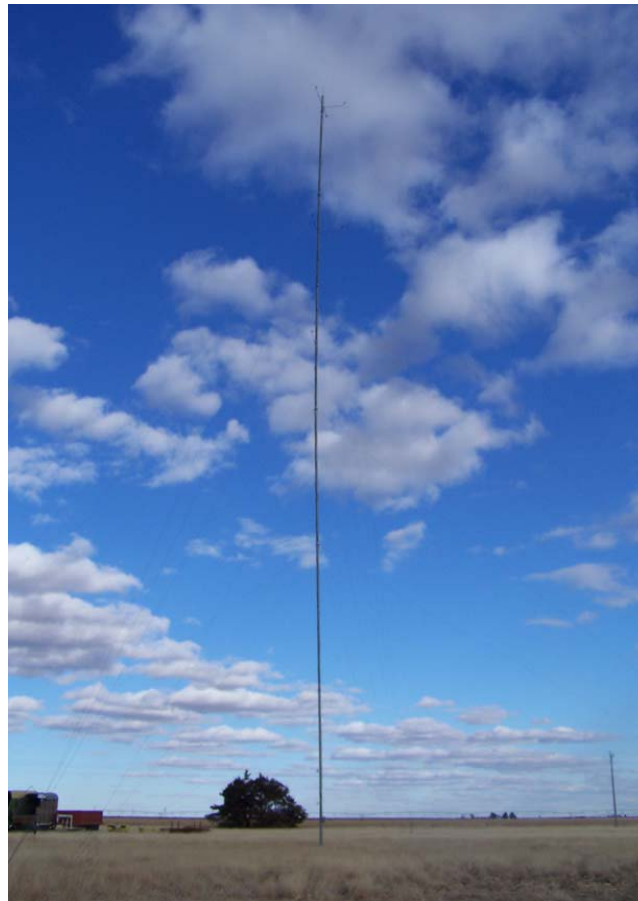




Agricultural Science Center at Clovis
College of Agricultural, Consumer and Environmental Sciences

**New Mexico State University
Agricultural Science Center at Clovis, NM
Wind Monitoring Project**

**MONTHLY WIND PERFORMANCE REPORT
March 2012**



Site Location: Clovis, New Mexico
Latitude: 34.606075 ° N
Longitude: -103.301602 ° W
Altitude: 1363 meters



**New Mexico State University
Agricultural Science Center at Clovis**

**Wind Monitoring Project
Monthly Performance Report
March 2012**

Prepared for:

New Mexico State University Agricultural Science Center at Clovis
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50 Meter Tower

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Executive Summary

This report provides the monthly wind performance summary for **March 2012** of the 50m Wind Met-Tower at the New Mexico State University Agricultural Science Center at Clovis. The site is located right at the Center's facility area which has flat agricultural landscape that includes grass, crops, and loose soil. The wind met-tower is installed at coordinates 34.606075° N and -103.301602° W altitude of 1363 meters.

Wind speed and direction monitoring are being done at three heights 50m, 40m, and 30m. The **average wind speed** for the month of **March** at the highest level (50m height) was found to be **8.40 m/s** with **average temperatures** around **12.1° C** while the predominant **wind direction** was from the **West**.

Based on the average wind speed results, an approximation of energy production is done using a GE1.5 MW wind turbine for the sole purpose of getting an idea of how much energy the site would yield if a turbine were to be installed. Any other turbine size and manufacturer could have been selected depending on preference and appropriateness. The **estimated energy production** for the month of **March** was approximately **622,420 kWh**. Power output were approximated based on the manufacturer's turbine power curve at 65m hub height.

Graphs and figures in this report are for **31** day periods from **March 1-31, 2012**.

Wind Monitoring Method description

The NRG Symphonie data logger is an internet ready, ultra-low power microprocessor-controlled data logging system specifically designed for the wind energy industry. The Symphonie logger has a fixed averaging interval of 10 minutes. Each of the 12 channels' averages, standard deviations, minimum and maximum values are calculated from continuous 2 second data samples. Data intervals are calculated every 10 minutes, time stamped with the beginning time of each interval and written to the MultiMedia Card (MMC) at the top of each hour. Symphonie Data Retriever (SDR) software is then used to process raw data files stored on the computer from an MMC.

Date of receipt of the raw data:

March 31, 2012

Dates of the performance of the monitoring:

March 1-31, 2012

Test description page(s):

Description of wind monitoring items: The 50-m met tower has four "1900 NRG #40C Calibrated Anemometers;" at 50, 40, and 30 meters; two "1904 NRG #200P Wind Direction Vane 10K" at 50 and 40 meters, as well as one "1906-NRG #110S Temperature Sensor with Radiation Shield". Data Symphonie NRG Logger.

Mnfg:	NGR Systems
Models:	Anemometers: 1900-NRG #40 Wind Direction Vane: 1904-NRG #200P Temperature Sensor: 1906-NRG #110S Data logger: Symphonie NRG Logger

Conditions of the wind monitoring items: ***Working as specified***

Monitoring dates: March 1-31, 2012

Location of Monitoring: The place is an open space of about 2 acres located approximately 200 yards to the south from the Agricultural Science Center at Clovis's main building complex. There are obstacles (buildings, trees, etc) which can affect both, wind speed or wind direction sampling.

Monitoring Plan Description: The Symphonie logger has a fixed averaging interval of 10 minutes. Each of the 12 channels' averages, standard deviations, minimum and maximum values are calculated from continuous 2 second data samples. Data intervals are calculated every 10 minutes, time stamped with the beginning time of each interval and written to the MultiMedia Card (MMC) at the top of each hour.

This wind monitoring report shall not be reproduced except in full, without written approval of New Mexico State University Agricultural Science Center at Clovis

Site Information:

Project: wind monitoring

Location: clovis nm

Elevation: 1365 m

Sensor Information:

1 wind speed 1 50m, m/
 2 wind speed 2 50m, m/
 3 wind speed 3 40m m/s
 4 windspeed 4 30m, m/s
 5 No Sensor
 6 No Sensor

7 #200P Wind Vane
 8 #200P Wind Vane
 9 NRG 110S Temp, C
 10 No Sensor
 11 No Sensor
 12 No Sensor

March 2012**Summary Report**

SITE 0001

NMSU ASC at Clovis

Channel	1	2	3	4			7	8	9			
Height	50 m	50m	40m	30 m			50 m	40 m	3 m			
Units	m/s	m/s	m/s	m/s			deg	deg	C			
Intervals with Valid Data	4464	4464	4464	4464			4464	4464	4464			
Average Filtered Data	8.46	8.32	8.11	7.76			249.14	247.32	12.12			
Average for All Data	8.46	8.32	8.11	7.76			249.14	247.32	12.12			
Min Interval Average	0.4	0.4	0.4	0.4					-5.9			
Date of Min Interval	3/23/2012	3/30/2012	3/23/2012	3/10/2012					3/20/2012			
Time of Min Interval	4:10:00 PM	4:50:00 PM	4:10:00 PM	4:10:00 PM					5:40:00 AM			
Max Interval Average	23.1	23	22.9	22.4					31.2			
Date of Max Interval	3/8/2012	3/8/2012	3/8/2012	3/8/2012					3/25/2012			
Time of Max Interval	8:30:00 AM	8:30:00 AM	8:30:00 AM	8:30:00 AM					1:10:00 PM			
Average Interval SD	0.81	0.84	0.81	0.81			6.88	6.92	0.11			
Min Sample	0.4	0.4	0.4	0.4					-6			
Date of Min Sample	3/2/2012	3/2/2012	3/2/2012	3/2/2012					3/20/2012			
Time of Min Sample	10:50:00 AM	10:50:00 AM	10:50:00 AM	10:50:00 AM					5:30:00 AM			
Max Sample	27.3	27.2	27.2	27.3					31.7			
Date of Max Sample	3/8/2012	3/18/2012	3/8/2012	3/8/2012					3/25/2012			
Time of Max Sample	7:40:00 AM	2:10:00 PM	10:00:00 AM	10:00:00 AM					1:10:00 PM			
Average Interval TI	0.11	0.11	0.11	0.11								
Wind Speed Direction							W	W				

Site Information:

Project: wind monitoring
Location: clovis nm
Elevation: 1365 m

Sensor on channel 1:

wind speed 1 50m, m/
Height: 50 m
Serial #: 51179

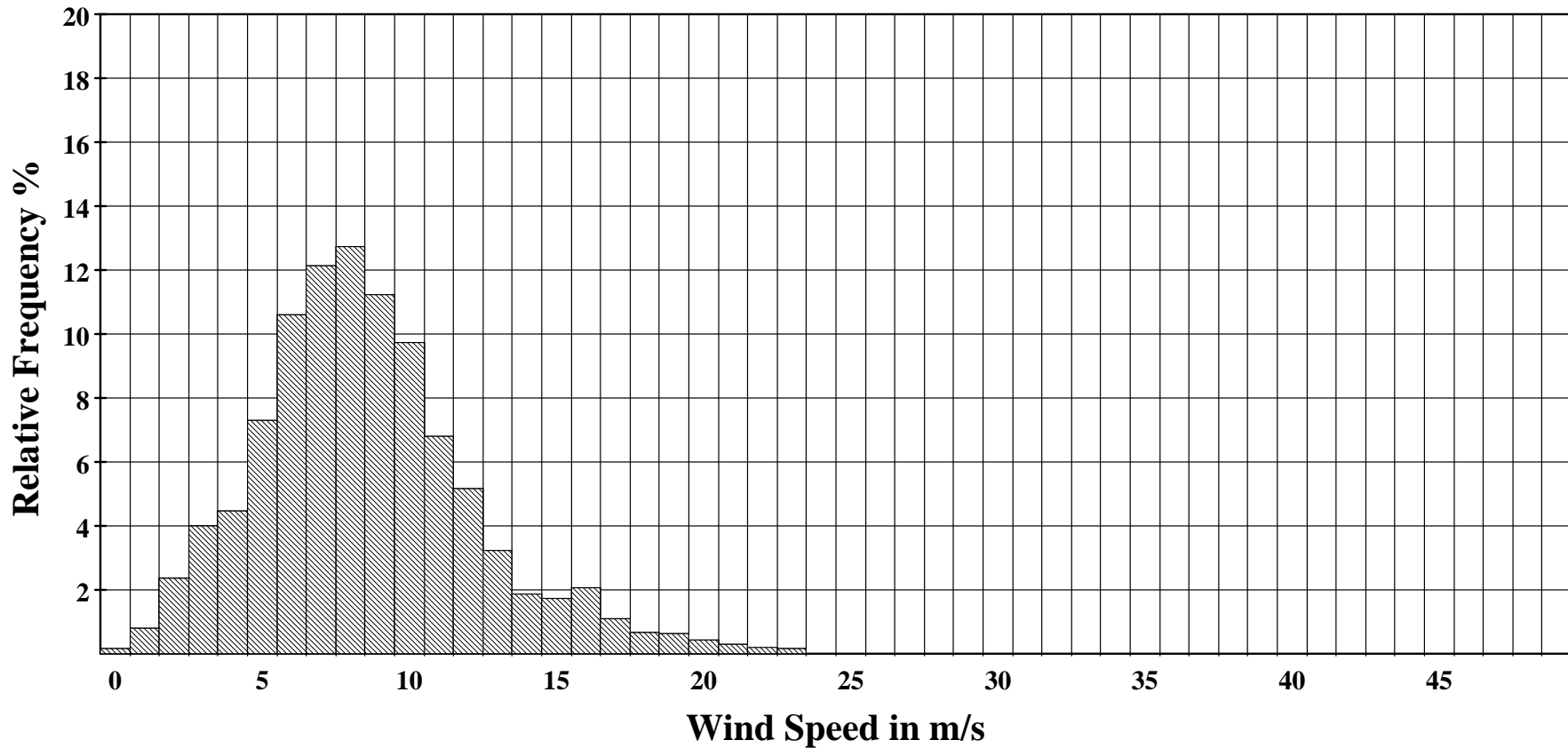
March 2012

Frequency Distribution Ch 1

SITE 0001

NMSU ASC at Clovis

Frequency Distribution



Site Information:

Project: wind monitoring
Location: clovis nm
Elevation: 1365 m

Sensor on channel 1:

wind speed 1 50m, m/
Height: 50 m
Serial #: 51179

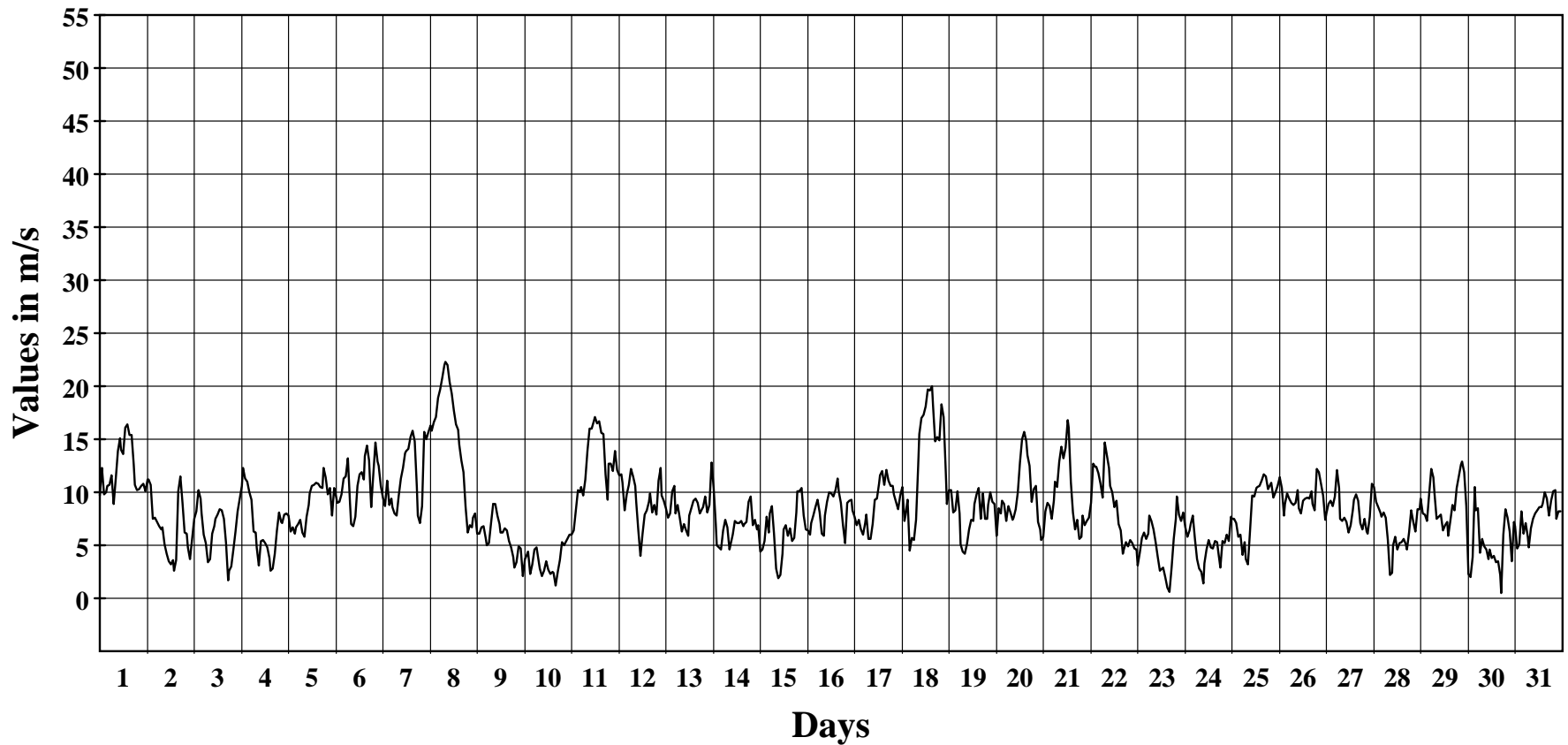
March 2012

Hourly Averages Graph Ch 1

SITE 0001

NMSU ASC at Clovis

Average Hourly Values



Average Value: 8.5

Site Information:

Project: wind monitoring

Location: clovis nm

Elevation: 1365 m

Sensor on channel 1:

wind speed 1 50m, m/

Height: 50 m Units: m/s

Serial #: 51179

March 2012**Hourly Averages Table Ch 1**

SITE 0001

NMSU ASC at Clovis

Day	Hour																							AVG	
	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22		23
1	9.7	12.3	9.8	10.0	10.6	10.7	11.6	8.9	11.3	13.9	15.1	14.0	13.6	16.1	16.4	15.4	15.4	12.6	10.7	10.2	10.3	10.6	10.8	10.1	12.1
2	11.2	11.3	10.7	7.5	7.6	7.2	6.8	6.5	6.7	5.1	4.2	3.5	3.2	3.6	2.6	3.6	10.1	11.5	9.0	6.2	6.1	4.8	3.7	5.6	6.6
3	7.5	8.2	10.2	9.4	8.0	6.0	5.2	3.4	3.7	6.1	6.8	7.5	7.9	8.4	8.3	7.5	5.2	1.7	2.6	3.0	4.6	6.3	8.2	9.4	6.5
4	10.6	12.3	11.3	11.0	10.0	9.3	6.3	6.2	4.8	3.1	5.4	5.5	5.2	4.8	3.8	2.6	2.8	4.2	6.4	8.1	7.2	7.1	7.9	8.0	6.8
5	7.8	6.3	6.7	6.1	6.7	7.0	7.4	6.2	5.8	7.7	8.8	9.9	10.6	10.7	10.9	10.8	10.5	10.4	12.3	11.4	9.8	10.4	7.8	10.4	8.8
6	9.5	9.0	9.1	9.8	11.3	11.5	13.2	9.0	7.0	6.8	7.7	10.6	11.7	11.9	11.2	13.4	14.4	13.0	8.6	11.7	14.7	12.9	12.5	10.6	10.9
7	9.5	8.7	11.1	8.8	9.4	8.6	8.0	7.8	9.7	11.3	12.3	13.7	13.9	14.1	15.2	15.8	14.8	10.5	7.8	7.1	8.7	15.7	15.0	15.7	11.4
8	16.3	15.8	16.6	17.1	18.9	19.7	20.8	22.0	22.3	22.0	20.4	19.3	17.7	16.4	15.9	14.5	13.0	11.9	8.6	6.2	6.9	6.7	7.6	8.0	15.2
9	6.1	6.1	6.7	6.8	5.7	5.0	5.2	7.1	8.9	8.9	7.8	7.0	6.2	6.2	6.6	6.4	5.4	4.8	3.9	2.9	3.4	4.9	4.7	2.1	5.8
10	3.7	3.9	4.4	2.3	3.2	4.6	4.8	3.5	2.8	2.1	2.6	3.5	2.7	2.3	2.5	2.4	1.2	2.5	3.6	5.3	5.0	5.4	5.6	6.0	3.6
11	6.0	6.4	8.3	10.2	10.0	10.5	9.7	11.2	13.9	16.0	16.0	16.7	17.1	16.5	16.7	15.6	15.5	11.7	9.3	12.7	12.7	12.0	13.9	12.1	12.5
12	11.6	11.7	10.9	8.3	9.8	10.7	12.2	11.5	10.6	9.1	6.4	4.0	6.1	7.9	8.3	9.1	9.9	8.1	8.8	7.9	11.1	12.3	9.7	9.2	9.4
13	8.5	7.6	8.0	10.1	10.6	8.0	8.8	7.6	6.3	7.0	6.4	5.9	7.8	8.5	9.2	9.4	9.0	8.0	8.4	8.6	9.6	8.1	8.8	12.8	8.4
14	10.4	7.0	5.0	4.8	4.6	6.4	7.4	6.7	4.6	5.1	6.0	7.3	7.1	7.1	7.3	6.8	7.0	7.2	9.1	9.6	6.9	7.4	6.5	6.9	6.8
15	4.4	4.6	5.4	7.7	6.3	8.0	8.7	6.1	2.8	1.9	2.2	4.2	6.5	6.9	5.9	6.6	5.4	5.7	8.1	10.1	10.1	10.4	7.8	6.5	6.3
16	6.4	6.0	7.1	7.8	8.6	9.3	8.1	6.1	5.9	7.8	9.1	10.0	9.9	9.6	10.2	11.3	10.1	9.0	6.9	5.2	9.0	9.2	9.3	8.3	8.3
17	7.7	6.9	7.4	6.5	6.0	7.1	7.9	5.6	5.6	7.0	9.3	9.4	10.8	11.6	12.0	10.7	12.1	11.1	10.6	10.6	9.8	9.1	8.4	9.7	8.9
18	10.5	7.3	7.8	9.3	4.5	5.7	5.5	7.4	12.5	15.5	17.0	17.3	18.1	19.7	19.6	20.0	18.2	14.8	15.2	14.9	18.3	17.1	12.0	8.9	13.2
19	10.2	10.2	8.1	8.3	10.1	8.0	5.1	4.4	4.2	5.1	6.5	7.4	7.3	8.9	9.8	10.4	7.5	9.9	7.5	7.5	8.8	10.0	9.1	8.9	8.0
20	5.9	8.5	8.0	9.2	8.9	7.3	8.7	8.1	7.4	7.6	8.4	10.0	12.8	15.0	15.7	14.8	13.5	12.5	9.1	10.3	10.6	7.2	6.5	5.5	9.7
21	5.8	8.3	9.0	8.7	7.5	9.2	11.0	10.5	12.9	14.3	13.2	14.2	16.8	16.1	11.0	8.1	6.5	7.4	5.6	5.8	7.8	6.9	7.3	7.6	9.6
22	9.0	12.7	12.4	12.4	11.8	10.8	9.5	14.7	13.5	12.3	10.6	10.0	8.6	9.2	7.0	6.4	4.2	4.6	5.3	4.9	5.5	5.2	4.7	4.6	8.7
23	3.1	4.3	5.7	6.2	5.6	6.1	7.8	7.3	6.5	5.3	3.9	2.6	2.8	2.9	2.0	1.0	0.6	2.9	5.6	7.5	9.6	7.9	7.3	8.1	5.1
24	6.7	5.8	6.4	7.0	7.8	5.6	3.7	2.8	2.5	1.4	3.3	4.6	5.5	4.8	4.7	5.4	5.3	4.4	2.9	5.4	5.3	6.0	5.4	7.7	5.0
25	7.5	7.5	7.1	5.8	6.0	4.1	5.3	3.7	3.2	6.4	9.7	9.6	10.4	10.5	10.6	11.1	11.7	11.5	10.3	10.7	10.9	9.5	10.0	10.6	8.5
26	11.4	10.4	7.8	8.9	9.9	9.4	9.0	8.8	9.0	10.2	8.5	8.0	9.2	9.4	9.5	9.4	10.1	8.9	8.3	12.2	11.9	10.8	9.7	7.4	9.5
27	8.0	8.9	9.2	8.7	9.6	12.1	10.4	7.5	7.3	7.6	7.3	6.2	6.9	8.3	9.3	9.8	9.2	7.1	6.5	7.5	6.3	6.1	7.7	10.8	8.3
28	10.5	9.1	8.6	8.1	7.7	8.1	7.6	5.5	2.2	2.4	5.0	5.8	4.6	5.2	5.3	5.6	5.1	4.6	6.2	8.3	7.2	6.3	8.4	8.4	6.5
29	9.4	8.0	7.9	7.3	9.8	12.2	11.4	9.9	7.5	7.7	7.9	6.4	6.9	7.2	5.9	7.3	8.8	8.3	10.4	11.5	12.6	12.9	11.9	8.7	9.1
30	2.3	2.0	3.9	10.5	8.3	8.5	4.3	5.6	4.9	4.6	3.7	4.6	3.8	4.0	3.4	3.5	2.2	0.5	6.0	8.4	7.6	6.3	3.5	7.2	5.0
31	6.8	4.7	5.1	8.2	6.1	7.1	5.8	4.8	6.6	7.5	8.0	8.3	8.6	8.6	8.9	10.0	9.4	7.8	9.2	10.1	10.2	7.5	8.2	8.2	7.7
AVG	8.2	8.1	8.3	8.5	8.4	8.5	8.3	7.6	7.5	8.0	8.4	8.6	9.0	9.4	9.2	9.2	8.8	8.0	7.8	8.5	9.0	8.8	8.4	8.5	8.5

Site Information:

Project: wind monitoring
Location: clovis nm
Elevation: 1365 m

Sensor on channel 2:

wind speed 2 50m, m/
Height: 50m
Serial #: 51163

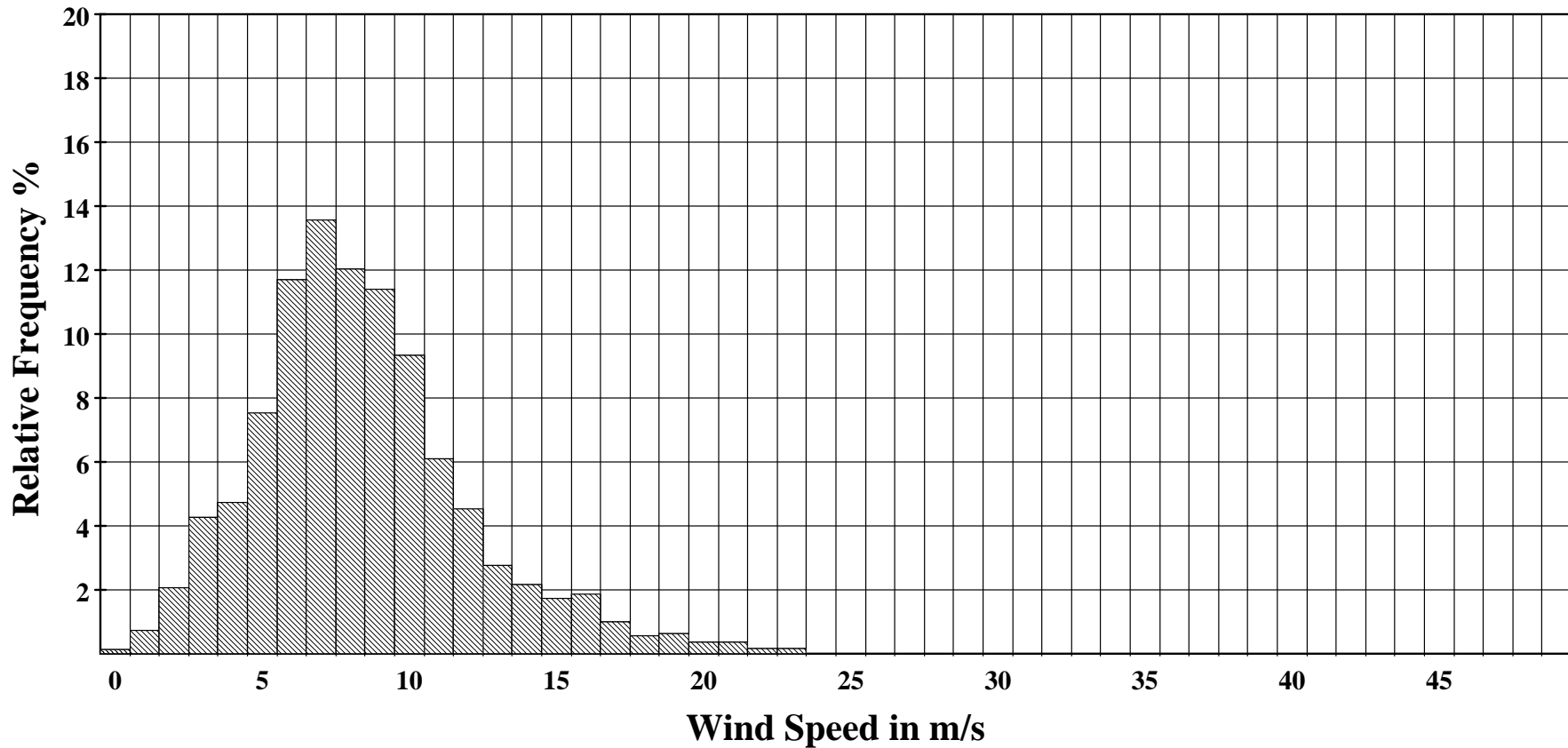
March 2012

Frequency Distribution Ch 2

SITE 0001

NMSU ASC at Clovis

Frequency Distribution



Site Information:

Project: wind monitoring
Location: clovis nm
Elevation: 1365 m

Sensor on channel 2:

wind speed 2 50m, m/
Height: 50m
Serial #: 51163

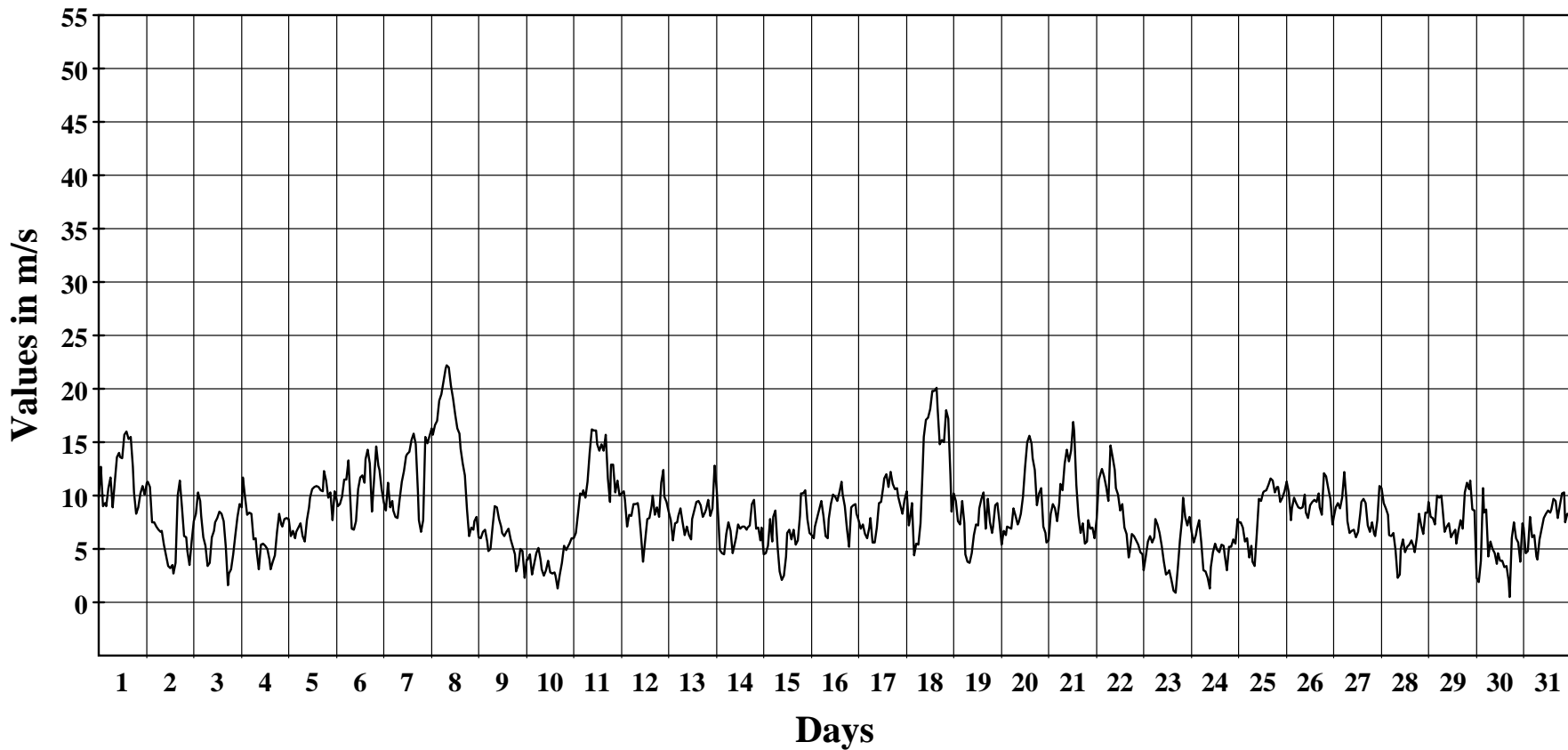
March 2012

Hourly Averages Graph Ch 2

SITE 0001

NMSU ASC at Clovis

Average Hourly Values



Average Value: 8.3

Site Information:

Project: wind monitoring

Location: clovis nm

Elevation: 1365 m

Sensor on channel 2:

wind speed 2 50m, m/

Height: 50m Units: m/s

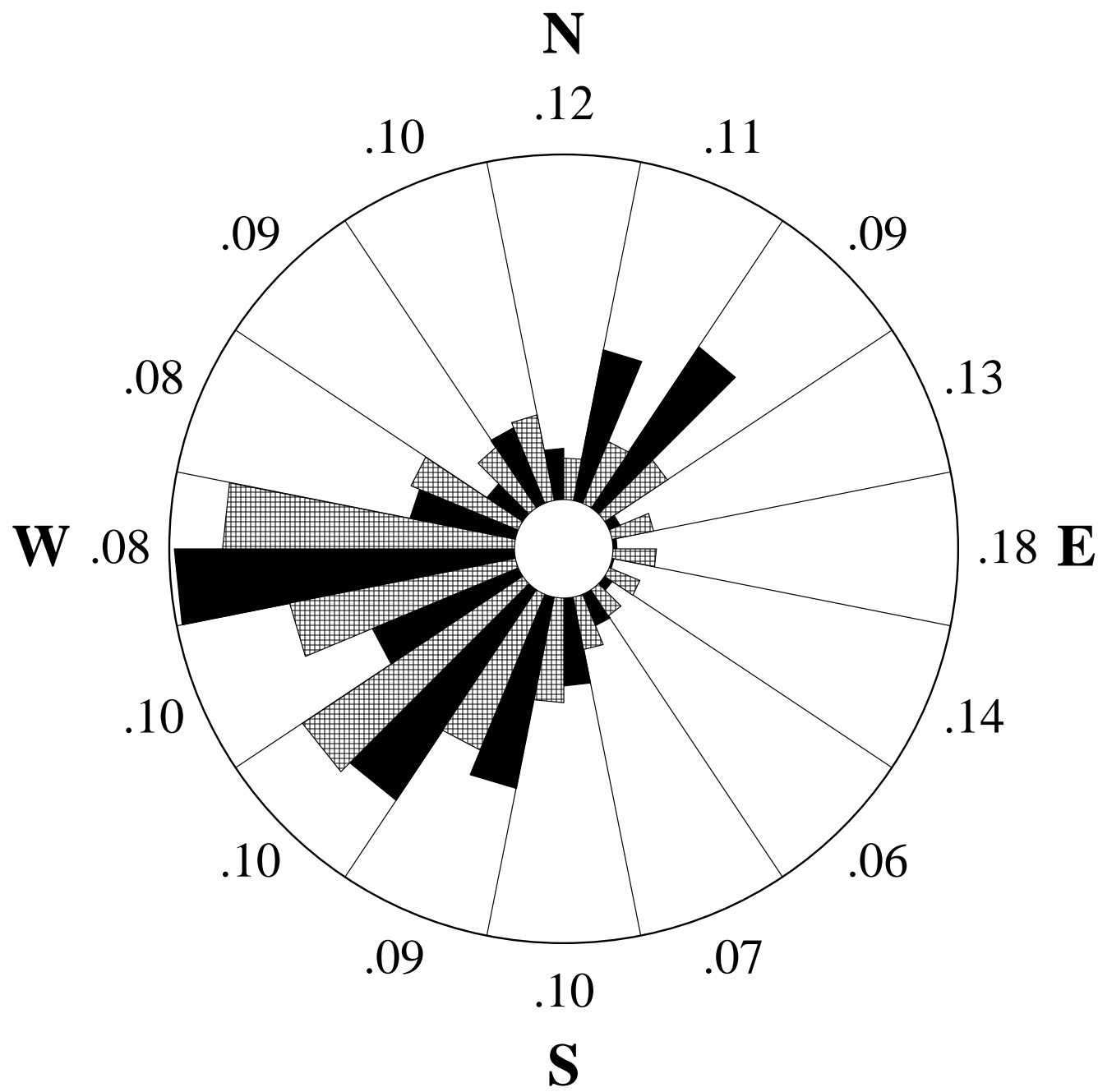
Serial #: 51163

March 2012**Hourly Averages Table Ch 2**

SITE 0001

NMSU ASC at Clovis

Day	Hour																							AVG	
	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22		23
1	9.8	12.7	9.0	9.3	9.0	10.7	11.7	8.9	11.3	13.6	14.0	13.6	13.5	15.7	16.0	15.3	15.5	12.7	10.3	8.3	8.9	10.2	10.9	10.1	11.7
2	11.3	11.3	10.8	7.5	7.5	7.1	6.8	6.6	6.7	5.4	4.4	3.4	3.2	3.5	2.7	3.7	10.0	11.4	8.9	6.2	6.1	4.8	3.5	5.7	6.6
3	7.6	8.3	10.3	9.5	8.1	6.1	5.3	3.4	3.7	6.1	6.7	7.5	7.9	8.5	8.3	7.6	5.2	1.6	2.7	3.1	4.5	6.3	8.0	9.2	6.5
4	8.9	11.7	9.9	8.2	8.4	8.3	5.9	6.0	4.8	3.1	5.4	5.5	5.3	5.0	4.0	3.1	3.8	4.4	6.6	8.3	7.3	7.1	7.8	7.9	6.5
5	7.8	6.2	6.7	6.0	6.6	7.0	7.4	6.2	5.7	7.7	8.9	9.8	10.6	10.8	10.9	10.8	10.5	10.4	12.3	11.4	9.8	10.3	7.7	10.4	8.8
6	9.5	9.0	9.2	9.9	11.5	11.5	13.3	9.1	6.9	6.8	7.6	10.6	11.7	11.9	11.2	13.4	14.3	13.0	8.5	11.5	14.6	12.8	12.4	10.6	10.9
7	9.4	8.6	11.2	8.9	9.5	8.6	8.0	7.9	9.7	11.3	12.3	13.7	13.9	14.1	15.2	15.8	14.8	10.4	7.7	6.6	7.7	15.5	14.9	15.6	11.3
8	16.3	15.7	16.6	17.0	18.9	19.5	20.7	21.9	22.2	22.0	20.3	19.1	17.6	16.3	15.8	14.4	13.0	11.9	8.7	6.2	7.0	6.8	7.6	8.0	15.1
9	6.1	6.0	6.6	6.8	5.7	4.8	5.0	7.1	9.0	8.9	7.8	7.1	6.5	6.2	6.6	6.9	5.9	5.2	4.5	2.9	3.5	5.0	4.8	2.3	5.9
10	4.0	4.0	4.5	2.6	3.6	4.6	5.1	4.0	3.1	2.5	3.0	3.9	2.8	2.7	2.8	2.5	1.3	2.6	3.7	5.3	4.9	5.3	5.5	6.0	3.8
11	6.0	6.5	8.3	10.2	10.1	10.5	9.8	11.3	14.0	16.2	16.1	16.1	14.8	14.3	14.8	14.2	15.7	11.6	9.4	12.9	12.9	10.3	11.4	10.0	12.0
12	10.2	10.4	9.6	7.1	8.2	8.1	9.3	9.3	9.3	8.7	6.4	3.8	5.8	7.8	7.9	9.0	10.0	8.2	8.9	8.0	11.2	12.4	9.9	9.4	8.7
13	8.5	7.7	5.8	7.4	7.5	8.1	8.8	7.5	6.3	7.1	6.3	5.9	7.8	8.6	9.4	9.5	9.1	8.0	8.4	8.7	9.6	8.1	8.8	12.8	8.2
14	10.5	6.9	4.9	4.6	4.5	6.4	7.5	6.7	4.6	5.1	6.0	7.3	6.9	7.1	7.1	6.8	7.0	7.2	9.2	9.6	6.9	7.0	5.8	7.0	6.8
15	4.5	4.6	5.3	7.8	5.7	8.0	8.6	5.3	2.9	2.1	2.5	4.3	6.5	6.8	5.9	6.8	5.4	5.8	8.1	10.2	10.2	10.5	7.8	6.5	6.3
16	6.3	6.0	7.1	7.9	8.7	9.5	8.1	6.2	6.0	7.8	9.2	10.1	9.9	9.5	10.3	11.3	10.1	9.0	6.9	5.2	8.9	9.1	9.2	8.3	8.3
17	7.7	6.9	7.3	6.4	6.0	7.0	7.9	5.6	5.6	7.0	9.3	9.4	10.8	11.6	12.0	10.8	12.2	11.1	10.6	10.7	9.9	9.1	8.3	9.6	8.9
18	10.4	7.2	7.7	9.3	4.4	5.5	5.4	7.4	12.5	15.5	17.1	17.3	18.1	19.8	19.8	20.1	18.2	14.8	15.2	15.0	18.0	17.2	12.0	8.5	13.2
19	10.2	9.5	7.6	7.3	9.5	7.4	4.5	3.8	3.7	4.6	6.3	7.3	7.2	8.8	9.7	10.3	6.9	9.7	7.5	6.5	7.1	9.1	9.3	7.5	7.5
20	5.4	6.7	6.3	7.1	7.0	6.9	8.8	8.1	7.3	7.5	8.3	9.9	12.7	15.0	15.6	14.9	13.5	12.4	9.1	10.2	10.7	7.1	6.5	5.6	9.3
21	5.8	8.3	9.2	8.8	7.6	9.3	11.1	10.5	13.0	14.3	13.2	14.2	16.9	16.0	11.0	8.1	6.5	7.4	5.5	5.7	7.7	6.9	7.0	6.0	9.6
22	7.8	11.5	12.3	12.5	11.8	10.8	9.5	14.7	13.6	12.4	10.7	10.1	8.6	9.2	7.0	6.4	4.2	4.7	6.4	6.2	5.8	5.4	4.7	4.5	8.8
23	3.0	4.3	5.7	6.2	5.6	6.1	7.8	7.3	6.5	5.3	3.8	2.6	2.8	3.0	2.1	1.1	0.9	3.2	5.8	7.8	9.8	8.0	7.2	8.0	5.2
24	6.6	5.6	6.3	6.9	7.7	5.6	3.0	2.9	2.3	1.3	3.3	4.7	5.5	4.9	4.7	5.4	5.3	4.4	3.0	5.2	5.3	5.9	5.5	7.8	5.0
25	7.5	7.5	7.0	5.7	6.0	4.2	5.3	3.8	3.4	6.4	9.7	9.5	10.3	10.4	10.5	11.0	11.6	11.4	10.3	10.8	10.8	9.4	9.8	10.4	8.4
26	11.3	10.3	7.7	8.8	9.8	9.3	8.9	8.8	8.9	10.1	8.4	7.9	9.1	9.4	9.6	9.4	10.2	8.9	8.3	12.1	11.8	10.7	9.7	7.3	9.4
27	7.9	8.9	9.3	8.8	9.8	12.2	9.6	7.6	6.5	6.7	6.8	6.1	6.6	8.3	9.4	9.7	9.3	7.2	6.6	7.5	6.4	6.2	7.7	10.9	8.2
28	10.7	9.3	8.8	8.2	6.3	6.2	6.5	4.9	2.3	2.6	5.0	5.9	4.7	5.2	5.4	5.8	5.2	4.7	6.1	8.3	7.2	6.4	8.4	8.4	6.3
29	9.4	8.0	7.9	7.3	10.0	9.8	10.0	8.9	6.6	7.1	7.4	6.1	6.5	6.8	5.5	6.7	7.7	6.9	10.3	11.2	10.6	11.4	8.7	8.6	8.3
30	2.3	1.9	3.9	10.7	8.4	8.7	4.3	5.7	5.0	4.6	3.6	4.6	3.9	3.9	3.3	3.4	2.0	0.5	6.0	7.5	6.0	5.6	3.8	7.4	4.9
31	7.0	4.6	4.8	8.0	6.1	6.3	4.3	4.0	5.9	6.9	7.9	8.3	8.6	8.4	8.7	9.7	9.5	7.9	9.1	10.3	10.3	7.5	8.3	8.2	7.5
AVG	8.1	7.9	8.0	8.1	8.1	8.2	8.0	7.5	7.4	8.0	8.3	8.6	8.9	9.3	9.1	9.2	8.9	8.0	7.9	8.4	8.7	8.6	8.2	8.3	8.3



March 2012

Wind Rose Ch 1, 7

SITE 0001

NMSU ASC at Clovis

Site Information:

Project: wind monitoring

Location: clovis nm

Elevation: 1365 m

Anemometer on channel 1:

wind speed 1 50m, m/

Height: 50 m

Serial #: 51179

Vane on channel 7:

#200P Wind Vane

Height: 50 m


Serial #:

Outer Numbers are Average TIs for speeds greater than 4.5 m/s

Inner Circle = 0%

Outer Circle = 20%

 Percent of Total Wind Energy

 Percent of Total Time

Site Information:

Project: wind monitoring
Location: clovis nm
Elevation: 1365 m

Sensor on channel 3:

wind speed 3 40m m/s
Height: 40m
Serial #: 51187

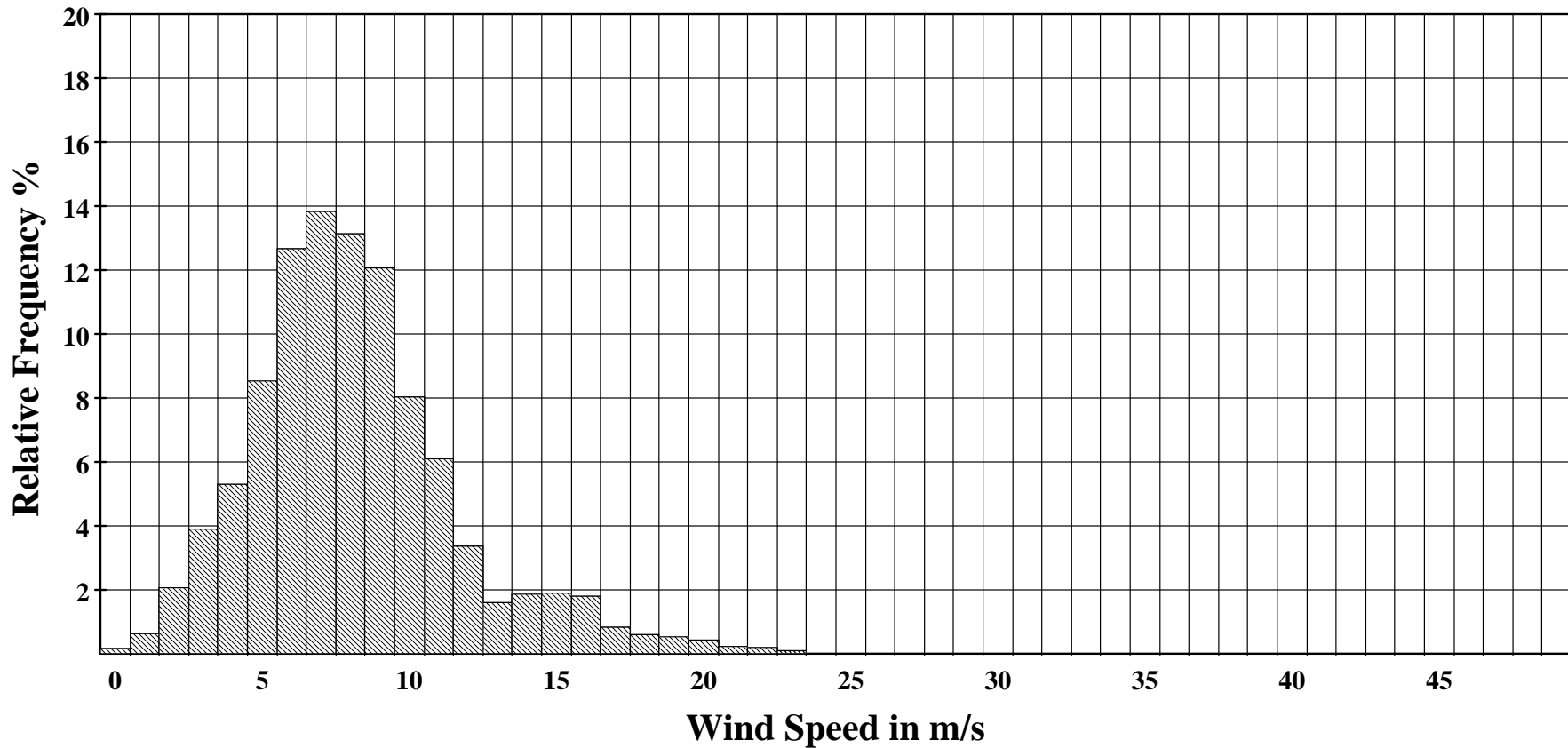
March 2012

Frequency Distribution Ch 3

SITE 0001

NMSU ASC at Clovis

Frequency Distribution



Site Information:

Project: wind monitoring
Location: clovis nm
Elevation: 1365 m

Sensor on channel 3:

wind speed 3 40m m/s
Height: 40m
Serial #: 51187

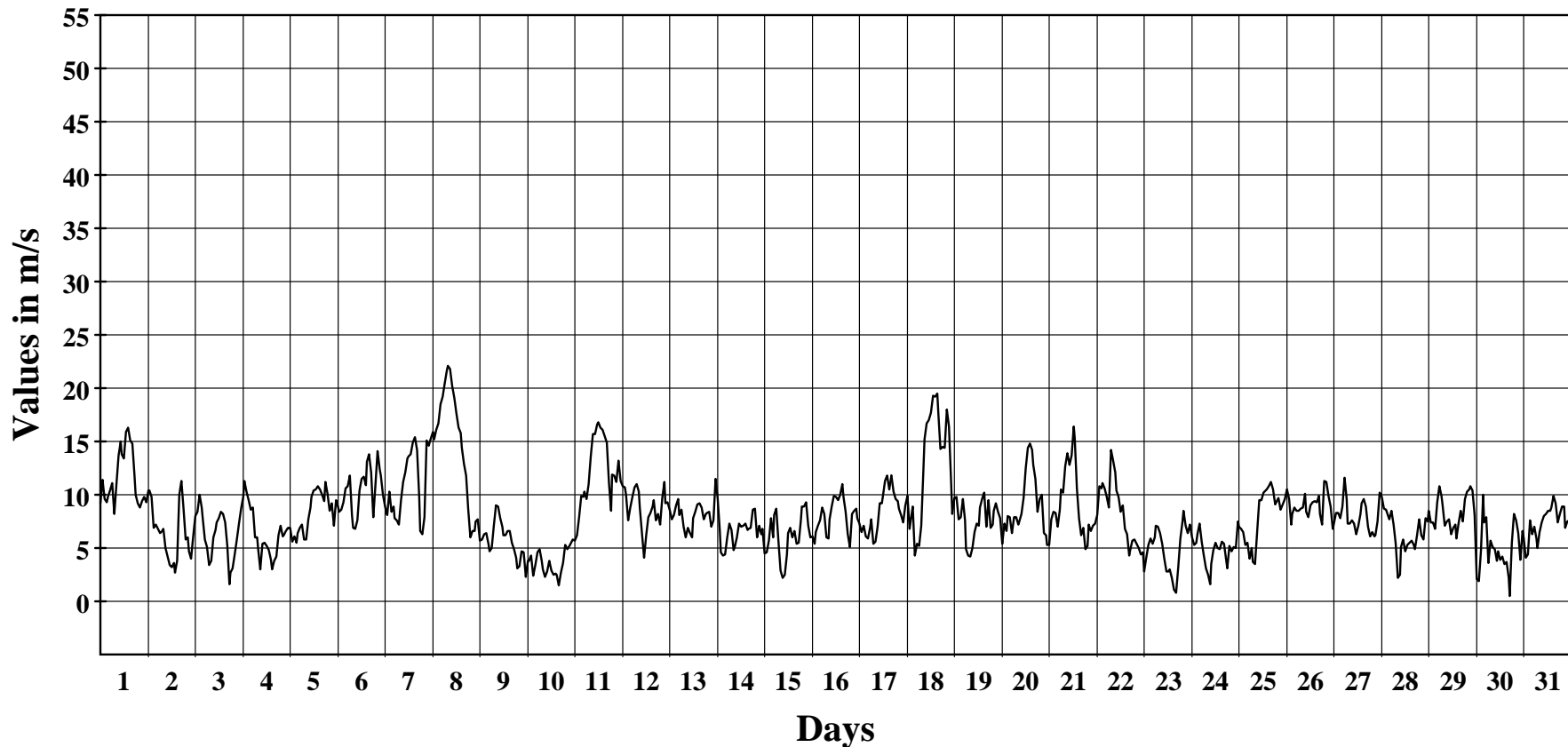
March 2012

Hourly Averages Graph Ch 3

SITE 0001

NMSU ASC at Clovis

Average Hourly Values



Average Value: 8.1

Site Information:

Project: wind monitoring

Location: clovis nm

Elevation: 1365 m

Sensor on channel 3:

wind speed 3 40m m/s

Height: 40m Units: m/s

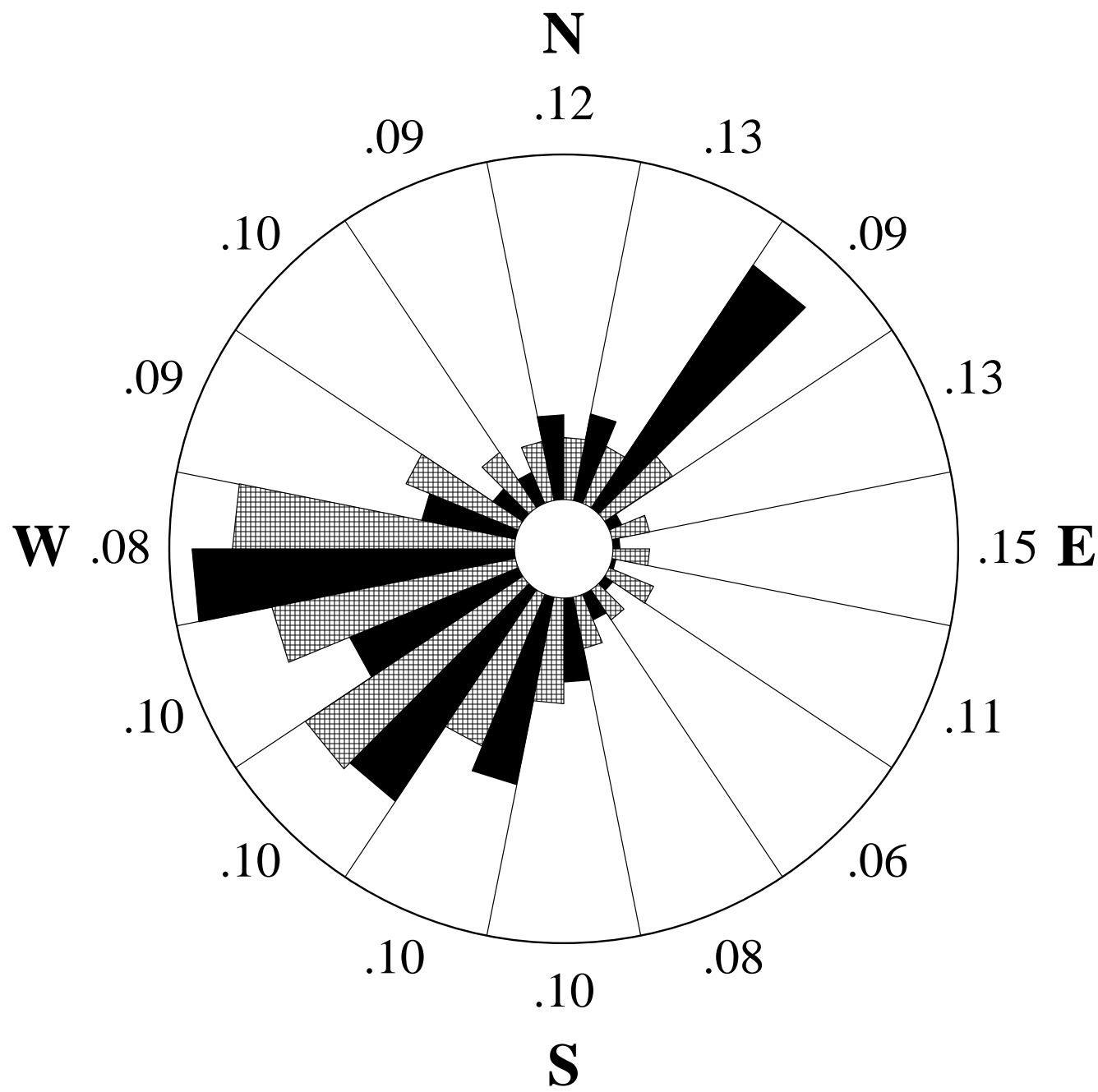
Serial #: 51187

March 2012**Hourly Averages Table Ch 3**

SITE 0001

NMSU ASC at Clovis

Day	Hour																							AVG	
	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22		23
1	9.2	11.4	9.6	9.3	9.8	10.4	11.1	8.2	11.0	13.7	15.0	13.8	13.4	15.9	16.3	15.1	14.8	11.8	10.0	9.2	8.8	9.4	9.8	9.3	11.5
2	10.4	10.4	9.8	6.9	7.2	6.8	6.4	6.6	6.8	5.0	4.2	3.4	3.3	3.6	2.7	3.8	10.0	11.3	8.7	5.8	6.0	4.7	4.0	6.1	6.4
3	8.0	8.4	10.0	8.8	7.8	5.8	5.1	3.4	3.8	6.0	6.7	7.4	7.8	8.4	8.2	7.4	5.2	1.6	2.7	3.1	4.4	5.8	7.3	8.7	6.3
4	9.8	11.3	10.3	9.5	8.6	8.8	6.0	6.0	4.9	3.0	5.4	5.5	5.2	4.8	3.9	3.0	3.8	4.2	6.3	7.1	6.1	6.2	6.6	6.9	6.4
5	6.9	5.6	6.1	5.5	6.4	6.9	7.2	5.8	5.8	7.7	8.8	9.8	10.4	10.5	10.8	10.5	10.0	9.4	11.2	10.1	8.5	9.2	7.1	9.5	8.3
6	8.8	8.4	8.6	9.3	10.6	10.8	11.8	8.1	6.9	6.8	7.6	10.4	11.5	11.7	10.9	13.1	13.8	12.1	7.9	10.9	14.1	12.4	11.8	10.0	10.3
7	8.9	8.1	10.3	8.4	8.9	7.8	7.6	7.3	9.5	11.2	12.1	13.4	13.6	13.8	14.9	15.4	14.3	9.8	6.6	6.3	7.9	15.1	14.6	15.3	10.9
8	15.9	15.2	16.1	16.7	18.5	19.2	20.5	21.7	22.1	21.8	20.2	19.1	17.6	16.3	15.8	14.4	12.9	11.8	8.6	6.0	6.6	6.6	7.5	7.7	15.0
9	5.7	5.8	6.3	6.4	5.4	4.7	5.0	7.1	9.0	8.9	7.8	7.0	6.2	6.2	6.6	6.6	5.5	4.9	4.1	3.1	3.3	4.7	4.6	2.3	5.7
10	3.8	3.8	4.3	2.4	3.4	4.6	4.9	3.8	3.0	2.3	2.8	3.8	2.9	2.5	2.6	2.5	1.5	2.7	3.6	5.3	4.9	5.3	5.4	5.8	3.7
11	5.7	6.2	7.9	9.9	9.8	10.3	9.6	11.0	13.6	15.7	15.7	16.6	16.8	16.3	16.1	15.5	14.9	11.1	8.5	11.9	11.8	11.3	13.2	11.3	12.1
12	10.8	10.7	10.0	7.6	8.8	9.8	10.7	11.0	10.3	8.8	6.4	4.1	6.2	7.9	8.3	8.9	9.5	7.6	8.2	7.2	9.7	11.2	9.2	9.3	8.8
13	8.6	7.7	8.1	9.0	9.6	8.1	8.6	7.0	6.0	6.9	6.4	6.0	7.8	8.4	9.1	9.2	8.8	7.7	8.2	8.3	8.4	7.0	7.6	11.5	8.1
14	9.6	6.6	4.6	4.3	4.4	6.0	7.3	6.7	4.8	5.1	6.0	7.3	7.0	7.1	7.3	6.7	6.8	6.9	8.6	8.7	6.0	7.1	6.3	6.8	6.6
15	4.5	4.6	5.7	7.8	6.0	8.1	8.7	5.7	2.9	2.2	2.5	4.4	6.4	6.9	6.0	6.6	5.4	5.5	7.6	8.9	8.9	9.3	7.1	6.0	6.2
16	6.1	5.4	6.5	7.1	7.6	8.8	8.2	6.0	5.9	7.7	8.9	9.9	9.8	9.5	10.0	11.0	9.8	8.4	6.3	5.1	8.2	8.5	8.7	7.8	8.0
17	7.3	6.5	7.1	6.1	5.9	6.9	7.7	5.4	5.6	7.0	9.2	9.2	10.6	11.3	11.8	10.5	11.8	10.3	9.6	9.4	8.7	8.1	7.4	9.0	8.4
18	9.9	6.8	7.5	8.9	4.3	5.4	5.2	7.1	12.3	15.3	16.7	17.0	17.7	19.3	19.2	19.5	17.7	14.3	14.5	14.4	18.0	16.4	11.2	8.2	12.8
19	9.7	9.8	7.7	7.9	9.6	7.6	4.9	4.3	4.3	5.0	6.5	7.3	7.1	8.8	9.6	10.2	7.0	9.5	6.9	7.2	8.5	9.2	8.4	7.8	7.7
20	5.4	7.3	6.6	8.0	7.9	6.4	7.9	7.9	7.2	7.5	8.2	9.7	12.5	14.4	14.8	14.2	12.8	11.5	8.4	9.6	10.0	6.4	6.2	5.3	9.0
21	5.3	7.7	8.4	8.3	7.0	8.6	10.5	10.3	12.7	13.9	12.8	13.7	16.4	15.3	10.6	7.8	6.2	6.9	4.9	5.2	7.2	6.6	7.1	7.3	9.2
22	8.1	10.8	10.6	11.1	10.6	9.8	8.8	14.2	13.2	12.1	10.4	9.8	8.4	9.0	6.8	6.3	4.3	4.8	5.7	5.8	5.4	5.0	4.4	4.6	8.3
23	2.8	4.1	5.3	5.9	5.4	6.0	7.1	7.0	6.4	5.4	4.0	2.8	2.8	3.0	2.2	1.1	0.8	3.2	5.9	7.5	8.5	7.1	6.4	7.2	4.9
24	6.0	5.3	5.5	6.3	7.3	5.6	4.3	3.1	2.5	1.6	3.5	4.8	5.5	5.0	4.9	5.6	5.4	4.6	3.1	5.2	4.7	5.1	5.0	7.5	4.9
25	7.0	6.8	6.5	5.3	5.5	4.0	5.0	3.7	3.5	6.5	9.5	9.5	10.2	10.3	10.5	10.8	11.2	10.5	9.1	9.5	9.7	8.6	9.1	9.6	8.0
26	10.5	9.6	7.2	8.2	8.8	8.5	8.5	8.7	8.8	10.1	8.4	7.9	9.0	9.3	9.4	9.3	9.9	8.2	7.2	11.3	11.2	9.9	8.9	6.8	9.0
27	7.3	8.3	8.3	7.8	8.9	11.6	9.6	7.3	7.3	7.6	7.3	6.3	7.1	8.2	9.2	9.6	8.9	7.0	6.1	6.5	6.1	6.2	7.5	10.2	7.9
28	9.8	8.7	8.6	8.0	7.7	8.5	7.2	5.4	2.2	2.5	5.1	5.8	4.7	5.3	5.5	5.7	5.3	4.9	6.2	7.7	6.3	5.8	7.8	7.5	6.3
29	8.5	7.4	7.4	6.8	9.3	10.8	9.9	9.0	7.1	7.5	7.7	6.3	6.9	7.2	5.9	7.3	8.5	7.5	9.6	10.3	10.5	10.8	10.4	8.1	8.4
30	2.1	1.9	4.8	10.0	7.4	7.9	3.6	5.7	5.1	4.9	3.8	4.7	3.9	4.2	3.5	3.7	2.2	0.5	5.5	8.2	7.6	6.4	3.9	6.6	4.9
31	6.0	4.1	4.4	7.6	6.3	7.0	5.9	5.0	6.5	7.4	8.0	8.2	8.5	8.5	8.8	9.9	9.2	7.4	8.2	8.9	8.9	6.9	7.5	7.6	7.4
AVG	7.7	7.6	7.7	7.9	7.9	8.1	7.9	7.4	7.4	8.0	8.3	8.6	8.9	9.3	9.1	9.1	8.6	7.7	7.4	7.9	8.2	8.1	7.8	8.0	8.1



March 2012

Wind Rose Ch 3, 8

SITE 0001

NMSU ASC at Clovis

Site Information:

Project: wind monitoring

Location: clovis nm

Elevation: 1365 m

Anemometer on channel 3:

wind speed 3 40m m/s

Height: 40m

Serial #: 51187

Vane on channel 8:

#200P Wind Vane

Height: 40 m

Serial #:

Outer Numbers are Average TIs for speeds greater than 4.5 m/s

Inner Circle = 0%

Outer Circle = 20%

■ Percent of Total Wind Energy

▨ Percent of Total Time

Site Information:

Project: wind monitoring
Location: clovis nm
Elevation: 1365 m

Sensor on channel 4:

windspeed 4 30m, m/s
Height: 30 m
Serial #: 51180

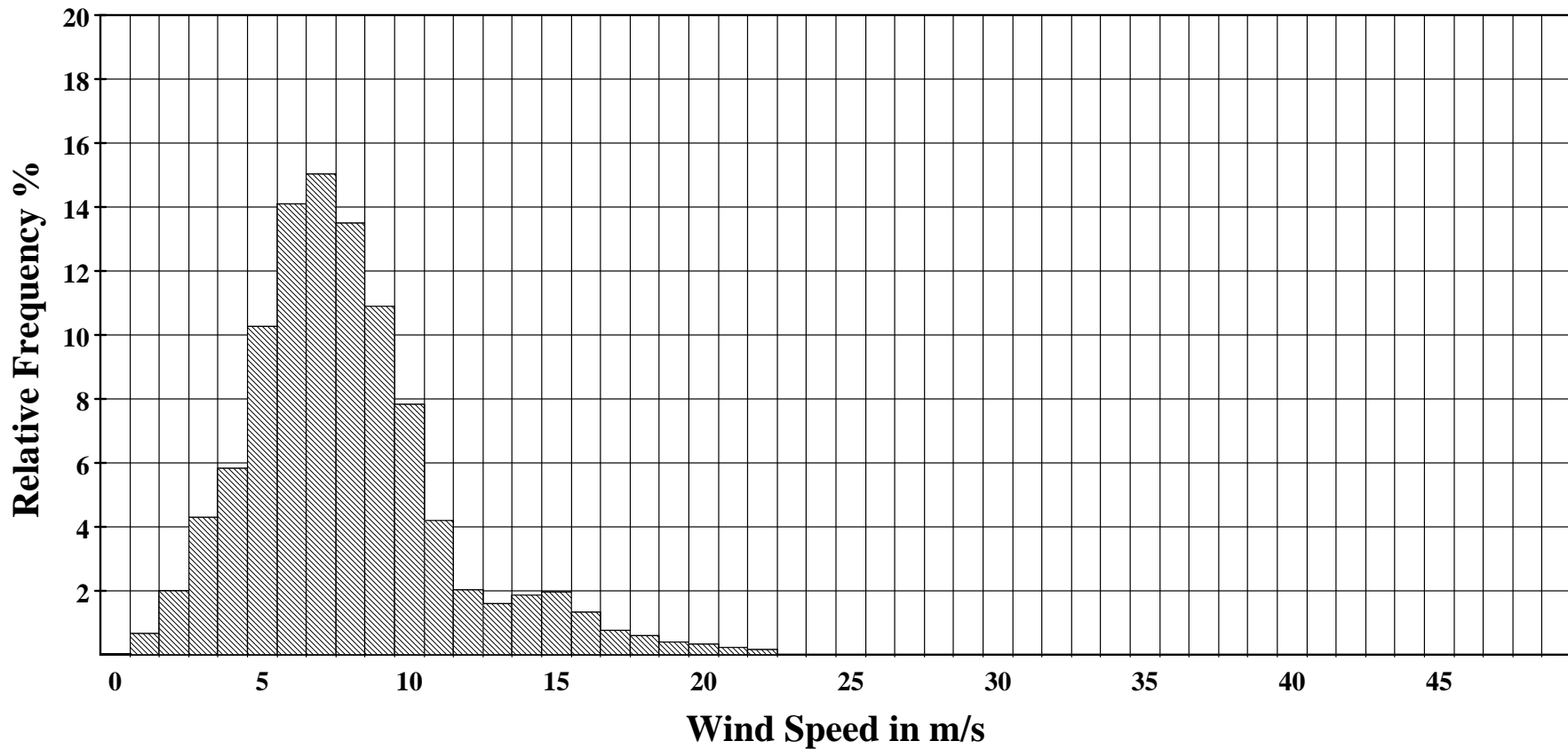
March 2012

Frequency Distribution Ch 4

SITE 0001

NMSU ASC at Clovis

Frequency Distribution



Site Information:

Project: wind monitoring
Location: clovis nm
Elevation: 1365 m

Sensor on channel 4:

windspeed 4 30m, m/s
Height: 30 m
Serial #: 51180

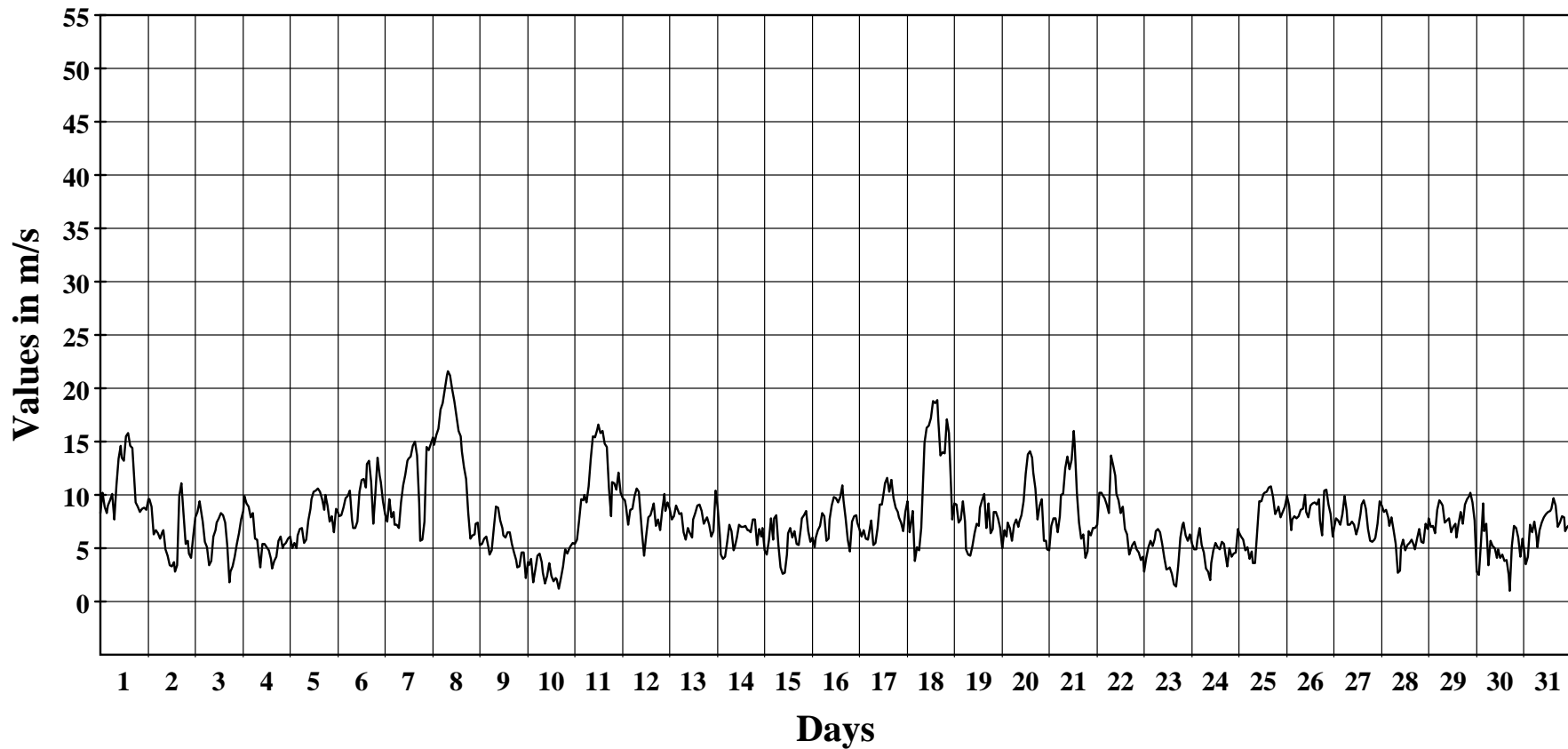
March 2012

Hourly Averages Graph Ch 4

SITE 0001

NMSU ASC at Clovis

Average Hourly Values



Average Value: 7.8

Site Information:

Project: wind monitoring

Location: clovis nm

Elevation: 1365 m

Sensor on channel 4:

windspeed 4 30m, m/s

Height: 30 m Units: m/s

Serial #: 51180

March 2012**Hourly Averages Table Ch 4**

SITE 0001

NMSU ASC at Clovis

Day	Hour																							AVG	
	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22		23
1	8.3	10.3	8.9	8.3	9.0	9.5	10.1	7.7	10.9	13.4	14.6	13.5	13.2	15.5	15.8	14.6	14.4	11.1	9.3	8.9	8.4	8.7	8.8	8.6	10.9
2	9.6	9.6	8.9	6.3	6.7	6.4	5.9	6.5	6.7	4.9	4.3	3.4	3.3	3.7	2.8	3.4	9.9	11.1	8.2	5.4	5.7	4.5	4.1	6.1	6.1
3	7.9	8.4	9.4	8.1	7.5	5.6	5.1	3.4	3.8	6.1	6.7	7.4	7.8	8.3	8.1	7.4	5.2	1.8	2.8	3.3	4.2	5.4	6.4	7.7	6.2
4	8.5	9.9	9.2	8.9	7.9	8.3	5.9	5.8	4.9	3.2	5.4	5.4	5.1	4.8	4.0	3.1	3.8	4.2	5.7	6.1	5.0	5.3	5.5	5.9	5.9
5	6.1	5.0	5.5	5.0	6.2	6.8	6.9	5.5	5.8	7.6	8.7	9.6	10.3	10.4	10.6	10.3	9.6	8.6	10.0	9.0	7.5	8.0	6.5	8.7	7.8
6	8.3	8.0	8.1	8.8	9.7	9.9	10.4	7.7	6.9	6.9	7.5	10.3	11.4	11.5	10.7	12.9	13.3	11.3	7.3	10.2	13.5	11.8	11.2	9.4	9.9
7	8.2	7.5	9.6	7.9	8.4	7.2	7.2	6.9	9.3	10.9	11.9	13.2	13.4	13.6	14.6	15.0	13.7	9.2	5.7	5.8	7.5	14.5	14.2	14.8	10.4
8	15.4	14.7	15.6	16.2	18.0	18.6	19.9	21.2	21.6	21.3	19.9	18.8	17.4	16.0	15.5	14.1	12.6	11.5	8.3	5.9	6.2	6.3	7.3	7.4	14.6
9	5.3	5.4	5.9	6.1	5.1	4.4	4.8	6.9	8.9	8.8	7.6	6.9	6.2	6.0	6.5	6.5	5.4	4.6	3.9	3.2	3.3	4.6	4.6	2.2	5.5
10	3.7	3.4	4.0	1.8	3.0	4.3	4.5	3.7	2.7	1.7	2.4	3.6	2.4	1.9	2.2	2.1	1.2	2.2	3.3	4.9	4.5	5.0	5.2	5.5	3.3
11	5.4	5.8	7.6	9.6	9.5	10.0	9.3	10.8	13.4	15.5	15.4	16.1	16.6	15.8	16.0	14.8	14.5	10.6	8.0	11.2	11.1	10.5	12.1	10.2	11.6
12	9.7	9.5	8.9	7.2	8.6	8.7	9.9	10.6	10.3	9.1	6.5	4.3	6.2	7.9	8.1	8.8	9.2	7.1	7.7	6.7	8.6	10.1	8.5	9.3	8.4
13	8.7	7.7	8.0	9.0	8.5	8.2	8.3	6.5	5.8	6.9	6.4	6.0	7.7	8.3	9.0	9.1	8.5	7.3	7.7	7.9	7.2	6.1	6.6	10.4	7.7
14	8.8	6.2	4.4	4.0	4.2	5.6	7.2	6.6	4.8	5.1	6.0	7.2	7.0	7.0	7.1	6.7	6.7	6.5	7.7	7.7	5.3	6.8	6.1	6.9	6.3
15	4.8	4.4	5.7	7.8	5.8	7.8	8.1	5.3	3.2	2.6	2.7	4.4	6.4	6.9	6.0	6.6	5.4	5.3	6.9	7.8	8.1	8.5	6.6	5.6	5.9
16	6.0	5.1	6.0	6.7	7.1	8.3	8.0	5.7	5.9	7.7	9.0	9.8	9.7	9.3	9.8	10.9	9.5	7.8	5.8	4.7	7.5	8.0	8.1	7.4	7.6
17	6.8	6.1	6.7	5.9	5.8	7.0	7.6	5.3	5.5	6.9	9.1	9.1	10.4	11.1	11.6	10.3	11.4	9.7	8.8	8.4	7.9	7.4	6.6	8.4	8.1
18	9.4	6.5	7.1	8.5	3.8	5.1	4.8	6.9	12.1	14.9	16.3	16.5	17.2	18.8	18.6	18.9	17.0	13.7	14.0	13.9	17.1	15.8	10.6	7.7	12.3
19	9.2	9.1	7.4	7.7	9.4	7.5	4.9	4.4	4.3	5.2	6.4	7.3	7.1	8.8	9.5	10.1	6.9	9.2	6.4	6.8	8.4	8.4	7.8	6.9	7.5
20	5.0	6.7	6.1	7.4	6.9	5.7	7.3	7.7	7.0	7.5	8.1	9.4	12.0	13.8	14.1	13.5	12.1	10.6	7.7	9.0	9.6	5.7	5.7	4.9	8.5
21	4.8	7.1	7.8	7.8	6.5	8.0	10.0	10.1	12.5	13.6	12.4	13.3	16.0	14.6	10.2	7.4	5.9	6.3	4.1	4.7	6.6	6.2	6.9	6.9	8.7
22	7.2	10.2	10.2	10.0	9.7	9.1	8.3	13.7	12.8	11.8	10.1	9.5	8.3	8.9	6.8	6.3	4.4	4.7	5.3	5.6	4.9	4.6	3.9	4.2	7.9
23	2.8	4.1	5.1	5.7	5.2	5.9	6.6	6.8	6.5	5.4	4.1	3.0	3.1	3.2	2.6	1.6	1.4	3.4	6.0	7.2	7.4	6.2	5.7	6.3	4.8
24	5.4	4.9	4.9	5.8	6.9	5.3	4.6	3.1	2.8	2.0	3.6	4.8	5.5	5.1	4.9	5.6	5.4	4.6	3.3	5.0	4.2	4.5	4.6	6.8	4.7
25	6.5	6.1	5.8	4.8	5.1	4.0	4.7	3.6	3.6	6.5	9.4	9.4	10.1	10.3	10.3	10.7	10.8	9.8	8.2	8.6	8.9	7.9	8.4	8.9	7.6
26	9.9	9.0	6.7	7.7	8.0	7.8	8.0	8.6	8.7	10.0	8.4	7.9	9.0	9.2	9.3	9.1	9.6	7.6	6.3	10.4	10.5	9.1	8.2	6.1	8.5
27	6.8	7.8	7.6	7.2	8.2	9.9	8.5	7.2	7.2	7.5	7.3	6.3	7.0	8.2	9.1	9.5	8.7	6.8	5.7	5.6	5.8	6.0	7.3	9.4	7.5
28	9.0	8.4	8.6	7.9	7.1	7.9	6.7	5.4	2.7	2.9	5.1	5.8	4.8	5.3	5.5	5.8	5.3	4.9	5.9	6.8	5.6	5.5	7.3	6.8	6.1
29	7.8	7.0	7.1	6.4	8.6	9.5	9.2	9.0	7.4	7.6	7.8	6.5	7.0	7.3	6.0	7.3	8.4	7.3	9.1	9.6	9.9	10.2	9.3	7.6	8.0
30	2.8	2.5	5.6	9.2	6.6	7.3	3.4	5.7	5.2	5.0	4.1	4.9	4.1	4.4	3.8	3.9	2.5	1.0	5.2	7.1	6.9	6.0	4.2	5.9	4.9
31	5.3	3.5	4.2	7.2	6.5	7.5	6.2	5.1	6.7	7.4	7.9	8.2	8.4	8.5	8.7	9.7	9.0	7.0	7.4	8.0	7.9	6.6	7.0	7.2	7.1
AVG	7.2	7.1	7.3	7.4	7.4	7.6	7.5	7.2	7.4	7.9	8.2	8.5	8.8	9.2	9.0	8.9	8.4	7.3	6.8	7.3	7.6	7.5	7.3	7.4	7.8

Site Information:

Project: wind monitoring
Location: clovis nm
Elevation: 1365 m

Sensor on channel 9:

NRG 110S Temp, C
Height: 3 m
Serial #:

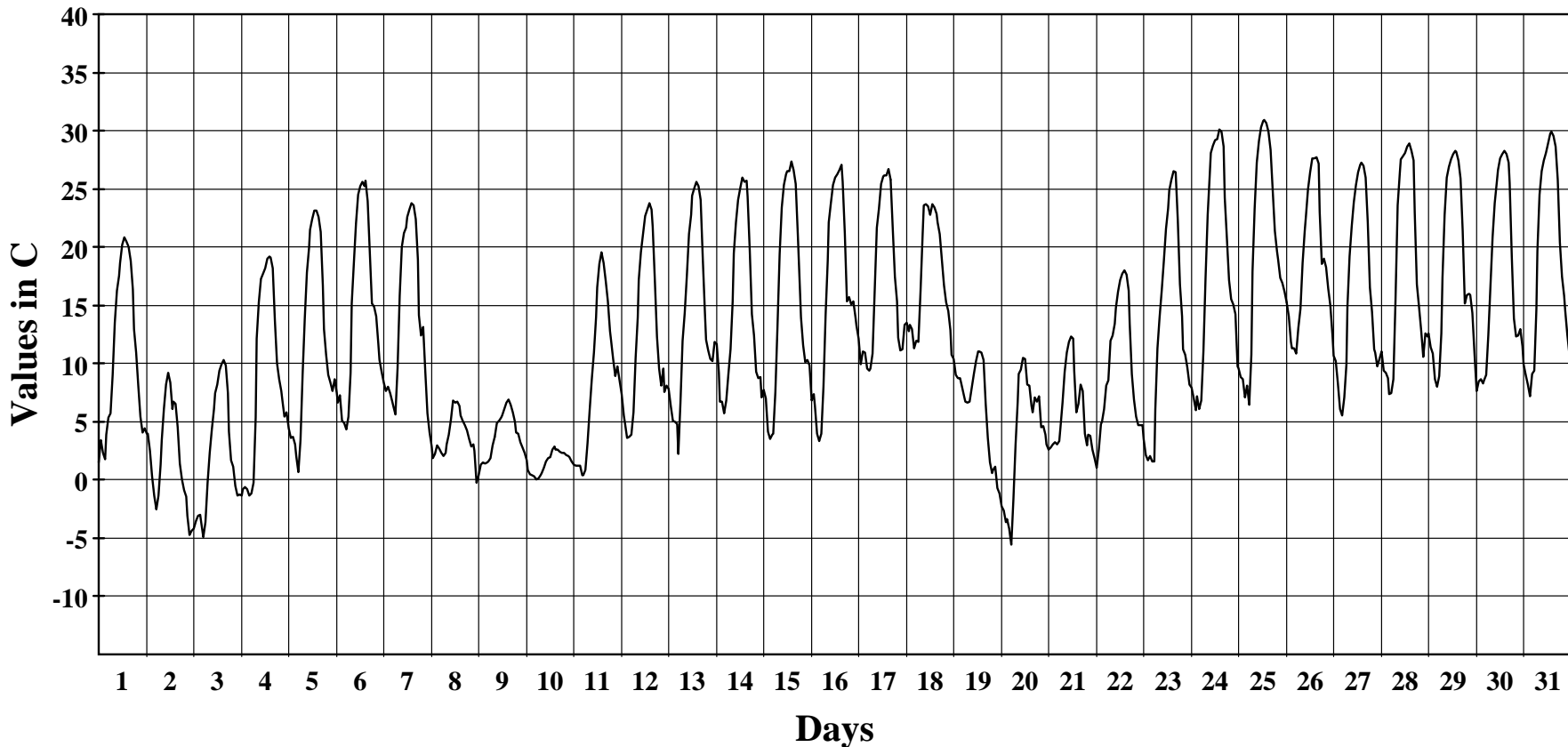
March 2012

Hourly Averages Graph Ch 9

SITE 0001

NMSU ASC at Clovis

Average Hourly Values



Average Value: 12.1

Site Information:

Project: wind monitoring

Location: clovis nm

Elevation: 1365 m

Sensor on channel 9:

NRG 110S Temp, C

Height: 3 m Units: C

Serial #:

March 2012**Hourly Averages Table Ch 9**

SITE 0001

NMSU ASC at Clovis

Day	Hour																							AVG	
	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22		23
1	1.5	3.4	2.3	1.8	3.9	5.3	5.7	9.0	13.5	16.3	17.5	18.7	20.2	20.9	20.5	20.0	18.9	16.4	13.0	11.0	8.1	5.4	4.1	4.5	10.9
2	3.9	4.0	2.5	0.3	-1.4	-2.5	-1.4	1.3	3.5	6.1	8.2	9.2	8.4	6.0	6.7	6.5	4.5	1.5	0.1	-0.9	-1.4	-3.0	-4.7	-4.4	2.2
3	-4.2	-3.5	-3.1	-3.0	-3.6	-4.9	-3.6	-0.2	2.4	4.4	6.1	7.5	8.2	9.4	9.9	10.3	9.8	7.4	4.1	1.7	1.2	-0.5	-1.3	-1.2	2.2
4	-1.4	-0.8	-0.7	-0.8	-1.3	-1.2	-0.2	5.3	12.1	15.2	17.3	17.8	18.2	19.0	19.2	19.1	18.2	13.7	10.1	8.7	7.6	7.0	5.5	5.8	8.9
5	4.4	3.6	3.7	3.0	2.0	0.7	3.4	9.1	13.8	17.9	19.9	21.5	22.4	23.2	23.2	22.6	21.3	16.7	13.0	10.7	9.1	8.4	7.6	8.6	12.1
6	7.5	6.6	7.2	5.0	4.8	4.4	5.4	9.2	15.1	18.7	22.0	24.5	25.2	25.6	25.2	25.7	24.0	19.6	15.1	14.9	14.0	11.7	10.3	9.3	14.6
7	8.4	7.7	8.1	7.5	6.7	6.4	5.6	9.6	15.8	20.0	21.3	21.7	22.6	23.2	23.8	23.6	22.4	18.9	14.1	12.4	13.1	9.3	5.8	4.0	13.8
8	2.8	1.9	2.2	3.0	2.7	2.3	2.0	2.3	3.0	3.9	5.2	6.8	6.6	6.8	6.3	5.5	5.0	4.7	4.3	3.6	2.9	3.1	2.5	-0.2	3.7
9	0.4	1.3	1.5	1.4	1.5	1.6	1.9	3.0	3.7	4.9	5.1	5.4	5.6	6.1	6.6	6.9	6.4	5.8	4.9	4.1	4.0	3.2	2.8	2.3	3.8
10	1.7	0.9	0.5	0.4	0.3	0.0	0.2	0.4	0.6	1.0	1.6	1.9	1.9	2.6	2.9	2.6	2.6	2.4	2.3	2.3	2.1	2.1	1.9	1.6	1.5
11	1.3	1.2	1.2	1.2	0.4	0.4	0.9	3.1	6.0	8.7	10.9	14.0	16.6	18.5	19.6	18.6	17.1	15.3	12.8	12.1	10.4	8.9	9.8	8.5	9.1
12	7.3	5.5	4.9	3.7	3.7	3.9	5.8	10.4	13.9	17.2	19.6	21.1	22.6	23.3	23.8	23.2	21.8	17.1	12.3	9.5	8.1	9.6	7.6	8.1	12.7
13	7.8	6.4	5.1	5.0	4.8	2.3	6.7	11.9	14.3	17.6	21.1	22.8	24.4	25.1	25.6	25.3	24.1	19.0	14.4	12.1	11.1	10.4	10.2	11.8	14.1
14	11.7	9.2	6.8	6.8	5.8	6.8	9.1	11.2	15.4	19.5	22.1	24.1	25.1	25.9	25.6	25.7	24.4	19.7	14.3	12.4	9.3	8.7	8.9	7.1	14.8
15	7.8	7.0	4.1	3.5	3.9	4.0	7.5	13.2	19.4	23.4	25.3	26.3	26.5	26.5	27.3	26.6	25.4	21.1	16.3	14.0	11.6	10.2	10.3	9.9	15.5
16	6.8	7.3	6.4	4.0	3.4	4.0	8.0	14.1	18.8	22.1	23.7	25.4	26.0	26.3	26.6	27.1	25.6	21.2	15.3	15.7	15.1	15.3	14.0	13.3	16.1
17	12.1	9.9	11.1	11.0	9.5	9.4	9.6	10.9	16.3	21.6	23.3	25.4	26.1	26.1	26.2	26.7	25.8	21.6	17.4	15.4	12.3	11.2	11.2	13.3	16.8
18	13.5	12.8	13.3	13.0	11.3	11.9	11.9	16.2	21.1	23.6	23.7	23.5	22.7	23.7	23.4	22.8	22.1	21.1	19.0	16.7	15.3	14.5	12.9	10.7	17.5
19	10.4	9.0	8.7	8.7	8.0	7.1	6.7	6.6	6.7	8.0	9.1	10.2	11.1	11.0	11.0	10.3	6.6	3.6	1.5	0.6	0.9	1.1	-0.7	-1.1	6.5
20	-2.3	-2.7	-3.7	-3.4	-4.2	-5.6	-1.6	3.0	6.8	9.1	9.5	10.5	10.4	8.2	8.1	6.3	5.8	7.1	6.7	7.2	4.5	4.6	3.9	3.1	3.8
21	2.6	2.8	3.1	3.3	3.1	3.3	4.4	6.6	9.3	11.0	11.9	12.4	12.1	9.4	5.8	6.5	8.2	7.7	4.0	3.0	3.9	3.8	2.6	1.8	5.9
22	1.0	2.6	4.8	5.0	6.1	8.1	8.5	11.9	12.4	13.4	14.8	16.2	17.2	17.7	18.0	17.6	16.3	13.4	9.1	6.9	5.4	4.7	4.7	4.7	10.0
23	3.5	2.2	1.7	2.0	1.5	1.6	6.1	11.3	14.0	16.3	18.9	21.6	23.4	24.8	25.8	26.5	26.4	22.3	16.8	14.1	11.2	10.8	9.7	8.2	13.4
24	7.9	7.0	6.0	7.2	6.1	6.8	11.0	17.3	22.8	26.4	28.1	28.7	29.2	29.3	30.1	29.9	28.6	24.2	20.7	17.2	15.6	15.1	14.3	9.8	18.3
25	9.6	8.8	8.7	7.1	8.1	6.5	10.7	17.9	23.3	27.2	29.1	30.3	30.8	30.9	30.6	30.0	28.4	24.8	21.4	19.7	19.0	17.4	16.9	16.1	19.7
26	15.2	14.1	11.8	11.3	11.3	10.8	13.0	14.7	18.7	21.4	22.6	25.0	26.4	27.6	27.7	27.7	27.2	23.1	18.6	19.0	18.3	16.5	15.0	12.4	18.7
27	10.7	10.2	8.3	6.1	5.5	7.1	9.9	14.9	19.2	21.8	23.9	25.4	26.4	27.1	27.3	27.0	26.0	22.1	16.5	14.5	11.2	10.9	9.8	10.4	16.3
28	11.0	9.4	9.2	8.8	7.3	7.4	8.7	15.5	23.6	26.3	27.5	27.9	28.1	28.6	28.9	28.3	27.5	22.9	16.8	14.8	12.9	10.6	12.6	12.3	17.8
29	12.6	11.4	10.8	8.6	8.0	8.9	12.6	17.4	22.8	26.0	26.9	27.6	28.0	28.3	28.2	27.4	25.9	21.4	15.1	15.8	16.0	15.9	14.3	10.8	18.4
30	7.7	8.4	8.6	8.3	8.6	9.0	12.4	16.6	20.9	23.7	25.6	26.6	27.7	28.0	28.3	28.0	27.2	25.5	19.2	13.9	12.3	12.4	12.9	11.5	17.6
31	9.9	9.0	8.2	7.2	9.1	9.4	14.7	19.6	24.5	26.6	27.4	28.1	28.9	29.7	29.9	29.6	28.6	25.8	20.4	17.4	15.8	14.7	12.5	10.8	19.1
AVG	6.2	5.7	5.3	4.7	4.4	4.4	6.3	10.1	14.0	16.7	18.4	19.6	20.3	20.6	20.7	20.5	19.4	16.4	12.6	11.0	9.7	8.8	8.0	7.2	12.1

**Energy production estimated for March 2012 at
the Agricultural Science Center at Clovis**

Wind Speed (m/s)	# of hours at given wind speed	Power Curve ¹ (kW)	Energy Production (kWh)
0	0	0	0
1	6	0	0
2	15	0	0
3	19	12	236
4	25	77	1,946
5	32	150	4,777
6	40	288	11,418
7	63	457	28,545
8	64	682	43,496
9	86	971	83,189
10	97	1,234	119,957
11	68	1,470	99,206
12	50	1,500	74,250
13	33	1,500	49,800
14	19	1,500	28,950
15	12	1,500	18,300
16	8	1,500	12,000
17	9	1,500	13,050
18	9	1,500	13,050
19	7	1,500	10,950
20	6	1,500	9,300
Total	672		622,420
		March 2012 Monthly Capacity Factor	
		61.70%	

These results are only estimates, therefore should not be considered as a feasibility analysis nor be intended as a wind farm development analysis.

¹ Power Curve approximated for a GE 1.5 MW Wind Turbine @ 65 m hub height.