

CELIA QUARTERLY METEOROLOGICAL REPORT FOR THE THIRD QUARTER OF 2013

This report summarizes the meteorological data collection at Celia site for the period of July-September 2013. The data recovery for the period was very good with all parameters averaging 99%. 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 26% of the time. The peak wind direction sector for the 3-month period was from the east-northeast at the 10m-level and east at the 60m and 97m levels. Secondary peaks from the east at the 10m-level and east-northeast at the 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)	2-Year Average Percent Occurrence (2011-2012)
A	31.27	20.54	12.59
B	7.05	8.84	3.71
C	6.73	5.67	6.45
D	16.21	17.73	31.56
E	18.27	20.50	21.94
F	12.23	14.92	13.47
G	8.24	11.79	10.28
Total Hours	2184	2208	17530

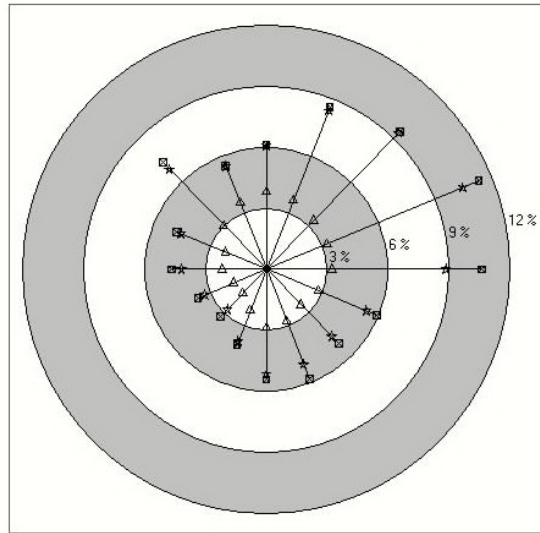
Occurrence of Stability Classes (DT97-10m) in Celia Meteorological Data

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

Celia Meteorological Tower 3rd Quarter 2013 Data Recovery (Percent)

Parameter	Percent Data Recovery
Wind Speed 10m	99.9
Wind Speed 60m	99.9
Wind Speed 97m	99.9
Wind Direction 10m	99.9
Wind Direction 60m	99.9
Wind Direction 97m	99.9
Delta Temperature 60-10m	99.9
Delta Temperature 97-10m	99.9
Temperature 10m	99.9
Temperature 60m	99.9
Temperature 97m	99.9
Dew Point Temperature 10m	99.9
Dew Point Temperature 60m	99.9
Dew Point Temperature 97m	99.9
Precipitation	99.9
<u>Composite</u>	
10m Wind Speed and Direction, Delta Temperature 60-10m	99.9
60m Wind Speed and Direction, Delta Temperature 60-10m	99.9
97m Wind Speed and Direction, Delta Temperature 97-10m	99.9

WIND ROSES FOR CELIA – 3RD QUARTER 2013



WIND ROSE

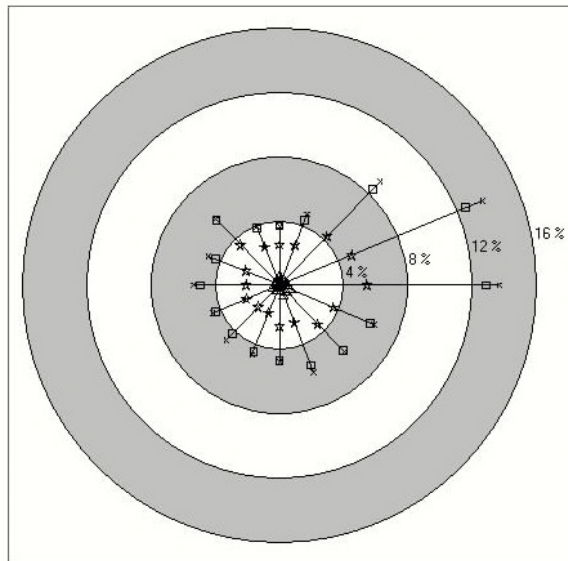
(WINDS FROM)
N
↑

0.00% PERCENT CALMS
(NOT INCLUDED IN PLOT)

Start Date: 7/1/2013 00:00
End Date: 9/30/2013 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



WIND ROSE

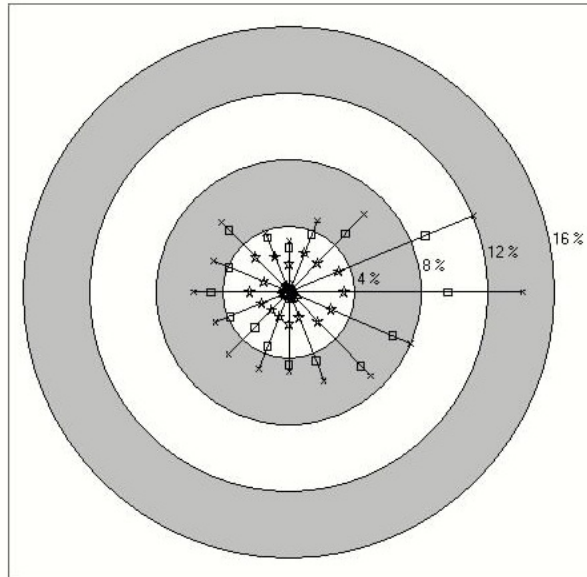
(WINDS FROM)
N
↑

0.00% PERCENT CALMS
(NOT INCLUDED IN PLOT)

Start Date: 7/1/2013 00:00
End Date: 9/30/2013 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



WIND ROSE

(WINDS FROM)
N



0.00% PERCENT CALMS
(NOT INCLUDED IN PLOT)

Start Date: 7/1/2013 00:00

End Date: 9/30/2013 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
 DT97-50M

Enter Date of Trend Plot:

7/1/2013 00:00

Enter End Date

9/30/2013 23:00

