

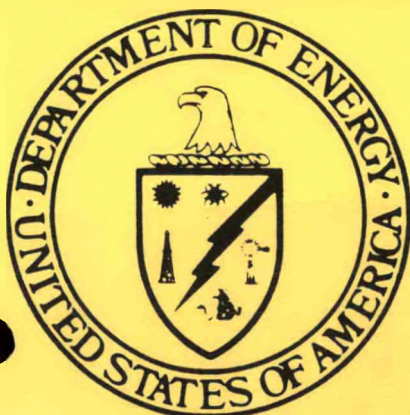
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Environmental Data for Sites in the National Solar Data Network

December 1980



U.S. DEPARTMENT OF ENERGY

NATIONAL SOLAR DATA PROGRAM

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DECEMBER 1980 ENVIRONMENTAL DATA
FOR SITES IN THE
NATIONAL SOLAR DATA NETWORK

PREPARED FOR

U.S. DEPARTMENT OF ENERGY
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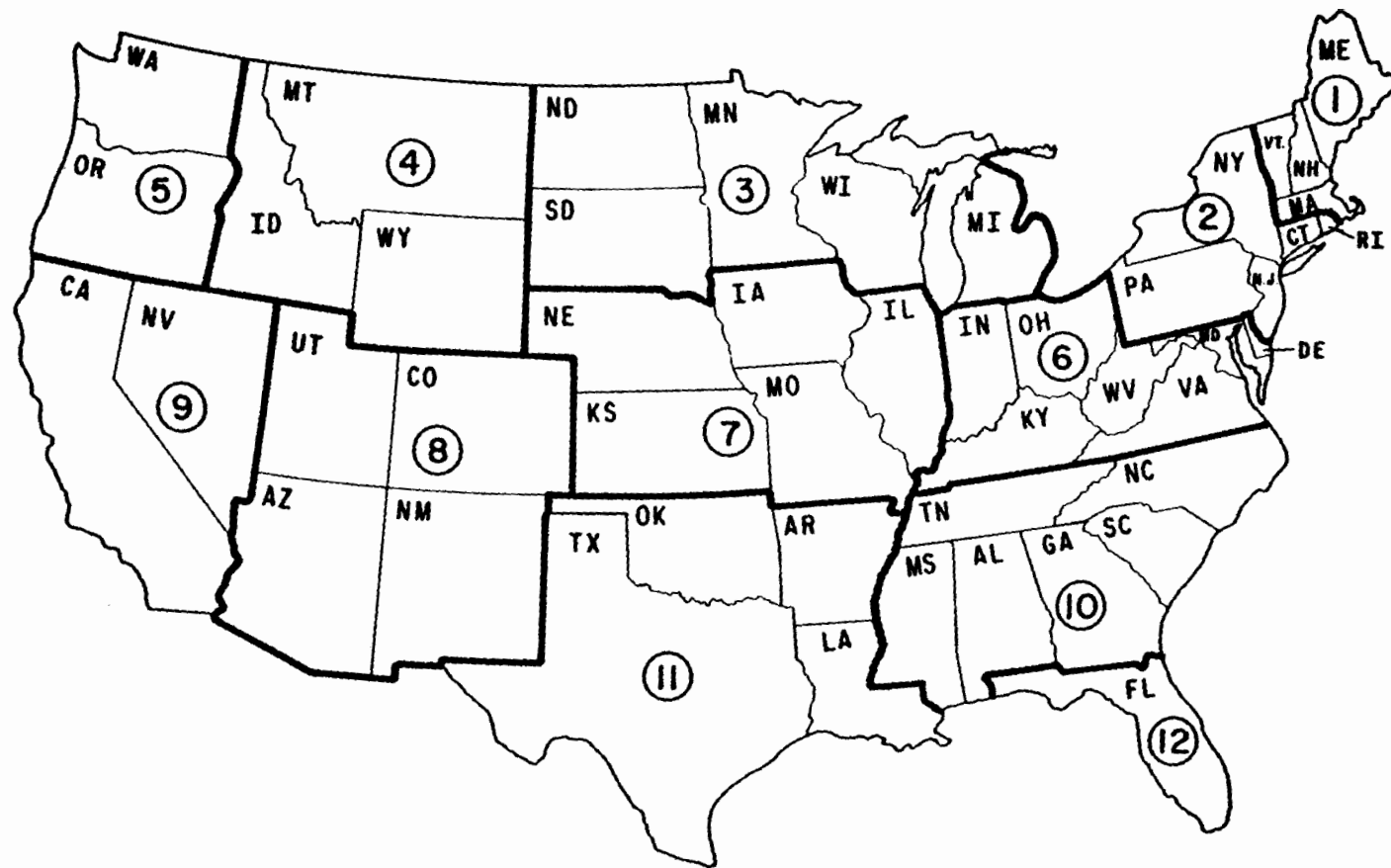


Figure 1. National Solar Data Program Zones

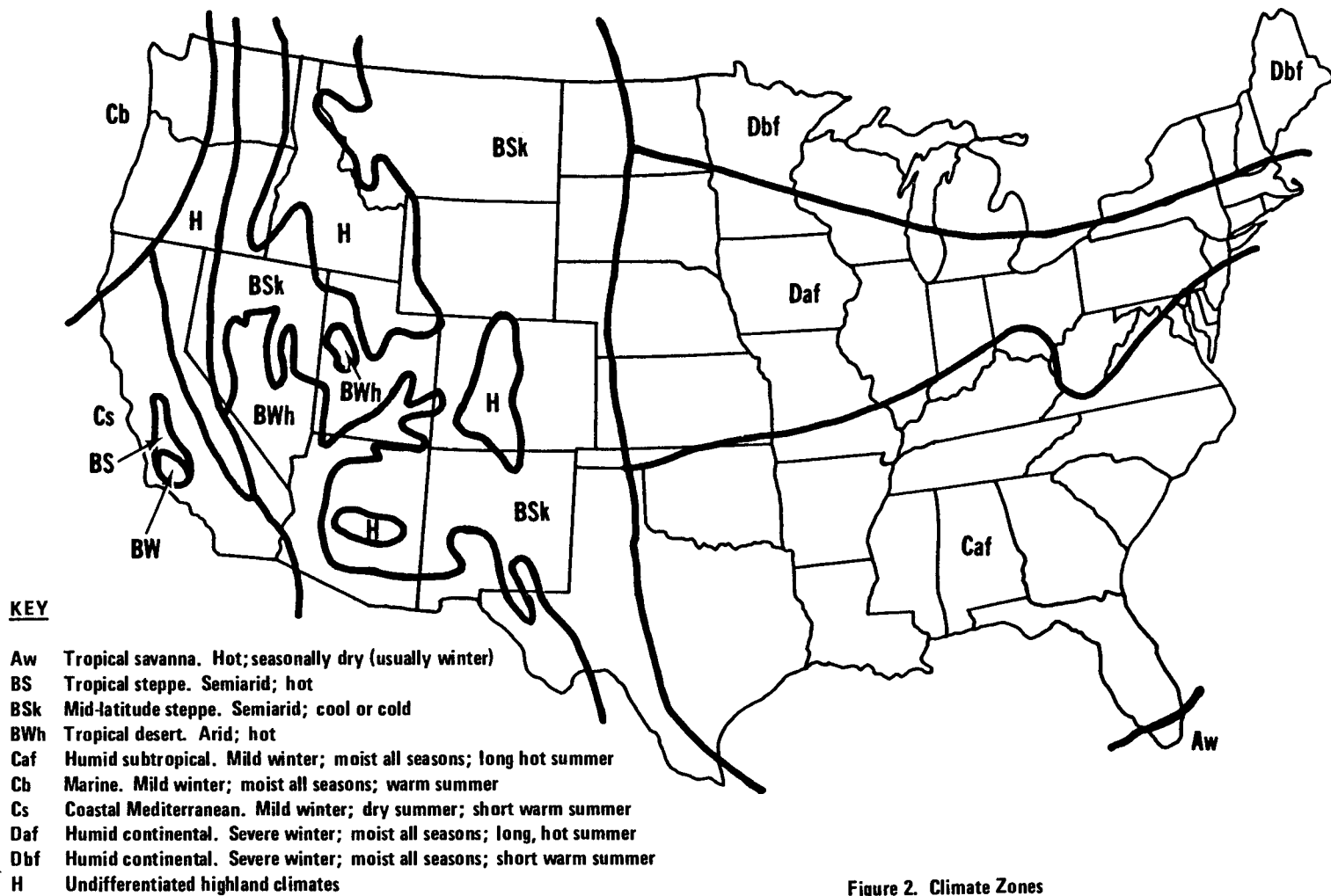


Figure 2. Climate Zones

Trewartha, G.T. The Earth's Problem Climates. University Wisconsin Press, Madison, WI, 1961.

ENVIRONMENTAL DATA
FOR
SITES IN THE NATIONAL SOLAR DATA NETWORK

INTRODUCTION

The Department of Energy's National Solar Data Program established solar energy systems in residential and commercial buildings across the United States. These solar sites are linked to Vitro Laboratories Division's computer in the National Solar Data Network (NSDN). Vitro collects and analyzes data from this network to determine the thermal performance of each of the solar systems.

The network consists of: (1) sensors which measure key performance parameters at a selected site; (2) a Site Data Acquisition Subsystem (SDAS); (3) telephone transmission circuits; and (4) a Central Data Processing System (CDPS). Sensor data are collected and stored on a cassette tape in the SDAS. The CDPS collects and processes the information at Vitro and performs the required computations.

For the majority of parameters, raw data is collected approximately every five minutes. Solar insolation and certain other parameters, which are subject to rapid variance, are sampled every 32 seconds. The CDPS interrogates each SDAS on a daily basis and retrieves all accumulated data. At the conclusion of data retrieval, the SDAS cassette is reset by command from the CDPS for continuing data collection.

This report presents environmental information collected at the sites for the reporting month. Only those sites for which the data are found to be valid are reported.

Organization of the Data

The environmental data for the NSDN are presented in the form of tables for each solar site. The solar sites are grouped into 12 zones, each of which consists of several adjacent states (as shown in Figure 1). The solar energy sites are in alphabetical sequence within each zone.

The tables provide available meteorological data for reporting sites in the NSDN as follows:

- o Insolation. The insolation table presents the total, diffuse, direct, maximum, and extra-terrestrial radiation for the solar site. It also shows the ratio of total extra-terrestrial radiation, as a percent.
- o Temperature. The temperature table gives the average, daytime, nighttime, maximum, minimum and inlet-water temperatures for the solar site.

Additional tables are presented for some of these NSDN sites, supplying either wind or relative humidity data, or both.

- o Wind. All of the passive and some of the active solar sites are equipped with wind sensors. These provide information for two wind tables. The first furnishes wind speed and direction. The second table correlates wind speed with time (hours for a range of speeds) for each day.
- o Humidity. The humidity table provides relative humidity values for day and night. It also gives values for the maximum and minimum humidity for each day.

A technical discussion of the instruments and measurements used to obtain these data tables follows.

A map illustrating the climate zones is provided in Figure 2.

SENSOR TECHNOLOGY

Insolation

Eppley pyranometers and shadow-band pyranometers are used to measure the amount of radiant energy incident on a surface. A standard pyranometer measures the total amount of solar energy available, including both the direct beam component and the diffuse component, while the shadow-band instrument is designed to measure the diffuse component only. The instruments are calibrated in the horizontal position, with an Eppley thermopile used as the signal generator of the sensor. The heating of the thermopile by the radiation of the sun generates the signal, with the response being linear over the operating range. Measurements are in BTU/ft²-hr.

The addition of a shadow band to a pyranometer enables the instrument to record only the diffuse portion of the sunlight by shielding the sensor from the direct rays of the sun (the beam component). The amount of beam radiation available is readily calculated by subtracting the diffuse radiation measurement from the total radiation measured by the unshaded standard pyranometer. This beam radiation measurement is useful when working with focusing solar collectors. When using the shadow-band pyranometer, the accuracy of its measurement depends on the correct adjustment of the shadow band to be certain that the sensor is shielded from the direct rays of the sun.

The pyranometer includes a circular multi-junction thermopile of the wire-wound type. The thermopile has the advantage of withstanding some mechanical vibration and shock. The receiver is circular, and coated with Parsons black lacquer. The instrument has a pair of removable precision ground and polished hemispheres of Schott optical glass. It also has a spirit level and a desiccator that can be readily inspected. The clear glass is transparent from a wavelength of about 285 to 2,800 nanometers. The temperature dependence is $\pm 1\%$ over the range of -4°F to 140°F . It has a fairly fast response time of one second and a linearity of $\pm 5\%$ over the range of the instrument.

Temperature

Temperatures are measured by a Minco Products S53P platinum Resistance Temperature Detector (RTD). Because the resistance of platinum wire varies as a function of temperature, measurement of the resistance of a calibrated length of platinum wire can be used to accurately determine the temperature of the wire. This is the principle of the platinum RTD which utilizes a tiny coil of platinum wire encased in a copper-tipped probe to measure temperature. The probes are designed to have a normal resistance of 100 Ohms at 32°F.

Ambient temperature sensors are housed in a WeatherMeasure Radiation Shield in order to protect the probe from solar radiation. Care is taken to locate the sensor away from extraneous heat sources which could produce erroneous temperature readings. Temperature probes mounted in ducts or pipes are installed in stainless steel thermowells for physical protection of the sensor and to allow easy removal and replacement of the sensors. A thermally conductive grease is used between the probe and the thermowell to assure faster temperature response.

The RTDs are connected in a Wheatstone bridge arrangement to yield an output signal of 0-100 millivolts, which is measured by the SDAS. Different resistance values are used in the bridge, depending on the temperature range the sensor must measure. A third wire is brought out from the sensor and connected into the bridge to compensate for the resistance of the lead wires between the sensor and the SDAS.

The RTDs are individually calibrated to National Bureau of Standards traceable standards at the factory. In addition, a five-point check is done at the site in an attempt to take into account any deviation of the measurement system from nominal values.

The data-processing software takes these checks and calibrations into account, using a third-order polynomial curve fit to relate SDAS output to temperature.

Wind

Wind speed and direction are measured by a Model W101-P-DC/540 (or W102-P-DC/540) sensor made by the WeatherMeasure Corporation. This sensor is rugged, reliable and accurate and will withstand severe environments such as icing and hurricane winds.

Wind speed is measured by a four-bladed propeller vehicle coupled to a DC generator. The balanced propeller is fabricated from a special low-density, fiberglass-reinforced plastic to yield maximum sensitivity and strength. The DC generator has excellent linearity but somewhat higher threshold due to brush friction.

Dual-wiper, precious-metal slip rings are used to bring the wind speed signals (15 Volts DC at 100 miles per hour) to the base of the sensor. These generally provide trouble-free use for several years.

Wind direction is measured by means of a dual-wiper 1000-Ohm long-life conductive plastic potentiometer housed in the base of the sensor (0-540°). It is attached to the stainless steel shaft which supports and rotates with the upper body assembly.

The potentiometer is of high commercial grade and has sealed bearings. The conductive plastic resistance element has infinite resolution and a lifetime about 10 times that of wire-wound potentiometers. The base is of aluminum, and corrosion-resistant materials are used in the construction.

Humidity

Relative humidity is measured by a WeatherMeasure Corporation Model HM111-P/HM14-P sensor. This measurement is of particular importance in monitoring atmospheric corrosion at solar sites.

This solid-state sensor measures relative humidity over the full range of 0-100%. Response of the sensing element is linear within approximately 1%, from 0-80% relative humidity, with small hysteresis and negligible temperature dependence.

The sensor is based upon the capacitance change of a polymer thin-film capacitor. A one-micron thick dielectric polymer layer absorbs water molecules through a thin metal electrode and causes capacitance change proportional to relative humidity. The thin polymer layer reacts very quickly and, therefore, the response time is very short (one second to 90% humidity change at 68°F).

The polymer material is resistant to most chemicals. Because the sensor response is based on "bulk" effect, under normal conditions dust and dirt do not easily influence its operation. For use outdoors, a sintered filter is used because sulphur dioxide absorbed on small particles can corrode the thin film electrodes of the sensor. The smaller the pore size of the filter, the greater the protection. The response time, however, is increased.

The sensor is mounted in a small probe which contains all the electronics necessary to provide a millivolt output. The output of the probe electronics is linear from 0-100% relative humidity. Because the capacitance change of the sensor is sensitive only to ambient water vapor, temperature compensation is not required in most situations.

MEASUREMENT OF THE DATA

Insolation

Total insolation in the wavelength band of approximately 285 to 2,800 nanometers at the site-specific collector tilt angle is given. In some sites the pyranometer is shaded during certain times of the day, varying with the season, or there may be snow, dust or frost on some pyranometers. Figure 3 illustrates insolation and its measurement.

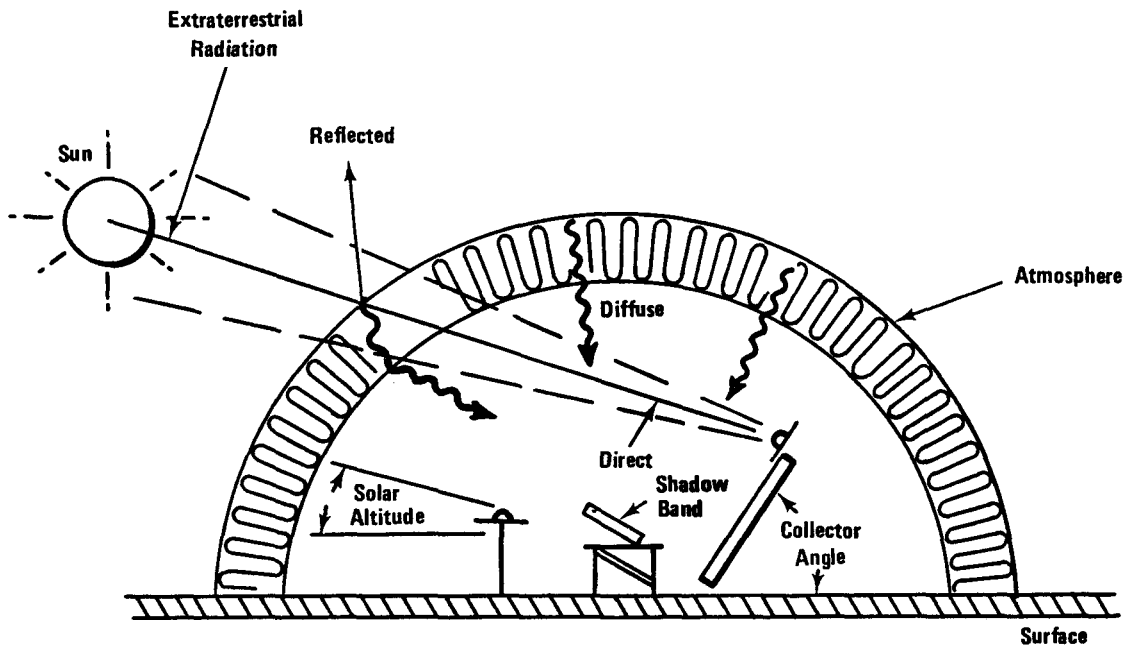


Figure 3. Incoming Solar Radiation

For sites with concentrating or evacuated tube collectors, diffuse insolation is also measured. Diffuse radiation is measured in the mean plane of tilt of the collectors with a shadow band pyranometer. The diffuse radiation readings have not been corrected for sky radiation blocked by the band. Maladjustment of the shadow band may, in some cases, cause erroneous readings.

Direct insolation is computed by subtracting the diffuse insolation from the total insolation value. The maximum value of total insolation and its time of occurrence in local standard time are also given for each day of the month.

Extraterrestrial radiation values are computed¹ for each site and given for each day of the month. The ratio of total insolation on a tilted surface to extraterrestrial radiation on a parallel surface is given in the last column of the data sheet. This parameter quantifies the effects of cloudiness and atmospheric transmission on the insolation received at the earth's surface for each site.

¹See TRNSYS, A Transient Simulation Program, Engineering Experiment Station Report #38, Solar Energy Laboratory, University of Wisconsin, Madison, 1975.

Temperature

The temperature sensors and supporting data acquisition systems in the NSDN have rapid time response and sufficient accuracy to resolve temperatures to $\pm 1^{\circ}\text{F}$ over the monthly reporting period. This feature provides good accuracy of the monthly values to the user.

The on-site ambient temperature sensor is mounted near the collector array or solar structure and records temperatures in the SDAS that are considered representative of the microclimate temperature near the solar equipment, e.g., collector array, passive structure aperture or mounting location of concentrating collectors.

Average monthly temperature is computed on the basis of all data values for temperature.

Daytime temperature average is computed on the basis of temperatures monitored from 30 minutes prior to sunrise to 30 minutes after sunset.

Nighttime temperatures are computed on the basis of remaining data acquired outside the daytime time parameters.

Maximum and minimum temperatures are obtained at a sampling point, meaning that they reflect a temperature value (Max or Min) which could have occurred for as short a time as a five-minute interval during the month. These temperature data reflect microclimate thermal variance at the site.

System cold-water inlet temperatures are provided for sites with domestic hot water systems. These data are most representative under flow conditions. Some elevation of this temperature can be expected if the sensor is mounted near the hot water heating equipment or in the outdoor environment. These temperatures represent average daily values of DHW cold-water inlet temperature, not necessarily the ground-water temperature provided by municipalities or private wells to the system.

Wind

The wind data are presented as averages of speed and direction for the 24-hour period, averages of speed and direction for the daytime, and maximum speed for the 24-hour period, with corresponding direction and time of occurrence.

The daytime wind data are tabulated over the period from 30 minutes prior to sunrise to 30 minutes after sunset. Wind speed is in miles per hour and wind direction is expressed in common convention used by the National Weather Service (NWS), where the angle or compass heading refers to the direction from which the wind is blowing. Thus, a tabular entry of 315° indicates that the wind is blowing from the northwest.

The second page of wind data presents a frequency distribution of wind speeds, giving the number of hours in each velocity interval. Wind speed and direction data are collected once every 5 minutes and 20 seconds.

The anemometers in the NSDN are placed to measure the wind at the collector array and thus may not be representative of regional wind because some sensors may be in the turbulent wake of an object or otherwise shielded from the wind.

Relative Humidity

Relative humidity is measured at some of the solar sites because this is one of the parameters used in studies of atmospheric corrosion. Site selection was based on the availability of SDAS channels, rather than on environmental factors.

These relative humidity data are presented for those sites for which data is available.

OTHER PUBLICATIONS

These environmental data reports will be issued monthly and will include all sites which are transmitting valid data at the time of publication.

The data are also available on tape in the SOLMET System from the National Oceanographic and Atmospheric Administration Environmental Data and Information Service, National Climatic Center, Federal Building, Asheville, N.C., 28801.

Previous reports are:

SOLAR/0010-78/09, September 1978
SOLAR/0010-78/10, October 1978
SOLAR/0010-78/11, November 1978
SOLAR/0010-78/12, December 1978
SOLAR/0010-79/01, January 1979
SOLAR/0010-79/02, February 1979
SOLAR/0010-79/03, March 1979
SOLAR/0010-79/04, April 1979
SOLAR/0010-79/05, May 1979
SOLAR/0010-79/06, June 1979
SOLAR/0010-79/07, July 1979
SOLAR/0010-79/08, August 1979
SOLAR/0010-79/09, September 1979
SOLAR/0010-79/10, October 1979
SOLAR/0010-79/11, November 1979
SOLAR/0010-79/12, December 1979
SOLAR/0010-80/01, January 1980
SOLAR/0010-80/02, February 1980
SOLAR/0010-80/03, March 1980
SOLAR/0010-80/04, April 1980
SOLAR/0010-80/05, May 1980
SOLAR/0010-80/06, June 1980
SOLAR/0010-80/07, July 1980
SOLAR/0010-80/08, August 1980
SOLAR/0010-80/09, September 1980
SOLAR/0010-80/10, October 1980
SOLAR/0010-80/11, November 1980

NATIONAL SOLAR DATA NETWORK

ENVIRONMENTAL DATA TABLES

* denotes data missing due to sensor failure or transmission problems.
 N.A. denotes data for this parameter not measured at this site.

ZONE 1



ENVIRONMENTAL SUMMARY REPORT

SITE: CATHEDRAL SQUARE
BURLINGTON, VERMONT

REPORT PERIOD: 80/12
SITE NUMBER: 168

LATITUDE: 44.00 DEG NORTH AZIMUTH: 42 DEG
LONGITUDE: 73.00 DEG WEST PYRANOMETER TILT: 44 DEG TIME ZONE: EASTERN
ALTITUDE: 200 FEET

INSOLATION

DAY	TOTAL INSOLATION BTU/FT2	TOTAL DIFF INSOLATION BTU/FT2	TOTAL DIR INSOLATION BTU/FT2	MAXIMUM TOTAL INSOLATION VALUE BTU/HR/FT2	TOTAL TIME HR:MN	EXTRATERRESTRIAL INSOLATION BTU/FT2	TTL INS ----- EXT INS PERCENT
1	280.	N.A.	N.A.	260.	13:29	2234.	13.
2	418.	N.A.	N.A.	218.	14:32	2226.	19.
3	119.	N.A.	N.A.	51.	12:31	2220.	5.
4	1409.	N.A.	N.A.	266.	13: 0	2215.	64.
5	1384.	N.A.	N.A.	263.	12:54	2211.	63.
6	1262.	N.A.	N.A.	258.	13:14	2203.	57.
7	665.	N.A.	N.A.	210.	11:33	2199.	30.
8	33.	N.A.	N.A.	14.	10: 4	2196.	1.
9	907.	N.A.	N.A.	252.	12:47	2192.	41.
10	406.	N.A.	N.A.	238.	12:10	2189.	19.
11	*	N.A.	N.A.	*	*:*	2186.	*
12	704.	N.A.	N.A.	241.	12:56	2183.	32.
13	158.	N.A.	N.A.	108.	14:56	2178.	7.
14	484.	N.A.	N.A.	263.	13:30	2176.	22.
15	561.	N.A.	N.A.	266.	12:23	2174.	26.
16	154.	N.A.	N.A.	42.	13:18	2173.	7.
17	484.	N.A.	N.A.	243.	12:20	2172.	22.
18	65.	N.A.	N.A.	40.	13:41	2171.	3.
19	883.	N.A.	N.A.	280.	13: 6	2170.	41.
20	1166.	N.A.	N.A.	249.	13:17	2170.	54.
21	713.	N.A.	N.A.	221.	13:16	2170.	33.
22	579.	N.A.	N.A.	193.	11:24	2171.	27.
23	413.	N.A.	N.A.	218.	12:32	2171.	19.
24	62.	N.A.	N.A.	20.	10:48	2172.	3.
25	327.	N.A.	N.A.	150.	10:58	2174.	15.
26	231.	N.A.	N.A.	51.	11:40	2176.	11.
27	1194.	N.A.	N.A.	243.	13: 0	2178.	55.
28	664.	N.A.	N.A.	258.	12:36	2180.	30.
29	120.	N.A.	N.A.	42.	12:36	2183.	6.
30	307.	N.A.	N.A.	144.	10: 7	2188.	14.
31	719.	N.A.	N.A.	243.	11:39	2192.	33.
MEAN	562.	N.A.	N.A.			2187.	
STANDARD DEVIATION	409.	N.A.	N.A.			18.	

ENVIRONMENTAL SUMMARY REPORT

SITE: CATHEDRAL SQUARE
BURLINGTON, VERMONT

REPORT PERIOD: 80/12
SITE NUMBER: 168

LATITUDE: 44.00 DEG NORTH
LONGITUDE: 73.00 DEG WEST

AZIMUTH: 42 DEG
PYRANOMETER TILT: 44 DEG

TIME ZONE: EASTERN
ALTITUDE: 200 FEET

TEMPERATURES IN DEGREES F

DAY	AVERAGE TEMP	DAYTIME TEMP	NIGHTTIME TEMP	MAX TEMPERATURE VALUE	TIME HR:MN	MIN TEMPERATURE VALUE	TIME HR:MN	INLET WATER TEMPERATURE
1	41.	44.	40.	48.	13:34	35.	23:25	49.
2	42.	43.	42.	52.	14:37	34.	1:38	49.
3	25.	21.	27.	42.	0: 4	16.	21:32	50.
4	16.	18.	15.	21.	15: 3	12.	4:50	47.
5	17.	19.	16.	23.	14:25	13.	6:14	47.
6	23.	28.	20.	33.	13:25	14.	5: 4	46.
7	27.	30.	26.	39.	11:33	17.	6:56	46.
8	40.	39.	40.	50.	18:46	33.	0: 1	46.
9	32.	34.	31.	39.	0:10	23.	23: 1	46.
10	27.	28.	27.	34.	20:26	18.	23:56	47.
11	10.	*	10.	19.	0:49	4.	6:30	50.
12	19.	20.	18.	28.	23:50	11.	0: 3	46.
13	26.	30.	25.	36.	7:18	13.	23:50	45.
14	12.	18.	8.	22.	13:14	-0.	23:51	45.
15	6.	6.	6.	18.	23:16	-5.	5:22	44.
16	8.	8.	8.	13.	0: 4	5.	8:20	45.
17	8.	10.	7.	18.	12:36	3.	8: 4	44.
18	21.	23.	20.	27.	22:32	11.	0: 5	44.
19	15.	16.	14.	28.	2:42	-0.	22:32	43.
20	2.	4.	1.	15.	12: 3	-7.	7:36	43.
21	5.	10.	3.	16.	14:25	-1.	2:48	43.
22	10.	10.	10.	20.	22:24	-0.	2:41	41.
23	25.	26.	25.	29.	15: 2	19.	2:35	41.
24	23.	30.	19.	31.	12:18	-5.	23:56	41.
25	-13.	-13.	-13.	-5.	0: 2	-18.	8: 2	43.
26	4.	7.	2.	16.	21:42	-15.	0:28	41.
27	18.	23.	16.	31.	14:41	9.	22:14	41.
28	24.	26.	23.	35.	23:26	9.	2:36	42.
29	34.	36.	33.	41.	13:50	30.	23:38	41.
30	13.	9.	15.	31.	1:35	2.	23:49	43.
31	3.	5.	2.	14.	14:29	-3.	7:23	42.
MEAN	18.	20.	17.					44.
STANDARD DEVIATION	12.7	13.1	12.8					2.7

ENVIRONMENTAL SUMMARY REPORT

SITE: CONCORD MUNICIPAL LIGHT
CONCORD, MASSACHUSETTS

REPORT PERIOD: 80/12
SITE NUMBER: 189

LATITUDE: 42.47 DEG NORTH AZIMUTH: -14 DEG
LONGITUDE: 71.35 DEG WEST PYRANOMETER TILT: 57 DEG
TIME ZONE: EASTERN
ALTITUDE: 125 FEET

INSOLATION

DAY	TOTAL INSOLATION BTU/FT2	TOTAL DIFF INSOLATION BTU/FT2	TOTAL DIR INSOLATION BTU/FT2	MAXIMUM TOTAL INSOLATION VALUE BTU/HR/FT2	TIME HR:MN	EXTRATERRESTRIAL INSOLATION BTU/FT2	TTL INS ----- EXT INS PERCENT
1	1147.	N.A.	N.A.	284.	10:53	2969.	39.
2	288.	N.A.	N.A.	93.	12: 4	2971.	10.
3	257.	N.A.	N.A.	193.	11:27	2972.	9.
4	1859.	N.A.	N.A.	312.	11: 0	2959.	63.
5	1505.	N.A.	N.A.	280.	12: 8	2961.	51.
6	1703.	N.A.	N.A.	293.	10:47	2947.	58.
7	1341.	N.A.	N.A.	315.	10:47	2945.	46.
8	640.	N.A.	N.A.	227.	9:59	2947.	22.
9	1259.	N.A.	N.A.	299.	10:58	2950.	43.
10	730.	N.A.	N.A.	290.	12: 8	2948.	25.
11	1795.	N.A.	N.A.	308.	10:53	2935.	61.
12	1331.	N.A.	N.A.	302.	11: 5	2934.	45.
13	702.	N.A.	N.A.	221.	10:52	2937.	24.
14	1402.	N.A.	N.A.	290.	11: 5	2936.	48.
15	1036.	N.A.	N.A.	287.	11:11	2924.	35.
16	46.	N.A.	N.A.	12.	10: 9	2923.	2.
17	379.	N.A.	N.A.	168.	14:26	2923.	13.
18	406.	N.A.	N.A.	218.	13:10	2922.	14.
19	580.	N.A.	N.A.	221.	11:42	2922.	20.
20	1691.	N.A.	N.A.	302.	11: 6	2922.	58.
21	1527.	N.A.	N.A.	293.	11:12	2922.	52.
22	1272.	N.A.	N.A.	249.	11:33	2923.	44.
23	80.	N.A.	N.A.	22.	9:55	2923.	3.
24	680.	N.A.	N.A.	234.	11:44	2924.	23.
25	1799.	N.A.	N.A.	308.	10:54	2925.	62.
26	1342.	N.A.	N.A.	293.	11:11	2927.	46.
27	1569.	N.A.	N.A.	290.	11: 1	2939.	53.
28	233.	N.A.	N.A.	72.	13:16	2941.	8.
29	419.	N.A.	N.A.	227.	13:16	2943.	14.
30	1063.	N.A.	N.A.	296.	11:24	2940.	36.
31	1668.	N.A.	N.A.	333.	10:47	2942.	57.
MEAN	1024.	N.A.	N.A.			2939.	
STANDARD DEVIATION	577.	N.A.	N.A.			16.	

ENVIRONMENTAL SUMMARY REPORT

SITE: CONCORD MUNICIPAL LIGHT
CONCORD, MASSACHUSETTS

REPORT PERIOD: 80/12
SITE NUMBER: 189

LATITUDE: 42.47 DEG NORTH AZIMUTH: -14 DEG TIME ZONE: EASTERN
LONGITUDE: 71.35 DEG WEST PYRANOMETER TILT: 57 DEG ALTITUDE: 125 FEET

TEMPERATURES IN DEGREES F

DAY	AVERAGE TEMP	DAYTIME TEMP	NIGHTTIME TEMP	MAX TEMPERATURE VALUE TIME HR:MN	MIN TEMPERATURE VALUE TIME HR:MN	INLET WATER TEMPERATURE
1	43.	51.	39.	58. 14:42	30. 23:53	N.A.
2	42.	45.	40.	53. 13: 2	28. 4: 4	N.A.
3	33.	32.	34.	52. 0: 3	23. 23:58	N.A.
4	24.	27.	22.	31. 14: 1	18. 7:10	N.A.
5	24.	28.	22.	33. 14: 0	18. 23:14	N.A.
6	25.	34.	21.	42. 14:58	13. 6:26	N.A.
7	30.	36.	26.	47. 14:31	15. 7:14	N.A.
8	45.	45.	44.	62. 23:30	31. 7:30	N.A.
9	43.	44.	43.	60. 0: 2	31. 23:52	N.A.
10	32.	34.	31.	37. 13:17	26. 7:57	N.A.
11	20.	19.	21.	32. 2:58	12. 18:49	N.A.
12	23.	25.	21.	31. 13:29	11. 7:32	N.A.
13	35.	40.	33.	45. 12:49	26. 23:56	N.A.
14	21.	28.	18.	34. 13:40	11. 7: 2	N.A.
15	17.	20.	16.	27. 15: 0	7. 5:13	N.A.
16	23.	22.	23.	27. 23:35	18. 8: 6	N.A.
17	17.	21.	15.	27. 3:41	-5. 23:56	N.A.
18	19.	29.	14.	36. 13:42	-7. 1:48	N.A.
19	27.	32.	23.	36. 5: 7	7. 23:48	N.A.
20	6.	11.	3.	18. 14:23	-7. 7:38	N.A.
21	9.	17.	4.	25. 14: 2	-9. 6: 2	N.A.
22	12.	18.	8.	29. 14:45	-7. 7:28	N.A.
23	26.	30.	24.	32. 13: 7	16. 0: 3	N.A.
24	27.	33.	24.	40. 12:16	15. 5:14	N.A.
25	-2.	-5.	0.	32. 0:19	-15. 23:26	N.A.
26	6.	11.	3.	20. 15:33	-15. 3: 4	N.A.
27	18.	23.	15.	29. 14:18	9. 7:43	N.A.
28	24.	27.	23.	32. 15:19	12. 0: 5	N.A.
29	35.	39.	32.	45. 12: 7	26. 1:16	N.A.
30	29.	34.	26.	38. 3: 8	8. 23:51	N.A.
31	13.	18.	11.	25. 14:31	5. 5: 0	N.A.
MEAN	24.	28.	22.			N.A.
STANDARD DEVIATION	11.5	11.8	11.7			N.A.

ENVIRONMENTAL SUMMARY REPORT

SITE: KALWALL CORPORATION
MANCHESTER, NEW HAMPSHIRE

REPORT PERIOD: 80/12
SITE NUMBER: 5

LATITUDE: 43.00 DEG NORTH AZIMUTH: 0 DEG
LONGITUDE: 71.40 DEG WEST PYRANOMETER TILT: 89 DEG
TIME ZONE: EASTERN
ALTITUDE: 500 FEET

INSOLATION

DAY	TOTAL INSOLATION BTU/FT2	TOTAL DIFF INSOLATION BTU/FT2	TOTAL DIR INSOLATION BTU/FT2	MAXIMUM TOTAL INSOLATION VALUE BTU/HR/FT2	TOTAL TIME HR:MN	EXTRATERRESTRIAL INSOLATION BTU/FT2	TTL INS ----- EXT INS PERCENT
1	1112.	N.A.	N.A.	245.	11:45	2914.	38.
2	312.	N.A.	N.A.	242.	12:40	2919.	11.
3	143.	N.A.	N.A.	180.	12:51	2910.	5.
4	1630.	N.A.	N.A.	280.	11: 5	2914.	56.
5	1174.	N.A.	N.A.	271.	11:43	2918.	40.
6	1474.	N.A.	N.A.	258.	11:21	2909.	51.
7	1267.	N.A.	N.A.	255.	11:13	2909.	44.
8	290.	N.A.	N.A.	171.	9:48	2914.	10.
9	925.	N.A.	N.A.	271.	11:52	2904.	32.
10	839.	N.A.	N.A.	268.	11:44	2904.	29.
11	1604.	N.A.	N.A.	284.	11:30	2908.	55.
12	1096.	N.A.	N.A.	261.	12:41	2909.	38.
13	556.	N.A.	N.A.	251.	11: 6	2913.	19.
14	1124.	N.A.	N.A.	261.	11: 1	2913.	39.
15	840.	N.A.	N.A.	264.	12: 5	2903.	29.
16	75.	N.A.	N.A.	23.	12:41	2903.	3.
17	1543.	N.A.	N.A.	277.	11:40	2904.	53.
18	497.	N.A.	N.A.	242.	12:48	2904.	17.
19	710.	N.A.	N.A.	287.	11:52	2904.	24.
20	1544.	N.A.	N.A.	277.	12: 0	2908.	53.
21	1209.	N.A.	N.A.	284.	11:49	2909.	42.
22	1020.	N.A.	N.A.	238.	13: 4	2909.	35.
23	47.	N.A.	N.A.	13.	10:16	2905.	2.
24	283.	N.A.	N.A.	126.	9:27	2906.	10.
25	1614.	N.A.	N.A.	290.	12: 1	2906.	56.
26	833.	N.A.	N.A.	261.	11:59	2906.	29.
27	1385.	N.A.	N.A.	255.	11:59	2917.	47.
28	93.	N.A.	N.A.	35.	12:29	2917.	3.
29	83.	N.A.	N.A.	48.	11:14	2917.	3.
30	1143.	N.A.	N.A.	268.	12: 4	2914.	39.
31	1460.	N.A.	N.A.	284.	11:34	2914.	50.
MEAN	901.	N.A.	N.A.			2910.	
STANDARD DEVIATION	532.	N.A.	N.A.			5.	

ENVIRONMENTAL SUMMARY REPORT

SITE: KALWALL CORPORATION
MANCHESTER, NEW HAMPSHIRE

REPORT PERIOD: 80/12
SITE NUMBER: 5

LATITUDE: 43.00 DEG NORTH AZIMUTH: 0 DEG
LONGITUDE: 71.40 DEG WEST PYRANOMETER TILT: 89 DEG TIME ZONE: EASTERN
ALTITUDE: 500 FEET

TEMPERATURES IN DEGREES F

DAY	AVERAGE TEMP	DAYTIME TEMP	NIGHTTIME TEMP	MAX TEMPERATURE VALUE TIME HR:MN	MIN TEMPERATURE VALUE TIME HR:MN	INLET WATER TEMPERATURE
1	44.	53.	39.	63. 13:26	32. 23:47	N.A.
2	43.	46.	41.	56. 12:40	30. 3: 4	N.A.
3	33.	32.	33.	49. 0: 3	20. 23:37	N.A.
4	22.	27.	18.	33. 14:22	15. 6:27	N.A.
5	22.	28.	19.	35. 13: 3	16. 4:41	N.A.
6	28.	36.	24.	45. 13:56	17. 0: 9	N.A.
7	34.	43.	29.	54. 13:21	17. 6:49	N.A.
8	43.	43.	43.	58. 22: 0	32. 7:29	N.A.
9	42.	45.	41.	55. 1:12	29. 23:17	N.A.
10	33.	36.	31.	43. 11:23	23. 7:23	N.A.
11	19.	20.	18.	33. 0:18	10. 20:20	N.A.
12	22.	27.	18.	38. 11:27	11. 7:37	N.A.
13	33.	41.	28.	49. 11: 6	20. 23:48	N.A.
14	20.	29.	15.	35. 12:43	8. 23:44	N.A.
15	15.	19.	14.	29. 11:39	2. 6:13	N.A.
16	23.	23.	23.	28. 22:14	17. 6:38	N.A.
17	18.	22.	16.	28. 0:38	1. 22:40	N.A.
18	19.	25.	15.	37. 14:19	-1. 1:57	N.A.
19	24.	29.	20.	42. 10:59	3. 23:55	N.A.
20	6.	13.	2.	19. 13:36	-4. 7:18	N.A.
21	9.	19.	3.	27. 11:54	-10. 7:34	N.A.
22	12.	17.	9.	30. 12:58	-6. 6:18	N.A.
23	24.	27.	22.	31. 13:44	14. 0: 2	N.A.
24	28.	33.	25.	38. 11:45	17. 3:29	N.A.
25	-5.	-6.	-4.	22. 0: 1	-13. 7:29	N.A.
26	7.	12.	4.	19. 12:47	-11. 2:35	N.A.
27	19.	28.	14.	37. 12:20	6. 6:55	N.A.
28	21.	23.	20.	29. 22:21	8. 2:12	N.A.
29	35.	38.	33.	42. 14: 5	29. 1: 6	N.A.
30	28.	34.	24.	39. 10:49	6. 23:55	N.A.
31	13.	19.	10.	28. 13:53	2. 7:13	N.A.
MEAN	24.	28.	21.			N.A.
STANDARD DEVIATION	11.7	12.1	11.8			N.A.

ENVIRONMENTAL SUMMARY REPORT

SITE: KALWALL CORPORATION
MANCHESTER, NEW HAMPSHIRE

REPORT PERIOD: 80/12
SITE NUMBER: 5

LATITUDE: 43.00 DEG NORTH AZIMUTH: 0 DEG TIME ZONE: EASTERN
LONGITUDE: 71.40 DEG WEST PYRANOMETER TILT: 89 DEG ALTITUDE: 500 FEET

WIND: SPEED IN MPH-DIRECTION IN DEGREES

DAY	AVG WIND DIRECTION	AVG WIND SPEED	DAYTIME DIRECTION	DAYTIME SPEED	MAXIMUM WIND SPEED DIRECTION	TIME HR:MN	
1	107.	2.	108.	5.	13.	86.	11:50
2	*	1.	*	1.	5.	*	13:50
3	125.	9.	123.	12.	20.	112.	13:34
4	138.	12.	136.	13.	23.	131.	4:41
5	150.	7.	143.	8.	15.	116.	0:9
6	143.	4.	143.	5.	9.	131.	13:2
7	*	0.	*	0.	3.	*	12:28
8	*	1.	*	1.	8.	*	22:32
9	121.	4.	129.	5.	17.	141.	2:38
10	*	1.	*	1.	14.	*	22:20
11	135.	5.	136.	7.	15.	119.	4:55
12	*	1.	*	2.	5.	*	12:31
13	107.	3.	79.	5.	13.	77.	11:59
14	96.	6.	70.	7.	20.	122.	18:3
15	*	2.	*	2.	12.	*	0:5
16	*	1.	*	1.	3.	*	17:16
17	141.	3.	141.	6.	10.	131.	10:57
18	*	1.	*	2.	6.	*	13:9
19	127.	5.	121.	8.	16.	103.	16:8
20	125.	3.	126.	5.	11.	128.	13:52
21	107.	2.	108.	6.	14.	125.	14:29
22	*	0.	*	0.	2.	*	7:44
23	*	0.	*	0.	1.	*	11:46
24	*	1.	*	0.	14.	*	23:34
25	144.	7.	145.	9.	16.	122.	9:26
26	*	0.	*	1.	4.	*	1:47
27	*	0.	*	1.	3.	*	10:28
28	*	0.	*	1.	3.	*	12:34
29	*	0.	*	0.	3.	*	20:52
30	149.	6.	145.	9.	15.	129.	14:57
31	143.	5.	139.	6.	13.	147.	11:45
MEAN	129.	3.	125.	4.			
STANDARD DEVIATION	17.0	3.0	23.1	3.7			

ENVIRONMENTAL SUMMARY REPORT

SITE: KALWALL CORPORATION
MANCHESTER, NEW HAMPSHIRE

REPORT PERIOD: 80/12
SITE NUMBER: 5

LATITUDE: 43.00 DEG NORTH AZIMUTH: 0 DEG
LONGITUDE: 71.40 DEG WEST PYRANOMETER TILT: 89 DEG TIME ZONE: EASTERN
ALTITUDE: 500 FEET

WIND: NUMBER OF HOURS IN EACH VELOCITY INTERVAL

DAY	0-3 MPH	4-7 MPH	8-12 MPH	13-18 MPH	19-24 MPH	25-31 MPH	32-38 MPH	ABOVE 38	MISSING HOURS
1	19	3	2	0	0	0	0	0	0
2	24	0	0	0	0	0	0	0	0
3	4	4	10	6	0	0	0	0	0
4	0	1	14	9	0	0	0	0	0
5	1	16	7	0	0	0	0	0	0
6	10	14	0	0	0	0	0	0	0
7	24	0	0	0	0	0	0	0	0
8	22	2	0	0	0	0	0	0	0
9	12	9	3	0	0	0	0	0	0
10	22	2	0	0	0	0	0	0	0
11	9	9	6	0	0	0	0	0	0
12	21	0	0	0	0	0	0	0	3
13	16	7	1	0	0	0	0	0	0
14	9	3	10	2	0	0	0	0	0
15	23	1	0	0	0	0	0	0	0
16	24	0	0	0	0	0	0	0	0
17	13	11	0	0	0	0	0	0	0
18	22	2	0	0	0	0	0	0	0
19	14	2	8	0	0	0	0	0	0
20	19	4	1	0	0	0	0	0	0
21	18	3	3	0	0	0	0	0	0
22	24	0	0	0	0	0	0	0	0
23	24	0	0	0	0	0	0	0	0
24	22	0	2	0	0	0	0	0	0
25	7	4	13	0	0	0	0	0	0
26	24	0	0	0	0	0	0	0	0
27	24	0	0	0	0	0	0	0	0
28	24	0	0	0	0	0	0	0	0
29	24	0	0	0	0	0	0	0	0
30	7	9	8	0	0	0	0	0	0
31	11	9	3	0	0	0	0	0	1
AVERAGE	16.7	3.7	2.9	0.5	0.0	0.0	0.0	0.0	0.1
TOTAL	517	115	91	17	0	0	0	0	4

ENVIRONMENTAL SUMMARY REPORT

SITE: SADDLE HILL TRUST, LOT 36
MEDWAY, MASSACHUSETTS

REPORT PERIOD: 80/12
SITE NUMBER: 83

LATITUDE: 42.00 DEG NORTH AZIMUTH: 0 DEG
LONGITUDE: 71.00 DEG WEST PYRANOMETER TILT: 58 DEG
TIME ZONE: EASTERN
ALTITUDE: 200 FEET

INSOLATION

DAY	TOTAL INSOLATION BTU/FT2	TOTAL DIFF INSOLATION BTU/FT2	TOTAL DIR INSOLATION BTU/FT2	MAXIMUM TOTAL INSOLATION VALUE BTU/HR/FT2	TIME HR:MN	EXTRATERRESTRIAL INSOLATION BTU/FT2	TTL INS ----- EXT INS PERCENT
1	1323.	N.A.	N.A.	298.	11:12	3074.	43.
2	409.	N.A.	N.A.	135.	12:26	3075.	13.
3	619.	N.A.	N.A.	298.	10:39	3072.	20.
4	2055.	N.A.	N.A.	326.	11: 4	3060.	67.
5	1879.	N.A.	N.A.	313.	11:16	3061.	61.
6	1889.	N.A.	N.A.	307.	11:19	3062.	62.
7	1572.	N.A.	N.A.	307.	11:21	3051.	52.
8	580.	N.A.	N.A.	241.	10: 6	3049.	19.
9	1173.	N.A.	N.A.	266.	12:27	3051.	38.
10	897.	N.A.	N.A.	282.	11:45	3040.	29.
11	1981.	N.A.	N.A.	323.	11:17	3038.	65.
12	1370.	N.A.	N.A.	304.	12:11	3040.	45.
13	991.	N.A.	N.A.	276.	10:56	3039.	33.
14	1610.	N.A.	N.A.	304.	11: 1	3042.	53.
15	1153.	N.A.	N.A.	307.	10:45	3041.	38.
16	112.	N.A.	N.A.	25.	12:15	3040.	4.
17	1792.	N.A.	N.A.	348.	11:34	3039.	59.
18	457.	N.A.	N.A.	232.	13:37	3030.	15.
19	470.	N.A.	N.A.	251.	12:34	3030.	15.
20	1984.	N.A.	N.A.	329.	11:26	3030.	65.
21	1856.	N.A.	N.A.	320.	11:12	3030.	61.
22	1654.	N.A.	N.A.	313.	11: 2	3031.	55.
23	94.	N.A.	N.A.	25.	10:32	3031.	3.
24	803.	N.A.	N.A.	263.	10:55	3041.	26.
25	2072.	N.A.	N.A.	335.	11:17	3042.	68.
26	1587.	N.A.	N.A.	332.	12: 1	3043.	52.
27	1440.	N.A.	N.A.	317.	11:45	3045.	47.
28	310.	N.A.	N.A.	125.	13:21	3043.	10.
29	311.	N.A.	N.A.	88.	14: 4	3045.	10.
30	1187.	N.A.	N.A.	313.	11:48	3043.	39.
31	1690.	N.A.	N.A.	332.	11:27	3045.	55.
MEAN	1204.	N.A.	N.A.			3045.	
STANDARD DEVIATION	637.	N.A.	N.A.			13.	

ENVIRONMENTAL SUMMARY REPORT

SITE: SADDLE HILL TRUST, LOT 36
MEDWAY, MASSACHUSETTS

REPORT PERIOD: 80/12
SITE NUMBER: 83

LATITUDE: 42.00 DEG NORTH AZIMUTH: 0 DEG
LONGITUDE: 71.00 DEG WEST PYRANOMETER TILT: 58 DEG
TIME ZONE: EASTERN
ALTITUDE: 200 FEET

TEMPERATURES IN DEGREES F

DAY	AVERAGE TEMP	DAYTIME TEMP	NIGHTTIME TEMP	MAX TEMPERATURE VALUE TIME HR:MN	MIN TEMPERATURE VALUE TIME HR:MN	INLET WATER TEMPERATURE
1	45.	52.	41.	59. 13:46	33. 23:33	60.
2	45.	49.	42.	59. 14:55	29. 3:43	63.
3	32.	30.	33.	52. 0: 9	22. 23:52	60.
4	23.	26.	21.	32. 14:32	19. 6:59	55.
5	25.	30.	22.	37. 13:50	18. 6:38	57.
6	29.	37.	24.	48. 14:47	17. 2:47	61.
7	34.	42.	30.	56. 12:46	19. 7:25	66.
8	46.	47.	45.	59. 23:55	33. 7: 5	61.
9	43.	43.	44.	60. 1: 4	32. 23:51	56.
10	33.	34.	32.	42. 13:21	28. 7:35	58.
11	23.	23.	23.	32. 3:11	15. 18:19	58.
12	24.	26.	23.	32. 12:48	13. 7:17	59.
13	38.	44.	35.	51. 12:43	29. 23:55	62.
14	23.	28.	20.	36. 13:25	13. 23:54	65.
15	19.	22.	17.	31. 14:40	9. 3:49	58.
16	24.	23.	25.	27. 22:19	22. 8:10	57.
17	21.	23.	19.	31. 5:10	2. 23:40	58.
18	22.	29.	18.	38. 13:48	1. 2:20	55.
19	27.	32.	24.	37. 4:56	7. 23:48	54.
20	9.	14.	6.	24. 13:56	-3. 7:16	55.
21	13.	19.	9.	27. 13:47	2. 4:41	64.
22	19.	26.	15.	41. 15: 7	1. 6:24	55.
23	29.	31.	27.	35. 11:58	22. 0:14	53.
24	30.	34.	28.	42. 12:20	23. 7:11	55.
25	0.	-3.	2.	31. 0:27	-11. 23:44	52.
26	8.	15.	5.	29. 12:54	-12. 3:28	55.
27	25.	32.	20.	45. 13:42	16. 4:49	56.
28	29.	32.	27.	39. 13:21	20. 5: 5	54.
29	36.	40.	34.	45. 12:28	29. 2:52	56.
30	30.	36.	27.	40. 12:31	8. 23:53	54.
31	15.	19.	13.	27. 13:24	6. 3:48	60.
MEAN	26.	30.	24.			58.
STANDARD DEVIATION	11.0	11.6	10.9			3.5

ENVIRONMENTAL SUMMARY REPORT

SITE: SADDLE HILL TRUST, LOT 73
MEDWAY, MASSACHUSETTS

REPORT PERIOD: 80/12
SITE NUMBER: 84

LATITUDE: 42.00 DEG NORTH
LONGITUDE: 71.00 DEG WEST

AZIMUTH: 0 DEG
PYRANOMETER TILT: 45 DEG

TIME ZONE: EASTERN
ALTITUDE: 200 FEET

INSOLATION

DAY	TOTAL INSOLATION BTU/FT2	TOTAL DIFF INSOLATION BTU/FT2	TOTAL DIR INSOLATION BTU/FT2	MAXIMUM TOTAL INSOLATION VALUE BTU/HR/FT2	TIME HR:MN	EXTRATERRESTRIAL INSOLATION BTU/FT2	TTL INS ----- EXT INS PERCENT
1	1250.	N.A.	N.A.	279.	11:11	2869.	44.
2	381.	N.A.	N.A.	144.	12:21	2868.	13.
3	580.	N.A.	N.A.	272.	10:44	2863.	20.
4	1846.	N.A.	N.A.	305.	11:42	2852.	65.
5	1691.	N.A.	N.A.	289.	11:28	2851.	59.
6	1585.	N.A.	N.A.	285.	11:22	2851.	56.
7	1360.	N.A.	N.A.	282.	11:34	2840.	48.
8	494.	N.A.	N.A.	226.	11:50	2836.	17.
9	1038.	N.A.	N.A.	249.	11:59	2837.	37.
10	900.	N.A.	N.A.	279.	11:41	2826.	32.
11	1676.	N.A.	N.A.	299.	11:29	2824.	59.
12	1290.	N.A.	N.A.	285.	12:12	2825.	46.
13	1060.	N.A.	N.A.	256.	10:58	2823.	38.
14	1089.	N.A.	N.A.	279.	11:55	2825.	39.
15	948.	N.A.	N.A.	276.	10:46	2823.	34.
16	56.	N.A.	N.A.	23.	12:26	2822.	2.
17	1460.	N.A.	N.A.	299.	11:49	2821.	52.
18	422.	N.A.	N.A.	210.	13:38	2813.	15.
19	*	N.A.	N.A.	*	*:*	2812.	*
20	2057.	N.A.	N.A.	299.	11:50	2812.	73.
21	*	N.A.	N.A.	*	*:*	2812.	*
22	*	N.A.	N.A.	*	*:*	2813.	*
23	55.	N.A.	N.A.	23.	10:32	2814.	2.
24	*	N.A.	N.A.	*	*:*	2822.	*
25	*	N.A.	N.A.	*	*:*	2824.	*
26	1679.	N.A.	N.A.	305.	12: 2	2825.	59.
27	*	N.A.	N.A.	*	*:*	2827.	*
28	*	N.A.	N.A.	*	*:*	2826.	*
29	*	N.A.	N.A.	*	*:*	2828.	*
30	*	N.A.	N.A.	*	*:*	2827.	*
31	*	N.A.	N.A.	*	*:*	2830.	*
MEAN	1091.	N.A.	N.A.			2830.	
STANDARD DEVIATION	585.	N.A.	N.A.			16.	

ENVIRONMENTAL SUMMARY REPORT

SITE: SADDLE HILL TRUST, LOT 73
MEDWAY, MASSACHUSETTS

REPORT PERIOD: 80/12
SITE NUMBER: 84

LATITUDE: 42.00 DEG NORTH AZIMUTH: 0 DEG
LONGITUDE: 71.00 DEG WEST PYRANOMETER TILT: 45 DEG
TIME ZONE: EASTERN
ALTITUDE: 200 FEET

TEMPERATURES IN DEGREES F

DAY	AVERAGE TEMP	DAYTIME TEMP	NIGHTTIME TEMP	MAX TEMPERATURE VALUE	TIME HR:MN	MIN TEMPERATURE VALUE	TIME HR:MN	INLET WATER TEMPERATURE
1	44.	54.	38.	63.	11:32	29.	23:28	62.
2	44.	49.	41.	57.	15: 1	26.	4:37	61.
3	34.	34.	34.	52.	0: 4	23.	23:52	62.
4	26.	32.	22.	36.	10:32	19.	6:54	61.
5	29.	37.	23.	44.	10:56	19.	6:45	60.
6	28.	42.	19.	49.	11:17	12.	5:20	60.
7	32.	45.	25.	57.	11:56	15.	6:13	59.
8	47.	51.	44.	58.	23:54	33.	7: 8	61.
9	45.	48.	43.	59.	0:47	32.	23:46	63.
10	34.	39.	32.	48.	11:41	29.	23:50	61.
11	24.	29.	22.	35.	11:23	14.	18:36	61.
12	27.	34.	23.	43.	10:46	11.	7:13	59.
13	40.	50.	35.	56.	10:26	29.	21:38	60.
14	24.	32.	20.	39.	12: 6	13.	23:23	60.
15	20.	24.	17.	33.	11:34	9.	3:50	58.
16	25.	25.	25.	28.	23:44	22.	8:31	59.
17	21.	27.	17.	35.	11:17	-4.	23:30	57.
18	18.	28.	12.	34.	13:48	-8.	3: 8	56.
19	28.	32.	26.	38.	12:22	8.	22:24	59.
20	11.	24.	3.	32.	10:51	-6.	7: 2	55.
21	13.	24.	7.	33.	12: 4	-4.	3:39	55.
22	19.	28.	14.	41.	10:49	-2.	4:30	54.
23	28.	32.	26.	35.	11:42	19.	0:46	57.
24	26.	34.	25.	43.	12: 3	18.	7:20	56.
25	4.	4.	4.	31.	0:29	-15.	23:46	56.
26	9.	17.	3.	25.	14: 5	-16.	1:54	52.
27	21.	28.	17.	40.	10:58	12.	0: 2	55.
28	28.	31.	27.	39.	13:38	21.	6:47	56.
29	36.	39.	33.	44.	14:42	28.	4:50	58.
30	36.	38.	33.	43.	12:16	12.	22:18	57.
31	18.	28.	12.	34.	11:49	6.	5: 9	57.
MEAN	27.	34.	23.					58.
STANDARD DEVIATION	10.7	10.7	11.3					2.6

ENVIRONMENTAL SUMMARY REPORT

SITE: SADDLE HILL TRUST, LOT 77
MEDWAY, MASSACHUSETTS

REPORT PERIOD: 80/12
SITE NUMBER: 85

LATITUDE: 42.00 DEG NORTH
LONGITUDE: 71.00 DEG WEST

AZIMUTH: 0 DEG
PYRANOMETER TILT: 38 DEG

TIME ZONE: EASTERN
ALTITUDE: 200 FEET

INSOLATION

DAY	TOTAL INSOLATION BTU/FT2	TOTAL DIFF INSOLATION BTU/FT2	TOTAL DIR INSOLATION BTU/FT2	MAXIMUM TOTAL INSOLATION VALUE BTU/HR/FT2	TIME HR:MN	EXTRATERRESTRIAL INSOLATION BTU/FT2	TTL INS ----- EXT INS PERCENT
1	1104.	N.A.	N.A.	255.	11:15	2697.	41.
2	367.	N.A.	N.A.	158.	12:22	2695.	14.
3	507.	N.A.	N.A.	258.	10:42	2689.	19.
4	1635.	N.A.	N.A.	277.	11:31	2678.	61.
5	1495.	N.A.	N.A.	264.	11: 7	2676.	56.
6	1490.	N.A.	N.A.	255.	10:58	2675.	56.
7	1266.	N.A.	N.A.	252.	11: 8	2664.	48.
8	468.	N.A.	N.A.	213.	11:51	2660.	18.
9	945.	N.A.	N.A.	219.	12:28	2660.	36.
10	763.	N.A.	N.A.	264.	11:44	2650.	29.
11	1576.	N.A.	N.A.	267.	11: 2	2647.	60.
12	1108.	N.A.	N.A.	252.	12: 8	2648.	42.
13	834.	N.A.	N.A.	237.	10:59	2645.	32.
14	1322.	N.A.	N.A.	255.	11: 3	2647.	50.
15	942.	N.A.	N.A.	258.	10:47	2645.	36.
16	22.	N.A.	N.A.	9.	12:20	2643.	1.
17	1014.	N.A.	N.A.	368.	11:58	2642.	38.
18	313.	N.A.	N.A.	179.	13:37	2635.	12.
19	366.	N.A.	N.A.	237.	12:22	2634.	14.
20	1548.	N.A.	N.A.	271.	11:27	2634.	59.
21	1484.	N.A.	N.A.	264.	11: 9	2634.	56.
22	1393.	N.A.	N.A.	258.	10:59	2635.	53.
23	46.	N.A.	N.A.	21.	10:34	2636.	2.
24	652.	N.A.	N.A.	219.	10:34	2643.	25.
25	1601.	N.A.	N.A.	277.	11:10	2645.	61.
26	1318.	N.A.	N.A.	274.	12: 4	2647.	50.
27	1123.	N.A.	N.A.	258.	11:37	2649.	42.
28	274.	N.A.	N.A.	112.	12:39	2648.	10.
29	256.	N.A.	N.A.	73.	10:57	2651.	10.
30	941.	N.A.	N.A.	261.	11:51	2650.	36.
31	1365.	N.A.	N.A.	280.	11:27	2654.	51.
MEAN	953.	N.A.	N.A.			2654.	
STANDARD DEVIATION	504.	N.A.	N.A.			18.	

ENVIRONMENTAL SUMMARY REPORT

SITE: SADDLE HILL TRUST, LOT 77
MEDWAY, MASSACHUSETTS

REPORT PERIOD: 80/12
SITE NUMBER: 85

LATITUDE: 42.00 DEG NORTH AZIMUTH: 0 DEG TIME ZONE: EASTERN
LONGITUDE: 71.00 DEG WEST PYRANOMETER TILT: 38 DEG ALTITUDE: 200 FEET

TEMPERATURES IN DEGREES F

DAY	AVERAGE TEMP	DAYTIME TEMP	NIGHTTIME TEMP	MAX TEMPERATURE VALUE	TIME HR:MN	MIN TEMPERATURE VALUE	TIME HR:MN	INLET WATER TEMPERATURE
1	45.	54.	40.	61.	13:33	29.	23:29	64.
2	45.	51.	41.	63.	15: 2	26.	3:18	63.
3	34.	33.	35.	54.	0: 2	24.	23:52	61.
4	25.	28.	24.	34.	14:21	21.	6:16	60.
5	27.	32.	24.	38.	12:54	20.	7:12	62.
6	27.	38.	21.	51.	13:33	14.	7: 4	62.
7	33.	43.	26.	63.	13:43	14.	7: 9	63.
8	47.	49.	46.	61.	23:56	33.	7:35	63.
9	45.	45.	45.	63.	0:39	33.	23:37	64.
10	34.	37.	33.	45.	13:25	30.	7:17	63.
11	23.	23.	23.	34.	3: 2	15.	18:32	62.
12	25.	27.	24.	34.	12:35	11.	6:54	60.
13	41.	47.	37.	54.	12:56	31.	23:57	62.
14	25.	30.	22.	36.	14: 5	14.	23:57	59.
15	20.	23.	18.	31.	14:15	11.	6:15	58.
16	25.	23.	26.	28.	23:15	22.	8: 4	57.
17	19.	24.	16.	28.	5: 7	-7.	23:56	57.
18	20.	31.	14.	38.	13:43	-10.	2: 4	54.
19	29.	34.	26.	39.	5: 0	9.	23:54	55.
20	9.	14.	5.	22.	13:46	-6.	5:56	54.
21	13.	21.	8.	29.	13:49	-5.	5: 3	55.
22	15.	25.	9.	45.	14:27	-6.	7: 9	56.
23	29.	32.	27.	34.	12:21	19.	0: 5	57.
24	30.	35.	28.	44.	12: 5	19.	7:27	59.
25	0.	-3.	2.	33.	0:30	-16.	23:58	55.
26	5.	13.	1.	25.	12:57	-18.	1:28	52.
27	24.	33.	19.	50.	13:13	12.	7:58	56.
28	28.	30.	27.	37.	15:13	21.	6:33	57.
29	37.	40.	35.	48.	14:36	28.	5:32	59.
30	32.	37.	29.	41.	12:39	10.	23:59	61.
31	16.	21.	13.	30.	13:56	7.	5:14	57.
MEAN	27.	31.	24.					59.
STANDARD DEVIATION	11.6	12.1	11.9					3.4

ENVIRONMENTAL SUMMARY REPORT

SITE: TECHNOLOGY PROPERTIES TRUST
BURLINGTON, MASSACHUSETTS

REPORT PERIOD: 80/12
SITE NUMBER: 146

LATITUDE: 42.50 DEG NORTH AZIMUTH: -21 DEG TIME ZONE: EASTERN
LONGITUDE: 71.00 DEG WEST PYRANOMETER TILT: 60 DEG ALTITUDE: 180 FEET

INSOLATION

DAY	TOTAL INSOLATION BTU/FT2	TOTAL DIFF INSOLATION BTU/FT2	TOTAL DIR INSOLATION BTU/FT2	MAXIMUM TOTAL INSOLATION VALUE BTU/HR/FT2	TIME HR:MN	EXTRATERRESTRIAL INSOLATION BTU/FT2	TTL INS ----- EXT INS PERCENT
1	881.	N.A.	N.A.	238.	10:43	2901.	30.
2	251.	N.A.	N.A.	88.	12:16	2903.	9.
3	219.	N.A.	N.A.	175.	11:55	2906.	8.
4	1198.	N.A.	N.A.	275.	11: 2	2892.	41.
5	850.	N.A.	N.A.	244.	11:37	2895.	29.
6	1087.	N.A.	N.A.	253.	10:44	2880.	38.
7	934.	N.A.	N.A.	253.	10:55	2884.	32.
8	381.	N.A.	N.A.	194.	10: 4	2882.	13.
9	757.	N.A.	N.A.	244.	11:48	2885.	26.
10	687.	N.A.	N.A.	206.	12:49	2883.	24.
11	1138.	N.A.	N.A.	266.	11:25	2870.	40.
12	804.	N.A.	N.A.	250.	11:43	2874.	28.
13	461.	N.A.	N.A.	178.	10:23	2873.	16.
14	870.	N.A.	N.A.	247.	10:50	2872.	30.
15	815.	N.A.	N.A.	238.	10:52	2859.	28.
16	62.	N.A.	N.A.	16.	12:21	2858.	2.
17	1101.	N.A.	N.A.	263.	11:24	2858.	39.
18	326.	N.A.	N.A.	159.	13:20	2857.	11.
19	395.	N.A.	N.A.	219.	11:47	2863.	14.
20	1081.	N.A.	N.A.	256.	10:49	2863.	38.
21	1031.	N.A.	N.A.	247.	10:33	2863.	36.
22	827.	N.A.	N.A.	250.	10:42	2864.	29.
23	60.	N.A.	N.A.	19.	10:18	2858.	2.
24	474.	N.A.	N.A.	191.	11:49	2859.	17.
25	1119.	N.A.	N.A.	263.	10:46	2860.	39.
26	808.	N.A.	N.A.	247.	11:58	2861.	28.
27	996.	N.A.	N.A.	241.	10:49	2863.	35.
28	209.	N.A.	N.A.	66.	11:26	2876.	7.
29	341.	N.A.	N.A.	147.	13:50	2878.	12.
30	880.	N.A.	N.A.	244.	11:38	2874.	31.
31	1077.	N.A.	N.A.	291.	10:54	2876.	37.
MEAN	714.	N.A.	N.A.			2874.	
STANDARD DEVIATION	351.	N.A.	N.A.			14.	

ENVIRONMENTAL SUMMARY REPORT

SITE: TECHNOLOGY PROPERTIES TRUST
BURLINGTON, MASSACHUSETTS

REPORT PERIOD: 80/12
SITE NUMBER: 146

LATITUDE: 42.50 DEG NORTH AZIMUTH: -21 DEG TIME ZONE: EASTERN
LONGITUDE: 71.00 DEG WEST PYRANOMETER TILT: 60 DEG ALTITUDE: 180 FEET

TEMPERATURES IN DEGREES F

DAY	AVERAGE TEMP	DAYTIME TEMP	NIGHTTIME TEMP	MAX TEMPERATURE VALUE	TIME HR:MN	MIN TEMPERATURE VALUE	TIME HR:MN	INLET WATER TEMPERATURE
1	47.	54.	43.	61.	13:33	34.	23:54	N.A.
2	45.	47.	43.	56.	23:23	30.	4:16	N.A.
3	35.	33.	36.	54.	0: 1	25.	23:55	N.A.
4	25.	29.	23.	34.	13:58	20.	7:12	N.A.
5	25.	29.	23.	35.	13:29	20.	6:29	N.A.
6	29.	37.	25.	46.	14:12	20.	1:30	N.A.
7	34.	41.	30.	54.	13:27	18.	7:16	N.A.
8	47.	48.	47.	63.	23:42	35.	7: 3	N.A.
9	45.	46.	45.	63.	0: 4	32.	23:50	N.A.
10	34.	36.	33.	41.	14:20	29.	7:13	N.A.
11	22.	21.	23.	34.	1:49	14.	19: 6	N.A.
12	25.	27.	23.	35.	12:47	17.	7:22	N.A.
13	38.	43.	35.	49.	12:47	28.	23:54	N.A.
14	24.	30.	20.	38.	13:48	13.	7:17	N.A.
15	19.	22.	18.	29.	14: 4	9.	2:20	N.A.
16	24.	22.	25.	28.	23:40	19.	6:34	N.A.
17	20.	23.	18.	28.	5:27	-0.	23:44	N.A.
18	23.	30.	19.	39.	14:45	-3.	0:16	N.A.
19	29.	34.	26.	39.	4:40	9.	23:53	N.A.
20	9.	13.	7.	20.	14:28	-2.	7:37	N.A.
21	15.	21.	11.	28.	14:25	3.	6: 7	N.A.
22	15.	21.	12.	33.	14:10	-3.	6:15	N.A.
23	29.	32.	27.	34.	14:34	20.	0: 5	N.A.
24	31.	35.	28.	44.	12: 5	21.	4:59	N.A.
25	-0.	-4.	2.	34.	0:12	-9.	23:50	N.A.
26	8.	12.	6.	23.	12:41	-10.	0:17	N.A.
27	23.	28.	19.	39.	12:57	12.	7:42	N.A.
28	26.	28.	25.	33.	15: 5	18.	0:30	N.A.
29	37.	42.	35.	52.	13:50	29.	0:14	N.A.
30	31.	35.	28.	40.	12:21	10.	23:47	N.A.
31	16.	19.	14.	28.	13:39	8.	7:31	N.A.
MEAN	27.	30.	25.					N.A.
STANDARD DEVIATION	11.4	12.0	11.4					N.A.

ENVIRONMENTAL SUMMARY REPORT

SITE: TECHNOLOGY PROPERTIES TRUST
BURLINGTON, MASSACHUSETTS

REPORT PERIOD: 80/12
SITE NUMBER: 146

LATITUDE: 42.50 DEG NORTH AZIMUTH: -21 DEG TIME ZONE: EASTERN
LONGITUDE: 71.00 DEG WEST PYRANOMETER TILT: 60 DEG ALTITUDE: 180 FEET

WIND: SPEED IN MPH-DIRECTION IN DEGREES

DAY	AVG WIND DIRECTION	AVG WIND SPEED	DAYTIME DIRECTION	DAYTIME SPEED	MAXIMUM WIND SPEED	MAXIMUM WIND DIRECTION	TIME HR:MN
1	263.	3.	272.	5.	10.	290.	12:19
2	154.	3.	127.	3.	14.	149.	21:31
3	295.	10.	292.	12.	26.	297.	16:38
4	305.	14.	307.	16.	28.	310.	15: 7
5	314.	8.	312.	8.	20.	304.	4: 5
6	310.	3.	310.	5.	8.	318.	8:52
7	*	0.	*	1.	4.	*	10:28
8	229.	2.	239.	2.	9.	266.	23:42
9	290.	5.	298.	5.	15.	296.	2:38
10	280.	2.	285.	2.	6.	300.	13:58
11	301.	6.	306.	8.	17.	307.	4:56
12	214.	2.	258.	3.	7.	170.	18:55
13	282.	4.	271.	4.	11.	311.	22: 2
14	275.	6.	256.	6.	20.	286.	17:53
15	217.	3.	231.	2.	12.	281.	0: 7
16	*	3.	*	3.	6.	*	12:37
17	308.	4.	308.	8.	14.	308.	11:14
18	228.	2.	235.	4.	7.	237.	11:44
19	291.	6.	296.	10.	16.	296.	14:48
20	294.	4.	301.	6.	11.	305.	13:56
21	273.	4.	273.	7.	11.	291.	13:16
22	*	1.	*	1.	4.	*	20:10
23	*	2.	*	1.	8.	*	3:49
24	*	1.	*	1.	8.	*	23:56
25	309.	10.	311.	13.	19.	313.	9: 5
26	*	1.	*	2.	4.	*	9:16
27	*	1.	*	1.	4.	*	15:42
28	*	1.	*	2.	4.	*	20:35
29	*	1.	*	0.	5.	*	23:38
30	305.	8.	308.	10.	16.	317.	15:33
31	309.	7.	311.	8.	13.	321.	10:59
MEAN	275.	4.	278.	5.			
STANDARD DEVIATION	41.4	3.3	43.0	4.0			

ENVIRONMENTAL SUMMARY REPORT

SITE: TECHNOLOGY PROPERTIES TRUST
BURLINGTON, MASSACHUSETTS

REPORT PERIOD: 80/12
SITE NUMBER: 146

LATITUDE: 42.50 DEG NORTH AZIMUTH: -21 DEG TIME ZONE: EASTERN
LONGITUDE: 71.00 DEG WEST PYRANOMETER TILT: 60 DEG ALTITUDE: 180 FEET

WIND: NUMBER OF HOURS IN EACH VELOCITY INTERVAL

DAY	0-3 MPH	4-7 MPH	8-12 MPH	13-18 MPH	19-24 MPH	25-31 MPH	32-38 MPH	ABOVE 38	MISSING HOURS
1	16	8	0	0	0	0	0	0	0
2	13	9	2	0	0	0	0	0	0
3	1	7	7	9	0	0	0	0	0
4	0	0	10	13	1	0	0	0	0
5	0	12	12	0	0	0	0	0	0
6	12	12	0	0	0	0	0	0	0
7	24	0	0	0	0	0	0	0	0
8	18	6	0	0	0	0	0	0	0
9	11	10	3	0	0	0	0	0	0
10	23	1	0	0	0	0	0	0	0
11	10	4	9	1	0	0	0	0	0
12	19	5	0	0	0	0	0	0	0
13	13	11	0	0	0	0	0	0	0
14	9	5	8	2	0	0	0	0	0
15	21	3	0	0	0	0	0	0	0
16	24	0	0	0	0	0	0	0	0
17	14	6	4	0	0	0	0	0	0
18	20	4	0	0	0	0	0	0	0
19	8	7	8	1	0	0	0	0	0
20	16	6	2	0	0	0	0	0	0
21	15	5	4	0	0	0	0	0	0
22	24	0	0	0	0	0	0	0	0
23	18	6	0	0	0	0	0	0	0
24	22	1	1	0	0	0	0	0	0
25	6	1	6	11	0	0	0	0	0
26	24	0	0	0	0	0	0	0	0
27	24	0	0	0	0	0	0	0	0
28	24	0	0	0	0	0	0	0	0
29	23	1	0	0	0	0	0	0	0
30	0	8	16	0	0	0	0	0	0
31	8	6	9	0	0	0	0	0	1
AVERAGE	14.8	4.6	3.3	1.2	0.0	0.0	0.0	0.0	0.0
TOTAL	460	144	101	37	1	0	0	0	1

ENVIRONMENTAL SUMMARY REPORT

SITE: TECHNOLOGY PROPERTIES TRUST
BURLINGTON, MASSACHUSETTS

REPORT PERIOD: 80/12
SITE NUMBER: 146

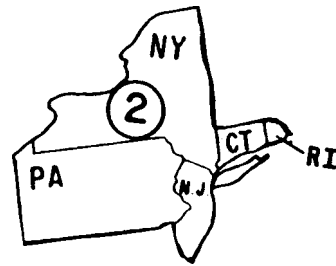
LATITUDE: 42.50 DEG NORTH AZIMUTH: -21 DEG
LONGITUDE: 71.00 DEG WEST PYRANOMETER TILT: 60 DEG

TIME ZONE: EASTERN
ALTITUDE: 180 FEET

RELATIVE HUMIDITY IN PER CENT

DAY	RELATIVE HUMIDITY	DAYTIME REL HUM	NIGHTTIME REL HUM	MAXIMUM VALUE	HUMIDITY TIME HR:MN	MINIMUM VALUE	HUMIDITY TIME HR:MN
1	79.	65.	88.	100.	5: 1	46.	13:33
2	100.	100.	100.	100.	0: 0	100.	0: 0
3	81.	80.	81.	100.	0: 1	50.	23:55
4	29.	24.	32.	49.	0: 0	17.	14:40
5	50.	45.	52.	66.	23:59	33.	14:35
6	67.	50.	78.	100.	23:11	29.	14:23
7	80.	63.	88.	100.	0: 4	29.	13:54
8	100.	100.	100.	100.	0: 2	90.	0:34
9	84.	70.	91.	100.	0: 4	49.	12:57
10	97.	91.	100.	100.	0: 1	59.	14:46
11	46.	24.	60.	100.	0: 3	15.	14:37
12	66.	59.	70.	100.	19:38	33.	12:58
13	90.	87.	91.	100.	0: 5	64.	13: 3
14	69.	71.	67.	100.	4:26	32.	20:33
15	57.	49.	62.	100.	21:57	35.	0: 1
16	100.	100.	100.	100.	0: 5	100.	0: 5
17	87.	73.	96.	100.	0: 2	41.	14:42
18	92.	82.	98.	100.	0: 0	52.	14:45
19	78.	82.	76.	100.	0: 3	44.	12:56
20	53.	38.	62.	93.	3:37	23.	14:28
21	67.	55.	74.	100.	22:57	37.	14:52
22	73.	62.	80.	100.	1:11	25.	14:10
23	96.	100.	94.	100.	5:25	66.	3:22
24	99.	97.	100.	100.	0: 0	78.	12:16
25	53.	37.	62.	100.	0: 1	29.	14:14
26	72.	62.	77.	100.	21:45	44.	12:41
27	86.	63.	100.	100.	0: 3	29.	14:27
28	100.	100.	100.	100.	0: 3	100.	0: 3
29	100.	99.	100.	100.	0: 3	79.	14: 1
30	84.	83.	86.	100.	0: 5	53.	14:45
31	52.	43.	58.	74.	3:42	27.	14: 6
MEAN	77.	70.	81.				
STANDARD DEVIATION	19.	23.	18.				

ZONE 2



ENVIRONMENTAL SUMMARY REPORT

SITE: BELL OF PENNSYLVANIA
WEST GOSHEN, PENNSYLVANIA

REPORT PERIOD: 80/12
SITE NUMBER: 20

LATITUDE: 39.90 DEG NORTH AZIMUTH: 0 DEG TIME ZONE: EASTERN
LONGITUDE: 75.70 DEG WEST PYRANOMETER TILT: 55 DEG ALTITUDE: 5 FEET

INSOLATION

DAY	TOTAL INSOLATION BTU/FT2	TOTAL DIFF INSOLATION BTU/FT2	TOTAL DIR INSOLATION BTU/FT2	MAXIMUM TOTAL INSOLATION VALUE BTU/HR/FT2	TIME HR:MN	EXTRATERRESTRIAL INSOLATION BTU/FT2	TTL INS ----- EXT INS PERCENT
1	1145.	N.A.	N.A.	302.	11:49	3123.	37.
2	1717.	N.A.	N.A.	311.	11:37	3112.	55.
3	1721.	N.A.	N.A.	311.	12: 1	3113.	55.
4	1835.	N.A.	N.A.	302.	11:44	3110.	59.
5	1635.	N.A.	N.A.	311.	11:29	3099.	53.
6	1793.	N.A.	N.A.	299.	11:25	3101.	58.
7	154.	N.A.	N.A.	103.	9:54	3102.	5.
8	612.	N.A.	N.A.	212.	11: 8	3100.	20.
9	41.	N.A.	N.A.	24.	11:12	3090.	1.
10	354.	N.A.	N.A.	230.	10:39	3088.	11.
11	1054.	N.A.	N.A.	266.	12:17	3090.	34.
12	167.	N.A.	N.A.	76.	14:32	3089.	5.
13	238.	N.A.	N.A.	70.	9: 3	3079.	8.
14	*	N.A.	N.A.	*	*:*	3078.	*
15	190.	N.A.	N.A.	51.	10:36	3077.	6.
16	130.	N.A.	N.A.	45.	10:49	3081.	4.
17	1657.	N.A.	N.A.	299.	11:52	3080.	54.
18	537.	N.A.	N.A.	284.	11:59	3080.	17.
19	248.	N.A.	N.A.	82.	14:13	3080.	8.
20	1770.	N.A.	N.A.	299.	12: 4	3080.	57.
21	1750.	N.A.	N.A.	299.	12: 3	3080.	57.
22	869.	N.A.	N.A.	206.	9:55	3080.	28.
23	151.	N.A.	N.A.	124.	14:18	3081.	5.
24	44.	N.A.	N.A.	18.	9:48	3082.	1.
25	2009.	N.A.	N.A.	320.	11:43	3083.	65.
26	*	N.A.	N.A.	*	*:*	3084.	*
27	787.	N.A.	N.A.	320.	12: 1	3082.	26.
28	109.	N.A.	N.A.	42.	11:58	3083.	4.
29	248.	N.A.	N.A.	197.	14:12	3085.	8.
30	1392.	N.A.	N.A.	311.	12:11	3095.	45.
31	594.	N.A.	N.A.	239.	10:10	3097.	19.
MEAN	860.	N.A.	N.A.			3090.	
STANDARD DEVIATION	704.	N.A.	N.A.			12.	

ENVIRONMENTAL SUMMARY REPORT

SITE: BELL OF PENNSYLVANIA
WEST GOSHEN, PENNSYLVANIA

REPORT PERIOD: 80/12
SITE NUMBER: 20

LATITUDE: 39.90 DEG NORTH AZIMUTH: 0 DEG
LONGITUDE: 75.70 DEG WEST PYRANOMETER TILT: 55 DEG
TIME ZONE: EASTERN
ALTITUDE: 5 FEET

TEMPERATURES IN DEGREES F

DAY	AVERAGE TEMP	DAYTIME TEMP	NIGHTTIME TEMP	MAX TEMPERATURE VALUE	TIME HR:MN	MIN TEMPERATURE VALUE	TIME HR:MN	INLET WATER TEMPERATURE
1	50.	54.	48.	62.	14:35	41.	6:29	N.A.
2	51.	54.	49.	61.	15:00	41.	23:56	N.A.
3	34.	35.	34.	40.	0:07	28.	23:28	N.A.
4	29.	30.	28.	35.	14:56	23.	7:01	N.A.
5	31.	33.	29.	39.	14:15	23.	6:20	N.A.
6	39.	40.	38.	48.	15:20	30.	5:38	N.A.
7	49.	49.	48.	54.	15:35	41.	7:46	N.A.
8	57.	59.	55.	67.	13:38	47.	3:46	N.A.
9	52.	50.	53.	62.	0:59	44.	22:55	N.A.
10	41.	42.	40.	44.	0:04	36.	23:40	N.A.
11	33.	30.	34.	36.	0:12	28.	10:25	N.A.
12	37.	38.	36.	42.	16:14	31.	4:03	N.A.
13	42.	46.	40.	51.	14:12	32.	23:59	N.A.
14	31.	36.	30.	41.	14:42	25.	23:35	N.A.
15	28.	29.	27.	33.	23:58	25.	6:52	N.A.
16	36.	38.	34.	40.	13:29	31.	23:57	N.A.
17	25.	24.	25.	31.	0:02	21.	7:20	N.A.
18	33.	35.	32.	43.	16:21	22.	0:10	N.A.
19	33.	36.	31.	42.	9:30	18.	23:00	N.A.
20	17.	17.	16.	20.	14:28	12.	7:37	N.A.
21	18.	19.	18.	23.	20:57	12.	7:42	N.A.
22	24.	26.	23.	30.	15:31	16.	7:10	N.A.
23	31.	32.	29.	35.	15:06	25.	0:05	N.A.
24	31.	34.	30.	36.	13:46	20.	23:59	N.A.
25	7.	3.	10.	20.	0:05	-1.	7:43	N.A.
26	15.	9.	15.	25.	16:54	7.	0:37	N.A.
27	24.	24.	24.	30.	23:45	17.	7:23	N.A.
28	33.	34.	33.	37.	19:05	29.	3:13	N.A.
29	40.	41.	40.	44.	16:14	35.	6:12	N.A.
30	36.	38.	35.	41.	0:01	22.	23:51	N.A.
31	24.	24.	24.	31.	16:15	17.	6:15	N.A.
MEAN	33.	34.	33.					N.A.
STANDARD DEVIATION	11.4	12.6	10.9					N.A.

ENVIRONMENTAL SUMMARY REPORT

SITE: BROOKHAVEN NATIONAL LAB
UPTON, NEW YORK

REPORT PERIOD: 80/12
SITE NUMBER: 214

LATITUDE: 40.50 DEG NORTH AZIMUTH: 0 DEG
LONGITUDE: 72.75 DEG WEST PYRANOMETER TILT: 45 DEG
TIME ZONE: EASTERN
ALTITUDE: 20 FEET

INSOLATION

DAY	TOTAL INSOLATION BTU/FT2	TOTAL DIFF INSOLATION BTU/FT2	TOTAL DIR INSOLATION BTU/FT2	MAXIMUM TOTAL INSOLATION VALUE BTU/HR/FT2	TIME HR:MN	EXTRATERRESTRIAL INSOLATION BTU/FT2	TTL INS ----- EXT INS PERCENT
1	433.	N.A.	N.A.	216.	11:52	2932.	15.
2	635.	N.A.	N.A.	250.	14:10	2931.	22.
3	843.	N.A.	N.A.	257.	10:56	2930.	29.
4	1674.	N.A.	N.A.	306.	12:21	2926.	57.
5	1698.	N.A.	N.A.	306.	12:18	2915.	58.
6	1641.	N.A.	N.A.	295.	12: 4	2915.	56.
7	1058.	N.A.	N.A.	280.	11:48	2904.	36.
8	985.	N.A.	N.A.	231.	12:18	2901.	34.
9	321.	N.A.	N.A.	116.	11:31	2902.	11.
10	383.	N.A.	N.A.	235.	12:40	2903.	13.
11	1427.	N.A.	N.A.	302.	11:59	2900.	49.
12	1007.	N.A.	N.A.	272.	12:19	2891.	35.
13	866.	N.A.	N.A.	261.	11:35	2889.	30.
14	1214.	N.A.	N.A.	276.	12: 7	2888.	42.
15	489.	N.A.	N.A.	216.	11:10	2890.	17.
16	37.	N.A.	N.A.	19.	11:12	2889.	1.
17	1585.	N.A.	N.A.	299.	12:21	2888.	55.
18	265.	N.A.	N.A.	172.	9:32	2887.	9.
19	227.	N.A.	N.A.	231.	11:42	2887.	8.
20	1541.	N.A.	N.A.	291.	12:23	2887.	53.
21	1519.	N.A.	N.A.	291.	12: 1	2887.	53.
22	1015.	N.A.	N.A.	231.	11: 1	2887.	35.
23	1.	N.A.	N.A.	4.	13: 2	2888.	0.
24	210.	N.A.	N.A.	119.	9:21	2889.	7.
25	1600.	N.A.	N.A.	291.	13: 4	2891.	55.
26	1022.	N.A.	N.A.	276.	11:18	2892.	35.
27	907.	N.A.	N.A.	265.	11:11	2890.	31.
28	76.	N.A.	N.A.	26.	11: 6	2892.	3.
29	87.	N.A.	N.A.	37.	11:56	2895.	3.
30	1360.	N.A.	N.A.	272.	12: 5	2905.	47.
31	1021.	N.A.	N.A.	287.	11:48	2907.	35.
MEAN	876.	N.A.	N.A.			2899.	
STANDARD DEVIATION	562.	N.A.	N.A.			14.	

ENVIRONMENTAL SUMMARY REPORT

SITE: BROOKHAVEN NATIONAL LAB
UPTON, NEW YORK

REPORT PERIOD: 80/12
SITE NUMBER: 214

LATITUDE: 40.50 DEG NORTH AZIMUTH: 0 DEG
LONGITUDE: 72.75 DEG WEST PYRANOMETER TILT: 45 DEG
TIME ZONE: EASTERN
ALTITUDE: 20 FEET

TEMPERATURES IN DEGREES F

DAY	AVERAGE TEMP	DAYTIME TEMP	NIGHTTIME TEMP	MAX TEMPERATURE VALUE TIME HR:MN	MIN TEMPERATURE VALUE TIME HR:MN	INLET WATER TEMPERATURE
1	49.	54.	47.	59. 11:52	42. 0:13	52.
2	51.	54.	49.	57. 11:46	44. 6:16	52.
3	34.	33.	35.	47. 0: 5	28. 22:39	52.
4	32.	35.	29.	40. 13:35	26. 6:55	52.
5	31.	35.	29.	41. 13:44	24. 6:53	52.
6	36.	42.	32.	49. 13:18	26. 4: 4	52.
7	42.	49.	37.	57. 11:48	28. 1:50	51.
8	52.	58.	48.	67. 11:40	40. 7:30	52.
9	47.	47.	47.	59. 2:59	38. 21: 1	53.
10	39.	41.	38.	45. 12:40	35. 5:54	53.
11	29.	31.	28.	39. 0: 5	17. 18:34	52.
12	34.	36.	32.	46. 11:25	22. 0: 3	52.
13	45.	51.	41.	57. 11:35	33. 23:56	52.
14	30.	34.	27.	40. 13:56	20. 7:24	51.
15	26.	28.	24.	33. 23:50	16. 4:46	50.
16	36.	39.	35.	40. 10:35	33. 0:27	50.
17	27.	30.	25.	34. 0:21	10. 23:24	50.
18	29.	36.	24.	39. 13:58	9. 1:53	50.
19	34.	38.	31.	43. 8:36	17. 23:29	50.
20	20.	26.	17.	30. 10:57	6. 7:24	49.
21	20.	27.	16.	33. 13: 0	10. 2:47	49.
22	25.	32.	22.	43. 10:13	9. 7:22	49.
23	31.	34.	30.	35. 13:50	25. 3:31	49.
24	32.	34.	30.	39. 9:21	24. 4:44	49.
25	9.	7.	10.	31. 0: 0	4. 7:23	48.
26	15.	22.	11.	29. 12:48	0. 4: 0	47.
27	28.	33.	25.	39. 10: 7	13. 4:10	47.
28	36.	37.	34.	40. 15: 8	30. 0: 5	47.
29	40.	41.	40.	44. 13:48	37. 5:59	47.
30	36.	41.	33.	47. 12: 0	19. 23:59	47.
31	22.	26.	19.	31. 11:53	15. 5: 8	47.
MEAN	33.	36.	30.			50.
STANDARD DEVIATION	10.1	10.5	10.1			2.1

ENVIRONMENTAL SUMMARY REPORT

SITE: FRANK CHAPMAN I
NEW HAVEN, CONNECTICUT

REPORT PERIOD: 80/12
SITE NUMBER: 142

LATITUDE: 41.00 DEG NORTH AZIMUTH: 0 DEG TIME ZONE: EASTERN
LONGITUDE: 72.00 DEG WEST PYRANOMETER TILT: 57 DEG ALTITUDE: 135 FEET

INSOLATION

DAY	TOTAL INSOLATION BTU/FT2	TOTAL DIFF INSOLATION BTU/FT2	TOTAL DIR INSOLATION BTU/FT2	MAXIMUM TOTAL INSOLATION VALUE BTU/HR/FT2	TIME HR:MN	EXTRATERRESTRIAL INSOLATION BTU/FT2	TTL INS ----- EXT INS PERCENT
1	*	N.A.	N.A.	*	*:*	3107.	*
2	*	N.A.	N.A.	*	*:*	3096.	*
3	*	N.A.	N.A.	*	*:*	3097.	*
4	*	N.A.	N.A.	*	*:*	3086.	*
5	*	N.A.	N.A.	*	*:*	3087.	*
6	*	N.A.	N.A.	*	*:*	3088.	*
7	*	N.A.	N.A.	*	*:*	3086.	*
8	*	N.A.	N.A.	*	*:*	3075.	*
9	*	N.A.	N.A.	*	*:*	3077.	*
10	*	N.A.	N.A.	*	*:*	3075.	*
11	2.	N.A.	N.A.	4.	11:34	3065.	0.
12	168.	N.A.	N.A.	36.	13:53	3063.	5.
13	696.	N.A.	N.A.	252.	11:15	3066.	23.
14	951.	N.A.	N.A.	270.	11:28	3065.	31.
15	458.	N.A.	N.A.	135.	10:13	3064.	15.
16	97.	N.A.	N.A.	43.	10:56	3067.	3.
17	1414.	N.A.	N.A.	291.	12:31	3067.	46.
18	219.	N.A.	N.A.	142.	14:23	3066.	7.
19	289.	N.A.	N.A.	128.	13:38	3066.	9.
20	1381.	N.A.	N.A.	284.	12:57	3066.	45.
21	1355.	N.A.	N.A.	281.	12:31	3066.	44.
22	1027.	N.A.	N.A.	256.	13:24	3067.	33.
23	10.	N.A.	N.A.	7.	12:26	3067.	0.
24	285.	N.A.	N.A.	160.	9:32	3068.	9.
25	1473.	N.A.	N.A.	295.	11:52	3069.	48.
26	1040.	N.A.	N.A.	273.	12: 6	3067.	34.
27	1215.	N.A.	N.A.	266.	12:16	3068.	40.
28	78.	N.A.	N.A.	25.	10:29	3070.	3.
29	215.	N.A.	N.A.	139.	11:59	3068.	7.
30	1150.	N.A.	N.A.	270.	12:33	3070.	37.
31	867.	N.A.	N.A.	224.	12:26	3080.	28.
MEAN	685.	N.A.	N.A.			3074.	
STANDARD DEVIATION	531.	N.A.	N.A.			11.	

ENVIRONMENTAL SUMMARY REPORT

SITE: FRANK CHAPMAN I
NEW HAVEN, CONNECTICUT

REPORT PERIOD: 80/12
SITE NUMBER: 142

LATITUDE: 41.00 DEG NORTH AZIMUTH: 0 DEG
LONGITUDE: 72.00 DEG WEST PYRANOMETER TILT: 57 DEG
TIME ZONE: EASTERN
ALTITUDE: 135 FEET

TEMPERATURES IN DEGREES F

DAY	AVERAGE TEMP	DAYTIME TEMP	NIGHTTIME TEMP	MAX TEMPERATURE VALUE	TIME HR:MN	MIN TEMPERATURE VALUE	TIME HR:MN	INLET WATER TEMPERATURE
1	*	*	*	*	*:*	*	*:*	*
2	*	*	*	*	*:*	*	*:*	*
3	*	*	*	*	*:*	*	*:*	*
4	*	*	*	*	*:*	*	*:*	*
5	*	*	*	*	*:*	*	*:*	*
6	*	*	*	*	*:*	*	*:*	*
7	*	*	*	*	*:*	*	*:*	*
8	*	*	*	*	*:*	*	*:*	*
9	*	*	*	*	*:*	*	*:*	*
10	*	*	*	*	*:*	*	*:*	*
11	*	*	*	*	*:*	*	*:*	*
12	35.	32.	37.	41.	22:32	31.	13:53	66.
13	41.	47.	38.	55.	12:45	29.	23:52	63.
14	26.	31.	22.	38.	13:52	16.	23:44	63.
15	22.	25.	20.	28.	14:19	11.	4:27	60.
16	30.	31.	29.	33.	13:36	26.	6:29	58.
17	20.	23.	19.	30.	0:5	7.	23:43	61.
18	26.	32.	22.	38.	14:18	6.	1:30	56.
19	29.	34.	26.	39.	3:35	9.	23:37	58.
20	14.	20.	10.	26.	11:32	3.	6:44	57.
21	16.	24.	11.	31.	13:19	4.	4:30	57.
22	23.	27.	21.	33.	11:11	10.	6:44	58.
23	28.	29.	27.	31.	15:49	23.	22:36	60.
24	29.	31.	27.	37.	10:20	19.	6:26	56.
25	-0.	-3.	2.	21.	0:2	-8.	20:50	53.
26	11.	17.	7.	23.	11:23	-8.	0:2	51.
27	23.	27.	21.	32.	14:8	15.	2:51	56.
28	29.	30.	28.	33.	22:29	24.	4:16	53.
29	38.	39.	37.	44.	19:56	32.	1:25	56.
30	32.	36.	30.	43.	0:28	12.	23:48	60.
31	17.	20.	14.	30.	13:51	8.	6:50	53.
MEAN	22.	25.	20.					59.
STANDARD DEVIATION	13.4	14.0	13.3					6.1

ENVIRONMENTAL SUMMARY REPORT

SITE: GIL HARROP
WOODHULL, NEW YORK

REPORT PERIOD: 80/12
SITE NUMBER: 92

LATITUDE: 44.05 DEG NORTH AZIMUTH: 0 DEG
LONGITUDE: 77.40 DEG WEST PYRANOMETER TILT: 90 DEG TIME ZONE: EASTERN
ALTITUDE: 1200 FEET

INSOLATION

DAY	TOTAL INSOLATION BTU/FT2	TOTAL DIFF INSOLATION BTU/FT2	TOTAL DIR INSOLATION BTU/FT2	MAXIMUM TOTAL INSOLATION VALUE BTU/HR/FT2	TIME HR:MN	EXTRATERRESTRIAL INSOLATION BTU/FT2	TTL INS ----- EXT INS PERCENT
1	747.	N.A.	N.A.	258.	12:21	2889.	26.
2	577.	N.A.	N.A.	280.	11:37	2879.	20.
3	1713.	N.A.	N.A.	303.	12: 0	2884.	59.
4	1830.	N.A.	N.A.	287.	11:30	2888.	63.
5	1825.	N.A.	N.A.	287.	12: 0	2878.	63.
6	1225.	N.A.	N.A.	280.	11:30	2882.	43.
7	155.	N.A.	N.A.	45.	13: 1	2882.	5.
8	208.	N.A.	N.A.	52.	11:11	2872.	7.
9	465.	N.A.	N.A.	251.	10:42	2876.	16.
10	296.	N.A.	N.A.	206.	14:19	2880.	10.
11	1446.	N.A.	N.A.	367.	11:44	2880.	50.
12	210.	N.A.	N.A.	35.	10: 8	2870.	7.
13	133.	N.A.	N.A.	26.	8:27	2870.	5.
14	535.	N.A.	N.A.	268.	12: 1	2874.	19.
15	414.	N.A.	N.A.	126.	12:18	2875.	14.
16	228.	N.A.	N.A.	45.	12:32	2875.	8.
17	1756.	N.A.	N.A.	355.	11:55	2875.	61.
18	297.	N.A.	N.A.	97.	11:36	2865.	10.
19	1185.	N.A.	N.A.	348.	11: 5	2865.	41.
20	1727.	N.A.	N.A.	364.	12:38	2865.	60.
21	1449.	N.A.	N.A.	332.	11:34	2866.	51.
22	554.	N.A.	N.A.	164.	10:42	2866.	19.
23	285.	N.A.	N.A.	113.	11: 9	2866.	10.
24	168.	N.A.	N.A.	29.	12:35	2866.	6.
25	1951.	N.A.	N.A.	377.	11:53	2877.	68.
26	630.	N.A.	N.A.	197.	10:44	2878.	22.
27	1350.	N.A.	N.A.	335.	11:44	2878.	47.
28	345.	N.A.	N.A.	61.	12:48	2875.	12.
29	238.	N.A.	N.A.	61.	12:14	2875.	8.
30	771.	N.A.	N.A.	238.	11:45	2886.	27.
31	1344.	N.A.	N.A.	306.	10:22	2886.	47.
MEAN	840.	N.A.	N.A.			2876.	
STANDARD DEVIATION	627.	N.A.	N.A.			7.	

ENVIRONMENTAL SUMMARY REPORT

SITE: GIL HARROP
WOODHULL, NEW YORK

REPORT PERIOD: 80/12
SITE NUMBER: 92

LATITUDE: 44.05 DEG NORTH AZIMUTH: 0 DEG
LONGITUDE: 77.40 DEG WEST PYRANOMETER TILT: 90 DEG
TIME ZONE: EASTERN
ALTITUDE: 1200 FEET

TEMPERATURES IN DEGREES F

DAY	AVERAGE TEMP	DAYTIME TEMP	NIGHTTIME TEMP	MAX TEMPERATURE VALUE	TIME HR:MN	MIN TEMPERATURE VALUE	TIME HR:MN	INLET WATER TEMPERATURE
1	46.	51.	42.	59.	13:41	36.	4:37	N.A.
2	48.	55.	44.	66.	11:37	33.	23:49	N.A.
3	24.	26.	22.	33.	0: 0	16.	23:20	N.A.
4	21.	30.	16.	37.	12:40	12.	23:22	N.A.
5	22.	33.	16.	45.	14: 2	10.	5:46	N.A.
6	29.	37.	25.	49.	12:34	12.	7:25	N.A.
7	41.	42.	41.	52.	22:45	36.	1:11	N.A.
8	53.	57.	51.	62.	13:51	44.	23:51	N.A.
9	38.	39.	37.	44.	10:53	32.	23:33	N.A.
10	34.	35.	33.	38.	14:19	27.	23:49	N.A.
11	22.	24.	20.	32.	9:57	13.	7:44	N.A.
12	28.	28.	29.	43.	23:55	17.	6:51	N.A.
13	33.	35.	31.	44.	0:54	14.	22:46	N.A.
14	20.	26.	16.	31.	12: 6	2.	23:35	N.A.
15	16.	21.	13.	29.	11:41	1.	0:55	N.A.
16	24.	27.	23.	30.	10:40	19.	22:23	N.A.
17	17.	24.	13.	36.	13:53	9.	20: 1	N.A.
18	33.	37.	32.	40.	12:56	15.	0: 3	N.A.
19	18.	20.	17.	37.	0:36	-2.	22:30	N.A.
20	9.	17.	5.	24.	14:35	-2.	6: 8	N.A.
21	11.	18.	8.	25.	13:58	1.	6:46	N.A.
22	13.	18.	11.	28.	12:18	-2.	5: 6	N.A.
23	26.	31.	23.	37.	12:34	21.	4: 2	N.A.
24	25.	34.	20.	36.	13: 2	1.	23:59	N.A.
25	-1.	3.	-4.	15.	15:27	-13.	7: 0	N.A.
26	10.	16.	7.	20.	14:16	-8.	2:28	N.A.
27	18.	28.	13.	40.	14:24	1.	23:49	N.A.
28	23.	28.	19.	37.	15:36	-2.	2:40	N.A.
29	37.	40.	35.	43.	12:19	33.	23:51	N.A.
30	22.	23.	21.	33.	0: 1	8.	21: 2	N.A.
31	14.	20.	11.	29.	13:28	7.	7:10	N.A.
MEAN	25.	30.	22.					N.A.
STANDARD DEVIATION	12.2	11.6	12.7					N.A.

ENVIRONMENTAL SUMMARY REPORT

SITE: LUTZ-SOTIRE
STAMFORD, CONNECTICUT

REPORT PERIOD: 80/12
SITE NUMBER: 127

LATITUDE: 41.10 DEG NORTH
LONGITUDE: 73.08 DEG WEST

AZIMUTH: 5 DEG
PYRANOMETER TILT: 55 DEG

TIME ZONE: EASTERN
ALTITUDE: 7 FEET

INSOLATION

DAY	TOTAL INSOLATION BTU/FT2	TOTAL DIFF INSOLATION BTU/FT2	TOTAL DIR INSOLATION BTU/FT2	MAXIMUM TOTAL INSOLATION VALUE BTU/HR/FT2	TIME HR:MN	EXTRATERRESTRIAL INSOLATION BTU/FT2	TTL INS ----- EXT INS PERCENT
1	1007.	*	*	324.	12:30	3066.	33.
2	1038.	*	*	295.	11:27	3066.	34.
3	1177.	*	*	286.	13:21	3055.	39.
4	1959.	*	*	321.	12: 2	3055.	64.
5	1964.	*	*	324.	11:58	3053.	64.
6	1926.	*	*	318.	12: 4	3053.	63.
7	1006.	*	*	295.	11:25	3043.	33.
8	625.	*	*	242.	10:58	3044.	21.
9	286.	*	*	109.	10:57	3042.	9.
10	783.	*	*	295.	12:41	3032.	26.
11	1866.	*	*	318.	11:52	3030.	62.
12	888.	*	*	321.	12: 2	3032.	29.
13	789.	*	*	292.	11:50	3031.	26.
14	1229.	*	*	306.	11:29	3033.	41.
15	398.	*	*	118.	12:33	3032.	13.
16	97.	*	*	32.	13:37	3031.	3.
17	1811.	*	*	309.	11:54	3030.	60.
18	361.	*	*	224.	14: 6	3022.	12.
19	529.	*	*	227.	14:45	3022.	18.
20	1759.	*	*	309.	12: 5	3022.	58.
21	1835.	*	*	312.	12:20	3022.	61.
22	942.	*	*	233.	12:20	3023.	31.
23	16.	*	*	9.	13:23	3023.	1.
24	163.	*	*	127.	9:14	3032.	5.
25	1922.	*	*	357.	12:49	3033.	63.
26	1121.	*	*	306.	11:10	3034.	37.
27	1527.	*	*	298.	12:14	3036.	50.
28	70.	*	*	24.	11:34	3034.	2.
29	190.	*	*	83.	14:20	3036.	6.
30	1633.	*	*	306.	12:21	3038.	54.
31	1200.	*	*	318.	13: 2	3037.	40.
MEAN	1036.	0.	0.			3037.	
STANDARD DEVIATION	652.	***	***			12.	

ENVIRONMENTAL SUMMARY REPORT

SITE: LUTZ-SOTIRE
STAMFORD, CONNECTICUT

REPORT PERIOD: 80/12
SITE NUMBER: 127

LATITUDE: 41.10 DEG NORTH AZIMUTH: 5 DEG
LONGITUDE: 73.08 DEG WEST PYRANOMETER TILT: 55 DEG TIME ZONE: EASTERN
ALTITUDE: 7 FEET

TEMPERATURES IN DEGREES F

DAY	AVERAGE TEMP	DAYTIME TEMP	NIGHTTIME TEMP	MAX TEMPERATURE VALUE TIME HR:MN	MIN TEMPERATURE VALUE TIME HR:MN	INLET WATER TEMPERATURE
1	46.	52.	42.	59. 12:35	37. 6:43	N.A.
2	49.	54.	47.	61. 13: 9	43. 0:26	N.A.
3	30.	30.	31.	46. 0:19	23. 22:47	N.A.
4	26.	31.	23.	37. 15: 8	19. 23:15	N.A.
5	27.	31.	24.	39. 14:59	15. 7:10	N.A.
6	30.	36.	27.	43. 14:49	22. 7: 0	N.A.
7	37.	43.	33.	48. 14:10	21. 7:10	N.A.
8	49.	54.	46.	63. 11:14	32. 7: 9	N.A.
9	45.	44.	46.	62. 1:37	37. 23:29	N.A.
10	37.	38.	36.	41. 12:41	33. 5:10	N.A.
11	26.	26.	26.	36. 1:34	21. 18: 4	N.A.
12	30.	32.	30.	40. 21:31	21. 5:38	N.A.
13	39.	45.	35.	53. 12:11	26. 23:55	N.A.
14	25.	31.	22.	38. 14:25	16. 23:45	N.A.
15	21.	24.	20.	28. 23:40	12. 4:12	N.A.
16	32.	34.	31.	36. 13: 5	28. 0: 1	N.A.
17	20.	23.	18.	29. 0: 5	7. 23:47	N.A.
18	26.	32.	22.	38. 15:26	7. 0:25	N.A.
19	28.	33.	25.	38. 8:47	9. 23:59	N.A.
20	13.	19.	10.	24. 13:57	1. 6:49	N.A.
21	16.	22.	13.	27. 14:33	8. 23:48	N.A.
22	19.	25.	16.	32. 12:30	5. 4: 9	N.A.
23	26.	30.	24.	32. 14:21	18. 23:27	N.A.
24	26.	30.	24.	33. 14:36	15. 7:27	N.A.
25	1.	2.	1.	19. 0: 1	-10. 23:50	N.A.
26	7.	15.	3.	24. 12:57	-10. 0: 6	N.A.
27	21.	27.	17.	36. 13:55	5. 3:47	N.A.
28	32.	34.	31.	36. 13:16	25. 1: 2	N.A.
29	41.	42.	40.	45. 12:54	34. 4: 6	N.A.
30	33.	37.	30.	43. 0:10	12. 23:58	N.A.
31	17.	20.	15.	25. 13:55	8. 4:51	N.A.
MEAN	28.	32.	26.			N.A.
STANDARD DEVIATION	11.4	11.4	11.6			N.A.

ENVIRONMENTAL SUMMARY REPORT

SITE: SOUTH BRIDGE TOWER
NEW YORK, NEW YORK

REPORT PERIOD: 80/12
SITE NUMBER: 206

LATITUDE: 40.00 DEG NORTH
LONGITUDE: 74.00 DEG WEST

AZIMUTH: 14 DEG
PYRANOMETER TILT: 41 DEG

TIME ZONE: EASTERN
ALTITUDE: 137 FEET

INSOLATION

DAY	TOTAL INSOLATION BTU/FT2	TOTAL DIFF INSOLATION BTU/FT2	TOTAL DIR INSOLATION BTU/FT2	MAXIMUM TOTAL INSOLATION VALUE BTU/HR/FT2	TIME HR:MN	EXTRATERRESTRIAL INSOLATION BTU/FT2	TTL INS ----- EXT INS PERCENT
1	311.	N.A.	N.A.	163.	10:52	2815.	11.
2	875.	N.A.	N.A.	269.	13: 2	2806.	31.
3	714.	N.A.	N.A.	253.	12:33	2804.	25.
4	1218.	N.A.	N.A.	250.	12:48	2795.	44.
5	1210.	N.A.	N.A.	253.	12:54	2793.	43.
6	1181.	N.A.	N.A.	246.	12:41	2789.	42.
7	682.	N.A.	N.A.	230.	13: 2	2787.	24.
8	409.	N.A.	N.A.	160.	13:45	2779.	15.
9	137.	N.A.	N.A.	80.	10:39	2776.	5.
10	217.	N.A.	N.A.	170.	12:12	2775.	8.
11	952.	N.A.	N.A.	243.	13:15	2773.	34.
12	197.	N.A.	N.A.	100.	10: 5	2766.	7.
13	557.	N.A.	N.A.	180.	11: 6	2764.	20.
14	807.	N.A.	N.A.	256.	12:36	2764.	29.
15	268.	N.A.	N.A.	100.	11:36	2762.	10.
16	1.	N.A.	N.A.	3.	9:42	2761.	0.
17	1080.	N.A.	N.A.	246.	13: 9	2760.	39.
18	177.	N.A.	N.A.	160.	14:19	2762.	6.
19	187.	N.A.	N.A.	77.	11:34	2762.	7.
20	1063.	N.A.	N.A.	243.	12:49	2761.	39.
21	1137.	N.A.	N.A.	236.	12:38	2762.	41.
22	584.	N.A.	N.A.	156.	10:37	2762.	21.
23	2.	N.A.	N.A.	3.	12:59	2763.	0.
24	13.	N.A.	N.A.	17.	8:33	2764.	0.
25	1156.	N.A.	N.A.	253.	12:50	2763.	42.
26	816.	N.A.	N.A.	233.	13: 0	2765.	30.
27	758.	N.A.	N.A.	243.	13:10	2767.	27.
28	36.	N.A.	N.A.	23.	10:57	2769.	1.
29	178.	N.A.	N.A.	60.	12:46	2769.	6.
30	808.	N.A.	N.A.	240.	13: 8	2772.	29.
31	774.	N.A.	N.A.	240.	12:30	2779.	28.
MEAN	597.	N.A.	N.A.			2774.	
STANDARD DEVIATION	416.	N.A.	N.A.			15.	

ENVIRONMENTAL SUMMARY REPORT

SITE: SOUTH BRIDGE TOWER
NEW YORK, NEW YORK

REPORT PERIOD: 80/12
SITE NUMBER: 206

LATITUDE: 40.00 DEG NORTH AZIMUTH: 14 DEG
LONGITUDE: 74.00 DEG WEST PYRANOMETER TILT: 41 DEG TIME ZONE: EASTERN
ALTITUDE: 137 FEET

TEMPERATURES IN DEGREES F

DAY	AVERAGE TEMP	DAYTIME TEMP	NIGHTTIME TEMP	MAX TEMPERATURE VALUE	TIME HR:MN	MIN TEMPERATURE VALUE	TIME HR:MN	INLET WATER TEMPERATURE
1	52.	52.	52.	58.	19:24	45.	6:42	47.
2	55.	57.	54.	59.	13:50	51.	23:45	*
3	37.	35.	38.	52.	0: 1	28.	23:39	46.
4	31.	32.	30.	36.	13:47	27.	4:22	46.
5	33.	35.	32.	41.	14:51	24.	4:43	45.
6	37.	37.	37.	49.	18:22	26.	6:59	45.
7	46.	47.	45.	53.	18:23	39.	7: 5	45.
8	57.	58.	56.	63.	16:52	49.	0: 4	45.
9	50.	48.	51.	63.	2:17	43.	23:51	45.
10	45.	45.	45.	49.	16:44	41.	2:36	45.
11	34.	31.	36.	45.	0: 0	27.	10:19	45.
12	37.	37.	37.	43.	23:54	30.	5:22	44.
13	45.	50.	42.	54.	13:40	35.	23:59	44.
14	34.	40.	31.	45.	13:30	24.	23:42	44.
15	30.	30.	31.	39.	21:37	23.	4:19	43.
16	39.	41.	38.	44.	12:43	35.	23:55	43.
17	29.	26.	30.	35.	0: 0	23.	9: 4	42.
18	37.	37.	36.	44.	20: 6	30.	6:19	42.
19	35.	38.	33.	44.	8:38	20.	23:29	42.
20	23.	24.	22.	28.	15:50	16.	6:52	41.
21	25.	26.	25.	32.	18:37	20.	7: 8	41.
22	30.	31.	29.	35.	23:44	22.	5:12	40.
23	38.	39.	37.	42.	13:57	33.	23: 8	40.
24	37.	39.	37.	41.	9:37	24.	23:51	40.
25	11.	7.	13.	24.	0:18	2.	9:48	39.
26	24.	25.	23.	30.	16:33	14.	0:18	38.
27	33.	34.	31.	38.	15: 8	24.	6:25	39.
28	39.	40.	38.	44.	20:30	32.	3:34	39.
29	45.	47.	44.	51.	15:53	41.	4:20	39.
30	39.	41.	37.	46.	0: 9	22.	23:53	39.
31	25.	23.	25.	35.	21:55	15.	5:18	38.
MEAN	36.	37.	36.					42.
STANDARD DEVIATION	10.0	10.8	9.7					2.7

ENVIRONMENTAL SUMMARY REPORT

SITE: STEWART-TEELE-MITCHELL
MALTA, NEW YORK

REPORT PERIOD: 80/12
SITE NUMBER: 62

LATITUDE: 43.00 DEG NORTH
LONGITUDE: 74.00 DEG WEST

AZIMUTH: 0 DEG
PYRANOMETER TILT: 45 DEG

TIME ZONE: EASTERN
ALTITUDE: 277 FEET

INSOLATION

DAY	TOTAL INSOLATION BTU/FT2	TOTAL DIFF INSOLATION BTU/FT2	TOTAL DIR INSOLATION BTU/FT2	MAXIMUM TOTAL INSOLATION VALUE BTU/HR/FT2	TIME HR:MN	EXTRATERRESTRIAL INSOLATION BTU/FT2	TTL INS ----- EXT INS PERCENT
1	137.	N.A.	N.A.	320.	8:25	2825.	5.
2	446.	N.A.	N.A.	333.	12:11	2823.	16.
3	801.	N.A.	N.A.	351.	12:30	2811.	28.
4	1574.	N.A.	N.A.	292.	11:59	2810.	56.
5	1642.	N.A.	N.A.	283.	11:31	2809.	58.
6	1726.	N.A.	N.A.	417.	8:24	2797.	62.
7	756.	N.A.	N.A.	351.	7:41	2793.	27.
8	78.	N.A.	N.A.	320.	9:19	2793.	3.
9	639.	N.A.	N.A.	404.	8:24	2782.	23.
10	570.	N.A.	N.A.	482.	10: 3	2779.	20.
11	1925.	N.A.	N.A.	442.	8:35	2780.	69.
12	*	N.A.	N.A.	*	*:*	2778.	*
13	612.	N.A.	N.A.	404.	8:49	2779.	22.
14	1049.	N.A.	N.A.	364.	15:22	2777.	38.
15	1710.	N.A.	N.A.	361.	8:10	2768.	62.
16	265.	N.A.	N.A.	320.	13:39	2767.	10.
17	281.	N.A.	N.A.	72.	13:31	2766.	10.
18	347.	N.A.	N.A.	339.	12:12	2765.	13.
19	1247.	N.A.	N.A.	379.	12:26	2764.	45.
20	1714.	N.A.	N.A.	470.	14:11	2768.	62.
21	1668.	N.A.	N.A.	476.	10:52	2768.	60.
22	801.	N.A.	N.A.	389.	11:34	2769.	29.
23	252.	N.A.	N.A.	345.	13: 6	2766.	9.
24	368.	N.A.	N.A.	330.	12:58	2767.	13.
25	1456.	N.A.	N.A.	308.	11:31	2768.	53.
26	1504.	N.A.	N.A.	482.	10: 7	2770.	54.
27	1747.	N.A.	N.A.	410.	8:41	2780.	63.
28	409.	N.A.	N.A.	336.	9:45	2782.	15.
29	267.	N.A.	N.A.	333.	10:44	2785.	10.
30	513.	N.A.	N.A.	351.	13: 3	2784.	18.
31	1213.	N.A.	N.A.	358.	9:24	2787.	44.
MEAN	924.	N.A.	N.A.			2783.	
STANDARD DEVIATION	605.	N.A.	N.A.			17.	

ENVIRONMENTAL SUMMARY REPORT

SITE: STEWART-TEELE-MITCHELL
MALTA, NEW YORK

REPORT PERIOD: 80/12
SITE NUMBER: 62

LATITUDE: 43.00 DEG NORTH AZIMUTH: 0 DEG
LONGITUDE: 74.00 DEG WEST PYRANOMETER TILT: 45 DEG
TIME ZONE: EASTERN
ALTITUDE: 277 FEET

TEMPERATURES IN DEGREES F

DAY	AVERAGE TEMP	DAYTIME TEMP	NIGHTTIME TEMP	MAX TEMPERATURE VALUE	TIME HR:MN	MIN TEMPERATURE VALUE	TIME HR:MN	INLET WATER TEMPERATURE
1	43.	46.	39.	49.	13:55	34.	22:11	58.
2	43.	44.	42.	53.	17:47	33.	3:42	60.
3	24.	23.	25.	42.	0: 3	15.	21:57	58.
4	18.	25.	15.	32.	14: 7	11.	6:45	58.
5	15.	22.	11.	32.	14: 6	6.	6:43	59.
6	18.	24.	14.	35.	13:54	6.	7:25	59.
7	24.	28.	22.	33.	15:22	11.	6:37	58.
8	38.	35.	40.	87.	11:31	31.	0:37	58.
9	35.	37.	34.	45.	0: 2	29.	23:39	60.
10	31.	32.	30.	36.	15:18	27.	7: 7	59.
11	15.	16.	14.	31.	0: 3	7.	6:54	56.
12	19.	20.	18.	32.	23:45	5.	7: 3	61.
13	31.	37.	28.	39.	11: 8	8.	23:56	60.
14	16.	25.	11.	33.	12:16	6.	23:54	57.
15	13.	15.	12.	22.	14:13	-1.	3:38	55.
16	18.	22.	16.	24.	11:26	11.	23:50	56.
17	9.	15.	5.	22.	13:26	-3.	22:31	52.
18	20.	23.	18.	32.	17:40	-3.	0:23	59.
19	18.	22.	15.	31.	2:55	-8.	23:42	55.
20	-1.	8.	-6.	20.	13:55	-19.	7:10	47.
21	8.	16.	3.	23.	14: 4	-5.	1: 7	49.
22	7.	13.	3.	23.	13:10	-11.	7:13	56.
23	22.	26.	21.	30.	13:17	13.	0: 2	58.
24	23.	27.	20.	29.	11:38	6.	23:52	59.
25	-11.	-10.	-12.	6.	0: 8	-19.	21: 1	56.
26	1.	6.	-2.	14.	14:55	-17.	2:27	59.
27	7.	15.	3.	26.	14:39	-6.	7:27	57.
28	15.	19.	13.	27.	21:45	-4.	4:15	60.
29	32.	34.	31.	37.	14:28	27.	0: 4	58.
30	17.	19.	16.	33.	0: 9	-7.	23:22	59.
31	2.	9.	-2.	20.	13:56	-7.	0: 4	58.
MEAN	18.	22.	16.					57.
STANDARD DEVIATION	12.7	11.5	13.5					3.1

ENVIRONMENTAL SUMMARY REPORT

SITE: SUMMERWOOD
OLD SAYBROOK, CONNECTICUT

REPORT PERIOD: 80/12
SITE NUMBER: 226

LATITUDE: 41.00 DEG NORTH AZIMUTH: 12 DEG TIME ZONE: EASTERN
LONGITUDE: 73.00 DEG WEST PYRANOMETER TILT: 50 DEG ALTITUDE: 100 FEET

INSOLATION

DAY	TOTAL INSOLATION BTU/FT2	TOTAL DIFF INSOLATION BTU/FT2	TOTAL DIR INSOLATION BTU/FT2	MAXIMUM TOTAL INSOLATION VALUE BTU/HR/FT2	TIME HR:MN	EXTRATERRESTRIAL INSOLATION BTU/FT2	TTL INS ----- EXT INS PERCENT
1	1060.	N.A.	N.A.	267.	12:13	2965.	36.
2	593.	N.A.	N.A.	217.	10:13	2956.	20.
3	1180.	N.A.	N.A.	295.	12:24	2954.	40.
4	1791.	N.A.	N.A.	307.	12: 2	2945.	61.
5	1772.	N.A.	N.A.	304.	12: 1	2944.	60.
6	1666.	N.A.	N.A.	289.	11:54	2943.	57.
7	1131.	N.A.	N.A.	295.	12:52	2940.	38.
8	660.	N.A.	N.A.	248.	11:54	2931.	23.
9	596.	N.A.	N.A.	174.	11: 6	2931.	20.
10	638.	N.A.	N.A.	258.	13: 3	2929.	22.
11	1711.	N.A.	N.A.	301.	12: 8	2921.	59.
12	1291.	N.A.	N.A.	289.	12:21	2919.	44.
13	897.	N.A.	N.A.	270.	11:15	2920.	31.
14	703.	N.A.	N.A.	230.	13:40	2918.	24.
15	821.	N.A.	N.A.	236.	11: 5	2917.	28.
16	110.	N.A.	N.A.	43.	11:42	2918.	4.
17	1593.	N.A.	N.A.	292.	12:20	2918.	55.
18	361.	N.A.	N.A.	233.	13:37	2917.	12.
19	246.	N.A.	N.A.	118.	15:12	2917.	8.
20	1539.	N.A.	N.A.	292.	11:49	2917.	53.
21	1634.	N.A.	N.A.	292.	12: 5	2917.	56.
22	1345.	N.A.	N.A.	264.	11:18	2918.	46.
23	10.	N.A.	N.A.	6.	12:38	2918.	0.
24	458.	N.A.	N.A.	164.	10:27	2919.	16.
25	1794.	N.A.	N.A.	307.	11:57	2920.	61.
26	1080.	N.A.	N.A.	279.	11:52	2919.	37.
27	1018.	N.A.	N.A.	292.	12:27	2921.	35.
28	113.	N.A.	N.A.	47.	10:46	2923.	4.
29	452.	N.A.	N.A.	196.	10:41	2923.	15.
30	1289.	N.A.	N.A.	279.	12:43	2925.	44.
31	1095.	N.A.	N.A.	264.	12:35	2934.	37.
MEAN	989.	N.A.	N.A.			2928.	
STANDARD DEVIATION	549.	N.A.	N.A.			13.	

ENVIRONMENTAL SUMMARY REPORT

SITE: SUMMERWOOD
OLD SAYBROOK, CONNECTICUT

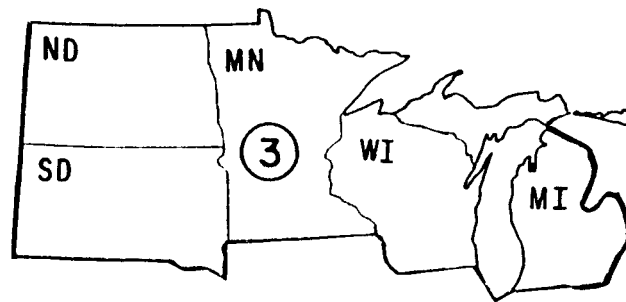
REPORT PERIOD: 80/12
SITE NUMBER: 226

LATITUDE: 41.00 DEG NORTH AZIMUTH: 12 DEG
LONGITUDE: 73.00 DEG WEST PYRANOMETER TILT: 50 DEG TIME ZONE: EASTERN
ALTITUDE: 100 FEET

TEMPERATURES IN DEGREES F

DAY	AVERAGE TEMP	DAYTIME TEMP	NIGHTTIME TEMP	MAX TEMPERATURE VALUE	TIME HR:MN	MIN TEMPERATURE VALUE	TIME HR:MN	INLET WATER TEMPERATURE
1	46.	52.	42.	55.	11:57	34.	22:40	58.
2	49.	52.	46.	57.	12:32	36.	0: 0	61.
3	32.	31.	32.	46.	0: 3	21.	23: 4	59.
4	25.	29.	22.	33.	12:13	18.	6:42	57.
5	27.	33.	23.	38.	12:12	17.	3:40	56.
6	30.	36.	26.	41.	15: 0	21.	4:42	58.
7	36.	44.	31.	56.	11:43	19.	7:11	59.
8	46.	50.	43.	58.	12:31	34.	6:55	59.
9	45.	45.	45.	57.	3:32	36.	23:59	60.
10	37.	39.	36.	46.	12:42	33.	6:55	58.
11	26.	25.	26.	36.	3:15	18.	17:28	58.
12	32.	35.	29.	43.	22:59	19.	6:45	59.
13	42.	48.	39.	54.	10:48	29.	23:15	58.
14	26.	32.	23.	38.	15: 5	16.	23:58	58.
15	24.	28.	21.	35.	11: 5	11.	4:46	55.
16	33.	35.	31.	38.	13: 2	30.	21:51	58.
17	23.	26.	21.	31.	2:44	8.	23:50	56.
18	28.	35.	23.	38.	13:26	6.	1:58	56.
19	31.	35.	29.	40.	4:32	11.	23:59	55.
20	14.	21.	10.	27.	10:34	3.	6:23	54.
21	18.	27.	13.	35.	12:33	8.	1:19	56.
22	23.	28.	20.	39.	11:55	8.	5:58	55.
23	30.	31.	30.	34.	0:48	23.	23:31	*
24	29.	34.	27.	45.	10:21	17.	7:31	55.
25	-0.	-1.	0.	24.	0: 2	-12.	23:14	54.
26	10.	18.	6.	32.	11:52	-11.	1: 1	53.
27	23.	27.	20.	31.	12:32	8.	6:46	54.
28	34.	37.	32.	40.	14: 4	28.	0:16	53.
29	40.	43.	38.	50.	12:55	33.	6: 4	54.
30	34.	39.	31.	43.	12:11	15.	23:52	54.
31	17.	22.	15.	27.	12:24	9.	5:39	54.
MEAN	29.	33.	27.					57.
STANDARD DEVIATION	10.9	11.0	11.1					2.3

ZONE 3



ENVIRONMENTAL SUMMARY REPORT

SITE: ARNO KAHN
DULUTH, MINNESOTA

REPORT PERIOD: 80/12
SITE NUMBER: 143

LATITUDE: 47.00 DEG NORTH
LONGITUDE: 92.00 DEG WEST

AZIMUTH: 0 DEG
PYRANOMETER TILT: 90 DEG

TIME ZONE: CENTRAL
ALTITUDE: 800 FEET

INSOLATION

DAY	TOTAL INSOLATION BTU/FT2	TOTAL DIFF INSOLATION BTU/FT2	TOTAL DIR INSOLATION BTU/FT2	MAXIMUM TOTAL INSOLATION VALUE BTU/HR/FT2	TIME HR:MN	EXTRATERRESTRIAL INSOLATION BTU/FT2	TTL INS ----- EXT INS PERCENT
1	297.	N.A.	N.A.	177.	10:14	2841.	10.
2	1418.	N.A.	N.A.	274.	11:36	2830.	50.
3	53.	N.A.	N.A.	18.	13: 0	2833.	2.
4	233.	N.A.	N.A.	88.	13:28	2822.	8.
5	17.	N.A.	N.A.	6.	11: 7	2825.	1.
6	48.	N.A.	N.A.	15.	11:16	2828.	2.
7	22.	N.A.	N.A.	9.	10:49	2817.	1.
8	1315.	N.A.	N.A.	280.	10:26	2820.	47.
9	362.	N.A.	N.A.	224.	13:38	2808.	13.
10	1452.	N.A.	N.A.	292.	11:19	2808.	52.
11	152.	N.A.	N.A.	80.	9: 1	2811.	5.
12	1139.	N.A.	N.A.	268.	11:27	2815.	40.
13	870.	N.A.	N.A.	268.	11:32	2814.	31.
14	1226.	N.A.	N.A.	280.	11:32	2803.	44.
15	158.	N.A.	N.A.	91.	13:41	2803.	6.
16	1155.	N.A.	N.A.	265.	11:23	2807.	41.
17	34.	N.A.	N.A.	12.	12:15	2807.	1.
18	538.	N.A.	N.A.	206.	13: 1	2807.	19.
19	1271.	N.A.	N.A.	262.	11:39	2807.	45.
20	1301.	N.A.	N.A.	268.	11:44	2807.	46.
21	484.	N.A.	N.A.	292.	11:33	2807.	17.
22	110.	N.A.	N.A.	38.	11:41	2807.	4.
23	110.	N.A.	N.A.	35.	10:33	2808.	4.
24	1450.	N.A.	N.A.	280.	11:23	2808.	52.
25	307.	N.A.	N.A.	221.	11:19	2809.	11.
26	1183.	N.A.	N.A.	271.	11:30	2806.	42.
27	86.	N.A.	N.A.	21.	10:31	2806.	3.
28	231.	N.A.	N.A.	153.	10:58	2807.	8.
29	654.	N.A.	N.A.	248.	11:12	2819.	23.
30	23.	N.A.	N.A.	6.	9:25	2816.	1.
31	143.	N.A.	N.A.	47.	11:44	2817.	5.
MEAN	576.	N.A.	N.A.			2814.	
STANDARD DEVIATION	540.	N.A.	N.A.			10.	

ENVIRONMENTAL SUMMARY REPORT

SITE: ARNO KAHN
DULUTH, MINNESOTA

REPORT PERIOD: 80/12
SITE NUMBER: 143

LATITUDE: 47.00 DEG NORTH AZIMUTH: 0 DEG
LONGITUDE: 92.00 DEG WEST PYRANOMETER TILT: 90 DEG
TIME ZONE: CENTRAL
ALTITUDE: 800 FEET

TEMPERATURES IN DEGREES F

DAY	AVERAGE TEMP	DAYTIME TEMP	NIGHTTIME TEMP	MAX TEMPERATURE VALUE TIME HR:MN	MIN TEMPERATURE VALUE TIME HR:MN	INLET WATER TEMPERATURE
1	10.	6.	12.	30. 0: 6	1. 22:58	51.
2	2.	5.	-0.	12. 14:58	-5. 7:20	49.
3	12.	14.	12.	18. 15:35	-1. 0: 2	46.
4	24.	26.	23.	30. 14: 5	16. 0:13	47.
5	32.	33.	32.	35. 20:46	28. 0: 0	50.
6	34.	35.	34.	36. 12:36	32. 23:26	49.
7	26.	27.	26.	32. 0: 9	19. 23:57	50.
8	12.	13.	11.	20. 14:37	3. 8: 7	50.
9	9.	15.	6.	17. 13: 6	-0. 21:11	47.
10	-4.	-3.	-4.	1. 0: 7	-9. 23:25	45.
11	1.	2.	-0.	8. 23:27	-9. 0: 3	44.
12	20.	32.	13.	43. 14: 2	4. 23:58	46.
13	8.	7.	9.	22. 20:20	-5. 7:53	45.
14	7.	5.	7.	15. 0: 4	-3. 8: 9	46.
15	15.	16.	14.	21. 20:27	5. 6:56	47.
16	17.	21.	15.	26. 12: 0	2. 8:11	48.
17	26.	33.	23.	36. 14:44	15. 23:41	48.
18	4.	5.	3.	16. 0:40	-11. 23:17	49.
19	-9.	-7.	-10.	-3. 14:35	-13. 7:12	45.
20	-6.	-3.	-7.	6. 15: 6	-16. 7:38	44.
21	4.	6.	2.	11. 12:42	-8. 4:21	45.
22	17.	19.	16.	21. 14:21	10. 0:24	47.
23	13.	15.	13.	19. 2:54	1. 23:39	47.
24	-9.	-10.	-9.	-0. 0: 6	-17. 8:11	46.
25	-2.	1.	-3.	11. 22:21	-19. 4:39	43.
26	5.	6.	5.	14. 14:58	-5. 20:34	44.
27	18.	20.	17.	27. 23:51	7. 3:24	45.
28	28.	32.	27.	37. 14:30	19. 23:55	47.
29	15.	17.	14.	23. 13:31	4. 8:22	48.
30	25.	26.	24.	28. 22:20	19. 0:11	47.
31	27.	29.	27.	30. 12:58	25. 21:46	47.
MEAN	12.	14.	11.			47.
STANDARD DEVIATION	12.1	12.9	12.0			2.0

ENVIRONMENTAL SUMMARY REPORT

SITE: ARNO KAHN
DULUTH, MINNESOTA

REPORT PERIOD: 80/12
SITE NUMBER: 143

LATITUDE: 47.00 DEG NORTH AZIMUTH: 0 DEG
LONGITUDE: 92.00 DEG WEST PYRANOMETER TILT: 90 DEG
TIME ZONE: CENTRAL
ALTITUDE: 800 FEET

RELATIVE HUMIDITY IN PER CENT

DAY	RELATIVE HUMIDITY	DAYTIME REL HUM	NIGHTTIME REL HUM	MAXIMUM VALUE	HUMIDITY TIME HR:MN	MINIMUM VALUE	HUMIDITY TIME HR:MN
1	35.	34.	37.	45.	0:43	30.	14: 8
2	31.	24.	35.	46.	23:56	17.	14:21
3	41.	48.	37.	57.	13: 6	32.	16: 2
4	42.	43.	41.	53.	23:55	34.	0:13
5	88.	97.	83.	100.	10:51	52.	0:11
6	88.	80.	92.	100.	0: 4	69.	12:36
7	69.	66.	71.	90.	1:18	55.	23:46
8	47.	37.	53.	59.	3:14	28.	13:33
9	42.	43.	41.	58.	3:30	22.	18:47
10	26.	21.	28.	36.	2:47	15.	12:39
11	26.	23.	28.	37.	23:59	19.	11:57
12	45.	43.	46.	72.	8:26	20.	18: 2
13	37.	31.	41.	48.	22: 1	23.	12:14
14	27.	26.	28.	39.	8:30	16.	14:51
15	37.	31.	40.	51.	7:55	20.	11:55
16	46.	39.	49.	80.	9:36	25.	12: 0
17	59.	80.	48.	96.	11:27	22.	19:48
18	24.	22.	25.	36.	1: 7	12.	14:27
19	26.	24.	28.	34.	23:49	20.	14:13
20	29.	23.	33.	37.	23: 1	15.	15:33
21	38.	29.	42.	56.	20:40	21.	12:48
22	51.	46.	54.	59.	23:48	42.	11:14
23	44.	42.	45.	61.	0:36	30.	23:45
24	24.	21.	26.	34.	0: 1	16.	13:58
25	35.	27.	38.	48.	23:57	17.	11:46
26	39.	28.	43.	62.	21:27	19.	12: 7
27	41.	39.	42.	50.	8:39	34.	14:26
28	55.	49.	58.	78.	20: 6	40.	15: 7
29	47.	35.	54.	72.	1:20	24.	12:38
30	76.	80.	74.	97.	17:20	44.	1:36
31	70.	61.	75.	83.	21:46	52.	14:34
MEAN	45.	42.	46.				
STANDARD DEVIATION	18.	20.	17.				

ENVIRONMENTAL SUMMARY REPORT

SITE: GE MILWAUKEE
MILWAUKEE, WISCONSIN

REPORT PERIOD: 80/12
SITE NUMBER: 112

LATITUDE: 42.57 DEG NORTH
LONGITUDE: 87.54 DEG WEST

AZIMUTH: 0 DEG
PYRANOMETER TILT: 53 DEG

TIME ZONE: CENTRAL
ALTITUDE: 600 FEET

INSOLATION

DAY	TOTAL INSOLATION BTU/FT2	TOTAL DIFF INSOLATION BTU/FT2	TOTAL DIR INSOLATION BTU/FT2	MAXIMUM TOTAL INSOLATION VALUE BTU/HR/FT2	TIME HR:MN	EXTRATERRESTRIAL INSOLATION BTU/FT2	TTL INS ----- EXT INS PERCENT
1	259.	N.A.	N.A.	136.	12: 9	2994.	9.
2	163.	N.A.	N.A.	51.	13:22	2993.	5.
3	31.	N.A.	N.A.	11.	8:42	2981.	1.
4	53.	N.A.	N.A.	18.	14: 4	2977.	2.
5	24.	N.A.	N.A.	7.	10:32	2978.	1.
6	81.	N.A.	N.A.	33.	12:29	2966.	3.
7	97.	N.A.	N.A.	29.	10:53	2967.	3.
8	65.	N.A.	N.A.	48.	12:35	2968.	2.
9	281.	N.A.	N.A.	187.	14:43	2965.	9.
10	228.	N.A.	N.A.	95.	13:24	2954.	8.
11	308.	N.A.	N.A.	202.	13:49	2952.	10.
12	940.	N.A.	N.A.	282.	12: 3	2954.	32.
13	1742.	N.A.	N.A.	330.	12: 6	2952.	59.
14	724.	N.A.	N.A.	246.	12:36	2942.	25.
15	454.	N.A.	N.A.	183.	10: 6	2941.	15.
16	177.	N.A.	N.A.	51.	10:39	2940.	6.
17	237.	N.A.	N.A.	143.	13:23	2943.	8.
18	104.	N.A.	N.A.	26.	11:56	2942.	4.
19	1663.	N.A.	N.A.	334.	12: 7	2942.	57.
20	1743.	N.A.	N.A.	334.	12: 7	2942.	59.
21	1239.	N.A.	N.A.	315.	12: 6	2942.	42.
22	166.	N.A.	N.A.	51.	12:22	2943.	6.
23	320.	N.A.	N.A.	125.	8:57	2943.	11.
24	969.	N.A.	N.A.	308.	13:15	2944.	33.
25	1318.	N.A.	N.A.	308.	10:45	2946.	45.
26	429.	N.A.	N.A.	172.	14:17	2943.	15.
27	84.	N.A.	N.A.	26.	11: 5	2945.	3.
28	261.	N.A.	N.A.	191.	9:41	2947.	9.
29	593.	N.A.	N.A.	275.	10:29	2958.	20.
30	78.	N.A.	N.A.	22.	12:29	2960.	3.
31	71.	N.A.	N.A.	26.	10:18	2959.	2.
MEAN	481.	N.A.	N.A.			2956.	
STANDARD DEVIATION	538.	N.A.	N.A.			16.	

ENVIRONMENTAL SUMMARY REPORT

SITE: GE MILWAUKEE
MILWAUKEE, WISCONSIN

REPORT PERIOD: 80/12
SITE NUMBER: 112

LATITUDE: 42.57 DEG NORTH AZIMUTH: 0 DEG
LONGITUDE: 87.54 DEG WEST PYRANOMETER TILT: 53 DEG
TIME ZONE: CENTRAL
ALTITUDE: 600 FEET

TEMPERATURES IN DEGREES F

DAY	AVERAGE TEMP	DAYTIME TEMP	NIGHTTIME TEMP	MAX TEMPERATURE VALUE TIME HR:MN	MIN TEMPERATURE VALUE TIME HR:MN	INLET WATER TEMPERATURE
1	38.	39.	38.	41. 0: 4	31. 23:46	N.A.
2	22.	22.	22.	33. 2:42	12. 23:49	N.A.
3	22.	24.	21.	31. 18:57	11. 0:53	N.A.
4	33.	35.	32.	37. 22:11	25. 1: 0	N.A.
5	40.	40.	40.	44. 23:52	37. 0: 3	N.A.
6	49.	50.	49.	55. 22:11	44. 3: 9	N.A.
7	45.	44.	46.	52. 3:47	41. 23:25	N.A.
8	36.	37.	35.	41. 0:56	27. 23:47	N.A.
9	26.	28.	25.	29. 12:13	23. 23:27	N.A.
10	20.	23.	19.	25. 8:42	10. 23:51	N.A.
11	14.	15.	13.	22. 15: 9	7. 4:34	N.A.
12	34.	37.	32.	44. 15:20	20. 0: 3	N.A.
13	25.	24.	26.	40. 0:32	19. 7:39	N.A.
14	24.	25.	24.	31. 14: 1	20. 18:44	N.A.
15	25.	27.	24.	30. 12:30	19. 1: 8	N.A.
16	28.	28.	28.	31. 20:57	26. 6: 1	N.A.
17	32.	31.	32.	38. 22:46	26. 7:37	N.A.
18	27.	28.	27.	37. 1:32	11. 23:56	N.A.
19	3.	4.	3.	11. 0: 7	-2. 7:14	N.A.
20	6.	8.	4.	14. 14: 4	-2. 7: 8	N.A.
21	15.	19.	13.	29. 14:19	5. 3:19	N.A.
22	23.	24.	23.	28. 20:30	20. 1:10	N.A.
23	31.	33.	29.	35. 12:35	26. 6:49	N.A.
24	12.	13.	12.	26. 0: 3	-1. 23:39	N.A.
25	6.	8.	5.	15. 12:48	-5. 6:29	N.A.
26	17.	19.	17.	22. 14:11	13. 1:31	N.A.
27	25.	27.	24.	28. 10:22	20. 0: 9	N.A.
28	29.	31.	28.	34. 12:53	23. 4:46	N.A.
29	32.	34.	31.	37. 11:27	26. 23:46	N.A.
30	29.	30.	29.	31. 12:40	26. 0:29	N.A.
31	32.	32.	32.	34. 17: 9	29. 22:13	N.A.
MEAN	26.	27.	25.			N.A.
STANDARD DEVIATION	10.9	10.5	11.1			N.A.

ENVIRONMENTAL SUMMARY REPORT

SITE: HOWARDS GROVE SCHOOL
HOWARDS GROVE, WISCONSIN

REPORT PERIOD: 80/12
SITE NUMBER: 154

LATITUDE: 43.80 DEG NORTH AZIMUTH: 0 DEG TIME ZONE: CENTRAL
LONGITUDE: 89.20 DEG WEST PYRANOMETER TILT: 55 DEG ALTITUDE: 858 FEET

INSOLATION

DAY	TOTAL INSOLATION BTU/FT2	TOTAL DIFF INSOLATION BTU/FT2	TOTAL DIR INSOLATION BTU/FT2	MAXIMUM TOTAL INSOLATION VALUE BTU/HR/FT2	TIME HR:MN	EXTRATERRESTRIAL INSOLATION BTU/FT2	TTL INS ----- EXT INS PERCENT
1	194.	N.A.	N.A.	65.	9:56	2978.	7.
2	844.	N.A.	N.A.	285.	12:37	2965.	28.
3	175.	N.A.	N.A.	50.	11:55	2965.	6.
4	210.	N.A.	N.A.	126.	13:35	2953.	7.
5	24.	N.A.	N.A.	7.	10:57	2953.	1.
6	67.	N.A.	N.A.	22.	10:0	2953.	2.
7	139.	N.A.	N.A.	69.	10:47	2941.	5.
8	84.	N.A.	N.A.	40.	11:41	2942.	3.
9	255.	N.A.	N.A.	133.	13:51	2939.	9.
10	390.	N.A.	N.A.	173.	12:7	2928.	13.
11	534.	N.A.	N.A.	267.	13:2	2930.	18.
12	554.	N.A.	N.A.	227.	13:27	2928.	19.
13	1723.	N.A.	N.A.	296.	12:4	2930.	59.
14	1186.	N.A.	N.A.	285.	12:6	2928.	41.
15	903.	N.A.	N.A.	303.	11:55	2927.	31.
16	170.	N.A.	N.A.	123.	10:9	2917.	6.
17	115.	N.A.	N.A.	50.	12:42	2916.	4.
18	212.	N.A.	N.A.	90.	14:0	2916.	7.
19	1666.	N.A.	N.A.	296.	11:55	2915.	57.
20	1720.	N.A.	N.A.	296.	11:35	2915.	59.
21	1141.	N.A.	N.A.	292.	11:39	2916.	39.
22	198.	N.A.	N.A.	54.	10:14	2916.	7.
23	161.	N.A.	N.A.	43.	10:57	2917.	6.
24	1359.	N.A.	N.A.	306.	11:39	2918.	47.
25	1373.	N.A.	N.A.	296.	13:12	2919.	47.
26	860.	N.A.	N.A.	281.	12:54	2920.	29.
27	99.	N.A.	N.A.	25.	10:4	2931.	3.
28	121.	N.A.	N.A.	50.	9:43	2933.	4.
29	319.	N.A.	N.A.	231.	9:11	2931.	11.
30	84.	N.A.	N.A.	25.	11:59	2934.	3.
31	75.	N.A.	N.A.	22.	9:35	2933.	3.
MEAN	547.	N.A.	N.A.			2932.	
STANDARD DEVIATION	559.	N.A.	N.A.			17.	

ENVIRONMENTAL SUMMARY REPORT

SITE: HOWARDS GROVE SCHOOL
HOWARDS GROVE, WISCONSIN

REPORT PERIOD: 80/12
SITE NUMBER: 154

LATITUDE: 43.80 DEG NORTH AZIMUTH: 0 DEG TIME ZONE: CENTRAL
LONGITUDE: 89.20 DEG WEST PYRANOMETER TILT: 55 DEG ALTITUDE: 858 FEET

TEMPERATURES IN DEGREES F

DAY	AVERAGE TEMP	DAYTIME TEMP	NIGHTTIME TEMP	MAX TEMPERATURE VALUE	TIME HR:MN	MIN TEMPERATURE VALUE	TIME HR:MN	INLET WATER TEMPERATURE
1	35.	37.	33.	39.	12:15	26.	23:12	N.A.
2	20.	21.	20.	29.	0:58	11.	23:45	N.A.
3	22.	24.	20.	31.	23:37	9.	2:57	N.A.
4	34.	33.	34.	36.	11:53	29.	1:51	N.A.
5	38.	38.	38.	42.	23:31	35.	0:33	N.A.
6	45.	47.	44.	50.	14:38	41.	1:44	N.A.
7	42.	42.	41.	44.	13: 6	38.	21: 1	N.A.
8	35.	37.	34.	41.	0:23	26.	23:27	N.A.
9	25.	27.	24.	29.	10:44	21.	23:57	N.A.
10	17.	18.	16.	23.	3:19	8.	23:10	N.A.
11	14.	14.	13.	24.	23:46	6.	3:15	N.A.
12	33.	35.	31.	42.	19:16	20.	3:19	N.A.
13	22.	21.	22.	33.	0: 4	16.	7:48	N.A.
14	23.	23.	23.	28.	15:50	19.	7:58	N.A.
15	25.	26.	24.	30.	12:59	20.	2:24	N.A.
16	26.	27.	25.	30.	23:22	23.	22: 2	N.A.
17	32.	32.	32.	38.	21:17	25.	1:46	N.A.
18	23.	26.	21.	33.	0: 2	4.	23:55	N.A.
19	1.	2.	0.	5.	14:46	-4.	7:39	N.A.
20	4.	6.	3.	10.	14:10	-2.	6:47	N.A.
21	16.	18.	14.	29.	16:22	3.	2:26	N.A.
22	24.	25.	23.	29.	23:56	18.	1:31	N.A.
23	31.	35.	29.	38.	11:34	22.	23:50	N.A.
24	10.	10.	10.	22.	0: 0	-3.	23:41	N.A.
25	7.	8.	6.	17.	13: 6	-6.	5:17	N.A.
26	17.	19.	16.	21.	12: 1	14.	17:26	N.A.
27	25.	28.	24.	31.	13:37	17.	0:17	N.A.
28	31.	34.	30.	37.	19:41	24.	3:13	N.A.
29	30.	32.	29.	34.	0: 2	21.	23:11	N.A.
30	29.	30.	28.	33.	20: 9	22.	0:10	N.A.
31	31.	32.	30.	34.	5: 8	27.	23:21	N.A.
MEAN	25.	26.	24.					N.A.
STANDARD DEVIATION	10.6	10.7	10.6					N.A.

ENVIRONMENTAL SUMMARY REPORT

SITE: HOWARDS GROVE SCHOOL
HOWARDS GROVE, WISCONSIN

REPORT PERIOD: 80/12
SITE NUMBER: 154

LATITUDE: 43.80 DEG NORTH AZIMUTH: 0 DEG TIME ZONE: CENTRAL
LONGITUDE: 89.20 DEG WEST PYRANOMETER TILT: 55 DEG ALTITUDE: 858 FEET

WIND: SPEED IN MPH-DIRECTION IN DEGREES

DAY	AVG WIND DIRECTION	AVG WIND SPEED	DAYTIME DIRECTION	DAYTIME SPEED	MAXIMUM WIND SPEED DIRECTION	TIME HR:MN	
1	177.	7.	184.	4.	25.	189.	21:52
2	167.	14.	163.	15.	33.	178.	4:42
3	323.	3.	171.	0.	19.	347.	20:52
4	301.	3.	299.	4.	15.	293.	11:32
5	307.	5.	304.	7.	13.	303.	11:23
6	*	0.	*	0.	6.	*	0:24
7	100.	3.	100.	6.	15.	115.	10:10
8	123.	5.	135.	6.	16.	133.	13:54
9	118.	6.	110.	7.	18.	103.	13: 3
10	115.	10.	110.	13.	22.	105.	10: 5
11	107.	4.	101.	6.	12.	115.	13:50
12	78.	11.	74.	12.	26.	111.	21:29
13	112.	12.	104.	10.	30.	90.	20:52
14	121.	6.	161.	4.	29.	84.	1:24
15	*	1.	*	2.	10.	*	8:59
16	198.	3.	213.	5.	13.	252.	12:33
17	44.	11.	30.	15.	31.	27.	13:30
18	115.	12.	99.	12.	32.	82.	18:30
19	121.	12.	113.	14.	26.	119.	15:39
20	108.	10.	104.	11.	19.	87.	12:34
21	91.	5.	109.	5.	17.	33.	21:15
22	22.	7.	20.	9.	19.	11.	10:14
23	96.	3.	73.	1.	18.	189.	23:50
24	156.	14.	157.	14.	25.	170.	9:52
25	69.	8.	72.	5.	19.	120.	0:24
26	122.	6.	156.	4.	17.	45.	1:17
27	7.	5.	353.	5.	17.	19.	19:56
28	29.	4.	35.	4.	16.	44.	0:28
29	*	*	*	*	*	*	*: *
30	*	*	*	*	*	*	*: *
31	*	*	*	*	*	*	*: *
MEAN	128.	7.	137.	7.			
STANDARD DEVIATION	80.8	4.0	82.3	4.6			

ENVIRONMENTAL SUMMARY REPORT

SITE: HOWARDS GROVE SCHOOL
HOWARDS GROVE, WISCONSIN

REPORT PERIOD: 80/12
SITE NUMBER: 154

LATITUDE: 43.80 DEG NORTH AZIMUTH: 0 DEG TIME ZONE: CENTRAL
LONGITUDE: 89.20 DEG WEST PYRANOMETER TILT: 55 DEG ALTITUDE: 858 FEET

WIND: NUMBER OF HOURS IN EACH VELOCITY INTERVAL

DAY	0-3 MPH	4-7 MPH	8-12 MPH	13-18 MPH	19-24 MPH	25-31 MPH	32-38 MPH	ABOVE 38	MISSING HOURS
1	9	9	2	4	0	0	0	0	0
2	0	3	9	6	6	0	0	0	0
3	18	2	4	0	0	0	0	0	0
4	15	7	2	0	0	0	0	0	0
5	7	14	3	0	0	0	0	0	0
6	24	0	0	0	0	0	0	0	0
7	16	6	2	0	0	0	0	0	0
8	7	14	3	0	0	0	0	0	0
9	8	5	11	0	0	0	0	0	0
10	1	9	8	6	0	0	0	0	0
11	14	10	0	0	0	0	0	0	0
12	3	3	7	10	1	0	0	0	0
13	0	5	9	9	1	0	0	0	0
14	13	2	6	3	0	0	0	0	0
15	23	1	0	0	0	0	0	0	0
16	13	11	0	0	0	0	0	0	0
17	4	3	4	12	1	0	0	0	0
18	0	3	8	12	1	0	0	0	0
19	0	1	14	9	0	0	0	0	0
20	0	8	14	2	0	0	0	0	0
21	8	13	3	0	0	0	0	0	0
22	5	12	7	0	0	0	0	0	0
23	14	8	1	1	0	0	0	0	0
24	0	0	9	15	0	0	0	0	0
25	4	5	14	1	0	0	0	0	0
26	5	15	4	0	0	0	0	0	0
27	9	9	6	0	0	0	0	0	0
28	13	6	5	0	0	0	0	0	0
29	24	0	0	0	0	0	0	0	0
30	24	0	0	0	0	0	0	0	0
31	23	0	0	0	0	0	0	0	1
AVERAGE	9.8	5.9	5.0	2.9	0.3	0.0	0.0	0.0	0.0
TOTAL	304	184	155	90	10	0	0	0	1

ENVIRONMENTAL SUMMARY REPORT

SITE: INGHAM CO MEDICAL CENTER
OKEMOS, MICHIGAN

REPORT PERIOD: 80/12
SITE NUMBER: 35

LATITUDE: 42.20 DEG NORTH AZIMUTH: 10 DEG
LONGITUDE: 84.50 DEG WEST PYRANOMETER TILT: 40 DEG TIME ZONE: EASTERN
ALTITUDE: 865 FEET

INSOLATION

DAY	TOTAL INSOLATION BTU/FT2	TOTAL DIFF INSOLATION BTU/FT2	TOTAL DIR INSOLATION BTU/FT2	MAXIMUM TOTAL INSOLATION VALUE BTU/HR/FT2	TIME HR:MN	EXTRATERRESTRIAL INSOLATION BTU/FT2	TTL INS ----- EXT INS PERCENT
1	495.	N.A.	N.A.	162.	10:11	2718.	18.
2	58.	N.A.	N.A.	28.	14:34	2707.	2.
3	1142.	N.A.	N.A.	299.	11:47	2704.	42.
4	372.	N.A.	N.A.	117.	8:45	2699.	14.
5	116.	N.A.	N.A.	34.	11:21	2697.	4.
6	73.	N.A.	N.A.	24.	12:35	2687.	3.
7	70.	N.A.	N.A.	24.	10:21	2685.	3.
8	30.	N.A.	N.A.	14.	13:40	2676.	1.
9	118.	N.A.	N.A.	45.	13: 4	2673.	4.
10	75.	N.A.	N.A.	24.	10:37	2672.	3.
11	240.	N.A.	N.A.	62.	10:46	2669.	9.
12	492.	N.A.	N.A.	206.	13:38	2669.	18.
13	743.	N.A.	N.A.	251.	10:17	2666.	28.
14	1337.	N.A.	N.A.	278.	11:59	2659.	50.
15	1017.	N.A.	N.A.	265.	12:20	2657.	38.
16	448.	N.A.	N.A.	196.	14: 9	2656.	17.
17	537.	N.A.	N.A.	261.	11:24	2657.	20.
18	257.	N.A.	N.A.	138.	11:25	2656.	10.
19	1270.	N.A.	N.A.	282.	12:24	2656.	48.
20	1437.	N.A.	N.A.	299.	11:31	2656.	54.
21	630.	N.A.	N.A.	237.	14:12	2656.	24.
22	226.	N.A.	N.A.	62.	11:32	2657.	8.
23	126.	N.A.	N.A.	41.	11:57	2657.	5.
24	319.	N.A.	N.A.	103.	14:28	2658.	12.
25	939.	N.A.	N.A.	340.	12:38	2657.	35.
26	229.	N.A.	N.A.	52.	12:52	2659.	9.
27	1200.	N.A.	N.A.	303.	13: 3	2661.	45.
28	1000.	N.A.	N.A.	327.	11:32	2669.	37.
29	30.	N.A.	N.A.	10.	11:42	2672.	1.
30	98.	N.A.	N.A.	31.	12:40	2675.	4.
31	92.	N.A.	N.A.	28.	11:46	2676.	3.
MEAN	491.	N.A.	N.A.			2672.	
STANDARD DEVIATION	452.	N.A.	N.A.			18.	

ENVIRONMENTAL SUMMARY REPORT

SITE: INGHAM CO MEDICAL CENTER
OKEMOS, MICHIGAN

REPORT PERIOD: 80/12
SITE NUMBER: 35

LATITUDE: 42.20 DEG NORTH AZIMUTH: 10 DEG
LONGITUDE: 84.50 DEG WEST PYRANOMETER TILT: 40 DEG
TIME ZONE: EASTERN
ALTITUDE: 865 FEET

TEMPERATURES IN DEGREES F

DAY	AVERAGE TEMP	DAYTIME TEMP	NIGHTTIME TEMP	MAX TEMPERATURE VALUE	TIME HR:MN	MIN TEMPERATURE VALUE	TIME HR:MN	INLET WATER TEMPERATURE
1	39.	43.	37.	48.	10:16	34.	3:10	67.
2	29.	28.	29.	38.	3:43	16.	23:15	62.
3	16.	17.	15.	26.	11:58	6.	7:58	58.
4	26.	28.	24.	33.	13:59	15.	7:41	57.
5	34.	35.	34.	36.	12:35	31.	0:57	56.
6	42.	41.	42.	52.	23:31	35.	2:59	57.
7	53.	55.	51.	56.	10:37	49.	22: 6	60.
8	44.	44.	44.	56.	6:12	33.	22:14	58.
9	32.	33.	32.	36.	11:55	27.	4:59	60.
10	25.	28.	23.	29.	0: 3	12.	23:55	61.
11	17.	19.	15.	24.	15:39	7.	5:15	64.
12	31.	35.	29.	45.	15:24	20.	0:18	65.
13	26.	25.	27.	38.	2:55	21.	18:28	68.
14	24.	27.	22.	30.	7: 5	12.	20:26	65.
15	22.	27.	19.	36.	13: 8	14.	2:18	58.
16	18.	23.	14.	25.	10:52	8.	23:45	55.
17	18.	20.	17.	33.	23:52	2.	6: 4	55.
18	29.	30.	29.	36.	4:34	22.	23:52	55.
19	10.	10.	10.	23.	0: 8	3.	23:26	56.
20	9.	15.	6.	21.	14: 1	2.	0:35	71.
21	13.	17.	11.	24.	15: 6	5.	0:14	72.
22	20.	21.	20.	24.	15:38	16.	0:20	59.
23	29.	31.	28.	33.	13:17	22.	1:38	57.
24	17.	16.	18.	31.	0:52	-2.	23:50	64.
25	8.	13.	6.	22.	15:23	-2.	0: 0	71.
26	15.	17.	13.	20.	14: 7	8.	23:59	63.
27	11.	16.	8.	29.	14:39	-7.	7:48	68.
28	25.	29.	22.	38.	14:28	12.	1:45	69.
29	30.	32.	29.	33.	14:17	24.	23:47	60.
30	22.	23.	22.	25.	14:43	20.	7:47	55.
31	25.	28.	23.	30.	12:13	19.	23:46	62.
MEAN	25.	27.	23.					62.
STANDARD DEVIATION	10.7	10.2	11.1					5.2

ENVIRONMENTAL SUMMARY REPORT

SITE: SOUTH DAKOTA SCHOOL OF MINES
KEYSTONE, SOUTH DAKOTA

REPORT PERIOD: 80/12
SITE NUMBER: 15

LATITUDE: 43.90 DEG NORTH
LONGITUDE: 103.50 DEG WEST

AZIMUTH: -19 DEG
PYRANOMETER TILT: 46 DEG

TIME ZONE: MOUNTAIN
ALTITUDE: 5265 FEET

INSOLATION

DAY	TOTAL INSOLATION BTU/FT2	TOTAL DIFF INSOLATION BTU/FT2	TOTAL DIR INSOLATION BTU/FT2	MAXIMUM TOTAL INSOLATION VALUE BTU/HR/FT2	TOTAL TIME HR:MM	EXTRATERRESTRIAL INSOLATION BTU/FT2	TTL INS ----- EXT INS PERCENT
1	259.	N.A.	N.A.	150.	13:23	2689.	10.
2	875.	N.A.	N.A.	255.	12:49	2688.	33.
3	699.	N.A.	N.A.	196.	12:40	2674.	26.
4	917.	N.A.	N.A.	308.	12:35	2674.	34.
5	351.	N.A.	N.A.	150.	11:21	2675.	13.
6	218.	N.A.	N.A.	87.	11: 5	2660.	8.
7	145.	N.A.	N.A.	49.	11:57	2662.	5.
8	1657.	N.A.	N.A.	283.	11:57	2658.	62.
9	1323.	N.A.	N.A.	290.	12:19	2645.	50.
10	780.	N.A.	N.A.	231.	12:53	2647.	29.
11	744.	N.A.	N.A.	248.	10:47	2644.	28.
12	1081.	N.A.	N.A.	283.	12:46	2646.	41.
13	1463.	N.A.	N.A.	287.	12:29	2644.	55.
14	496.	N.A.	N.A.	245.	14: 5	2632.	19.
15	1407.	N.A.	N.A.	283.	13: 6	2630.	54.
16	986.	N.A.	N.A.	276.	12:48	2629.	37.
17	970.	N.A.	N.A.	301.	13:19	2633.	37.
18	201.	N.A.	N.A.	84.	12:53	2632.	8.
19	998.	N.A.	N.A.	276.	11:56	2632.	38.
20	527.	N.A.	N.A.	252.	12: 0	2632.	20.
21	1199.	N.A.	N.A.	273.	12:50	2632.	46.
22	1307.	N.A.	N.A.	276.	12: 7	2632.	50.
23	150.	N.A.	N.A.	77.	12:10	2633.	6.
24	1052.	N.A.	N.A.	423.	12:52	2634.	40.
25	700.	N.A.	N.A.	301.	12: 4	2631.	27.
26	1110.	N.A.	N.A.	266.	12:22	2632.	42.
27	679.	N.A.	N.A.	245.	11:34	2634.	26.
28	1106.	N.A.	N.A.	276.	11:55	2647.	42.
29	1409.	N.A.	N.A.	287.	12: 6	2649.	53.
30	533.	N.A.	N.A.	234.	13:11	2652.	20.
31	1172.	N.A.	N.A.	311.	13:42	2650.	44.
MEAN	855.	N.A.	N.A.			2647.	
STANDARD DEVIATION	425.	N.A.	N.A.			18.	

ENVIRONMENTAL SUMMARY REPORT

SITE: SOUTH DAKOTA SCHOOL OF MINES
KEYSTONE, SOUTH DAKOTA

REPORT PERIOD: 80/12
SITE NUMBER: 15

LATITUDE: 43.90 DEG NORTH AZIMUTH: -19 DEG TIME ZONE: MOUNTAIN
LONGITUDE: 103.50 DEG WEST PYRANOMETER TILT: 46 DEG ALTITUDE: 5265 FEET

TEMPERATURES IN DEGREES F

DAY	AVERAGE TEMP	DAYTIME TEMP	NIGHTTIME TEMP	MAX TEMPERATURE VALUE TIME HR:MN	MIN TEMPERATURE VALUE TIME HR:MN	INLET WATER TEMPERATURE
1	9.	9.	9.	18. 0: 8	1. 23: 2	N.A.
2	23.	27.	21.	47. 23:58	3. 0: 1	N.A.
3	47.	51.	44.	58. 10:54	38. 7:20	N.A.
4	49.	53.	46.	57. 12:45	42. 7: 9	N.A.
5	19.	16.	21.	45. 0: 4	9. 21:34	N.A.
6	16.	18.	15.	23. 13:23	11. 3:26	N.A.
7	15.	15.	15.	18. 13:17	11. 7:51	N.A.
8	26.	31.	24.	36. 12: 2	17. 0:13	N.A.
9	29.	30.	28.	38. 11:47	19. 7:26	N.A.
10	38.	43.	35.	50. 11:33	24. 2:13	N.A.
11	48.	51.	46.	56. 12:12	41. 7: 3	N.A.
12	42.	46.	40.	53. 11:42	26. 23:46	N.A.
13	42.	48.	39.	57. 11:19	26. 0: 2	N.A.
14	42.	44.	41.	48. 14:10	37. 19: 3	N.A.
15	47.	52.	44.	57. 13: 6	41. 1:49	N.A.
16	49.	52.	48.	60. 12:54	41. 4:48	N.A.
17	46.	55.	41.	65. 12:20	23. 23:38	N.A.
18	15.	16.	15.	24. 1:57	6. 21: 6	N.A.
19	3.	5.	2.	12. 12:34	-2. 7:40	N.A.
20	12.	14.	11.	20. 12: 0	3. 6:51	N.A.
21	36.	43.	31.	55. 12:18	17. 0: 6	N.A.
22	43.	47.	40.	54. 12:55	34. 20:52	N.A.
23	20.	20.	20.	38. 0: 4	1. 23:58	N.A.
24	11.	8.	12.	37. 23:53	-3. 7:10	N.A.
25	43.	46.	42.	53. 10:54	36. 0:14	N.A.
26	49.	53.	47.	61. 11:24	39. 5: 2	N.A.
27	58.	63.	55.	70. 11:13	47. 23:56	N.A.
28	40.	43.	38.	50. 12:59	32. 20:54	N.A.
29	44.	49.	42.	58. 12:54	29. 5:26	N.A.
30	47.	48.	47.	54. 0: 7	40. 21:44	N.A.
31	38.	42.	35.	50. 12:48	28. 23:55	N.A.
MEAN	34.	37.	32.			N.A.
STANDARD DEVIATION	15.2	16.9	14.3			N.A.

ENVIRONMENTAL SUMMARY REPORT

SITE: SPEARFISH
SPEARFISH, SOUTH DAKOTA

REPORT PERIOD: 80/12
SITE NUMBER: 194

LATITUDE: 44.40 DEG NORTH AZIMUTH: 0 DEG
LONGITUDE: 103.75 DEG WEST PYRANOMETER TILT: 60 DEG
TIME ZONE: MOUNTAIN
ALTITUDE: 3500 FEET

INSOLATION

DAY	TOTAL INSOLATION BTU/FT2	TOTAL DIFF INSOLATION BTU/FT2	TOTAL DIR INSOLATION BTU/FT2	MAXIMUM TOTAL INSOLATION VALUE BTU/HR/FT2	TOTAL TIME HR:MN	EXTRATERRESTRIAL INSOLATION BTU/FT2	TTL INS ----- EXT INS PERCENT
1	275.	N.A.	N.A.	90.	12:49	3007.	9.
2	427.	N.A.	N.A.	231.	10:52	3007.	14.
3	1854.	N.A.	N.A.	314.	12:11	2995.	62.
4	1204.	N.A.	N.A.	337.	12:18	2995.	40.
5	718.	N.A.	N.A.	297.	12:15	2983.	24.
6	104.	N.A.	N.A.	33.	11:33	2983.	3.
7	156.	N.A.	N.A.	47.	12:24	2984.	5.
8	1752.	N.A.	N.A.	304.	11:47	2982.	59.
9	1518.	N.A.	N.A.	304.	11:35	2970.	51.
10	254.	N.A.	N.A.	100.	11:13	2972.	9.
11	817.	N.A.	N.A.	281.	10:12	2970.	28.
12	1454.	N.A.	N.A.	331.	11:39	2958.	49.
13	1799.	N.A.	N.A.	304.	12: 7	2957.	61.
14	718.	N.A.	N.A.	271.	13:47	2959.	24.
15	846.	N.A.	N.A.	294.	11:13	2958.	29.
16	1019.	N.A.	N.A.	291.	12:37	2957.	34.
17	771.	N.A.	N.A.	244.	10:22	2960.	26.
18	195.	N.A.	N.A.	53.	11:54	2960.	7.
19	924.	N.A.	N.A.	287.	12:31	2960.	31.
20	602.	N.A.	N.A.	231.	11:23	2960.	20.
21	1204.	N.A.	N.A.	294.	11:55	2960.	41.
22	1119.	N.A.	N.A.	294.	12:11	2960.	38.
23	184.	N.A.	N.A.	67.	11:12	2961.	6.
24	1599.	N.A.	N.A.	361.	11: 0	2962.	54.
25	178.	N.A.	N.A.	50.	10:48	2963.	6.
26	963.	N.A.	N.A.	317.	11:57	2961.	33.
27	665.	N.A.	N.A.	251.	10:58	2962.	22.
28	1460.	N.A.	N.A.	301.	12:23	2964.	49.
29	1787.	N.A.	N.A.	314.	11:56	2962.	60.
30	674.	N.A.	N.A.	291.	13: 8	2965.	23.
31	1369.	N.A.	N.A.	331.	12:29	2976.	46.
MEAN	923.	N.A.	N.A.			2970.	
STANDARD DEVIATION	554.	N.A.	N.A.			15.	

ENVIRONMENTAL SUMMARY REPORT

SITE: SPEARFISH
SPEARFISH, SOUTH DAKOTA

REPORT PERIOD: 80/12
SITE NUMBER: 194

LATITUDE: 44.40 DEG NORTH AZIMUTH: 0 DEG
LONGITUDE: 103.75 DEG WEST PYRANOMETER TILT: 60 DEG
TIME ZONE: MOUNTAIN
ALTITUDE: 3500 FEET

TEMPERATURES IN DEGREES F

DAY	AVERAGE TEMP	DAYTIME TEMP	NIGHTTIME TEMP	MAX TEMPERATURE VALUE	TIME HR:MN	MIN TEMPERATURE VALUE	TIME HR:MN	INLET WATER TEMPERATURE
1	*	*	*	*	*:*	*	*:*	N.A.
2	*	*	*	*	*:*	*	*:*	N.A.
3	*	*	*	*	*:*	*	*:*	N.A.
4	51.	60.	46.	62.	10: 5	22.	23:53	N.A.
5	13.	14.	13.	21.	0: 4	8.	23:28	N.A.
6	16.	18.	16.	21.	12:58	9.	0: 0	N.A.
7	15.	17.	14.	20.	13:17	8.	21:49	N.A.
8	27.	32.	23.	39.	14:48	9.	1:28	N.A.
9	32.	30.	33.	40.	19:29	22.	8:34	N.A.
10	39.	35.	41.	53.	23:48	26.	7:45	N.A.
11	56.	57.	55.	60.	14:12	51.	2:49	N.A.
12	46.	49.	44.	58.	0:11	30.	23:35	N.A.
13	41.	47.	37.	58.	14:20	24.	5: 5	N.A.
14	46.	49.	45.	53.	13:47	36.	2:36	N.A.
15	56.	58.	54.	62.	12:28	50.	3:50	N.A.
16	58.	59.	57.	65.	22:38	48.	6:39	N.A.
17	50.	54.	48.	66.	9:29	29.	23: 6	N.A.
18	15.	15.	15.	29.	0: 5	-1.	23:43	N.A.
19	2.	6.	-0.	9.	13:40	-5.	3:32	N.A.
20	9.	12.	8.	17.	14:40	-1.	3:44	N.A.
21	21.	21.	21.	39.	22:35	11.	5: 4	N.A.
22	39.	47.	35.	51.	13:41	28.	3:17	N.A.
23	18.	16.	19.	41.	2:34	0.	23:53	N.A.
24	2.	0.	2.	14.	21:55	-8.	7:59	N.A.
25	45.	48.	43.	51.	17:28	15.	0: 3	N.A.
26	56.	58.	54.	64.	15:19	47.	3:36	N.A.
27	60.	66.	56.	70.	13: 6	43.	23:57	N.A.
28	42.	47.	40.	50.	12:50	33.	21:54	N.A.
29	47.	52.	44.	59.	13:48	33.	1:59	N.A.
30	50.	52.	49.	56.	0: 4	43.	3:54	N.A.
31	43.	47.	41.	52.	12:40	32.	23:47	N.A.
MEAN	29.	32.	27.					N.A.
STANDARD DEVIATION	28.6	29.7	28.5					N.A.

ENVIRONMENTAL SUMMARY REPORT

SITE: TELEX COMMUNICATIONS
BLUE EARTH, MINNESOTA

REPORT PERIOD: 80/12
SITE NUMBER: 167

LATITUDE: 44.00 DEG NORTH AZIMUTH: 0 DEG
LONGITUDE: 94.25 DEG WEST PYRANOMETER TILT: 55 DEG TIME ZONE: CENTRAL
ALTITUDE: 1150 FEET

INSOLATION

DAY	TOTAL INSOLATION BTU/FT2	TOTAL DIFF INSOLATION BTU/FT2	TOTAL DIR INSOLATION BTU/FT2	MAXIMUM TOTAL INSOLATION VALUE BTU/HR/FT2	TIME HR:MN	EXTRATERRESTRIAL INSOLATION BTU/FT2	TTL INS ----- EXT INS PERCENT
1	*	N.A.	N.A.	*	*:*	2963.	*
2	*	N.A.	N.A.	*	*:*	2953.	*
3	*	N.A.	N.A.	*	*:*	2953.	*
4	*	N.A.	N.A.	*	*:*	2953.	*
5	*	N.A.	N.A.	*	*:*	2949.	*
6	*	N.A.	N.A.	*	*:*	2937.	*
7	*	N.A.	N.A.	*	*:*	2938.	*
8	*	N.A.	N.A.	*	*:*	2926.	*
9	*	N.A.	N.A.	*	*:*	2927.	*
10	*	N.A.	N.A.	*	*:*	2925.	*
11	*	N.A.	N.A.	*	*:*	2926.	*
12	1365.	N.A.	N.A.	287.	12:39	2924.	47.
13	1665.	N.A.	N.A.	281.	11:53	2913.	57.
14	892.	N.A.	N.A.	293.	12:49	2912.	31.
15	782.	N.A.	N.A.	250.	13:15	2914.	27.
16	91.	N.A.	N.A.	22.	11:35	2913.	3.
17	896.	N.A.	N.A.	272.	13: 5	2912.	31.
18	572.	N.A.	N.A.	225.	13:54	2912.	20.
19	1458.	N.A.	N.A.	269.	11:58	2903.	50.
20	774.	N.A.	N.A.	256.	10:31	2903.	27.
21	260.	N.A.	N.A.	131.	9:49	2903.	9.
22	225.	N.A.	N.A.	131.	14:21	2903.	8.
23	118.	N.A.	N.A.	34.	10:59	2913.	4.
24	1718.	N.A.	N.A.	297.	12: 3	2914.	59.
25	202.	N.A.	N.A.	94.	12:37	2915.	7.
26	294.	N.A.	N.A.	147.	12:48	2917.	10.
27	322.	N.A.	N.A.	103.	13:25	2915.	11.
28	246.	N.A.	N.A.	169.	9:50	2917.	8.
29	254.	N.A.	N.A.	103.	13: 2	2919.	9.
30	1027.	N.A.	N.A.	284.	12:17	2930.	35.
31	52.	N.A.	N.A.	12.	11:25	2933.	2.
MEAN	661.	N.A.	N.A.			2924.	
STANDARD DEVIATION	547.	N.A.	N.A.			17.	

ENVIRONMENTAL SUMMARY REPORT

SITE: TELEX COMMUNICATIONS
BLUE EARTH, MINNESOTA

REPORT PERIOD: 80/12
SITE NUMBER: 167

LATITUDE: 44.00 DEG NORTH AZIMUTH: 0 DEG
LONGITUDE: 94.25 DEG WEST PYRANOMETER TILT: 55 DEG
TIME ZONE: CENTRAL
ALTITUDE: 1150 FEET

TEMPERATURES IN DEGREES F

DAY	AVERAGE TEMP	DAYTIME TEMP	NIGHTTIME TEMP	MAX TEMPERATURE VALUE	TIME HR:MN	MIN TEMPERATURE VALUE	TIME HR:MN	INLET WATER TEMPERATURE
1	*	*	*	*	*:*	*	*:*	*
2	*	*	*	*	*:*	*	*:*	*
3	*	*	*	*	*:*	*	*:*	*
4	*	*	*	*	*:*	*	*:*	*
5	*	*	*	*	*:*	*	*:*	*
6	*	*	*	*	*:*	*	*:*	*
7	*	*	*	*	*:*	*	*:*	*
8	*	*	*	*	*:*	*	*:*	*
9	*	*	*	*	*:*	*	*:*	*
10	*	*	*	*	*:*	*	*:*	*
11	*	*	*	*	*:*	*	*:*	*
12	43.	46.	32.	48.	14:48	16.	23:58	72.
13	17.	17.	17.	29.	15:42	5.	7:16	69.
14	25.	28.	23.	33.	14:25	18.	23:50	70.
15	27.	31.	25.	38.	15:18	17.	2:19	69.
16	29.	28.	29.	31.	23:45	26.	2:21	68.
17	37.	43.	34.	51.	13:53	29.	23:57	69.
18	20.	25.	18.	29.	0:8	3.	23:31	68.
19	-0.	1.	-1.	6.	14:38	-6.	22:57	64.
20	1.	3.	-0.	8.	13:32	-8.	5:21	65.
21	15.	16.	14.	21.	22:53	7.	0:33	65.
22	25.	27.	24.	32.	14:11	19.	4:13	65.
23	21.	25.	19.	27.	11:36	11.	23:20	65.
24	-1.	-1.	-1.	12.	0:3	-11.	23:44	63.
25	5.	9.	3.	16.	16:0	-12.	0:27	61.
26	17.	19.	16.	21.	12:48	12.	0:32	61.
27	24.	26.	23.	31.	14:56	18.	0:0	60.
28	29.	31.	28.	36.	11:42	24.	0:58	60.
29	26.	26.	25.	31.	14:11	19.	6:54	63.
30	37.	42.	34.	49.	14:41	29.	1:5	66.
31	31.	30.	31.	33.	15:4	28.	9:33	67.
MEAN	21.	24.	20.					66.
STANDARD DEVIATION	12.4	13.2	11.4					3.5

ENVIRONMENTAL SUMMARY REPORT

SITE: TELEX COMMUNICATIONS
BLUE EARTH, MINNESOTA

REPORT PERIOD: 80/12
SITE NUMBER: 167

LATITUDE: 44.00 DEG NORTH AZIMUTH: 0 DEG TIME ZONE: CENTRAL
LONGITUDE: 94.25 DEG WEST PYRANOMETER TILT: 55 DEG ALTITUDE: 1150 FEET

WIND: SPEED IN MPH-DIRECTION IN DEGREES

DAY	AVG WIND DIRECTION	AVG WIND SPEED	DAYTIME DIRECTION	DAYTIME SPEED	MAXIMUM WIND SPEED	MAXIMUM WIND DIRECTION	TIME HR:MN
1	*	*	*	*	*	*	*:*
2	*	*	*	*	*	*	*:*
3	*	*	*	*	*	*	*:*
4	*	*	*	*	*	*	*:*
5	*	*	*	*	*	*	*:*
6	*	*	*	*	*	*	*:*
7	*	*	*	*	*	*	*:*
8	*	*	*	*	*	*	*:*
9	*	*	*	*	*	*	*:*
10	*	*	*	*	*	*	*:*
11	*	*	*	*	*	*	*:*
12	95.	11.	88.	9.	37.	122.	22:43
13	84.	9.	71.	8.	23.	99.	3:26
14	206.	3.	216.	6.	16.	197.	9:31
15	358.	2.	2.	5.	11.	19.	11: 7
16	139.	3.	151.	2.	10.	19.	23:40
17	60.	13.	61.	16.	28.	33.	8:23
18	110.	13.	103.	14.	37.	98.	15:30
19	108.	10.	105.	12.	28.	111.	0: 3
20	*	1.	*	1.	5.	*	0:55
21	317.	7.	322.	9.	26.	6.	22:11
22	311.	8.	309.	11.	24.	326.	5: 7
23	116.	9.	119.	9.	25.	118.	17:44
24	109.	11.	108.	14.	26.	111.	6:32
25	13.	8.	10.	13.	29.	29.	13:25
26	123.	4.	128.	5.	13.	122.	4:43
27	317.	12.	321.	14.	28.	5.	11:33
28	330.	4.	213.	3.	16.	325.	1:36
29	*	2.	*	2.	9.	*	22:41
30	49.	8.	53.	9.	17.	87.	13:26
31	117.	9.	122.	12.	22.	120.	16: 8
MEAN	165.	7.	139.	9.			
STANDARD DEVIATION	110.8	4.0	99.2	4.6			

ENVIRONMENTAL SUMMARY REPORT

SITE: TELEX COMMUNICATIONS
BLUE EARTH, MINNESOTA

REPORT PERIOD: 80/12
SITE NUMBER: 167

LATITUDE: 44.00 DEG NORTH
LONGITUDE: 94.25 DEG WEST

AZIMUTH: 0 DEG
PYRANOMETER TILT: 55 DEG

TIME ZONE: CENTRAL
ALTITUDE: 1150 FEET

WIND: NUMBER OF HOURS IN EACH VELOCITY INTERVAL

DAY	0-3 MPH	4-7 MPH	8-12 MPH	13-18 MPH	19-24 MPH	25-31 MPH	32-38 MPH	ABOVE 38	MISSING HOURS
1	0	0	0	0	0	0	0	0	24
2	0	0	0	0	0	0	0	0	24
3	0	0	0	0	0	0	0	0	24
4	0	0	0	0	0	0	0	0	24
5	0	0	0	0	0	0	0	0	24
6	0	0	0	0	0	0	0	0	24
7	0	0	0	0	0	0	0	0	24
8	0	0	0	0	0	0	0	0	24
9	0	0	0	0	0	0	0	0	24
10	0	0	0	0	0	0	0	0	24
11	0	0	0	0	0	0	0	0	24
12	0	0	7	3	2	0	0	0	12
13	3	9	9	3	0	0	0	0	0
14	15	7	2	0	0	0	0	0	0
15	16	8	0	0	0	0	0	0	0
16	13	11	0	0	0	0	0	0	0
17	0	1	6	12	3	0	0	0	2
18	0	3	9	9	3	0	0	0	0
19	4	4	8	8	0	0	0	0	0
20	24	0	0	0	0	0	0	0	0
21	5	3	13	3	0	0	0	0	0
22	7	4	9	4	0	0	0	0	0
23	4	5	7	8	0	0	0	0	0
24	8	0	4	10	2	0	0	0	0
25	4	9	7	3	1	0	0	0	0
26	10	10	4	0	0	0	0	0	0
27	0	0	16	8	0	0	0	0	0
28	17	5	2	0	0	0	0	0	0
29	20	4	0	0	0	0	0	0	0
30	1	11	12	0	0	0	0	0	0
31	1	8	13	1	0	0	0	0	1
AVERAGE	4.9	3.3	4.1	2.3	0.4	0.0	0.0	0.0	9.0
TOTAL	152	102	128	72	11	0	0	0	279

ENVIRONMENTAL SUMMARY REPORT

SITE: UNIVERSITY OF MINNESOTA
MINNEAPOLIS, MINNESOTA

REPORT PERIOD: 80/12
SITE NUMBER: 131

LATITUDE: 45.00 DEG NORTH AZIMUTH: 5 DEG
LONGITUDE: 93.00 DEG WEST PYRANOMETER TILT: 45 DEG
TIME ZONE: CENTRAL
ALTITUDE: 834 FEET

INSOLATION

DAY	TOTAL INSOLATION BTU/FT2	TOTAL DIFF INSOLATION BTU/FT2	TOTAL DIR INSOLATION BTU/FT2	MAXIMUM TOTAL INSOLATION VALUE BTU/HR/FT2	TIME HR:MN	EXTRATERRESTRIAL INSOLATION BTU/FT2	TTL INS ----- EXT INS PERCENT
1	*	*	*	*	*:*	2727.	*
2	1252.	136.	1116.	279.	11:54	2715.	46.
3	331.	196.	135.	218.	11:56	2712.	12.
4	*	*	*	*	*:*	2710.	*
5	53.	46.	7.	13.	12: 3	2698.	2.
6	*	*	*	*	*:*	2697.	*
7	92.	59.	34.	20.	12:12	2686.	3.
8	*	*	*	*	*:*	2685.	*
9	168.	143.	25.	40.	12:25	2684.	6.
10	263.	233.	31.	81.	13:49	2681.	10.
11	282.	242.	41.	60.	11:49	2670.	11.
12	1341.	115.	1226.	265.	11:46	2671.	50.
13	1138.	136.	1002.	258.	11:55	2668.	43.
14	515.	242.	273.	258.	12:17	2666.	19.
15	165.	147.	18.	74.	10:31	2657.	6.
16	394.	291.	103.	151.	12:41	2656.	15.
17	342.	203.	140.	168.	12:14	2655.	13.
18	*	*	*	*	*:*	2657.	*
19	1034.	183.	851.	232.	11:49	2656.	39.
20	*	*	*	*	*:*	2656.	*
21	*	*	*	*	*:*	2656.	*
22	263.	228.	35.	60.	11: 9	2657.	10.
23	*	*	*	*	*:*	2658.	*
24	*	*	*	*	*:*	2659.	*
25	*	*	*	*	*:*	2657.	*
26	*	*	*	*	*:*	2659.	*
27	*	*	*	*	*:*	2661.	*
28	*	*	*	*	*:*	2671.	*
29	1115.	194.	921.	255.	12: 3	2674.	42.
30	*	*	*	*	*:*	2674.	*
31	62.	67.	*	20.	13: 6	2677.	2.
MEAN	518.	168.	372.			2675.	
STANDARD DEVIATION	457.	70.	465.			20.	

ENVIRONMENTAL SUMMARY REPORT

SITE: UNIVERSITY OF MINNESOTA
MINNEAPOLIS, MINNESOTA

REPORT PERIOD: 80/12
SITE NUMBER: 131

LATITUDE: 45.00 DEG NORTH AZIMUTH: 5 DEG
LONGITUDE: 93.00 DEG WEST PYRANOMETER TILT: 45 DEG TIME ZONE: CENTRAL
ALTITUDE: 834 FEET

TEMPERATURES IN DEGREES F

DAY	AVERAGE TEMP	DAYTIME TEMP	NIGHTTIME TEMP	MAX TEMPERATURE VALUE	TIME HR:MN	MIN TEMPERATURE VALUE	TIME HR:MN	INLET WATER TEMPERATURE
1	19.	18.	19.	30.	0:56	6.	23:54	N.A.
2	8.	10.	7.	20.	14:13	2.	7:59	N.A.
3	19.	20.	18.	26.	14:10	10.	0:17	N.A.
4	28.	30.	26.	37.	13:18	21.	3:37	N.A.
5	36.	37.	35.	39.	19:55	32.	1:1	N.A.
6	36.	38.	35.	39.	15:33	33.	23:55	N.A.
7	29.	29.	28.	32.	0:0	24.	23:36	N.A.
8	20.	23.	18.	31.	14:5	10.	7:52	N.A.
9	20.	25.	17.	28.	13:8	9.	23:9	N.A.
10	7.	9.	6.	12.	13:49	2.	23:44	N.A.
11	10.	13.	9.	17.	23:51	2.	0:0	N.A.
12	32.	43.	26.	52.	13:22	14.	23:45	N.A.
13	16.	16.	15.	28.	22:41	4.	7:45	N.A.
14	22.	22.	22.	29.	0:59	17.	7:34	N.A.
15	25.	28.	24.	32.	13:37	18.	2:41	N.A.
16	28.	30.	26.	34.	13:40	24.	4:46	N.A.
17	36.	42.	33.	47.	12:24	26.	23:54	N.A.
18	17.	21.	15.	26.	0:0	-2.	23:12	N.A.
19	-1.	1.	-3.	8.	13:14	-6.	7:38	N.A.
20	0.	3.	-1.	15.	14:6	-8.	7:42	N.A.
21	13.	13.	13.	20.	22:53	4.	7:26	N.A.
22	24.	27.	23.	31.	15:19	17.	0:34	N.A.
23	22.	25.	20.	27.	12:33	11.	23:46	N.A.
24	1.	1.	0.	11.	0:3	-7.	23:51	N.A.
25	5.	9.	3.	16.	14:26	-8.	2:52	N.A.
26	17.	20.	16.	28.	13:53	15.	17:42	N.A.
27	23.	26.	22.	29.	14:46	16.	0:28	N.A.
28	31.	34.	30.	37.	11:34	26.	1:32	N.A.
29	29.	33.	27.	41.	13:55	22.	7:10	N.A.
30	36.	41.	34.	46.	15:48	28.	0:36	N.A.
31	32.	32.	32.	34.	14:21	29.	21:33	N.A.
MEAN	21.	23.	19.					N.A.
STANDARD DEVIATION	11.1	11.8	10.9					N.A.

ENVIRONMENTAL SUMMARY REPORT

SITE: UNIVERSITY OF MINNESOTA
MINNEAPOLIS, MINNESOTA

REPORT PERIOD: 80/12
SITE NUMBER: 131

LATITUDE: 45.00 DEG NORTH AZIMUTH: 5 DEG TIME ZONE: CENTRAL
LONGITUDE: 93.00 DEG WEST PYRANOMETER TILT: 45 DEG ALTITUDE: 834 FEET

WIND: SPEED IN MPH-DIRECTION IN DEGREES

DAY	AVG WIND DIRECTION	AVG WIND SPEED	DAYTIME DIRECTION	DAYTIME SPEED	MAXIMUM WIND SPEED	MAXIMUM WIND DIRECTION	TIME HR:MN
1	317.	4.	314.	5.	16.	329.	10:59
2	321.	3.	320.	3.	20.	329.	2:39
3	*	1.	*	2.	12.	*	0:38
4	*	2.	*	2.	7.	*	14: 1
5	*	1.	*	1.	7.	*	3:20
6	*	1.	*	1.	6.	*	20:37
7	*	2.	*	2.	9.	*	4:12
8	284.	2.	273.	2.	12.	282.	2:43
9	*	1.	*	1.	11.	*	18:54
10	*	2.	*	2.	9.	*	12:13
11	*	1.	*	0.	5.	*	16:21
12	280.	4.	267.	4.	18.	276.	21:15
13	272.	3.	245.	3.	20.	249.	14:57
14	*	1.	*	1.	12.	*	6:30
15	*	0.	*	1.	6.	*	14: 4
16	*	1.	*	1.	8.	*	22:59
17	275.	3.	262.	3.	14.	346.	20:56
18	284.	6.	277.	8.	25.	311.	11:38
19	286.	4.	280.	4.	12.	265.	1: 9
20	*	1.	*	2.	6.	*	1:40
21	*	1.	*	0.	7.	*	11:58
22	*	1.	*	1.	7.	*	4:34
23	323.	3.	309.	2.	18.	317.	23:57
24	309.	4.	299.	4.	19.	346.	3:52
25	*	1.	*	2.	9.	*	14:52
26	*	1.	*	1.	7.	*	7:56
27	*	1.	*	2.	10.	*	15:18
28	*	0.	*	0.	4.	*	14:11
29	*	0.	*	1.	4.	*	4:14
30	*	1.	*	1.	10.	*	9:24
31	302.	2.	292.	3.	9.	330.	6:10
MEAN	296.	2.	285.	2.			
STANDARD DEVIATION	19.2	1.5	23.5	1.7			

ENVIRONMENTAL SUMMARY REPORT

SITE: UNIVERSITY OF MINNESOTA
MINNEAPOLIS, MINNESOTA

REPORT PERIOD: 80/12
SITE NUMBER: 131

LATITUDE: 45.00 DEG NORTH AZIMUTH: 5 DEG
LONGITUDE: 93.00 DEG WEST PYRANOMETER TILT: 45 DEG TIME ZONE: CENTRAL
ALTITUDE: 834 FEET

WIND: NUMBER OF HOURS IN EACH VELOCITY INTERVAL

DAY	0-3 MPH	4-7 MPH	8-12 MPH	13-18 MPH	19-24 MPH	25-31 MPH	32-38 MPH	ABOVE 38	MISSING HOURS
1	9	14	0	0	0	0	0	0	1
2	15	8	1	0	0	0	0	0	0
3	24	0	0	0	0	0	0	0	0
4	24	0	0	0	0	0	0	0	0
5	24	0	0	0	0	0	0	0	0
6	24	0	0	0	0	0	0	0	0
7	24	0	0	0	0	0	0	0	0
8	20	3	0	0	0	0	0	0	1
9	24	0	0	0	0	0	0	0	0
10	23	1	0	0	0	0	0	0	0
11	24	0	0	0	0	0	0	0	0
12	11	12	1	0	0	0	0	0	0
13	21	3	0	0	0	0	0	0	0
14	24	0	0	0	0	0	0	0	0
15	24	0	0	0	0	0	0	0	0
16	24	0	0	0	0	0	0	0	0
17	15	8	0	0	0	0	0	0	1
18	4	13	6	0	0	0	0	0	1
19	14	9	0	0	0	0	0	0	1
20	24	0	0	0	0	0	0	0	0
21	22	0	0	0	0	0	0	0	2
22	24	0	0	0	0	0	0	0	0
23	16	7	0	0	0	0	0	0	1
24	14	10	0	0	0	0	0	0	0
25	22	0	0	0	0	0	0	0	2
26	23	0	0	0	0	0	0	0	1
27	20	1	0	0	0	0	0	0	3
28	24	0	0	0	0	0	0	0	0
29	24	0	0	0	0	0	0	0	0
30	23	1	0	0	0	0	0	0	0
31	20	2	0	0	0	0	0	0	2
AVERAGE	20.3	3.0	0.3	0.0	0.0	0.0	0.0	0.0	0.5
TOTAL	628	92	8	0	0	0	0	0	16

ENVIRONMENTAL SUMMARY REPORT

SITE: ZIEN MECHANICAL
MILWAUKEE, WISCONSIN

REPORT PERIOD: 80/12
SITE NUMBER: 184

LATITUDE: 43.00 DEG NORTH AZIMUTH: 0 DEG
LONGITUDE: 88.00 DEG WEST PYRANOMETER TILT: 53 DEG TIME ZONE: CENTRAL
ALTITUDE: 750 FEET

INSOLATION

DAY	TOTAL INSOLATION BTU/FT2	TOTAL DIFF INSOLATION BTU/FT2	TOTAL DIR INSOLATION BTU/FT2	MAXIMUM TOTAL INSOLATION VALUE BTU/HR/FT2	TIME HR:MN	EXTRATERRESTRIAL INSOLATION BTU/FT2	TTL INS ----- EXT INS PERCENT
1	145.	N.A.	N.A.	56.	12: 5	2974.	5.
2	581.	N.A.	N.A.	150.	14:32	2974.	20.
3	148.	N.A.	N.A.	47.	8:47	2961.	5.
4	212.	N.A.	N.A.	53.	12:38	2961.	7.
5	8.	N.A.	N.A.	6.	10:17	2961.	0.
6	41.	N.A.	N.A.	18.	12:41	2950.	1.
7	62.	N.A.	N.A.	29.	10:55	2946.	2.
8	37.	N.A.	N.A.	21.	12:26	2947.	1.
9	257.	N.A.	N.A.	159.	14:36	2936.	9.
10	234.	N.A.	N.A.	135.	14: 2	2934.	8.
11	283.	N.A.	N.A.	208.	13:36	2935.	10.
12	918.	N.A.	N.A.	261.	12: 8	2933.	31.
13	1765.	N.A.	N.A.	299.	11:24	2935.	60.
14	699.	N.A.	N.A.	235.	14: 8	2934.	24.
15	430.	N.A.	N.A.	217.	9:47	2924.	15.
16	151.	N.A.	N.A.	59.	10:38	2923.	5.
17	192.	N.A.	N.A.	150.	13:33	2922.	7.
18	77.	N.A.	N.A.	23.	13:34	2921.	3.
19	1697.	N.A.	N.A.	299.	11:45	2921.	58.
20	1777.	N.A.	N.A.	302.	11:20	2925.	61.
21	1222.	N.A.	N.A.	297.	11:45	2925.	42.
22	134.	N.A.	N.A.	44.	12:28	2925.	5.
23	263.	N.A.	N.A.	112.	11:55	2922.	9.
24	1235.	N.A.	N.A.	355.	12:50	2923.	42.
25	1315.	N.A.	N.A.	299.	13:23	2925.	45.
26	532.	N.A.	N.A.	185.	14:13	2926.	18.
27	80.	N.A.	N.A.	44.	11:44	2936.	3.
28	236.	N.A.	N.A.	191.	9:23	2938.	8.
29	720.	N.A.	N.A.	282.	11: 9	2941.	24.
30	39.	N.A.	N.A.	21.	13:18	2939.	1.
31	47.	N.A.	N.A.	26.	9:41	2942.	2.
MEAN	501.	N.A.	N.A.			2937.	
STANDARD DEVIATION	556.	N.A.	N.A.			15.	

ENVIRONMENTAL SUMMARY REPORT

SITE: ZIEN MECHANICAL
MILWAUKEE, WISCONSIN

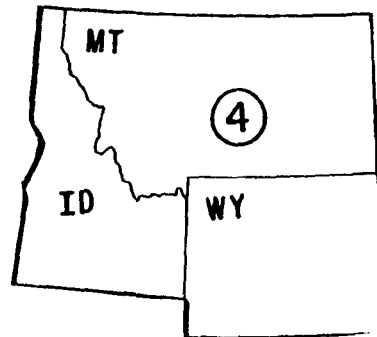
REPORT PERIOD: 80/12
SITE NUMBER: 184

LATITUDE: 43.00 DEG NORTH AZIMUTH: 0 DEG
LONGITUDE: 88.00 DEG WEST PYRANOMETER TILT: 53 DEG
TIME ZONE: CENTRAL
ALTITUDE: 750 FEET

TEMPERATURES IN DEGREES F

DAY	AVERAGE TEMP	DAYTIME TEMP	NIGHTTIME TEMP	MAX TEMPERATURE VALUE	TIME HR:MN	MIN TEMPERATURE VALUE	TIME HR:MN	INLET WATER TEMPERATURE
1	36.	36.	35.	39.	0: 0	27.	23:57	65.
2	19.	21.	19.	31.	1:39	8.	23:21	64.
3	20.	22.	18.	30.	19:13	6.	3:21	62.
4	31.	32.	30.	35.	23: 5	23.	1:16	60.
5	38.	38.	38.	42.	23:37	35.	0:20	60.
6	45.	46.	45.	51.	15:37	39.	4:41	60.
7	43.	42.	43.	48.	0:15	38.	23: 6	62.
8	34.	35.	33.	39.	0:15	25.	23:35	62.
9	24.	26.	24.	28.	12:12	22.	23:38	61.
10	18.	20.	17.	23.	10:40	7.	23:39	61.
11	12.	14.	11.	19.	15: 2	5.	3:34	60.
12	32.	36.	31.	42.	14:27	18.	0: 3	59.
13	24.	23.	24.	39.	0: 7	17.	7:35	58.
14	23.	24.	22.	30.	13:42	16.	22:35	60.
15	23.	25.	21.	29.	12: 6	16.	7:44	60.
16	26.	27.	25.	29.	12:57	23.	6:27	60.
17	30.	30.	31.	37.	22:27	25.	3: 9	57.
18	25.	26.	24.	35.	0:19	8.	23:55	60.
19	2.	3.	1.	8.	0: 1	-4.	6:30	61.
20	4.	8.	3.	13.	14:48	-3.	7:20	58.
21	14.	18.	12.	24.	14:15	3.	3: 9	58.
22	22.	23.	22.	27.	20: 0	18.	1:53	57.
23	29.	31.	27.	33.	14:45	24.	7: 7	59.
24	11.	12.	10.	25.	0: 2	-3.	23:20	61.
25	5.	6.	4.	14.	18:59	-8.	7:25	58.
26	16.	18.	15.	22.	14:13	11.	4:13	59.
27	24.	26.	22.	27.	11:17	19.	0: 5	59.
28	28.	30.	27.	32.	13: 7	23.	2:56	57.
29	31.	32.	30.	35.	11: 9	24.	23:58	61.
30	28.	29.	27.	30.	17: 9	23.	0:30	58.
31	30.	31.	30.	32.	6:29	27.	23: 7	57.
MEAN	24.	25.	23.					60.
STANDARD DEVIATION	10.6	10.2	10.9					2.0

ZONE 4



ENVIRONMENTAL SUMMARY REPORT

SITE: BILLINGS SHIPPING
BILLINGS, MONTANA

REPORT PERIOD: 80/12
SITE NUMBER: 195

LATITUDE: 45.48 DEG NORTH AZIMUTH: 0 DEG
LONGITUDE: 108.32 DEG WEST PYRANOMETER TILT: 50 DEG TIME ZONE: MOUNTAIN
ALTITUDE: 3567 FEET

INSOLATION

DAY	TOTAL INSOLATION BTU/FT2	TOTAL DIFF INSOLATION BTU/FT2	TOTAL DIR INSOLATION BTU/FT2	MAXIMUM INSOLATION VALUE BTU/HR/FT2	TOTAL TIME HR:MN	EXTRATERRESTRIAL INSOLATION BTU/FT2	TTL INS ----- EXT INS PERCENT
1	870.	N.A.	N.A.	305.	10:53	2820.	31.
2	447.	N.A.	N.A.	227.	13:31	2806.	16.
3	611.	N.A.	N.A.	178.	9:24	2805.	22.
4	754.	N.A.	N.A.	293.	13:17	2792.	27.
5	1442.	N.A.	N.A.	290.	11: 7	2791.	52.
6	238.	N.A.	N.A.	50.	12: 0	2790.	9.
7	1253.	N.A.	N.A.	290.	10:54	2778.	45.
8	1250.	N.A.	N.A.	302.	12:46	2778.	45.
9	1140.	N.A.	N.A.	318.	12:27	2766.	41.
10	140.	N.A.	N.A.	41.	12:58	2763.	5.
11	430.	N.A.	N.A.	231.	10:52	2764.	16.
12	659.	N.A.	N.A.	224.	13:27	2765.	24.
13	1534.	N.A.	N.A.	271.	11:32	2763.	56.
14	366.	N.A.	N.A.	165.	10:40	2752.	13.
15	1000.	N.A.	N.A.	274.	11:34	2750.	36.
16	721.	N.A.	N.A.	224.	9:57	2749.	26.
17	165.	N.A.	N.A.	81.	11:12	2752.	6.
18	219.	N.A.	N.A.	59.	13:54	2751.	8.
19	868.	N.A.	N.A.	274.	11:55	2751.	32.
20	200.	N.A.	N.A.	78.	10: 9	2750.	7.
21	677.	N.A.	N.A.	231.	12:16	2751.	25.
22	189.	N.A.	N.A.	59.	13:20	2751.	7.
23	301.	N.A.	N.A.	118.	10:50	2752.	11.
24	427.	N.A.	N.A.	171.	10:28	2753.	16.
25	122.	N.A.	N.A.	118.	11: 0	2751.	4.
26	378.	N.A.	N.A.	212.	13: 2	2752.	14.
27	855.	N.A.	N.A.	280.	12:30	2755.	31.
28	1614.	N.A.	N.A.	280.	12: 3	2765.	58.
29	931.	N.A.	N.A.	268.	13:39	2768.	34.
30	874.	N.A.	N.A.	312.	12:36	2767.	32.
31	716.	N.A.	N.A.	237.	12:18	2771.	26.
MEAN	690.	N.A.	N.A.			2767.	
STANDARD DEVIATION	433.	N.A.	N.A.			19.	

ENVIRONMENTAL SUMMARY REPORT

SITE: BILLINGS SHIPPING
BILLINGS, MONTANA

REPORT PERIOD: 80/12
SITE NUMBER: 195

LATITUDE: 45.48 DEG NORTH AZIMUTH: 0 DEG
LONGITUDE: 108.32 DEG WEST PYRANOMETER TILT: 50 DEG TIME ZONE: MOUNTAIN
ALTITUDE: 3567 FEET

TEMPERATURES IN DEGREES F

DAY	AVERAGE TEMP	DAYTIME TEMP	NIGHTTIME TEMP	MAX TEMPERATURE VALUE	TIME HR:MN	MIN TEMPERATURE VALUE	TIME HR:MN	INLET WATER TEMPERATURE
1	6.	8.	6.	20.	0: 2	-3.	21:36	N.A.
2	7.	8.	6.	16.	22:12	-3.	0: 5	N.A.
3	18.	21.	16.	29.	14:39	12.	5:19	N.A.
4	12.	14.	10.	20.	13:17	4.	19: 2	N.A.
5	8.	12.	5.	17.	12:22	-0.	23:39	N.A.
6	4.	6.	2.	10.	13:25	-4.	4:11	N.A.
7	11.	14.	10.	21.	15:20	5.	0:11	N.A.
8	27.	30.	26.	39.	21:25	13.	2: 0	N.A.
9	32.	33.	31.	41.	15: 1	20.	5:57	N.A.
10	40.	43.	38.	49.	15:22	28.	5:36	N.A.
11	50.	55.	48.	64.	13:11	41.	7: 3	N.A.
12	41.	46.	38.	53.	13:38	26.	23:58	N.A.
13	37.	44.	34.	58.	14:28	22.	7:37	N.A.
14	48.	51.	46.	56.	21:36	36.	6:12	N.A.
15	61.	65.	58.	71.	13:47	52.	23:27	N.A.
16	57.	63.	54.	68.	12:31	46.	23: 7	N.A.
17	42.	43.	41.	55.	3: 7	27.	23:51	N.A.
18	17.	17.	17.	27.	0:39	6.	23:17	N.A.
19	7.	8.	6.	14.	12:59	3.	7:55	N.A.
20	10.	11.	9.	14.	19: 8	3.	1: 5	N.A.
21	22.	26.	19.	38.	13:42	11.	2: 9	N.A.
22	25.	24.	26.	34.	7: 2	20.	10:30	N.A.
23	11.	11.	11.	21.	0: 5	2.	23:38	N.A.
24	7.	9.	7.	21.	23:54	1.	1:30	N.A.
25	39.	42.	37.	48.	19:48	22.	0: 4	N.A.
26	50.	53.	48.	62.	18: 6	41.	0:42	N.A.
27	53.	59.	49.	70.	14: 6	40.	6:22	N.A.
28	44.	51.	41.	58.	14:43	30.	23:37	N.A.
29	44.	50.	40.	61.	14:11	26.	2:54	N.A.
30	51.	55.	48.	67.	14:12	43.	5:56	N.A.
31	45.	48.	43.	58.	13: 6	37.	23:56	N.A.
MEAN	30.	33.	28.					N.A.
STANDARD DEVIATION	18.3	19.6	17.6					N.A.

ENVIRONMENTAL SUMMARY REPORT

SITE: DESIGN CONSTRUCTION
BIGFORK, MONTANA

REPORT PERIOD: 80/12
SITE NUMBER: 76

LATITUDE: 48.00 DEG NORTH
LONGITUDE: 107.00 DEG WEST

AZIMUTH: 0 DEG
PYRANOMETER TILT: 45 DEG

TIME ZONE: MOUNTAIN
ALTITUDE: 2284 FEET

INSOLATION

DAY	TOTAL INSOLATION BTU/FT2	TOTAL DIFF INSOLATION BTU/FT2	TOTAL DIR INSOLATION BTU/FT2	MAXIMUM TOTAL INSOLATION VALUE BTU/HR/FT2	TIME HR:MN	EXTRATERRESTRIAL INSOLATION BTU/FT2	TTL INS ----- EXT INS PERCENT
1	289.	N.A.	N.A.	163.	12:23	2573.	11.
2	5.	N.A.	N.A.	7.	9:49	2562.	0.
3	40.	N.A.	N.A.	27.	12:18	2560.	2.
4	190.	N.A.	N.A.	221.	14:53	2557.	7.
5	43.	N.A.	N.A.	34.	13:41	2544.	2.
6	127.	N.A.	N.A.	88.	13:20	2542.	5.
7	372.	N.A.	N.A.	204.	13:30	2529.	15.
8	0.	N.A.	N.A.	0.	7:22	2528.	0.
9	217.	N.A.	N.A.	160.	14: 1	2527.	9.
10	0.	N.A.	N.A.	0.	7:27	2515.	0.
11	861.	N.A.	N.A.	248.	13:43	2511.	34.
12	644.	N.A.	N.A.	224.	13:41	2512.	26.
13	211.	N.A.	N.A.	98.	13:22	2509.	8.
14	0.	N.A.	N.A.	0.	7:25	2498.	0.
15	154.	N.A.	N.A.	170.	11:19	2496.	6.
16	1263.	N.A.	N.A.	248.	12:17	2498.	51.
17	550.	N.A.	N.A.	160.	10:14	2496.	22.
18	11.	N.A.	N.A.	7.	12: 1	2495.	0.
19	314.	N.A.	N.A.	194.	14: 9	2495.	13.
20	*	N.A.	N.A.	0.	7:30	2495.	0.
21	*	N.A.	N.A.	0.	7:30	2495.	0.
22	*	N.A.	N.A.	0.	7:26	2495.	0.
23	*	N.A.	N.A.	7.	10:47	2496.	0.
24	*	N.A.	N.A.	0.	7:26	2497.	0.
25	*	N.A.	N.A.	105.	15:37	2499.	3.
26	*	N.A.	N.A.	0.	7:26	2501.	0.
27	413.	N.A.	N.A.	265.	13:28	2500.	17.
28	1165.	N.A.	N.A.	255.	13: 0	2503.	47.
29	63.	N.A.	N.A.	95.	10:52	2514.	2.
30	22.	N.A.	N.A.	20.	10:43	2518.	1.
31	204.	N.A.	N.A.	149.	12:48	2518.	8.
MEAN	*	N.A.	N.A.			2515.	
STANDARD DEVIATION	*****	N.A.	N.A.			23.	

ENVIRONMENTAL SUMMARY REPORT

SITE: DESIGN CONSTRUCTION
BIGFORK, MONTANA

REPORT PERIOD: 80/12
SITE NUMBER: 76

LATITUDE: 48.00 DEG NORTH AZIMUTH: 0 DEG
LONGITUDE: 107.00 DEG WEST PYRANOMETER TILT: 45 DEG
TIME ZONE: MOUNTAIN
ALTITUDE: 2284 FEET

TEMPERATURES IN DEGREES F

DAY	AVERAGE TEMP	DAYTIME TEMP	NIGHTTIME TEMP	MAX TEMPERATURE VALUE	TIME HR:MN	MIN TEMPERATURE VALUE	TIME HR:MN	INLET WATER TEMPERATURE
1	19.	21.	18.	27.	12:23	15.	6:37	66.
2	24.	25.	23.	29.	22:58	17.	0:3	50.
3	37.	40.	36.	47.	23:3	26.	3:46	68.
4	38.	38.	38.	51.	8:2	23.	23:44	59.
5	31.	33.	29.	36.	14:8	23.	1:9	56.
6	15.	16.	15.	23.	0:0	9.	20:32	54.
7	15.	19.	13.	26.	13:41	10.	4:53	51.
8	19.	19.	18.	25.	22:39	12.	3:49	61.
9	25.	26.	24.	32.	16:9	21.	7:59	56.
10	39.	40.	38.	45.	22:31	27.	1:13	54.
11	46.	47.	45.	50.	12:13	43.	7:57	61.
12	39.	44.	36.	54.	14:40	25.	23:27	55.
13	29.	32.	27.	35.	13:22	23.	4:15	61.
14	34.	33.	34.	43.	23:8	27.	0:40	52.
15	47.	48.	46.	52.	17:59	43.	1:0	61.
16	44.	45.	44.	56.	14:52	32.	9:16	62.
17	45.	47.	44.	53.	14:41	35.	23:55	57.
18	24.	23.	25.	35.	0:0	16.	23:24	60.
19	19.	21.	18.	28.	14:20	15.	5:58	54.
20	24.	23.	24.	27.	23:3	22.	0:18	57.
21	31.	31.	31.	39.	23:10	26.	0:2	52.
22	41.	41.	41.	44.	15:58	37.	1:50	57.
23	40.	42.	39.	43.	2:58	23.	23:58	55.
24	25.	25.	25.	34.	23:42	20.	3:53	60.
25	42.	42.	42.	49.	20:46	33.	0:9	52.
26	49.	49.	49.	54.	16:39	43.	1:8	58.
27	48.	49.	47.	54.	7:24	42.	22:16	53.
28	42.	46.	39.	50.	14:41	31.	22:20	62.
29	31.	33.	31.	37.	16:12	25.	5:0	62.
30	39.	40.	38.	41.	11:5	35.	0:3	52.
31	39.	42.	37.	47.	13:4	33.	23:54	62.
MEAN	33.	35.	33.					57.
STANDARD DEVIATION	10.3	10.4	10.3					4.5

ENVIRONMENTAL SUMMARY REPORT

SITE: WYOMING RURAL ELECTRIC ASSOCIATION
CASPER, WYOMING

REPORT PERIOD: 80/12
SITE NUMBER: 200

LATITUDE: 43.00 DEG NORTH AZIMUTH: 0 DEG
LONGITUDE: 106.00 DEG WEST PYRANOMETER TILT: 62 DEG
TIME ZONE: MOUNTAIN
ALTITUDE: 5140 FEET

INSOLATION

DAY	TOTAL INSOLATION BTU/FT2	TOTAL DIFF INSOLATION BTU/FT2	TOTAL DIR INSOLATION BTU/FT2	MAXIMUM TOTAL INSOLATION VALUE BTU/HR/FT2	TIME HR:MN	EXTRATERRESTRIAL INSOLATION BTU/FT2	TTL INS ----- EXT INS PERCENT
1	729.	N.A.	N.A.	369.	11:28	3073.	24.
2	1285.	N.A.	N.A.	337.	12:13	3074.	42.
3	1175.	N.A.	N.A.	321.	13: 6	3062.	38.
4	1122.	N.A.	N.A.	311.	11:34	3063.	37.
5	761.	N.A.	N.A.	289.	12:30	3064.	25.
6	235.	N.A.	N.A.	176.	12:43	3052.	8.
7	194.	N.A.	N.A.	58.	12: 3	3050.	6.
8	1891.	N.A.	N.A.	321.	11:50	3052.	62.
9	*	N.A.	N.A.	*	*:*	3041.	*
10	*	N.A.	N.A.	*	*:*	3039.	*
11	1326.	N.A.	N.A.	359.	12:39	3041.	44.
12	980.	N.A.	N.A.	298.	13:28	3040.	32.
13	1807.	N.A.	N.A.	295.	11:53	3042.	59.
14	620.	N.A.	N.A.	160.	9: 3	3041.	20.
15	1278.	N.A.	N.A.	317.	12: 1	3031.	42.
16	1381.	N.A.	N.A.	314.	12:20	3030.	46.
17	*	N.A.	N.A.	*	*:*	3030.	*
18	67.	N.A.	N.A.	29.	13:18	3029.	2.
19	1060.	N.A.	N.A.	305.	11:45	3029.	35.
20	1148.	N.A.	N.A.	276.	12:44	3033.	38.
21	1552.	N.A.	N.A.	308.	11:45	3033.	51.
22	1029.	N.A.	N.A.	317.	11:52	3034.	34.
23	1462.	N.A.	N.A.	305.	12:21	3030.	48.
24	793.	N.A.	N.A.	314.	11:57	3031.	26.
25	1114.	N.A.	N.A.	321.	11:55	3032.	37.
26	1138.	N.A.	N.A.	298.	12: 5	3034.	38.
27	975.	N.A.	N.A.	273.	12:10	3044.	32.
28	*	N.A.	N.A.	*	*:*	3046.	*
29	1729.	N.A.	N.A.	321.	12:18	3048.	57.
30	964.	N.A.	N.A.	273.	12:20	3046.	32.
31	278.	N.A.	N.A.	115.	11:18	3048.	9.
MEAN	1041.	N.A.	N.A.			3043.	
STANDARD DEVIATION	477.	N.A.	N.A.			13.	

ENVIRONMENTAL SUMMARY REPORT

SITE: WYOMING RURAL ELECTRIC ASSOCIATION
CASPER, WYOMING

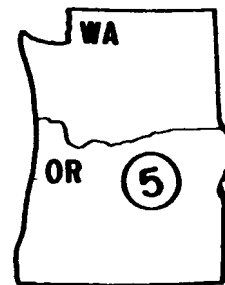
REPORT PERIOD: 80/12
SITE NUMBER: 200

LATITUDE: 43.00 DEG NORTH AZIMUTH: 0 DEG
LONGITUDE: 106.00 DEG WEST PYRANOMETER TILT: 62 DEG TIME ZONE: MOUNTAIN
ALTITUDE: 5140 FEET

TEMPERATURES IN DEGREES F

DAY	AVERAGE TEMP	DAYTIME TEMP	NIGHTTIME TEMP	MAX TEMPERATURE VALUE TIME HR:MN	MIN TEMPERATURE VALUE TIME HR:MN	INLET WATER TEMPERATURE
1	14.	15.	13.	29. 0: 0	2. 23:57	N.A.
2	31.	38.	27.	51. 17: 6	2. 0:13	N.A.
3	51.	53.	50.	58. 13: 6	47. 5:48	N.A.
4	51.	53.	50.	56. 10:41	44. 23:36	N.A.
5	30.	28.	32.	45. 1: 7	18. 6:16	N.A.
6	28.	29.	26.	34. 14:41	25. 1: 5	N.A.
7	21.	23.	20.	27. 3:55	11. 23:29	N.A.
8	24.	30.	21.	37. 13:21	6. 6:35	N.A.
9	29.	29.	29.	37. 9: 0	24. 2:41	N.A.
10	42.	43.	42.	43. 14:54	41. 23:32	N.A.
11	47.	49.	46.	54. 13:48	41. 0:41	N.A.
12	43.	49.	40.	53. 10: 0	26. 23:53	N.A.
13	37.	43.	34.	57. 13:45	20. 7:11	N.A.
14	43.	45.	42.	48. 10:28	38. 4:47	N.A.
15	51.	54.	49.	58. 15:29	43. 1:21	N.A.
16	55.	57.	53.	60. 13: 8	46. 7:37	N.A.
17	50.	58.	44.	61. 12: 4	31. 23:26	N.A.
18	24.	21.	27.	51. 0:30	13. 22:25	N.A.
19	16.	19.	14.	28. 14:47	11. 6: 9	N.A.
20	26.	33.	22.	45. 13:53	11. 2: 9	N.A.
21	39.	47.	33.	51. 14:59	20. 4: 1	N.A.
22	47.	49.	46.	52. 12:14	43. 23:59	N.A.
23	36.	43.	32.	47. 15: 1	14. 23:57	N.A.
24	20.	17.	21.	47. 23: 2	6. 3:36	N.A.
25	48.	51.	47.	56. 14: 3	43. 3: 2	N.A.
26	51.	53.	50.	56. 14:39	45. 6:30	N.A.
27	56.	60.	54.	62. 12:42	51. 3:54	N.A.
28	40.	49.	37.	53. 15:35	26. 23:19	N.A.
29	39.	45.	36.	54. 15: 3	21. 7:35	N.A.
30	50.	53.	48.	56. 15:43	39. 22: 3	N.A.
31	42.	45.	41.	55. 15: 2	28. 6:51	N.A.
MEAN	38.	41.	36.			N.A.
STANDARD DEVIATION	12.2	13.2	12.0			N.A.

ZONE 5



ENVIRONMENTAL SUMMARY REPORT

SITE: G.E. SPOKANE
SPOKANE, WASHINGTON

REPORT PERIOD: 80/12
SITE NUMBER: 110

LATITUDE: 47.38 DEG NORTH
LONGITUDE: 117.32 DEG WEST

AZIMUTH: 0 DEG
PYRANOMETER TILT: 58 DEG

TIME ZONE: PACIFIC
ALTITUDE: 2356 FEET

INSOLATION

DAY	TOTAL INSOLATION BTU/FT2	TOTAL DIFF INSOLATION BTU/FT2	TOTAL DIR INSOLATION BTU/FT2	MAXIMUM TOTAL INSOLATION VALUE BTU/HR/FT2	TIME HR:MN	EXTRATERRESTRIAL INSOLATION BTU/FT2	TTL INS ----- EXT INS PERCENT
1	338.	N.A.	N.A.	185.	12: 5	2858.	12.
2	14.	N.A.	N.A.	7.	11:26	2844.	0.
3	58.	N.A.	N.A.	36.	10:40	2846.	2.
4	648.	N.A.	N.A.	303.	11: 1	2832.	23.
5	197.	N.A.	N.A.	192.	13:37	2832.	7.
6	393.	N.A.	N.A.	146.	14:35	2818.	14.
7	1368.	N.A.	N.A.	277.	11:13	2818.	49.
8	38.	N.A.	N.A.	13.	14:54	2819.	1.
9	162.	N.A.	N.A.	78.	10:34	2815.	6.
10	31.	N.A.	N.A.	10.	10:41	2803.	1.
11	375.	N.A.	N.A.	176.	9:13	2804.	13.
12	244.	N.A.	N.A.	153.	13:30	2801.	9.
13	157.	N.A.	N.A.	111.	14:36	2789.	6.
14	24.	N.A.	N.A.	10.	10:41	2788.	1.
15	585.	N.A.	N.A.	198.	10: 9	2790.	21.
16	90.	N.A.	N.A.	26.	11:15	2789.	3.
17	54.	N.A.	N.A.	20.	12:12	2791.	2.
18	129.	N.A.	N.A.	88.	12:30	2791.	5.
19	393.	N.A.	N.A.	208.	12:51	2790.	14.
20	44.	N.A.	N.A.	16.	12:21	2790.	2.
21	23.	N.A.	N.A.	10.	10:24	2790.	1.
22	367.	N.A.	N.A.	195.	14: 3	2791.	13.
23	54.	N.A.	N.A.	20.	11:56	2792.	2.
24	14.	N.A.	N.A.	7.	12:10	2793.	1.
25	274.	N.A.	N.A.	273.	11:43	2790.	10.
26	32.	N.A.	N.A.	16.	10:34	2792.	1.
27	386.	N.A.	N.A.	130.	15: 1	2794.	14.
28	1441.	N.A.	N.A.	267.	12: 3	2792.	52.
29	162.	N.A.	N.A.	75.	13: 7	2795.	6.
30	18.	N.A.	N.A.	13.	11:48	2808.	1.
31	163.	N.A.	N.A.	205.	14: 3	2807.	6.
MEAN	267.	N.A.	N.A.			2805.	
STANDARD DEVIATION	349.	N.A.	N.A.			20.	

ENVIRONMENTAL SUMMARY REPORT

SITE: G.E. SPOKANE
SPOKANE, WASHINGTON

REPORT PERIOD: 80/12
SITE NUMBER: 110

LATITUDE: 47.38 DEG NORTH AZIMUTH: 0 DEG
LONGITUDE: 117.32 DEG WEST PYRANOMETER TILT: 58 DEG TIME ZONE: PACIFIC
ALTITUDE: 2356 FEET

TEMPERATURES IN DEGREES F

DAY	AVERAGE TEMP	DAYTIME TEMP	NIGHTTIME TEMP	MAX TEMPERATURE VALUE TIME HR:MN	MIN TEMPERATURE VALUE TIME HR:MN	INLET WATER TEMPERATURE
1	37.	40.	34.	46. 12: 5	29. 22:54	N.A.
2	35.	33.	36.	43. 23: 2	31. 0: 4	N.A.
3	44.	45.	43.	48. 21:25	40. 5:36	N.A.
4	35.	35.	35.	45. 0:11	30. 8:37	N.A.
5	31.	33.	30.	40. 9:12	-12. 9:34	N.A.
6	25.	28.	23.	32. 14:41	14. 21:15	N.A.
7	16.	22.	13.	27. 11:45	8. 23:50	N.A.
8	18.	21.	16.	23. 14:55	8. 1:15	N.A.
9	19.	21.	19.	24. 13:40	13. 6:55	N.A.
10	30.	32.	29.	37. 14:14	22. 0:49	N.A.
11	39.	43.	37.	45. 10:49	31. 23:38	N.A.
12	32.	36.	29.	43. 13:35	25. 23:51	N.A.
13	29.	32.	27.	39. 14:47	23. 5:27	N.A.
14	31.	33.	31.	36. 14:41	27. 0:49	N.A.
15	38.	45.	34.	51. 10:51	31. 0:22	N.A.
16	32.	33.	32.	36. 13:45	30. 22:57	N.A.
17	32.	33.	32.	36. 13: 5	29. 4:22	N.A.
18	35.	38.	33.	40. 14:17	30. 23:52	N.A.
19	31.	34.	30.	41. 12:56	28. 6: 0	N.A.
20	31.	31.	31.	32. 2:13	27. 5:57	N.A.
21	34.	34.	34.	37. 23:39	32. 1:25	N.A.
22	42.	45.	41.	51. 14:35	36. 1:42	N.A.
23	41.	43.	40.	46. 13:11	37. 23:59	N.A.
24	40.	41.	40.	45. 16:47	34. 1: 3	N.A.
25	49.	51.	49.	55. 12:42	43. 0:10	N.A.
26	56.	57.	56.	60. 15: 1	53. 0:10	N.A.
27	51.	52.	50.	58. 0:58	40. 23:49	N.A.
28	44.	53.	38.	62. 13:18	35. 7:47	N.A.
29	39.	42.	38.	48. 13: 7	34. 6:11	N.A.
30	42.	43.	42.	44. 14:56	40. 3:21	N.A.
31	43.	46.	42.	52. 14: 3	37. 22:35	N.A.
MEAN	36.	38.	34.			N.A.
STANDARD DEVIATION	9.0	9.1	9.2			N.A.

ENVIRONMENTAL SUMMARY REPORT

SITE: LANDURA CORPORATION
STAYTON, OREGON

REPORT PERIOD: 80/12
SITE NUMBER: 156

LATITUDE: 45.00 DEG NORTH AZIMUTH: 0 DEG
LONGITUDE: 123.00 DEG WEST PYRANOMETER TILT: 89 DEG
TIME ZONE: PACIFIC
ALTITUDE: 1000 FEET

DAY	TOTAL GLOBAL INSOLATION BTU/FT2	PYRANOMETER TILT 89 DEG INSOLATION BTU/FT2	INSOLATION TOTAL DIR INSOLATION BTU/FT2	MAXIMUM TOTAL INSOLATION VALUE BTU/HR/FT2	TIME HR:MN	EXTRATERRESTRIAL INSOLATION BTU/FT2	TTL INS ----- EXT INS PERCENT
1	147.	59.	*	71.	11:43	2893.	5.
2	20.	3.	*	23.	14:51	2883.	1.
3	1.	0.	*	3.	11:24	2887.	0.
4	102.	51.	*	68.	12:55	2891.	4.
5	116.	59.	*	117.	12:28	2880.	4.
6	166.	153.	*	172.	12:12	2884.	6.
7	411.	694.	*	136.	11:16	2873.	14.
8	380.	786.	*	126.	10:54	2877.	13.
9	98.	31.	*	29.	12:55	2881.	3.
10	289.	308.	*	136.	12: 5	2881.	10.
11	394.	1192.	*	104.	11:17	2870.	14.
12	424.	997.	*	104.	12:17	2874.	15.
13	384.	776.	*	110.	12:16	2874.	13.
14	205.	206.	*	91.	13:24	2874.	7.
15	359.	1087.	*	91.	11:48	2863.	13.
16	215.	114.	*	45.	10:30	2863.	8.
17	137.	38.	*	42.	10:58	2863.	5.
18	78.	17.	*	23.	11:46	2867.	3.
19	72.	17.	*	19.	10:24	2867.	3.
20	82.	29.	*	49.	12:10	2868.	3.
21	243.	421.	*	120.	11:53	2868.	8.
22	101.	31.	*	39.	12:40	2868.	4.
23	185.	124.	*	71.	12: 1	2869.	6.
24	3.	0.	*	3.	11: 5	2869.	0.
25	23.	5.	*	16.	12: 9	2866.	1.
26	36.	8.	*	19.	10: 4	2866.	1.
27	241.	475.	*	97.	12: 2	2867.	8.
28	198.	115.	*	52.	10: 4	2878.	7.
29	62.	22.	*	23.	8:50	2878.	2.
30	243.	412.	*	107.	12:34	2875.	8.
31	148.	46.	*	42.	12:36	2876.	5.
MEAN	179.	276.	0.			2874.	
STANDARD DEVIATION	130.	362.	*****			8.	

ENVIRONMENTAL SUMMARY REPORT

SITE: LANDURA CORPORATION
STAYTON, OREGON

REPORT PERIOD: 80/12
SITE NUMBER: 156

LATITUDE: 45.00 DEG NORTH AZIMUTH: 0 DEG TIME ZONE: PACIFIC
LONGITUDE: 123.00 DEG WEST PYRANOMETER TILT: 89 DEG ALTITUDE: 1000 FEET

TEMPERATURES IN DEGREES F

DAY	AVERAGE TEMP	DAYTIME TEMP	NIGHTTIME TEMP	MAX TEMPERATURE VALUE	TIME HR:MN	MIN TEMPERATURE VALUE	TIME HR:MN	INLET WATER TEMPERATURE
1	41.	43.	41.	45.	11:48	39.	22:30	69.
2	48.	52.	46.	53.	9:26	39.	0: 0	71.
3	42.	45.	41.	50.	3:51	31.	19: 9	71.
4	35.	36.	35.	38.	12:55	32.	0:29	68.
5	36.	37.	36.	39.	12:34	34.	19:29	68.
6	33.	36.	32.	40.	12:12	26.	22:25	69.
7	28.	30.	26.	33.	10:33	23.	7:35	67.
8	29.	32.	28.	37.	12:19	24.	7: 4	67.
9	29.	29.	29.	31.	16:47	27.	5:54	66.
10	36.	38.	35.	44.	16: 0	28.	0:53	67.
11	42.	47.	40.	59.	12:37	36.	7:44	69.
12	34.	39.	31.	43.	14:52	24.	23:38	67.
13	36.	40.	34.	49.	11:44	23.	5:52	66.
14	46.	48.	44.	57.	14:50	40.	6:45	67.
15	44.	48.	41.	54.	14:55	35.	7:48	68.
16	38.	40.	37.	45.	14: 3	32.	23:40	67.
17	34.	35.	33.	38.	14:52	31.	3:30	67.
18	35.	35.	34.	37.	13: 1	32.	5:28	67.
19	38.	40.	38.	42.	14:40	35.	0:10	67.
20	47.	49.	46.	52.	12:42	39.	0: 4	69.
21	52.	54.	51.	60.	14: 7	48.	3:11	70.
22	50.	50.	49.	53.	0: 3	47.	22:41	69.
23	44.	46.	44.	50.	12: 1	40.	20:47	70.
24	51.	51.	51.	59.	22:38	41.	0:15	70.
25	58.	58.	58.	63.	23:21	56.	2:49	71.
26	56.	56.	55.	58.	18:36	52.	23:51	72.
27	51.	53.	50.	56.	11:56	46.	23:40	71.
28	41.	41.	41.	47.	0:34	35.	8:34	68.
29	44.	45.	44.	52.	21:37	35.	4:34	70.
30	55.	58.	54.	60.	15: 2	51.	0: 1	71.
31	50.	51.	50.	54.	0:25	45.	23:48	70.
MEAN	42.	44.	41.					69.
STANDARD DEVIATION	8.3	8.1	8.5					1.8

ENVIRONMENTAL SUMMARY REPORT

SITE: MODENA HOMES
EUGENE, OREGON

REPORT PERIOD: 80/12
SITE NUMBER: 72

LATITUDE: 44.00 DEG NORTH AZIMUTH: 0 DEG
LONGITUDE: 123.00 DEG WEST PYRANOMETER TILT: 90 DEG
TIME ZONE: PACIFIC
ALTITUDE: 359 FEET

INSOLATION

DAY	TOTAL INSOLATION BTU/FT2	TOTAL DIFF INSOLATION BTU/FT2	TOTAL DIR INSOLATION BTU/FT2	MAXIMUM TOTAL INSOLATION VALUE TIME BTU/HR/FT2 HR:MN	EXTRATERRESTRIAL INSOLATION BTU/FT2	TTL INS ----- EXT INS PERCENT
1	106.	N.A.	N.A.	134. 9:40	2885.	4.
2	2.	N.A.	N.A.	10. 14:37	2880.	0.
3	0.	N.A.	N.A.	0. 7: 7	2884.	0.
4	363.	N.A.	N.A.	268. 12:26	2888.	13.
5	351.	N.A.	N.A.	265. 11:56	2888.	12.
6	190.	N.A.	N.A.	290. 12:54	2878.	7.
7	158.	N.A.	N.A.	217. 12:17	2882.	5.
8	235.	N.A.	N.A.	185. 13:10	2872.	8.
9	0.	N.A.	N.A.	0. 7:10	2876.	0.
10	441.	N.A.	N.A.	204. 12:32	2877.	15.
11	1580.	N.A.	N.A.	255. 12: 1	2881.	55.
12	1127.	N.A.	N.A.	223. 11:55	2881.	39.
13	1239.	N.A.	N.A.	249. 12:44	2871.	43.
14	437.	N.A.	N.A.	242. 13:21	2871.	15.
15	560.	N.A.	N.A.	211. 13:15	2875.	19.
16	331.	N.A.	N.A.	166. 14: 1	2875.	12.
17	5.	N.A.	N.A.	6. 11:29	2875.	0.
18	0.	N.A.	N.A.	0. 7:12	2876.	0.
19	0.	N.A.	N.A.	0. 7:10	2865.	0.
20	39.	N.A.	N.A.	38. 12: 0	2866.	1.
21	417.	N.A.	N.A.	246. 12:28	2866.	15.
22	109.	N.A.	N.A.	195. 10:26	2866.	4.
23	89.	N.A.	N.A.	115. 12:29	2877.	3.
24	0.	N.A.	N.A.	3. 14:32	2877.	0.
25	103.	N.A.	N.A.	220. 11: 4	2878.	4.
26	67.	N.A.	N.A.	112. 14:25	2878.	2.
27	692.	N.A.	N.A.	249. 11:50	2875.	24.
28	578.	N.A.	N.A.	239. 12:44	2875.	20.
29	7.	N.A.	N.A.	13. 8:23	2875.	0.
30	1082.	N.A.	N.A.	258. 11:51	2886.	37.
31	0.	N.A.	N.A.	0. 7:10	2886.	0.
MEAN	396.	N.A.	N.A.		2877.	
STANDARD DEVIATION	429.	N.A.	N.A.		6.	

ENVIRONMENTAL SUMMARY REPORT

SITE: MODENA HOMES
EUGENE, OREGON

REPORT PERIOD: 80/12
SITE NUMBER: 72

LATITUDE: 44.00 DEG NORTH AZIMUTH: 0 DEG
LONGITUDE: 123.00 DEG WEST PYRANOMETER TILT: 90 DEG
TIME ZONE: PACIFIC
ALTITUDE: 359 FEET

TEMPERATURES IN DEGREES F

DAY	AVERAGE TEMP	DAYTIME TEMP	NIGHTTIME TEMP	MAX TEMPERATURE VALUE	TIME HR:MN	MIN TEMPERATURE VALUE	TIME HR:MN	INLET WATER TEMPERATURE
1	42.	44.	40.	48.	14:28	39.	4:20	N.A.
2	50.	53.	48.	54.	15: 4	40.	0: 3	N.A.
3	45.	47.	43.	52.	1:52	33.	18:55	N.A.
4	38.	40.	36.	44.	14:56	34.	1:52	N.A.
5	38.	40.	37.	44.	13:48	35.	6:20	N.A.
6	36.	38.	35.	44.	13:20	31.	22: 8	N.A.
7	31.	31.	30.	33.	12:22	26.	21:26	N.A.
8	29.	30.	28.	33.	13:58	26.	22:54	N.A.
9	30.	30.	30.	33.	23:12	28.	0:14	N.A.
10	38.	43.	35.	51.	12:48	28.	6:51	N.A.
11	41.	50.	36.	60.	14:57	29.	5:26	N.A.
12	37.	43.	31.	52.	12:49	26.	7:29	N.A.
13	45.	46.	44.	54.	12:49	37.	9:26	N.A.
14	45.	52.	41.	60.	13:27	36.	6: 1	N.A.
15	40.	44.	38.	54.	14:14	32.	7:34	N.A.
16	38.	42.	36.	57.	15:37	33.	6:12	N.A.
17	37.	38.	36.	40.	11:29	35.	6:36	N.A.
18	36.	36.	36.	38.	20:25	35.	3:34	N.A.
19	40.	41.	39.	43.	15:10	37.	0:20	N.A.
20	49.	52.	47.	59.	14:29	41.	0: 0	N.A.
21	54.	56.	52.	62.	13:59	48.	7:33	N.A.
22	51.	52.	50.	56.	10:42	47.	23:57	N.A.
23	44.	45.	43.	51.	13:33	36.	7:20	N.A.
24	51.	51.	51.	58.	23:52	42.	0: 5	N.A.
25	60.	60.	59.	64.	12:19	58.	0:19	N.A.
26	56.	56.	56.	60.	0: 8	51.	19:29	N.A.
27	54.	57.	52.	64.	16:11	43.	23:55	N.A.
28	43.	46.	41.	53.	14:57	36.	7:29	N.A.
29	45.	46.	45.	56.	23:56	36.	7:29	N.A.
30	56.	64.	52.	74.	14:47	45.	23:52	N.A.
31	51.	52.	50.	54.	12:14	47.	0: 3	N.A.
MEAN	43.	46.	42.					N.A.
STANDARD DEVIATION	8.0	8.5	8.2					N.A.

ENVIRONMENTAL SUMMARY REPORT

SITE: MODENA HOMES
EUGENE, OREGON

REPORT PERIOD: 80/12
SITE NUMBER: 72

LATITUDE: 44.00 DEG NORTH AZIMUTH: 0 DEG TIME ZONE: PACIFIC
LONGITUDE: 123.00 DEG WEST PYRANOMETER TILT: 90 DEG ALTITUDE: 359 FEET

WIND: SPEED IN MPH-DIRECTION IN DEGREES

DAY	AVG WIND DIRECTION	AVG WIND SPEED	DAYTIME DIRECTION	DAYTIME SPEED	MAXIMUM WIND SPEED DIRECTION	TIME HR:MN	
1	312.	4.	317.	5.	11.	317.	10:12
2	1.	9.	356.	15.	34.	339.	7:52
3	20.	5.	142.	3.	17.	3.	2:40
4	6.	8.	6.	10.	16.	352.	10:56
5	22.	6.	36.	8.	17.	44.	13:53
6	*	4.	*	5.	12.	*	15: 7
7	174.	4.	171.	6.	12.	158.	13:47
8	*	2.	*	2.	8.	*	7:24
9	*	1.	*	2.	7.	*	11:48
10	*	2.	*	3.	9.	*	10:13
11	*	2.	*	3.	9.	*	18:25
12	*	1.	*	1.	5.	*	15: 7
13	303.	2.	309.	3.	8.	285.	23: 2
14	*	1.	*	2.	6.	*	9:18
15	*	1.	*	1.	6.	*	14:46
16	*	0.	*	0.	4.	*	16:20
17	*	1.	*	1.	4.	*	4:33
18	*	1.	*	1.	5.	*	18: 1
19	*	1.	*	1.	4.	*	9:24
20	*	1.	*	1.	8.	*	11:38
21	2.	9.	356.	9.	26.	14.	17:27
22	13.	6.	19.	7.	16.	14.	1:11
23	*	1.	*	2.	10.	*	12: 3
24	349.	6.	333.	3.	20.	344.	17:23
25	0.	9.	3.	8.	20.	24.	3:41
26	326.	3.	301.	3.	15.	346.	23:39
27	2.	3.	3.	2.	15.	12.	0:59
28	*	1.	*	1.	5.	*	21:59
29	*	1.	*	2.	8.	*	23:19
30	*	2.	*	2.	8.	*	0: 2
31	*	2.	*	2.	7.	*	16:14
MEAN	118.	3.	181.	4.			
STANDARD DEVIATION	149.5	2.8	151.7	3.4			

ENVIRONMENTAL SUMMARY REPORT

SITE: MODENA HOMES
EUGENE, OREGON

REPORT PERIOD: 80/12
SITE NUMBER: 72

LATITUDE: 44.00 DEG NORTH AZIMUTH: 0 DEG
LONGITUDE: 123.00 DEG WEST PYRANOMETER TILT: 90 DEG
TIME ZONE: PACIFIC
ALTITUDE: 359 FEET

WIND: NUMBER OF HOURS IN EACH VELOCITY INTERVAL

DAY	0-3 MPH	4-7 MPH	8-12 MPH	13-18 MPH	19-24 MPH	25-31 MPH	32-38 MPH	ABOVE 38	MISSING HOURS
1	11	13	0	0	0	0	0	0	0
2	3	9	3	7	2	0	0	0	0
3	12	7	5	0	0	0	0	0	0
4	0	10	14	0	0	0	0	0	0
5	2	17	5	0	0	0	0	0	0
6	10	14	0	0	0	0	0	0	0
7	10	14	0	0	0	0	0	0	0
8	22	2	0	0	0	0	0	0	0
9	24	0	0	0	0	0	0	0	0
10	22	2	0	0	0	0	0	0	0
11	22	2	0	0	0	0	0	0	0
12	16	0	0	0	0	0	0	0	8
13	13	3	0	0	0	0	0	0	8
14	24	0	0	0	0	0	0	0	0
15	24	0	0	0	0	0	0	0	0
16	24	0	0	0	0	0	0	0	0
17	24	0	0	0	0	0	0	0	0
18	24	0	0	0	0	0	0	0	0
19	24	0	0	0	0	0	0	0	0
20	23	1	0	0	0	0	0	0	0
21	6	2	10	6	0	0	0	0	0
22	4	15	5	0	0	0	0	0	0
23	22	2	0	0	0	0	0	0	0
24	11	4	9	0	0	0	0	0	0
25	4	4	16	0	0	0	0	0	0
26	14	9	1	0	0	0	0	0	0
27	19	4	1	0	0	0	0	0	0
28	24	0	0	0	0	0	0	0	0
29	22	2	0	0	0	0	0	0	0
30	22	2	0	0	0	0	0	0	0
31	22	1	0	0	0	0	0	0	1
AVERAGE	16.3	4.5	2.2	0.4	0.1	0.0	0.0	0.0	0.5
TOTAL	504	139	69	13	2	0	0	0	17

ENVIRONMENTAL SUMMARY REPORT

SITE: MODENA HOMES
EUGENE, OREGON

REPORT PERIOD: 80/12
SITE NUMBER: 72

LATITUDE: 44.00 DEG NORTH AZIMUTH: 0 DEG
LONGITUDE: 123.00 DEG WEST PYRANOMETER TILT: 90 DEG
TIME ZONE: PACIFIC
ALTITUDE: 359 FEET

RELATIVE HUMIDITY IN PER CENT

DAY	RELATIVE HUMIDITY	DAYTIME REL HUM	NIGHTTIME REL HUM	MAXIMUM VALUE	HUMIDITY TIME HR:MN	MINIMUM VALUE	HUMIDITY TIME HR:MN
1	64.	50.	73.	87.	22:59	43.	14: 1
2	80.	78.	81.	95.	4:13	64.	15:47
3	83.	87.	81.	92.	13:41	70.	1:52
4	74.	67.	78.	86.	2:24	47.	15:12
5	73.	67.	76.	80.	6:36	46.	12:17
6	72.	65.	76.	80.	2:19	38.	13:20
7	68.	62.	72.	78.	22: 3	49.	12:17
8	70.	63.	74.	80.	23:58	46.	14: 4
9	85.	86.	84.	88.	23:39	79.	0:41
10	71.	59.	80.	92.	9:15	34.	12:48
11	59.	37.	71.	83.	8:38	17.	14:57
12	60.	46.	77.	84.	9:53	25.	12:54
13	47.	39.	55.	65.	22:36	24.	13:37
14	53.	36.	62.	74.	23:56	19.	13:37
15	70.	61.	75.	83.	4:23	33.	14:19
16	75.	66.	80.	84.	23:19	36.	15:37
17	84.	83.	85.	88.	23:55	78.	11:45
18	88.	87.	89.	91.	23:58	84.	12:22
19	89.	86.	90.	92.	7:48	79.	14:44
20	87.	84.	88.	94.	10: 2	69.	14:34
21	75.	67.	79.	94.	9:25	39.	15: 3
22	74.	71.	77.	85.	2:58	48.	10:42
23	79.	71.	83.	93.	23:23	49.	12:40
24	84.	89.	81.	92.	12:32	67.	5:31
25	75.	78.	74.	85.	16:13	51.	23: 4
26	65.	68.	64.	86.	6:48	39.	21:31
27	69.	56.	77.	86.	1:37	30.	13:58
28	78.	65.	84.	91.	22:15	40.	14:41
29	83.	79.	86.	91.	4:49	64.	14:25
30	69.	49.	80.	92.	6:26	24.	13:38
31	85.	86.	85.	91.	17: 2	77.	21:44
MEAN	74.	67.	78.				
STANDARD DEVIATION	10.	16.	8.				

ENVIRONMENTAL SUMMARY REPORT

SITE: OLYMPIC ENGINEERING
RICHLAND, WASHINGTON

REPORT PERIOD: 80/12
SITE NUMBER: 6

LATITUDE: 46.20 DEG NORTH
LONGITUDE: 118.20 DEG WEST

AZIMUTH: 0 DEG
PYRANOMETER TILT: 56 DEG

TIME ZONE: PACIFIC
ALTITUDE: 949 FEET

INSOLATION

DAY	TOTAL INSOLATION BTU/FT2	TOTAL DIFF INSOLATION BTU/FT2	TOTAL DIR INSOLATION BTU/FT2	MAXIMUM TOTAL INSOLATION VALUE BTU/HR/FT2	TIME HR:MN	EXTRATERRESTRIAL INSOLATION BTU/FT2	TTL INS ----- EXT INS PERCENT
1	1186.	N.A.	N.A.	303.	11:11	2887.	41.
2	145.	N.A.	N.A.	42.	11: 3	2873.	5.
3	133.	N.A.	N.A.	42.	11:28	2872.	5.
4	1081.	N.A.	N.A.	279.	11:28	2859.	38.
5	332.	N.A.	N.A.	132.	10:35	2859.	12.
6	212.	N.A.	N.A.	51.	12:22	2858.	7.
7	592.	N.A.	N.A.	252.	10:58	2846.	21.
8	426.	N.A.	N.A.	273.	12: 8	2846.	15.
9	134.	N.A.	N.A.	30.	9:52	2843.	5.
10	46.	N.A.	N.A.	18.	11:31	2831.	2.
11	621.	N.A.	N.A.	267.	11: 3	2832.	22.
12	353.	N.A.	N.A.	201.	11:59	2830.	12.
13	114.	N.A.	N.A.	87.	10:33	2831.	4.
14	59.	N.A.	N.A.	27.	11:33	2829.	2.
15	78.	N.A.	N.A.	27.	11: 1	2819.	3.
16	22.	N.A.	N.A.	12.	11:42	2817.	1.
17	13.	N.A.	N.A.	9.	12: 4	2816.	0.
18	17.	N.A.	N.A.	15.	12:16	2820.	1.
19	45.	N.A.	N.A.	21.	11:56	2819.	2.
20	38.	N.A.	N.A.	18.	10:23	2819.	1.
21	20.	N.A.	N.A.	18.	13:53	2819.	1.
22	401.	N.A.	N.A.	207.	9:47	2820.	14.
23	77.	N.A.	N.A.	42.	12:11	2821.	3.
24	5.	N.A.	N.A.	6.	12:43	2818.	0.
25	458.	N.A.	N.A.	249.	12:54	2819.	16.
26	52.	N.A.	N.A.	33.	9:42	2821.	2.
27	398.	N.A.	N.A.	195.	14:14	2823.	14.
28	1402.	N.A.	N.A.	249.	11:59	2834.	49.
29	199.	N.A.	N.A.	111.	9:51	2837.	7.
30	88.	N.A.	N.A.	48.	11:53	2836.	3.
31	3.	N.A.	N.A.	3.	11:23	2835.	0.
MEAN	282.	N.A.	N.A.			2835.	
STANDARD DEVIATION	362.	N.A.	N.A.			19.	

ENVIRONMENTAL SUMMARY REPORT

SITE: OLYMPIC ENGINEERING
RICHLAND, WASHINGTON

REPORT PERIOD: 80/12
SITE NUMBER: 6

LATITUDE: 46.20 DEG NORTH
LONGITUDE: 118.20 DEG WEST

AZIMUTH: 0 DEG
PYRANOMETER TILT: 56 DEG

TIME ZONE: PACIFIC
ALTITUDE: 949 FEET

TEMPERATURES IN DEGREES F

DAY	AVERAGE TEMP	DAYTIME TEMP	NIGHTTIME TEMP	MAX TEMPERATURE VALUE	TIME HR:MN	MIN TEMPERATURE VALUE	TIME HR:MN	INLET WATER TEMPERATURE
1	41.	49.	36.	58.	11:16	33.	1:56	71.
2	37.	36.	37.	46.	23:39	33.	7:35	75.
3	40.	41.	40.	45.	0:54	38.	8: 0	*
4	41.	45.	39.	51.	12: 0	33.	7: 2	67.
5	32.	33.	32.	37.	0: 6	27.	23:55	62.
6	23.	26.	21.	28.	13: 5	11.	21:58	*
7	17.	22.	14.	28.	11:36	7.	6:30	72.
8	25.	28.	23.	35.	12:13	20.	0: 2	*
9	26.	28.	25.	30.	12:53	24.	1:20	*
10	28.	28.	29.	35.	23:28	*	8:30	55.
11	40.	50.	35.	58.	11: 8	30.	2:51	53.
12	36.	43.	33.	49.	13:13	30.	23:53	53.
13	30.	33.	29.	36.	13:34	27.	3:32	66.
14	32.	34.	32.	37.	14:39	29.	0:25	72.
15	33.	33.	33.	36.	14:39	30.	7:54	57.
16	37.	38.	36.	40.	13:39	34.	7:58	49.
17	35.	36.	35.	37.	14:44	33.	5: 8	53.
18	35.	36.	35.	39.	12:59	34.	2: 8	50.
19	37.	39.	36.	41.	13:11	35.	3:35	55.
20	35.	36.	35.	38.	13:14	33.	22:55	71.
21	35.	35.	34.	37.	13:31	32.	1:40	71.
22	48.	56.	44.	60.	12:49	33.	4:27	54.
23	46.	50.	44.	54.	12:43	36.	21:11	55.
24	42.	42.	42.	47.	21:58	39.	5:17	54.
25	49.	50.	49.	61.	23:23	40.	2:35	*
26	59.	62.	58.	64.	1:37	50.	23: 7	54.
27	55.	58.	53.	62.	3:45	42.	22:41	75.
28	44.	53.	40.	61.	14:39	32.	23:59	77.
29	38.	40.	36.	46.	13:24	30.	2:44	55.
30	44.	45.	43.	48.	14:43	40.	7: 5	55.
31	46.	47.	46.	49.	15:34	44.	5: 5	54.
MEAN	38.	40.	36.					61.
STANDARD DEVIATION	9.1	10.0	9.0					9.2

ENVIRONMENTAL SUMMARY REPORT

SITE: WASHINGTON NATURAL GAS
KIRTLAND, WASHINGTON

REPORT PERIOD: 80/12
SITE NUMBER: 64

LATITUDE: 47.50 DEG NORTH
LONGITUDE: 122.30 DEG WEST

AZIMUTH: 0 DEG
PYRANOMETER TILT: 57 DEG

TIME ZONE: PACIFIC
ALTITUDE: 200 FEET

INSOLATION

DAY	TOTAL INSOLATION BTU/FT2	TOTAL DIFF. INSOLATION BTU/FT2	TOTAL DIR INSOLATION BTU/FT2	MAXIMUM TOTAL INSOLATION VALUE BTU/HR/FT2	TIME HR:MN	EXTRATERRESTRIAL INSOLATION BTU/FT2	TTL INS ----- EXT INS PERCENT
1	75.	N.A.	N.A.	82.	9: 2	2830.	3.
2	16.	N.A.	N.A.	9.	13:11	2829.	1.
3	31.	N.A.	N.A.	12.	12: 5	2828.	1.
4	473.	N.A.	N.A.	274.	12:38	2814.	17.
5	134.	N.A.	N.A.	152.	11:24	2804.	5.
6	1325.	N.A.	N.A.	271.	11:59	2803.	47.
7	1183.	N.A.	N.A.	258.	11:40	2803.	42.
8	550.	N.A.	N.A.	240.	13: 6	2799.	20.
9	737.	N.A.	N.A.	267.	12: 1	2787.	26.
10	20.	N.A.	N.A.	6.	11: 7	2787.	1.
11	36.	N.A.	N.A.	21.	13: 6	2775.	1.
12	148.	N.A.	N.A.	88.	13:10	2772.	5.
13	517.	N.A.	N.A.	267.	12: 3	2774.	19.
14	37.	N.A.	N.A.	18.	13:41	2772.	1.
15	1103.	N.A.	N.A.	258.	12:21	2774.	40.
16	198.	N.A.	N.A.	143.	10:52	2773.	7.
17	16.	N.A.	N.A.	6.	10:31	2772.	1.
18	72.	N.A.	N.A.	161.	14: 0	2761.	3.
19	384.	N.A.	N.A.	277.	11:20	2761.	14.
20	20.	N.A.	N.A.	9.	12:38	2761.	1.
21	43.	N.A.	N.A.	61.	14:39	2761.	2.
22	57.	N.A.	N.A.	27.	13:19	2761.	2.
23	68.	N.A.	N.A.	24.	10:48	2762.	2.
24	20.	N.A.	N.A.	6.	10:10	2763.	1.
25	38.	N.A.	N.A.	27.	10:32	2774.	1.
26	84.	N.A.	N.A.	33.	12:24	2776.	3.
27	208.	N.A.	N.A.	179.	14:42	2778.	7.
28	853.	N.A.	N.A.	255.	11:49	2777.	31.
29	24.	N.A.	N.A.	9.	11: 6	2779.	1.
30	41.	N.A.	N.A.	18.	12:41	2778.	1.
31	45.	N.A.	N.A.	18.	10:29	2791.	2.
MEAN	276.	N.A.	N.A.			2783.	
STANDARD DEVIATION	382.	N.A.	N.A.			21.	

ENVIRONMENTAL SUMMARY REPORT

SITE: WASHINGTON NATURAL GAS
KIRTLAND, WASHINGTON

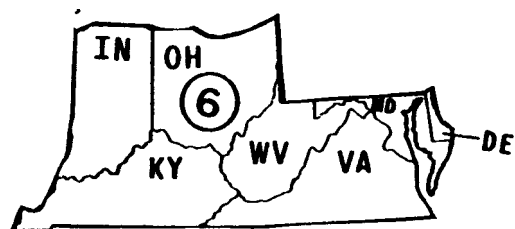
REPORT PERIOD: 80/12
SITE NUMBER: 64

LATITUDE: 47.50 DEG NORTH AZIMUTH: 0 DEG
LONGITUDE: 122.30 DEG WEST PYRANOMETER TILT: 57 DEG TIME ZONE: PACIFIC
ALTITUDE: 200 FEET

TEMPERATURES IN DEGREES F

DAY	AVERAGE TEMP	DAYTIME TEMP	NIGHTTIME TEMP	MAX TEMPERATURE VALUE	TIME HR:MN	MIN TEMPERATURE VALUE	TIME HR:MN	INLET WATER TEMPERATURE
1	40.	41.	40.	42.	10:17	39.	7: 5	53.
2	40.	40.	40.	42.	14:39	39.	21:51	53.
3	39.	39.	38.	42.	15:28	35.	7:17	52.
4	37.	39.	36.	41.	15:19	33.	2:51	51.
5	36.	37.	36.	40.	13:41	33.	23:43	53.
6	29.	30.	28.	33.	0: 5	25.	22:39	51.
7	29.	31.	27.	36.	14:10	24.	3:43	51.
8	33.	36.	32.	41.	15: 8	29.	0:12	49.
9	37.	38.	37.	44.	13:42	30.	1:53	50.
10	46.	47.	45.	49.	15:15	42.	3:18	50.
11	46.	46.	47.	49.	16:33	44.	9:28	53.
12	46.	47.	45.	48.	14:17	42.	21:50	48.
13	45.	46.	44.	49.	14: 6	41.	7:42	50.
14	50.	50.	50.	54.	22:45	45.	0: 3	50.
15	56.	59.	54.	63.	15:35	48.	23:51	58.
16	45.	45.	46.	49.	0: 2	41.	5:59	53.
17	45.	45.	45.	46.	0:12	44.	22:46	55.
18	42.	43.	42.	45.	14: 6	38.	23:52	53.
19	41.	42.	40.	45.	13: 2	36.	2:27	55.
20	45.	44.	45.	49.	19:44	41.	6:30	51.
21	47.	47.	47.	49.	23:54	46.	1:15	50.
22	50.	51.	50.	53.	2:45	47.	23:36	51.
23	46.	47.	46.	49.	12:56	43.	21:49	52.
24	48.	48.	48.	50.	18:37	45.	0:13	59.
25	56.	56.	56.	58.	23:41	50.	0: 3	51.
26	58.	59.	57.	61.	15:25	54.	21:54	54.
27	52.	52.	52.	54.	0:34	50.	8: 2	52.
28	51.	53.	50.	56.	13:14	46.	22:45	55.
29	48.	47.	48.	50.	20:31	46.	10: 2	55.
30	50.	50.	50.	53.	20:32	48.	23:28	57.
31	48.	49.	48.	51.	13:27	46.	23: 3	56.
MEAN	45.	45.	44.					53.
STANDARD DEVIATION	7.2	7.0	7.3					2.7

ZONE 6



ENVIRONMENTAL SUMMARY REPORT

SITE: BAKER CONSTRUCTION
CINCINNATI, OHIO

REPORT PERIOD: 80/12
SITE NUMBER: 63

LATITUDE: 39.07 DEG NORTH
LONGITUDE: 84.30 DEG WEST

AZIMUTH: 0 DEG
PYRANOMETER TILT: 62 DEG

TIME ZONE: CENTRAL
ALTITUDE: 550 FEET

INSOLATION

DAY	TOTAL INSOLATION BTU/FT2	TOTAL DIFF INSOLATION BTU/FT2	TOTAL DIR INSOLATION BTU/FT2	MAXIMUM TOTAL INSOLATION VALUE BTU/HR/FT2	TOTAL TIME HR:MN	EXTRATERRESTRIAL INSOLATION BTU/FT2	TTL INS ----- EXT INS PERCENT
1	480.	N.A.	N.A.	256.	12:45	3192.	15.
2	96.	N.A.	N.A.	59.	11:27	3195.	3.
3	1543.	N.A.	N.A.	319.	11:33	3184.	48.
4	952.	N.A.	N.A.	293.	12:44	3183.	30.
5	157.	N.A.	N.A.	56.	11:14	3185.	5.
6	1093.	N.A.	N.A.	263.	11:49	3187.	34.
7	472.	N.A.	N.A.	224.	12:32	3186.	15.
8	326.	N.A.	N.A.	145.	9:50	3176.	10.
9	30.	N.A.	N.A.	13.	12:14	3179.	1.
10	509.	N.A.	N.A.	286.	10:44	3178.	16.
11	69.	N.A.	N.A.	23.	11: 7	3168.	2.
12	906.	N.A.	N.A.	296.	12: 8	3168.	29.
13	445.	N.A.	N.A.	253.	10:55	3171.	14.
14	373.	N.A.	N.A.	148.	12:21	3170.	12.
15	63.	N.A.	N.A.	26.	10:14	3170.	2.
16	181.	N.A.	N.A.	53.	12:13	3169.	6.
17	1590.	N.A.	N.A.	309.	12: 7	3173.	50.
18	572.	N.A.	N.A.	233.	13:35	3173.	18.
19	616.	N.A.	N.A.	293.	10:54	3173.	19.
20	1555.	N.A.	N.A.	296.	12:28	3173.	49.
21	1488.	N.A.	N.A.	289.	11: 8	3173.	47.
22	1377.	N.A.	N.A.	289.	11:38	3174.	43.
23	99.	N.A.	N.A.	26.	11: 7	3174.	3.
24	91.	N.A.	N.A.	33.	10:26	3175.	3.
25	1722.	N.A.	N.A.	335.	11:57	3176.	54.
26	126.	N.A.	N.A.	30.	11:46	3173.	4.
27	179.	N.A.	N.A.	39.	14:15	3174.	6.
28	1543.	N.A.	N.A.	296.	11:41	3175.	49.
29	35.	N.A.	N.A.	13.	11:13	3172.	1.
30	76.	N.A.	N.A.	23.	11:52	3174.	2.
31	48.	N.A.	N.A.	16.	12:18	3184.	2.
MEAN	607.	N.A.	N.A.			3177.	
STANDARD DEVIATION	586.	N.A.	N.A.			7.	

ENVIRONMENTAL SUMMARY REPORT

SITE: BAKER CONSTRUCTION
CINCINNATI, OHIO

REPORT PERIOD: 80/12
SITE NUMBER: 63

LATITUDE: 39.07 DEG NORTH AZIMUTH: 0 DEG TIME ZONE: CENTRAL
LONGITUDE: 84.30 DEG WEST PYRANOMETER TILT: 62 DEG ALTITUDE: 550 FEET

TEMPERATURES IN DEGREES F

DAY	AVERAGE TEMP	DAYTIME TEMP	NIGHTTIME TEMP	MAX TEMPERATURE VALUE	TIME HR:MN	MIN TEMPERATURE VALUE	TIME HR:MN	INLET WATER TEMPERATURE
1	55.	58.	53.	64.	15:25	47.	6:31	N.A.
2	44.	44.	44.	58.	3:32	29.	23:54	N.A.
3	31.	34.	29.	44.	14:55	23.	8: 5	N.A.
4	39.	42.	37.	54.	14:26	27.	4: 7	N.A.
5	52.	53.	52.	59.	15:24	44.	0: 7	N.A.
6	59.	64.	56.	72.	14:45	53.	7:44	N.A.
7	60.	61.	59.	69.	15: 5	50.	7:23	N.A.
8	58.	61.	56.	65.	14: 6	49.	23:53	N.A.
9	43.	44.	43.	49.	0: 9	38.	23:27	N.A.
10	34.	33.	34.	39.	0: 4	29.	7:32	N.A.
11	34.	34.	34.	37.	15:50	31.	1:42	N.A.
12	44.	48.	42.	58.	16:20	35.	0:45	N.A.
13	37.	40.	35.	44.	11:33	24.	22:50	N.A.
14	32.	35.	30.	42.	16:26	25.	0:31	N.A.
15	34.	35.	33.	40.	10:30	30.	0: 5	N.A.
16	32.	34.	31.	34.	11:47	24.	23:14	N.A.
17	29.	31.	28.	41.	15:30	16.	7:51	N.A.
18	41.	45.	39.	53.	14:23	35.	0: 9	N.A.
19	22.	21.	24.	38.	0:41	15.	23:56	N.A.
20	13.	15.	12.	22.	14:46	5.	8:12	N.A.
21	16.	19.	13.	26.	14:45	6.	7:24	N.A.
22	28.	31.	26.	43.	14:34	13.	3: 1	N.A.
23	37.	37.	37.	39.	0: 0	32.	23:46	N.A.
24	27.	31.	25.	35.	11: 3	13.	21:17	N.A.
25	14.	18.	12.	27.	15:25	3.	8: 2	N.A.
26	22.	24.	21.	28.	15:30	15.	1:44	N.A.
27	26.	28.	24.	31.	14:58	17.	23:57	N.A.
28	27.	31.	24.	51.	15:35	12.	7:25	N.A.
29	33.	35.	32.	37.	18:20	27.	3:19	N.A.
30	32.	32.	33.	35.	1:17	30.	9:12	N.A.
31	34.	35.	34.	38.	17:16	31.	0:55	N.A.
MEAN	35.	37.	34.					N.A.
STANDARD DEVIATION	12.5	12.6	12.5					N.A.

ENVIRONMENTAL SUMMARY REPORT

SITE: BAKER CONSTRUCTION
CINCINNATI, OHIO

REPORT PERIOD: 80/12
SITE NUMBER: 63

LATITUDE: 39.07 DEG NORTH AZIMUTH: 0 DEG TIME ZONE: CENTRAL
LONGITUDE: 84.30 DEG WEST PYRANOMETER TILT: 62 DEG ALTITUDE: 550 FEET

WIND: SPEED IN MPH-DIRECTION IN DEGREES

DAY	AVG WIND DIRECTION	AVG WIND SPEED	DAYTIME DIRECTION	DAYTIME SPEED	MAXIMUM WIND SPEED	MAXIMUM WIND DIRECTION	TIME HR:MN
1	360.	3.	10.	3.	8.	9.	23: 6
2	83.	9.	87.	10.	18.	93.	12:58
3	131.	2.	351.	1.	11.	121.	0:31
4	*	1.	*	1.	5.	*	13:43
5	*	2.	*	2.	6.	*	22: 3
6	*	1.	*	2.	5.	*	13:57
7	21.	2.	29.	3.	7.	67.	14: 6
8	24.	4.	19.	6.	10.	155.	19:37
9	145.	3.	149.	4.	7.	165.	13:55
10	112.	4.	107.	4.	10.	109.	3: 5
11	*	2.	*	2.	7.	*	0:27
12	16.	3.	18.	5.	15.	66.	14: 2
13	143.	3.	142.	7.	13.	154.	12:31
14	*	2.	*	3.	8.	*	13:46
15	*	0.	*	1.	5.	*	9:37
16	167.	3.	163.	4.	8.	161.	18: 5
17	*	2.	*	2.	9.	*	19:30
18	59.	2.	8.	1.	7.	283.	19:37
19	145.	7.	149.	8.	15.	128.	6:17
20	158.	2.	160.	3.	10.	166.	0:49
21	*	1.	*	2.	5.	*	11:45
22	*	2.	*	3.	6.	*	7:38
23	17.	2.	18.	3.	5.	47.	15: 2
24	151.	4.	149.	6.	17.	132.	18:10
25	*	1.	*	1.	7.	*	0: 8
26	*	2.	*	2.	6.	*	6:26
27	*	1.	*	1.	3.	*	16:13
28	*	0.	*	1.	4.	*	12:55
29	143.	2.	136.	2.	9.	153.	18:36
30	159.	3.	145.	2.	9.	167.	5:33
31	359.	4.	331.	3.	7.	74.	20:12
MEAN	133.	3.	121.	3.			
STANDARD DEVIATION	98.6	1.8	100.0	2.1			

ENVIRONMENTAL SUMMARY REPORT

SITE: BAKER CONSTRUCTION
CINCINNATI, OHIO

REPORT PERIOD: 80/12
SITE NUMBER: 63

LATITUDE: 39.07 DEG NORTH
LONGITUDE: 84.30 DEG WEST

AZIMUTH: 0 DEG
PYRANOMETER TILT: 62 DEG

TIME ZONE: CENTRAL
ALTITUDE: 550 FEET

WIND: NUMBER OF HOURS IN EACH VELOCITY INTERVAL

DAY	0-3 MPH	4-7 MPH	8-12 MPH	13-18 MPH	19-24 MPH	25-31 MPH	32-38 MPH	ABOVE 38	MISSING HOURS
1	18	6	0	0	0	0	0	0	0
2	0	8	16	0	0	0	0	0	0
3	19	5	0	0	0	0	0	0	0
4	24	0	0	0	0	0	0	0	0
5	22	2	0	0	0	0	0	0	0
6	24	0	0	0	0	0	0	0	0
7	20	4	0	0	0	0	0	0	0
8	12	12	0	0	0	0	0	0	0
9	17	7	0	0	0	0	0	0	0
10	9	15	0	0	0	0	0	0	0
11	23	1	0	0	0	0	0	0	0
12	18	6	0	0	0	0	0	0	0
13	16	3	5	0	0	0	0	0	0
14	22	2	0	0	0	0	0	0	0
15	22	1	0	0	0	0	0	0	1
16	17	7	0	0	0	0	0	0	0
17	21	3	0	0	0	0	0	0	0
18	21	3	0	0	0	0	0	0	0
19	0	13	11	0	0	0	0	0	0
20	21	3	0	0	0	0	0	0	0
21	24	0	0	0	0	0	0	0	0
22	24	0	0	0	0	0	0	0	0
23	24	0	0	0	0	0	0	0	0
24	12	6	6	0	0	0	0	0	0
25	24	0	0	0	0	0	0	0	0
26	20	4	0	0	0	0	0	0	0
27	24	0	0	0	0	0	0	0	0
28	24	0	0	0	0	0	0	0	0
29	15	9	0	0	0	0	0	0	0
30	13	11	0	0	0	0	0	0	0
31	10	13	0	0	0	0	0	0	1
AVERAGE	18.1	4.6	1.2	0.0	0.0	0.0	0.0	0.0	0.1
TOTAL	560	144	38	0	0	0	0	0	2

ENVIRONMENTAL SUMMARY REPORT

SITE: COLUMBIA GAS
COLUMBUS, OHIO

REPORT PERIOD: 80/12
SITE NUMBER: 176

LATITUDE: 40.00 DEG NORTH
LONGITUDE: 83.00 DEG WEST

AZIMUTH: -5 DEG
PYRANOMETER TILT: 40 DEG

TIME ZONE: EASTERN
ALTITUDE: 755 FEET

INSOLATION

DAY	TOTAL INSOLATION BTU/FT2	TOTAL DIFF INSOLATION BTU/FT2	TOTAL DIR INSOLATION BTU/FT2	MAXIMUM TOTAL INSOLATION VALUE BTU/HR/FT2	TIME HR:MN	EXTRATERRESTRIAL INSOLATION BTU/FT2	TTL INS ----- EXT INS PERCENT
1	379.	283.	97.	218.	10:38	2840.	13.
2	194.	139.	55.	166.	12:58	2828.	7.
3	1690.	184.	1506.	291.	12:18	2827.	60.
4	1113.	326.	787.	294.	13:17	2816.	40.
5	65.	71.	*	32.	14: 3	2815.	2.
6	199.	197.	2.	118.	12:30	2811.	7.
7	494.	263.	232.	202.	13: 4	2811.	18.
8	404.	257.	147.	192.	10:19	2801.	14.
9	35.	42.	*	16.	13: 8	2798.	1.
10	476.	221.	255.	294.	12: 5	2799.	17.
11	143.	146.	*	106.	11:42	2796.	5.
12	832.	328.	504.	250.	13:42	2786.	30.
13	245.	188.	57.	195.	10:16	2784.	9.
14	932.	350.	581.	301.	12:53	2786.	33.
15	114.	120.	*	32.	11:22	2785.	4.
16	670.	246.	425.	288.	12:30	2783.	24.
17	1641.	208.	1433.	291.	12:33	2782.	59.
18	156.	157.	*	90.	13: 5	2786.	6.
19	1296.	346.	950.	288.	12:30	2785.	47.
20	959.	341.	618.	301.	12:18	2785.	34.
21	1263.	299.	964.	323.	12:16	2785.	45.
22	1358.	242.	1116.	291.	12:48	2786.	49.
23	463.	189.	275.	230.	11:15	2787.	17.
24	54.	91.	*	29.	12: 9	2788.	2.
25	1224.	265.	958.	314.	12:32	2785.	44.
26	218.	276.	*	51.	13:48	2787.	8.
27	242.	264.	*	48.	13:42	2789.	9.
28	1551.	198.	1353.	272.	12:35	2791.	56.
29	64.	73.	*	32.	12:25	2790.	2.
30	49.	58.	*	16.	11:49	2792.	2.
31	41.	55.	*	19.	10:39	2803.	1.
MEAN	599.	207.	*			2796.	
STANDARD DEVIATION	546.	94.	*****			15.	

ENVIRONMENTAL SUMMARY REPORT

SITE: COLUMBIA GAS
COLUMBUS, OHIO

REPORT PERIOD: 80/12
SITE NUMBER: 176

LATITUDE: 40.00 DEG NORTH AZIMUTH: -5 DEG TIME ZONE: EASTERN
LONGITUDE: 83.00 DEG WEST PYRANOMETER TILT: 40 DEG ALTITUDE: 755 FEET

TEMPERATURES IN DEGREES F

DAY	AVERAGE TEMP	DAYTIME TEMP	NIGHTTIME TEMP	MAX TEMPERATURE VALUE TIME HR:MN	MIN TEMPERATURE VALUE TIME HR:MN	INLET WATER TEMPERATURE
1	50.	52.	49.	57. 14:28	43. 7: 0	N.A.
2	44.	46.	43.	56. 10:13	29. 23:57	N.A.
3	27.	29.	26.	37. 15:30	19. 7:30	N.A.
4	34.	36.	32.	43. 13:27	22. 5:17	N.A.
5	42.	41.	42.	46. 22:22	37. 4: 0	N.A.
6	53.	55.	51.	61. 13: 8	45. 0:46	N.A.
7	56.	58.	55.	63. 13: 4	50. 3: 0	N.A.
8	55.	59.	52.	62. 11:39	45. 23:53	N.A.
9	39.	39.	39.	45. 0: 4	34. 23:22	N.A.
10	33.	33.	32.	38. 13:14	29. 6:18	N.A.
11	29.	29.	30.	32. 11:42	26. 7:53	N.A.
12	40.	42.	39.	51. 15:13	32. 0:11	N.A.
13	34.	35.	33.	43. 10:16	26. 23:57	N.A.
14	30.	34.	27.	40. 12:58	25. 6:48	N.A.
15	31.	33.	31.	36. 12:31	27. 0: 5	N.A.
16	31.	33.	29.	39. 12:30	23. 22:14	N.A.
17	27.	28.	26.	33. 12:59	17. 7:45	N.A.
18	37.	39.	36.	41. 13:21	33. 0: 1	N.A.
19	19.	19.	19.	35. 0:25	9. 23:46	N.A.
20	12.	15.	10.	22. 15:14	6. 7:46	N.A.
21	16.	22.	13.	30. 14:35	6. 7:57	N.A.
22	26.	27.	25.	35. 14: 3	15. 0:54	N.A.
23	35.	36.	34.	42. 11:21	32. 7:26	N.A.
24	25.	28.	23.	34. 0:30	7. 23:54	N.A.
25	8.	13.	5.	22. 13:36	-1. 7: 1	N.A.
26	17.	19.	16.	24. 15:45	7. 0: 0	N.A.
27	24.	26.	22.	29. 14:52	14. 23:56	N.A.
28	27.	35.	22.	49. 14:49	10. 7:34	N.A.
29	33.	35.	31.	37. 11:53	28. 1:39	N.A.
30	30.	31.	30.	33. 12:26	29. 19:11	N.A.
31	31.	31.	31.	33. 16:20	29. 7:43	N.A.
MEAN	32.	34.	31.			N.A.
STANDARD DEVIATION	11.6	11.4	11.9			N.A.

ENVIRONMENTAL SUMMARY REPORT

SITE: DAMASCUS LAND CORPORATION
DAMASCUS, MARYLAND

REPORT PERIOD: 80/12
SITE NUMBER: 141

LATITUDE: 39.11 DEG NORTH AZIMUTH: 10 DEG
LONGITUDE: 76.40 DEG WEST PYRANOMETER TILT: 55 DEG TIME ZONE: EASTERN
ALTITUDE: 148 FEET

INSOLATION

DAY	TOTAL INSOLATION BTU/FT2	TOTAL DIFF INSOLATION BTU/FT2	TOTAL DIR INSOLATION BTU/FT2	MAXIMUM TOTAL INSOLATION VALUE BTU/HR/FT2	TIME HR:MN	EXTRATERRESTRIAL INSOLATION BTU/FT2	TTL INS ----- EXT INS PERCENT
1	*	N.A.	N.A.	*	*:*	3108.	*
2	*	N.A.	N.A.	*	*:*	3108.	*
3	*	N.A.	N.A.	*	*:*	3099.	*
4	1550.	N.A.	N.A.	280.	12:19	3099.	50.
5	1287.	N.A.	N.A.	294.	12:25	3097.	42.
6	1015.	N.A.	N.A.	245.	12:15	3097.	33.
7	513.	N.A.	N.A.	213.	13: 3	3089.	17.
8	964.	N.A.	N.A.	262.	12:26	3087.	31.
9	80.	N.A.	N.A.	21.	11:30	3087.	3.
10	205.	N.A.	N.A.	49.	15:12	3086.	7.
11	394.	N.A.	N.A.	231.	14: 2	3078.	13.
12	853.	N.A.	N.A.	304.	12:30	3077.	28.
13	595.	N.A.	N.A.	238.	13:54	3078.	19.
14	1426.	N.A.	N.A.	273.	12:35	3077.	46.
15	343.	N.A.	N.A.	133.	12:45	3076.	11.
16	234.	N.A.	N.A.	77.	10:48	3078.	8.
17	1576.	N.A.	N.A.	266.	11:55	3078.	51.
18	1100.	N.A.	N.A.	259.	12:17	3078.	36.
19	714.	N.A.	N.A.	297.	13: 2	3077.	23.
20	1519.	N.A.	N.A.	266.	12:20	3078.	49.
21	1542.	N.A.	N.A.	266.	12:33	3078.	50.
22	679.	N.A.	N.A.	203.	14:14	3078.	22.
23	763.	N.A.	N.A.	252.	11:54	3079.	25.
24	144.	N.A.	N.A.	49.	10: 5	3080.	5.
25	*	N.A.	N.A.	*	*:*	3081.	*
26	*	N.A.	N.A.	*	*:*	3082.	*
27	*	N.A.	N.A.	*	*:*	3080.	*
28	*	N.A.	N.A.	*	*:*	3082.	*
29	*	N.A.	N.A.	*	*:*	3084.	*
30	*	N.A.	N.A.	*	*:*	3083.	*
31	*	N.A.	N.A.	*	*:*	3085.	*
MEAN	833.	N.A.	N.A.			3084.	
STANDARD DEVIATION	507.	N.A.	N.A.			9.	

ENVIRONMENTAL SUMMARY REPORT

SITE: DAMASCUS LAND CORPORATION
DAMASCUS, MARYLAND

REPORT PERIOD: 80/12
SITE NUMBER: 141

LATITUDE: 39.11 DEG NORTH AZIMUTH: 10 DEG
LONGITUDE: 76.40 DEG WEST PYRANOMETER TILT: 55 DEG
TIME ZONE: EASTERN
ALTITUDE: 148 FEET

TEMPERATURES IN DEGREES F

DAY	AVERAGE TEMP	DAYTIME TEMP	NIGHTTIME TEMP	MAX TEMPERATURE VALUE TIME HR:MN	MIN TEMPERATURE VALUE TIME HR:MN	INLET WATER TEMPERATURE
1	*	*	*	*	*:*	*
2	*	*	*	*	*:*	*
3	33.	36.	30.	39. 14:52	28. 23:46	66.
4	30.	34.	27.	40. 13:55	21. 22:28	66.
5	32.	37.	29.	44. 14:33	22. 0:52	65.
6	42.	47.	39.	53. 12:21	28. 1:19	65.
7	50.	54.	47.	63. 15:27	39. 7:55	66.
8	58.	64.	54.	72. 13:35	40. 6:18	67.
9	55.	53.	57.	66. 1:27	47. 22:55	66.
10	40.	41.	40.	48. 0:10	34. 23:43	65.
11	33.	33.	33.	37. 14: 7	30. 8:58	64.
12	37.	39.	36.	46. 12:46	28. 3: 5	64.
13	41.	47.	37.	57. 13:49	30. 23:51	64.
14	31.	38.	26.	49. 12:35	15. 5:38	63.
15	26.	28.	25.	31. 13: 1	20. 3:31	62.
16	32.	33.	32.	35. 12: 3	29. 0: 3	61.
17	24.	28.	22.	33. 15:12	12. 23:29	62.
18	32.	37.	28.	47. 15: 2	13. 0: 1	62.
19	33.	37.	30.	43. 6: 1	16. 23:53	63.
20	14.	16.	12.	20. 14:49	6. 22:22	62.
21	14.	19.	11.	24. 14:57	6. 20:43	62.
22	15.	22.	11.	28. 14:14	3. 4:54	60.
23	27.	32.	24.	40. 14:13	19. 0: 0	61.
24	30.	30.	30.	35. 20:33	19. 23:56	61.
25	11.	12.	11.	18. 0: 6	6. 6:20	62.
26	*	*	*	*	*:*	*
27	*	*	*	*	*:*	*
28	*	*	*	*	*:*	*
29	*	*	*	*	*:*	*
30	*	*	*	*	*:*	*
31	*	*	*	*	*:*	*
MEAN	32.	36.	30.			63.
STANDARD DEVIATION	12.2	12.3	12.5			2.0

ENVIRONMENTAL SUMMARY REPORT

SITE: FOREST CITY DILLON
WASHINGTON, D.C.

REPORT PERIOD: 80/12
SITE NUMBER: 125

LATITUDE: 38.80 DEG NORTH
LONGITUDE: 77.00 DEG WEST

AZIMUTH: 0 DEG
PYRANOMETER TILT: 40 DEG

TIME ZONE: EASTERN
ALTITUDE: 250 FEET

INSOLATION

DAY	TOTAL INSOLATION BTU/FT2	TOTAL DIFF INSOLATION BTU/FT2	TOTAL DIR INSOLATION BTU/FT2	MAXIMUM TOTAL INSOLATION VALUE BTU/HR/FT2	TIME HR:MN	EXTRATERRESTRIAL INSOLATION BTU/FT2	TTL INS ----- EXT INS PERCENT
1	1478.	N.A.	N.A.	260.	11:48	2899.	51.
2	1486.	N.A.	N.A.	280.	11:17	2894.	51.
3	1794.	N.A.	N.A.	289.	12:13	2883.	62.
4	1634.	N.A.	N.A.	277.	11:50	2882.	57.
5	1292.	N.A.	N.A.	325.	12:50	2872.	45.
6	1236.	N.A.	N.A.	255.	11:59	2872.	43.
7	498.	N.A.	N.A.	229.	12:26	2868.	17.
8	1125.	N.A.	N.A.	249.	12:33	2869.	39.
9	76.	N.A.	N.A.	20.	12: 3	2866.	3.
10	189.	N.A.	N.A.	59.	15:44	2856.	7.
11	394.	N.A.	N.A.	133.	14:45	2854.	14.
12	1068.	N.A.	N.A.	257.	11:41	2855.	37.
13	282.	N.A.	N.A.	96.	13:20	2853.	10.
14	1410.	N.A.	N.A.	274.	12:25	2845.	50.
15	214.	N.A.	N.A.	65.	11:37	2843.	8.
16	258.	N.A.	N.A.	82.	11:20	2842.	9.
17	1643.	N.A.	N.A.	277.	12:11	2841.	58.
18	868.	N.A.	N.A.	218.	13:34	2841.	31.
19	521.	N.A.	N.A.	303.	11:55	2844.	18.
20	1619.	N.A.	N.A.	277.	11:40	2844.	57.
21	1604.	N.A.	N.A.	274.	11:41	2844.	56.
22	728.	N.A.	N.A.	190.	14:39	2845.	26.
23	691.	N.A.	N.A.	212.	13:22	2842.	24.
24	118.	N.A.	N.A.	62.	8:35	2843.	4.
25	1710.	N.A.	N.A.	291.	12:24	2844.	60.
26	1181.	N.A.	N.A.	280.	12: 5	2846.	41.
27	371.	N.A.	N.A.	136.	12:11	2848.	13.
28	131.	N.A.	N.A.	28.	11:52	2856.	5.
29	628.	N.A.	N.A.	308.	12:30	2859.	22.
30	1385.	N.A.	N.A.	272.	11:28	2861.	48.
31	641.	N.A.	N.A.	218.	12:27	2861.	22.
MEAN	912.	N.A.	N.A.			2857.	
STANDARD DEVIATION	573.	N.A.	N.A.			16.	

ENVIRONMENTAL SUMMARY REPORT

SITE: FOREST CITY DILLON
WASHINGTON, D.C.

REPORT PERIOD: 80/12
SITE NUMBER: 125

LATITUDE: 38.80 DEG NORTH AZIMUTH: 0 DEG
LONGITUDE: 77.00 DEG WEST PYRANOMETER TILT: 40 DEG
TIME ZONE: EASTERN
ALTITUDE: 250 FEET

TEMPERATURES IN DEGREES F

DAY	AVERAGE TEMP	DAYTIME TEMP	NIGHTTIME TEMP	MAX TEMPERATURE VALUE TIME HR:MN	MIN TEMPERATURE VALUE TIME HR:MN	INLET WATER TEMPERATURE
1	56.	62.	52.	72. 13:24	44. 4:43	54.
2	55.	62.	51.	68. 15:17	42. 23:35	54.
3	37.	39.	36.	44. 14:47	31. 23:50	55.
4	35.	39.	32.	47. 13:26	28. 5:48	53.
5	38.	42.	35.	51. 14:56	31. 2:32	54.
6	47.	53.	44.	59. 11:27	33. 5:56	54.
7	55.	58.	53.	65. 12:26	49. 2:33	53.
8	62.	68.	58.	76. 12:38	49. 7:17	55.
9	58.	56.	60.	64. 2:38	53. 13:44	53.
10	45.	45.	44.	55. 0: 0	37. 23:54	53.
11	36.	38.	36.	41. 14:13	34. 23:15	53.
12	41.	43.	39.	50. 13:44	32. 2:48	53.
13	46.	50.	43.	56. 15: 7	34. 23:55	54.
14	37.	44.	33.	53. 13:34	27. 5:47	55.
15	30.	31.	29.	34. 12:46	25. 5:45	54.
16	36.	39.	35.	43. 13:28	31. 0:34	54.
17	31.	32.	30.	38. 14: 3	25. 7:13	53.
18	37.	41.	34.	53. 15: 0	25. 1:16	52.
19	38.	42.	35.	47. 8:32	21. 23:56	53.
20	19.	21.	18.	24. 14:58	14. 7:24	51.
21	20.	25.	17.	31. 13:43	13. 6:37	52.
22	24.	27.	22.	36. 14: 7	13. 5:41	52.
23	32.	35.	30.	43. 14:21	25. 0:34	51.
24	31.	31.	31.	36. 21: 5	24. 23:56	50.
25	15.	16.	14.	24. 0: 1	10. 7:13	48.
26	19.	23.	17.	31. 15: 1	9. 4:40	47.
27	25.	26.	24.	32. 14:45	17. 3:17	48.
28	35.	35.	34.	38. 22:16	30. 6:35	48.
29	42.	44.	40.	51. 14:48	38. 8: 8	47.
30	41.	44.	38.	48. 14:24	31. 23:54	45.
31	28.	30.	26.	37. 12:32	22. 7: 6	46.
MEAN	37.	40.	35.			52.
STANDARD DEVIATION	12.0	12.7	11.7			2.9

ENVIRONMENTAL SUMMARY REPORT

SITE: HOGATE'S RESTAURANT
WASHINGTON, DC

REPORT PERIOD: 80/12
SITE NUMBER: 42

LATITUDE: 38.90 DEG NORTH
LONGITUDE: 77.00 DEG WEST

AZIMUTH: 45 DEG
PYRANOMETER TILT: 55 DEG

TIME ZONE: EASTERN
ALTITUDE: 10 FEET

INSOLATION

DAY	TOTAL INSOLATION BTU/FT2	TOTAL DIFF INSOLATION BTU/FT2	TOTAL DIR INSOLATION BTU/FT2	MAXIMUM TOTAL INSOLATION VALUE BTU/HR/FT2	TIME HR:MN	EXTRATERRESTRIAL INSOLATION BTU/FT2	TTL INS ----- EXT INS PERCENT
1	1126.	N.A.	N.A.	264.	13:51	2454.	46.
2	1306.	N.A.	N.A.	275.	13: 8	2447.	53.
3	1541.	N.A.	N.A.	296.	13:52	2444.	63.
4	1396.	N.A.	N.A.	272.	13:25	2440.	57.
5	1171.	N.A.	N.A.	308.	13:46	2437.	48.
6	866.	N.A.	N.A.	234.	12:40	2434.	36.
7	511.	N.A.	N.A.	246.	13:54	2431.	21.
8	956.	N.A.	N.A.	243.	13:44	2429.	39.
9	25.	N.A.	N.A.	9.	10:40	2424.	1.
10	125.	N.A.	N.A.	68.	15:48	2421.	5.
11	323.	N.A.	N.A.	151.	14: 5	2419.	13.
12	1053.	N.A.	N.A.	272.	14: 9	2418.	44.
13	195.	N.A.	N.A.	83.	12:14	2416.	8.
14	1341.	N.A.	N.A.	284.	13:25	2415.	56.
15	139.	N.A.	N.A.	47.	11: 7	2414.	6.
16	183.	N.A.	N.A.	62.	12:51	2413.	8.
17	1405.	N.A.	N.A.	272.	13:32	2412.	58.
18	751.	N.A.	N.A.	246.	13:39	2412.	31.
19	501.	N.A.	N.A.	261.	12: 5	2411.	21.
20	1402.	N.A.	N.A.	275.	13:36	2411.	58.
21	1439.	N.A.	N.A.	278.	13:36	2411.	60.
22	766.	N.A.	N.A.	269.	14:51	2412.	32.
23	885.	N.A.	N.A.	237.	13:31	2412.	37.
24	20.	N.A.	N.A.	9.	8:32	2413.	1.
25	1480.	N.A.	N.A.	290.	13:46	2414.	61.
26	1092.	N.A.	N.A.	261.	14:43	2416.	45.
27	297.	N.A.	N.A.	142.	14: 7	2417.	12.
28	61.	N.A.	N.A.	18.	11:47	2419.	3.
29	537.	N.A.	N.A.	234.	13:12	2421.	22.
30	1205.	N.A.	N.A.	266.	13:55	2423.	50.
31	465.	N.A.	N.A.	213.	12:31	2425.	19.
MEAN	792.	N.A.	N.A.			2422.	
STANDARD DEVIATION	512.	N.A.	N.A.			12.	

ENVIRONMENTAL SUMMARY REPORT

SITE: HOGATE'S RESTAURANT
WASHINGTON, DC

REPORT PERIOD: 80/12
SITE NUMBER: 42

LATITUDE: 38.90 DEG NORTH
LONGITUDE: 77.00 DEG WEST

AZIMUTH: 45 DEG
PYRANOMETER TILT: 55 DEG

TIME ZONE: EASTERN
ALTITUDE: 10 FEET

TEMPERATURES IN DEGREES F

DAY	AVERAGE TEMP	DAYTIME TEMP	NIGHTTIME TEMP	MAX TEMPERATURE VALUE	TIME HR:MN	MIN TEMPERATURE VALUE	TIME HR:MN	INLET WATER TEMPERATURE
1	52.	58.	50.	66.	13:51	41.	6:39	47.
2	53.	59.	50.	66.	14:33	41.	23:54	47.
3	38.	38.	37.	42.	13:57	32.	23:59	47.
4	36.	39.	34.	45.	14:18	30.	6:2	47.
5	39.	42.	37.	49.	14:29	33.	0:10	46.
6	46.	52.	44.	60.	14:10	34.	1:49	45.
7	52.	55.	50.	63.	13:54	46.	6:16	45.
8	58.	63.	55.	72.	13:18	45.	5:43	46.
9	57.	56.	57.	63.	2:29	52.	18:16	48.
10	45.	46.	45.	54.	0:3	38.	23:39	49.
11	37.	38.	37.	41.	14:5	35.	23:8	50.
12	41.	43.	40.	49.	13:37	32.	6:15	49.
13	45.	48.	43.	55.	14:33	36.	23:58	48.
14	38.	44.	35.	53.	13:47	29.	5:55	48.
15	32.	33.	32.	36.	12:27	28.	5:47	47.
16	38.	40.	36.	42.	10:54	33.	0:30	46.
17	32.	33.	31.	37.	14:31	26.	23:58	45.
18	37.	40.	35.	53.	14:54	25.	0:51	45.
19	38.	43.	35.	47.	8:53	22.	23:54	44.
20	20.	21.	19.	25.	14:8	15.	7:28	44.
21	21.	25.	19.	31.	14:19	14.	4:48	42.
22	26.	29.	25.	38.	14:56	18.	6:35	40.
23	32.	35.	31.	41.	13:57	28.	5:25	39.
24	30.	30.	30.	35.	20:48	24.	23:54	39.
25	16.	16.	16.	24.	0:5	11.	7:22	39.
26	20.	22.	18.	30.	15:42	10.	6:50	38.
27	27.	27.	27.	33.	14:28	21.	7:32	37.
28	35.	36.	35.	40.	22:38	31.	1:52	37.
29	42.	44.	41.	52.	14:59	38.	22:53	37.
30	41.	45.	39.	49.	14:48	35.	23:59	37.
31	29.	30.	28.	38.	12:31	24.	7:17	37.
MEAN	37.	40.	36.					44.
STANDARD DEVIATION	10.8	11.7	10.5					4.3

ENVIRONMENTAL SUMMARY REPORT

SITE: HONEYWELL DUFFIELD
DUFFIELD, VIRGINIA

REPORT PERIOD: 80/12
SITE NUMBER: 116

LATITUDE: 36.68 DEG NORTH AZIMUTH: 0 DEG
LONGITUDE: 82.77 DEG WEST PYRANOMETER TILT: 35 DEG TIME ZONE: EASTERN
ALTITUDE: 0 FEET

INSOLATION

DAY	TOTAL INSOLATION BTU/FT2	TOTAL DIFF INSOLATION BTU/FT2	TOTAL DIR INSOLATION BTU/FT2	MAXIMUM TOTAL INSOLATION VALUE BTU/HR/FT2	TIME HR:MN	EXTRATERRESTRIAL INSOLATION BTU/FT2	TTL INS ----- EXT INS PERCENT
1	1546.	N.A.	N.A.	284.	11:45	2860.	54.
2	53.	N.A.	N.A.	25.	10:24	2850.	2.
3	1714.	N.A.	N.A.	284.	12:10	2845.	60.
4	1648.	N.A.	N.A.	280.	12:10	2844.	58.
5	964.	N.A.	N.A.	276.	13:50	2834.	34.
6	1510.	N.A.	N.A.	258.	11:56	2834.	53.
7	1435.	N.A.	N.A.	248.	12: 1	2830.	51.
8	1275.	N.A.	N.A.	262.	11:45	2830.	45.
9	67.	N.A.	N.A.	43.	15:36	2827.	2.
10	499.	N.A.	N.A.	337.	11:44	2819.	18.
11	591.	N.A.	N.A.	301.	13: 7	2816.	21.
12	1256.	N.A.	N.A.	262.	12: 2	2817.	45.
13	1267.	N.A.	N.A.	287.	13:25	2815.	45.
14	1583.	N.A.	N.A.	276.	12: 1	2813.	56.
15	441.	N.A.	N.A.	240.	12: 0	2812.	16.
16	81.	N.A.	N.A.	36.	13:16	2805.	3.
17	1124.	N.A.	N.A.	301.	12: 0	2804.	40.
18	1508.	N.A.	N.A.	258.	12: 9	2803.	54.
19	246.	N.A.	N.A.	172.	15: 3	2803.	9.
20	1588.	N.A.	N.A.	280.	12:17	2803.	57.
21	1537.	N.A.	N.A.	291.	12:21	2803.	55.
22	1129.	N.A.	N.A.	266.	12:52	2804.	40.
23	102.	N.A.	N.A.	43.	14:10	2805.	4.
24	36.	N.A.	N.A.	39.	12:13	2806.	1.
25	1755.	N.A.	N.A.	294.	11:52	2807.	63.
26	610.	N.A.	N.A.	208.	11:36	2808.	22.
27	1655.	N.A.	N.A.	276.	12: 2	2816.	59.
28	1355.	N.A.	N.A.	280.	11: 9	2818.	48.
29	622.	N.A.	N.A.	233.	11: 0	2821.	22.
30	135.	N.A.	N.A.	75.	11:11	2820.	5.
31	162.	N.A.	N.A.	83.	16: 8	2823.	6.
MEAN	951.	N.A.	N.A.			2819.	
STANDARD DEVIATION	622.	N.A.	N.A.			15.	

ENVIRONMENTAL SUMMARY REPORT

SITE: HONEYWELL DUFFIELD
DUFFIELD, VIRGINIA

REPORT PERIOD: 80/12
SITE NUMBER: 116

LATITUDE: 36.68 DEG NORTH
LONGITUDE: 82.77 DEG WEST

AZIMUTH: 0 DEG
PYRANOMETER TILT: 35 DEG

TIME ZONE: EASTERN
ALTITUDE: 0 FEET

TEMPERATURES IN DEGREES F

DAY	AVERAGE TEMP	DAYTIME TEMP	NIGHTTIME TEMP	MAX TEMPERATURE VALUE	TIME HR:MN	MIN TEMPERATURE VALUE	TIME HR:MN	INLET WATER TEMPERATURE
1	41.	51.	34.	64.	14:31	25.	6:15	88.
2	39.	45.	35.	53.	14: 3	31.	3:23	87.
3	34.	38.	30.	48.	14:55	23.	23:53	92.
4	35.	44.	28.	57.	14: 2	17.	7:22	90.
5	39.	48.	33.	59.	13:55	25.	3: 4	88.
6	44.	54.	37.	64.	14:41	28.	4:28	86.
7	45.	54.	40.	67.	14:41	29.	7:18	87.
8	48.	56.	44.	69.	14:15	33.	7:40	82.
9	53.	55.	52.	63.	15:41	46.	0:19	90.
10	41.	44.	39.	51.	0: 5	25.	23: 4	80.
11	32.	34.	30.	39.	13:33	25.	0: 8	91.
12	35.	42.	30.	54.	14:48	23.	4:50	96.
13	39.	46.	34.	57.	14:45	24.	7: 1	92.
14	32.	42.	27.	47.	15:28	19.	7:17	91.
15	34.	38.	32.	49.	12: 5	22.	7:28	92.
16	37.	39.	36.	42.	13:21	34.	23:55	93.
17	32.	36.	29.	46.	15: 7	21.	23:58	90.
18	33.	41.	29.	54.	14:59	19.	7:37	78.
19	36.	40.	33.	47.	7:40	23.	23:56	74.
20	20.	24.	18.	28.	13: 5	12.	23:34	93.
21	20.	27.	16.	39.	15:48	7.	7:13	88.
22	29.	34.	25.	47.	14:44	10.	7: 6	89.
23	36.	36.	36.	39.	14:47	33.	8:50	81.
24	35.	39.	33.	45.	13:44	21.	23:58	91.
25	15.	18.	13.	25.	14:54	8.	22:59	87.
26	21.	25.	18.	35.	13:38	9.	0:46	87.
27	27.	34.	23.	45.	15:25	12.	7:41	83.
28	41.	47.	37.	60.	15: 0	24.	0: 2	77.
29	43.	47.	40.	57.	12: 4	30.	7:11	84.
30	35.	35.	35.	43.	0: 4	32.	22:43	93.
31	33.	35.	31.	40.	16:24	26.	20: 8	89.
MEAN	35.	40.	32.					87.
STANDARD DEVIATION	8.4	9.3	8.2					5.3

ENVIRONMENTAL SUMMARY REPORT

SITE: LOUDOUN COUNTY SCHOOL
LEESBURG, VIRGINIA

REPORT PERIOD: 80/12
SITE NUMBER: 33

LATITUDE: 39.10 DEG NORTH
LONGITUDE: 77.60 DEG WEST

AZIMUTH: 15 DEG
PYRANOMETER TILT: 37 DEG

TIME ZONE: EASTERN
ALTITUDE: 400 FEET

INSOLATION

DAY	TOTAL INSOLATION BTU/FT2	TOTAL DIFF INSOLATION BTU/FT2	TOTAL DIR INSOLATION BTU/FT2	MAXIMUM TOTAL INSOLATION VALUE BTU/HR/FT2	TOTAL TIME HR:MN	EXTRATERRESTRIAL INSOLATION BTU/FT2	TTL INS ----- EXT INS PERCENT
1	1235.	N.A.	N.A.	263.	12:10	2746.	45.
2	1157.	N.A.	N.A.	302.	11:42	2743.	42.
3	1650.	N.A.	N.A.	281.	12:35	2734.	60.
4	1450.	N.A.	N.A.	275.	13:25	2732.	53.
5	773.	N.A.	N.A.	248.	11:42	2727.	28.
6	556.	N.A.	N.A.	205.	13:22	2725.	20.
7	564.	N.A.	N.A.	227.	13:30	2717.	21.
8	986.	N.A.	N.A.	230.	12:10	2713.	36.
9	53.	N.A.	N.A.	27.	11:30	2712.	2.
10	290.	N.A.	N.A.	136.	15:15	2709.	11.
11	314.	N.A.	N.A.	151.	11:30	2702.	12.
12	1016.	N.A.	N.A.	278.	13: 0	2700.	38.
13	696.	N.A.	N.A.	269.	12:39	2700.	26.
14	1070.	N.A.	N.A.	269.	12:24	2698.	40.
15	245.	N.A.	N.A.	97.	11:25	2696.	9.
16	205.	N.A.	N.A.	79.	10:38	2697.	8.
17	1503.	N.A.	N.A.	266.	12:22	2696.	56.
18	957.	N.A.	N.A.	245.	13:10	2695.	35.
19	870.	N.A.	N.A.	305.	13:53	2695.	32.
20	1487.	N.A.	N.A.	263.	13: 1	2695.	55.
21	1495.	N.A.	N.A.	266.	12:37	2695.	55.
22	628.	N.A.	N.A.	269.	14:13	2696.	23.
23	873.	N.A.	N.A.	245.	12:24	2696.	32.
24	76.	N.A.	N.A.	36.	16:11	2697.	3.
25	1532.	N.A.	N.A.	420.	11:50	2699.	57.
26	1107.	N.A.	N.A.	290.	11:15	2698.	41.
27	779.	N.A.	N.A.	260.	12:24	2700.	29.
28	91.	N.A.	N.A.	21.	11:19	2703.	3.
29	596.	N.A.	N.A.	278.	12:55	2703.	22.
30	1281.	N.A.	N.A.	260.	12:36	2706.	47.
31	248.	N.A.	N.A.	112.	12:18	2709.	9.
MEAN	832.	N.A.	N.A.			2708.	
STANDARD DEVIATION	489.	N.A.	N.A.			15.	

ENVIRONMENTAL SUMMARY REPORT

SITE: LOUDOUN COUNTY SCHOOL
LEESBURG, VIRGINIA

REPORT PERIOD: 80/12
SITE NUMBER: 33

LATITUDE: 39.10 DEG NORTH AZIMUTH: 15 DEG
LONGITUDE: 77.60 DEG WEST PYRANOMETER TILT: 37 DEG
TIME ZONE: EASTERN
ALTITUDE: 400 FEET

TEMPERATURES IN DEGREES F

DAY	AVERAGE TEMP	DAYTIME TEMP	NIGHTTIME TEMP	MAX TEMPERATURE VALUE TIME HR:MN	MIN TEMPERATURE VALUE TIME HR:MN	INLET WATER TEMPERATURE
1	50.	59.	44.	70. 14: 2	35. 2:24	60.
2	50.	58.	45.	67. 13:55	37. 6:16	62.
3	35.	36.	34.	40. 0: 3	30. 23:38	62.
4	31.	37.	28.	43. 14:13	25. 4:26	60.
5	35.	38.	32.	44. 14: 0	27. 0: 8	61.
6	45.	49.	42.	57. 13:22	33. 6:58	64.
7	51.	56.	48.	67. 14:45	40. 7: 3	65.
8	60.	67.	56.	75. 13:57	43. 6:34	61.
9	54.	53.	55.	66. 1:33	46. 19:41	63.
10	42.	44.	41.	48. 0:19	34. 23: 9	60.
11	34.	34.	34.	36. 12:29	32. 23:30	58.
12	39.	42.	37.	48. 14:10	29. 2:31	60.
13	42.	48.	38.	60. 13:32	33. 23:56	65.
14	34.	41.	29.	50. 12:24	21. 7:35	63.
15	29.	31.	28.	34. 13: 6	23. 4:18	57.
16	33.	35.	32.	38. 13:13	29. 0:46	58.
17	28.	32.	26.	37. 14:52	20. 23:56	58.
18	34.	39.	31.	51. 14:30	19. 2:25	57.
19	35.	40.	32.	46. 6:35	17. 23:57	56.
20	16.	19.	15.	22. 14:42	12. 6:47	61.
21	17.	23.	13.	28. 15:17	8. 5:38	59.
22	20.	24.	17.	31. 14:13	9. 7:17	57.
23	31.	35.	29.	44. 14:32	23. 0: 3	57.
24	30.	30.	29.	36. 18:30	20. 23:55	60.
25	13.	15.	11.	20. 0: 0	6. 23:50	60.
26	15.	20.	12.	27. 15:31	3. 3:28	59.
27	23.	26.	21.	30. 13:44	14. 1:33	58.
28	30.	29.	30.	34. 23:35	26. 7:41	59.
29	38.	40.	36.	47. 13: 0	34. 0:28	58.
30	39.	43.	36.	47. 13:40	31. 23:51	59.
31	25.	26.	24.	31. 0: 2	20. 6:47	59.
MEAN	34.	38.	32.			60.
STANDARD DEVIATION	11.7	12.6	11.4			2.4

ENVIRONMENTAL SUMMARY REPORT

SITE: LOUDOUN COUNTY SCHOOL
LEESBURG, VIRGINIA

REPORT PERIOD: 80/12
SITE NUMBER: 33

LATITUDE: 39.10 DEG NORTH
LONGITUDE: 77.60 DEG WEST

AZIMUTH: 15 DEG
PYRANOMETER TILT: 37 DEG

TIME ZONE: EASTERN
ALTITUDE: 400 FEET

WIND: SPEED IN MPH-DIRECTION IN DEGREES

DAY	AVG WIND DIRECTION	AVG WIND SPEED	DAYTIME DIRECTION	DAYTIME SPEED	MAXIMUM WIND SPEED DIRECTION	TIME HR:MN
1	*	1.	*	4.	10.	13:25
2	40.	7.	352.	6.	32.	21:2
3	101.	12.	106.	13.	38.	5:18
4	133.	2.	135.	4.	10.	13:46
5	*	2.	*	2.	9.	4:51
6	*	1.	*	1.	8.	1:27
7	*	0.	*	1.	6.	14:56
8	16.	3.	11.	5.	13.	13:30
9	*	1.	*	1.	14.	3:41
10	115.	6.	122.	6.	16.	17:54
11	108.	2.	146.	2.	13.	6:21
12	8.	4.	6.	6.	14.	13:43
13	98.	3.	65.	4.	16.	20:33
14	76.	5.	65.	10.	25.	12:13
15	304.	2.	312.	5.	13.	13:17
16	*	2.	*	1.	15.	20:49
17	150.	3.	147.	5.	15.	9:10
18	*	1.	*	1.	7.	12:38
19	127.	5.	118.	8.	22.	15:23
20	134.	6.	134.	7.	19.	14:5
21	110.	2.	113.	4.	11.	10:35
22	*	1.	*	3.	11.	13:47
23	*	0.	*	0.	4.	12:13
24	117.	2.	324.	1.	25.	20:48
25	133.	8.	133.	9.	31.	1:26
26	352.	3.	352.	6.	14.	12:24
27	181.	3.	181.	3.	12.	11:25
28	158.	2.	157.	3.	12.	13:37
29	133.	5.	147.	5.	15.	19:54
30	135.	4.	148.	5.	16.	14:23
31	*	2.	*	1.	13.	1:22
MEAN	130.	3.	156.	4.		
STANDARD DEVIATION	79.2	2.5	99.7	3.0		

ENVIRONMENTAL SUMMARY REPORT

SITE: LOUDOUN COUNTY SCHOOL
LEESBURG, VIRGINIA

REPORT PERIOD: 80/12
SITE NUMBER: 33

LATITUDE: 39.10 DEG NORTH
LONGITUDE: 77.60 DEG WEST

AZIMUTH: 15 DEG
PYRANOMETER TILT: 37 DEG

TIME ZONE: EASTERN
ALTITUDE: 400 FEET

WIND: NUMBER OF HOURS IN EACH VELOCITY INTERVAL

DAY	0-3 MPH	4-7 MPH	8-12 MPH	13-18 MPH	19-24 MPH	25-31 MPH	32-38 MPH	ABOVE 38	MISSING HOURS
1	20	4	0	0	0	0	0	0	0
2	10	1	8	5	0	0	0	0	0
3	2	4	6	11	1	0	0	0	0
4	19	5	0	0	0	0	0	0	0
5	21	3	0	0	0	0	0	0	0
6	23	1	0	0	0	0	0	0	0
7	24	0	0	0	0	0	0	0	0
8	16	6	2	0	0	0	0	0	0
9	20	3	1	0	0	0	0	0	0
10	6	14	4	0	0	0	0	0	0
11	18	6	0	0	0	0	0	0	0
12	12	11	1	0	0	0	0	0	0
13	11	13	0	0	0	0	0	0	0
14	14	3	4	3	0	0	0	0	0
15	18	5	1	0	0	0	0	0	0
16	19	5	0	0	0	0	0	0	0
17	13	10	1	0	0	0	0	0	0
18	24	0	0	0	0	0	0	0	0
19	9	9	6	0	0	0	0	0	0
20	3	18	3	0	0	0	0	0	0
21	20	4	0	0	0	0	0	0	0
22	20	4	0	0	0	0	0	0	0
23	24	0	0	0	0	0	0	0	0
24	19	0	5	0	0	0	0	0	0
25	9	1	11	3	0	0	0	0	0
26	17	4	3	0	0	0	0	0	0
27	16	8	0	0	0	0	0	0	0
28	23	1	0	0	0	0	0	0	0
29	12	9	3	0	0	0	0	0	0
30	11	13	0	0	0	0	0	0	0
31	21	2	0	0	0	0	0	0	1
AVERAGE	15.9	5.4	1.9	0.7	0.0	0.0	0.0	0.0	0.0
TOTAL	494	167	59	22	1	0	0	0	1

ENVIRONMENTAL SUMMARY REPORT

SITE: PADONIA ELEMENTARY SCHOOL
COCKEYSVILLE, MARYLAND

REPORT PERIOD: 80/12
SITE NUMBER: 126

LATITUDE: 39.14 DEG NORTH AZIMUTH: 0 DEG TIME ZONE: EASTERN
LONGITUDE: 76.52 DEG WEST PYRANOMETER TILT: 45 DEG ALTITUDE: 350 FEET

INSOLATION

DAY	TOTAL INSOLATION BTU/FT2	TOTAL DIFF INSOLATION BTU/FT2	TOTAL DIR INSOLATION BTU/FT2	MAXIMUM TOTAL INSOLATION VALUE BTU/HR/FT2	TIME HR:MN	EXTRATERRESTRIAL INSOLATION BTU/FT2	TTL INS ----- EXT INS PERCENT
1	639.	292.	347.	170.	11:15	2989.	21.
2	710.	146.	564.	142.	11:51	2989.	24.
3	802.	113.	689.	151.	11:31	2978.	27.
4	661.	182.	479.	151.	11:34	2978.	22.
5	631.	312.	319.	162.	11:37	2974.	21.
6	679.	160.	519.	142.	11:33	2974.	23.
7	302.	278.	24.	98.	11:23	2964.	10.
8	521.	269.	252.	153.	12:39	2961.	18.
9	91.	102.	*	39.	11:40	2962.	3.
10	143.	158.	*	36.	10:42	2953.	5.
11	293.	281.	13.	75.	11:30	2951.	10.
12	388.	302.	86.	131.	11:34	2949.	13.
13	310.	297.	12.	70.	13:50	2950.	10.
14	649.	141.	508.	140.	11:41	2949.	22.
15	283.	263.	20.	100.	13:12	2951.	10.
16	155.	157.	*	53.	11: 2	2950.	5.
17	727.	124.	602.	140.	11:41	2950.	25.
18	440.	166.	274.	126.	12:15	2949.	15.
19	401.	276.	124.	137.	11: 5	2949.	14.
20	705.	146.	559.	140.	11:48	2949.	24.
21	*	*	*	*	*:*	2949.	*
22	501.	353.	149.	120.	14: 9	2949.	17.
23	317.	166.	152.	120.	13:16	2950.	11.
24	96.	94.	2.	31.	10:47	2951.	3.
25	762.	93.	670.	142.	11:44	2952.	26.
26	597.	311.	286.	134.	11:43	2954.	20.
27	430.	261.	170.	114.	12:58	2952.	15.
28	112.	116.	*	28.	10:51	2954.	4.
29	508.	320.	188.	159.	12:33	2956.	17.
30	629.	145.	484.	134.	12:14	2955.	21.
31	377.	328.	50.	131.	11:31	2957.	13.
MEAN	462.	212.	*			2958.	
STANDARD DEVIATION	217.	84.	*****			12.	

ENVIRONMENTAL SUMMARY REPORT

SITE: PADONIA ELEMENTARY SCHOOL
COCKEYSVILLE, MARYLAND

REPORT PERIOD: 80/12
SITE NUMBER: 126

LATITUDE: 39.14 DEG NORTH AZIMUTH: 0 DEG
LONGITUDE: 76.52 DEG WEST PYRANOMETER TILT: 45 DEG
TIME ZONE: EASTERN
ALTITUDE: 350 FEET

TEMPERATURES IN DEGREES F

DAY	AVERAGE TEMP	DAYTIME TEMP	NIGHTTIME TEMP	MAX TEMPERATURE VALUE TIME HR:MN	MIN TEMPERATURE VALUE TIME HR:MN	INLET WATER TEMPERATURE
1	51.	58.	46.	69. 14:11	39. 6:32	N.A.
2	49.	57.	43.	69. 14:26	33. 6: 4	N.A.
3	36.	38.	34.	47. 14:59	29. 23:44	N.A.
4	32.	38.	29.	50. 15: 7	24. 7:18	N.A.
5	34.	39.	30.	51. 14:55	25. 6:39	N.A.
6	43.	49.	40.	63. 14: 2	31. 5:46	N.A.
7	52.	55.	49.	65. 15:35	44. 7:12	N.A.
8	59.	64.	55.	76. 14:25	42. 6:41	N.A.
9	54.	51.	56.	65. 1:11	45. 16: 1	N.A.
10	42.	43.	41.	49. 0:34	35. 22:10	N.A.
11	34.	35.	34.	39. 14:43	31. 23:18	N.A.
12	38.	40.	37.	48. 15:39	31. 0: 6	N.A.
13	45.	51.	41.	58. 15:36	30. 23:47	N.A.
14	33.	40.	29.	51. 13:33	25. 3:42	N.A.
15	26.	27.	25.	35. 13:23	21. 6:48	N.A.
16	34.	36.	33.	39. 14:36	29. 0: 1	N.A.
17	27.	32.	24.	44. 14:42	16. 23:37	N.A.
18	33.	39.	30.	52. 14:17	16. 1: 3	N.A.
19	34.	39.	30.	44. 8:31	18. 23:48	N.A.
20	18.	22.	15.	33. 14:54	11. 7:21	N.A.
21	16.	20.	15.	34. 15:29	10. 7:10	N.A.
22	19.	24.	15.	38. 15:24	7. 6:52	N.A.
23	30.	36.	26.	54. 15:30	20. 0:55	N.A.
24	30.	32.	28.	36. 21: 4	21. 23:55	N.A.
25	13.	15.	12.	27. 15: 7	5. 7:28	N.A.
26	16.	20.	13.	32. 15: 6	3. 7:12	N.A.
27	23.	26.	20.	38. 12:58	10. 5:14	N.A.
28	33.	34.	32.	36. 23:36	29. 3: 6	N.A.
29	40.	46.	37.	57. 13: 0	35. 0:19	N.A.
30	39.	43.	36.	51. 15: 5	27. 23:58	N.A.
31	25.	27.	23.	36. 13:29	19. 7: 5	N.A.
MEAN	34.	38.	32.			N.A.
STANDARD DEVIATION	11.8	12.3	11.6			N.A.

ENVIRONMENTAL SUMMARY REPORT

SITE: PADONIA ELEMENTARY SCHOOL
COCKEYSVILLE, MARYLAND

REPORT PERIOD: 80/12
SITE NUMBER: 126

LATITUDE: 39.14 DEG NORTH AZIMUTH: 0 DEG TIME ZONE: EASTERN
LONGITUDE: 76.52 DEG WEST PYRANOMETER TILT: 45 DEG ALTITUDE: 350 FEET

WIND: SPEED IN MPH-DIRECTION IN DEGREES

DAY	AVG WIND DIRECTION	AVG WIND SPEED	DAYTIME DIRECTION	DAYTIME SPEED	MAXIMUM WIND SPEED DIRECTION	TIME HR:MN
1	*	2.	*	3.	9.	13:55
2	33.	5.	343.	4.	21.	20:41
3	104.	10.	114.	11.	33.	6:27
4	127.	4.	126.	6.	14.	9:26
5	130.	3.	128.	4.	9.	13:40
6	130.	2.	128.	4.	10.	13:46
7	*	1.	*	1.	5.	14:52
8	10.	2.	2.	3.	10.	21:48
9	94.	3.	243.	2.	10.	3:56
10	111.	4.	120.	4.	11.	16:45
11	*	2.	*	2.	8.	6:48
12	10.	4.	15.	5.	11.	12:27
13	84.	5.	59.	5.	17.	19:10
14	76.	4.	64.	8.	21.	16:29
15	*	1.	*	2.	7.	12:19
16	140.	2.	134.	2.	14.	22:58
17	143.	4.	137.	5.	13.	12: 7
18	*	1.	*	2.	8.	5:19
19	126.	5.	120.	8.	19.	10:28
20	127.	4.	127.	6.	15.	13:56
21	*	1.	*	3.	10.	10:33
22	*	1.	*	1.	6.	12:38
23	*	0.	*	0.	4.	12:50
24	105.	3.	345.	2.	24.	23:49
25	130.	7.	135.	8.	26.	4:27
26	*	1.	*	3.	11.	12:42
27	*	1.	*	1.	5.	11:38
28	162.	2.	167.	2.	6.	3:54
29	138.	3.	140.	3.	10.	15:19
30	146.	5.	147.	6.	13.	12:51
31	*	1.	*	0.	5.	1:29
MEAN	106.	3.	140.	4.		
STANDARD DEVIATION	43.8	2.0	87.0	2.5		

ENVIRONMENTAL SUMMARY REPORT

SITE: PADONIA ELEMENTARY SCHOOL
COCKEYSVILLE, MARYLAND

REPORT PERIOD: 80/12
SITE NUMBER: 126

LATITUDE: 39.14 DEG NORTH AZIMUTH: 0 DEG
LONGITUDE: 76.52 DEG WEST PYRANOMETER TILT: 45 DEG
TIME ZONE: EASTERN
ALTITUDE: 350 FEET

WIND: NUMBER OF HOURS IN EACH VELOCITY INTERVAL

DAY	0-3 MPH	4-7 MPH	8-12 MPH	13-18 MPH	19-24 MPH	25-31 MPH	32-38 MPH	ABOVE 38	MISSING HOURS
1	21	3	0	0	0	0	0	0	0
2	9	9	5	1	0	0	0	0	0
3	1	8	10	5	0	0	0	0	0
4	15	9	0	0	0	0	0	0	0
5	14	10	0	0	0	0	0	0	0
6	18	6	0	0	0	0	0	0	0
7	24	0	0	0	0	0	0	0	0
8	15	9	0	0	0	0	0	0	0
9	20	4	0	0	0	0	0	0	0
10	14	10	0	0	0	0	0	0	0
11	22	2	0	0	0	0	0	0	0
12	10	14	0	0	0	0	0	0	0
13	6	14	4	0	0	0	0	0	0
14	15	4	5	0	0	0	0	0	0
15	24	0	0	0	0	0	0	0	0
16	17	7	0	0	0	0	0	0	0
17	9	15	0	0	0	0	0	0	0
18	23	1	0	0	0	0	0	0	0
19	7	12	5	0	0	0	0	0	0
20	13	11	0	0	0	0	0	0	0
21	20	1	0	0	0	0	0	0	3
22	24	0	0	0	0	0	0	0	0
23	24	0	0	0	0	0	0	0	0
24	20	0	4	0	0	0	0	0	0
25	8	5	10	1	0	0	0	0	0
26	20	4	0	0	0	0	0	0	0
27	24	0	0	0	0	0	0	0	0
28	24	0	0	0	0	0	0	0	0
29	21	3	0	0	0	0	0	0	0
30	10	14	0	0	0	0	0	0	0
31	23	0	0	0	0	0	0	0	1
AVERAGE	16.6	5.6	1.4	0.2	0.0	0.0	0.0	0.0	0.1
TOTAL	515	175	43	7	0	0	0	0	4

ENVIRONMENTAL SUMMARY REPORT

SITE: RYMARK I & II
FREDRICK, MARYLAND

REPORT PERIOD: 80/12
SITE NUMBER: 213

LATITUDE: 39.30 DEG NORTH AZIMUTH: 0 DEG TIME ZONE: EASTERN
LONGITUDE: 77.25 DEG WEST PYRANOMETER TILT: 90 DEG ALTITUDE: 290 FEET

INSOLATION

DAY	TOTAL HORIZONTAL INSOLATION BTU/FT2	TOTAL 90 DEG INSOLATION BTU/FT2	TOTAL DIR INSOLATION BTU/FT2	MAXIMUM TOTAL INSOLATION VALUE BTU/HR/FT2	TIME HR:MN	EXTRATERRESTRIAL INSOLATION BTU/FT2	TTL INS ----- EXT INS PERCENT
1	*	*	N.A.	*	***	2922.	*
2	*	*	N.A.	*	***	2915.	*
3	*	*	N.A.	*	***	2921.	*
4	*	*	N.A.	*	***	2923.	*
5	*	*	N.A.	*	***	2928.	*
6	*	*	N.A.	*	***	2920.	*
7	*	*	N.A.	*	***	2926.	*
8	*	*	N.A.	*	***	2927.	*
9	*	*	N.A.	*	***	2919.	*
10	*	*	N.A.	*	***	2920.	*
11	*	*	N.A.	*	***	2925.	*
12	*	*	N.A.	*	***	2926.	*
13	*	*	N.A.	*	***	2931.	*
14	*	*	N.A.	*	***	2932.	*
15	*	*	N.A.	*	***	2933.	*
16	*	*	N.A.	*	***	2924.	*
17	0.	73.	N.A.	0.	6:55	2924.	0.
18	*	*	N.A.	515.	15:21	2925.	55.
19	523.	1011.	N.A.	143.	12:18	2925.	18.
20	705.	1697.	N.A.	137.	11:42	2926.	24.
21	702.	1733.	N.A.	137.	12: 3	2926.	24.
22	463.	658.	N.A.	114.	11:13	2926.	16.
23	420.	644.	N.A.	153.	11:14	2926.	14.
24	58.	23.	N.A.	29.	9:40	2926.	2.
25	717.	1912.	N.A.	150.	12:11	2926.	24.
26	531.	959.	N.A.	143.	11:29	2936.	18.
27	604.	1434.	N.A.	134.	11:46	2936.	21.
28	96.	41.	N.A.	23.	11:41	2935.	3.
29	271.	172.	N.A.	72.	11: 8	2935.	9.
30	654.	1376.	N.A.	134.	12: 3	2931.	22.
31	348.	305.	N.A.	104.	12: 4	2930.	12.
MEAN	469.	920.	N.A.			2927.	
STANDARD DEVIATION	*****	*****	N.A.			5.	

ENVIRONMENTAL SUMMARY REPORT

SITE: RYMARK I & II
FREDRICK, MARYLAND

REPORT PERIOD: 80/12
SITE NUMBER: 213

LATITUDE: 39.30 DEG NORTH AZIMUTH: 0 DEG
LONGITUDE: 77.25 DEG WEST PYRANOMETER TILT: 90 DEG TIME ZONE: EASTERN
ALTITUDE: 290 FEET

TEMPERATURES IN DEGREES F

DAY	AVERAGE TEMP	DAYTIME TEMP	NIGHTTIME TEMP	MAX TEMPERATURE VALUE	TIME HR:MN	MIN TEMPERATURE VALUE	TIME HR:MN	INLET WATER TEMPERATURE
1	*	*	*	*	*:*	*	*:*	N.A.
2	*	*	*	*	*:*	*	*:*	N.A.
3	*	*	*	*	*:*	*	*:*	N.A.
4	*	*	*	*	*:*	*	*:*	N.A.
5	*	*	*	*	*:*	*	*:*	N.A.
6	*	*	*	*	*:*	*	*:*	N.A.
7	*	*	*	*	*:*	*	*:*	N.A.
8	*	*	*	*	*:*	*	*:*	N.A.
9	*	*	*	*	*:*	*	*:*	N.A.
10	*	*	*	*	*:*	*	*:*	N.A.
11	*	*	*	*	*:*	*	*:*	N.A.
12	*	*	*	*	*:*	*	*:*	N.A.
13	*	*	*	*	*:*	*	*:*	N.A.
14	*	*	*	*	*:*	*	*:*	N.A.
15	*	*	*	*	*:*	*	*:*	N.A.
16	*	*	*	*	*:*	*	*:*	N.A.
17	*	*	*	*	*:*	*	*:*	N.A.
18	49.	62.	38.	79.	13: 8	*	*:*	N.A.
19	34.	36.	32.	45.	4:50	16.	23:58	N.A.
20	16.	18.	15.	21.	14:27	11.	6:43	N.A.
21	17.	20.	15.	26.	15:13	10.	6:11	N.A.
22	18.	22.	16.	28.	14: 9	7.	6:15	N.A.
23	29.	33.	26.	43.	15:30	21.	0: 2	N.A.
24	31.	31.	31.	38.	18:57	19.	23:50	N.A.
25	12.	12.	11.	19.	0: 1	7.	7:18	N.A.
26	15.	17.	14.	24.	15:46	6.	6: 3	N.A.
27	21.	23.	19.	27.	13:49	10.	5: 1	N.A.
28	30.	30.	30.	35.	23:30	27.	7:30	N.A.
29	37.	40.	35.	44.	14:10	31.	23:10	N.A.
30	36.	41.	33.	45.	13: 7	26.	23:59	N.A.
31	24.	24.	24.	27.	16:25	19.	6:55	N.A.
MEAN	22.	27.	21.					N.A.
STANDARD DEVIATION	15.6	15.7	13.7					N.A.

ENVIRONMENTAL SUMMARY REPORT

SITE: RYMARK I & II
FREDRICK, MARYLAND

REPORT PERIOD: 80/12
SITE NUMBER: 213

LATITUDE: 39.30 DEG NORTH AZIMUTH: 0 DEG TIME ZONE: EASTERN
LONGITUDE: 77.25 DEG WEST PYRANOMETER TILT: 90 DEG ALTITUDE: 290 FEET

WIND: SPEED IN MPH-DIRECTION IN DEGREES

DAY	AVG WIND DIRECTION	AVG WIND SPEED	DAYTIME DIRECTION	DAYTIME SPEED	MAXIMUM WIND SPEED DIRECTION	TIME HR:MN
1	*	*	*	*	*	*
2	*	*	*	*	*	*
3	*	*	*	*	*	*
4	*	*	*	*	*	*
5	*	*	*	*	*	*
6	*	*	*	*	*	*
7	*	*	*	*	*	*
8	*	*	*	*	*	*
9	*	*	*	*	*	*
10	*	*	*	*	*	*
11	*	*	*	*	*	*
12	*	*	*	*	*	*
13	*	*	*	*	*	*
14	*	*	*	*	*	*
15	*	*	*	*	*	*
16	*	*	*	*	*	*
17	*	*	*	*	*	*
18	*	0.	*	0.	1.	12:58
19	322.	9.	317.	13.	26.	8:45
20	332.	7.	329.	10.	22.	11:47
21	310.	3.	306.	5.	12.	8:51
22	*	1.	*	2.	9.	14:36
23	*	1.	*	1.	6.	9: 6
24	299.	4.	205.	2.	30.	23:13
25	327.	9.	329.	10.	24.	7:23
26	203.	3.	202.	6.	15.	10: 9
27	30.	4.	31.	6.	11.	11:30
28	29.	6.	33.	6.	13.	11: 4
29	36.	3.	41.	4.	12.	10:20
30	351.	3.	352.	5.	13.	14: 0
31	36.	3.	34.	4.	9.	4:31
MEAN	207.	4.	198.	5.		
STANDARD DEVIATION	142.8	2.8	137.9	3.8		

ENVIRONMENTAL SUMMARY REPORT

SITE: RYMARK I & II
FREDRICK, MARYLAND

REPORT PERIOD: 80/12
SITE NUMBER: 213

LATITUDE: 39.30 DEG NORTH AZIMUTH: 0 DEG
LONGITUDE: 77.25 DEG WEST PYRANOMETER TILT: 90 DEG
TIME ZONE: EASTERN
ALTITUDE: 290 FEET

WIND: NUMBER OF HOURS IN EACH VELOCITY INTERVAL

DAY	0-3 MPH	4-7 MPH	8-12 MPH	13-18 MPH	19-24 MPH	25-31 MPH	32-38 MPH	ABOVE 38	MISSING HOURS
1	0	0	0	0	0	0	0	0	24
2	0	0	0	0	0	0	0	0	24
3	0	0	0	0	0	0	0	0	24
4	0	0	0	0	0	0	0	0	24
5	0	0	0	0	0	0	0	0	24
6	0	0	0	0	0	0	0	0	24
7	0	0	0	0	0	0	0	0	24
8	0	0	0	0	0	0	0	0	24
9	0	0	0	0	0	0	0	0	24
10	0	0	0	0	0	0	0	0	24
11	0	0	0	0	0	0	0	0	24
12	0	0	0	0	0	0	0	0	24
13	0	0	0	0	0	0	0	0	24
14	0	0	0	0	0	0	0	0	24
15	0	0	0	0	0	0	0	0	24
16	3	0	0	0	0	0	0	0	21
17	23	0	0	0	0	0	0	0	1
18	16	0	0	0	0	0	0	0	8
19	4	7	7	6	0	0	0	0	0
20	5	9	9	1	0	0	0	0	0
21	16	8	0	0	0	0	0	0	0
22	23	1	0	0	0	0	0	0	0
23	24	0	0	0	0	0	0	0	0
24	16	3	2	3	0	0	0	0	0
25	8	2	7	7	0	0	0	0	0
26	18	3	3	0	0	0	0	0	0
27	9	15	0	0	0	0	0	0	0
28	1	21	0	0	0	0	0	0	0
29	16	8	0	0	0	0	0	0	0
30	15	7	2	0	0	0	0	0	0
31	16	7	0	0	0	0	0	0	1
AVERAGE	6.9	2.9	1.0	0.5	0.0	0.0	0.0	0.0	12.6
TOTAL	213	91	32	17	0	0	0	0	391

ENVIRONMENTAL SUMMARY REPORT

SITE: TERRELL E. MOSELEY
LYNCHBURG, VIRGINIA

REPORT PERIOD: 80/12
SITE NUMBER: 14

LATITUDE: 37.46 DEG NORTH
LONGITUDE: 70.00 DEG WEST

AZIMUTH: 0 DEG
PYRANOMETER TILT: 50 DEG

TIME ZONE: EASTERN
ALTITUDE: 700 FEET

INSOLATION

DAY	TOTAL INSOLATION BTU/FT2	TOTAL DIFF INSOLATION BTU/FT2	TOTAL DIR INSOLATION BTU/FT2	MAXIMUM TOTAL INSOLATION VALUE BTU/HR/FT2	TIME HR:MN	EXTRATERRESTRIAL INSOLATION BTU/FT2	TTL INS ----- EXT INS PERCENT
1	1898.	N.A.	N.A.	297.	11:51	3133.	61.
2	1689.	N.A.	N.A.	288.	11:41	3134.	54.
3	1956.	N.A.	N.A.	330.	12:31	3135.	62.
4	1928.	N.A.	N.A.	303.	11:43	3125.	62.
5	409.	N.A.	N.A.	321.	12:32	3122.	13.
6	1175.	N.A.	N.A.	315.	12:53	3123.	38.
7	1170.	N.A.	N.A.	273.	12:17	3114.	38.
8	1593.	N.A.	N.A.	294.	12:49	3112.	51.
9	79.	N.A.	N.A.	21.	15:30	3114.	3.
10	540.	N.A.	N.A.	273.	13:59	3112.	17.
11	358.	N.A.	N.A.	171.	15:20	3114.	11.
12	1002.	N.A.	N.A.	282.	11: 6	3112.	32.
13	430.	N.A.	N.A.	279.	13:46	3104.	14.
14	1814.	N.A.	N.A.	309.	11:18	3103.	58.
15	367.	N.A.	N.A.	108.	11:39	3102.	12.
16	407.	N.A.	N.A.	210.	13:12	3101.	13.
17	1860.	N.A.	N.A.	312.	12:34	3104.	60.
18	1708.	N.A.	N.A.	285.	12:40	3104.	55.
19	888.	N.A.	N.A.	315.	11: 4	3104.	29.
20	1861.	N.A.	N.A.	309.	12:33	3104.	60.
21	1846.	N.A.	N.A.	306.	12:48	3104.	59.
22	1177.	N.A.	N.A.	282.	11:28	3105.	38.
23	600.	N.A.	N.A.	285.	12:30	3105.	19.
24	94.	N.A.	N.A.	54.	13:43	3106.	3.
25	1990.	N.A.	N.A.	324.	12:39	3107.	64.
26	*	N.A.	N.A.	*	***	3105.	*
27	*	N.A.	N.A.	*	***	3106.	*
28	*	N.A.	N.A.	*	***	3108.	*
29	*	N.A.	N.A.	*	***	3117.	*
30	*	N.A.	N.A.	*	***	3119.	*
31	*	N.A.	N.A.	*	***	3121.	*
MEAN	1154.	N.A.	N.A.			3112.	
STANDARD DEVIATION	681.	N.A.	N.A.			10.	

ENVIRONMENTAL SUMMARY REPORT

SITE: TERRELL E. MOSELEY
LYNCHBURG, VIRGINIA

REPORT PERIOD: 80/12
SITE NUMBER: 14

LATITUDE: 37.46 DEG NORTH
LONGITUDE: 70.00 DEG WEST

AZIMUTH: 0 DEG
PYRANOMETER TILT: 50 DEG

TIME ZONE: EASTERN
ALTITUDE: 700 FEET

TEMPERATURES IN DEGREES F

DAY	AVERAGE TEMP	DAYTIME TEMP	NIGHTTIME TEMP	MAX TEMPERATURE VALUE	TIME HR:MN	MIN TEMPERATURE VALUE	TIME HR:MN	INLET WATER TEMPERATURE
1	52.	61.	46.	72.	15:41	34.	2:26	N.A.
2	49.	58.	44.	68.	14:10	34.	6:42	N.A.
3	40.	44.	38.	49.	15:11	34.	7:21	N.A.
4	38.	44.	34.	56.	15:17	21.	7: 1	N.A.
5	42.	45.	41.	52.	12:32	37.	0:32	N.A.
6	48.	56.	44.	69.	14: 8	38.	3: 1	N.A.
7	57.	67.	50.	76.	14:36	42.	0: 0	N.A.
8	58.	66.	53.	76.	14:57	41.	7: 8	N.A.
9	56.	54.	58.	61.	0:55	53.	12:50	N.A.
10	50.	53.	47.	57.	0: 1	34.	22:22	N.A.
11	36.	38.	34.	43.	15:20	31.	18:40	N.A.
12	39.	44.	36.	52.	15:22	26.	6:50	N.A.
13	50.	54.	47.	58.	13:46	38.	23:59	N.A.
14	41.	47.	38.	54.	15: 7	27.	7:16	N.A.
15	35.	37.	33.	42.	13:58	28.	6:14	N.A.
16	40.	42.	38.	50.	13:33	34.	2:21	N.A.
17	36.	41.	32.	47.	15:35	21.	23:15	N.A.
18	40.	48.	35.	58.	14:27	20.	2:22	N.A.
19	42.	48.	38.	55.	9:18	30.	22:19	N.A.
20	24.	27.	22.	34.	14:35	14.	23:55	N.A.
21	19.	25.	15.	35.	14:24	9.	6:35	N.A.
22	22.	26.	19.	35.	13:36	8.	5:58	N.A.
23	34.	39.	32.	46.	12:35	26.	4:41	N.A.
24	36.	37.	34.	45.	18:42	26.	6:10	N.A.
25	20.	21.	18.	30.	0: 2	10.	23:46	N.A.
26	*	*	*	*	*:*	*	*:*	N.A.
27	*	*	*	*	*:*	*	*:*	N.A.
28	*	*	*	*	*:*	*	*:*	N.A.
29	*	*	*	*	*:*	*	*:*	N.A.
30	*	*	*	*	*:*	*	*:*	N.A.
31	*	*	*	*	*:*	*	*:*	N.A.
MEAN	40.	45.	37.					N.A.
STANDARD DEVIATION	11.0	12.1	10.7					N.A.

ENVIRONMENTAL SUMMARY REPORT

SITE: TROY-MIAMI COUNTY LIBRARY
TROY, OHIO

REPORT PERIOD: 80/12
SITE NUMBER: 32

LATITUDE: 40.10 DEG NORTH AZIMUTH: 28 DEG
LONGITUDE: 84.40 DEG WEST PYRANOMETER TILT: 40 DEG
TIME ZONE: EASTERN
ALTITUDE: 850 FEET

INSOLATION

DAY	TOTAL INSOLATION BTU/FT2	TOTAL DIFF INSOLATION BTU/FT2	TOTAL DIR INSOLATION BTU/FT2	MAXIMUM TOTAL INSOLATION VALUE BTU/HR/FT2	TIME HR:MN	EXTRATERRESTRIAL INSOLATION BTU/FT2	TTL INS ----- EXT INS PERCENT
1	367.	267.	100.	186.	14: 2	2622.	14.
2	135.	105.	29.	90.	14:17	2618.	5.
3	1529.	300.	1229.	270.	12:35	2611.	59.
4	536.	308.	229.	241.	11:46	2606.	21.
5	146.	117.	28.	103.	13:48	2602.	6.
6	534.	283.	251.	206.	11:56	2599.	21.
7	179.	159.	20.	71.	10:28	2593.	7.
8	290.	227.	63.	93.	10: 2	2589.	11.
9	80.	69.	11.	32.	14:42	2587.	3.
10	277.	200.	77.	231.	11:30	2584.	11.
11	202.	173.	29.	80.	11:27	2579.	8.
12	1232.	376.	855.	251.	13:13	2576.	48.
13	215.	191.	24.	90.	10: 7	2575.	8.
14	523.	386.	137.	186.	10:54	2573.	20.
15	110.	95.	15.	26.	10:38	2572.	4.
16	1094.	486.	608.	238.	12:45	2571.	43.
17	1431.	351.	1080.	264.	13:37	2570.	56.
18	226.	197.	30.	80.	11:55	2569.	9.
19	745.	355.	389.	257.	12: 2	2569.	29.
20	753.	343.	411.	283.	12:24	2569.	29.
21	1220.	378.	842.	270.	13:32	2569.	47.
22	1406.	336.	1069.	251.	12:28	2570.	55.
23	214.	180.	34.	51.	9: 4	2570.	8.
24	*	*	*	*	*:*	2571.	*
25	447.	188.	259.	100.	14:28	2573.	17.
26	147.	112.	35.	35.	12:13	2574.	6.
27	294.	241.	53.	58.	12:56	2575.	11.
28	1612.	370.	1243.	264.	13:30	2578.	63.
29	99.	86.	12.	26.	14: 8	2580.	4.
30	95.	82.	13.	22.	11: 4	2582.	4.
31	52.	31.	22.	13.	10:34	2585.	2.
MEAN	540.	233.	306.			2583.	
STANDARD DEVIATION	501.	118.	411.			15.	

ENVIRONMENTAL SUMMARY REPORT

SITE: TROY-MIAMI COUNTY LIBRARY
TROY, OHIO

REPORT PERIOD: 80/12
SITE NUMBER: 32

LATITUDE: 40.10 DEG NORTH AZIMUTH: 28 DEG
LONGITUDE: 84.40 DEG WEST PYRANOMETER TILT: 40 DEG
TIME ZONE: EASTERN
ALTITUDE: 850 FEET

TEMPERATURES IN DEGREES F

DAY	AVERAGE TEMP	DAYTIME TEMP	NIGHTTIME TEMP	MAX TEMPERATURE VALUE TIME HR:MN	MIN TEMPERATURE VALUE TIME HR:MN	INLET WATER TEMPERATURE
1	50.	52.	49.	60. 14: 8	41. 5:57	N.A.
2	42.	41.	42.	55. 5:39	29. 23:57	N.A.
3	29.	31.	27.	43. 16: 3	22. 8: 8	N.A.
4	34.	37.	32.	46. 13:38	23. 4:24	N.A.
5	43.	44.	43.	49. 23:45	38. 0:54	N.A.
6	56.	58.	54.	63. 15:18	49. 0: 1	N.A.
7	55.	56.	54.	60. 14:23	49. 7:45	N.A.
8	53.	58.	50.	62. 13:30	43. 23:41	N.A.
9	38.	38.	38.	43. 0:40	35. 18:42	N.A.
10	32.	32.	32.	36. 0: 2	30. 21:45	N.A.
11	30.	30.	30.	33. 23:15	28. 9: 8	N.A.
12	40.	44.	37.	55. 15:15	32. 0: 3	N.A.
13	33.	35.	32.	41. 0: 5	26. 23:43	N.A.
14	30.	33.	28.	36. 12:46	25. 5:35	N.A.
15	32.	33.	31.	35. 13: 2	29. 1:34	N.A.
16	30.	31.	29.	36. 14:42	22. 21:47	N.A.
17	27.	27.	27.	37. 14:25	16. 7:34	N.A.
18	37.	39.	36.	43. 12:53	33. 0: 0	N.A.
19	19.	17.	20.	33. 0: 2	11. 23:52	N.A.
20	12.	13.	11.	22. 15:26	5. 7:36	N.A.
21	15.	19.	13.	30. 14:14	7. 7:42	N.A.
22	26.	27.	25.	39. 14:57	15. 0:17	N.A.
23	34.	35.	33.	37. 12: 0	28. 8:22	N.A.
24	25.	31.	23.	33. 10:44	10. 22:54	N.A.
25	9.	13.	7.	23. 15:26	1. 5:56	N.A.
26	19.	21.	18.	23. 12:56	9. 0:30	N.A.
27	24.	27.	22.	32. 13:49	16. 23:52	N.A.
28	25.	30.	22.	50. 15:38	11. 4:56	N.A.
29	33.	34.	31.	35. 16:10	28. 0:42	N.A.
30	30.	29.	30.	33. 0:45	28. 6:53	N.A.
31	31.	32.	31.	33. 14: 8	29. 4:42	N.A.
MEAN	32.	34.	31.			N.A.
STANDARD DEVIATION	11.6	11.6	11.7			N.A.

ENVIRONMENTAL SUMMARY REPORT

SITE: UPTON CENTER
BALTIMORE, MARYLAND

REPORT PERIOD: 80/12
SITE NUMBER: 36

LATITUDE: 39.20 DEG NORTH
LONGITUDE: 76.60 DEG WEST

AZIMUTH: 0 DEG
PYRANOMETER TILT: 45 DEG

TIME ZONE: EASTERN
ALTITUDE: 172 FEET

INSOLATION

DAY	TOTAL INSOLATION BTU/FT2	TOTAL DIFF INSOLATION BTU/FT2	TOTAL DIR INSOLATION BTU/FT2	MAXIMUM TOTAL INSOLATION VALUE BTU/HR/FT2	TIME HR:MN	EXTRATERRESTRIAL INSOLATION BTU/FT2	TTL INS ----- EXT INS PERCENT
1	1112.	N.A.	N.A.	262.	11:21	2987.	37.
2	1465.	N.A.	N.A.	269.	12:37	2986.	49.
3	1666.	N.A.	N.A.	287.	11:54	2976.	56.
4	1391.	N.A.	N.A.	278.	12: 5	2975.	47.
5	1064.	N.A.	N.A.	287.	13: 7	2975.	36.
6	1309.	N.A.	N.A.	262.	11:53	2972.	44.
7	266.	N.A.	N.A.	174.	11:52	2962.	9.
8	886.	N.A.	N.A.	218.	11:36	2963.	30.
9	15.	N.A.	N.A.	19.	9:36	2960.	1.
10	33.	N.A.	N.A.	22.	14:39	2950.	1.
11	329.	N.A.	N.A.	167.	14:32	2948.	11.
12	570.	N.A.	N.A.	237.	11:40	2950.	19.
13	194.	N.A.	N.A.	82.	15:21	2948.	7.
14	1355.	N.A.	N.A.	265.	12: 5	2950.	46.
15	166.	N.A.	N.A.	145.	13:14	2949.	6.
16	130.	N.A.	N.A.	92.	10:16	2948.	4.
17	1550.	N.A.	N.A.	269.	11:50	2947.	53.
18	681.	N.A.	N.A.	227.	12:42	2947.	23.
19	420.	N.A.	N.A.	227.	11:31	2939.	14.
20	1531.	N.A.	N.A.	269.	11:36	2939.	52.
21	1466.	N.A.	N.A.	265.	11:58	2939.	50.
22	597.	N.A.	N.A.	180.	10: 1	2940.	20.
23	448.	N.A.	N.A.	221.	12:59	2941.	15.
24	20.	N.A.	N.A.	19.	10:29	2949.	1.
25	1666.	N.A.	N.A.	284.	11:45	2950.	56.
26	1013.	N.A.	N.A.	287.	11:50	2951.	34.
27	406.	N.A.	N.A.	167.	9:32	2953.	14.
28	26.	N.A.	N.A.	13.	11:44	2951.	1.
29	915.	N.A.	N.A.	275.	12:32	2954.	31.
30	1265.	N.A.	N.A.	272.	12:24	2956.	43.
31	*	N.A.	N.A.	*	*:*	2955.	*
MEAN	799.	N.A.	N.A.			2955.	
STANDARD DEVIATION	573.	N.A.	N.A.			13.	

ENVIRONMENTAL SUMMARY REPORT

SITE: UPTON CENTER
BALTIMORE, MARYLAND

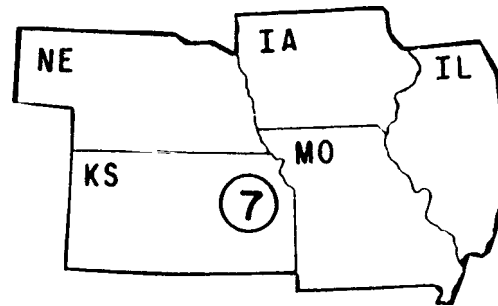
REPORT PERIOD: 80/12
SITE NUMBER: 36

LATITUDE: 39.20 DEG NORTH AZIMUTH: 0 DEG
LONGITUDE: 76.60 DEG WEST PYRANOMETER TILT: 45 DEG TIME ZONE: EASTERN
ALTITUDE: 172 FEET

TEMPERATURES IN DEGREES F

DAY	AVERAGE TEMP	DAYTIME TEMP	NIGHTTIME TEMP	MAX TEMPERATURE VALUE TIME HR:MN	MIN TEMPERATURE VALUE TIME HR:MN	INLET WATER TEMPERATURE
1	53.	60.	48.	67. 13:19	40. 5:40	55.
2	52.	59.	48.	66. 13:57	41. 6:51	59.
3	37.	37.	36.	42. 0: 0	32. 23:59	54.
4	34.	36.	32.	41. 15:22	27. 7: 1	55.
5	35.	38.	34.	44. 13:23	28. 5: 1	54.
6	45.	49.	43.	55. 14:22	33. 3:37	82.
7	54.	58.	52.	65. 14:38	48. 7: 5	83.
8	61.	66.	57.	73. 13:28	48. 6:48	54.
9	55.	52.	57.	65. 3: 2	47. 15: 2	54.
10	44.	45.	43.	49. 0: 4	36. 22:26	54.
11	36.	37.	35.	39. 14:16	33. 23:56	55.
12	40.	42.	38.	48. 14: 4	32. 2: 9	55.
13	45.	52.	41.	57. 12:57	32. 23:59	81.
14	35.	40.	31.	48. 14:24	26. 6:33	80.
15	28.	29.	28.	32. 23:57	24. 5:36	52.
16	37.	40.	35.	44. 10:53	32. 0: 2	51.
17	28.	29.	28.	33. 0:11	23. 7:23	51.
18	35.	38.	33.	46. 15: 0	24. 2:50	54.
19	36.	41.	33.	46. 8:24	21. 23:36	50.
20	18.	19.	18.	23. 15: 4	14. 7: 9	75.
21	19.	22.	18.	26. 14:17	13. 5:23	76.
22	24.	25.	22.	29. 13:55	15. 6:54	50.
23	31.	33.	30.	36. 13:41	28. 0: 0	65.
24	32.	32.	31.	34. 21: 5	22. 23:56	53.
25	13.	13.	14.	22. 0: 1	8. 7: 8	76.
26	19.	22.	17.	26. 13: 0	9. 6:20	54.
27	26.	28.	25.	33. 13:37	17. 5:16	76.
28	35.	37.	35.	40. 14:35	31. 0:12	78.
29	43.	46.	40.	53. 13:31	37. 5:31	53.
30	41.	42.	41.	44. 12:45	37. 7:57	48.
31	28.	30.	27.	31. 14:53	25. 23:57	54.
MEAN	36.	39.	35.			61.
STANDARD DEVIATION	11.7	12.7	11.2			11.9

ZONE 7



ENVIRONMENTAL SUMMARY REPORT

SITE: ARGONNE NATIONAL LABORATORY
ARGONNE, ILLINOIS

REPORT PERIOD: 80/12
SITE NUMBER: 217

LATITUDE: 41.70 DEG NORTH AZIMUTH: 0 DEG
LONGITUDE: 88.00 DEG WEST PYRANOMETER TILT: 45 DEG
TIME ZONE: CENTRAL
ALTITUDE: 750 FEET

INSOLATION

DAY	TOTAL INSOLATION BTU/FT2	TOTAL DIFF INSOLATION BTU/FT2	TOTAL DIR INSOLATION BTU/FT2	MAXIMUM TOTAL INSOLATION VALUE BTU/HR/FT2	TIME HR:MN	EXTRATERRESTRIAL INSOLATION BTU/FT2	TTL INS ----- EXT INS PERCENT
1	525.	N.A.	N.A.	156.	11:51	2885.	18.
2	665.	N.A.	N.A.	233.	13:43	2884.	23.
3	327.	N.A.	N.A.	87.	12:52	2872.	11.
4	1024.	N.A.	N.A.	279.	11:33	2871.	36.
5	100.	N.A.	N.A.	45.	11:44	2860.	3.
6	161.	N.A.	N.A.	81.	11:37	2856.	6.
7	121.	N.A.	N.A.	45.	10:44	2856.	4.
8	63.	N.A.	N.A.	19.	9:51	2856.	2.
9	237.	N.A.	N.A.	139.	14:53	2853.	8.
10	219.	N.A.	N.A.	191.	11:20	2843.	8.
11	192.	N.A.	N.A.	55.	9:55	2844.	7.
12	1421.	N.A.	N.A.	262.	11:13	2841.	50.
13	1574.	N.A.	N.A.	282.	11:17	2839.	55.
14	566.	N.A.	N.A.	295.	12:15	2830.	20.
15	1020.	N.A.	N.A.	272.	11:59	2829.	36.
16	190.	N.A.	N.A.	136.	14:43	2827.	7.
17	517.	N.A.	N.A.	162.	12:18	2830.	18.
18	115.	N.A.	N.A.	32.	9:58	2829.	4.
19	1555.	N.A.	N.A.	279.	11:42	2829.	55.
20	1695.	N.A.	N.A.	288.	11:29	2829.	60.
21	1389.	N.A.	N.A.	282.	11:27	2829.	49.
22	693.	N.A.	N.A.	246.	10:40	2830.	24.
23	745.	N.A.	N.A.	246.	11:10	2830.	26.
24	781.	N.A.	N.A.	256.	13: 5	2831.	28.
25	1367.	N.A.	N.A.	308.	11:22	2833.	48.
26	171.	N.A.	N.A.	42.	11:12	2831.	6.
27	1253.	N.A.	N.A.	269.	11:54	2833.	44.
28	880.	N.A.	N.A.	275.	11:15	2835.	31.
29	112.	N.A.	N.A.	32.	14: 0	2845.	4.
30	90.	N.A.	N.A.	23.	9:34	2848.	3.
31	91.	N.A.	N.A.	32.	12: 8	2847.	3.
MEAN	641.	N.A.	N.A.			2844.	
STANDARD DEVIATION	537.	N.A.	N.A.			17.	

ENVIRONMENTAL SUMMARY REPORT

SITE: ARGONNE NATIONAL LABORATORY
ARGONNE, ILLINOIS

REPORT PERIOD: 80/12
SITE NUMBER: 217

LATITUDE: 41.70 DEG NORTH AZIMUTH: 0 DEG
LONGITUDE: 88.00 DEG WEST PYRANOMETER TILT: 45 DEG
TIME ZONE: CENTRAL
ALTITUDE: 750 FEET

TEMPERATURES IN DEGREES F

DAY	AVERAGE TEMP	DAYTIME TEMP	NIGHTTIME TEMP	MAX TEMPERATURE VALUE	TIME HR:MN	MIN TEMPERATURE VALUE	TIME HR:MN	INLET WATER TEMPERATURE
1	40.	42.	38.	48.	13:16	34.	4:23	N.A.
2	25.	25.	25.	38.	0: 2	12.	23:43	N.A.
3	22.	28.	19.	32.	13: 8	9.	3: 6	N.A.
4	35.	39.	32.	46.	12:26	24.	0:58	N.A.
5	44.	46.	43.	52.	21:45	33.	0: 5	N.A.
6	56.	58.	54.	63.	14:22	49.	0:36	N.A.
7	52.	52.	52.	57.	0:41	46.	22: 2	N.A.
8	40.	39.	40.	49.	0:26	31.	23:47	N.A.
9	29.	30.	28.	32.	0: 3	23.	22:37	N.A.
10	25.	26.	24.	29.	10:58	17.	23:47	N.A.
11	20.	20.	20.	29.	19:56	11.	6:32	N.A.
12	35.	41.	32.	46.	12:55	24.	0:39	N.A.
13	28.	27.	28.	36.	0:31	21.	22:29	N.A.
14	28.	31.	26.	35.	12:20	21.	0:11	N.A.
15	29.	33.	27.	38.	12:25	23.	3:32	N.A.
16	30.	31.	30.	34.	14:49	27.	5:39	N.A.
17	31.	31.	30.	36.	22:25	24.	4:34	N.A.
18	28.	28.	27.	36.	4:11	14.	23:53	N.A.
19	4.	4.	5.	15.	0: 3	0.	7:31	N.A.
20	5.	7.	3.	13.	14:30	-2.	4: 1	N.A.
21	15.	20.	12.	28.	14:24	3.	3:18	N.A.
22	26.	28.	25.	33.	17:42	17.	0: 5	N.A.
23	33.	36.	32.	40.	15: 0	28.	0: 9	N.A.
24	16.	16.	15.	30.	0:49	0.	23:11	N.A.
25	5.	8.	3.	15.	15:17	-8.	7: 6	N.A.
26	18.	19.	17.	21.	11:33	11.	0:21	N.A.
27	23.	28.	19.	34.	13:20	16.	20:10	N.A.
28	28.	31.	26.	36.	13:23	17.	0: 4	N.A.
29	32.	33.	31.	35.	14:21	30.	23: 5	N.A.
30	31.	34.	30.	37.	9:23	28.	3:53	N.A.
31	32.	33.	31.	35.	4:56	30.	0: 8	N.A.
MEAN	28.	30.	27.					N.A.
STANDARD DEVIATION	11.9	12.0	12.0					N.A.

ENVIRONMENTAL SUMMARY REPORT

SITE: ARGONNE NATIONAL LABORATORY
ARGONNE, ILLINOIS

REPORT PERIOD: 80/12
SITE NUMBER: 217

LATITUDE: 41.70 DEG NORTH AZIMUTH: 0 DEG
LONGITUDE: 88.00 DEG WEST PYRANOMETER TILT: 45 DEG

TIME ZONE: CENTRAL
ALTITUDE: 750 FEET

RELATIVE HUMIDITY IN PER CENT

DAY	RELATIVE HUMIDITY	DAYTIME REL HUM	NIGHTTIME REL HUM	MAXIMUM VALUE	HUMIDITY TIME HR:MN	MINIMUM VALUE	HUMIDITY TIME HR:MN
1	0.	0.	0.	0.	19: 3	0.	6:15
2	0.	0.	0.	0.	8:29	0.	5:17
3	0.	0.	0.	0.	12: 4	0.	8:15
4	0.	0.	0.	0.	10: 8	0.	8:53
5	0.	0.	0.	0.	11:54	0.	15:54
6	0.	0.	0.	0.	6: 6	0.	13: 8
7	0.	0.	0.	0.	23:48	0.	20:42
8	0.	0.	0.	0.	11:11	0.	8:26
9	0.	0.	0.	0.	19:25	0.	14:16
10	0.	0.	0.	0.	15: 4	0.	14:21
11	0.	0.	0.	0.	8:51	0.	14:59
12	0.	0.	0.	0.	15:13	0.	8:12
13	0.	0.	0.	0.	20:16	0.	13:41
14	0.	0.	0.	0.	0:21	0.	14:28
15	0.	0.	0.	0.	22:43	0.	5: 3
16	0.	0.	0.	0.	19:46	0.	19: 8
17	0.	0.	0.	0.	0:18	0.	19:18
18	0.	0.	0.	0.	11:18	0.	8:49
19	0.	0.	0.	0.	19: 7	0.	9: 7
20	0.	0.	0.	0.	0: 1	0.	20:38
21	0.	0.	0.	0.	8: 6	0.	4:43
22	0.	0.	0.	0.	18:33	0.	14:29
23	0.	0.	0.	0.	10:38	0.	8:14
24	0.	0.	0.	0.	22:18	0.	17:30
25	0.	0.	0.	0.	2: 2	0.	22:34
26	0.	0.	0.	0.	17:57	0.	9:14
27	0.	0.	0.	0.	2:50	0.	19: 6
28	0.	0.	0.	0.	17: 1	0.	3:43
29	0.	0.	0.	0.	15: 4	0.	15:20
30	0.	0.	0.	0.	13: 7	0.	15:53
31	0.	0.	0.	0.	1: 2	0.	0: 3
MEAN	0.	0.	0.				
STANDARD DEVIATION	0.	0.	0.				

ENVIRONMENTAL SUMMARY REPORT

SITE: CHICAGO NAVY PIER
CHICAGO, ILLINOIS

REPORT PERIOD: 80/12
SITE NUMBER: 187

LATITUDE: 41.59 DEG NORTH
LONGITUDE: 87.54 DEG WEST

AZIMUTH: 0 DEG
PYRANOMETER TILT: 52 DEG

TIME ZONE: CENTRAL
ALTITUDE: 658 FEET

INSOLATION

DAY	TOTAL INSOLATION BTU/FT2	TOTAL DIFF INSOLATION BTU/FT2	TOTAL DIR INSOLATION BTU/FT2	MAXIMUM TOTAL INSOLATION VALUE BTU/HR/FT2	TIME HR:MN	EXTRATERRESTRIAL INSOLATION BTU/FT2	TTL INS ----- EXT INS PERCENT
1	631.	N.A.	N.A.	236.	12: 1	3013.	21.
2	376.	N.A.	N.A.	316.	14: 2	3013.	12.
3	227.	N.A.	N.A.	196.	13:52	3013.	8.
4	1294.	N.A.	N.A.	339.	11:18	3002.	43.
5	72.	N.A.	N.A.	37.	12:13	3002.	2.
6	347.	N.A.	N.A.	213.	10:53	2991.	12.
7	317.	N.A.	N.A.	196.	10: 5	2992.	11.
8	64.	N.A.	N.A.	27.	13:56	2989.	2.
9	238.	N.A.	N.A.	176.	15: 4	2990.	8.
10	454.	N.A.	N.A.	353.	10:59	2988.	15.
11	211.	N.A.	N.A.	53.	10:31	2977.	7.
12	1804.	N.A.	N.A.	353.	11:35	2976.	61.
13	1485.	N.A.	N.A.	376.	10:51	2978.	50.
14	561.	N.A.	N.A.	226.	11:46	2976.	19.
15	1491.	N.A.	N.A.	369.	11:25	2967.	50.
16	165.	N.A.	N.A.	60.	13:30	2966.	6.
17	592.	N.A.	N.A.	226.	11: 9	2965.	20.
18	85.	N.A.	N.A.	27.	10:21	2965.	3.
19	2106.	N.A.	N.A.	373.	11:28	2964.	71.
20	2200.	N.A.	N.A.	359.	11:28	2964.	74.
21	1569.	N.A.	N.A.	343.	11:14	2965.	53.
22	907.	N.A.	N.A.	299.	13: 1	2965.	31.
23	900.	N.A.	N.A.	326.	11:13	2966.	30.
24	862.	N.A.	N.A.	316.	13:47	2967.	29.
25	1981.	N.A.	N.A.	399.	11:39	2968.	67.
26	140.	N.A.	N.A.	33.	9:57	2969.	5.
27	1630.	N.A.	N.A.	356.	11:38	2979.	55.
28	763.	N.A.	N.A.	413.	11: 6	2981.	26.
29	79.	N.A.	N.A.	27.	12:58	2983.	3.
30	97.	N.A.	N.A.	37.	10: 3	2982.	3.
31	54.	N.A.	N.A.	23.	11: 0	2984.	2.
MEAN	765.	N.A.	N.A.			2981.	
STANDARD DEVIATION	692.	N.A.	N.A.			16.	

ENVIRONMENTAL SUMMARY REPORT

SITE: CHICAGO NAVY PIER
CHICAGO, ILLINOIS

REPORT PERIOD: 80/12
SITE NUMBER: 187

LATITUDE: 41.59 DEG NORTH
LONGITUDE: 87.54 DEG WEST

AZIMUTH: 0 DEG
PYRANOMETER TILT: 52 DEG

TIME ZONE: CENTRAL
ALTITUDE: 658 FEET

TEMPERATURES IN DEGREES F

DAY	AVERAGE TEMP	DAYTIME TEMP	NIGHTTIME TEMP	MAX TEMPERATURE VALUE	TIME HR:MN	MIN TEMPERATURE VALUE	TIME HR:MN	INLET WATER TEMPERATURE
1	42.	44.	41.	52.	13:53	39.	7: 8	N.A.
2	27.	26.	27.	40.	0: 4	17.	23:23	N.A.
3	26.	27.	25.	31.	21:10	17.	0: 0	N.A.
4	35.	37.	34.	44.	14:30	29.	1:26	N.A.
5	40.	40.	40.	49.	23:46	36.	0:55	N.A.
6	51.	54.	50.	60.	13:38	47.	20:50	N.A.
7	51.	55.	49.	59.	10:50	42.	18: 2	N.A.
8	39.	39.	39.	48.	0:52	34.	23:57	N.A.
9	32.	32.	31.	35.	15:25	29.	23:37	N.A.
10	26.	28.	25.	32.	13:29	20.	23:46	N.A.
11	22.	22.	22.	28.	23:51	16.	7: 3	N.A.
12	38.	43.	36.	49.	14: 9	28.	0:12	N.A.
13	31.	33.	31.	48.	14:56	23.	22:30	N.A.
14	29.	32.	27.	35.	15:41	24.	0: 0	N.A.
15	34.	40.	31.	51.	13: 1	27.	0: 2	N.A.
16	32.	33.	31.	35.	13:35	28.	23:57	N.A.
17	31.	31.	31.	37.	22:15	27.	5:22	N.A.
18	29.	29.	30.	37.	2:47	17.	23:54	N.A.
19	7.	7.	7.	17.	0: 0	2.	7:17	N.A.
20	8.	12.	6.	20.	14:24	0.	6: 3	N.A.
21	19.	26.	15.	40.	15: 3	9.	4:27	N.A.
22	25.	26.	25.	31.	23:34	20.	0: 7	N.A.
23	34.	35.	32.	39.	12:38	30.	23:45	N.A.
24	18.	18.	18.	30.	0: 6	4.	23:55	N.A.
25	9.	13.	7.	18.	12: 6	-0.	6:46	N.A.
26	18.	19.	18.	22.	23: 6	13.	0:43	N.A.
27	25.	27.	23.	31.	13:56	21.	0:20	N.A.
28	29.	30.	28.	34.	14:45	22.	0:15	N.A.
29	32.	33.	32.	34.	12:21	31.	23: 5	N.A.
30	30.	30.	30.	32.	1:51	28.	16:11	N.A.
31	32.	33.	31.	34.	9:45	30.	1:13	N.A.
MEAN	29.	31.	28.					N.A.
STANDARD DEVIATION	10.6	10.7	10.7					N.A.

ENVIRONMENTAL SUMMARY REPORT

SITE: JOHN C. BYRAM
SHAWNEE, KANSAS

REPORT PERIOD: 80/12
SITE NUMBER: 66

LATITUDE: 39.00 DEG NORTH
LONGITUDE: 95.00 DEG WEST

AZIMUTH: 0 DEG
PYRANOMETER TILT: 54 DEG

TIME ZONE: CENTRAL
ALTITUDE: 742 FEET

INSOLATION

DAY	TOTAL INSOLATION BTU/FT2	TOTAL DIFF INSOLATION BTU/FT2	TOTAL DIR INSOLATION BTU/FT2	MAXIMUM TOTAL INSOLATION VALUE BTU/HR/FT2	TIME HR:MN	EXTRATERRESTRIAL INSOLATION BTU/FT2	TTL INS ----- EXT INS PERCENT
1	146.	N.A.	N.A.	46.	10:55	3134.	5.
2	1850.	N.A.	N.A.	316.	11:25	3131.	59.
3	1801.	N.A.	N.A.	302.	11:46	3132.	58.
4	145.	N.A.	N.A.	35.	10:23	3122.	5.
5	693.	N.A.	N.A.	274.	12:46	3123.	22.
6	156.	N.A.	N.A.	46.	9:36	3121.	5.
7	74.	N.A.	N.A.	35.	13:15	3122.	2.
8	84.	N.A.	N.A.	28.	14: 3	3113.	3.
9	852.	N.A.	N.A.	316.	12:16	3111.	27.
10	1537.	N.A.	N.A.	313.	11:32	3113.	49.
11	1576.	N.A.	N.A.	274.	11: 2	3111.	51.
12	1779.	N.A.	N.A.	302.	11:34	3102.	57.
13	1805.	N.A.	N.A.	309.	11:29	3101.	58.
14	1799.	N.A.	N.A.	306.	12:12	3103.	58.
15	484.	N.A.	N.A.	190.	14:47	3103.	16.
16	820.	N.A.	N.A.	239.	11:29	3102.	26.
17	1712.	N.A.	N.A.	295.	11:43	3101.	55.
18	181.	N.A.	N.A.	35.	12:32	3101.	6.
19	1119.	N.A.	N.A.	327.	11:54	3105.	36.
20	1764.	N.A.	N.A.	302.	11:53	3105.	57.
21	1646.	N.A.	N.A.	298.	11:33	3105.	53.
22	228.	N.A.	N.A.	84.	15:55	3106.	7.
23	927.	N.A.	N.A.	291.	11: 9	3102.	30.
24	1439.	N.A.	N.A.	351.	12:19	3103.	46.
25	487.	N.A.	N.A.	190.	12: 3	3104.	16.
26	678.	N.A.	N.A.	239.	14:28	3105.	22.
27	948.	N.A.	N.A.	295.	11:11	3107.	31.
28	650.	N.A.	N.A.	274.	11:26	3104.	21.
29	1638.	N.A.	N.A.	295.	11:58	3106.	53.
30	744.	N.A.	N.A.	327.	11:32	3108.	24.
31	*	N.A.	N.A.	*	*:*	3118.	*
MEAN	992.	N.A.	N.A.			3110.	
STANDARD DEVIATION	646.	N.A.	N.A.			10.	

ENVIRONMENTAL SUMMARY REPORT

SITE: JOHN C. BYRAM
SHAWNEE, KANSAS

REPORT PERIOD: 80/12
SITE NUMBER: 66

LATITUDE: 39.00 DEG NORTH AZIMUTH: 0 DEG
LONGITUDE: 95.00 DEG WEST PYRANOMETER TILT: 54 DEG
TIME ZONE: CENTRAL
ALTITUDE: 742 FEET

TEMPERATURES IN DEGREES F

DAY	AVERAGE TEMP	DAYTIME TEMP	NIGHTTIME TEMP	MAX TEMPERATURE VALUE	TIME HR:MN	MIN TEMPERATURE VALUE	TIME HR:MN	INLET WATER TEMPERATURE
1	44.	53.	38.	60.	12:26	23.	23:52	67.
2	20.	26.	16.	35.	12:35	9.	7:31	61.
3	33.	40.	29.	51.	13:44	18.	0: 2	60.
4	48.	50.	47.	58.	21:29	34.	6:21	61.
5	63.	66.	60.	73.	13:45	57.	0: 4	59.
6	50.	54.	47.	60.	12:53	41.	20:37	58.
7	40.	42.	39.	46.	14:30	35.	23:50	60.
8	32.	31.	32.	35.	0: 1	29.	21:20	65.
9	32.	35.	29.	46.	12:32	27.	19:42	65.
10	34.	39.	30.	47.	13:56	27.	21:36	62.
11	40.	49.	35.	58.	15:44	28.	5:47	58.
12	47.	58.	39.	70.	13:58	36.	7:39	72.
13	40.	48.	35.	57.	11: 3	25.	23:13	58.
14	42.	50.	37.	60.	13:53	26.	0: 1	60.
15	37.	42.	34.	50.	15: 8	29.	6: 9	61.
16	36.	41.	33.	47.	11:39	27.	22:28	55.
17	43.	51.	38.	62.	15:39	28.	0: 9	69.
18	35.	37.	34.	41.	2:45	26.	23:54	65.
19	18.	21.	16.	31.	11:17	8.	23:59	58.
20	14.	20.	10.	29.	12:36	4.	7:43	58.
21	21.	26.	18.	33.	14: 2	9.	0: 4	57.
22	28.	32.	26.	36.	13: 4	21.	3:12	57.
23	35.	43.	30.	53.	13:54	25.	6:53	68.
24	13.	19.	10.	26.	0: 1	-4.	23:57	56.
25	10.	14.	7.	20.	12:40	-6.	2:59	54.
26	29.	36.	24.	42.	15:32	18.	23:43	55.
27	30.	34.	28.	40.	14: 7	18.	0:52	55.
28	41.	45.	38.	52.	13:34	34.	0:10	53.
29	38.	47.	32.	59.	14: 2	28.	7:42	54.
30	39.	44.	36.	53.	13:46	27.	4:58	63.
31	35.	54.	33.	62.	11:29	30.	7:23	60.
MEAN	34.	40.	31.					60.
STANDARD DEVIATION	11.6	12.5	11.5					4.8

ENVIRONMENTAL SUMMARY REPORT

SITE: KANSAS CITY FIRE STATION
KANSAS CITY, MISSOURI

REPORT PERIOD: 80/12
SITE NUMBER: 37

LATITUDE: 39.30 DEG NORTH AZIMUTH: 0 DEG
LONGITUDE: 99.60 DEG WEST PYRANOMETER TILT: 45 DEG TIME ZONE: CENTRAL
ALTITUDE: 0 FEET

INSOLATION

DAY	TOTAL INSOLATION BTU/FT2	TOTAL DIFF INSOLATION BTU/FT2	TOTAL DIR INSOLATION BTU/FT2	MAXIMUM TOTAL INSOLATION VALUE BTU/HR/FT2	TIME HR:MN	EXTRATERRESTRIAL INSOLATION BTU/FT2	TTL INS ----- EXT INS PERCENT
1	79.	N.A.	N.A.	25.	10:24	2987.	3.
2	1720.	N.A.	N.A.	291.	12: 7	2976.	58.
3	*	N.A.	N.A.	*	*:*	2975.	*
4	120.	N.A.	N.A.	38.	11: 1	2972.	4.
5	508.	N.A.	N.A.	225.	13:51	2972.	17.
6	108.	N.A.	N.A.	79.	12:54	2961.	4.
7	56.	N.A.	N.A.	19.	13:45	2962.	2.
8	81.	N.A.	N.A.	22.	13: 2	2959.	3.
9	691.	N.A.	N.A.	295.	11:58	2949.	23.
10	520.	N.A.	N.A.	228.	9:59	2947.	18.
11	1419.	N.A.	N.A.	247.	11:27	2948.	48.
12	1650.	N.A.	N.A.	279.	12:15	2946.	56.
13	1519.	N.A.	N.A.	288.	12:20	2948.	52.
14	*	N.A.	N.A.	*	*:*	2946.	*
15	*	N.A.	N.A.	*	*:*	2945.	*
16	*	N.A.	N.A.	*	*:*	2937.	*
17	*	N.A.	N.A.	*	*:*	2936.	*
18	*	N.A.	N.A.	*	*:*	2936.	*
19	*	N.A.	N.A.	*	*:*	2935.	*
20	1876.	N.A.	N.A.	276.	11:55	2935.	64.
21	*	N.A.	N.A.	*	*:*	2935.	*
22	*	N.A.	N.A.	*	*:*	2936.	*
23	682.	N.A.	N.A.	295.	11:33	2937.	23.
24	1248.	N.A.	N.A.	301.	11:58	2938.	42.
25	*	N.A.	N.A.	*	*:*	2939.	*
26	*	N.A.	N.A.	*	*:*	2947.	*
27	677.	N.A.	N.A.	187.	10:27	2949.	23.
28	586.	N.A.	N.A.	241.	12:38	2951.	20.
29	1444.	N.A.	N.A.	269.	12:16	2953.	49.
30	596.	N.A.	N.A.	272.	11:13	2952.	20.
31	*	N.A.	N.A.	*	*:*	2955.	*
MEAN	820.	N.A.	N.A.			2950.	
STANDARD DEVIATION	626.	N.A.	N.A.			14.	

ENVIRONMENTAL SUMMARY REPORT

SITE: KANSAS CITY FIRE STATION
KANSAS CITY, MISSOURI

REPORT PERIOD: 80/12
SITE NUMBER: 37

LATITUDE: 39.30 DEG NORTH AZIMUTH: 0 DEG
LONGITUDE: 99.60 DEG WEST PYRANOMETER TILT: 45 DEG
TIME ZONE: CENTRAL
ALTITUDE: 0 FEET

TEMPERATURES IN DEGREES F

DAY	AVERAGE TEMP	DAYTIME TEMP	NIGHTTIME TEMP	MAX TEMPERATURE VALUE	TIME HR:MN	MIN TEMPERATURE VALUE	TIME HR:MN	INLET WATER TEMPERATURE
1	47.	52.	43.	54.	10:50	22.	23:35	74.
2	17.	19.	14.	28.	15:14	8.	6:58	68.
3	41.	*	41.	41.	22:19	40.	23:49	77.
4	50.	51.	48.	61.	22:13	34.	6:24	67.
5	64.	67.	63.	73.	14:55	58.	23:55	68.
6	51.	56.	48.	69.	12:54	42.	23:55	62.
7	41.	43.	40.	48.	14:44	35.	23:53	68.
8	32.	31.	32.	35.	0:14	28.	18:33	62.
9	31.	34.	30.	41.	13:29	28.	5:50	65.
10	32.	31.	32.	36.	18:46	29.	8:50	63.
11	42.	47.	39.	56.	14:7	29.	5:8	63.
12	50.	55.	46.	65.	14:39	37.	6:17	66.
13	43.	44.	42.	51.	14:40	35.	19:39	55.
14	30.	*	30.	31.	3:29	28.	4:43	52.
15	*	*	*	*	*:*	*	*:*	*
16	*	*	*	*	*:*	*	*:*	*
17	*	*	*	*	*:*	*	*:*	*
18	*	*	*	*	*:*	*	*:*	*
19	*	*	*	*	*:*	*	*:*	*
20	15.	17.	12.	22.	14:35	7.	8:31	69.
21	12.	15.	12.	21.	9:58	10.	0:0	70.
22	30.	*	30.	31.	23:11	29.	22:29	69.
23	35.	41.	31.	50.	13:57	26.	23:26	65.
24	12.	13.	12.	26.	0:4	-1.	21:35	63.
25	*	*	*	*	*:*	*	*:*	*
26	28.	35.	27.	37.	15:9	24.	22:5	53.
27	30.	32.	29.	38.	14:59	23.	3:36	60.
28	42.	46.	39.	53.	12:48	34.	2:27	64.
29	38.	43.	34.	50.	14:19	30.	23:40	68.
30	38.	36.	39.	54.	18:8	14.	13:14	59.
31	*	*	*	*	*:*	*	*:*	*
MEAN	35.	39.	34.					65.
STANDARD DEVIATION	13.0	14.6	12.6					5.9

ENVIRONMENTAL SUMMARY REPORT

SITE: KAW VALLEY STATE BANK
TOPEKA, KANSAS

REPORT PERIOD: 80/12
SITE NUMBER: 172

LATITUDE: 39.40 DEG NORTH
LONGITUDE: 95.38 DEG WEST

AZIMUTH: 5 DEG
PYRANOMETER TILT: 45 DEG

TIME ZONE: CENTRAL
ALTITUDE: 877 FEET

INSOLATION

DAY	TOTAL INSOLATION BTU/FT2	TOTAL DIFF INSOLATION BTU/FT2	TOTAL DIR INSOLATION BTU/FT2	MAXIMUM TOTAL INSOLATION VALUE BTU/HR/FT2	TIME HR:MN	EXTRATERRESTRIAL INSOLATION BTU/FT2	TTL INS ----- EXT INS PERCENT
1	55.	N.A.	N.A.	16.	13:39	2976.	2.
2	1728.	N.A.	N.A.	305.	11:52	2965.	58.
3	1693.	N.A.	N.A.	289.	12:21	2964.	57.
4	192.	N.A.	N.A.	42.	13:30	2964.	6.
5	925.	N.A.	N.A.	311.	12:41	2954.	31.
6	65.	N.A.	N.A.	23.	11:53	2951.	2.
7	30.	N.A.	N.A.	13.	11:34	2950.	1.
8	118.	N.A.	N.A.	58.	13:53	2941.	4.
9	1004.	N.A.	N.A.	263.	13:54	2938.	34.
10	1709.	N.A.	N.A.	298.	12:26	2939.	58.
11	1572.	N.A.	N.A.	266.	12:17	2937.	54.
12	1715.	N.A.	N.A.	298.	12:40	2938.	58.
13	1805.	N.A.	N.A.	302.	12:34	2936.	61.
14	1730.	N.A.	N.A.	308.	11:26	2928.	59.
15	833.	N.A.	N.A.	279.	13:35	2927.	28.
16	1689.	N.A.	N.A.	285.	12: 6	2926.	58.
17	1703.	N.A.	N.A.	295.	12:30	2925.	58.
18	199.	N.A.	N.A.	39.	8:36	2925.	7.
19	980.	N.A.	N.A.	302.	11:33	2927.	33.
20	1363.	N.A.	N.A.	305.	12:20	2927.	47.
21	1512.	N.A.	N.A.	285.	12: 8	2928.	52.
22	479.	N.A.	N.A.	198.	15: 4	2928.	16.
23	503.	N.A.	N.A.	266.	10:51	2929.	17.
24	1620.	N.A.	N.A.	334.	11:46	2927.	55.
25	412.	N.A.	N.A.	136.	11: 6	2928.	14.
26	497.	N.A.	N.A.	256.	10:19	2929.	17.
27	1371.	N.A.	N.A.	269.	12:44	2931.	47.
28	537.	N.A.	N.A.	240.	12:47	2940.	18.
29	518.	N.A.	N.A.	208.	10:18	2942.	18.
30	1006.	N.A.	N.A.	282.	12:36	2944.	34.
31	1772.	N.A.	N.A.	295.	12:58	2944.	60.
MEAN	1011.	N.A.	N.A.			2939.	
STANDARD DEVIATION	643.	N.A.	N.A.			14.	

ENVIRONMENTAL SUMMARY REPORT

SITE: KAW VALLEY STATE BANK
TOPEKA, KANSAS

REPORT PERIOD: 80/12
SITE NUMBER: 172

LATITUDE: 39.40 DEG NORTH AZIMUTH: 5 DEG
LONGITUDE: 95.38 DEG WEST PYRANOMETER TILT: 45 DEG
TIME ZONE: CENTRAL
ALTITUDE: 877 FEET

TEMPERATURES IN DEGREES F

DAY	AVERAGE TEMP	DAYTIME TEMP	NIGHTTIME TEMP	MAX TEMPERATURE VALUE	TIME HR:MN	MIN TEMPERATURE VALUE	TIME HR:MN	INLET WATER TEMPERATURE
1	38.	44.	35.	48.	9:34	16.	23:46	N.A.
2	18.	20.	16.	29.	14:53	8.	6:58	N.A.
3	32.	39.	27.	48.	14:51	17.	3:7	N.A.
4	47.	50.	46.	58.	14:34	34.	6:39	N.A.
5	59.	66.	54.	72.	14:33	44.	23:53	N.A.
6	38.	38.	39.	44.	0:20	33.	23:59	N.A.
7	34.	35.	33.	38.	12:43	31.	22:25	N.A.
8	28.	27.	28.	31.	0:17	25.	23:19	N.A.
9	28.	30.	27.	35.	14:5	24.	6:26	N.A.
10	31.	35.	28.	43.	15:16	25.	6:28	N.A.
11	36.	42.	33.	56.	15:8	25.	7:8	N.A.
12	44.	51.	40.	65.	14:16	29.	4:56	N.A.
13	39.	43.	36.	48.	14:10	28.	21:54	N.A.
14	42.	50.	37.	59.	15:4	29.	0:2	N.A.
15	40.	42.	39.	53.	15:43	28.	6:38	N.A.
16	40.	43.	39.	50.	14:41	31.	23:58	N.A.
17	45.	54.	39.	66.	14:54	30.	3:26	N.A.
18	34.	34.	34.	44.	0:26	25.	23:54	N.A.
19	15.	15.	16.	26.	0:0	9.	23:59	N.A.
20	13.	17.	11.	26.	12:26	5.	6:28	N.A.
21	22.	26.	19.	35.	14:21	12.	7:59	N.A.
22	30.	35.	28.	40.	15:14	22.	2:0	N.A.
23	32.	38.	27.	49.	10:51	23.	23:46	N.A.
24	11.	14.	9.	23.	0:8	-2.	23:1	N.A.
25	11.	14.	9.	22.	23:54	-3.	0:53	N.A.
26	28.	32.	25.	34.	10:19	22.	0:0	N.A.
27	33.	38.	30.	45.	14:57	22.	1:31	N.A.
28	39.	44.	37.	51.	14:50	32.	23:43	N.A.
29	33.	36.	31.	41.	9:57	26.	23:53	N.A.
30	39.	46.	34.	57.	14:39	23.	3:43	N.A.
31	40.	47.	36.	56.	14:2	31.	23:48	N.A.
MEAN	33.	37.	30.					N.A.
STANDARD DEVIATION	11.0	12.4	10.4					N.A.

ENVIRONMENTAL SUMMARY REPORT

SITE: SCATTERGOOD SCHOOL
WEST BRANCH, IOWA

REPORT PERIOD: 80/12
SITE NUMBER: 9

LATITUDE: 41.70 DEG NORTH
LONGITUDE: 91.30 DEG WEST

AZIMUTH: 0 DEG
PYRANOMETER TILT: 50 DEG

TIME ZONE: CENTRAL
ALTITUDE: 860 FEET

INSOLATION

DAY	TOTAL INSOLATION BTU/FT2	TOTAL DIFF INSOLATION BTU/FT2	TOTAL DIR INSOLATION BTU/FT2	MAXIMUM TOTAL INSOLATION VALUE BTU/HR/FT2	TIME HR:MN	EXTRATERRESTRIAL INSOLATION BTU/FT2	TTL INS ----- EXT INS PERCENT
1	570.	N.A.	N.A.	308.	12:53	2981.	19.
2	1823.	N.A.	N.A.	331.	12: 7	2981.	61.
3	1280.	N.A.	N.A.	321.	11:46	2969.	43.
4	680.	N.A.	N.A.	256.	10:59	2969.	23.
5	129.	N.A.	N.A.	49.	12: 3	2957.	4.
6	74.	N.A.	N.A.	26.	9: 6	2954.	2.
7	51.	N.A.	N.A.	19.	9:52	2954.	2.
8	118.	N.A.	N.A.	81.	12:37	2955.	4.
9	997.	N.A.	N.A.	295.	12:22	2952.	34.
10	921.	N.A.	N.A.	321.	11:22	2942.	31.
11	116.	N.A.	N.A.	29.	11:29	2944.	4.
12	1555.	N.A.	N.A.	292.	11:52	2941.	53.
13	1794.	N.A.	N.A.	298.	12: 1	2940.	61.
14	764.	N.A.	N.A.	354.	12:52	2930.	26.
15	550.	N.A.	N.A.	276.	11:21	2929.	19.
16	904.	N.A.	N.A.	227.	14: 8	2928.	31.
17	612.	N.A.	N.A.	221.	10:40	2931.	21.
18	253.	N.A.	N.A.	198.	14:50	2930.	9.
19	1638.	N.A.	N.A.	295.	11:55	2930.	56.
20	1726.	N.A.	N.A.	295.	11:59	2930.	59.
21	504.	N.A.	N.A.	169.	12: 8	2930.	17.
22	645.	N.A.	N.A.	269.	11:31	2931.	22.
23	412.	N.A.	N.A.	159.	13:37	2931.	14.
24	1663.	N.A.	N.A.	328.	11:43	2932.	57.
25	518.	N.A.	N.A.	246.	11:54	2934.	18.
26	251.	N.A.	N.A.	55.	12:52	2931.	9.
27	293.	N.A.	N.A.	62.	11:26	2933.	10.
28	348.	N.A.	N.A.	162.	11:29	2935.	12.
29	1701.	N.A.	N.A.	289.	12: 1	2945.	58.
30	128.	N.A.	N.A.	71.	13: 8	2948.	4.
31	107.	N.A.	N.A.	49.	14:19	2947.	4.
MEAN	746.	N.A.	N.A.			2943.	
STANDARD DEVIATION	603.	N.A.	N.A.			15.	

ENVIRONMENTAL SUMMARY REPORT

SITE: SCATTERGOOD SCHOOL
WEST BRANCH, IOWA

REPORT PERIOD: 80/12
SITE NUMBER: 9

LATITUDE: 41.70 DEG NORTH AZIMUTH: 0 DEG TIME ZONE: CENTRAL
LONGITUDE: 91.30 DEG WEST PYRANOMETER TILT: 50 DEG ALTITUDE: 860 FEET

TEMPERATURES IN DEGREES F

DAY	AVERAGE TEMP	DAYTIME TEMP	NIGHTTIME TEMP	MAX TEMPERATURE VALUE TIME HR:MN	MIN TEMPERATURE VALUE TIME HR:MN	INLET WATER TEMPERATURE
1	35.	39.	33.	44. 12:53	28. 23:51	66.
2	12.	15.	11.	27. 0: 2	2. 22:20	65.
3	19.	22.	17.	28. 14:58	1. 0:28	66.
4	29.	31.	28.	35. 10:53	21. 7:20	67.
5	46.	49.	44.	54. 13:45	34. 1:13	68.
6	47.	47.	48.	52. 0: 2	43. 23:46	70.
7	39.	39.	39.	43. 0: 7	37. 23:44	68.
8	30.	29.	30.	37. 0:37	23. 23:40	61.
9	28.	30.	26.	35. 13:21	23. 0:28	67.
10	23.	24.	22.	30. 0: 0	17. 23:50	67.
11	21.	21.	21.	27. 23:47	16. 0:54	65.
12	37.	42.	34.	50. 13: 7	26. 0: 3	68.
13	24.	24.	24.	37. 0: 1	18. 7:13	70.
14	28.	33.	26.	37. 12:52	20. 0: 6	68.
15	27.	30.	26.	35. 13:18	21. 3: 5	65.
16	31.	34.	29.	39. 14:19	27. 0:59	69.
17	34.	36.	32.	44. 15:22	25. 2:24	65.
18	26.	27.	26.	37. 0:20	12. 23:55	67.
19	6.	7.	5.	12. 0: 0	1. 7:44	64.
20	7.	10.	5.	17. 14:12	-2. 6:49	71.
21	15.	17.	14.	20. 13:23	11. 7:25	71.
22	24.	26.	23.	31. 16:11	14. 5:17	69.
23	28.	31.	26.	36. 13:42	22. 7:39	74.
24	12.	13.	11.	25. 0: 1	-4. 23:38	72.
25	4.	5.	3.	15. 22:29	-8. 5:14	68.
26	18.	21.	16.	24. 13:56	12. 23:37	71.
27	18.	21.	17.	26. 15:32	10. 4: 9	69.
28	29.	32.	28.	37. 13:16	21. 3:48	71.
29	36.	41.	32.	47. 14:30	28. 7:45	72.
30	31.	32.	30.	36. 15: 0	23. 2:11	72.
31	33.	33.	32.	35. 15: 2	29. 3: 5	74.
MEAN	26.	28.	24.			68.
STANDARD DEVIATION	10.9	11.0	10.8			3.0

ENVIRONMENTAL SUMMARY REPORT

SITE: SCATTERGOOD SCHOOL
WEST BRANCH, IOWA

REPORT PERIOD: 80/12
SITE NUMBER: 9

LATITUDE: 41.70 DEG NORTH
LONGITUDE: 91.30 DEG WEST

AZIMUTH: 0 DEG
PYRANOMETER TILT: 50 DEG

TIME ZONE: CENTRAL
ALTITUDE: 860 FEET

WIND: SPEED IN MPH-DIRECTION IN DEGREES

DAY	AVG WIND DIRECTION	AVG WIND SPEED	DAYTIME DIRECTION	DAYTIME SPEED	MAXIMUM WIND SPEED	MAXIMUM WIND DIRECTION	TIME HR:MN
1	28.	3.	40.	5.	36.	13.	14:45
2	325.	6.	322.	7.	14.	324.	7: 3
3	128.	5.	135.	7.	10.	142.	13:16
4	95.	4.	93.	4.	7.	76.	14:48
5	142.	4.	150.	4.	8.	164.	19:25
6	*	1.	*	1.	6.	*	21:54
7	*	2.	*	1.	6.	*	19:17
8	329.	4.	328.	6.	12.	329.	5:41
9	315.	2.	312.	3.	7.	331.	21: 9
10	311.	3.	311.	5.	9.	317.	0:58
11	89.	3.	79.	3.	7.	130.	20:19
12	281.	4.	289.	5.	9.	321.	23:29
13	309.	5.	311.	5.	16.	329.	3:40
14	80.	3.	78.	3.	9.	69.	12:41
15	*	2.	*	2.	5.	*	0:41
16	*	2.	*	2.	6.	*	9:15
17	193.	7.	191.	11.	19.	192.	13:36
18	331.	5.	330.	4.	19.	327.	20: 6
19	329.	7.	326.	8.	16.	336.	0:54
20	*	2.	*	2.	6.	*	13:35
21	164.	3.	175.	4.	10.	175.	23:36
22	166.	7.	168.	9.	15.	158.	14:48
23	*	4.	*	2.	11.	*	23:19
24	331.	6.	332.	7.	14.	328.	13: 9
25	186.	5.	177.	6.	15.	206.	21:35
26	*	2.	*	1.	8.	*	1:57
27	140.	5.	150.	6.	10.	162.	15: 0
28	151.	4.	157.	5.	10.	161.	9:37
29	*	2.	*	2.	6.	*	12:54
30	155.	5.	154.	8.	12.	175.	13:18
31	325.	4.	326.	4.	10.	320.	13:58
MEAN	213.	4.	190.	5.			
STANDARD DEVIATION	101.1	1.7	102.8	2.5			

ENVIRONMENTAL SUMMARY REPORT

SITE: SCATTERGOOD SCHOOL
WEST BRANCH, IOWA

REPORT PERIOD: 80/12
SITE NUMBER: 9

LATITUDE: 41.70 DEG NORTH AZIMUTH: 0 DEG
LONGITUDE: 91.30 DEG WEST PYRANOMETER TILT: 50 DEG
TIME ZONE: CENTRAL
ALTITUDE: 860 FEET

WIND: NUMBER OF HOURS IN EACH VELOCITY INTERVAL

DAY	0-3 MPH	4-7 MPH	8-12 MPH	13-18 MPH	19-24 MPH	25-31 MPH	32-38 MPH	ABOVE 38	MISSING HOURS
1	17	6	1	0	0	0	0	0	0
2	7	10	7	0	0	0	0	0	0
3	11	11	2	0	0	0	0	0	0
4	14	10	0	0	0	0	0	0	0
5	13	11	0	0	0	0	0	0	0
6	24	0	0	0	0	0	0	0	0
7	24	0	0	0	0	0	0	0	0
8	13	11	0	0	0	0	0	0	0
9	19	5	0	0	0	0	0	0	0
10	11	13	0	0	0	0	0	0	0
11	23	1	0	0	0	0	0	0	0
12	7	17	0	0	0	0	0	0	0
13	6	15	3	0	0	0	0	0	0
14	18	6	0	0	0	0	0	0	0
15	24	0	0	0	0	0	0	0	0
16	24	0	0	0	0	0	0	0	0
17	2	15	5	2	0	0	0	0	0
18	11	7	6	0	0	0	0	0	0
19	4	12	8	0	0	0	0	0	0
20	24	0	0	0	0	0	0	0	0
21	12	12	0	0	0	0	0	0	0
22	1	14	9	0	0	0	0	0	0
23	16	8	0	0	0	0	0	0	0
24	5	17	2	0	0	0	0	0	0
25	8	7	9	0	0	0	0	0	0
26	21	3	0	0	0	0	0	0	0
27	7	17	0	0	0	0	0	0	0
28	10	14	0	0	0	0	0	0	0
29	24	0	0	0	0	0	0	0	0
30	7	14	3	0	0	0	0	0	0
31	13	10	0	0	0	0	0	0	1
AVERAGE	13.5	8.6	1.8	0.1	0.0	0.0	0.0	0.0	0.0
TOTAL	420	266	55	2	0	0	0	0	1

ENVIRONMENTAL SUMMARY REPORT

SITE: WEHNER ET. AH.
IOWA CITY, IOWA

REPORT PERIOD: 80/12
SITE NUMBER: 232

LATITUDE: 41.50 DEG NORTH
LONGITUDE: 91.40 DEG WEST

AZIMUTH: 0 DEG
PYRANOMETER TILT: 0 DEG

TIME ZONE: CENTRAL
ALTITUDE: 698 FEET

DAY	INSOLATION				TIME HR:MN	EXTRATERRESTRIAL INSOLATION BTU/FT2	TTL INS ----- EXT INS PERCENT
	TOTAL HORIZONTAL INSOLATION BTU/FT2	TOTAL DIFF INSOLATION BTU/FT2	TOTAL DIR INSOLATION BTU/FT2	MAXIMUM TOTAL INSOLATION VALUE BTU/HR/FT2			
1	356.	N.A.	N.A.	147.	12:41	1180.	30.
2	720.	N.A.	N.A.	141.	11:49	1174.	61.
3	600.	N.A.	N.A.	147.	11:35	1167.	51.
4	352.	N.A.	N.A.	114.	10:42	1159.	30.
5	132.	N.A.	N.A.	47.	11:54	1154.	11.
6	70.	N.A.	N.A.	38.	9:22	1147.	6.
7	53.	N.A.	N.A.	23.	9:49	1141.	5.
8	103.	N.A.	N.A.	53.	12:28	1137.	9.
9	437.	N.A.	N.A.	129.	12:15	1131.	39.
10	480.	N.A.	N.A.	126.	10:17	1128.	43.
11	133.	N.A.	N.A.	32.	11:36	1124.	12.
12	622.	N.A.	N.A.	123.	11:43	1119.	56.
13	635.	N.A.	N.A.	129.	12: 7	1116.	57.
14	465.	N.A.	N.A.	153.	12:36	1114.	42.
15	317.	N.A.	N.A.	109.	11:37	1111.	28.
16	385.	N.A.	N.A.	100.	10:29	1109.	35.
17	*	N.A.	N.A.	*	*:*	1107.	*
18	141.	N.A.	N.A.	73.	14:39	1106.	13.
19	632.	N.A.	N.A.	129.	12: 9	1105.	57.
20	*	N.A.	N.A.	*	*:*	1104.	*
21	*	N.A.	N.A.	*	*:*	1104.	*
22	358.	N.A.	N.A.	138.	11:20	1105.	32.
23	291.	N.A.	N.A.	97.	13:26	1106.	26.
24	652.	N.A.	N.A.	135.	11:43	1107.	59.
25	370.	N.A.	N.A.	94.	11:23	1109.	33.
26	288.	N.A.	N.A.	85.	13:27	1111.	26.
27	271.	N.A.	N.A.	59.	11:30	1114.	24.
28	231.	N.A.	N.A.	97.	12:44	1117.	21.
29	621.	N.A.	N.A.	126.	12: 2	1119.	55.
30	118.	N.A.	N.A.	44.	13: 3	1123.	11.
31	72.	N.A.	N.A.	18.	10:34	1128.	6.
MEAN	354.	N.A.	N.A.			1125.	
STANDARD DEVIATION	208.	N.A.	N.A.			22.	

ENVIRONMENTAL SUMMARY REPORT

SITE: WEHNER ET. AH.
IOWA CITY, IOWA

REPORT PERIOD: 80/12
SITE NUMBER: 232

LATITUDE: 41.50 DEG NORTH AZIMUTH: 0 DEG
LONGITUDE: 91.40 DEG WEST PYRANOMETER TILT: 0 DEG TIME ZONE: CENTRAL
ALTITUDE: 698 FEET

TEMPERATURES IN DEGREES F

DAY	AVERAGE TEMP	DAYTIME TEMP	NIGHTTIME TEMP	MAX TEMPERATURE VALUE	TIME HR:MN	MIN TEMPERATURE VALUE	TIME HR:MN	INLET WATER TEMPERATURE
1	36.	40.	34.	45.	12:46	26.	23:59	N.A.
2	12.	14.	11.	26.	0: 5	2.	23:13	N.A.
3	19.	23.	17.	30.	15:35	3.	0:17	N.A.
4	29.	32.	28.	35.	10:58	22.	6:37	N.A.
5	46.	49.	44.	53.	14:18	34.	0:21	N.A.
6	46.	45.	47.	50.	0: 2	42.	23:41	N.A.
7	39.	39.	39.	43.	0: 7	37.	23:13	N.A.
8	29.	29.	30.	37.	0: 7	23.	23:54	N.A.
9	27.	29.	26.	34.	13:35	23.	0:20	N.A.
10	23.	24.	22.	29.	0:15	17.	23:46	N.A.
11	21.	22.	21.	27.	23:59	16.	3:25	N.A.
12	37.	43.	33.	50.	14:18	26.	7:43	N.A.
13	24.	24.	25.	38.	0:12	18.	7:29	N.A.
14	29.	34.	26.	39.	15:21	21.	0: 1	N.A.
15	28.	31.	25.	36.	12:52	21.	2:22	N.A.
16	31.	34.	29.	39.	15:33	27.	0:37	N.A.
17	38.	39.	37.	43.	14:28	36.	23:56	N.A.
18	27.	28.	26.	36.	0: 1	13.	23:46	N.A.
19	7.	8.	6.	13.	0: 2	3.	7:47	N.A.
20	*	*	*	*	*: *	*	*: *	N.A.
21	16.	19.	16.	19.	15:41	15.	19:59	N.A.
22	24.	26.	23.	31.	12:29	14.	4: 7	N.A.
23	27.	30.	26.	36.	13:47	21.	6:40	N.A.
24	12.	13.	11.	25.	0: 4	-3.	23:44	N.A.
25	5.	6.	4.	15.	15:39	-7.	5:31	N.A.
26	18.	21.	17.	24.	14:10	12.	23: 9	N.A.
27	19.	22.	18.	26.	14:47	11.	4: 7	N.A.
28	30.	32.	28.	37.	13:27	22.	1:11	N.A.
29	35.	40.	32.	47.	14:37	27.	23:54	N.A.
30	31.	33.	30.	36.	17:19	25.	0:36	N.A.
31	33.	33.	32.	34.	19:54	30.	2:29	N.A.
MEAN	27.	29.	25.					N.A.
STANDARD DEVIATION	10.3	10.5	10.2					N.A.

ENVIRONMENTAL SUMMARY REPORT

SITE: WEHNER ET. AH.
IOWA CITY, IOWA

REPORT PERIOD: 80/12
SITE NUMBER: 232

LATITUDE: 41.50 DEG NORTH AZIMUTH: 0 DEG TIME ZONE: CENTRAL
LONGITUDE: 91.40 DEG WEST PYRANOMETER TILT: 0 DEG ALTITUDE: 698 FEET

WIND: SPEED IN MPH-DIRECTION IN DEGREES

DAY	AVG WIND DIRECTION	AVG WIND SPEED	DAYTIME DIRECTION	DAYTIME SPEED	MAXIMUM WIND SPEED DIRECTION	TIME HR:MN	
1	200.	10.	206.	10.	20.	187.	21:51
2	339.	10.	338.	11.	19.	337.	2: 7
3	250.	9.	255.	12.	17.	264.	12:44
4	235.	7.	233.	8.	11.	247.	15: 4
5	251.	6.	258.	7.	10.	231.	1: 9
6	*	2.	*	1.	9.	*	21:54
7	*	5.	*	4.	13.	*	20:39
8	343.	7.	342.	9.	13.	348.	8:12
9	336.	5.	336.	5.	13.	344.	23:53
10	322.	7.	333.	8.	12.	327.	14: 7
11	230.	5.	229.	6.	12.	248.	20:20
12	318.	7.	328.	8.	13.	333.	12:31
13	331.	9.	332.	8.	17.	335.	1:27
14	227.	5.	223.	7.	13.	216.	10:57
15	218.	3.	224.	3.	8.	210.	2:22
16	209.	3.	206.	3.	8.	218.	9:20
17	289.	13.	280.	15.	20.	277.	13:35
18	337.	10.	331.	8.	18.	334.	23: 8
19	341.	11.	341.	11.	22.	344.	1:11
20	*	*	*	*	*	*	*:*
21	260.	6.	273.	6.	9.	261.	16:52
22	268.	9.	268.	12.	15.	262.	14:37
23	320.	4.	309.	3.	12.	349.	23: 5
24	341.	11.	*	12.	19.	354.	12:15
25	283.	7.	273.	8.	15.	282.	19:23
26	241.	5.	195.	6.	9.	192.	10:40
27	256.	7.	261.	9.	13.	263.	15:35
28	257.	6.	265.	7.	11.	262.	6:21
29	*	6.	*	7.	13.	*	4:45
30	266.	9.	263.	12.	16.	264.	12:36
31	342.	8.	344.	8.	13.	340.	15:27
MEAN	282.	7.	279.	8.			
STANDARD DEVIATION	48.2	2.6	49.4	3.2			

ENVIRONMENTAL SUMMARY REPORT

SITE: WEHNER ET. AH.
IOWA CITY, IOWA

REPORT PERIOD: 80/12
SITE NUMBER: 232

LATITUDE: 41.50 DEG NORTH AZIMUTH: 0 DEG
LONGITUDE: 91.40 DEG WEST PYRANOMETER TILT: 0 DEG
TIME ZONE: CENTRAL
ALTITUDE: 698 FEET

WIND: NUMBER OF HOURS IN EACH VELOCITY INTERVAL

DAY	0-3 MPH	4-7 MPH	8-12 MPH	13-18 MPH	19-24 MPH	25-31 MPH	32-38 MPH	ABOVE 38	MISSING HOURS
1	1	5	10	8	0	0	0	0	0
2	5	1	12	6	0	0	0	0	0
3	1	9	12	2	0	0	0	0	0
4	0	13	11	0	0	0	0	0	0
5	2	20	2	0	0	0	0	0	0
6	23	1	0	0	0	0	0	0	0
7	7	15	2	0	0	0	0	0	0
8	3	11	10	0	0	0	0	0	0
9	5	17	2	0	0	0	0	0	0
10	1	16	7	0	0	0	0	0	0
11	4	20	0	0	0	0	0	0	0
12	6	8	9	0	0	0	0	0	1
13	1	13	7	3	0	0	0	0	0
14	9	8	7	0	0	0	0	0	0
15	17	5	0	0	0	0	0	0	2
16	13	5	0	0	0	0	0	0	6
17	0	0	2	3	0	0	0	0	19
18	0	5	12	5	0	0	0	0	2
19	0	2	14	3	0	0	0	0	5
20	0	0	0	0	0	0	0	0	24
21	0	7	1	0	0	0	0	0	16
22	1	9	14	0	0	0	0	0	0
23	13	8	3	0	0	0	0	0	0
24	0	6	16	2	0	0	0	0	0
25	6	7	11	0	0	0	0	0	0
26	9	15	0	0	0	0	0	0	0
27	4	5	15	0	0	0	0	0	0
28	6	10	8	0	0	0	0	0	0
29	8	9	7	0	0	0	0	0	0
30	3	5	12	4	0	0	0	0	0
31	0	13	10	0	0	0	0	0	1
AVERAGE	4.8	8.6	7.0	1.2	0.0	0.0	0.0	0.0	2.5
TOTAL	148	268	216	36	0	0	0	0	76

ENVIRONMENTAL SUMMARY REPORT

SITE: WEHNER ET. AH.
IOWA CITY, IOWA

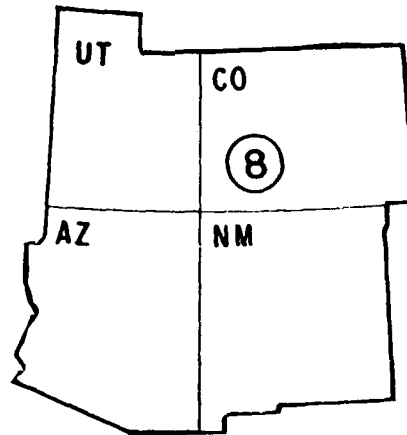
REPORT PERIOD: 80/12
SITE NUMBER: 232

LATITUDE: 41.50 DEG NORTH AZIMUTH: 0 DEG
LONGITUDE: 91.40 DEG WEST PYRANOMETER TILT: 0 DEG
TIME ZONE: CENTRAL
ALTITUDE: 698 FEET

RELATIVE HUMIDITY IN PER CENT

DAY	RELATIVE HUMIDITY	DAYTIME REL HUM	NIGHTTIME REL HUM	MAXIMUM VALUE	HUMIDITY TIME HR:MN	MINIMUM VALUE	HUMIDITY TIME HR:MN
1	*	*	*	*	*:*	*	*:*
2	*	*	*	*	*:*	*	*:*
3	*	*	*	*	*:*	*	*:*
4	*	*	*	*	*:*	*	*:*
5	*	*	*	*	*:*	*	*:*
6	*	*	*	*	*:*	*	*:*
7	*	*	*	*	*:*	*	*:*
8	*	*	*	*	*:*	*	*:*
9	*	*	*	*	*:*	*	*:*
10	*	*	*	*	*:*	*	*:*
11	*	*	*	*	*:*	*	*:*
12	*	*	*	*	*:*	*	*:*
13	*	*	*	*	*:*	*	*:*
14	*	*	*	*	*:*	*	*:*
15	*	*	*	*	*:*	*	*:*
16	*	*	*	*	*:*	*	*:*
17	36.	24.	76.	77.	23:13	0.	12:36
18	49.	56.	46.	77.	0:23	26.	4:49
19	42.	39.	44.	52.	4:7	33.	12:14
20	*	*	*	*	*:*	*	*:*
21	52.	43.	53.	58.	19:59	42.	15:41
22	47.	41.	51.	61.	4:55	34.	13:38
23	67.	60.	72.	89.	19:37	51.	13:26
24	59.	55.	62.	78.	0:36	41.	16:6
25	59.	54.	61.	72.	6:30	43.	14:3
26	66.	64.	68.	76.	22:58	60.	14:31
27	73.	69.	76.	80.	21:54	66.	14:37
28	74.	69.	77.	80.	1:17	64.	13:22
29	73.	63.	79.	90.	23:48	47.	14:37
30	93.	93.	93.	100.	8:47	85.	14:50
31	83.	82.	84.	94.	22:45	71.	20:5
MEAN	62.	58.	67.				
STANDARD DEVIATION	16.	18.	15.				

ZONE 8



ENVIRONMENTAL SUMMARY REPORT

SITE: ALBUQUERQUE WESTERN I
ALBUQUERQUE, NEW MEXICO

REPORT PERIOD: 80/12
SITE NUMBER: 55

LATITUDE: 35.00 DEG NORTH AZIMUTH: 0 DEG TIME ZONE: MOUNTAIN
LONGITUDE: 106.00 DEG WEST PYRANOMETER TILT: 35 DEG ALTITUDE: 5389 FEET

INSOLATION

DAY	TOTAL INSOLATION BTU/FT2	TOTAL DIFF INSOLATION BTU/FT2	TOTAL DIR INSOLATION BTU/FT2	MAXIMUM TOTAL INSOLATION VALUE BTU/HR/FT2	TIME HR:MN	EXTRATERRESTRIAL INSOLATION BTU/FT2	TTL INS ----- EXT INS PERCENT
1	1395.	N.A.	N.A.	228.	11:34	2923.	48.
2	1425.	N.A.	N.A.	226.	11:34	2918.	49.
3	1364.	N.A.	N.A.	231.	12: 8	2917.	47.
4	888.	N.A.	N.A.	193.	10:36	2917.	30.
5	1213.	N.A.	N.A.	242.	11:51	2913.	42.
6	887.	N.A.	N.A.	264.	11: 3	2904.	31.
7	*	N.A.	N.A.	*	*:*	2904.	*
8	139.	N.A.	N.A.	98.	14:39	2901.	5.
9	1378.	N.A.	N.A.	228.	11:57	2893.	48.
10	1490.	N.A.	N.A.	231.	11:55	2890.	52.
11	1402.	N.A.	N.A.	226.	11:38	2888.	49.
12	1150.	N.A.	N.A.	242.	11:16	2889.	40.
13	165.	N.A.	N.A.	60.	13:40	2887.	6.
14	1376.	N.A.	N.A.	223.	12: 3	2886.	48.
15	1319.	N.A.	N.A.	217.	12: 9	2888.	46.
16	1314.	N.A.	N.A.	223.	11:48	2887.	46.
17	1367.	N.A.	N.A.	220.	12: 0	2886.	47.
18	1355.	N.A.	N.A.	217.	11:37	2885.	47.
19	1326.	N.A.	N.A.	215.	11:31	2885.	46.
20	1297.	N.A.	N.A.	220.	12:44	2885.	45.
21	1117.	N.A.	N.A.	226.	11:57	2885.	39.
22	1155.	N.A.	N.A.	215.	13:17	2886.	40.
23	1381.	N.A.	N.A.	223.	12: 6	2886.	48.
24	1389.	N.A.	N.A.	226.	11:57	2887.	48.
25	1203.	N.A.	N.A.	223.	11:57	2888.	42.
26	1342.	N.A.	N.A.	226.	12:13	2890.	46.
27	1358.	N.A.	N.A.	217.	12: 2	2892.	47.
28	1057.	N.A.	N.A.	223.	13: 6	2890.	37.
29	1268.	N.A.	N.A.	220.	11:46	2893.	44.
30	1396.	N.A.	N.A.	223.	11:49	2895.	48.
31	1373.	N.A.	N.A.	223.	11:50	2895.	47.
MEAN	1210.	N.A.	N.A.			2895.	
STANDARD DEVIATION	323.	N.A.	N.A.			12.	

ENVIRONMENTAL SUMMARY REPORT

SITE: ALBUQUERQUE WESTERN I
ALBUQUERQUE, NEW MEXICO

REPORT PERIOD: 80/12
SITE NUMBER: 55

LATITUDE: 35.00 DEG NORTH AZIMUTH: 0 DEG
LONGITUDE: 106.00 DEG WEST PYRANOMETER TILT: 35 DEG TIME ZONE: MOUNTAIN
ALTITUDE: 5389 FEET

TEMPERATURES IN DEGREES F

DAY	AVERAGE TEMP	DAYTIME TEMP	NIGHTTIME TEMP	MAX TEMPERATURE VALUE	TIME HR:MN	MIN TEMPERATURE VALUE	TIME HR:MN	INLET WATER TEMPERATURE
1	52.	58.	48.	63.	14:46	39.	23:56	65.
2	45.	52.	41.	63.	14:25	30.	7:18	66.
3	49.	55.	44.	65.	14:48	36.	6:42	66.
4	47.	52.	44.	60.	14: 9	32.	7: 3	66.
5	51.	56.	48.	66.	14:15	38.	7:30	65.
6	51.	55.	48.	60.	13:16	41.	5:48	65.
7	46.	54.	44.	58.	13:44	36.	23:59	65.
8	34.	35.	34.	37.	14:39	31.	20: 2	64.
9	32.	36.	30.	41.	14:42	26.	6:26	63.
10	32.	36.	29.	43.	15:48	23.	6:13	62.
11	36.	41.	33.	49.	13:56	24.	5:46	62.
12	37.	42.	34.	53.	14:23	25.	6:39	63.
13	40.	41.	39.	45.	11: 5	36.	6:28	63.
14	39.	43.	37.	49.	14: 6	31.	6:44	64.
15	41.	46.	37.	54.	15:59	31.	1:45	63.
16	45.	51.	41.	61.	14:28	34.	1:13	63.
17	45.	52.	40.	64.	15:12	32.	6:46	62.
18	48.	57.	42.	66.	15: 4	34.	6: 6	63.
19	34.	37.	32.	45.	0:40	25.	23:45	62.
20	31.	37.	27.	45.	13:48	21.	7:29	62.
21	34.	39.	30.	47.	14: 5	22.	7:18	62.
22	41.	48.	36.	61.	14:48	27.	6:59	63.
23	44.	50.	41.	56.	14: 3	34.	5:42	63.
24	40.	46.	36.	54.	15: 9	28.	6:34	63.
25	43.	48.	39.	60.	14:16	28.	7:25	62.
26	49.	53.	46.	64.	15: 9	33.	7:25	62.
27	48.	55.	44.	66.	14:21	33.	7:25	62.
28	50.	55.	47.	66.	16:13	35.	6:15	62.
29	49.	52.	48.	55.	10:37	37.	23:59	64.
30	42.	49.	38.	60.	14:18	28.	7: 1	64.
31	44.	49.	41.	62.	14:46	30.	7:50	64.
MEAN	43.	48.	39.					63.
STANDARD DEVIATION	6.3	7.1	6.1					1.3

ENVIRONMENTAL SUMMARY REPORT

SITE: ANIMAL CONTROL CENTER
ALBUQUERQUE, NEW MEXICO

REPORT PERIOD: 80/12
SITE NUMBER: 140

LATITUDE: 35.00 DEG NORTH AZIMUTH: 0 DEG
LONGITUDE: 107.13 DEG WEST PYRANOMETER TILT: 35 DEG
TIME ZONE: MOUNTAIN
ALTITUDE: 5500 FEET

INSOLATION

DAY	TOTAL INSOLATION BTU/FT2	TOTAL GLOBAL INSOLATION BTU/FT2	TOTAL DIR INSOLATION BTU/FT2	MAXIMUM TOTAL INSOLATION VALUE BTU/HR/FT2	TOTAL TIME HR:MN	EXTRATERRESTRIAL INSOLATION BTU/FT2	TTL INS ----- EXT INS PERCENT
1	1923.	922.	N.A.	315.	11:32	2923.	66.
2	1948.	894.	N.A.	315.	12:25	2918.	67.
3	1918.	908.	N.A.	318.	12: 7	2917.	66.
4	1061.	615.	N.A.	267.	10:36	2917.	36.
5	1836.	935.	N.A.	315.	11:50	2913.	63.
6	1144.	664.	N.A.	369.	11:11	2904.	39.
7	1123.	621.	N.A.	305.	12:55	2904.	39.
8	102.	178.	N.A.	88.	14:42	2901.	4.
9	1987.	1040.	N.A.	322.	12:11	2893.	69.
10	2149.	1051.	N.A.	322.	11:42	2890.	74.
11	1997.	940.	N.A.	322.	12: 6	2888.	69.
12	1662.	885.	N.A.	328.	11: 4	2889.	58.
13	117.	146.	N.A.	61.	13:39	2887.	4.
14	1860.	890.	N.A.	308.	11:46	2886.	64.
15	1938.	920.	N.A.	305.	11:36	2888.	67.
16	1839.	875.	N.A.	311.	11:45	2887.	64.
17	1977.	908.	N.A.	311.	12: 4	2886.	69.
18	2036.	938.	N.A.	308.	11:33	2885.	71.
19	1886.	888.	N.A.	301.	11:28	2885.	65.
20	1821.	888.	N.A.	301.	12:46	2885.	63.
21	1637.	844.	N.A.	318.	12: 1	2885.	57.
22	1589.	786.	N.A.	298.	13: 0	2886.	55.
23	1961.	924.	N.A.	315.	12: 6	2886.	68.
24	2092.	982.	N.A.	311.	11:43	2887.	72.
25	1680.	827.	N.A.	318.	11:59	2888.	58.
26	1860.	861.	N.A.	315.	10:57	2890.	64.
27	1928.	892.	N.A.	308.	12: 9	2892.	67.
28	1394.	750.	N.A.	308.	11:51	2890.	48.
29	1753.	847.	N.A.	308.	12: 7	2893.	61.
30	2070.	971.	N.A.	311.	11:32	2895.	72.
31	1932.	905.	N.A.	311.	12: 2	2895.	67.
MEAN	1684.	829.	N.A.			2895.	
STANDARD DEVIATION	503.	205.	N.A.			12.	

ENVIRONMENTAL SUMMARY REPORT

SITE: ANIMAL CONTROL CENTER
ALBUQUERQUE, NEW MEXICO

REPORT PERIOD: 80/12
SITE NUMBER: 140

LATITUDE: 35.00 DEG NORTH AZIMUTH: 0 DEG
LONGITUDE: 107.13 DEG WEST PYRANOMETER TILT: 35 DEG TIME ZONE: MOUNTAIN
ALTITUDE: 5500 FEET

TEMPERATURES IN DEGREES F

DAY	AVERAGE TEMP	DAYTIME TEMP	NIGHTTIME TEMP	MAX TEMPERATURE VALUE TIME HR:MN	MIN TEMPERATURE VALUE TIME HR:MN	INLET WATER TEMPERATURE
1	51.	57.	46.	63. 15:11	36. 23:58	N.A.
2	45.	54.	38.	64. 14:11	29. 5: 7	N.A.
3	48.	56.	42.	65. 13:59	35. 6:21	N.A.
4	46.	52.	42.	61. 15:56	33. 5:38	N.A.
5	50.	57.	46.	66. 13:47	36. 6: 3	N.A.
6	49.	54.	46.	61. 13: 3	40. 5:57	N.A.
7	45.	51.	42.	60. 13:59	34. 21:59	N.A.
8	33.	33.	33.	37. 4:55	29. 23:50	N.A.
9	31.	35.	28.	39. 14:25	25. 6:19	N.A.
10	31.	37.	26.	45. 13:45	20. 7: 5	N.A.
11	35.	42.	29.	50. 13:26	22. 5: 4	N.A.
12	36.	43.	31.	55. 14:22	23. 6:38	N.A.
13	39.	40.	38.	44. 11: 5	34. 6:27	N.A.
14	38.	42.	35.	49. 14:53	27. 6:49	N.A.
15	39.	46.	34.	54. 16:13	26. 1:38	N.A.
16	43.	51.	38.	62. 14:14	31. 4:22	N.A.
17	45.	54.	38.	66. 14:39	29. 6:39	N.A.
18	48.	57.	39.	67. 14:13	33. 5:41	N.A.
19	33.	35.	31.	44. 0:37	24. 23:58	N.A.
20	30.	38.	25.	45. 13:50	18. 7:10	N.A.
21	31.	38.	27.	50. 14:41	20. 6:49	N.A.
22	40.	48.	34.	62. 15:13	26. 7: 2	N.A.
23	43.	50.	38.	55. 13:37	31. 23:59	N.A.
24	38.	46.	33.	52. 15:49	26. 4:42	N.A.
25	41.	48.	36.	61. 14:18	26. 7:17	N.A.
26	46.	53.	42.	63. 14:59	30. 6:45	N.A.
27	47.	55.	42.	68. 14:27	31. 7:21	N.A.
28	48.	54.	45.	68. 15:56	33. 6: 6	N.A.
29	48.	50.	46.	58. 10:20	33. 23:48	N.A.
30	42.	50.	34.	62. 14:28	28. 6:44	N.A.
31	43.	50.	39.	63. 14:21	27. 7:20	N.A.
MEAN	41.	48.	37.			N.A.
STANDARD DEVIATION	6.4	7.4	6.1			N.A.

ENVIRONMENTAL SUMMARY REPORT

SITE: ANIMAL CONTROL CENTER
ALBUQUERQUE, NEW MEXICO

REPORT PERIOD: 80/12
SITE NUMBER: 140

LATITUDE: 35.00 DEG NORTH AZIMUTH: 0 DEG TIME ZONE: MOUNTAIN
LONGITUDE: 107.13 DEG WEST PYRANOMETER TILT: 35 DEG ALTITUDE: 5500 FEET

WIND: SPEED IN MPH-DIRECTION IN DEGREES

DAY	AVG WIND DIRECTION	AVG WIND SPEED	DAYTIME DIRECTION	DAYTIME SPEED	MAXIMUM WIND SPEED DIRECTION	TIME HR:MN	
1	61.	5.	69.	8.	21.	78.	14: 1
2	307.	2.	10.	2.	9.	358.	14: 1
3	310.	2.	358.	2.	8.	2.	15:19
4	309.	3.	343.	2.	11.	342.	14:10
5	341.	3.	360.	3.	18.	341.	19:33
6	338.	3.	356.	4.	15.	354.	13:57
7	*	3.	*	3.	14.	*	16:39
8	305.	4.	300.	5.	23.	306.	5: 1
9	138.	3.	137.	6.	13.	116.	12:43
10	*	1.	*	3.	8.	*	11:37
11	137.	2.	123.	3.	10.	151.	14:46
12	*	1.	*	2.	8.	*	15:10
13	276.	4.	286.	7.	28.	261.	11:53
14	134.	3.	135.	7.	15.	105.	14:26
15	168.	3.	163.	6.	15.	161.	10: 0
16	175.	3.	131.	3.	11.	155.	11: 7
17	*	2.	*	1.	6.	*	0:10
18	305.	2.	6.	2.	8.	359.	10:45
19	290.	6.	295.	8.	23.	297.	11:33
20	*	1.	*	1.	8.	*	12:25
21	*	1.	*	1.	6.	*	10:11
22	*	2.	*	1.	9.	*	11: 2
23	134.	6.	130.	10.	31.	119.	13:53
24	122.	3.	116.	5.	14.	115.	11: 6
25	319.	2.	18.	2.	8.	22.	11:33
26	172.	3.	97.	3.	10.	207.	20:19
27	*	2.	*	1.	10.	*	0:19
28	287.	4.	81.	1.	31.	279.	22:47
29	278.	14.	276.	15.	33.	276.	0:28
30	*	1.	*	1.	6.	*	11:26
31	268.	2.	101.	2.	19.	267.	19:36
MEAN	235.	3.	177.	4.			
STANDARD DEVIATION	87.2	2.3	120.8	3.3			

ENVIRONMENTAL SUMMARY REPORT

SITE: ANIMAL CONTROL CENTER
ALBUQUERQUE, NEW MEXICO

REPORT PERIOD: 80/12
SITE NUMBER: 140

LATITUDE: 35.00 DEG NORTH AZIMUTH: 0 DEG
LONGITUDE: 107.13 DEG WEST PYRANOMETER TILT: 35 DEG TIME ZONE: MOUNTAIN
ALTITUDE: 5500 FEET

WIND: NUMBER OF HOURS IN EACH VELOCITY INTERVAL

DAY	0-3 MPH	4-7 MPH	8-12 MPH	13-18 MPH	19-24 MPH	25-31 MPH	32-38 MPH	ABOVE 38	MISSING HOURS
1	16	2	5	1	0	0	0	0	0
2	20	4	0	0	0	0	0	0	0
3	20	3	0	0	0	0	0	0	1
4	20	4	0	0	0	0	0	0	0
5	17	5	1	0	0	0	0	0	1
6	16	8	0	0	0	0	0	0	0
7	17	6	1	0	0	0	0	0	0
8	15	5	4	0	0	0	0	0	0
9	16	7	0	0	0	0	0	0	1
10	24	0	0	0	0	0	0	0	0
11	22	2	0	0	0	0	0	0	0
12	23	0	0	0	0	0	0	0	1
13	15	6	2	1	0	0	0	0	0
14	15	3	6	0	0	0	0	0	0
15	14	8	2	0	0	0	0	0	0
16	19	4	1	0	0	0	0	0	0
17	24	0	0	0	0	0	0	0	0
18	20	4	0	0	0	0	0	0	0
19	11	3	9	1	0	0	0	0	0
20	24	0	0	0	0	0	0	0	0
21	23	0	0	0	0	0	0	0	1
22	23	1	0	0	0	0	0	0	0
23	13	4	2	3	2	0	0	0	0
24	17	5	2	0	0	0	0	0	0
25	19	5	0	0	0	0	0	0	0
26	16	8	0	0	0	0	0	0	0
27	24	0	0	0	0	0	0	0	0
28	19	1	1	0	3	0	0	0	0
29	4	1	7	10	2	0	0	0	0
30	24	0	0	0	0	0	0	0	0
31	20	1	2	0	0	0	0	0	1
AVERAGE	18.4	3.2	1.5	0.5	0.2	0.0	0.0	0.0	0.2
TOTAL	570	100	45	16	7	0	0	0	6

ENVIRONMENTAL SUMMARY REPORT

SITE: COLORADO SUNWORKS
LONGMONT, COLORADO

REPORT PERIOD: 80/12
SITE NUMBER: 138

LATITUDE: 39.45 DEG NORTH
LONGITUDE: 104.52 DEG WEST

AZIMUTH: 0 DEG
PYRANOMETER TILT: 89 DEG

TIME ZONE: MOUNTAIN
ALTITUDE: 5283 FEET

INSOLATION

DAY	TOTAL INSOLATION BTU/FT2	TOTAL DIFF INSOLATION BTU/FT2	TOTAL DIR INSOLATION BTU/FT2	MAXIMUM TOTAL INSOLATION VALUE BTU/HR/FT2	TIME HR:MN	EXTRATERRESTRIAL INSOLATION BTU/FT2	TTL INS ----- EXT INS PERCENT
1	138.	N.A.	N.A.	101.	13:54	2936.	5.
2	274.	N.A.	N.A.	157.	15: 3	2941.	9.
3	833.	N.A.	N.A.	283.	10:27	2943.	28.
4	1520.	N.A.	N.A.	301.	10:57	2949.	52.
5	1518.	N.A.	N.A.	277.	12:47	2941.	52.
6	23.	N.A.	N.A.	22.	12: 2	2946.	1.
7	19.	N.A.	N.A.	9.	9:37	2948.	1.
8	1416.	N.A.	N.A.	261.	11: 0	2940.	48.
9	1429.	N.A.	N.A.	258.	10:36	2944.	49.
10	947.	N.A.	N.A.	283.	11:37	2946.	32.
11	1747.	N.A.	N.A.	261.	10:45	2950.	59.
12	1737.	N.A.	N.A.	265.	11:16	2951.	59.
13	1745.	N.A.	N.A.	280.	10:49	2952.	59.
14	1336.	N.A.	N.A.	286.	11:16	2943.	45.
15	692.	N.A.	N.A.	212.	12:10	2944.	23.
16	1464.	N.A.	N.A.	280.	11:19	2945.	50.
17	859.	N.A.	N.A.	185.	9:36	2949.	29.
18	57.	N.A.	N.A.	22.	9:31	2950.	2.
19	59.	N.A.	N.A.	28.	11:31	2950.	2.
20	77.	N.A.	N.A.	22.	12: 5	2950.	3.
21	813.	N.A.	N.A.	274.	12:43	2951.	28.
22	1014.	N.A.	N.A.	231.	11:18	2951.	34.
23	1229.	N.A.	N.A.	289.	11:24	2951.	42.
24	65.	N.A.	N.A.	22.	11: 4	2951.	2.
25	714.	N.A.	N.A.	277.	12:30	2948.	24.
26	1029.	N.A.	N.A.	268.	11:21	2948.	35.
27	504.	N.A.	N.A.	225.	10: 6	2947.	17.
28	167.	N.A.	N.A.	62.	12: 3	2947.	6.
29	1759.	N.A.	N.A.	268.	11:12	2957.	59.
30	1349.	N.A.	N.A.	292.	11:37	2956.	46.
31	1693.	N.A.	N.A.	268.	11:25	2952.	57.
MEAN	911.	N.A.	N.A.			2948.	
STANDARD DEVIATION	626.	N.A.	N.A.			5.	

ENVIRONMENTAL SUMMARY REPORT

SITE: COLORADO SUNWORKS
LONGMONT, COLORADO

REPORT PERIOD: 80/12
SITE NUMBER: 138

LATITUDE: 39.45 DEG NORTH AZIMUTH: 0 DEG
LONGITUDE: 104.52 DEG WEST PYRANOMETER TILT: 89 DEG TIME ZONE: MOUNTAIN
ALTITUDE: 5283 FEET

TEMPERATURES IN DEGREES F

DAY	AVERAGE TEMP	DAYTIME TEMP	NIGHTTIME TEMP	MAX TEMPERATURE VALUE TIME HR:MN	MIN TEMPERATURE VALUE TIME HR:MN	INLET WATER TEMPERATURE
1	25.	28.	23.	38. 0: 2	16. 23:41	54.
2	21.	24.	19.	30. 14:10	16. 0:29	54.
3	44.	54.	38.	68. 15:15	24. 0: 8	54.
4	45.	61.	36.	69. 13:10	27. 3:39	59.
5	40.	51.	33.	58. 12:15	27. 6:50	61.
6	26.	27.	25.	30. 0: 2	24. 20:18	55.
7	26.	26.	25.	28. 11:54	24. 4: 7	53.
8	28.	36.	23.	49. 14: 7	17. 7:32	57.
9	29.	40.	23.	54. 13:27	15. 1:48	59.
10	36.	45.	31.	58. 11:37	14. 3:43	58.
11	46.	60.	37.	73. 11:23	27. 7: 7	56.
12	42.	57.	33.	68. 10:33	25. 7:11	55.
13	34.	48.	25.	62. 14:12	17. 7: 4	57.
14	38.	53.	29.	71. 12:31	19. 6:38	57.
15	41.	52.	34.	67. 13:46	23. 5: 8	61.
16	45.	57.	38.	69. 12:34	28. 4:34	60.
17	52.	64.	44.	69. 15:39	31. 3: 7	56.
18	31.	31.	31.	56. 1:20	21. 23:21	57.
19	17.	18.	17.	21. 0: 3	15. 16:58	53.
20	21.	23.	20.	26. 14:24	16. 2:13	50.
21	30.	36.	27.	54. 14: 9	21. 6: 8	53.
22	47.	55.	42.	62. 15:23	30. 0:33	56.
23	38.	48.	33.	57. 12:44	22. 23:20	54.
24	17.	14.	19.	30. 1: 2	13. 9:34	52.
25	45.	57.	38.	67. 13:55	14. 0:35	51.
26	51.	60.	45.	74. 13: 2	37. 23:26	54.
27	48.	55.	44.	66. 16: 9	30. 7:16	53.
28	43.	47.	40.	52. 12:14	31. 23:58	52.
29	38.	51.	29.	60. 12:42	24. 6:43	55.
30	49.	65.	39.	76. 13:29	25. 0: 4	53.
31	41.	53.	33.	67. 15:19	25. 6:15	54.
MEAN	37.	45.	31.			55.
STANDARD DEVIATION	10.2	14.7	8.0			2.8

ENVIRONMENTAL SUMMARY REPORT

SITE: COLORADO SUNWORKS
LONGMONT, COLORADO

REPORT PERIOD: 80/12
SITE NUMBER: 138

LATITUDE: 39.45 DEG NORTH AZIMUTH: 0 DEG TIME_ZONE: MOUNTAIN
LONGITUDE: 104.52 DEG WEST PYRANOMETER TILT: 89 DEG ALTITUDE: 5283 FEET

WIND: SPEED IN MPH-DIRECTION IN DEGREES

DAY	AVG WIND DIRECTION	AVG WIND SPEED	DAYTIME DIRECTION	DAYTIME SPEED	MAXIMUM WIND SPEED	MAXIMUM WIND DIRECTION	TIME HR:MN
1	261.	7.	277.	6.	17.	222.	2:10
2	*	1.	*	1.	8.	*	23:41
3	*	5.	*	6.	17.	*	7:31
4	116.	7.	110.	13.	21.	112.	11:50
5	269.	5.	266.	6.	20.	211.	18:26
6	311.	3.	305.	2.	8.	338.	19:35
7	281.	2.	256.	3.	8.	307.	3:14
8	*	2.	*	3.	9.	*	14:50
9	*	2.	*	2.	8.	*	3:51
10	109.	7.	102.	8.	22.	159.	12:57
11	172.	3.	168.	5.	20.	137.	13:41
12	246.	3.	272.	3.	11.	231.	19:47
13	*	1.	*	1.	14.	*	2:16
14	*	2.	*	2.	10.	*	14:12
15	*	2.	*	1.	8.	*	1:35
16	*	2.	*	3.	9.	*	9:27
17	83.	7.	71.	11.	21.	66.	12:32
18	261.	6.	237.	6.	15.	249.	17:39
19	*	1.	*	0.	11.	*	1:7
20	*	*	*	*	*	*	*:*
21	*	1.	*	1.	7.	*	14:41
22	110.	9.	104.	12.	25.	128.	13:15
23	184.	4.	*	9.	16.	186.	13:53
24	299.	6.	329.	6.	20.	271.	2:59
25	117.	9.	104.	12.	34.	139.	7:58
26	185.	4.	279.	3.	17.	172.	0:14
27	126.	3.	164.	2.	14.	112.	21:18
28	239.	3.	318.	1.	11.	251.	0:14
29	*	1.	*	2.	11.	*	20:36
30	173.	5.	162.	10.	26.	200.	10:44
31	265.	2.	15.	3.	13.	231.	22:53
MEAN	200.	4.	196.	5.			
STANDARD DEVIATION	74.6	2.5	96.5	3.8			

ENVIRONMENTAL SUMMARY REPORT

SITE: COLORADO SUNWORKS
LONGMONT, COLORADO

REPORT PERIOD: 80/12
SITE NUMBER: 138

LATITUDE: 39.45 DEG NORTH
LONGITUDE: 104.52 DEG WEST

AZIMUTH: 0 DEG
PYRANOMETER TILT: 89 DEG

TIME ZONE: MOUNTAIN
ALTITUDE: 5283 FEET

WIND: NUMBER OF HOURS IN EACH VELOCITY INTERVAL

DAY	0-3 MPH	4-7 MPH	8-12 MPH	13-18 MPH	19-24 MPH	25-31 MPH	32-38 MPH	ABOVE 38	MISSING HOURS
1	4	11	8	1	0	0	0	0	0
2	21	3	0	0	0	0	0	0	0
3	9	12	3	0	0	0	0	0	0
4	12	4	2	6	0	0	0	0	0
5	10	9	4	1	0	0	0	0	0
6	19	5	0	0	0	0	0	0	0
7	20	4	0	0	0	0	0	0	0
8	20	4	0	0	0	0	0	0	0
9	22	2	0	0	0	0	0	0	0
10	9	6	5	4	0	0	0	0	0
11	19	3	1	1	0	0	0	0	0
12	16	6	2	0	0	0	0	0	0
13	22	1	1	0	0	0	0	0	0
14	21	3	0	0	0	0	0	0	0
15	23	1	0	0	0	0	0	0	0
16	22	2	0	0	0	0	0	0	0
17	10	4	4	5	1	0	0	0	0
18	5	12	7	0	0	0	0	0	0
19	22	1	1	0	0	0	0	0	0
20	24	0	0	0	0	0	0	0	0
21	24	0	0	0	0	0	0	0	0
22	4	8	5	5	2	0	0	0	0
23	15	5	3	1	0	0	0	0	0
24	10	7	7	0	0	0	0	0	0
25	5	6	6	4	3	0	0	0	0
26	17	5	2	0	0	0	0	0	0
27	16	5	3	0	0	0	0	0	0
28	18	5	1	0	0	0	0	0	0
29	20	4	0	0	0	0	0	0	0
30	14	5	1	3	1	0	0	0	0
31	18	4	1	0	0	0	0	0	1
AVERAGE	15.8	4.7	2.2	1.0	0.2	0.0	0.0	0.0	0.0
TOTAL	491	147	67	31	7	0	0	0	1

ENVIRONMENTAL SUMMARY REPORT

SITE: CROWN REALTY #1
LAKEWOOD, COLORADO

REPORT PERIOD: 80/12
SITE NUMBER: 88

LATITUDE: 39.41 DEG NORTH
LONGITUDE: 105.00 DEG WEST

AZIMUTH: 0 DEG
PYRANOMETER TILT: 55 DEG

TIME ZONE: MOUNTAIN
ALTITUDE: 5280 FEET

INSOLATION

DAY	TOTAL INSOLATION BTU/FT2	TOTAL DIFF INSOLATION BTU/FT2	TOTAL DIR INSOLATION BTU/FT2	MAXIMUM TOTAL INSOLATION VALUE BTU/HR/FT2	TIME HR:MN	EXTRATERRESTRIAL INSOLATION BTU/FT2	TTL INS ----- EXT INS PERCENT
1	120.	N.A.	N.A.	96.	7:53	3137.	4.
2	887.	N.A.	N.A.	296.	11:21	3127.	28.
3	1258.	N.A.	N.A.	310.	13: 6	3128.	40.
4	1958.	N.A.	N.A.	341.	11: 5	3129.	63.
5	1822.	N.A.	N.A.	317.	12:10	3118.	58.
6	103.	N.A.	N.A.	31.	12:27	3120.	3.
7	60.	N.A.	N.A.	17.	10:30	3118.	2.
8	1910.	N.A.	N.A.	320.	11:29	3108.	61.
9	1544.	N.A.	N.A.	314.	11:28	3106.	50.
10	1406.	N.A.	N.A.	362.	12:12	3108.	45.
11	1908.	N.A.	N.A.	314.	11:52	3106.	61.
12	1770.	N.A.	N.A.	317.	11:56	3109.	57.
13	1906.	N.A.	N.A.	317.	11:24	3107.	61.
14	1660.	N.A.	N.A.	327.	11:43	3098.	54.
15	881.	N.A.	N.A.	207.	12:58	3097.	28.
16	1783.	N.A.	N.A.	320.	12: 6	3097.	58.
17	1375.	N.A.	N.A.	317.	12:54	3096.	44.
18	94.	N.A.	N.A.	31.	12: 2	3100.	3.
19	42.	N.A.	N.A.	14.	12:31	3100.	1.
20	776.	N.A.	N.A.	303.	11:57	3100.	25.
21	890.	N.A.	N.A.	310.	12:47	3100.	29.
22	710.	N.A.	N.A.	286.	14: 1	3100.	23.
23	1607.	N.A.	N.A.	334.	11: 1	3101.	52.
24	72.	N.A.	N.A.	21.	10:51	3098.	2.
25	304.	N.A.	N.A.	158.	15:32	3099.	10.
26	1340.	N.A.	N.A.	293.	12:17	3100.	43.
27	1110.	N.A.	N.A.	245.	13:53	3102.	36.
28	257.	N.A.	N.A.	172.	12:52	3111.	8.
29	1931.	N.A.	N.A.	314.	12:15	3113.	62.
30	1692.	N.A.	N.A.	320.	12: 5	3115.	54.
31	1865.	N.A.	N.A.	307.	11:35	3113.	60.
MEAN	1130.	N.A.	N.A.			3108.	
STANDARD DEVIATION	700.	N.A.	N.A.			11.	

ENVIRONMENTAL SUMMARY REPORT

SITE: CROWN REALTY #1
LAKEWOOD, COLORADO

REPORT PERIOD: 80/12
SITE NUMBER: 88

LATITUDE: 39.41 DEG NORTH AZIMUTH: 0 DEG
LONGITUDE: 105.00 DEG WEST PYRANOMETER TILT: 55 DEG
TIME ZONE: MOUNTAIN
ALTITUDE: 5280 FEET

TEMPERATURES IN DEGREES F

DAY	AVERAGE TEMP	DAYTIME TEMP	NIGHTTIME TEMP	MAX TEMPERATURE VALUE TIME HR:MN	MIN TEMPERATURE VALUE TIME HR:MN	INLET WATER TEMPERATURE
1	30.	31.	29.	45. 0: 4	21. 20:57	N.A.
2	31.	36.	28.	49. 12:52	20. 4:41	N.A.
3	51.	63.	43.	78. 13:12	35. 1:33	N.A.
4	56.	70.	48.	81. 10:43	39. 0:30	N.A.
5	50.	65.	41.	84. 12:42	29. 23:55	N.A.
6	29.	31.	28.	33. 12:43	24. 6:25	N.A.
7	28.	31.	27.	33. 13:47	24. 19:39	N.A.
8	34.	48.	25.	65. 12:11	17. 6:51	N.A.
9	34.	46.	26.	63. 13:47	21. 1:37	N.A.
10	46.	57.	39.	73. 11: 8	24. 3: 3	N.A.
11	55.	67.	47.	80. 13:12	39. 5:55	N.A.
12	52.	68.	42.	88. 13:32	36. 6:52	N.A.
13	44.	60.	33.	80. 13:38	27. 5:43	N.A.
14	48.	60.	40.	77. 13: 3	30. 6:36	N.A.
15	51.	59.	47.	76. 14:18	35. 0:10	N.A.
16	60.	71.	53.	87. 12:43	38. 6:46	N.A.
17	65.	78.	57.	95. 13: 5	45. 23:51	N.A.
18	38.	40.	36.	52. 8:34	23. 23:59	N.A.
19	22.	24.	21.	26. 12:36	19. 20:23	N.A.
20	29.	36.	25.	54. 12:23	20. 0:23	N.A.
21	41.	51.	35.	73. 14:17	24. 1:43	N.A.
22	52.	58.	48.	71. 15:32	38. 0: 4	N.A.
23	45.	54.	39.	69. 11:22	30. 23:23	N.A.
24	24.	22.	25.	38. 2:35	17. 8:27	N.A.
25	54.	58.	51.	63. 15:48	26. 0: 4	N.A.
26	57.	63.	53.	73. 11:45	42. 6:33	N.A.
27	59.	70.	53.	89. 13:58	42. 4:28	N.A.
28	49.	54.	46.	62. 13: 3	38. 23:43	N.A.
29	47.	61.	39.	76. 12:20	32. 6:28	N.A.
30	56.	72.	46.	85. 12: 5	37. 0:53	N.A.
31	50.	64.	42.	85. 13:59	34. 6:53	N.A.
MEAN	45.	54.	39.			N.A.
STANDARD DEVIATION	11.8	15.3	10.2			N.A.

ENVIRONMENTAL SUMMARY REPORT

SITE: CROWN REALTY #II
ENGLEWOOD, COLORADO

REPORT PERIOD: 80/12
SITE NUMBER: 89

LATITUDE: 39.41 DEG NORTH AZIMUTH: 0 DEG
LONGITUDE: 105.00 DEG WEST PYRANOMETER TILT: 55 DEG TIME ZONE: MOUNTAIN
ALTITUDE: 5280 FEET

INSOLATION

DAY	TOTAL INSOLATION BTU/FT2	TOTAL DIFF INSOLATION BTU/FT2	TOTAL DIR INSOLATION BTU/FT2	MAXIMUM TOTAL INSOLATION VALUE BTU/HR/FT2	TIME HR:MM	EXTRATERRESTRIAL INSOLATION BTU/FT2	TTL INS ----- EXT INS PERCENT
1	78.	N.A.	N.A.	35.	12:44	3137.	2.
2	1108.	N.A.	N.A.	298.	11:52	3127.	35.
3	1023.	N.A.	N.A.	270.	13:58	3128.	33.
4	1500.	N.A.	N.A.	353.	12:45	3129.	48.
5	1537.	N.A.	N.A.	315.	11:21	3118.	49.
6	97.	N.A.	N.A.	28.	9: 4	3120.	3.
7	69.	N.A.	N.A.	87.	11:25	3118.	2.
8	1828.	N.A.	N.A.	311.	11:50	3108.	59.
9	1470.	N.A.	N.A.	301.	11:45	3106.	47.
10	1384.	N.A.	N.A.	346.	12:18	3108.	45.
11	1835.	N.A.	N.A.	315.	11:57	3106.	59.
12	1788.	N.A.	N.A.	318.	11:53	3109.	58.
13	1930.	N.A.	N.A.	315.	11:49	3107.	62.
14	1537.	N.A.	N.A.	329.	12: 2	3098.	50.
15	906.	N.A.	N.A.	221.	12:55	3097.	29.
16	1634.	N.A.	N.A.	305.	11:31	3097.	53.
17	1226.	N.A.	N.A.	239.	14: 1	3096.	40.
18	116.	N.A.	N.A.	62.	11:56	3100.	4.
19	36.	N.A.	N.A.	10.	11:41	3100.	1.
20	1343.	N.A.	N.A.	298.	11:58	3100.	43.
21	1047.	N.A.	N.A.	305.	13:11	3100.	34.
22	783.	N.A.	N.A.	277.	14: 5	3100.	25.
23	1584.	N.A.	N.A.	315.	11:24	3101.	51.
24	96.	N.A.	N.A.	28.	10:21	3098.	3.
25	338.	N.A.	N.A.	128.	15:43	3099.	11.
26	1471.	N.A.	N.A.	291.	12:12	3100.	47.
27	1193.	N.A.	N.A.	253.	14: 4	3102.	38.
28	280.	N.A.	N.A.	215.	13:23	3111.	9.
29	1905.	N.A.	N.A.	308.	11:57	3113.	61.
30	1784.	N.A.	N.A.	308.	12:33	3115.	57.
31	1855.	N.A.	N.A.	308.	12:31	3113.	60.
MEAN	1122.	N.A.	N.A.			3108.	
STANDARD DEVIATION	659.	N.A.	N.A.			11.	

ENVIRONMENTAL SUMMARY REPORT

SITE: CROWN REALTY #II
ENGLEWOOD, COLORADO

REPORT PERIOD: 80/12
SITE NUMBER: 89

LATITUDE: 39.41 DEG NORTH AZIMUTH: 0 DEG
LONGITUDE: 105.00 DEG WEST PYRANOMETER TILT: 55 DEG TIME ZONE: MOUNTAIN
ALTITUDE: 5280 FEET

TEMPERATURES IN DEGREES F

DAY	AVERAGE TEMP	DAYTIME TEMP	NIGHTTIME TEMP	MAX TEMPERATURE VALUE TIME HR:MN	MIN TEMPERATURE VALUE TIME HR:MN	INLET WATER TEMPERATURE
1	30.	31.	29.	46. 1:48	20. 20:50	N.A.
2	32.	40.	27.	55. 11:57	20. 3:52	N.A.
3	48.	59.	41.	74. 14: 9	31. 0: 6	N.A.
4	56.	65.	50.	72. 9:54	46. 23:37	N.A.
5	49.	62.	41.	83. 13:45	26. 23:55	N.A.
6	28.	30.	27.	33. 11:44	22. 6:56	N.A.
7	28.	31.	27.	34. 11:35	24. 21:36	N.A.
8	34.	48.	24.	67. 12:38	17. 6:35	N.A.
9	34.	48.	26.	65. 13:53	20. 4:49	N.A.
10	45.	56.	38.	72. 12:23	25. 0: 2	N.A.
11	53.	67.	43.	89. 13:44	37. 4:13	N.A.
12	53.	69.	42.	93. 13:34	34. 23:55	N.A.
13	43.	62.	31.	81. 12:32	23. 6:19	N.A.
14	47.	62.	38.	87. 12:50	30. 23:40	N.A.
15	49.	62.	41.	82. 13:16	30. 6:31	N.A.
16	59.	77.	48.	99. 13:18	36. 5:50	N.A.
17	63.	80.	51.	97. 14:17	40. 23: 3	N.A.
18	36.	39.	33.	50. 10:52	22. 23:25	N.A.
19	23.	24.	21.	26. 15:14	19. 20: 3	N.A.
20	33.	45.	25.	64. 13: 8	19. 5: 1	N.A.
21	42.	56.	34.	81. 14:21	23. 2:28	N.A.
22	50.	57.	45.	66. 14:10	35. 23:29	N.A.
23	45.	57.	38.	73. 13:16	30. 23:57	N.A.
24	24.	23.	24.	35. 2:10	15. 7:14	N.A.
25	53.	59.	49.	64. 14: 7	22. 0:10	N.A.
26	56.	64.	51.	73. 12:18	39. 7:27	N.A.
27	58.	71.	50.	93. 14:36	38. 3:30	N.A.
28	47.	52.	44.	62. 13:28	37. 21:49	N.A.
29	48.	62.	39.	84. 13:39	29. 7: 9	N.A.
30	58.	76.	47.	95. 11:34	35. 23:59	N.A.
31	49.	66.	38.	90. 14:39	29. 6:55	N.A.
MEAN	44.	55.	38.			N.A.
STANDARD DEVIATION	11.2	15.5	9.2			N.A.

ENVIRONMENTAL SUMMARY REPORT

SITE: HULLCO CONSTRUCTION
PRESCOTT, ARIZONA

REPORT PERIOD: 80/12
SITE NUMBER: 148

LATITUDE: 34.00 DEG NORTH
LONGITUDE: 114.40 DEG WEST

AZIMUTH: 0 DEG
PYRANOMETER TILT: 60 DEG

TIME ZONE: MOUNTAIN
ALTITUDE: 7000 FEET

INSOLATION

DAY	TOTAL INSOLATION BTU/FT2	TOTAL DIFF INSOLATION BTU/FT2	TOTAL DIR INSOLATION BTU/FT2	MAXIMUM TOTAL INSOLATION VALUE BTU/HR/FT2	TIME HR:MN	EXTRATERRESTRIAL INSOLATION BTU/FT2	TTL INS ----- EXT INS PERCENT
1	2338.	N.A.	N.A.	324.	11:25	3306.	71.
2	2039.	N.A.	N.A.	321.	11:57	3306.	62.
3	2123.	N.A.	N.A.	360.	12:41	3309.	64.
4	812.	N.A.	N.A.	224.	13:25	3301.	25.
5	1480.	N.A.	N.A.	389.	11:39	3301.	45.
6	294.	N.A.	N.A.	141.	14:56	3304.	9.
7	804.	N.A.	N.A.	401.	11:46	3304.	24.
8	1582.	N.A.	N.A.	371.	12:13	3295.	48.
9	2228.	N.A.	N.A.	339.	12: 0	3295.	68.
10	2265.	N.A.	N.A.	348.	12: 5	3299.	69.
11	2238.	N.A.	N.A.	345.	12:25	3298.	68.
12	258.	N.A.	N.A.	109.	11:37	3298.	8.
13	349.	N.A.	N.A.	318.	10:44	3302.	11.
14	2256.	N.A.	N.A.	333.	12:24	3302.	68.
15	2132.	N.A.	N.A.	330.	11:58	3302.	65.
16	2202.	N.A.	N.A.	336.	12:26	3302.	67.
17	2208.	N.A.	N.A.	330.	12: 3	3294.	67.
18	2125.	N.A.	N.A.	336.	12: 0	3294.	65.
19	2096.	N.A.	N.A.	327.	11:59	3294.	64.
20	2091.	N.A.	N.A.	330.	12:36	3294.	63.
21	2097.	N.A.	N.A.	327.	12:11	3295.	64.
22	1956.	N.A.	N.A.	324.	12: 6	3295.	59.
23	2142.	N.A.	N.A.	336.	11:58	3295.	65.
24	2036.	N.A.	N.A.	336.	12: 6	3296.	62.
25	2089.	N.A.	N.A.	333.	12:11	3296.	63.
26	2163.	N.A.	N.A.	327.	12: 1	3305.	65.
27	1805.	N.A.	N.A.	327.	11:50	3306.	55.
28	1510.	N.A.	N.A.	333.	12:49	3306.	46.
29	2171.	N.A.	N.A.	330.	12:11	3307.	66.
30	2181.	N.A.	N.A.	330.	12:26	3304.	66.
31	1994.	N.A.	N.A.	339.	12:24	3305.	60.
MEAN	1809.	N.A.	N.A.			3300.	
STANDARD DEVIATION	625.	N.A.	N.A.			5.	

ENVIRONMENTAL SUMMARY REPORT

SITE: HULLCO CONSTRUCTION
PRESCOTT, ARIZONA

REPORT PERIOD: 80/12
SITE NUMBER: 148

LATITUDE: 34.00 DEG NORTH AZIMUTH: 0 DEG
LONGITUDE: 114.40 DEG WEST PYRANOMETER TILT: 60 DEG
TIME ZONE: MOUNTAIN
ALTITUDE: 7000 FEET

TEMPERATURES IN DEGREES F

DAY	AVERAGE TEMP	DAYTIME TEMP	NIGHTTIME TEMP	MAX TEMPERATURE VALUE	TIME HR:MN	MIN TEMPERATURE VALUE	TIME HR:MN	INLET WATER TEMPERATURE
1	46.	55.	37.	62.	13:28	28.	23: 9	N.A.
2	43.	55.	35.	64.	14:21	26.	7:41	N.A.
3	47.	57.	41.	66.	13: 8	30.	7:16	N.A.
4	49.	53.	47.	56.	13:25	41.	22: 8	N.A.
5	45.	49.	42.	52.	13:15	38.	21:14	N.A.
6	39.	42.	37.	46.	14:56	30.	23:22	N.A.
7	34.	37.	32.	43.	12: 7	26.	21:27	N.A.
8	32.	37.	29.	45.	15:25	23.	23:54	N.A.
9	30.	37.	25.	45.	15:17	18.	6:50	N.A.
10	31.	40.	26.	54.	15: 6	15.	7:17	N.A.
11	35.	46.	27.	58.	15: 5	18.	7: 0	N.A.
12	36.	40.	33.	50.	15: 5	23.	5:39	N.A.
13	39.	43.	37.	48.	11:16	35.	20:31	N.A.
14	37.	45.	32.	55.	15:10	26.	7:22	N.A.
15	42.	51.	36.	65.	14:38	23.	4:35	N.A.
16	44.	55.	37.	68.	16:19	27.	7: 1	N.A.
17	45.	56.	36.	70.	15:25	28.	7:36	N.A.
18	42.	54.	35.	64.	14:19	27.	6:35	N.A.
19	40.	51.	32.	59.	15:32	26.	7:27	N.A.
20	39.	50.	32.	61.	14:54	24.	7:42	N.A.
21	40.	50.	33.	60.	15: 7	25.	7:37	N.A.
22	43.	53.	37.	66.	14:25	28.	5:58	N.A.
23	41.	49.	35.	59.	15:16	27.	23:42	N.A.
24	37.	49.	30.	62.	15: 7	22.	6:16	N.A.
25	41.	53.	32.	69.	13:58	24.	7:23	N.A.
26	45.	58.	37.	68.	12:12	29.	7:12	N.A.
27	47.	58.	39.	71.	15:50	31.	7:45	N.A.
28	47.	58.	40.	70.	14:25	30.	7:55	N.A.
29	44.	54.	38.	67.	15: 7	27.	7:13	N.A.
30	41.	52.	33.	65.	15: 1	24.	6:29	N.A.
31	41.	52.	33.	64.	14:27	24.	6:22	N.A.
MEAN	41.	50.	35.					N.A.
STANDARD DEVIATION	4.9	6.5	4.7					N.A.

ENVIRONMENTAL SUMMARY REPORT

SITE: HULLCO CONSTRUCTION
PRESCOTT, ARIZONA

REPORT PERIOD: 80/12
SITE NUMBER: 148

LATITUDE: 34.00 DEG NORTH AZIMUTH: 0 DEG TIME ZONE: MOUNTAIN
LONGITUDE: 114.40 DEG WEST PYRANOMETER TILT: 60 DEG ALTITUDE: 7000 FEET

WIND: SPEED IN MPH-DIRECTION IN DEGREES

DAY	AVG WIND DIRECTION	AVG WIND SPEED	DAYTIME DIRECTION	DAYTIME SPEED	MAXIMUM WIND SPEED DIRECTION	TIME HR:MN
1	*	2.	*	2.	9.	3:36
2	*	1.	*	2.	4.	10:21
3	*	1.	*	2.	6.	9:40
4	242.	3.	242.	5.	9.	13:31
5	247.	2.	247.	4.	9.	11:44
6	*	0.	*	1.	5.	13:20
7	*	2.	*	3.	7.	16: 2
8	*	1.	*	1.	4.	11: 3
9	*	1.	*	1.	4.	12:10
10	*	1.	*	2.	6.	9:30
11	*	0.	*	1.	3.	12:36
12	*	0.	*	0.	3.	12:35
13	*	0.	*	1.	4.	1: 3
14	*	0.	*	1.	4.	14: 0
15	*	1.	*	1.	4.	21:41
16	*	0.	*	1.	5.	13:30
17	*	0.	*	1.	2.	12:35
18	*	0.	*	1.	4.	10:24
19	*	0.	*	1.	2.	13:35
20	*	0.	*	1.	2.	23:26
21	*	0.	*	1.	2.	12:27
22	*	1.	*	1.	4.	12:54
23	*	0.	*	1.	2.	10:54
24	*	0.	*	0.	1.	15:34
25	*	0.	*	1.	3.	14:35
26	*	0.	*	1.	2.	12:54
27	*	0.	*	0.	2.	12:22
28	*	0.	*	0.	2.	12:49
29	*	0.	*	1.	3.	17:57
30	*	0.	*	1.	2.	13:46
31	*	0.	*	0.	1.	12:19
MEAN	245.	1.	245.	1.		
STANDARD DEVIATION	3.4	0.7	3.8	1.0		

ENVIRONMENTAL SUMMARY REPORT

SITE: HULLCO CONSTRUCTION
PRESCOTT, ARIZONA

REPORT PERIOD: 80/12
SITE NUMBER: 148

LATITUDE: 34.00 DEG NORTH AZIMUTH: 0 DEG
LONGITUDE: 114.40 DEG WEST PYRANOMETER TILT: 60 DEG
TIME ZONE: MOUNTAIN
ALTITUDE: 7000 FEET

WIND: NUMBER OF HOURS IN EACH VELOCITY INTERVAL

DAY	0-3 MPH	4-7 MPH	8-12 MPH	13-18 MPH	19-24 MPH	25-31 MPH	32-38 MPH	ABOVE 38	MISSING HOURS
1	19	1	0	0	0	0	0	0	4
2	24	0	0	0	0	0	0	0	0
3	24	0	0	0	0	0	0	0	0
4	17	7	0	0	0	0	0	0	0
5	18	6	0	0	0	0	0	0	0
6	24	0	0	0	0	0	0	0	0
7	23	1	0	0	0	0	0	0	0
8	24	0	0	0	0	0	0	0	0
9	24	0	0	0	0	0	0	0	0
10	24	0	0	0	0	0	0	0	0
11	24	0	0	0	0	0	0	0	0
12	24	0	0	0	0	0	0	0	0
13	24	0	0	0	0	0	0	0	0
14	24	0	0	0	0	0	0	0	0
15	24	0	0	0	0	0	0	0	0
16	24	0	0	0	0	0	0	0	0
17	24	0	0	0	0	0	0	0	0
18	24	0	0	0	0	0	0	0	0
19	24	0	0	0	0	0	0	0	0
20	24	0	0	0	0	0	0	0	0
21	24	0	0	0	0	0	0	0	0
22	24	0	0	0	0	0	0	0	0
23	24	0	0	0	0	0	0	0	0
24	24	0	0	0	0	0	0	0	0
25	24	0	0	0	0	0	0	0	0
26	24	0	0	0	0	0	0	0	0
27	24	0	0	0	0	0	0	0	0
28	24	0	0	0	0	0	0	0	0
29	24	0	0	0	0	0	0	0	0
30	24	0	0	0	0	0	0	0	0
31	23	0	0	0	0	0	0	0	1
AVERAGE	23.4	0.5	0.0	0.0	0.0	0.0	0.0	0.0	0.2
TOTAL	724	15	0	0	0	0	0	0	5

ENVIRONMENTAL SUMMARY REPORT

SITE: HULLCO CONSTRUCTION
PRESCOTT, ARIZONA

REPORT PERIOD: 80/12
SITE NUMBER: 148

LATITUDE: 34.00 DEG NORTH AZIMUTH: 0 DEG
LONGITUDE: 114.40 DEG WEST PYRANOMETER TILT: 60 DEG
TIME ZONE: MOUNTAIN
ALTITUDE: 7000 FEET

RELATIVE HUMIDITY IN PER CENT

DAY	RELATIVE HUMIDITY	DAYTIME REL HUM	NIGHTTIME REL HUM	MAXIMUM VALUE	HUMIDITY TIME HR:MN	MINIMUM VALUE	HUMIDITY TIME HR:MN
1	1.	0.	1.	9.	23: 9	0.	0: 3
2	0.	0.	0.	1.	1:23	0.	0: 8
3	*	*	*	*	*:*	*	*:*
4	14.	0.	23.	100.	22:29	0.	0: 0
5	91.	78.	100.	100.	0: 0	39.	14:40
6	100.	100.	100.	100.	0: 0	100.	0: 0
7	98.	96.	100.	100.	0: 0	57.	13: 6
8	86.	68.	98.	100.	0: 2	9.	16: 5
9	67.	40.	85.	100.	0: 0	0.	13:14
10	58.	27.	78.	100.	0:15	0.	10:55
11	41.	18.	57.	100.	0: 4	0.	9:50
12	42.	17.	59.	100.	19:43	0.	10:38
13	100.	100.	100.	100.	0: 4	100.	0: 4
14	98.	94.	100.	100.	0: 4	42.	13:39
15	100.	100.	100.	100.	0: 3	100.	0: 3
16	100.	100.	100.	100.	0: 5	100.	0: 5
17	100.	100.	100.	100.	0: 3	89.	23:55
18	53.	24.	71.	100.	0:21	0.	9:47
19	59.	22.	84.	100.	0: 4	0.	10: 1
20	62.	28.	84.	100.	0: 4	0.	11:42
21	62.	29.	84.	100.	0: 4	0.	11:18
22	50.	30.	63.	100.	0: 1	0.	10:41
23	48.	28.	61.	100.	3:48	0.	11: 5
24	49.	25.	66.	100.	0: 3	0.	10:22
25	18.	11.	23.	66.	7:50	0.	9:15
26	32.	15.	42.	100.	7:48	0.	0: 0
27	52.	28.	69.	100.	0: 1	0.	10:36
28	46.	14.	67.	100.	4:22	0.	11:18
29	45.	26.	57.	100.	0:49	0.	10:25
30	50.	25.	68.	100.	2:18	0.	10:23
31	45.	24.	59.	100.	0:35	0.	10: 0

MEAN 59. 45. 70.

STANDARD
DEVIATION30. 35. 29.

ENVIRONMENTAL SUMMARY REPORT

SITE: KIRTLAND AIR FORCE BASE
ALBUQUERQUE, NEW MEXICO

REPORT PERIOD: 80/12
SITE NUMBER: 24

LATITUDE: 35.06 DEG NORTH AZIMUTH: 0 DEG
LONGITUDE: 106.60 DEG WEST PYRANOMETER TILT: 30 DEG TIME ZONE: MOUNTAIN
ALTITUDE: 5350 FEET

INSOLATION

DAY	TOTAL INSOLATION BTU/FT2	TOTAL DIFF INSOLATION BTU/FT2	TOTAL DIR INSOLATION BTU/FT2	MAXIMUM TOTAL INSOLATION VALUE BTU/HR/FT2	TIME HR:MN	EXTRATERRESTRIAL INSOLATION BTU/FT2	TTL INS ----- EXT INS PERCENT
1	1758.	N.A.	N.A.	292.	11:37	2778.	63.
2	1857.	N.A.	N.A.	296.	12:20	2776.	67.
3	1807.	N.A.	N.A.	299.	11:56	2772.	65.
4	1156.	N.A.	N.A.	284.	12:27	2770.	42.
5	1578.	N.A.	N.A.	303.	11:37	2761.	57.
6	1149.	N.A.	N.A.	344.	11: 9	2757.	42.
7	1236.	N.A.	N.A.	311.	12:45	2757.	45.
8	198.	N.A.	N.A.	60.	14:16	2753.	7.
9	1774.	N.A.	N.A.	314.	11:54	2745.	65.
10	1843.	N.A.	N.A.	296.	10:55	2742.	67.
11	1830.	N.A.	N.A.	292.	11:53	2743.	67.
12	1518.	N.A.	N.A.	303.	11:18	2740.	55.
13	181.	N.A.	N.A.	60.	13:30	2738.	7.
14	1744.	N.A.	N.A.	284.	12: 1	2739.	64.
15	1719.	N.A.	N.A.	281.	12:12	2738.	63.
16	1707.	N.A.	N.A.	284.	11:50	2736.	62.
17	1819.	N.A.	N.A.	281.	11:49	2736.	66.
18	1751.	N.A.	N.A.	281.	11:50	2735.	64.
19	1731.	N.A.	N.A.	277.	11:41	2730.	63.
20	1691.	N.A.	N.A.	281.	12: 3	2729.	62.
21	1510.	N.A.	N.A.	292.	12: 1	2730.	55.
22	1466.	N.A.	N.A.	281.	12:17	2730.	54.
23	1762.	N.A.	N.A.	284.	12:27	2731.	65.
24	1756.	N.A.	N.A.	284.	11:56	2737.	64.
25	1545.	N.A.	N.A.	292.	12: 1	2738.	56.
26	1829.	N.A.	N.A.	288.	11:52	2740.	67.
27	1753.	N.A.	N.A.	281.	11:58	2742.	64.
28	1359.	N.A.	N.A.	292.	11:56	2744.	50.
29	1643.	N.A.	N.A.	281.	11:50	2743.	60.
30	1783.	N.A.	N.A.	288.	11:40	2746.	65.
31	1765.	N.A.	N.A.	284.	12: 3	2749.	64.
MEAN	1555.	N.A.	N.A.			2745.	
STANDARD DEVIATION	414.	N.A.	N.A.			14.	

ENVIRONMENTAL SUMMARY REPORT

SITE: KIRTLAND AIR FORCE BASE
ALBUQUERQUE, NEW MEXICO

REPORT PERIOD: 80/12
SITE NUMBER: 24

LATITUDE: 35.06 DEG NORTH AZIMUTH: 0 DEG
LONGITUDE: 106.60 DEG WEST PYRANOMETER TILT: 30 DEG
TIME ZONE: MOUNTAIN
ALTITUDE: 5350 FEET

TEMPERATURES IN DEGREES F

DAY	AVERAGE TEMP	DAYTIME TEMP	NIGHTTIME TEMP	MAX TEMPERATURE VALUE	TIME HR:MN	MIN TEMPERATURE VALUE	TIME HR:MN	INLET WATER TEMPERATURE
1	49.	57.	44.	64.	14:33	35.	23:59	N.A.
2	44.	54.	37.	65.	15:13	27.	4:47	N.A.
3	46.	56.	40.	68.	14:46	31.	7: 2	N.A.
4	45.	53.	39.	62.	15:37	29.	7: 2	N.A.
5	50.	57.	45.	67.	14:27	34.	6:11	N.A.
6	49.	54.	45.	63.	13:12	38.	5:49	N.A.
7	45.	52.	41.	61.	12:45	33.	22:10	N.A.
8	32.	34.	31.	37.	14:21	28.	22:18	N.A.
9	30.	35.	27.	42.	14:39	24.	1:46	N.A.
10	29.	35.	25.	45.	15: 6	18.	7:16	N.A.
11	33.	41.	28.	50.	14:54	19.	5: 8	N.A.
12	35.	41.	31.	56.	14:19	21.	7: 7	N.A.
13	38.	40.	37.	44.	11: 6	34.	0: 4	N.A.
14	38.	43.	35.	50.	14: 9	27.	6:39	N.A.
15	38.	46.	33.	55.	14:47	26.	1: 5	N.A.
16	42.	51.	36.	61.	14:25	29.	4:33	N.A.
17	43.	53.	37.	67.	13:51	27.	6:34	N.A.
18	46.	57.	39.	69.	14:30	31.	5:58	N.A.
19	32.	34.	31.	44.	0:29	24.	22:43	N.A.
20	30.	37.	25.	46.	13:55	17.	6:54	N.A.
21	31.	40.	26.	50.	15: 3	19.	6:59	N.A.
22	38.	47.	33.	64.	14:31	24.	6:52	N.A.
23	41.	49.	36.	56.	13:47	30.	4:59	N.A.
24	37.	45.	32.	54.	14:57	24.	6:54	N.A.
25	39.	47.	34.	60.	15:29	24.	7:45	N.A.
26	46.	53.	42.	66.	14:32	31.	6:31	N.A.
27	46.	55.	40.	70.	15:26	29.	6:32	N.A.
28	49.	55.	44.	67.	13:48	31.	6: 0	N.A.
29	47.	51.	45.	57.	15: 8	33.	23:56	N.A.
30	40.	48.	34.	62.	14:47	25.	6:31	N.A.
31	42.	49.	38.	62.	14:38	26.	7:31	N.A.
MEAN	40.	47.	36.					N.A.
STANDARD DEVIATION	6.4	7.5	6.1					N.A.

ENVIRONMENTAL SUMMARY REPORT

SITE: KIRTLAND AIR FORCE BASE
ALBUQUERQUE, NEW MEXICO

REPORT PERIOD: 80/12
SITE NUMBER: 24

LATITUDE: 35.06 DEG NORTH AZIMUTH: 0 DEG TIME ZONE: MOUNTAIN
LONGITUDE: 106.60 DEG WEST PYRANOMETER TILT: 30 DEG ALTITUDE: 5350 FEET

WIND: SPEED IN MPH-DIRECTION IN DEGREES

DAY	AVG WIND DIRECTION	AVG WIND SPEED	DAYTIME DIRECTION	DAYTIME SPEED	MAXIMUM WIND SPEED	MAXIMUM WIND DIRECTION	TIME HR:MN
1	62.	3.	70.	6.	17.	65.	12: 9
2	*	0.	*	1.	4.	*	13:35
3	*	0.	*	1.	7.	*	12:28
4	*	1.	*	2.	10.	*	11: 7
5	*	2.	*	2.	13.	*	19:30
6	*	2.	*	3.	9.	*	15:46
7	*	1.	*	2.	8.	*	16:29
8	*	2.	*	3.	15.	*	5: 1
9	*	1.	*	2.	6.	*	10:50
10	*	0.	*	1.	7.	*	12:31
11	*	0.	*	1.	4.	*	13: 3
12	*	0.	*	1.	8.	*	15: 2
13	275.	4.	282.	8.	16.	327.	13:40
14	146.	2.	147.	5.	11.	137.	14:31
15	*	1.	*	3.	8.	*	9:11
16	*	1.	*	2.	8.	*	11:50
17	*	0.	*	1.	5.	*	16: 5
18	*	1.	*	1.	5.	*	10:40
19	268.	10.	268.	12.	18.	252.	6:48
20	*	1.	*	1.	9.	*	0:35
21	*	0.	*	1.	3.	*	13:37
22	*	1.	*	1.	7.	*	10:52
23	140.	3.	140.	7.	17.	157.	14:35
24	*	1.	*	2.	7.	*	11: 5
25	*	1.	*	2.	10.	*	5: 0
26	*	1.	*	1.	6.	*	15:10
27	*	0.	*	0.	4.	*	15:10
28	*	1.	*	0.	16.	*	22:46
29	271.	8.	274.	10.	20.	266.	1:53
30	*	0.	*	1.	4.	*	15:42
31	*	1.	*	1.	10.	*	19:47
MEAN	239.	2.	234.	3.			
STANDARD DEVIATION	103.0	2.2	98.6	2.9			

ENVIRONMENTAL SUMMARY REPORT

SITE: KIRTLAND AIR FORCE BASE
ALBUQUERQUE, NEW MEXICO

REPORT PERIOD: 80/12
SITE NUMBER: 24

LATITUDE: 35.06 DEG NORTH AZIMUTH: 0 DEG
LONGITUDE: 106.60 DEG WEST PYRANOMETER TILT: 30 DEG
TIME ZONE: MOUNTAIN ALTITUDE: 5350 FEET

WIND: NUMBER OF HOURS IN EACH VELOCITY INTERVAL

DAY	0-3 MPH	4-7 MPH	8-12 MPH	13-18 MPH	19-24 MPH	25-31 MPH	32-38 MPH	ABOVE 38	MISSING HOURS
1	19	1	3	1	0	0	0	0	0
2	24	0	0	0	0	0	0	0	0
3	24	0	0	0	0	0	0	0	0
4	23	1	0	0	0	0	0	0	0
5	19	3	2	0	0	0	0	0	0
6	23	1	0	0	0	0	0	0	0
7	23	1	0	0	0	0	0	0	0
8	18	6	0	0	0	0	0	0	0
9	23	1	0	0	0	0	0	0	0
10	23	1	0	0	0	0	0	0	0
11	24	0	0	0	0	0	0	0	0
12	24	0	0	0	0	0	0	0	0
13	11	7	6	0	0	0	0	0	0
14	15	9	0	0	0	0	0	0	0
15	22	2	0	0	0	0	0	0	0
16	23	1	0	0	0	0	0	0	0
17	24	0	0	0	0	0	0	0	0
18	23	0	1	0	0	0	0	0	0
19	4	1	14	5	0	0	0	0	0
20	24	0	0	0	0	0	0	0	0
21	24	0	0	0	0	0	0	0	0
22	23	1	0	0	0	0	0	0	0
23	16	2	4	2	0	0	0	0	0
24	23	1	0	0	0	0	0	0	0
25	20	4	0	0	0	0	0	0	0
26	24	0	0	0	0	0	0	0	0
27	24	0	0	0	0	0	0	0	0
28	21	0	1	2	0	0	0	0	0
29	7	6	8	3	0	0	0	0	0
30	24	0	0	0	0	0	0	0	0
31	20	3	0	0	0	0	0	0	1
AVERAGE	20.6	1.7	1.3	0.4	0.0	0.0	0.0	0.0	0.0
TOTAL	639	52	39	13	0	0	0	0	1

ENVIRONMENTAL SUMMARY REPORT

SITE: PERL-MACK ENTERPRISES
DENVER, COLORADO

REPORT PERIOD: 80/12
SITE NUMBER: 60

LATITUDE: 39.80 DEG NORTH
LONGITUDE: 104.00 DEG WEST

AZIMUTH: 0 DEG
PYRANOMETER TILT: 30 DEG

TIME ZONE: MOUNTAIN
ALTITUDE: 5250 FEET

INSOLATION

DAY	TOTAL INSOLATION BTU/FT2	TOTAL DIFF INSOLATION BTU/FT2	TOTAL DIR INSOLATION BTU/FT2	MAXIMUM TOTAL INSOLATION VALUE BTU/HR/FT2	TIME HR:MN	EXTRATERRESTRIAL INSOLATION BTU/FT2	TTL INS ----- EXT INS PERCENT
1	129.	N.A.	N.A.	55.	12:53	2563.	5.
2	865.	N.A.	N.A.	239.	11:32	2560.	34.
3	928.	N.A.	N.A.	283.	10:31	2549.	36.
4	1310.	N.A.	N.A.	311.	11:15	2547.	51.
5	1400.	N.A.	N.A.	262.	11:24	2536.	55.
6	105.	N.A.	N.A.	32.	8:32	2532.	4.
7	120.	N.A.	N.A.	40.	11:43	2530.	5.
8	1182.	N.A.	N.A.	280.	11:43	2529.	47.
9	1288.	N.A.	N.A.	262.	10:15	2525.	51.
10	1121.	N.A.	N.A.	283.	12:14	2516.	45.
11	1478.	N.A.	N.A.	262.	11:30	2513.	59.
12	1424.	N.A.	N.A.	254.	11:18	2513.	57.
13	1523.	N.A.	N.A.	257.	11:20	2511.	61.
14	1360.	N.A.	N.A.	268.	11:32	2503.	54.
15	803.	N.A.	N.A.	190.	12:36	2501.	32.
16	1370.	N.A.	N.A.	254.	12: 2	2500.	55.
17	1056.	N.A.	N.A.	193.	13:21	2499.	42.
18	148.	N.A.	N.A.	66.	11:28	2501.	6.
19	122.	N.A.	N.A.	32.	11:15	2500.	5.
20	508.	N.A.	N.A.	210.	12:29	2500.	20.
21	878.	N.A.	N.A.	248.	12:58	2500.	35.
22	785.	N.A.	N.A.	184.	11:44	2501.	31.
23	1299.	N.A.	N.A.	274.	11:46	2502.	52.
24	159.	N.A.	N.A.	55.	10:49	2500.	6.
25	436.	N.A.	N.A.	173.	13:49	2501.	17.
26	1095.	N.A.	N.A.	242.	11:55	2503.	44.
27	1011.	N.A.	N.A.	219.	14: 3	2505.	40.
28	244.	N.A.	N.A.	78.	13:10	2513.	10.
29	1527.	N.A.	N.A.	254.	11:39	2516.	61.
30	1513.	N.A.	N.A.	259.	11:14	2519.	60.
31	1502.	N.A.	N.A.	251.	11:23	2520.	60.
MEAN	925.	N.A.	N.A.			2516.	
STANDARD DEVIATION	512.	N.A.	N.A.			19.	

ENVIRONMENTAL SUMMARY REPORT

SITE: TAOS STATE OFFICE BLDG.
TAOS, NEW MEXICO

REPORT PERIOD: 80/12
SITE NUMBER: 186

LATITUDE: 36.50 DEG NORTH
LONGITUDE: 105.50 DEG WEST

AZIMUTH: 20 DEG
PYRANOMETER TILT: 90 DEG

TIME ZONE: MOUNTAIN
ALTITUDE: 4200 FEET

DAY	INSOLATION						EXTRATERRESTRIAL INSOLATION BTU/FT2	TTL INS ----- EXT INS PERCENT
	TOTAL HORIZONTAL INSOLATION BTU/FT2	TOTAL 90 DEG INSOLATION BTU/FT2	TOTAL DIR INSOLATION BTU/FT2	MAXIMUM TOTAL INSOLATION VALUE BTU/HR/FT2	TIME HR:MN			
1	963.	1826.	N.A.	172.	11:26		2744.	35.
2	988.	1849.	N.A.	175.	11:27		2748.	36.
3	1014.	1883.	N.A.	169.	11:16		2746.	37.
4	*	*	N.A.	*	*:*		2749.	*
5	*	*	N.A.	*	*:*		2752.	*
6	*	*	N.A.	*	*:*		2750.	*
7	*	*	N.A.	*	*:*		2752.	*
8	*	*	N.A.	*	*:*		2755.	*
9	*	*	N.A.	*	*:*		2756.	*
10	1018.	1789.	N.A.	225.	11: 8		2759.	37.
11	944.	1886.	N.A.	172.	11:50		2760.	34.
12	*	*	N.A.	*	*:*		2757.	*
13	*	*	N.A.	*	*:*		2758.	*
14	*	*	N.A.	*	*:*		2760.	*
15	*	*	N.A.	*	*:*		2761.	*
16	*	*	N.A.	*	*:*		2762.	*
17	751.	1302.	N.A.	150.	13:21		2763.	27.
18	874.	1638.	N.A.	169.	11:34		2764.	32.
19	141.	36.	N.A.	34.	12: 3		2764.	5.
20	855.	1546.	N.A.	162.	11:30		2765.	31.
21	708.	1074.	N.A.	172.	12: 2		2765.	26.
22	830.	1299.	N.A.	181.	12:34		2765.	30.
23	959.	1741.	N.A.	169.	11:57		2765.	35.
24	922.	1685.	N.A.	165.	11:22		2765.	33.
25	805.	1356.	N.A.	165.	11:10		2765.	29.
26	820.	1506.	N.A.	162.	11:16		2765.	30.
27	913.	1661.	N.A.	159.	11:12		2764.	33.
28	532.	837.	N.A.	175.	10:51		2763.	19.
29	584.	850.	N.A.	169.	13:50		2762.	21.
30	961.	1762.	N.A.	178.	9:59		2766.	35.
31	943.	1738.	N.A.	165.	11:38		2765.	34.
MEAN	826.	1463.	N.A.				2759.	
STANDARD DEVIATION	210.	466.	N.A.				7.	

ENVIRONMENTAL SUMMARY REPORT

SITE: TAOS STATE OFFICE BLDG.
TAOS, NEW MEXICO

REPORT PERIOD: 80/12
SITE NUMBER: 186

LATITUDE: 36.50 DEG NORTH AZIMUTH: 20 DEG
LONGITUDE: 105.50 DEG WEST PYRANOMETER TILT: 90 DEG TIME ZONE: MOUNTAIN
ALTITUDE: 4200 FEET

TEMPERATURES IN DEGREES F

DAY	AVERAGE TEMP	DAYTIME TEMP	NIGHTTIME TEMP	MAX TEMPERATURE VALUE	TIME HR:MN	MIN TEMPERATURE VALUE	TIME HR:MN	INLET WATER TEMPERATURE
1	40.	47.	34.	53.	14:43	26.	23:11	45.
2	36.	47.	29.	54.	15:59	19.	4: 4	45.
3	39.	48.	27.	60.	14:38	24.	7:53	46.
4	*	*	*	*	*:*	*	*:*	*
5	*	*	*	*	*:*	*	*:*	*
6	*	*	*	*	*:*	*	*:*	*
7	*	*	*	*	*:*	*	*:*	*
8	*	*	*	*	*:*	*	*:*	*
9	23.	31.	22.	31.	16:38	16.	23:50	45.
10	25.	34.	20.	43.	14:25	11.	5:32	44.
11	32.	42.	25.	54.	14:36	14.	7:13	43.
12	*	*	*	*	*:*	*	*:*	*
13	*	*	*	*	*:*	*	*:*	*
14	*	*	*	*	*:*	*	*:*	*
15	*	*	*	*	*:*	*	*:*	*
16	*	*	*	*	*:*	*	*:*	*
17	46.	62.	38.	67.	13:22	31.	23:40	46.
18	40.	48.	34.	58.	14:14	23.	8:38	46.
19	26.	27.	26.	36.	0:24	22.	22:10	46.
20	29.	38.	24.	53.	14:15	17.	5: 0	45.
21	29.	38.	24.	50.	13:22	14.	5:27	44.
22	34.	43.	28.	51.	12:18	20.	4:55	43.
23	36.	45.	31.	51.	14:53	25.	3: 4	44.
24	32.	41.	26.	55.	15: 5	17.	7:49	44.
25	37.	46.	32.	55.	12:30	22.	6:54	44.
26	39.	50.	32.	66.	14:24	19.	6:17	44.
27	42.	54.	34.	68.	14:51	23.	7:28	45.
28	39.	43.	37.	59.	15:32	25.	5:41	46.
29	39.	43.	36.	51.	15: 0	25.	22:15	47.
30	35.	44.	29.	60.	15: 3	18.	7:19	46.
31	39.	50.	31.	64.	14:56	22.	3:11	46.
MEAN	35.	44.	30.					45.
STANDARD DEVIATION	6.0	7.9	5.1					1.1

ENVIRONMENTAL SUMMARY REPORT

SITE: TAOS STATE OFFICE BLDG.
TAOS, NEW MEXICO

REPORT PERIOD: 80/12
SITE NUMBER: 186

LATITUDE: 36.50 DEG NORTH AZIMUTH: 20 DEG TIME ZONE: MOUNTAIN
LONGITUDE: 105.50 DEG WEST PYRANOMETER TILT: 90 DEG ALTITUDE: 4200 FEET

WIND: SPEED IN MPH-DIRECTION IN DEGREES

DAY	AVG WIND DIRECTION	AVG WIND SPEED	DAYTIME DIRECTION	DAYTIME SPEED	MAXIMUM WIND SPEED	MAXIMUM WIND DIRECTION	TIME HR:MN
1	310.	7.	338.	11.	27.	354.	12:56
2	*	4.	*	5.	14.	*	19:16
3	205.	2.	47.	2.	9.	229.	1: 8
4	*	*	*	*	*	*	*: *
5	*	*	*	*	*	*	*: *
6	*	*	*	*	*	*	*: *
7	*	*	*	*	*	*	*: *
8	*	*	*	*	*	*	*: *
9	237.	3.	301.	3.	8.	233.	20:12
10	246.	2.	313.	2.	11.	235.	18:25
11	265.	3.	307.	4.	13.	230.	18:25
12	*	*	*	*	*	*	*: *
13	*	*	*	*	*	*	*: *
14	*	*	*	*	*	*	*: *
15	*	*	*	*	*	*	*: *
16	*	*	*	*	*	*	*: *
17	228.	6.	359.	3.	15.	358.	14:11
18	278.	5.	349.	7.	19.	351.	13:31
19	16.	3.	32.	3.	11.	220.	0:24
20	*	2.	*	1.	9.	*	19:24
21	*	2.	*	1.	10.	*	17:49
22	*	5.	*	5.	20.	*	14:47
23	356.	7.	12.	13.	28.	359.	12:24
24	223.	3.	31.	1.	12.	231.	18: 6
25	215.	5.	39.	4.	17.	46.	13: 8
26	222.	3.	296.	2.	11.	238.	17: 9
27	218.	3.	21.	1.	12.	207.	18:40
28	224.	3.	269.	1.	28.	200.	23:53
29	216.	6.	28.	2.	31.	209.	0:52
30	224.	2.	348.	1.	13.	222.	17:43
31	224.	3.	3.	2.	13.	234.	19:33
MEAN	241.	4.	182.	3.			
STANDARD DEVIATION	68.8	1.7	152.6	3.4			

ENVIRONMENTAL SUMMARY REPORT

SITE: TAOS STATE OFFICE BLDG.
TAOS, NEW MEXICO

REPORT PERIOD: 80/12
SITE NUMBER: 186

LATITUDE: 36.50 DEG NORTH AZIMUTH: 20 DEG
LONGITUDE: 105.50 DEG WEST PYRANOMETER TILT: 90 DEG
TIME ZONE: MOUNTAIN ALTITUDE: 4200 FEET

WIND: NUMBER OF HOURS IN EACH VELOCITY INTERVAL

DAY	0-3 MPH	4-7 MPH	8-12 MPH	13-18 MPH	19-24 MPH	25-31 MPH	32-38 MPH	ABOVE 38	MISSING HOURS
1	10	6	6	2	0	0	0	0	0
2	10	10	4	0	0	0	0	0	0
3	14	2	0	0	0	0	0	0	8
4	0	0	0	0	0	0	0	0	24
5	0	0	0	0	0	0	0	0	24
6	0	0	0	0	0	0	0	0	24
7	0	0	0	0	0	0	0	0	24
8	0	0	0	0	0	0	0	0	24
9	7	2	0	0	0	0	0	0	15
10	19	5	0	0	0	0	0	0	0
11	14	6	1	0	0	0	0	0	3
12	0	0	0	0	0	0	0	0	24
13	0	0	0	0	0	0	0	0	24
14	0	0	0	0	0	0	0	0	24
15	0	0	0	0	0	0	0	0	24
16	0	0	0	0	0	0	0	0	24
17	4	5	3	0	0	0	0	0	12
18	10	10	2	2	0	0	0	0	0
19	20	4	0	0	0	0	0	0	0
20	21	3	0	0	0	0	0	0	0
21	22	1	1	0	0	0	0	0	0
22	10	8	6	0	0	0	0	0	0
23	11	5	3	2	3	0	0	0	0
24	15	8	1	0	0	0	0	0	0
25	13	7	4	0	0	0	0	0	0
26	16	6	1	0	0	0	0	0	1
27	18	5	1	0	0	0	0	0	0
28	14	4	3	0	1	0	0	0	2
29	15	5	2	0	2	0	0	0	0
30	19	5	0	0	0	0	0	0	0
31	16	5	2	0	0	0	0	0	1
AVERAGE	9.6	3.6	1.3	0.2	0.2	0.0	0.0	0.0	9.1
TOTAL	298	112	40	6	6	0	0	0	282

ENVIRONMENTAL SUMMARY REPORT

SITE: WAVERLY HOMES
WESTMINSTER, COLORADO

REPORT PERIOD: 80/12
SITE NUMBER: 69

LATITUDE: 39.75 DEG NORTH
LONGITUDE: 105.00 DEG WEST

AZIMUTH: -1 DEG
PYRANOMETER TILT: 53 DEG

TIME ZONE: MOUNTAIN
ALTITUDE: 5220 FEET

INSOLATION

DAY	TOTAL INSOLATION BTU/FT2	TOTAL DIFF INSOLATION BTU/FT2	TOTAL DIR INSOLATION BTU/FT2	MAXIMUM TOTAL INSOLATION VALUE BTU/HR/FT2	TIME HR:MN	EXTRATERRESTRIAL INSOLATION BTU/FT2	TTL INS ----- EXT INS PERCENT
1	63.	N.A.	N.A.	29.	13: 9	3099.	2.
2	576.	N.A.	N.A.	271.	13: 1	3100.	19.
3	1182.	N.A.	N.A.	320.	10:23	3089.	38.
4	1829.	N.A.	N.A.	355.	12:16	3090.	59.
5	1819.	N.A.	N.A.	300.	12: 4	3087.	59.
6	55.	N.A.	N.A.	17.	10:44	3076.	2.
7	80.	N.A.	N.A.	32.	10:56	3078.	3.
8	1813.	N.A.	N.A.	323.	10:51	3079.	59.
9	1616.	N.A.	N.A.	309.	12: 6	3077.	53.
10	1340.	N.A.	N.A.	369.	11:59	3067.	44.
11	1907.	N.A.	N.A.	309.	11:54	3065.	62.
12	1790.	N.A.	N.A.	314.	11:22	3068.	58.
13	1883.	N.A.	N.A.	309.	11:26	3066.	61.
14	1638.	N.A.	N.A.	329.	11:27	3065.	53.
15	821.	N.A.	N.A.	202.	12:52	3056.	27.
16	1652.	N.A.	N.A.	309.	12: 3	3055.	54.
17	1297.	N.A.	N.A.	317.	13:16	3054.	42.
18	62.	N.A.	N.A.	26.	11:24	3054.	2.
19	65.	N.A.	N.A.	20.	9:33	3054.	2.
20	167.	N.A.	N.A.	38.	12:15	3054.	5.
21	861.	N.A.	N.A.	306.	12:47	3054.	28.
22	1004.	N.A.	N.A.	358.	11:48	3055.	33.
23	1504.	N.A.	N.A.	320.	11:52	3055.	49.
24	72.	N.A.	N.A.	20.	10:46	3056.	2.
25	380.	N.A.	N.A.	156.	15:29	3057.	12.
26	1509.	N.A.	N.A.	317.	11:46	3059.	49.
27	1100.	N.A.	N.A.	237.	14:16	3060.	36.
28	245.	N.A.	N.A.	113.	14:58	3070.	8.
29	1911.	N.A.	N.A.	306.	11:35	3072.	62.
30	1786.	N.A.	N.A.	323.	11:33	3070.	58.
31	1931.	N.A.	N.A.	306.	11:50	3072.	63.
MEAN	1095.	N.A.	N.A.			3068.	
STANDARD DEVIATION	716.	N.A.	N.A.			14.	

ENVIRONMENTAL SUMMARY REPORT

SITE: WAVERLY HOMES
WESTMINSTER, COLORADO

REPORT PERIOD: 80/12
SITE NUMBER: 69

LATITUDE: 39.75 DEG NORTH
LONGITUDE: 105.00 DEG WEST

AZIMUTH: -1 DEG
PYRANOMETER TILT: 53 DEG

TIME ZONE: MOUNTAIN
ALTITUDE: 5220 FEET

TEMPERATURES IN DEGREES F

DAY	AVERAGE TEMP	DAYTIME TEMP	NIGHTTIME TEMP	MAX TEMPERATURE VALUE	TIME HR:MN	MIN TEMPERATURE VALUE	TIME HR:MN	INLET WATER TEMPERATURE
1	26.	27.	26.	41.	0: 0	18.	21:33	0.
2	23.	26.	21.	34.	15:16	17.	5: 6	0.
3	44.	53.	38.	64.	13:30	30.	0: 4	0.
4	48.	59.	42.	70.	12:37	35.	5:47	0.
5	39.	48.	34.	62.	13:24	26.	23:59	0.
6	25.	27.	25.	28.	15:43	21.	3: 0	0.
7	26.	27.	25.	29.	12:11	24.	5:52	0.
8	23.	29.	19.	42.	13:26	12.	6:30	0.
9	26.	33.	22.	42.	13:31	17.	0:38	0.
10	39.	46.	34.	53.	12:26	20.	3: 0	0.
11	47.	54.	43.	65.	13:36	37.	7:44	0.
12	40.	48.	35.	62.	13:19	28.	23:52	0.
13	31.	39.	26.	54.	13:34	20.	6:11	0.
14	38.	49.	32.	62.	13:46	23.	0: 8	0.
15	46.	50.	43.	62.	13:24	30.	7:27	0.
16	51.	57.	47.	70.	13:34	40.	7:26	0.
17	58.	65.	53.	72.	13:26	45.	21:16	0.
18	39.	39.	39.	54.	5:32	21.	23:57	0.
19	19.	19.	18.	21.	0: 3	16.	19: 5	0.
20	24.	26.	23.	31.	15:32	17.	0: 4	0.
21	36.	41.	33.	53.	14: 1	23.	3: 5	0.
22	49.	54.	46.	59.	12:25	38.	21:39	0.
23	41.	45.	38.	53.	13:12	29.	21:47	0.
24	20.	16.	23.	37.	2: 8	14.	8:48	0.
25	48.	55.	44.	57.	12: 1	18.	0:38	0.
26	54.	60.	50.	68.	13:38	46.	20:40	0.
27	54.	59.	52.	69.	14: 0	37.	6:26	0.
28	47.	51.	44.	57.	0:56	31.	23:56	0.
29	36.	43.	31.	56.	13:48	24.	7:46	0.
30	50.	62.	43.	71.	12:53	30.	0:21	0.
31	39.	45.	35.	59.	13:53	28.	8: 6	0.
MEAN	38.	44.	35.					0.
STANDARD DEVIATION	11.3	13.6	10.2					0.0

ZONE 9



ENVIRONMENTAL SUMMARY REPORT

SITE: ARATEX SERVICES
FRESNO, CALIFORNIA

REPORT PERIOD: 80/12
SITE NUMBER: 31

LATITUDE: 36.80 DEG NORTH
LONGITUDE: 119.43 DEG WEST

AZIMUTH: 0 DEG
PYRANOMETER TILT: 30 DEG

TIME ZONE: PACIFIC
ALTITUDE: 328 FEET

INSOLATION

DAY	TOTAL INSOLATION BTU/FT2	TOTAL DIFF INSOLATION BTU/FT2	TOTAL DIR INSOLATION BTU/FT2	MAXIMUM TOTAL INSOLATION VALUE BTU/HR/FT2	TIME HR:MN	EXTRATERRESTRIAL INSOLATION BTU/FT2	TTL INS ----- EXT INS PERCENT
1	997.	N.A.	N.A.	209.	11:59	2707.	37.
2	225.	N.A.	N.A.	79.	8:50	2697.	8.
3	90.	N.A.	N.A.	60.	10:24	2695.	3.
4	532.	N.A.	N.A.	262.	12:31	2685.	20.
5	1604.	N.A.	N.A.	262.	11:21	2680.	60.
6	1408.	N.A.	N.A.	253.	11:53	2679.	53.
7	1117.	N.A.	N.A.	250.	11:10	2678.	42.
8	1377.	N.A.	N.A.	243.	12: 9	2675.	51.
9	1239.	N.A.	N.A.	221.	11:33	2666.	46.
10	1387.	N.A.	N.A.	237.	11:38	2663.	52.
11	825.	N.A.	N.A.	224.	12:54	2663.	31.
12	693.	N.A.	N.A.	196.	12: 9	2661.	26.
13	819.	N.A.	N.A.	205.	11:49	2658.	31.
14	811.	N.A.	N.A.	262.	12:21	2651.	31.
15	1191.	N.A.	N.A.	227.	12:27	2650.	45.
16	1366.	N.A.	N.A.	243.	11:28	2648.	52.
17	792.	N.A.	N.A.	262.	11:44	2647.	30.
18	868.	N.A.	N.A.	190.	11:49	2650.	33.
19	693.	N.A.	N.A.	155.	11:40	2649.	26.
20	657.	N.A.	N.A.	158.	11:45	2649.	25.
21	686.	N.A.	N.A.	193.	11:58	2649.	26.
22	105.	N.A.	N.A.	41.	14:16	2650.	4.
23	542.	N.A.	N.A.	177.	11:52	2651.	20.
24	552.	N.A.	N.A.	199.	12:54	2652.	21.
25	99.	N.A.	N.A.	35.	12:31	2650.	4.
26	523.	N.A.	N.A.	202.	13:31	2652.	20.
27	636.	N.A.	N.A.	221.	11:45	2654.	24.
28	84.	N.A.	N.A.	28.	12:32	2656.	3.
29	99.	N.A.	N.A.	28.	12:58	2664.	4.
30	308.	N.A.	N.A.	126.	14:44	2667.	12.
31	504.	N.A.	N.A.	209.	13:29	2667.	19.
MEAN	736.	N.A.	N.A.			2663.	
STANDARD DEVIATION	443.	N.A.	N.A.			16.	

ENVIRONMENTAL SUMMARY REPORT

SITE: ARATEX SERVICES
FRESNO, CALIFORNIA

REPORT PERIOD: 80/12
SITE NUMBER: 31

LATITUDE: 36.80 DEG NORTH AZIMUTH: 0 DEG
LONGITUDE: 119.43 DEG WEST PYRANOMETER TILT: 30 DEG TIME ZONE: PACIFIC
ALTITUDE: 328 FEET

TEMPERATURES IN DEGREES F

DAY	AVERAGE TEMP	DAYTIME TEMP	NIGHTTIME TEMP	MAX TEMPERATURE VALUE	TIME HR:MN	MIN TEMPERATURE VALUE	TIME HR:MN	INLET WATER TEMPERATURE
1	53.	61.	48.	70.	13:35	43.	5:14	70.
2	54.	59.	51.	63.	12:50	46.	5:12	71.
3	53.	54.	53.	57.	10:40	51.	8:48	72.
4	55.	57.	53.	62.	12:31	45.	23:53	72.
5	47.	53.	43.	59.	14:22	37.	23:58	71.
6	44.	53.	38.	61.	14:17	32.	6:33	61.
7	39.	45.	35.	54.	13: 8	31.	4:25	48.
8	41.	50.	35.	60.	14:18	28.	6: 1	66.
9	42.	51.	37.	61.	13:30	31.	2:18	67.
10	42.	52.	36.	60.	13:41	29.	5:51	69.
11	39.	45.	35.	59.	13:26	29.	7: 2	69.
12	40.	45.	36.	62.	14:19	29.	7:15	69.
13	42.	49.	37.	63.	14:19	31.	3:55	55.
14	41.	47.	37.	58.	14:13	32.	5:35	45.
15	43.	51.	38.	63.	14:24	29.	7: 2	67.
16	51.	62.	43.	74.	14:45	34.	5:52	69.
17	50.	58.	45.	70.	15:12	38.	3:44	71.
18	51.	57.	47.	68.	14:10	41.	7:28	69.
19	46.	52.	42.	61.	13:54	36.	5:59	70.
20	45.	51.	41.	61.	12:33	35.	6: 4	59.
21	49.	53.	46.	64.	12:46	35.	7:20	53.
22	53.	54.	52.	57.	14:16	48.	5:39	70.
23	52.	57.	50.	65.	13:59	42.	23:57	72.
24	49.	54.	46.	63.	13:58	41.	0:23	69.
25	46.	47.	46.	49.	13:46	45.	23:54	53.
26	47.	50.	45.	63.	15:13	41.	23:34	66.
27	48.	54.	44.	64.	14:41	38.	5:42	60.
28	46.	47.	45.	50.	13:14	44.	7:33	52.
29	43.	44.	43.	46.	13:36	42.	23:58	68.
30	43.	45.	42.	52.	14:55	40.	5: 2	71.
31	43.	45.	41.	54.	13:51	39.	5:45	68.
MEAN	46.	52.	43.					65.
STANDARD DEVIATION	4.8	5.0	5.5					7.8

ENVIRONMENTAL SUMMARY REPORT

SITE: ARATEX SERVICES
FRESNO, CALIFORNIA

REPORT PERIOD: 80/12
SITE NUMBER: 31

LATITUDE: 36.80 DEG NORTH AZIMUTH: 0 DEG TIME ZONE: PACIFIC
LONGITUDE: 119.43 DEG WEST PYRANOMETER TILT: 30 DEG ALTITUDE: 328 FEET

WIND: SPEED IN MPH-DIRECTION IN DEGREES

DAY	AVG WIND DIRECTION	AVG WIND SPEED	DAYTIME DIRECTION	DAYTIME SPEED	MAXIMUM WIND SPEED DIRECTION	TIME HR:MN
1	*	0.	*	0.	3.	9:41
2	*	2.	*	4.	11.	12:56
3	72.	5.	81.	5.	12.	10:56
4	*	6.	*	8.	17.	9:41
5	287.	3.	285.	4.	12.	10:23
6	*	0.	*	1.	5.	13:40
7	*	1.	*	2.	11.	11:16
8	*	0.	*	0.	3.	12: 9
9	*	0.	*	0.	4.	14:18
10	*	0.	*	1.	6.	13:14
11	*	0.	*	0.	3.	15: 5
12	*	0.	*	1.	7.	15:12
13	*	0.	*	0.	3.	15:44
14	*	0.	*	1.	6.	14:24
15	*	0.	*	1.	4.	11:55
16	*	0.	*	0.	7.	16: 5
17	*	1.	*	1.	8.	17:52
18	*	1.	*	2.	8.	12:11
19	*	0.	*	0.	3.	9:27
20	*	0.	*	0.	3.	14:31
21	*	0.	*	1.	6.	20:51
22	*	1.	*	2.	12.	14:48
23	*	1.	*	1.	7.	0:56
24	*	1.	*	1.	10.	16:33
25	*	1.	*	1.	5.	8:54
26	*	1.	*	1.	6.	10:41
27	*	1.	*	1.	11.	18:46
28	*	0.	*	0.	5.	11:38
29	*	0.	*	1.	7.	11:38
30	*	0.	*	1.	5.	13:12
31	*	1.	*	1.	8.	15:43
MEAN	180.	1.	183.	1.		
STANDARD DEVIATION	152.6	1.4	144.3	1.8		

ENVIRONMENTAL SUMMARY REPORT

SITE: ARATEX SERVICES
FRESNO, CALIFORNIA

REPORT PERIOD: 80/12
SITE NUMBER: 31

LATITUDE: 36.80 DEG NORTH AZIMUTH: 0 DEG
LONGITUDE: 119.43 DEG WEST PYRANOMETER TILT: 30 DEG
TIME ZONE: PACIFIC
ALTITUDE: 328 FEET

WIND: NUMBER OF HOURS IN EACH VELOCITY INTERVAL

DAY	0-3 MPH	4-7 MPH	8-12 MPH	13-18 MPH	19-24 MPH	25-31 MPH	32-38 MPH	ABOVE 38	MISSING HOURS
1	24	0	0	0	0	0	0	0	0
2	18	6	0	0	0	0	0	0	0
3	7	15	2	0	0	0	0	0	0
4	8	10	6	0	0	0	0	0	0
5	12	12	0	0	0	0	0	0	0
6	24	0	0	0	0	0	0	0	0
7	23	1	0	0	0	0	0	0	0
8	24	0	0	0	0	0	0	0	0
9	24	0	0	0	0	0	0	0	0
10	24	0	0	0	0	0	0	0	0
11	24	0	0	0	0	0	0	0	0
12	24	0	0	0	0	0	0	0	0
13	24	0	0	0	0	0	0	0	0
14	24	0	0	0	0	0	0	0	0
15	24	0	0	0	0	0	0	0	0
16	24	0	0	0	0	0	0	0	0
17	24	0	0	0	0	0	0	0	0
18	22	1	0	0	0	0	0	0	1
19	24	0	0	0	0	0	0	0	0
20	24	0	0	0	0	0	0	0	0
21	24	0	0	0	0	0	0	0	0
22	20	3	0	0	0	0	0	0	1
23	24	0	0	0	0	0	0	0	0
24	21	3	0	0	0	0	0	0	0
25	24	0	0	0	0	0	0	0	0
26	24	0	0	0	0	0	0	0	0
27	21	2	1	0	0	0	0	0	0
28	24	0	0	0	0	0	0	0	0
29	24	0	0	0	0	0	0	0	0
30	24	0	0	0	0	0	0	0	0
31	23	0	0	0	0	0	0	0	1
AVERAGE	21.9	1.7	0.3	0.0	0.0	0.0	0.0	0.0	0.1
TOTAL	679	53	9	0	0	0	0	0	3

ENVIRONMENTAL SUMMARY REPORT

SITE: FACILITIES DEVELOPMENT
SAN DIEGO, CALIFORNIA

REPORT PERIOD: 80/12
SITE NUMBER: 61

LATITUDE: 32.00 DEG NORTH
LONGITUDE: 117.00 DEG WEST

AZIMUTH: 0 DEG
PYRANOMETER TILT: 42 DEG

TIME ZONE: PACIFIC
ALTITUDE: 13 FEET

INSOLATION

DAY	TOTAL INSOLATION BTU/FT2	TOTAL DIFF INSOLATION BTU/FT2	TOTAL DIR INSOLATION BTU/FT2	MAXIMUM TOTAL INSOLATION VALUE BTU/HR/FT2	TOTAL TIME HR:MN	EXTRATERRESTRIAL INSOLATION BTU/FT2	TTL INS ----- EXT INS PERCENT
1	1152.	N.A.	N.A.	307.	11: 1	3187.	36.
2	1691.	N.A.	N.A.	274.	11:23	3184.	53.
3	1330.	N.A.	N.A.	268.	11:13	3185.	42.
4	137.	N.A.	N.A.	36.	10:44	3183.	4.
5	1592.	N.A.	N.A.	334.	10: 9	3175.	50.
6	838.	N.A.	N.A.	283.	12:27	3176.	26.
7	1444.	N.A.	N.A.	301.	10:49	3174.	45.
8	1784.	N.A.	N.A.	286.	11: 5	3172.	56.
9	1892.	N.A.	N.A.	295.	10:26	3174.	60.
10	1947.	N.A.	N.A.	304.	10:41	3172.	61.
11	1621.	N.A.	N.A.	331.	11: 6	3165.	51.
12	1242.	N.A.	N.A.	298.	11:18	3164.	39.
13	1757.	N.A.	N.A.	280.	11:22	3163.	56.
14	1871.	N.A.	N.A.	295.	11:18	3165.	59.
15	1886.	N.A.	N.A.	295.	10:41	3165.	60.
16	1835.	N.A.	N.A.	289.	10:39	3164.	58.
17	1703.	N.A.	N.A.	280.	10:58	3164.	54.
18	1034.	N.A.	N.A.	289.	11: 2	3163.	33.
19	1227.	N.A.	N.A.	268.	11: 4	3163.	39.
20	1388.	N.A.	N.A.	259.	12: 8	3163.	44.
21	1310.	N.A.	N.A.	277.	10:41	3164.	41.
22	1512.	N.A.	N.A.	274.	11: 2	3164.	48.
23	1549.	N.A.	N.A.	271.	11:16	3165.	49.
24	1910.	N.A.	N.A.	304.	11: 3	3165.	60.
25	1959.	N.A.	N.A.	307.	10:47	3166.	62.
26	1889.	N.A.	N.A.	301.	10:53	3167.	60.
27	1530.	N.A.	N.A.	295.	10: 5	3169.	48.
28	780.	N.A.	N.A.	250.	11:52	3167.	25.
29	1829.	N.A.	N.A.	298.	10:59	3168.	58.
30	1848.	N.A.	N.A.	295.	11:12	3170.	58.
31	621.	N.A.	N.A.	241.	13:55	3178.	20.
MEAN	1487.	N.A.	N.A.			3170.	
STANDARD DEVIATION	444.	N.A.	N.A.			7.	

ENVIRONMENTAL SUMMARY REPORT

SITE: FACILITIES DEVELOPMENT
SAN DIEGO, CALIFORNIA

REPORT PERIOD: 80/12
SITE NUMBER: 61

LATITUDE: 32.00 DEG NORTH AZIMUTH: 0 DEG
LONGITUDE: 117.00 DEG WEST PYRANOMETER TILT: 42 DEG
TIME ZONE: PACIFIC
ALTITUDE: 13 FEET

TEMPERATURES IN DEGREES F

DAY	AVERAGE TEMP	DAYTIME TEMP	NIGHTTIME TEMP	MAX TEMPERATURE VALUE TIME HR:MN	MIN TEMPERATURE VALUE TIME HR:MN	INLET WATER TEMPERATURE
1	57.	62.	55.	67. 12:10	48. 23:50	64.
2	53.	59.	49.	64. 13:10	43. 6:35	64.
3	57.	60.	55.	66. 11:50	51. 0: 1	64.
4	59.	59.	59.	62. 9:51	57. 12:26	64.
5	57.	61.	55.	63. 10: 9	47. 23: 2	64.
6	54.	59.	51.	65. 13:26	48. 23:18	63.
7	52.	58.	48.	64. 11:26	44. 23:53	63.
8	53.	60.	48.	64. 14:16	44. 6:54	63.
9	52.	60.	46.	69. 10:53	37. 6:32	63.
10	52.	62.	45.	69. 14:18	39. 5:15	63.
11	54.	62.	48.	70. 13:41	39. 3:54	62.
12	55.	62.	50.	75. 12:54	41. 5:26	62.
13	54.	62.	48.	70. 10:44	42. 4:47	62.
14	55.	65.	48.	76. 13:16	41. 6:30	62.
15	57.	68.	49.	79. 11:13	40. 6:31	62.
16	61.	72.	53.	82. 13:19	45. 5: 8	62.
17	59.	66.	53.	76. 11:14	49. 6:53	62.
18	55.	58.	53.	61. 13:31	47. 23:31	62.
19	55.	59.	53.	64. 14: 0	48. 0: 8	61.
20	56.	60.	53.	73. 13:55	47. 7:47	62.
21	54.	57.	51.	66. 14:20	45. 6:30	62.
22	54.	57.	52.	63. 11:45	47. 7: 8	62.
23	58.	63.	54.	75. 13:51	47. 6:23	62.
24	57.	66.	52.	74. 11: 9	43. 6:32	62.
25	55.	65.	49.	73. 14:47	41. 6:47	62.
26	58.	69.	51.	81. 15: 4	43. 6:43	62.
27	55.	61.	51.	72. 11:47	43. 6:32	62.
28	55.	61.	52.	68. 13:18	47. 23:58	62.
29	55.	63.	49.	71. 13:55	43. 6: 0	62.
30	61.	73.	53.	88. 12: 0	45. 6: 8	62.
31	57.	62.	53.	74. 14:53	44. 7: 9	61.
MEAN	56.	62.	51.			62.
STANDARD DEVIATION	2.4	4.0	3.0			0.8

ENVIRONMENTAL SUMMARY REPORT

SITE: IRVINE SCHOOL
IRVINE, CALIFORNIA

REPORT PERIOD: 80/12
SITE NUMBER: 16

LATITUDE: 33.73 DEG NORTH
LONGITUDE: 117.78 DEG WEST

AZIMUTH: 0 DEG
PYRANOMETER TILT: 25 DEG

TIME ZONE: PACIFIC
ALTITUDE: 200 FEET

INSOLATION

DAY	TOTAL INSOLATION BTU/FT2	TOTAL HORIZONTAL INSOLATION BTU/FT2	TOTAL DIR INSOLATION BTU/FT2	MAXIMUM TOTAL INSOLATION VALUE BTU/HR/FT2	TOTAL TIME HR:MN	EXTRATERRESTRIAL INSOLATION BTU/FT2	TTL INS ----- EXT INS PERCENT
1	1228.	*	N.A.	241.	11:20	2680.	46.
2	1316.	*	N.A.	231.	11:36	2671.	49.
3	916.	*	N.A.	245.	12: 2	2669.	34.
4	435.	*	N.A.	184.	14: 4	2664.	16.
5	945.	*	N.A.	302.	12:13	2662.	35.
6	1385.	*	N.A.	255.	11:14	2654.	52.
7	354.	*	N.A.	195.	13:43	2650.	13.
8	1610.	955.	N.A.	259.	11:30	2649.	61.
9	1566.	947.	N.A.	280.	11:24	2646.	59.
10	1597.	944.	N.A.	259.	11:46	2639.	61.
11	1538.	915.	N.A.	273.	11:26	2636.	58.
12	955.	708.	N.A.	287.	10:38	2633.	36.
13	1415.	854.	N.A.	273.	10:25	2634.	54.
14	1469.	870.	N.A.	241.	11:12	2632.	56.
15	1509.	875.	N.A.	241.	11:34	2630.	57.
16	1490.	871.	N.A.	248.	11:50	2629.	57.
17	1357.	835.	N.A.	245.	11:17	2628.	52.
18	860.	618.	N.A.	241.	11:35	2630.	33.
19	846.	608.	N.A.	206.	11:37	2630.	32.
20	811.	587.	N.A.	234.	12:29	2630.	31.
21	1399.	846.	N.A.	238.	11:32	2630.	53.
22	980.	685.	N.A.	227.	11:48	2630.	37.
23	1128.	731.	N.A.	224.	11:35	2631.	43.
24	1467.	863.	N.A.	255.	11:53	2632.	56.
25	1536.	892.	N.A.	255.	11:27	2631.	58.
26	1547.	900.	N.A.	252.	11:35	2632.	59.
27	916.	651.	N.A.	231.	10:26	2634.	35.
28	926.	675.	N.A.	245.	13:15	2637.	35.
29	1520.	894.	N.A.	248.	11:50	2636.	58.
30	1600.	928.	N.A.	259.	11:43	2639.	61.
31	1000.	643.	N.A.	284.	11:24	2642.	38.
MEAN	1214.	*	N.A.			2641.	
STANDARD DEVIATION	351.	*****	N.A.			14.	

ENVIRONMENTAL SUMMARY REPORT

SITE: IRVINE SCHOOL
IRVINE, CALIFORNIA

REPORT PERIOD: 80/12
SITE NUMBER: 16

LATITUDE: 33.73 DEG NORTH AZIMUTH: 0 DEG
LONGITUDE: 117.78 DEG WEST PYRANOMETER TILT: 25 DEG
TIME ZONE: PACIFIC
ALTITUDE: 200 FEET

TEMPERATURES IN DEGREES F

DAY	AVERAGE TEMP	DAYTIME TEMP	NIGHTTIME TEMP	MAX TEMPERATURE VALUE TIME HR:MN	MIN TEMPERATURE VALUE TIME HR:MN	INLET WATER TEMPERATURE
1	57.	64.	53.	72. 12:13	46. 23:58	N.A.
2	55.	64.	48.	72. 11:20	43. 5:34	N.A.
3	57.	63.	53.	69. 11: 4	46. 1:49	N.A.
4	56.	56.	55.	62. 15: 8	52. 5:58	N.A.
5	56.	62.	53.	67. 12:18	45. 23:35	N.A.
6	52.	61.	46.	69. 12:45	41. 5:59	N.A.
7	51.	55.	49.	60. 11:46	42. 6:10	N.A.
8	56.	63.	51.	67. 14:37	44. 23:40	N.A.
9	55.	65.	48.	72. 12:28	38. 4:33	N.A.
10	63.	72.	57.	80. 11:24	43. 2:26	N.A.
11	63.	74.	55.	83. 14:11	44. 6: 1	N.A.
12	59.	70.	51.	86. 10:16	47. 6:48	N.A.
13	53.	65.	45.	74. 13:15	39. 5:31	N.A.
14	54.	66.	46.	76. 12:54	38. 4:54	N.A.
15	61.	73.	52.	86. 14:56	41. 2: 8	N.A.
16	64.	78.	54.	90. 14:19	47. 4:38	N.A.
17	61.	71.	55.	82. 12:16	50. 6:13	N.A.
18	55.	60.	51.	68. 13:11	46. 23:53	N.A.
19	54.	60.	51.	67. 14:28	46. 0:25	N.A.
20	54.	62.	48.	79. 13:22	41. 5:49	N.A.
21	54.	65.	47.	77. 13:45	40. 7: 3	N.A.
22	53.	59.	48.	72. 13:29	41. 5:45	N.A.
23	54.	62.	49.	73. 15:27	42. 6:21	N.A.
24	57.	70.	48.	82. 13:24	40. 7: 0	N.A.
25	57.	71.	48.	83. 13:45	39. 6:49	N.A.
26	61.	76.	50.	86. 12:44	43. 6:23	N.A.
27	54.	63.	48.	72. 13:27	41. 5:22	N.A.
28	57.	67.	50.	76. 13:26	45. 23:23	N.A.
29	60.	72.	51.	92. 13:26	41. 5:26	N.A.
30	65.	81.	53.	93. 14: 2	45. 5: 8	N.A.
31	58.	70.	50.	82. 11:24	43. 6:47	N.A.
MEAN	57.	66.	50.			N.A.
STANDARD DEVIATION	3.6	6.3	3.1			N.A.

ENVIRONMENTAL SUMMARY REPORT

SITE: LAKE VALLEY FIREHOUSE
TAHOE PARADISE, CALIFORNIA

REPORT PERIOD: 80/12
SITE NUMBER: 11

LATITUDE: 38.57 DEG NORTH AZIMUTH: 0 DEG TIME ZONE: PACIFIC
LONGITUDE: 119.58 DEG WEST PYRANOMETER TILT: 55 DEG ALTITUDE: 6300 FEET

TEMPERATURES IN DEGREES F

DAY	AVERAGE TEMP	DAYTIME TEMP	NIGHTTIME TEMP	MAX TEMPERATURE VALUE	TIME HR:MN	MIN TEMPERATURE VALUE	TIME HR:MN	INLET WATER TEMPERATURE
1	34.	40.	31.	50.	14:15	20.	5:43	82.
2	42.	42.	42.	46.	9:22	35.	10:37	78.
3	37.	38.	37.	43.	12: 7	33.	6:15	77.
4	30.	31.	29.	36.	2:12	18.	23:59	76.
5	22.	29.	17.	42.	13:49	11.	23:46	77.
6	19.	26.	14.	38.	14: 0	8.	6:21	77.
7	20.	23.	19.	29.	14:15	16.	1:33	78.
8	19.	27.	14.	44.	13:42	5.	6:47	79.
9	20.	29.	15.	45.	15: 6	9.	6:31	76.
10	22.	33.	16.	54.	14: 7	6.	7:33	75.
11	25.	34.	19.	54.	14: 5	9.	6:50	72.
12	29.	39.	22.	59.	14: 7	14.	7: 9	70.
13	28.	38.	22.	57.	13:57	16.	7: 6	77.
14	29.	38.	23.	58.	13:55	14.	7:10	75.
15	34.	44.	28.	57.	13:34	25.	3:31	71.
16	33.	44.	26.	65.	13:50	22.	6:49	65.
17	32.	41.	26.	66.	13:55	21.	7:10	69.
18	34.	42.	31.	51.	13:28	27.	23:25	67.
19	30.	36.	27.	48.	12:35	25.	7:41	68.
20	34.	43.	28.	57.	14: 6	24.	2:12	66.
21	37.	42.	34.	49.	10:24	25.	1:40	71.
22	39.	45.	35.	54.	14:40	24.	23:36	69.
23	29.	37.	24.	54.	14:30	18.	6:38	73.
24	38.	44.	34.	57.	13:42	22.	6:19	65.
25	42.	50.	37.	61.	14:19	29.	23:39	69.
26	36.	50.	32.	56.	13:38	27.	2:14	71.
27	42.	50.	37.	63.	13:48	32.	7:35	69.
28	35.	45.	29.	62.	13:43	25.	6:57	64.
29	32.	42.	26.	60.	14:49	21.	6:36	67.
30	30.	40.	24.	57.	15:16	19.	7:10	64.
31	29.	33.	26.	46.	14: 9	18.	3: 5	70.
MEAN	31.	39.	27.					72.
STANDARD DEVIATION	6.8	7.1	7.5					5.0

ENVIRONMENTAL SUMMARY REPORT

SITE: LAKE VALLEY FIREHOUSE
TAHOE PARADISE, CALIFORNIA

REPORT PERIOD: 80/12
SITE NUMBER: 11

LATITUDE: 38.57 DEG NORTH AZIMUTH: 0 DEG TIME ZONE: PACIFIC
LONGITUDE: 119.58 DEG WEST PYRANOMETER TILT: 55 DEG ALTITUDE: 6300 FEET

WIND: SPEED IN MPH-DIRECTION IN DEGREES

DAY	AVG WIND DIRECTION	AVG WIND SPEED	DAYTIME DIRECTION	DAYTIME SPEED	MAXIMUM WIND SPEED DIRECTION	TIME HR:MN
1	*	1.	*	1.	9.	14:21
2	48.	3.	45.	4.	23.	11:19
3	*	2.	*	2.	12.	16:31
4	*	0.	*	0.	6.	3: 5
5	*	0.	*	0.	5.	10:34
6	*	0.	*	1.	7.	12:18
7	270.	3.	246.	3.	13.	19:24
8	*	0.	*	0.	6.	3:56
9	*	0.	*	1.	7.	12:55
10	*	0.	*	1.	5.	13:52
11	*	0.	*	0.	4.	13:23
12	*	0.	*	0.	6.	11:46
13	*	0.	*	1.	5.	13:30
14	*	0.	*	1.	7.	23:42
15	*	1.	*	3.	11.	12:56
16	*	0.	*	0.	4.	12:36
17	*	0.	*	0.	5.	12: 3
18	*	0.	*	1.	8.	12:30
19	*	0.	*	1.	4.	10:59
20	*	0.	*	0.	4.	11:32
21	*	1.	*	1.	14.	12:11
22	*	0.	*	1.	7.	13:36
23	*	0.	*	0.	6.	12:35
24	*	1.	*	1.	8.	13:31
25	*	0.	*	0.	4.	12:48
26	*	0.	*	1.	4.	13:48
27	*	1.	*	1.	8.	13:11
28	*	0.	*	0.	5.	12:12
29	*	0.	*	0.	4.	12:39
30	*	0.	*	1.	5.	13:40
31	*	0.	*	0.	3.	13:15
MEAN	159.	1.	145.	1.		
STANDARD DEVIATION	157.1	0.7	142.2	0.9		

ENVIRONMENTAL SUMMARY REPORT

SITE: LAKE VALLEY FIREHOUSE
TAHOE PARADISE, CALIFORNIA

REPORT PERIOD: 80/12
SITE NUMBER: 11

LATITUDE: 38.57 DEG NORTH AZIMUTH: 0 DEG TIME ZONE: PACIFIC
LONGITUDE: 119.58 DEG WEST PYRANOMETER TILT: 55 DEG ALTITUDE: 6300 FEET

WIND: NUMBER OF HOURS IN EACH VELOCITY INTERVAL

DAY	0-3 MPH	4-7 MPH	8-12 MPH	13-18 MPH	19-24 MPH	25-31 MPH	32-38 MPH	ABOVE 38	MISSING HOURS
1	23	0	0	0	0	0	0	0	1
2	18	6	0	0	0	0	0	0	0
3	23	0	1	0	0	0	0	0	0
4	23	0	0	0	0	0	0	0	1
5	24	0	0	0	0	0	0	0	0
6	24	0	0	0	0	0	0	0	0
7	19	4	1	0	0	0	0	0	0
8	24	0	0	0	0	0	0	0	0
9	23	0	0	0	0	0	0	0	1
10	24	0	0	0	0	0	0	0	0
11	24	0	0	0	0	0	0	0	0
12	24	0	0	0	0	0	0	0	0
13	24	0	0	0	0	0	0	0	0
14	24	0	0	0	0	0	0	0	0
15	22	2	0	0	0	0	0	0	0
16	24	0	0	0	0	0	0	0	0
17	20	0	0	0	0	0	0	0	4
18	20	1	0	0	0	0	0	0	3
19	18	0	0	0	0	0	0	0	6
20	24	0	0	0	0	0	0	0	0
21	24	0	0	0	0	0	0	0	0
22	24	0	0	0	0	0	0	0	0
23	24	0	0	0	0	0	0	0	0
24	24	0	0	0	0	0	0	0	0
25	24	0	0	0	0	0	0	0	0
26	16	0	0	0	0	0	0	0	8
27	24	0	0	0	0	0	0	0	0
28	24	0	0	0	0	0	0	0	0
29	24	0	0	0	0	0	0	0	0
30	24	0	0	0	0	0	0	0	0
31	23	0	0	0	0	0	0	0	1
AVERAGE	22.7	0.4	0.1	0.0	0.0	0.0	0.0	0.0	0.8
TOTAL	704	13	2	0	0	0	0	0	25

ENVIRONMENTAL SUMMARY REPORT

SITE: LAWRENCE BERKELEY
BERKELEY, CALIFORNIA

REPORT PERIOD: 80/12
SITE NUMBER: 228

LATITUDE: 37.83 DEG NORTH
LONGITUDE: 122.22 DEG WEST

AZIMUTH: 0 DEG
PYRANOMETER TILT: 45 DEG

TIME ZONE: PACIFIC
ALTITUDE: 700 FEET

INSOLATION

DAY	TOTAL INSOLATION BTU/FT2	TOTAL DIFF INSOLATION BTU/FT2	TOTAL DIR INSOLATION BTU/FT2	MAXIMUM TOTAL INSOLATION VALUE BTU/HR/FT2	TIME HR:MM	EXTRATERRESTRIAL INSOLATION BTU/FT2	TTL INS ----- EXT INS PERCENT
1	627.	N.A.	N.A.	260.	10:30	3046.	21.
2	84.	N.A.	N.A.	34.	13:40	3035.	3.
3	67.	N.A.	N.A.	34.	11:36	3035.	2.
4	1393.	N.A.	N.A.	329.	12: 4	3032.	46.
5	1737.	N.A.	N.A.	291.	11:24	3022.	57.
6	1757.	N.A.	N.A.	298.	11:50	3022.	58.
7	1873.	N.A.	N.A.	308.	11:28	3019.	62.
8	1841.	N.A.	N.A.	302.	11:39	3020.	61.
9	1817.	N.A.	N.A.	308.	11:38	3011.	60.
10	1753.	N.A.	N.A.	295.	12:11	3009.	58.
11	1764.	N.A.	N.A.	312.	11:40	3010.	59.
12	1620.	N.A.	N.A.	288.	11:41	3009.	54.
13	1605.	N.A.	N.A.	278.	11:45	3007.	53.
14	1755.	N.A.	N.A.	295.	11:44	2999.	59.
15	1660.	N.A.	N.A.	291.	12: 0	2998.	55.
16	1700.	N.A.	N.A.	288.	11:56	2997.	57.
17	1162.	N.A.	N.A.	302.	12:20	2996.	39.
18	256.	N.A.	N.A.	96.	15:27	2999.	9.
19	1374.	N.A.	N.A.	267.	11:23	2999.	46.
20	1307.	N.A.	N.A.	250.	11:53	2999.	44.
21	68.	N.A.	N.A.	17.	12:52	2999.	2.
22	921.	N.A.	N.A.	288.	12:26	3000.	31.
23	1302.	N.A.	N.A.	312.	11:17	3000.	43.
24	873.	N.A.	N.A.	267.	13:15	2998.	29.
25	697.	N.A.	N.A.	226.	13:42	2999.	23.
26	1405.	N.A.	N.A.	274.	12: 0	3000.	47.
27	1450.	N.A.	N.A.	302.	12:48	3002.	48.
28	1688.	N.A.	N.A.	284.	11:46	3004.	56.
29	1632.	N.A.	N.A.	278.	11:52	3013.	54.
30	1516.	N.A.	N.A.	288.	12:59	3015.	50.
31	1550.	N.A.	N.A.	284.	11:38	3014.	51.
MEAN	1299.	N.A.	N.A.			3010.	
STANDARD DEVIATION	565.	N.A.	N.A.			13.	

ENVIRONMENTAL SUMMARY REPORT

SITE: LAWRENCE BERKELEY
BERKELEY, CALIFORNIA

REPORT PERIOD: 80/12
SITE NUMBER: 228

LATITUDE: 37.83 DEG NORTH AZIMUTH: 0 DEG
LONGITUDE: 122.22 DEG WEST PYRANOMETER TILT: 45 DEG
TIME ZONE: PACIFIC
ALTITUDE: 700 FEET

TEMPERATURES IN DEGREES F

DAY	AVERAGE TEMP	DAYTIME TEMP	NIGHTTIME TEMP	MAX TEMPERATURE VALUE	TIME HR:MN	MIN TEMPERATURE VALUE	TIME HR:MN	INLET WATER TEMPERATURE
1	51.	55.	49.	61.	10:30	41.	3:50	63.
2	56.	56.	56.	59.	13:51	51.	8:31	64.
3	53.	53.	54.	57.	22: 1	50.	3: 4	62.
4	51.	56.	48.	61.	14:12	45.	21: 6	62.
5	50.	55.	46.	60.	14:20	43.	7:14	61.
6	49.	56.	44.	60.	14:24	41.	23:34	69.
7	47.	52.	43.	58.	13:15	40.	7:23	64.
8	48.	51.	46.	56.	14:19	41.	1:20	60.
9	51.	56.	48.	60.	14:34	44.	4:52	61.
10	52.	59.	47.	70.	13:53	41.	6: 3	61.
11	54.	61.	49.	68.	13:32	43.	3:35	61.
12	54.	64.	48.	71.	13:54	42.	7:14	61.
13	54.	62.	49.	68.	13:32	43.	4:49	78.
14	57.	63.	53.	69.	13:15	44.	4:44	79.
15	65.	68.	62.	72.	12: 0	56.	23:40	61.
16	64.	70.	59.	75.	14:52	52.	5: 6	61.
17	59.	65.	55.	73.	13:46	49.	23:27	61.
18	52.	54.	50.	59.	15:38	49.	23:39	61.
19	54.	59.	50.	64.	11:23	48.	5:15	62.
20	56.	62.	52.	69.	14: 1	48.	5:35	72.
21	55.	55.	55.	57.	9:50	50.	1:51	71.
22	55.	58.	52.	66.	13:40	48.	22: 2	60.
23	52.	57.	49.	64.	12:47	46.	0:47	59.
24	53.	57.	51.	67.	13:15	45.	6: 9	60.
25	56.	60.	53.	70.	14: 9	49.	4: 1	74.
26	58.	65.	53.	72.	12: 5	48.	4:33	75.
27	56.	61.	53.	72.	13: 9	44.	7:28	76.
28	57.	63.	53.	70.	12:45	47.	7:33	79.
29	55.	61.	51.	67.	14:16	47.	7:52	69.
30	50.	57.	45.	66.	13:15	42.	23:27	66.
31	48.	56.	43.	64.	12:52	39.	6:34	66.
MEAN	54.	59.	51.					66.
STANDARD DEVIATION	4.1	4.7	4.5					6.4

ENVIRONMENTAL SUMMARY REPORT

SITE: LIVING SYSTEMS
DAVIS, CALIFORNIA

REPORT PERIOD: 80/12
SITE NUMBER: 159

LATITUDE: 38.38 DEG NORTH
LONGITUDE: 121.35 DEG WEST

AZIMUTH: 0 DEG
PYRANOMETER TILT: 60 DEG

TIME ZONE: PACIFIC
ALTITUDE: 17 FEET

INSOLATION

DAY	TOTAL INSOLATION BTU/FT2	TOTAL DIFF INSOLATION BTU/FT2	TOTAL DIR INSOLATION BTU/FT2	MAXIMUM TOTAL INSOLATION VALUE BTU/HR/FT2	TIME HR:MN	EXTRATERRESTRIAL INSOLATION BTU/FT2	TTL INS ----- EXT INS PERCENT
1	566.	N.A.	N.A.	214.	12:46	3200.	18.
2	35.	N.A.	N.A.	16.	15:25	3198.	1.
3	33.	N.A.	N.A.	13.	13:22	3200.	1.
4	1808.	N.A.	N.A.	299.	11:29	3202.	56.
5	1935.	N.A.	N.A.	299.	11:33	3192.	61.
6	1817.	N.A.	N.A.	293.	10:34	3191.	57.
7	1946.	N.A.	N.A.	299.	11:22	3193.	61.
8	2044.	N.A.	N.A.	296.	11:38	3183.	64.
9	1772.	N.A.	N.A.	290.	11: 7	3182.	56.
10	1670.	N.A.	N.A.	293.	10:46	3185.	52.
11	1743.	N.A.	N.A.	296.	12:15	3184.	55.
12	1667.	N.A.	N.A.	293.	11:34	3187.	52.
13	1616.	N.A.	N.A.	293.	11:31	3186.	51.
14	1726.	N.A.	N.A.	293.	11:57	3186.	54.
15	1302.	N.A.	N.A.	236.	10:42	3177.	41.
16	1392.	N.A.	N.A.	242.	12: 2	3176.	44.
17	946.	N.A.	N.A.	286.	11:43	3176.	30.
18	956.	N.A.	N.A.	233.	11: 2	3176.	30.
19	166.	N.A.	N.A.	38.	13:56	3176.	5.
20	543.	N.A.	N.A.	195.	13:34	3176.	17.
21	42.	N.A.	N.A.	13.	13:10	3176.	1.
22	465.	N.A.	N.A.	239.	13:58	3177.	15.
23	927.	N.A.	N.A.	321.	12:13	3177.	29.
24	88.	N.A.	N.A.	28.	13: 6	3178.	3.
25	894.	N.A.	N.A.	255.	13:28	3179.	28.
26	134.	N.A.	N.A.	107.	13:25	3180.	4.
27	88.	N.A.	N.A.	22.	10:40	3181.	3.
28	864.	N.A.	N.A.	299.	13: 6	3190.	27.
29	67.	N.A.	N.A.	16.	11:51	3192.	2.
30	102.	N.A.	N.A.	38.	11:58	3189.	3.
31	96.	N.A.	N.A.	22.	13:52	3191.	3.
MEAN	950.	N.A.	N.A.			3185.	
STANDARD DEVIATION	739.	N.A.	N.A.			8.	

ENVIRONMENTAL SUMMARY REPORT

SITE: LIVING SYSTEMS
DAVIS, CALIFORNIA

REPORT PERIOD: 80/12
SITE NUMBER: 159

LATITUDE: 38.38 DEG NORTH AZIMUTH: 0 DEG
LONGITUDE: 121.35 DEG WEST PYRANOMETER TILT: 60 DEG
TIME ZONE: PACIFIC
ALTITUDE: 17 FEET

TEMPERATURES IN DEGREES F

DAY	AVERAGE TEMP	DAYTIME TEMP	NIGHTTIME TEMP	MAX TEMPERATURE VALUE	TIME HR:MN	MIN TEMPERATURE VALUE	TIME HR:MN	INLET WATER TEMPERATURE
1	47.	52.	44.	60.	13: 8	32.	5:24	N.A.
2	54.	55.	53.	60.	15: 9	51.	5:28	N.A.
3	53.	53.	53.	55.	11:19	52.	0:23	N.A.
4	51.	56.	48.	64.	14:57	38.	23: 1	N.A.
5	44.	52.	39.	60.	13: 9	33.	7:17	N.A.
6	43.	51.	39.	60.	14: 2	31.	7:22	N.A.
7	44.	48.	41.	51.	14: 8	40.	1:51	N.A.
8	43.	50.	38.	58.	14:24	33.	23:55	N.A.
9	40.	49.	34.	58.	15:18	28.	5:47	N.A.
10	40.	49.	34.	58.	13:48	28.	7:24	N.A.
11	40.	49.	34.	58.	13:46	26.	7:16	N.A.
12	40.	49.	34.	60.	14: 3	28.	6:19	N.A.
13	41.	50.	35.	64.	14:53	27.	7: 9	N.A.
14	42.	50.	37.	62.	14:16	27.	7:20	N.A.
15	44.	51.	40.	63.	14:26	33.	6:26	N.A.
16	46.	55.	41.	66.	14:32	33.	7:20	N.A.
17	48.	54.	44.	68.	14:28	35.	6: 7	N.A.
18	50.	56.	47.	66.	13:58	42.	23:43	N.A.
19	43.	47.	41.	51.	15:38	37.	3:32	N.A.
20	45.	49.	43.	60.	15:16	40.	8: 4	N.A.
21	47.	48.	47.	51.	15:18	41.	1: 2	N.A.
22	51.	54.	50.	60.	14:25	48.	18:10	N.A.
23	51.	55.	48.	62.	13:54	42.	23:42	N.A.
24	48.	50.	47.	53.	13:49	41.	0:36	N.A.
25	52.	56.	50.	64.	15:41	47.	23:30	N.A.
26	49.	50.	49.	53.	13:25	48.	0: 8	N.A.
27	48.	48.	48.	51.	16:10	44.	23:54	N.A.
28	49.	53.	46.	64.	15:24	41.	4:21	N.A.
29	49.	49.	49.	50.	14:58	47.	7:19	N.A.
30	46.	46.	46.	49.	14: 6	44.	8:46	N.A.
31	44.	45.	44.	47.	13:41	42.	6: 2	N.A.
MEAN	46.	51.	43.					N.A.
STANDARD DEVIATION	4.2	3.2	5.8					N.A.

ENVIRONMENTAL SUMMARY REPORT

SITE: LIVING SYSTEMS
DAVIS, CALIFORNIA

REPORT PERIOD: 80/12
SITE NUMBER: 159

LATITUDE: 38.38 DEG NORTH AZIMUTH: 0 DEG TIME ZONE: PACIFIC
LONGITUDE: 121.35 DEG WEST PYRANOMETER TILT: 60 DEG ALTITUDE: 17 FEET

WIND: SPEED IN MPH-DIRECTION IN DEGREES

DAY	AVG WIND DIRECTION	AVG WIND SPEED	DAYTIME DIRECTION	DAYTIME SPEED	MAXIMUM WIND SPEED DIRECTION	TIME HR:MN
1	*	1.	*	2.	6.	10: 1
2	22.	8.	25.	11.	16.	15:57
3	26.	14.	27.	16.	22.	9: 1
4	299.	5.	274.	6.	12.	0:11
5	*	1.	*	2.	7.	13:57
6	*	2.	*	2.	7.	23: 0
7	214.	17.	211.	19.	25.	12:32
8	204.	6.	201.	6.	18.	0: 0
9	*	1.	*	1.	4.	12:32
10	*	1.	*	2.	6.	14:46
11	*	0.	*	0.	4.	16:49
12	*	0.	*	1.	4.	11:13
13	*	1.	*	1.	4.	15:41
14	*	0.	*	0.	3.	20:29
15	*	1.	*	1.	4.	12: 2
16	*	0.	*	1.	4.	12:56
17	*	0.	*	1.	6.	11:59
18	*	1.	*	1.	5.	10: 3
19	*	1.	*	2.	5.	9:19
20	*	0.	*	0.	5.	4: 9
21	17.	3.	13.	5.	9.	13:10
22	200.	3.	185.	3.	8.	4:27
23	*	1.	*	1.	6.	22:33
24	*	2.	*	2.	8.	1: 2
25	185.	3.	186.	5.	12.	12:29
26	39.	2.	121.	2.	8.	1:22
27	190.	3.	191.	5.	9.	12:48
28	*	2.	*	1.	6.	8:39
29	*	1.	*	1.	4.	0:50
30	159.	3.	129.	3.	8.	19:22
31	*	2.	*	3.	7.	9:20
MEAN	233.	3.	204.	3.		
STANDARD DEVIATION	136.8	3.8	108.7	4.4		

ENVIRONMENTAL SUMMARY REPORT

SITE: LIVING SYSTEMS
DAVIS, CALIFORNIA

REPORT PERIOD: 80/12
SITE NUMBER: 159

LATITUDE: 38.38 DEG NORTH
LONGITUDE: 121.35 DEG WEST

AZIMUTH: 0 DEG
PYRANOMETER TILT: 60 DEG

TIME ZONE: PACIFIC
ALTITUDE: 17 FEET

WIND: NUMBER OF HOURS IN EACH VELOCITY INTERVAL

DAY	0-3 MPH	4-7 MPH	8-12 MPH	13-18 MPH	19-24 MPH	25-31 MPH	32-38 MPH	ABOVE 38	MISSING HOURS
1	23	1	0	0	0	0	0	0	0
2	2	9	11	2	0	0	0	0	0
3	0	0	5	18	1	0	0	0	0
4	10	9	5	0	0	0	0	0	0
5	21	3	0	0	0	0	0	0	0
6	20	4	0	0	0	0	0	0	0
7	0	0	2	15	7	0	0	0	0
8	11	7	4	2	0	0	0	0	0
9	24	0	0	0	0	0	0	0	0
10	23	1	0	0	0	0	0	0	0
11	24	0	0	0	0	0	0	0	0
12	24	0	0	0	0	0	0	0	0
13	24	0	0	0	0	0	0	0	0
14	24	0	0	0	0	0	0	0	0
15	24	0	0	0	0	0	0	0	0
16	24	0	0	0	0	0	0	0	0
17	24	0	0	0	0	0	0	0	0
18	24	0	0	0	0	0	0	0	0
19	24	0	0	0	0	0	0	0	0
20	24	0	0	0	0	0	0	0	0
21	14	10	0	0	0	0	0	0	0
22	14	10	0	0	0	0	0	0	0
23	24	0	0	0	0	0	0	0	0
24	19	5	0	0	0	0	0	0	0
25	17	4	3	0	0	0	0	0	0
26	21	3	0	0	0	0	0	0	0
27	18	6	0	0	0	0	0	0	0
28	22	2	0	0	0	0	0	0	0
29	24	0	0	0	0	0	0	0	0
30	17	7	0	0	0	0	0	0	0
31	20	3	0	0	0	0	0	0	1
AVERAGE	18.8	2.7	1.0	1.2	0.3	0.0	0.0	0.0	0.0
TOTAL	584	84	30	37	8	0	0	0	1

ENVIRONMENTAL SUMMARY REPORT

SITE: LIVING SYSTEMS
DAVIS, CALIFORNIA

REPORT PERIOD: 80/12
SITE NUMBER: 159

LATITUDE: 38.38 DEG NORTH
LONGITUDE: 121.35 DEG WEST

AZIMUTH: 0 DEG
PYRANOMETER TILT: 60 DEG

TIME ZONE: PACIFIC
ALTITUDE: 17 FEET

RELATIVE HUMIDITY IN PER CENT

DAY	RELATIVE HUMIDITY	DAYTIME REL HUM	NIGHTTIME REL HUM	MAXIMUM VALUE	HUMIDITY TIME HR:MN	MINIMUM VALUE	HUMIDITY TIME HR:MN
1	56.	47.	62.	73.	5:34	33.	13:29
2	69.	66.	72.	89.	23:19	54.	16:7
3	86.	85.	86.	95.	23:50	74.	2:31
4	69.	55.	77.	95.	0:49	32.	15:45
5	72.	58.	80.	89.	5:3	40.	14:45
6	74.	62.	82.	91.	5:46	45.	15:43
7	51.	43.	56.	89.	0:15	36.	15:6
8	48.	36.	54.	69.	21:58	24.	13:41
9	63.	50.	71.	82.	8:0	32.	15:34
10	70.	57.	77.	87.	6:30	40.	14:41
11	70.	60.	77.	89.	8:4	40.	14:55
12	72.	62.	78.	87.	6:57	45.	14:46
13	70.	60.	76.	89.	9:1	34.	15:31
14	72.	61.	79.	89.	2:27	39.	15:25
15	75.	68.	79.	92.	7:46	46.	14:58
16	72.	62.	78.	89.	6:21	42.	14:16
17	76.	72.	79.	92.	9:14	49.	14:34
18	77.	70.	81.	91.	9:5	52.	14:41
19	89.	89.	89.	94.	8:31	82.	16:36
20	88.	85.	90.	95.	23:42	69.	15:21
21	94.	94.	95.	97.	17:42	93.	0:57
22	90.	88.	92.	96.	0:11	74.	14:30
23	84.	77.	88.	94.	8:34	58.	13:59
24	89.	86.	90.	95.	2:6	81.	13:49
25	83.	76.	87.	95.	23:57	60.	14:37
26	91.	91.	92.	97.	1:54	82.	14:24
27	91.	91.	91.	95.	8:16	87.	14:56
28	89.	85.	93.	97.	7:17	62.	15:46
29	93.	92.	93.	95.	8:34	90.	14:47
30	93.	92.	94.	95.	20:32	90.	14:33
31	92.	92.	93.	95.	0:48	87.	14:56
MEAN	78.	71.	82.				
STANDARD DEVIATION	13.	17.	11.				

ENVIRONMENTAL SUMMARY REPORT

SITE: MONTECITO PINES
SANTA ROSA, CALIFORNIA

REPORT PERIOD: 80/12
SITE NUMBER: 164

LATITUDE: 37.61 DEG NORTH
LONGITUDE: 122.38 DEG WEST

AZIMUTH: 22 DEG
PYRANOMETER TILT: 45 DEG

TIME ZONE: PACIFIC
ALTITUDE: 8 FEET

INSOLATION

DAY	TOTAL INSOLATION BTU/FT2	TOTAL DIFF INSOLATION BTU/FT2	TOTAL DIR INSOLATION BTU/FT2	MAXIMUM TOTAL INSOLATION VALUE BTU/HR/FT2	TIME HR:MN	EXTRATERRESTRIAL INSOLATION BTU/FT2	TTL INS ----- EXT INS PERCENT
1	303.	N.A.	N.A.	130.	10:44	2903.	10.
2	9.	N.A.	N.A.	6.	11:42	2900.	0.
3	29.	N.A.	N.A.	11.	9:29	2893.	1.
4	1516.	N.A.	N.A.	269.	11:39	2890.	52.
5	1571.	N.A.	N.A.	261.	11:21	2888.	54.
6	1480.	N.A.	N.A.	261.	11:19	2881.	51.
7	1675.	N.A.	N.A.	275.	11: 5	2878.	58.
8	1698.	N.A.	N.A.	267.	11:26	2877.	59.
9	1535.	N.A.	N.A.	258.	11: 2	2876.	53.
10	1553.	N.A.	N.A.	258.	10:58	2874.	54.
11	1529.	N.A.	N.A.	267.	11:30	2868.	53.
12	1289.	N.A.	N.A.	261.	12: 4	2866.	45.
13	1413.	N.A.	N.A.	258.	11:25	2865.	49.
14	1541.	N.A.	N.A.	252.	11:38	2865.	54.
15	1038.	N.A.	N.A.	221.	12: 9	2864.	36.
16	1321.	N.A.	N.A.	235.	11:45	2863.	46.
17	763.	N.A.	N.A.	252.	13:16	2862.	27.
18	153.	N.A.	N.A.	48.	12:49	2862.	5.
19	634.	N.A.	N.A.	267.	12:19	2858.	22.
20	1025.	N.A.	N.A.	224.	11:29	2858.	36.
21	31.	N.A.	N.A.	11.	12:45	2858.	1.
22	1017.	N.A.	N.A.	269.	10:58	2858.	36.
23	711.	N.A.	N.A.	264.	11:10	2859.	25.
24	445.	N.A.	N.A.	162.	9: 0	2864.	16.
25	837.	N.A.	N.A.	250.	12: 4	2865.	29.
26	387.	N.A.	N.A.	153.	14: 5	2866.	13.
27	700.	N.A.	N.A.	258.	11:31	2868.	24.
28	1300.	N.A.	N.A.	250.	11:31	2868.	45.
29	170.	N.A.	N.A.	57.	12:30	2870.	6.
30	279.	N.A.	N.A.	119.	15: 4	2872.	10.
31	526.	N.A.	N.A.	235.	13:28	2878.	18.
MEAN	919.	N.A.	N.A.			2871.	
STANDARD DEVIATION	570.	N.A.	N.A.			12.	

ENVIRONMENTAL SUMMARY REPORT

SITE: MONTECITO PINES
SANTA ROSA, CALIFORNIA

REPORT PERIOD: 80/12
SITE NUMBER: 164

LATITUDE: 37.61 DEG NORTH AZIMUTH: 22 DEG
LONGITUDE: 122.38 DEG WEST PYRANOMETER TILT: 45 DEG
TIME ZONE: PACIFIC
ALTITUDE: 8 FEET

TEMPERATURES IN DEGREES F

DAY	AVERAGE TEMP	DAYTIME TEMP	NIGHTTIME TEMP	MAX TEMPERATURE VALUE TIME HR:MN	MIN TEMPERATURE VALUE TIME HR:MN	INLET WATER TEMPERATURE
1	42.	48.	39.	54. 12:52	28. 3:32	64.
2	52.	53.	50.	57. 14:38	48. 6:12	66.
3	52.	52.	52.	56. 20:38	50. 5:50	64.
4	45.	52.	41.	56. 13:31	33. 23:58	66.
5	41.	50.	35.	58. 14:53	29. 6:38	64.
6	41.	50.	35.	56. 12:29	29. 6:21	64.
7	44.	51.	40.	55. 14:33	30. 1:49	63.
8	42.	54.	35.	63. 14: 6	29. 5:18	63.
9	40.	52.	32.	62. 14:30	27. 5:26	63.
10	39.	51.	32.	63. 14:47	25. 6:31	63.
11	40.	52.	31.	67. 14:41	24. 6:52	63.
12	37.	48.	30.	59. 12:30	25. 6: 6	62.
13	41.	53.	33.	66. 14:43	26. 6: 5	63.
14	43.	56.	35.	66. 14:23	26. 7: 9	62.
15	45.	57.	39.	69. 14:58	32. 5:46	62.
16	48.	59.	41.	72. 14:47	33. 6:47	61.
17	47.	54.	43.	69. 13:21	34. 5:42	61.
18	49.	53.	47.	55. 12:49	43. 18:27	61.
19	50.	56.	47.	64. 13:29	43. 23: 2	61.
20	50.	57.	46.	67. 14:14	42. 7:18	62.
21	49.	49.	49.	51. 22:26	46. 0:22	61.
22	51.	55.	48.	64. 14:58	46. 22:11	62.
23	47.	50.	45.	64. 13:44	42. 5:34	62.
24	47.	50.	45.	56. 14:18	38. 3:56	62.
25	52.	58.	48.	69. 14: 7	44. 23:48	63.
26	48.	51.	46.	63. 15:25	42. 2:44	62.
27	47.	50.	45.	62. 12:45	40. 7:47	63.
28	49.	56.	44.	69. 14:32	39. 7: 4	63.
29	45.	47.	44.	51. 13: 2	41. 2: 6	61.
30	44.	46.	42.	56. 15:20	40. 7:48	62.
31	43.	46.	41.	58. 14:53	38. 6: 5	61.
MEAN	45.	52.	41.			63.
STANDARD DEVIATION	4.3	3.5	6.3			1.3

ENVIRONMENTAL SUMMARY REPORT

SITE: OAKMEAD
SANTA CLARA, CALIFORNIA

REPORT PERIOD: 80/12
SITE NUMBER: 197

LATITUDE: 37.20 DEG NORTH AZIMUTH: 0 DEG
LONGITUDE: 121.55 DEG WEST PYRANOMETER TILT: 45 DEG
TIME ZONE: PACIFIC
ALTITUDE: 0 FEET

INSOLATION

DAY	TOTAL INSOLATION BTU/FT2	TOTAL DIFF INSOLATION BTU/FT2	TOTAL DIR INSOLATION BTU/FT2	MAXIMUM TOTAL INSOLATION VALUE BTU/HR/FT2	TIME HR:MN	EXTRATERRESTRIAL INSOLATION BTU/FT2	TTL INS ----- EXT INS PERCENT
1	616.	N.A.	N.A.	252.	10:28	3067.	20.
2	223.	N.A.	N.A.	74.	13:57	3057.	7.
3	92.	N.A.	N.A.	84.	8:43	3057.	3.
4	1419.	N.A.	N.A.	297.	11:30	3057.	46.
5	1829.	N.A.	N.A.	291.	12: 1	3054.	60.
6	1777.	N.A.	N.A.	294.	12:17	3045.	58.
7	1812.	N.A.	N.A.	291.	12: 0	3045.	60.
8	1778.	N.A.	N.A.	285.	12: 0	3043.	58.
9	1531.	N.A.	N.A.	281.	12:10	3034.	50.
10	1696.	N.A.	N.A.	281.	11:57	3032.	56.
11	1707.	N.A.	N.A.	285.	12: 5	3033.	56.
12	1536.	N.A.	N.A.	255.	11:10	3032.	51.
13	1519.	N.A.	N.A.	252.	11:50	3030.	50.
14	1526.	N.A.	N.A.	265.	11:49	3032.	50.
15	1663.	N.A.	N.A.	268.	11:33	3031.	55.
16	1603.	N.A.	N.A.	259.	11:59	3030.	53.
17	920.	N.A.	N.A.	262.	11:53	3030.	30.
18	612.	N.A.	N.A.	213.	12:33	3029.	20.
19	1260.	N.A.	N.A.	252.	12:45	3022.	42.
20	1249.	N.A.	N.A.	242.	12:41	3022.	41.
21	99.	N.A.	N.A.	36.	10:38	3023.	3.
22	763.	N.A.	N.A.	242.	13:34	3023.	25.
23	634.	N.A.	N.A.	268.	12:34	3024.	21.
24	929.	N.A.	N.A.	213.	10:36	3032.	31.
25	819.	N.A.	N.A.	239.	11: 8	3033.	27.
26	1402.	N.A.	N.A.	255.	11:10	3034.	46.
27	683.	N.A.	N.A.	255.	12:36	3036.	23.
28	1569.	N.A.	N.A.	265.	12:18	3034.	52.
29	1083.	N.A.	N.A.	246.	13: 6	3036.	36.
30	1109.	N.A.	N.A.	265.	11:43	3038.	37.
31	1219.	N.A.	N.A.	265.	12: 6	3037.	40.
MEAN	1183.	N.A.	N.A.			3036.	
STANDARD DEVIATION	521.	N.A.	N.A.			12.	

ENVIRONMENTAL SUMMARY REPORT

SITE: OAKMEAD
SANTA CLARA, CALIFORNIA

REPORT PERIOD: 80/12
SITE NUMBER: 197

LATITUDE: 37.20 DEG NORTH AZIMUTH: 0 DEG
LONGITUDE: 121.55 DEG WEST PYRANOMETER TILT: 45 DEG
TIME ZONE: PACIFIC
ALTITUDE: 0 FEET

TEMPERATURES IN DEGREES F

DAY	AVERAGE TEMP	DAYTIME TEMP	NIGHTTIME TEMP	MAX TEMPERATURE VALUE	TIME HR:MN	MIN TEMPERATURE VALUE	TIME HR:MN	INLET WATER TEMPERATURE
1	51.	58.	42.	69.	13:24	39.	3: 0	66.
2	58.	60.	57.	63.	13:46	53.	2:34	65.
3	55.	55.	56.	60.	8:43	52.	6:30	65.
4	55.	57.	53.	64.	11:20	50.	7:25	66.
5	53.	59.	47.	69.	10:47	40.	7:53	65.
6	49.	59.	43.	74.	11:13	38.	3:35	71.
7	48.	58.	42.	69.	13:47	35.	6:31	71.
8	50.	62.	42.	75.	12:38	37.	23:44	67.
9	48.	61.	39.	74.	14: 8	33.	3:22	66.
10	48.	61.	40.	75.	13:28	33.	3:41	66.
11	48.	62.	39.	75.	15: 1	32.	3:54	65.
12	48.	60.	40.	74.	12:52	32.	2:17	65.
13	49.	62.	41.	75.	12:33	34.	5:37	63.
14	50.	62.	41.	78.	14:24	32.	5:58	74.
15	56.	71.	46.	85.	13: 9	37.	6:56	65.
16	56.	70.	47.	84.	11:43	40.	5:19	64.
17	55.	64.	49.	77.	11:53	43.	3:15	63.
18	54.	59.	51.	69.	13: 0	47.	3:24	62.
19	56.	64.	51.	73.	13: 6	47.	23:16	61.
20	55.	64.	49.	76.	11: 5	46.	6: 7	63.
21	54.	57.	52.	61.	12:46	46.	3: 0	68.
22	55.	59.	53.	71.	14:28	47.	21:59	62.
23	51.	56.	49.	68.	13:59	45.	23:14	63.
24	52.	59.	48.	69.	13:53	42.	7:24	70.
25	54.	60.	50.	70.	14:36	47.	23:29	66.
26	54.	64.	48.	75.	12:52	43.	6:57	65.
27	52.	56.	49.	74.	14: 1	45.	2:12	63.
28	55.	66.	48.	80.	12:45	41.	5:24	70.
29	50.	57.	46.	69.	13:17	42.	5: 6	62.
30	49.	56.	45.	71.	14:45	41.	0:58	62.
31	47.	55.	42.	68.	13:42	38.	4:38	64.
MEAN	52.	60.	47.					65.
STANDARD DEVIATION	3.2	4.1	5.0					3.1

ENVIRONMENTAL SUMMARY REPORT

SITE: OAKMEAD
SANTA CLARA, CALIFORNIA

REPORT PERIOD: 80/12
SITE NUMBER: 197

LATITUDE: 37.20 DEG NORTH AZIMUTH: 0 DEG TIME ZONE: PACIFIC
LONGITUDE: 121.55 DEG WEST PYRANOMETER TILT: 45 DEG ALTITUDE: 0 FEET

WIND: SPEED IN MPH-DIRECTION IN DEGREES

DAY	AVG WIND DIRECTION	AVG WIND SPEED	DAYTIME DIRECTION	DAYTIME SPEED	MAXIMUM WIND SPEED DIRECTION	TIME HR:MN
1	*	1.	*	1.	4.	8:25
2	158.	7.	163.	9.	16.	11:22
3	144.	9.	145.	11.	27.	14:19
4	266.	3.	295.	2.	11.	2:53
5	*	2.	*	1.	9.	13:11
6	*	2.	*	1.	11.	17:5
7	*	1.	*	1.	6.	21:26
8	*	1.	*	1.	6.	12:59
9	*	0.	*	0.	4.	16:56
10	*	1.	*	1.	5.	17:14
11	*	0.	*	0.	5.	14:34
12	*	1.	*	1.	5.	17:53
13	*	0.	*	0.	4.	16:54
14	*	0.	*	0.	3.	13:57
15	*	1.	*	1.	4.	15:1
16	*	0.	*	1.	3.	12:5
17	*	1.	*	1.	26.	20:7
18	*	1.	*	1.	4.	10:31
19	*	0.	*	1.	5.	16:25
20	*	1.	*	1.	5.	14:55
21	141.	2.	140.	4.	8.	10:17
22	*	1.	*	2.	7.	12:20
23	*	1.	*	1.	5.	22:26
24	*	1.	*	1.	8.	11:3
25	*	1.	*	2.	11.	9:58
26	*	1.	*	1.	4.	15:37
27	*	1.	*	1.	6.	11:0
28	*	1.	*	1.	6.	16:18
29	*	1.	*	2.	9.	15:52
30	*	0.	*	1.	4.	9:41
31	*	1.	*	1.	5.	12:38
MEAN	177.	1.	186.	2.		
STANDARD DEVIATION	59.7	1.9	73.2	2.4		

ENVIRONMENTAL SUMMARY REPORT

SITE: OAKMEAD
SANTA CLARA, CALIFORNIA

REPORT PERIOD: 80/12
SITE NUMBER: 197

LATITUDE: 37.20 DEG NORTH AZIMUTH: 0 DEG
LONGITUDE: 121.55 DEG WEST PYRANOMETER TILT: 45 DEG
TIME ZONE: PACIFIC
ALTITUDE: 0 FEET

WIND: NUMBER OF HOURS IN EACH VELOCITY INTERVAL

DAY	0-3 MPH	4-7 MPH	8-12 MPH	13-18 MPH	19-24 MPH	25-31 MPH	32-38 MPH	ABOVE 38	MISSING HOURS
1	18	0	0	0	0	0	0	0	6
2	4	11	9	0	0	0	0	0	0
3	2	9	11	2	0	0	0	0	0
4	8	3	0	0	0	0	0	0	13
5	17	1	0	0	0	0	0	0	6
6	21	3	0	0	0	0	0	0	0
7	24	0	0	0	0	0	0	0	0
8	24	0	0	0	0	0	0	0	0
9	24	0	0	0	0	0	0	0	0
10	24	0	0	0	0	0	0	0	0
11	24	0	0	0	0	0	0	0	0
12	24	0	0	0	0	0	0	0	0
13	24	0	0	0	0	0	0	0	0
14	24	0	0	0	0	0	0	0	0
15	24	0	0	0	0	0	0	0	0
16	24	0	0	0	0	0	0	0	0
17	22	2	0	0	0	0	0	0	0
18	24	0	0	0	0	0	0	0	0
19	24	0	0	0	0	0	0	0	0
20	24	0	0	0	0	0	0	0	0
21	20	4	0	0	0	0	0	0	0
22	23	1	0	0	0	0	0	0	0
23	24	0	0	0	0	0	0	0	0
24	24	0	0	0	0	0	0	0	0
25	23	1	0	0	0	0	0	0	0
26	24	0	0	0	0	0	0	0	0
27	24	0	0	0	0	0	0	0	0
28	24	0	0	0	0	0	0	0	0
29	24	0	0	0	0	0	0	0	0
30	24	0	0	0	0	0	0	0	0
31	23	0	0	0	0	0	0	0	1
AVERAGE	21.3	1.1	0.6	0.1	0.0	0.0	0.0	0.0	0.8
TOTAL	661	35	20	2	0	0	0	0	26

ENVIRONMENTAL SUMMARY REPORT

SITE: SAN ANSELMO
SAN JOSE, CALIFORNIA

REPORT PERIOD: 80/12
SITE NUMBER: 145

LATITUDE: 37.21 DEG NORTH
LONGITUDE: 121.54 DEG WEST

AZIMUTH: 0 DEG
PYRANOMETER TILT: 40 DEG

TIME ZONE: PACIFIC
ALTITUDE: 0 FEET

INSOLATION

DAY	TOTAL INSOLATION BTU/FT2	TOTAL DIFF INSOLATION BTU/FT2	TOTAL DIR INSOLATION BTU/FT2	MAXIMUM TOTAL INSOLATION VALUE BTU/HR/FT2	TIME HR:MN	EXTRATERRESTRIAL INSOLATION BTU/FT2	TTL INS ----- EXT INS PERCENT
1	857.	N.A.	N.A.	279.	10:52	2962.	29.
2	222.	N.A.	N.A.	79.	12:23	2952.	8.
3	43.	N.A.	N.A.	82.	11:30	2951.	1.
4	1020.	N.A.	N.A.	289.	11:31	2951.	35.
5	1767.	N.A.	N.A.	297.	11: 8	2947.	60.
6	1775.	N.A.	N.A.	289.	11:49	2938.	60.
7	1649.	N.A.	N.A.	293.	12:27	2938.	56.
8	1752.	N.A.	N.A.	289.	11:49	2935.	60.
9	1604.	N.A.	N.A.	293.	12: 7	2926.	55.
10	1663.	N.A.	N.A.	289.	11:58	2923.	57.
11	1713.	N.A.	N.A.	286.	11:25	2925.	59.
12	1696.	N.A.	N.A.	275.	11:42	2923.	58.
13	1616.	N.A.	N.A.	282.	11:39	2921.	55.
14	1414.	N.A.	N.A.	272.	11:35	2923.	48.
15	1669.	N.A.	N.A.	286.	12:12	2921.	57.
16	1679.	N.A.	N.A.	279.	11:53	2920.	57.
17	871.	N.A.	N.A.	307.	12:21	2920.	30.
18	580.	N.A.	N.A.	232.	11:37	2913.	20.
19	1076.	N.A.	N.A.	246.	12: 9	2912.	37.
20	1323.	N.A.	N.A.	254.	11:44	2912.	45.
21	167.	N.A.	N.A.	64.	12:47	2913.	6.
22	514.	N.A.	N.A.	218.	13:51	2913.	18.
23	632.	N.A.	N.A.	272.	12:39	2914.	22.
24	1166.	N.A.	N.A.	254.	10:46	2921.	40.
25	723.	N.A.	N.A.	214.	11:17	2922.	25.
26	1292.	N.A.	N.A.	275.	12: 9	2924.	44.
27	912.	N.A.	N.A.	264.	10:33	2926.	31.
28	1420.	N.A.	N.A.	272.	11:58	2928.	48.
29	419.	N.A.	N.A.	175.	14:17	2926.	14.
30	720.	N.A.	N.A.	250.	13:22	2929.	25.
31	1311.	N.A.	N.A.	261.	12:26	2928.	45.
MEAN	1138.	N.A.	N.A.			2928.	
STANDARD DEVIATION	537.	N.A.	N.A.			13.	

ENVIRONMENTAL SUMMARY REPORT

SITE: SAN ANSELMO
SAN JOSE, CALIFORNIA

REPORT PERIOD: 80/12
SITE NUMBER: 145

LATITUDE: 37.21 DEG NORTH AZIMUTH: 0 DEG
LONGITUDE: 121.54 DEG WEST PYRANOMETER TILT: 40 DEG TIME ZONE: PACIFIC
ALTITUDE: 0 FEET

TEMPERATURES IN DEGREES F

DAY	AVERAGE TEMP	DAYTIME TEMP	NIGHTTIME TEMP	MAX TEMPERATURE VALUE	TIME HR:MN	MIN TEMPERATURE VALUE	TIME HR:MN	INLET WATER TEMPERATURE
1	52.	58.	47.	67.	14: 4	37.	3:24	N.A.
2	57.	60.	55.	63.	11:56	50.	1:48	N.A.
3	55.	54.	55.	58.	6: 4	52.	10:36	N.A.
4	50.	54.	47.	59.	13:34	37.	23:46	N.A.
5	46.	53.	41.	58.	12:23	35.	2:10	N.A.
6	46.	52.	42.	59.	11: 1	35.	6:13	N.A.
7	43.	49.	40.	55.	12:43	32.	7: 7	N.A.
8	43.	52.	37.	60.	14:29	29.	6:13	N.A.
9	43.	53.	37.	62.	12:39	30.	6:41	N.A.
10	44.	53.	37.	63.	13:12	30.	6:16	N.A.
11	43.	54.	36.	63.	14:43	29.	4: 8	N.A.
12	43.	53.	35.	63.	14:38	29.	5:39	N.A.
13	46.	56.	39.	66.	14:40	32.	3:28	N.A.
14	44.	53.	39.	64.	13:59	32.	4:48	N.A.
15	50.	62.	43.	73.	13: 5	34.	6:31	N.A.
16	53.	64.	45.	76.	15:31	36.	6:49	N.A.
17	54.	61.	50.	72.	13:46	42.	3:33	N.A.
18	53.	57.	50.	63.	11:37	45.	20:25	N.A.
19	52.	58.	49.	65.	14:49	43.	23:33	N.A.
20	52.	60.	47.	67.	11:44	43.	7:49	N.A.
21	53.	56.	51.	64.	13:14	44.	3:28	N.A.
22	54.	56.	53.	60.	15:27	48.	22:53	N.A.
23	50.	53.	47.	64.	14:15	44.	20:49	N.A.
24	50.	56.	47.	64.	10:36	40.	7:13	N.A.
25	53.	59.	49.	68.	13:30	45.	5:51	N.A.
26	52.	60.	48.	71.	13: 2	42.	7:17	N.A.
27	50.	53.	47.	63.	10:43	43.	6:33	N.A.
28	50.	58.	45.	68.	13:45	39.	7:15	N.A.
29	46.	50.	43.	57.	15:37	39.	5:50	N.A.
30	43.	48.	40.	59.	15: 4	35.	3:36	N.A.
31	43.	49.	39.	59.	15: 1	33.	6:24	N.A.
MEAN	49.	55.	45.					N.A.
STANDARD DEVIATION	4.4	4.1	5.6					N.A.

ENVIRONMENTAL SUMMARY REPORT

SITE: SAN ANSELMO
SAN JOSE, CALIFORNIA

REPORT PERIOD: 80/12
SITE NUMBER: 145

LATITUDE: 37.21 DEG NORTH
LONGITUDE: 121.54 DEG WEST

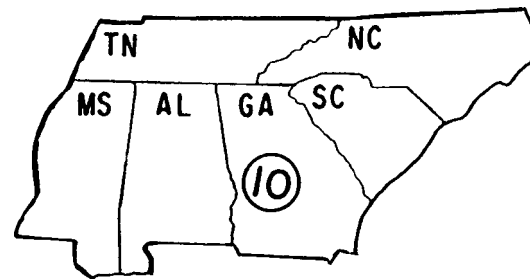
AZIMUTH: 0 DEG
PYRANOMETER TILT: 40 DEG

TIME ZONE: PACIFIC
ALTITUDE: 0 FEET

RELATIVE HUMIDITY IN PER CENT

DAY	RELATIVE HUMIDITY	DAYTIME REL HUM	NIGHTTIME REL HUM	MAXIMUM VALUE	HUMIDITY TIME HR:MN	MINIMUM VALUE	HUMIDITY TIME HR:MN
1	30.	30.	30.	37.	0: 2	24.	21:59
2	28.	31.	26.	35.	14:47	24.	0:44
3	33.	36.	31.	41.	13:48	26.	0: 2
4	31.	32.	31.	39.	6:54	25.	16: 3
5	26.	28.	25.	32.	11: 8	23.	16: 7
6	25.	25.	26.	27.	20:21	23.	7:17
7	24.	24.	23.	27.	0: 5	20.	23: 7
8	19.	19.	19.	21.	11:12	14.	15:39
9	18.	17.	18.	20.	9: 0	15.	15:19
10	18.	18.	18.	21.	12: 3	14.	15:42
11	18.	18.	18.	20.	8:56	16.	15:36
12	19.	19.	18.	22.	8:51	16.	15:15
13	20.	20.	20.	22.	21:15	18.	0: 0
14	21.	21.	22.	23.	17:37	20.	7:39
15	21.	21.	21.	31.	7:13	15.	15:29
16	19.	19.	19.	23.	8:30	16.	15:53
17	22.	22.	22.	28.	10:23	19.	0:10
18	29.	32.	27.	34.	9: 7	25.	22: 7
19	28.	30.	26.	34.	10: 1	25.	20:48
20	27.	27.	27.	29.	19:28	25.	1:31
21	31.	30.	32.	37.	20:52	28.	3:28
22	40.	45.	38.	47.	10: 2	37.	23:25
23	34.	34.	34.	37.	0:34	31.	22:52
24	32.	32.	32.	33.	21: 9	30.	7:34
25	34.	35.	34.	36.	14:18	33.	0: 5
26	34.	34.	35.	36.	21:34	33.	8:42
27	35.	35.	35.	36.	20: 9	33.	8:46
28	34.	33.	34.	35.	17:50	32.	8: 3
29	33.	32.	33.	34.	0:20	32.	7:53
30	32.	32.	31.	34.	8:45	30.	4: 2
31	30.	30.	30.	32.	17:57	29.	7:33
MEAN	27.	28.	27.				
STANDARD DEVIATION	6.	7.	6.				

ZONE 10



ENVIRONMENTAL SUMMARY REPORT

SITE: ALABAMA POWER
MONTEVALLO, ALABAMA

REPORT PERIOD: 80/12
SITE NUMBER: 17

LATITUDE: 32.00 DEG NORTH AZIMUTH: 0 DEG
LONGITUDE: 86.00 DEG WEST PYRANOMETER TILT: 50 DEG
TIME ZONE: CENTRAL
ALTITUDE: 620 FEET

INSOLATION

DAY	TOTAL INSOLATION BTU/FT2	TOTAL DIFF INSOLATION BTU/FT2	TOTAL DIR INSOLATION BTU/FT2	MAXIMUM TOTAL INSOLATION VALUE BTU/HR/FT2	TOTAL TIME HR:MN	EXTRATERRESTRIAL INSOLATION BTU/FT2	TTL INS ----- EXT INS PERCENT
1	1527.	N.A.	N.A.	287.	13:21	3295.	46.
2	763.	N.A.	N.A.	281.	14:18	3294.	23.
3	1878.	N.A.	N.A.	297.	13:23	3296.	57.
4	1842.	N.A.	N.A.	297.	13:19	3295.	56.
5	1532.	N.A.	N.A.	278.	13:19	3287.	47.
6	1592.	N.A.	N.A.	265.	13:52	3289.	48.
7	1570.	N.A.	N.A.	278.	13:58	3288.	48.
8	1430.	N.A.	N.A.	281.	13:58	3287.	43.
9	183.	N.A.	N.A.	45.	11:58	3290.	6.
10	254.	N.A.	N.A.	67.	14:55	3289.	8.
11	1742.	N.A.	N.A.	284.	13:31	3282.	53.
12	1772.	N.A.	N.A.	284.	13:22	3281.	54.
13	1218.	N.A.	N.A.	284.	13: 0	3280.	37.
14	1474.	N.A.	N.A.	316.	14: 4	3284.	45.
15	1319.	N.A.	N.A.	281.	13:10	3283.	40.
16	1113.	N.A.	N.A.	290.	14: 5	3283.	34.
17	1734.	N.A.	N.A.	284.	13: 8	3283.	53.
18	1732.	N.A.	N.A.	278.	13:34	3283.	53.
19	244.	N.A.	N.A.	93.	9:52	3283.	7.
20	339.	N.A.	N.A.	73.	14:22	3283.	10.
21	387.	N.A.	N.A.	73.	15: 8	3283.	12.
22	254.	N.A.	N.A.	54.	14:30	3284.	8.
23	463.	N.A.	N.A.	211.	13: 2	3284.	14.
24	240.	N.A.	N.A.	172.	13:30	3285.	7.
25	1855.	N.A.	N.A.	303.	13:47	3286.	56.
26	273.	N.A.	N.A.	128.	6:34	3286.	8.
27	1682.	N.A.	N.A.	284.	13:38	3287.	51.
28	1536.	N.A.	N.A.	287.	14:18	3285.	47.
29	1462.	N.A.	N.A.	290.	14:29	3286.	44.
30	587.	N.A.	N.A.	230.	13:46	3287.	18.
31	1349.	N.A.	N.A.	278.	13:30	3295.	41.
MEAN	1140.	N.A.	N.A.			3287.	
STANDARD DEVIATION	619.	N.A.	N.A.			5.	

ENVIRONMENTAL SUMMARY REPORT

SITE: ALABAMA POWER
MONTEVALLO, ALABAMA

REPORT PERIOD: 80/12
SITE NUMBER: 17

LATITUDE: 32.00 DEG NORTH AZIMUTH: 0 DEG
LONGITUDE: 86.00 DEG WEST PYRANOMETER TILT: 50 DEG
TIME ZONE: CENTRAL
ALTITUDE: 620 FEET

TEMPERATURES IN DEGREES F

DAY	AVERAGE TEMP	DAYTIME TEMP	NIGHTTIME TEMP	MAX TEMPERATURE VALUE TIME HR:MN	MIN TEMPERATURE VALUE TIME HR:MN	INLET WATER TEMPERATURE
1	49.	54.	46.	70. 15:13	31. 8:22	61.
2	58.	62.	54.	73. 14:18	44. 23:47	62.
3	42.	45.	40.	59. 16:57	31. 8:41	62.
4	42.	49.	37.	66. 16: 4	27. 8:36	62.
5	46.	54.	41.	70. 14:44	30. 6:12	61.
6	51.	58.	47.	75. 15:12	35. 8: 6	62.
7	53.	60.	49.	77. 15:56	37. 8:27	62.
8	56.	60.	53.	74. 15: 2	40. 7:34	63.
9	64.	66.	63.	68. 12: 3	58. 23:59	63.
10	46.	45.	46.	58. 0: 4	34. 23:39	63.
11	39.	42.	37.	55. 15:50	29. 8:54	63.
12	42.	47.	38.	63. 16: 2	26. 8: 2	62.
13	44.	49.	40.	64. 15:45	28. 7:18	61.
14	40.	44.	38.	56. 15:13	28. 8:49	61.
15	43.	46.	41.	60. 14:36	27. 2:20	61.
16	50.	52.	48.	61. 13:49	43. 23:59	61.
17	40.	43.	38.	53. 16:10	28. 23:53	60.
18	42.	47.	38.	64. 15:26	25. 8:19	60.
19	43.	47.	40.	53. 14:19	34. 6:35	61.
20	31.	30.	33.	37. 0: 4	27. 10:49	60.
21	34.	35.	33.	43. 17:10	28. 23:50	59.
22	36.	37.	34.	43. 17:16	27. 0:22	58.
23	46.	46.	46.	56. 15:53	37. 8:51	59.
24	50.	55.	47.	58. 11:38	33. 23:55	61.
25	30.	30.	31.	38. 16: 1	23. 8:59	60.
26	31.	32.	29.	36. 14:47	27. 23:24	60.
27	34.	37.	32.	46. 14:47	25. 23:56	59.
28	40.	43.	38.	58. 17: 4	24. 4:12	59.
29	47.	51.	44.	66. 14:24	30. 8:10	59.
30	42.	42.	41.	47. 16:59	30. 23:59	60.
31	39.	43.	36.	60. 16:46	24. 3:54	60.
MEAN	44.	47.	41.			61.
STANDARD DEVIATION	8.0	9.1	7.5			1.3

ENVIRONMENTAL SUMMARY REPORT

SITE: G.E. MUSCLE SHOALS
MUSCLE SHOALS, ALABAMA

REPORT PERIOD: 80/12
SITE NUMBER: 111

LATITUDE: 34.41 DEG NORTH AZIMUTH: 0 DEG
LONGITUDE: 87.37 DEG WEST PYRANOMETER TILT: 25 DEG
TIME ZONE: CENTRAL
ALTITUDE: 550 FEET

INSOLATION

DAY	TOTAL INSOLATION BTU/FT2	TOTAL DIFF INSOLATION BTU/FT2	TOTAL DIR INSOLATION BTU/FT2	MAXIMUM TOTAL INSOLATION VALUE BTU/HR/FT2	TIME HR:MN	EXTRATERRESTRIAL INSOLATION BTU/FT2	TTL INS ----- EXT INS PERCENT
1	1309.	N.A.	N.A.	255.	12: 1	2651.	49.
2	344.	N.A.	N.A.	173.	14:18	2641.	13.
3	1730.	N.A.	N.A.	262.	11:51	2639.	66.
4	1528.	N.A.	N.A.	262.	11:21	2634.	58.
5	1536.	N.A.	N.A.	246.	11:47	2625.	58.
6	1055.	N.A.	N.A.	240.	12:18	2621.	40.
7	1180.	N.A.	N.A.	240.	11:41	2620.	45.
8	1053.	N.A.	N.A.	259.	11:54	2619.	40.
9	120.	N.A.	N.A.	60.	11:32	2615.	5.
10	634.	N.A.	N.A.	246.	12:37	2612.	24.
11	1287.	N.A.	N.A.	268.	11: 2	2605.	49.
12	1530.	N.A.	N.A.	252.	11:33	2602.	59.
13	1098.	N.A.	N.A.	265.	10:55	2603.	42.
14	1471.	N.A.	N.A.	271.	12: 4	2601.	57.
15	358.	N.A.	N.A.	114.	12: 0	2599.	14.
16	288.	N.A.	N.A.	221.	11:26	2598.	11.
17	1562.	N.A.	N.A.	259.	11:42	2597.	60.
18	1461.	N.A.	N.A.	243.	11:35	2592.	56.
19	241.	N.A.	N.A.	76.	14:54	2591.	9.
20	1404.	N.A.	N.A.	249.	11:20	2591.	54.
21	1498.	N.A.	N.A.	249.	11:20	2592.	58.
22	414.	N.A.	N.A.	142.	9:44	2592.	16.
23	188.	N.A.	N.A.	95.	12:33	2593.	7.
24	63.	N.A.	N.A.	38.	10:12	2594.	2.
25	1141.	N.A.	N.A.	265.	12: 9	2600.	44.
26	469.	N.A.	N.A.	199.	14:11	2601.	18.
27	1639.	N.A.	N.A.	252.	11:58	2603.	63.
28	1455.	N.A.	N.A.	255.	11:47	2606.	56.
29	733.	N.A.	N.A.	192.	9:53	2605.	28.
30	393.	N.A.	N.A.	214.	14: 8	2608.	15.
31	1497.	N.A.	N.A.	249.	11:45	2612.	57.
MEAN	990.	N.A.	N.A.			2609.	
STANDARD DEVIATION	550.	N.A.	N.A.			16.	

ENVIRONMENTAL SUMMARY REPORT

SITE: G.E. MUSCLE SHOALS
MUSCLE SHOALS, ALABAMA

REPORT PERIOD: 80/12
SITE NUMBER: 111

LATITUDE: 34.41 DEG NORTH AZIMUTH: 0 DEG
LONGITUDE: 87.37 DEG WEST PYRANOMETER TILT: 25 DEG
TIME ZONE: CENTRAL
ALTITUDE: 550 FEET

TEMPERATURES IN DEGREES F

DAY	AVERAGE TEMP	DAYTIME TEMP	NIGHTTIME TEMP	MAX TEMPERATURE VALUE TIME HR:MN	MIN TEMPERATURE VALUE TIME HR:MN	INLET WATER TEMPERATURE
1	57.	61.	53.	68. 11:55	45. 4:59	N.A.
2	52.	55.	50.	61. 3:57	32. 23:56	N.A.
3	38.	46.	31.	53. 14: 2	27. 4:38	N.A.
4	45.	55.	38.	65. 13:39	28. 5:23	N.A.
5	52.	63.	44.	70. 13:34	35. 3:58	N.A.
6	56.	66.	50.	77. 12:23	43. 2:26	N.A.
7	58.	66.	53.	75. 13:40	44. 6:37	N.A.
8	62.	66.	59.	70. 12:52	51. 6:50	N.A.
9	55.	56.	55.	67. 0:20	45. 23:44	N.A.
10	40.	43.	39.	49. 14:19	30. 20:59	N.A.
11	40.	46.	36.	53. 14: 8	33. 23:12	N.A.
12	48.	56.	42.	64. 14: 2	31. 2:13	N.A.
13	49.	56.	45.	62. 13:19	37. 23:11	N.A.
14	39.	47.	33.	58. 13:41	26. 7:11	N.A.
15	42.	47.	39.	54. 15:12	27. 3:49	N.A.
16	44.	47.	43.	53. 11:26	36. 23:58	N.A.
17	37.	43.	33.	51. 14:22	27. 6:38	N.A.
18	49.	58.	44.	68. 14:37	31. 4:55	N.A.
19	39.	37.	40.	54. 0:51	24. 23:57	N.A.
20	23.	26.	21.	31. 14:43	17. 6:21	N.A.
21	28.	34.	24.	44. 15: 9	16. 6:53	N.A.
22	33.	37.	31.	41. 15:20	22. 1:54	N.A.
23	44.	47.	42.	52. 14:51	36. 3:39	N.A.
24	41.	41.	41.	59. 6:17	25. 23:48	N.A.
25	23.	25.	22.	33. 15:32	16. 7: 0	N.A.
26	31.	35.	29.	41. 14:38	25. 0: 4	N.A.
27	35.	42.	30.	50. 14:11	22. 6:27	N.A.
28	39.	47.	34.	61. 14:25	25. 5:18	N.A.
29	42.	48.	38.	56. 13:21	31. 4:33	N.A.
30	38.	41.	36.	48. 14:40	30. 21:48	N.A.
31	45.	52.	41.	60. 14:14	31. 0: 1	N.A.
MEAN	43.	48.	39.			N.A.
STANDARD DEVIATION	9.7	10.9	9.5			N.A.

ENVIRONMENTAL SUMMARY REPORT

SITE: HELIO THERMICS
GREENVILLE, SOUTH CAROLINA

REPORT PERIOD: 80/12
SITE NUMBER: 73

LATITUDE: 34.70 DEG NORTH AZIMUTH: 10 DEG
LONGITUDE: 82.40 DEG WEST PYRANOMETER TILT: 51 DEG
TIME ZONE: EASTERN
ALTITUDE: 980 FEET

INSOLATION

DAY	TOTAL INSOLATION BTU/FT2	TOTAL DIFF INSOLATION BTU/FT2	TOTAL DIR INSOLATION BTU/FT2	MAXIMUM TOTAL INSOLATION VALUE BTU/HR/FT2	TIME HR:MN	EXTRATERRESTRIAL INSOLATION BTU/FT2	TTL INS ----- EXT INS PERCENT
1	1971.	N.A.	N.A.	310.	12:42	3201.	62.
2	1330.	N.A.	N.A.	299.	13: 2	3201.	42.
3	1826.	N.A.	N.A.	302.	12:20	3194.	57.
4	1969.	N.A.	N.A.	310.	12:28	3195.	62.
5	1872.	N.A.	N.A.	302.	12:14	3193.	59.
6	1802.	N.A.	N.A.	293.	12:24	3194.	56.
7	1746.	N.A.	N.A.	293.	12:52	3192.	55.
8	1740.	N.A.	N.A.	296.	12:53	3185.	55.
9	163.	N.A.	N.A.	50.	9:10	3184.	5.
10	553.	N.A.	N.A.	249.	14:28	3185.	17.
11	1788.	N.A.	N.A.	302.	12:43	3184.	56.
12	1850.	N.A.	N.A.	299.	12:50	3178.	58.
13	1533.	N.A.	N.A.	331.	13:25	3177.	48.
14	1886.	N.A.	N.A.	307.	13:12	3176.	59.
15	1070.	N.A.	N.A.	316.	13:22	3176.	34.
16	885.	N.A.	N.A.	299.	13:51	3178.	28.
17	1600.	N.A.	N.A.	293.	13:28	3177.	50.
18	1829.	N.A.	N.A.	299.	12:32	3177.	58.
19	1280.	N.A.	N.A.	263.	12:39	3177.	40.
20	1716.	N.A.	N.A.	299.	12:43	3177.	54.
21	1750.	N.A.	N.A.	293.	12:43	3178.	55.
22	334.	N.A.	N.A.	138.	11:14	3178.	11.
23	1739.	N.A.	N.A.	296.	13: 1	3179.	55.
24	102.	N.A.	N.A.	23.	14:57	3179.	3.
25	1956.	N.A.	N.A.	316.	12:39	3180.	61.
26	276.	N.A.	N.A.	67.	11:31	3179.	9.
27	1195.	N.A.	N.A.	316.	13:18	3180.	38.
28	191.	N.A.	N.A.	67.	11:41	3181.	6.
29	1351.	N.A.	N.A.	307.	13: 2	3182.	42.
30	206.	N.A.	N.A.	85.	11:55	3189.	6.
31	721.	N.A.	N.A.	255.	14:33	3191.	23.
MEAN	1298.	N.A.	N.A.			3184.	
STANDARD DEVIATION	651.	N.A.	N.A.			8.	

ENVIRONMENTAL SUMMARY REPORT

SITE: HELIO THERMICS
GREENVILLE, SOUTH CAROLINA

REPORT PERIOD: 80/12
SITE NUMBER: 73

LATITUDE: 34.70 DEG NORTH AZIMUTH: 10 DEG
LONGITUDE: 82.40 DEG WEST PYRANOMETER TILT: 51 DEG
TIME ZONE: EASTERN
ALTITUDE: 980 FEET

TEMPERATURES IN DEGREES F

DAY	AVERAGE TEMP	DAYTIME TEMP	NIGHTTIME TEMP	MAX TEMPERATURE VALUE TIME HR:MN	MIN TEMPERATURE VALUE TIME HR:MN	INLET WATER TEMPERATURE
1	43.	54.	35.	67. 14:50	27. 7:38	55.
2	50.	57.	46.	66. 14:17	33. 7:42	61.
3	41.	50.	35.	59. 14:22	27. 23:51	57.
4	37.	49.	28.	60. 14:52	21. 7: 9	58.
5	41.	55.	32.	68. 15:26	24. 3:10	58.
6	47.	61.	37.	74. 14:11	29. 6:54	55.
7	49.	62.	40.	76. 14:39	31. 7:36	62.
8	52.	61.	46.	72. 14:45	36. 7:48	62.
9	59.	61.	59.	65. 16: 1	46. 0:22	62.
10	55.	59.	53.	63. 13:51	35. 23:45	62.
11	37.	46.	32.	55. 14:30	25. 7:29	55.
12	42.	50.	37.	63. 14:21	24. 6:42	52.
13	50.	56.	45.	68. 14: 7	29. 7: 1	57.
14	41.	51.	35.	60. 14:58	25. 7:12	58.
15	39.	47.	34.	56. 12:34	22. 7: 9	57.
16	46.	48.	44.	56. 14: 2	38. 7:48	55.
17	42.	47.	38.	55. 14:53	31. 20:53	53.
18	43.	49.	39.	63. 14:40	25. 6:45	57.
19	50.	56.	45.	69. 14:42	35. 6:47	57.
20	37.	41.	35.	45. 14: 3	28. 23:45	52.
21	27.	29.	25.	37. 14:58	20. 8: 6	45.
22	28.	29.	27.	34. 21:38	19. 6:15	44.
23	37.	42.	33.	53. 16:18	28. 8: 2	53.
24	44.	48.	40.	54. 16: 7	31. 2:25	50.
25	26.	29.	24.	38. 0: 1	13. 20:33	46.
26	24.	26.	23.	29. 15:10	16. 3:40	42.
27	32.	35.	30.	44. 14:11	20. 5: 7	48.
28	47.	49.	45.	52. 15:41	37. 0:30	50.
29	52.	58.	49.	67. 14:38	36. 7:30	58.
30	43.	44.	43.	48. 1:31	31. 22:27	52.
31	38.	43.	34.	52. 15:21	27. 23:58	54.
MEAN	42.	48.	38.			54.
STANDARD DEVIATION	8.6	10.2	8.5			5.4

ENVIRONMENTAL SUMMARY REPORT

SITE: HONEYWELL OCMULGEE
OCMULGEE, GEORGIA

REPORT PERIOD: 80/12
SITE NUMBER: 118

LATITUDE: 32.60 DEG NORTH
LONGITUDE: 83.50 DEG WEST

AZIMUTH: 39 DEG
PYRANOMETER TILT: 20 DEG

TIME ZONE: EASTERN
ALTITUDE: 463 FEET

INSOLATION

DAY	TOTAL INSOLATION BTU/FT2	TOTAL DIFF INSOLATION BTU/FT2	TOTAL DIR INSOLATION BTU/FT2	MAXIMUM TOTAL INSOLATION VALUE BTU/HR/FT2	TIME HR:MN	EXTRATERRESTRIAL INSOLATION BTU/FT2	TTL INS ----- EXT INS PERCENT
1	1390.	N.A.	N.A.	239.	12:37	2323.	60.
2	1228.	N.A.	N.A.	229.	13:20	2319.	53.
3	1415.	N.A.	N.A.	242.	12:40	2313.	61.
4	1466.	N.A.	N.A.	249.	12:41	2306.	64.
5	1227.	N.A.	N.A.	249.	12:50	2301.	53.
6	1330.	N.A.	N.A.	226.	12:59	2297.	58.
7	1237.	N.A.	N.A.	229.	13: 6	2293.	54.
8	1312.	N.A.	N.A.	229.	12:52	2290.	57.
9	400.	N.A.	N.A.	118.	13: 6	2286.	18.
10	242.	N.A.	N.A.	174.	14: 2	2284.	11.
11	1378.	N.A.	N.A.	239.	12:56	2280.	60.
12	1330.	N.A.	N.A.	232.	13:26	2278.	58.
13	1091.	N.A.	N.A.	219.	13: 4	2274.	48.
14	1266.	N.A.	N.A.	242.	12:39	2271.	56.
15	1107.	N.A.	N.A.	246.	12:24	2270.	49.
16	499.	N.A.	N.A.	206.	13:49	2268.	22.
17	579.	N.A.	N.A.	157.	11:46	2268.	26.
18	1322.	N.A.	N.A.	229.	12:43	2267.	58.
19	1016.	N.A.	N.A.	229.	12:28	2267.	45.
20	705.	N.A.	N.A.	232.	12:47	2266.	31.
21	125.	N.A.	N.A.	43.	12:51	2267.	6.
22	166.	N.A.	N.A.	56.	11:59	2267.	7.
23	686.	N.A.	N.A.	249.	13:40	2268.	30.
24	138.	N.A.	N.A.	98.	11: 3	2269.	6.
25	1449.	N.A.	N.A.	249.	12:43	2270.	64.
26	259.	N.A.	N.A.	92.	11:39	2271.	11.
27	860.	N.A.	N.A.	236.	12:53	2273.	38.
28	144.	N.A.	N.A.	98.	12: 0	2276.	6.
29	1115.	N.A.	N.A.	223.	12:56	2279.	49.
30	145.	N.A.	N.A.	62.	9:53	2283.	6.
31	1196.	N.A.	N.A.	246.	13: 6	2287.	52.
MEAN	898.	N.A.	N.A.			2282.	
STANDARD DEVIATION	485.	N.A.	N.A.			16.	

ENVIRONMENTAL SUMMARY REPORT

SITE: HONEYWELL OCMULGEE
OCMULGEE, GEORGIA

REPORT PERIOD: 80/12
SITE NUMBER: 118

LATITUDE: 32.60 DEG NORTH AZIMUTH: 39 DEG
LONGITUDE: 83.50 DEG WEST PYRANOMETER TILT: 20 DEG
TIME ZONE: EASTERN
ALTITUDE: 463 FEET

TEMPERATURES IN DEGREES F

DAY	AVERAGE TEMP	DAYTIME TEMP	NIGHTTIME TEMP	MAX TEMPERATURE VALUE TIME HR:MN	MIN TEMPERATURE VALUE TIME HR:MN	INLET WATER TEMPERATURE
1	46.	57.	39.	69. 14:13	29. 6:34	68.
2	55.	63.	50.	74. 13:36	37. 7: 6	67.
3	46.	53.	41.	62. 14: 5	33. 7:28	69.
4	44.	54.	37.	65. 14: 7	28. 7:20	69.
5	46.	55.	39.	69. 14:10	28. 7:14	67.
6	50.	61.	43.	73. 15:18	33. 7: 8	71.
7	52.	62.	45.	75. 14:26	36. 7:39	69.
8	56.	65.	50.	77. 13:18	38. 7:24	70.
9	61.	65.	58.	73. 15: 3	50. 2:21	70.
10	55.	57.	54.	66. 0: 0	39. 23:58	70.
11	43.	48.	39.	58. 14:38	33. 23:58	70.
12	44.	53.	38.	66. 14:43	29. 7:15	71.
13	49.	57.	43.	68. 13:47	31. 7:10	73.
14	46.	54.	41.	65. 14:10	33. 7:51	74.
15	45.	53.	39.	65. 13:55	28. 5:12	72.
16	49.	52.	47.	60. 13:54	42. 5: 7	71.
17	42.	46.	39.	55. 14:57	33. 23:49	69.
18	43.	51.	38.	63. 13:57	28. 6:40	69.
19	49.	57.	45.	69. 13:32	33. 7:36	70.
20	46.	47.	45.	55. 14:34	39. 6:34	69.
21	36.	35.	37.	43. 0: 1	33. 23:58	68.
22	33.	35.	32.	38. 18:23	27. 6:11	66.
23	39.	41.	37.	50. 15:38	32. 1:35	67.
24	46.	50.	44.	56. 11: 8	38. 23:50	69.
25	34.	39.	31.	45. 14:19	26. 22:35	69.
26	30.	32.	29.	36. 13:20	26. 2:30	68.
27	37.	39.	36.	49. 14:29	30. 0:26	67.
28	45.	43.	46.	53. 16:50	39. 8:21	68.
29	56.	61.	53.	68. 12:45	48. 5: 1	68.
30	46.	47.	46.	53. 0: 4	34. 23:57	70.
31	41.	48.	37.	58. 14:58	29. 4:18	69.
MEAN	46.	51.	42.			69.
STANDARD DEVIATION	7.1	9.1	6.6			1.8

ENVIRONMENTAL SUMMARY REPORT

SITE: RHRU CLEMSON
CLEMSON, SOUTH CAROLINA

REPORT PERIOD: 80/12
SITE NUMBER: 216

LATITUDE: 34.54 DEG NORTH AZIMUTH: 0 DEG
LONGITUDE: 83.13 DEG WEST PYRANOMETER TILT: 60 DEG
TIME ZONE: EASTERN
ALTITUDE: 937 FEET

INSOLATION

DAY	TOTAL INSOLATION BTU/FT2	TOTAL DIFF INSOLATION BTU/FT2	TOTAL DIR INSOLATION BTU/FT2	MAXIMUM TOTAL INSOLATION VALUE BTU/HR/FT2	TIME HR:MN	EXTRATERRESTRIAL INSOLATION BTU/FT2	TTL INS ----- EXT INS PERCENT
1	1980.	N.A.	N.A.	322.	12: 9	3293.	60.
2	1341.	N.A.	N.A.	325.	11:20	3293.	41.
3	2124.	N.A.	N.A.	331.	12: 2	3296.	64.
4	2119.	N.A.	N.A.	331.	12:22	3288.	64.
5	2008.	N.A.	N.A.	319.	11:47	3287.	61.
6	2078.	N.A.	N.A.	309.	11:53	3290.	63.
7	1500.	N.A.	N.A.	303.	11:36	3293.	46.
8	1883.	N.A.	N.A.	319.	11:56	3293.	57.
9	52.	N.A.	N.A.	29.	10: 0	3285.	2.
10	891.	N.A.	N.A.	300.	11:26	3284.	27.
11	1996.	N.A.	N.A.	325.	11:50	3284.	61.
12	2068.	N.A.	N.A.	319.	11:57	3287.	63.
13	1722.	N.A.	N.A.	319.	11:34	3287.	52.
14	2134.	N.A.	N.A.	341.	12:28	3287.	65.
15	1299.	N.A.	N.A.	347.	13:21	3279.	40.
16	493.	N.A.	N.A.	264.	13:27	3279.	15.
17	1577.	N.A.	N.A.	325.	12: 9	3279.	48.
18	2029.	N.A.	N.A.	319.	12:20	3279.	62.
19	1418.	N.A.	N.A.	280.	11:31	3279.	43.
20	1839.	N.A.	N.A.	312.	12:30	3279.	56.
21	*	N.A.	N.A.	*	*: *	3280.	*
22	*	N.A.	N.A.	*	*: *	3280.	*
23	*	N.A.	N.A.	*	*: *	3280.	*
24	*	N.A.	N.A.	*	*: *	3281.	*
25	*	N.A.	N.A.	*	*: *	3282.	*
26	*	N.A.	N.A.	*	*: *	3282.	*
27	*	N.A.	N.A.	*	*: *	3283.	*
28	*	N.A.	N.A.	*	*: *	3292.	*
29	*	N.A.	N.A.	*	*: *	3293.	*
30	*	N.A.	N.A.	*	*: *	3293.	*
31	*	N.A.	N.A.	*	*: *	3291.	*
MEAN	1628.	N.A.	N.A.			3286.	
STANDARD DEVIATION	580.	N.A.	N.A.			6.	

ENVIRONMENTAL SUMMARY REPORT

SITE: RHRU CLEMSON
CLEMSON, SOUTH CAROLINA

REPORT PERIOD: 80/12
SITE NUMBER: 216

LATITUDE: 34.54 DEG NORTH AZIMUTH: 0 DEG
LONGITUDE: 83.13 DEG WEST PYRANOMETER TILT: 60 DEG
TIME ZONE: EASTERN
ALTITUDE: 937 FEET

TEMPERATURES IN DEGREES F

DAY	AVERAGE TEMP	DAYTIME TEMP	NIGHTTIME TEMP	MAX TEMPERATURE VALUE	TIME HR:MN	MIN TEMPERATURE VALUE	TIME HR:MN	INLET WATER TEMPERATURE
1	45.	55.	39.	67.	14:44	30.	7:48	67.
2	49.	55.	45.	65.	14:32	32.	5:33	70.
3	44.	55.	37.	69.	14: 4	29.	7:30	72.
4	39.	50.	31.	61.	16: 6	23.	7:29	80.
5	43.	54.	35.	72.	14:27	24.	4:59	54.
6	47.	58.	39.	73.	14:33	28.	7:29	83.
7	46.	55.	42.	74.	15:46	30.	6:59	60.
8	53.	61.	48.	73.	14:26	35.	6:58	*
9	58.	58.	57.	64.	20:46	51.	2:16	75.
10	54.	58.	52.	63.	13:29	38.	23:55	74.
11	39.	46.	33.	55.	14:46	26.	7:45	72.
12	45.	53.	40.	65.	12:24	27.	7:36	79.
13	52.	58.	49.	68.	13:32	39.	7:40	63.
14	43.	52.	37.	66.	13:48	24.	7:45	77.
15	41.	48.	36.	60.	11:56	24.	7:24	78.
16	45.	47.	44.	55.	13:27	39.	8:12	72.
17	42.	46.	39.	58.	12:15	30.	7:53	70.
18	45.	51.	41.	62.	15:16	28.	6:39	58.
19	50.	58.	45.	66.	14:16	40.	23:53	64.
20	39.	46.	35.	54.	14:54	27.	23:58	75.
21	*	*	*	*	*:*	*	*:*	*
22	*	*	*	*	*:*	*	*:*	*
23	*	*	*	*	*:*	*	*:*	*
24	*	*	*	*	*:*	*	*:*	*
25	*	*	*	*	*:*	*	*:*	*
26	*	*	*	*	*:*	*	*:*	*
27	*	*	*	*	*:*	*	*:*	*
28	*	*	*	*	*:*	*	*:*	*
29	*	*	*	*	*:*	*	*:*	*
30	*	*	*	*	*:*	*	*:*	*
31	*	*	*	*	*:*	*	*:*	*
MEAN	46.	53.	41.					71.
STANDARD DEVIATION	5.3	4.7	6.6					7.8

ENVIRONMENTAL SUMMARY REPORT

SITE: RHRU CLEMSON
CLEMSON, SOUTH CAROLINA

REPORT PERIOD: 80/12
SITE NUMBER: 216

LATITUDE: 34.54 DEG NORTH AZIMUTH: 0 DEG
LONGITUDE: 83.13 DEG WEST PYRANOMETER TILT: 60 DEG

TIME ZONE: EASTERN
ALTITUDE: 937 FEET

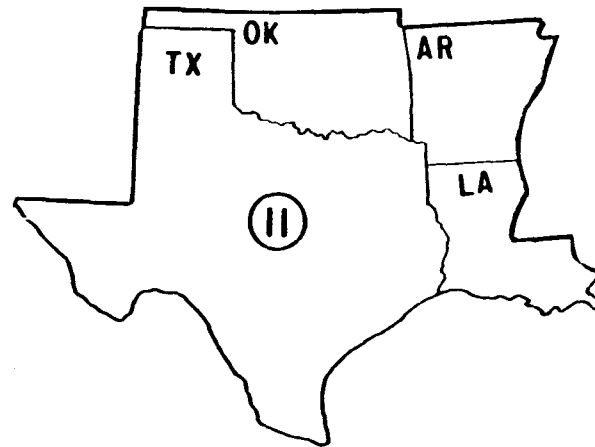
RELATIVE HUMIDITY IN PER CENT

DAY	RELATIVE HUMIDITY	DAYTIME REL HUM	NIGHTTIME REL HUM	MAXIMUM VALUE	HUMIDITY TIME HR:MN	MINIMUM VALUE	HUMIDITY TIME HR:MN
1	78.	63.	88.	100.	0: 4	41.	15:48
2	82.	76.	87.	100.	0: 3	50.	23:24
3	63.	55.	68.	99.	23:55	38.	15:56
4	76.	60.	89.	100.	0:11	44.	15:50
5	75.	62.	84.	100.	0:27	36.	16:40
6	80.	64.	89.	100.	0: 1	39.	15:32
7	87.	76.	92.	100.	0: 3	42.	14:54
8	87.	79.	92.	100.	0: 2	58.	15:46
9	99.	100.	99.	100.	2: 5	93.	0:35
10	91.	87.	94.	100.	0: 3	62.	16:25
11	88.	77.	96.	100.	0: 1	59.	16: 1
12	72.	65.	78.	100.	0: 3	44.	16:35
13	65.	62.	66.	85.	6:30	50.	16:17
14	68.	61.	73.	100.	6: 9	44.	14:57
15	76.	64.	85.	100.	0: 1	51.	15:24
16	95.	93.	97.	100.	2:31	76.	0: 7
17	88.	78.	95.	100.	1:13	63.	12:15
18	76.	66.	82.	100.	1:14	49.	15:54
19	77.	69.	82.	94.	20:41	62.	12:40
20	69.	62.	74.	92.	2:49	51.	16: 3
21	*	*	*	*	*:*	*	*:*
22	*	*	*	*	*:*	*	*:*
23	*	*	*	*	*:*	*	*:*
24	*	*	*	*	*:*	*	*:*
25	*	*	*	*	*:*	*	*:*
26	*	*	*	*	*:*	*	*:*
27	*	*	*	*	*:*	*	*:*
28	*	*	*	*	*:*	*	*:*
29	*	*	*	*	*:*	*	*:*
30	*	*	*	*	*:*	*	*:*
31	*	*	*	*	*:*	*	*:*

MEAN 80. 71. 85.

STANDARD
DEVIATION10. 12. 10.

ZONE 11



ENVIRONMENTAL SUMMARY REPORT

SITE: DALLAS RECREATION CENTER
DALLAS, TEXAS

REPORT PERIOD: 80/12
SITE NUMBER: 48

LATITUDE: 32.54 DEG NORTH AZIMUTH: 0 DEG
LONGITUDE: 97.20 DEG WEST PYRANOMETER TILT: 25 DEG
TIME ZONE: CENTRAL
ALTITUDE: 551 FEET

INSOLATION

DAY	TOTAL INSOLATION BTU/FT2	TOTAL DIFF INSOLATION BTU/FT2	TOTAL DIR INSOLATION BTU/FT2	MAXIMUM TOTAL INSOLATION VALUE BTU/HR/FT2	TIME HR:MM	EXTRATERRESTRIAL INSOLATION BTU/FT2	TTL INS ----- EXT INS PERCENT
1	1412.	N.A.	N.A.	242.	10:40	2730.	52.
2	1508.	N.A.	N.A.	248.	11:59	2724.	55.
3	761.	N.A.	N.A.	230.	13:29	2723.	28.
4	112.	N.A.	N.A.	34.	12:14	2721.	4.
5	253.	N.A.	N.A.	165.	10:13	2717.	9.
6	231.	N.A.	N.A.	174.	14:23	2708.	9.
7	226.	N.A.	N.A.	86.	11: 4	2705.	8.
8	54.	N.A.	N.A.	28.	11:26	2704.	2.
9	828.	N.A.	N.A.	291.	12:10	2701.	31.
10	1555.	N.A.	N.A.	251.	12: 1	2694.	58.
11	1551.	N.A.	N.A.	248.	12:22	2691.	58.
12	1065.	N.A.	N.A.	239.	12:13	2689.	40.
13	936.	N.A.	N.A.	275.	12:35	2689.	35.
14	1386.	N.A.	N.A.	226.	12:10	2688.	52.
15	1298.	N.A.	N.A.	233.	11:38	2686.	48.
16	1477.	N.A.	N.A.	236.	12:19	2685.	55.
17	1456.	N.A.	N.A.	233.	12: 5	2684.	54.
18	1423.	N.A.	N.A.	239.	12:14	2683.	53.
19	131.	N.A.	N.A.	43.	13: 9	2686.	5.
20	219.	N.A.	N.A.	49.	10:37	2686.	8.
21	733.	N.A.	N.A.	230.	11:17	2686.	27.
22	347.	N.A.	N.A.	159.	14:40	2686.	13.
23	521.	N.A.	N.A.	214.	12:38	2687.	19.
24	1175.	N.A.	N.A.	245.	11: 5	2685.	44.
25	1368.	N.A.	N.A.	242.	12:33	2686.	51.
26	1407.	N.A.	N.A.	230.	11:51	2688.	52.
27	1359.	N.A.	N.A.	223.	12:45	2690.	51.
28	1334.	N.A.	N.A.	233.	12:41	2692.	50.
29	819.	N.A.	N.A.	257.	13:23	2692.	30.
30	1471.	N.A.	N.A.	242.	12:28	2695.	55.
31	1453.	N.A.	N.A.	233.	12:24	2698.	54.
MEAN	964.	N.A.	N.A.			2696.	
STANDARD DEVIATION	532.	N.A.	N.A.			14.	

ENVIRONMENTAL SUMMARY REPORT

SITE: DALLAS RECREATION CENTER
DALLAS, TEXAS

REPORT PERIOD: 80/12
SITE NUMBER: 48

LATITUDE: 32.54 DEG NORTH AZIMUTH: 0 DEG
LONGITUDE: 97.20 DEG WEST PYRANOMETER TILT: 25 DEG TIME ZONE: CENTRAL
ALTITUDE: 551 FEET

TEMPERATURES IN DEGREES F

DAY	AVERAGE TEMP	DAYTIME TEMP	NIGHTTIME TEMP	MAX TEMPERATURE VALUE TIME HR:MN	MIN TEMPERATURE VALUE TIME HR:MN	INLET WATER TEMPERATURE
1	66.	71.	63.	78. 15: 1	58. 6:35	72.
2	43.	43.	43.	59. 0: 4	36. 8:20	70.
3	46.	49.	43.	59. 15:16	31. 3: 0	69.
4	58.	59.	57.	64. 15:16	51. 0: 4	69.
5	67.	69.	65.	72. 13:25	60. 0: 5	71.
6	67.	68.	66.	74. 14:29	64. 23:54	73.
7	69.	70.	68.	73. 11:47	64. 0:48	72.
8	50.	48.	51.	70. 0:14	38. 23:49	70.
9	42.	45.	40.	52. 13:25	38. 4:53	66.
10	41.	47.	36.	54. 16:12	32. 23:39	65.
11	46.	55.	39.	66. 14:40	28. 3:44	65.
12	51.	58.	45.	69. 14:32	33. 6:26	65.
13	55.	59.	52.	68. 13:49	41. 7:36	70.
14	56.	61.	52.	71. 15: 0	44. 7:20	72.
15	58.	65.	53.	70. 13:51	48. 2:12	70.
16	57.	65.	52.	71. 15:15	45. 3:42	69.
17	56.	63.	52.	72. 14:45	40. 5:30	69.
18	63.	71.	58.	82. 14:44	49. 23:55	72.
19	38.	39.	38.	48. 0: 0	32. 23: 9	68.
20	30.	29.	30.	32. 0: 3	28. 8:29	61.
21	31.	34.	29.	39. 14: 8	20. 5:28	57.
22	40.	41.	39.	49. 15:39	34. 0: 0	61.
23	55.	57.	53.	65. 15: 7	46. 0:43	64.
24	40.	41.	39.	50. 0: 4	26. 23:51	63.
25	30.	34.	27.	43. 15:13	17. 7:35	55.
26	43.	51.	37.	64. 14:58	28. 7:35	62.
27	47.	55.	42.	67. 15: 9	31. 7:30	64.
28	51.	56.	47.	66. 15:47	37. 6:53	62.
29	50.	53.	48.	61. 16: 9	43. 23:56	66.
30	47.	54.	43.	64. 16: 6	31. 7:24	64.
31	51.	59.	44.	72. 14:32	34. 7:20	66.
MEAN	50.	54.	47.			67.
STANDARD DEVIATION	10.8	11.7	10.7			4.6

ENVIRONMENTAL SUMMARY REPORT

SITE: FIRST MANUFACTURED HOMES #9
LUBBOCK, TEXAS

REPORT PERIOD: 80/12
SITE NUMBER: 236

LATITUDE: 33.50 DEG NORTH AZIMUTH: 0 DEG
LONGITUDE: 101.80 DEG WEST PYRANOMETER TILT: 45 DEG
TIME ZONE: CENTRAL
ALTITUDE: 3250 FEET

INSOLATION

DAY	TOTAL INSOLATION BTU/FT2	TOTAL DIFF INSOLATION BTU/FT2	TOTAL DIR INSOLATION BTU/FT2	MAXIMUM TOTAL INSOLATION VALUE BTU/HR/FT2	TIME HR:MN	EXTRATERRESTRIAL INSOLATION BTU/FT2	TTL INS ----- EXT INS PERCENT
1	2124.	N.A.	N.A.	312.	12:33	3189.	67.
2	2096.	N.A.	N.A.	315.	12:41	3190.	66.
3	2140.	N.A.	N.A.	315.	12:11	3182.	67.
4	2035.	N.A.	N.A.	315.	13:10	3179.	64.
5	452.	N.A.	N.A.	177.	15: 4	3180.	14.
6	1022.	N.A.	N.A.	318.	13:22	3182.	32.
7	246.	N.A.	N.A.	111.	14: 5	3180.	8.
8	58.	N.A.	N.A.	30.	13: 6	3172.	2.
9	1805.	N.A.	N.A.	326.	13:38	3170.	57.
10	2178.	N.A.	N.A.	321.	12:11	3172.	69.
11	2187.	N.A.	N.A.	324.	12:18	3171.	69.
12	1060.	N.A.	N.A.	243.	13:15	3170.	33.
13	270.	N.A.	N.A.	171.	15:50	3162.	9.
14	1919.	N.A.	N.A.	324.	12:39	3161.	61.
15	1973.	N.A.	N.A.	312.	12:44	3160.	62.
16	1962.	N.A.	N.A.	300.	12:20	3160.	62.
17	2095.	N.A.	N.A.	312.	12:47	3159.	66.
18	1772.	N.A.	N.A.	315.	12:48	3163.	56.
19	141.	N.A.	N.A.	33.	6:38	3163.	4.
20	907.	N.A.	N.A.	309.	11:50	3163.	29.
21	162.	N.A.	N.A.	39.	13:59	3163.	5.
22	1529.	N.A.	N.A.	294.	12:44	3163.	48.
23	1689.	N.A.	N.A.	324.	12:43	3164.	53.
24	1922.	N.A.	N.A.	309.	12:30	3165.	61.
25	1140.	N.A.	N.A.	324.	13:34	3162.	36.
26	2020.	N.A.	N.A.	309.	12:31	3163.	64.
27	2010.	N.A.	N.A.	312.	13:19	3164.	64.
28	1756.	N.A.	N.A.	341.	13:20	3166.	55.
29	838.	N.A.	N.A.	246.	13:47	3174.	26.
30	2085.	N.A.	N.A.	326.	12:30	3176.	66.
31	2069.	N.A.	N.A.	309.	12:28	3178.	65.
MEAN	1473.	N.A.	N.A.			3170.	
STANDARD DEVIATION	735.	N.A.	N.A.			9.	

ENVIRONMENTAL SUMMARY REPORT

SITE: FIRST MANUFACTURED HOMES #9
LUBBOCK, TEXAS

REPORT PERIOD: 80/12
SITE NUMBER: 236

LATITUDE: 33.50 DEG NORTH AZIMUTH: 0 DEG
LONGITUDE: 101.80 DEG WEST PYRANOMETER TILT: 45 DEG
TIME ZONE: CENTRAL
ALTITUDE: 3250 FEET

TEMPERATURES IN DEGREES F

DAY	AVERAGE TEMP	DAYTIME TEMP	NIGHTTIME TEMP	MAX TEMPERATURE VALUE	TIME HR:MN	MIN TEMPERATURE VALUE	TIME HR:MN	INLET WATER TEMPERATURE
1	52.	62.	45.	72.	15: 8	34.	23:53	64.
2	32.	36.	30.	44.	14:44	25.	7:32	62.
3	39.	46.	34.	59.	15:34	23.	6:14	62.
4	48.	54.	44.	68.	14:46	33.	7:23	63.
5	48.	49.	48.	55.	15: 4	43.	3:42	63.
6	59.	62.	57.	68.	14:42	54.	0: 2	64.
7	58.	63.	55.	68.	14:11	50.	22:47	65.
8	33.	30.	35.	51.	1:38	28.	23:52	62.
9	36.	42.	31.	51.	14: 5	25.	7:14	61.
10	38.	45.	34.	57.	15:12	26.	7:33	61.
11	43.	51.	38.	66.	16:34	27.	6:58	61.
12	42.	50.	37.	65.	13:36	29.	6:45	61.
13	40.	43.	38.	47.	15:50	33.	3:23	60.
14	45.	50.	41.	58.	14:15	35.	7:50	61.
15	48.	55.	43.	66.	15:40	34.	1:59	61.
16	53.	61.	47.	72.	14:39	40.	6:44	62.
17	55.	65.	48.	79.	14:45	40.	5: 9	63.
18	53.	66.	45.	77.	15:33	34.	23:58	63.
19	28.	28.	27.	33.	0: 3	24.	23:39	60.
20	24.	25.	23.	30.	15: 2	16.	8:17	59.
21	28.	29.	28.	32.	15:51	25.	0: 1	58.
22	42.	50.	37.	69.	15:56	23.	4:18	59.
23	52.	60.	46.	73.	12:54	33.	7:45	59.
24	34.	39.	30.	46.	14:28	21.	22:22	59.
25	34.	38.	32.	60.	16:24	19.	3: 0	58.
26	48.	57.	41.	72.	15:21	29.	4:29	59.
27	50.	59.	44.	71.	15:11	34.	7:32	61.
28	53.	62.	48.	76.	14:19	36.	4:47	61.
29	45.	48.	42.	55.	14:24	33.	23:42	61.
30	45.	53.	38.	67.	15:15	28.	7:20	60.
31	47.	55.	41.	66.	14:36	32.	5:10	60.
MEAN	44.	49.	40.					61.
STANDARD DEVIATION	9.3	11.7	8.1					1.8

ENVIRONMENTAL SUMMARY REPORT

SITE: FIRST MANUFACTURED HOMES #10
LUBBOCK, TEXAS

REPORT PERIOD: 80/12
SITE NUMBER: 236

LATITUDE: 33.50 DEG NORTH AZIMUTH: 0 DEG
LONGITUDE: 101.80 DEG WEST PYRANOMETER TILT: 45 DEG
TIME ZONE: CENTRAL
ALTITUDE: 3250 FEET

INSOLATION

DAY	TOTAL INSOLATION BTU/FT2	TOTAL DIFF INSOLATION BTU/FT2	TOTAL DIR INSOLATION BTU/FT2	MAXIMUM TOTAL INSOLATION VALUE BTU/HR/FT2	TIME HR:MN	EXTRATERRESTRIAL INSOLATION BTU/FT2	TTL INS ----- EXT INS PERCENT
1	2127.	N.A.	N.A.	312.	12:33	3189.	67.
2	2096.	N.A.	N.A.	315.	12:41	3190.	66.
3	2140.	N.A.	N.A.	315.	12:11	3182.	67.
4	2035.	N.A.	N.A.	315.	13:10	3179.	64.
5	452.	N.A.	N.A.	177.	15: 4	3180.	14.
6	1022.	N.A.	N.A.	318.	13:22	3182.	32.
7	246.	N.A.	N.A.	111.	14: 5	3180.	8.
8	58.	N.A.	N.A.	30.	13: 6	3172.	2.
9	1805.	N.A.	N.A.	326.	13:38	3170.	57.
10	2178.	N.A.	N.A.	321.	12:11	3172.	69.
11	2187.	N.A.	N.A.	324.	12:18	3171.	69.
12	1060.	N.A.	N.A.	243.	13:15	3170.	33.
13	270.	N.A.	N.A.	171.	15:50	3162.	9.
14	1919.	N.A.	N.A.	324.	12:39	3161.	61.
15	1973.	N.A.	N.A.	312.	12:44	3160.	62.
16	1962.	N.A.	N.A.	300.	12:20	3160.	62.
17	2095.	N.A.	N.A.	312.	12:47	3159.	66.
18	1772.	N.A.	N.A.	315.	12:48	3163.	56.
19	141.	N.A.	N.A.	33.	6:38	3163.	4.
20	907.	N.A.	N.A.	309.	11:50	3163.	29.
21	162.	N.A.	N.A.	39.	13:59	3163.	5.
22	1529.	N.A.	N.A.	294.	12:44	3163.	48.
23	1689.	N.A.	N.A.	324.	12:43	3164.	53.
24	1922.	N.A.	N.A.	309.	12:30	3165.	61.
25	1140.	N.A.	N.A.	324.	13:34	3162.	36.
26	2020.	N.A.	N.A.	309.	12:31	3163.	64.
27	2010.	N.A.	N.A.	312.	13:19	3164.	64.
28	1756.	N.A.	N.A.	341.	13:20	3166.	55.
29	838.	N.A.	N.A.	246.	13:47	3174.	26.
30	2085.	N.A.	N.A.	326.	12:30	3176.	66.
31	2069.	N.A.	N.A.	309.	12:28	3178.	65.
MEAN	1473.	N.A.	N.A.			3170.	
STANDARD DEVIATION	735.	N.A.	N.A.			9.	

ENVIRONMENTAL SUMMARY REPORT

SITE: FIRST MANUFACTURED HOMES #10
LUBBOCK, TEXAS

REPORT PERIOD: 80/12
SITE NUMBER: 236

LATITUDE: 33.50 DEG NORTH AZIMUTH: 0 DEG
LONGITUDE: 101.80 DEG WEST PYRANOMETER TILT: 45 DEG
TIME ZONE: CENTRAL
ALTITUDE: 3250 FEET

TEMPERATURES IN DEGREES F

DAY	AVERAGE TEMP	DAYTIME TEMP	NIGHTTIME TEMP	MAX TEMPERATURE VALUE	TIME HR:MN	MIN TEMPERATURE VALUE	TIME HR:MN	INLET WATER TEMPERATURE
1	52.	62.	45.	72.	15: 8	34.	23:53	58.
2	32.	36.	30.	44.	14:44	25.	7:32	61.
3	39.	46.	34.	59.	15:34	23.	6:14	57.
4	48.	54.	44.	68.	14:46	33.	7:23	58.
5	48.	49.	48.	55.	15: 4	43.	3:42	60.
6	59.	62.	57.	68.	14:42	54.	0: 2	59.
7	58.	63.	55.	68.	14:11	50.	22:47	62.
8	33.	30.	35.	51.	1:38	28.	23:52	57.
9	36.	42.	31.	51.	14: 5	25.	7:14	58.
10	38.	45.	34.	57.	15:12	26.	7:33	58.
11	43.	51.	38.	66.	16:34	27.	6:58	62.
12	42.	50.	37.	65.	13:36	29.	6:45	58.
13	40.	43.	38.	47.	15:50	33.	3:23	57.
14	45.	50.	41.	58.	14:15	35.	7:50	57.
15	48.	55.	43.	66.	15:40	34.	1:59	58.
16	53.	61.	47.	72.	14:39	40.	6:44	61.
17	55.	65.	48.	79.	14:45	40.	5: 9	63.
18	53.	66.	45.	77.	15:33	34.	23:58	61.
19	28.	28.	27.	33.	0: 3	24.	23:39	55.
20	24.	25.	23.	30.	15: 2	16.	8:17	51.
21	28.	29.	28.	32.	15:51	25.	0: 1	49.
22	42.	50.	37.	69.	15:56	23.	4:18	50.
23	52.	60.	46.	73.	12:54	33.	7:45	65.
24	34.	39.	30.	46.	14:28	21.	22:22	72.
25	34.	38.	32.	60.	16:24	19.	3: 0	51.
26	48.	57.	41.	72.	15:21	29.	4:29	*
27	50.	59.	44.	71.	15:11	34.	7:32	*
28	53.	62.	48.	76.	14:19	36.	4:47	61.
29	45.	48.	42.	55.	14:24	33.	23:42	64.
30	45.	53.	38.	67.	15:15	28.	7:20	65.
31	47.	55.	41.	66.	14:36	32.	5:10	67.
MEAN	44.	49.	40.					59.
STANDARD DEVIATION	9.3	11.7	8.1					5.2

ENVIRONMENTAL SUMMARY REPORT

SITE: FORT POLK
FORT POLK, LOUISIANA

REPORT PERIOD: 80/12
SITE NUMBER: 40

LATITUDE: 31.10 DEG NORTH
LONGITUDE: 93.20 DEG WEST

AZIMUTH: 17 DEG
PYRANOMETER TILT: 30 DEG

TIME ZONE: CENTRAL
ALTITUDE: 400 FEET

INSOLATION

DAY	TOTAL INSOLATION BTU/FT2	TOTAL DIFF INSOLATION BTU/FT2	TOTAL DIR INSOLATION BTU/FT2	MAXIMUM TOTAL INSOLATION VALUE BTU/HR/FT2	TIME HR:MN	EXTRATERRESTRIAL INSOLATION BTU/FT2	TTL INS ----- EXT INS PERCENT
1	1148.	*	*	302.	12: 3	2887.	40.
2	359.	*	*	130.	12:50	2880.	12.
3	665.	*	*	198.	14:47	2876.	23.
4	1193.	*	*	279.	11:42	2874.	42.
5	1630.	*	*	273.	11:57	2870.	57.
6	912.	*	*	315.	12:41	2869.	32.
7	606.	*	*	260.	13:37	2865.	21.
8	200.	*	*	114.	11:29	2860.	7.
9	100.	*	*	42.	12:40	2857.	3.
10	655.	*	*	289.	12:57	2857.	23.
11	1875.	*	*	296.	12:13	2854.	66.
12	1771.	*	*	302.	12:49	2852.	62.
13	891.	*	*	270.	13:27	2848.	31.
14	1834.	*	*	299.	12:14	2846.	64.
15	1243.	*	*	302.	12:46	2845.	44.
16	1302.	*	*	322.	12:22	2844.	46.
17	1796.	*	*	286.	12:21	2843.	63.
18	1767.	*	*	283.	12: 0	2843.	62.
19	169.	*	*	81.	10:42	2844.	6.
20	251.	*	*	55.	9:40	2844.	9.
21	1297.	*	*	289.	13:15	2845.	46.
22	310.	*	*	101.	14: 3	2845.	11.
23	335.	*	*	149.	9:24	2846.	12.
24	1136.	*	*	286.	12:15	2845.	40.
25	1783.	*	*	292.	12:15	2846.	63.
26	1543.	*	*	283.	12: 1	2847.	54.
27	1812.	*	*	286.	12:24	2849.	64.
28	1744.	*	*	305.	12:19	2851.	61.
29	1259.	*	*	328.	12: 9	2856.	44.
30	1849.	*	*	292.	12:18	2858.	65.
31	1789.	*	*	289.	12:19	2861.	63.
MEAN	1136.	0.	0.			2855.	
STANDARD DEVIATION	616.	*****	*****			12.	

ENVIRONMENTAL SUMMARY REPORT

SITE: FORT POLK
FORT POLK, LOUISIANA

REPORT PERIOD: 80/12
SITE NUMBER: 40

LATITUDE: 31.10 DEG NORTH
LONGITUDE: 93.20 DEG WEST

AZIMUTH: 17 DEG
PYRANOMETER TILT: 30 DEG

TIME ZONE: CENTRAL
ALTITUDE: 400 FEET

TEMPERATURES IN DEGREES F

DAY	AVERAGE TEMP	DAYTIME TEMP	NIGHTTIME TEMP	MAX TEMPERATURE VALUE	TIME HR:MN	MIN TEMPERATURE VALUE	TIME HR:MN	INLET WATER TEMPERATURE
1	62.	68.	56.	76.	14:32	50.	5:44	77.
2	61.	65.	58.	69.	12:50	50.	23:51	75.
3	49.	52.	47.	62.	14:58	42.	6:58	75.
4	56.	63.	50.	71.	12:35	42.	4:56	74.
5	62.	68.	57.	77.	13:54	51.	5:22	77.
6	63.	67.	60.	77.	15: 5	54.	6: 6	77.
7	66.	69.	63.	78.	13:37	58.	2:28	83.
8	69.	71.	68.	74.	11:29	58.	23:36	80.
9	48.	48.	49.	60.	0:40	40.	23:42	77.
10	42.	45.	40.	52.	14:11	36.	22:26	77.
11	42.	52.	36.	63.	15: 4	29.	6:53	75.
12	46.	56.	39.	67.	14: 3	30.	6:46	75.
13	50.	58.	44.	70.	13:33	36.	6: 5	76.
14	51.	60.	45.	70.	13:56	36.	23:16	75.
15	52.	60.	46.	70.	13:13	35.	4:36	74.
16	55.	59.	51.	69.	15: 2	46.	6:35	74.
17	50.	56.	45.	67.	14:56	38.	7:12	76.
18	58.	66.	53.	75.	14: 8	43.	2:40	78.
19	49.	51.	46.	67.	11:41	35.	23:48	75.
20	32.	34.	31.	36.	14:34	26.	22:12	73.
21	33.	35.	31.	44.	13:15	23.	5:35	73.
22	41.	43.	40.	49.	14:14	34.	1:31	74.
23	59.	62.	56.	68.	13:35	46.	0:20	74.
24	54.	56.	53.	66.	0:25	37.	23:59	78.
25	33.	37.	31.	48.	14:55	25.	7:11	97.
26	40.	49.	33.	60.	14: 9	24.	3:37	79.
27	43.	50.	38.	60.	15:14	32.	6: 5	74.
28	44.	52.	38.	64.	15:21	31.	7:14	76.
29	48.	56.	43.	65.	14:59	32.	4:35	73.
30	45.	51.	40.	62.	14:36	33.	23:20	77.
31	48.	59.	40.	71.	14:54	29.	3: 4	74.
MEAN	50.	55.	46.					76.
STANDARD DEVIATION	9.5	9.9	9.8					4.4

ENVIRONMENTAL SUMMARY REPORT

SITE: FORT POLK
FORT POLK, LOUISIANA

REPORT PERIOD: 80/12
SITE NUMBER: 40

LATITUDE: 31.10 DEG NORTH AZIMUTH: 17 DEG
LONGITUDE: 93.20 DEG WEST PYRANOMETER TILT: 30 DEG TIME ZONE: CENTRAL
ALTITUDE: 400 FEET

WIND: SPEED IN MPH-DIRECTION IN DEGREES

DAY	AVG WIND DIRECTION	AVG WIND SPEED	DAYTIME DIRECTION	DAYTIME SPEED	MAXIMUM WIND SPEED DIRECTION	TIME HR:MN
1	*	1.	*	2.	6.	* 1: 7
2	*	1.	*	1.	8.	* 23:35
3	*	1.	*	1.	9.	* 0:34
4	*	1.	*	1.	10.	* 12:51
5	*	1.	*	2.	11.	* 11:51
6	*	0.	*	1.	8.	* 12:46
7	*	1.	*	2.	13.	* 13: 5
8	333.	3.	331.	3.	15.	338. 10:52
9	*	1.	*	1.	10.	* 23:10
10	*	1.	*	1.	14.	* 3:10
11	*	0.	*	0.	2.	* 13:22
12	*	0.	*	1.	6.	* 12:38
13	*	0.	*	0.	1.	* 23:35
14	*	0.	*	0.	9.	* 10:10
15	*	0.	*	1.	8.	* 14:54
16	*	1.	*	2.	11.	* 14:30
17	*	0.	*	0.	3.	* 4:21
18	*	1.	*	3.	12.	* 16:22
19	*	1.	*	1.	12.	* 19:42
20	*	1.	*	2.	14.	* 8:15
21	*	1.	*	1.	7.	* 6: 7
22	*	0.	*	0.	3.	* 18: 3
23	*	1.	*	1.	10.	* 22:55
24	*	2.	*	2.	15.	* 11:43
25	*	1.	*	1.	10.	* 7:43
26	*	0.	*	0.	4.	* 9:24
27	*	0.	*	1.	7.	* 12:45
28	*	0.	*	0.	2.	* 13:13
29	*	1.	*	1.	14.	* 23: 8
30	*	1.	*	1.	8.	* 11:56
31	*	1.	*	2.	11.	* 12:30
MEAN	333.	1.	331.	1.		
STANDARD DEVIATION	*****	0.6	*****	0.8		

ENVIRONMENTAL SUMMARY REPORT

SITE: FORT POLK
FORT POLK, LOUISIANA

REPORT PERIOD: 80/12
SITE NUMBER: 40

LATITUDE: 31.10 DEG NORTH
LONGITUDE: 93.20 DEG WEST

AZIMUTH: 17 DEG
PYRANOMETER TILT: 30 DEG

TIME ZONE: CENTRAL
ALTITUDE: 400 FEET

WIND: NUMBER OF HOURS IN EACH VELOCITY INTERVAL

DAY	0-3 MPH	4-7 MPH	8-12 MPH	13-18 MPH	19-24 MPH	25-31 MPH	32-38 MPH	ABOVE 38	MISSING HOURS
1	22	0	0	0	0	0	0	0	2
2	24	0	0	0	0	0	0	0	0
3	24	0	0	0	0	0	0	0	0
4	23	0	0	0	0	0	0	0	1
5	22	2	0	0	0	0	0	0	0
6	24	0	0	0	0	0	0	0	0
7	24	0	0	0	0	0	0	0	0
8	22	2	0	0	0	0	0	0	0
9	24	0	0	0	0	0	0	0	0
10	24	0	0	0	0	0	0	0	0
11	24	0	0	0	0	0	0	0	0
12	24	0	0	0	0	0	0	0	0
13	24	0	0	0	0	0	0	0	0
14	24	0	0	0	0	0	0	0	0
15	24	0	0	0	0	0	0	0	0
16	23	1	0	0	0	0	0	0	0
17	24	0	0	0	0	0	0	0	0
18	23	1	0	0	0	0	0	0	0
19	23	1	0	0	0	0	0	0	0
20	23	1	0	0	0	0	0	0	0
21	24	0	0	0	0	0	0	0	0
22	24	0	0	0	0	0	0	0	0
23	24	0	0	0	0	0	0	0	0
24	24	0	0	0	0	0	0	0	0
25	24	0	0	0	0	0	0	0	0
26	24	0	0	0	0	0	0	0	0
27	24	0	0	0	0	0	0	0	0
28	24	0	0	0	0	0	0	0	0
29	23	1	0	0	0	0	0	0	0
30	24	0	0	0	0	0	0	0	0
31	23	0	0	0	0	0	0	0	1
AVERAGE	23.6	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.1
TOTAL	731	9	0	0	0	0	0	0	4

ENVIRONMENTAL SUMMARY REPORT

SITE: G.E. DALLAS
DALLAS, TEXAS

REPORT PERIOD: 80/12
SITE NUMBER: 108

LATITUDE: 33.00 DEG NORTH
LONGITUDE: 97.00 DEG WEST

AZIMUTH: 0 DEG
PYRANOMETER TILT: 22 DEG

TIME ZONE: CENTRAL
ALTITUDE: 500 FEET

INSOLATION

DAY	TOTAL INSOLATION BTU/FT2	TOTAL DIFF INSOLATION BTU/FT2	TOTAL DIR INSOLATION BTU/FT2	MAXIMUM TOTAL INSOLATION VALUE BTU/HR/FT2	TIME HR:MN	EXTRATERRESTRIAL INSOLATION BTU/FT2	TTL INS ----- EXT INS PERCENT
1	1475.	N.A.	N.A.	263.	10:43	2607.	57.
2	1561.	N.A.	N.A.	263.	11:53	2605.	60.
3	819.	N.A.	N.A.	263.	13: 4	2596.	32.
4	108.	N.A.	N.A.	27.	11:46	2591.	4.
5	247.	N.A.	N.A.	93.	10:17	2589.	10.
6	249.	N.A.	N.A.	180.	14:28	2581.	10.
7	237.	N.A.	N.A.	83.	11:11	2576.	9.
8	89.	N.A.	N.A.	50.	11:33	2575.	3.
9	908.	N.A.	N.A.	336.	12:18	2572.	35.
10	1725.	N.A.	N.A.	290.	12:34	2569.	67.
11	1790.	N.A.	N.A.	296.	12:19	2568.	70.
12	1243.	N.A.	N.A.	286.	12:50	2566.	48.
13	934.	N.A.	N.A.	270.	13:16	2563.	36.
14	1671.	N.A.	N.A.	283.	12:15	2558.	65.
15	1471.	N.A.	N.A.	270.	11:59	2556.	58.
16	1716.	N.A.	N.A.	280.	12: 5	2555.	67.
17	1731.	N.A.	N.A.	273.	11:59	2553.	68.
18	1644.	N.A.	N.A.	273.	12:20	2553.	64.
19	164.	N.A.	N.A.	43.	12:33	2555.	6.
20	262.	N.A.	N.A.	53.	11:25	2555.	10.
21	940.	N.A.	N.A.	290.	11:50	2555.	37.
22	395.	N.A.	N.A.	190.	14:58	2556.	15.
23	409.	N.A.	N.A.	150.	14: 0	2553.	16.
24	1264.	N.A.	N.A.	266.	12: 9	2555.	49.
25	1491.	N.A.	N.A.	243.	11:26	2556.	58.
26	1588.	N.A.	N.A.	260.	13:21	2558.	62.
27	1559.	N.A.	N.A.	250.	12:49	2560.	61.
28	*	N.A.	N.A.	*	*:*	2562.	*
29	939.	N.A.	N.A.	266.	12:18	2569.	37.
30	1645.	N.A.	N.A.	260.	13:56	2572.	64.
31	1664.	N.A.	N.A.	263.	12: 0	2575.	65.
MEAN	1065.	N.A.	N.A.			2568.	
STANDARD DEVIATION	614.	N.A.	N.A.			16.	

ENVIRONMENTAL SUMMARY REPORT

SITE: G.E. DALLAS
DALLAS, TEXAS

REPORT PERIOD: 80/12
SITE NUMBER: 108

LATITUDE: 33.00 DEG NORTH AZIMUTH: 0 DEG TIME ZONE: CENTRAL
LONGITUDE: 97.00 DEG WEST PYRANOMETER TILT: 22 DEG ALTITUDE: 500 FEET

TEMPERATURES IN DEGREES F

DAY	AVERAGE TEMP	DAYTIME TEMP	NIGHTTIME TEMP	MAX TEMPERATURE VALUE	TIME HR:MN	MIN TEMPERATURE VALUE	TIME HR:MN	INLET WATER TEMPERATURE
1	66.	70.	62.	78.	14: 5	58.	6:16	65.
2	44.	46.	42.	57.	0: 4	36.	8: 9	*
3	45.	48.	43.	57.	14:50	33.	3:22	*
4	56.	57.	56.	62.	15:20	50.	0: 2	*
5	66.	68.	64.	72.	13:51	59.	0: 4	*
6	66.	67.	65.	73.	14:34	63.	8: 4	64.
7	68.	69.	67.	72.	13:20	63.	0:42	*
8	49.	48.	51.	68.	0:42	38.	23:51	56.
9	42.	46.	39.	56.	13:33	37.	4:50	*
10	42.	49.	37.	58.	15:14	33.	6:58	56.
11	48.	56.	42.	66.	14:37	31.	6:32	*
12	52.	58.	48.	68.	14:42	36.	4:44	67.
13	55.	60.	52.	70.	13:16	43.	7:56	*
14	55.	60.	52.	69.	15: 5	43.	7:29	*
15	58.	64.	54.	72.	14:12	51.	2:28	*
16	58.	66.	53.	73.	13:31	47.	3:55	*
17	56.	61.	53.	71.	15:49	43.	4:42	*
18	62.	70.	57.	81.	15: 0	47.	23:56	69.
19	38.	39.	37.	46.	0: 1	32.	21:17	51.
20	30.	30.	31.	33.	0:13	28.	8:34	44.
21	31.	34.	29.	40.	12:34	22.	6:53	35.
22	39.	40.	39.	47.	15: 3	34.	6:26	49.
23	54.	55.	53.	64.	14:38	45.	1:34	57.
24	40.	42.	38.	50.	0: 4	26.	23:53	49.
25	29.	33.	27.	40.	15:32	19.	7:37	38.
26	44.	52.	38.	66.	15:18	28.	7:32	53.
27	48.	54.	44.	65.	15:18	36.	7: 7	56.
28	48.	51.	47.	64.	15:41	39.	6:46	57.
29	50.	55.	47.	64.	13:17	43.	23:54	55.
30	49.	55.	45.	65.	14:55	34.	6: 7	*
31	54.	64.	47.	78.	14:14	39.	7:28	61.
MEAN	50.	54.	47.					55.
STANDARD DEVIATION	10.5	11.3	10.3					9.3

ENVIRONMENTAL SUMMARY REPORT

SITE: GSA
BASTROP, TEXAS

REPORT PERIOD: 80/12
SITE NUMBER: 47

LATITUDE: 30.10 DEG NORTH AZIMUTH: 30 DEG
LONGITUDE: 97.30 DEG WEST PYRANOMETER TILT: 25 DEG
TIME ZONE: CENTRAL
ALTITUDE: 700 FEET

INSOLATION

DAY	TOTAL INSOLATION BTU/FT2	TOTAL DIFF INSOLATION BTU/FT2	TOTAL DIR INSOLATION BTU/FT2	MAXIMUM TOTAL INSOLATION VALUE BTU/HR/FT2	TIME HR:MN	EXTRATERRESTRIAL INSOLATION BTU/FT2	TTL INS ----- EXT INS PERCENT
1	801.	N.A.	N.A.	281.	14:14	2672.	30.
2	1538.	N.A.	N.A.	291.	12:42	2669.	58.
3	1443.	N.A.	N.A.	288.	13:10	2661.	54.
4	272.	N.A.	N.A.	122.	13: 5	2658.	10.
5	176.	N.A.	N.A.	102.	13:32	2656.	7.
6	725.	N.A.	N.A.	284.	12:54	2652.	27.
7	421.	N.A.	N.A.	192.	12:43	2649.	16.
8	193.	N.A.	N.A.	73.	10:56	2646.	7.
9	372.	N.A.	N.A.	116.	13:15	2643.	14.
10	1540.	N.A.	N.A.	294.	13:44	2641.	58.
11	1957.	N.A.	N.A.	301.	12:38	2639.	74.
12	1423.	N.A.	N.A.	288.	14:13	2636.	54.
13	622.	N.A.	N.A.	340.	12:29	2633.	24.
14	232.	N.A.	N.A.	59.	12:48	2631.	9.
15	181.	N.A.	N.A.	40.	13:10	2630.	7.
16	1833.	N.A.	N.A.	288.	13: 3	2628.	70.
17	1842.	N.A.	N.A.	288.	13: 9	2627.	70.
18	1850.	N.A.	N.A.	291.	13: 3	2627.	70.
19	325.	N.A.	N.A.	63.	13:49	2628.	12.
20	541.	N.A.	N.A.	261.	13:34	2628.	21.
21	377.	N.A.	N.A.	79.	13:21	2628.	14.
22	273.	N.A.	N.A.	99.	12:12	2628.	10.
23	750.	N.A.	N.A.	284.	11:19	2629.	29.
24	1353.	N.A.	N.A.	291.	13:18	2629.	51.
25	1873.	N.A.	N.A.	291.	12:36	2630.	71.
26	1789.	N.A.	N.A.	288.	12:50	2632.	68.
27	1791.	N.A.	N.A.	284.	12:45	2633.	68.
28	1598.	N.A.	N.A.	291.	12:39	2636.	61.
29	712.	N.A.	N.A.	284.	11:51	2639.	27.
30	1901.	N.A.	N.A.	301.	13:10	2642.	72.
31	1905.	N.A.	N.A.	297.	13: 4	2645.	72.
MEAN	1052.	N.A.	N.A.			2639.	
STANDARD DEVIATION	680.	N.A.	N.A.			13.	

ENVIRONMENTAL SUMMARY REPORT

SITE: GSA
BASTROP, TEXAS

REPORT PERIOD: 80/12
SITE NUMBER: 47

LATITUDE: 30.10 DEG NORTH AZIMUTH: 30 DEG
LONGITUDE: 97.30 DEG WEST PYRANOMETER TILT: 25 DEG
TIME ZONE: CENTRAL
ALTITUDE: 700 FEET

TEMPERATURES IN DEGREES F

DAY	AVERAGE TEMP	DAYTIME TEMP	NIGHTTIME TEMP	MAX TEMPERATURE VALUE	TIME HR:MN	MIN TEMPERATURE VALUE	TIME HR:MN	INLET WATER TEMPERATURE
1	65.	69.	62.	78.	14:36	58.	3:13	N.A.
2	49.	48.	50.	64.	3:38	37.	23:40	N.A.
3	52.	56.	48.	68.	13:10	36.	7:13	N.A.
4	61.	62.	60.	67.	14:20	54.	3:34	N.A.
5	67.	68.	66.	71.	14:10	64.	6:42	N.A.
6	69.	72.	67.	78.	12:54	65.	5:10	N.A.
7	71.	73.	69.	77.	12:43	66.	0:22	N.A.
8	62.	65.	59.	73.	12:59	46.	23:44	N.A.
9	45.	45.	45.	48.	22: 0	41.	6:35	N.A.
10	43.	47.	41.	53.	16: 8	31.	23:59	N.A.
11	45.	53.	39.	64.	15:13	26.	6:12	N.A.
12	52.	59.	47.	72.	13:57	34.	4:58	N.A.
13	58.	62.	55.	74.	12:51	47.	7:47	N.A.
14	57.	58.	56.	64.	14: 3	52.	23:50	N.A.
15	55.	56.	54.	60.	16:54	47.	23:33	N.A.
16	58.	67.	51.	75.	13:51	40.	5:35	N.A.
17	58.	65.	52.	75.	15:17	41.	5: 9	N.A.
18	63.	69.	59.	80.	15:48	52.	7:21	N.A.
19	45.	44.	45.	62.	1:38	35.	23:36	N.A.
20	35.	35.	34.	38.	14:43	32.	22:27	N.A.
21	36.	37.	35.	41.	15:19	32.	2:27	N.A.
22	42.	43.	42.	47.	14:47	38.	3:35	N.A.
23	56.	60.	53.	68.	14:58	45.	1: 6	N.A.
24	47.	47.	46.	56.	0: 3	34.	23:58	N.A.
25	36.	39.	34.	50.	15:37	24.	7:16	N.A.
26	45.	54.	39.	71.	15:57	28.	6:17	N.A.
27	51.	59.	44.	73.	15:57	34.	5:54	N.A.
28	51.	57.	48.	69.	15:35	34.	7: 4	N.A.
29	52.	56.	50.	63.	11:51	41.	4:34	N.A.
30	49.	55.	45.	64.	15:18	37.	7:18	N.A.
31	54.	62.	48.	75.	15:12	34.	5:46	N.A.
MEAN	52.	56.	50.					N.A.
STANDARD DEVIATION	9.5	10.3	9.5					N.A.

ENVIRONMENTAL SUMMARY REPORT

SITE: HONEYWELL CARROLLTON
CARROLLTON, TEXAS

REPORT PERIOD: 80/12
SITE NUMBER: 119

LATITUDE: 320.51 DEG NORTH
LONGITUDE: 96.51 DEG WEST

AZIMUTH: 0 DEG
PYRANOMETER TILT: 20 DEG

TIME ZONE: CENTRAL
ALTITUDE: 500 FEET

INSOLATION

DAY	TOTAL INSOLATION BTU/FT2	TOTAL DIFF INSOLATION BTU/FT2	TOTAL DIR INSOLATION BTU/FT2	MAXIMUM TOTAL INSOLATION VALUE BTU/HR/FT2	TOTAL TIME HR:MN	EXTRATERRESTRIAL INSOLATION BTU/FT2	TTL INS ----- EXT INS PERCENT
1	1441.	N.A.	N.A.	256.	11:46	3593.	40.
2	1658.	N.A.	N.A.	269.	12:30	3604.	46.
3	912.	N.A.	N.A.	233.	13:39	3619.	25.
4	264.	N.A.	N.A.	45.	13:15	3631.	7.
5	403.	N.A.	N.A.	112.	12:47	3639.	11.
6	360.	N.A.	N.A.	180.	14:14	3647.	10.
7	332.	N.A.	N.A.	90.	11:22	3660.	9.
8	297.	N.A.	N.A.	67.	14:34	3669.	8.
9	1173.	N.A.	N.A.	283.	11:37	3675.	32.
10	1685.	N.A.	N.A.	269.	12: 7	3683.	46.
11	1675.	N.A.	N.A.	265.	12:52	3693.	45.
12	1247.	N.A.	N.A.	256.	12:53	3700.	34.
13	1053.	N.A.	N.A.	251.	11: 7	3703.	28.
14	1478.	N.A.	N.A.	247.	12:34	3708.	40.
15	1378.	N.A.	N.A.	251.	11:51	3713.	37.
16	1573.	N.A.	N.A.	256.	12:36	3714.	42.
17	1564.	N.A.	N.A.	251.	12:16	3717.	42.
18	1578.	N.A.	N.A.	265.	12:12	3720.	42.
19	238.	N.A.	N.A.	45.	11:54	3722.	6.
20	310.	N.A.	N.A.	63.	12:16	3723.	8.
21	1121.	N.A.	N.A.	287.	12: 5	3723.	30.
22	520.	N.A.	N.A.	198.	14:29	3723.	14.
23	694.	N.A.	N.A.	238.	12:53	3722.	19.
24	1258.	N.A.	N.A.	260.	12: 4	3721.	34.
25	1439.	N.A.	N.A.	256.	12: 2	3719.	39.
26	1485.	N.A.	N.A.	251.	12:18	3719.	40.
27	1445.	N.A.	N.A.	238.	12: 4	3715.	39.
28	1379.	N.A.	N.A.	251.	12: 1	3711.	37.
29	896.	N.A.	N.A.	193.	12:12	3709.	24.
30	1631.	N.A.	N.A.	265.	12:24	3703.	44.
31	1548.	N.A.	N.A.	260.	12:20	3697.	42.
MEAN	1098.	N.A.	N.A.			3690.	
STANDARD DEVIATION	513.	N.A.	N.A.			38.	

ENVIRONMENTAL SUMMARY REPORT

SITE: HONEYWELL CARROLLTON
CARROLLTON, TEXAS

REPORT PERIOD: 80/12
SITE NUMBER: 119

LATITUDE: 320.51 DEG NORTH AZIMUTH: 0 DEG
LONGITUDE: 96.51 DEG WEST PYRANOMETER TILT: 20 DEG TIME ZONE: CENTRAL
ALTITUDE: 500 FEET

TEMPERATURES IN DEGREES F

DAY	AVERAGE TEMP	DAYTIME TEMP	NIGHTTIME TEMP	MAX TEMPERATURE VALUE TIME HR:MN	MIN TEMPERATURE VALUE TIME HR:MN	INLET WATER TEMPERATURE
1	66.	69.	62.	78. 13:38	52. 23:58	N.A.
2	41.	41.	41.	52. 0: 3	34. 8:30	N.A.
3	45.	46.	43.	56. 15:42	32. 3:31	N.A.
4	58.	58.	57.	63. 14:56	52. 0:38	N.A.
5	67.	68.	65.	72. 14:28	60. 0: 4	N.A.
6	67.	68.	67.	73. 14:46	64. 8:33	N.A.
7	69.	69.	68.	72. 16:16	65. 0:59	N.A.
8	49.	47.	52.	70. 0: 0	39. 23:26	N.A.
9	41.	42.	39.	48. 13:29	37. 7:37	N.A.
10	41.	43.	37.	52. 15: 9	34. 7: 2	N.A.
11	47.	51.	40.	67. 15:48	32. 5:45	N.A.
12	52.	54.	47.	67. 14:23	38. 7:27	N.A.
13	55.	57.	51.	67. 14:13	44. 7:17	N.A.
14	55.	57.	50.	71. 14:58	43. 4:21	N.A.
15	57.	60.	52.	68. 15:14	49. 23:54	N.A.
16	57.	60.	51.	70. 15:32	47. 3:38	N.A.
17	56.	59.	53.	71. 15:33	42. 5:25	N.A.
18	63.	67.	55.	83. 15: 3	47. 23:44	N.A.
19	37.	37.	37.	46. 0:16	32. 22:18	N.A.
20	29.	28.	30.	32. 0:10	26. 23:49	N.A.
21	30.	31.	29.	39. 12:53	19. 6: 8	N.A.
22	40.	40.	40.	47. 15:28	34. 0:48	N.A.
23	55.	57.	51.	65. 15:54	46. 1:35	N.A.
24	39.	39.	38.	50. 1: 2	25. 23:57	N.A.
25	29.	30.	28.	39. 15:20	18. 6:48	N.A.
26	43.	46.	39.	62. 15:43	29. 7:36	N.A.
27	48.	51.	44.	64. 15:11	34. 7:16	N.A.
28	52.	54.	48.	65. 15:34	42. 7:48	N.A.
29	49.	51.	46.	61. 15:45	38. 23:42	N.A.
30	47.	50.	43.	64. 15:31	31. 7:26	N.A.
31	51.	55.	46.	69. 14:12	37. 7: 6	N.A.
MEAN	49.	51.	47.			N.A.
STANDARD DEVIATION	11.0	11.6	10.4			N.A.

ENVIRONMENTAL SUMMARY REPORT

SITE: LOYOLA UNIVERSITY
NEW ORLEANS, LOUISIANA

REPORT PERIOD: 80/12
SITE NUMBER: 95

LATITUDE: 30.00 DEG NORTH
LONGITUDE: 90.00 DEG WEST

AZIMUTH: 16 DEG
PYRANOMETER TILT: 38 DEG

TIME ZONE: CENTRAL
ALTITUDE: -2 FEET

INSOLATION

DAY	TOTAL INSOLATION BTU/FT2	TOTAL DIFF INSOLATION BTU/FT2	TOTAL DIR INSOLATION BTU/FT2	MAXIMUM TOTAL INSOLATION VALUE BTU/HR/FT2	TIME HR:MN	EXTRATERRESTRIAL INSOLATION BTU/FT2	TTL INS ----- EXT INS PERCENT
1	1170.	N.A.	N.A.	299.	13:21	3111.	38.
2	1585.	N.A.	N.A.	293.	12:17	3110.	51.
3	1588.	N.A.	N.A.	287.	11: 2	3107.	51.
4	1681.	N.A.	N.A.	278.	12:15	3107.	54.
5	1466.	N.A.	N.A.	287.	13: 7	3104.	47.
6	1603.	N.A.	N.A.	281.	12:16	3099.	52.
7	1357.	N.A.	N.A.	293.	12:36	3097.	44.
8	840.	N.A.	N.A.	216.	13: 3	3097.	27.
9	971.	N.A.	N.A.	312.	12: 9	3095.	31.
10	132.	N.A.	N.A.	56.	11:56	3093.	4.
11	1888.	N.A.	N.A.	302.	12:21	3088.	61.
12	1720.	N.A.	N.A.	281.	12:41	3087.	56.
13	1191.	N.A.	N.A.	262.	13:51	3086.	39.
14	1757.	N.A.	N.A.	290.	12:22	3085.	57.
15	1701.	N.A.	N.A.	281.	12:38	3086.	55.
16	1242.	N.A.	N.A.	305.	12:23	3085.	40.
17	1821.	N.A.	N.A.	293.	12:28	3085.	59.
18	1756.	N.A.	N.A.	287.	12:28	3085.	57.
19	1161.	N.A.	N.A.	265.	11:48	3085.	38.
20	420.	N.A.	N.A.	136.	13: 6	3085.	14.
21	1573.	N.A.	N.A.	284.	13: 0	3085.	51.
22	689.	N.A.	N.A.	188.	14: 4	3085.	22.
23	895.	N.A.	N.A.	225.	14: 4	3086.	29.
24	461.	N.A.	N.A.	216.	13:54	3087.	15.
25	1866.	N.A.	N.A.	302.	12:30	3088.	60.
26	961.	N.A.	N.A.	284.	12:57	3089.	31.
27	*	N.A.	N.A.	*	*:*	3090.	*
28	1849.	N.A.	N.A.	302.	12:32	3090.	60.
29	1655.	N.A.	N.A.	312.	13:15	3091.	54.
30	1788.	N.A.	N.A.	299.	12:27	3093.	58.
31	1786.	N.A.	N.A.	293.	12:56	3098.	58.
MEAN	1352.	N.A.	N.A.			3092.	
STANDARD DEVIATION	487.	N.A.	N.A.			8.	

ENVIRONMENTAL SUMMARY REPORT

SITE: LOYOLA UNIVERSITY
NEW ORLEANS, LOUISIANA

REPORT PERIOD: 80/12
SITE NUMBER: 95

LATITUDE: 30.00 DEG NORTH AZIMUTH: 16 DEG
LONGITUDE: 90.00 DEG WEST PYRANOMETER TILT: 38 DEG
TIME ZONE: CENTRAL
ALTITUDE: -2 FEET

TEMPERATURES IN DEGREES F

DAY	AVERAGE TEMP	DAYTIME TEMP	NIGHTTIME TEMP	MAX TEMPERATURE VALUE	TIME HR:MN	MIN TEMPERATURE VALUE	TIME HR:MN	INLET WATER TEMPERATURE
1	62.	68.	58.	74.	14: 9	52.	4:12	62.
2	68.	74.	65.	80.	13:21	61.	6: 9	62.
3	57.	60.	54.	67.	15:34	50.	7:55	61.
4	59.	65.	54.	73.	12:26	49.	4:47	61.
5	62.	68.	58.	75.	12:35	53.	6: 6	61.
6	66.	71.	62.	75.	13:52	59.	6:35	61.
7	67.	71.	63.	75.	11:59	60.	5:31	62.
8	68.	73.	65.	76.	13:14	62.	2:23	62.
9	69.	74.	65.	79.	11:58	57.	23:56	62.
10	50.	50.	51.	57.	0:23	44.	23:33	62.
11	47.	49.	45.	56.	16:16	39.	6:45	62.
12	53.	59.	47.	66.	12:46	42.	6:17	61.
13	53.	56.	50.	62.	15:32	44.	6:12	60.
14	55.	60.	51.	69.	15:12	48.	6:55	61.
15	55.	62.	50.	71.	14:51	43.	6:46	61.
16	56.	59.	54.	64.	12:23	50.	23:56	60.
17	49.	51.	48.	58.	16: 1	43.	6:30	60.
18	55.	61.	51.	69.	13:32	44.	7: 3	60.
19	61.	68.	56.	74.	13:13	49.	23:56	61.
20	41.	40.	42.	48.	0: 2	36.	23:40	62.
21	39.	41.	39.	49.	15:56	31.	7: 3	62.
22	48.	51.	45.	58.	14:10	39.	4:12	62.
23	61.	65.	57.	72.	13:58	51.	3:40	62.
24	58.	63.	54.	68.	12:39	39.	23:54	63.
25	37.	37.	37.	44.	16: 9	31.	7: 5	61.
26	43.	46.	41.	53.	11:57	34.	5:39	61.
27	44.	46.	43.	52.	15:48	38.	5:50	60.
28	45.	48.	44.	55.	16:16	37.	6:55	60.
29	51.	57.	47.	65.	15: 7	41.	6:24	59.
30	48.	49.	47.	56.	16: 6	41.	7:45	58.
31	50.	56.	46.	65.	14:10	37.	6:37	58.
MEAN	54.	58.	51.					61.
STANDARD DEVIATION	8.9	10.4	7.8					1.2

ENVIRONMENTAL SUMMARY REPORT

SITE: RANDOLPH AIR FORCE BASE
UNIVERSAL CITY, TEXAS

REPORT PERIOD: 80/12
SITE NUMBER: 25

LATITUDE: 29.50 DEG NORTH
LONGITUDE: 98.30 DEG WEST

AZIMUTH: 0 DEG
PYRANOMETER TILT: 15 DEG

TIME ZONE: CENTRAL
ALTITUDE: 790 FEET

INSOLATION

DAY	TOTAL INSOLATION BTU/FT2	TOTAL DIFF INSOLATION BTU/FT2	TOTAL DIR INSOLATION BTU/FT2	MAXIMUM TOTAL INSOLATION VALUE BTU/HR/FT2	TIME HR:MN	EXTRATERRESTRIAL INSOLATION BTU/FT2	TTL INS ----- EXT INS PERCENT
1	843.	N.A.	N.A.	281.	12:16	2504.	34.
2	1028.	N.A.	N.A.	255.	11:56	2501.	41.
3	240.	N.A.	N.A.	85.	11:43	2496.	10.
4	112.	N.A.	N.A.	41.	15:58	2488.	4.
5	123.	N.A.	N.A.	56.	11:18	2483.	5.
6	308.	N.A.	N.A.	85.	13:43	2481.	12.
7	295.	N.A.	N.A.	102.	11:31	2477.	12.
8	82.	N.A.	N.A.	38.	13:34	2475.	3.
9	441.	N.A.	N.A.	111.	12:32	2472.	18.
10	1327.	N.A.	N.A.	252.	13:13	2468.	54.
11	1483.	N.A.	N.A.	243.	11:53	2463.	60.
12	1433.	N.A.	N.A.	266.	13:15	2460.	58.
13	551.	N.A.	N.A.	231.	11:29	2457.	22.
14	48.	N.A.	N.A.	26.	11:43	2455.	2.
15	304.	N.A.	N.A.	149.	15:33	2456.	12.
16	1505.	N.A.	N.A.	243.	12:20	2455.	61.
17	1487.	N.A.	N.A.	246.	12:44	2453.	61.
18	1600.	N.A.	N.A.	249.	13: 1	2453.	65.
19	301.	N.A.	N.A.	88.	6:28	2452.	12.
20	357.	N.A.	N.A.	173.	11:16	2452.	15.
21	292.	N.A.	N.A.	67.	12:46	2452.	12.
22	193.	N.A.	N.A.	67.	12:35	2453.	8.
23	329.	N.A.	N.A.	73.	12:40	2453.	13.
24	1070.	N.A.	N.A.	246.	13: 6	2455.	44.
25	1531.	N.A.	N.A.	243.	12:24	2456.	62.
26	1483.	N.A.	N.A.	237.	12:48	2458.	60.
27	1489.	N.A.	N.A.	246.	12:16	2460.	61.
28	1685.	N.A.	N.A.	237.	13:38	2460.	69.
29	608.	N.A.	N.A.	255.	14:30	2462.	25.
30	1646.	N.A.	N.A.	249.	12:33	2466.	67.
31	1486.	N.A.	N.A.	252.	13:39	2469.	60.
MEAN	828.	N.A.	N.A.			2466.	
STANDARD DEVIATION	603.	N.A.	N.A.			15.	

ENVIRONMENTAL SUMMARY REPORT

SITE: RANDOLPH AIR FORCE BASE
UNIVERSAL CITY, TEXAS

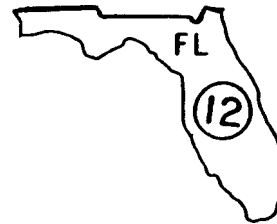
REPORT PERIOD: 80/12
SITE NUMBER: 25

LATITUDE: 29.50 DEG NORTH AZIMUTH: 0 DEG
LONGITUDE: 98.30 DEG WEST PYRANOMETER TILT: 15 DEG TIME ZONE: CENTRAL
ALTITUDE: 790 FEET

TEMPERATURES IN DEGREES F

DAY	AVERAGE TEMP	DAYTIME TEMP	NIGHTTIME TEMP	MAX TEMPERATURE VALUE TIME HR:MN	MIN TEMPERATURE VALUE TIME HR:MN	INLET WATER TEMPERATURE
1	64.	68.	61.	76. 15: 7	58. 23:40	96.
2	53.	52.	54.	62. 2:31	44. 23:53	96.
3	48.	50.	47.	54. 13:40	39. 3:53	97.
4	59.	61.	59.	65. 15:58	53. 0:25	92.
5	66.	67.	66.	71. 13:21	64. 4:43	87.
6	69.	70.	67.	75. 14:31	65. 5:17	85.
7	70.	72.	68.	75. 15:10	67. 2:58	90.
8	62.	64.	60.	70. 0:46	49. 23:55	85.
9	48.	49.	48.	53. 15:12	44. 4:48	82.
10	48.	51.	45.	60. 14:44	39. 23:55	81.
11	48.	55.	43.	65. 15:21	34. 6:14	82.
12	53.	59.	49.	70. 15:28	37. 7:17	85.
13	58.	61.	56.	68. 13: 5	49. 7: 2	86.
14	56.	56.	56.	58. 8:42	55. 20:37	90.
15	57.	59.	55.	66. 16:21	51. 23:16	84.
16	63.	72.	56.	82. 14:23	45. 6:33	85.
17	61.	68.	56.	75. 15:14	47. 7:24	88.
18	60.	66.	54.	79. 15:41	48. 6:48	90.
19	47.	47.	48.	60. 1:35	36. 23:48	86.
20	36.	37.	35.	40. 15:10	34. 6:33	82.
21	36.	37.	36.	41. 14:22	32. 7:16	82.
22	42.	43.	41.	47. 14:33	37. 0:30	81.
23	53.	56.	51.	62. 14: 6	44. 0: 3	83.
24	50.	53.	48.	58. 15:20	36. 23:57	84.
25	37.	40.	35.	50. 14: 5	27. 7:25	93.
26	49.	56.	43.	71. 14:29	30. 6:10	93.
27	55.	62.	50.	72. 16:16	42. 6:50	87.
28	54.	59.	52.	70. 17:27	38. 6:40	93.
29	53.	56.	51.	67. 14:30	45. 3:14	94.
30	53.	55.	51.	69. 15:57	40. 7:23	84.
31	54.	59.	50.	74. 16:48	40. 7:21	86.
MEAN	54.	57.	51.			87.
STANDARD DEVIATION	8.7	9.5	8.6			4.8

ZONE 12



ENVIRONMENTAL SUMMARY REPORT

SITE: MATT D. CANNON
GAINESVILLE, FLORIDA

REPORT PERIOD: 80/12
SITE NUMBER: 163

LATITUDE: 29.40 DEG NORTH
LONGITUDE: 82.10 DEG WEST

AZIMUTH: 0 DEG
PYRANOMETER TILT: 45 DEG

TIME ZONE: EASTERN
ALTITUDE: 30 FEET

INSOLATION

DAY	TOTAL INSOLATION BTU/FT2	TOTAL DIFF INSOLATION BTU/FT2	TOTAL DIR INSOLATION BTU/FT2	MAXIMUM TOTAL INSOLATION VALUE BTU/HR/FT2	TIME HR:MN	EXTRATERRESTRIAL INSOLATION BTU/FT2	TTL INS ----- EXT INS PERCENT
1	1317.	N.A.	N.A.	292.	14: 2	3308.	40.
2	1445.	N.A.	N.A.	304.	13:44	3306.	44.
3	1721.	N.A.	N.A.	295.	13:25	3308.	52.
4	1426.	N.A.	N.A.	289.	13:26	3307.	43.
5	1414.	N.A.	N.A.	328.	13:39	3300.	43.
6	1415.	N.A.	N.A.	307.	13: 0	3298.	43.
7	1601.	N.A.	N.A.	295.	12:59	3301.	49.
8	1461.	N.A.	N.A.	289.	13:15	3300.	44.
9	1247.	N.A.	N.A.	269.	13: 5	3303.	38.
10	644.	N.A.	N.A.	233.	11:32	3302.	20.
11	*	N.A.	N.A.	*	*:*	3301.	*
12	1693.	N.A.	N.A.	289.	13:10	3294.	51.
13	*	N.A.	N.A.	*	*:*	3293.	*
14	2423.	N.A.	N.A.	283.	13:30	3293.	74.
15	1447.	N.A.	N.A.	298.	12:53	3293.	44.
16	*	N.A.	N.A.	*	*:*	3292.	*
17	*	N.A.	N.A.	*	*:*	3296.	*
18	1831.	N.A.	N.A.	283.	13:33	3296.	56.
19	1588.	N.A.	N.A.	278.	13:13	3296.	48.
20	1518.	N.A.	N.A.	269.	13:24	3296.	46.
21	310.	N.A.	N.A.	74.	14:41	3296.	9.
22	*	N.A.	N.A.	*	*:*	3297.	*
23	502.	N.A.	N.A.	180.	15:50	3297.	15.
24	1183.	N.A.	N.A.	301.	13:11	3298.	36.
25	*	N.A.	N.A.	*	*:*	3299.	*
26	*	N.A.	N.A.	*	*:*	3296.	*
27	*	N.A.	N.A.	*	*:*	3297.	*
28	*	N.A.	N.A.	*	*:*	3298.	*
29	151.	N.A.	N.A.	44.	13:42	3299.	5.
30	1395.	N.A.	N.A.	292.	13:17	3306.	42.
31	1471.	N.A.	N.A.	286.	13: 3	3308.	44.
MEAN	1327.	N.A.	N.A.			3299.	
STANDARD DEVIATION	517.	N.A.	N.A.			5.	

ENVIRONMENTAL SUMMARY REPORT

SITE: MATT D. CANNON
GAINESVILLE, FLORIDA

REPORT PERIOD: 80/12
SITE NUMBER: 163

LATITUDE: 29.40 DEG NORTH AZIMUTH: 0 DEG
LONGITUDE: 82.10 DEG WEST PYRANOMETER TILT: 45 DEG
TIME ZONE: EASTERN
ALTITUDE: 30 FEET

TEMPERATURES IN DEGREES F

DAY	AVERAGE TEMP	DAYTIME TEMP	NIGHTTIME TEMP	MAX TEMPERATURE VALUE	TIME HR:MN	MIN TEMPERATURE VALUE	TIME HR:MN	INLET WATER TEMPERATURE
1	59.	68.	52.	82.	15:38	43.	5:14	63.
2	61.	69.	56.	80.	13:39	50.	7:4	66.
3	58.	64.	54.	70.	11:27	45.	23:50	67.
4	56.	64.	49.	74.	11:29	42.	5:42	65.
5	61.	70.	55.	82.	13:34	49.	4:35	66.
6	61.	70.	54.	83.	14:31	49.	23:56	67.
7	58.	69.	51.	82.	15:12	45.	6:31	67.
8	62.	72.	56.	83.	13:15	46.	6:45	68.
9	65.	73.	59.	83.	13:48	55.	6:47	69.
10	65.	71.	58.	80.	11:37	54.	7:11	67.
11	50.	60.	46.	63.	14:54	42.	21:42	68.
12	52.	60.	42.	73.	15:55	37.	7:18	66.
13	40.	*	40.	40.	1:43	40.	1:43	64.
14	61.	68.	51.	72.	14:34	47.	23:54	66.
15	56.	64.	49.	74.	13:4	44.	6:40	66.
16	47.	*	47.	50.	0:22	40.	6:35	65.
17	*	*	*	*	*:*	*	*:*	*
18	53.	58.	45.	69.	14:48	33.	7:47	64.
19	52.	62.	45.	73.	13:19	37.	4:29	63.
20	56.	62.	51.	71.	12:41	46.	0:14	65.
21	47.	47.	47.	52.	0:4	38.	21:10	63.
22	47.	47.	48.	115.	23:50	39.	0:1	63.
23	47.	50.	46.	55.	15:50	43.	19:51	60.
24	49.	55.	43.	72.	13:32	41.	7:35	59.
25	*	*	*	*	*:*	*	*:*	*
26	*	*	*	*	*:*	*	*:*	*
27	*	*	*	*	*:*	*	*:*	*
28	*	*	*	*	*:*	*	*:*	*
29	50.	50.	51.	53.	14:3	45.	8:1	58.
30	53.	59.	48.	67.	14:15	43.	7:35	59.
31	48.	52.	45.	64.	14:39	38.	7:38	60.
MEAN	54.	62.	49.					64.
STANDARD DEVIATION	6.6	8.2	5.0					3.0

ENVIRONMENTAL SUMMARY REPORT

SITE: REEDY CREEK UTILITIES
LAKE BUENA VISTA, FLORIDA

REPORT PERIOD: 80/12
SITE NUMBER: 18

LATITUDE: 28.40 DEG NORTH AZIMUTH: 0 DEG
LONGITUDE: 81.30 DEG WEST PYRANOMETER TILT: 0 DEG
TIME ZONE: EASTERN
ALTITUDE: 66 FEET

INSOLATION

DAY	TOTAL INSOLATION BTU/FT2	TOTAL DIFF INSOLATION BTU/FT2	TOTAL DIR INSOLATION BTU/FT2	MAXIMUM TOTAL INSOLATION VALUE BTU/HR/FT2	TOTAL TIME HR:MN	EXTRATERRESTRIAL INSOLATION BTU/FT2	TTL INS ----- EXT INS PERCENT
1	*	*	*	*	*: *	1890.	*
2	*	*	*	*	*: *	1882.	*
3	*	*	*	*	*: *	1875.	*
4	*	*	*	*	*: *	1871.	*
5	*	*	*	*	*: *	1864.	*
6	*	*	*	*	*: *	1861.	*
7	*	*	*	*	*: *	1855.	*
8	*	*	*	*	*: *	1850.	*
9	*	*	*	*	*: *	1845.	*
10	*	*	*	*	*: *	1841.	*
11	*	*	*	*	*: *	1837.	*
12	1583.	1575.	8.	181.	11:50	1835.	86.
13	1050.	1034.	16.	181.	12:15	1832.	57.
14	965.	948.	16.	178.	11:56	1829.	53.
15	1016.	986.	30.	203.	13: 2	1827.	56.
16	498.	455.	42.	159.	11:10	1825.	27.
17	*	*	*	*	*: *	1823.	*
18	1532.	142.	1389.	191.	12:25	1822.	84.
19	1018.	165.	854.	184.	12:25	1821.	56.
20	1032.	160.	872.	187.	12: 1	1821.	57.
21	155.	152.	3.	51.	10:36	1821.	9.
22	179.	174.	5.	118.	13:21	1822.	10.
23	450.	332.	118.	191.	11:44	1822.	25.
24	810.	223.	587.	194.	12:50	1824.	44.
25	813.	312.	501.	200.	11:40	1825.	45.
26	974.	193.	781.	187.	12: 4	1828.	53.
27	1005.	210.	795.	206.	13: 8	1830.	55.
28	274.	274.	1.	64.	10:51	1833.	15.
29	359.	318.	41.	137.	11:23	1837.	20.
30	967.	155.	812.	213.	12:48	1840.	53.
31	1015.	102.	914.	191.	11:58	1842.	55.
MEAN	826.	416.	410.			1840.	
STANDARD DEVIATION	409.	409.	446.			20.	

ENVIRONMENTAL SUMMARY REPORT

SITE: REEDY CREEK UTILITIES
LAKE BUENA VISTA, FLORIDA

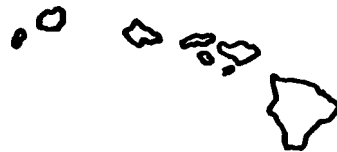
REPORT PERIOD: 80/12
SITE NUMBER: 18

LATITUDE: 28.40 DEG NORTH AZIMUTH: 0 DEG TIME ZONE: EASTERN
LONGITUDE: 81.30 DEG WEST PYRANOMETER TILT: 0 DEG ALTITUDE: 66 FEET

TEMPERATURES IN DEGREES F

DAY	AVERAGE TEMP	DAYTIME TEMP	NIGHTTIME TEMP	MAX TEMPERATURE VALUE	TIME HR:MN	MIN TEMPERATURE VALUE	TIME HR:MN	INLET WATER TEMPERATURE
1	*	*	*	*	*:*	*	*:*	N.A.
2	*	*	*	*	*:*	*	*:*	N.A.
3	*	*	*	*	*:*	*	*:*	N.A.
4	*	*	*	*	*:*	*	*:*	N.A.
5	*	*	*	*	*:*	*	*:*	N.A.
6	*	*	*	*	*:*	*	*:*	N.A.
7	*	*	*	*	*:*	*	*:*	N.A.
8	*	*	*	*	*:*	*	*:*	N.A.
9	*	*	*	*	*:*	*	*:*	N.A.
10	78.	80.	70.	85.	14:25	67.	20: 6	N.A.
11	61.	62.	52.	65.	13:43	52.	20:43	N.A.
12	64.	67.	55.	73.	14:25	49.	23:54	N.A.
13	59.	69.	52.	82.	15:43	46.	6:39	N.A.
14	55.	65.	50.	74.	14:36	27.	1:51	N.A.
15	59.	69.	50.	77.	14:11	47.	1:48	N.A.
16	55.	61.	49.	71.	11:16	47.	3:32	N.A.
17	56.	59.	53.	64.	15: 2	50.	7:34	N.A.
18	58.	65.	49.	74.	14:49	44.	23:58	N.A.
19	57.	65.	50.	77.	14:38	40.	5:23	N.A.
20	58.	66.	53.	74.	15: 3	43.	16:23	N.A.
21	53.	56.	51.	58.	11:45	30.	1:48	N.A.
22	58.	60.	57.	67.	15: 8	50.	0:22	N.A.
23	56.	58.	54.	67.	11:33	50.	23:46	N.A.
24	57.	61.	54.	75.	14:52	48.	7:14	N.A.
25	50.	51.	50.	60.	5: 5	39.	21:10	N.A.
26	50.	57.	45.	70.	13:56	37.	2:30	N.A.
27	48.	52.	44.	60.	15:11	41.	22:18	N.A.
28	42.	42.	42.	46.	15: 7	38.	7:43	N.A.
29	49.	51.	48.	55.	13:20	41.	6:13	N.A.
30	55.	63.	49.	72.	14:45	44.	6:24	N.A.
31	50.	55.	46.	67.	15:16	33.	11:10	N.A.
MEAN	56.	61.	51.					N.A.
STANDARD DEVIATION	7.0	7.9	5.6					N.A.

HAWAII



ENVIRONMENTAL SUMMARY REPORT

SITE: A-FRAME INDUSTRIES
KANE OHE, HAWAII

REPORT PERIOD: 80/12
SITE NUMBER: 54

LATITUDE: 21.50 DEG NORTH
LONGITUDE: 158.00 DEG WEST

AZIMUTH: -10 DEG
PYRANOMETER TILT: 21 DEG

TIME ZONE: HONOLULU
ALTITUDE: 50 FEET

INSOLATION

DAY	TOTAL INSOLATION BTU/FT2	TOTAL DIFF INSOLATION BTU/FT2	TOTAL DIR INSOLATION BTU/FT2	MAXIMUM TOTAL INSOLATION VALUE BTU/HR/FT2	TIME HR:MN	EXTRATERRESTRIAL INSOLATION BTU/FT2	TTL INS ----- EXT INS PERCENT
1	1430.	N.A.	N.A.	268.	11:37	3039.	47.
2	1603.	N.A.	N.A.	289.	11:32	3035.	53.
3	1219.	N.A.	N.A.	268.	12:45	3036.	40.
4	1324.	N.A.	N.A.	280.	11:57	3032.	44.
5	290.	N.A.	N.A.	220.	10: 5	3030.	10.
6	315.	N.A.	N.A.	86.	14:24	3023.	10.
7	773.	N.A.	N.A.	313.	12:43	3021.	26.
8	1138.	N.A.	N.A.	286.	12:33	3018.	38.
9	1203.	N.A.	N.A.	274.	11:13	3020.	40.
10	1443.	N.A.	N.A.	298.	12:54	3018.	48.
11	945.	N.A.	N.A.	286.	13: 4	3016.	31.
12	1261.	N.A.	N.A.	268.	11:44	3014.	42.
13	994.	N.A.	N.A.	271.	11: 1	3013.	33.
14	388.	N.A.	N.A.	202.	11:31	3008.	13.
15	642.	N.A.	N.A.	134.	12:35	3007.	21.
16	1337.	N.A.	N.A.	295.	13: 8	3006.	44.
17	1593.	N.A.	N.A.	295.	13:19	3006.	53.
18	1631.	N.A.	N.A.	256.	11:49	3005.	54.
19	1408.	N.A.	N.A.	277.	12:43	3005.	47.
20	862.	N.A.	N.A.	307.	13: 4	3005.	29.
21	442.	N.A.	N.A.	161.	13:16	3005.	15.
22	567.	N.A.	N.A.	188.	11: 8	3006.	19.
23	514.	N.A.	N.A.	191.	13:42	3006.	17.
24	396.	N.A.	N.A.	125.	11: 5	3007.	13.
25	1288.	N.A.	N.A.	286.	12:23	3008.	43.
26	591.	N.A.	N.A.	295.	11:56	3010.	20.
27	701.	N.A.	N.A.	217.	12: 1	3011.	23.
28	591.	N.A.	N.A.	274.	10:52	3013.	20.
29	1179.	N.A.	N.A.	304.	12:53	3018.	39.
30	851.	N.A.	N.A.	274.	11:22	3020.	28.
31	1578.	N.A.	N.A.	259.	12:16	3023.	52.
MEAN	984.	N.A.	N.A.			3016.	
STANDARD DEVIATION	432.	N.A.	N.A.			10.	

ENVIRONMENTAL SUMMARY REPORT

SITE: A-FRAME INDUSTRIES
KANEHOE, HAWAII

REPORT PERIOD: 80/12
SITE NUMBER: 54

LATITUDE: 21.50 DEG NORTH
LONGITUDE: 158.00 DEG WEST

AZIMUTH: -10 DEG
PYRANOMETER TILT: 21 DEG

TIME ZONE: HONOLULU
ALTITUDE: 50 FEET

TEMPERATURES IN DEGREES F

DAY	AVERAGE TEMP	DAYTIME TEMP	NIGHTTIME TEMP	MAX TEMPERATURE VALUE	TIME HR:MN	MIN TEMPERATURE VALUE	TIME HR:MN	INLET WATER TEMPERATURE
1	71.	75.	69.	80.	15:21	66.	6: 1	73.
2	74.	77.	71.	83.	14:26	69.	0: 4	73.
3	72.	75.	70.	79.	15:19	67.	7: 9	73.
4	75.	78.	72.	83.	13:38	68.	1:27	73.
5	73.	73.	73.	82.	10:15	67.	13:25	74.
6	71.	72.	69.	75.	10:24	68.	4:43	71.
7	72.	75.	70.	79.	12:59	69.	4:43	73.
8	73.	75.	71.	79.	12: 5	68.	6:35	72.
9	73.	76.	71.	81.	15: 4	67.	6:14	73.
10	73.	76.	70.	83.	15:28	67.	6:27	73.
11	72.	74.	70.	78.	13: 4	67.	4:11	72.
12	74.	76.	72.	80.	14:48	68.	4:48	73.
13	77.	78.	76.	80.	11:12	74.	2:20	75.
14	73.	73.	73.	78.	1: 9	67.	23:31	73.
15	68.	69.	67.	71.	15:52	65.	22:59	70.
16	68.	70.	67.	72.	15:38	64.	4:40	70.
17	67.	70.	64.	75.	15:38	60.	6:12	73.
18	69.	72.	66.	78.	15:34	61.	6:39	71.
19	74.	77.	72.	80.	15:34	68.	2:20	74.
20	73.	75.	71.	79.	13:26	68.	7:50	72.
21	76.	77.	75.	80.	13:21	69.	0:11	74.
22	76.	78.	75.	80.	13:44	73.	23:20	75.
23	74.	75.	74.	78.	14:35	72.	6:16	74.
24	76.	77.	75.	79.	11:37	73.	20: 9	74.
25	74.	76.	72.	81.	15:24	68.	22:20	73.
26	70.	72.	69.	75.	12: 1	67.	5: 5	71.
27	72.	74.	70.	78.	15:51	68.	0:17	72.
28	73.	75.	71.	78.	14:36	68.	0:17	73.
29	71.	73.	70.	78.	13:15	66.	7: 8	72.
30	72.	75.	70.	79.	13:47	68.	23:17	72.
31	71.	73.	69.	77.	15: 1	66.	7:44	71.
MEAN	72.	74.	71.					73.
STANDARD DEVIATION	2.4	2.4	2.6					1.2

ENVIRONMENTAL SUMMARY REPORT

SITE: HONOLULU RAMADA
HONOLULU, HI

REPORT PERIOD: 80/12
SITE NUMBER: 192

LATITUDE: 24.00 DEG NORTH
LONGITUDE: 157.00 DEG WEST

AZIMUTH: 0 DEG
PYRANOMETER TILT: 0 DEG

TIME ZONE: HAWAIIAM
ALTITUDE: 32 FEET

INSOLATION

DAY	TOTAL INSOLATION BTU/FT2	TOTAL DIFF INSOLATION BTU/FT2	TOTAL DIR INSOLATION BTU/FT2	MAXIMUM TOTAL INSOLATION VALUE BTU/HR/FT2	TOTAL TIME HR:MN	EXTRATERRESTRIAL INSOLATION BTU/FT2	TTL INS ----- EXT INS PERCENT
1	1557.	N.A.	N.A.	251.	12:51	2118.	74.
2	1532.	N.A.	N.A.	278.	12:58	2111.	73.
3	1571.	N.A.	N.A.	251.	12:25	2105.	75.
4	1178.	N.A.	N.A.	268.	12:47	2099.	56.
5	316.	N.A.	N.A.	194.	10: 4	2095.	15.
6	1012.	N.A.	N.A.	312.	13:32	2090.	48.
7	1229.	N.A.	N.A.	305.	12:13	2085.	59.
8	1478.	N.A.	N.A.	238.	12: 3	2082.	71.
9	1454.	N.A.	N.A.	241.	12:26	2078.	70.
10	1548.	N.A.	N.A.	241.	12:31	2074.	75.
11	1216.	N.A.	N.A.	258.	12:43	2070.	59.
12	1320.	N.A.	N.A.	268.	12:11	2067.	64.
13	1135.	N.A.	N.A.	248.	12: 4	2064.	55.
14	176.	N.A.	N.A.	154.	15:15	2061.	9.
15	817.	N.A.	N.A.	201.	14: 5	2059.	40.
16	1494.	N.A.	N.A.	248.	13: 3	2057.	73.
17	1535.	N.A.	N.A.	245.	12:29	2058.	75.
18	1504.	N.A.	N.A.	241.	12:36	2057.	73.
19	1301.	N.A.	N.A.	285.	12:40	2056.	63.
20	1200.	N.A.	N.A.	292.	13:20	2056.	58.
21	663.	N.A.	N.A.	255.	13:18	2056.	32.
22	878.	N.A.	N.A.	285.	12:35	2057.	43.
23	378.	N.A.	N.A.	225.	14: 0	2058.	18.
24	1114.	N.A.	N.A.	288.	12:41	2059.	54.
25	1049.	N.A.	N.A.	235.	13:24	2060.	51.
26	1410.	N.A.	N.A.	238.	11:54	2060.	68.
27	1426.	N.A.	N.A.	272.	11: 0	2063.	69.
28	1038.	N.A.	N.A.	258.	13:22	2065.	50.
29	1512.	N.A.	N.A.	241.	12:39	2068.	73.
30	1010.	N.A.	N.A.	278.	11:43	2072.	49.
31	1510.	N.A.	N.A.	238.	12:21	2076.	73.
MEAN	1179.	N.A.	N.A.			2072.	
STANDARD DEVIATION	383.	N.A.	N.A.			18.	

ENVIRONMENTAL SUMMARY REPORT

SITE: HONOLULU RAMADA
HONOLULU, HI

REPORT PERIOD: 80/12
SITE NUMBER: 192

LATITUDE: 24.00 DEG NORTH
LONGITUDE: 157.00 DEG WEST

AZIMUTH: 0 DEG
PYRANOMETER TILT: 0 DEG

TIME ZONE: HAWAIIAN
ALTITUDE: 32 FEET

TEMPERATURES IN DEGREES F

DAY	AVERAGE TEMP	DAYTIME TEMP	NIGHTTIME TEMP	MAX TEMPERATURE VALUE	TIME HR:MN	MIN TEMPERATURE VALUE	TIME HR:MN	INLET WATER TEMPERATURE
1	75.	79.	71.	82.	13:34	68.	4:40	72.
2	75.	79.	72.	82.	14:32	70.	23:15	72.
3	75.	79.	71.	82.	12:14	67.	6:54	72.
4	77.	79.	74.	82.	11: 6	71.	3:32	72.
5	73.	73.	74.	83.	9:54	67.	11:51	72.
6	74.	78.	70.	85.	10:47	69.	7:14	72.
7	75.	79.	73.	85.	15: 4	69.	8:19	72.
8	76.	80.	74.	84.	11:25	71.	3: 4	72.
9	76.	80.	73.	83.	11:48	70.	4:31	72.
10	76.	80.	72.	84.	10: 7	69.	6:18	71.
11	75.	79.	72.	83.	11:34	67.	3:18	72.
12	76.	78.	74.	82.	15:37	71.	6: 9	72.
13	79.	80.	77.	83.	12: 4	76.	2:33	72.
14	73.	73.	73.	78.	1:13	69.	23:57	72.
15	72.	76.	69.	82.	15:47	65.	22:59	72.
16	72.	78.	67.	83.	10:17	64.	3:36	72.
17	71.	78.	66.	86.	10:21	62.	5:38	72.
18	72.	76.	68.	81.	14:16	64.	4:31	72.
19	76.	80.	72.	85.	12:29	68.	2:43	72.
20	74.	77.	72.	81.	12:16	69.	3:44	72.
21	77.	78.	76.	81.	13:18	71.	0: 5	72.
22	77.	78.	76.	82.	12:40	73.	16:34	72.
23	75.	76.	75.	81.	14: 5	72.	5:44	72.
24	77.	79.	76.	82.	11:21	72.	19:10	72.
25	77.	81.	74.	88.	14:28	70.	21:13	73.
26	74.	77.	71.	82.	11:27	68.	6:12	72.
27	75.	79.	73.	83.	11:48	70.	23:54	72.
28	76.	80.	73.	87.	13:22	69.	2:18	72.
29	75.	79.	72.	82.	10:15	68.	5: 6	71.
30	75.	78.	72.	84.	13:28	69.	7: 0	71.
31	75.	79.	72.	85.	15:27	67.	7: 1	71.
MEAN	75.	78.	72.					72.
STANDARD DEVIATION	1.8	1.9	2.5					0.4

ENVIRONMENTAL SUMMARY REPORT

SITE: HONOLULU RAMADA
HONOLULU, HI

REPORT PERIOD: 80/12
SITE NUMBER: 192

LATITUDE: 24.00 DEG NORTH AZIMUTH: 0 DEG TIME ZONE: HAWAIIAN
LONGITUDE: 157.00 DEG WEST PYRANOMETER TILT: 0 DEG ALTITUDE: 32 FEET

WIND: SPEED IN MPH-DIRECTION IN DEGREES

DAY	AVG WIND DIRECTION	AVG WIND SPEED	DAYTIME DIRECTION	DAYTIME SPEED	MAXIMUM WIND SPEED	MAXIMUM WIND DIRECTION	TIME HR:MN
1	252.	3.	234.	4.	13.	229.	15:47
2	206.	3.	210.	4.	14.	232.	13:36
3	131.	4.	157.	5.	15.	151.	15:16
4	139.	6.	148.	6.	17.	166.	20:34
5	174.	5.	175.	5.	19.	302.	11:19
6	37.	3.	71.	3.	10.	55.	15:14
7	121.	3.	143.	4.	14.	156.	17:12
8	111.	3.	160.	4.	12.	220.	12:24
9	*	4.	*	4.	12.	*	13:30
10	*	3.	*	3.	9.	*	15: 2
11	*	3.	*	3.	12.	*	14:30
12	200.	5.	193.	5.	23.	210.	23:37
13	213.	11.	216.	13.	28.	218.	9:34
14	206.	5.	222.	6.	30.	220.	9:17
15	3.	3.	354.	5.	17.	352.	16:35
16	29.	4.	42.	6.	20.	59.	13: 8
17	*	3.	*	3.	10.	*	13: 1
18	*	2.	*	3.	9.	*	13: 8
19	333.	2.	290.	3.	9.	269.	17: 4
20	193.	3.	201.	4.	12.	154.	12:37
21	223.	11.	224.	14.	25.	236.	19:47
22	230.	7.	229.	8.	21.	216.	11:10
23	238.	6.	232.	6.	22.	220.	13:49
24	235.	9.	234.	11.	22.	233.	11:16
25	312.	3.	312.	3.	13.	353.	16:14
26	96.	3.	158.	3.	10.	153.	16:58
27	227.	3.	211.	3.	10.	216.	12:42
28	*	3.	*	3.	12.	*	12:12
29	250.	3.	232.	4.	13.	220.	13: 6
30	351.	3.	307.	3.	14.	346.	16: 5
31	317.	3.	242.	3.	15.	237.	13:57
MEAN	217.	4.	216.	5.			
STANDARD DEVIATION	95.5	2.3	70.0	2.8			

ENVIRONMENTAL SUMMARY REPORT

SITE: HONOLULU RAMADA
HONOLULU, HI

REPORT PERIOD: 80/12
SITE NUMBER: 192

LATITUDE: 24.00 DEG NORTH AZIMUTH: 0 DEG
LONGITUDE: 157.00 DEG WEST PYRANOMETER TILT: 0 DEG
TIME ZONE: HAWAIIAN ALTITUDE: 32 FEET

WIND: NUMBER OF HOURS IN EACH VELOCITY INTERVAL

DAY	0-3 MPH	4-7 MPH	8-12 MPH	13-18 MPH	19-24 MPH	25-31 MPH	32-38 MPH	ABOVE 38	MISSING HOURS
1	17	7	0	0	0	0	0	0	0
2	19	5	0	0	0	0	0	0	0
3	14	9	1	0	0	0	0	0	0
4	6	15	3	0	0	0	0	0	0
5	9	14	1	0	0	0	0	0	0
6	20	4	0	0	0	0	0	0	0
7	15	8	1	0	0	0	0	0	0
8	20	4	0	0	0	0	0	0	0
9	15	9	0	0	0	0	0	0	0
10	19	5	0	0	0	0	0	0	0
11	20	4	0	0	0	0	0	0	0
12	9	11	4	0	0	0	0	0	0
13	0	5	13	5	1	0	0	0	0
14	11	10	2	1	0	0	0	0	0
15	18	6	0	0	0	0	0	0	0
16	17	6	1	0	0	0	0	0	0
17	20	4	0	0	0	0	0	0	0
18	24	0	0	0	0	0	0	0	0
19	23	1	0	0	0	0	0	0	0
20	16	8	0	0	0	0	0	0	0
21	1	3	12	8	0	0	0	0	0
22	2	14	8	0	0	0	0	0	0
23	8	10	6	0	0	0	0	0	0
24	6	3	10	5	0	0	0	0	0
25	18	6	0	0	0	0	0	0	0
26	18	6	0	0	0	0	0	0	0
27	20	4	0	0	0	0	0	0	0
28	19	5	0	0	0	0	0	0	0
29	19	5	0	0	0	0	0	0	0
30	21	3	0	0	0	0	0	0	0
31	18	4	1	0	0	0	0	0	1
AVERAGE	14.9	6.4	2.0	0.6	0.0	0.0	0.0	0.0	0.0
TOTAL	462	198	63	19	1	0	0	0	1