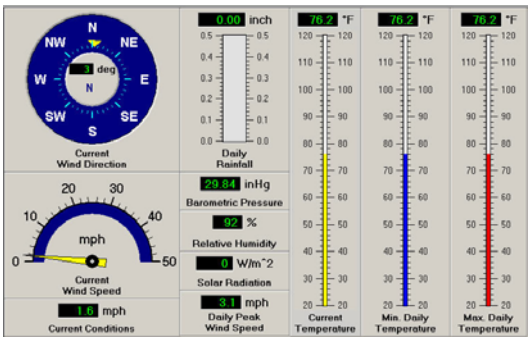
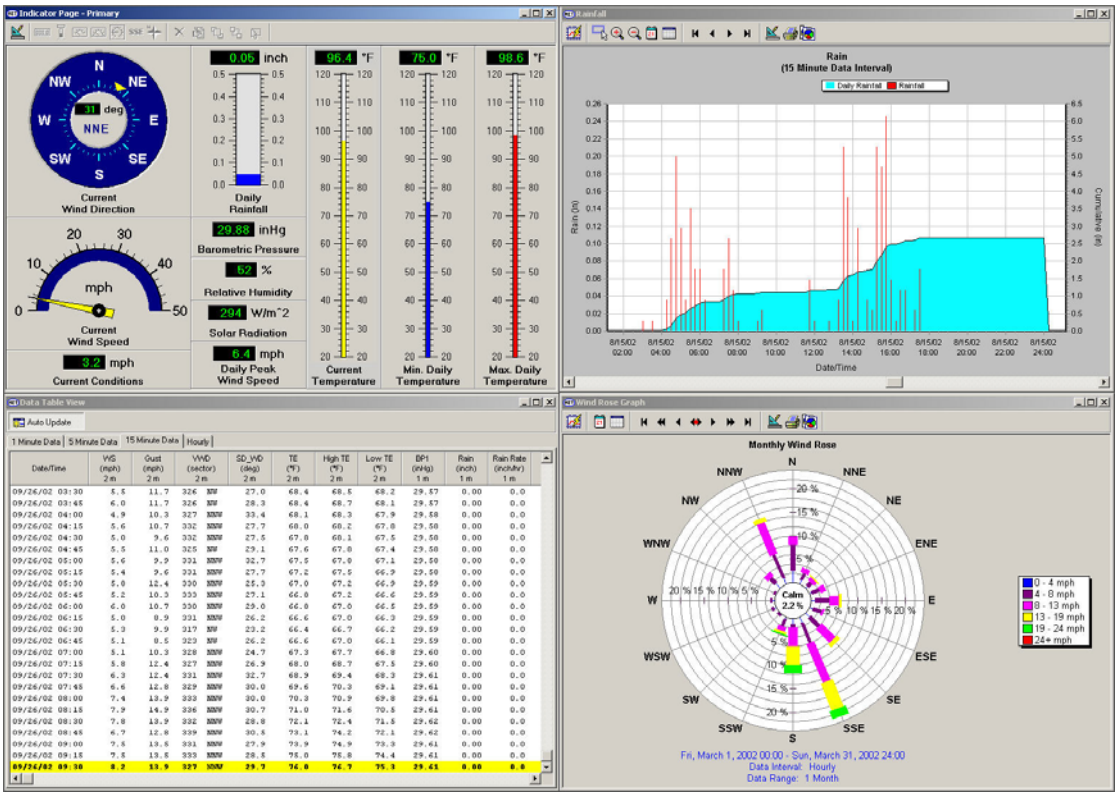
Sensible Technologies, Inc.

Met Manager™ Weather Software



Benefits

- *User-configurable*
- *Multiple data intervals*
- *Single and dual-axis trend charts*
- *Custom wind roses*
- *Custom indicator views*
- *Many reports available*
- *Many derived parameters*
- *Sensor-extendable*
- *Data export capabilities*
- *Calibration support*
- *Windows 95/98/NT4/2000/XP*
- *Microsoft® network-friendly*



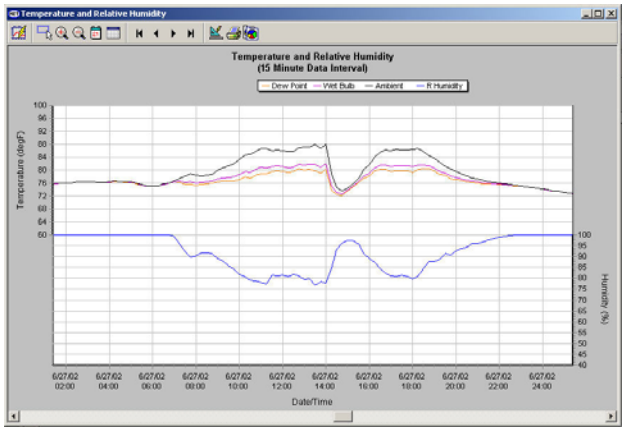
Measures

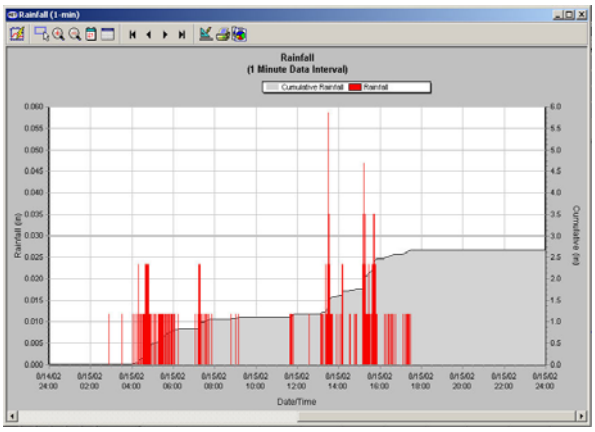
- ✓ *Wind speed*
- ✓ *Wind direction*
- ✓ *Temperature*
- ✓ *Relative humidity*
- ✓ *Barometric pressure*
- ✓ *Rainfall*
- ✓ *Solar radiation*
- ✓ *Delta temperature*
- ✓ *Soil moisture*
- ✓ *Leaf wetness*
- ✓ *Evapotranspiration*
- ✓ *Many other sensors*

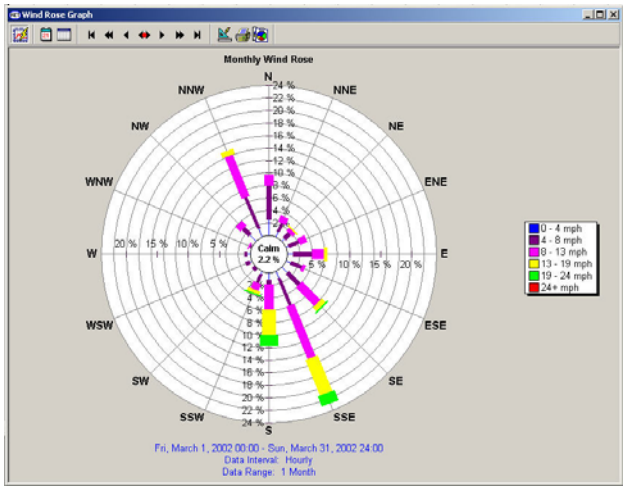
(Above measurements depend on capability of weather station and its installed sensors)

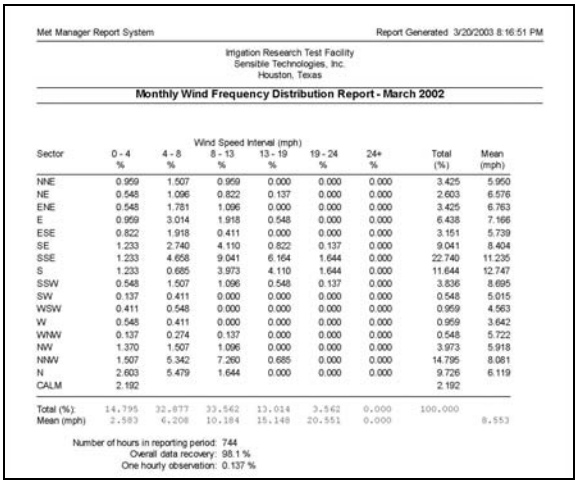
Derives

- ✓ *Scalar, resultant vector, and peak wind speed*
- ✓ *Scalar, resultant and unit vector wind direction*
- ✓ *Sigma-Theta (std deviation of wind direction)*
- ✓ *Wind chill and heat index temperatures*
- ✓ *Dew point and wet bulb temperatures*
- ✓ *Chill hour and chill unit*
- ✓ *Growing degree day and growing degree hour*
- ✓ *Crop evapotranspiration (ET)*
- ✓ *Reference ET by ASCE Penman-Monteith*
- ✓ *Heating and cooling degree days*
- ✓ *Minimums and maximums (highs and lows)*
- ✓ *Change (e.g., pressure change)*
- ✓ *Difference (e.g., temperature difference)*
- ✓ *Rate of change (e.g., rain rate)*
- ✓ *Other derived parameters*









Met Manager Report System — Report Generated 3/20/2003 8:16:51 PM

Irrigation Research Test Facility
Sensible Technologies, Inc.
Houston, Texas

Monthly Wind Frequency Distribution Report - March 2002

Sector	Wind Speed Interval (mph) 0 - 4 %	4 - 8 %	8 - 13 %	13 - 19 %	19 - 24 %	24+ %	Total (%)	Mean (mph)
NNE	0.959	1.507	0.959	0.000	0.000	0.000	3.425	5.950
NE	0.548	1.096	0.822	0.137	0.000	0.000	2.603	6.576
ENE	0.548	1.781	1.096	0.000	0.000	0.000	3.425	6.763
E	0.959	3.014	1.918	0.548	0.000	0.000	6.438	7.166
ESE	0.822	1.918	0.411	0.000	0.000	0.000	3.151	5.739
SE	1.233	2.740	4.110	0.822	0.137	0.000	9.041	8.404
SSE	1.233	4.658	9.041	6.164	1.644	0.000	22.740	11.235
S	1.233	0.685	3.973	4.110	1.644	0.000	11.644	12.747
SSW	0.548	1.507	1.096	0.548	0.137	0.000	3.836	8.695
SW	0.137	0.411	0.000	0.000	0.000	0.000	0.548	5.015
WSW	0.411	0.548	0.000	0.000	0.000	0.000	0.959	4.563
W	0.548	0.411	0.000	0.000	0.000	0.000	0.959	3.642
WNW	0.137	0.274	0.137	0.000	0.000	0.000	0.548	5.722
NW	1.370	1.507	1.096	0.000	0.000	0.000	3.973	5.918
NNW	1.507	5.342	7.260	0.685	0.000	0.000	14.795	8.081
N	2.603	5.479	1.644	0.000	0.000	0.000	9.726	6.119
CALM	2.192						2.192	
Total (%)	14.795	32.877	33.562	13.014	3.562	0.000	100.000	
Mean (mph)	2.583	6.208	10.184	15.148	20.551	0.000		8.553

Number of hours in reporting period: 744
Overall data recovery: 98.1 %
One hourly observation: 0.137 %

Features

- ✓ Acquires data directly from the data logger of the weather station in real time, or periodically captures data from the memory of the logger, depending on configuration of the weather station. The link between the PC and the data logger is usually by serial cable, short haul modem, wireless radio modem, dial modem, or cellular modem.

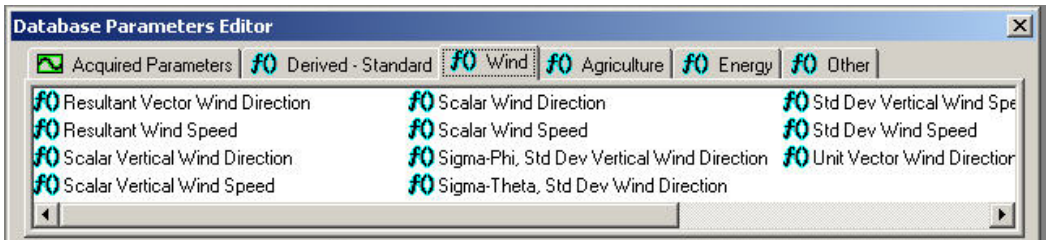
- ✓ Provides many different views of the data: data tables, single and dual-axis trend charts, indicator views, and wind roses. Create your own look-and-feel of the indicator views and decide which traces to add to the trend charts. Customize the wind rose to generate 1, 3, 6, 8, 12-hour, daily, weekly or monthly roses.

- ✓ Select any combination of time intervals for storing in the database: 1, 5, 10, 15, 20, and 30 minutes, and hourly. The data can represent averages, totals, minimums, maximums, standard deviations, change, rates of change, and so forth. You can easily view historical data by simple reverse scrolling.

- ✓ User selection of units, display digits, and decimal point precision.

- ✓ Calculates wind chill and heat index:

- ✓ Calculates various wind parameters:

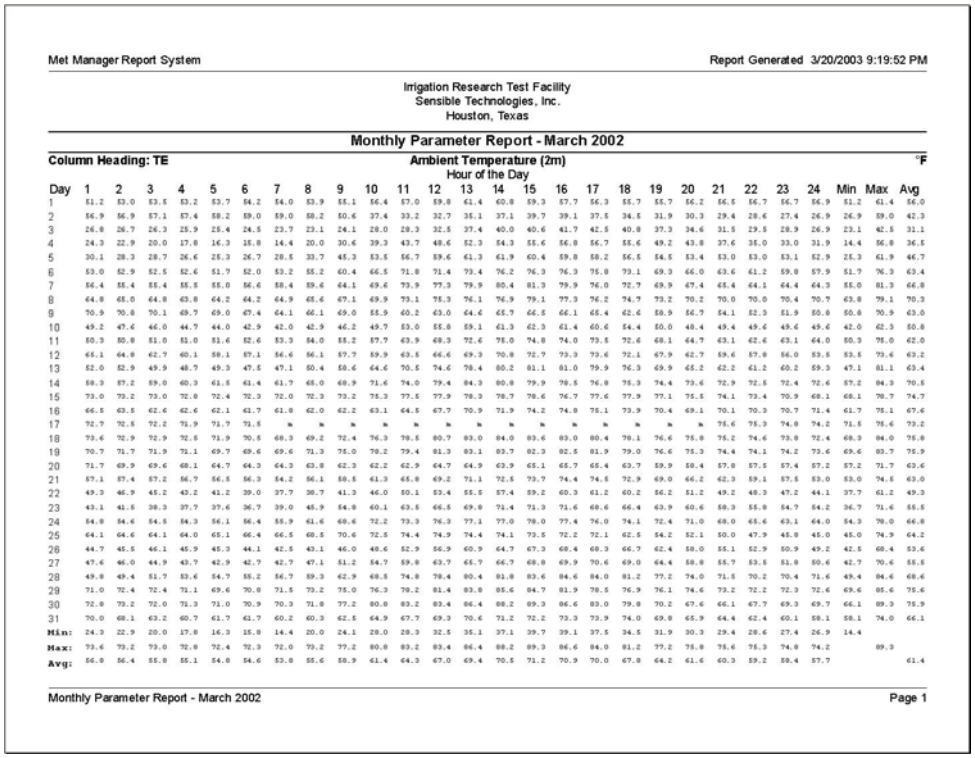


- ✓ Calculates many agriculture parameters (if configured by user) including standardized ASCE Penman-Monteith reference evapotranspiration (not shown) for both short grass (ETo) and tall grass (ETr) references:

- ✓ Print or copy the trend charts and wind roses to the Windows clipboard.

- ✓ Export the data for off-line analysis.

- ✓ Generate a number of very useful reports including data listings, 24-hour daily summary report, cumulative rainfall report, monthly wind frequency report, monthly parameter reports, monthly data recovery report, chill hour and chill unit reports, growing degree day/hour report, reference and crop evapotranspiration reports, and heating and cooling degree day reports. Shown below is a monthly parameter report. Note the m's in the center of the report indicating missing data and the monthly minimum, maximum and average values in lower right corner:



Met Manager Report System — Report Generated 3/20/2003 9:19:52 PM

Irrigation Research Test Facility
Sensible Technologies, Inc.
Houston, Texas

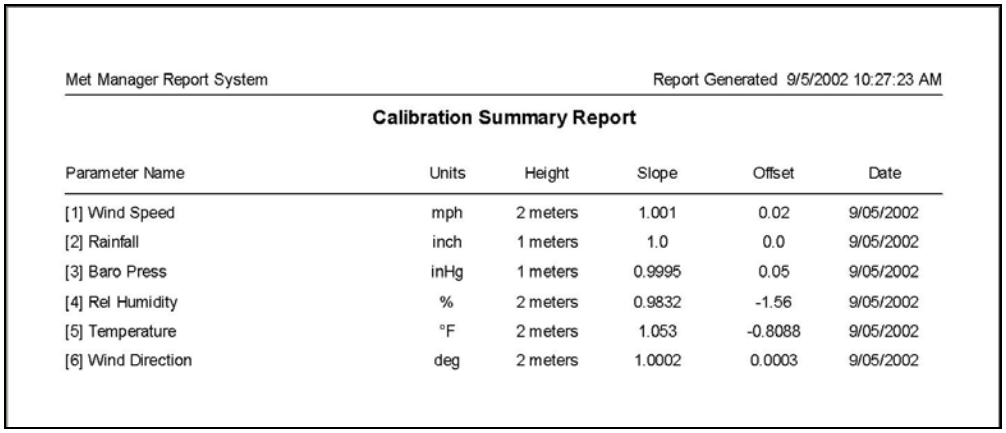
Monthly Parameter Report - March 2002

Column Heading: TE — **Ambient Temperature (2m)** — °F
Hour of the Day

Day	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Min	Max	Avg
1	51.2	53.0	53.5	53.2	53.7	54.2	54.0	53.9	55.1	56.4	57.0	59.0	61.4	60.8	59.3	57.7	56.3	55.7	55.7	56.2	56.5	56.7	56.7	56.9	51.2	61.4	56.0
2	56.9	56.9	57.1	57.4	58.2	59.0	59.0	58.2	60.6	37.4	33.2	32.7	35.1	37.1	39.7	39.1	37.5	34.5	31.9	30.3	29.4	28.6	27.4	26.9	26.9	59.0	42.3
3	26.8	26.7	26.3	25.9	25.4	24.5	23.7	23.1	24.1	28.0	28.3	32.5	37.4	40.0	40.6	41.7	42.5	40.8	37.3	34.6	31.5	29.5	28.9	26.9	23.1	42.5	31.1
4	24.3	22.9	20.0	17.8	16.3	15.8	14.4	20.0	30.6	39.3	43.7	48.6	52.3	54.3	55.6	56.8	56.7	55.6	49.2	43.8	37.6	35.0	33.0	31.9	14.4	56.8	36.5
5	30.1	28.3	28.7	26.6	25.3	26.7	28.5	33.7	45.3	53.5	56.7	59.6	61.3	61.9	60.4	59.8	58.2	56.5	54.5	53.4	53.0	53.0	53.1	52.9	25.3	61.9	46.7
6	53.0	52.9	52.5	52.6	51.7	52.0	53.2	55.2	60.4	66.5	71.0	71.4	73.4	76.2	76.3	76.3	75.0	73.1	69.3	66.0	63.6	61.2	59.0	57.9	51.7	76.3	63.4
7	56.4	55.4	55.4	55.5	55.0	56.6	58.4	59.6	64.1	69.6	73.9	77.3	79.9	80.4	81.3	79.9	76.0	72.7	69.9	67.4	65.4	64.1	64.4	64.3	55.0	81.3	66.8
8	64.8	65.0	64.8	63.8	64.2	64.2	64.9	65.6	67.1	69.9	73.1	76.3	76.1	76.9	79.1	77.3	76.2	74.7	73.2	70.2	70.0	70.0	70.4	70.7	63.8	79.1	70.3
9	70.9	70.8	70.1	69.7	69.0	69.4	64.1	66.1	69.0	58.9	60.2	63.0	64.6	65.7	66.5	66.1	65.4	62.6	58.9	56.7	54.1	52.3	51.9	50.8	50.8	70.9	63.0
10	49.2	47.6	46.0	44.7	44.0	42.9	42.0	42.9	46.2	49.7	53.0	55.8	59.1	61.3	62.3	61.4	60.6	54.4	50.0	48.4	49.4	49.6	49.6	49.6	42.0	62.3	50.8
11	50.3	50.8	51.0	51.0	51.6	52.6	53.3	54.0	55.2	57.7	63.9	68.3	72.6	76.0	74.8	74.0	73.5	72.6	68.1	64.7	63.1	62.6	63.1	64.0	50.3	76.0	62.0
12	65.1	64.8	62.7	60.1	59.1	57.1	56.6	56.1	57.7	59.9	63.5	66.6	69.3	70.8	72.7	73.3	73.6	72.1	67.9	62.7	59.6	57.8	56.0	53.6	53.5	73.6	63.2
13	52.0	52.9	49.9	48.7	49.3	47.5	47.1	50.4	50.6	54.6	70.5	74.6	78.4	80.2	81.1	81.0	79.9	76.3	69.9	65.2	62.2	61.2	60.2	59.3	47.1	81.1	63.4
14	59.3	57.2	59.0	60.3	61.5	61.4	61.7	65.0	69.9	71.6	74.0	79.4	84.3	80.8	79.9	78.5	76.8	75.3	74.4	73.6	72.9	72.5	72.4	72.6	57.2	84.3	70.5
15	73.0	73.2	73.0	72.8	72.4	72.3	72.0	72.3	73.2	75.3	77.5	77.9	78.3	78.7	78.6	76.7	77.6	77.9	77.1	75.5	74.1	73.4	70.9	68.1	68.1	78.7	74.7
16	66.5	63.5	62.6	62.6	62.1	61.7	61.0	62.0	62.2	63.1	64.5	67.7	70.9	71.9	74.2	74.0	75.1	73.9	70.4	69.1	70.1	70.3	70.7	71.4	61.7	75.1	67.6
17	72.7	72.5	72.2	71.9	71.7	71.5	m	m	m	m	m	m	m	m	m	m	m	m	m	m	75.6	75.3	74.8	74.2	71.5	75.6	73.2
18	73.6	72.9	72.9	72.5	71.9	70.5	69.3	69.2	72.4	76.3	78.5	80.7	83.0	84.0	83.6	83.0	80.4	78.1	76.6	75.8	75.2	74.6	73.8	72.4	68.3	84.0	76.8
19	70.7	71.7	71.9	71.1	69.7	69.6	69.6	71.3	75.0	78.2	79.4	81.3	83.1	83.7	82.3	82.5	81.9	79.0	76.6	75.3	74.4	74.1	74.2	73.6	69.6	83.7	76.9
20	71.7	69.9	69.6	68.1	64.7	64.3	64.3	63.8	62.3	62.2	62.9	64.7	64.9	63.9	65.1	65.7	65.4	63.7	59.9	58.4	57.8	57.5	57.4	57.2	57.2	71.7	63.6
21	57.1	57.4	57.2	56.7	56.5	56.3	54.2	56.1	58.5	61.3	65.8	69.2	71.1	72.5	73.7	74.4	74.5	72.9	69.0	66.2	62.3	59.1	57.5	53.0	53.0	74.5	63.0
22	49.3	46.9	45.2	43.2	41.2	39.0	37.7	38.7	41.3	46.0	50.1	53.4	55.5	57.4	59.2	60.3	61.2	60.2	56.2	51.2	49.2	48.3	47.2	44.1	37.7	61.2	49.3
23	43.1	41.5	38.3	37.7	37.6	36.7	39.0	45.9	54.8	60.1	63.5	66.5	69.0	71.4	71.3	71.6	69.6	66.4	63.9	60.6	58.3	55.8	54.7	54.2	36.7	71.6	55.5
24	54.8	54.6	54.5	54.3	56.1	56.4	55.9	61.6	69.6	72.2	73.3	76.3	77.1	77.0	78.0	77.4	76.0	74.1	72.4	71.0	69.0	65.6	63.1	64.0	54.3	78.0	66.8
25	64.1	64.6	64.1	64.0	65.1	66.4	66.5	69.5	70.6	72.5	74.4	74.9	74.4	74.1	73.5	72.2	72.1	62.5	54.2	52.1	50.0	47.9	45.8	45.0	45.0	74.9	64.2
26	44.7	45.5	46.1	45.9	45.3	44.1	42.5	43.1	46.0	48.6	52.9	56.9	60.9	64.7	67.3	68.4	68.3	66.7	62.4	58.0	55.1	52.9	50.9	49.2	42.5	68.4	53.6
27	47.6	46.0	44.9	43.7	42.9	42.7	42.7	47.1	51.2	54.7	59.8	63.7	65.7	66.7	68.8	69.9	70.6	69.0	64.4	58.8	55.7	53.5	51.8	50.6	42.7	70.6	58.5
28	49.8	49.4	51.7	53.6	54.7	55.2	56.7	59.3	62.9	68.5	74.8	78.4	80.4	81.8	83.6	84.6	84.0	81.2	77.2	74.0	71.5	70.2	70.4	71.6	49.4	84.6	68.6
29	71.0	72.4	72.4	71.1	69.6	70.8	71.5	73.2	75.0	76.3	78.2	81.4	83.0	85.6	84.7	81.9	78.5	76.9	76.1	74.6	73.2	72.2	72.3	72.6	69.6	85.6	75.6
30	72.8	73.2	72.0	71.3	71.0	70.9	70.3	71.8	77.2	80.8	83.2	83.4	86.4	88.2	89.3	86.6	83.0	79.8	76.2	67.6	66.1	67.7	69.3	69.7	66.1	89.3	76.9
31	70.0	68.1	63.2	60.7	61.7	61.7	60.2	60.3	62.5	64.9	67.7	69.3	70.6	71.2	72.2	73.3	73.9	74.0	69.8	65.9	64.4	62.4	60.1	58.1	58.1	74.0	66.1
Min:	24.3	22.9	20.0	17.8	16.3	15.8	14.4	20.0	24.1	28.0	28.3	32.5	35.1	37.1	39.7	39.1	37.5	34.5	31.9	30.3	29.4	28.6	27.4	26.9	14.4		
Max:	73.6	73.2	73.0	72.8	72.4	72.3	72.0	73.2	77.2	80.8	83.2	83.4	86.4	88.2	89.3	86.6	84.0	81.2	77.2	75.8	75.6	75.3	74.8	74.2		89.3	
Avg:	56.0	56.4	55.8	55.1	54.8	54.6	53.8	55.6	58.9	61.4	64.3	67.0	69.4	70.5	71.2	70.9	70.0	67.8	64.2	61.6	60.3	59.2	58.4	57.7			61.4

Monthly Parameter Report - March 2002 — Page 1

- ✓ Auto-detection and recording of communication and sensor faults.
- ✓ Provides sensor calibration support resulting in a report for your records:



Met Manager Report System — Report Generated 9/5/2002 10:27:23 AM

Calibration Summary Report

Parameter Name	Units	Height	Slope	Offset	Date
[1] Wind Speed	mph	2 meters	1.001	0.02	9/05/2002
[2] Rainfall	inch	1 meters	1.0	0.0	9/05/2002
[3] Baro Press	inHg	1 meters	0.9995	0.05	9/05/2002
[4] Rel Humidity	%	2 meters	0.9832	-1.56	9/05/2002
[5] Temperature	°F	2 meters	1.053	-0.8088	9/05/2002
[6] Wind Direction	deg	2 meters	1.0002	0.0003	9/05/2002

- ✓ Access the weather project database in several ways: desktop or notebook PC, peer-to-peer network, network file server, and network file server with mirrored database.
- ✓ Access the weather data from other workstations in the network with the optional **Met Viewer**™ software.
- ✓ 175+ page User's Manual on CD.

Weather Station and Data Logger Compatibility

Manufacturer	Weather Station or Data Logger
NovaLynx Corporation	WS-16
Texas Electronics, Inc.	Solus 3355 RTU, Solus 2001

For more information, please contact us.

Sensible Technologies, Inc.

PO Box 1048, Richmond, TX 77406-1048

Phone: (713) 776-0770

Fax: (713) 776-1295

www.SensibleTechnologies.com