

## File Names

10:39 Friday, September 24, 2004 1

File #	Original File Name
1	PAC2001_CONV_SML_PART-CNT+O3_FL-02_PR-04_20010815_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 Province code	Latitude: decimal degree	Longitude: decimal degree	Sampling height above ground (m)	Ground elevation 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 measurements	Study site ID	Lat lon accuracy
PC01CABCABTF	.	2001/08/14	2001/08/30			.
PC01CABCCONV	.	2001/08/14	2001/08/30			.

## NARSTO Standard Flags

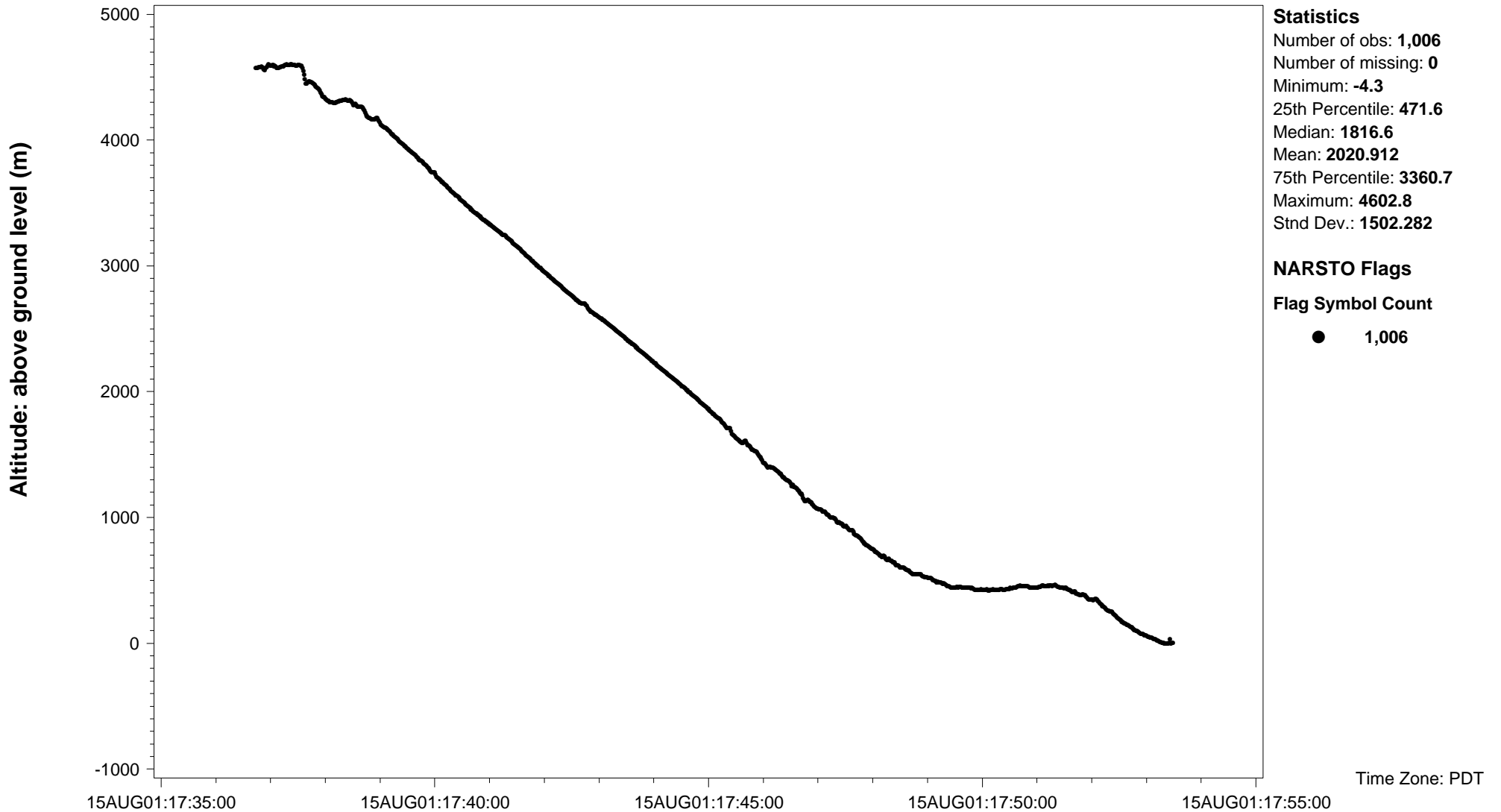
Flag: NARSTO	Description
M1	Missing value because no value is available
M2	Missing value because invalidated by data originator
V0	Valid value

# 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\_02\_P04** Start Date: **2001-08-14** End Date: **2001-08-30**



# NAtChem Time Series Plot

24SEP2004

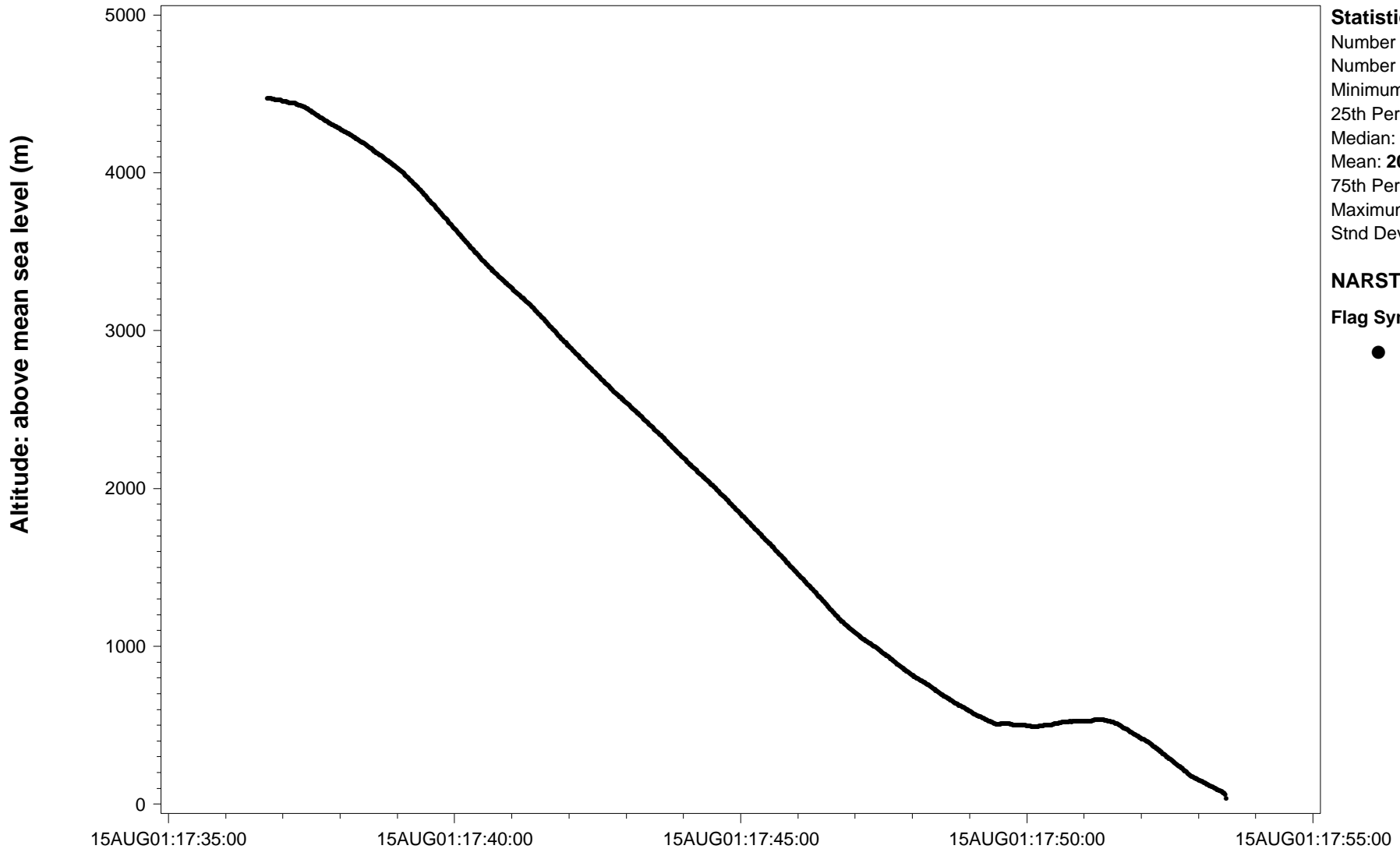
Site ID: **PC01CABCCONV** Variable name: **Altitude: above mean sea level** Units: **m** Sampling interval: **1 second**

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\_02\_P04** Start Date: **2001-08-14** End Date: **2001-08-30**



## Statistics

Number of obs: **1,006**  
Number of missing: **0**  
Minimum: **37**  
25th Percentile: **535**  
Median: **1799.5**  
Mean: **2011.332**  
75th Percentile: **3298**  
Maximum: **4472**  
Std Dev.: **1430.542**

## NARSTO Flags

### Flag Symbol Count

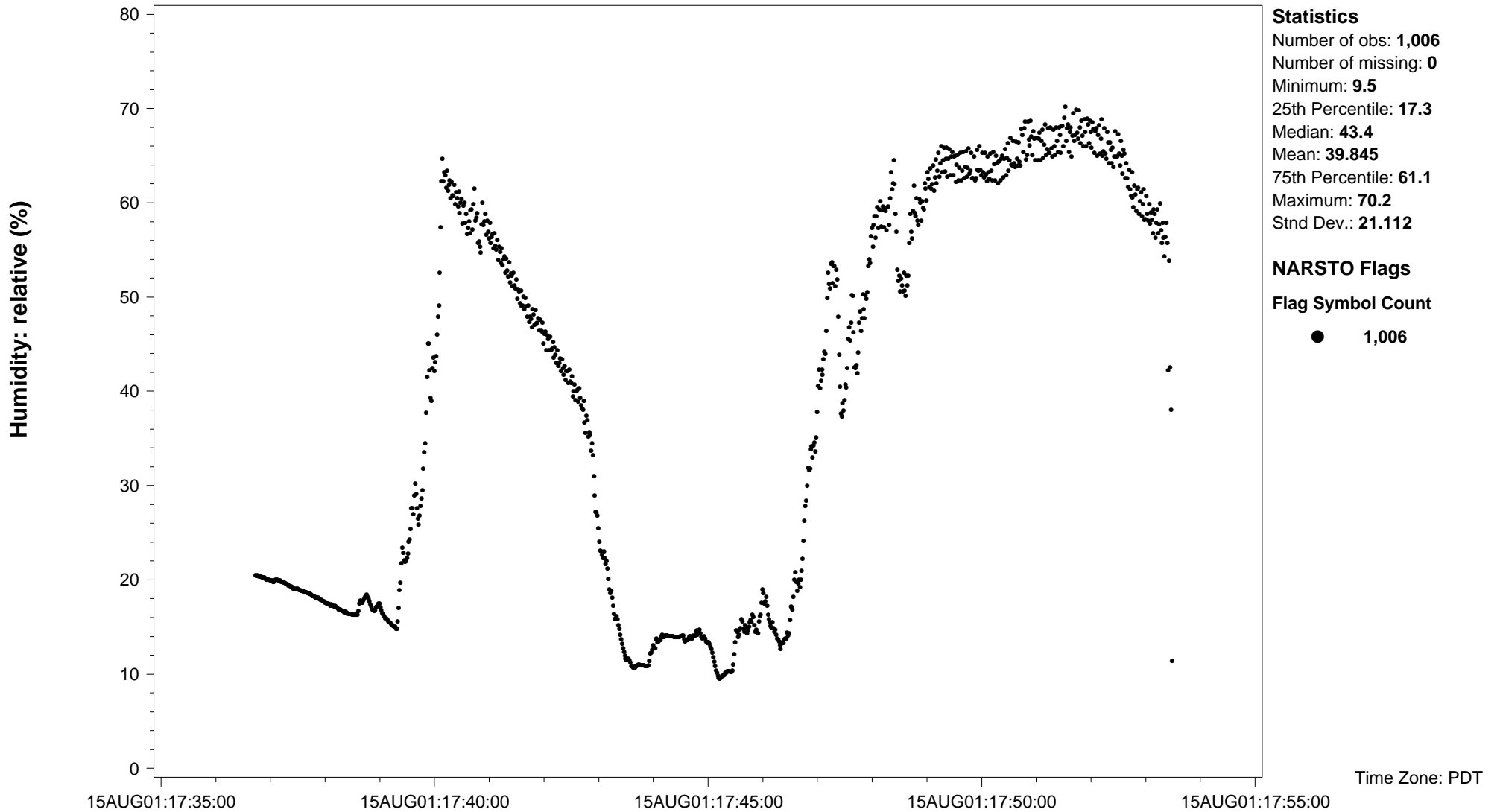
● 1,006

Time Zone: PDT

NAtChem Time Series Plot

24SEP2004

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\_02\_P04** Start Date: **2001-08-14** End Date: **2001-08-30**

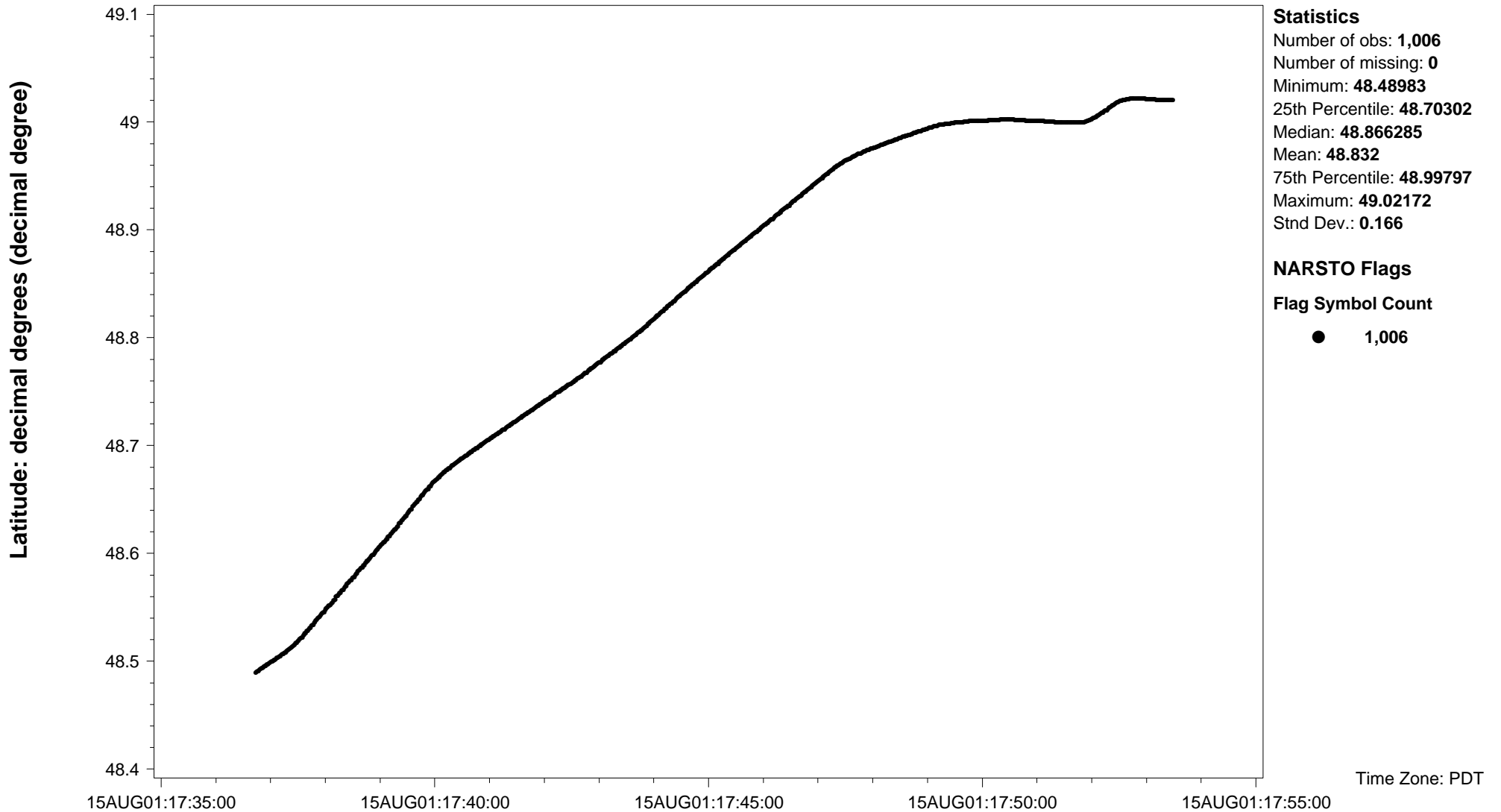


# NATchem Time Series Plot

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\_02\_P04** Start Date: **2001-08-14** End Date: **2001-08-30**



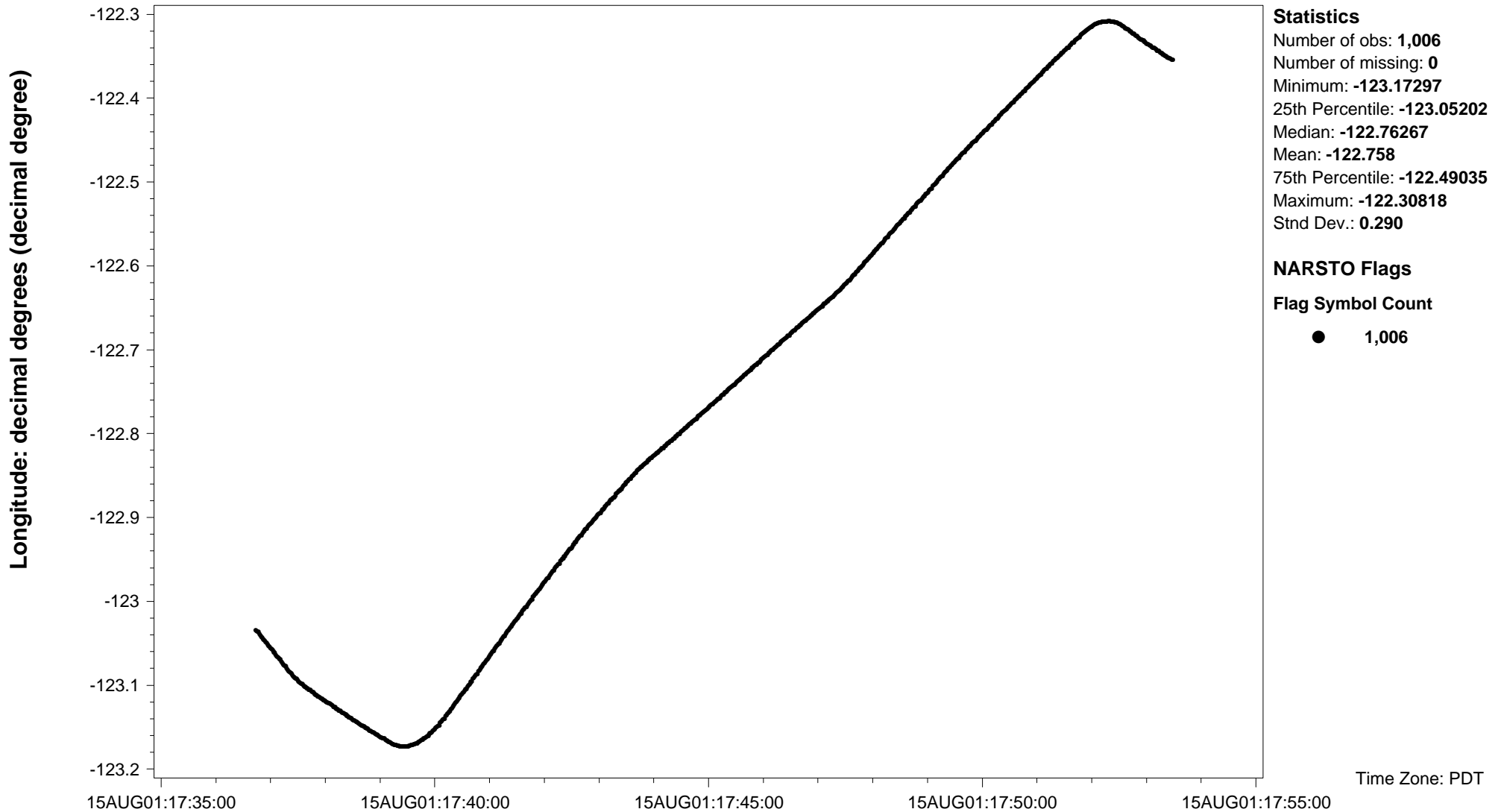


# NAtChem Time Series Plot

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**

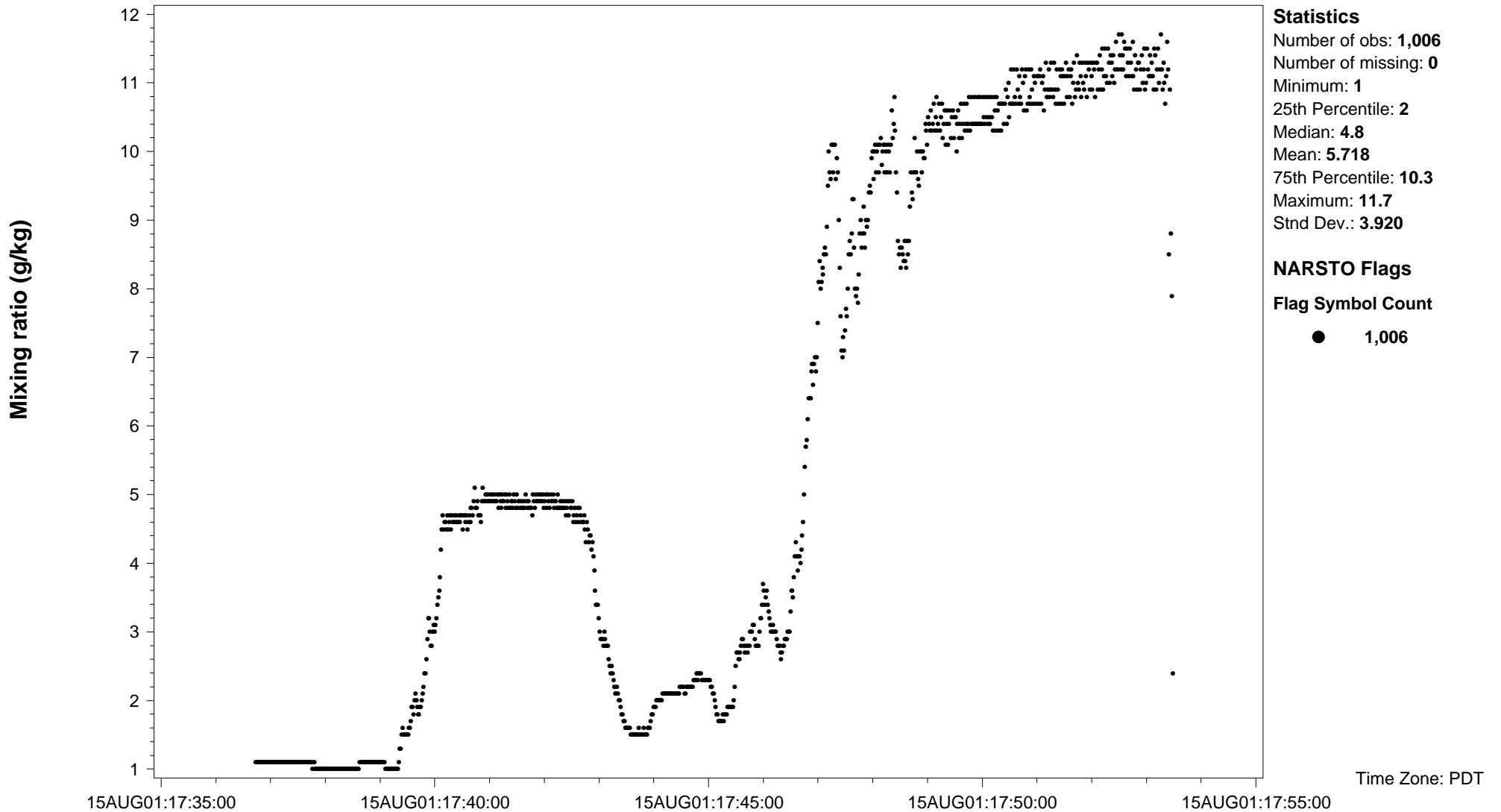
Site Name: **Convair 580, British Columbia** Flight ID: **Flight\_02\_P04** Start Date: **2001-08-14** End Date: **2001-08-30**



NATchem Time Series Plot

24SEP2004

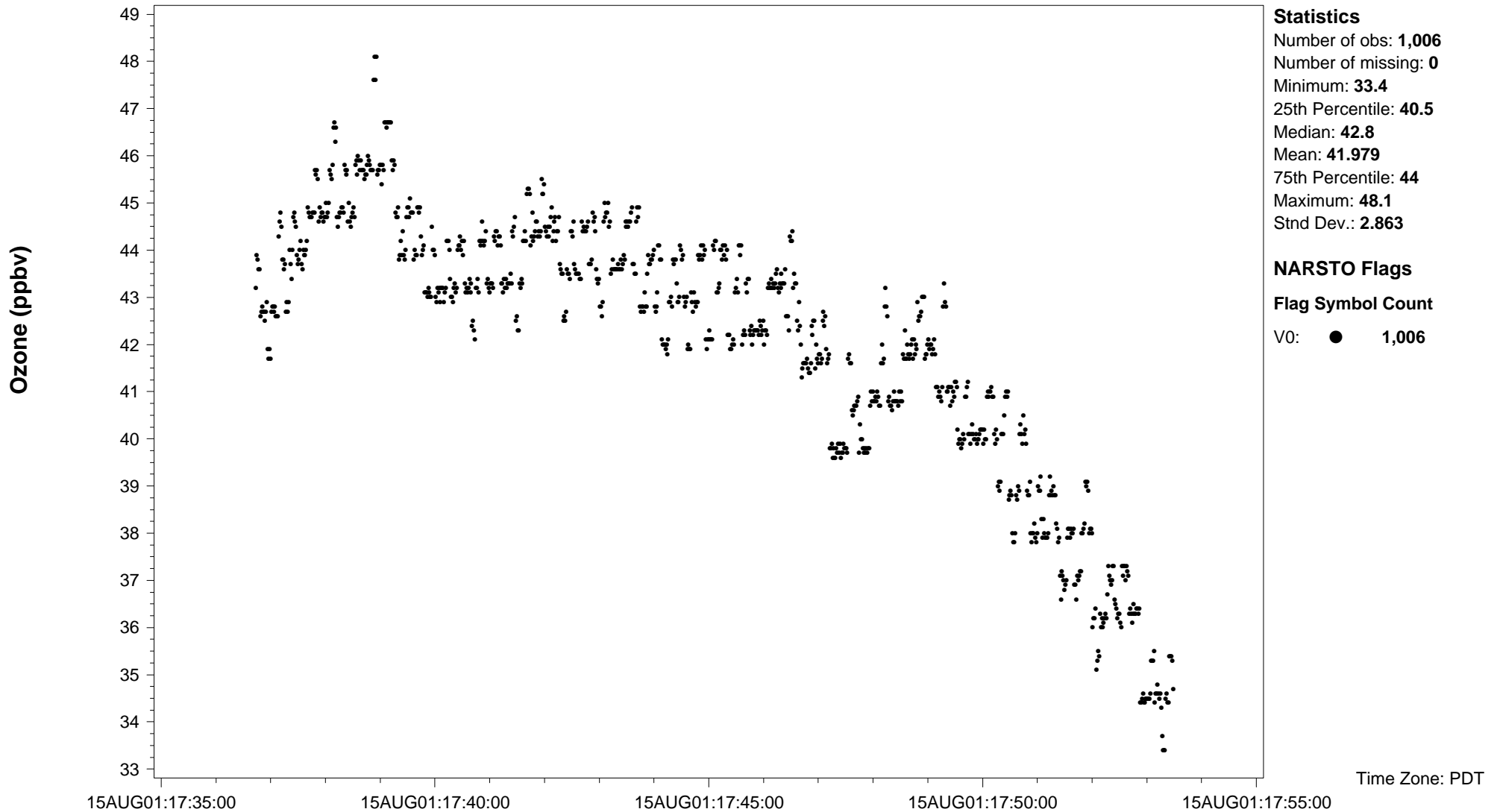
Site ID: **PC01CABCCONV** Variable name: **Mixing ratio** Units: **g/kg** Sampling interval: **1 second** Sampling frequency: **Same as sampling interval**  
 Observation type: **Supplementary data** Field sampling or measurement principle: **Ultraviolet absorption**  
 Sampling Height above ground (m): **Varies--see variable Alti** Measurement principal investigator: **Dr. Shao-Meng Li**  
 Site Name: **Convair 580, British Columbia** Flight ID: **Flight\_02\_P04** 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\_02\_P04** 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**

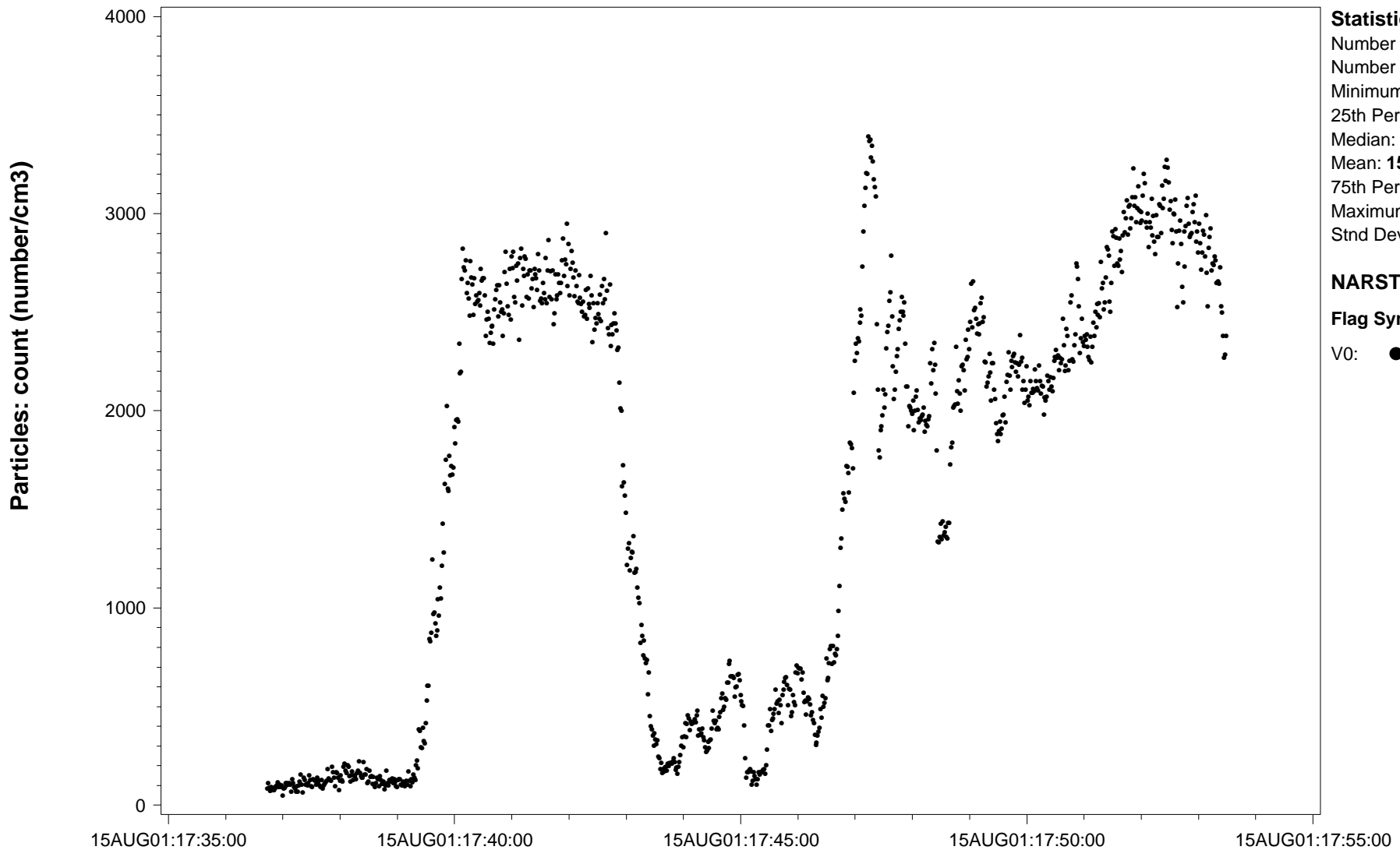
Field sampling or measurement principle: **Optical particle counter/size spectrometer** Inlet type: **Isokinetic**

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\_02\_P04** Start Date: **2001-08-14** End Date: **2001-08-30**



**Statistics**

Number of obs: **1,006**  
 Number of missing: **0**  
 Minimum: **49.7**  
 25th Percentile: **394**  
 Median: **2026.4**  
 Mean: **1598.508**  
 75th Percentile: **2552.2**  
 Maximum: **3389.9**  
 Stnd Dev.: **1084.983**

**NARSTO Flags**

**Flag Symbol Count**  
 V0: ● **1,006**

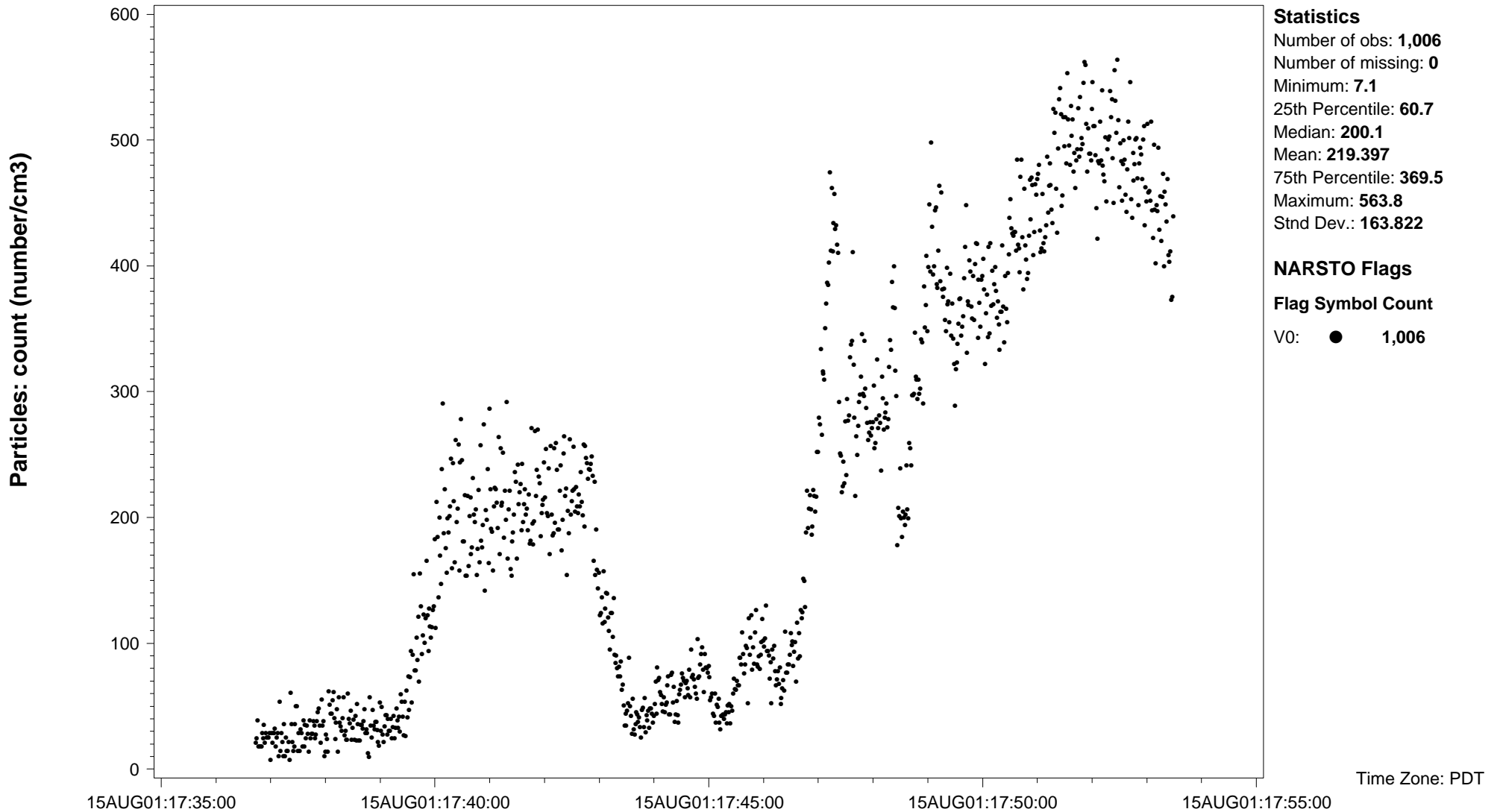
Time Zone: PDT

# 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\_02\_P04** Start Date: **2001-08-14** End Date: **2001-08-30**

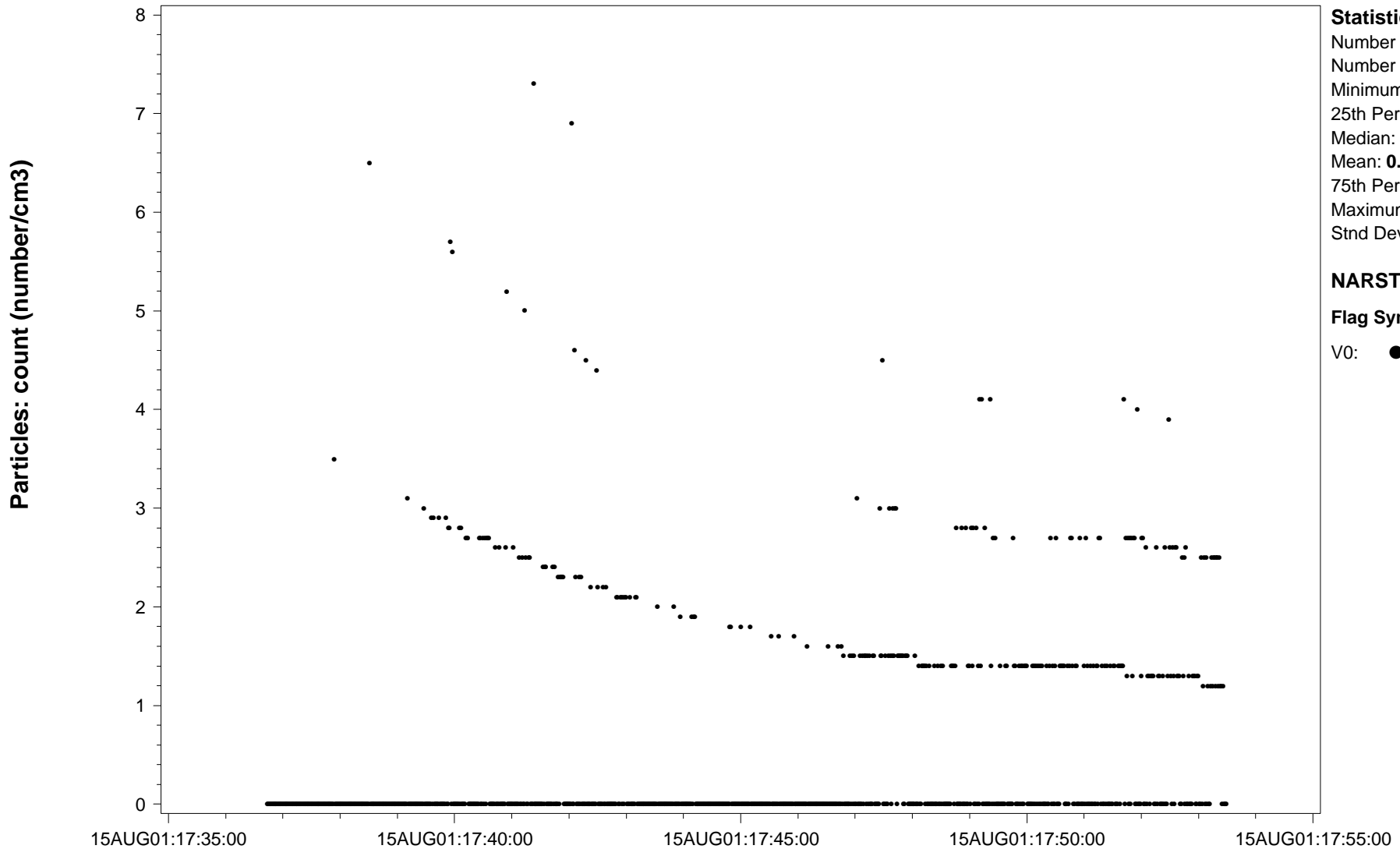


NAtChem Time Series Plot

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\_02\_P04** Start Date: **2001-08-14** End Date: **2001-08-30**



**Statistics**  
 Number of obs: **1,006**  
 Number of missing: **0**  
 Minimum: **0**  
 25th Percentile: **0**  
 Median: **0**  
 Mean: **0.575**  
 75th Percentile: **1.3**  
 Maximum: **7.3**  
 Stnd Dev.: **1.069**

**NARSTO Flags**  
**Flag Symbol Count**  
 V0: ● **1,006**

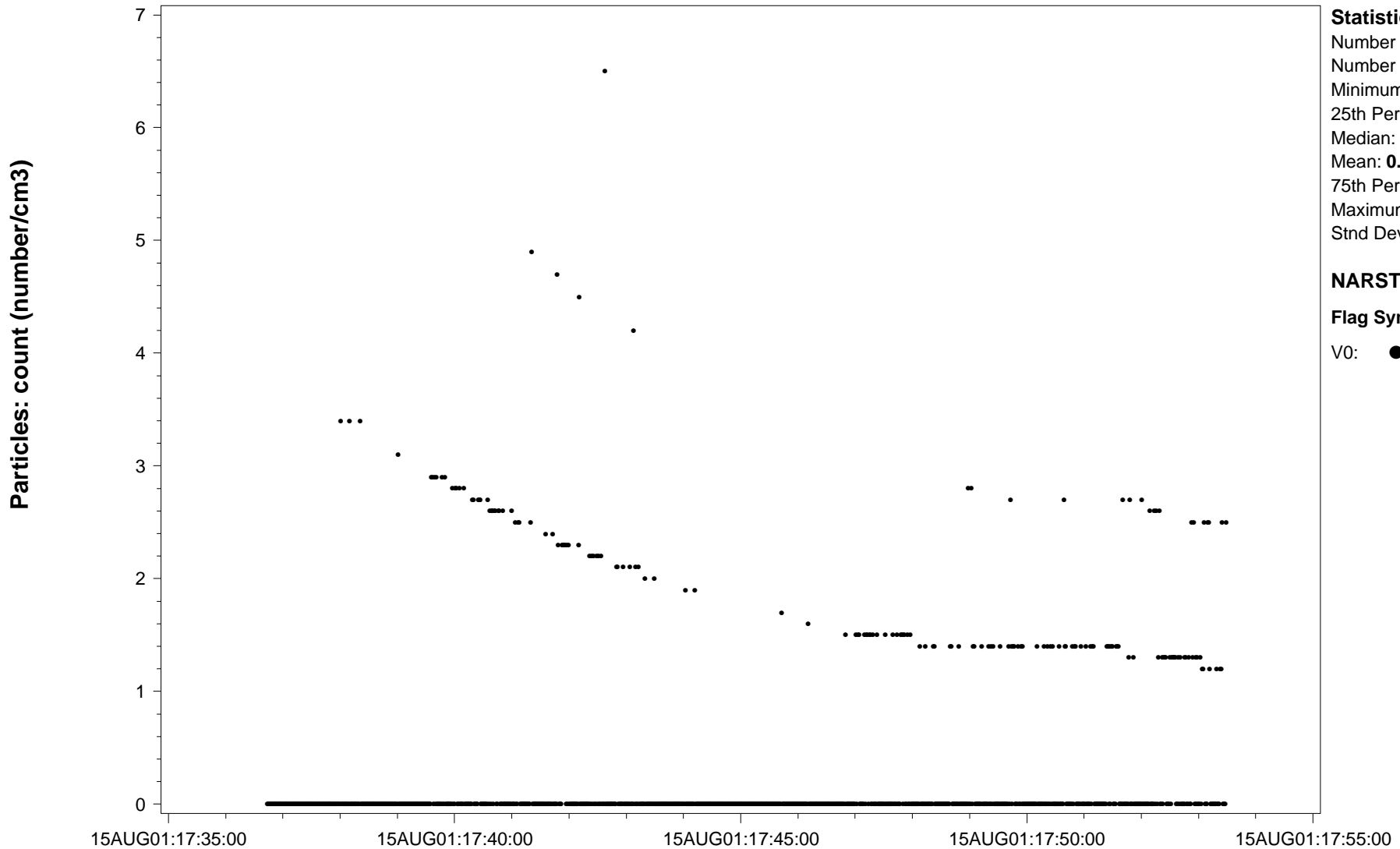
Time Zone: PDT

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\_02\_P04** Start Date: **2001-08-14** End Date: **2001-08-30**



**Statistics**  
 Number of obs: **1,006**  
 Number of missing: **0**  
 Minimum: **0**  
 25th Percentile: **0**  
 Median: **0**  
 Mean: **0.353**  
 75th Percentile: **0**  
 Maximum: **6.5**  
 Stnd Dev.: **0.832**

**NARSTO Flags**  
**Flag Symbol Count**  
 V0: ● **1,006**

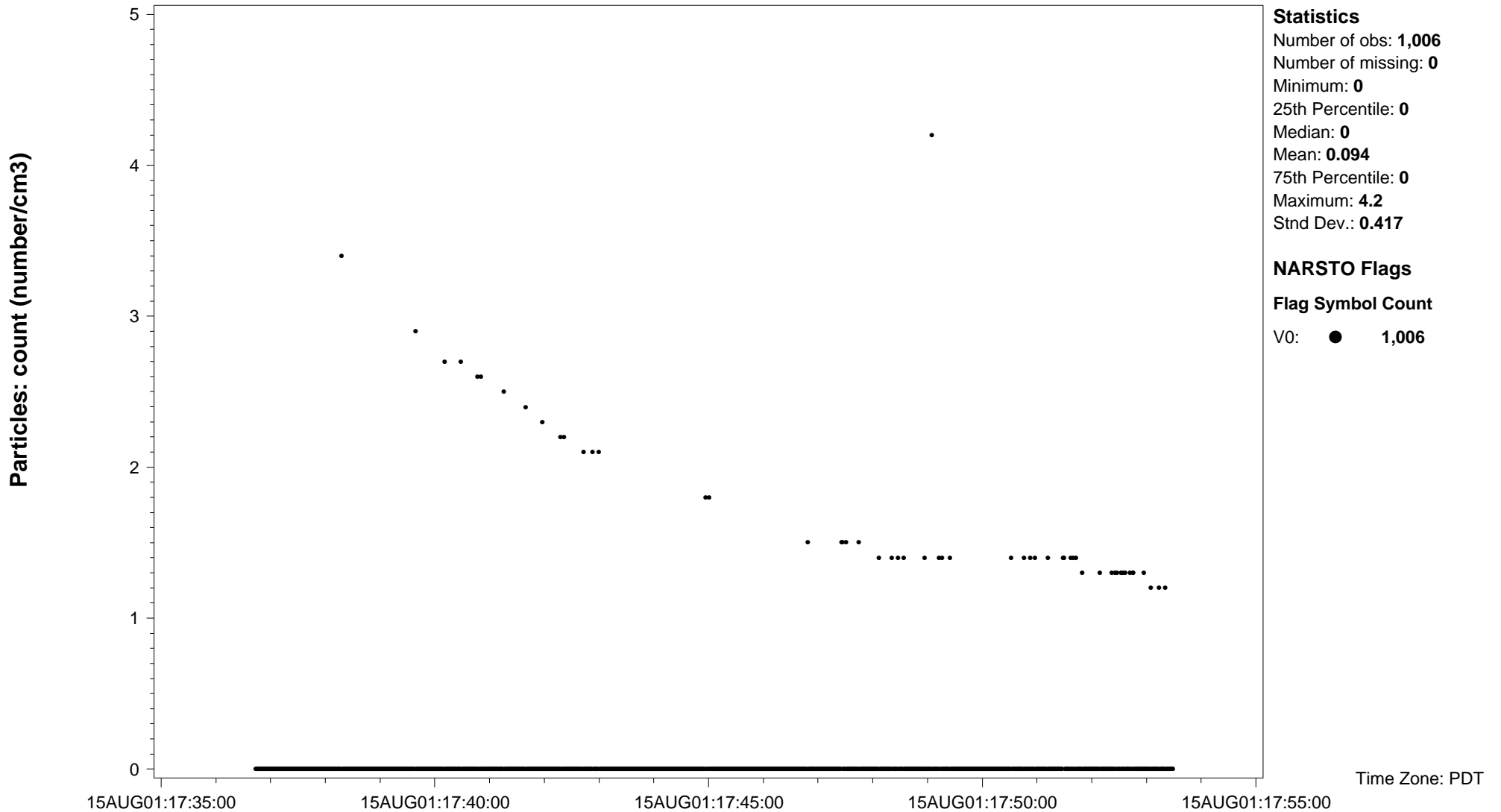
Time Zone: PDT

# 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\_02\_P04** Start Date: **2001-08-14** End Date: **2001-08-30**



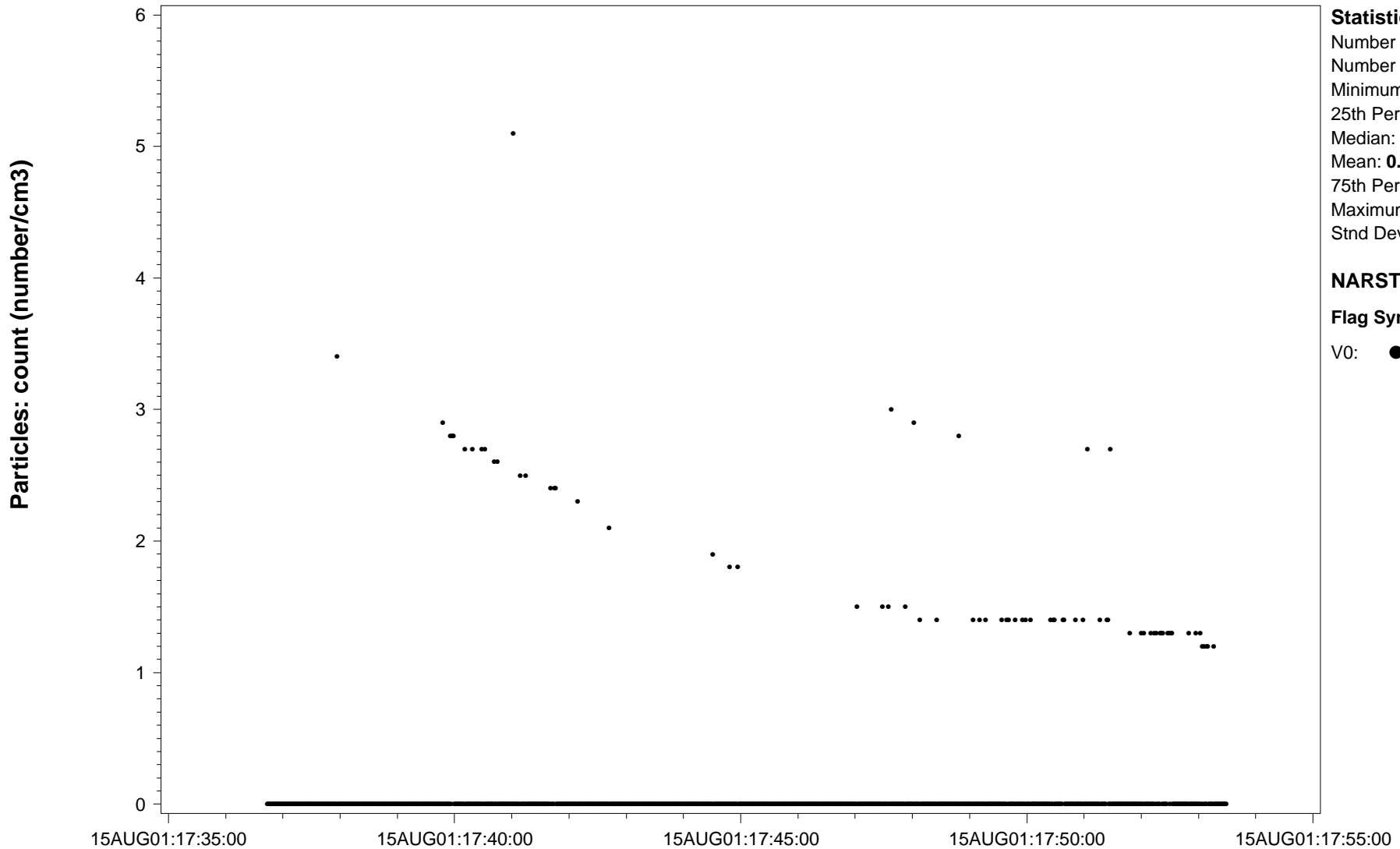


NAtChem Time Series Plot

24SEP2004

Site ID: **PC01CABCCONV** Variable name: **Particles: count** Units: **number/cm3** Basis: **channel 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\_02\_P04** Start Date: **2001-08-14** End Date: **2001-08-30**



**Statistics**  
 Number of obs: **1,006**  
 Number of missing: **0**  
 Minimum: **0**  
 25th Percentile: **0**  
 Median: **0**  
 Mean: **0.135**  
 75th Percentile: **0**  
 Maximum: **5.1**  
 Std Dev.: **0.518**

**NARSTO Flags**  
**Flag Symbol Count**  
 V0: ● **1,006**

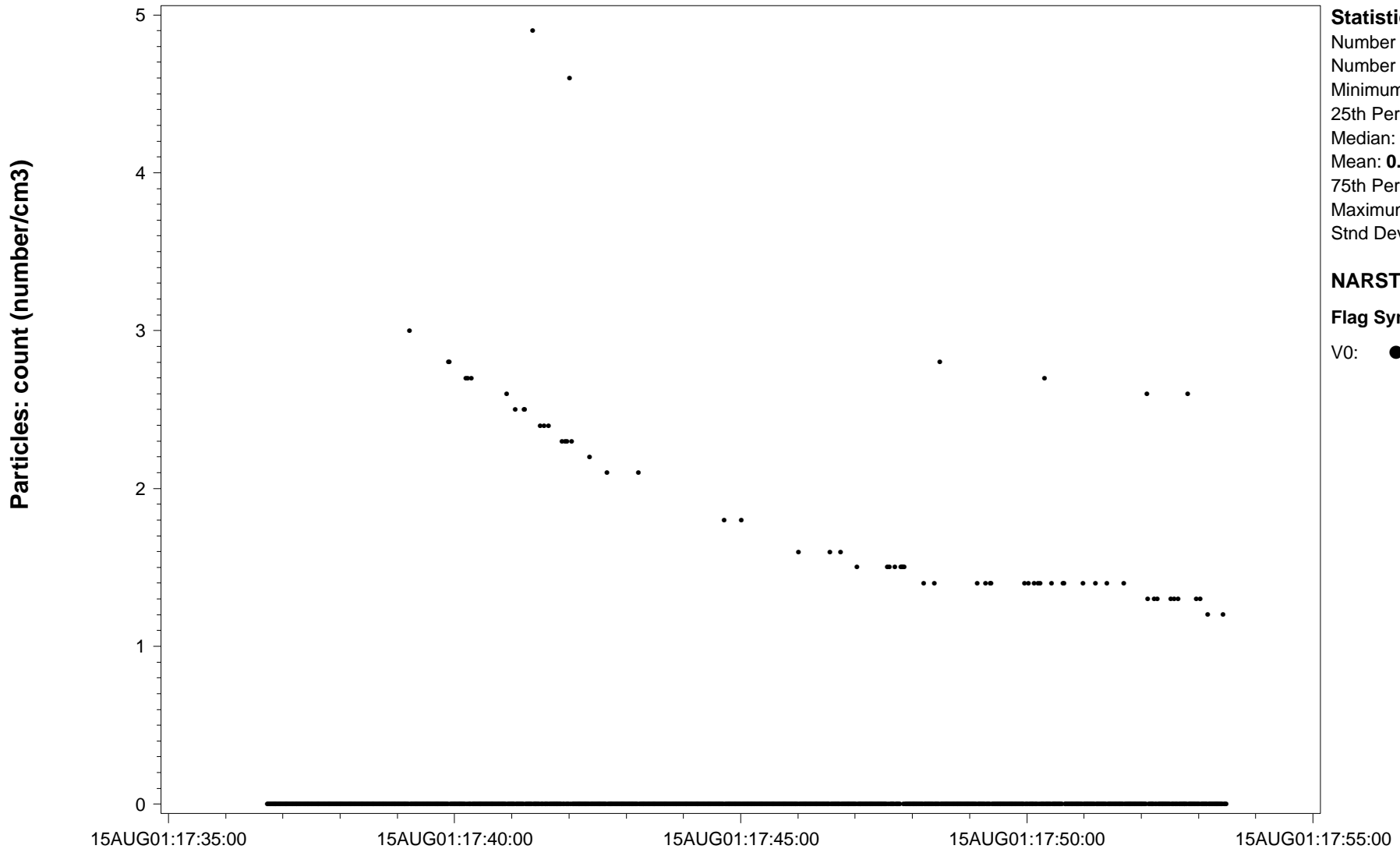
Time Zone: PDT

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\_02\_P04** Start Date: **2001-08-14** End Date: **2001-08-30**



**Statistics**  
 Number of obs: **1,006**  
 Number of missing: **0**  
 Minimum: **0**  
 25th Percentile: **0**  
 Median: **0**  
 Mean: **0.127**  
 75th Percentile: **0**  
 Maximum: **4.9**  
 Stnd Dev.: **0.514**

**NARSTO Flags**  
**Flag Symbol Count**  
 V0: ● **1,006**

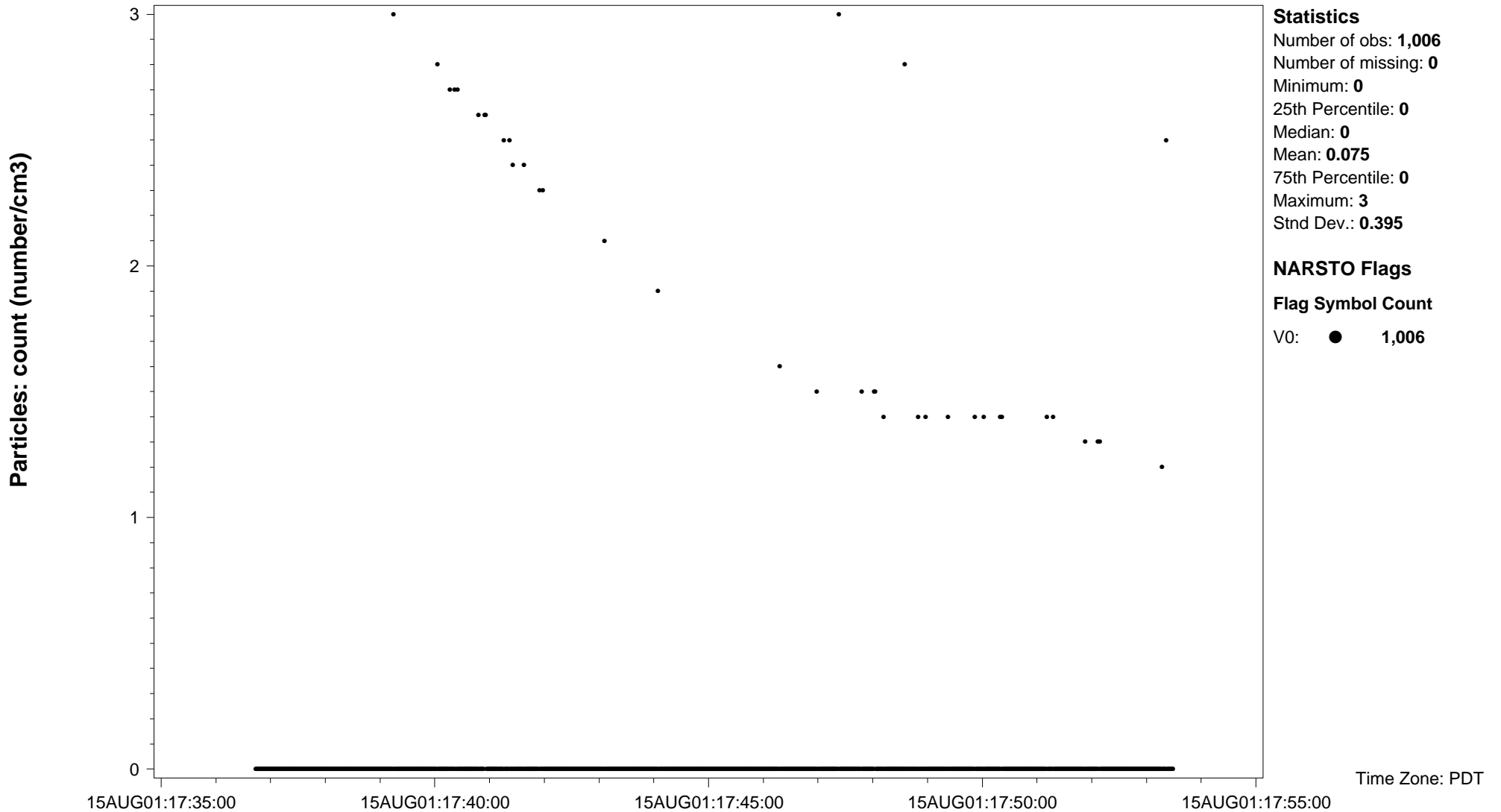
Time Zone: PDT

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\_02\_P04** Start Date: **2001-08-14** End Date: **2001-08-30**

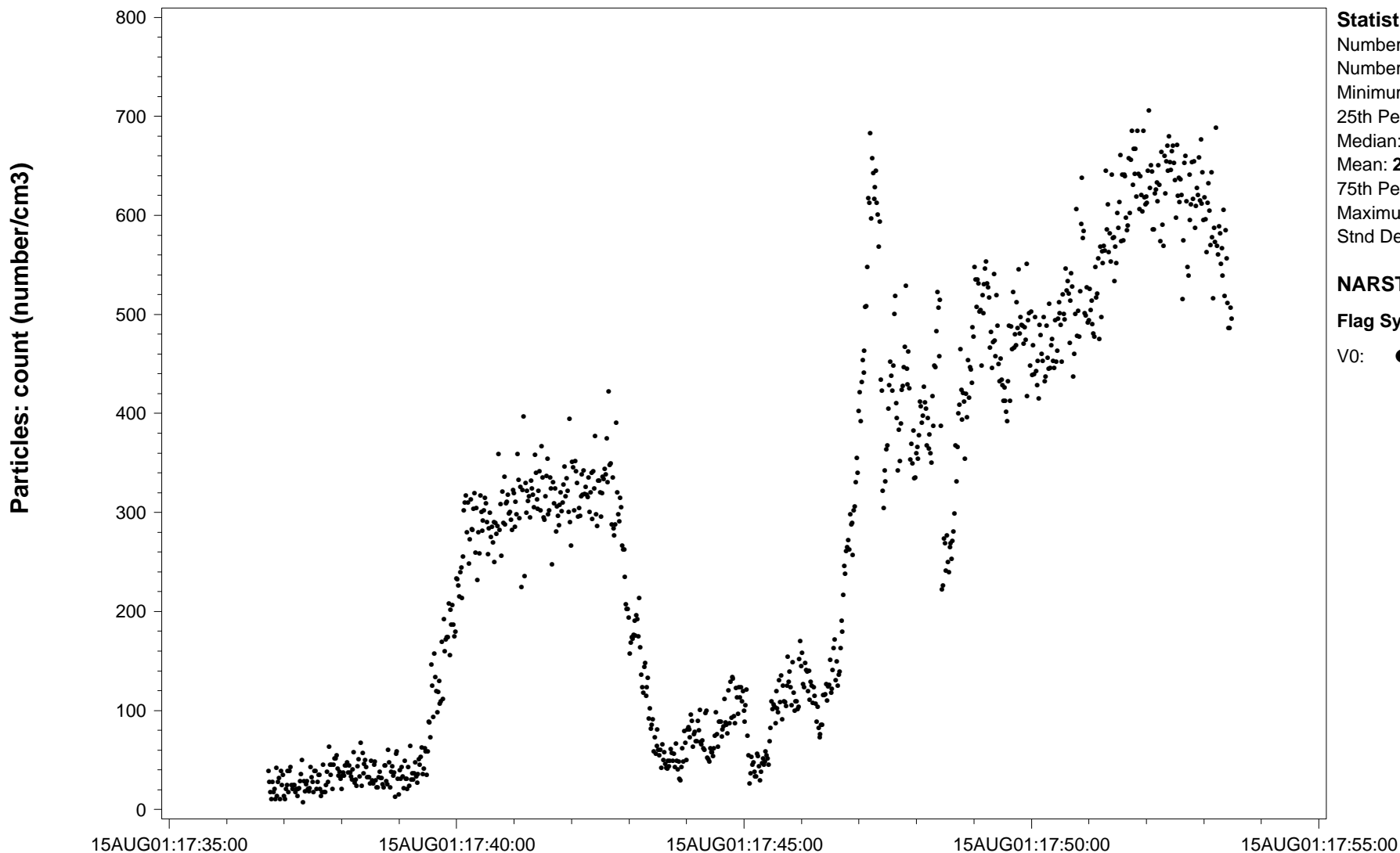


NAtChem Time Series Plot

24SEP2004

Site ID: **PC01CABCCONV** Variable name: **Particles: count** Units: **number/cm3** Basis: **channel 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\_02\_P04** Start Date: **2001-08-14** End Date: **2001-08-30**



**Statistics**

Number of obs: **1,006**  
 Number of missing: **0**  
 Minimum: **7.1**  
 25th Percentile: **79.2**  
 Median: **294.75**  
 Mean: **287.823**  
 75th Percentile: **469.1**  
 Maximum: **705.8**  
 Stnd Dev.: **208.086**

**NARSTO Flags**

**Flag Symbol Count**  
 V0: ● **1,006**

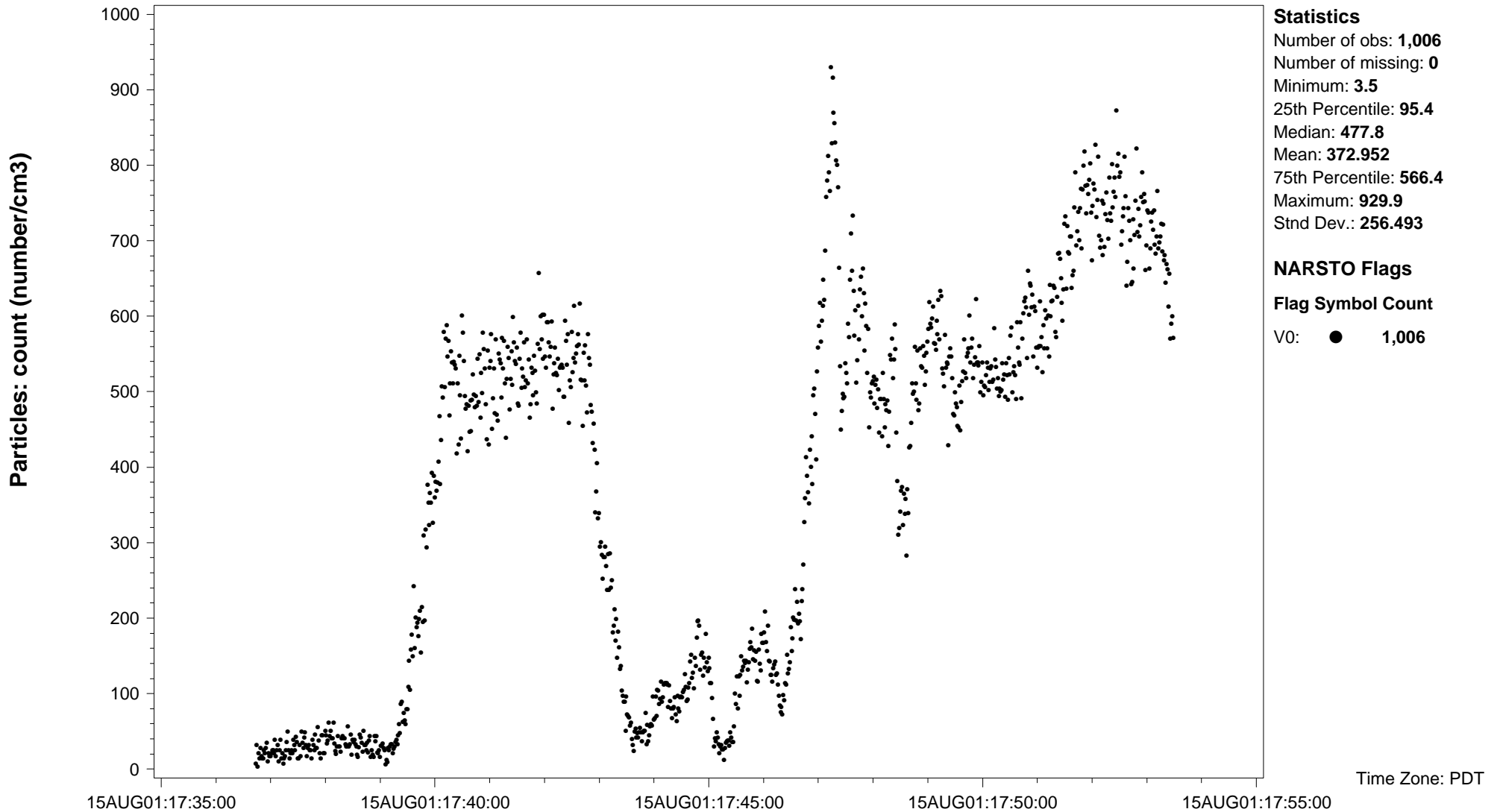
Time Zone: PDT

# 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\_02\_P04** Start Date: **2001-08-14** End Date: **2001-08-30**

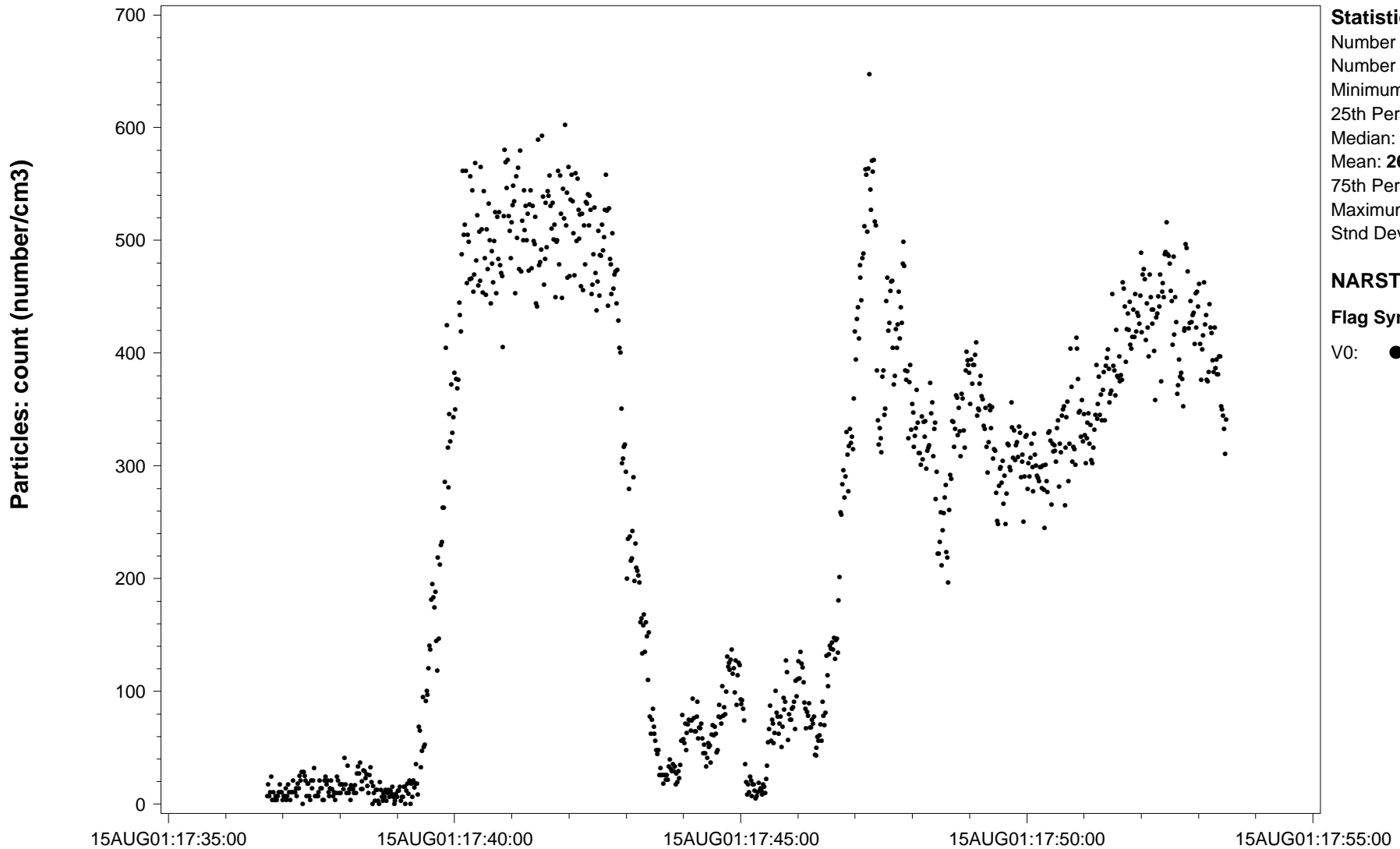


NAtChem Time Series Plot

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\_02\_P04** Start Date: **2001-08-14** End Date: **2001-08-30**



**Statistics**

Number of obs: **1,006**  
 Number of missing: **0**  
 Minimum: **0**  
 25th Percentile: **64.4**  
 Median: **311.95**  
 Mean: **265.003**  
 75th Percentile: **426.6**  
 Maximum: **647.2**  
 Stnd Dev.: **186.937**

**NARSTO Flags**

**Flag Symbol Count**  
 V0: ● **1,006**

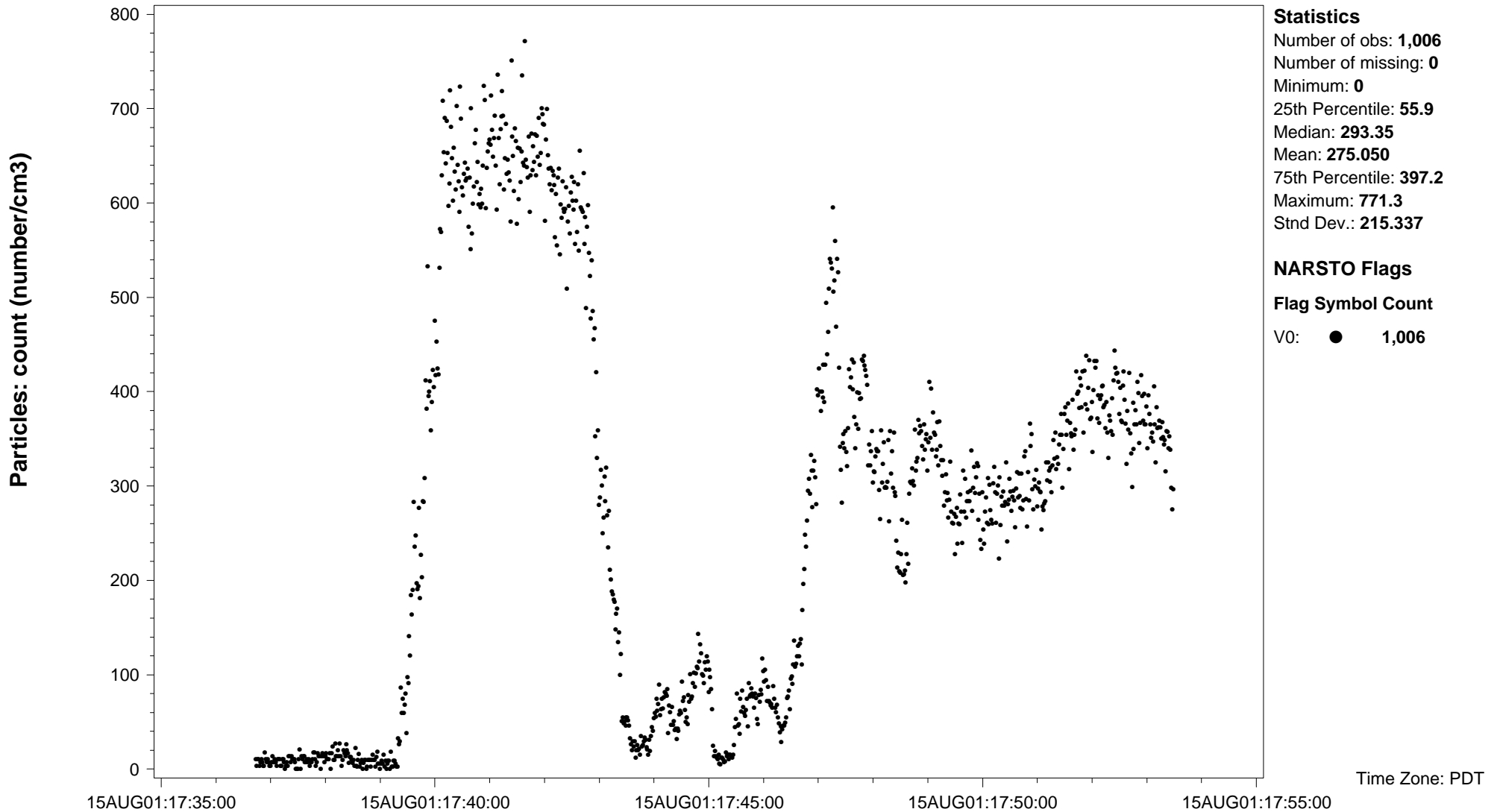
Time Zone: PDT

# NATChem Time Series Plot

24SEP2004

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\_02\_P04** Start Date: **2001-08-14** End Date: **2001-08-30**

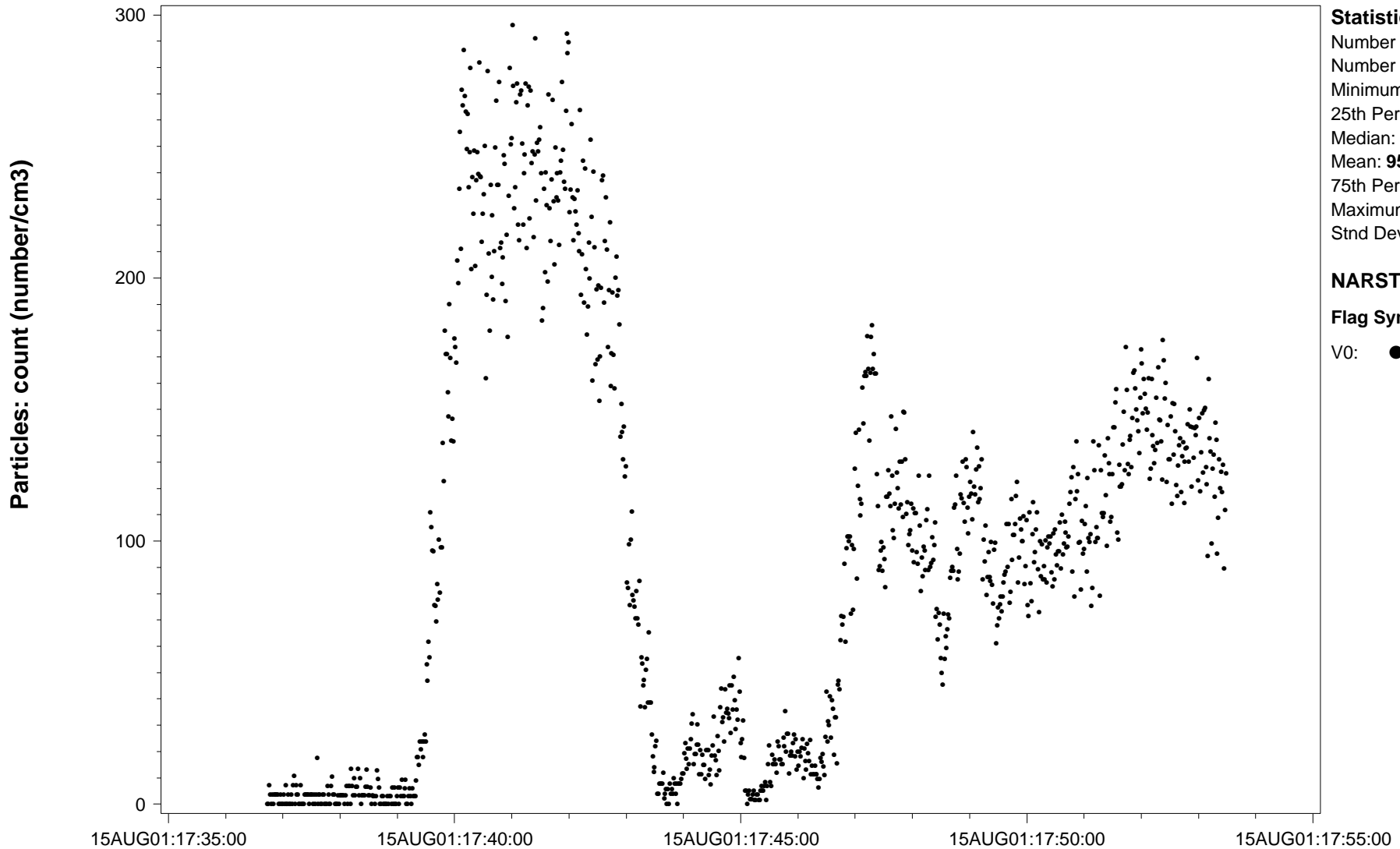


NAtChem Time Series Plot

24SEP2004

Site ID: **PC01CABCCONV** Variable name: **Particles: count** Units: **number/cm3** Basis: **channel 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\_02\_P04** Start Date: **2001-08-14** End Date: **2001-08-30**



**Statistics**  
 Number of obs: **1,006**  
 Number of missing: **0**  
 Minimum: **0**  
 25th Percentile: **16**  
 Median: **96**  
 Mean: **95.415**  
 75th Percentile: **142.2**  
 Maximum: **296.1**  
 Stnd Dev.: **79.516**

**NARSTO Flags**  
**Flag Symbol Count**  
 V0: ● **1,006**

Time Zone: PDT

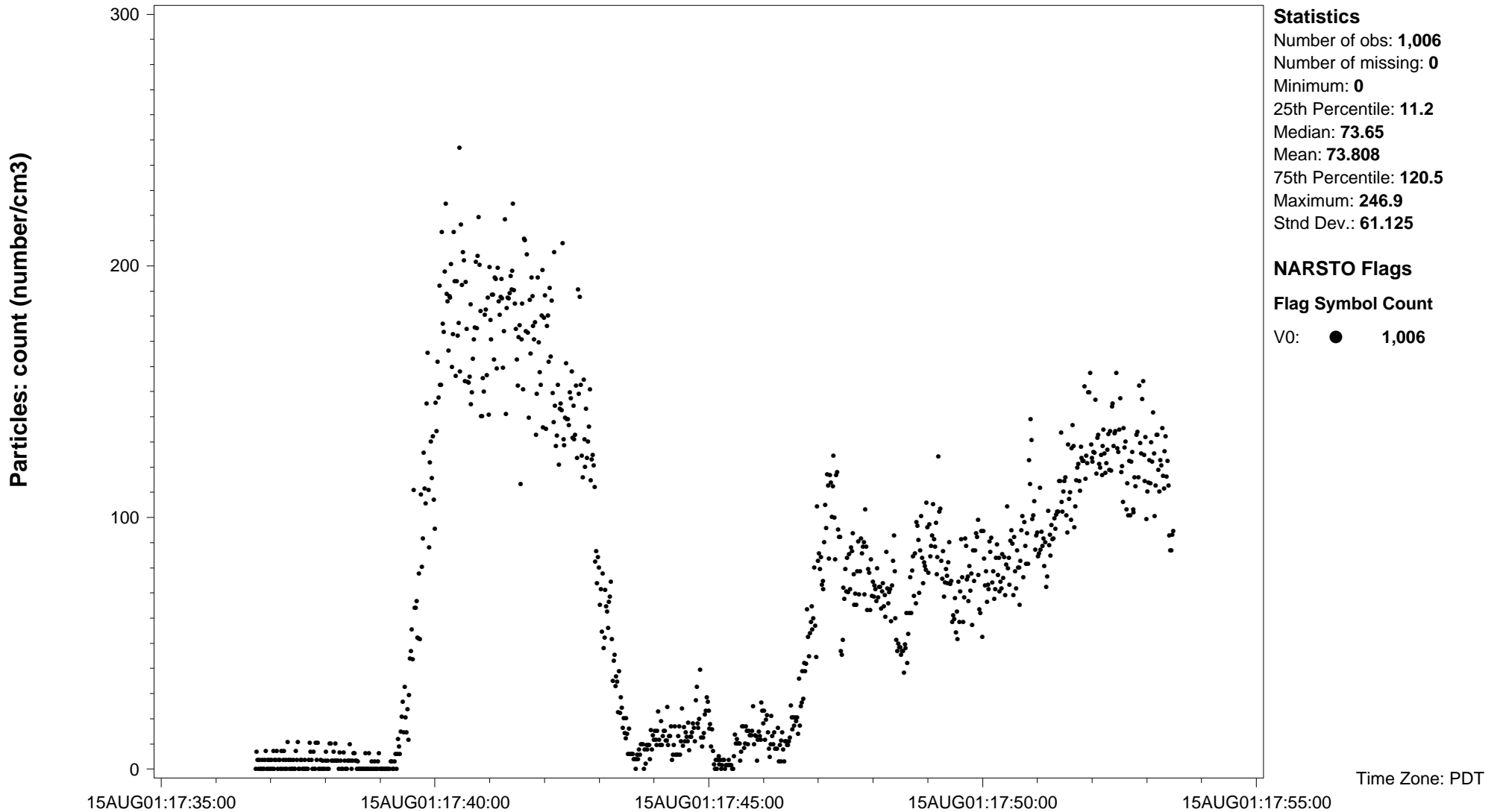


# NAtChem Time Series Plot

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\_02\_P04** Start Date: **2001-08-14** End Date: **2001-08-30**

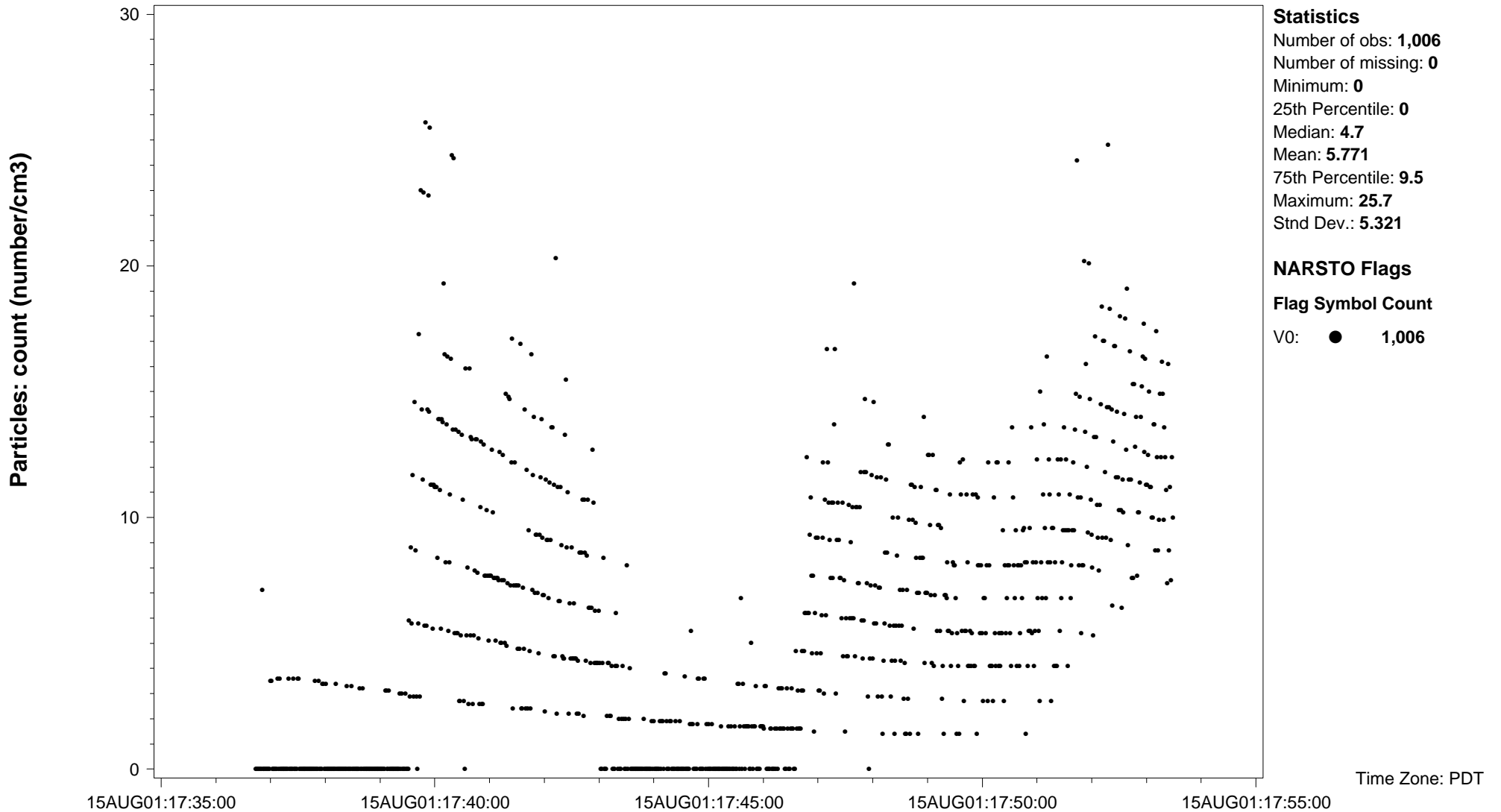


NAtChem Time Series Plot

24SEP2004

Site ID: **PC01CABCCONV** Variable name: **Particles: count** Units: **number/cm3** Basis: **channel 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\_02\_P04** Start Date: **2001-08-14** End Date: **2001-08-30**

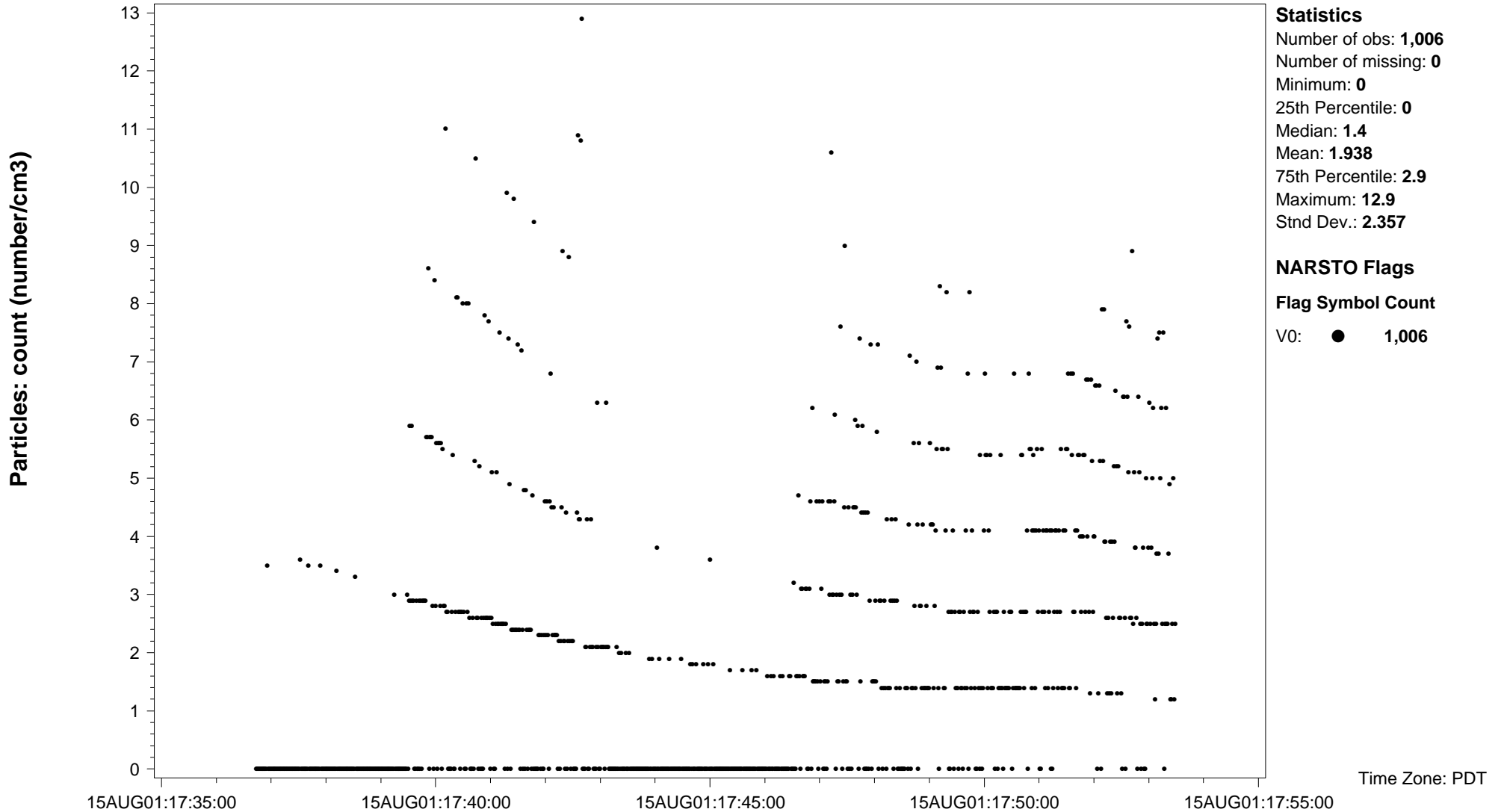


# NAtChem Time Series Plot

24SEP2004

Site ID: **PC01CABCCONV** Variable name: **Particles: count** Units: **number/cm3** Basis: **channel 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\_02\_P04** Start Date: **2001-08-14** End Date: **2001-08-30**

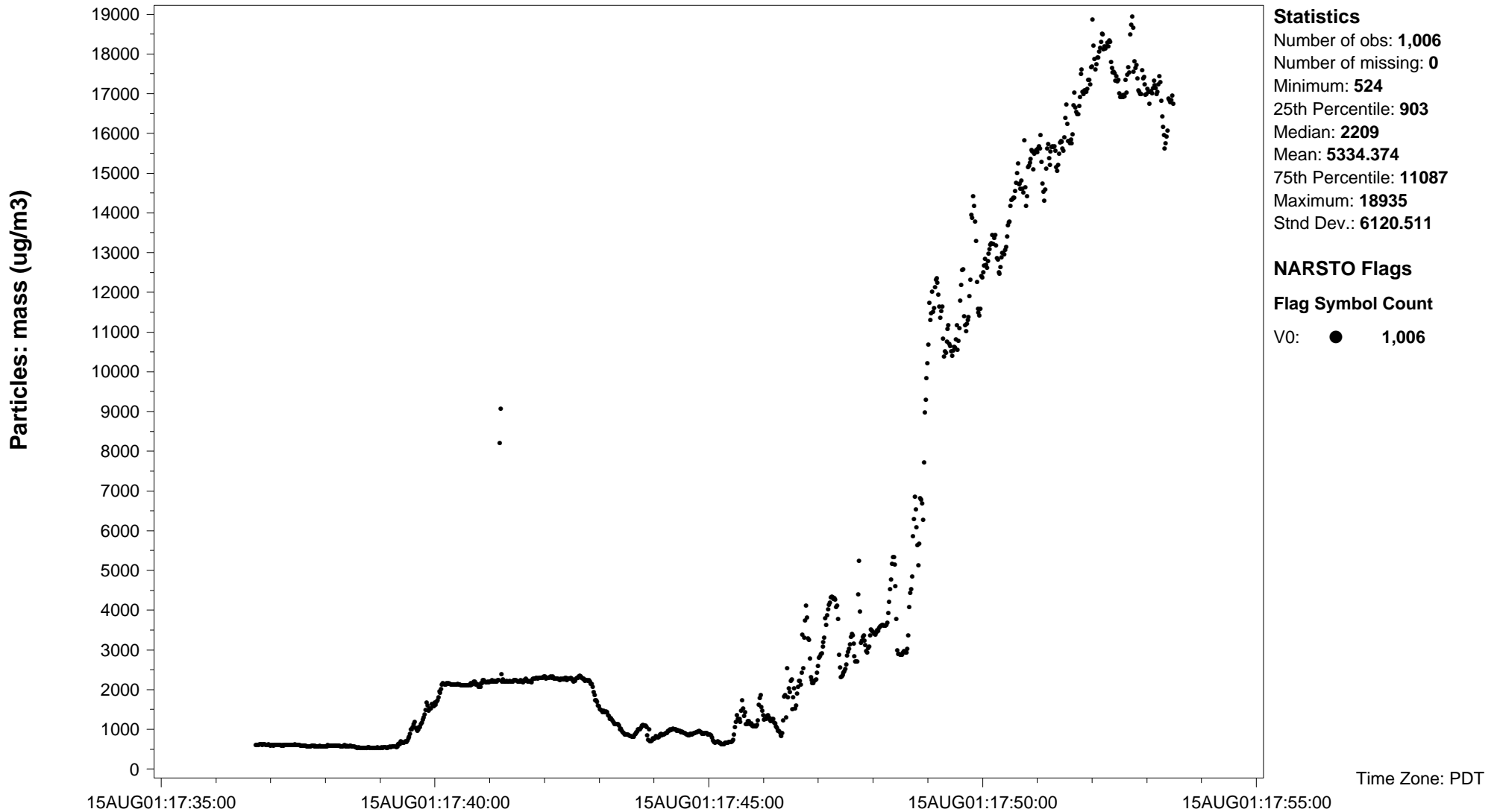


# NAtChem Time Series Plot

24SEP2004

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\_02\_P04** Start Date: **2001-08-14** End Date: **2001-08-30**

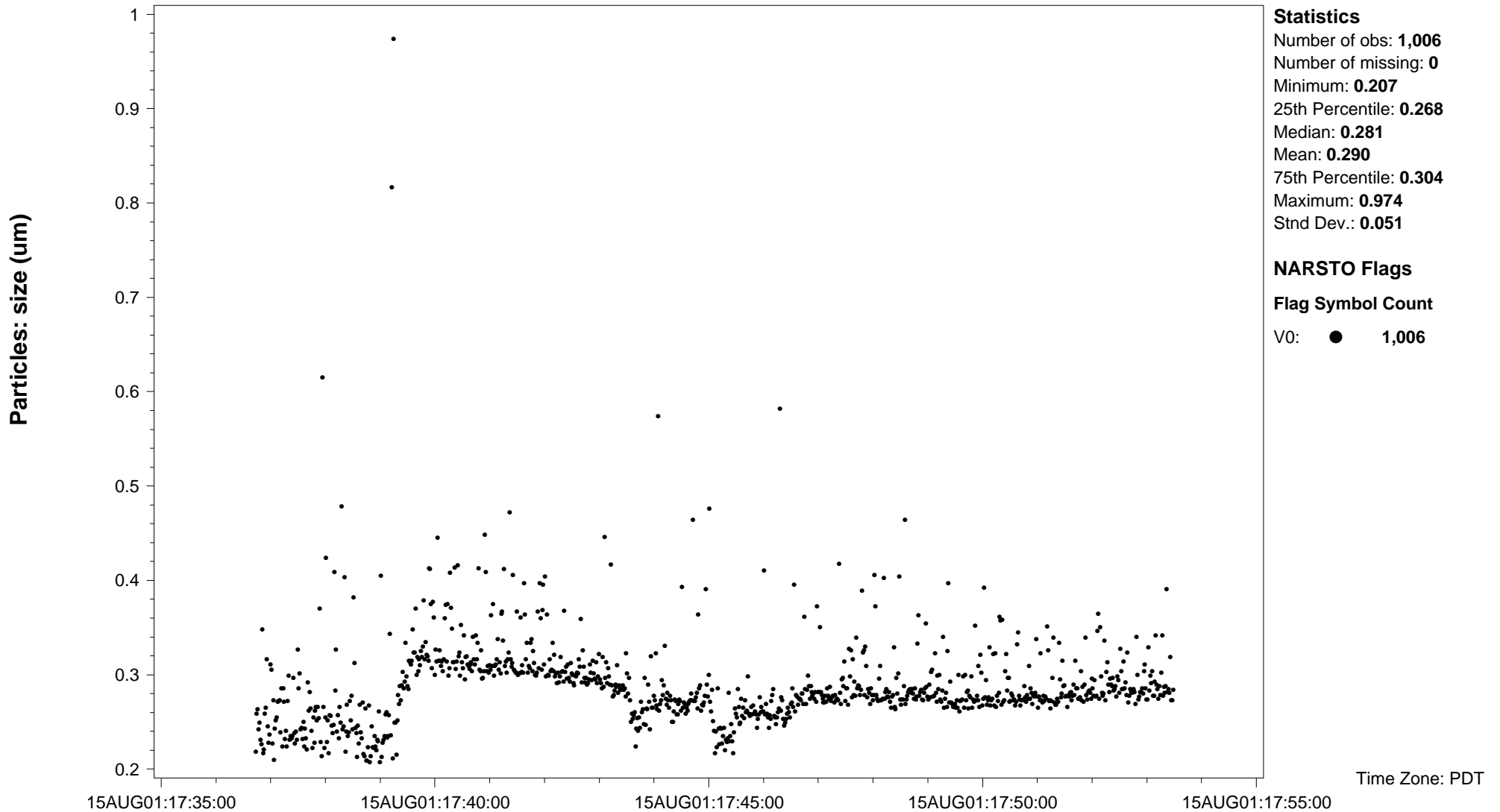


# NAtChem Time Series Plot

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**

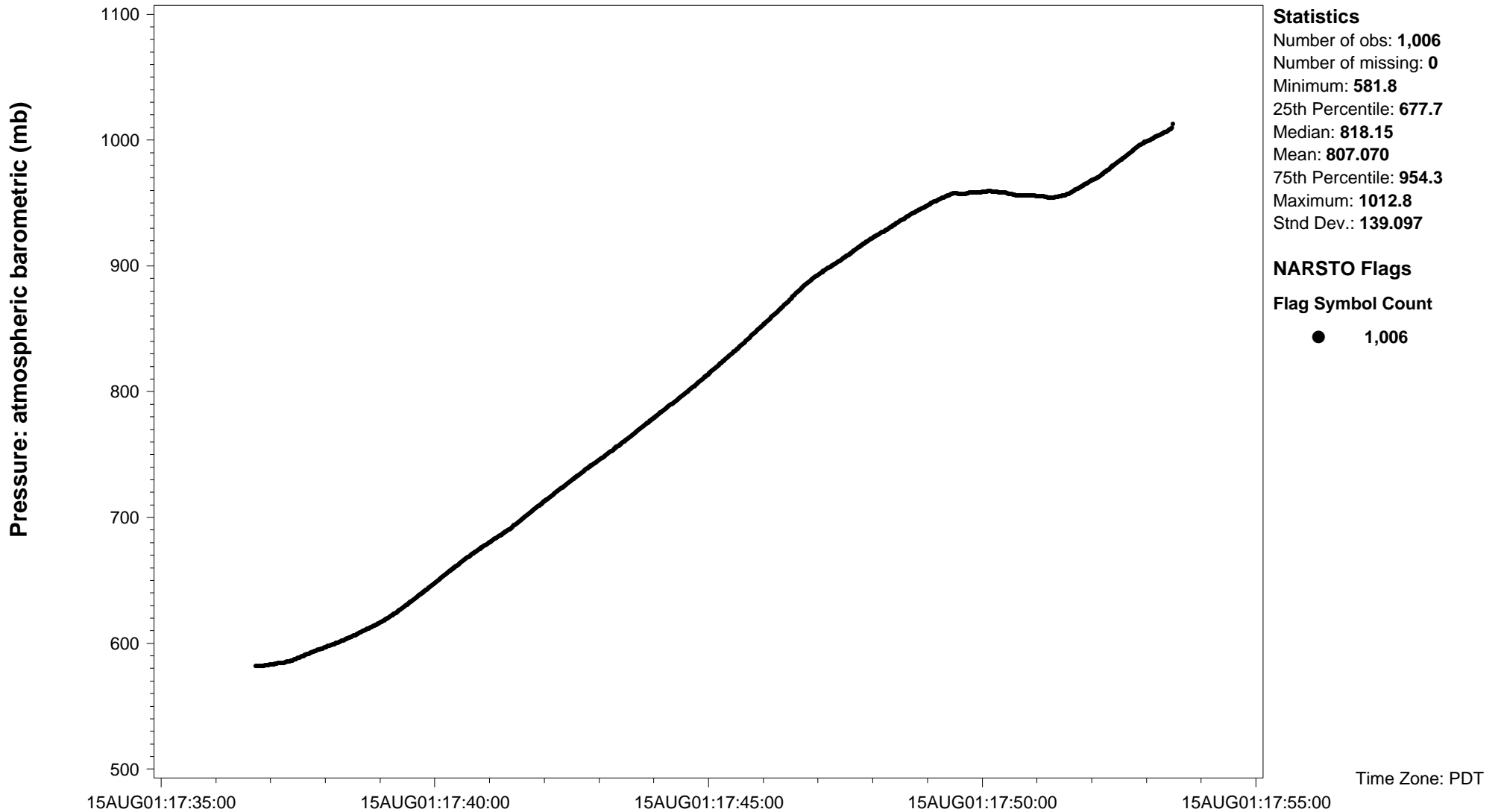
Site Name: **Convair 580, British Columbia** Flight ID: **Flight\_02\_P04** Start Date: **2001-08-14** End Date: **2001-08-30**



# NAtChem Time Series Plot

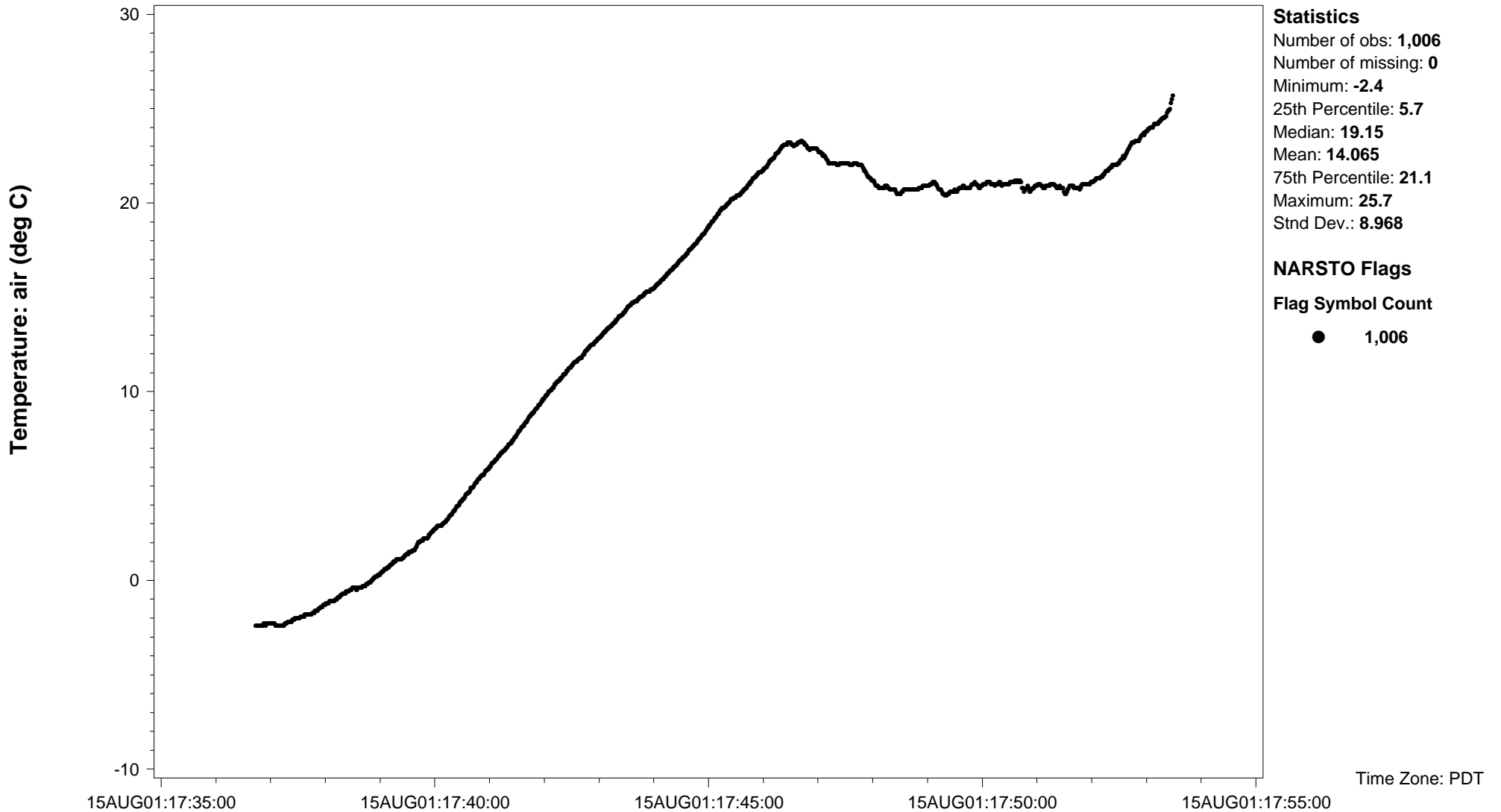
24SEP2004

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\_02\_P04** 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**

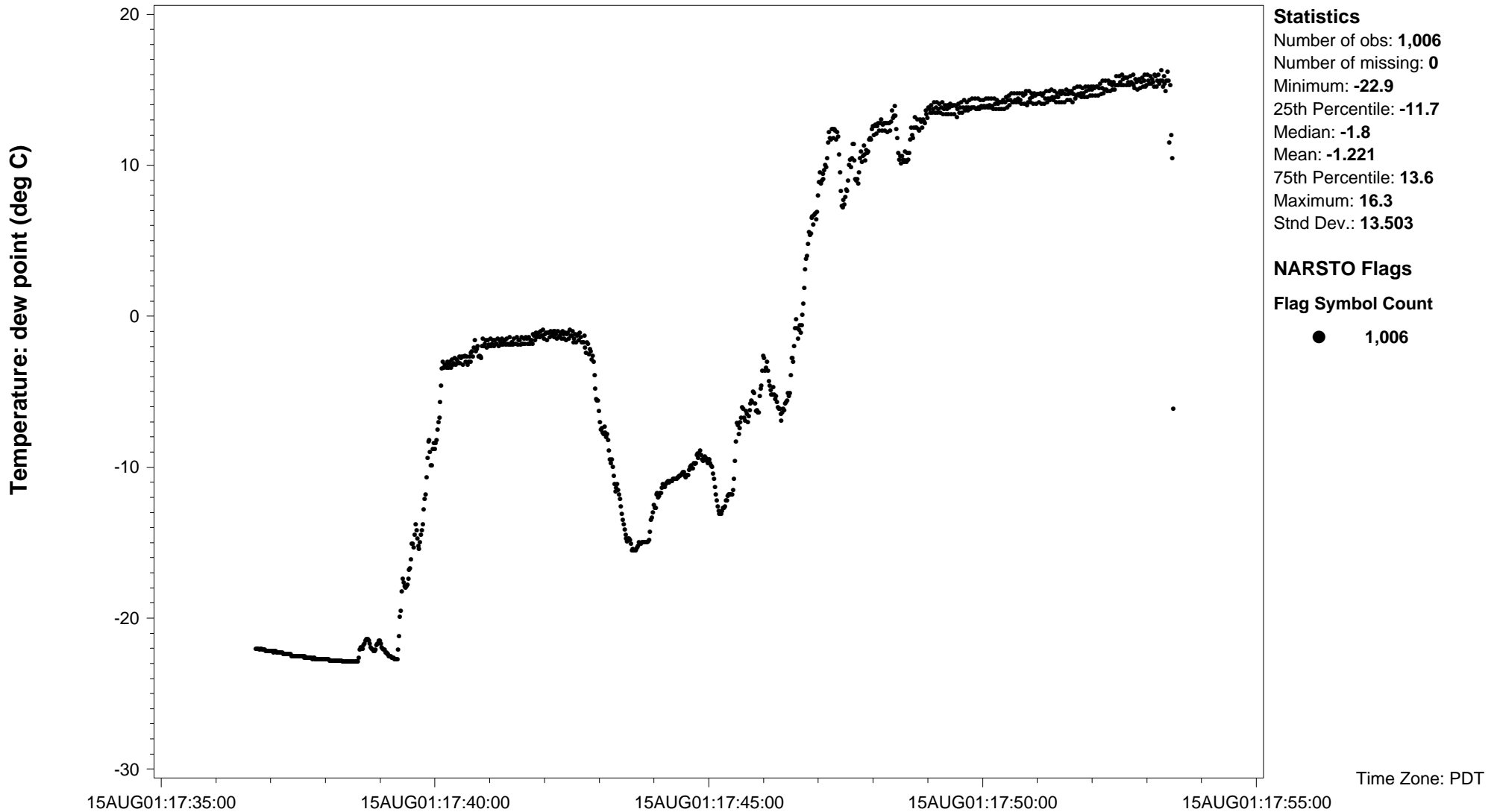
Site Name: **Convair 580, British Columbia** Flight ID: **Flight\_02\_P04** Start Date: **2001-08-14** End Date: **2001-08-30**



# NATchem Time Series Plot

24SEP2004

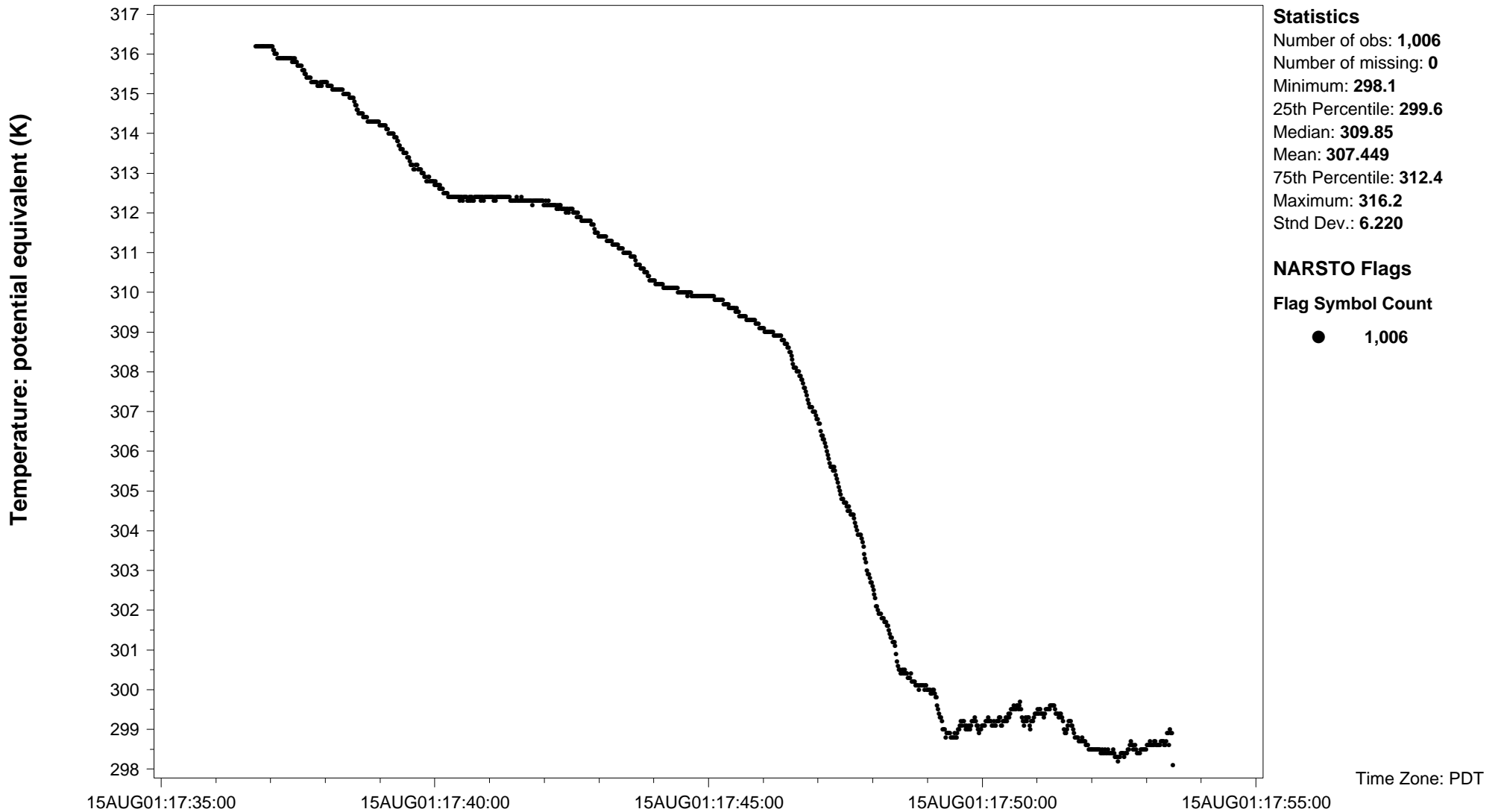
Site ID: **PC01CABCCONV** Variable name: **Temperature: dew point** Units: **deg C** Sampling interval: **1 second**  
Sampling frequency: **Same as sampling interval** Observation type: **Supplementary data**  
Field sampling or measurement principle: **Aircraft instrumentation** Sampling Height above 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\_02\_P04** Start Date: **2001-08-14** End Date: **2001-08-30**





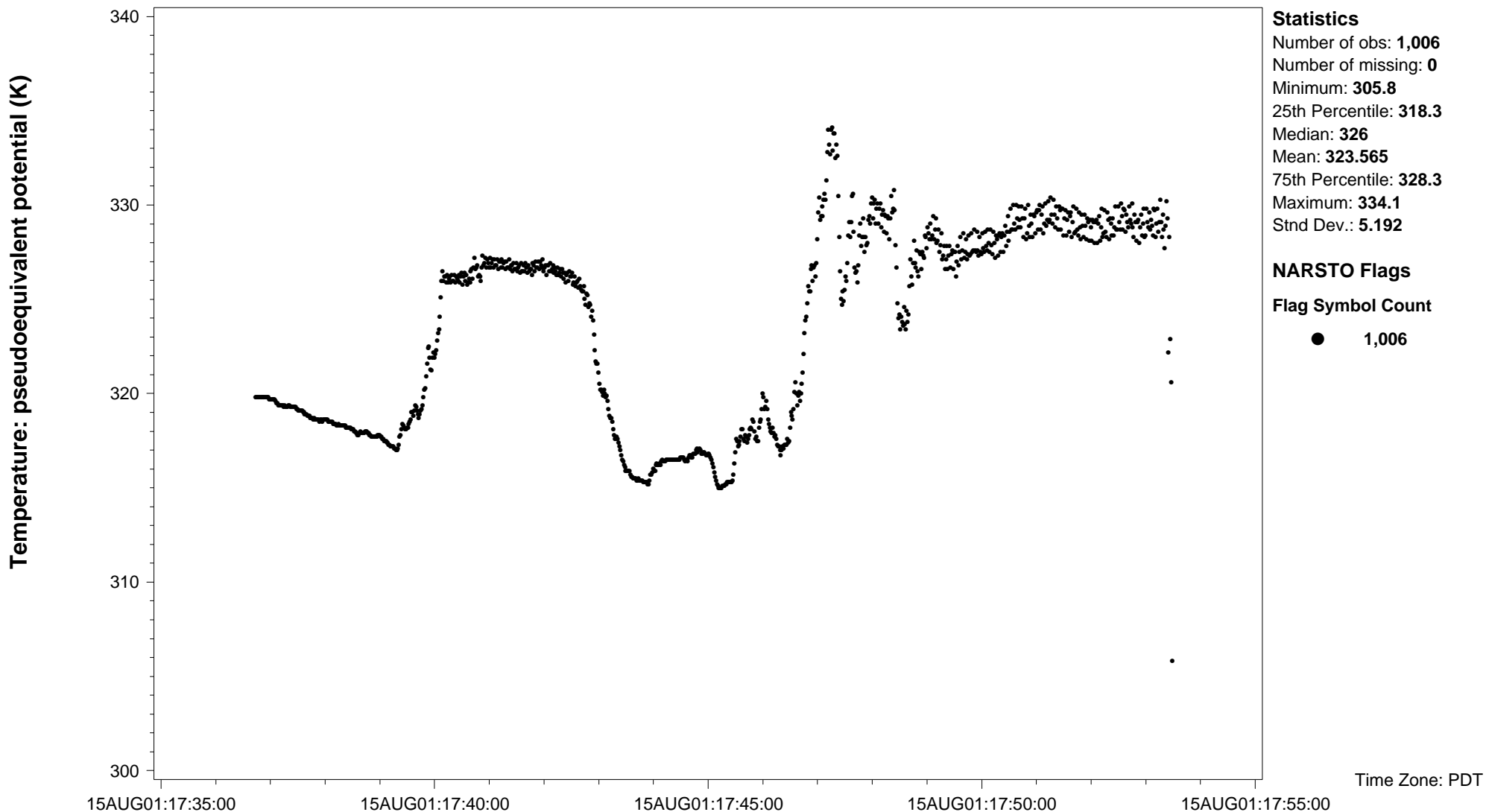
Site ID: **PC01CABCCONV** Variable name: **Temperature: potential equivalent** Units: **K** Sampling interval: **1 second**  
 Sampling frequency: **Same as sampling interval** Observation type: **Supplementary data**  
 Field sampling or measurement principle: **Aircraft instrumentation** Sampling Height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

Site Name: **Convair 580, British Columbia** Flight ID: **Flight\_02\_P04** Start Date: **2001-08-14** End Date: **2001-08-30**



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\_02\_P04** Start Date: **2001-08-14** End Date: **2001-08-30**

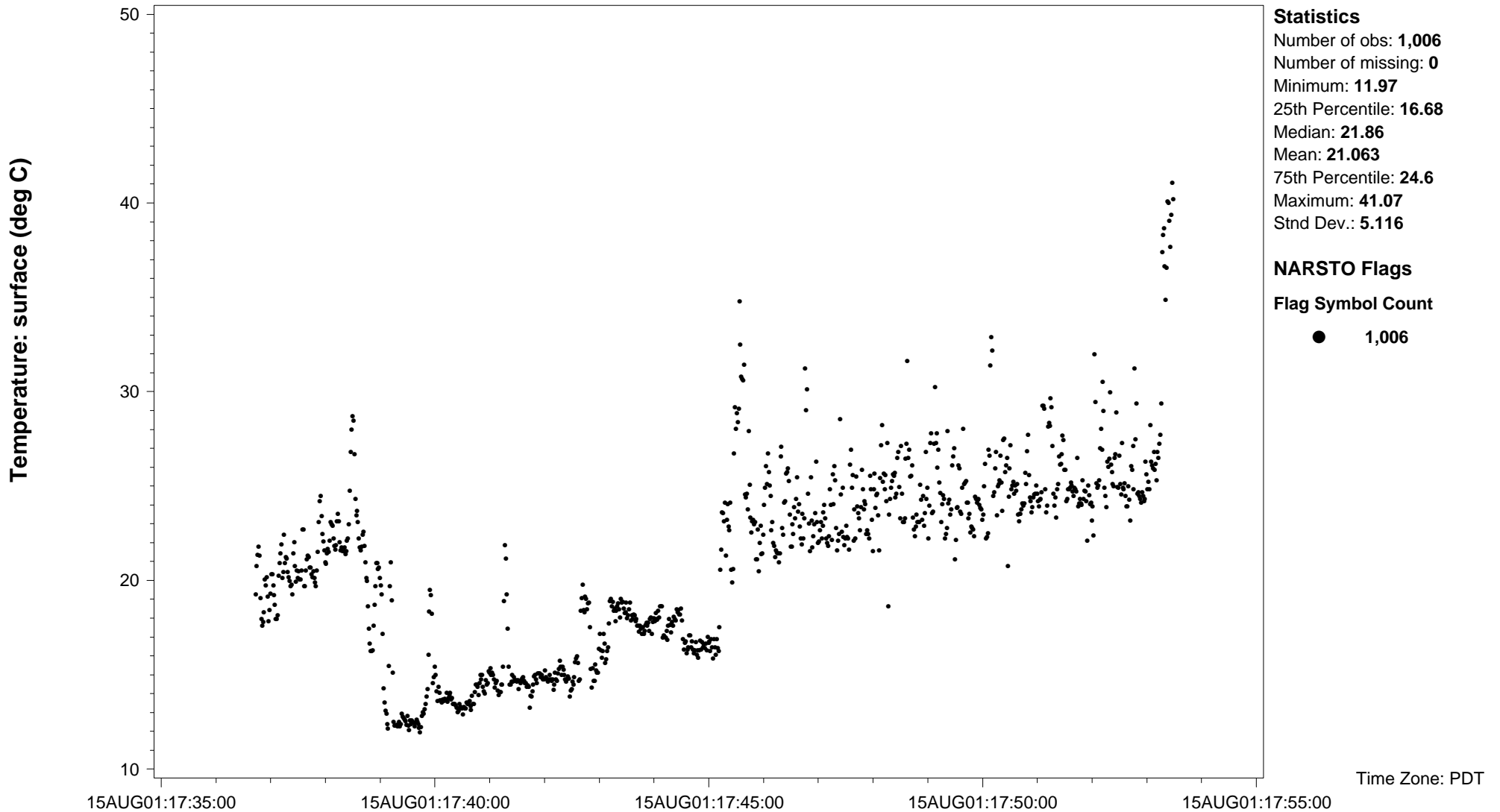


# NAtChem Time Series Plot

24SEP2004

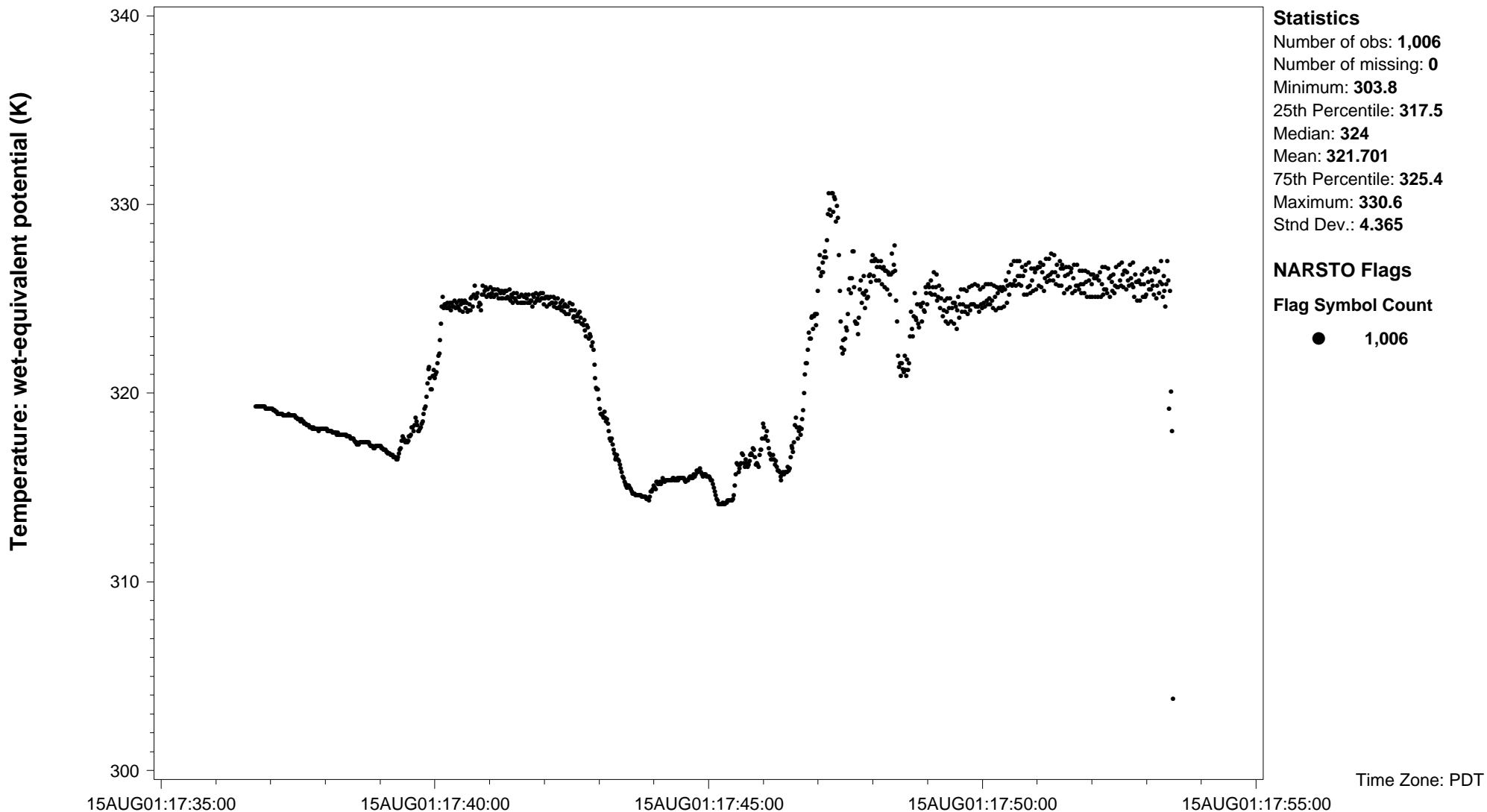
Site ID: **PC01CABCCONV** Variable name: **Temperature: surface** Units: **deg C** Sampling interval: **1 second** Sampling frequency: **Same as sampling interval**  
Observation type: **Supplementary data** Field sampling or measurement principle: **Radiometer**  
Sampling Height above ground (m): **Varies--see 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\_02\_P04** Start Date: **2001-08-14** End Date: **2001-08-30**



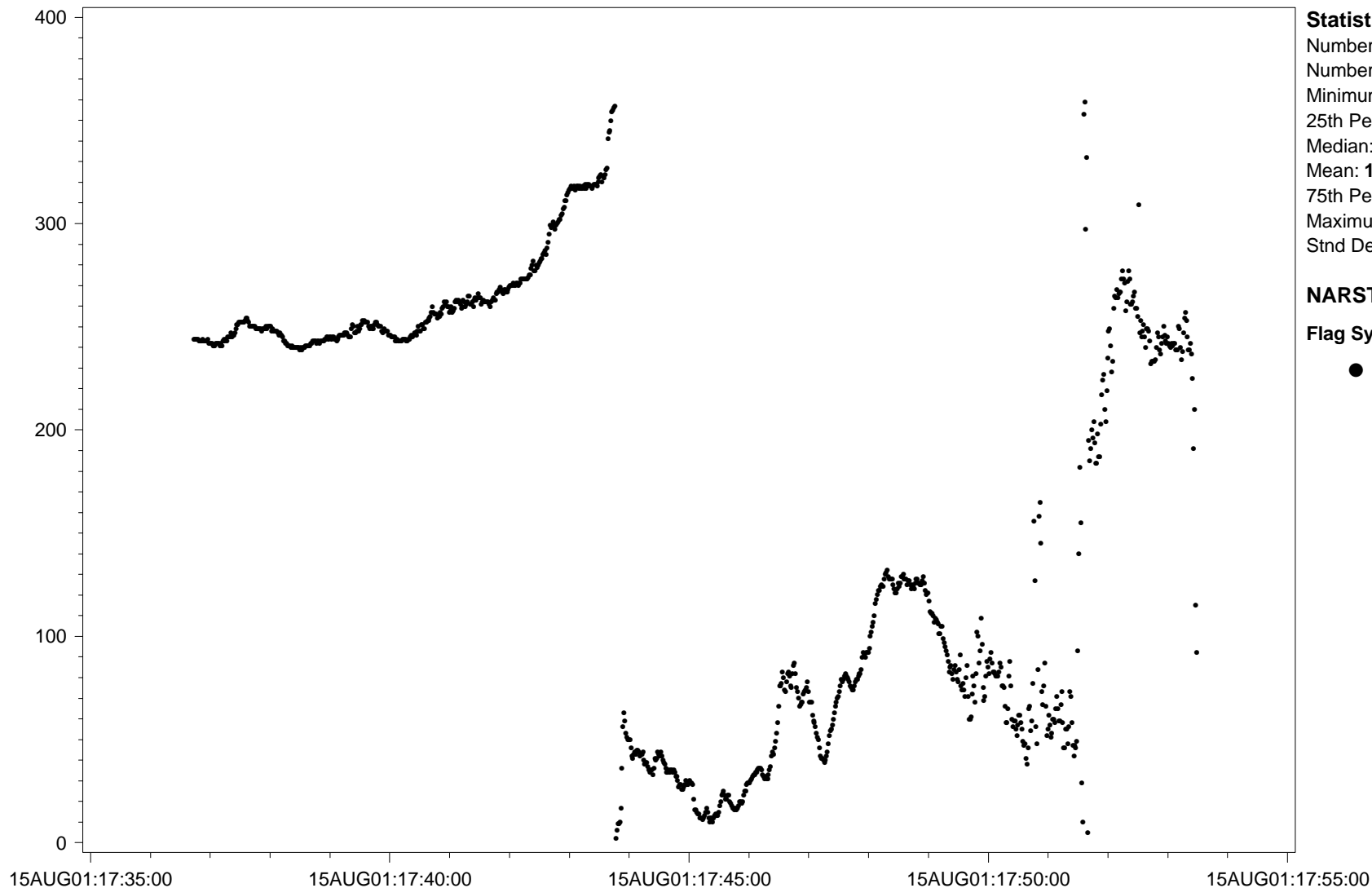
Site ID: **PC01CABCCONV** Variable name: **Temperature: wet-equivalent potential** Units: **K** Sampling interval: **1 second**  
 Sampling frequency: **Same as sampling interval** Observation type: **Supplementary data**  
 Field sampling or measurement principle: **Aircraft instrumentation** Sampling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

Site Name: **Convair 580, British Columbia** Flight ID: **Flight\_02\_P04** 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\_02\_P04** Start Date: **2001-08-14** End Date: **2001-08-30**

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



**Statistics**

Number of obs: **1,006**  
 Number of missing: **0**  
 Minimum: **2**  
 25th Percentile: **67**  
 Median: **234.5**  
 Mean: **168.277**  
 75th Percentile: **251**  
 Maximum: **359**  
 Stnd Dev.: **101.846**

**NARSTO Flags**

**Flag Symbol Count**

● 1,006

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\_02\_P04** Start Date: **2001-08-14** End Date: **2001-08-30**

