

CELIA QUARTERLY METEOROLOGICAL REPORT FOR THE FOURTH QUARTER OF 2013

This report summarizes the meteorological data collection at Celia site for the period of October-December 2013. The data recovery for the period was good with all parameters averaging 97%. The joint frequency distributions showed some minor differences when compared to the previous 2-year period which can be attributed to normal year-to-year variations in climatic conditions. There continues to be more unstable hours than would normally be expected at the 60-10m level with "A" stability occurring more than 28% of the time. The peak wind direction sector for the 3-month period was from the north at the 10m, 60m and 97m levels. Secondary peaks from the north-northwest at the 10m, 60m, and 97m levels. The delta temperature plot show that the 60-10m delta temperatures are slightly below the 97-10m values. It would normally be expected that the 97-10m delta temperature values would be lower.

Occurrence of Stability Classes (DT60-10m) in Celia Meteorological Data

Stability Class	2013 (April – June)	2013 (July – September)	2013 (October – December)	2-Year Average Percent Occurrence (2011-2012)
A	31.27	20.54	28.26	12.59
B	7.05	8.84	5.23	3.71
C	6.73	5.67	7.19	6.45
D	16.21	17.73	20.97	31.56
E	18.27	20.50	17.28	21.94
F	12.23	14.92	9.53	13.47
G	8.24	11.79	11.54	10.28
Total Hours	2184	2208	2208	17530

Occurrence of Stability Classes (DT97-10m) in Celia Meteorological Data

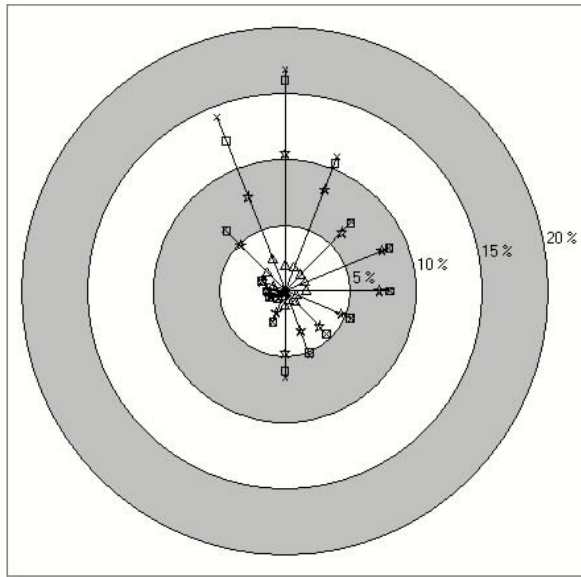
Stability Class	2013 (April – June)	2013 (July – September)	2013 (October – December)	2-Year Average Percent Occurrence (2011-2012)
A	8.29	2.22	3.69	0.53
B	7.83	5.94	6.17	0.82
C	10.21	9.52	7.15	0.87
D	28.02	29.30	34.75	39.24
E	24.08	23.99	23.96	34.36
F	15.61	22.81	14.53	17.58
G	5.95	6.21	9.76	6.60
Total Hours	2184	2208	2208	17530

Celia Meteorological Tower 4th Quarter 2013 Data Recovery (Percent)

Parameter	Percent Data Recovery
Wind Speed 10m	97.0
Wind Speed 60m	97.0
Wind Speed 97m	97.0
Wind Direction 10m	97.0
Wind Direction 60m	97.0
Wind Direction 97m	97.0
Delta Temperature 60-10m	97.0
Delta Temperature 97-10m	97.0
Temperature 10m	97.0
Temperature 60m	97.0
Temperature 97m	97.0
Dew Point Temperature 10m	97.0
Dew Point Temperature 60m	97.0
Dew Point Temperature 97m	97.0
Precipitation	97.0
<u>Composite</u>	
10m Wind Speed and Direction, Delta Temperature 60-10m	97.0
60m Wind Speed and Direction, Delta Temperature 60-10m	97.0
97m Wind Speed and Direction, Delta Temperature 97-10m	97.0

WIND ROSES FOR CELIA – 4TH QUARTER 2013

Run Date: 3/4/2014 9:40:54 AM



WIND ROSE

(WINDS FROM)
N



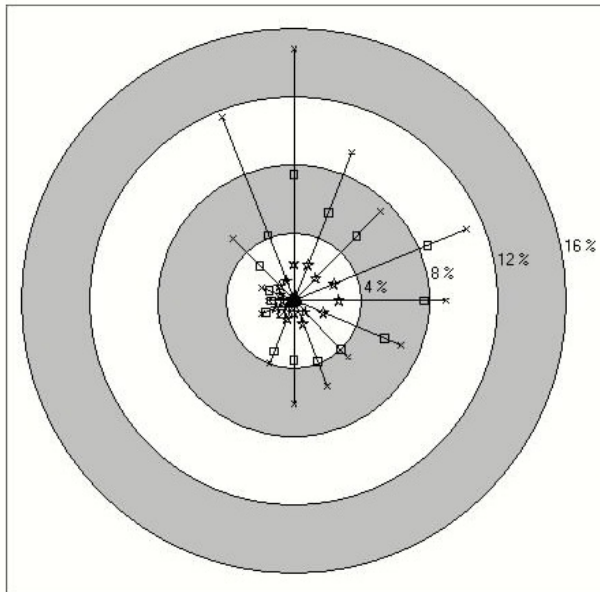
0.05% PERCENT CALMS
(NOT INCLUDED IN PLOT)

Start Date: 10/1/2013 00:00
End Date: 12/31/2013 23:00

Sensors Selected
SPD10M
WD10M

Legend
 △ WIND SPEED LESS THAN 3.5 MPH
 ☆ WIND SPEED LESS THAN 7.5 MPH
 □ WIND SPEED LESS THAN 12.5 MPH
 × WIND SPEED GREATER THAN 12.5 MPH

Run Date: 3/4/2014 9:41:57 AM



WIND ROSE

(WINDS FROM)
N



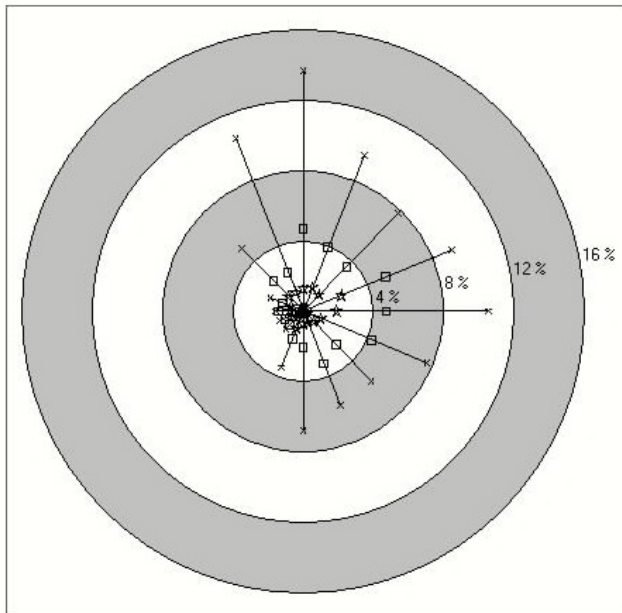
0.00% PERCENT CALMS
(NOT INCLUDED IN PLOT)

Start Date: 10/1/2013 00:00
End Date: 12/31/2013 23:00

Sensors Selected
SPD60M
WD60M

Legend
 △ WIND SPEED LESS THAN 3.5 MPH
 ☆ WIND SPEED LESS THAN 7.5 MPH
 □ WIND SPEED LESS THAN 12.5 MPH
 × WIND SPEED GREATER THAN 12.5 MPH

Run Date: 3/4/2014 9:42:15 AM



WIND ROSE

(WINDS FROM)

N



0.00% PERCENT CALMS
(NOT INCLUDED IN PLOT)

Start Date: 10/1/2013 00:00

End Date: 12/31/2013 23:00

Sensors Selected

SPD97M
WD97M

Legend

- △ WIND SPEED LESS THAN 3.5 MPH
- ☆ WIND SPEED LESS THAN 7.5 MPH
- WIND SPEED LESS THAN 12.5 MPH
- × WIND SPEED GREATER THAN 12.5 MPH

DT60-10M
 DT97-10M
 DT97-60M

Enter Date of Trend Plot:

10/1/2013 00:00

Enter End Date

12/31/2013 23:00

