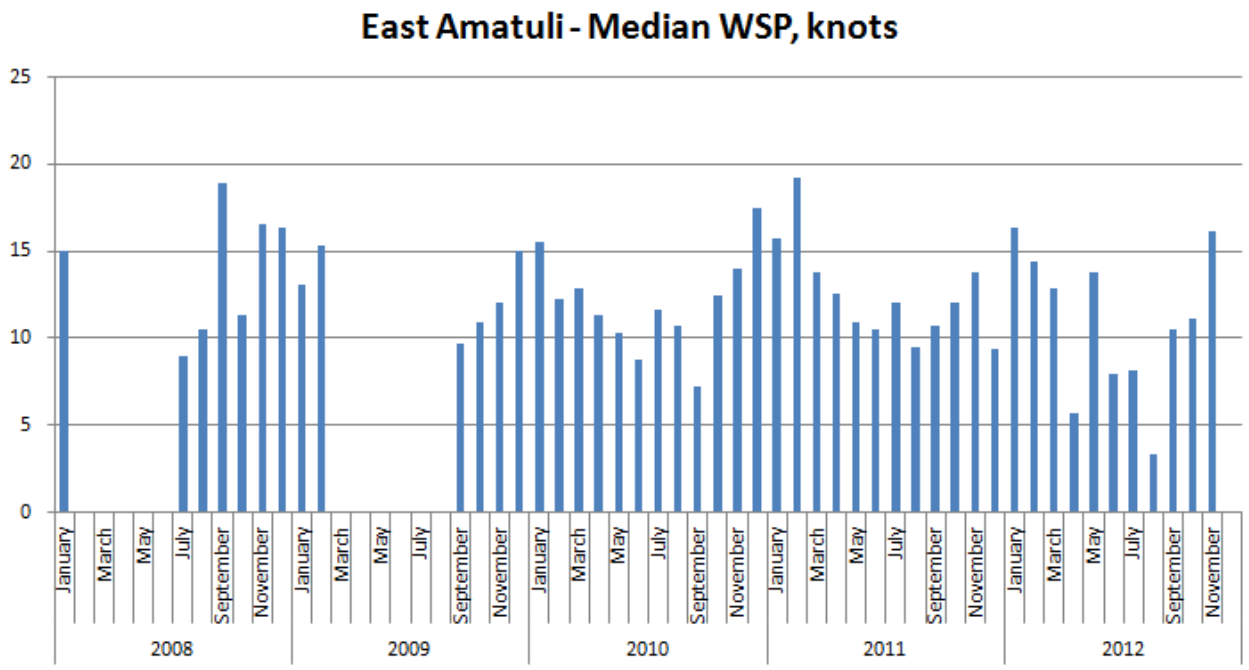
Cook Inlet Winds

Data is a bit different for each station, as they had different long-hanging fruit (plots).

Raw data: **121026 Cook Inlet Wind.xls** (34 MB, available from Andrew Mattox)

East Amatuli Island, Station AMAA2

Source: National Data Buoy Center



East Amatuli Average Median Windspeeds 2007-2011	m/s		knots	
	Last 3 yr	Last 5 yr	Last 3 yr	Last 5 yr
January	8.2	7.8	15.9	15.1
February	7.9	6.3	15.3	12.2
March	6.8	-	13.2	-
April	5.1	-	9.8	-
May	6.0	-	11.7	-
June	4.7	-	9.1	-
July	5.5	-	10.6	-
August	4.0	-	7.8	-
September	4.9	5.9	9.5	11.4

October	6.1	5.9	11.9	11.5
November	7.5	7.5	14.6	14.5
December*	6.9	7.5	13.4	14.5

* 2009-10 and 2007-10 periods

East Amatuli - Median Windspeeds, m/s

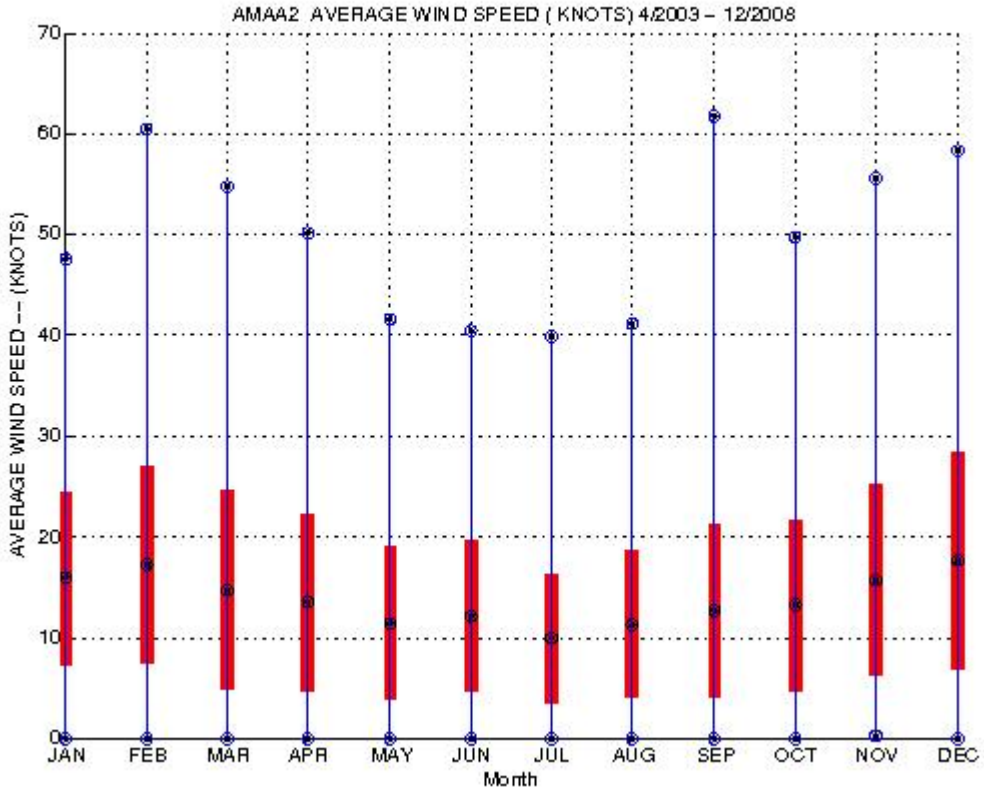
	2007	2008	2009	2010	2011
January	7.7	6.7	8	8.1	8.4
February	-	7.9	6.3	9.9	7.4
March	-	-	6.6	7.1	6.6
April	-	-	5.8	6.45	2.9
May	-	-	5.3	5.6	7.1
June	-	-	4.5	5.4	4.1
July	4.6	-	6	6.2	4.2
August	5.4	-	5.5	4.9	1.7
September	9.7	5	3.7	5.5	5.4
October	5.8	5.6	6.4	6.2	5.7
November	8.5	6.2	7.2	7.1	8.3
December	8.4	7.7	9	4.8	-

East Amatuli - Median Windspeeds, knots

	2007	2008	2009	2010	2011
January	15.0	13.0	15.6	15.7	16.3
February	-	15.4	12.2	19.2	14.4
March	-	-	12.8	13.8	12.8
April	-	-	11.3	12.5	5.6
May	-	-	10.3	10.9	13.8
June	-	-	8.7	10.5	8.0
July	8.9	-	11.7	12.1	8.2
August	10.5	-	10.7	9.5	3.3
September	18.9	9.7	7.2	10.7	10.5
October	11.3	10.9	12.4	12.1	11.1
November	16.5	12.1	14.0	13.8	16.1
December	16.3	15.0	17.5	9.3	-

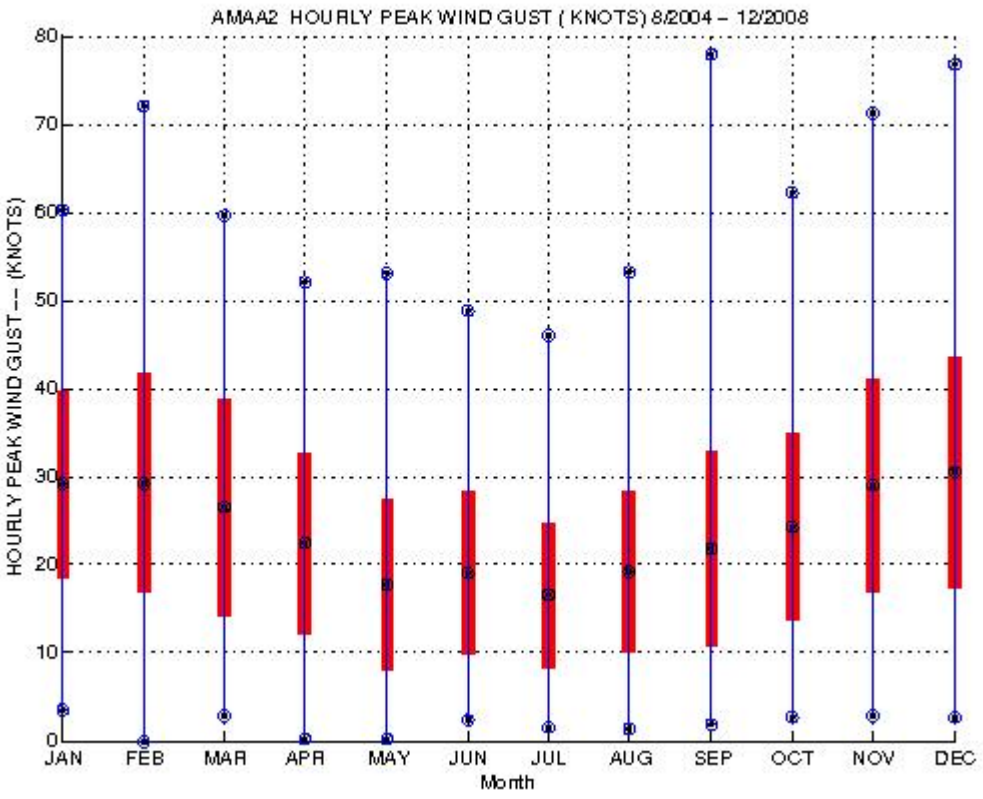
Average Windspeed, 5-year period, East Amatuli

Mean and Standard Deviation Plot

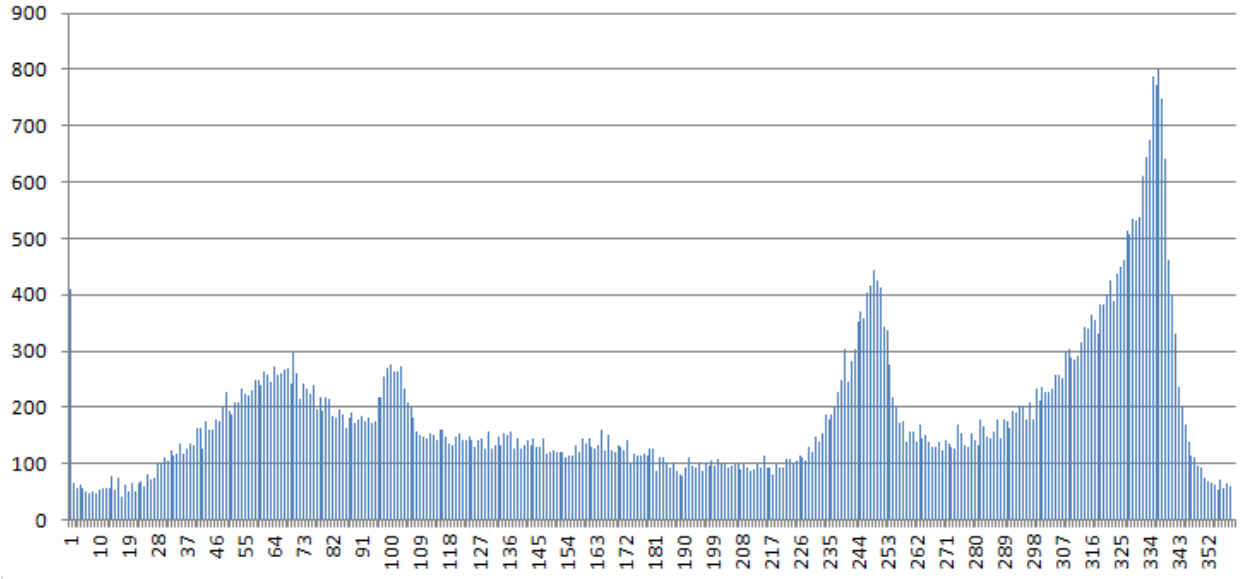


Peak Gusts, Hourly (5 Year Period)

Mean and Standard Deviation Plot



East Amatuli Wind Directions, 5 yrs

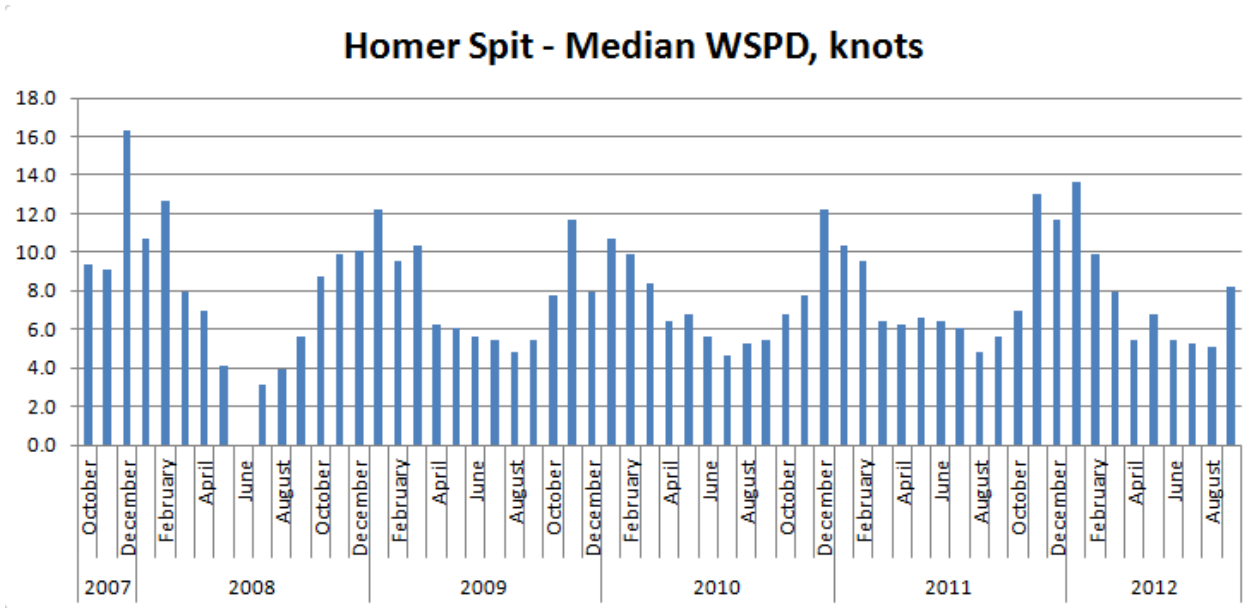


Relative Frequency of Wind Directions	
0 to 30 degrees	0.4%

31 to 60	6%
61 to 90	8%
91 to 120	7%
121 to 150	5%
151 to 180	4%
181 to 210	3%
211 to 240	5%
241 to 270	9%
271 to 300	6%
301 to 330	13%
331 to 360	11%
No Reading:	*20%*

Homer Spit, HMRA2

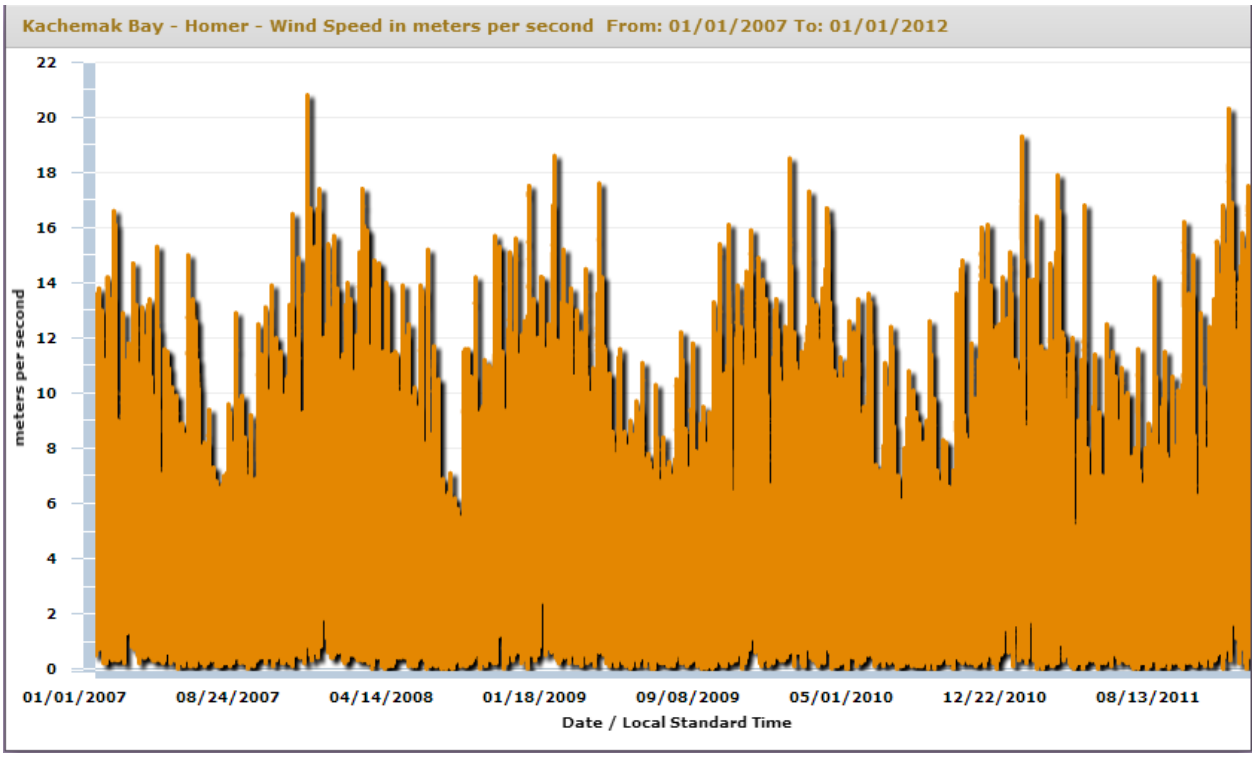
Source: National Estuarine Research Reserve System



Homer Spit Average Median Windspeeds, 2007-2012	m/s		knots	
	Last 3 yr	Last 5 yr	Last 3 yr	Last 5 yr
2008-2012				
January	6.3	6.1	12.2	11.9
February	5.2	5.4	10.0	10.5
March	4.4	4.5	8.6	8.8
April	3.1	3.2	6.1	6.3
May	3.4	3.1	6.6	6.0
June	3.0	-	5.9	4.7
July	2.8	2.6	5.4	5.0
August	2.8	2.6	5.4	5.0
September	3.2	3.0	6.2	5.9
2007-2011				
October	2.1	7.7	6.7	7.7
November	2.5	9.1	8.8	9.1
December	4.2	11.8	10.9	11.8

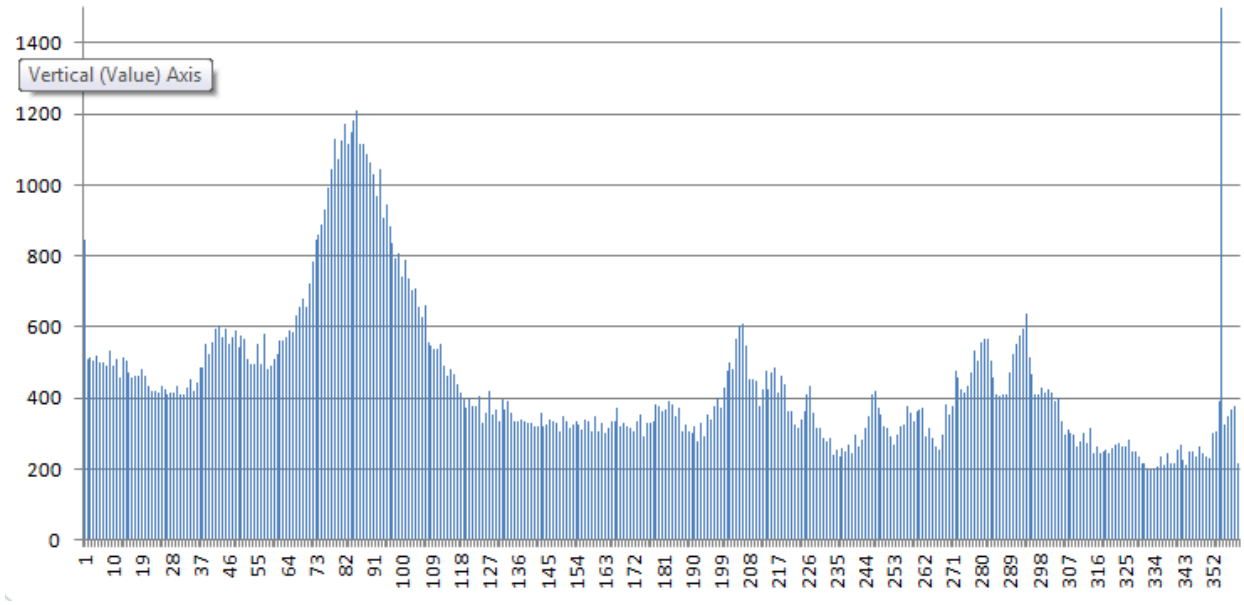
Homer Spit - Median Windspeeds, m/s						
	2007	***2008***	***2009***	***2010***	***2011***	***2012***
January		5.5	6.3	5.5	6.3	7
February		6.5	4.9	5.1	5.3	5.1
March		4.1	5.3	4.3	4.9	4.1
April		3.6	3.2	3.3	3.3	2.8
May		2.1	3.1	3.5	3.2	3.5
June		-	2.9	2.9	3.4	2.8
July		1.6	2.8	2.4	3.3	2.7
August		2	2.5	2.7	3.1	2.6
September		2.9	2.8	2.8	2.5	4.2
October	4.8	4.5	4	3.5	2.9	
November	4.7	5.1	6	4	3.6	
December	8.4	5.2	4.1	6	6.7	

Homer Spit - Median Windspeeds, knots						
	2007	***2008***	***2009***	***2010***	***2011***	***2012***
January		10.7	12.2	10.7	12.2	13.6
February		12.6	9.5	9.9	10.3	9.9
March		8.0	10.3	8.4	9.5	8.0
April		7.0	6.2	6.4	6.4	5.4
May		4.1	6.0	6.8	6.2	6.8
June		-	5.6	5.6	6.6	5.4
July		3.1	5.4	4.7	6.4	5.2
August		3.9	4.9	5.2	6.0	5.1
September		5.6	5.4	5.4	4.9	8.2
October	9.3	8.7	7.8	6.8	5.6	
November	9.1	9.9	11.7	7.8	7.0	
December	16.3	10.1	8.0	11.7	13.0	



Wind ranges, January 07 – January 12

Wind Direction – Homer Spit



Frequency of Wind Directions, Homer Spit, over 5 years

Horizontal axis is compass degrees. Vertical axis is readings.

Relative Frequency of Wind Directions	
0 to 30 degrees	9%
31 to 60	10%
61 to 90	16%
91 to 120	12%
121 to 150	6%
151 to 180	6%
181 to 210	7%
211 to 240	6%
241 to 270	6%
271 to 300	9%
301 to 330	5%
331 to 360	7%