

## File Names

12:38 Tuesday, October 23, 2007 1

File #	Original File Name
1	EPA_SS_FRESNO_MET_5MIN_20020701_20021231_V1.csv

## Dataset Key Phrases

Data Exchange Standard Version	Principal Investigator Name--last first	Principal Investigator Affiliation	File Contents Description--short long
NARSTO 2002/05/28 (2.301)	Watson ; Dr. John	Desert Research Institute, 2215 Raggio Pkwy, Reno, NV 89512, USA	METDATA_5_MIN ; Meteorological Data (Ambient Temperature, Relative Humidity, Wind Speed, Wind Direction, Barometric Pressure, Solar Radiation)

Sampling Interval As Reported in Main Table	Sampling Frequency Of Data in Main Table	Quality Control Level	Organization Acronym	Organization Name	Data Usage Acknowledgement
5 minute	Same as sampling interval	1	EPA/NOAA/CARB	EPA/NOAA/CARB Long Term Monitoring--Fresno	Desert Research Institute, 2215 Raggio Pkwy, Reno, NV 89512, USA

Study Or Network Acronym	Study Or Network Name	Country Code	State Or Province Code	Principal Investigator Contact Information	Co-investigator Name--last first
EPA_SS_FRESNO	EPA/NOAA/CARB PM Supersites--Fresno	US	CA	Dr. John G. Watson, Desert Research Institute, 2215 Raggio Pkwy, Reno, NV 89512, USA	None ; None

Co-investigator Affiliation	Name And Affiliation Of Person Who Generated This File	Date Of Last Modification To Data In Main Table
None	Norm Robinson, DRI	2003/06/06

Name And Version Of Software Used To Create This File	Companion File Name format And Version	Date This File Generated archive Version Number	Table Explanation Of Zero Or Negative Values
MS VB.Net; MS SQL Server 2000	None ; None	2005/01/25 ; 1	Zero values occur when there is no detectable wind, and at night when there is no solar radiation, zero and negative ambient temperature values occur during normal atmospheric conditions.

Table Explanation Of Reported Detection Limit Values	Table Explanation Of Reported Uncertainty	Table User Note	Table User Note2	Table User Note3	Table User Note4
Detection limits are currently being evaluated.	See *TABLE USER NOTE2	5-min Meteorological Data	Uncertainty is not reported in this file. The final Project Report will discuss uncertainty in more depth.		

Table Name	Table Focus
METDATA_5_MIN	Surface--fixed

## 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)
ES2FUSCAFSF_	3425 N First St Fresno	CA	36.78167	-119.77333	12.2	29.6

Site ID	Site land use	Site location setting	Measurement start date	Measurement end date	Co-incident measurements	Study site ID	Lat lon accuracy
ES2FUSCAFSF_	Commercial	Urban and center city	1999/05/01	9999/12/31	N	N	-999.9

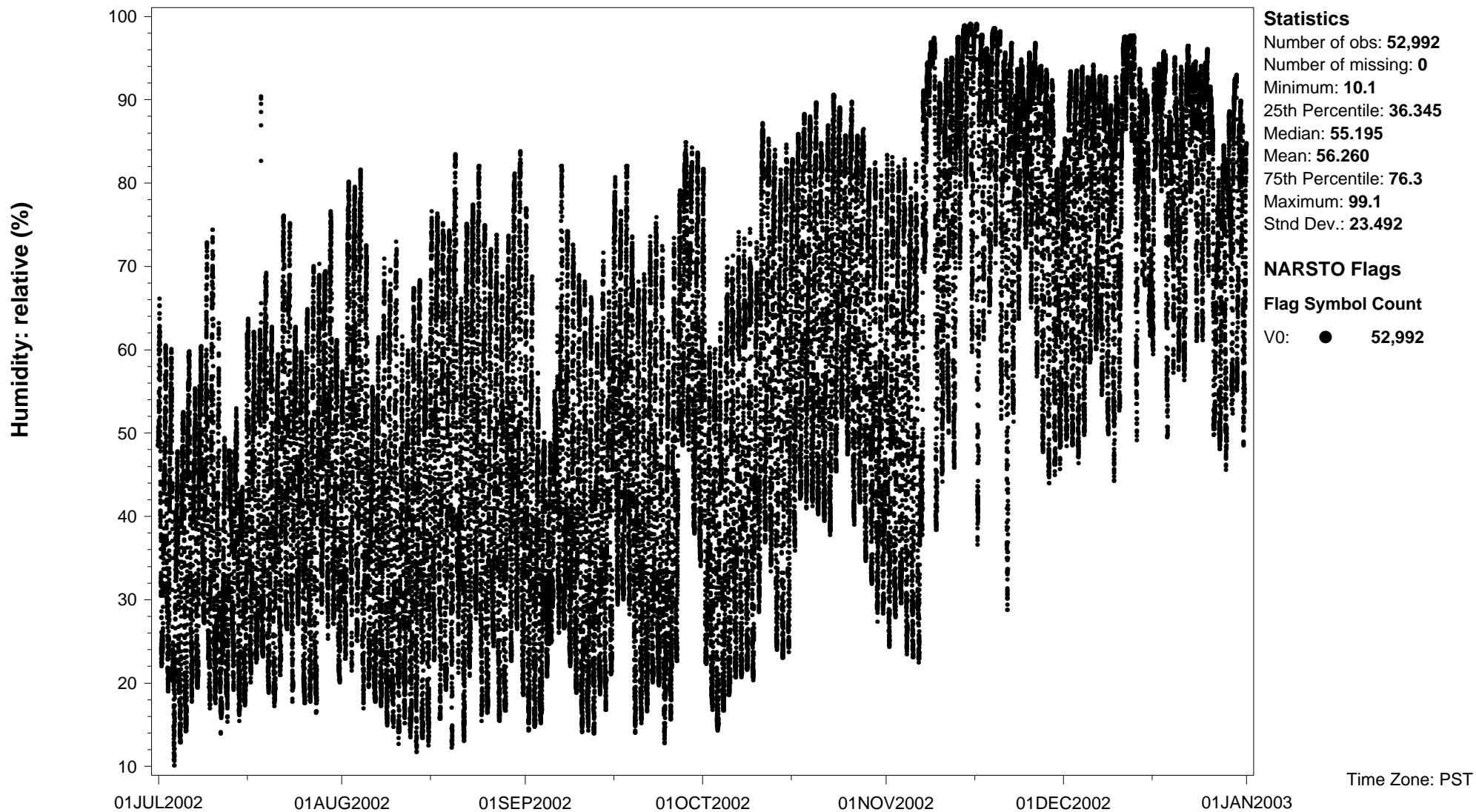
## NARSTO Standard Flags

Flag: NARSTO	Description
H1	Historical data that have not been assessed or validated
M1	Missing value because no value is available
M2	Missing value because invalidated by data originator
V0	Valid value
V1	Valid value but comprised wholly or partially of below detection limit data
V2	Valid estimated value
V3	Valid interpolated value
V4	Valid value despite failing to meet some QC or statistical criteria
V5	Valid value but qualified because of possible contamination (e.g., pollution source, laboratory contamination source)
V6	Valid value but qualified due to non-standard sampling conditions (e.g., instrument malfunction, sample handling)
V7	Valid value but set equal to the detection limit (DL) because the measured value was below the DL

NARSTO Time Series Plot

23OCT2007

Site ID: **ES2FUSCAFSF\_** Variable name: **Humidity: relative** Units: % Sampling interval: **5 minute** Sampling frequency: **Same as sampling interval**  
Observation type: **Meteorology** Field sampling or measurement principle: **Capacitance thin film humidity** Sampling Height above ground (m): **11.0**  
Instrument name and model number: **Met One Instruments Aspirated Thin Film Capacitor Model:083V** Detection Limit: **Undetermined**  
Site Name: **3425 N First St Fresno, California** Latitude: **36.78167 deg.** Longitude: **-119.77333 deg.** Start Date: **1999-05-01**

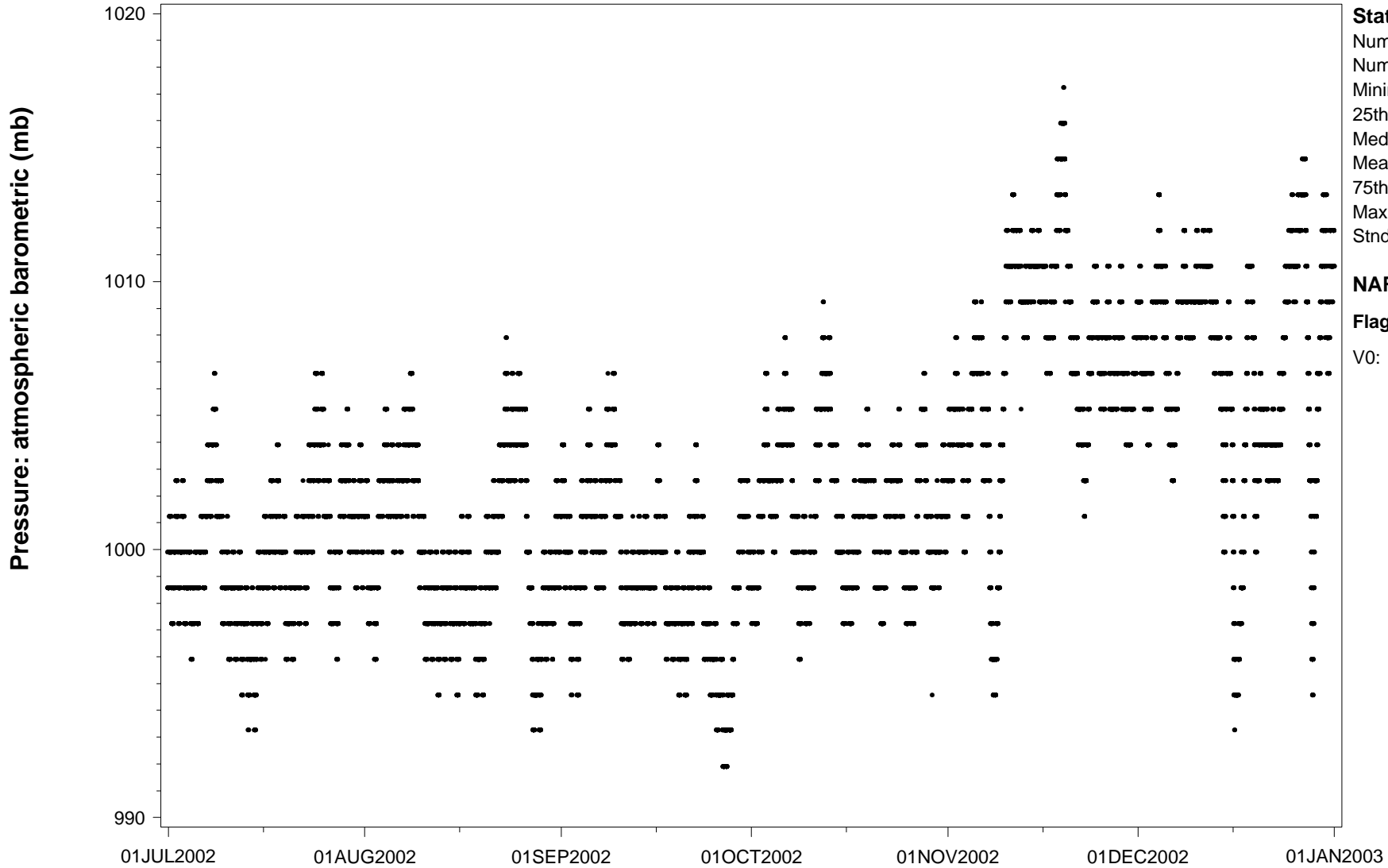


NARSTO Time Series Plot

23OCT2007

Site ID: **ES2FUSCAFSF\_** Variable name: **Pressure: atmospheric barometric** Units: **mb** Sampling interval: **5 minute**  
Sampling frequency: **Same as sampling interval** Observation type: **Meteorology** Field sampling or measurement principle: **Barometer--mercury**  
Sampling Height above ground (m): **10.9** Instrument name and model number: **Met One Instruments Pressure Transducer Model: 090D**  
Detection Limit: **Undetermined**

Site Name:**3425 N First St Fresno, California** Latitude:**36.78167 deg.** Longitude:**-119.77333 deg.** Start Date:**1999-05-01**



**Statistics**  
Number of obs: **52,992**  
Number of missing: **0**  
Minimum: **991.92**  
25th Percentile: **998.58**  
Median: **1001.25**  
Mean: **1002.329**  
75th Percentile: **1005.25**  
Maximum: **1017.25**  
Std Dev.: **4.606**

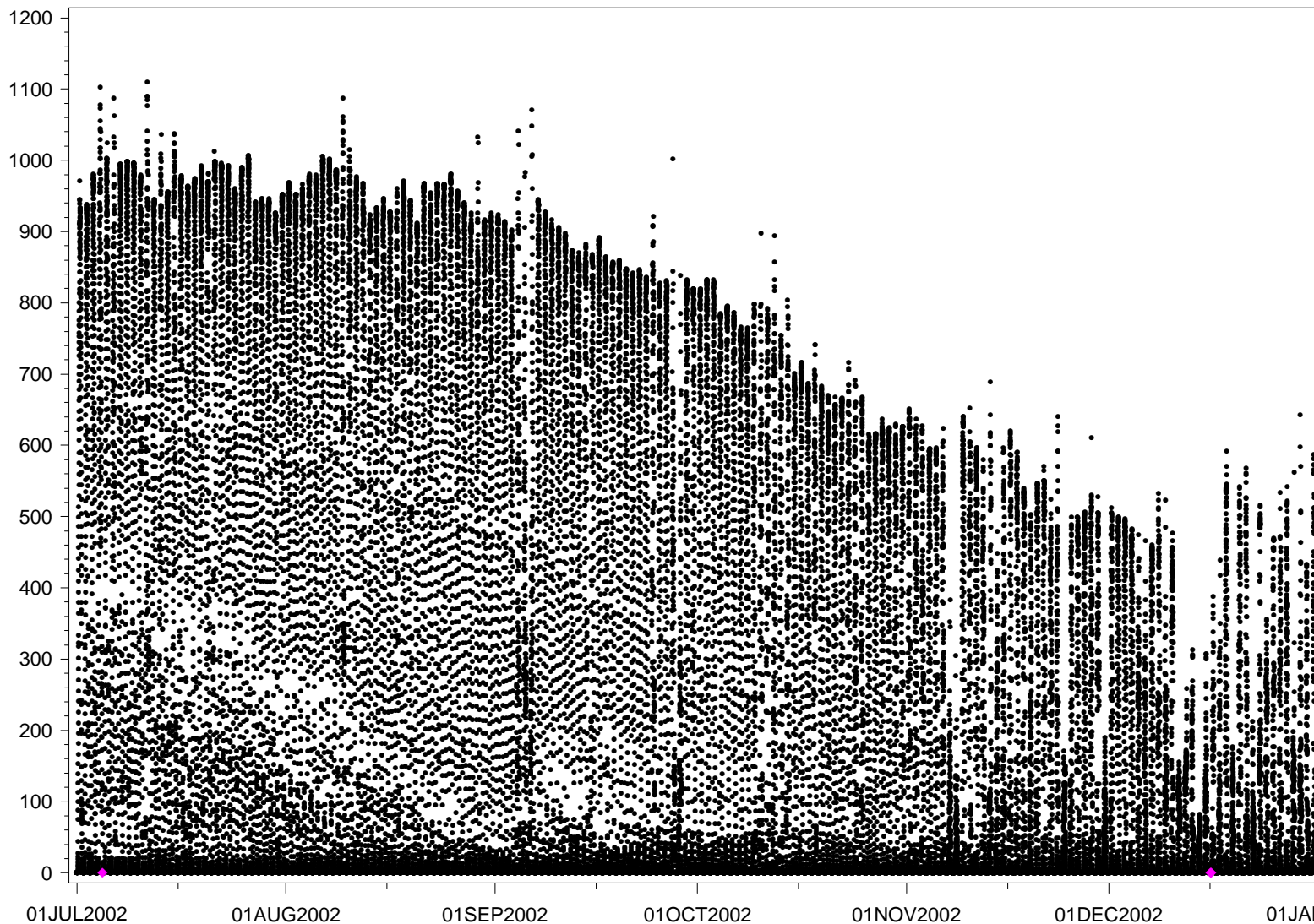
**NARSTO Flags**  
Flag Symbol Count  
V0: ● 52,992

Time Zone: PST

Site ID: **ES2FUSCAFSF\_** Variable name: **Radiation: broadband downwelling solar hemispheric irradiance** Units: **W/m2** Sampling interval: **5 minute**  
 Sampling frequency: **Same as sampling interval** Observation type: **Meteorology** Field sampling or measurement principle: **Pyranometer**  
 Sampling Height above ground (m): **11.2** Instrument name and model number: **LI-COR Inc. Pyranometer Model: LI-200SA** Detection Limit: **Undetermined**

Site Name: **3425 N First St Fresno, California** Latitude: **36.78167 deg.** Longitude: **-119.77333 deg.** Start Date: **1999-05-01**

Radiation: broadband downwelling solar hemispheric irradiance (W/m2)



**Statistics**

Number of obs: **52,992**  
 Number of missing: **5**  
 Minimum: **0**  
 25th Percentile: **0**  
 Median: **2.9**  
 Mean: **211.718**  
 75th Percentile: **398**  
 Maximum: **1110**  
 Stnd Dev.: **302.962**

**NARSTO Flags**

**Flag Symbol Count**

M1:	5
V0:	● 52,983
V4:	◆ 4

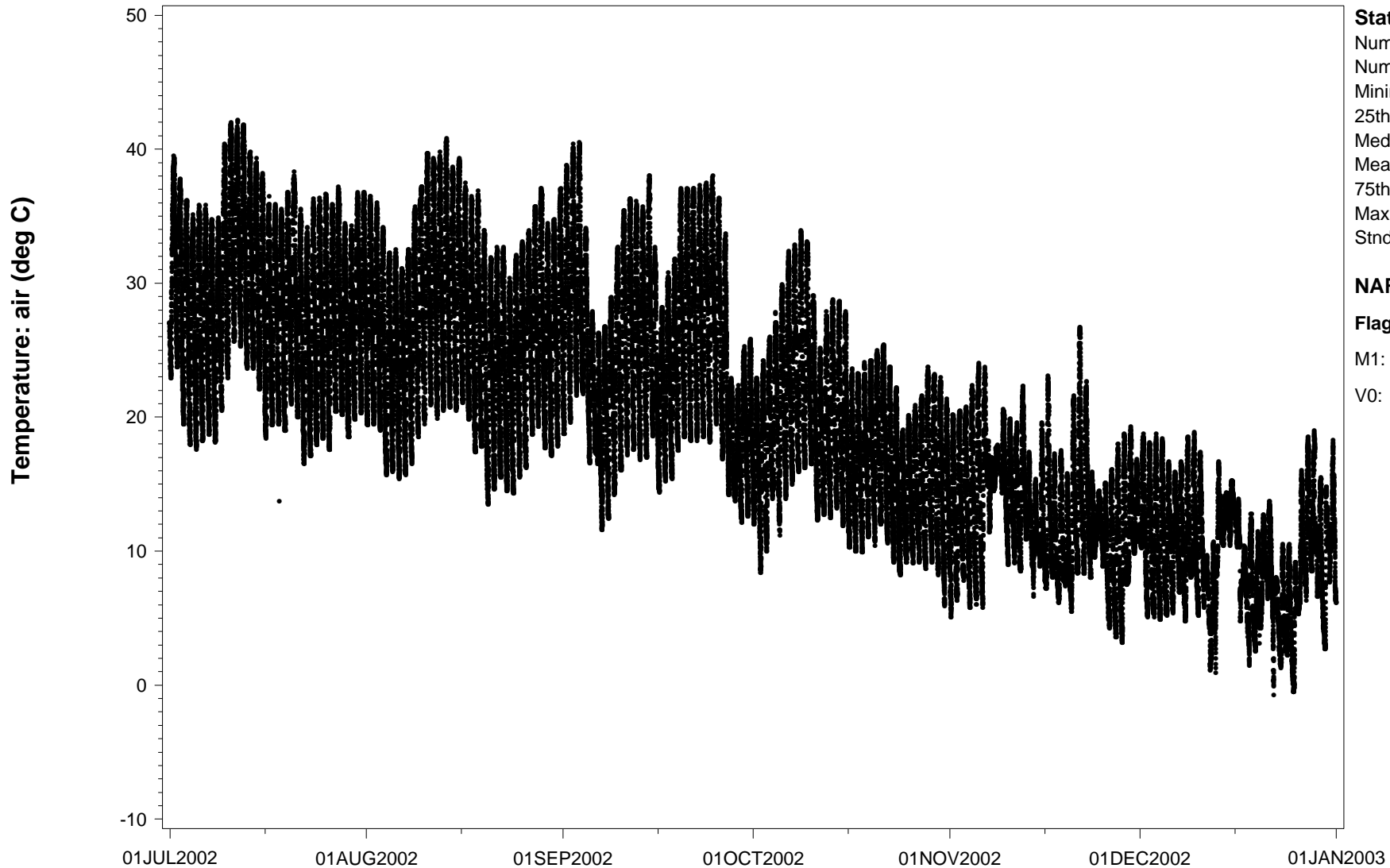
Time Zone: PST

# NARSTO Time Series Plot

23OCT2007

Site ID: **ES2FUSCAFSF\_** Variable name: **Temperature: air** Units: **deg C** Sampling interval: **5 minute** Sampling frequency: **Same as sampling interval**  
Observation type: **Meteorology** Field sampling or measurement principle: **Thermistor-based temperature sensor**  
Sampling Height above ground (m): **11.0** Instrument name and model number: **Met One Instruments Aspirated Thermistor Model: 060A-2**  
Detection Limit: **Undetermined**

Site Name: **3425 N First St Fresno, California** Latitude: **36.78167 deg.** Longitude: **-119.77333 deg.** Start Date: **1999-05-01**



## Statistics

Number of obs: **52,992**  
Number of missing: **127**  
Minimum: **-0.7**  
25th Percentile: **12.8**  
Median: **19.5**  
Mean: **20.072**  
75th Percentile: **26.8**  
Maximum: **42.2**  
Std Dev.: **9.008**

## NARSTO Flags

### Flag Symbol Count

M1: 127  
V0: ● 52,865

Time Zone: PST

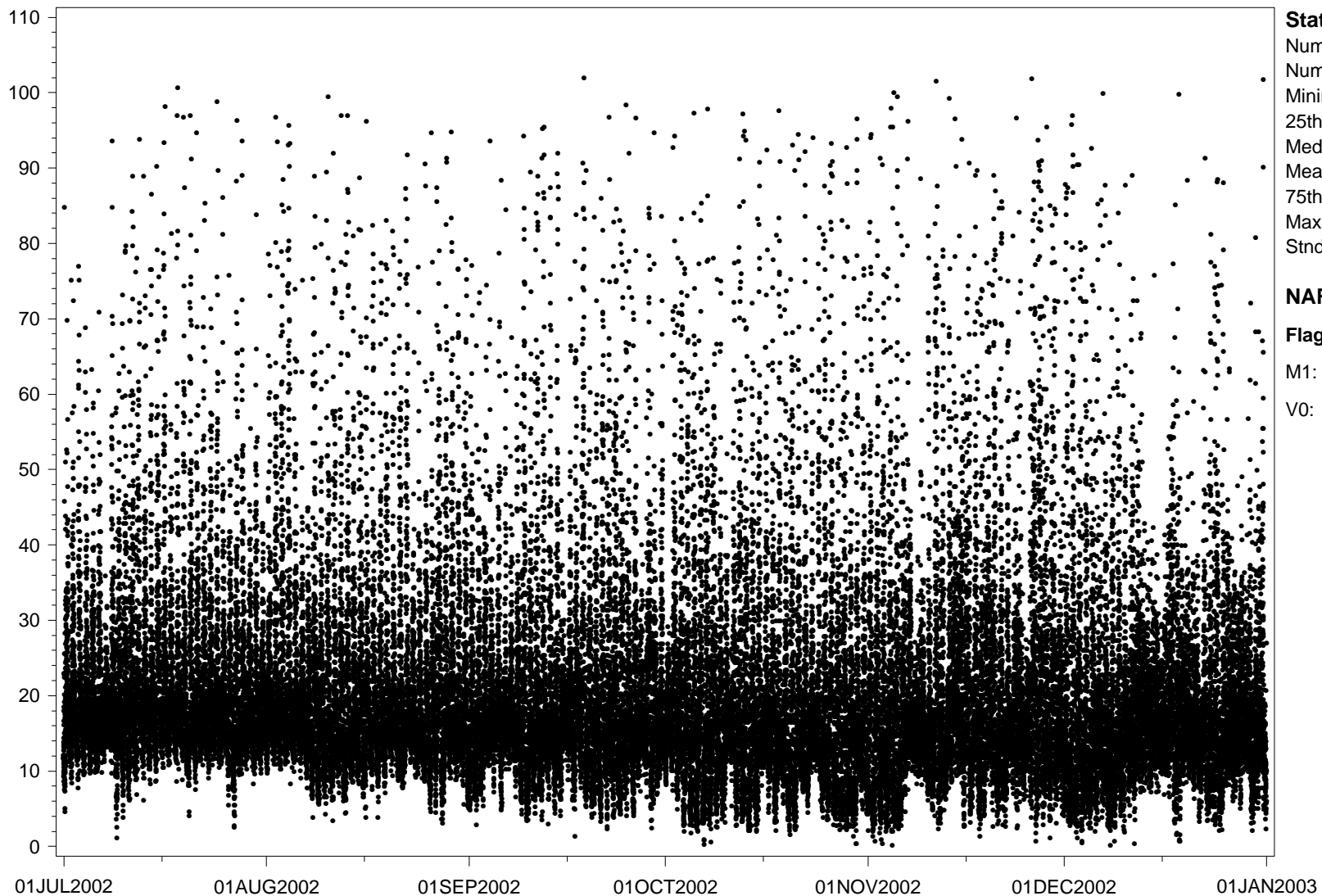


NARSTO Time Series Plot

23OCT2007

Site ID: **ES2FUSCAFSF\_** Variable name: **Wind direction: Sigma theta (std. dev. of azimuth angle)** Units: **degree from true north**  
Sampling interval: **5 minute** Sampling frequency: **Same as sampling interval** Observation type: **Meteorology**  
Field sampling or measurement principle: **Wind direction vane** Sampling Height above ground (m): **14.9**  
Instrument name and model number: **Met One Instruments High-Sensitivity Wind Vane Model: 025-5C** Detection Limit: **Undetermined**  
Site Name: **3425 N First St Fresno, California** Latitude: **36.78167 deg.** Longitude: **-119.77333 deg.** Start Date: **1999-05-01**

Wind direction: Sigma theta (std. dev. of azimuth angle) (degree from true north)



**Statistics**

Number of obs: **52,992**  
Number of missing: **5**  
Minimum: **0.2**  
25th Percentile: **12.9**  
Median: **16.9**  
Mean: **20.591**  
75th Percentile: **24.3**  
Maximum: **102**  
Std Dev.: **12.936**

**NARSTO Flags**

**Flag Symbol Count**

M1: **5**  
V0: ● **52,987**

Time Zone: PST

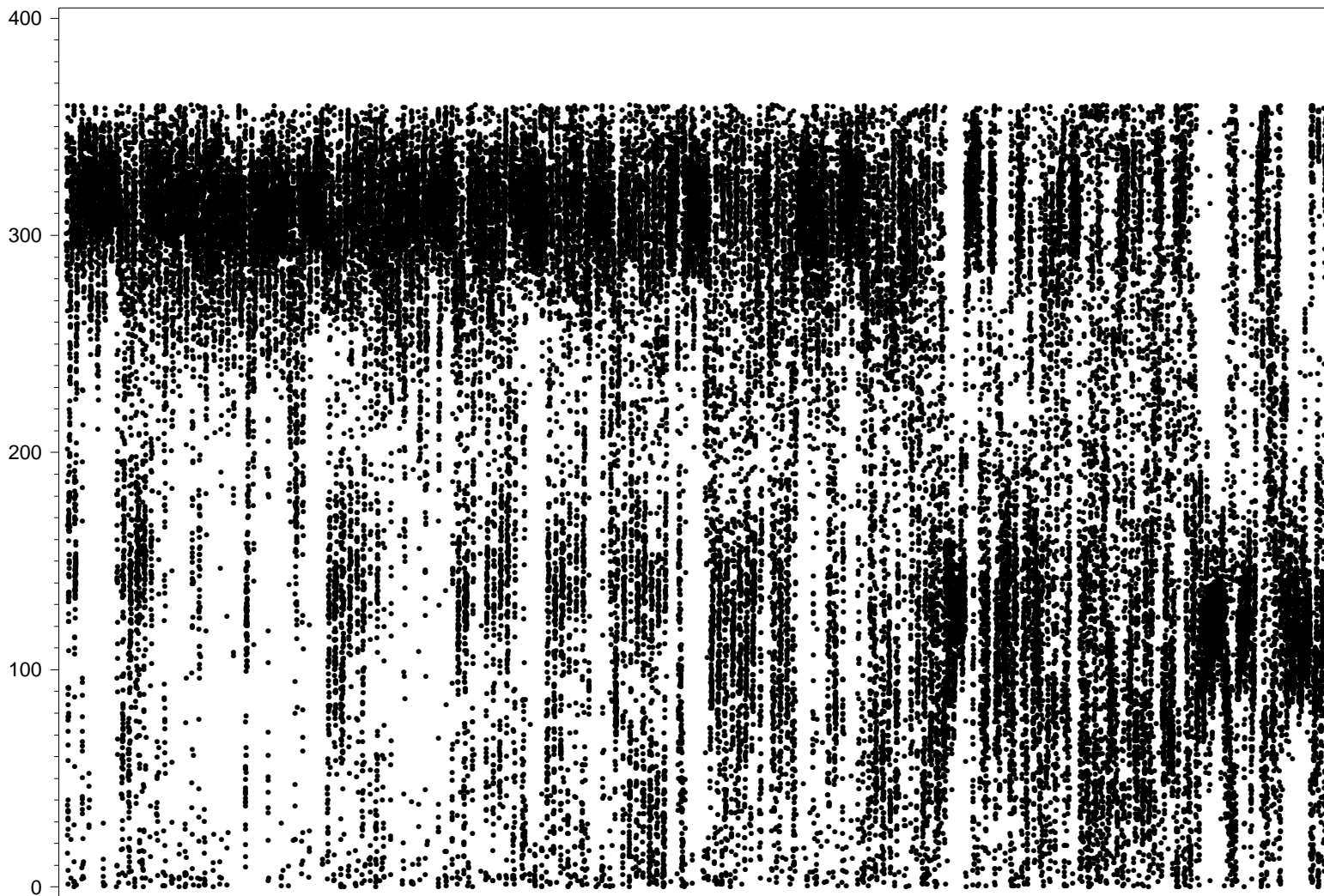
NARSTO Time Series Plot

23OCT2007

Site ID: **ES2FUSCAFSF\_** Variable name: **Wind direction: unit vector mean** Units: **degree from true north** Sampling interval: **5 minute**  
Sampling frequency: **Same as sampling interval** Observation type: **Meteorology** Field sampling or measurement principle: **Wind direction vane**  
Sampling Height above ground (m): **14.9** Instrument name and model number: **Met One Instruments High-Sensitivity Wind Vane Model: 025-5C**  
Detection Limit: **Undetermined**

Site Name:**3425 N First St Fresno, California** Latitude:**36.78167 deg.** Longitude:**-119.77333 deg.** Start Date:**1999-05-01**

Wind direction: unit vector mean (degree from true north)



**Statistics**

Number of obs: **52,992**  
Number of missing: **0**  
Minimum: **0**  
25th Percentile: **135.5**  
Median: **283.9**  
Mean: **232.078**  
75th Percentile: **315.4**  
Maximum: **360**  
Std Dev.: **101.858**

**NARSTO Flags**

**Flag Symbol Count**

V0: ● 52,992

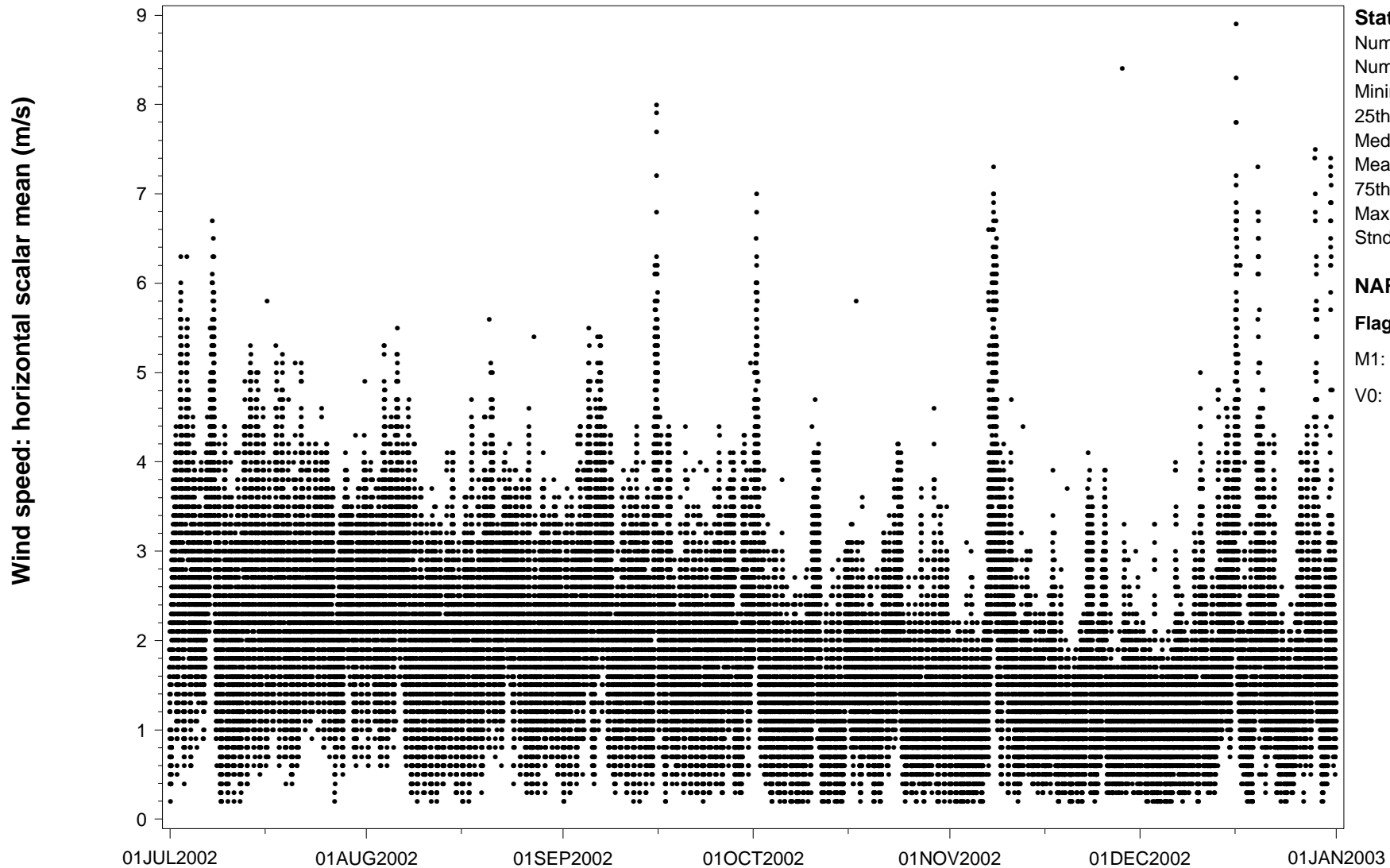
Time Zone: PST

# NARSTO Time Series Plot

23OCT2007

Site ID: **ES2FUSCAFSF\_** Variable name: **Wind speed: horizontal scalar mean** Units: **m/s** Sampling interval: **5 minute**  
Sampling frequency: **Same as sampling interval** Observation type: **Meteorology** Field sampling or measurement principle: **Anemometer--cup**  
Sampling Height above ground (m): **14.9** Instrument name and model number: **Met One Instruments 3-cup Anemometer Model:010-SC**  
Detection Limit: **Undetermined**

Site Name:**3425 N First St Fresno, California** Latitude:**36.78167 deg.** Longitude:**-119.77333 deg.** Start Date:**1999-05-01**



**Statistics**  
Number of obs: **52,992**  
Number of missing: **2**  
Minimum: **0.2**  
25th Percentile: **1.1**  
Median: **1.7**  
Mean: **1.867**  
75th Percentile: **2.5**  
Maximum: **8.9**  
Std Dev.: **1.005**

**NARSTO Flags**  
**Flag Symbol Count**  
M1: **2**  
V0: ● **52,990**

Time Zone: PST