CCNPP3COLA PEmails

From: John Rycyna
Sent: Thursday, June 12, 2008 11:24 AM
To: Price, John; Wrobel, George
Cc: CCNPP3COL Resource
Subject: FW: Draft RAI No 4 RSAC 192.doc
Attachments: Draft RAI No 4 RSAC 192.doc; Draft RAI No 4 RSAC 192 Att1.doc; Draft RAI No 4 RSAC 192 Att2.doc

Gentlemen,

Attached is DRAFT RAI No. 4. You have ten working days to review it and to decide whether you need a conference call to discuss it. After the call or after ten days the RAI will be finalized and sent to you. You then have 30 days to respond.

John Rycyna, PE
Project Manager
Division of New Reactor Licensing
Office of New Reactors
U.S. Nuclear Regulatory Commission
301-415-4122

Hearing Identifier: CalvertCliffs_Unit3Cola_Public_EX
Email Number: 274

Mail Envelope Properties (John.Rycyna@nrc.gov20080612112300)

Subject: FW: Draft RAI No 4 RSAC 192.doc
Sent Date: 6/12/2008 11:23:35 AM
Received Date: 6/12/2008 11:23:00 AM
From: John Rycyna

Created By: John.Rycyna@nrc.gov

Recipients:
"CCNPP3COL Resource" <CCNPP3COL.Resource@nrc.gov>
Tracking Status: None
"Price, John" <John.Price2@unistarnuclear.com>
Tracking Status: None
"Wrobel, George" <George.Wrobel@unistarnuclear.com>
Tracking Status: None

Post Office:

Files	**Size**	**Date & Time**
MESSAGE	436	6/12/2008 11:23:00 AM
Draft RAI No 4 RSAC 192.doc	36858	
Draft RAI No 4 RSAC 192 Att1.doc	547322	
Draft RAI No 4 RSAC 192 Att2.doc	39930	

Options
Priority: Standard
Return Notification: No
Reply Requested: No
Sensitivity: Normal
Expiration Date:
Recipients Received:

DRAFT
Request for Additional Information No. 192 Revision 2

6/12/2008

Calvert Cliffs Unit 3
UniStar
Docket No. 52-016
SRP Section: 02.03.02 - Local Meteorology
Application Section: 2.3.2
RSCA

QUESTIONS

02.03.02-1

In FSAR Section 2.3.2.1.1 onsite measurements of wind speed and wind direction were compared against data from Baltimore, Richmond and Norfolk. Please explain why onsite wind speed and direction estimates in FSAR Section 2.3.2.1.1 were not compared against data from the nearby Patuxent Naval Air Station (NAS).

02.03.02-2

Seasonal comparisons of wind direction and frequency from Patuxent Naval Air Station (NAS) with onsite data from the proposed CCNPP site show several differences, especially the percentage of calm conditions. Please provide a discussion regarding the significance of the seasonal wind speed and direction differences between the two locations and the representativeness of the onsite wind speed and direction measurements. Seasonal wind roses for both Patuxent NAS and the CCNPP site are provided in Attachment 1.

02.03.02-3

This request for additional information relates to FSAR Tables 2.3-56 through 2.3-63. Please provide a definition for “mean extreme” maximum and minimum temperature and clarify how the temperatures in FSAR Tables 2.3-57 and 2.3-58 were determined. Please check the accuracy of the December and Annual temperatures for the monthly mean daily maximum and minimum temperatures in FSAR Tables 2.3-59 and 2.3-60. The staff was unable to verify the values presented in the FSAR. Please check the accuracy of the December temperature for the maximum hourly temperature in FSAR Table 2.3-61. The staff was unable to verify the value presented in the FSAR. Please check the accuracy of the May temperature for the minimum hourly temperature in FSAR Table 2.3-62. The staff was unable to verify the value presented in the FSAR.

02.03.02-4

Please provide references for the data presented in FSAR Tables 2.3-49 through 2.3-51 for Annapolis, Cambridge, Princess Anne, Patuxent River NAS, and Mechanicsville.

02.03.02-5

Please explain why 2002 National Climatic Data Center (NCDC) Local Climatic Annual Summaries with Comparative Data (LCD) were used instead of the most recent climate summaries.

02.03.02-6

Please discuss the significance and potential causes for the discrepancies in annual precipitation amounts between the onsite measurements at the CCNPP site and four relatively nearby airport locations shown in Attachment 2. The staff also notes an upward trend in onsite annual precipitation estimates at the CCNPP site. Attachment 1 shows an apparent increase in onsite annual precipitation. Please discuss if this is an accurate representation of the annual precipitation.

02.03.02-7

In accordance with Regulatory Guide 1.206, please provide monthly and annual summaries (ex., occurrence frequency) of atmospheric stability in FSAR Section 2.3.2.1.4.

02.03.02-8

Please provide a reference in FSAR Section 2.3.2.4 for the twice daily mixing height data discussed in FSAR Section 2.3.2.1.5.

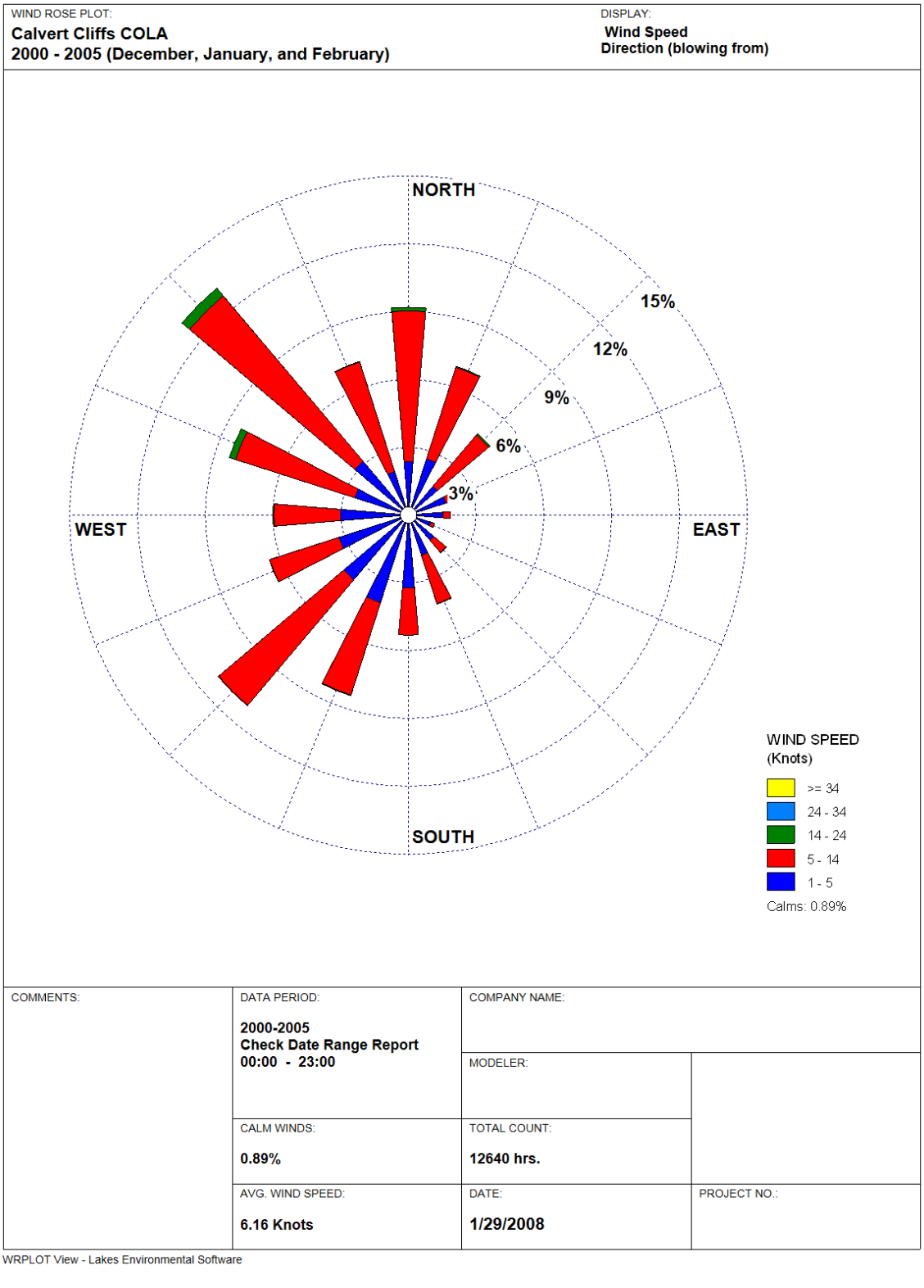
02.03.02-9

FSAR Section 2.3.2.1.6 stated that Calvert County is in nonattainment for the Environmental Protection Agency's 8-hour ozone standard. Please discuss any potential impact on the proposed plant due to this nonattainment status.

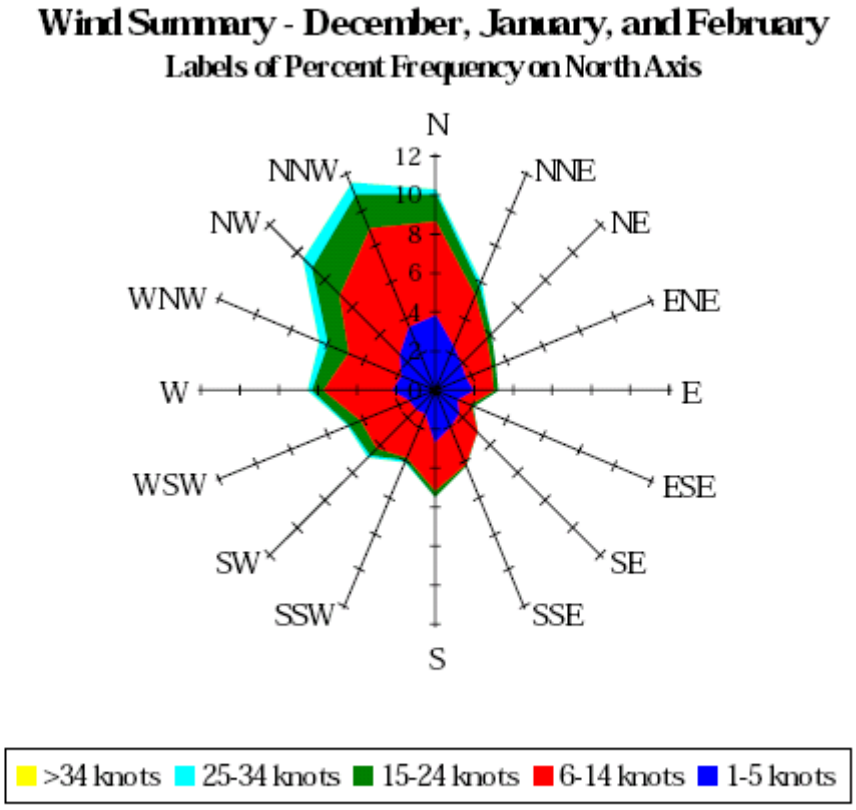
02.03.02-10

Please provide a copy of the SACTI input files (e.g., PREP.USR, MULT.USR, TABLES.USR, and PAGE.USR) so the staff may conduct a confirmatory analysis.

Seasonal wind speed and direction comparison between the CCNPP site and Patuxent Naval Air Station (NAS).



Patuxent NAS



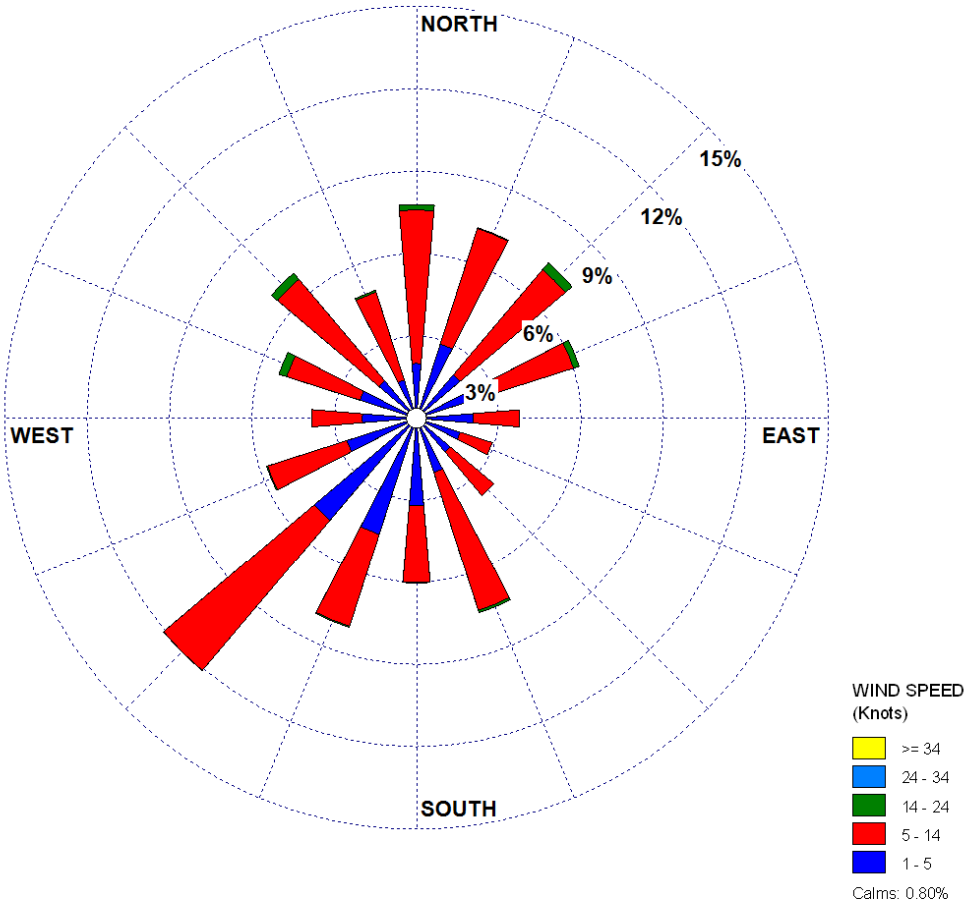
Percent Calm = 12.08

WIND ROSE PLOT:

Calvert Cliffs COLA
2000 - 2005 (March, April, and May)

DISPLAY:

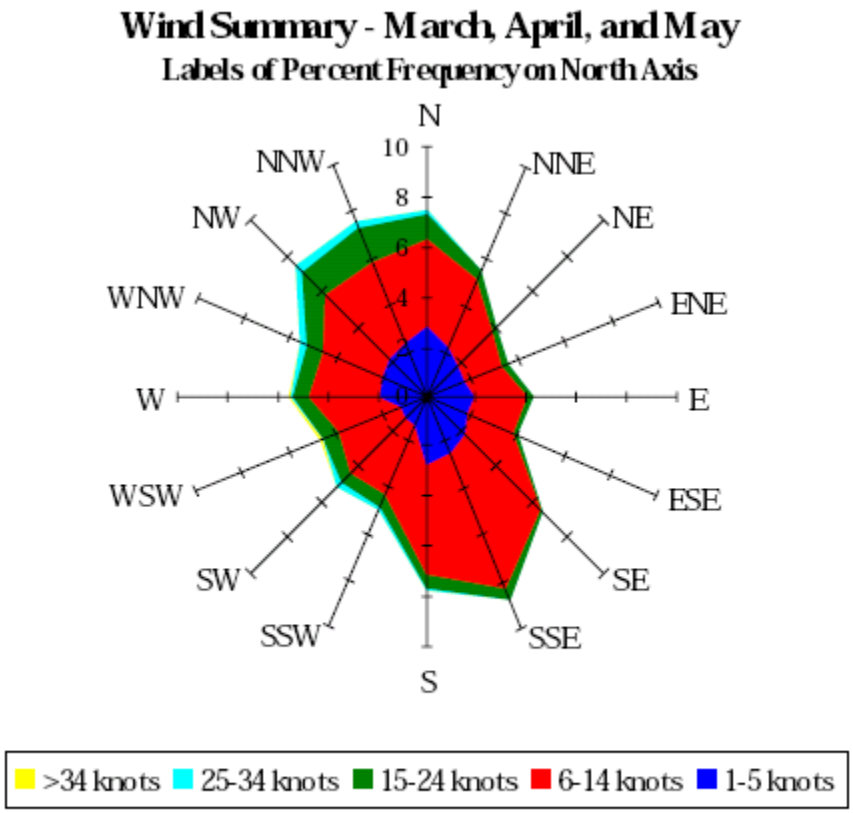
Wind Speed
Direction (blowing from)



COMMENTS:	DATA PERIOD:	COMPANY NAME:	
	2000-2005 **Mar 1 - May 31** **00:00 - 23:00**	MODELER:	
	CALM WINDS: **0.80%**	TOTAL COUNT: **12916 hrs.**	
	AVG. WIND SPEED: **6.11 Knots**	DATE: **1/29/2008**	PROJECT NO.:

WRPLOT View - Lakes Environmental Software

Patuxent NAS



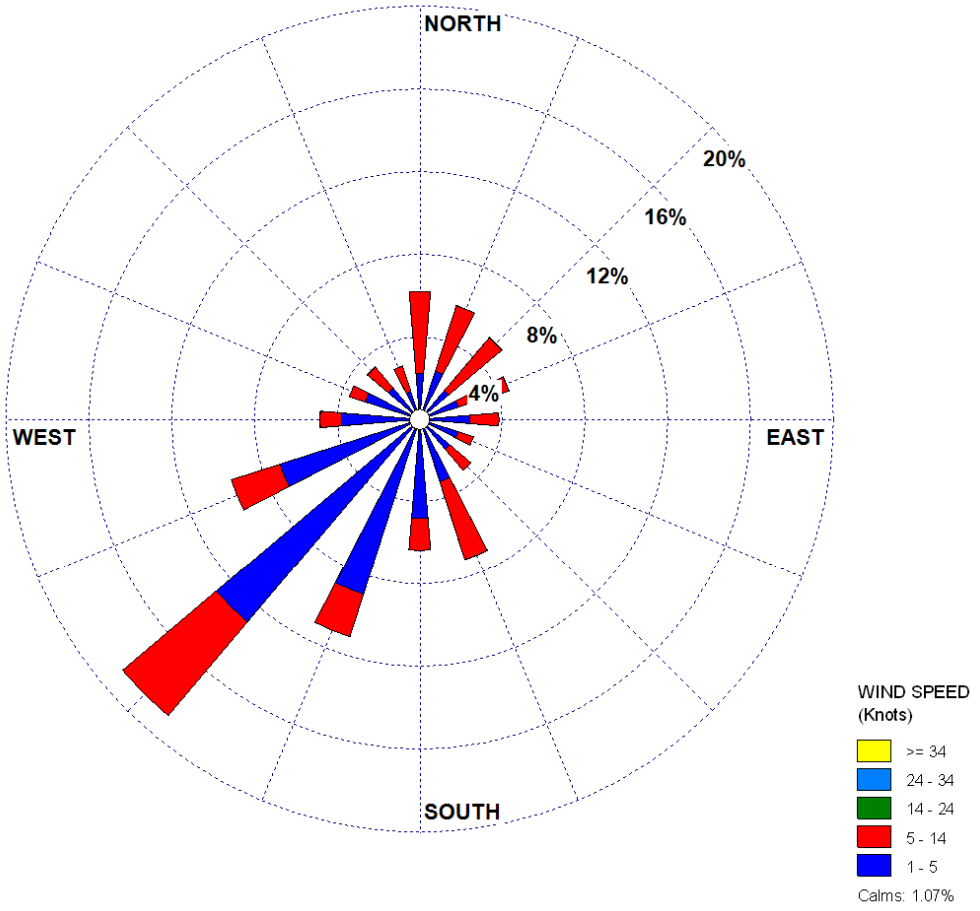
Percent Calm = 8.29

WIND ROSE PLOT:

Calvert Cliffs COLA
2000 - 2005 (June, July, and August)

DISPLAY:

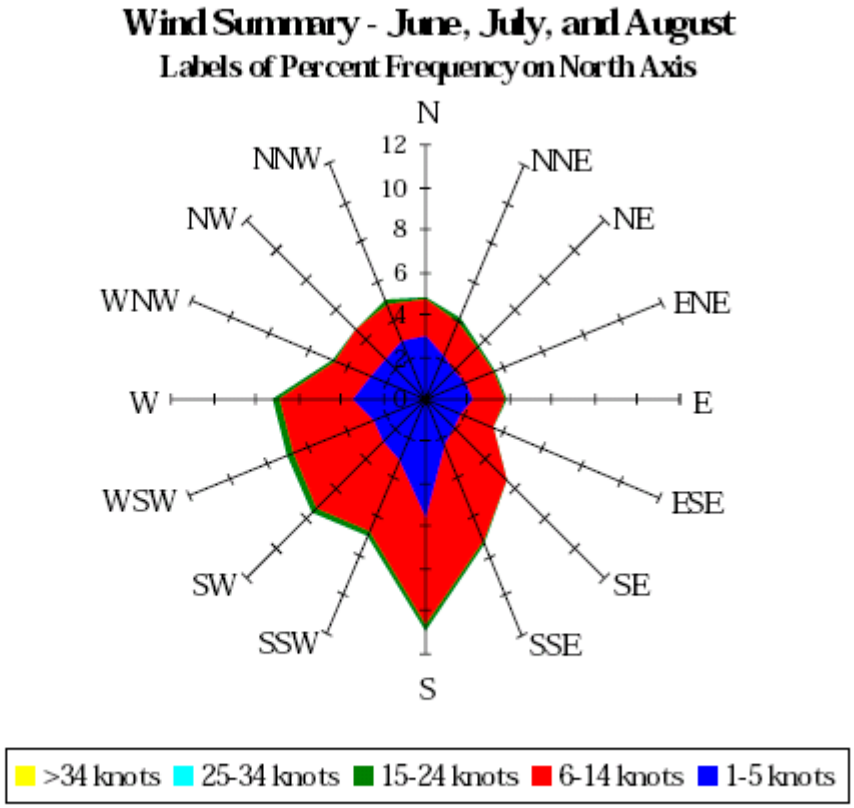
Wind Speed
Direction (blowing from)



COMMENTS:	DATA PERIOD: **2000-2005** **Jun 1 - Aug 31** **00:00 - 23:00**	COMPANY NAME:	
		MODELER:	
	CALM WINDS: **1.07%**	TOTAL COUNT: **13203 hrs.**	
	AVG. WIND SPEED: **4.56 Knots**	DATE: **1/29/2008**	PROJECT NO.:

WRPLOT View - Lakes Environmental Software

Patuxent NAS



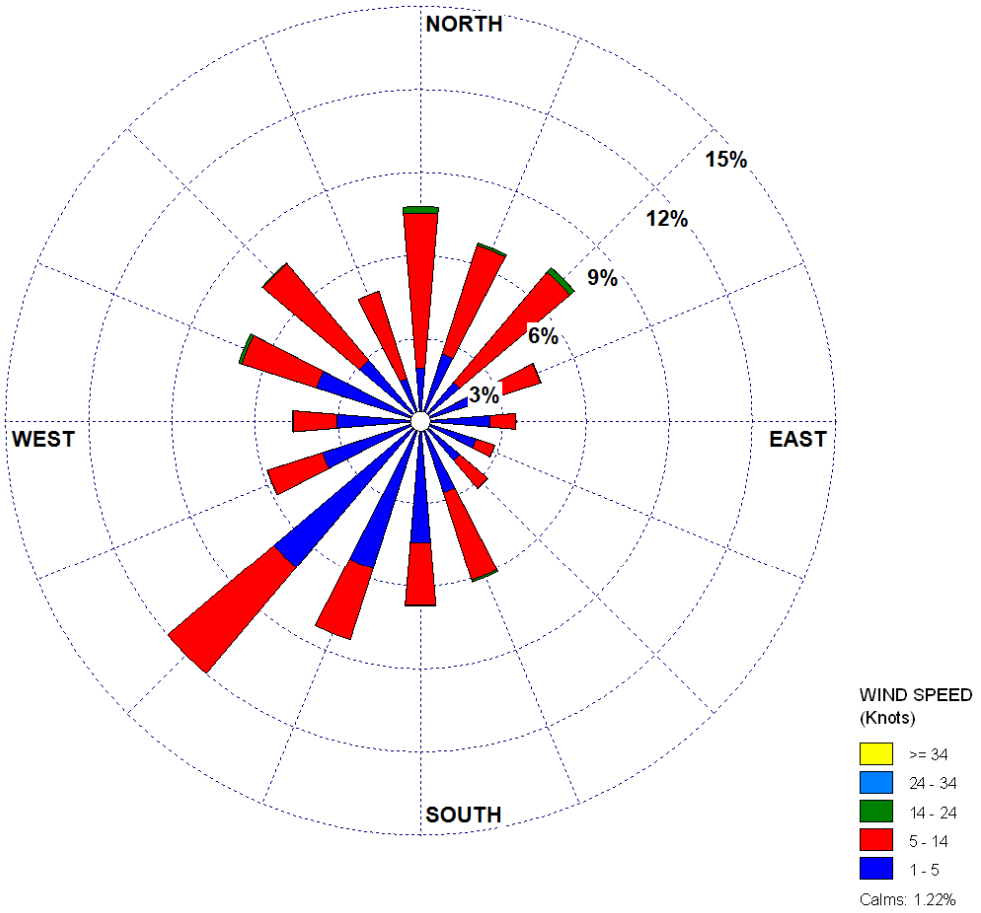
Percent Calm = 10.53

WIND ROSE PLOT:

Calvert Cliffs COLA
2000 - 2005 (September, October, and November)

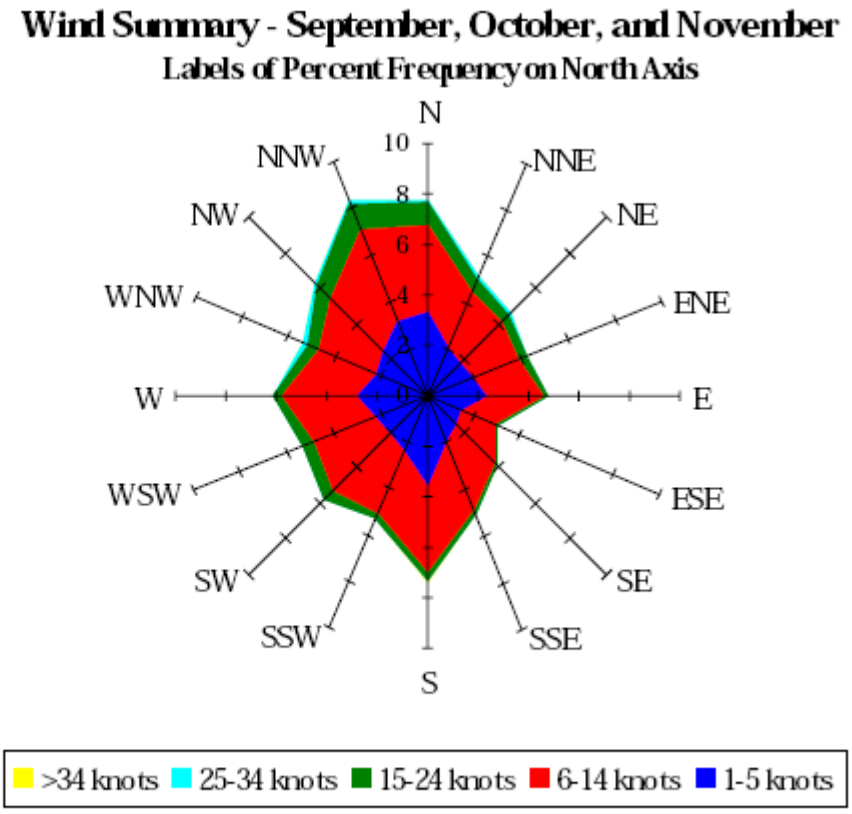
DISPLAY:

Wind Speed
Direction (blowing from)



COMMENTS:	DATA PERIOD:	COMPANY NAME:	
	2000-2005 **Sep 1 - Nov 30** **00:00 - 23:00**	MODELER:	
	CALM WINDS: **1.22%**	TOTAL COUNT: **12845 hrs.**	
	AVG. WIND SPEED: **5.39 Knots**	DATE: **1/29/2008**	PROJECT NO.:

Patuxent NAS



Percent Calm = 12.20

Annual precipitation amounts (inches) from 2000 through 2005 at Calvert Cliffs and four offsite airport locations.

YEAR	CCNPP	DCA	BWI	ORF	RIC	AVERAGE [a]
2000	25.38	40.66	41.91	49.93	43.15	43.91
2001	30.40	29.95	34.57	33.36	31.52	32.35
2002	25.13	34.33	39.60	50.87	37.77	40.64
2003	39.93	59.53	62.66	61.76	63.29	61.81
2004	34.54	42.49	45.67	50.09	58.50	49.19
2005	53.63	44.38	49.13	46.11	41.54	45.29

[a] Average of the four offsite airport locations.

Annual precipitation amounts at Calvert Cliffs from 2000 through 2005.