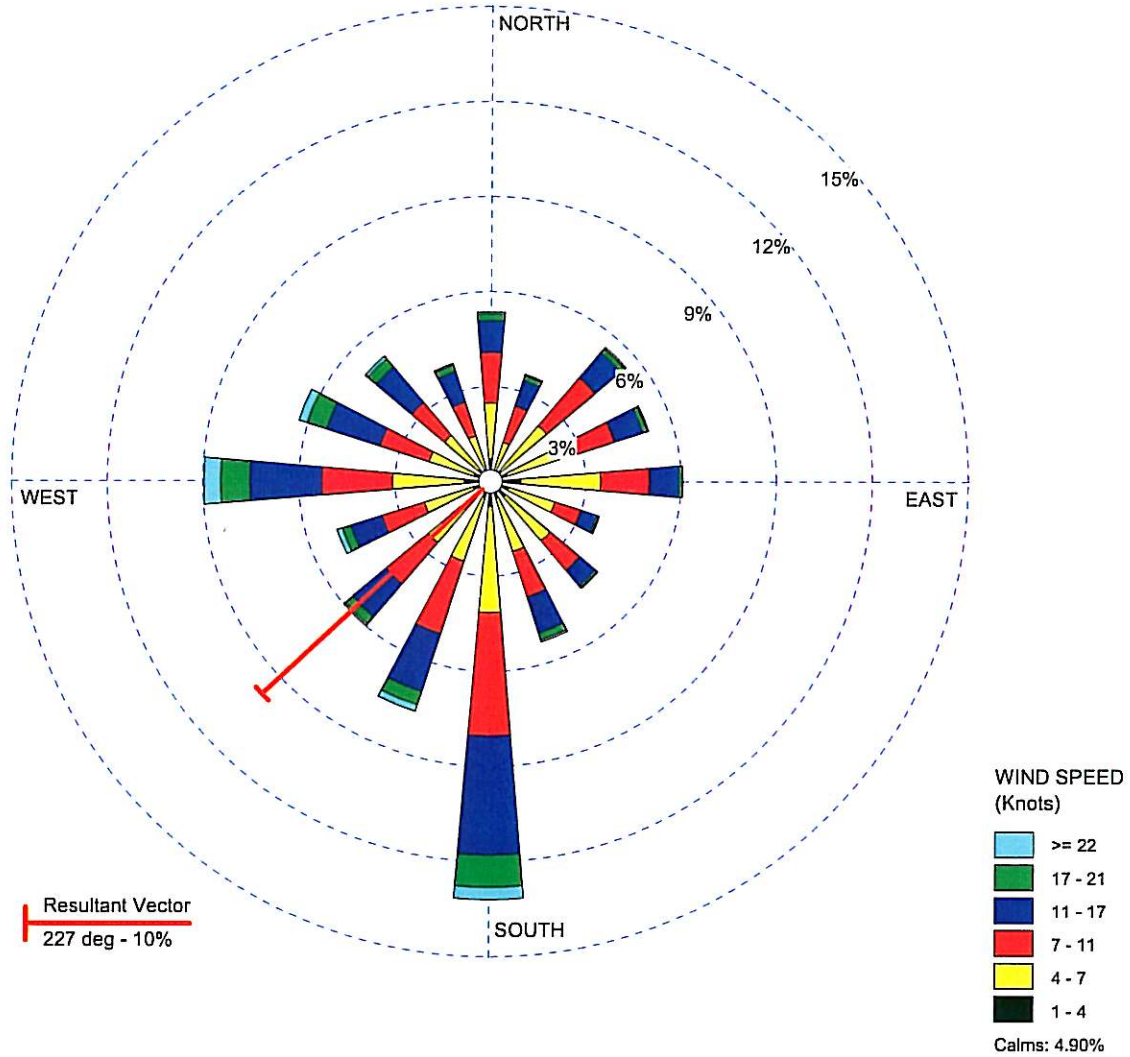



APPENDIX A  
HISTORICAL WEATHER DATA AND WIND ROSE

WIND ROSE PLOT:  
**#94870 - UNIVERSITY OF IL WILLARD AIRPORT**  
**CHAMPAIGN, IL**

DISPLAY:  
**Wind Speed**  
**Direction (blowing from)**



COMMENTS:	DATA PERIOD: <b>2000-2008</b> <b>Jan 1 - Dec 31</b> <b>00:00 - 23:00</b>	COMPANY NAME: <b>Midwestern Regional Climate Center</b>	
	CALM WINDS: <b>4.90%</b>	SERVICE CLIMATOLOGIST: <b>Alan Black</b>	
	AVG. WIND SPEED: <b>9.11 Knots</b>	DATE GENERATED: <b>4/21/2009</b>	PROJECT NO.: <b>62403053</b>

Station ID: 94870

Run ID:

Year: 2000 2001 2002 2003 2004 2005 2006 2007 2008

Date Range: Jan 1 - Dec 31

Time Range: 00:00 - 23:00

Frequency Distribution  
(Count)

Wind Direction (Blowing From) / Wind Speed (Knots)

	1 - 4	4 - 7	7 - 11	11 - 17	17 - 21	>= 22	Total
N	554	1357	1234	771	166	51	4133
NNE	207	798	927	650	116	44	2742
NE	339	1434	1540	802	120	55	4290
ENE	437	1523	1199	718	109	42	4028
E	741	1930	1192	711	87	17	4678
ESE	473	1173	666	401	50	17	2780
SE	499	1404	950	488	68	21	3430
SSE	441	1365	1157	915	176	60	4114
S	615	2585	3016	2882	784	311	10193
SSW	415	1640	1859	1467	344	164	5889
SW	463	1509	1324	1043	231	67	4637
WSW	436	1249	1070	788	213	135	3891
W	638	1730	1712	1741	710	408	6939
WNW	422	1143	1248	1353	493	209	4868
NW	386	1083	1046	1126	266	87	3994
NNW	329	837	864	771	162	52	3015
Total	7395	22760	21004	16627	4095	1740	77417

Frequency of Calm Winds: 3796

Average Wind Speed: 9.11 Knots

Station ID: 94870

Run ID:

Year: 2000 2001 2002 2003 2004 2005 2006 2007 2008

Date Range: Jan 1 - Dec 31

Time Range: 00:00 - 23:00

Frequency Distribution  
(Normalized)

Wind Direction (Blowing From) / Wind Speed (Knots)

	1 - 4	4 - 7	7 - 11	11 - 17	17 - 21	>= 22	Total
N	0.007156	0.017528	0.015940	0.009959	0.002144	0.000659	0.053386
NNE	0.002674	0.010308	0.011974	0.008396	0.001498	0.000568	0.035419
NE	0.004379	0.018523	0.019892	0.010359	0.001550	0.000710	0.055414
ENE	0.005645	0.019673	0.015488	0.009274	0.001408	0.000543	0.052030
E	0.009572	0.024930	0.015397	0.009184	0.001124	0.000220	0.060426
ESE	0.006110	0.015152	0.008603	0.005180	0.000646	0.000220	0.035909
SE	0.006446	0.018136	0.012271	0.006304	0.000878	0.000271	0.044306
SSE	0.005696	0.017632	0.014945	0.011819	0.002273	0.000775	0.053141
S	0.007944	0.033391	0.038958	0.037227	0.010127	0.004017	0.131664
SSW	0.005361	0.021184	0.024013	0.018949	0.004443	0.002118	0.076069
SW	0.005981	0.019492	0.017102	0.013472	0.002984	0.000865	0.059896
WSW	0.005632	0.016133	0.013821	0.010179	0.002751	0.001744	0.050260
W	0.008241	0.022347	0.022114	0.022489	0.009171	0.005270	0.089631
WNW	0.005451	0.014764	0.016120	0.017477	0.006368	0.002700	0.062880
NW	0.004986	0.013989	0.013511	0.014545	0.003436	0.001124	0.051591
NNW	0.004250	0.010812	0.011160	0.009959	0.002093	0.000672	0.038945
Total	0.095522	0.293992	0.271310	0.214772	0.052895	0.022476	0.950967

Frequency of Calm Winds: 4.90%

Average Wind Speed: 9.11 Knots

# Wind Class Frequency Distribution

