

## File Names

| File # | Original File Name                                       |
|--------|--|
| 1      | PAC2001_CONV_SML_PART-CNT+O3_FL-04_PR-02_20010825_V1.csv |

## Dataset Key Phrases

| Data Exchange Standard Version | Principal Investigator Name--last first | Principal Investigator Affiliation                            | File Contents Description--short long                           | Sampling Interval As Reported in Main Table |
|--------------------------------|---|---|---|---|
| NARSTO 2002/05/28 (2.301)      | Li ; Dr. Shao-Meng                      | Air Quality Research Branch, Meteorological Service of Canada | Aerosol_size+O3 ; Aerosol elemental size distribution and ozone | 1 second                                    |

| Sampling Frequency Of Data in Main Table | Quality Control Level | Organization Acronym | Organization Name  | Data Usage Acknowledgement  | Study Or Network Acronym |
|--|-----------------------|----------------------|--------------------|---|--------------------------|
| Same as sampling interval                | 1                     | ENVCAN               | Environment Canada | Meteorological Service of Canada, Environment Canada, 4905 Dufferin St., Toronto, Ont. Canada M3H 5T4 | PAC2001                  |

| Study Or Network Name | Country Code | State Or Province Code | Principal Investigator Contact Information   | Co-investigator Name--last first | Co-investigator Affiliation                                   |
|-----------------------|--------------|------------------------|--|----------------------------------|---|
| PACIFIC 2001          | CA (CANADA)  | BC                     | Dr. Shao-Meng Li, 4905 Dufferin St., Toronto ON, CANADA, M3H 5T4 Shao-Meng.Li@ec.gc.ca | None ; None                      | Air Quality Research Branch, Meteorological Service of Canada |

| Name And Affiliation Of Person Who Generated This File | Date Of Last Modification To Data In Main Table | Name And Version Of Software Used To Create This File |
|--|---|---|
| Greg Skelton, SKELTON TECHNICAL SERVICES INC           | 2003/09/19                                      | Excel/2000  |

| Companion File Name format And Version          | Date This File Generated archive Version Number | Table Explanation Of Zero Or Negative Values                        | Table Explanation Of Reported Detection Limit Values |
|---|---|---|--|
| PAC2001_AIRCRAFT_REPORT.zip ; Adobe Acrobat 4.0 | 2004/07/19 ; 1                                  | Zero values for particle count measurements represent actual values | Information not available                            |

| Table Explanation Of Reported Uncertainty | Table User Note | Table User Note2 | Table User Note3 | Table User Note4 | Table Name            | Table Focus     |
|---|-----------------|------------------|------------------|------------------|-----------------------|-----------------|
| Information not available                 | None            | None             |                  |                  | Aerosol_size_distr+O3 | Aloft--aircraft |

## Site Information

| Site ID      | Name        | State<br>Province code | Latitude: decimal degree | Longitude: decimal degree | Sampling height<br>above ground (m) | Ground elevation<br>above sea level (m) | site_land_use |
|--------------|-------------|------------------------|--------------------------|---------------------------|-------------------------------------|---|---------------|
| PC01CABCABTF | Abbotsford  | BC                     | 49.02347                 | -122.34375                | .                                   | 72                                      | .             |
| PC01CABCCONV | Convair 580 | BC                     | -99.99999                | -99.99999                 | .                                   | -99.9                                   | .             |

| Site ID      | site_location_setting | Measurement start date | Measurement end date | Co-incident<br>measurements | Study site ID | Lat<br>lon accuracy |
|--------------|-----------------------|------------------------|----------------------|-----------------------------|---------------|---------------------|
| PC01CABCABTF | .                     | 2001/08/14             | 2001/08/30           |                             |               | .                   |
| PC01CABCCONV | .                     | 2001/08/14             | 2001/08/30           |                             |               | .                   |

## NARSTO Standard Flags

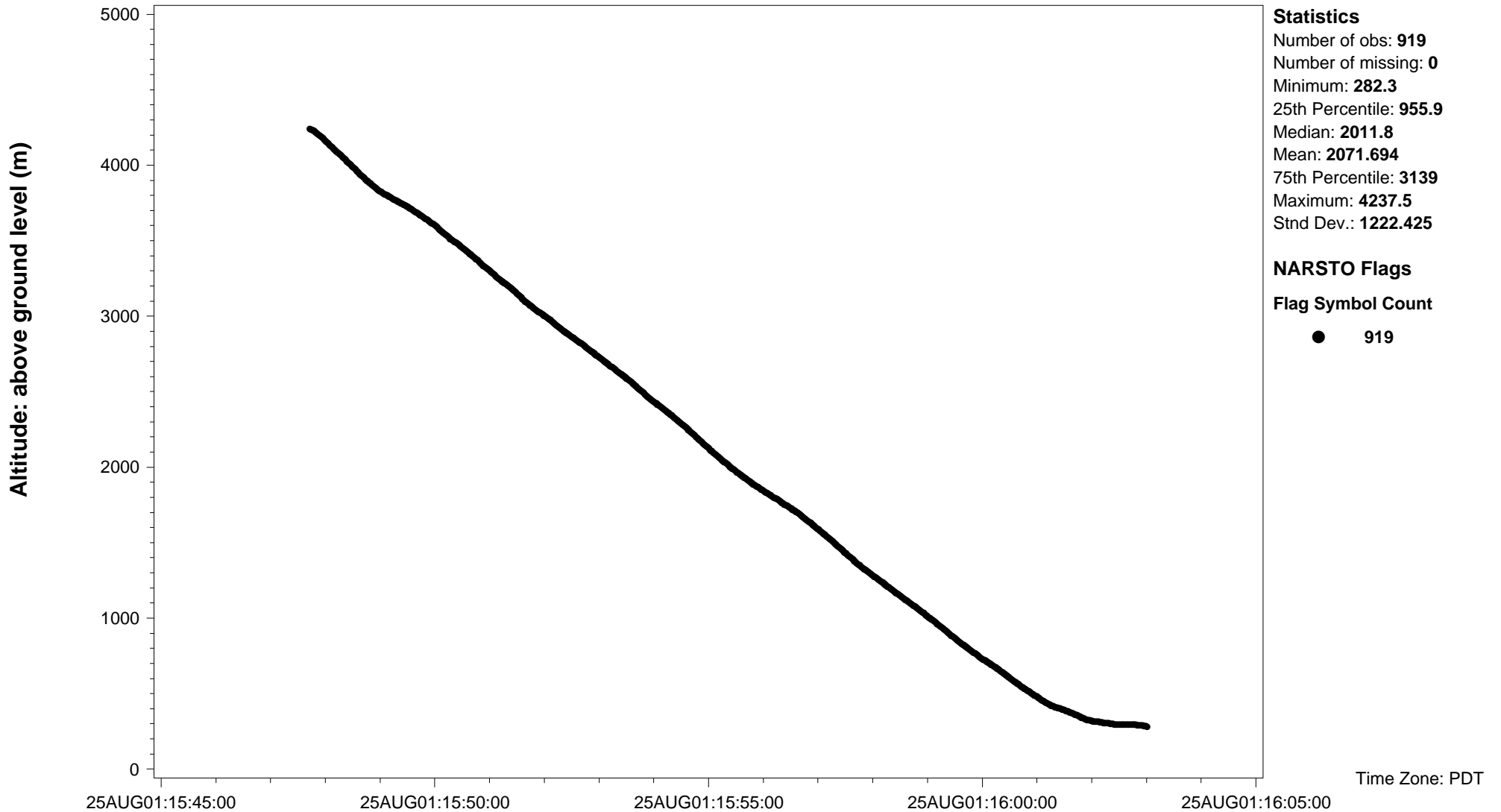
| Flag: NARSTO | Description  |
|--------------|--|
| M1           | Missing value because no value is available          |
| M2           | Missing value because invalidated by data originator |
| V0           | Valid value  |

# NAtChem Time Series Plot

24SEP2004

Site ID: **PC01CABCCONV** Variable name: **Altitude: above ground level** Units: **m** Sampling interval: **1 second**  
Sampling frequency: **Same as sampling interval** Observation type: **Supplementary data** Field sampling or measurement principle: **Radar**  
Sampling Height above ground (m): **Varies--see variable Alti** Instrument name and model number: **Information not available**  
Measurement principal investigator: **Dr. Shao-Meng Li** Detection Limit: **35 m**

Site Name: **Convair 580, British Columbia** Flight ID: **Flight\_04\_P02** Start Date: **2001-08-14** End Date: **2001-08-30**



# NAtChem Time Series Plot

24SEP2004

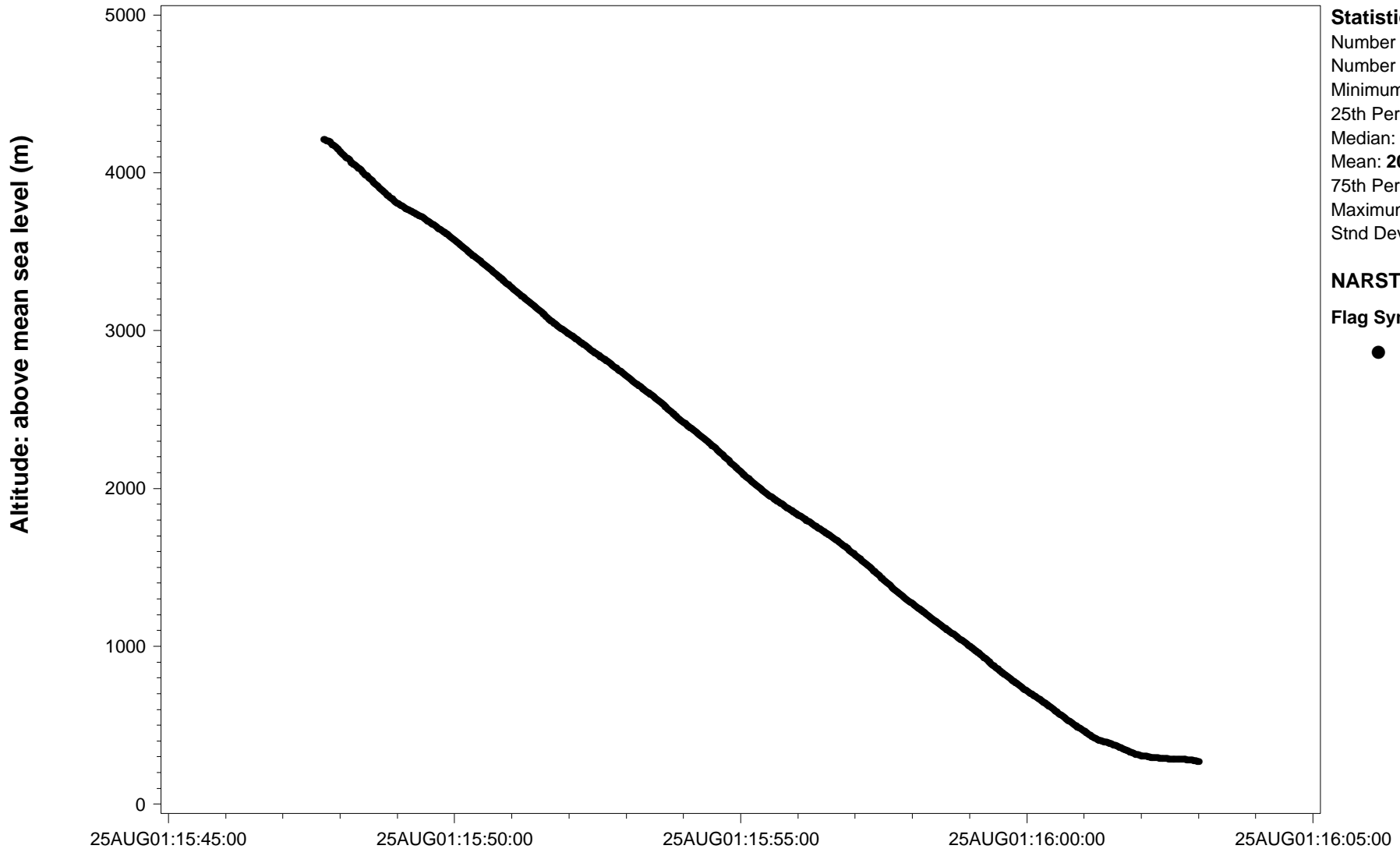
Site ID: **PC01CABCCONV** Variable name: **Altitude: above mean sea level** Units: **m** Sampling interval: **1 second**

Sampling frequency: **Same as sampling interval** Observation type: **Supplementary data**

Field sampling or measurement principle: **Aircraft instrumentation** Sampling Height above ground (m): **Varies--see variable Alti**

Instrument name and model number: **Information not available** Measurement principal investigator: **Dr. Shao-Meng Li** Detection Limit: **35 m**

Site Name: **Convair 580, British Columbia** Flight ID: **Flight\_04\_P02** Start Date: **2001-08-14** End Date: **2001-08-30**



## Statistics

Number of obs: **919**  
Number of missing: **0**  
Minimum: **271**  
25th Percentile: **945**  
Median: **1994**  
Mean: **2055.047**  
75th Percentile: **3113**  
Maximum: **4214**  
Std Dev.: **1218.006**

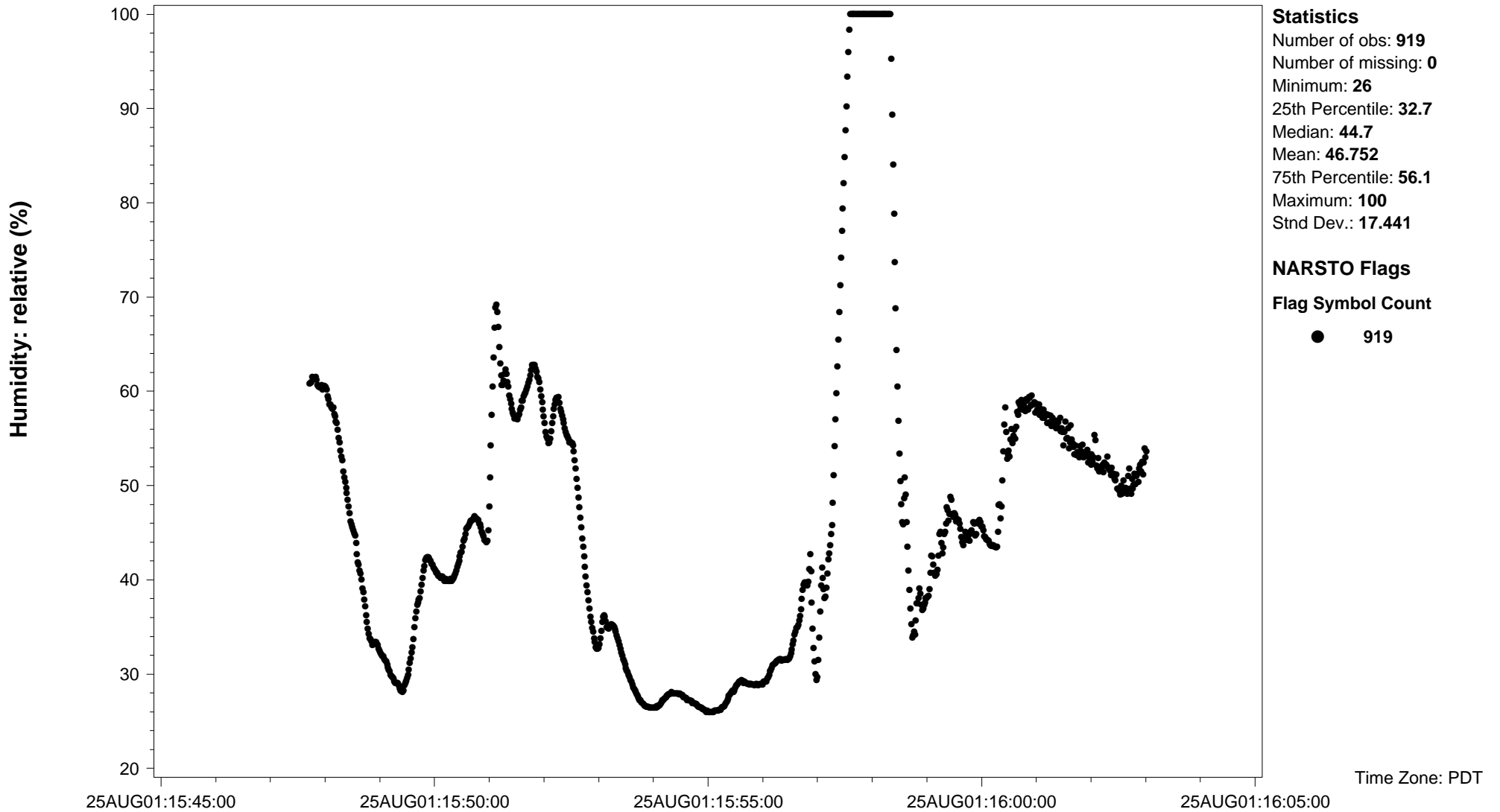
## NARSTO Flags

### Flag Symbol Count

● 919

Time Zone: PDT

Site ID: **PC01CABCCONV** Variable name: **Humidity: relative** Units: % Sampling interval: **1 second** Sampling frequency: **Same as sampling interval**  
 Observation type: **Supplementary data** Field sampling or measurement principle: **Aircraft instrumentation**  
 Sampling Height above ground (m): **Varies--see variable Alti** Measurement principal investigator: **Dr. Shao-Meng Li**  
 Site Name: **Convair 580, British Columbia** Flight ID: **Flight\_04\_P02** Start Date: **2001-08-14** End Date: **2001-08-30**

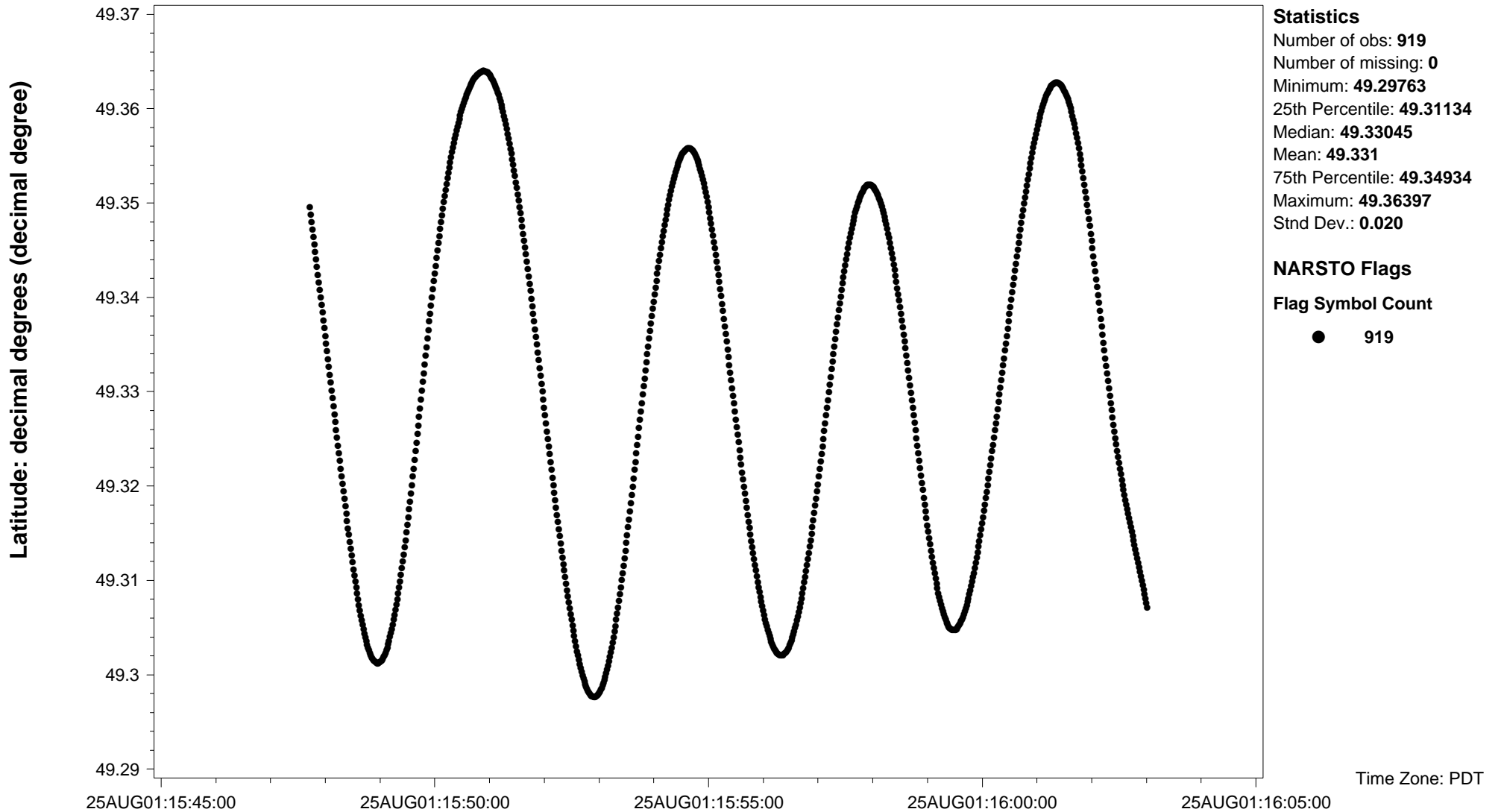


NAtChem Time Series Plot

24SEP2004

Site ID: **PC01CABCCONV** Variable name: **Latitude: decimal degrees** Units: **decimal degree** Sampling interval: **1 second**  
 Sampling frequency: **Same as sampling interval** Observation type: **Supplementary data** Field sampling or measurement principle: **GPS**  
 Sampling Height above ground (m): **Varies--see variable Alti** Instrument name and model number: **North Star and Trimble GPS**  
 Measurement principal investigator: **Dr. Shao-Meng Li** Detection Limit: **15 m**

Site Name: **Convair 580, British Columbia** Flight ID: **Flight\_04\_P02** Start Date: **2001-08-14** End Date: **2001-08-30**



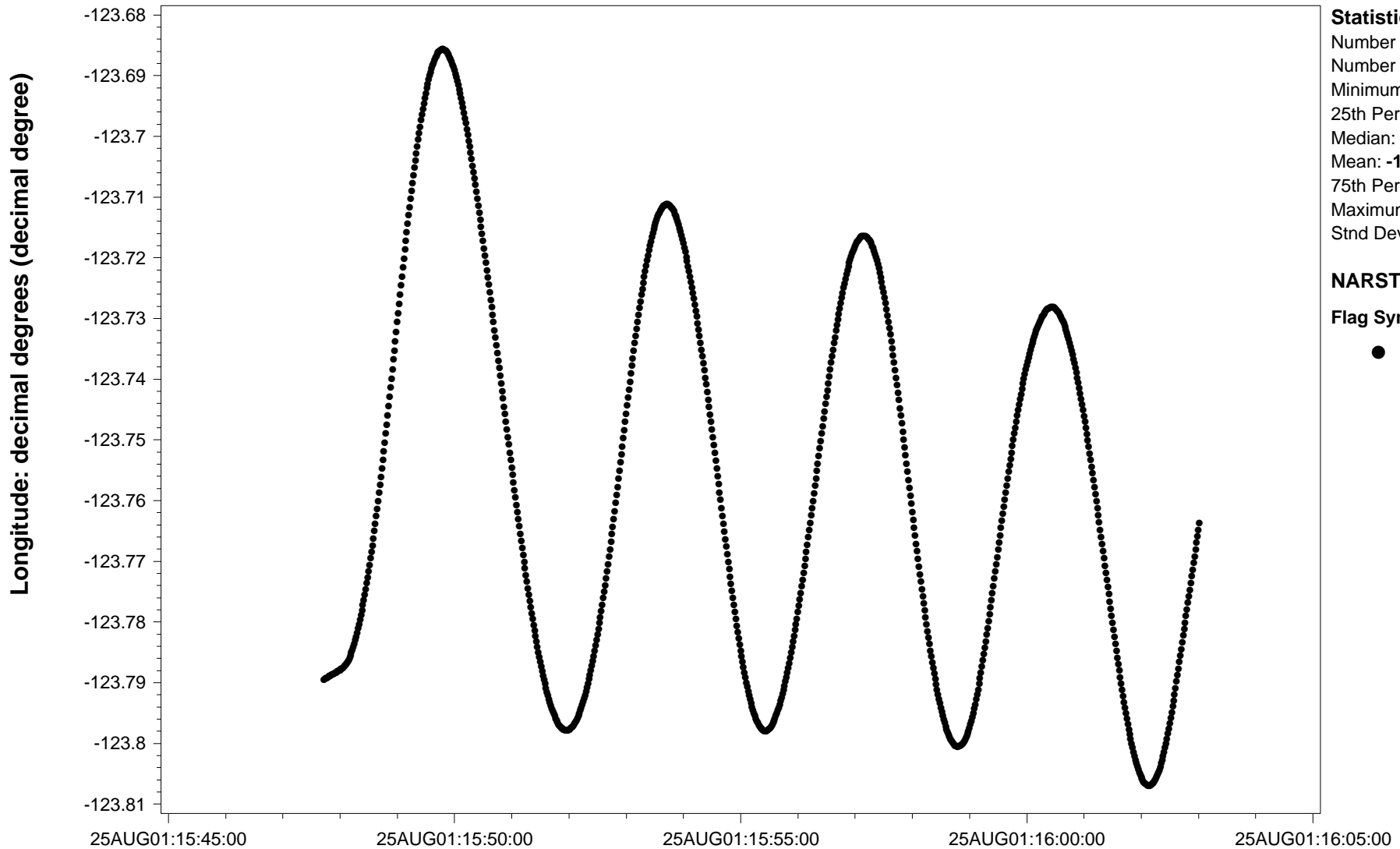


NATchem Time Series Plot

24SEP2004

Site ID: **PC01CABCCONV** Variable name: **Longitude: decimal degrees** Units: **decimal degree** Sampling interval: **1 second**  
 Sampling frequency: **Same as sampling interval** Observation type: **Supplementary data** Field sampling or measurement principle: **GPS**  
 Sampling Height above ground (m): **Varies--see variable Alti** Instrument name and model number: **North Star and Trimble GPS**  
 Measurement principal investigator: **Dr. Shao-Meng Li** Detection Limit: **15 m**

Site Name: **Convair 580, British Columbia** Flight ID: **Flight\_04\_P02** Start Date: **2001-08-14** End Date: **2001-08-30**

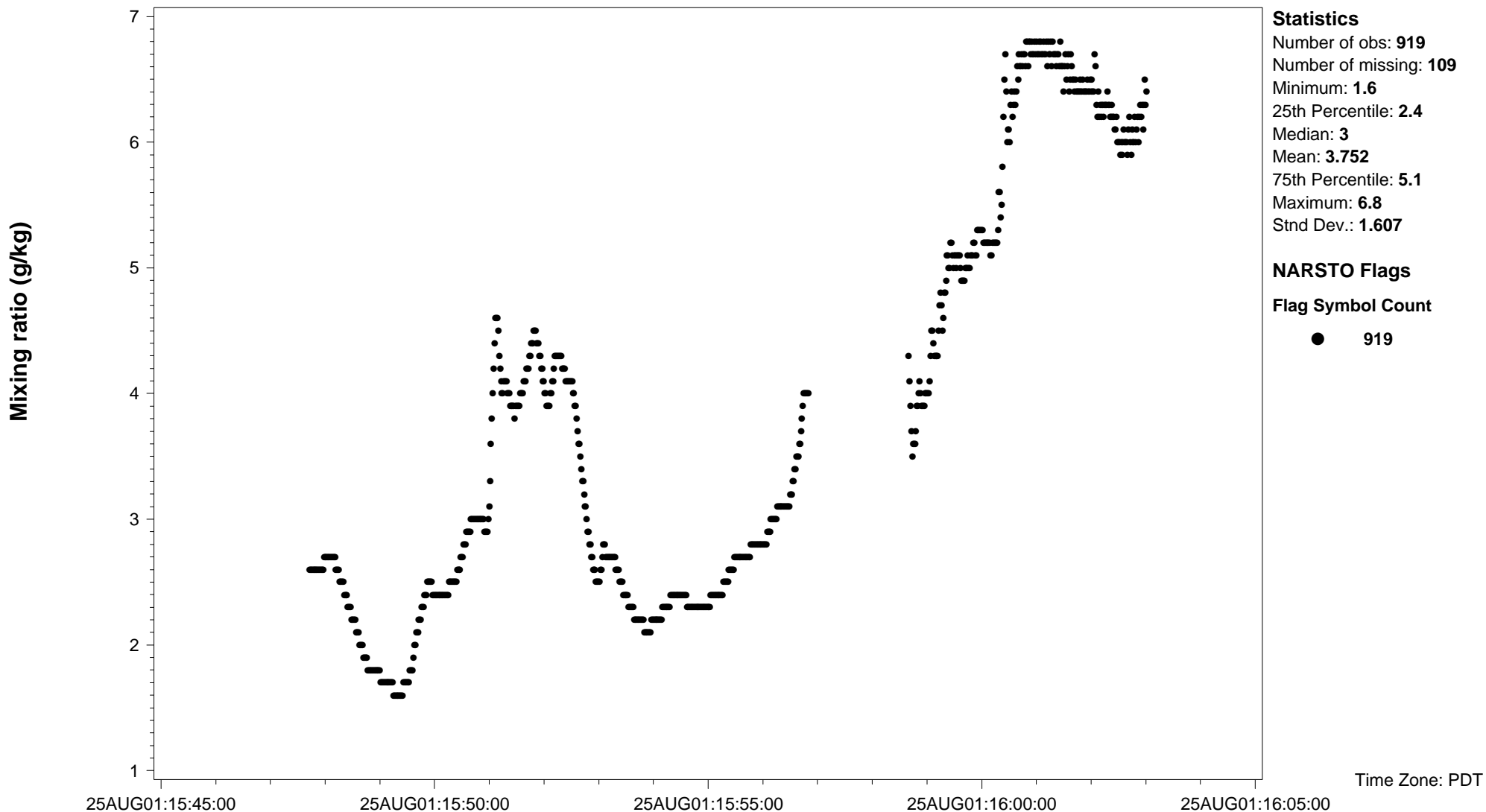


**Statistics**  
 Number of obs: **919**  
 Number of missing: **0**  
 Minimum: **-123.80695**  
 25th Percentile: **-123.78767**  
 Median: **-123.76121**  
 Mean: **-123.757**  
 75th Percentile: **-123.72945**  
 Maximum: **-123.68568**  
 Stnd Dev.: **0.033**

**NARSTO Flags**  
 Flag Symbol Count  
 ● 919

Time Zone: PDT

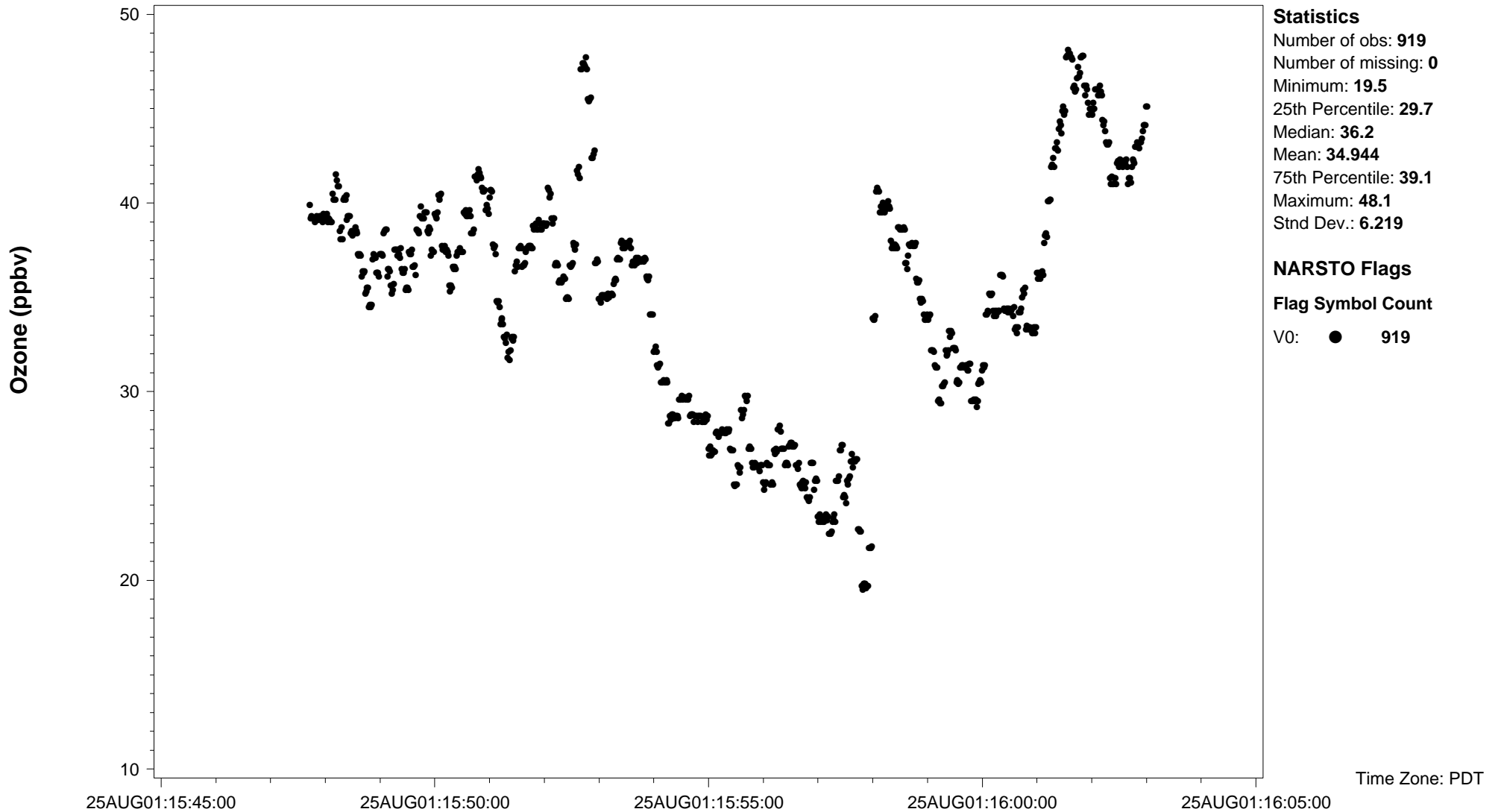
Site ID: **PC01CABCCONV** Variable name: **Mixing ratio** Units: **g/kg** Sampling interval: **1 second** Sampling frequency: **Same as sampling interval**  
 Observation type: **Supplementary data** Field sampling or measurement principle: **Ultraviolet absorption**  
 Sampling Height above ground (m): **Varies--see variable Alti** Measurement principal investigator: **Dr. Shao-Meng Li**  
 Site Name: **Convair 580, British Columbia** Flight ID: **Flight\_04\_P02** Start Date: **2001-08-14** End Date: **2001-08-30**



NATchem Time Series Plot

24SEP2004

Site ID: **PC01CABCCONV** Variable name: **Ozone** Units: **ppbv** Sampling interval: **1 second** Sampling frequency: **Same as sampling interval**  
 CAS ID: **C10028-15-6** Observation type: **Gas** Field sampling or measurement principle: **Ultraviolet absorption**  
 Inlet type: **Filter in front of sampling line** Blank Correction: **Not blank corrected** Sampling Height above ground (m): **Varies--see variable Alti**  
 Instrument name and model number: **TECO 49** Measurement principal investigator: **Dr. Shao-Meng Li** Detection Limit: **2 to 3**  
 Site Name: **Convair 580, British Columbia** Flight ID: **Flight\_04\_P02** Start Date: **2001-08-14** End Date: **2001-08-30**



# NAtChem Time Series Plot

24SEP2004

Site ID: **PC01CABCCONV** Variable name: **Particles: count** Units: **number/cm3** Sampling interval: **1 second**

Sampling frequency: **Same as sampling interval** Observation type: **Particles**

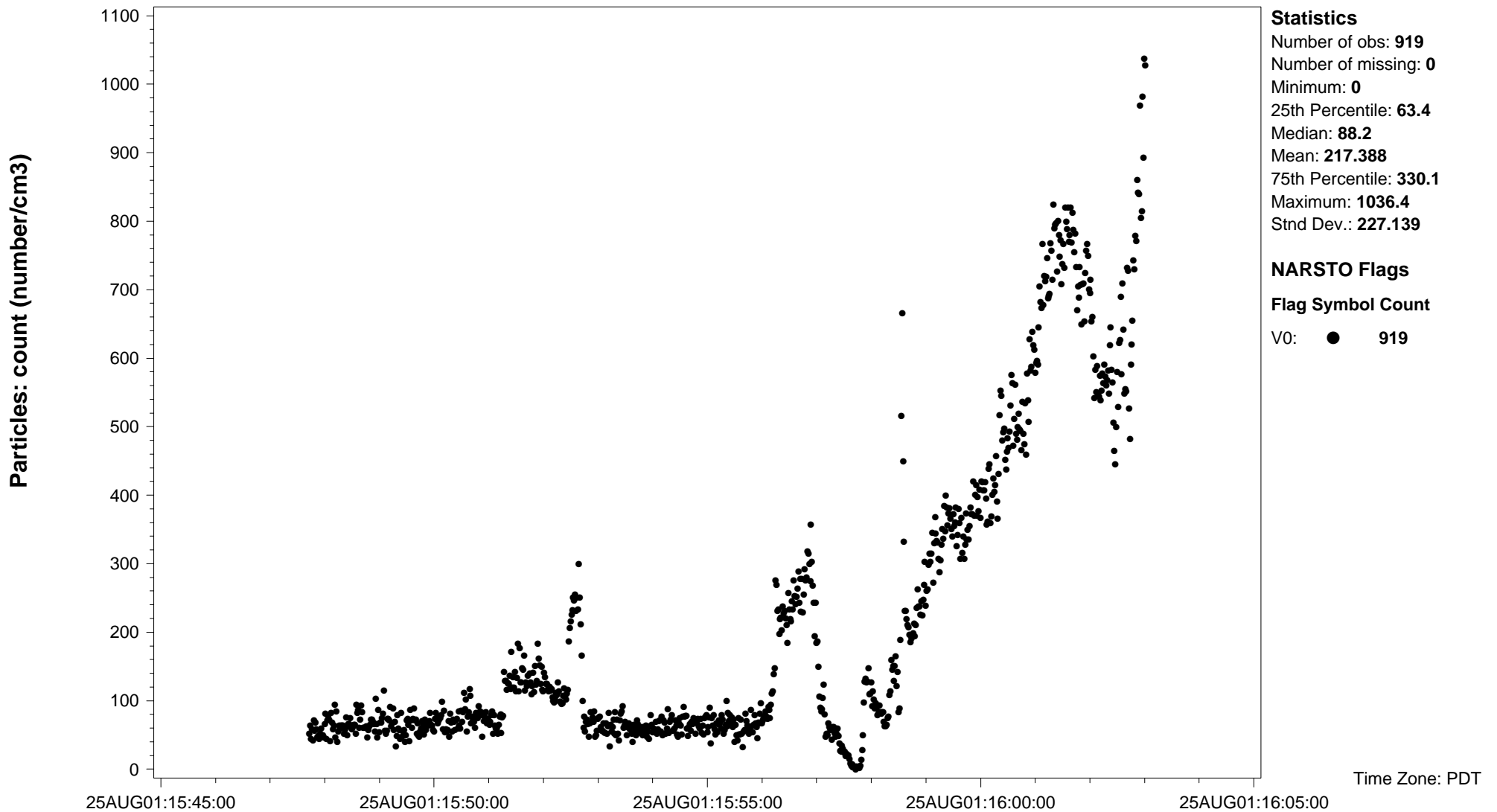
Field sampling or measurement principle: **Optical particle counter/size spectrometer** Inlet type: **Isokinetic**

Sampling humidity or temperature control: **Temperature controlled** Sampling Height above ground (m): **Varies--see variable Alti**

Instrument name and model number: **Passive Cavity Aerosol Spectrometer Probe** Measurement principal investigator: **Dr. Shao-Meng Li**

Detection Limit: **Not available**

Site Name: **Convair 580, British Columbia** Flight ID: **Flight\_04\_P02** Start Date: **2001-08-14** End Date: **2001-08-30**

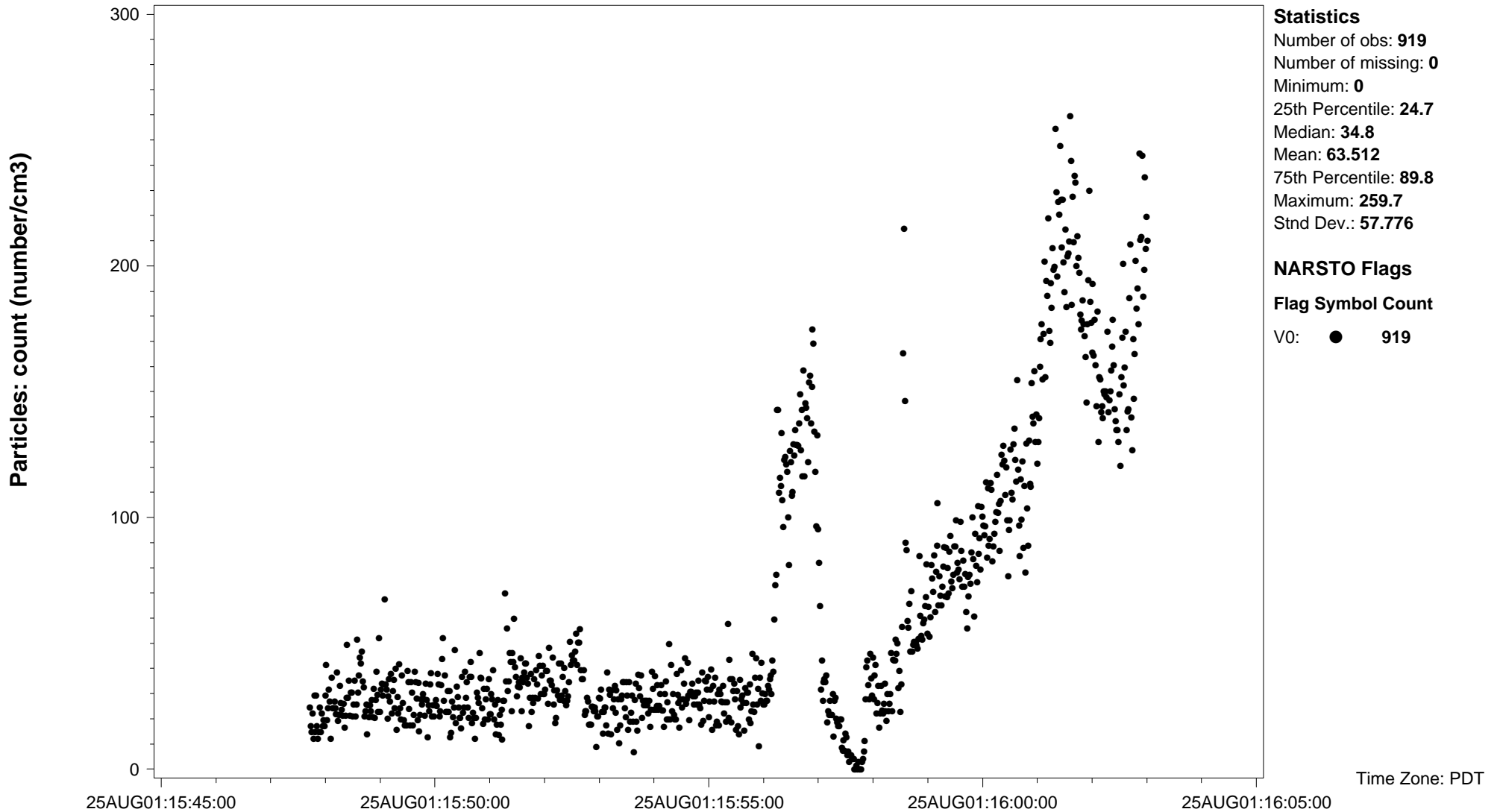


# NAtChem Time Series Plot

24SEP2004

Site ID: **PC01CABCCONV** Variable name: **Particles: count** Units: **number/cm3** Basis: **channel 1** Sampling interval: **1 second**  
Sampling frequency: **Same as sampling interval** Observation type: **Particles** Particle diameter--lower bound (UM): **0.130**  
Particle diameter--upper bound (UM): **0.150** Particle diameter--median (UM): **0.140**  
Field sampling or measurement principle: **Optical particle counter/size spectrometer** Inlet type: **Isokinetic**  
Sampling humidity or temperature control: **Temperature controlled** Sampling Height above ground (m): **Varies--see variable Alti**  
Instrument name and model number: **Passive Cavity Aerosol Spectrometer Probe** Measurement principal investigator: **Dr. Shao-Meng Li**  
Detection Limit: **Not available**

Site Name: **Convair 580, British Columbia** Flight ID: **Flight\_04\_P02** Start Date: **2001-08-14** End Date: **2001-08-30**

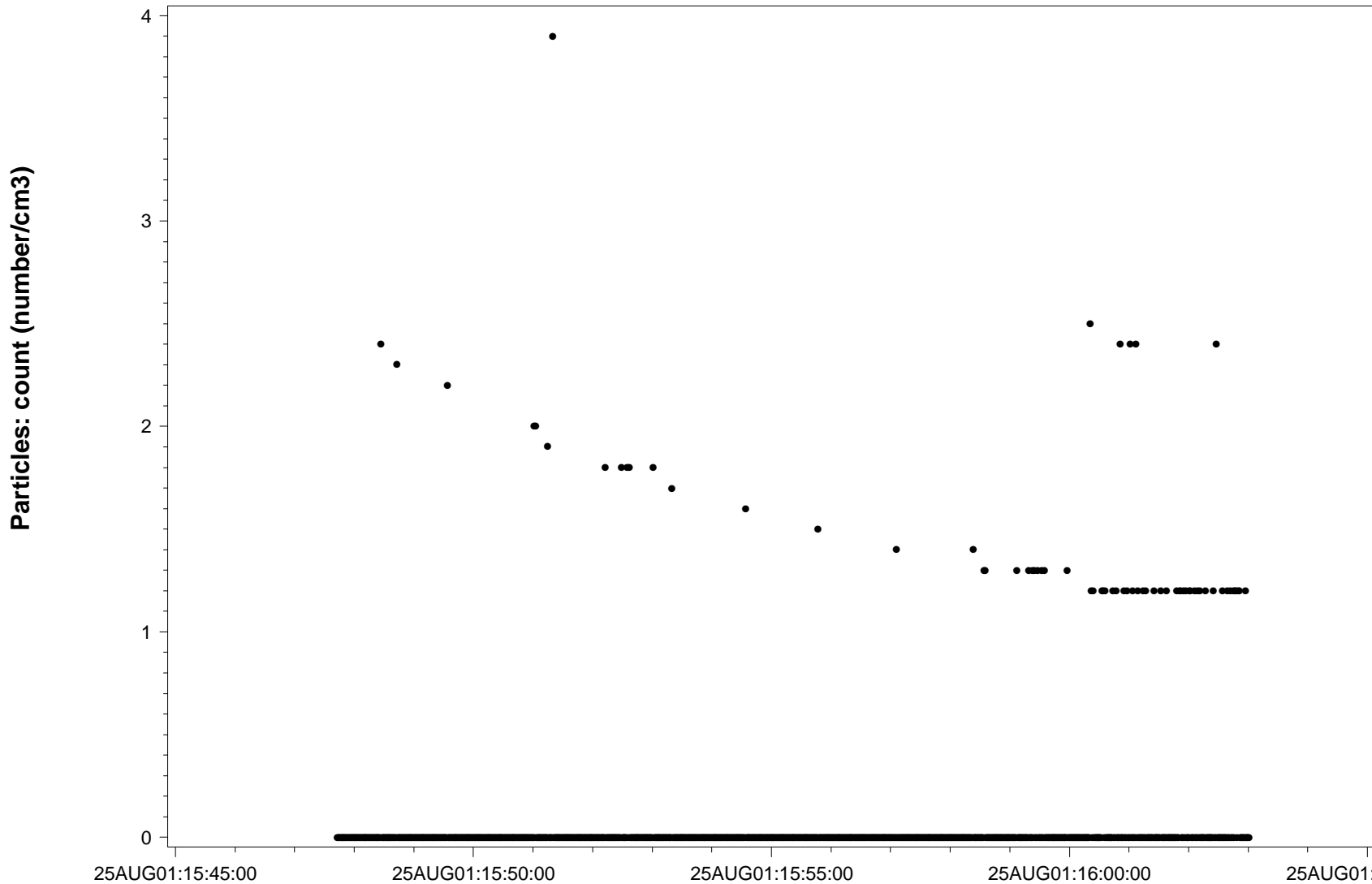


NAtChem Time Series Plot

24SEP2004

Site ID: **PC01CABCCONV** Variable name: **Particles: count** Units: **number/cm3** Basis: **channel 10** Sampling interval: **1 second**  
 Sampling frequency: **Same as sampling interval** Observation type: **Particles** Particle diameter--lower bound (UM): **0.730**  
 Particle diameter--upper bound (UM): **0.930** Particle diameter--median (UM): **0.830**  
 Field sampling or measurement principle: **Optical particle counter/size spectrometer** Inlet type: **Isokinetic**  
 Sampling humidity or temperature control: **Temperature controlled** Sampling Height above ground (m): **Varies--see variable Alti**  
 Instrument name and model number: **Passive Cavity Aerosol Spectrometer Probe** Measurement principal investigator: **Dr. Shao-Meng Li**  
 Detection Limit: **Not available**

Site Name: **Convair 580, British Columbia** Flight ID: **Flight\_04\_P02** Start Date: **2001-08-14** End Date: **2001-08-30**



**Statistics**  
 Number of obs: **919**  
 Number of missing: **0**  
 Minimum: **0**  
 25th Percentile: **0**  
 Median: **0**  
 Mean: **0.112**  
 75th Percentile: **0**  
 Maximum: **3.9**  
 Stnd Dev.: **0.416**

**NARSTO Flags**  
**Flag Symbol Count**  
 V0: ● **919**

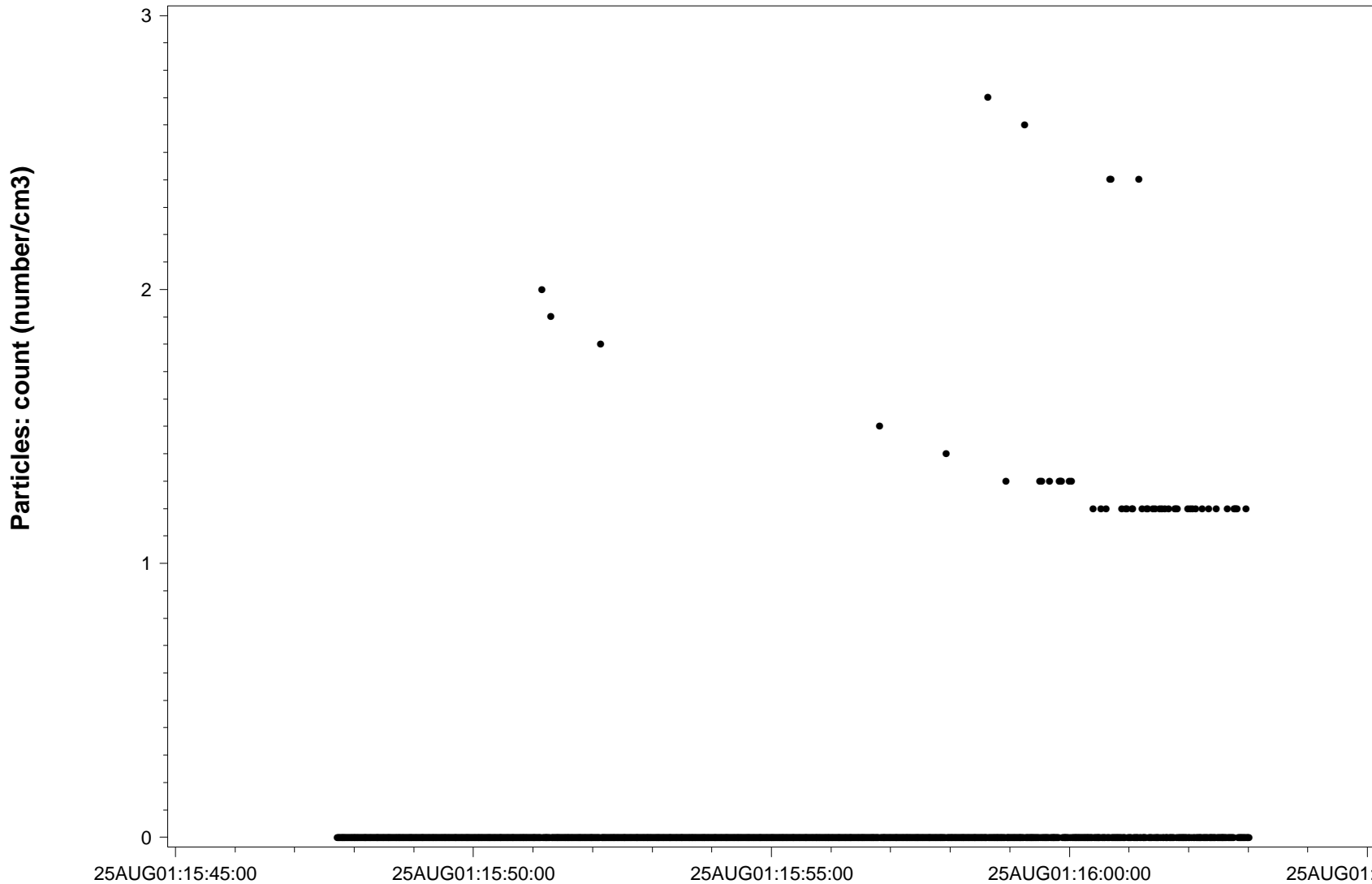
Time Zone: PDT

NAtChem Time Series Plot

24SEP2004

Site ID: **PC01CABCCONV** Variable name: **Particles: count** Units: **number/cm3** Basis: **channel 11** Sampling interval: **1 second**  
 Sampling frequency: **Same as sampling interval** Observation type: **Particles** Particle diameter--lower bound (UM): **0.930**  
 Particle diameter--upper bound (UM): **1.200** Particle diameter--median (UM): **1.065**  
 Field sampling or measurement principle: **Optical particle counter/size spectrometer** Inlet type: **Isokinetic**  
 Sampling humidity or temperature control: **Temperature controlled** Sampling Height above ground (m): **Varies--see variable Alti**  
 Instrument name and model number: **Passive Cavity Aerosol Spectrometer Probe** Measurement principal investigator: **Dr. Shao-Meng Li**  
 Detection Limit: **Not available**

Site Name: **Convair 580, British Columbia** Flight ID: **Flight\_04\_P02** Start Date: **2001-08-14** End Date: **2001-08-30**



**Statistics**  
 Number of obs: **919**  
 Number of missing: **0**  
 Minimum: **0**  
 25th Percentile: **0**  
 Median: **0**  
 Mean: **0.079**  
 75th Percentile: **0**  
 Maximum: **2.7**  
 Stnd Dev.: **0.336**

**NARSTO Flags**  
 Flag Symbol Count  
 V0: ● **919**

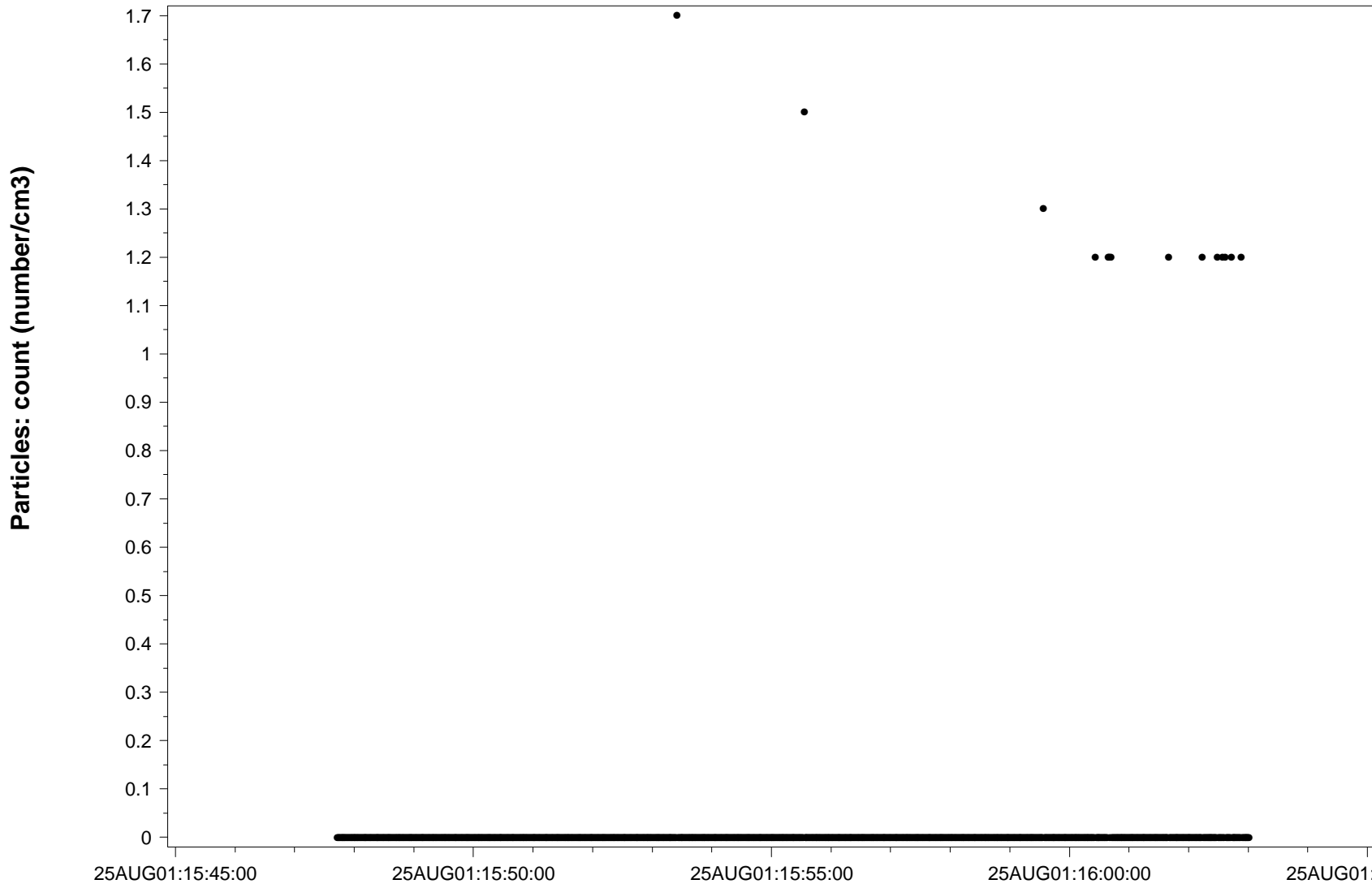
Time Zone: PDT

NAtChem Time Series Plot

24SEP2004

Site ID: **PC01CABCCONV** Variable name: **Particles: count** Units: **number/cm3** Basis: **channel 12** Sampling interval: **1 second**  
 Sampling frequency: **Same as sampling interval** Observation type: **Particles** Particle diameter--lower bound (UM): **1.200**  
 Particle diameter--upper bound (UM): **1.500** Particle diameter--median (UM): **1.350**  
 Field sampling or measurement principle: **Optical particle counter/size spectrometer** Inlet type: **Isokinetic**  
 Sampling humidity or temperature control: **Temperature controlled** Sampling Height above ground (m): **Varies--see variable Alti**  
 Instrument name and model number: **Passive Cavity Aerosol Spectrometer Probe** Measurement principal investigator: **Dr. Shao-Meng Li**  
 Detection Limit: **Not available**

Site Name: **Convair 580, British Columbia** Flight ID: **Flight\_04\_P02** Start Date: **2001-08-14** End Date: **2001-08-30**



**Statistics**  
 Number of obs: **919**  
 Number of missing: **0**  
 Minimum: **0**  
 25th Percentile: **0**  
 Median: **0**  
 Mean: **0.019**  
 75th Percentile: **0**  
 Maximum: **1.7**  
 Stnd Dev.: **0.156**

**NARSTO Flags**  
**Flag Symbol Count**  
 V0: ● **919**

Time Zone: PDT

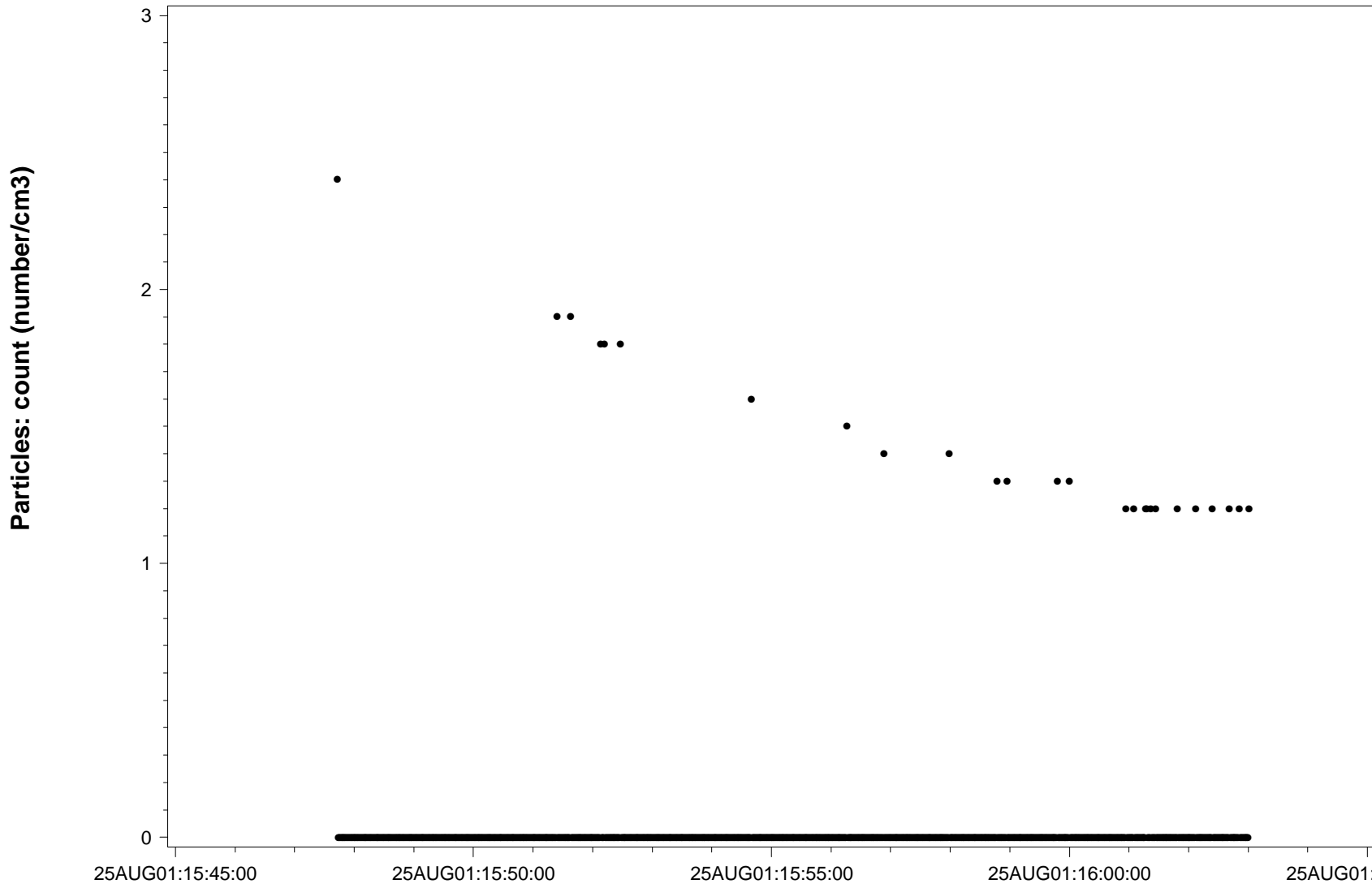


NAtChem Time Series Plot

24SEP2004

Site ID: **PC01CABCCONV** Variable name: **Particles: count** Units: **number/cm3** Basis: **channel 13** Sampling interval: **1 second**  
 Sampling frequency: **Same as sampling interval** Observation type: **Particles** Particle diameter--lower bound (UM): **1.500**  
 Particle diameter--upper bound (UM): **2.000** Particle diameter--median (UM): **1.750**  
 Field sampling or measurement principle: **Optical particle counter/size spectrometer** Inlet type: **Isokinetic**  
 Sampling humidity or temperature control: **Temperature controlled** Sampling Height above ground (m): **Varies--see variable Alti**  
 Instrument name and model number: **Passive Cavity Aerosol Spectrometer Probe** Measurement principal investigator: **Dr. Shao-Meng Li**  
 Detection Limit: **Not available**

Site Name: **Convair 580, British Columbia** Flight ID: **Flight\_04\_P02** Start Date: **2001-08-14** End Date: **2001-08-30**



**Statistics**  
 Number of obs: **919**  
 Number of missing: **0**  
 Minimum: **0**  
 25th Percentile: **0**  
 Median: **0**  
 Mean: **0.040**  
 75th Percentile: **0**  
 Maximum: **2.4**  
 Stnd Dev.: **0.242**

**NARSTO Flags**  
**Flag Symbol Count**  
 V0: ● **919**

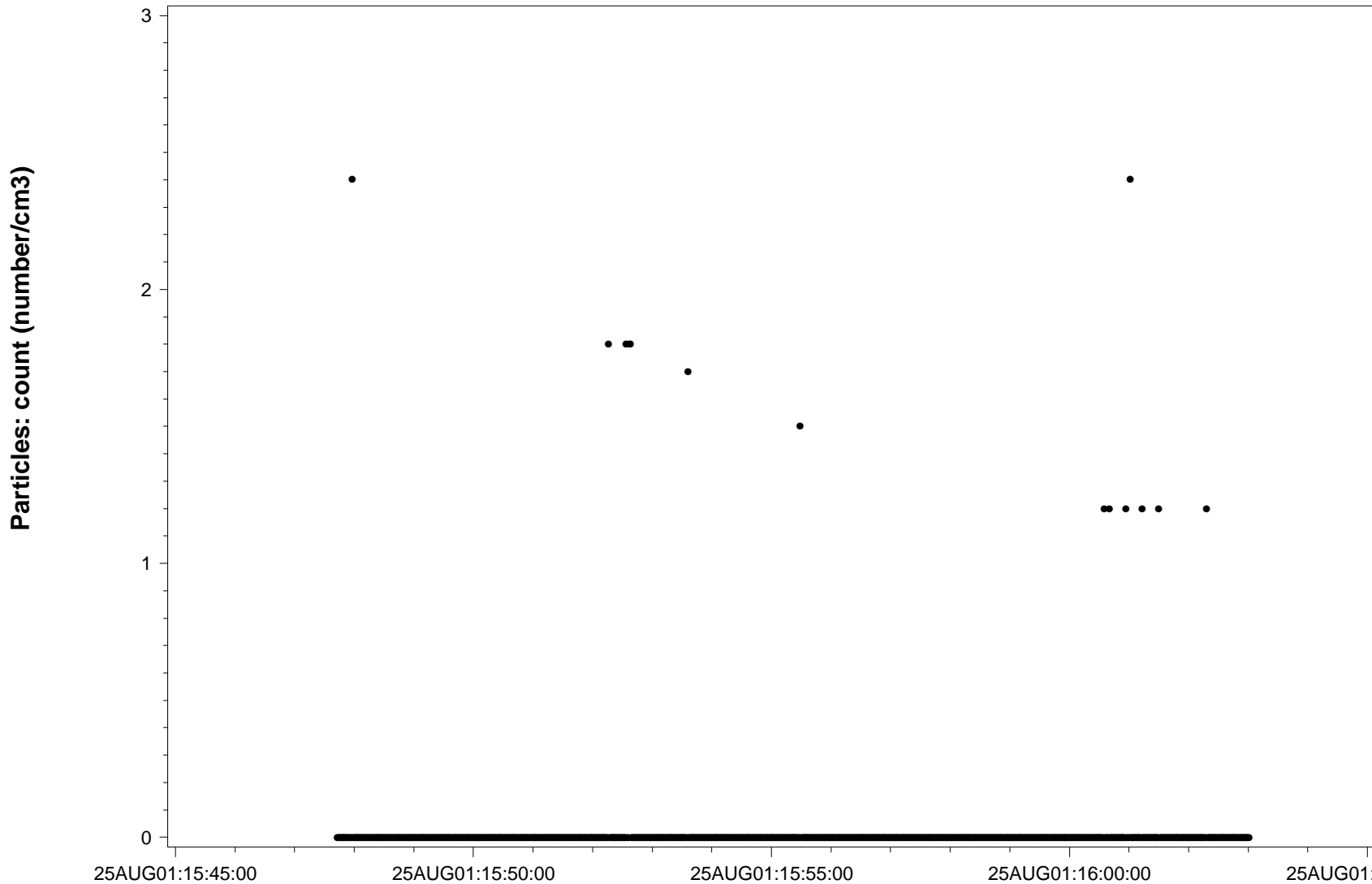
Time Zone: PDT

NAtChem Time Series Plot

24SEP2004

Site ID: **PC01CABCCONV** Variable name: **Particles: count** Units: **number/cm3** Basis: **channel 14** Sampling interval: **1 second**  
 Sampling frequency: **Same as sampling interval** Observation type: **Particles** Particle diameter--lower bound (UM): **2.000**  
 Particle diameter--upper bound (UM): **2.500** Particle diameter--median (UM): **2.250**  
 Field sampling or measurement principle: **Optical particle counter/size spectrometer** Inlet type: **Isokinetic**  
 Sampling humidity or temperature control: **Temperature controlled** Sampling Height above ground (m): **Varies--see variable Alti**  
 Instrument name and model number: **Passive Cavity Aerosol Spectrometer Probe** Measurement principal investigator: **Dr. Shao-Meng Li**  
 Detection Limit: **Not available**

Site Name: **Convair 580, British Columbia** Flight ID: **Flight\_04\_P02** Start Date: **2001-08-14** End Date: **2001-08-30**



**Statistics**  
 Number of obs: **919**  
 Number of missing: **0**  
 Minimum: **0**  
 25th Percentile: **0**  
 Median: **0**  
 Mean: **0.024**  
 75th Percentile: **0**  
 Maximum: **2.4**  
 Stnd Dev.: **0.203**

**NARSTO Flags**  
**Flag Symbol Count**  
 V0: ● **919**

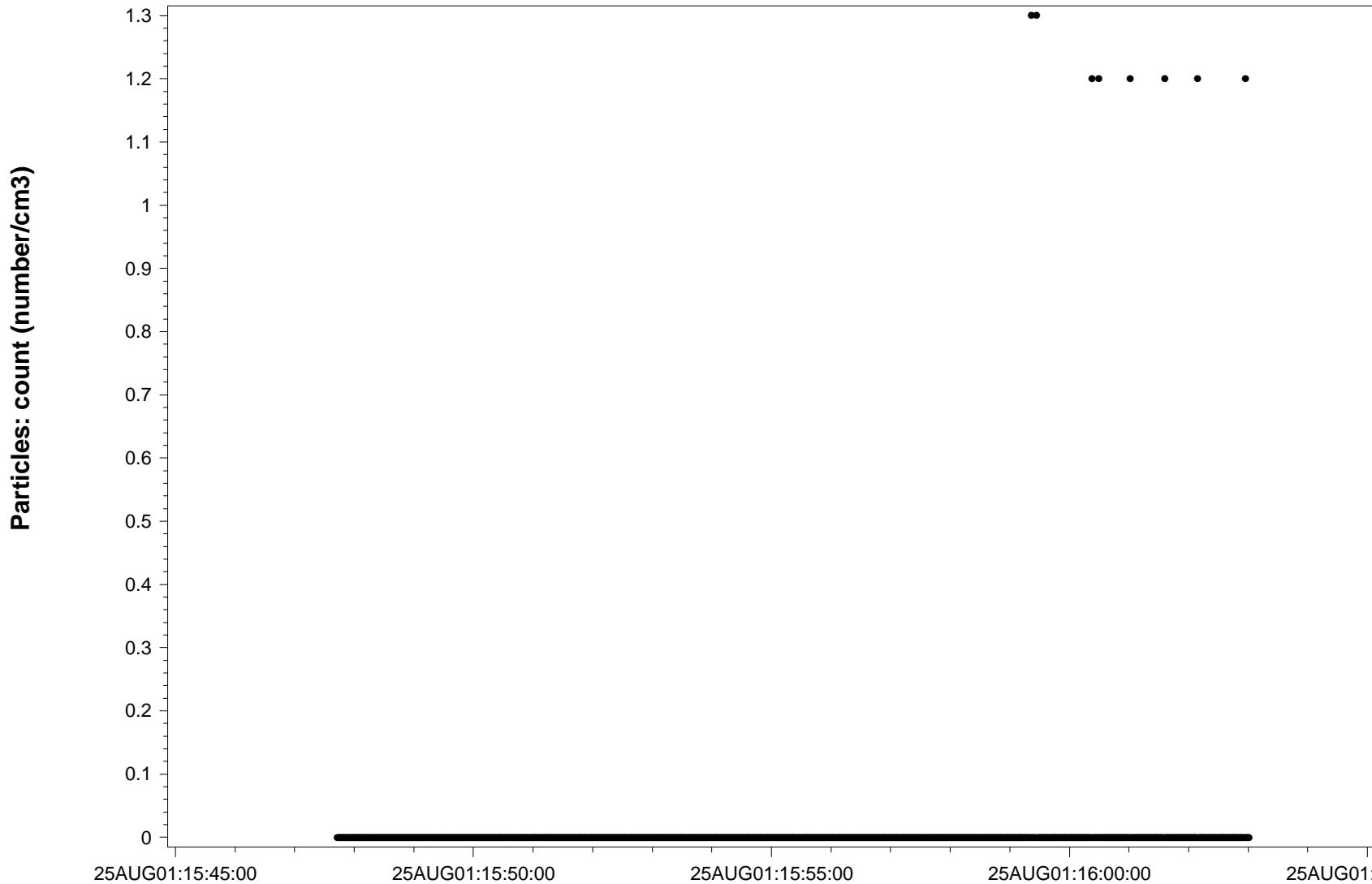
Time Zone: PDT

NAtChem Time Series Plot

24SEP2004

Site ID: **PC01CABCCONV** Variable name: **Particles: count** Units: **number/cm3** Basis: **channel 15** Sampling interval: **1 second**  
 Sampling frequency: **Same as sampling interval** Observation type: **Particles** Particle diameter--lower bound (UM): **2.500**  
 Particle diameter--upper bound (UM): **3.000** Particle diameter--median (UM): **2.750**  
 Field sampling or measurement principle: **Optical particle counter/size spectrometer** Inlet type: **Isokinetic**  
 Sampling humidity or temperature control: **Temperature controlled** Sampling Height above ground (m): **Varies--see variable Alti**  
 Instrument name and model number: **Passive Cavity Aerosol Spectrometer Probe** Measurement principal investigator: **Dr. Shao-Meng Li**  
 Detection Limit: **Not available**

Site Name: **Convair 580, British Columbia** Flight ID: **Flight\_04\_P02** Start Date: **2001-08-14** End Date: **2001-08-30**



**Statistics**  
 Number of obs: **919**  
 Number of missing: **0**  
 Minimum: **0**  
 25th Percentile: **0**  
 Median: **0**  
 Mean: **0.011**  
 75th Percentile: **0**  
 Maximum: **1.3**  
 Stnd Dev.: **0.114**

**NARSTO Flags**  
**Flag Symbol Count**  
 V0: ● **919**

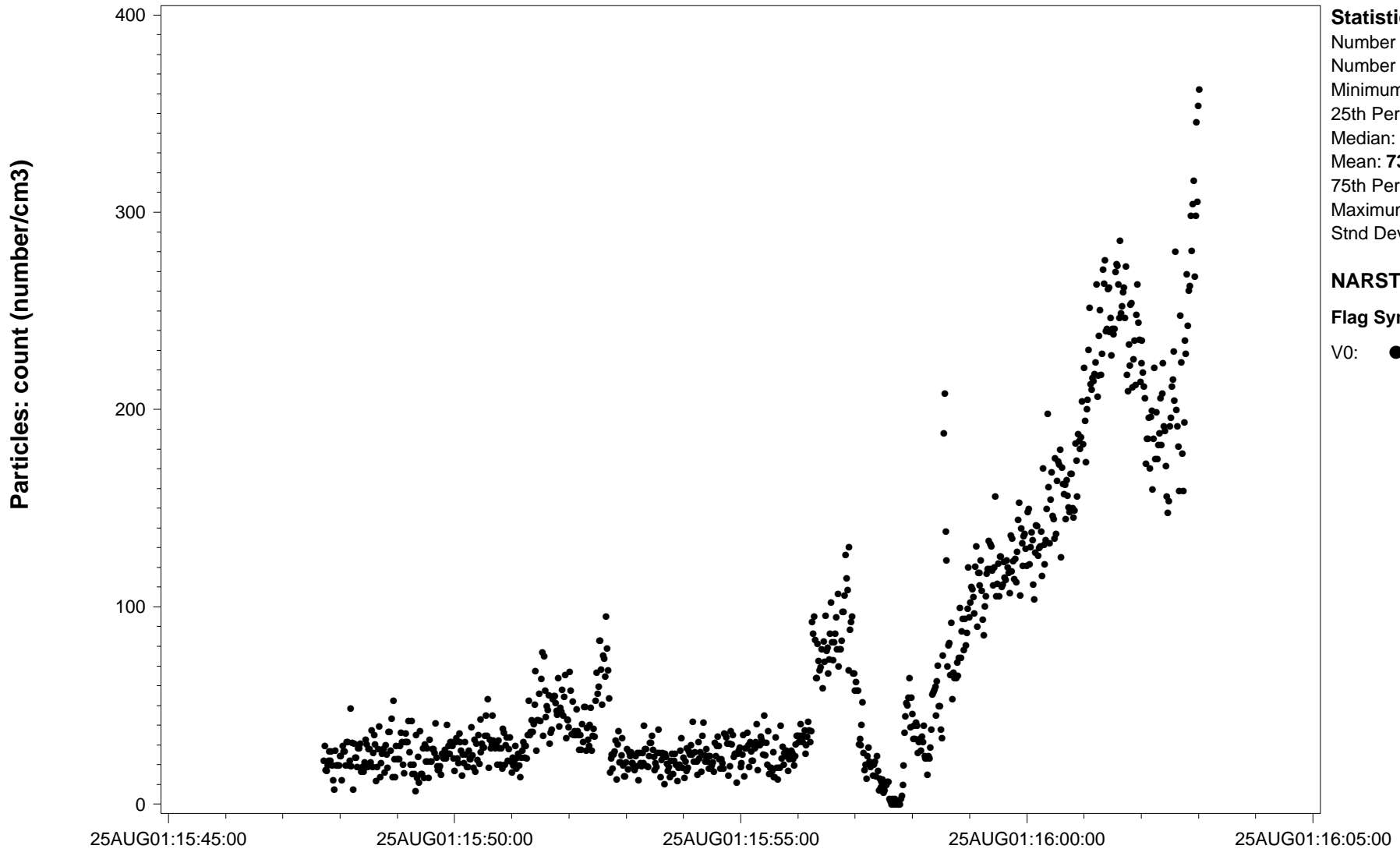
Time Zone: PDT

NAtChem Time Series Plot

24SEP2004

Site ID: **PC01CABCCONV** Variable name: **Particles: count** Units: **number/cm3** Basis: **channel 2** Sampling interval: **1 second**  
 Sampling frequency: **Same as sampling interval** Observation type: **Particles** Particle diameter--lower bound (UM): **0.150**  
 Particle diameter--upper bound (UM): **0.165** Particle diameter--median (UM): **0.157**  
 Field sampling or measurement principle: **Optical particle counter/size spectrometer** Inlet type: **Isokinetic**  
 Sampling humidity or temperature control: **Temperature controlled** Sampling Height above ground (m): **Varies--see variable Alti**  
 Instrument name and model number: **Passive Cavity Aerosol Spectrometer Probe** Measurement principal investigator: **Dr. Shao-Meng Li**  
 Detection Limit: **Not available**

Site Name: **Convair 580, British Columbia** Flight ID: **Flight\_04\_P02** Start Date: **2001-08-14** End Date: **2001-08-30**



**Statistics**  
 Number of obs: **919**  
 Number of missing: **0**  
 Minimum: **0**  
 25th Percentile: **23.6**  
 Median: **34.9**  
 Mean: **73.929**  
 75th Percentile: **111.3**  
 Maximum: **362.1**  
 Stnd Dev.: **74.088**

**NARSTO Flags**  
**Flag Symbol Count**  
 V0: ● 919

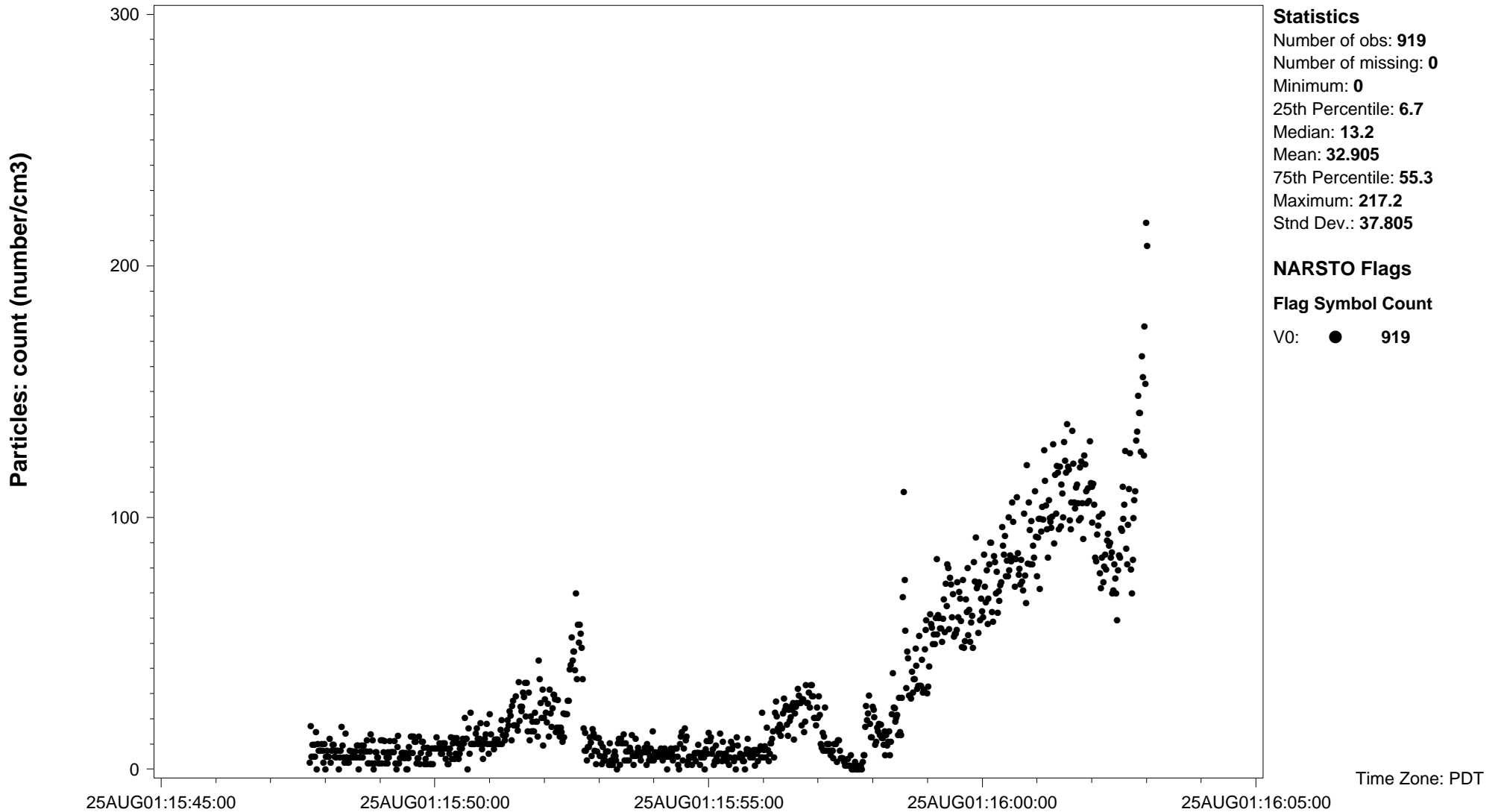
Time Zone: PDT

NAtChem Time Series Plot

24SEP2004

Site ID: **PC01CABCCONV** Variable name: **Particles: count** Units: **number/cm3** Basis: **channel 3** Sampling interval: **1 second**  
 Sampling frequency: **Same as sampling interval** Observation type: **Particles** Particle diameter--lower bound (UM): **0.165**  
 Particle diameter--upper bound (UM): **0.190** Particle diameter--median (UM): **0.178**  
 Field sampling or measurement principle: **Optical particle counter/size spectrometer** Inlet type: **Isokinetic**  
 Sampling humidity or temperature control: **Temperature controlled** Sampling Height above ground (m): **Varies--see variable Alti**  
 Instrument name and model number: **Passive Cavity Aerosol Spectrometer Probe** Measurement principal investigator: **Dr. Shao-Meng Li**  
 Detection Limit: **Not available**

Site Name: **Convair 580, British Columbia** Flight ID: **Flight\_04\_P02** Start Date: **2001-08-14** End Date: **2001-08-30**

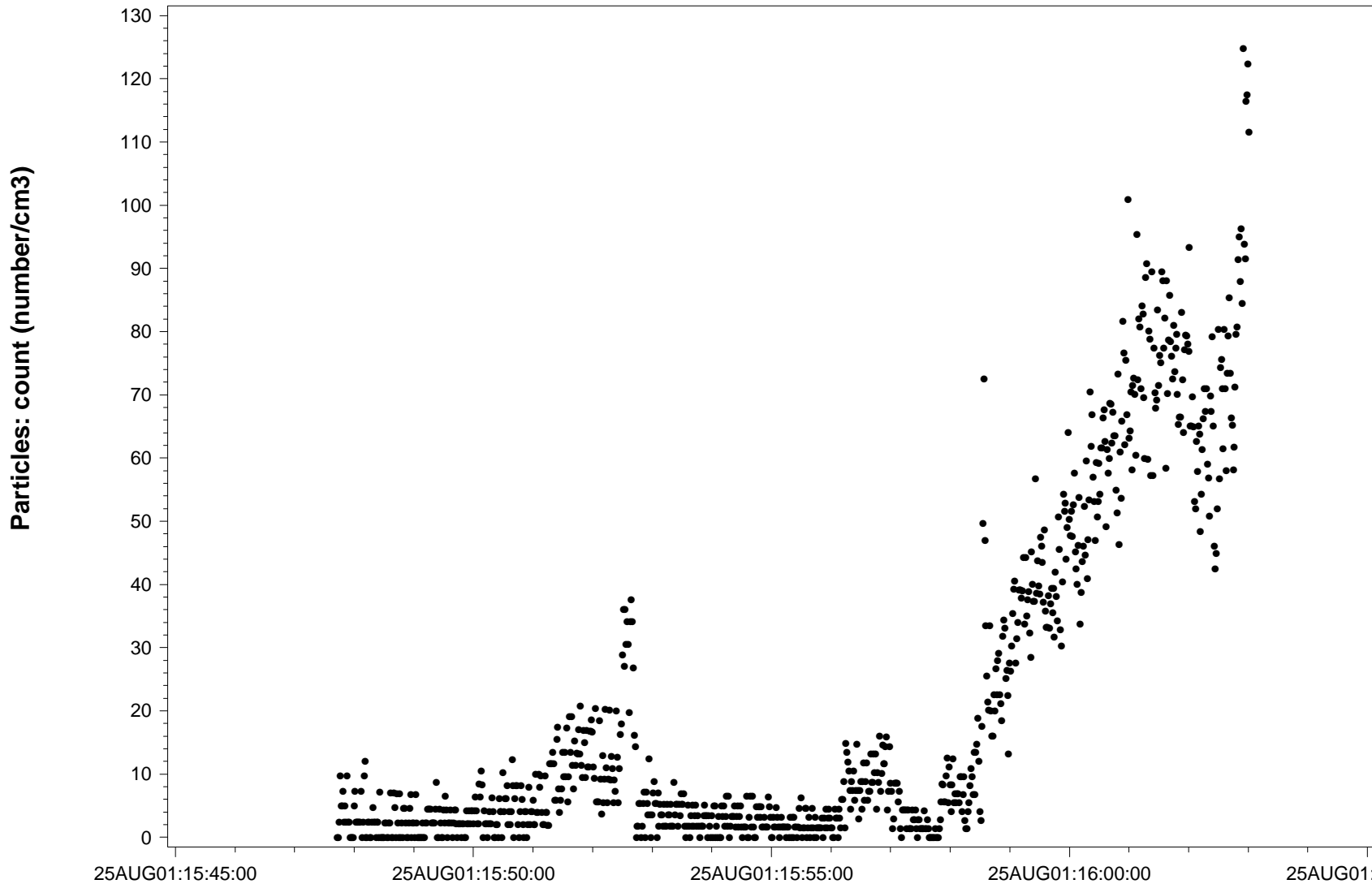


NATChem Time Series Plot

24SEP2004

Site ID: **PC01CABCCONV** Variable name: **Particles: count** Units: **number/cm3** Basis: **channel 4** Sampling interval: **1 second**  
 Sampling frequency: **Same as sampling interval** Observation type: **Particles** Particle diameter--lower bound (UM): **0.190**  
 Particle diameter--upper bound (UM): **0.220** Particle diameter--median (UM): **0.205**  
 Field sampling or measurement principle: **Optical particle counter/size spectrometer** Inlet type: **Isokinetic**  
 Sampling humidity or temperature control: **Temperature controlled** Sampling Height above ground (m): **Varies--see variable Alti**  
 Instrument name and model number: **Passive Cavity Aerosol Spectrometer Probe** Measurement principal investigator: **Dr. Shao-Meng Li**  
 Detection Limit: **Not available**

Site Name: **Convair 580, British Columbia** Flight ID: **Flight\_04\_P02** Start Date: **2001-08-14** End Date: **2001-08-30**



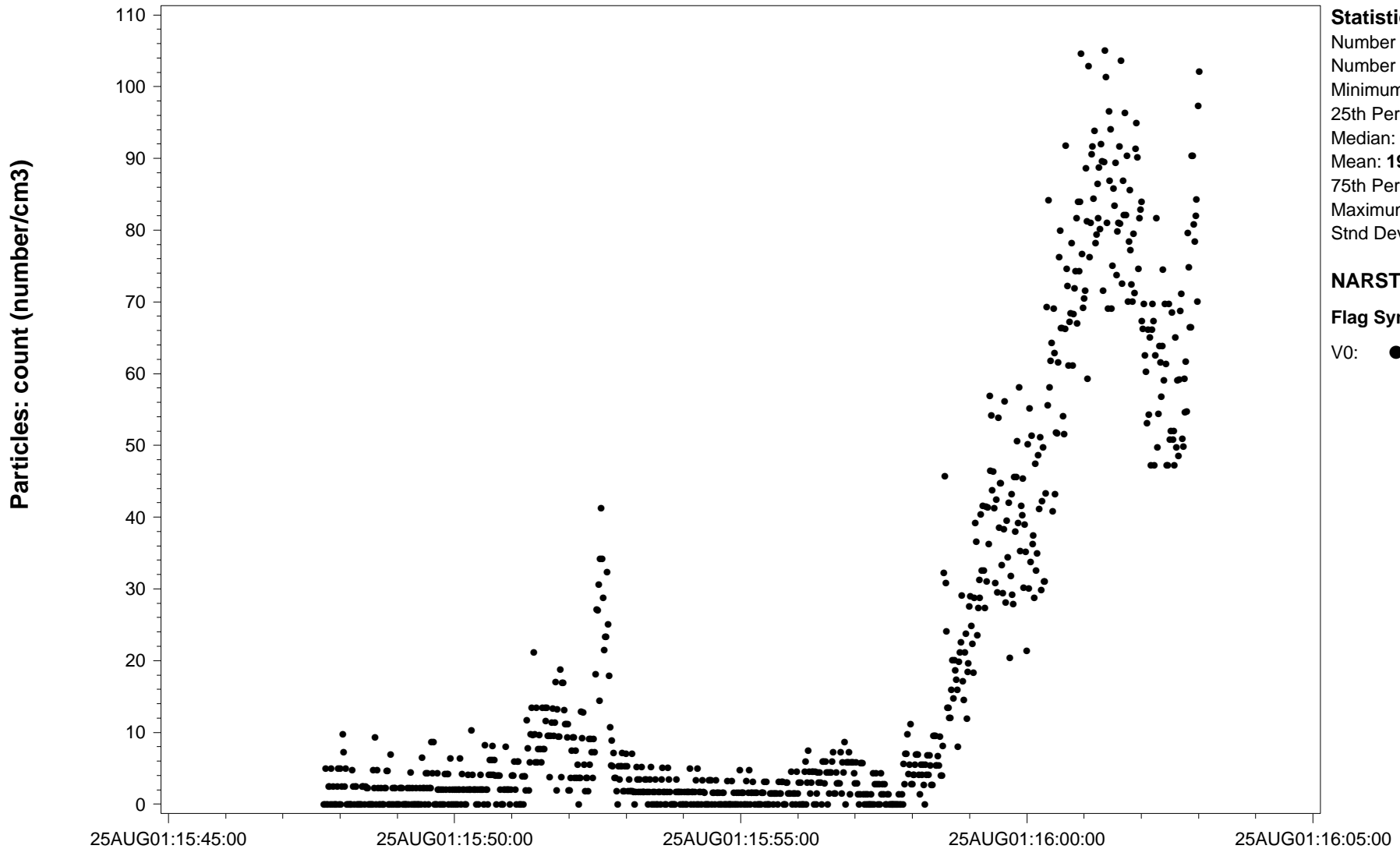
**Statistics**  
 Number of obs: **919**  
 Number of missing: **0**  
 Minimum: **0**  
 25th Percentile: **2.2**  
 Median: **6.5**  
 Mean: **20.696**  
 75th Percentile: **35.4**  
 Maximum: **124.8**  
 Stnd Dev.: **26.880**

**NARSTO Flags**  
 Flag Symbol Count  
 V0: ● 919

Time Zone: PDT

Site ID: **PC01CABCCONV** Variable name: **Particles: count** Units: **number/cm3** Basis: **channel 5** Sampling interval: **1 second**  
 Sampling frequency: **Same as sampling interval** Observation type: **Particles** Particle diameter--lower bound (UM): **0.220**  
 Particle diameter--upper bound (UM): **0.263** Particle diameter--median (UM): **0.242**  
 Field sampling or measurement principle: **Optical particle counter/size spectrometer** Inlet type: **Isokinetic**  
 Sampling humidity or temperature control: **Temperature controlled** Sampling Height above ground (m): **Varies--see variable Alti**  
 Instrument name and model number: **Passive Cavity Aerosol Spectrometer Probe** Measurement principal investigator: **Dr. Shao-Meng Li**  
 Detection Limit: **Not available**

Site Name: **Convair 580, British Columbia** Flight ID: **Flight\_04\_P02** Start Date: **2001-08-14** End Date: **2001-08-30**



**Statistics**  
 Number of obs: **919**  
 Number of missing: **0**  
 Minimum: **0**  
 25th Percentile: **1.6**  
 Median: **4.3**  
 Mean: **19.173**  
 75th Percentile: **30.2**  
 Maximum: **105**  
 Std Dev.: **27.655**

**NARSTO Flags**  
 Flag Symbol Count  
 V0: ● 919

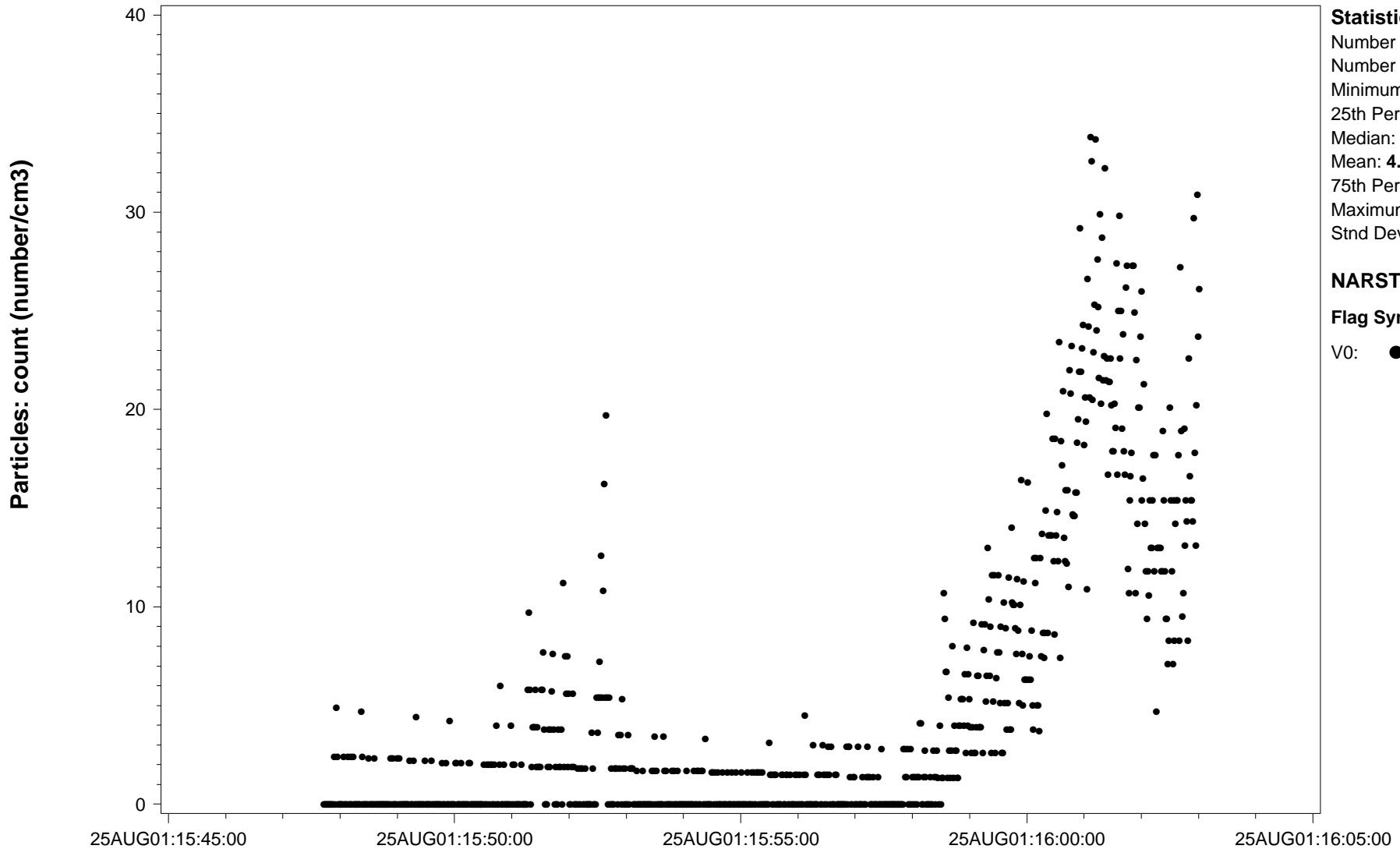
Time Zone: PDT

NAtChem Time Series Plot

24SEP2004

Site ID: **PC01CABCCONV** Variable name: **Particles: count** Units: **number/cm3** Basis: **channel 6** Sampling interval: **1 second**  
 Sampling frequency: **Same as sampling interval** Observation type: **Particles** Particle diameter--lower bound (UM): **0.263**  
 Particle diameter--upper bound (UM): **0.340** Particle diameter--median (UM): **0.302**  
 Field sampling or measurement principle: **Optical particle counter/size spectrometer** Inlet type: **Isokinetic**  
 Sampling humidity or temperature control: **Temperature controlled** Sampling Height above ground (m): **Varies--see variable Alti**  
 Instrument name and model number: **Passive Cavity Aerosol Spectrometer Probe** Measurement principal investigator: **Dr. Shao-Meng Li**  
 Detection Limit: **Not available**

Site Name: **Convair 580, British Columbia** Flight ID: **Flight\_04\_P02** Start Date: **2001-08-14** End Date: **2001-08-30**



**Statistics**  
 Number of obs: **919**  
 Number of missing: **0**  
 Minimum: **0**  
 25th Percentile: **0**  
 Median: **1.5**  
 Mean: **4.651**  
 75th Percentile: **6.3**  
 Maximum: **33.8**  
 Std Dev.: **7.235**

**NARSTO Flags**  
 Flag Symbol Count  
 V0: ● 919

Time Zone: PDT

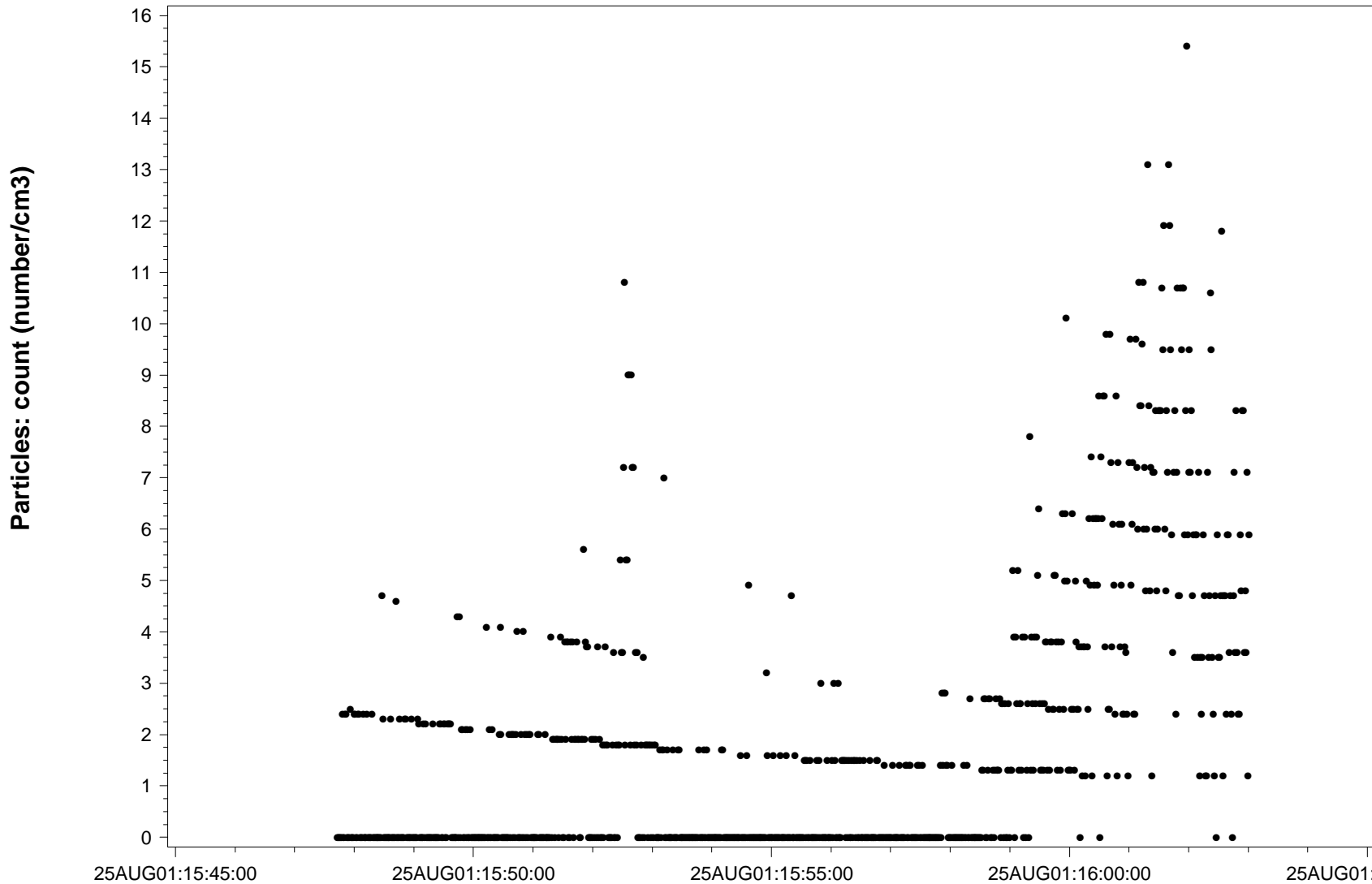


NAtChem Time Series Plot

24SEP2004

Site ID: **PC01CABCCONV** Variable name: **Particles: count** Units: **number/cm3** Basis: **channel 7** Sampling interval: **1 second**  
 Sampling frequency: **Same as sampling interval** Observation type: **Particles** Particle diameter--lower bound (UM): **0.340**  
 Particle diameter--upper bound (UM): **0.470** Particle diameter--median (UM): **0.405**  
 Field sampling or measurement principle: **Optical particle counter/size spectrometer** Inlet type: **Isokinetic**  
 Sampling humidity or temperature control: **Temperature controlled** Sampling Height above ground (m): **Varies--see variable Alti**  
 Instrument name and model number: **Passive Cavity Aerosol Spectrometer Probe** Measurement principal investigator: **Dr. Shao-Meng Li**  
 Detection Limit: **Not available**

Site Name: **Convair 580, British Columbia** Flight ID: **Flight\_04\_P02** Start Date: **2001-08-14** End Date: **2001-08-30**



**Statistics**  
 Number of obs: **919**  
 Number of missing: **0**  
 Minimum: **0**  
 25th Percentile: **0**  
 Median: **0**  
 Mean: **1.892**  
 75th Percentile: **2.6**  
 Maximum: **15.4**  
 Std Dev.: **2.678**

**NARSTO Flags**  
 Flag Symbol Count  
 V0: ● 919

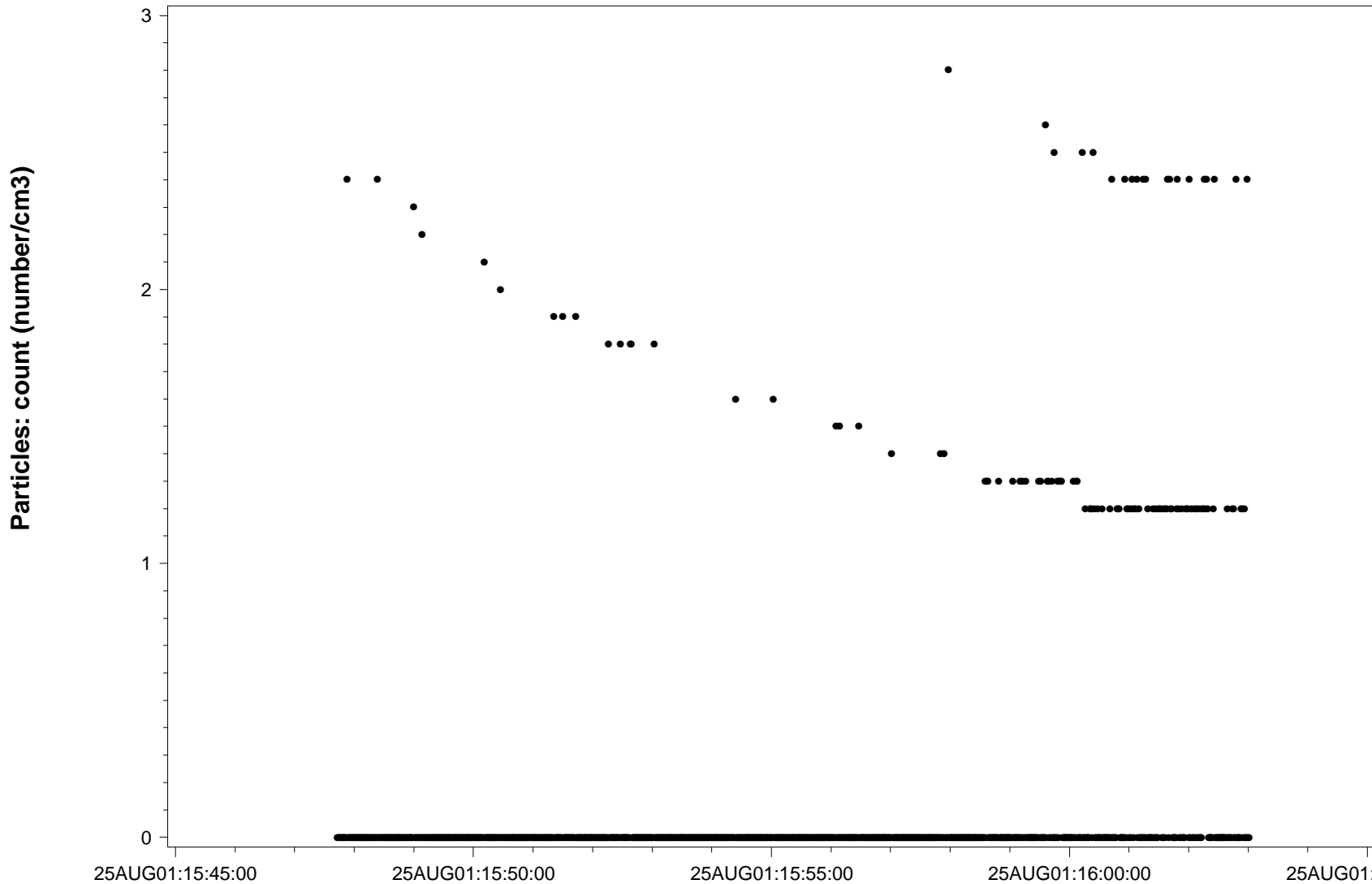
Time Zone: PDT

NAtChem Time Series Plot

24SEP2004

Site ID: **PC01CABCCONV** Variable name: **Particles: count** Units: **number/cm3** Basis: **channel 8** Sampling interval: **1 second**  
 Sampling frequency: **Same as sampling interval** Observation type: **Particles** Particle diameter--lower bound (UM): **0.470**  
 Particle diameter--upper bound (UM): **0.590** Particle diameter--median (UM): **0.530**  
 Field sampling or measurement principle: **Optical particle counter/size spectrometer** Inlet type: **Isokinetic**  
 Sampling humidity or temperature control: **Temperature controlled** Sampling Height above ground (m): **Varies--see variable Alti**  
 Instrument name and model number: **Passive Cavity Aerosol Spectrometer Probe** Measurement principal investigator: **Dr. Shao-Meng Li**  
 Detection Limit: **Not available**

Site Name: **Convair 580, British Columbia** Flight ID: **Flight\_04\_P02** Start Date: **2001-08-14** End Date: **2001-08-30**



**Statistics**  
 Number of obs: **919**  
 Number of missing: **0**  
 Minimum: **0**  
 25th Percentile: **0**  
 Median: **0**  
 Mean: **0.189**  
 75th Percentile: **0**  
 Maximum: **2.8**  
 Stnd Dev.: **0.538**

**NARSTO Flags**  
**Flag Symbol Count**  
 V0: ● **919**

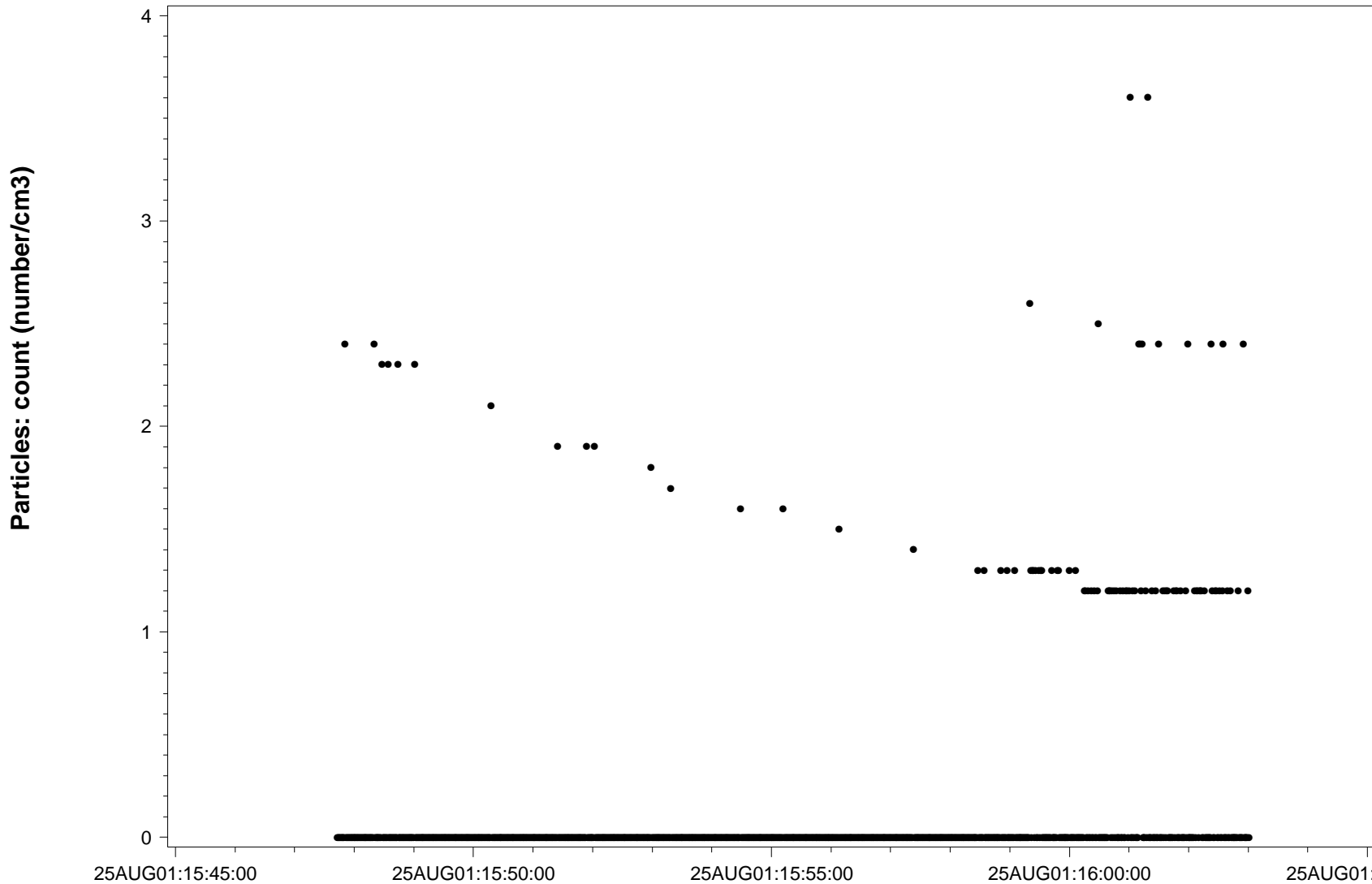
Time Zone: PDT

NAtChem Time Series Plot

24SEP2004

Site ID: **PC01CABCCONV** Variable name: **Particles: count** Units: **number/cm3** Basis: **channel 9** Sampling interval: **1 second**  
 Sampling frequency: **Same as sampling interval** Observation type: **Particles** Particle diameter--lower bound (UM): **0.590**  
 Particle diameter--upper bound (UM): **0.730** Particle diameter--median (UM): **0.660**  
 Field sampling or measurement principle: **Optical particle counter/size spectrometer** Inlet type: **Isokinetic**  
 Sampling humidity or temperature control: **Temperature controlled** Sampling Height above ground (m): **Varies--see variable Alti**  
 Instrument name and model number: **Passive Cavity Aerosol Spectrometer Probe** Measurement principal investigator: **Dr. Shao-Meng Li**  
 Detection Limit: **Not available**

Site Name: **Convair 580, British Columbia** Flight ID: **Flight\_04\_P02** Start Date: **2001-08-14** End Date: **2001-08-30**



**Statistics**  
 Number of obs: **919**  
 Number of missing: **0**  
 Minimum: **0**  
 25th Percentile: **0**  
 Median: **0**  
 Mean: **0.155**  
 75th Percentile: **0**  
 Maximum: **3.6**  
 Stnd Dev.: **0.494**

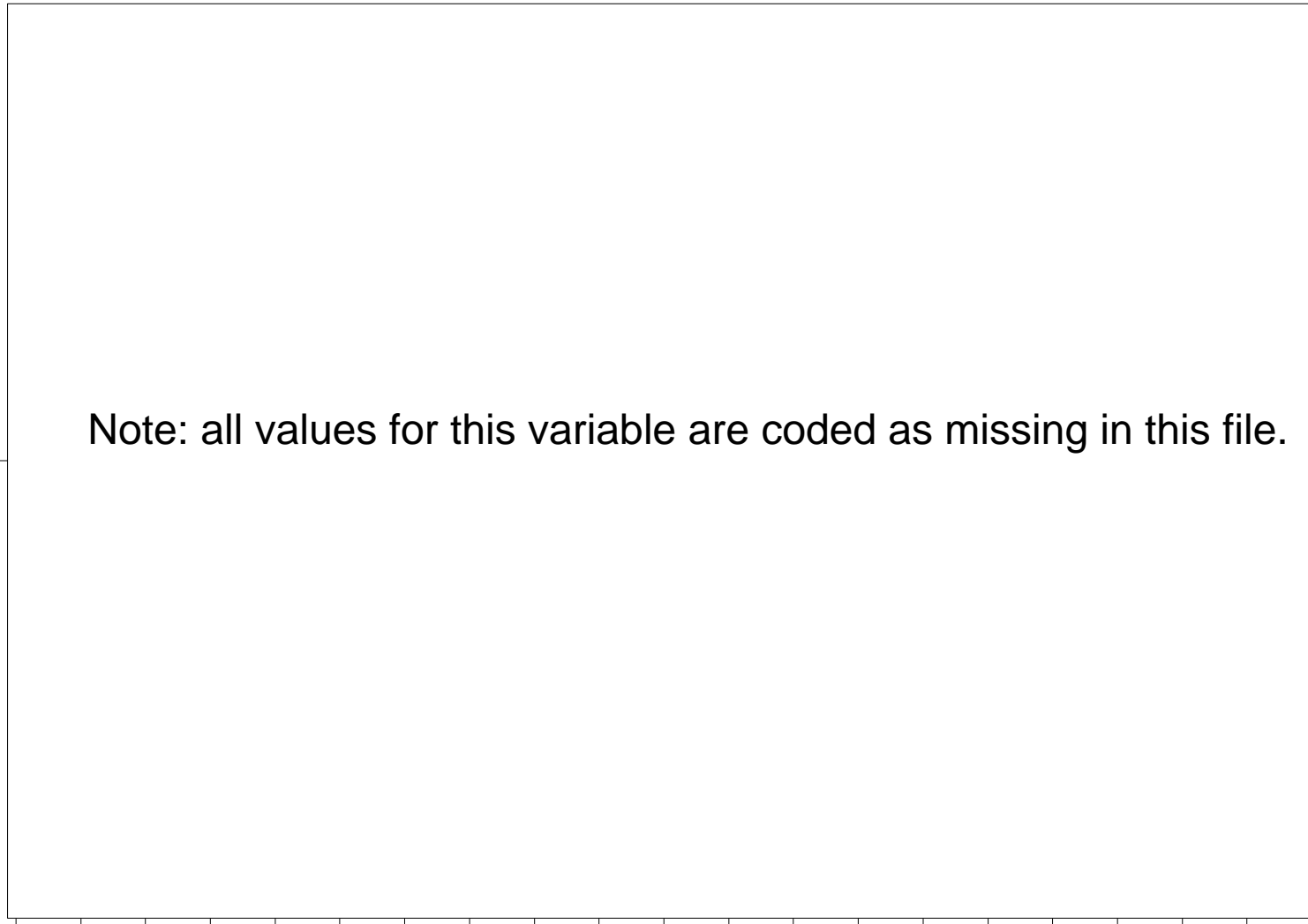
**NARSTO Flags**  
**Flag Symbol Count**  
 V0: ● **919**

Time Zone: PDT

Site ID: **PC01CABCCONV** Variable name: **Particles: mass** Units: **ug/m3** Sampling interval: **1 second** Sampling frequency: **Same as sampling interval**  
 Observation type: **Particles** Field sampling or measurement principle: **Optical particle counter/size spectrometer** Inlet type: **Isokinetic**  
 Sampling humidity or temperature control: **Temperature controlled** Sampling Height above ground (m): **Varies--see variable Alti**  
 Instrument name and model number: **Passive Cavity Aerosol Spectrometer Probe** Measurement principal investigator: **Dr. Shao-Meng Li**  
 Detection Limit: **Not available**

Site Name: **Convair 580, British Columbia** Flight ID: **Flight\_04\_P02** Start Date: **2001-08-14** End Date: **2001-08-30**

Particles: mass (ug/m3)



**Statistics**  
 Number of obs: **919**  
 Number of missing: **919**  
 Minimum: .  
 25th Percentile: .  
 Median: .  
 Mean: .  
 75th Percentile: .  
 Maximum: .  
 Stnd Dev.: .

**NARSTO Flags**  
**Flag Symbol Count**  
 M1: **919**

Note: all values for this variable are coded as missing in this file.

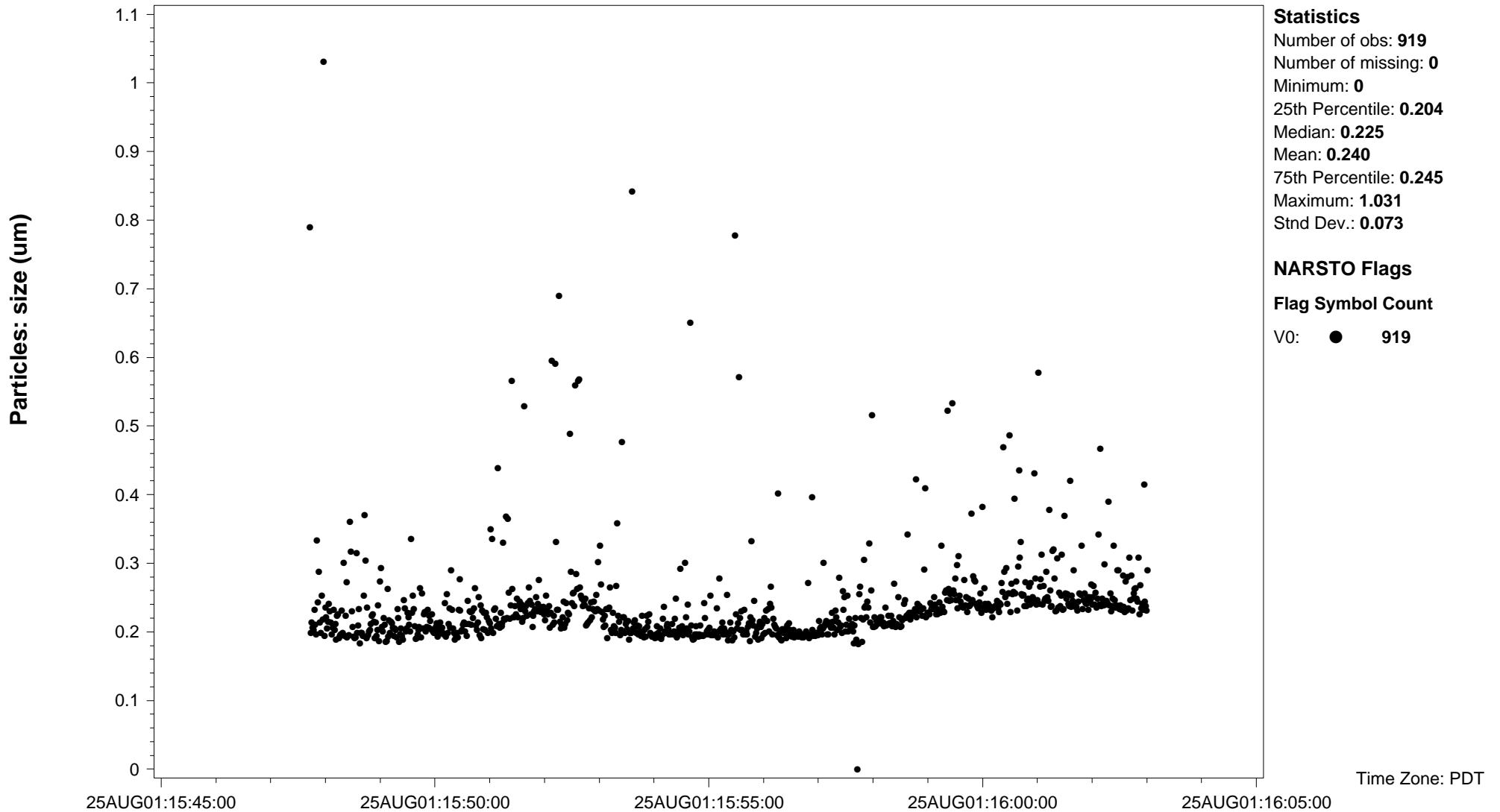
25AUG01:15:45:00      25AUG01:15:50:00      25AUG01:15:55:00      25AUG01:16:00:00      25AUG01:16:05:00      Time Zone: PDT

### NAtChem Time Series Plot

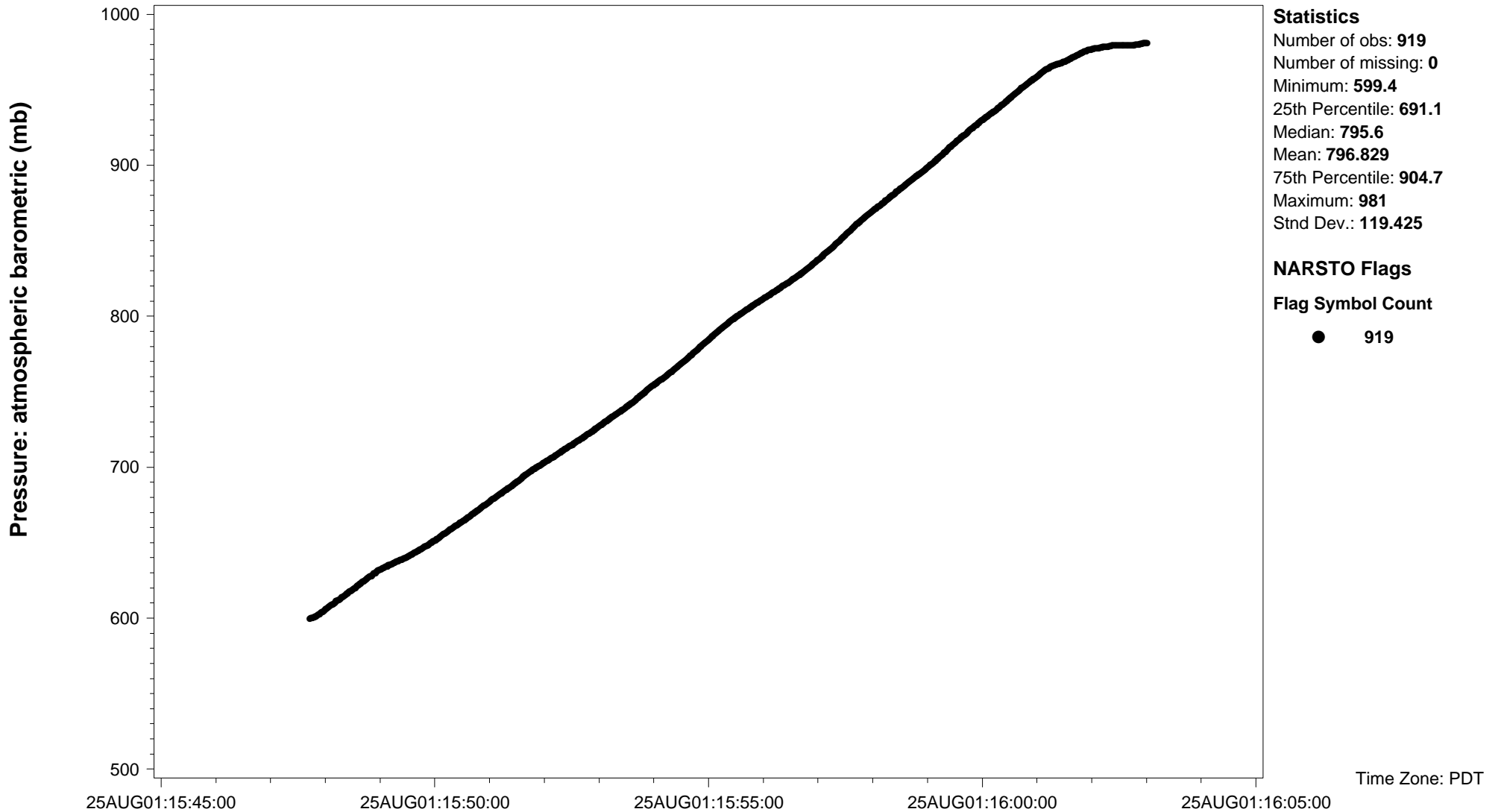
24SEP2004

Site ID: **PC01CABCCONV** Variable name: **Particles: size** Units: **um** Sampling interval: **1 second** Sampling frequency: **Same as sampling interval**  
 Observation type: **Particles** Field sampling or measurement principle: **Optical particle counter/size spectrometer** Inlet type: **Isokinetic**  
 Sampling humidity or temperature control: **Temperature controlled** Sampling Height above ground (m): **Varies--see variable Alti**  
 Instrument name and model number: **Passive Cavity Aerosol Spectrometer Probe** Measurement principal investigator: **Dr. Shao-Meng Li**  
 Detection Limit: **Not available**

Site Name: **Convair 580, British Columbia** Flight ID: **Flight\_04\_P02** Start Date: **2001-08-14** End Date: **2001-08-30**

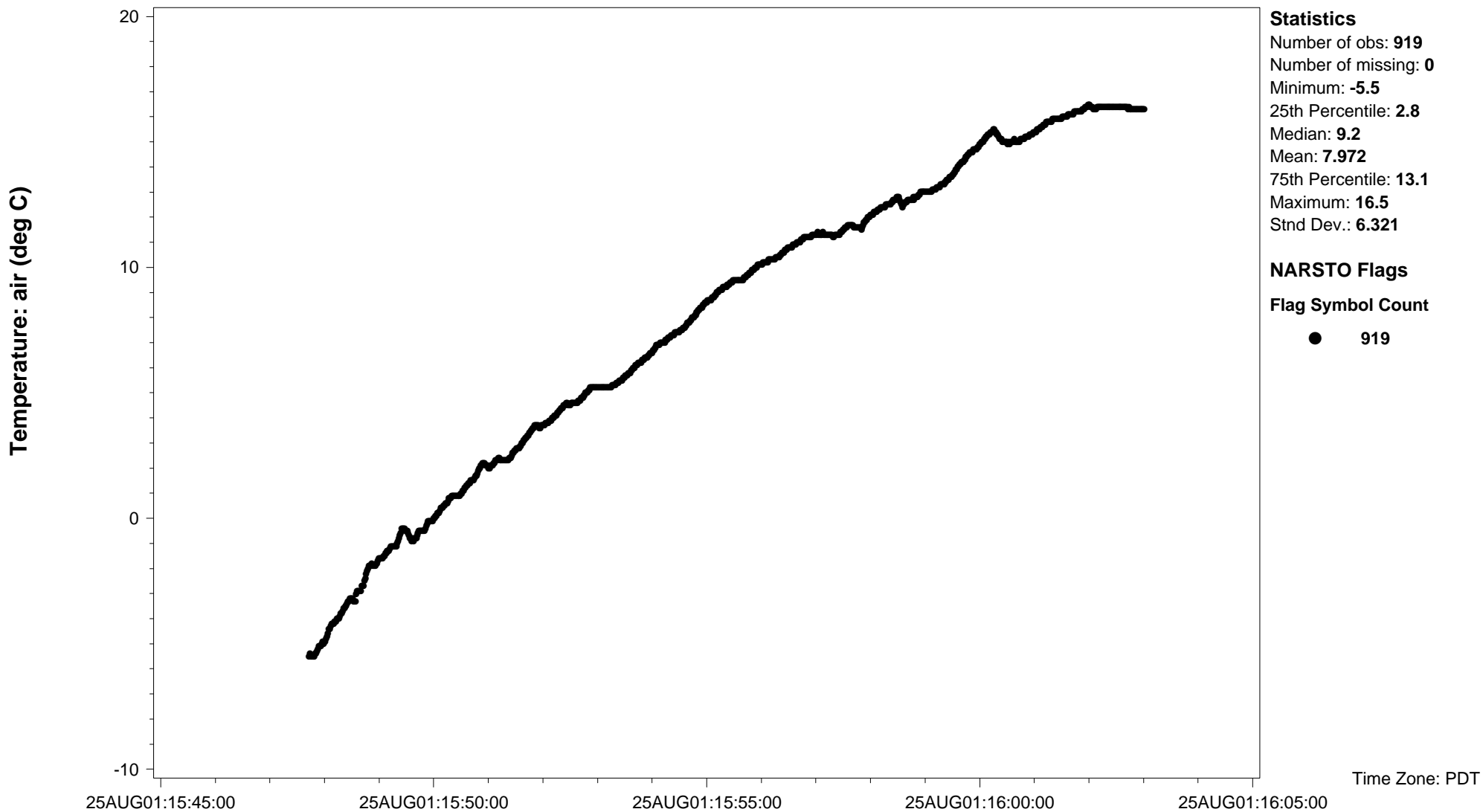


Site ID: **PC01CABCCONV** Variable name: **Pressure: atmospheric barometric** Units: **mb** Sampling interval: **1 second**  
 Sampling frequency: **Same as sampling interval** Observation type: **Supplementary data**  
 Field sampling or measurement principle: **Aircraft instrumentation** Sampling Height above ground (m): **Varies--see variable Alti**  
 Instrument name and model number: **Information not available** Measurement principal investigator: **Dr. Shao-Meng Li**  
 Site Name: **Convair 580, British Columbia** Flight ID: **Flight\_04\_P02** Start Date: **2001-08-14** End Date: **2001-08-30**



Site ID: **PC01CABCCONV** Variable name: **Temperature: air** Units: **deg C** Sampling interval: **1 second** Sampling frequency: **Same as sampling interval**  
 Observation type: **Supplementary data** Field sampling or measurement principle: **Ultraviolet absorption**  
 Sampling Height above ground (m): **Varies--see variable Alti** Instrument name and model number: **Rosemount Static Temperature**  
 Measurement principal investigator: **Dr. Shao-Meng Li** Detection Limit: **2 to 3**

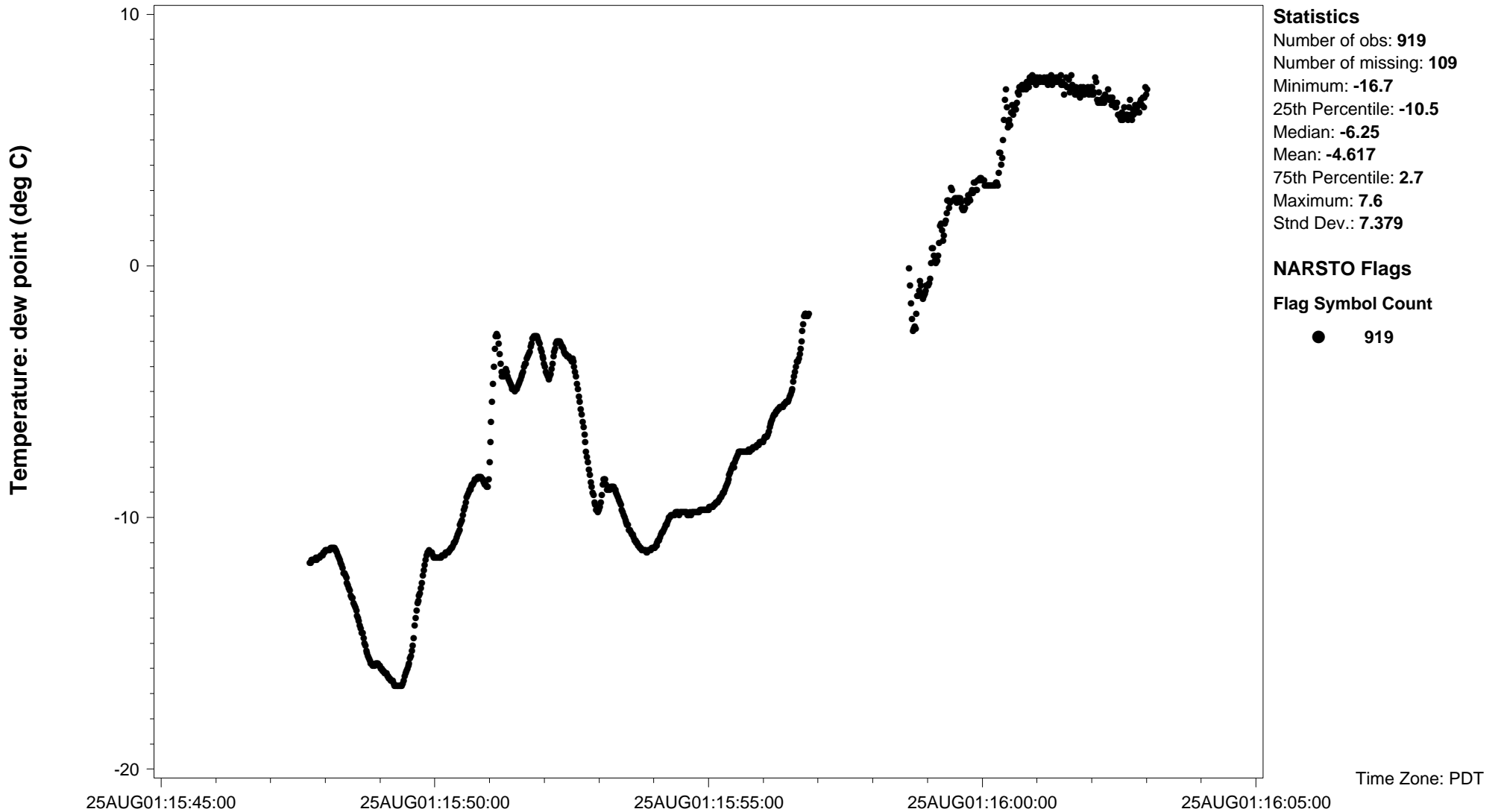
Site Name: **Convair 580, British Columbia** Flight ID: **Flight\_04\_P02** Start Date: **2001-08-14** End Date: **2001-08-30**



NAtChem Time Series Plot

24SEP2004

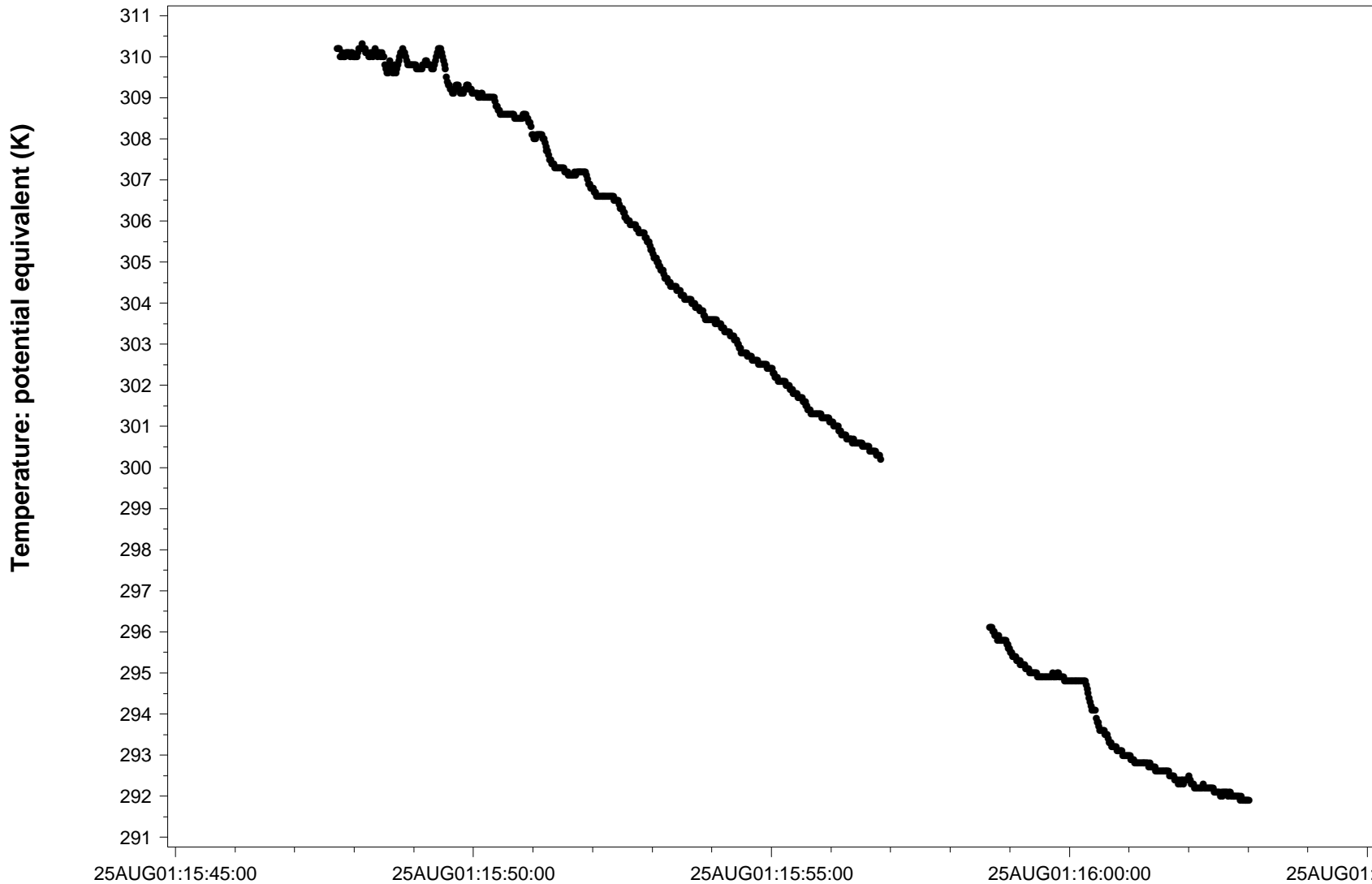
Site ID: **PC01CABCCONV** Variable name: **Temperature: dew point** Units: **deg C** Sampling interval: **1 second**  
 Sampling frequency: **Same as sampling interval** Observation type: **Supplementary data**  
 Field sampling or measurement principle: **Aircraft instrumentation** Sampling Height above ground (m): **Varies--see variable Alti**  
 Instrument name and model number: **EG+G Hygrometer** Measurement principal investigator: **Dr. Shao-Meng Li** Detection Limit: **Not available**  
 Site Name: **Convair 580, British Columbia** Flight ID: **Flight\_04\_P02** Start Date: **2001-08-14** End Date: **2001-08-30**





Site ID: **PC01CABCCONV** Variable name: **Temperature: potential equivalent** Units: **K** Sampling interval: **1 second**  
 Sampling frequency: **Same as sampling interval** Observation type: **Supplementary data**  
 Field sampling or measurement principle: **Aircraft instrumentation** Sampling Height above ground (m): **Varies--see variable Alti**  
 Measurement principal investigator: **Dr. Shao-Meng Li**

Site Name: **Convair 580, British Columbia** Flight ID: **Flight\_04\_P02** Start Date: **2001-08-14** End Date: **2001-08-30**



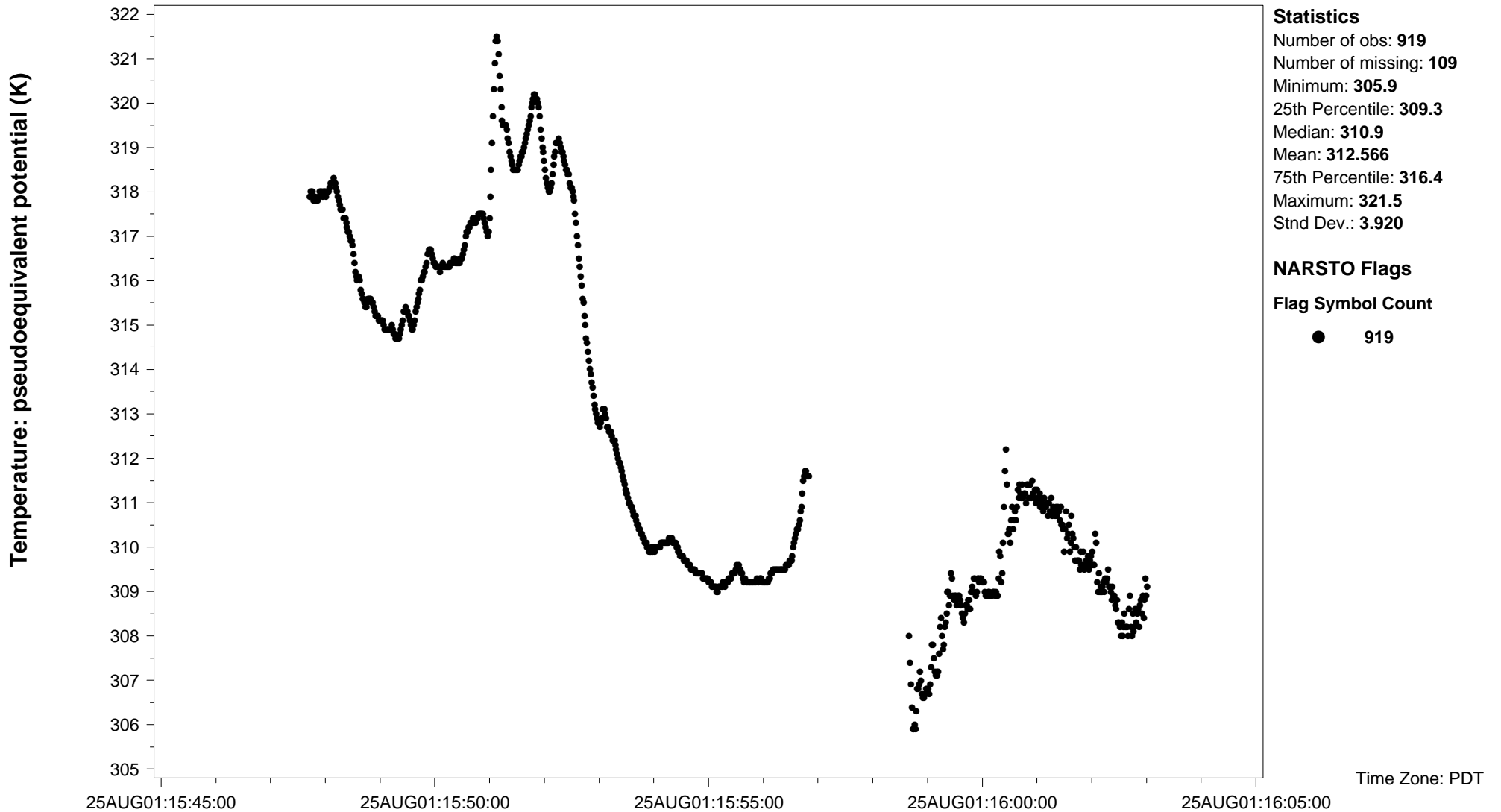
**Statistics**  
 Number of obs: **919**  
 Number of missing: **109**  
 Minimum: **291.9**  
 25th Percentile: **294.9**  
 Median: **302.95**  
 Mean: **301.945**  
 75th Percentile: **308.1**  
 Maximum: **310.3**  
 Stnd Dev.: **6.423**

**NARSTO Flags**  
 Flag Symbol Count  
 ● 919

Time Zone: PDT

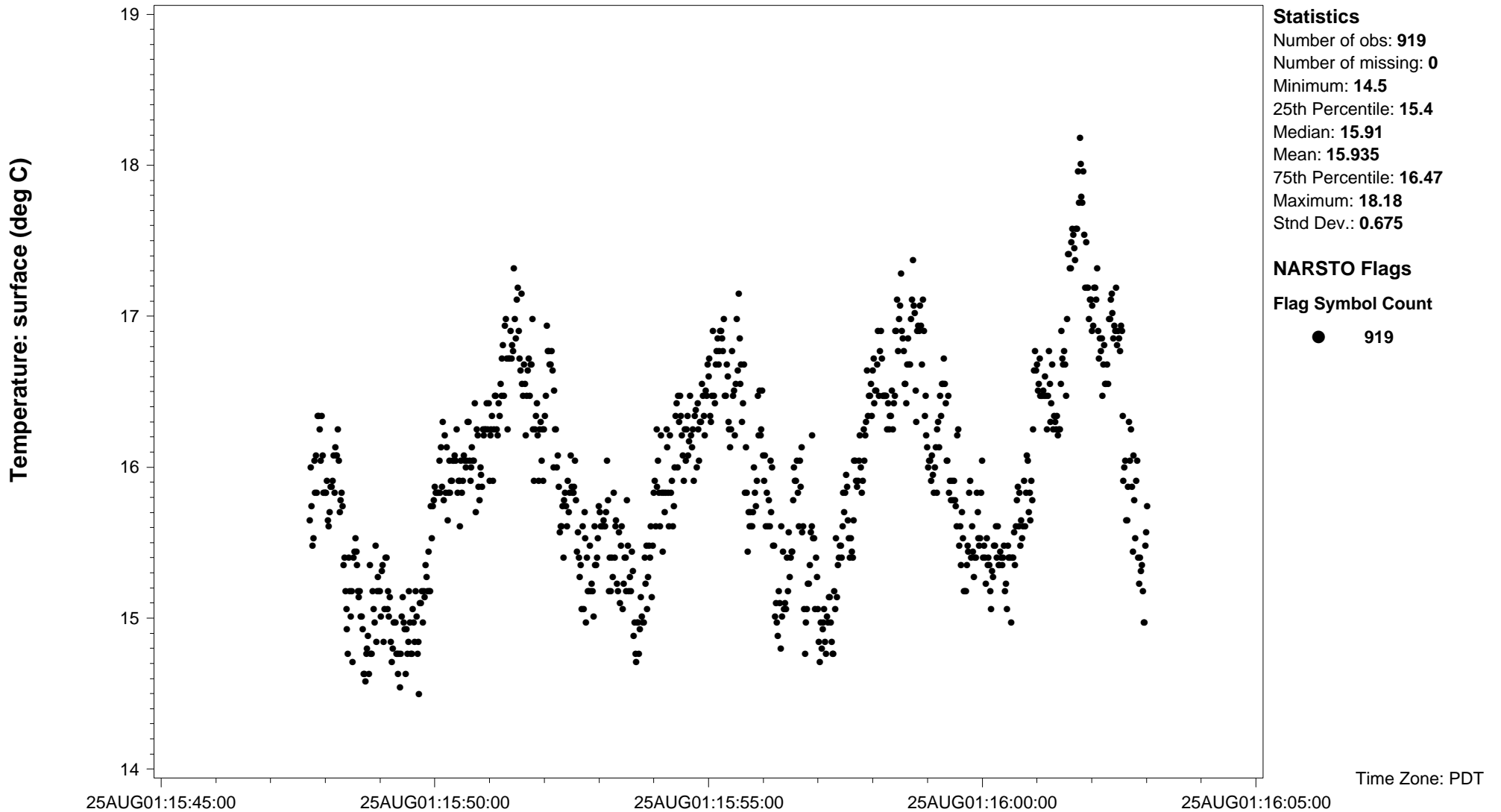
Site ID: **PC01CABCCONV** Variable name: **Temperature: pseudoequivalent potential** Units: **K** Sampling interval: **1 second**  
 Sampling frequency: **Same as sampling interval** Observation type: **Supplementary data**  
 Field sampling or measurement principle: **Aircraft instrumentation** Sampling Height above ground (m): **Varies--see variable Alti**  
 Measurement principal investigator: **Dr. Shao-Meng Li**

Site Name: **Convair 580, British Columbia** Flight ID: **Flight\_04\_P02** Start Date: **2001-08-14** End Date: **2001-08-30**



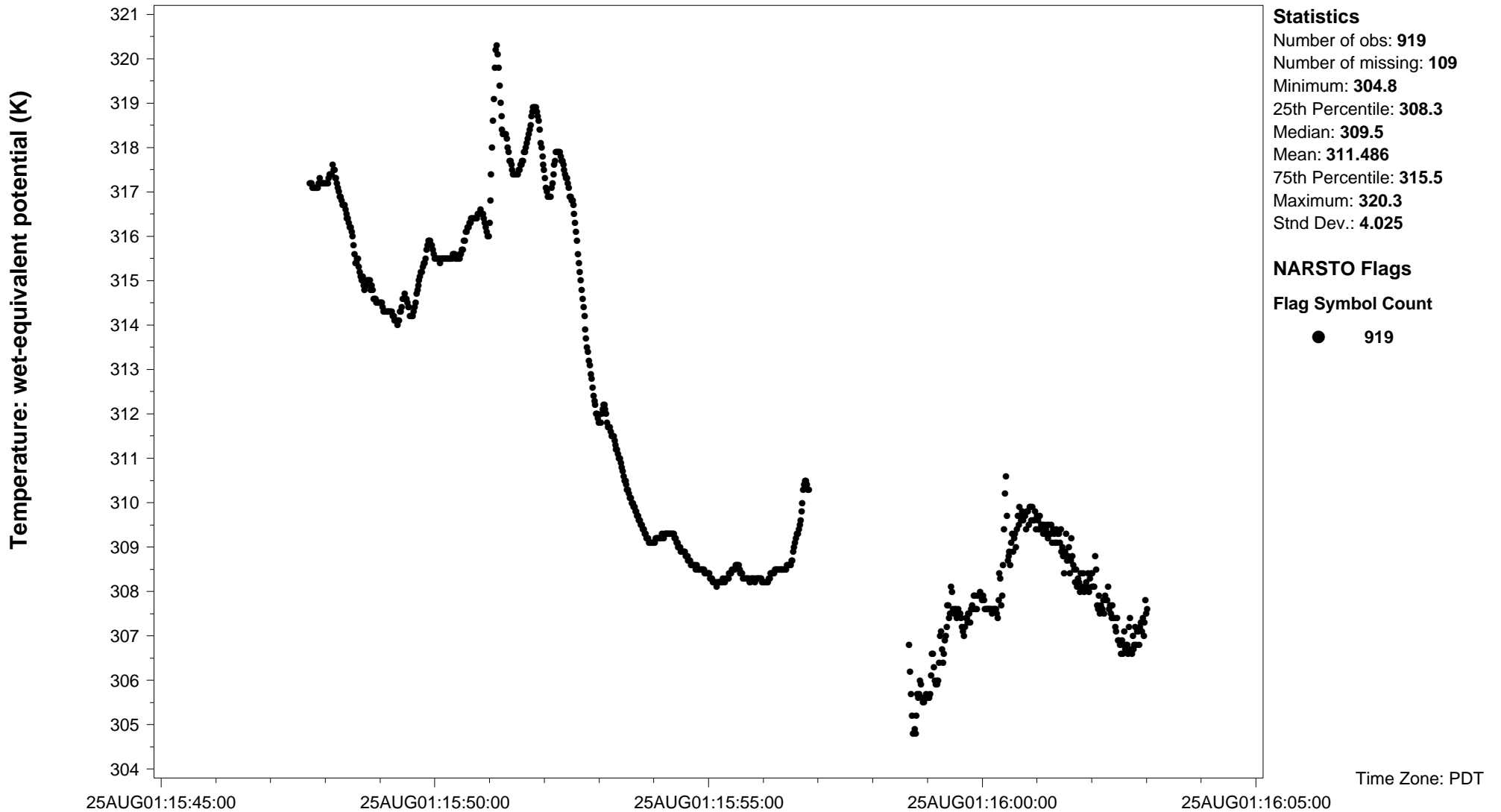
Site ID: **PC01CABCCONV** Variable name: **Temperature: surface** Units: **deg C** Sampling interval: **1 second** Sampling frequency: **Same as sampling interval**  
 Observation type: **Supplementary data** Field sampling or measurement principle: **Radiometer**  
 Sampling Height above ground (m): **Varies--see variable Alti** Instrument name and model number: **Barns RadiometerPRT-5**  
 Measurement principal investigator: **Dr. Shao-Meng Li**

Site Name: **Convair 580, British Columbia** Flight ID: **Flight\_04\_P02** Start Date: **2001-08-14** End Date: **2001-08-30**



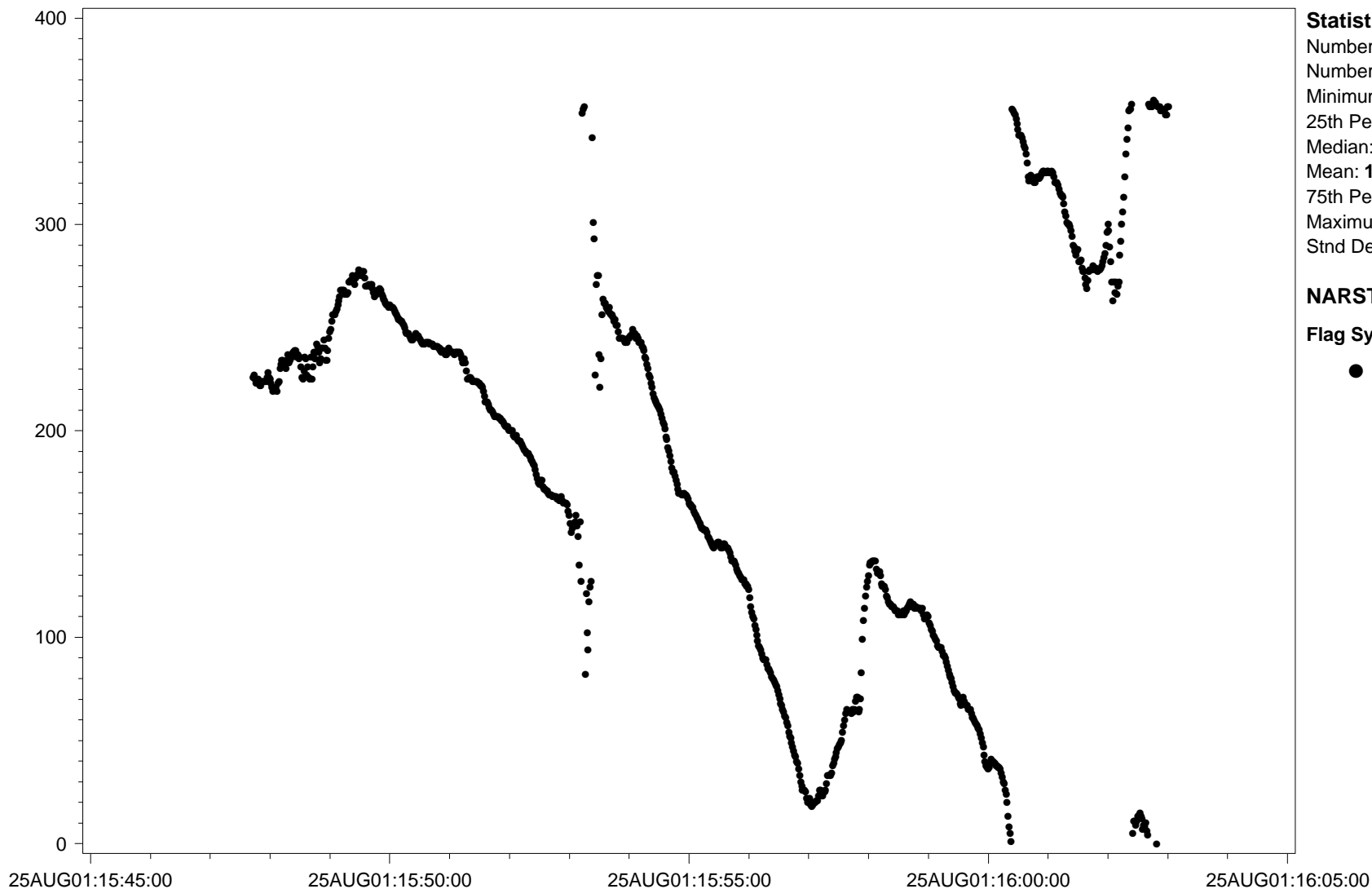
Site ID: **PC01CABCCONV** Variable name: **Temperature: wet-equivalent potential** Units: **K** Sampling interval: **1 second**  
 Sampling frequency: **Same as sampling interval** Observation type: **Supplementary data**  
 Field sampling or measurement principle: **Aircraft instrumentation** Sampling Height above ground (m): **Varies--see variable Alti**  
 Measurement principal investigator: **Dr. Shao-Meng Li**

Site Name: **Convair 580, British Columbia** Flight ID: **Flight\_04\_P02** Start Date: **2001-08-14** End Date: **2001-08-30**



Site ID: **PC01CABCCONV** Variable name: **Wind direction: horizontal resultant vector mean** Units: **degree from true north** Sampling interval: **1 second**  
 Sampling frequency: **Same as sampling interval** Observation type: **Supplementary data**  
 Field sampling or measurement principle: **Aircraft instrumentation** Sampling Height above ground (m): **Varies--see variable Alti**  
 Instrument name and model number: **Information not available** Measurement principal investigator: **Dr. Shao-Meng Li**  
 Site Name: **Convair 580, British Columbia** Flight ID: **Flight\_04\_P02** Start Date: **2001-08-14** End Date: **2001-08-30**

Wind direction: horizontal resultant vector mean (degree from true north)



**Statistics**

Number of obs: **919**  
 Number of missing: **0**  
 Minimum: **0**  
 25th Percentile: **113**  
 Median: **207**  
 Mean: **186.276**  
 75th Percentile: **254**  
 Maximum: **360**  
 Stnd Dev.: **93.510**

**NARSTO Flags**

Flag Symbol Count

● 919

Time Zone: PDT

Site ID: **PC01CABCCONV** Variable name: **Wind speed: horizontal scalar mean** Units: **m/s** Sampling interval: **1 second**  
 Sampling frequency: **Same as sampling interval** Observation type: **Supplementary data**  
 Field sampling or measurement principle: **Aircraft instrumentation** Sampling Height above ground (m): **Varies--see variable Alti**  
 Instrument name and model number: **Information not available** Measurement principal investigator: **Dr. Shao-Meng Li**  
 Site Name: **Convair 580, British Columbia** Flight ID: **Flight\_04\_P02** Start Date: **2001-08-14** End Date: **2001-08-30**

