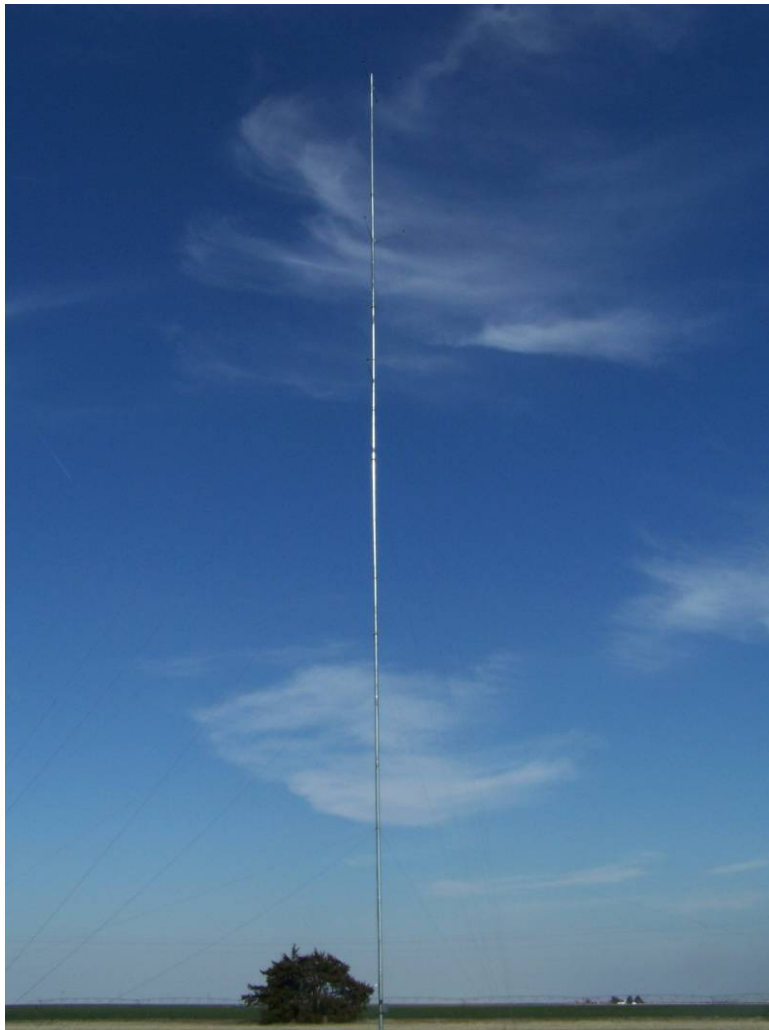


**New Mexico State University
Agricultural Science Center at Clovis
Wind Monitoring Project
Monthly Performance Report**

January 2009



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

**Wind Monitoring Project
Monthly Performance Report
January 2009**

Prepared for:

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February 2009

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50 Meter Tower

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Site Information:

Project: Wind Monitoring (50 m Tower)

Location: Clovis, New Mexico (NMSU)

Elevation: 50

Sensor Information:

1 Wind Speed 1 50m m/s

2 Wind Speed 2 50m m/s

3 Wind Speed 3 40m m/s

4 Wind Speed 4 30m m/s

5 No SCM Installed

6 No SCM Installed

7 Wind Direction 1

8 Wind Direction 2

9 amb temp C°

10 No SCM Installed

11 No SCM Installed

12 No SCM Installed

January 2009**Summary Report**

SITE 0001

Agricultural Science Center at Clovis

Channel	1	2	3	4			7	8	9			
Height	50 m	50 m	40 m	30 m	-----	-----	50 m	40 m	m	-----	-----	-----
Units	m/s	m/s	m/s	m/s	-----	-----	deg	deg	C°	-----	-----	-----
Intervals with Valid Data	1865	1900	1912	1873			1978	1978	1978			
Average Filtered Data	8.38	8.16	7.8	7.17			188.86	277.42	3.43			
Average for All Data	7.92	7.85	7.56	6.81			188.86	277.42	3.43			
Min Interval Average	0.7	0.7	0.7	0.7					-11.6			
Date of Min Interval	1/24/2009	1/28/2009	1/24/2009	1/24/2009					1/27/2009			
Time of Min Interval	8:50:00 AM	3:40:00 PM	8:50:00 AM	9:10:00 AM					6:30:00 AM			
Max Interval Average	17.3	16.6	16.6	15.4					24.7			
Date of Max Interval	1/1/2009	1/1/2009	1/3/2009	1/3/2009					1/22/2009			
Time of Max Interval	5:10:00 AM	6:10:00 AM	2:20:00 PM	2:20:00 PM					3:40:00 PM			
Average Interval SD	0.66	0.71	0.7	0.7			18.49	10.12	0.09			
Min Sample	0.4	0.4	0.4	0.4					-11.7			
Date of Min Sample	1/22/2009	1/22/2009	1/22/2009	1/22/2009					1/27/2009			
Time of Min Sample	3:00:00 PM	3:40:00 PM	3:30:00 PM	3:40:00 PM					6:20:00 AM			
Max Sample	19.5	19.9	20.6	19.5					24.9			
Date of Max Sample	1/3/2009	1/3/2009	1/3/2009	1/3/2009					1/22/2009			
Time of Max Sample	12:30:00 PM	1:00:00 PM	12:30:00 PM	2:20:00 PM					3:10:00 PM			
Average Interval TI	0.1	0.1	0.11	0.11								
Wind Speed Direction							SW	W				

Site Information:

Project: Wind Monitoring (50 m Tower)
Location: Clovis, New Mexico (NMSU)
Elevation: 50

Sensor on channel 1:

Wind Speed 1 50m m/s
Height: 50 m
Serial #: SN:

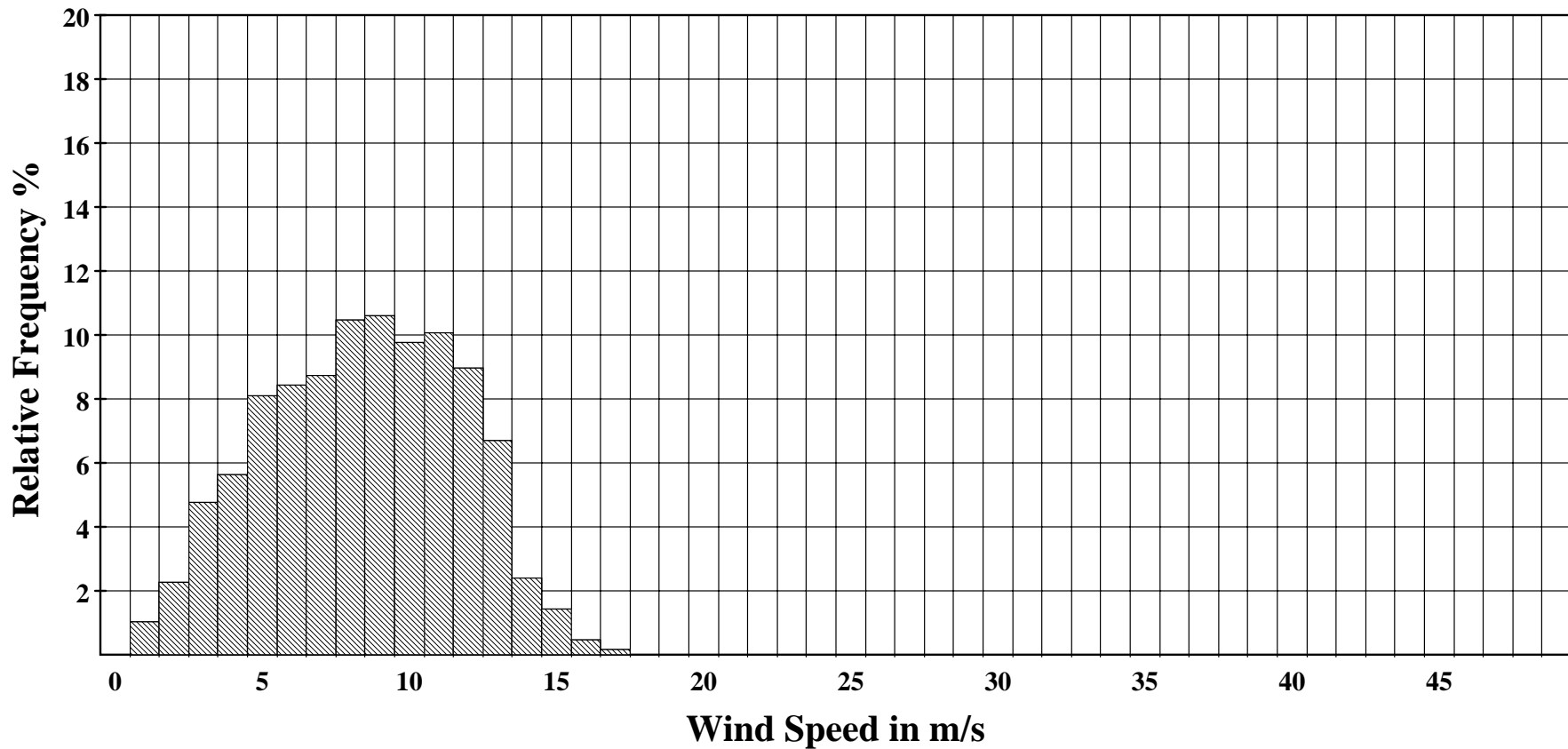
January 2009

Frequency Distribution 1 50m

SITE 0001

Agricultural Science Center at Clovis

Frequency Distribution



Site Information:

Project: Wind Monitoring (50 m Tower)
Location: Clovis, New Mexico (NMSU)
Elevation: 50

Sensor on channel 1:

Wind Speed 1 50m m/s
Height: 50 m
Serial #: SN:

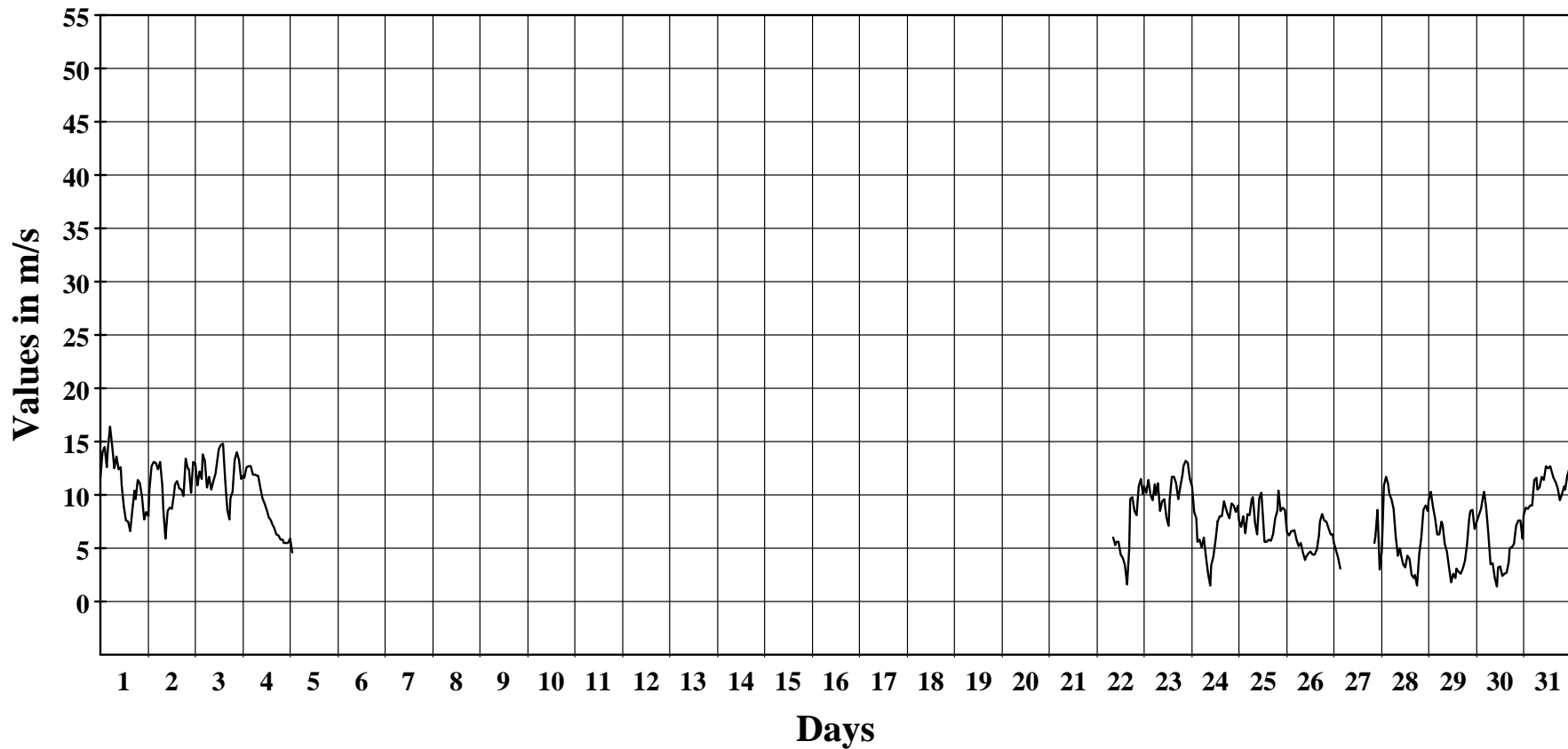
January 2009

Hourly Averages Graph 1 50m

SITE 0001

Agricultural Science Center at Clovis

Average Hourly Values



Average Value: 8.4

Site Information:

Project: Wind Monitoring (50 m Tower)

Location: Clovis, New Mexico (NMSU)

Elevation: 50

Sensor on channel 1:

Wind Speed 1 50m m/s

Height: 50 m Units: m/s

Serial #: SN:

January 2009**Hourly Averages Table 1 50m**

SITE 0001

Agricultural Science Center 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	11.6	14.0	14.5	12.6	14.4	16.4	14.6	12.5	13.6	12.4	12.6	10.9	8.9	7.6	7.5	6.6	8.6	10.4	9.6	11.4	11.1	9.8	7.7	8.4	11.2
2	8.0	10.5	12.7	13.1	13.0	12.4	13.1	11.0	8.6	5.9	8.5	8.8	8.7	10.1	11.0	11.3	10.6	10.5	9.9	13.4	12.5	12.4	10.2	13.1	10.8
3	12.9	10.9	12.2	11.5	13.8	13.2	10.7	11.7	10.5	11.3	12.0	12.8	14.3	14.7	14.8	11.4	8.6	7.7	9.7	10.3	13.3	14.0	13.3	11.5	12.0
4	11.8	11.6	12.6	12.7	12.7	11.9	11.9	11.8	11.8	10.7	9.7	9.2	8.6	7.9	7.6	7.3	6.9	6.3	6.2	5.8	5.8	5.5	5.5	5.5	9.1
5	5.9	4.6	*	*	*	*	*	*	*	*	*	*	11.8	*	*	*	*	*	*	*	*	*	*	*	6.2
6	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
7	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
8	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
9	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
10	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
11	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
12	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
13	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
14	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
15	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
16	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
17	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
18	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
19	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
20	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
21	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
22	*	*	*	*	*	*	*	*	6.0	5.3	5.6	5.6	4.4	4.1	3.4	1.6	4.9	9.6	9.8	8.5	8.1	10.8	11.5	10.1	6.9
23	10.8	10.2	11.4	10.0	9.5	11.0	10.0	11.1	8.5	9.4	9.6	7.9	7.1	9.6	11.7	11.7	11.1	9.6	10.8	11.9	12.7	13.3	13.0	11.5	10.6
24	10.8	8.4	7.8	5.6	5.8	5.1	6.0	4.2	2.6	1.5	3.4	4.2	5.7	7.5	8.0	8.0	9.4	9.0	8.3	7.8	9.2	9.0	8.4	9.0	6.9
25	7.6	7.0	8.0	6.4	8.2	8.1	9.6	9.8	7.4	6.3	9.7	10.2	7.1	5.6	5.6	5.8	5.7	6.3	7.8	8.5	10.4	8.5	8.8	8.6	7.8
26	6.5	6.2	6.6	6.6	6.7	5.8	5.2	5.5	4.6	3.9	4.2	4.5	4.7	4.4	4.4	4.9	6.2	7.5	8.2	7.6	7.5	6.9	6.3	6.3	5.9
27	5.5	4.8	4.1	3.1	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	5.5	6.1	8.6	3.0	5.2
28	4.7	10.9	11.7	11.0	10.1	9.6	8.7	6.1	4.3	5.0	4.4	3.5	3.3	4.3	4.0	2.5	2.3	2.5	1.5	4.4	6.0	8.6	9.0	8.5	6.3
29	9.5	10.3	8.9	7.8	6.3	6.3	7.5	7.2	5.4	4.7	3.2	1.8	2.6	2.3	3.1	2.8	2.6	3.1	3.8	5.4	7.8	8.5	8.6	6.8	5.7
30	7.5	8.1	8.7	9.9	10.3	8.7	6.3	3.5	3.6	2.2	1.4	3.2	3.3	2.4	2.6	2.7	3.7	5.0	5.1	5.4	7.1	7.6	7.6	5.9	5.5
31	8.1	8.8	8.7	9.0	9.0	11.4	11.6	10.5	10.7	11.7	11.4	12.7	12.5	12.7	12.3	11.6	11.2	10.6	9.5	10.1	10.8	10.5	11.8	12.5	10.8
AVG	8.7	9.0	9.8	9.2	10.0	10.0	9.6	8.7	7.5	6.9	7.4	7.3	7.4	7.2	7.4	6.8	7.1	7.6	7.7	8.5	9.1	9.4	9.3	8.6	8.4

Site Information:

Project: Wind Monitoring (50 m Tower)
Location: Clovis, New Mexico (NMSU)
Elevation: 50

Sensor on channel 2:

Wind Speed 2 50m m/s
Height: 50 m
Serial #: SN:

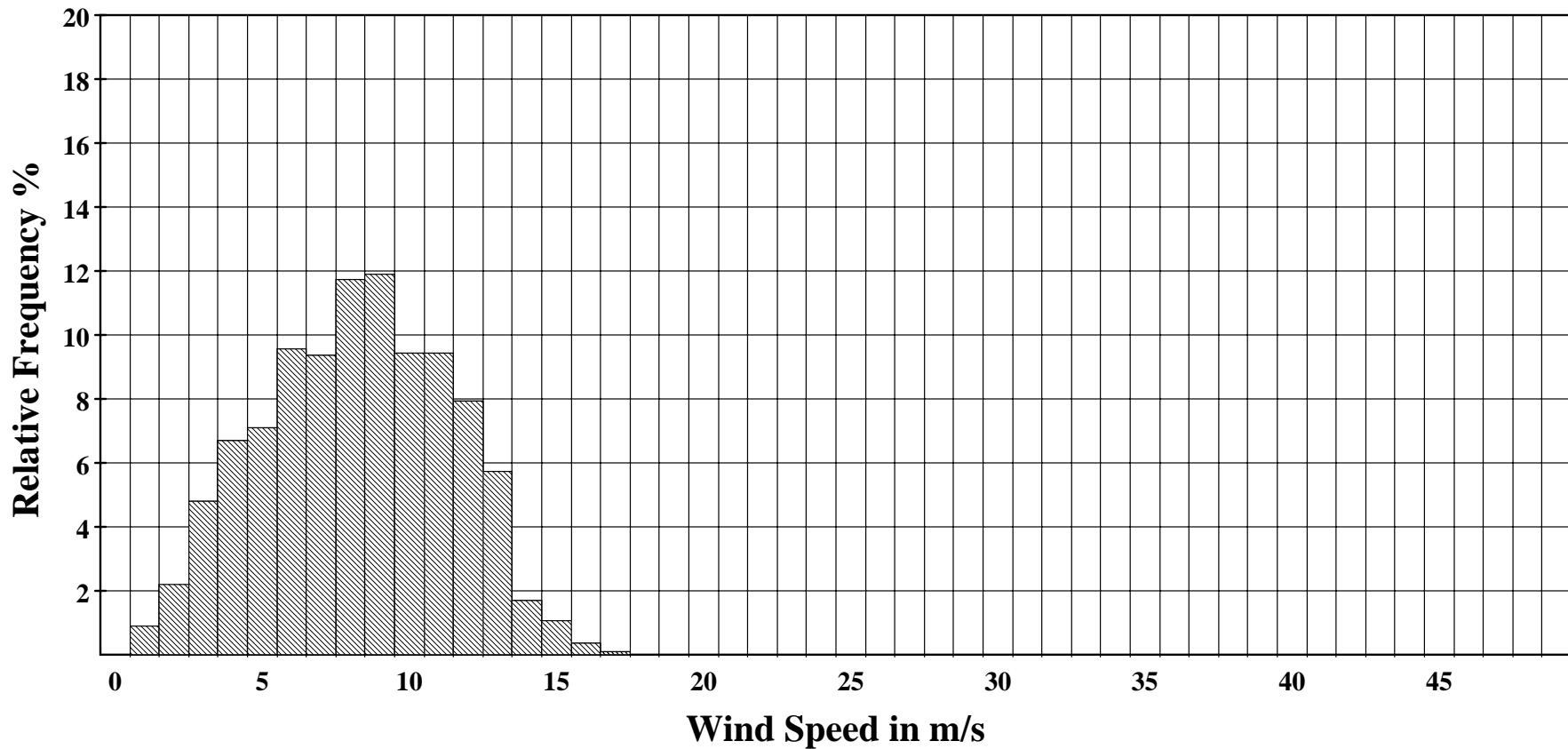
January 2009

Frequency Distribution 2 50m

SITE 0001

Agricultural Science Center at Clovis

Frequency Distribution



Site Information:

Project: Wind Monitoring (50 m Tower)
Location: Clovis, New Mexico (NMSU)
Elevation: 50

Sensor on channel 2:

Wind Speed 2 50m m/s
Height: 50 m
Serial #: SN:

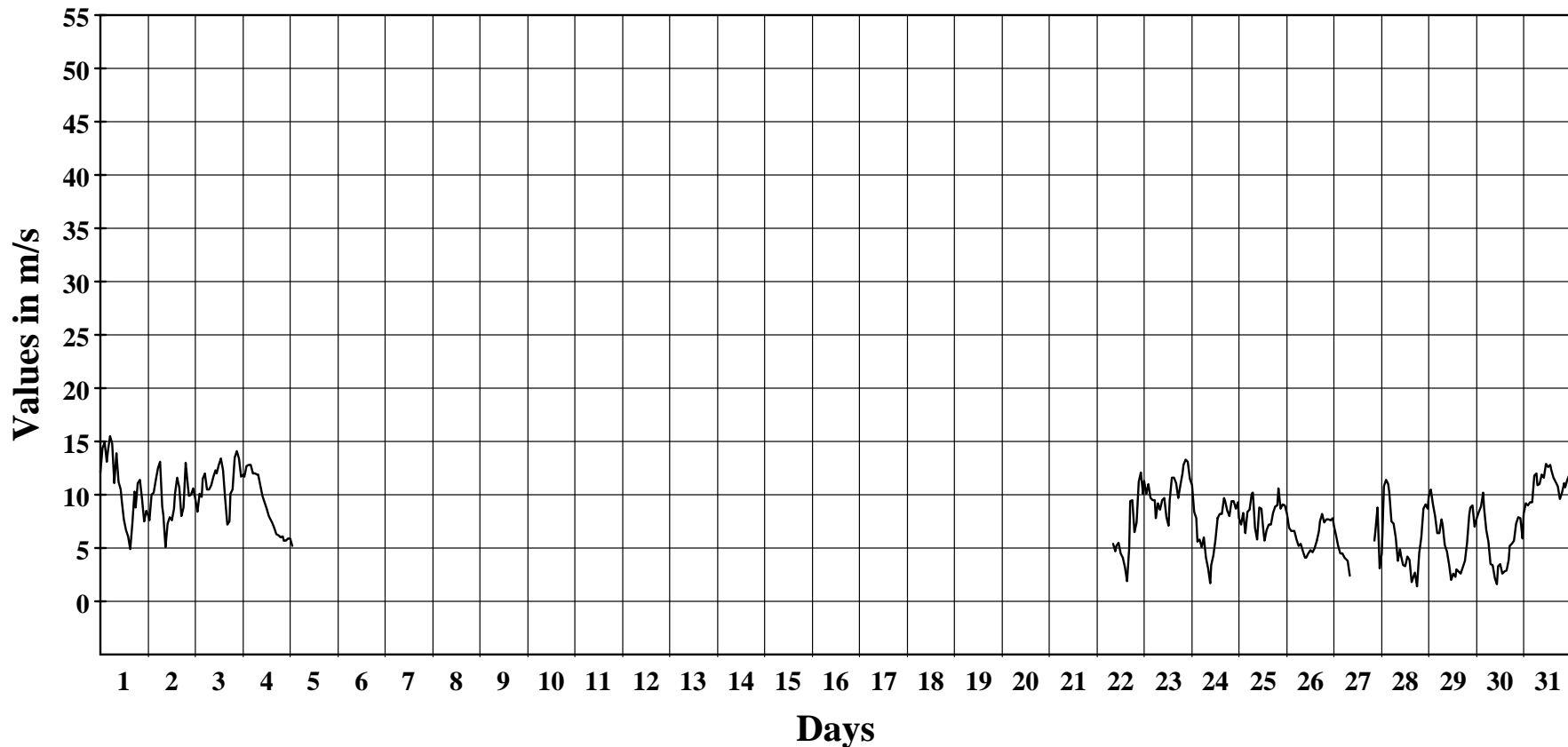
January 2009

Hourly Averages Graph 2 50m

SITE 0001

Agricultural Science Center at Clovis

Average Hourly Values



Average Value: 8.2

Site Information:

Project: Wind Monitoring (50 m Tower)
 Location: Clovis, New Mexico (NMSU)
 Elevation: 50

Sensor on channel 2:

Wind Speed 2 50m m/s
 Height: 50 m Units: m/s
 Serial #: SN:

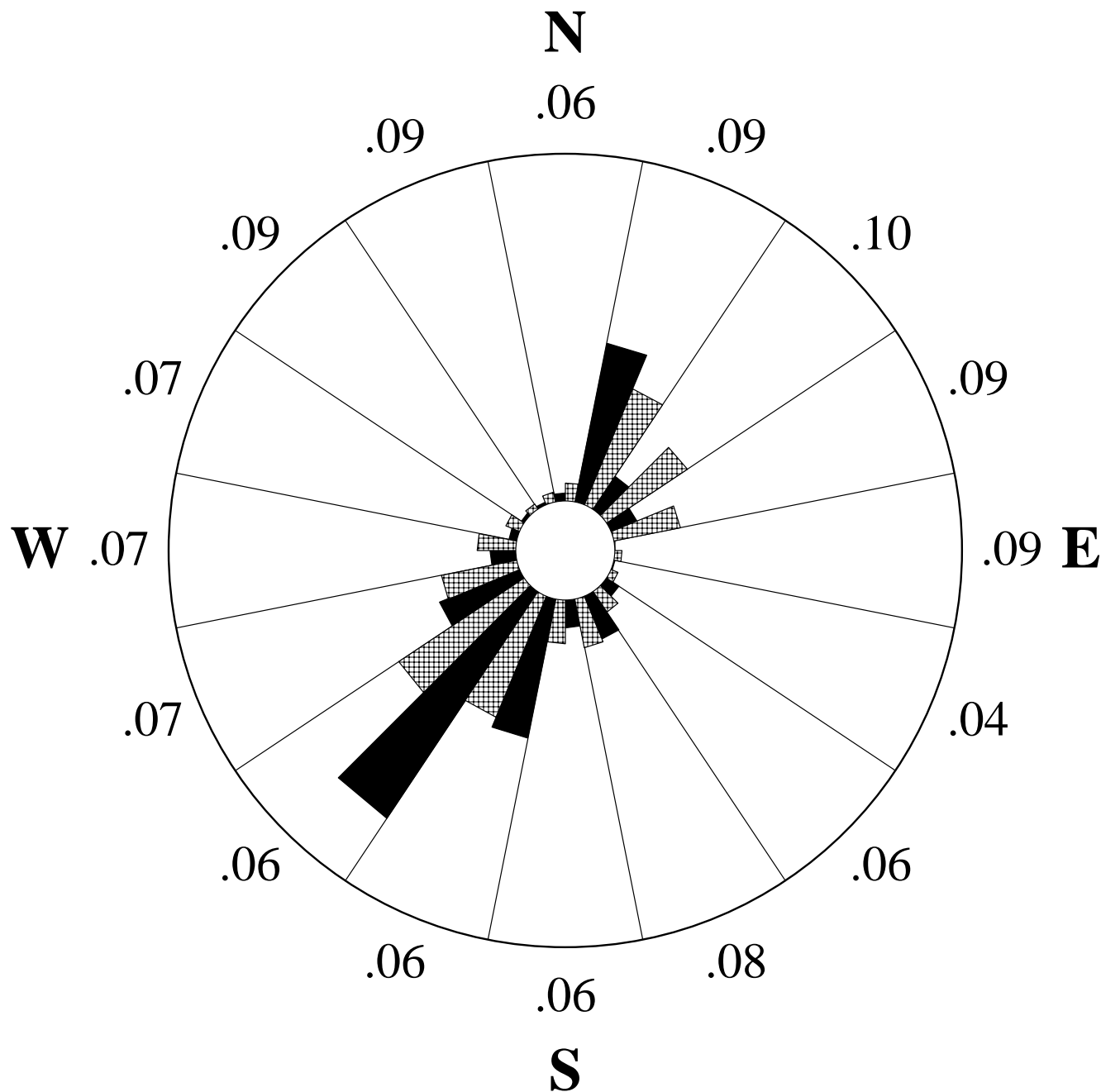
January 2009

Hourly Averages Table 2 50m

SITE 0001

Agricultural Science Center 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	12.1	14.4	14.9	13.1	14.1	15.5	14.8	11.1	13.9	11.2	10.5	9.5	7.7	6.7	6.1	4.9	7.3	10.3	8.8	11.1	11.4	9.6	7.5	8.5	10.6
2	8.0	7.6	10.0	10.2	11.4	12.5	13.1	8.9	8.1	5.1	7.3	7.9	7.6	8.7	10.1	11.6	10.7	8.0	8.8	13.0	10.9	9.9	10.0	10.6	9.6
3	9.6	8.4	10.1	9.8	11.5	12.0	10.5	10.5	10.9	11.7	12.3	12.0	12.8	13.4	12.3	9.6	7.2	7.5	10.1	10.5	13.5	14.1	13.4	11.7	11.1
4	11.9	11.7	12.7	12.8	12.8	12.0	12.0	11.9	11.9	10.9	9.9	9.3	8.7	8.0	7.6	7.4	6.9	6.3	6.2	6.0	6.1	5.7	5.7	5.9	9.2
5	5.9	5.2	*	*	*	*	*	*	*	*	*	*	11.9	*	*	*	*	*	*	*	*	*	*	*	6.5
6	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
7	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
8	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
9	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
10	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
11	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
12	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
13	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
14	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
15	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
16	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
17	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
18	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
19	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
20	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
21	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
22	*	*	*	*	*	*	*	*	5.4	4.7	5.2	5.5	4.5	4.1	3.2	1.9	5.0	9.4	9.5	6.5	7.4	11.2	12.1	10.1	6.7
23	11.3	10.1	11.0	9.7	9.5	9.5	7.8	9.2	8.6	9.5	9.7	7.9	7.1	9.5	11.6	11.6	11.1	9.7	10.9	12.0	12.8	13.3	13.1	11.5	10.3
24	10.9	8.4	7.8	5.6	5.8	5.1	6.0	4.1	3.1	1.7	3.4	4.3	5.8	7.8	8.2	8.2	9.7	9.4	8.5	8.0	9.4	9.4	8.7	9.3	7.2
25	7.8	7.2	8.3	6.4	8.4	8.6	10.1	10.2	6.9	5.8	8.8	8.7	6.5	5.7	6.7	7.2	7.2	8.3	8.9	9.0	10.6	8.7	9.1	9.0	8.1
26	8.2	6.9	6.6	6.6	6.6	5.8	5.2	5.4	4.7	4.1	4.1	4.5	4.8	4.6	5.0	5.7	6.6	7.5	8.2	7.4	7.7	7.7	7.6	7.8	6.2
27	7.1	6.2	5.2	4.5	4.5	4.1	3.9	3.8	2.4	*	*	*	*	*	*	*	*	*	*	*	5.7	6.6	8.8	3.1	5.1
28	4.5	10.8	11.4	11.0	10.2	7.5	7.3	6.0	3.8	4.9	4.3	3.4	3.3	4.2	3.9	1.8	2.4	2.7	1.4	4.5	6.0	8.7	9.1	8.7	6.0
29	9.8	10.5	9.1	8.0	6.4	6.4	7.7	7.2	5.3	4.7	3.5	2.0	2.6	2.3	3.0	2.8	2.6	3.2	3.8	5.5	8.1	8.8	9.0	7.0	5.8
30	7.8	8.4	8.9	10.2	8.7	6.7	5.6	3.5	3.4	2.2	1.6	3.3	3.5	2.6	2.8	2.9	3.9	5.3	5.4	5.7	7.3	7.9	7.8	5.9	5.5
31	8.2	9.2	9.0	9.3	9.3	11.8	12.0	10.9	11.0	11.9	11.6	12.9	12.6	12.8	12.3	11.6	11.2	10.8	9.6	10.3	11.1	10.7	11.4	11.9	11.0
AVG	8.8	8.9	9.6	9.0	9.2	9.0	8.9	7.9	7.1	6.8	7.1	7.0	7.1	7.0	7.2	6.7	7.1	7.6	7.7	8.4	9.1	9.4	9.5	8.6	8.2



January 2009

Wind Direction 50m

SITE 0001

Agricultural Science Center at Clovis

Site Information:

Project: Wind Monitoring (50 m T

Location: Clovis, New Mexico (NM

Elevation: 50

Anemometer on channel 1:

Wind Speed 1 50m m/s

Height: 50 m

Serial #: SN:

Vane on channel 7:

Wind Direction 1

Height: 50 m

Serial #: SN:

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

Inner Circle = 0%

Outer Circle = 40%

■ Percent of Total Wind Energy

▨ Percent of Total Time

Site Information:

Project: Wind Monitoring (50 m Tower)
Location: Clovis, New Mexico (NMSU)
Elevation: 50

Sensor on channel 3:

Wind Speed 3 40m m/s
Height: 40 m
Serial #: SN:

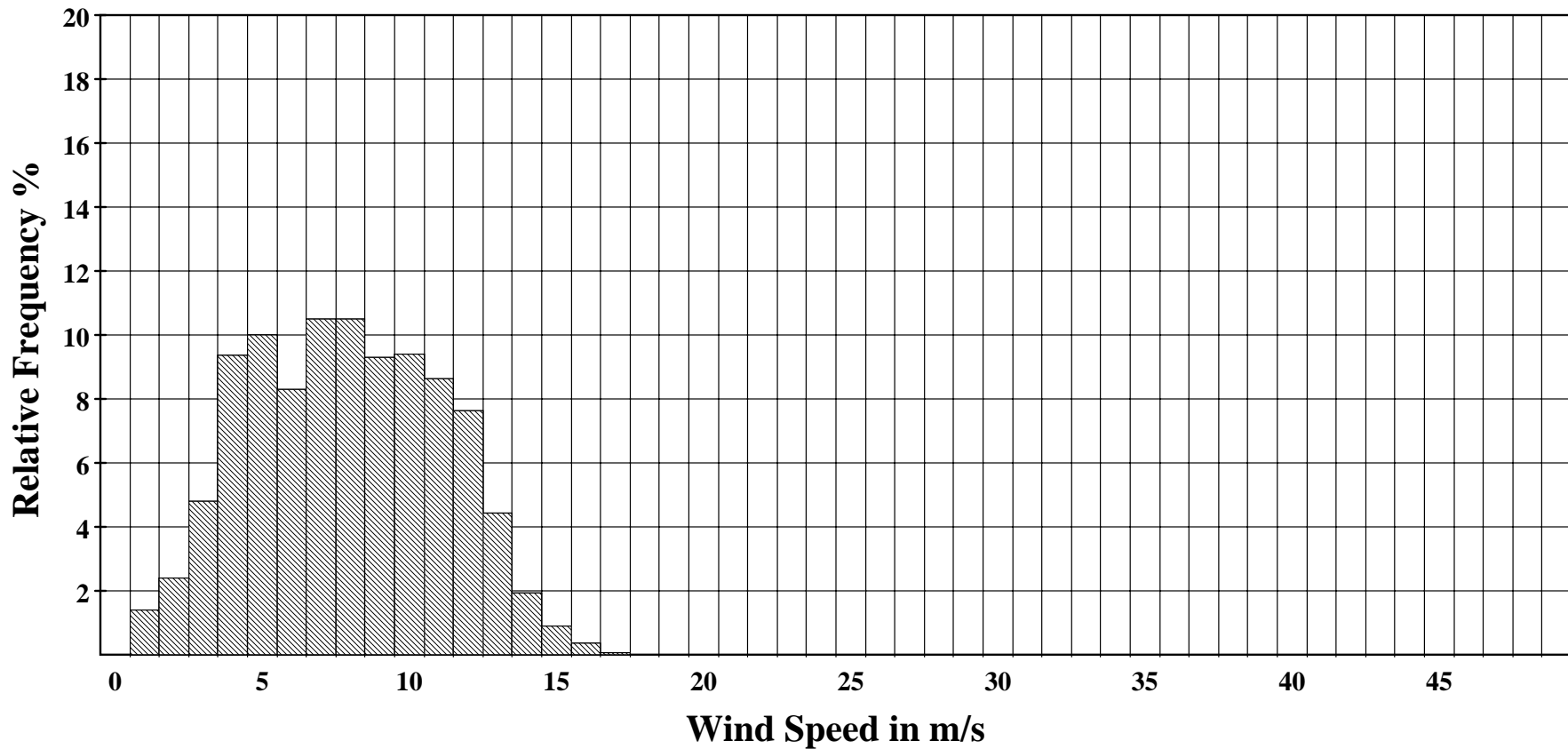
January 2009

Frequency Distribution 3 40m

SITE 0001

Agricultural Science Center at Clovis

Frequency Distribution



Site Information:

Project: Wind Monitoring (50 m Tower)
Location: Clovis, New Mexico (NMSU)
Elevation: 50

Sensor on channel 3:

Wind Speed 3 40m m/s
Height: 40 m
Serial #: SN:

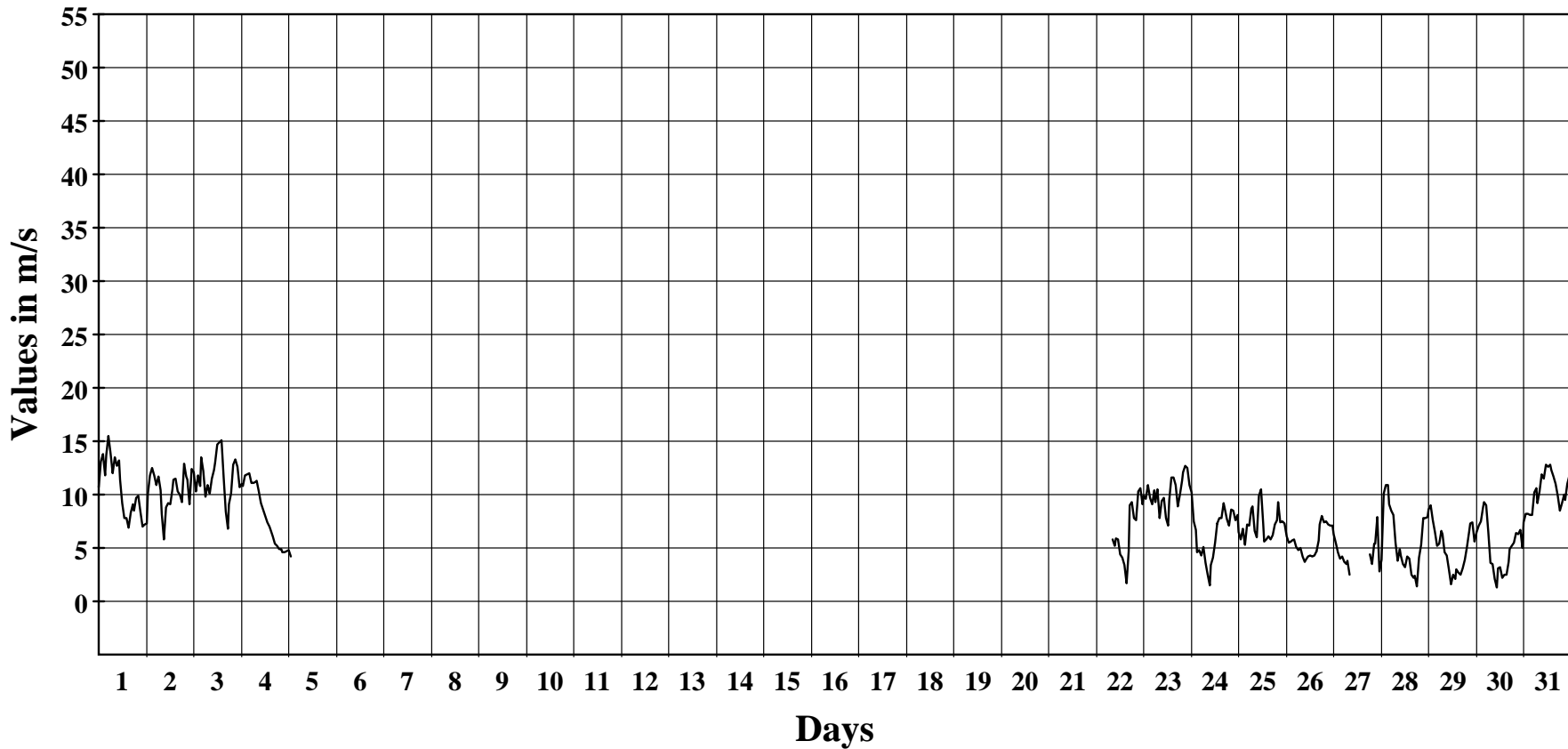
January 2009

Hourly Averages Graph 3 40m

SITE 0001

Agricultural Science Center at Clovis

Average Hourly Values



Average Value: 7.8

Site Information:

Project: Wind Monitoring (50 m Tower)
 Location: Clovis, New Mexico (NMSU)
 Elevation: 50

Sensor on channel 3:

Wind Speed 3 40m m/s
 Height: 40 m Units: m/s
 Serial #: SN:

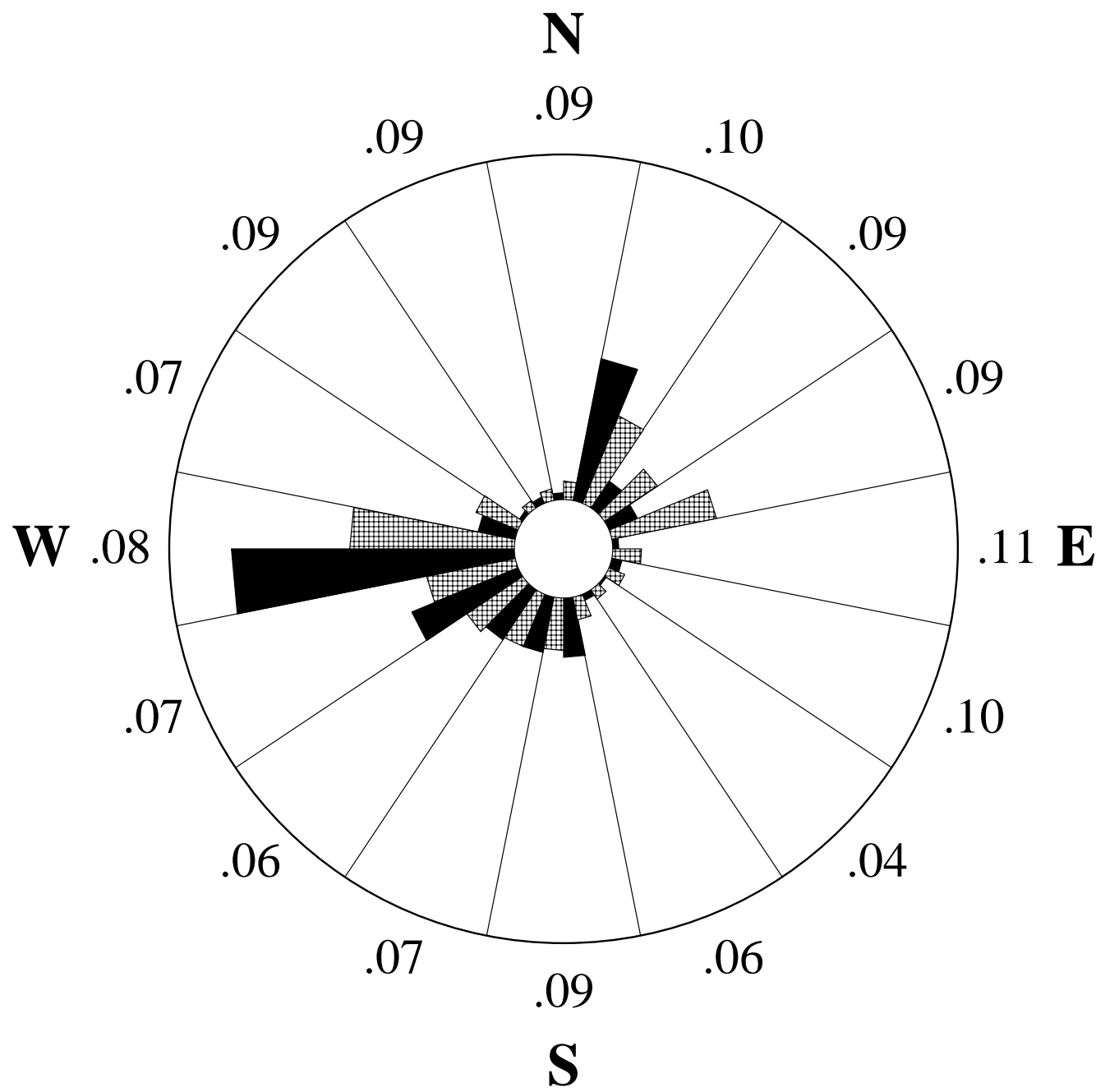
January 2009

Hourly Averages Table 3 40m

SITE 0001

Agricultural Science Center 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	10.7	13.1	13.8	11.8	13.7	15.5	13.9	12.0	13.5	12.7	13.2	11.4	9.2	7.8	7.8	6.9	8.3	9.1	8.5	9.7	9.9	8.4	7.0	7.2	10.6
2	7.3	10.0	11.8	12.5	11.8	10.9	11.7	10.4	8.2	5.8	8.8	9.2	9.1	10.5	11.4	11.5	10.3	10.0	9.3	12.9	11.7	11.4	9.1	12.4	10.3
3	12.1	10.3	11.8	10.8	13.5	12.2	9.8	10.9	10.1	11.5	12.3	13.0	14.7	14.9	15.1	11.6	8.4	6.8	9.1	10.1	12.8	13.3	12.6	10.7	11.6
4	11.0	10.8	11.8	11.9	12.0	11.1	11.1	11.2	11.3	10.3	9.2	8.6	8.0	7.4	7.0	6.7	6.1	5.4	5.2	4.9	4.9	4.6	4.6	4.7	8.3
5	4.8	4.2	*	*	*	*	*	*	*	*	*	*	11.8	*	*	*	*	*	*	*	*	*	*	*	5.6
6	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
7	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
8	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
9	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
10	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
11	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
12	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
13	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
14	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
15	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
16	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
17	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
18	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
19	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
20	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
21	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
22	*	*	*	*	*	*	*	*	5.8	5.2	5.9	5.8	4.4	4.1	3.4	1.7	4.7	9.0	9.3	7.8	7.6	10.3	10.6	9.1	6.6
23	9.9	9.6	10.9	9.7	9.1	10.4	9.3	10.5	7.8	9.4	9.7	7.8	7.1	9.5	11.6	11.6	10.9	8.9	10.0	11.3	12.1	12.7	12.5	10.9	10.1
24	10.2	7.5	6.7	4.6	4.8	4.3	5.1	3.6	2.5	1.5	3.4	4.1	5.5	7.3	7.8	7.8	9.2	8.7	7.7	7.1	8.6	8.5	7.6	8.1	6.4
25	6.5	5.8	6.8	5.3	7.2	7.1	8.7	8.9	6.6	6.0	9.9	10.5	7.3	5.6	5.8	6.1	5.8	6.3	7.2	7.6	9.3	7.4	7.5	7.3	7.2
26	6.1	5.5	5.6	5.7	5.8	5.1	4.8	5.0	4.2	3.7	3.9	4.2	4.3	4.2	4.3	4.7	5.7	7.2	8.0	7.4	7.5	7.2	7.1	7.1	5.6
27	6.3	5.5	4.6	4.0	4.2	3.7	3.5	3.8	2.5	*	*	*	*	*	*	*	*	*	4.4	3.5	5.4	5.4	7.9	2.8	4.5
28	3.9	10.1	10.9	10.9	9.1	8.5	8.1	5.5	3.8	4.9	4.3	3.5	3.2	4.2	4.0	2.5	2.2	2.4	1.4	4.1	5.3	7.8	7.8	7.9	5.9
29	8.6	9.0	7.6	6.5	5.2	5.4	6.6	6.3	4.6	4.3	3.0	1.6	2.5	2.1	3.0	2.7	2.5	3.1	3.9	5.1	6.5	7.3	7.4	5.6	5.0
30	6.5	7.1	7.5	8.8	9.3	9.0	6.5	3.6	3.5	2.1	1.3	3.1	3.2	2.2	2.5	2.5	3.7	4.9	5.2	5.5	6.4	6.3	6.7	5.0	5.1
31	7.4	8.2	8.2	8.1	8.1	10.2	10.6	9.2	10.3	11.9	11.5	12.8	12.6	12.8	12.3	11.7	11.0	9.9	8.5	9.2	10.0	9.5	11.0	11.8	10.3
AVG	8.0	8.3	9.1	8.5	8.8	8.7	8.4	7.8	6.8	6.9	7.4	7.4	7.4	7.1	7.4	6.8	6.8	7.1	7.0	7.6	8.4	8.6	8.5	7.9	7.8



January 2009

Wind Direction 40m

SITE 0001

Agricultural Science Center at Clovis

Site Information:

Project: Wind Monitoring (50 m T

Location: Clovis, New Mexico (NM

Elevation: 50

Anemometer on channel 3:

Wind Speed 3 40m m/s

Height: 40 m

Serial #: SN:

Vane on channel 8:

Wind Direction 2

Height: 40 m


Serial #: SN:

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

Inner Circle = 0%

Outer Circle = 40%

 Percent of Total Wind Energy

 Percent of Total Time

Site Information:

Project: Wind Monitoring (50 m Tower)
Location: Clovis, New Mexico (NMSU)
Elevation: 50

Sensor on channel 4:

Wind Speed 4 30m m/s
Height: 30 m
Serial #: SN:

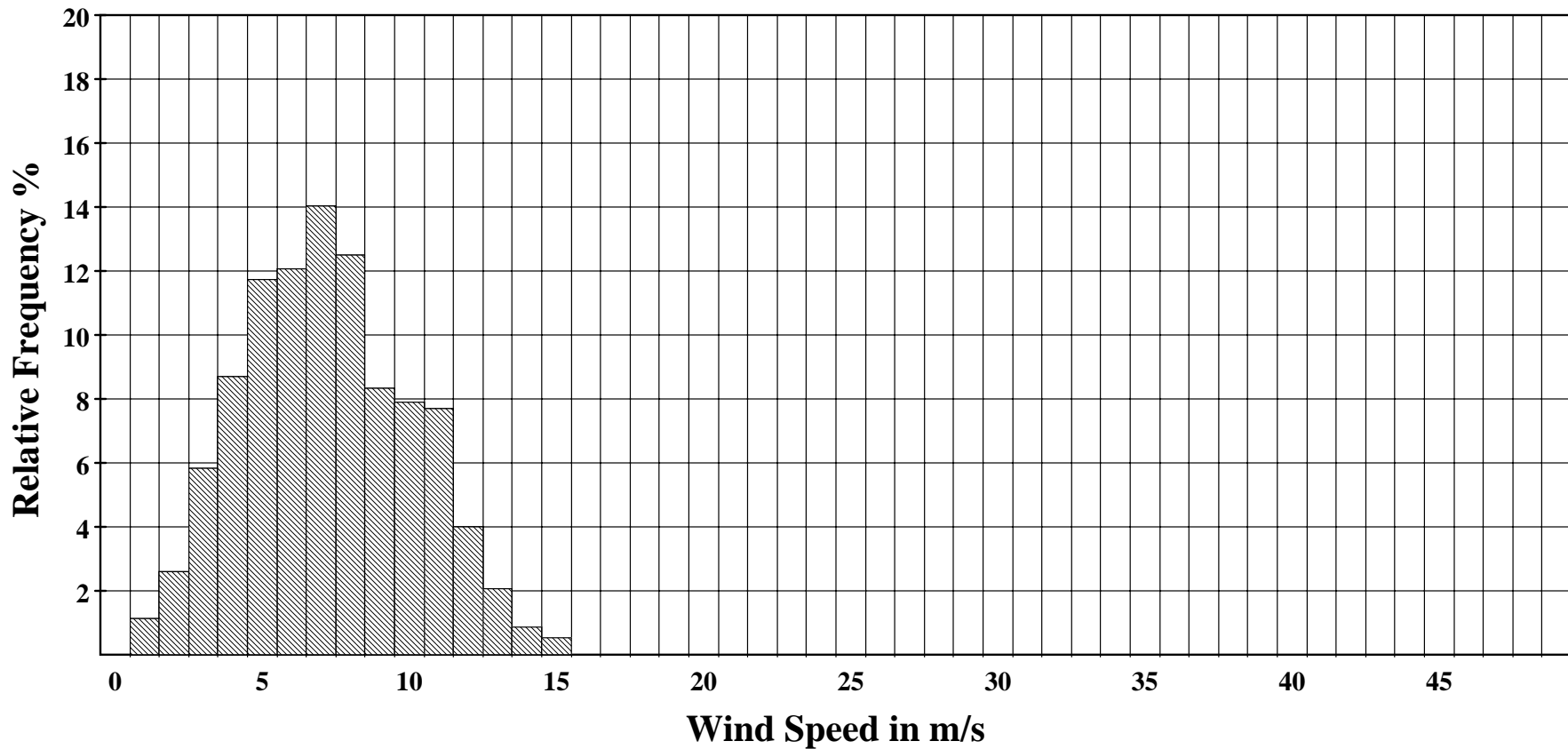
January 2009

Frequency Distribution 4 30m

SITE 0001

Agricultural Science Center at Clovis

Frequency Distribution



Site Information:

Project: Wind Monitoring (50 m Tower)
Location: Clovis, New Mexico (NMSU)
Elevation: 50

Sensor on channel 4:

Wind Speed 4 30m m/s
Height: 30 m
Serial #: SN:

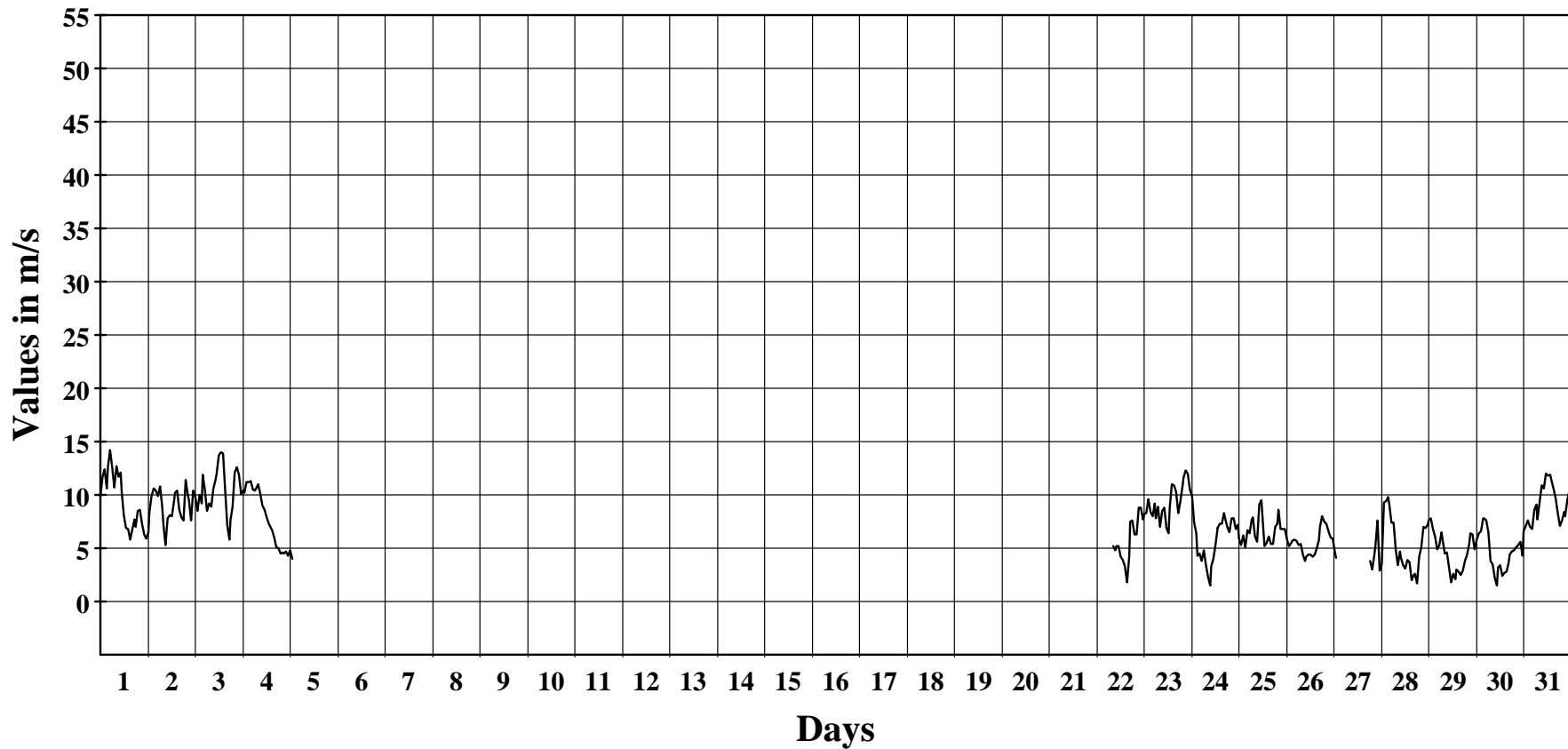
January 2009

Hourly Averages Graph 4 30m

SITE 0001

Agricultural Science Center at Clovis

Average Hourly Values



Average Value: 7.2

Site Information:

Project: Wind Monitoring (50 m Tower)
 Location: Clovis, New Mexico (NMSU)
 Elevation: 50

Sensor on channel 4:

Wind Speed 4 30m m/s
 Height: 30 m Units: m/s
 Serial #: SN:

January 2009

Hourly Averages Table 4 30m

SITE 0001

Agricultural Science Center 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	11.7	12.4	10.6	12.6	14.2	12.6	10.7	12.7	11.7	12.1	10.3	8.1	6.9	6.8	5.8	6.8	7.7	7.0	8.5	8.6	7.3	6.3	5.9	9.5
2	6.5	8.4	9.9	10.6	10.4	9.9	10.8	8.9	7.3	5.3	7.8	8.1	8.0	9.4	10.2	10.4	8.6	7.9	7.6	11.4	10.0	9.5	7.6	10.4	9.0
3	9.8	8.5	10.0	9.2	11.9	10.5	8.5	9.2	8.9	10.6	11.4	12.0	13.7	14.0	13.9	10.4	7.1	5.8	7.6	8.9	12.1	12.6	11.9	10.1	10.4
4	10.4	10.2	11.2	11.2	11.3	10.5	10.4	10.8	11.0	10.1	9.0	8.6	7.9	7.3	6.9	6.7	6.0	5.1	5.0	4.5	4.6	4.5	4.7	4.3	8.0
5	4.8	4.0	*	*	*	*	*	*	*	*	*	*	11.1	*	*	*	*	*	*	*	*	*	*	*	5.3
6	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
7	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
8	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
9	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
10	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
11	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
12	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
13	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
14	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
15	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
16	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
17	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
18	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
19	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
20	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
21	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
22	*	*	*	*	*	*	*	*	5.3	4.8	5.2	5.2	4.2	3.9	3.3	1.8	4.2	7.5	7.6	6.3	6.3	8.8	8.8	7.7	5.7
23	8.2	8.3	9.6	8.4	8.0	9.2	7.8	8.9	7.0	8.5	8.8	6.9	6.4	8.8	11.0	10.9	10.3	8.3	9.4	10.8	11.6	12.3	12.0	10.5	9.2
24	9.9	7.4	6.4	4.3	4.5	3.8	4.8	3.4	2.3	1.5	3.3	4.0	5.3	6.9	7.3	7.3	8.3	7.8	7.0	6.5	7.8	7.8	6.8	7.2	5.9
25	5.9	5.3	6.2	5.1	6.7	6.4	7.7	7.9	6.1	5.6	9.1	9.5	6.5	5.2	5.5	6.1	5.4	5.4	7.0	7.3	8.6	6.8	6.8	6.8	6.6
26	5.8	5.2	5.5	5.7	5.8	5.7	5.3	5.4	4.4	3.8	4.2	4.4	4.4	4.2	4.4	5.0	5.8	7.0	8.0	7.5	7.3	6.6	6.0	5.9	5.6
27	5.2	4.1	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	3.8	3.0	4.4	5.2	7.6	2.9	4.6
28	3.5	9.3	9.4	9.8	9.1	7.4	7.4	4.9	3.4	4.7	4.1	3.4	3.1	3.9	3.7	2.0	2.5	2.6	1.7	4.2	5.1	7.0	6.9	7.2	5.4
29	7.6	7.8	6.8	6.1	4.9	5.3	6.5	5.8	4.5	4.6	3.2	1.8	2.6	2.1	3.0	2.8	2.5	2.9	3.8	4.4	5.4	6.4	6.3	4.9	4.7
30	5.8	6.4	6.6	7.8	7.8	7.6	6.5	3.8	3.5	2.2	1.5	3.2	3.4	2.4	2.7	2.8	3.7	4.4	4.7	4.8	5.1	5.3	5.6	4.3	4.7
31	6.6	7.1	7.6	7.0	6.8	8.6	9.1	7.7	9.3	10.9	10.6	12.0	11.8	11.9	11.4	10.6	9.7	8.3	7.1	7.6	8.4	8.0	9.5	10.4	9.1
AVG	7.1	7.4	8.5	8.0	8.3	8.3	8.1	7.3	6.6	6.5	6.9	6.9	6.9	6.7	6.9	6.4	6.2	6.2	6.2	6.8	7.5	7.7	7.6	7.0	7.2

Site Information:

Project: Wind Monitoring (50 m Tower)
Location: Clovis, New Mexico (NMSU)
Elevation: 50

Sensor on channel 9:

amb temp C°
Height: m
Serial #: SN:

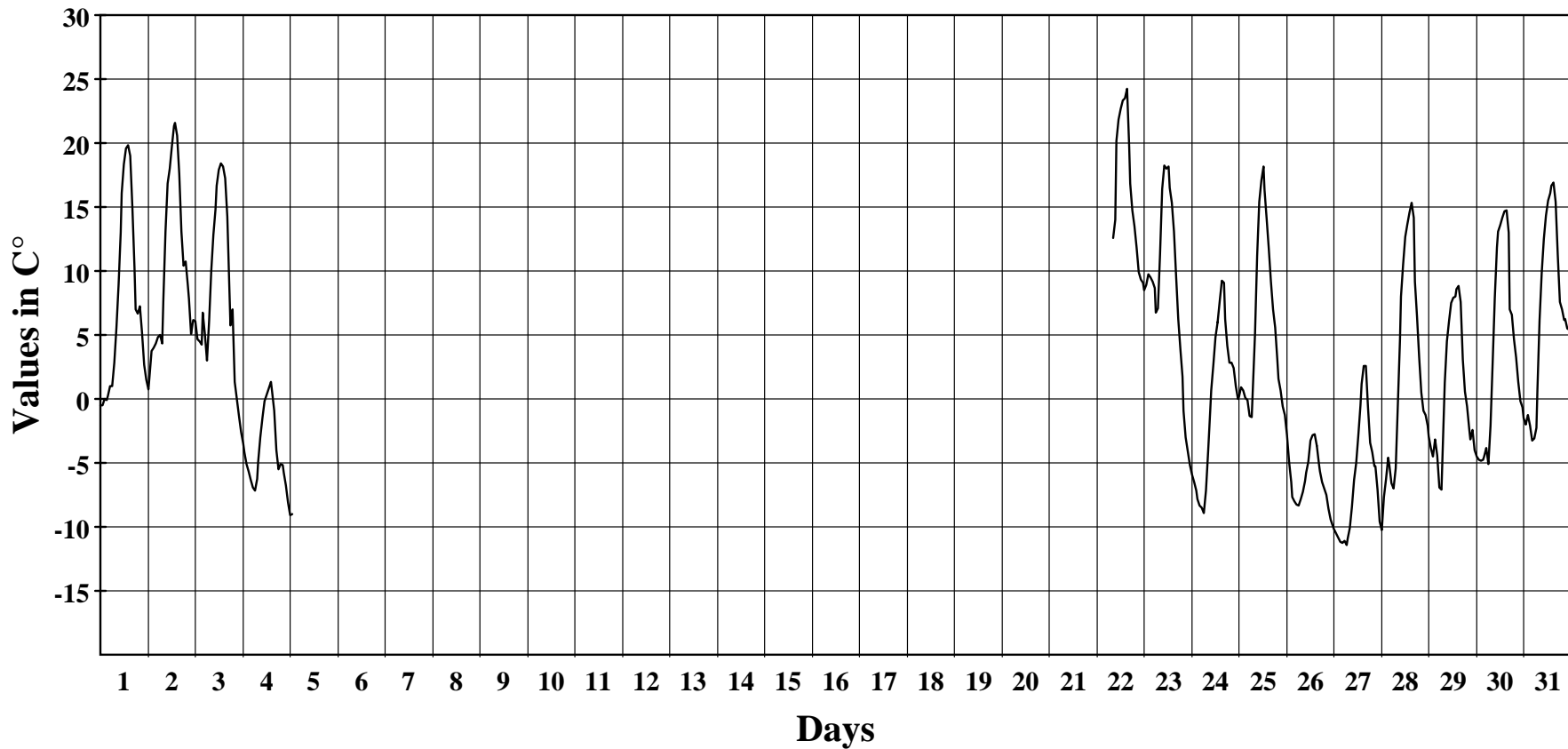
January 2009

Hourly Averages Amb Temp Graph

SITE 0001

Agricultural Science Center at Clovis

Average Hourly Values



Average Value: 3.4

Site Information:

Project: Wind Monitoring (50 m Tower)
 Location: Clovis, New Mexico (NMSU)
 Elevation: 50

Sensor on channel 9:

amb temp C°
 Height: m Units: C°
 Serial #: SN:

January 2009

Hourly Averages Amb Temp Table

SITE 0001

Agricultural Science Center 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	-0.5	-0.5	0.0	-0.1	0.2	1.0	1.0	2.8	5.6	8.9	13.0	16.1	18.3	19.5	19.8	19.0	15.0	10.3	7.0	6.6	7.3	5.1	2.7	1.5	7.5	
2	0.8	1.7	3.8	4.0	4.3	4.8	5.0	4.3	7.8	13.1	16.8	18.0	19.8	21.4	21.6	20.6	17.6	13.1	10.4	10.8	8.9	7.9	5.1	6.2	10.3	
3	6.1	4.6	4.5	4.3	6.8	5.1	3.0	6.1	10.0	12.8	14.9	16.7	17.9	18.4	18.1	17.2	14.2	8.4	5.7	7.0	1.3	0.0	-1.4	-2.6	8.3	
4	-3.5	-4.1	-5.1	-5.7	-6.3	-6.9	-7.2	-6.3	-4.9	-3.0	-1.5	-0.1	0.3	0.8	1.3	0.6	-0.9	-4.0	-5.5	-5.1	-5.2	-5.7	-6.8	-8.1	-3.9	
5	-9.1	-9.0	*	*	*	*	*	*	*	*	*	*	6.0	*	*	*	*	*	*	*	*	*	*	*	*	-6.9
6	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
7	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
8	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
9	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
10	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
11	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
12	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
13	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
14	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
15	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
16	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
17	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
18	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
19	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
20	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
21	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
22	*	*	*	*	*	*	*	*	12.6	14.0	20.1	21.9	22.7	23.4	23.5	24.3	19.7	16.8	14.8	13.5	11.8	9.9	9.4	9.1	16.9	
23	8.5	8.9	9.8	9.5	9.2	8.7	6.7	7.1	11.3	16.4	18.2	18.0	18.1	16.5	15.4	13.1	9.6	6.3	3.9	1.8	-0.9	-3.0	-4.1	-5.2	8.5	
24	-5.9	-6.5	-7.2	-7.8	-8.3	-8.5	-8.9	-7.2	-4.1	-0.9	0.7	2.7	4.8	6.0	7.7	9.2	9.1	6.3	4.2	2.8	2.8	2.4	1.0	0.0	-0.2	
25	0.2	0.9	0.7	0.1	-0.1	-1.3	-1.4	0.8	5.1	11.2	15.4	17.0	18.1	16.4	14.1	11.7	9.1	7.0	5.6	3.1	1.6	0.7	-0.6	-1.3	5.6	
26	-2.9	-4.9	-6.5	-7.7	-8.0	-8.2	-8.3	-7.9	-7.3	-6.4	-5.8	-4.9	-3.2	-2.8	-2.8	-3.6	-5.1	-5.7	-6.5	-7.0	-7.5	-8.6	-9.4	-9.9	-6.3	
27	-10.1	-10.5	-10.8	-11.1	-11.2	-11.1	-11.4	-10.9	-10.1	-8.4	-6.3	-5.0	-2.9	-0.5	1.2	2.6	2.6	-0.6	-3.4	-4.2	-5.2	-5.3	-7.1	-9.6	-6.2	
28	-10.3	-7.7	-6.2	-4.6	-5.2	-6.6	-7.0	-5.4	-0.4	4.7	8.0	10.5	12.6	13.7	14.6	15.4	14.2	9.1	6.5	3.3	0.5	-0.9	-1.3	-2.0	2.3	
29	-2.9	-3.8	-4.5	-3.1	-4.4	-6.9	-7.1	-4.2	1.2	4.5	6.1	7.5	7.9	8.0	8.5	8.8	7.6	3.1	0.5	-0.6	-2.3	-3.2	-2.5	-4.0	0.6	
30	-4.5	-4.8	-4.8	-4.8	-4.5	-3.8	-5.1	-2.1	2.9	7.9	11.8	13.1	13.6	14.2	14.6	14.8	13.0	7.0	6.6	4.7	3.3	1.3	-0.1	-0.6	3.9	
31	-1.5	-2.0	-1.3	-2.1	-3.3	-3.0	-2.2	0.8	6.2	9.8	12.5	14.3	15.5	16.1	16.7	16.9	15.4	11.2	7.6	7.0	6.1	6.2	5.5	5.4	6.6	
AVG	-2.5	-2.7	-2.1	-2.2	-2.4	-2.8	-3.3	-1.7	2.6	6.0	8.9	10.4	11.3	12.2	12.5	12.2	10.1	6.3	4.1	3.1	1.6	0.5	-0.7	-1.5	3.4	