Oak Ridge Reservation
Quality Assurance Report
for Meteorological Towers
For Towers A, B, C, K, L, M, W, Y

Kevin R. Birdwell Computational Science and Engineering Division Oak Ridge National Laboratory

April 2009

### **Tower ID Summary:**

| Name    | Alternate Names | ORR Site | Elevation (m) | Easting, Northing (m) | Measuring Hts |
|---------|-----------------|----------|---------------|-----------------------|---------------|
| Tower A | MT4, 7571       | ORNL     | 263           | 743179,3978105        | 10,30         |
| Tower B | MT3, 6555, 07   | ORNL     | 256           | 743398,3979683        | 10,30         |
| Tower C | MT2, 1057, 03   | ORNL     | 261           | 741423,3978768        | 10,30,100     |
| Tower K | MT1, 1208       | ETTP     | 253           | 735675,3979503        | 10,60         |
| Tower L | MT7, 1209       | ETTP     | 233           | 735110,3978654        | 10,30         |
| Tower M | MT10, 208A      | ETTP     | 237           | 735720,3976860        | 10            |
| Tower W | MT6, Y12W, West | Y12      | 326           | 748890,3986700        | 10,60         |
| Tower Y | MT9, PSS Tower  | Y12      | 290           | 747926.3985859        | 15, 33        |

Wednesday, April 1, 2009

Compiled by KR Birdwell, MS6418, CSM/CSED, ORNL, Phone 865.576.2308

Email birdwellkr@ornl.gov, Pager 865.873.7149

### SITE STATUS (Instrumentation, 15-Minute Data Collection)

| Site Name | Status Time Range | % Data Recovered<br>15-min 60-min | Sensors Affected | Comments |
|-----------|-------------------|-----------------------------------|------------------|----------|
| Tower A   | OK                | 100.0 100.0                       |                  |          |
| Tower B   | OK                | 100.0 100.0                       |                  |          |
| Tower C   | OK                | 100.0 100.0                       |                  |          |
| Tower K   | OK                | 100.0 100.0                       |                  |          |
| Tower L   | OK                | 100.0 100.0                       |                  |          |
| Tower M   | OK                | 100.0 100.0                       |                  |          |
| Tower W   | OK                | 100.0 100.0                       |                  |          |
| Tower Y   | OK                | 100.0 100.0                       |                  |          |

### NETWORK INTERRUPTIONS

Affected Systems Time Range %Data Recovered Cause/Repair None

Special Notes

Wind speed threshold is 0.5 mph on all sites unless otherwise noted.

Weather Notes

Cold front passage 0800-1100 hrs; early AM thundershowers in area (western Roane County).

Thursday, April 2, 2009

Compiled by KR Birdwell, MS6418, CSM/CSED, ORNL, Phone 865.576.2308

Email birdwellkr@ornl.gov, Pager 865.873.7149

### SITE STATUS (Instrumentation, 15-Minute Data Collection)

| Site Name | Status Time Rai | ige % Data | a Recovered | Sensors Affected | Comments |
|-----------|-----------------|------------|-------------|------------------|----------|
|           |                 | 15-min     | 60-min      |                  |          |
| Tower A   | OK              | 100.0      | 100.0       |                  |          |
| Tower B   | OK              | 100.0      | 100.0       |                  |          |
| Tower C   | OK              | 100.0      | 100.0       |                  |          |
| Tower K   | OK              | 100.0      | 100.0       |                  |          |
| Tower L   | OK              | 100.0      | 100.0       |                  |          |
| Tower M   | OK              | 100.0      | 100.0       |                  |          |
| Tower W   | OK              | 100.0      | 100.0       |                  |          |
| Tower Y   | OK              | 100.0      | 100.0       |                  |          |

### NETWORK INTERRUPTIONS

Affected Systems Time Range None %Data Recovered

Cause/Repair

Special Notes

Wind speed threshold is 0.5 mph on all sites unless otherwise noted.

Weather Notes

Rain after 1830 hrs

Friday, April 3, 2009

Compiled by KR Birdwell, MS6418, CSM/CSED, ORNL, Phone 865.576.2308

Email birdwellkr@ornl.gov, Pager 865.873.7149

SITE STATUS (Instrumentation, 15-Minute Data Collection)

| Site Name | Status Time Range | % Data Recovered | Sensors Affected | Comments |
|-----------|-------------------|------------------|------------------|----------|
|           |                   | 15-min 60-min    |                  |          |
| Tower A   | OK                | 100.0 100.0      |                  |          |
| Tower B   | OK                | 100.0 100.0      |                  |          |
| Tower C   | OK                | 100.0 100.0      |                  |          |
| Tower K   | OK                | 100.0 100.0      |                  |          |
| Tower L   | OK                | 100.0 100.0      |                  |          |
| Tower M   | OK                | 100.0 100.0      |                  |          |
| Tower W   | OK                | 100.0 100.0      |                  |          |
| Tower Y   | OK                | 100.0 100.0      |                  |          |

### NETWORK INTERRUPTIONS

Affected Systems Time Range %Data Recovered Cause/Repair None

Special Notes

Wind speed threshold is 0.5 mph on all sites unless otherwise noted.

Weather Notes

Cold front passage 0500-0800 hrs; thundershowers in area around 0000-0100 hrs.

Saturday, April 4, 2009

Compiled by KR Birdwell, MS6418, CSM/CSED, ORNL, Phone 865.576.2308

Email birdwellkr@ornl.gov, Pager 865.873.7149

SITE STATUS (Instrumentation, 15-Minute Data Collection)

| Site Name | Status Time Range | % Data Recovered<br>15-min 60-min | Sensors Affected | Comments |
|-----------|-------------------|-----------------------------------|------------------|----------|
| Tower A   | OK                | 100.0 100.0                       |                  |          |
| Tower B   | OK                | 100.0 100.0                       |                  |          |
| Tower C   | OK                | 100.0 100.0                       |                  |          |
| Tower K   | OK                | 100.0 100.0                       |                  |          |
| Tower L   | OK                | 100.0 100.0                       |                  |          |
| Tower M   | OK                | 100.0 100.0                       |                  |          |
| Tower W   | OK                | 100.0 100.0                       |                  |          |
| Tower Y   | OK                | 100.0 100.0                       |                  |          |

### NETWORK INTERRUPTIONS

Affected Systems Time Range

%Data Recovered

Cause/Repair

None

Special Notes

Wind speed threshold is 0.5 mph on all sites unless otherwise noted.

Weather Notes

Sunday, April 5, 2009

Compiled by KR Birdwell, MS6418, CSM/CSED, ORNL, Phone 865.576.2308

Email birdwellkr@ornl.gov, Pager 865.873.7149

SITE STATUS (Instrumentation, 15-Minute Data Collection)

| Site Name | Status Time Range | % Data Recovered | Sensors Affected | Comments |
|-----------|-------------------|------------------|------------------|----------|
|           |                   | 15-min 60-min    |                  |          |
| Tower A   | OK                | 100.0 100.0      |                  |          |
| Tower B   | OK                | 100.0 100.0      |                  |          |
| Tower C   | OK                | 100.0 100.0      |                  |          |
| Tower K   | OK                | 100.0 100.0      |                  |          |
| Tower L   | OK                | 100.0 100.0      |                  |          |
| Tower M   | OK                | 100.0 100.0      |                  |          |
| Tower W   | OK                | 100.0 100.0      |                  |          |
| Tower Y   | OK                | 100.0 100.0      |                  |          |

### NETWORK INTERRUPTIONS

Affected Systems Time Range

%Data Recovered

Cause/Repair

None

Special Notes

Wind speed threshold is 0.5 mph on all sites unless otherwise noted.

Weather Notes

Monday, April 6, 2009

Compiled by KR Birdwell, MS6418, CSM/CSED, ORNL, Phone 865.576.2308

Email birdwellkr@ornl.gov, Pager 865.873.7149

### SITE STATUS (Instrumentation, 15-Minute Data Collection)

| Site Name | Status | Time Range | % Data | Recovered | Sensors Affected | Comments                                  |
|-----------|--------|------------|--------|-----------|------------------|---|
|           |        |            | 15-min | 60-min    |                  |   |
| Tower A   | OK     |            | 100.0  | 100.0     |                  |   |
| Tower B   | OK     |            | 100.0  | 100.0     |                  |   |
| Tower C   | OK     |            | 100.0  | 100.0     |                  |   |
| Tower K   | OK     |            | 100.0  | 100.0     |                  |   |
| Tower L   | OK     |            | 100.0  | 100.0     |                  |   |
| Tower M   | OK     |            | 100.0  | 100.0     |                  |   |
| Tower W   | ERR    | 2230       | 99.0   | 100.0     | All              | Missing 15-min data (Y-12 network error?) |
| Tower Y   | ERR    | 2230       | 99.0   | 100.0     | All              | Missing 15-min data (Y-12 network error?) |

### NETWORK INTERRUPTIONS

Affected Systems Time Range None %Data Recovered

Cause/Repair

Special Notes

Wind speed threshold is 0.5 mph on all sites unless otherwise noted.

Weather Notes

Cold front passage and thundershowers around 0000 to 0200 hrs.

Tuesday, April 7, 2009

Compiled by KR Birdwell, MS6418, CSM/CSED, ORNL, Phone 865.576.2308

Email birdwellkr@ornl.gov, Pager 865.873.7149

### SITE STATUS (Instrumentation, 15-Minute Data Collection)

| Site Name | Status Time Range | % Data Recovered | Sensors Affected | Comments |
|-----------|-------------------|------------------|------------------|----------|
|           |                   | 15-min 60-min    |                  |          |
| Tower A   | OK                | 100.0 100.0      |                  |          |
| Tower B   | OK                | 100.0 100.0      |                  |          |
| Tower C   | OK                | 100.0 100.0      |                  |          |
| Tower K   | OK                | 100.0 100.0      |                  |          |
| Tower L   | OK                | 100.0 100.0      |                  |          |
| Tower M   | OK                | 100.0 100.0      |                  |          |
| Tower W   | OK                | 100.0 100.0      |                  |          |
| Tower Y   | OK                | 100.0 100.0      |                  |          |

#### NETWORK INTERRUPTIONS

Affected Systems Time Range %Data Recovered Cause/Repair None

Special Notes

Wind speed threshold is 0.5 mph on all sites unless otherwise noted.

#### Weather Notes

Dusting of snow occurred early AM; snow flurries and rain showers throughout daylight hours in form of banded snow/rain showers crossing valley (oriented with same axis as the Great Valley)

Wednesday, April 8, 2009

Compiled by KR Birdwell, MS6418, CSM/CSED, ORNL, Phone 865.576.2308

Email birdwellkr@ornl.gov, Pager 865.873.7149

### SITE STATUS (Instrumentation, 15-Minute Data Collection)

| Site Name | Status | Time Range      | % Data | Recovered | Sensors Affected | Comments                                 |
|-----------|--------|-----------------|--------|-----------|------------------|--|
|           |        |                 | 15-min | 60-min    |                  |  |
| Tower A   | OK     |                 | 100.0  | 100.0     |                  |  |
| Tower B   | OK     |                 | 100.0  | 100.0     |                  |  |
| Tower C   | OK     |                 | 100.0  | 100.0     |                  |  |
| Tower K   | OK     |                 | 100.0  | 100.0     |                  |  |
| Tower L   | OK     |                 | 100.0  | 100.0     |                  |  |
| Tower M   | OK     |                 | 100.0  | 100.0     |                  |  |
| Tower W   | ERR    | 1230, 1630-1645 | 97.0   | 100.0     | All              | Missing 15-min data (Y12 network error?) |
| Tower Y   | OK     |                 | 100.0  | 100.0     |                  |  |

#### NETWORK INTERRUPTIONS

Affected Systems Time Range %Data Recovered Cause/Repair

None

Special Notes

Wind speed threshold is 0.5 mph on all sites unless otherwise noted.

Weather Notes

Thursday, April 9, 2009

Compiled by KR Birdwell, MS6418, CSM/CSED, ORNL, Phone 865.576.2308

Email birdwellkr@ornl.gov, Pager 865.873.7149

### SITE STATUS (Instrumentation, 15-Minute Data Collection)

| Site Name | Status Time Range | % Data Recovered | Sensors Affected | Comments |
|-----------|-------------------|------------------|------------------|----------|
|           |                   | 15-min 60-min    |                  |          |
| Tower A   | OK                | 100.0 100.0      |                  |          |
| Tower B   | OK                | 100.0 100.0      |                  |          |
| Tower C   | OK                | 100.0 100.0      |                  |          |
| Tower K   | OK                | 100.0 100.0      |                  |          |
| Tower L   | OK                | 100.0 100.0      |                  |          |
| Tower M   | OK                | 100.0 100.0      |                  |          |
| Tower W   | OK                | 100.0 100.0      |                  |          |
| Tower Y   | OK                | 100.0 100.0      |                  |          |

### NETWORK INTERRUPTIONS

Affected Systems Time Range

%Data Recovered

Cause/Repair

None

Special Notes

Wind speed threshold is 0.5 mph on all sites unless otherwise noted.

Weather Notes

Friday, April 10, 2009

Compiled by KR Birdwell, MS6418, CSM/CSED, ORNL, Phone 865.576.2308

Email birdwellkr@ornl.gov, Pager 865.873.7149

#### SITE STATUS (Instrumentation, 15-Minute Data Collection)

| Site Name | Status | Time Range | % Data Reco<br>15-min 60-n | 22112212                     | Comments  |
|-----------|--------|------------|----------------------------|------------------------------|---|
| Tower A   | ERR    | 1700-2345  | 72.0 72.                   | .0 Temp 10                   | Positive temperature bias for 10-meter sensor (likely related to water contamination from 04/10/09 storm event – problem self-corrected about 1700 hrs on 04/11/09. |
|           | OK     |            | 100.0 100.                 | .0 Other                     |   |
| Tower B   | OK     |            | 100.0 100.                 | .0                           |   |
| Tower C   | OK     |            | 100.0 100.                 | .0                           |   |
| Tower K   | ERR    | 1659-1926  | 85.0 88.                   | .0 Temp 10, Temp60, Dewpt 10 | Temperature data in error (lightning related, power-<br>surge error)  |
|           | ERR    | 1659-2359  | 71.0 72.                   | .0 WDir 10, WDir 60          | Wind direction values at 10 and 60 meters suspect (possible lightning damage)   |
|           | OK     |            | 100.0 100.                 | .0 Other                     |   |
| Tower L   | OK     |            | 100.0 100.                 | .0                           |   |
| Tower M   | OK     |            | 100.0 100.                 | .0                           |   |
| Tower W   | OK     |            | 100.0 100.                 | .0                           |   |
| Tower Y   | OK     |            | 100.0 100.                 | .0                           |   |

### NETWORK INTERRUPTIONS

Affected Systems Time Range %Data Recovered Cause/Repair None

Special Notes

Wind speed threshold is 0.5 mph on all sites unless otherwise noted.

Weather Notes

Thundershowers crossed area (West to East) from 0700-0800 hrs; Line of thunderstorms crossed area (West to East) from 1630 to 1800 hrs.

Saturday, April 11, 2009

Compiled by KR Birdwell, MS6418, CSM/CSED, ORNL, Phone 865.576.2308

Email birdwellkr@ornl.gov, Pager 865.873.7149

### SITE STATUS (Instrumentation, 15-Minute Data Collection)

| Site Name          | Status   | Time Range | % Data R<br>15-min     6 |                | Sensors Affected | Comments  |
|--------------------|----------|------------|--------------------------|----------------|------------------|---|
| Tower A            | ERR      | 0000-1645  |                          | 28.0           | Temp 10          | Positive temperature bias for 10-meter sensor (likely related to water contamination from 04/10/09 storm event – problem self-corrected about 1700 hrs on 04/11/09. |
|                    | ERR      | 0400-0445  | 96.0                     | 96.0           | Temp 30          | Temperature bias for 30-meter sensor (likely related to water contamination from 04/10/09 storm event)  |
|                    | OK       |            | 100.0 1                  | 0.00           | Other            |   |
| Tower B<br>Tower C | OK<br>OK |            |                          | 100.0<br>100.0 |                  |   |
| Tower K            | ERR      | 0000-1959  | 16.0                     | 16.0           | WDir 10, WDir 60 | Wind direction values at 10 and 60 meters suspect (possible lightning damage)   |
|                    | OK       |            | 100.0 1                  | 100.0          | Other            |   |
| Tower L            | OK       |            | 100.0 1                  | 100.0          |                  |   |
| Tower M            | OK       |            | 100.0 1                  | 100.0          |                  |   |

#### NETWORK INTERRUPTIONS

OK

OK

Affected Systems Time Range %Data Recovered Cause/Repair
None

100.0

100.0

100.0

100.0

Special Notes

Tower W

Tower Y

Wind speed threshold is 0.5 mph on all sites unless otherwise noted.

Weather Notes

Cold front passage 0000-0300 hrs.

Sunday, April 12, 2009

Compiled by KR Birdwell, MS6418, CSM/CSED, ORNL, Phone 865.576.2308

Email birdwellkr@ornl.gov, Pager 865.873.7149

### SITE STATUS (Instrumentation, 15-Minute Data Collection)

| Site Name | Status Time Range | % Data Recovered<br>15-min 60-min | Sensors Affected | Comments |
|-----------|-------------------|-----------------------------------|------------------|----------|
| Tower A   | OK                | 100.0 100.0                       |                  |          |
| Tower B   | OK                | 100.0 100.0                       |                  |          |
| Tower C   | OK                | 100.0 100.0                       |                  |          |
| Tower K   | OK                | 100.0 100.0                       |                  |          |
| Tower L   | OK                | 100.0 100.0                       |                  |          |
| Tower M   | OK                | 100.0 100.0                       |                  |          |
| Tower W   | OK                | 100.0 100.0                       |                  |          |
| Tower Y   | OK                | 100.0 100.0                       |                  |          |

### NETWORK INTERRUPTIONS

Affected Systems Time Range

%Data Recovered

Cause/Repair

None

Special Notes

Wind speed threshold is 0.5 mph on all sites unless otherwise noted.

Weather Notes

Monday, April 13, 2009

Compiled by KR Birdwell, MS6418, CSM/CSED, ORNL, Phone 865.576.2308

Email birdwellkr@ornl.gov, Pager 865.873.7149

### SITE STATUS (Instrumentation, 15-Minute Data Collection)

| Site Name | Status Time Range | % Data Recovered<br>15-min 60-min | Sensors Affected | Comments |
|-----------|-------------------|-----------------------------------|------------------|----------|
| Tower A   | OK                | 100.0 100.0                       |                  |          |
| Tower B   | OK                | 100.0 100.0                       |                  |          |
| Tower C   | OK                | 100.0 100.0                       |                  |          |
| Tower K   | OK                | 100.0 100.0                       |                  |          |
| Tower L   | OK                | 100.0 100.0                       |                  |          |
| Tower M   | OK                | 100.0 100.0                       |                  |          |
| Tower W   | OK                | 100.0 100.0                       |                  |          |
| Tower Y   | OK                | 100.0 100.0                       |                  |          |

### NETWORK INTERRUPTIONS

Affected Systems Time Range

%Data Recovered

Cause/Repair

None

Special Notes

Wind speed threshold is 0.5 mph on all sites unless otherwise noted.

Weather Notes

Tuesday, April 14, 2009

Compiled by KR Birdwell, MS6418, CSM/CSED, ORNL, Phone 865.576.2308

Email birdwellkr@ornl.gov, Pager 865.873.7149

### SITE STATUS (Instrumentation, 15-Minute Data Collection)

| Site Name | Status | Time Range      | % Data l | Recovered | Sensors Affected | Comments                               |
|-----------|--------|-----------------|----------|-----------|------------------|--|
|           |        |                 | 15-min   | 60-min    |                  |  |
| Tower A   | OK     |                 | 100.0    | 100.0     |                  |  |
| Tower B   | OK     |                 | 100.0    | 100.0     |                  |  |
| Tower C   | OK     |                 | 100.0    | 100.0     |                  |  |
| Tower K   | ERR    | 0930, 1445-1515 | 95.0     | 96.0      | WD10             | 10-meter wind direction values suspect |
| Tower L   | OK     |                 | 100.0    | 100.0     |                  | _                                      |
| Tower M   | OK     |                 | 100.0    | 100.0     |                  |  |
| Tower W   | ERR    | 1500-1530, 1915 |          |           |                  |  |
|           |        | 2245            | 94.0     | 96.0      | All              | Missing data (Y12 network error?)      |
| Tower Y   | OK     |                 | 100.0    | 100.0     |                  | <u>-</u>                               |

#### NETWORK INTERRUPTIONS

Affected Systems Time Range %Data Recovered Cause/Repair None

Special Notes
Wind speed threshold is 0.5 mph on all sites unless otherwise noted.

Weather Notes Cold front passage 0500-1400 hrs

Wednesday, April 15, 2009

Compiled by KR Birdwell, MS6418, CSM/CSED, ORNL, Phone 865.576.2308

Email birdwellkr@ornl.gov, Pager 865.873.7149

### SITE STATUS (Instrumentation, 15-Minute Data Collection)

| Site Name | Status | Time Range   | % Data Re | ecovered | Sensors Affected | Comments                          |
|-----------|--------|--|-----------|----------|------------------|-----------------------------------|
|           |        | , and the second | 15-min 6  | 0-min    |                  |                                   |
| Tower A   | OK     |  | 100.0 1   | 0.00     |                  |                                   |
| Tower B   | OK     |  | 100.0 1   | 0.00     |                  |                                   |
| Tower C   | OK     |  | 100.0 1   | 0.00     |                  |                                   |
| Tower K   | OK     |  | 100.0 1   | 0.00     |                  |                                   |
| Tower L   | OK     |  | 100.0 1   | 0.00     |                  |                                   |
| Tower M   | OK     |  | 100.0 1   | 0.00     |                  |                                   |
| Tower W   | ERR    | 0900-0915, 1600  | 97.0 1    | 0.00     | All              | Missing data (Y12 network error?) |
| Tower Y   | OK     |  | 100.0 1   | 00.0     |                  | _                                 |

### NETWORK INTERRUPTIONS

Affected Systems Time Range %Data Recovered Cause/Repair None

Special Notes

Wind speed threshold is 0.5 mph on all sites unless otherwise noted.

Weather Notes

Thursday, April 16, 2009

Compiled by KR Birdwell, MS6418, CSM/CSED, ORNL, Phone 865.576.2308

Email birdwellkr@ornl.gov, Pager 865.873.7149

### SITE STATUS (Instrumentation, 15-Minute Data Collection)

| Site Name | Status | Time Range | % Data | Recovered | Sensors Affected | Comments                          |
|-----------|--------|------------|--------|-----------|------------------|-----------------------------------|
|           |        |            | 15-min | 60-min    |                  |                                   |
| Tower A   | OK     |            | 100.0  | 100.0     |                  |                                   |
| Tower B   | OK     |            | 100.0  | 100.0     |                  |                                   |
| Tower C   | OK     |            | 100.0  | 100.0     |                  |                                   |
| Tower K   | OK     |            | 100.0  | 100.0     |                  |                                   |
| Tower L   | OK     |            | 100.0  | 100.0     |                  |                                   |
| Tower M   | OK     |            | 100.0  | 100.0     |                  |                                   |
| Tower W   | ERR    | 0800       | 99.0   | 100.0     | All              | Missing data (Y12 network error?) |
| Tower Y   | ERR    | 0800       | 99.0   | 100.0     | All              | Missing data (Y12 network error?) |

### NETWORK INTERRUPTIONS

Affected Systems Time Range None %Data Recovered

Cause/Repair

Special Notes

Wind speed threshold is 0.5 mph on all sites unless otherwise noted.

Weather Notes

Friday, April 17, 2009

Compiled by KR Birdwell, MS6418, CSM/CSED, ORNL, Phone 865.576.2308

Email birdwellkr@ornl.gov, Pager 865.873.7149

### SITE STATUS (Instrumentation, 15-Minute Data Collection)

| Site Name | Status | Time Range | % Data | Recovered | Sensors Affected | Comments                          |
|-----------|--------|------------|--------|-----------|------------------|-----------------------------------|
|           |        |            | 15-min | 60-min    |                  |                                   |
| Tower A   | OK     |            | 100.0  | 100.0     |                  |                                   |
| Tower B   | OK     |            | 100.0  | 100.0     |                  |                                   |
| Tower C   | OK     |            | 100.0  | 100.0     |                  |                                   |
| Tower K   | OK     |            | 100.0  | 100.0     |                  |                                   |
| Tower L   | OK     |            | 100.0  | 100.0     |                  |                                   |
| Tower M   | OK     |            | 100.0  | 100.0     |                  |                                   |
| Tower W   | ERR    | 2000       | 99.0   | 100.0     | All              | Missing data (Y12 network error?) |
| Tower Y   | ERR    | 2000       | 99.0   | 100.0     | All              | Missing data (Y12 network error?) |

### NETWORK INTERRUPTIONS

Affected Systems Time Range None %Data Recovered

Cause/Repair

Special Notes

Wind speed threshold is 0.5 mph on all sites unless otherwise noted.

Weather Notes

Saturday, April 18, 2009

Compiled by KR Birdwell, MS6418, CSM/CSED, ORNL, Phone 865.576.2308

Email birdwellkr@ornl.gov, Pager 865.873.7149

SITE STATUS (Instrumentation, 15-Minute Data Collection)

| Site Name | Status Time Range | % Data Recovered | Sensors Affected | Comments |
|-----------|-------------------|------------------|------------------|----------|
|           |                   | 15-min 60-min    |                  |          |
| Tower A   | OK                | 100.0 100.0      |                  |          |
| Tower B   | OK                | 100.0 100.0      |                  |          |
| Tower C   | OK                | 100.0 100.0      |                  |          |
| Tower K   | OK                | 100.0 100.0      |                  |          |
| Tower L   | OK                | 100.0 100.0      |                  |          |
| Tower M   | OK                | 100.0 100.0      |                  |          |
| Tower W   | OK                | 100.0 100.0      |                  |          |
| Tower Y   | OK                | 100.0 100.0      |                  |          |

### NETWORK INTERRUPTIONS

Affected Systems Time Range

%Data Recovered

Cause/Repair

None

Special Notes

Wind speed threshold is 0.5 mph on all sites unless otherwise noted.

Weather Notes

Sunday, April 19, 2009

Compiled by KR Birdwell, MS6418, CSM/CSED, ORNL, Phone 865.576.2308

Email birdwellkr@ornl.gov, Pager 865.873.7149

SITE STATUS (Instrumentation, 15-Minute Data Collection)

| Site Name | Status Time Range | % Data Recovered | Sensors Affected | Comments |
|-----------|-------------------|------------------|------------------|----------|
|           |                   | 15-min 60-min    |                  |          |
| Tower A   | OK                | 100.0 100.0      |                  |          |
| Tower B   | OK                | 100.0 100.0      |                  |          |
| Tower C   | OK                | 100.0 100.0      |                  |          |
| Tower K   | OK                | 100.0 100.0      |                  |          |
| Tower L   | OK                | 100.0 100.0      |                  |          |
| Tower M   | OK                | 100.0 100.0      |                  |          |
| Tower W   | OK                | 100.0 100.0      |                  |          |
| Tower Y   | OK                | 100.0 100.0      |                  |          |
|           |                   |                  |                  |          |

### NETWORK INTERRUPTIONS

Affected Systems Time Range

%Data Recovered

Cause/Repair

None

Special Notes

Wind speed threshold is 0.5 mph on all sites unless otherwise noted.

Weather Notes

Monday, April 20, 2009

Compiled by KR Birdwell, MS6418, CSM/CSED, ORNL, Phone 865.576.2308

Email birdwellkr@ornl.gov, Pager 865.873.7149

### SITE STATUS (Instrumentation, 15-Minute Data Collection)

| Site Name | Status | Time Range | % Data | Recovered | Sensors Affected | Comments                                 |
|-----------|--------|------------|--------|-----------|------------------|--|
|           |        |            | 15-min | 60-min    |                  |  |
| Tower A   | OK     |            | 100.0  | 100.0     |                  |  |
| Tower B   | OK     |            | 100.0  | 100.0     |                  |  |
| Tower C   | OK     |            | 100.0  | 100.0     |                  |  |
| Tower K   | OK     |            | 100.0  | 100.0     |                  |  |
| Tower L   | OK     |            | 100.0  | 100.0     |                  |  |
| Tower M   | OK     |            | 100.0  | 100.0     |                  |  |
| Tower W   | ERR    | 1015, 1145 | 98.0   | 100.0     | All              | Missing 15-min data (Y12 network error?) |
| Tower Y   | ERR    | 1015, 1145 | 98.0   | 100.0     | All              | Missing 15-min data (Y12 network error?) |

### NETWORK INTERRUPTIONS

Affected Systems Time Range None %Data Recovered

Cause/Repair

Special Notes

Wind speed threshold is 0.5 mph on all sites unless otherwise noted.

Weather Notes

Cold front passage centered around 0800 hrs.

Tuesday, April 21, 2009

Compiled by KR Birdwell, MS6418, CSM/CSED, ORNL, Phone 865.576.2308

Email birdwellkr@ornl.gov, Pager 865.873.7149

### SITE STATUS (Instrumentation, 15-Minute Data Collection)

| Site Name | Status Time Range | % Data Recovered | Sensors Affected | Comments |
|-----------|-------------------|------------------|------------------|----------|
|           |                   | 15-min 60-min    |                  |          |
| Tower A   | OK                | 100.0 100.0      |                  |          |
| Tower B   | OK                | 100.0 100.0      |                  |          |
| Tower C   | OK                | 100.0 100.0      |                  |          |
| Tower K   | OK                | 100.0 100.0      |                  |          |
| Tower L   | OK                | 100.0 100.0      |                  |          |
| Tower M   | OK                | 100.0 100.0      |                  |          |
| Tower W   | OK                | 100.0 100.0      |                  |          |
| Tower Y   | OK                | 100.0 100.0      |                  |          |

### NETWORK INTERRUPTIONS

Affected Systems Time Range

%Data Recovered

Cause/Repair

None

Special Notes

Wind speed threshold is 0.5 mph on all sites unless otherwise noted.

Weather Notes

Cold front passage around 1200 hrs

Wednesday, April 22, 2009

Compiled by KR Birdwell, MS6418, CSM/CSED, ORNL, Phone 865.576.2308

Email birdwellkr@ornl.gov, Pager 865.873.7149

SITE STATUS (Instrumentation, 15-Minute Data Collection)

| Site Name | Status Time Range | % Data Recovered | Sensors Affected | Comments |
|-----------|-------------------|------------------|------------------|----------|
|           |                   | 15-min 60-min    |                  |          |
| Tower A   | OK                | 100.0 100.0      |                  |          |
| Tower B   | OK                | 100.0 100.0      |                  |          |
| Tower C   | OK                | 100.0 100.0      |                  |          |
| Tower K   | OK                | 100.0 100.0      |                  |          |
| Tower L   | OK                | 100.0 100.0      |                  |          |
| Tower M   | OK                | 100.0 100.0      |                  |          |
| Tower W   | OK                | 100.0 100.0      |                  |          |
| Tower Y   | OK                | 100.0 100.0      |                  |          |
|           |                   |                  |                  |          |

### NETWORK INTERRUPTIONS

Affected Systems Time Range

%Data Recovered

Cause/Repair

None

Special Notes

Wind speed threshold is 0.5 mph on all sites unless otherwise noted.

Weather Notes

Thursday, April 23, 2009

Compiled by KR Birdwell, MS6418, CSM/CSED, ORNL, Phone 865.576.2308

Email birdwellkr@ornl.gov, Pager 865.873.7149

### SITE STATUS (Instrumentation, 15-Minute Data Collection)

| Site Name | Status | Time Range | % Data | Recovered | Sensors Affected | Comments                                 |
|-----------|--------|------------|--------|-----------|------------------|--|
|           |        |            | 15-min | 60-min    |                  |  |
| Tower A   | OK     |            | 100.0  | 100.0     |                  |  |
| Tower B   | OK     |            | 100.0  | 100.0     |                  |  |
| Tower C   | OK     |            | 100.0  | 100.0     |                  |  |
| Tower K   | ERR    | 1029-1515  | 75.0   | 75.0      | All              | Missing data (power failure)             |
| Tower L   | OK     |            | 100.0  | 100.0     |                  |  |
| Tower M   | OK     |            | 100.0  | 100.0     |                  |  |
| Tower W   | ERR    | 1600       | 99.0   | 100.0     | All              | Missing 15-min data (Y12 network error?) |
| Tower Y   | ERR    | 1600       | 99.0   | 100.0     | All              | Missing 15-min data (Y12 network error?) |

### NETWORK INTERRUPTIONS

Affected Systems Time Range None %Data Recovered

Cause/Repair

Special Notes

Wind speed threshold is 0.5 mph on all sites unless otherwise noted.

Weather Notes

Warm front passage PM hours

Friday, April 24, 2009

Compiled by KR Birdwell, MS6418, CSM/CSED, ORNL, Phone 865.576.2308

Email birdwellkr@ornl.gov, Pager 865.873.7149

SITE STATUS (Instrumentation, 15-Minute Data Collection)

| Range % Data Recovered   | Sensors Affected Comments |
|--|---------------------------|
| 15-min 60-min  |                           |
| 100.0 100.0  |                           |
| 100.0 100.0  |                           |
| 100.0 100.0  |                           |
| 100.0 100.0  |                           |
| 100.0 100.0  |                           |
| 100.0 100.0  |                           |
| 100.0 100.0  |                           |
| 100.0 100.0  |                           |
| 100.0 100.0<br>100.0 100.0<br>100.0 100.0<br>100.0 100.0<br>100.0 100.0<br>100.0 100.0 |                           |

### NETWORK INTERRUPTIONS

Affected Systems Time Range

%Data Recovered

Cause/Repair

None

Special Notes

Wind speed threshold is 0.5 mph on all sites unless otherwise noted.

Weather Notes

Saturday, April 25, 2009

Compiled by KR Birdwell, MS6418, CSM/CSED, ORNL, Phone 865.576.2308

Email birdwellkr@ornl.gov, Pager 865.873.7149

### SITE STATUS (Instrumentation, 15-Minute Data Collection)

| Site Name | Status Time Range | % Data Recovered<br>15-min 60-min | Sensors Affected | Comments |
|-----------|-------------------|-----------------------------------|------------------|----------|
| Tower A   | OK                | 100.0 100.0                       |                  |          |
| Tower B   | OK                | 100.0 100.0                       |                  |          |
| Tower C   | OK                | 100.0 100.0                       |                  |          |
| Tower K   | OK                | 100.0 100.0                       |                  |          |
| Tower L   | OK                | 100.0 100.0                       |                  |          |
| Tower M   | OK                | 100.0 100.0                       |                  |          |
| Tower W   | OK                | 100.0 100.0                       |                  |          |
| Tower Y   | OK                | 100.0 100.0                       |                  |          |

### NETWORK INTERRUPTIONS

Affected Systems Time Range

%Data Recovered

Cause/Repair

None

Special Notes

Wind speed threshold is 0.5 mph on all sites unless otherwise noted.

Weather Notes

Late afternoon (1500-1900 hrs) thunderstorm development on Smoky Mts.

Sunday, April 26, 2009

Compiled by KR Birdwell, MS6418, CSM/CSED, ORNL, Phone 865.576.2308

Email birdwellkr@ornl.gov, Pager 865.873.7149

SITE STATUS (Instrumentation, 15-Minute Data Collection)

| Range % Data Recovered   | Sensors Affected Comments |
|--|---------------------------|
| 15-min 60-min  |                           |
| 100.0 100.0  |                           |
| 100.0 100.0  |                           |
| 100.0 100.0  |                           |
| 100.0 100.0  |                           |
| 100.0 100.0  |                           |
| 100.0 100.0  |                           |
| 100.0 100.0  |                           |
| 100.0 100.0  |                           |
| 100.0 100.0<br>100.0 100.0<br>100.0 100.0<br>100.0 100.0<br>100.0 100.0<br>100.0 100.0 |                           |

### NETWORK INTERRUPTIONS

Affected Systems Time Range

%Data Recovered

Cause/Repair

None

Special Notes

Wind speed threshold is 0.5 mph on all sites unless otherwise noted.

Weather Notes

Monday, April 27, 2009

Compiled by KR Birdwell, MS6418, CSM/CSED, ORNL, Phone 865.576.2308

Email birdwellkr@ornl.gov, Pager 865.873.7149

### SITE STATUS (Instrumentation, 15-Minute Data Collection)

| Site Name | Status Time Range | % Data Recovered<br>15-min 60-min | Sensors Affected | Comments |
|-----------|-------------------|-----------------------------------|------------------|----------|
| Tower A   | OK                | 100.0 100.0                       |                  |          |
| Tower B   | OK                | 100.0 100.0                       |                  |          |
| Tower C   | OK                | 100.0 100.0                       |                  |          |
| Tower K   | OK                | 100.0 100.0                       |                  |          |
| Tower L   | OK                | 100.0 100.0                       |                  |          |
| Tower M   | OK                | 100.0 100.0                       |                  |          |
| Tower W   | OK                | 100.0 100.0                       |                  |          |
| Tower Y   | OK                | 100.0 100.0                       |                  |          |

### NETWORK INTERRUPTIONS

Affected Systems Time Range None

%Data Recovered

Cause/Repair

Special Notes

Wind speed threshold is 0.5 mph on all sites unless otherwise noted.

Weather Notes

Tuesday, April 28, 2009

Compiled by KR Birdwell, MS6418, CSM/CSED, ORNL, Phone 865.576.2308

Email birdwellkr@ornl.gov, Pager 865.873.7149

### SITE STATUS (Instrumentation, 15-Minute Data Collection)

| Site Name | Status Time Range | % Data Recovered<br>15-min 60-min | Sensors Affected | Comments |
|-----------|-------------------|-----------------------------------|------------------|----------|
| Tower A   | OK                | 100.0 100.0                       |                  |          |
| Tower B   | OK                | 100.0 100.0                       |                  |          |
| Tower C   | OK                | 100.0 100.0                       |                  |          |
| Tower K   | OK                | 100.0 100.0                       |                  |          |
| Tower L   | OK                | 100.0 100.0                       |                  |          |
| Tower M   | OK                | 100.0 100.0                       |                  |          |
| Tower W   | OK                | 100.0 100.0                       |                  |          |
| Tower Y   | OK                | 100.0 100.0                       |                  |          |

### NETWORK INTERRUPTIONS

Affected Systems Time Range

%Data Recovered

Cause/Repair

None

Special Notes

Wind speed threshold is 0.5 mph on all sites unless otherwise noted.

Weather Notes

Wednesday, April 29, 2009

Compiled by KR Birdwell, MS6418, CSM/CSED, ORNL, Phone 865.576.2308

Email birdwellkr@ornl.gov, Pager 865.873.7149

### SITE STATUS (Instrumentation, 15-Minute Data Collection)

| Site Name | Status | Time Range | % Data Recoverea<br>15-min 60-min | l Sensors Affected | Comments  |
|-----------|--------|------------|-----------------------------------|--------------------|---|
| Tower A   | OK     |            | 100.0 100.0                       |                    |   |
| Tower B   | OK     |            | 100.0 100.0                       |                    |   |
| Tower C   | OK     |            | 100.0 100.0                       |                    |   |
| Tower K   | ERR    | 1000-2145  | 50.0 50.0                         | WD10               | 10-m wind direction values suspicious (may be after-effect of 04/10/09 storm event) |
|           | OK     |            | 100.0 100.0                       | Other              |   |
| Tower L   | OK     |            | 100.0 100.0                       |                    |   |
| Tower M   | OK     |            | 100.0 100.0                       |                    |   |
| Tower W   | OK     |            | 100.0 100.0                       |                    |   |
| Tower Y   | OK     |            | 100.0 100.0                       |                    |   |

#### NETWORK INTERRUPTIONS

Affected Systems Time Range %Data Recovered Cause/Repair
None

Special Notes

Wind speed threshold is 0.5 mph on all sites unless otherwise noted.

Weather Notes

Thursday, April 30, 2009

Compiled by KR Birdwell, MS6418, CSM/CSED, ORNL, Phone 865.576.2308

Email birdwellkr@ornl.gov, Pager 865.873.7149

### SITE STATUS (Instrumentation, 15-Minute Data Collection)

| Site Name | Status | Time Range | % Data Reco<br>15-min 60-i | 33       | Comments  |
|-----------|--------|------------|----------------------------|----------|---|
| Tower A   | OK     |            | 100.0 100                  | .0       |   |
| Tower B   | OK     |            | 100.0 100                  | .0       |   |
| Tower C   | OK     |            | 100.0 100                  | .0       |   |
| Tower K   | ERR    | 0800-2345  | 67.0 67                    | .0 WD10  | 10-m wind direction values suspicious (may be after-effect of 04/10/09 storm event) |
|           | OK     |            | 100.0 100                  | .0 Other |   |
| Tower L   | OK     |            | 100.0 100                  | .0       |   |
| Tower M   | OK     |            | 100.0 100                  | .0       |   |
| Tower W   | OK     |            | 100.0 100                  | .0       |   |
| Tower Y   | OK     |            | 100.0 100                  | .0       |   |

#### NETWORK INTERRUPTIONS

Affected Systems Time Range %Data Recovered Cause/Repair
None

Special Notes

Wind speed threshold is 0.5 mph on all sites unless otherwise noted.

Weather Notes