<6.2
05/17/2018	24 hr	0.19 J1	<0.16	<0.16	13	<0.16	<0.0208	<0.78	<0.78	<1.6	<6.2
05/20/2018	24 hr	0.31 J1	<0.16	<0.16	11	<0.16	<0.0208	<0.78	<0.78	<1.6	<6.2
05/23/2018	24 hr	0.42 J1	<0.16	<0.16	13	0.23 J1	<0.0208	<0.78	<0.78	<1.6	<6.2
05/26/2018	24 hr	1.2	<0.16	<0.16	<1.6	<0.16	<0.0208	<0.78	<0.78	<1.6	<6.2

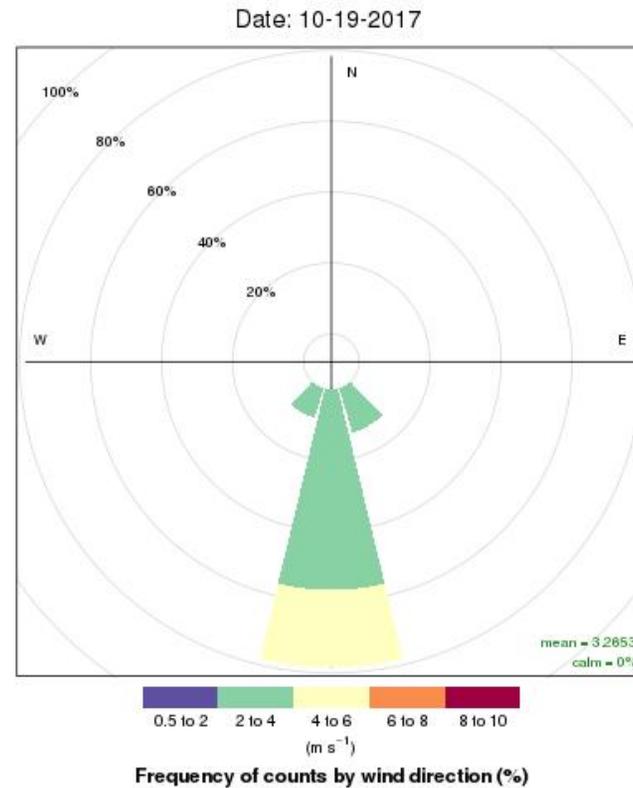
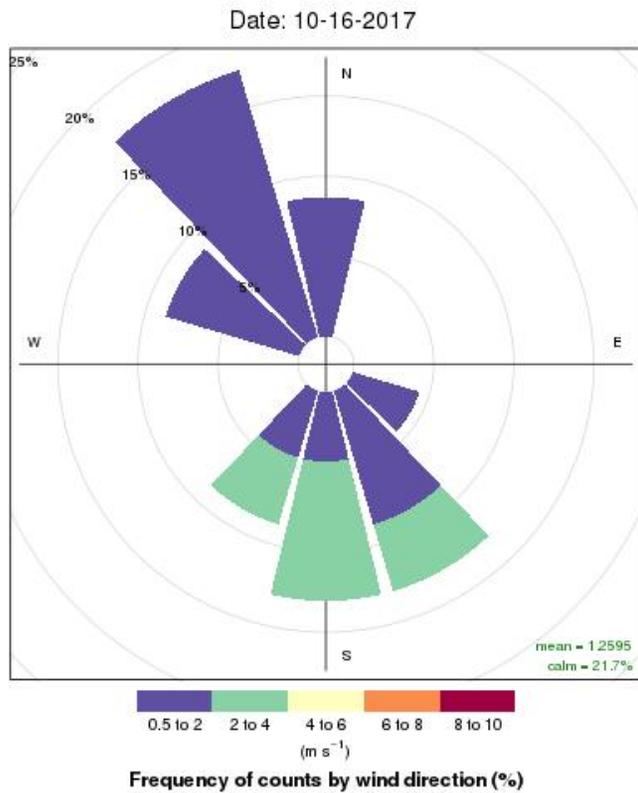
Sampled	Type	Arsenic, Total (ng/m <sup>3</sup> )	Beryllium, Total (ng/m <sup>3</sup> )	Cadmium, Total (ng/m <sup>3</sup> )	Chromium, Total (ng/m <sup>3</sup> )	Cobalt, Total (ng/m <sup>3</sup> )	Hexavalent Chromium Cr(VI) (ng/m <sup>3</sup> )	Lead, Total (ng/m <sup>3</sup> )	Manganese, Total (ng/m <sup>3</sup> )	Nickel, Total (ng/m <sup>3</sup> )	Selenium, Total (ng/m <sup>3</sup> )
05/29/2018	24 hr	<0.16	<0.16	<0.16	11	0.16 J1	0.0208 J1	<0.78	<0.78	<1.6	<6.2
06/01/2018	24 hr	1.1	<0.16	<0.16	14	0.17 J1	0.0569 J1	<0.78	<0.78	<1.6	<6.2
06/04/2018	24 hr	0.22 J1	<0.16	<0.16	12	<0.16	<0.0208	<0.78	<0.78	<1.6	<6.2
06/07/2018	24 hr	0.33 J1	<0.16	<0.16	10	<0.16	<0.0208	<0.78	<0.78	<1.6	<6.2
06/10/2018	24 hr	0.74	<0.16	<0.16	10	<0.16	0.0326 J1	<0.78	<0.78	<1.6	<6.2
06/13/2018	24 hr	0.18 J1	<0.16	<0.16	10	<0.16	<0.0208	<0.78	<0.78	<1.6	<6.2
06/16/2018	24 hr	1.8	<0.16	<0.16	<1.6	0.2 J1	<0.0208	<0.16	<0.16	<1.6	<6.2
06/19/2018	24 hr	0.31 J1	<0.16	<0.16	<1.6	0.37 J1	<0.0208	<0.16	<0.16	<1.6	<6.2
06/22/2018	24 hr	0.29 J1	<0.16	<0.16	<1.6	0.18 J1	<0.0208	<0.16	<0.16	<1.6	<6.2
06/25/2018	24 hr	0.21 J1	<0.16	<0.16	<1.6	<0.16	<0.0208	<0.16	<0.16	<1.6	<6.2
06/28/2018	24 hr	0.26 J1	<0.16	<0.16	<1.6	<0.16	<0.0208	<0.16	<0.16	<1.6	<6.2
07/01/2018	24 hr	<0.16	<0.16	<0.16	<1.6	0.23 J1	<0.0208	<0.16	<0.16	<1.6	<6.2
07/04/2018	24 hr	1.5	<0.16	<0.16	<1.6	0.16 J1	0.462	<0.16	<0.16	<1.6	<6.2
07/07/2018	24 hr	0.17 J1	<0.16	<0.16	<1.6	<0.16	<0.0208	<0.16	<0.16	<1.6	<6.2
07/10/2018	24 hr	0.2 J1	<0.16	<0.16	<1.6	0.2 J1	<0.0208	<0.16	<0.16	<1.6	<6.2
07/13/2018	24 hr	0.21 J1	<0.16	<0.16	<1.6	0.31 J1	0.034 J1	<0.16	<0.16	<1.6	<6.2
07/16/2018	24 hr	0.26 J1	<0.16	<0.16	<1.6	0.23 J1	<0.0208	1.2	10	<1.6	<6.2
07/19/2018	24 hr	0.21 J1	<0.16	<0.16	<1.6	0.3 J1	<0.0208	1.1	15	2.7 J1	<6.2
07/22/2018	24 hr	0.27 J1	<0.16	<0.16	<1.6	0.21 J1	<0.0208	1.6	13	<1.6	<6.2
07/25/2018	24 hr	0.21 J1	<0.16	<0.16	<1.6	0.26 J1	0.0243 J1	1.7	12	<1.6	<6.2
07/28/2018	24 hr	0.24 J1	<0.16	<0.16	<1.6	0.18 J1	<0.0208	2	7	<1.6	<6.2
07/31/2018	24 hr	<0.16	<0.16	<0.16	<1.6	0.18 J1	<0.0208	1.1	9.7	<1.6	<6.2
08/03/2018	24 hr	<0.16	<0.16	<0.16	<1.6	0.28 J1	<0.0208	1	5	<1.6	<6.2
08/06/2018	24 hr	0.20 J1	<0.16	<0.16	<1.6	0.38 J1	0.0236 J1	1.6	15	<1.6	<6.2
08/09/2018	24 hr	0.29 J1	<0.16	<0.16	<1.6	0.37 J1	<0.0208	1.8	21	2.2 J1	<6.2
08/12/2018	24 hr	0.28 J1	<0.16	<0.16	<1.6	<0.16	<0.0208	1.7	7	<1.6	<6.2
08/15/2018	24 hr	0.34 J1	<0.16	<0.16	<1.6	0.37 J1	0.0396 J1	1.9	17	2.1 J1	<6.2
8/18/2018	24 hr	1	<0.16	0.18 J1	9.1	0.19 J1	<0.0208	2.2	<0.16	<1.6	<6.2
8/21/2018	24 hr	0.45 J1	<0.16	0.28 J1	16	1	0.0646 J1	2.2	<0.16	5.2	<6.2
8/24/2018	24 hr	0.33 J1	<0.16	<0.16	11	0.28 J1	<0.0208	0.94	<0.16	<1.6	<6.2
8/27/2018	24 hr	0.49 J1	<0.16	<0.16	15	0.32 J1	<0.0208	2.2	<0.16	<1.6	<6.2
8/30/2018	24 hr	<0.16	<0.16	<0.16	<1.6	<0.16	<0.0208	0.35 J1	<0.16	<1.6	<6.2
9/2/2018	24 hr	0.18 J1	<0.16	<0.16	8.4	<0.16	<0.0208	0.52	<0.16	<1.6	<6.2
9/5/2018	24 hr	0.20 J1	<0.16	<0.16	8.3	0.17 J1	<0.0208	0.50 J1	<0.16	<1.6	<6.2
9/8/2018	24 hr	0.46 J1	<0.16	<0.16	18	0.74	<0.0208	1.8	<0.16	2.3 J1	<6.2
9/11/2018	24 hr	0.31 J1	<0.16	<0.16	10	0.21 J1	<0.0208	1.2	<0.16	<1.6	<6.2
9/14/2018	24 hr	2	<0.16	<0.16	9	0.27 J1	0.0535 J1	1.1	<0.16	<1.6	<6.2

Sampled	Type	Arsenic, Total (ng/m <sup>3</sup> )	Beryllium, Total (ng/m <sup>3</sup> )	Cadmium, Total (ng/m <sup>3</sup> )	Chromium, Total (ng/m <sup>3</sup> )	Cobalt, Total (ng/m <sup>3</sup> )	Hexavalent Chromium Cr(VI) (ng/m <sup>3</sup> )	Lead, Total (ng/m <sup>3</sup> )	Manganese, Total (ng/m <sup>3</sup> )	Nickel, Total (ng/m <sup>3</sup> )	Selenium, Total (ng/m <sup>3</sup> )
09/17/2018	24 hr	0.26 J1	<0.16	<0.16	<1.6	0.53	0.0722 J1	<0.16	<0.16	3.4 J1	<6.2
09/20/2018	24 hr	0.93	<0.16	<0.16	<1.6	0.26 J1	<0.0208	<0.16	14	2.6 J1	<6.2
09/23/2018	24 hr	0.63	<0.16	<0.16	<1.6	0.26 J1	<0.0208	<0.16	<0.16	2.3 J1	<6.2
09/26/2018	24 hr	0.9	<0.16	<0.16	<1.6	0.26 J1	0.0278 J1	<0.16	<0.16	2.7 J1	<6.2
09/29/2018	24 hr	2.8	<0.16	6.7	<1.6	0.58	<0.0208	<0.16	<0.16	2.2 J1	<6.2
10/02/2018	24 hr	0.49 J1	<0.16	<0.16	<1.6	0.38 J1	<0.0208	<0.16	15	1.7 J1	<6.2
10/05/2018	24 hr	0.81	<0.16	<0.16	<1.6	<0.16	NA	<0.16	<0.16	<1.6	<6.2
10/08/2018	24 hr	2.3	<0.16	<0.16	<1.6	<0.16	<0.0208	<0.16	<0.16	1.8 J1	<6.2
10/11/2018	24 hr	0.96	<0.16	<0.16	<1.6	0.33 J1	0.0222 J1	<0.16	14	2.8 J1	<6.2
10/14/2018	24 hr	0.31 J1	<0.16	<0.16	<1.6	0.7	0.1760	<0.16	15	4.8 J1	<6.2

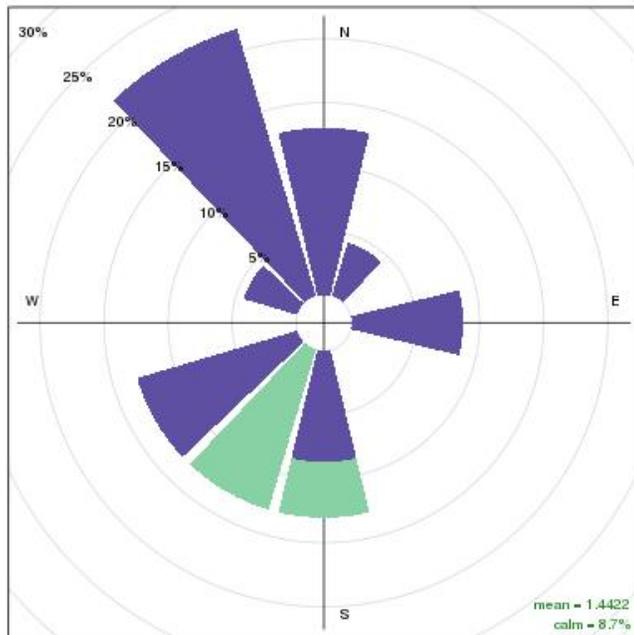
## Wind Roses

Wind speed and direction data are collected in the Oregon DEQ air quality monitoring station located in SE Lafayette in SE Portland.

Note: No wind data available for January 17<sup>th</sup> of 2018

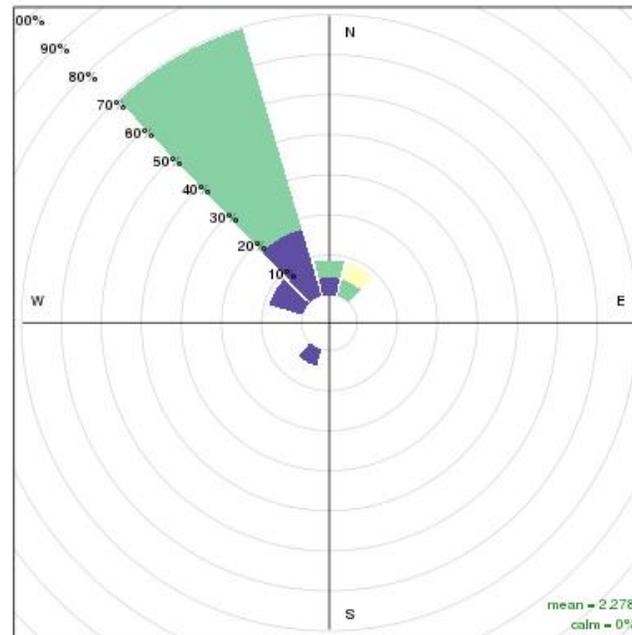


Date: 10-22-2017



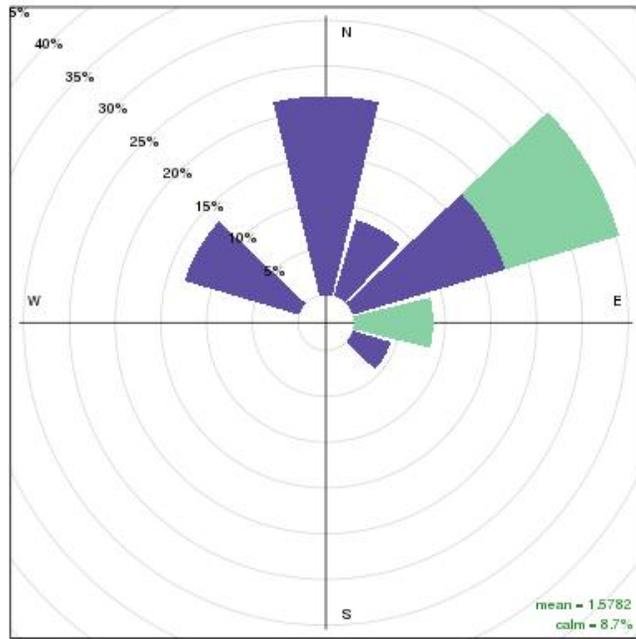
0.5 to 2 2 to 4 4 to 6 6 to 8 8 to 10  
(m s<sup>-1</sup>)  
Frequency of counts by wind direction (%)

Date: 10-25-2017



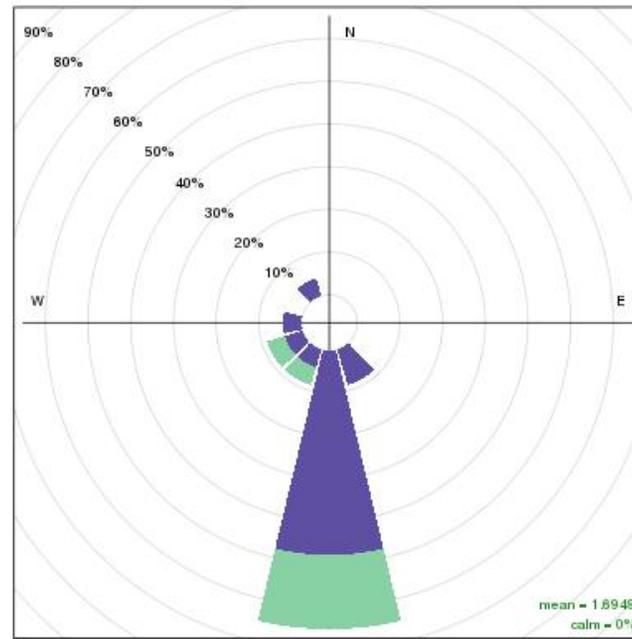
0.5 to 2 2 to 4 4 to 6 6 to 8 8 to 10  
(m s<sup>-1</sup>)  
Frequency of counts by wind direction (%)

Date: 10-28-2017



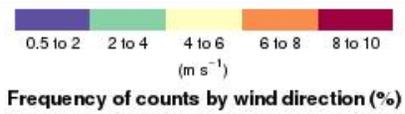
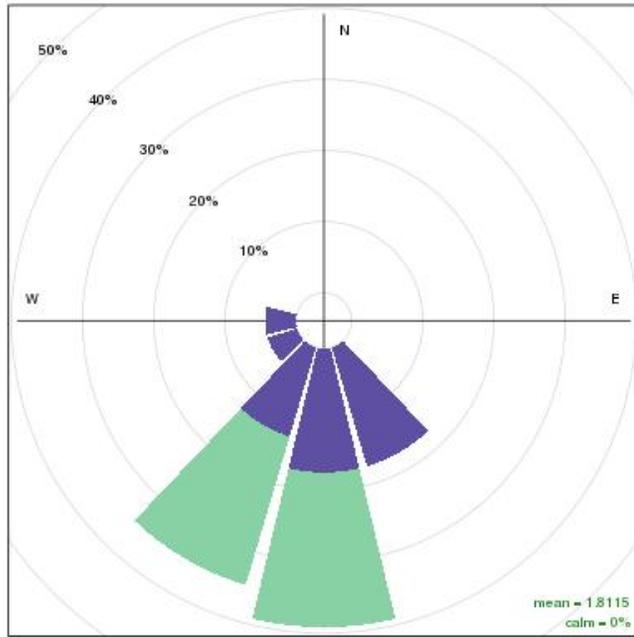
0.5 to 2 2 to 4 4 to 6 6 to 8 8 to 10  
(m s<sup>-1</sup>)  
Frequency of counts by wind direction (%)

Date: 10-31-2017

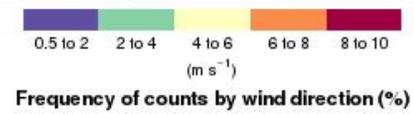
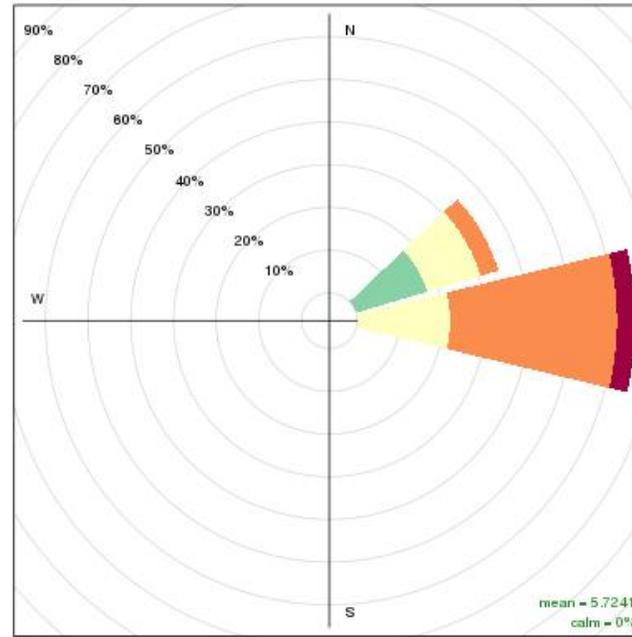


0.5 to 2 2 to 4 4 to 6 6 to 8 8 to 10  
(m s<sup>-1</sup>)  
Frequency of counts by wind direction (%)

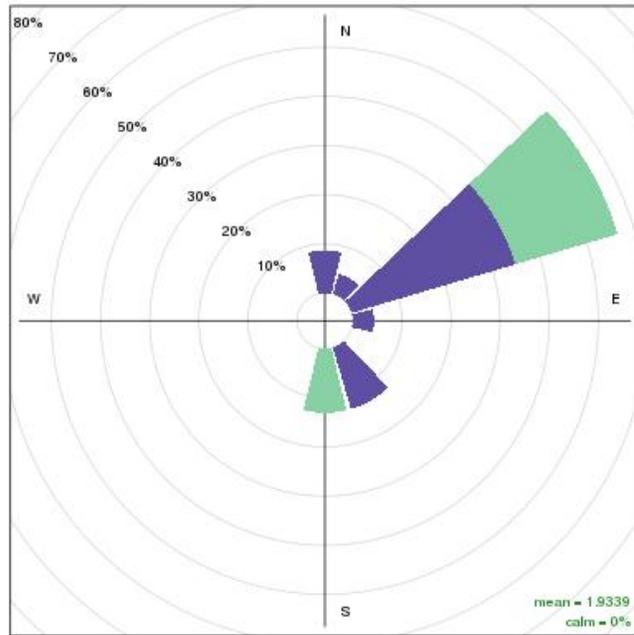
Date: 11-03-2017



Date: 11-06-2017

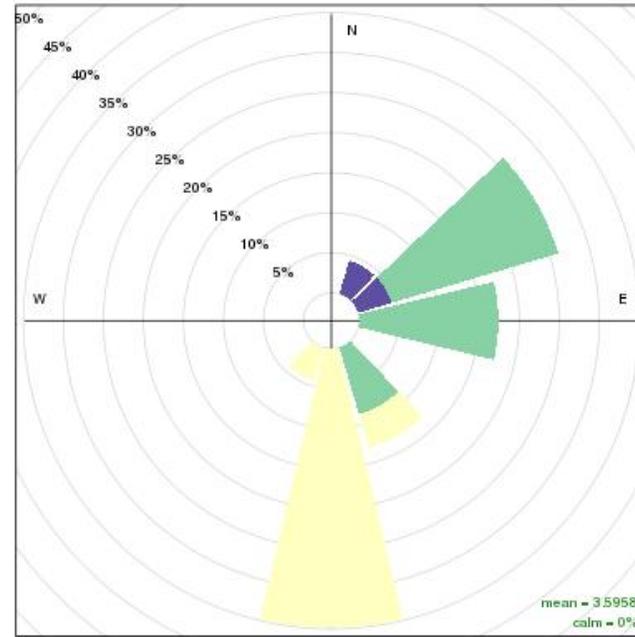


Date: 11-09-2017



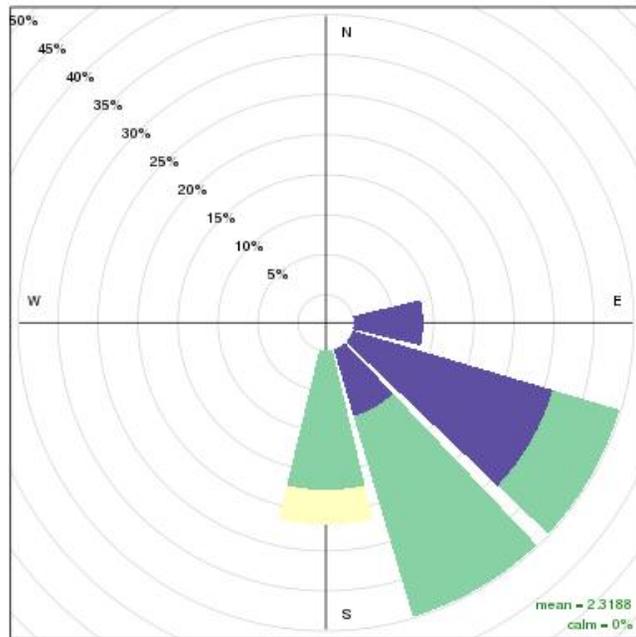
0.5 to 2 2 to 4 4 to 6 6 to 8 8 to 10  
(m s<sup>-1</sup>)  
Frequency of counts by wind direction (%)

Date: 11-12-2017



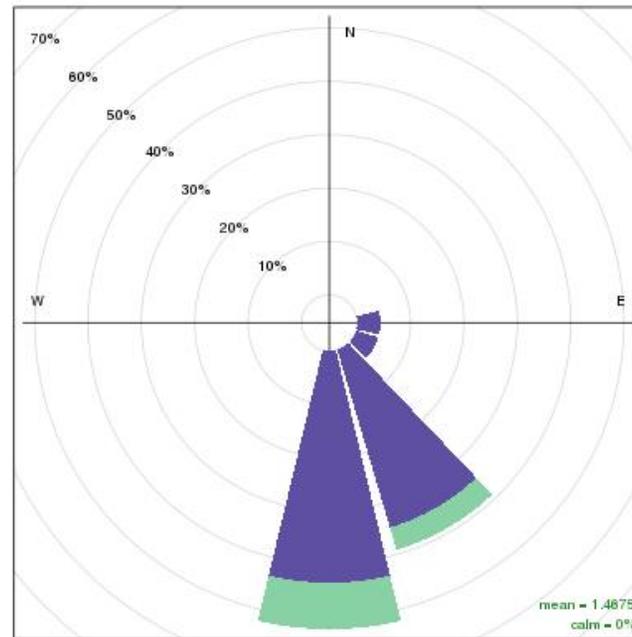
0.5 to 2 2 to 4 4 to 6 6 to 8 8 to 10  
(m s<sup>-1</sup>)  
Frequency of counts by wind direction (%)

Date: 11-15-2017



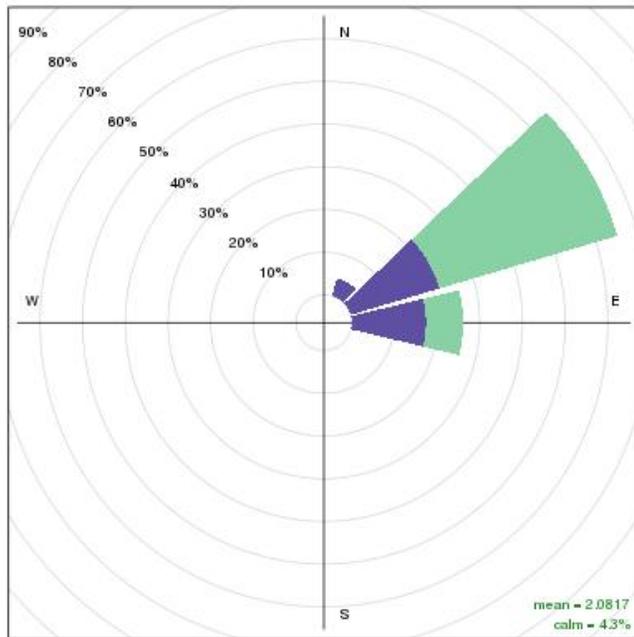
0.5 to 2 2 to 4 4 to 6 6 to 8 8 to 10  
(m s<sup>-1</sup>)  
Frequency of counts by wind direction (%)

Date: 11-18-2017



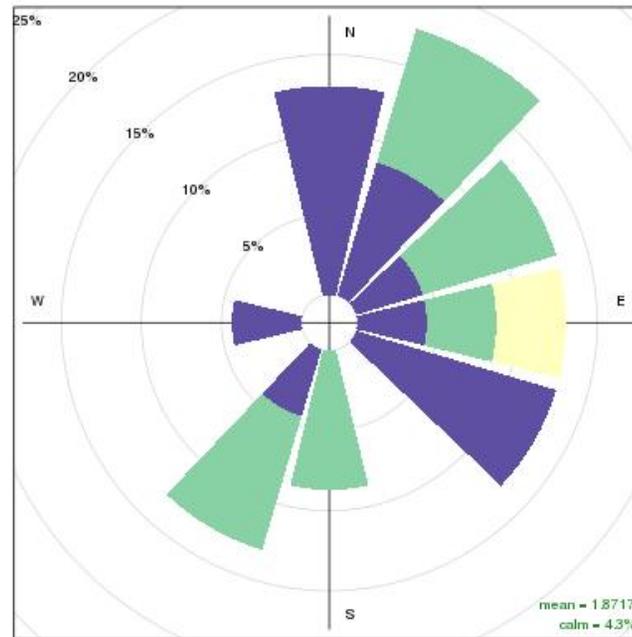
0.5 to 2 2 to 4 4 to 6 6 to 8 8 to 10  
(m s<sup>-1</sup>)  
Frequency of counts by wind direction (%)

Date: 11-21-2017



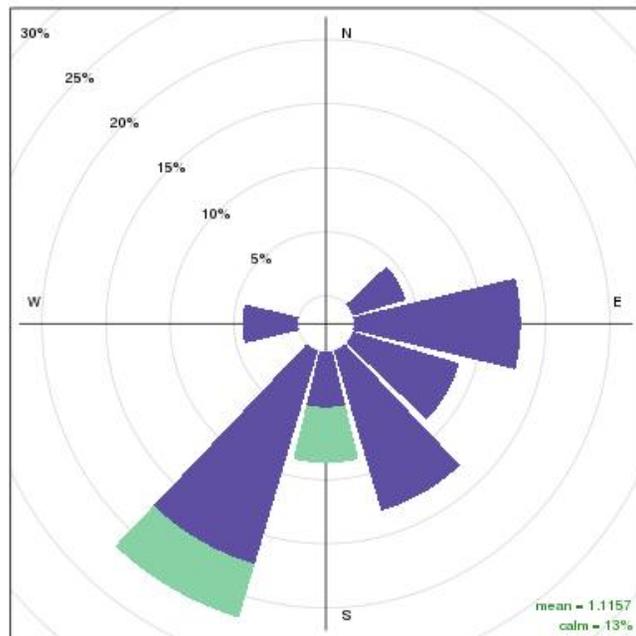
0.5 to 2 2 to 4 4 to 6 6 to 8 8 to 10  
( $m s^{-1}$ )  
Frequency of counts by wind direction (%)

Date: 11-24-2017



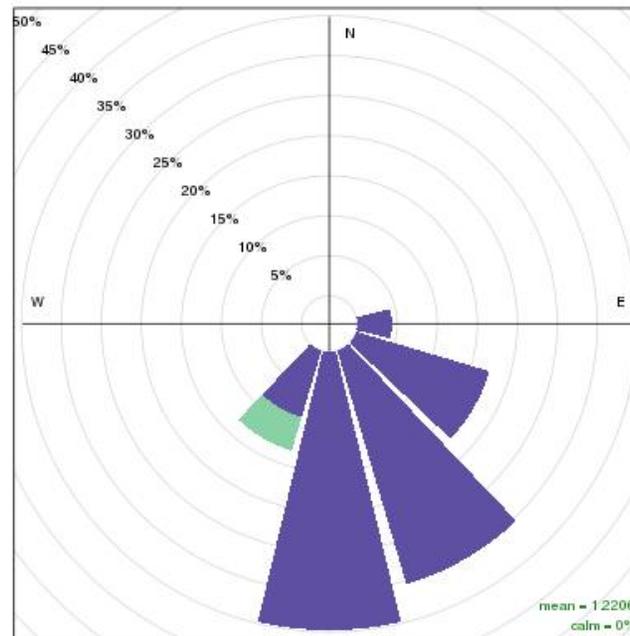
0.5 to 2 2 to 4 4 to 6 6 to 8 8 to 10  
( $m s^{-1}$ )  
Frequency of counts by wind direction (%)

Date: 11-27-2017



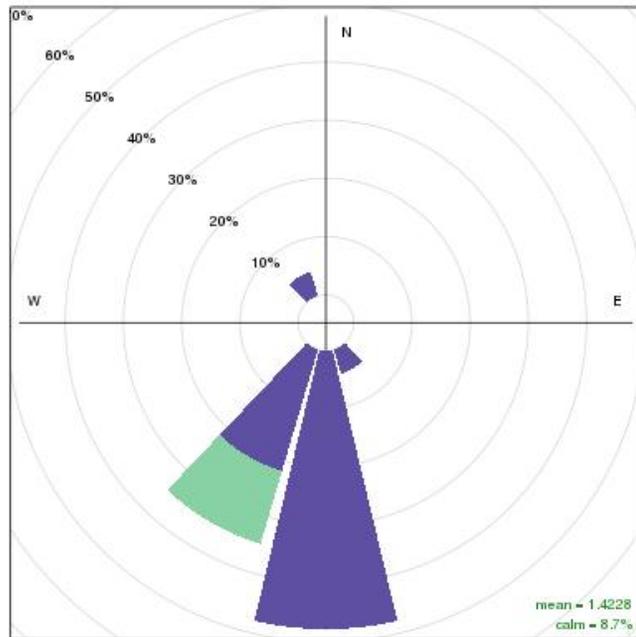
0.5 to 2 2 to 4 4 to 6 6 to 8 8 to 10  
( $m s^{-1}$ )  
Frequency of counts by wind direction (%)

Date: 11-30-2017



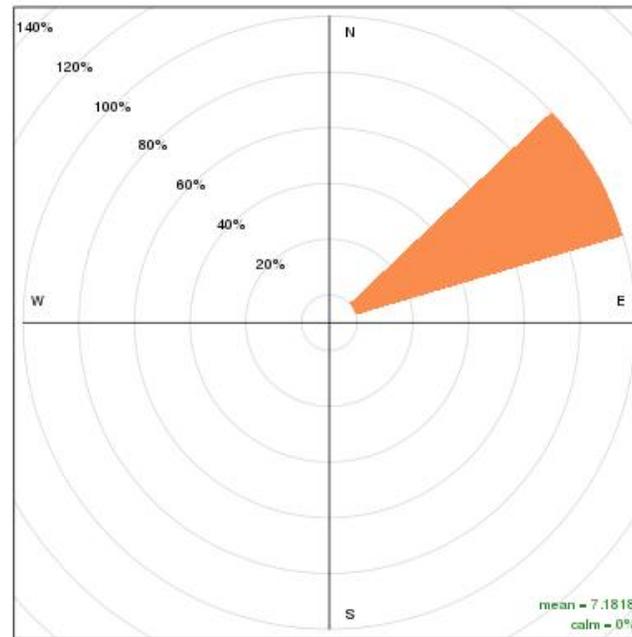
0.5 to 2 2 to 4 4 to 6 6 to 8 8 to 10  
( $m s^{-1}$ )  
Frequency of counts by wind direction (%)

Date: 12-03-2017



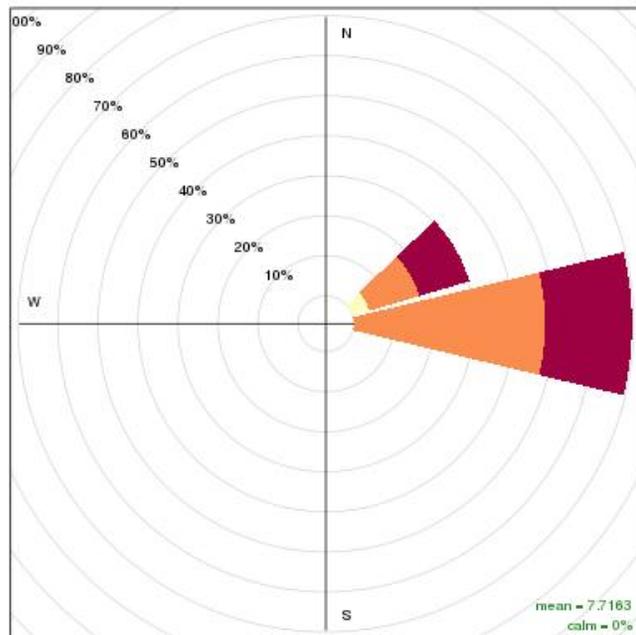
0.5 to 2 2 to 4 4 to 6 6 to 8 8 to 10  
( $m s^{-1}$ )  
Frequency of counts by wind direction (%)

Date: 12-06-2017



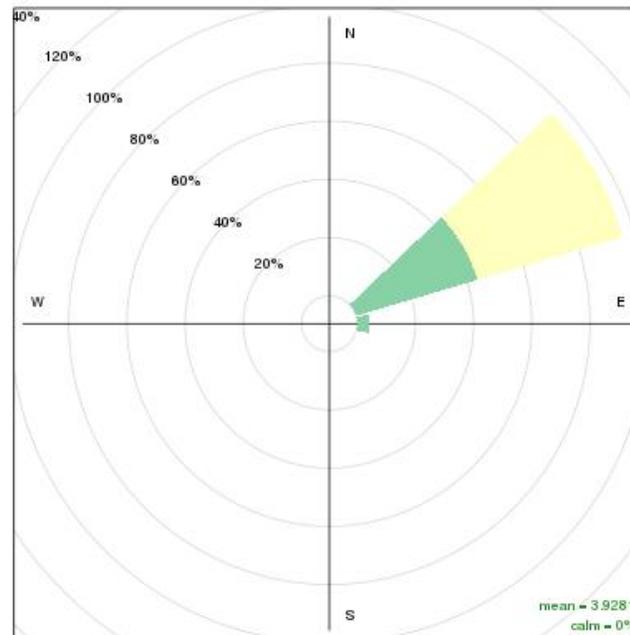
0.5 to 2 2 to 4 4 to 6 6 to 8 8 to 10  
( $m s^{-1}$ )  
Frequency of counts by wind direction (%)

Date: 12-09-2017



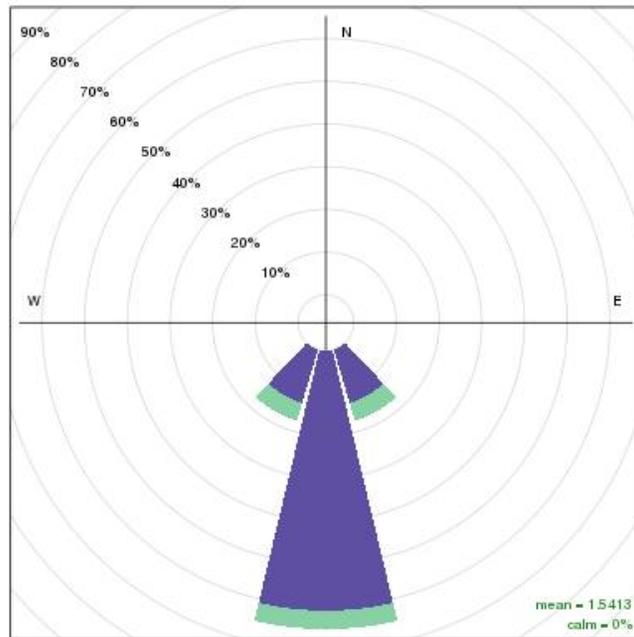
0.5 to 2 2 to 4 4 to 6 6 to 8 8 to 10  
(m s<sup>-1</sup>)  
Frequency of counts by wind direction (%)

Date: 12-12-2017



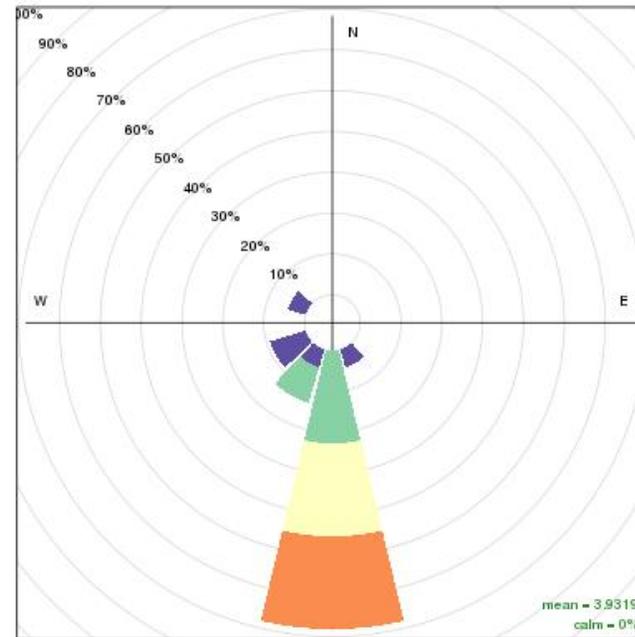
0.5 to 2 2 to 4 4 to 6 6 to 8 8 to 10  
(m s<sup>-1</sup>)  
Frequency of counts by wind direction (%)

Date: 12-15-2017



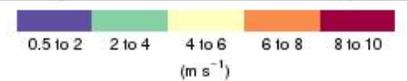
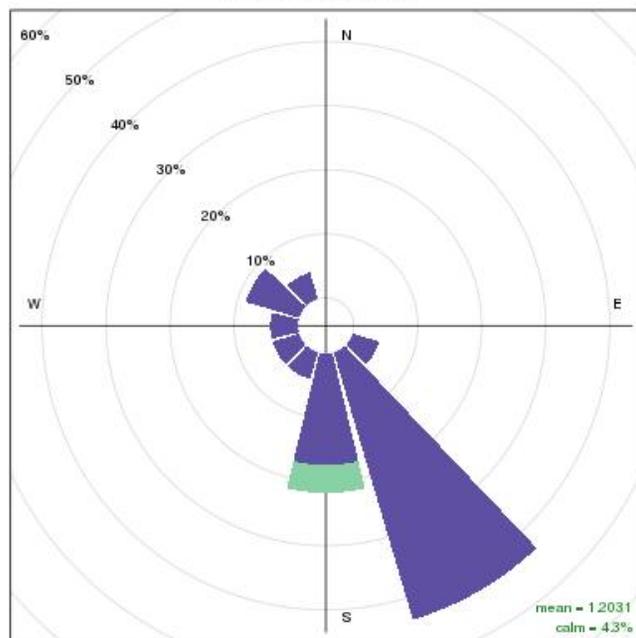
0.5 to 2 2 to 4 4 to 6 6 to 8 8 to 10  
(m s<sup>-1</sup>)  
Frequency of counts by wind direction (%)

Date: 12-18-2017



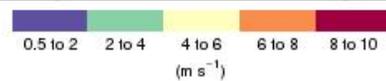
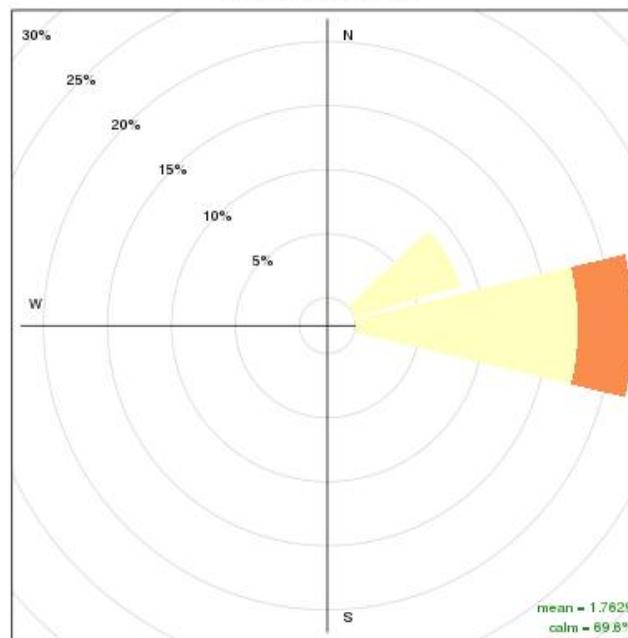
0.5 to 2 2 to 4 4 to 6 6 to 8 8 to 10  
(m s<sup>-1</sup>)  
Frequency of counts by wind direction (%)

Date: 12-21-2017



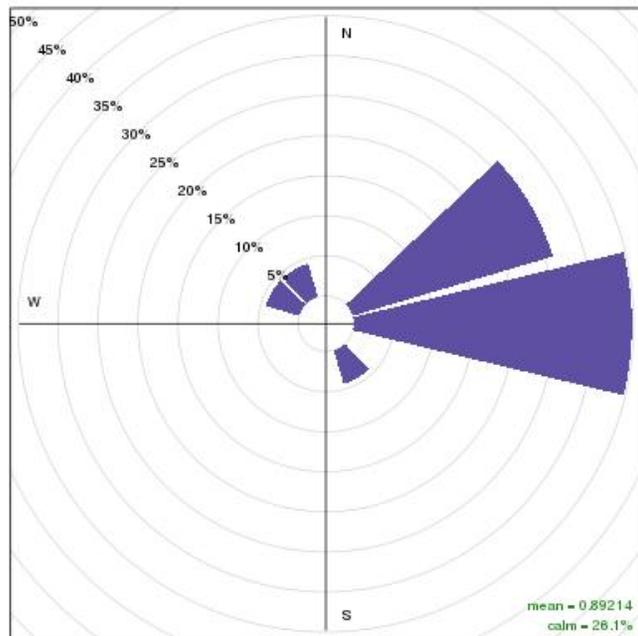
Frequency of counts by wind direction (%)

Date: 12-24-2017



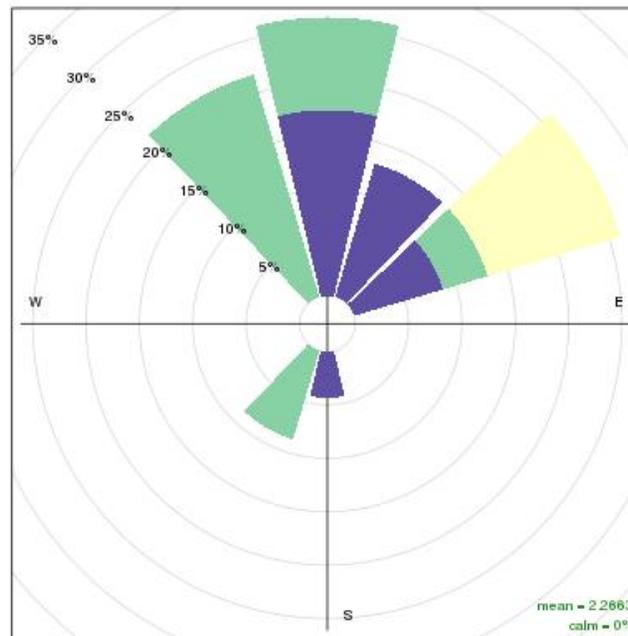
Frequency of counts by wind direction (%)

Date: 12-27-2017



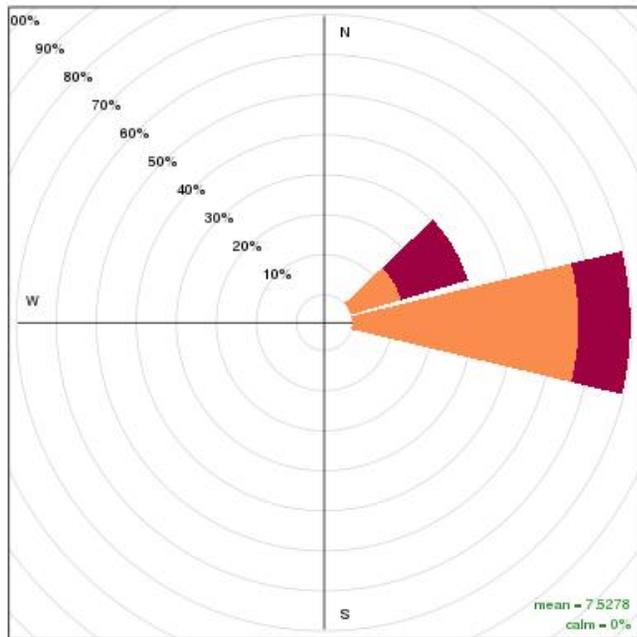
0.5 to 2 2 to 4 4 to 6 6 to 8 8 to 10  
( $m s^{-1}$ )  
Frequency of counts by wind direction (%)

Date: 12-30-2017



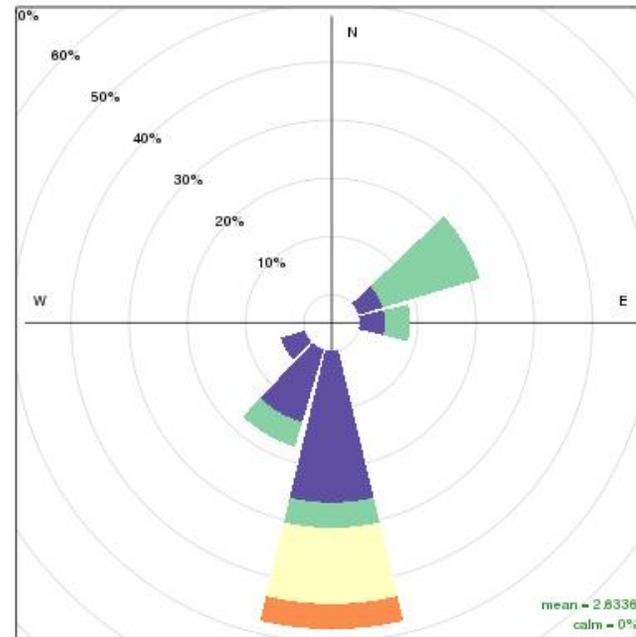
0.5 to 2 2 to 4 4 to 6 6 to 8 8 to 10  
( $m s^{-1}$ )  
Frequency of counts by wind direction (%)

Date: 01-02-2018



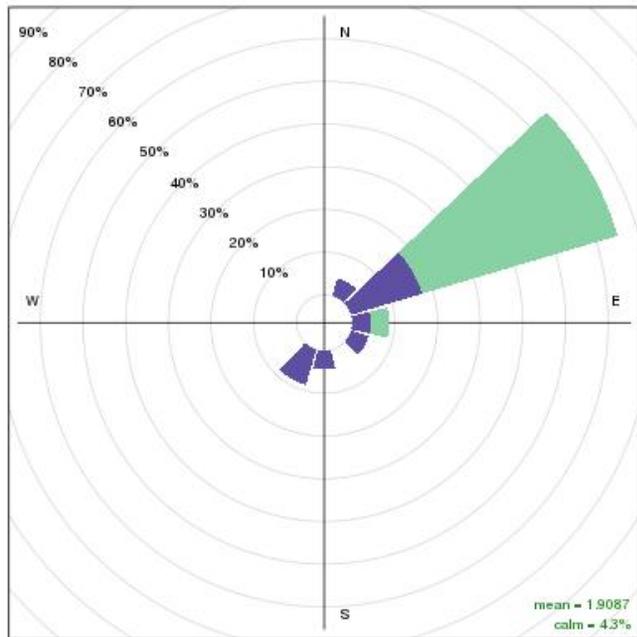
0.5 to 2 2 to 4 4 to 6 6 to 8 8 to 10  
(m s<sup>-1</sup>)  
Frequency of counts by wind direction (%)

Date: 01-05-2018



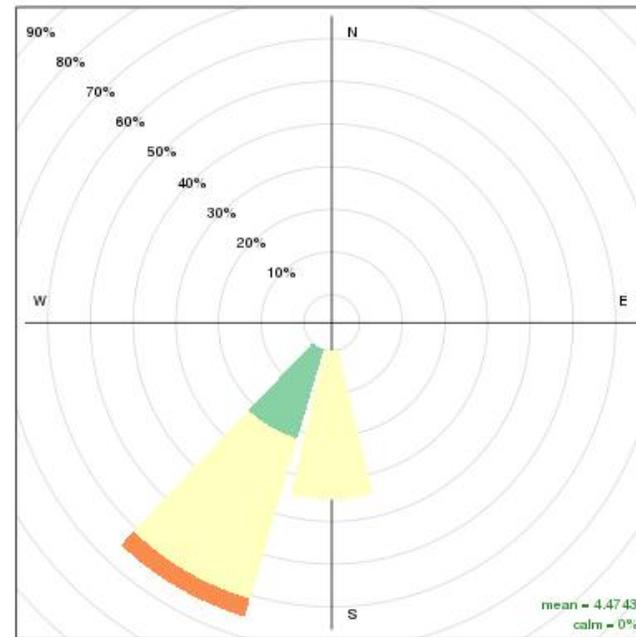
0.5 to 2 2 to 4 4 to 6 6 to 8 8 to 10  
(m s<sup>-1</sup>)  
Frequency of counts by wind direction (%)

Date: 01-08-2018



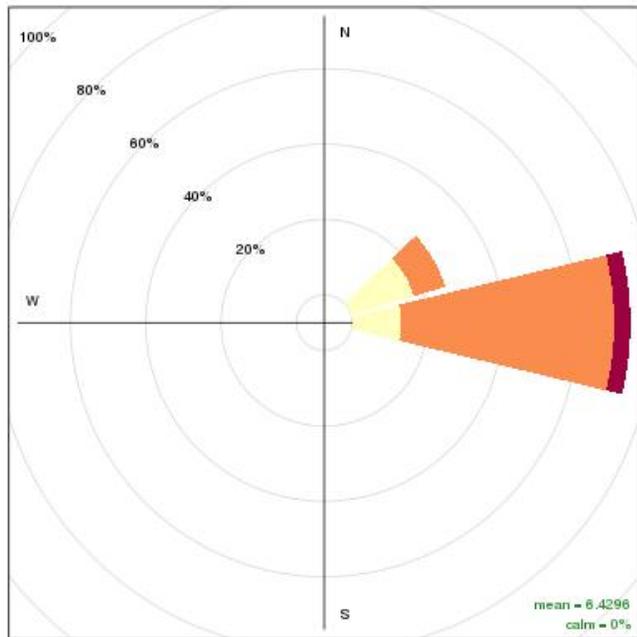
0.5 to 2 2 to 4 4 to 6 6 to 8 8 to 10  
( $\text{m s}^{-1}$ )  
Frequency of counts by wind direction (%)

Date: 01-11-2018



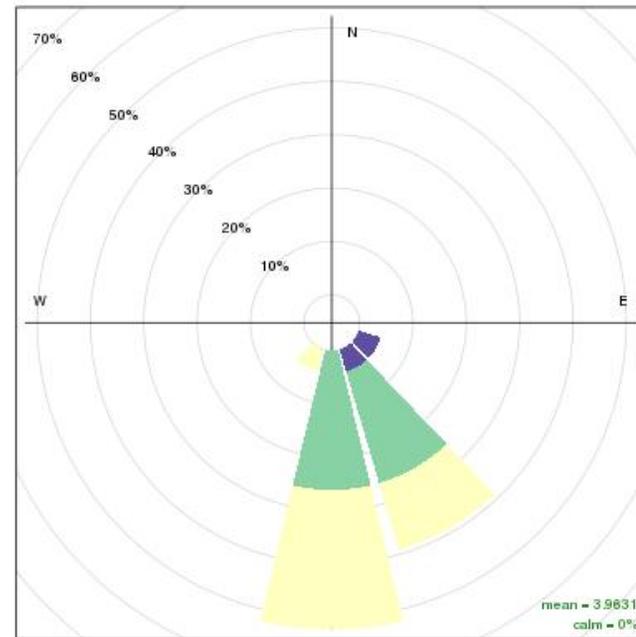
0.5 to 2 2 to 4 4 to 6 6 to 8 8 to 10  
( $\text{m s}^{-1}$ )  
Frequency of counts by wind direction (%)

Date: 01-14-2018



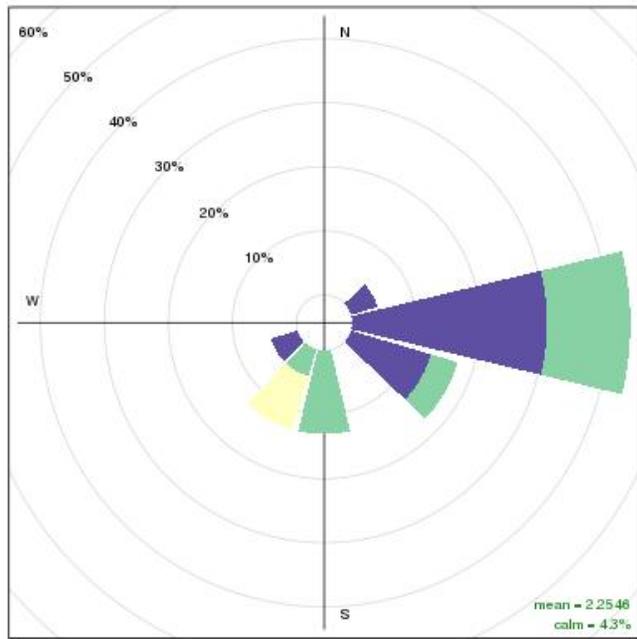
0.5 to 2 2 to 4 4 to 6 6 to 8 8 to 10  
(m s<sup>-1</sup>)  
Frequency of counts by wind direction (%)

Date: 01-20-2018



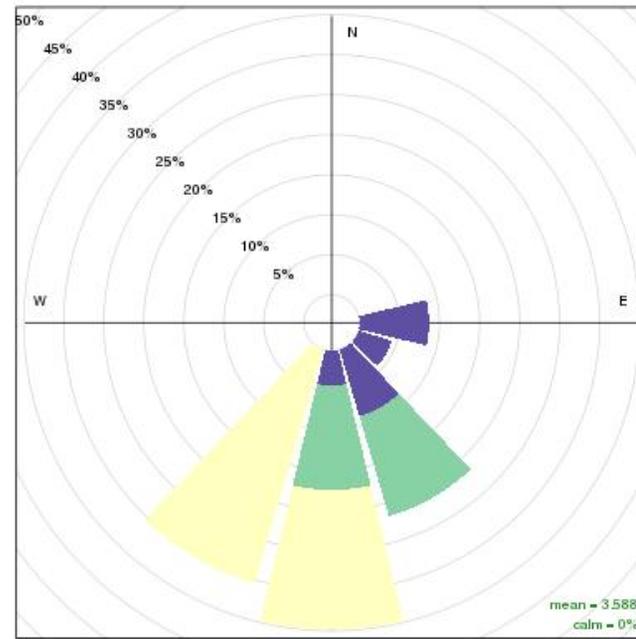
0.5 to 2 2 to 4 4 to 6 6 to 8 8 to 10  
(m s<sup>-1</sup>)  
Frequency of counts by wind direction (%)

Date: 01-23-2018



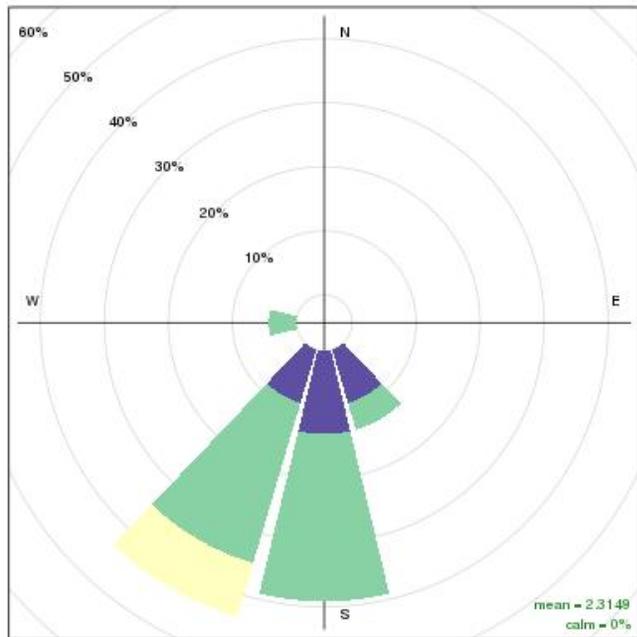
0.5 to 2 2 to 4 4 to 6 6 to 8 8 to 10  
(m s<sup>-1</sup>)  
Frequency of counts by wind direction (%)

Date: 01-26-2018



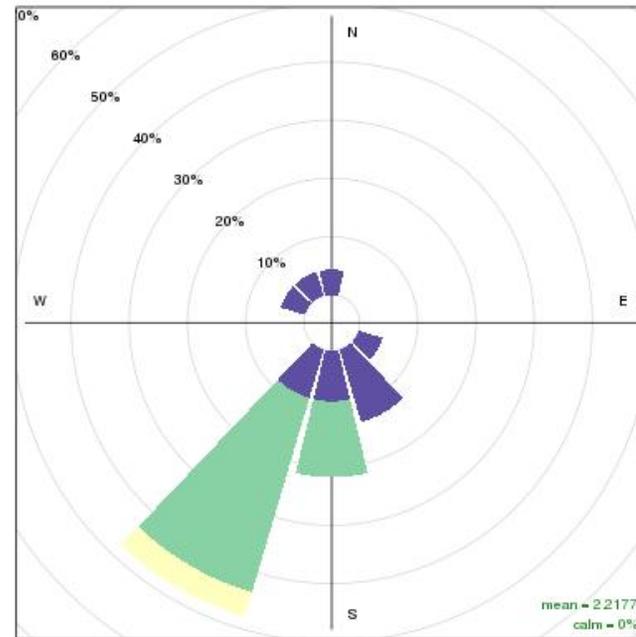
0.5 to 2 2 to 4 4 to 6 6 to 8 8 to 10  
(m s<sup>-1</sup>)  
Frequency of counts by wind direction (%)

Date: 01-29-2018



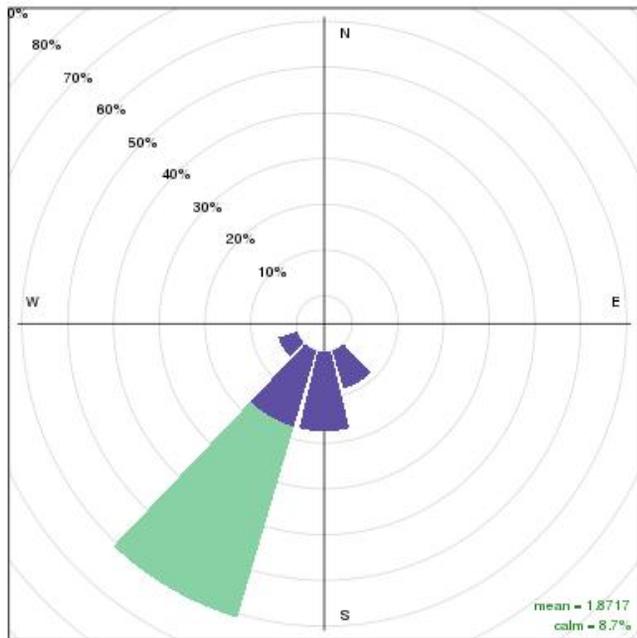
0.5 to 2 2 to 4 4 to 6 6 to 8 8 to 10  
(m s<sup>-1</sup>)  
Frequency of counts by wind direction (%)

Date: 02-01-2018



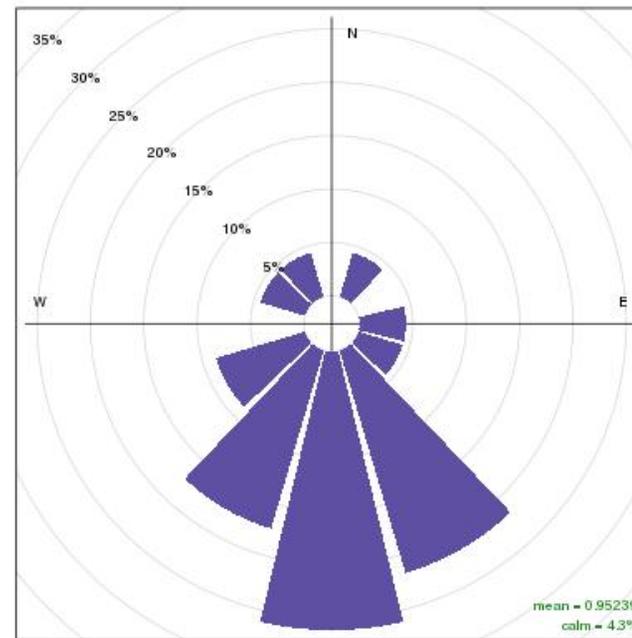
0.5 to 2 2 to 4 4 to 6 6 to 8 8 to 10  
(m s<sup>-1</sup>)  
Frequency of counts by wind direction (%)

Date: 02-04-2018

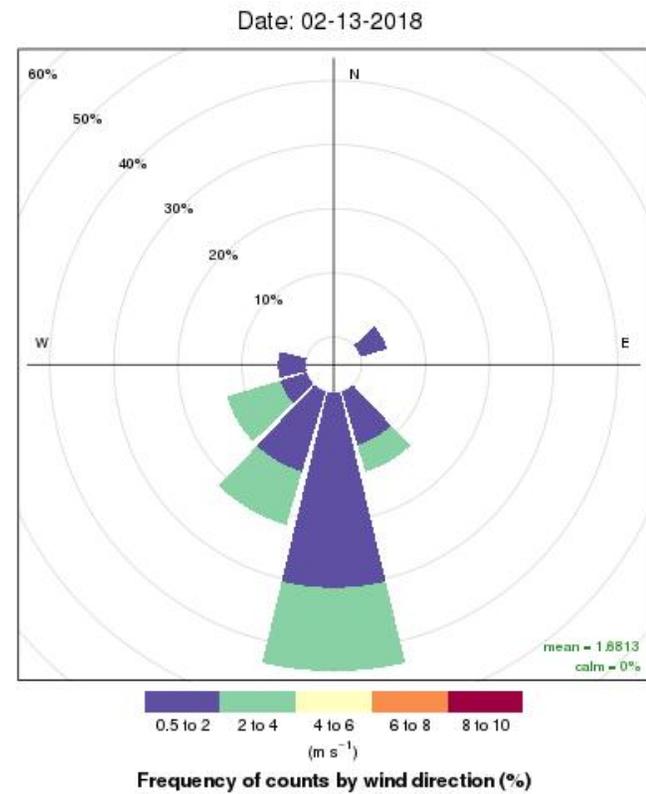
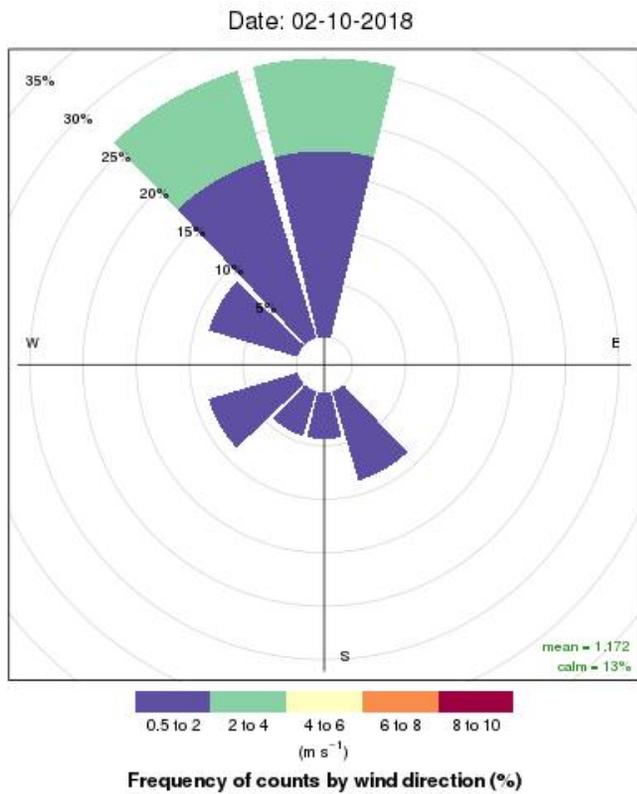


0.5 to 2 2 to 4 4 to 6 6 to 8 8 to 10  
( $m s^{-1}$ )  
Frequency of counts by wind direction (%)

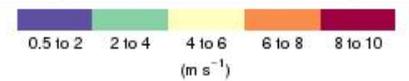
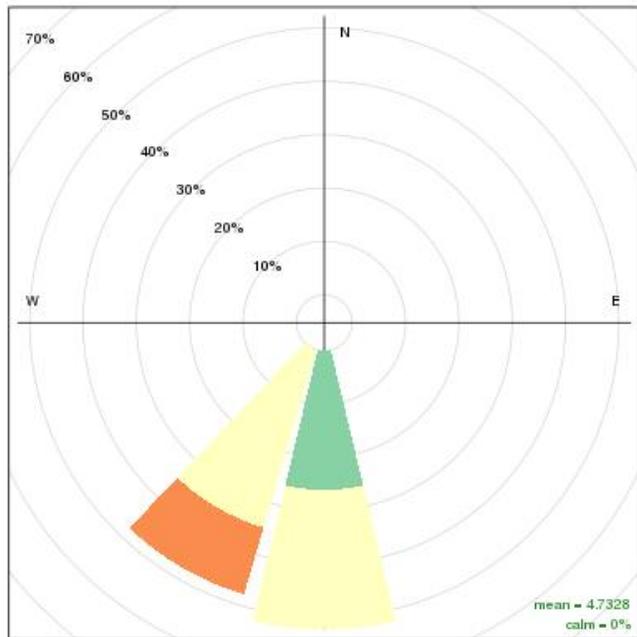
Date: 02-07-2018



0.5 to 2 2 to 4 4 to 6 6 to 8 8 to 10  
( $m s^{-1}$ )  
Frequency of counts by wind direction (%)

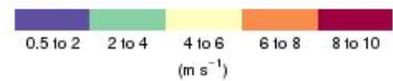
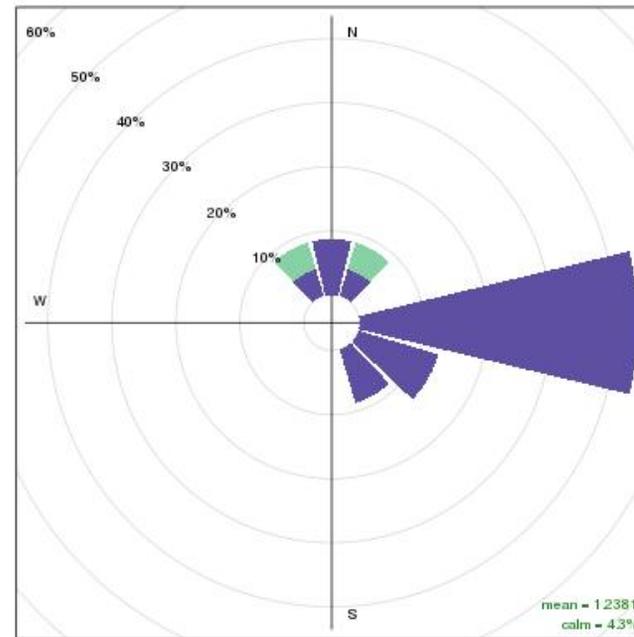


Date: 02-16-2018



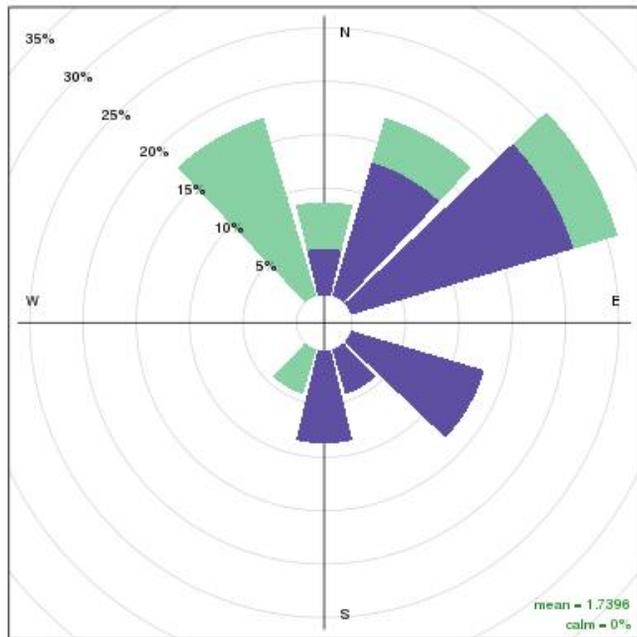
Frequency of counts by wind direction (%)

Date: 02-19-2018



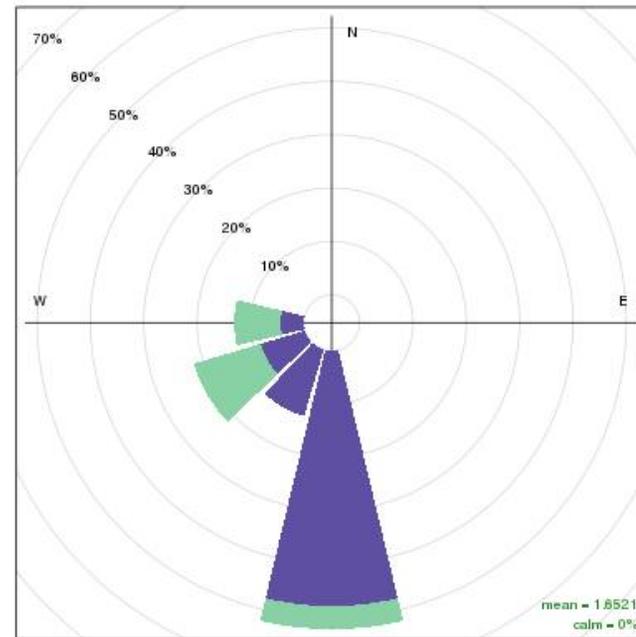
Frequency of counts by wind direction (%)

Date: 02-22-2018



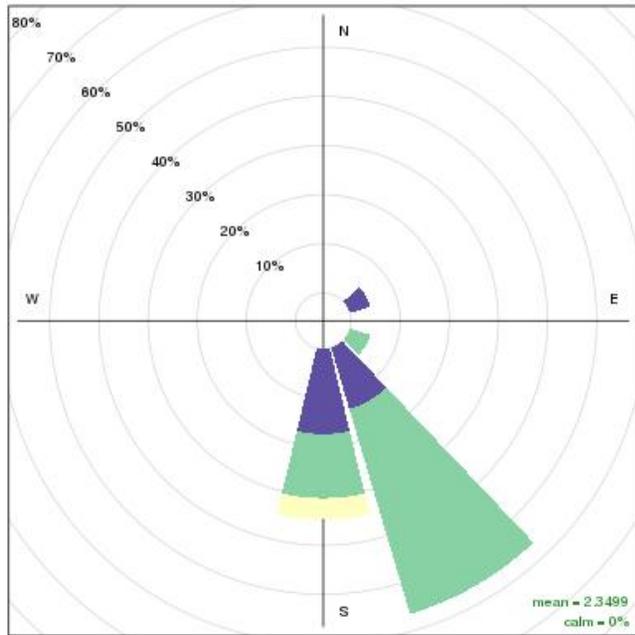
0.5 to 2 2 to 4 4 to 6 6 to 8 8 to 10  
( $\text{m s}^{-1}$ )  
Frequency of counts by wind direction (%)

Date: 02-25-2018



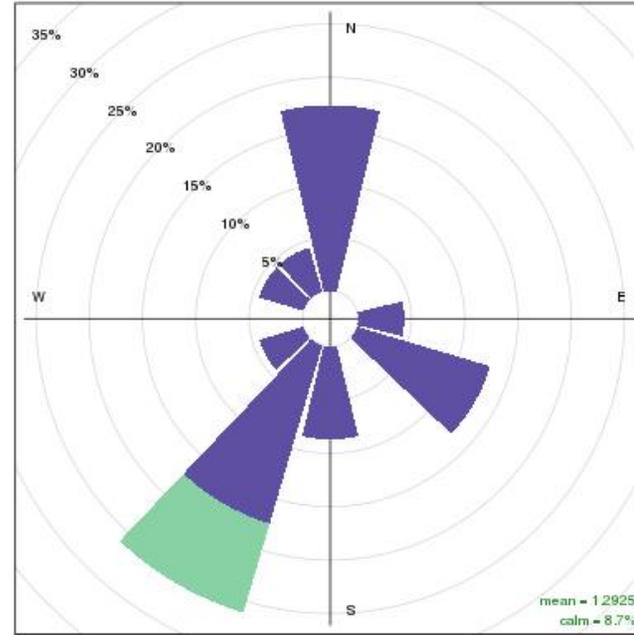
0.5 to 2 2 to 4 4 to 6 6 to 8 8 to 10  
( $\text{m s}^{-1}$ )  
Frequency of counts by wind direction (%)

Date: 02-28-2018



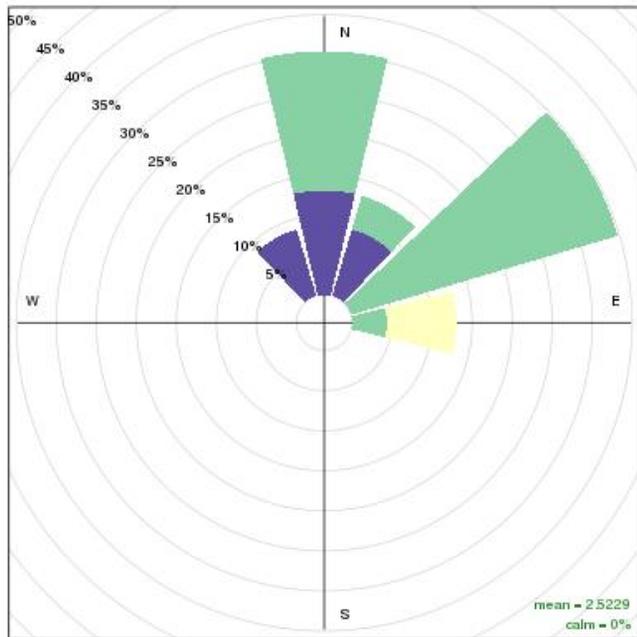
0.5 to 2 2 to 4 4 to 6 6 to 8 8 to 10  
(m s<sup>-1</sup>)  
Frequency of counts by wind direction (%)

Date: 03-03-2018



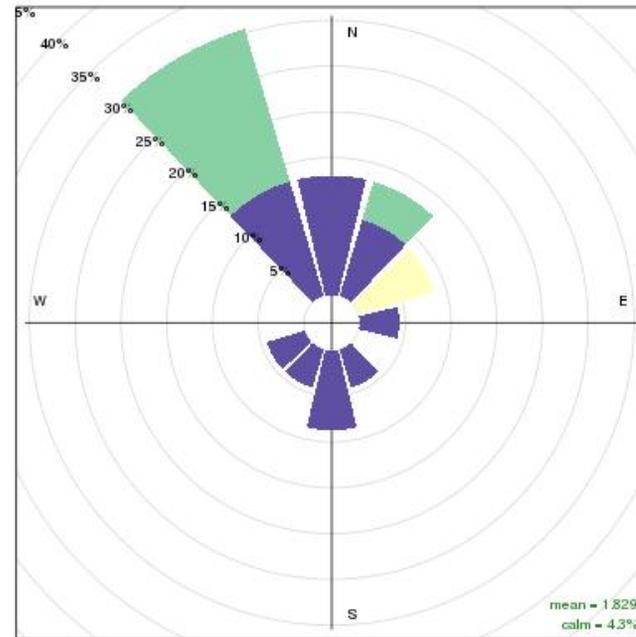
0.5 to 2 2 to 4 4 to 6 6 to 8 8 to 10  
(m s<sup>-1</sup>)  
Frequency of counts by wind direction (%)

Date: 03-06-2018



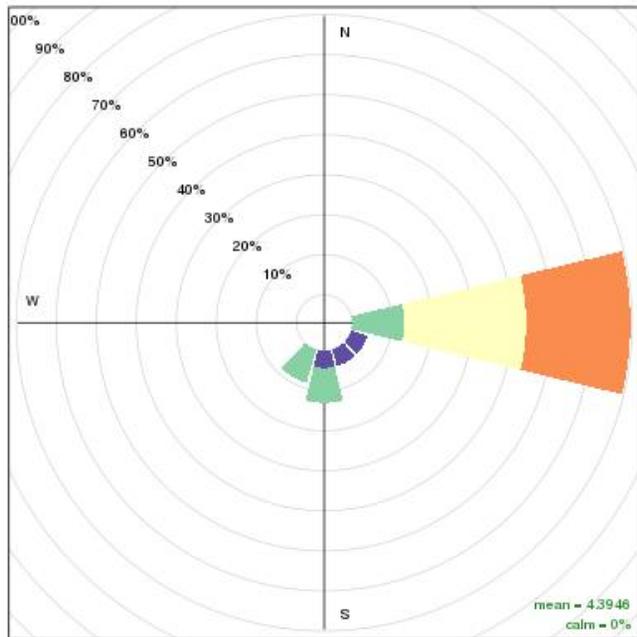
0.5 to 2 2 to 4 4 to 6 6 to 8 8 to 10  
(m s<sup>-1</sup>)  
Frequency of counts by wind direction (%)

Date: 03-09-2018



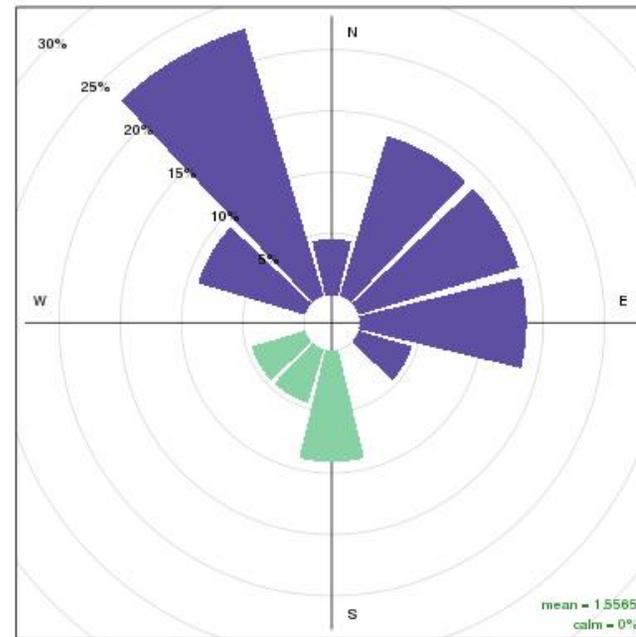
0.5 to 2 2 to 4 4 to 6 6 to 8 8 to 10  
(m s<sup>-1</sup>)  
Frequency of counts by wind direction (%)

Date: 03-12-2018



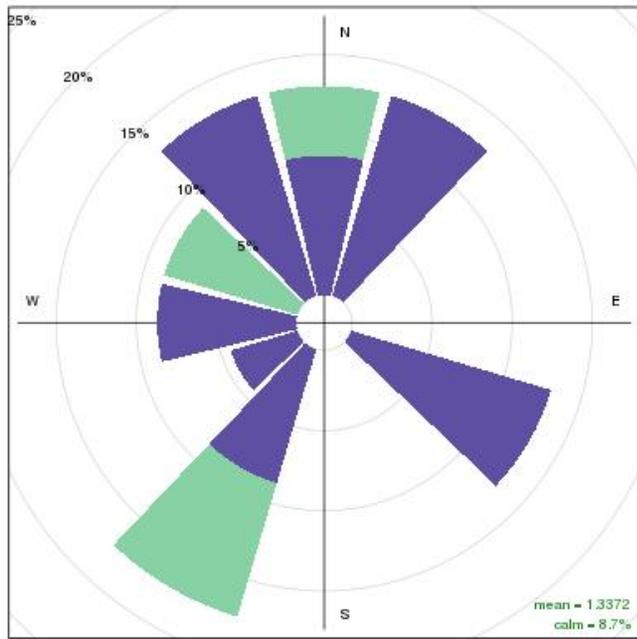
0.5 to 2 2 to 4 4 to 6 6 to 8 8 to 10  
(m s<sup>-1</sup>)  
Frequency of counts by wind direction (%)

Date: 03-15-2018



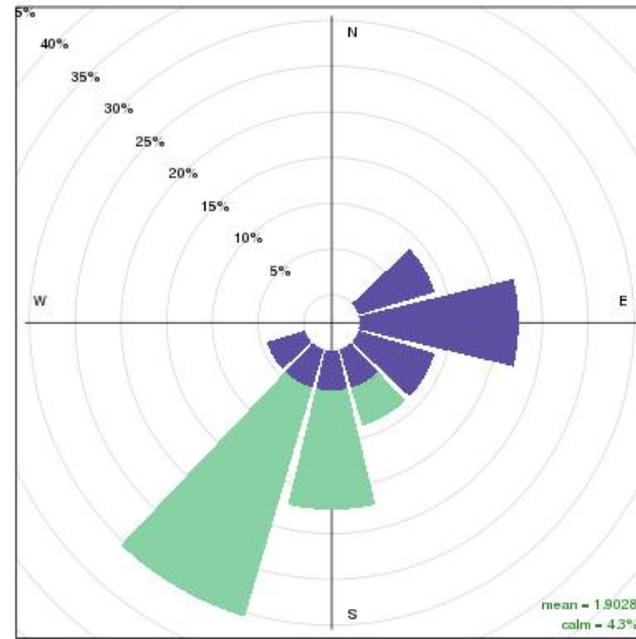
0.5 to 2 2 to 4 4 to 6 6 to 8 8 to 10  
(m s<sup>-1</sup>)  
Frequency of counts by wind direction (%)

Date: 03-18-2018



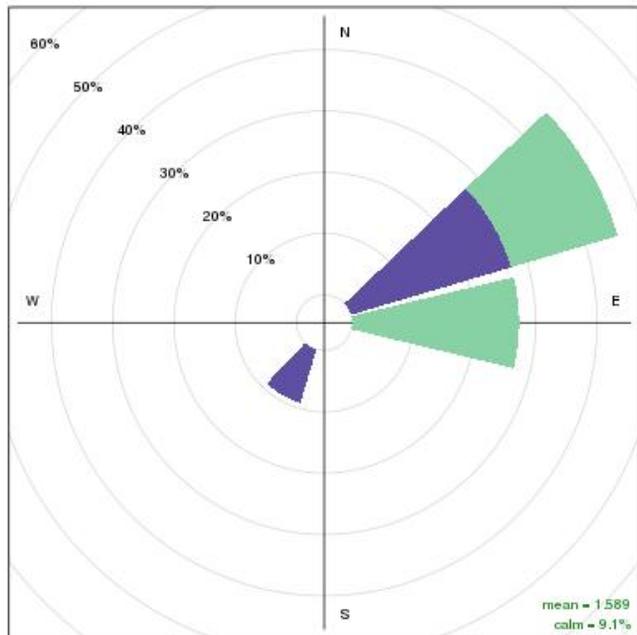
0.5 to 2 2 to 4 4 to 6 6 to 8 8 to 10  
(m s<sup>-1</sup>)  
Frequency of counts by wind direction (%)

Date: 03-21-2018



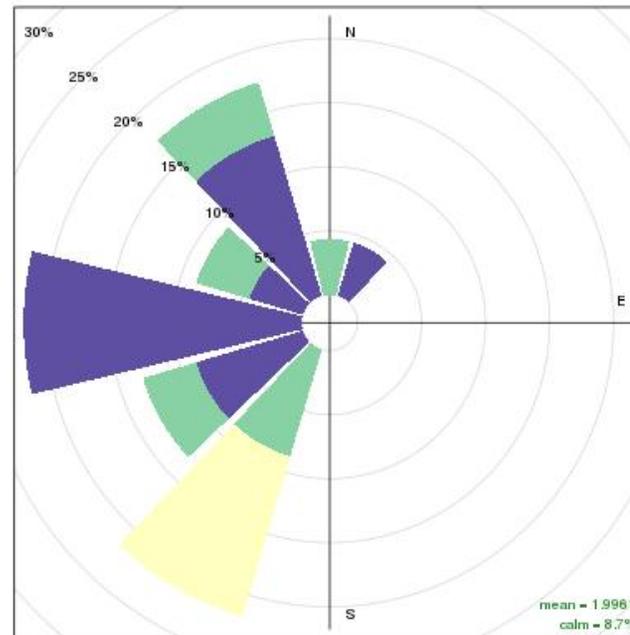
0.5 to 2 2 to 4 4 to 6 6 to 8 8 to 10  
(m s<sup>-1</sup>)  
Frequency of counts by wind direction (%)

Date: 03-24-2018

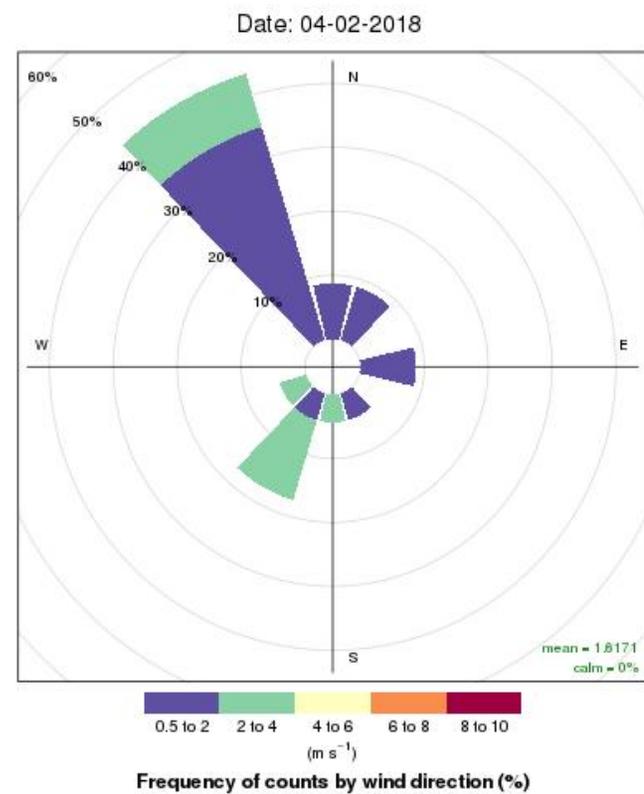
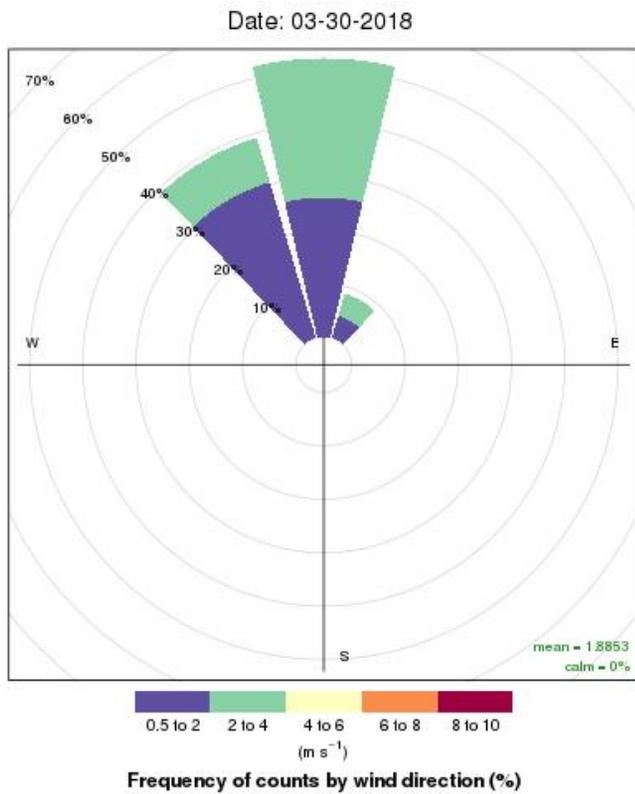


0.5 to 2 2 to 4 4 to 6 6 to 8 8 to 10  
( $m s^{-1}$ )  
Frequency of counts by wind direction (%)

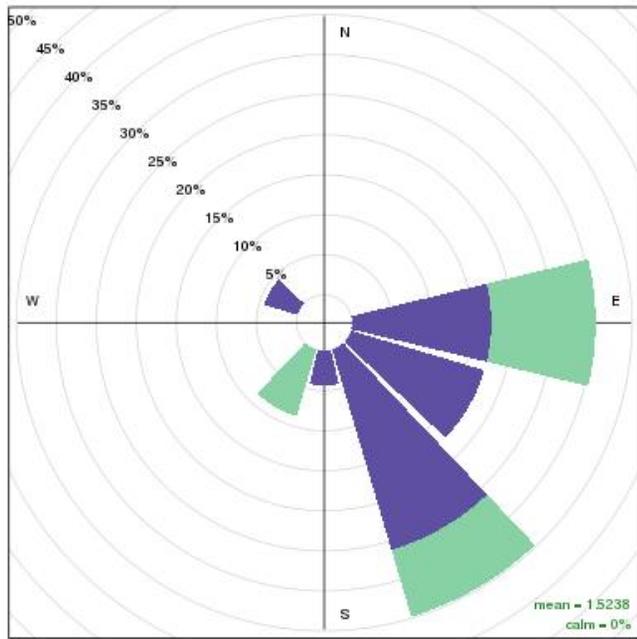
Date: 03-27-2018



0.5 to 2 2 to 4 4 to 6 6 to 8 8 to 10  
( $m s^{-1}$ )  
Frequency of counts by wind direction (%)

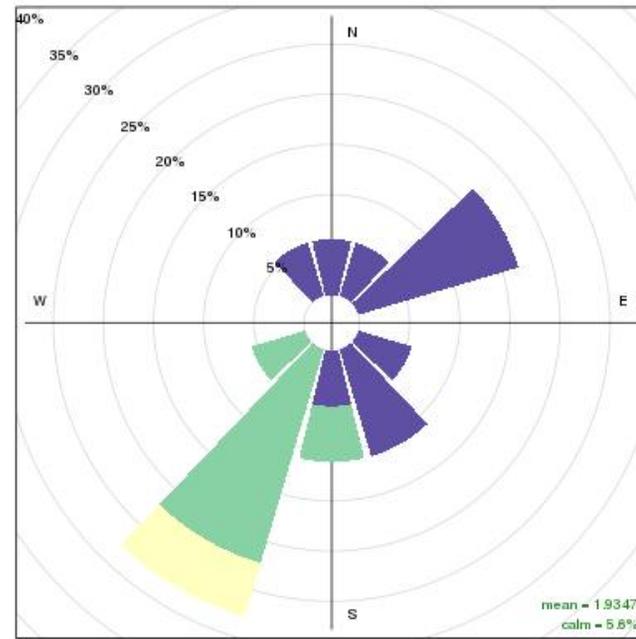


Date: 04-05-2018



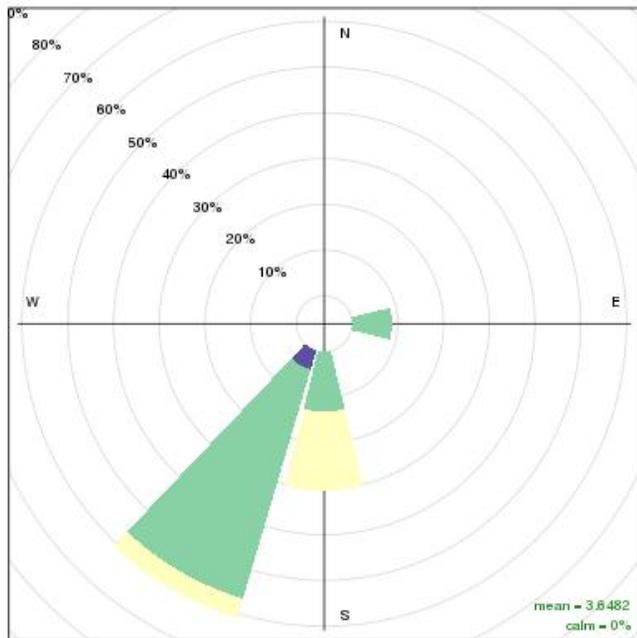
0.5 to 2 2 to 4 4 to 6 6 to 8 8 to 10  
( $m s^{-1}$ )  
Frequency of counts by wind direction (%)

Date: 04-08-2018



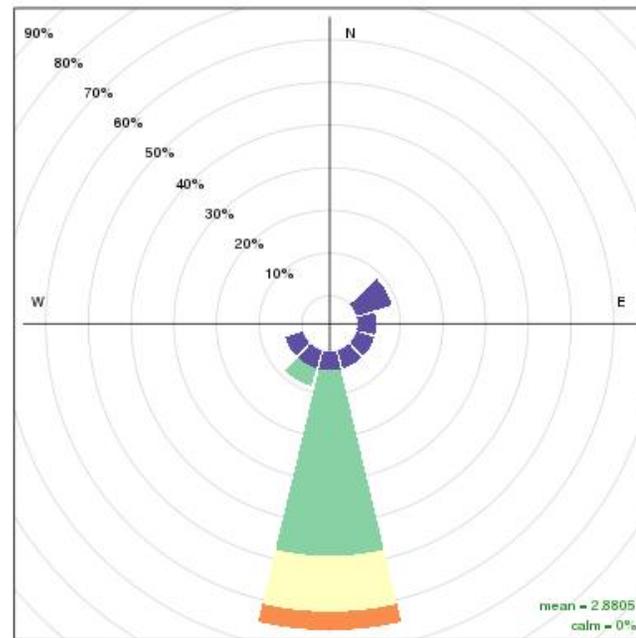
0.5 to 2 2 to 4 4 to 6 6 to 8 8 to 10  
( $m s^{-1}$ )  
Frequency of counts by wind direction (%)

Date: 04-11-2018

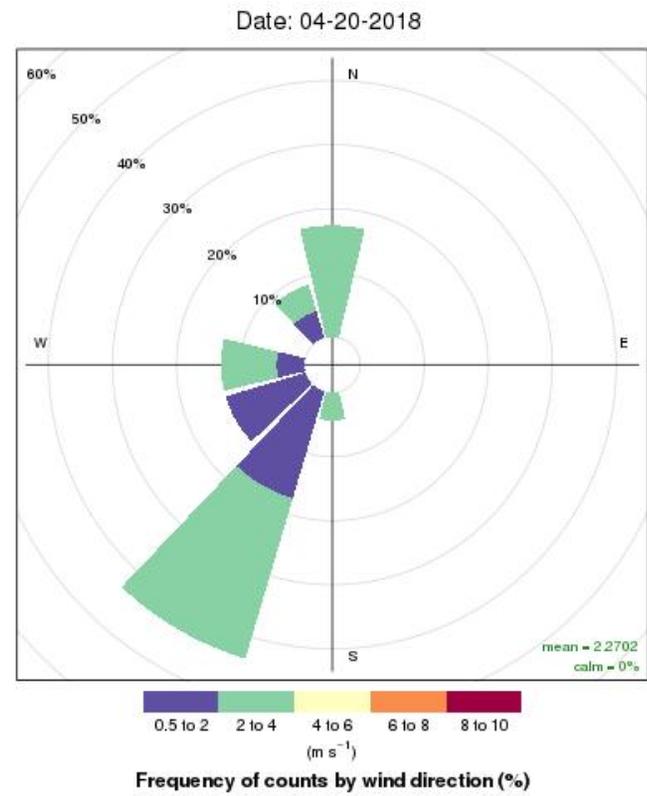
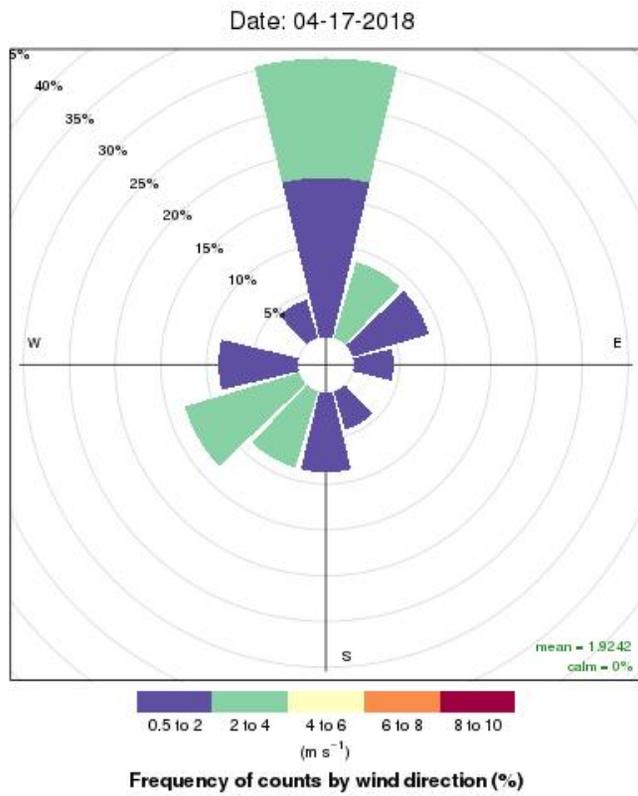


0.5 to 2 2 to 4 4 to 6 6 to 8 8 to 10  
(m s<sup>-1</sup>)  
Frequency of counts by wind direction (%)

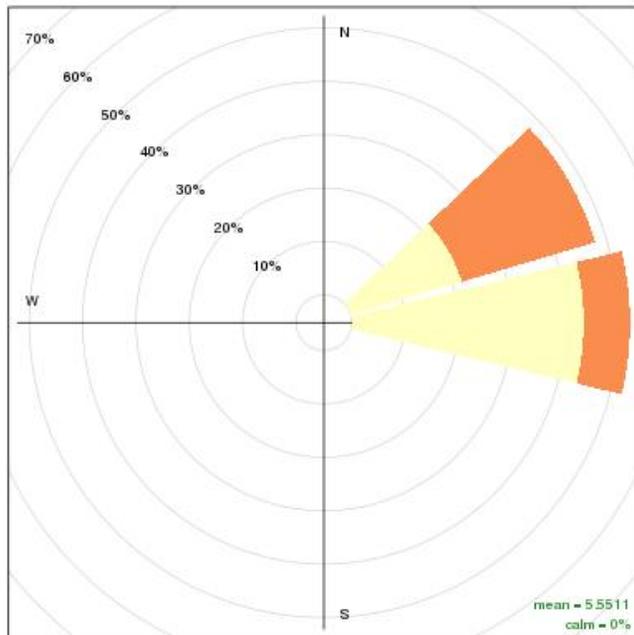
Date: 04-14-2018



0.5 to 2 2 to 4 4 to 6 6 to 8 8 to 10  
(m s<sup>-1</sup>)  
Frequency of counts by wind direction (%)

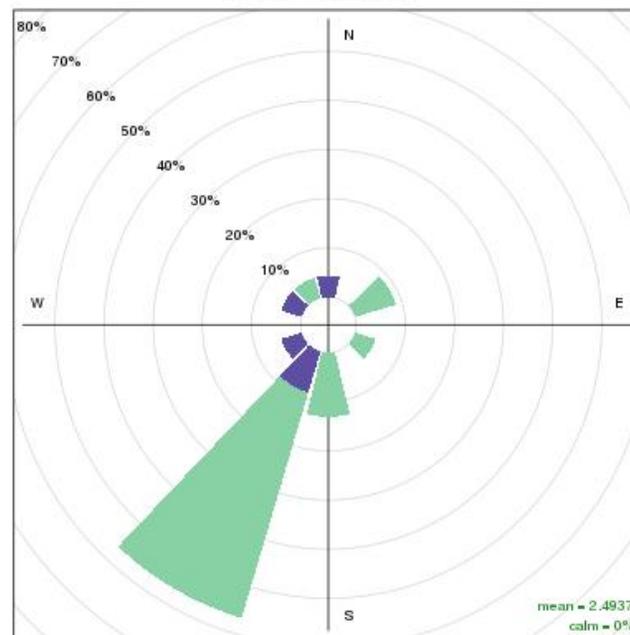


Date: 04-23-2018



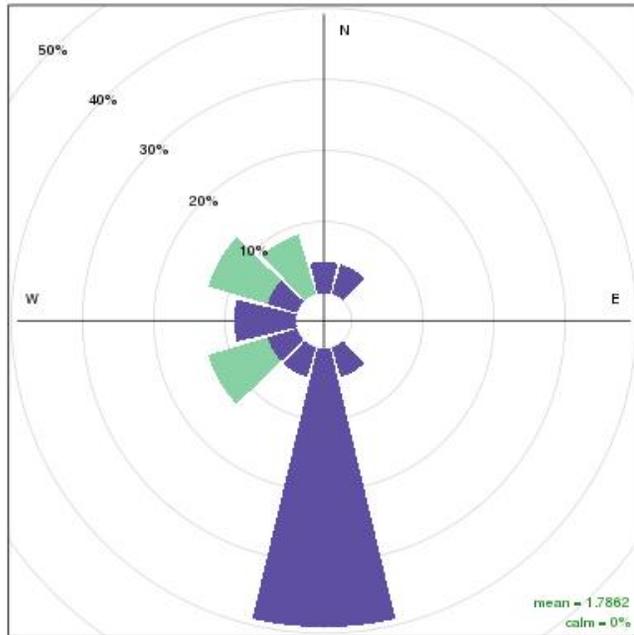
0.5 to 2 2 to 4 4 to 6 6 to 8 8 to 10  
(m s<sup>-1</sup>)  
Frequency of counts by wind direction (%)

Date: 04-26-2018



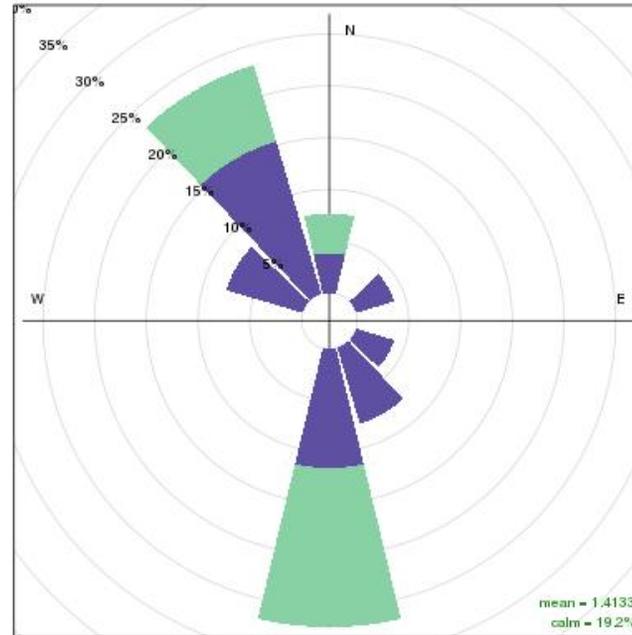
0.5 to 2 2 to 4 4 to 6 6 to 8 8 to 10  
(m s<sup>-1</sup>)  
Frequency of counts by wind direction (%)

Date: 04-29-2018



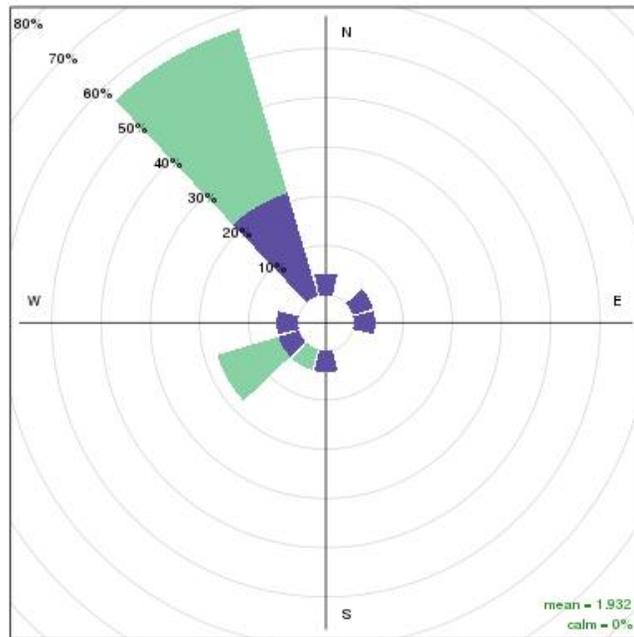
0.5 to 2 2 to 4 4 to 6 6 to 8 8 to 10  
(m s<sup>-1</sup>)  
Frequency of counts by wind direction (%)

Date: 05-02-2018



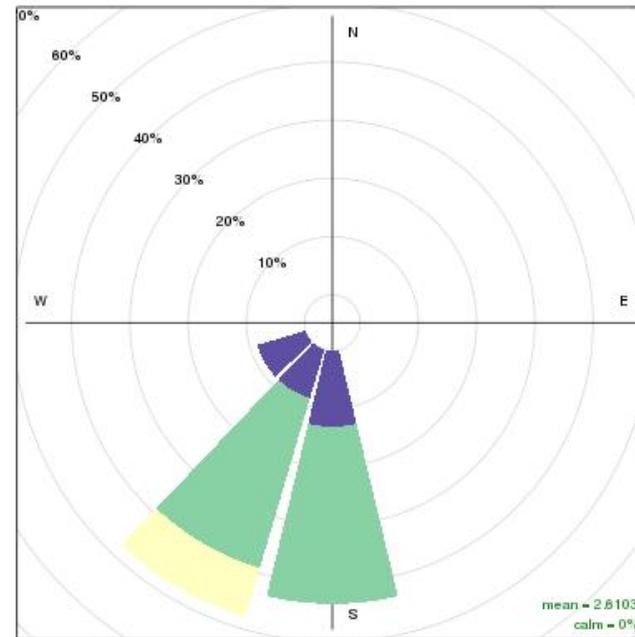
0.5 to 2 2 to 4 4 to 6 6 to 8 8 to 10  
(m s<sup>-1</sup>)  
Frequency of counts by wind direction (%)

Date: 05-05-2018



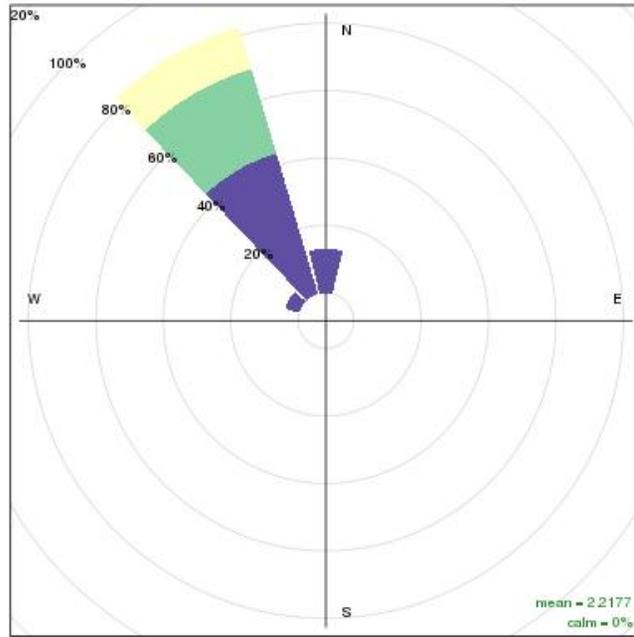
0.5 to 2 2 to 4 4 to 6 6 to 8 8 to 10  
(m s<sup>-1</sup>)  
Frequency of counts by wind direction (%)

Date: 05-08-2018



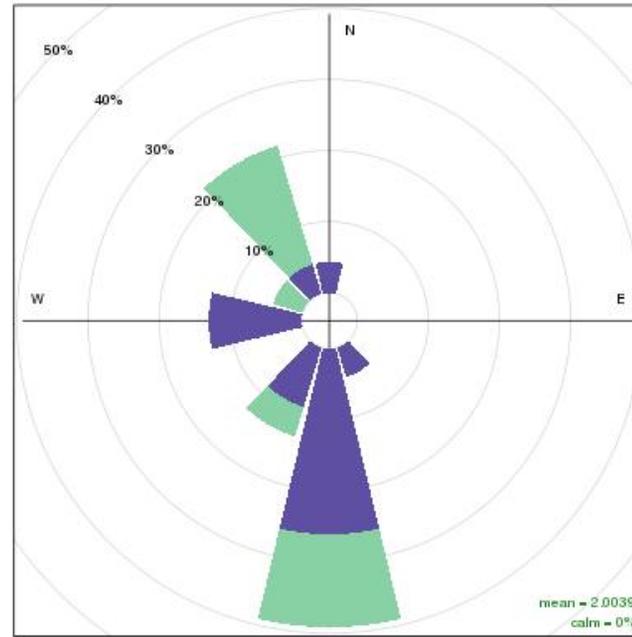
0.5 to 2 2 to 4 4 to 6 6 to 8 8 to 10  
(m s<sup>-1</sup>)  
Frequency of counts by wind direction (%)

Date: 05-11-2018

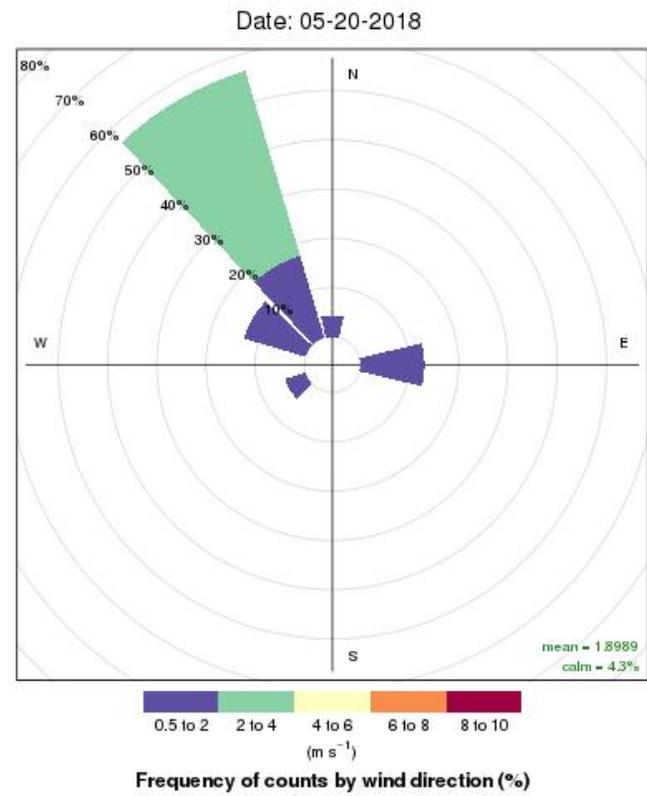
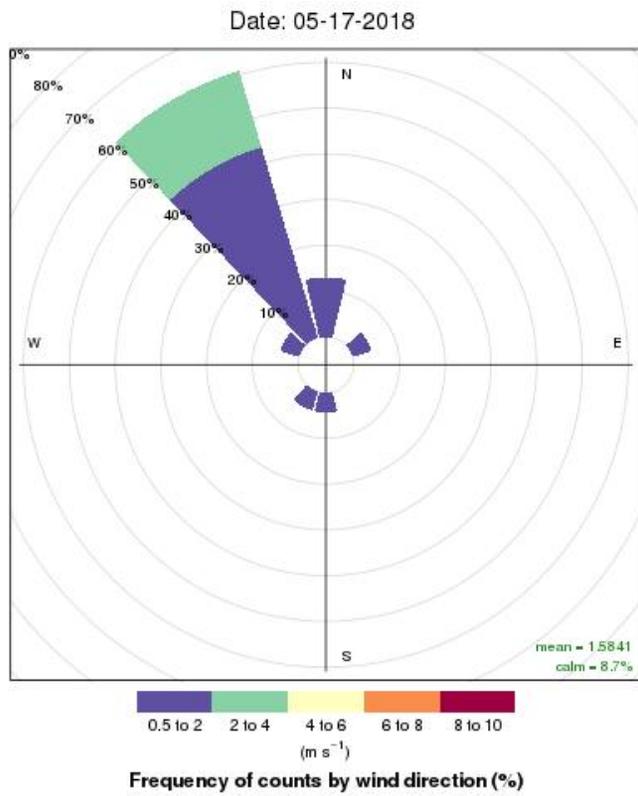


0.5 to 2 2 to 4 4 to 6 6 to 8 8 to 10  
(m s<sup>-1</sup>)  
Frequency of counts by wind direction (%)

Date: 05-14-2018

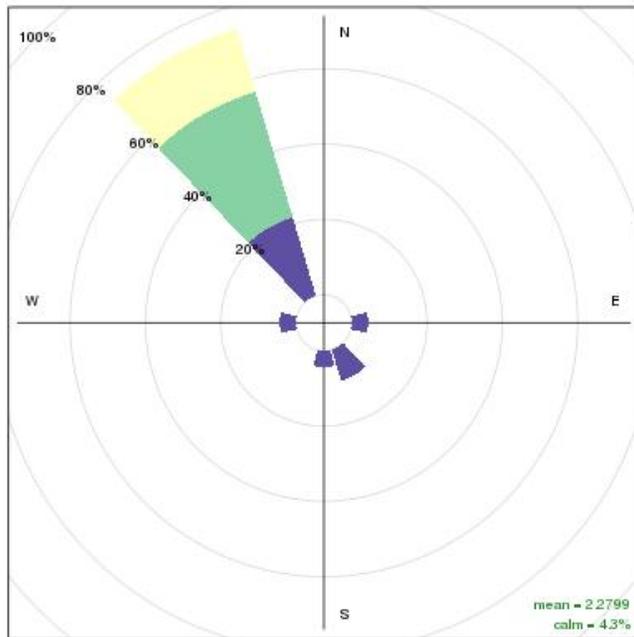


0.5 to 2 2 to 4 4 to 6 6 to 8 8 to 10  
(m s<sup>-1</sup>)  
Frequency of counts by wind direction (%)



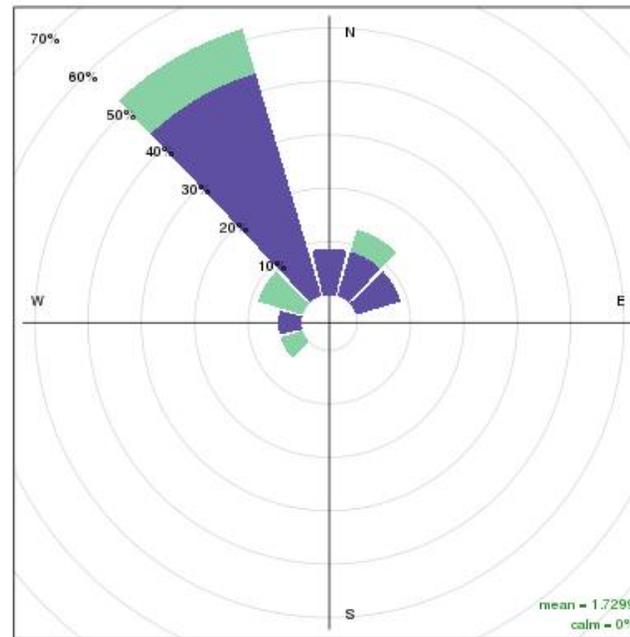


Date: 05-29-2018



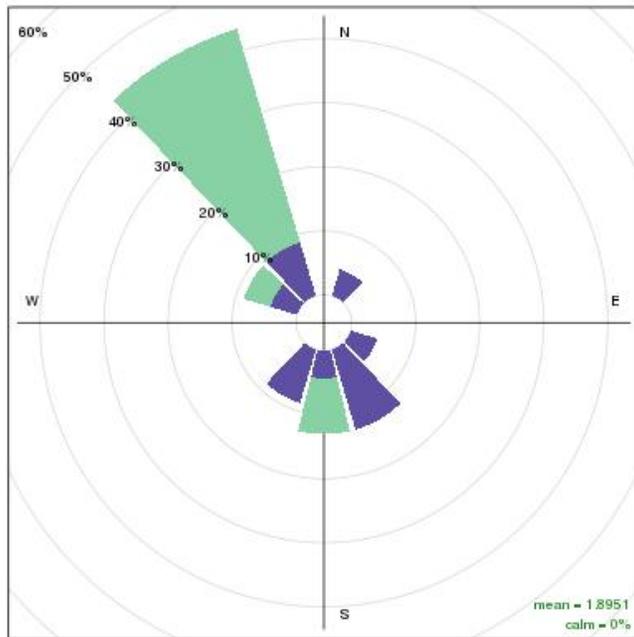
0.5 to 2 2 to 4 4 to 6 6 to 8 8 to 10  
(m s<sup>-1</sup>)  
Frequency of counts by wind direction (%)

Date: 06-01-2018



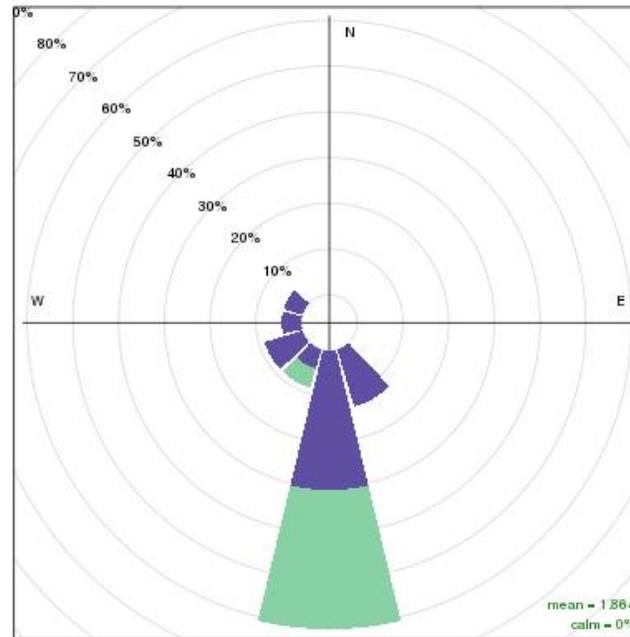
0.5 to 2 2 to 4 4 to 6 6 to 8 8 to 10  
(m s<sup>-1</sup>)  
Frequency of counts by wind direction (%)

Date: 06-04-2018



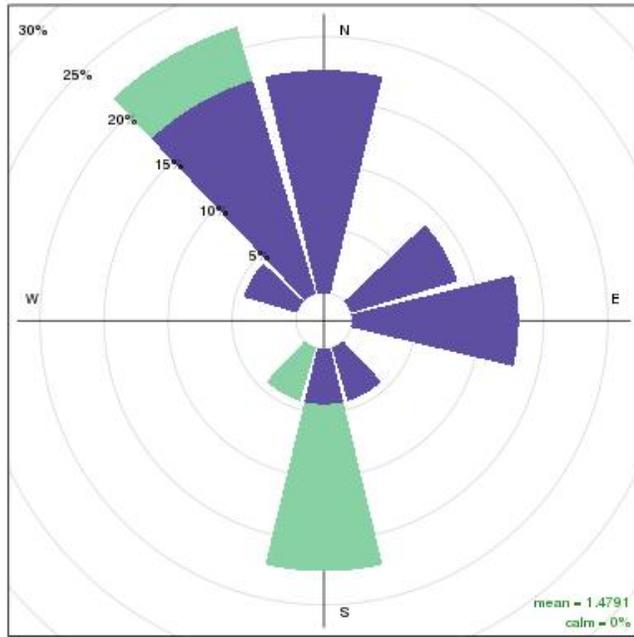
0.5 to 2 2 to 4 4 to 6 6 to 8 8 to 10  
( $m s^{-1}$ )  
Frequency of counts by wind direction (%)

Date: 06-07-2018



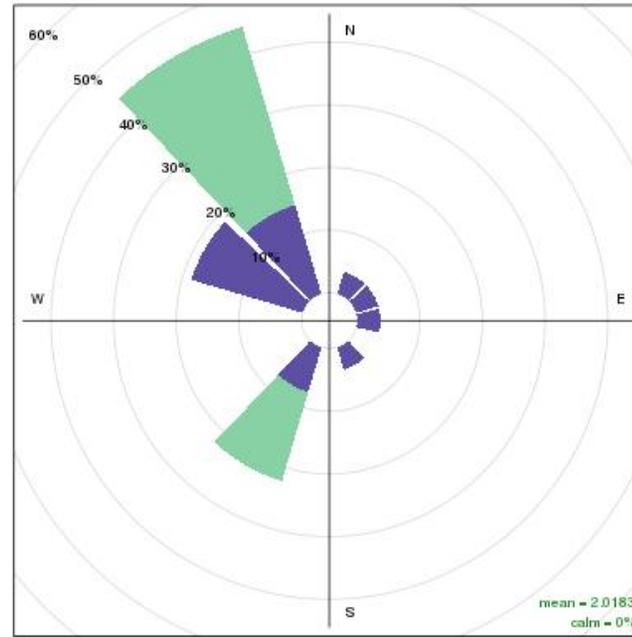
0.5 to 2 2 to 4 4 to 6 6 to 8 8 to 10  
( $m s^{-1}$ )  
Frequency of counts by wind direction (%)

Date: 06-10-2018



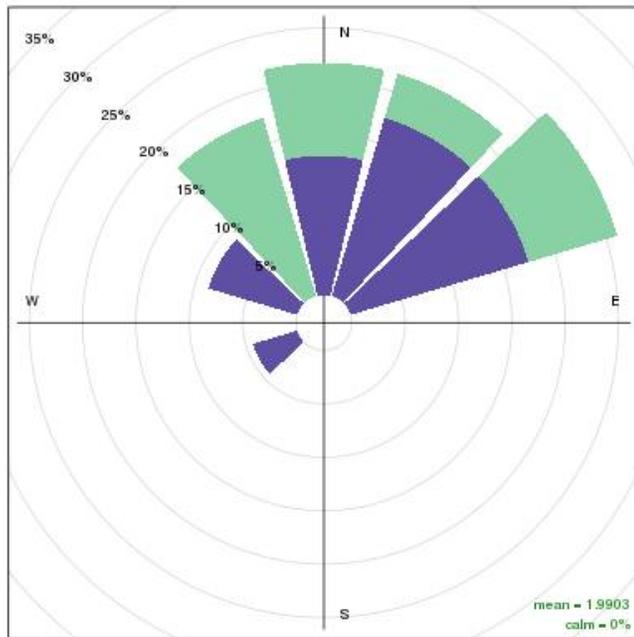
0.5 to 2 2 to 4 4 to 6 6 to 8 8 to 10  
(m s<sup>-1</sup>)  
Frequency of counts by wind direction (%)

Date: 06-13-2018



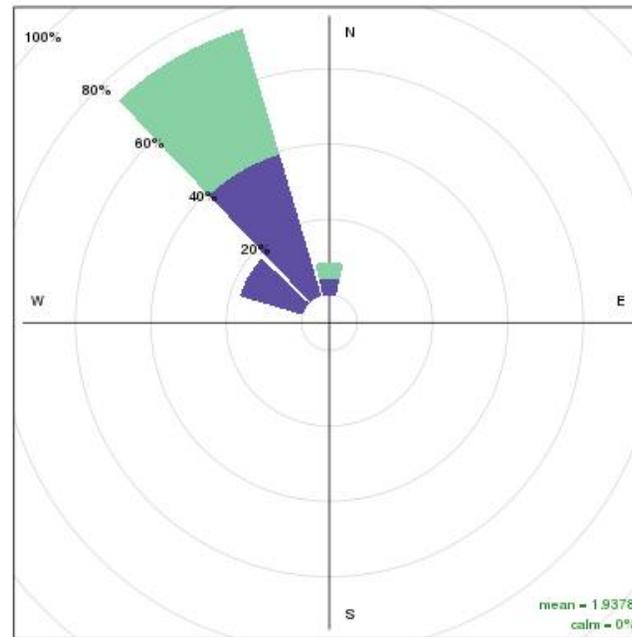
0.5 to 2 2 to 4 4 to 6 6 to 8 8 to 10  
(m s<sup>-1</sup>)  
Frequency of counts by wind direction (%)

Date: 06-16-2018



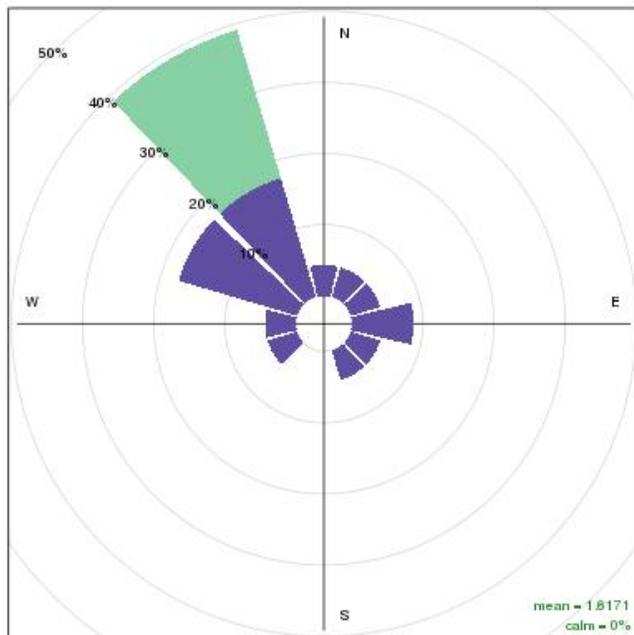
0.5 to 2 2 to 4 4 to 6 6 to 8 8 to 10  
(m s<sup>-1</sup>)  
Frequency of counts by wind direction (%)

Date: 06-19-2018



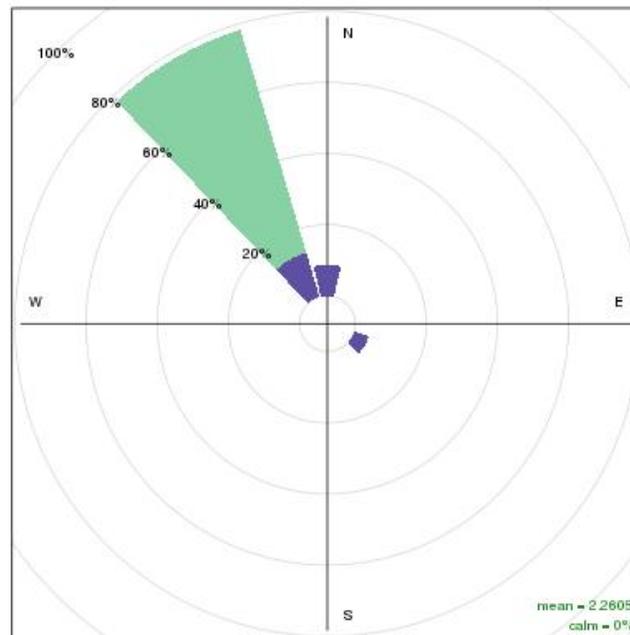
0.5 to 2 2 to 4 4 to 6 6 to 8 8 to 10  
(m s<sup>-1</sup>)  
Frequency of counts by wind direction (%)

Date: 06-22-2018



0.5 to 2 2 to 4 4 to 6 6 to 8 8 to 10  
(m s<sup>-1</sup>)  
Frequency of counts by wind direction (%)

Date: 06-25-2018

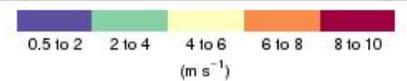
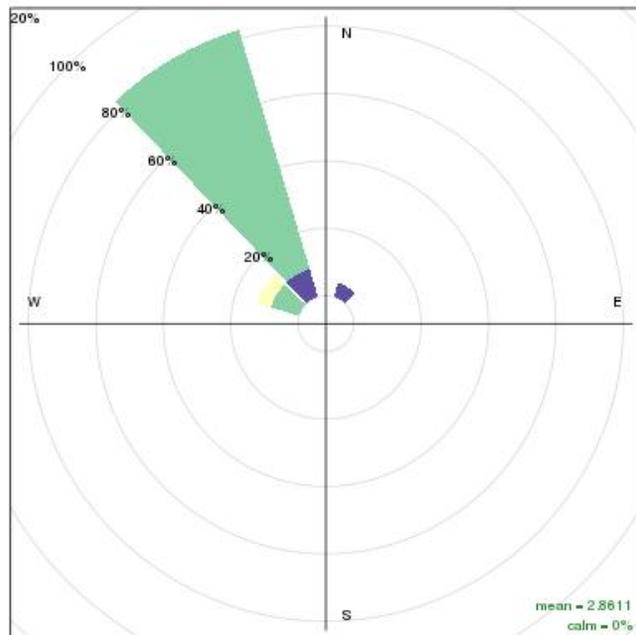


0.5 to 2 2 to 4 4 to 6 6 to 8 8 to 10  
(m s<sup>-1</sup>)  
Frequency of counts by wind direction (%)





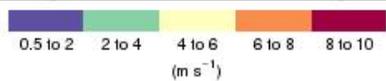
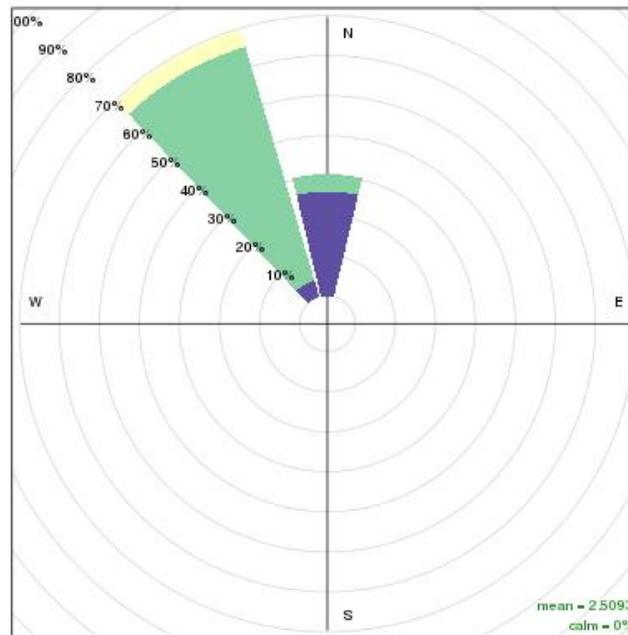
Date: 07-10-2018



Frequency of counts by wind direction (%)

mean = 2.8611  
calm = 0%

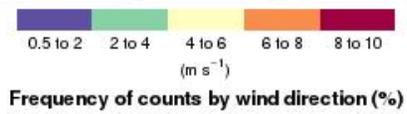
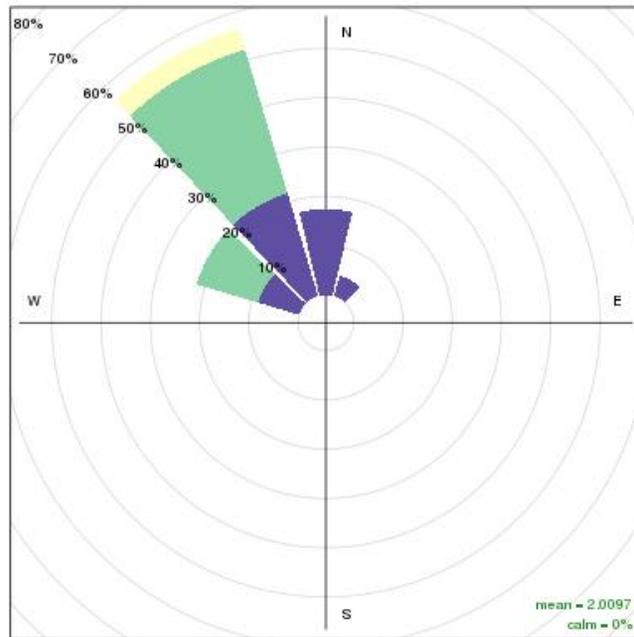
Date: 07-13-2018



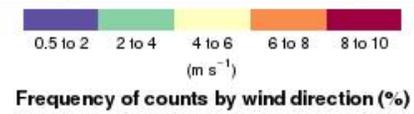
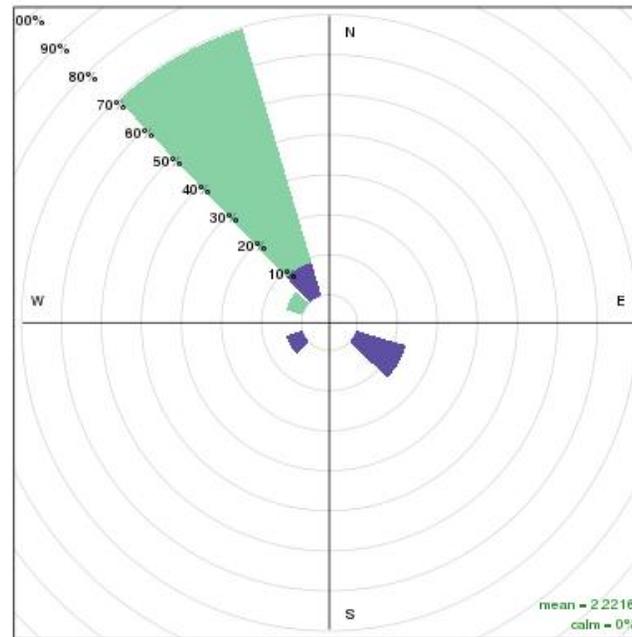
Frequency of counts by wind direction (%)

mean = 2.5093  
calm = 0%

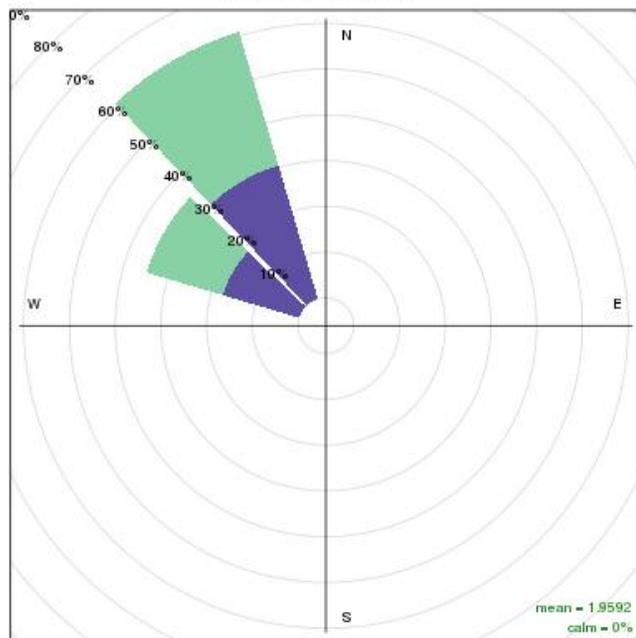
Date: 07-16-2018



Date: 07-19-2018

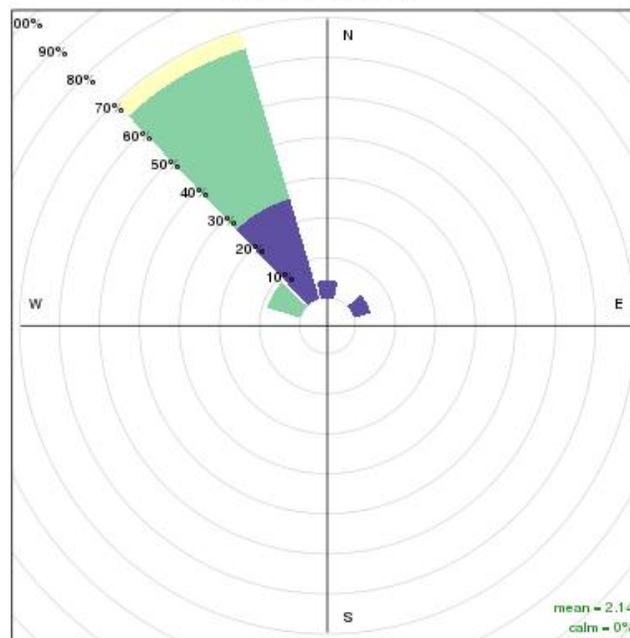


Date: 07-22-2018



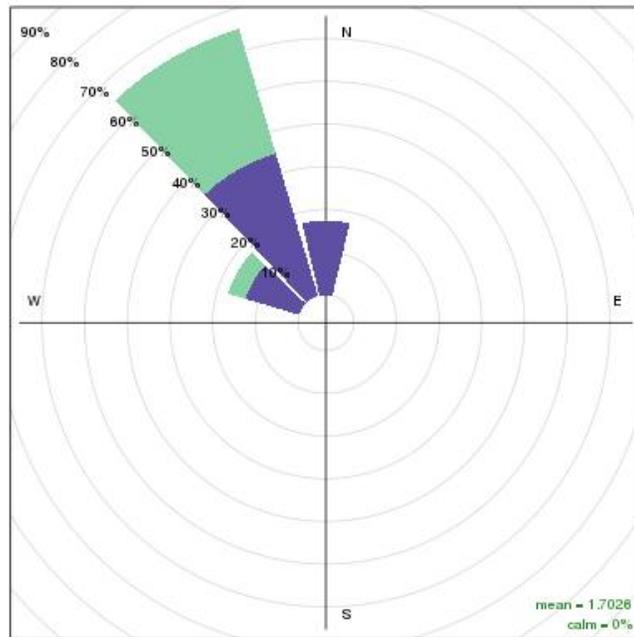
0.5 to 2 2 to 4 4 to 6 6 to 8 8 to 10  
(m s<sup>-1</sup>)  
Frequency of counts by wind direction (%)

Date: 07-25-2018



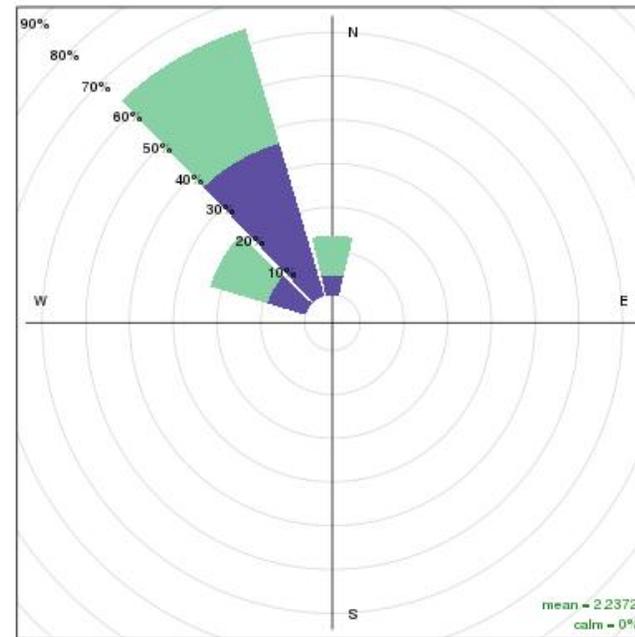
0.5 to 2 2 to 4 4 to 6 6 to 8 8 to 10  
(m s<sup>-1</sup>)  
Frequency of counts by wind direction (%)

Date: 07-28-2018



0.5 to 2 2 to 4 4 to 6 6 to 8 8 to 10  
(m s<sup>-1</sup>)  
Frequency of counts by wind direction (%)

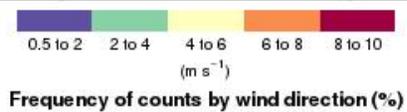
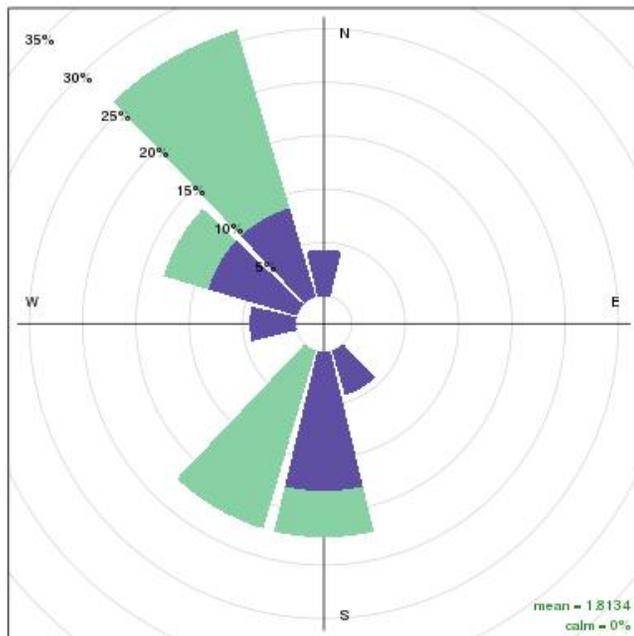
Date: 07-31-2018



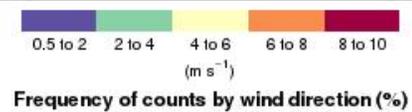
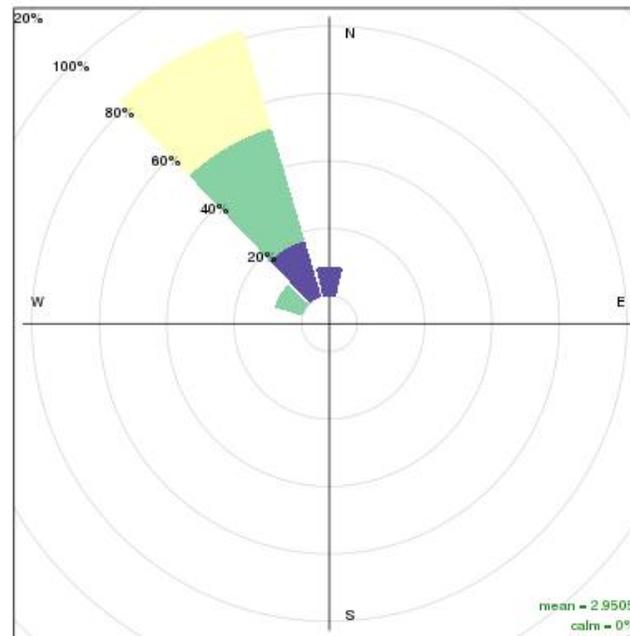
0.5 to 2 2 to 4 4 to 6 6 to 8 8 to 10  
(m s<sup>-1</sup>)  
Frequency of counts by wind direction (%)



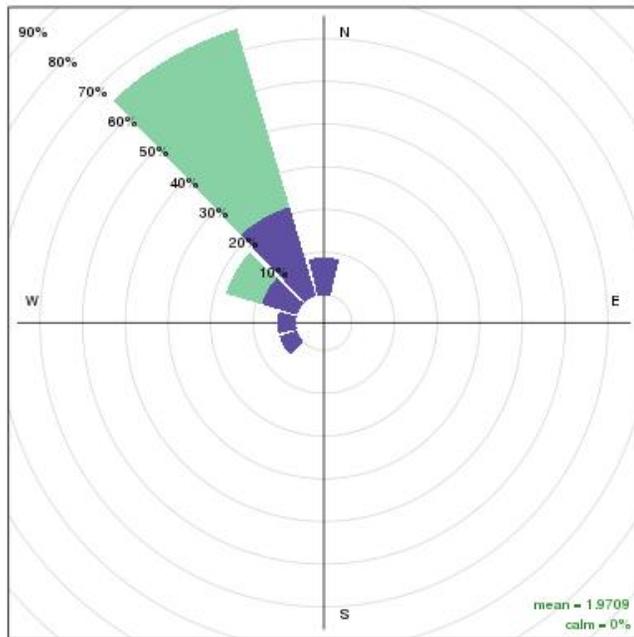
Date: 08-09-2018



Date: 08-12-2018

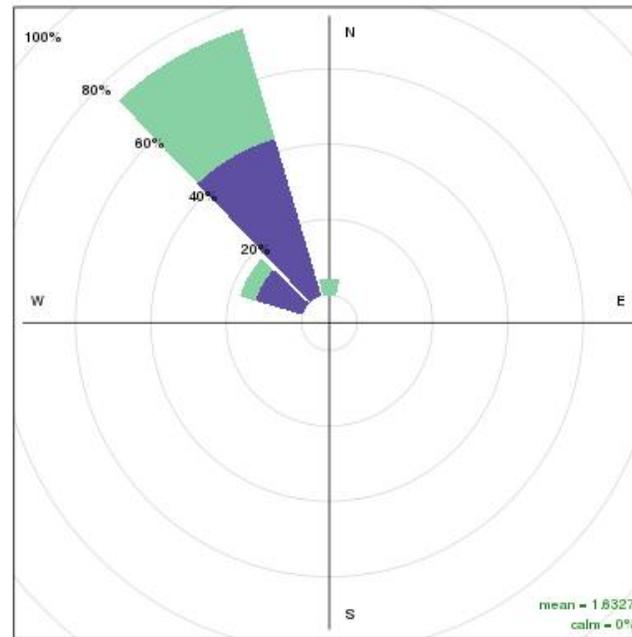


Date: 08-15-2018

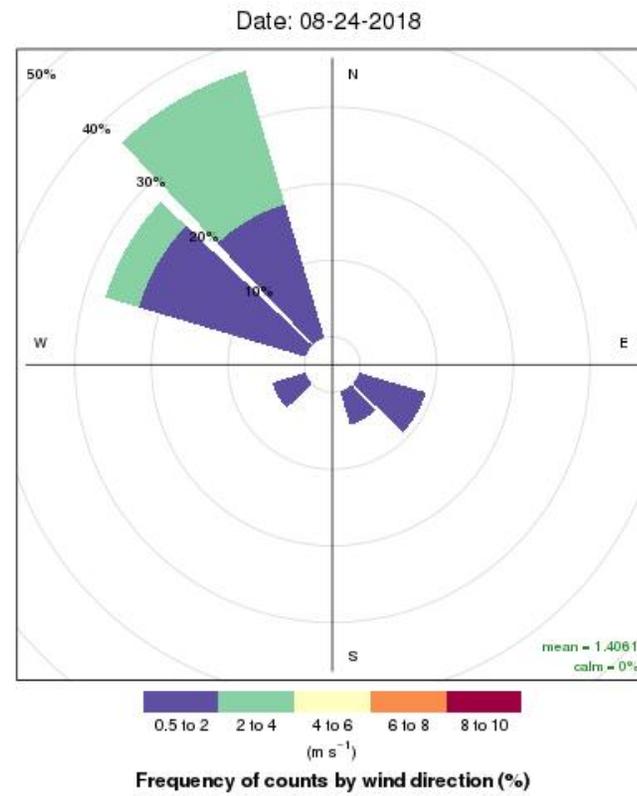
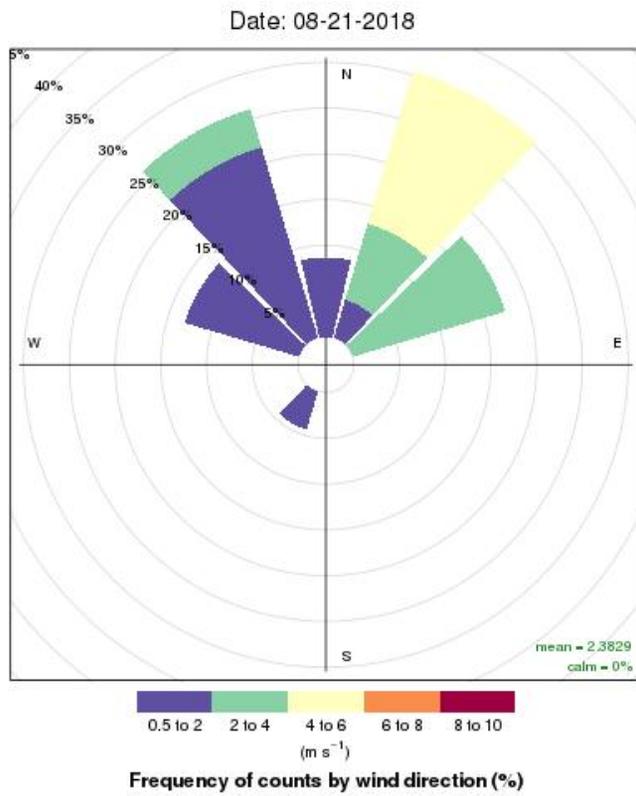


0.5 to 2   2 to 4   4 to 6   6 to 8   8 to 10  
(m s<sup>-1</sup>)  
Frequency of counts by wind direction (%)

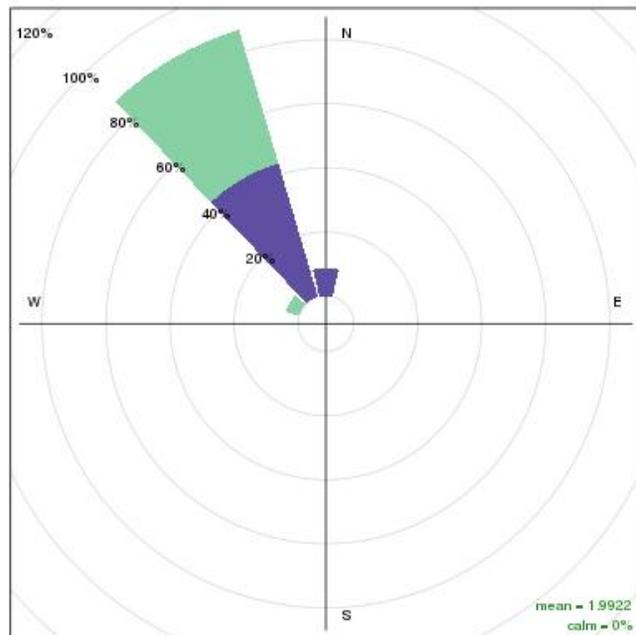
Date: 08-18-2018



0.5 to 2   2 to 4   4 to 6   6 to 8   8 to 10  
(m s<sup>-1</sup>)  
Frequency of counts by wind direction (%)

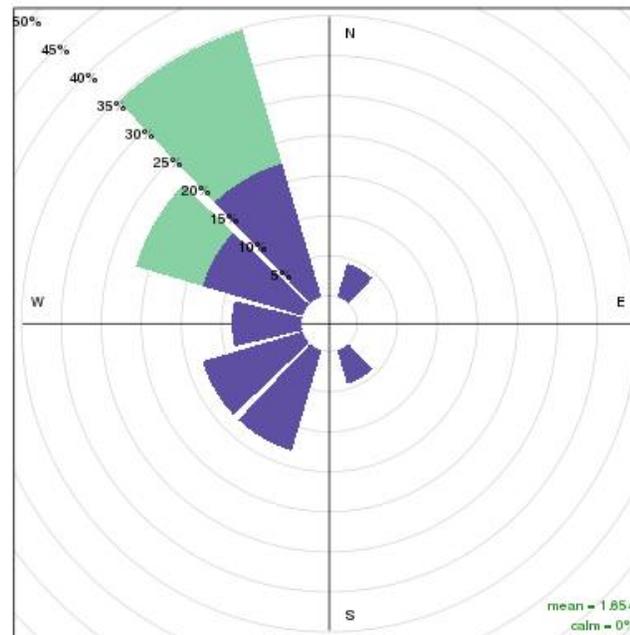


Date: 08-27-2018



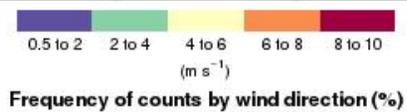
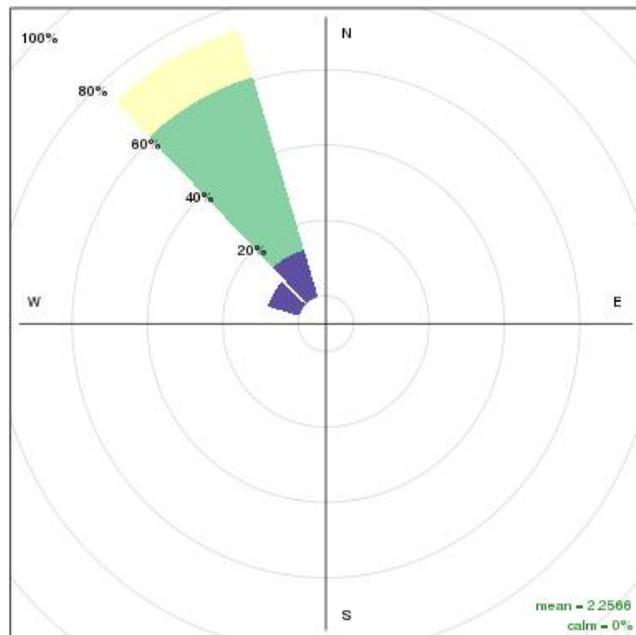
0.5 to 2 2 to 4 4 to 6 6 to 8 8 to 10  
(m s<sup>-1</sup>)  
Frequency of counts by wind direction (%)

Date: 08-30-2018

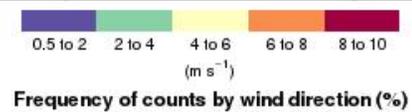
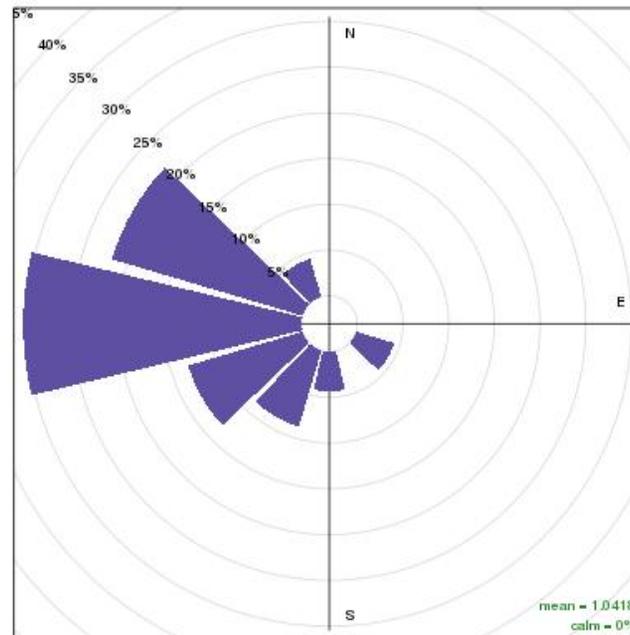


0.5 to 2 2 to 4 4 to 6 6 to 8 8 to 10  
(m s<sup>-1</sup>)  
Frequency of counts by wind direction (%)

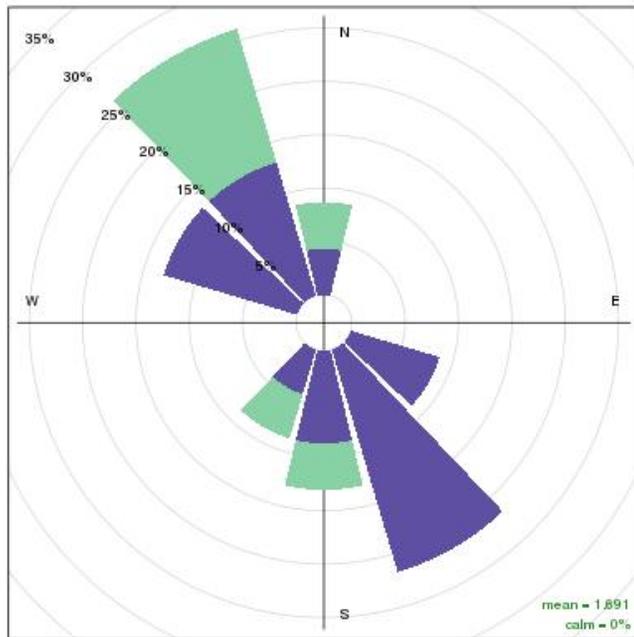
Date: 09-02-2018



Date: 09-05-2018

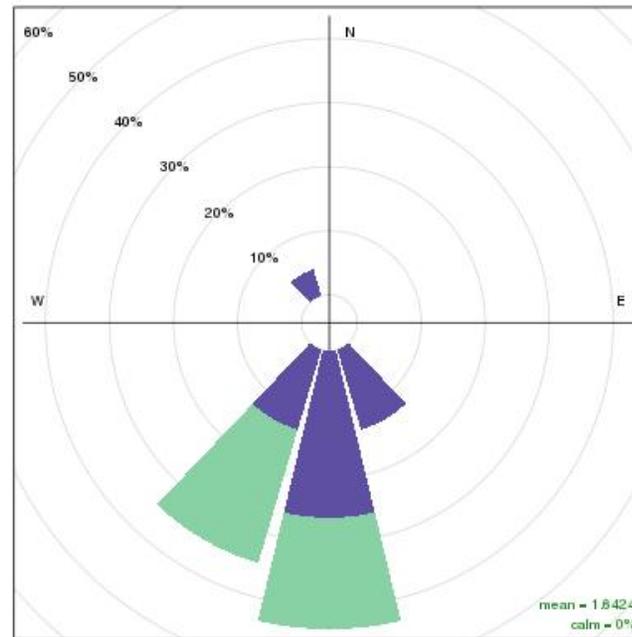


Date: 09-08-2018



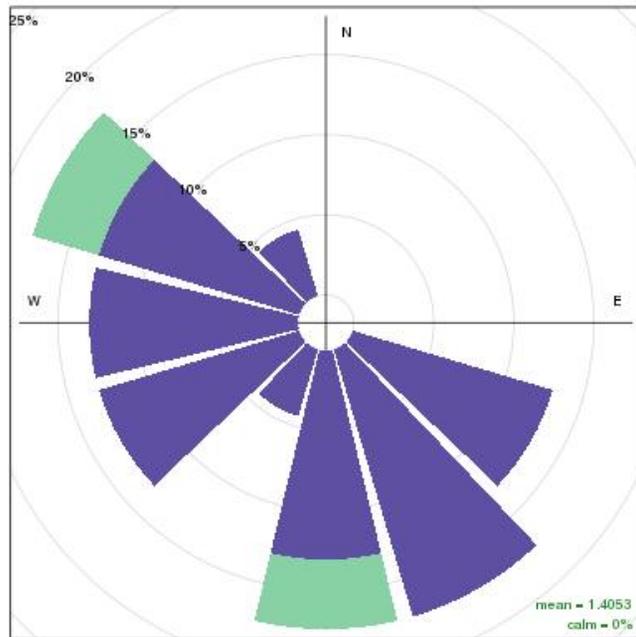
0.5 to 2 2 to 4 4 to 6 6 to 8 8 to 10  
(m s<sup>-1</sup>)  
Frequency of counts by wind direction (%)

Date: 09-11-2018



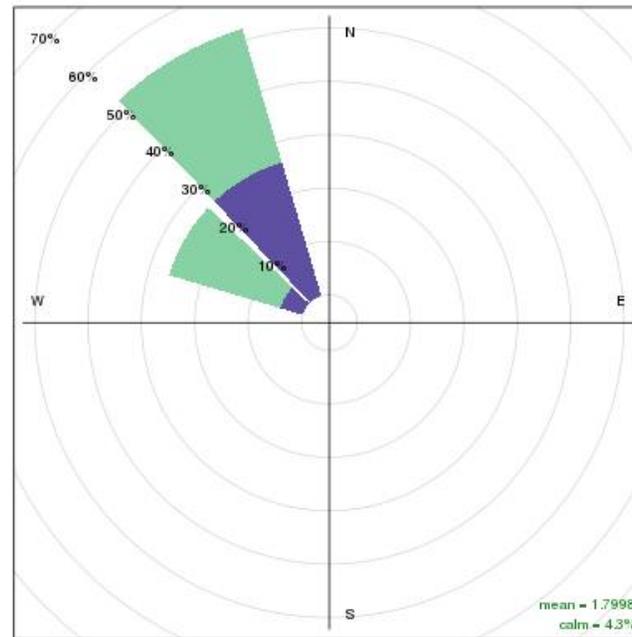
0.5 to 2 2 to 4 4 to 6 6 to 8 8 to 10  
(m s<sup>-1</sup>)  
Frequency of counts by wind direction (%)

Date: 09-14-2018



0.5 to 2 2 to 4 4 to 6 6 to 8 8 to 10  
(m s<sup>-1</sup>)  
Frequency of counts by wind direction (%)

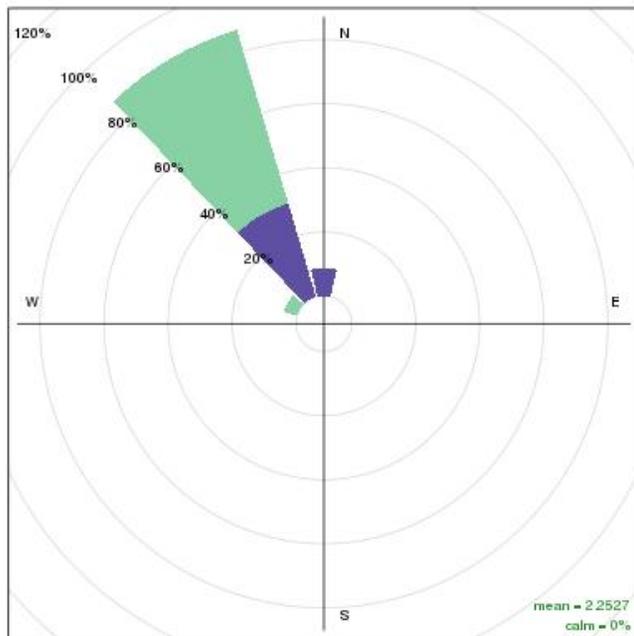
Date: 09-17-2018



0.5 to 2 2 to 4 4 to 6 6 to 8 8 to 10  
(m s<sup>-1</sup>)  
Frequency of counts by wind direction (%)

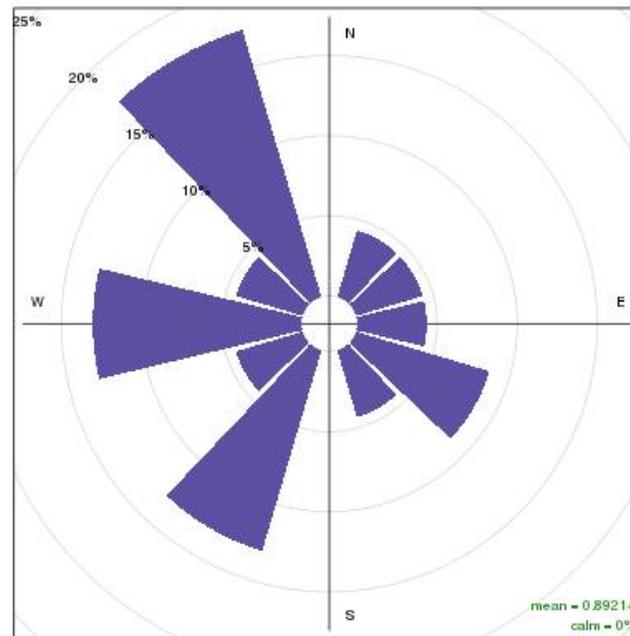


Date: 09-26-2018



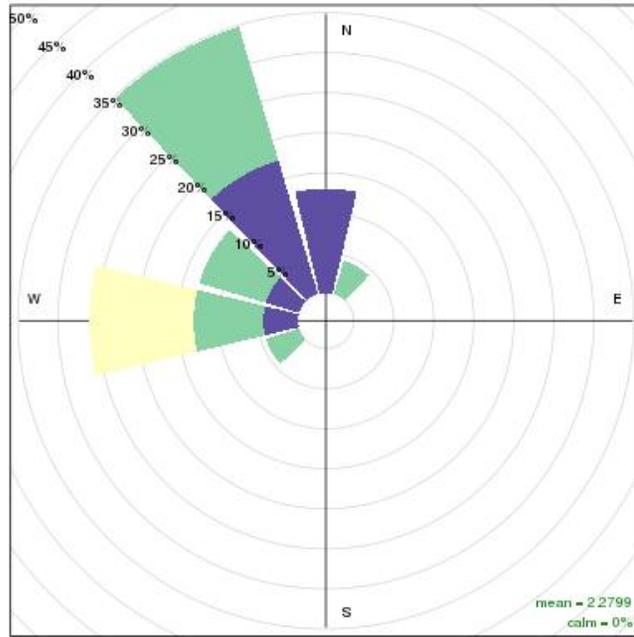
0.5 to 2 2 to 4 4 to 6 6 to 8 8 to 10  
(m s<sup>-1</sup>)  
Frequency of counts by wind direction (%)

Date: 09-29-2018



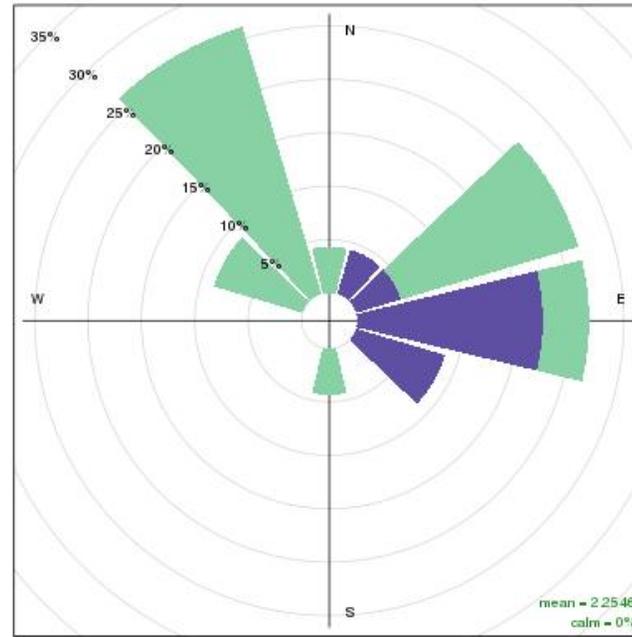
0.5 to 2 2 to 4 4 to 6 6 to 8 8 to 10  
(m s<sup>-1</sup>)  
Frequency of counts by wind direction (%)

Date: 10-02-2018



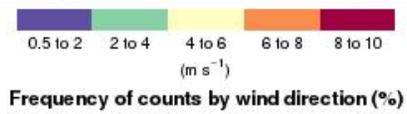
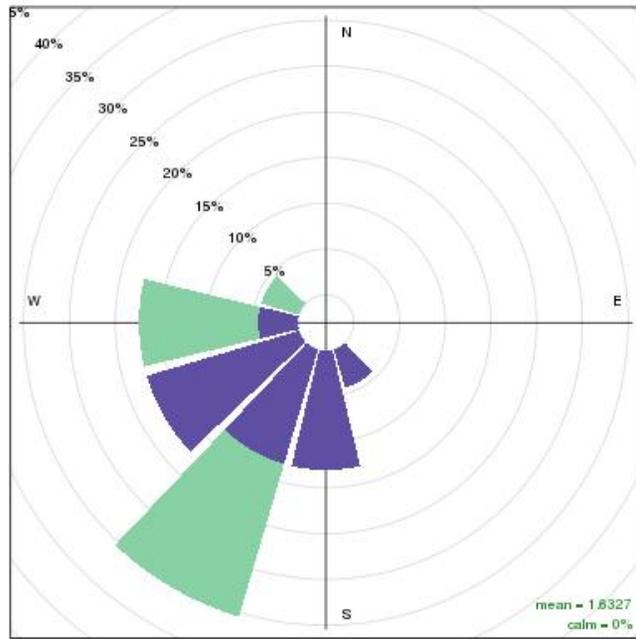
0.5 to 2 2 to 4 4 to 6 6 to 8 8 to 10  
(m s<sup>-1</sup>)  
Frequency of counts by wind direction (%)

Date: 10-05-2018

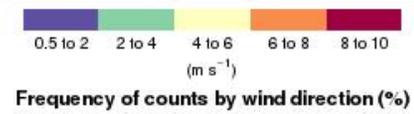
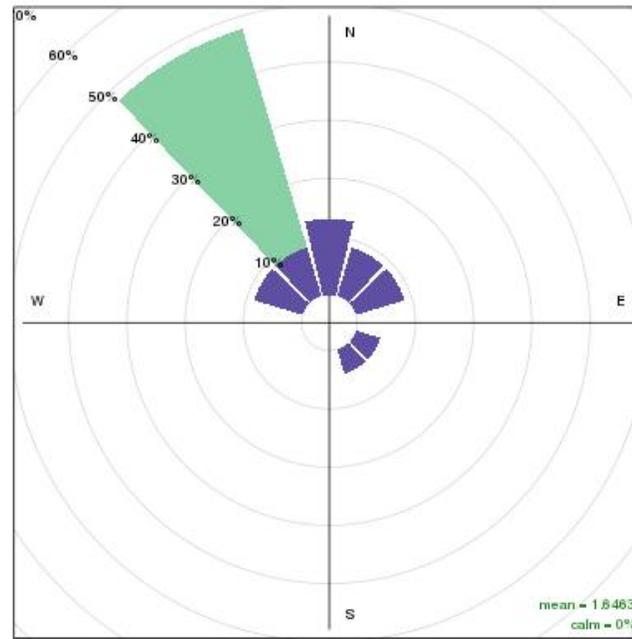


0.5 to 2 2 to 4 4 to 6 6 to 8 8 to 10  
(m s<sup>-1</sup>)  
Frequency of counts by wind direction (%)

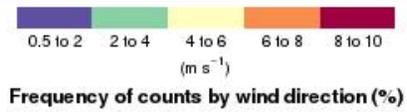
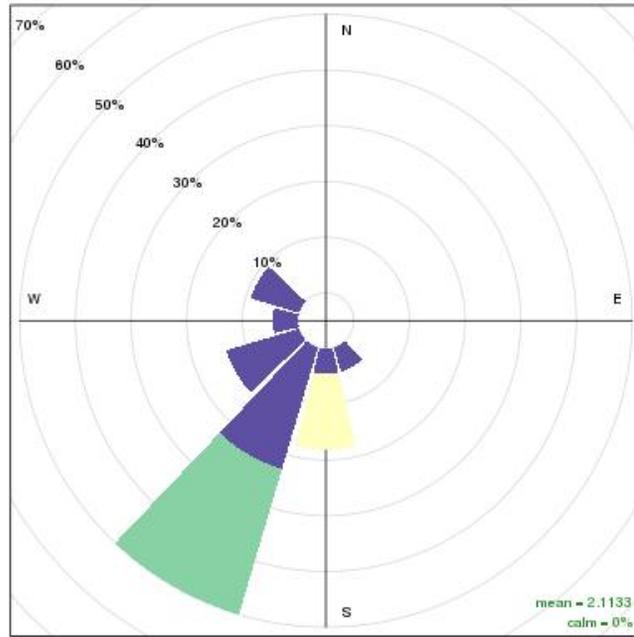
Date: 10-08-2018



Date: 10-11-2018



Date: 10-12-2017



Date: 10-14-2018

