SUSITNA
HYDROELECTRIC PROJECT

FEDERAL ENERGY REGULATORY COMMISSION
PROJECT No. 7114

PROCESSED CLIMATIC DATA
OCTOBER 1983 - DECEMBER 1984

VOLUME 6
SHERMAN STATION
(No. 0665)

PREPARED BY

R&M CONSULTANTS, INC.
ENGINEERS GEOLOGISTS PLANNERS SURVEYORS

UNDER CONTRACT TO

HARZA-EBASCO
SUSITNA JOINT VENTURE

FINAL REPORT

JUNE 1985
DOCUMENT No. 2772

ALASKA POWER AUTHORITY

SUSITNA HYDROELECTRIC PROJECT

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TASK 4 - HYDROLOGY

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VOLUME INDEX

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PROCESSED CLIMATIC DATA - SHERMAN STATION
OCTOBER 1983 - DECEMBER 1984

TABLE OF CONTENTS PAGE

TABLE OF CONTENTS (Continued)

LIST OF TABLES

LIST OF FIGURES

ACKNOWLEDGMENTS

These climatic data were collected under contract to Harza-Ebasco Susitna Joint Venture for the Alaska Power Authority on the Susitna Hydroelectric Project. Field maintenance and data collection were performed by the hydrology staff of R&M Consultants, Incorporated. Data reduction and processing were performed by Debbie Stephens, Len Story, Blair Parker, Jim Nelson, and Jeff Coffin, using computer programs developed by Mark Holmstrand and revised by Bill Ashton.

1.0 BACKGROUND

1.1 Purpose

The Sherman climate station was installed to provide climatic data for groundwater studies in sloughs below Gold Creek. The station from Tyone River was relocated to a site near Sherman on the Alaska Railroad in 1982.

1.2 Station Description

The Sherman climate station sits in a grass-filled clearing on the floodplain of the Susitna River at river mile 129.5 (see Figures 1.1 and 1.2 for location). It lies between the Susitna River and the Alaska Railroad tracks about 2,200 feet southeast of the Susitna mainstem and about 700 feet northwest of the tracks. The estimated elevation is 600 feet above mean sea level (MSL) at 62°42'10" N latitude and 149°49'50" W longitude.

The site is positioned within the narrow valley of the Susitna River. Mountains rise steeply both to the southeast and northwest of the Station. These features gain nearly 3,000 feet in elevation and form high plateaus rather than isolated peaks. The weather station is continuously shaded from direct solar radiation during the winter months and during the morning and afternoon for the remainder of the year. Shading generally occurs when sun angles drop below 10° above the horizontal (refer to Table 1.1 for angular elevations of terrain obstructions).

Wind direction at the station is controlled by the orientation of the river valley (northeast to southwest). Storm systems arising from the south are usually funneled through this reach of river, often depositing relatively high volumes of precipitation between Curry (RM 120) and Chulitna Pass.

1.3 Methods of Data Collection

1.3 Methods of Data Collection

The climatic data at Sherman are collected using a Model 5100 Weather Wizard Digital Weather Station, manufactured by Meteorology Research, Inc., now part of Belfort Instrument Company. The Weather Wizard measures, processes, and records several weather parameters, which are described below. A 12-volt power supply powers the station and is kept charged by a solar panel. Data are recorded on a low-temperature cassette tape at 30-minute intervals. Fifteen-minute recording intervals were used prior to October 6, 1983. The station is visited approximately once per month for maintenance and repairs, and to retrieve the data tapes.

Recorded data include instantaneous values of temperature, relative humidity, solar radiation intensity, and battery voltage; the cumulative amount of precipitation measured since the last reset; and several wind parameters. Wind direction is sampled every 15 seconds and averaged over the recording interval. Wind speed is measured by counting each revolution of the cup anemometer and averaging the speed over the recording interval (15 or 30 minutes). The fastest 15-second average speed for the interval is reported as the peak gust.

The anemometer and wind vane are part of a sensor array mounted atop a 3.5-meter tripod adjacent to the recorder shelter. The sensor array also contains a short boom with a radiation shield for the temperature and relative humidity sensors. A rain gage and solar radiation sensor are located on a separate platform 10 meters to the southeast from the main platform. The tipping-bucket rain gage is mounted on a 0.6-meter post and plumbed vertically. The solar sensor is installed facing vertically upward atop a 1.5-meter tripod.

Table 1.2 describes sensor types and performance characteristics for each parameter. The performance characteristics were provided by MRI. Conversion factors for the units are provided in the appendix.

1.4 Station History

The Sherman Station was installed on May 15, 1982. This report covers the period from October 1983 to December 1984 only. There are two previous data reports for this station:

	Report	Period Covered
1.	Processed Climatic Data Volume 7 Sherman Station (No. 0665) December 1982 (R&M Consultants)	May 1982 - September 1982
2.	Processed Climatic Data Volume VI Sherman Station (No. 0665) June 1984 (R&M Consultants)	October 1982 - Sept 1983

Tables 1.3 through 1.6 list the inspection dates and maintenance performed for the station, significant data gaps, adjustments to raw data, and values that have been estimated where data are missing. Periods with more than one hour of missing data are shown on Table 1.4. Intermittent gaps in the wind data occur frequently in the winter and are not identified individually. The number of missing days for these cases is approximated by the total number of missing hours during the period. The beginning and ending dates for the data gaps and for the adjustments to raw data correlate with the inspection and maintenance dates. Relative humidity data for measurements with wind speeds less than 1.0 m/sec are not valid and thus not used in calculating the percentage of total observations for each month, which are tabulated in Table 2.2. However, these missing RH values do not constitute data gaps in Table 1.4.

TABLE 1.1. ANGULAR ELEVATIONS OF TERRAIN OBSTRUCTIONS AROUND SHERMAN WEATHER STATION

Azimuth(1) (True)	Vertical Angle(3)
38°	20°
368°-58°	14°
62°	7°
86°	9°
114°	14°
136°	16°
142°	15°
178°	11°
198°	9°
202°	22°
206°	22°
268°	9°
288°	11°
378°	21°

NOTES:

(1) Measured azimuth angles are in degrees from magnetic north. The correction to obtain degress from true north is 27.5°.

(2) Vertical angles are measured above the horizontal with a hand level.

(3) Points used are selected mountain peaks and other features surrounding the weather station from the solar sensor.

TABLE 1.2 DESCRIPTION OF METEOROLOGIC SENSORS

Sensor	Model #	Manufacturer	Description	Operable Range	Accuracy
Temperature	T5100	MRI	Linearized Thermistor	-30°C - +50°C	±1°C
Relative Humidity	PCRC-11 Electro-Humidity Sensor	Phys-Chemical Research Corp.	Exposed circuit element Senses changes in RH by changes in impedance	10% to 95%	±6%
Solar Radiation	RS 1008 Photo Voltaic Pyranometer	RHO Sigma Corp.	Temperature-Compensated Silicon Photovoltaic Cell	0 to 140 Milliwatts/cm²	±5mw/cm²
Precipitation	P5100	MRI	Tipping Bucket Rain Gage	0 to 99.8 mm	±1% up to 76.2 mm/hr ±5% from 76.2 mm/hr to 254 mm/hr
Wind Speed	5100	MRI	Cup Anemometer (vertical axis)	0 to 50 m/sec	±0.5 m/sec
Wind Direction	5100	MRI	Sensitive Vane driving a 360° Plastic Film Potentiometer	0 to 359°	±3.6°

TABLE 1.3. INSPECTION DATES AND MAINTENANCE
SHERMAN CLIMATE STATION
OCTOBER 1983 TO DECEMBER 1984

Inspection Date	Maintenance
10/05/83	Switched to 30 minute recording intervals
11/17/83	None
12/06/83	None
01/10/84	None
02/22/84	RH sensor calibrated
04/10/84	None
05/30/84	None
07/13/84	None
08/21/84	Sensor array disconnected
	Solar sensor removed
	Precipitation collector installed
08/24/84	Sensor array reconnected
	RH sensor calibrated
08/26/84	Solar sensor reconnected
	Anemometer and wind vane repaired
09/25/84	None
11/02/84	None
11/27/84	None
11/28/84	RH sensor calibrated
12/13/84	None

NOTE: Inspections noted where no maintenance was performed are dates when cassette tapes were replaced.

TABLE 1.4. EXPLANATION OF DATA GAPS AT
SHERMAN CLIMATE STATION
OCTOBER 1983 TO DECEMBER 1984

Period	Approximate Number of Missing Days by Parameter							Explanation
	Temp	RH	WS	WD	Precip	Solar	Gust	
10/01/83 - 1/10/84			10	8			10	Frozen anemometer and wind vane (intermittent)
1/13 - 2/10/84			14	18			14	Frozen anemometer and wind vane
2/10 - 4/1/84			2	8			2	Frozen anemometer and wind vane (intermittent)
4/1 - 8/21/84					143			Bad precipitation sensor
7/25 - 8/10/84			1.5	1			1.5	Stuck anemometer and wind vane (intermittent)
8/21 - 8/26/84	4	4	5	4		5	5	Annual maintenance-sensor array disconnected
9/9 - 9/11/84				0.5				Frozen wind vane (intermittent)
10/10 - 10/25/84			0.5	2.5			0.5	Frozen anemometer and wind vane (intermittent)
11/3 - 12/31			39	45			39	Frozen wind vane and anemometer
TOTAL	4	4	72	87	143	5	72	

NOTE: Precipitation data is collected from April through September only. Collector is not designed for winter temperatures.

TABLE 1.5. ADJUSTMENTS MADE TO RAW DATA
SHERMAN CLIMATE STATION
OCTOBER 1983 TO DECEMBER 1984

Period	Solar Adjustment	RH Adjustment
10/1 - 10/31/83	-1 mW/cm^2	-10 RH Points
11/1 - 11/30/83	-1	-3
12/1 - 12/31/83	-1	-2
1/1 - 2/22/84	-1	-3
2/22 - 8/24/84	-1	+7
8/24 - 11/2/84	-1	+5
11/2 - 11/27/84	-1	+9
11/27 - 12/31/84	-1	+10

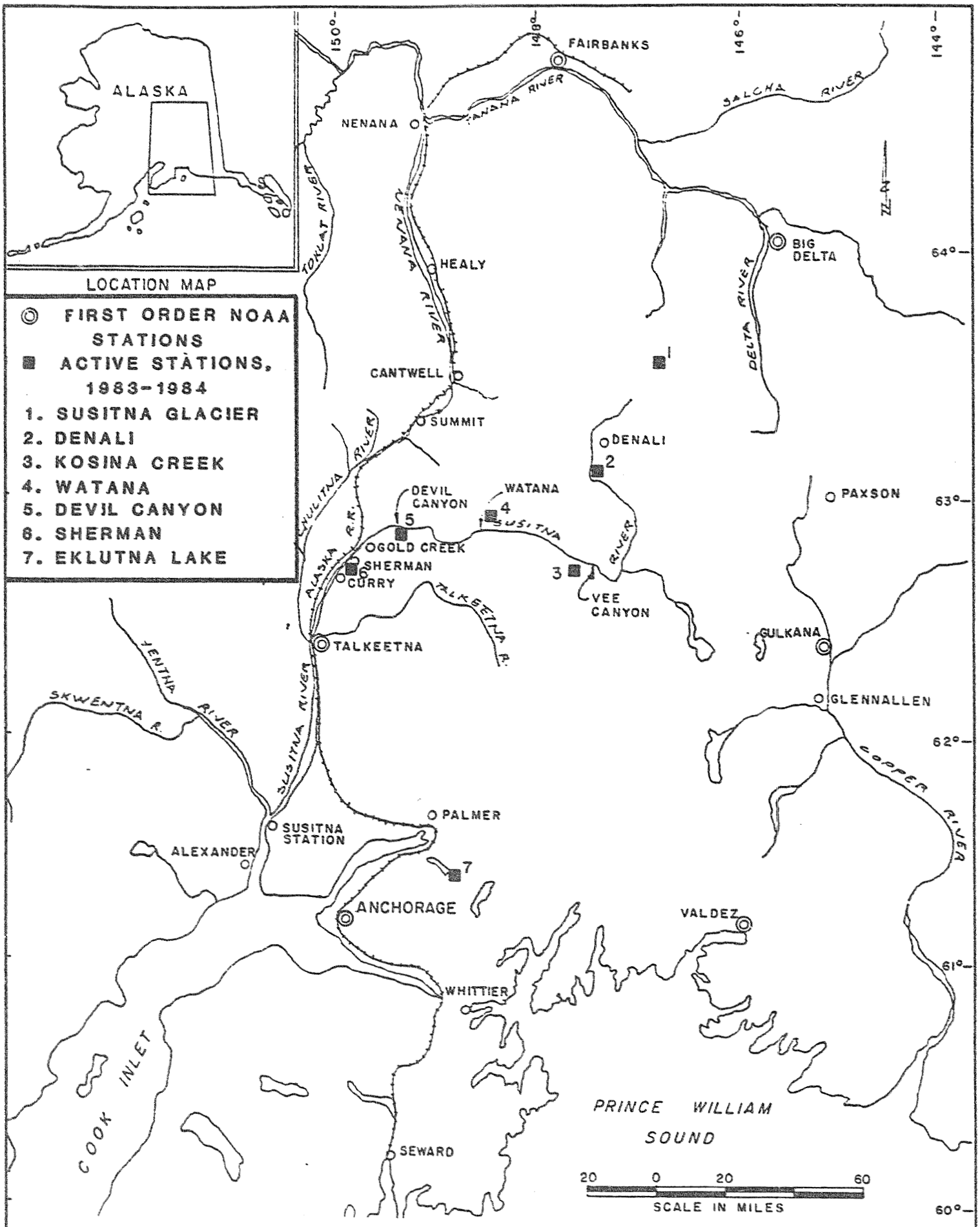
TABLE 1.6. ESTIMATES FOR MISSING DATA
SHERMAN CLIMATE STATION
OCTOBER 1983 TO DECEMBER 1984

Date	Time (AST)	Temp (°C)	Wind Speed (m/s)	Wind Direction (Deg)	Gust (m/s)	RH (%)	Precip (mm)	Solar Radiation (mw/cm²)
08/24/84	1430						0.6	
	1500						1.0	
08/26/84	0900					70		

NOTES:

1. These data have been estimated where gaps exist in the record. Estimates were made by interpolating between valid data points preceding and following the missing data.

2. Precipitation values are the amounts estimated to have fallen in the preceding half-hour.



LOCATION MAP: SUSITNA PROJECT METEOROLOGIC STATIONS

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FIGURE 1-1

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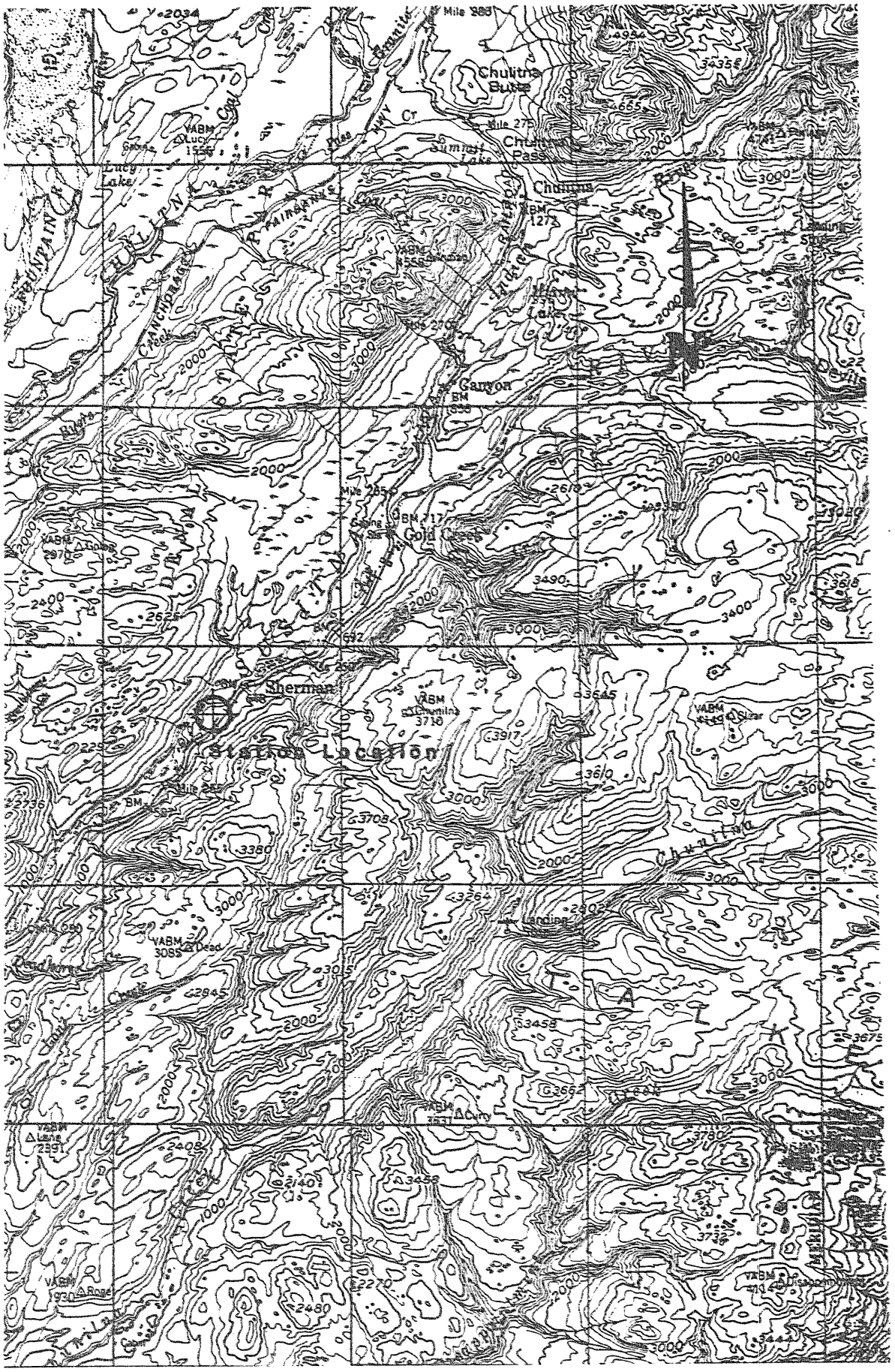
SUSITNA JOINT VENTURE



USGS TALKEETNA MOUNTAINS (1954) SCALE 1:250,000 Figure 1.2

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2.0 ANNUAL DATA SUMMARY

Table 2.1 presents a summary of the monthly averages or totals for each parameter for the full period covered by this report, October 1983 to December 1984. The symbols used in the table are explained in Section 3, Report Preparation. Conversion factors are provided in the appendix. The data reported herein are also summarized in Figure 2.1, a sequential plot of all the measured parameters. Annual summaries for prior years are provided in the previous data report (R&M Consultants, 1984).

With this report, a shift has been made from presenting the climatic data on a water year basis to presenting it for the calendar year. The calendar year format matches that used by the National Oceanic and Atmospheric Administration (NOAA) in reporting climatic data, and simplifies comparisons. Future reports will also be for calendar years.

A summary of the percentage of usable data recovered for each climatic parameter by month during this reporting period is presented in Table 2.2. The cumulative percentage in this case applies for the whole 15-month period.

TABLE 2.1. SUMMARY OF CLIMATE DATA RECORDED AT SHERMAN STATION (0665) OCTOBER 1983 TO DECEMBER 1984

	Temperature			Wind										
Month	Max (°C)	Min (°C)	Mean (°C)	Res Dir. (°True)	Res Speed (m/sec)	Ave Speed (m/sec)	Max Gust Dir. (°True)	Max Gust Speed (m/sec)	P' Val Dir. (°True)	Mean RH (%)	Mean DP (°C)	Precip (mm)	Total Solar Energy (WH/m²)
1983													
October	10.3	-13.4	-1.2	060M	0.5M	0.9M	061M	7.0M	ENE(M)	62M	M	11.0	30,050
November	4.3	-21.2	-6.3	055M	0.7M	0.8M	049M	5.1M	ENE(M)	67M	M	M	7,515
December	2.2	-27.3	-12.1	M	M	M	M	M	M	80M	M	M	1,636
1984													
January	2.2	-36.0	-12.0	M	M	M	M	M	M	80M	M	M	2,365
February	3.8	-31.3	-10.1	M	M	M	M	7.0M	M	74M	M	M	14,625
March	11.6	-16.1	0.1	035M	0.7M	0.8M	041M	5.7	NE(M)	58	M	M	72,865
April	14.3	-13.8	1.0	048M	0.2M	0.3M	207M	8.9	NE(M)	55	M	M	124,470
May	21.0	-4.0	6.4	251	0.0	1.1	218	7.6	NE	46	M	M	178,221
June	23.6	-0.1	11.6	187	0.4	1.0	357	7.6	S	51	M	M	167,305
July	24.6	3.5	13.0	183M	0.6M	0.9M	210M	7.6M	S(M)	70	M	M	119,035
August	24.6M	-4.3M	11.0M	109M	0.2M	0.7M	048M	7.6M	S(M)	64M	M	M	101,471M
September	20.5	-3.6	8.3	062M	0.3M	0.7M	208M	7.0	NE(M)	56M	M	52.6	73,095
October	15.9	-14.3	0.5	071M	0.6M	0.8M	076M	8.3M	ENE(M)	62M	M	M	31,395
November	2.9	-24.6	-10.0	M	M	M	M	M	M	88M	M	M	5,850
December	3.5	-28.5	-11.5	M	M	M	M	M	M	90M	M	M	275
Annual-WY (10/83 - 9/84)	24.6M	-36.0M	0.8M	M	M	M	M	M	M	M	M	M	892,653M
Annual-CY (1/84-12/84)	24.6M	-36.0M	0.7M	M	M	M	M	M	M	M	M	M	890,972M

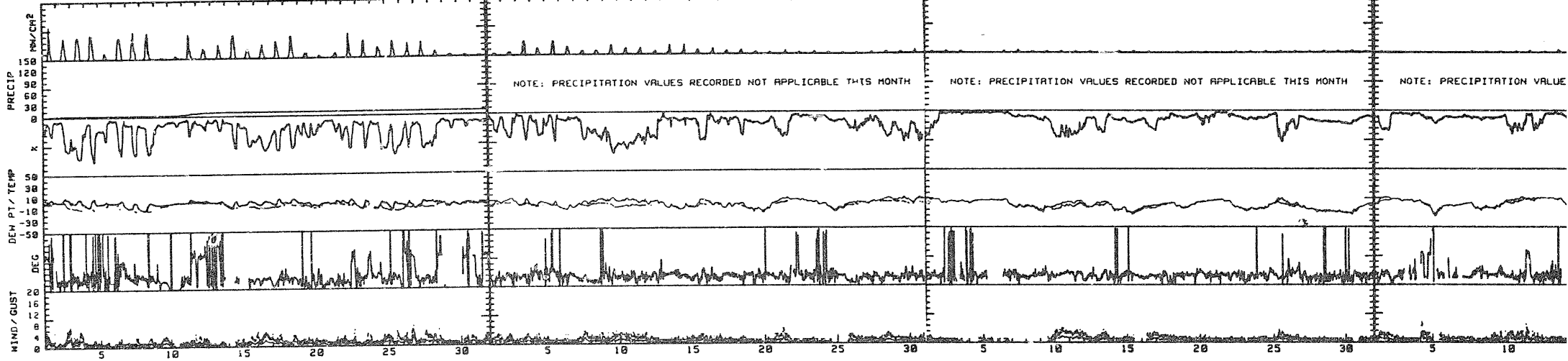
NOTE: See section on intrepretation of data for explanation of symbols used. Annual values are for water year (WY) and for calendar year (CY).

TABLE 2.2. PERCENT OF TOTAL POSSIBLE OBSERVATIONS
RECORDED AT SHERMAN CLIMATE STATION
OCTOBER 1983 TO DECEMBER 1984

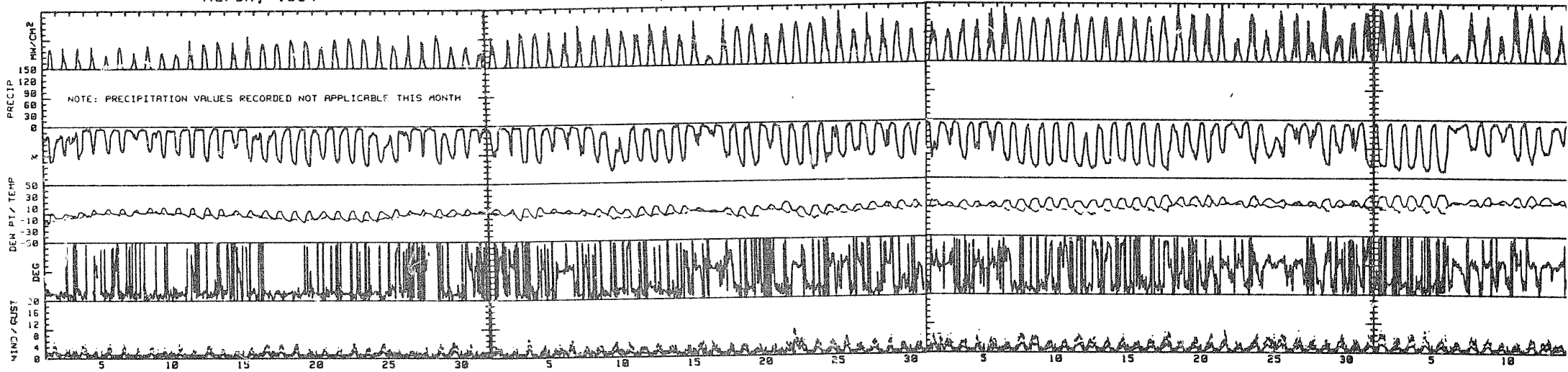
Month	Temp	Wind Speed	Wind Direction	Peak Gust	RH	Precip	Solar Radiation	Dew Point
October 1983	100	95	87	95	37	100	100	37
November	100	95	99	95	33	0	100	33
December	100	79	95	79	38	0	100	38
January 1984	100	54	62	55	59	0	100	59
February	100	94	56	94	47	0	100	47
March	100	100	94	100	30	0	100	30
April	100	100	99	100	44	0	100	44
May	100	100	100	100	50	0	100	50
June	100	100	100	100	48	0	100	48
July	100	98	98	98	47	0	100	47
August	90	81	88	81	32	18	84	32
September	100	100	98	100	24	100	100	24
October	100	97	92	97	32	0	100	32
November	100	53	44	53	59	0	100	59
December	100	28	14	28	74	0	100	74
TOTAL	99	85	82	85	44	15	99	44

NOTES:

1. RH and dewpoint data are not valid and have been discarded for samples when the wind speed is less than 1.0 m/s.
2. Precipitation data are not recorded from November through March. Collector is not designed for winter temperatures.
3. The percentage reported as TOTAL is for the full 15-month period (10/83-12/84).



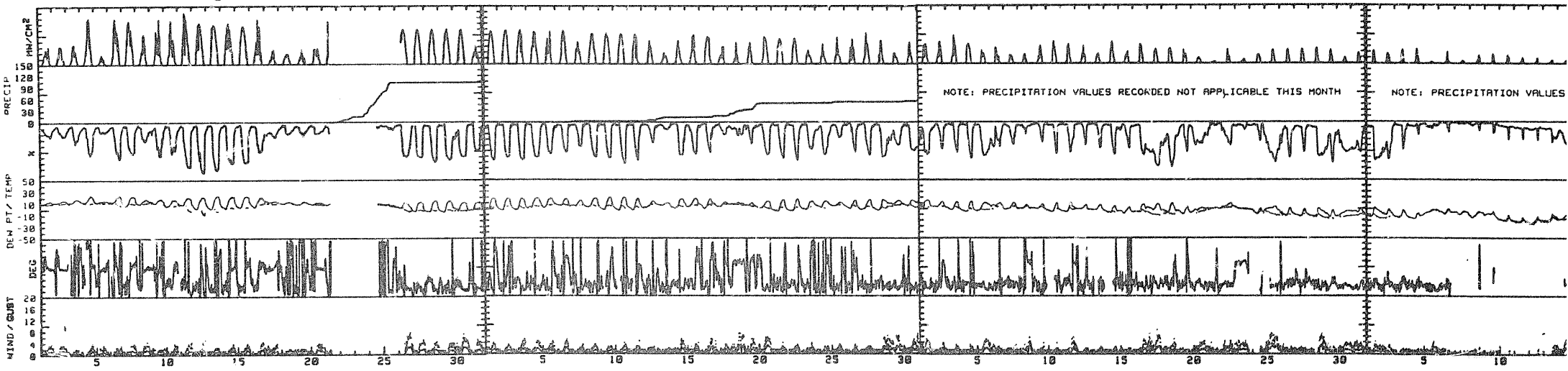
March, 1984



April, 1984

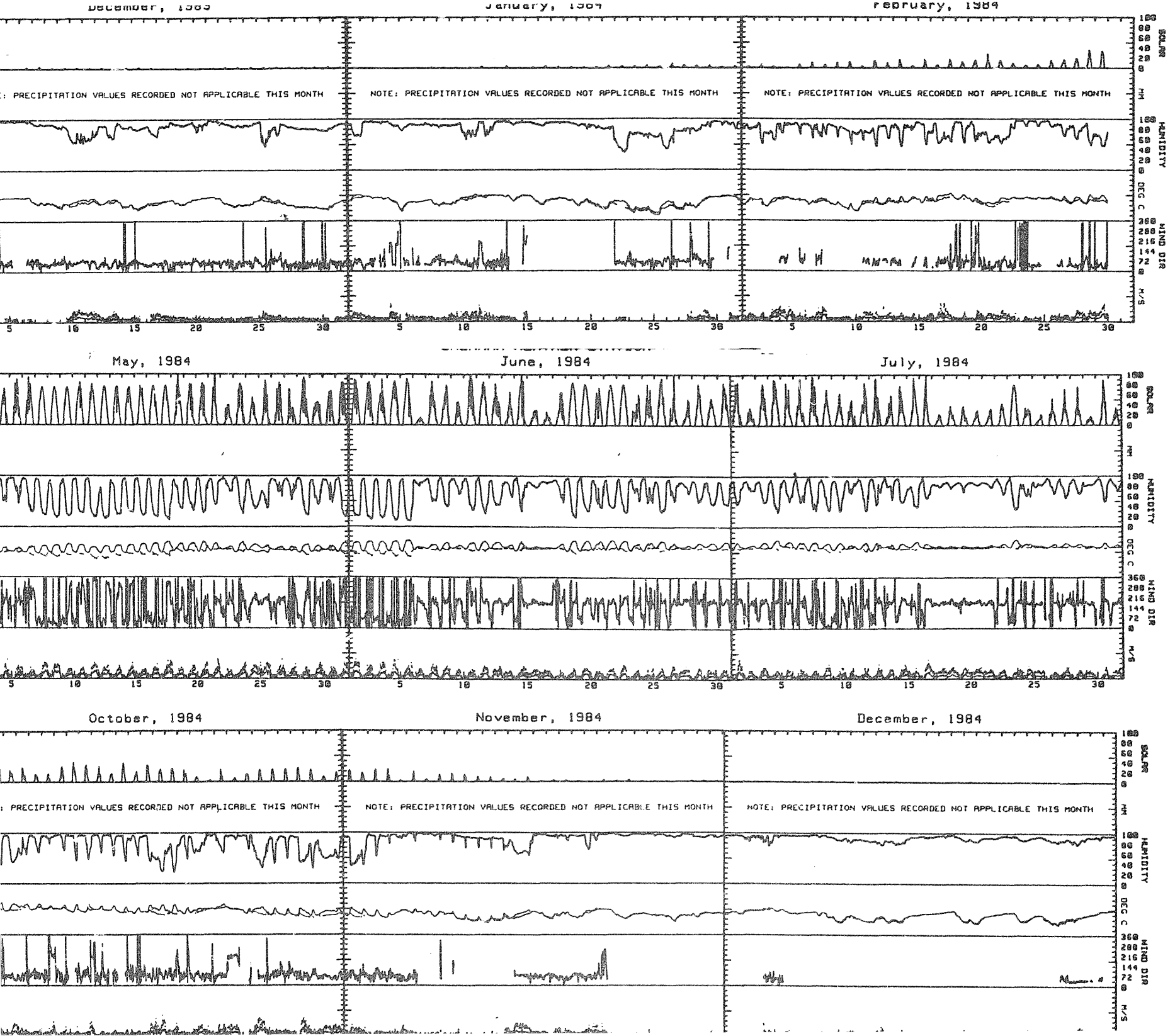
May, 1984

August, 1984



September, 1984

October, 1984



NOTE: A larger copy of each plot is presented in Section 5, Climatic Data Summaries.

FIGURE 2.1 SEQUENTIAL PLOT OF CLIMATIC DATA, SHERMAN STATION OCTOBER 1983-DECEMBER 1984

3.0 REPORT PREPARATION

3.1 Description of Symbols Used in Annual and Monthly Summaries

3.1.1 Annual Summary

Blank entries for monthly values indicate the station had not yet been installed at the site or that it had been removed prior to that month. Installation and removal dates are noted on the table as well.

M — Insufficient or partial data. M follows average and/or total values if 1-9 daily values were missing data for all or part of the day. M appears alone for the month if 10 or more daily values were missing or contained missing data. Parentheses surround the M where other letters may cause confusion (i.e. in prevailing direction). M follows average and/or total values for the year if any month was missing data. M appears alone for the year if any month was missing enough data to require it to have an M alone or if three or more months were missing any data.

3.1.2 Monthly Summaries

**** — Erroneous or missing data (may be from 2 to 6 asterisks, depending on number of digits possible in the value). Asterisks appear in place of the value if all readings required for determination of the table value were missing.

\- — A dash in the hourly precipitation table indicates the volume for that hour is not known, but the cumulative total of precipitation over the interval of consecutive dashed hours is included in the next hour where a value is

reported. Similarly, a dash for precipitation in the monthly summary table indicates the volume for that day is not known, but the cumulative total over the interval of consecutive dashed days is included in the next day where a value is reported.

3.2 Data Computation Standards (Climate)

Conversion factors for units are presented in the appendix. Specific segments of the monthly reports are described below.

3.2.1 Graphical Data Plot

The data plot is a graphical representation of valid recorded and/or computed data.

3.2.2 Hourly Precipitation Summary Table

Hourly precipitation values are calculated as the difference between valid (current and preceding) consecutive hourly readings. When either of these hourly precipitation readings are invalid, no value is reported for the current hour. No table is published for the winter months (October through March) unless a heater is part of the tipping bucket installation.

3.2.3 Monthly Summary Table

1. Maximum daily and monthly temperatures are determined from all valid recorded temperatures.

2. Minimum daily and monthly temperatures are determined from all valid recorded temperatures.

3. Mean daily and monthly temperatures are determined from all valid recorded temperatures. The mean daily temperature is determined from the mean of the maximum and minimum temperatures. The mean monthly temperature is determined from the mean of all reported daily mean temperatures.

4. Resultant daily and monthly wind directions and speeds are summed vectorially from all valid readings.

5. Average daily and monthly wind speeds are determined from all valid readings (arithmetic mean).

6. Maximum daily and monthly gust speeds are determined from all valid readings. Associated directions are the resultant directions from the recording interval in which the peak interval gust was observed.

7. Prevailing daily and monthly directions are determined from all valid readings. The reported value is the most frequent direction observed.

8. Mean daily and monthly relative humidities are determined from all valid readings (arithmetic mean). When the wind speed is less than 1 m/sec, the RH value is omitted from the averaging (but is displayed in the graphical data plot and in the three-hour table).

9. Mean daily and monthly dewpoint temperatures are determined from all valid readings (arithmetic mean). Dewpoints are omitted when the wind speed is less than 1 m/s, when the dewpoint calculates to a value greater than the recorded temperature, or when the dewpoint calculates

to less than minus 47 degrees or more than 27 degrees Centigrade.

10. Daily and monthly precipitation values are determined from all valid readings.

11. Daily and monthly solar energy values are determined from all valid readings. Daily solar energy (in watt-hours per square meter) is determined by averaging the recorded solar intensity (which is in milliwatts per square centimeter) and converting the units. The monthly value is the sum of the daily values.

3.2.4 Three-Hour Summary Tables

1. The temperature reported is the temperature recorded at the specified time.

2. The dewpoint temperature reported is the dewpoint calculated at the specified time. Dewpoints are omitted when the wind speed is less than 1 m/s, when the dewpoint is calculated to a value greater than the recorded temperature, or when the dewpoint calculates to less than minus 47 degrees or more than 27 degrees centigrade, or when either the temperature or R.H. reading is invalid.

3. The relative humidity reported is the humidity recorded at the specified time.

4. The wind direction reported is the three-hour vectorial resultant sum of data recorded up to the specified time.

5. The wind speed reported is the three-hour vectorial resultant of data recorded up to the specified time.

6. The gust direction reported is the direction of the maximum gust recorded during the preceding three hour period.

7. The gust reported is the maximum recorded during the three-hour period.

8. The radiation reported is the solar radiation intensity recorded at the specified time.

3.2.5 Wind Frequency Summary Table

Reported data are determined from all valid pairs of readings. Valid pairs of wind data are composed of valid wind speed and wind direction data for the same interval.

3.2.6 Hourly Solar Radiation Table

An addition to this year's report series, hourly solar radiation values are averages of all valid readings recorded during the preceding hour. If any data are missing or invalid, the remaining values are arithmetically averaged for the hour. The daily average values are determined by summing the hourly averages for the day and dividing by 24. If all data are missing for the hour, no value is printed; asterisks (***) appear instead, and no value is used for the hour in computing the daily average.

3.2.7 Wind Rose Graphical Plot

The plot is a graphical representation of the wind frequency summary table.

3.2.8 Observation Summary Table

Another addition to this year's report series is an observation summary. The number of usable observations for each parameter is determined by counting the number of valid readings for the entire month. The percentage of total observations is determined by dividing the number of usable observations by the number possible for the month. Data adjustments and additional comments applicable to the month are manually entered below the summary table.

3.2.9 General Notes

1. The following are the data ranges assumed valid, based on reasonable expectations for the parameters in south-central Alaska; data outside these ranges are not used:

   Time: 0000 through 2400 hours - at specified time intervals.

   Temperature: -50 through +35 °C

   Wind Speed: 0 through 99.9 meters per second and less than or equal to GUST

   Direction: 0 through 360 degrees

   Relative Humidity: 0 through 99 percent

   Precipitation: 0 through 99.8 mm. Precipitation during recording interval (15 or 30 minutes) should not exceed 30 mm.

   Solar: 0 through 150 milliwatts/cm^2

   Gust: 0 through 99.9 m/sec

Battery: 9 through 14.5 volts

2. Accuracy of the MRI (Meteorology Research, Inc.) sensors and processor are as follows:

Temperature: ±1°C
Wind Speed: ±0.5 meters per second
Wind Direction: ±1% of full scale (i.e., ±3.6 degrees)
Relative Humidity: ±6%
Precipitation: ±1% up to 76.2 mm/hr, ±5% from 76.2 mm/hr to 254 mm/hr
Solar Radiation: ±5mw cm^{-2}
Tape Recorder Error Rate: 1 bit in 10^7

3. The following are the direction ranges used in the prevailing direction, wind frequency and wind rose summaries:

DIRECTION	COMPASS HEADING
North	350 through 11
North-Northeast	12 through 34
Northeast	35 through 56
East-Northeast	57 through 79
East	80 through 101
East-Southeast	102 through 124
Southeast	125 through 146
South-Southeast	147 through 169
South	170 through 191
South-Southwest	192 through 214
Southwest	215 through 236
West-Southwest	237 through 259
West	260 through 281
West-Northwest	282 through 304
Northwest	305 through 326
North-Northwest	327 through 349

4.0 INTERPRETATION OF DATA, 1983-84

4.1 General Comments

4.1.1 Many of the sensors or the methods of measuring various parameters have peculiarities that affect how the data should be interpreted. The user is encouraged to become familiar with the methods of summation for each parameter and each table. These are described in Section 3.2 "Data Computation Standards."

4.1.2 As described in Section 2.0, a shift is being made from presenting the climatic data on a water year basis to presenting it for the calendar year. Thus, this report includes fifteen months of data. All future reports will be for the calendar year.

4.1.3 Changes made to the format of this year's report series include addition of an hourly solar radiation table and tabulation of the actual number of usable observations on a monthly basis for each parameter. Also, the data-processing program was modified slightly to permit output of daily prevailing direction when the wind speed sensor was not operational, and output of speed-only parameters (peak gust and daily average speed) when the wind direction sensor was not operational.

4.1.4 The U.S. Department of Transportation ordered a shift in the time zones of central and Southeast Alaska in October 1983. The official time in central Alaska was advanced one hour, and the offical Southeast Alaska time was retarded one hour, making the two areas on the same time. This transition occurred when daylight savings time ended, on Sunday, October 30, 1983. The effect on the reporting of

the data is that one hour was "lost" between midnight and 0100 on October 30. There are thus no data at all for 0030 and 0100 on that date.

4.1.5 Missing data values have been estimated where possible. Estimation, which was accomplished by manually editing the raw computer data files, was generally limited to data gaps of an hour or less, where interpolation between the preceding and following valid data points could be used to estimate the missing points. Interpolation was performed in this manner for temperature, relative humidity, and solar radiation data.

Solar data have been estimated only for clear or uniformly cloudy days and then only if not near the peak value of the day. Precipitation is estimated only if none at all occurred during the interval or if the tips of the tipping bucket were manually counted during a rainfall event. Wind speed and direction data have been estimated by interpolation only if the preceding and following winds were very uniform. Peak gust speeds have not been estimated at all.

4.1.6 The recording interval was changed prior to the winter of 1983-84 to permit recording of data for longer periods of time in the event monthly maintenance trips to the station were delayed. The interval was changed from 15 minutes to 30 minutes, which increased the maximum record length per data tape from approximately six weeks to approximately three months. The switch was made in November 1983 at all Susitna Basin stations and in December 1983 at the Eklutna Lake Station.

4.1.7 Annual maintenance was performed at the Sherman station in August, causing data to be lost for all parameters except

precipitation from 8/21 to 8/[illegible]. The solar radiation and wind sensors were not replaced until 8/26. As a result, an additional two days of data were lost for these parameters.

4.2 Comments on Specific Parameters

4.2.1 Precipitation

Precipitation data are generally reported for April through September only. The stations do not have heaters in their precipitation sensors (tipping buckets), so they are unable to record precipitation when the temperature is below freezing. The sensors are calibrated to tip for 0.2 mm of rainfall and not for snowfall. The sub-freezing temperatures may cause a loss or a delay of the recorded precipitation. Winds frequently blow snow away from or out of (or occasionally into) the collector, and snow collected in the bucket may not be melted and recorded until the next occurrence of warm weather, possibly days or weeks later. The months of October through March very often have sub-freezing temperatures on nearly every day of the month, so their precipitation records have been omitted. It should be noted that even in the months where precipitation data are reported (i.e. April through September), the occurrence of sub-freezing temperatures could affect the timing and the recorded amount of precipitation. The user should exercise caution and make note of the concurrent temperatures in interpreting the precipitation records.

The Sherman data are presented for October 1983, despite the occurrence of sub-freezing temperatures on several days. This may give errors in the reporting of the timing or the amount of precipitation, and the user should be aware of this in interpreting and applying the data. Almost

every day in each month had temperatures above freezing, however. Thus, the daily totals may be reasonably accurate, but the timing within the day would not be reliable.

Precipitation data for April through the first half of August in 1984 are missing. The tipping-bucket gage was not functioning properly until August 21 when it was repaired. September is the only month during the year with a complete precipitation record.

4.2.2 Relative Humidity and Dewpoint

The relative humidity (R.H.) sensors used are printed circuit elements which sense changes in R.H. by changes in impedance. The sensors, manufactured by Phys-Chem Research Corporation, have chemically-treated surfaces which degrade with time, and are thus very difficult to keep in calibration. Many of the months throughout the year (and at all stations) therefore display significant variations in R.H. patterns. Theoretically, the maximum value an RH reading can obtain is 99%. However, when the sensor is not calibrated correctly, readings may exceed 100%, or they may be noticably too low. Adjustments are therefore made accordingly.

An additional consideration with respect to dewpoint is the fact that it is not computed when the reported wind speed falls below 1 m/sec, due to inadequate aspiration of the R.H. sensor. This typically causes elimination of at least one dewpoint value on nearly every day of data-collection.

4.2.3 Solar Radiation

Daily and monthly solar radiation values are the cumulative total energy, computed from all valid readings for the period. Either the daily or monthly value can be significantly above or below the true energy value if there are large segments of missing readings (i.e. from the period of very low intensity at night or the period of very high intensity at mid-day). A check should be made, therefore, of the hourly solar radiation summary table to get a feel for the frequency and timing of lost solar radiation data. Caution should be used when a significant amount of data is missing.

Another frequent concern in the processing of solar data is the presence of non-zero minimum values. Since the sensors have a stated accuracy of ±5 mW/cm^2, they often record a reading of 0 (during night) as 1 or even 2 mW/cm^2. This also can bias the daily or monthly totals, making the computed energy much higher than the true solar energy. An error of +1 mW/cm^2 on every reading will cause the computed daily total energy to be high by 240 watt-hr/cm^2. Readings during periods when this sensor offset was demonstrated have been adjusted downward, as noted in Table 1.5.

4.2.4 Wind Speed and Direction

Several measurements of wind speed, wind direction, and peak wind gusts were lost between October 1983 and April 1984 and again from September through October 1984 due to intermittent freezing of the wind vane or anemometer. Also, most of the wind speed and direction data were lost in November and December. One or both of the sensors

typically freezes and seizes up when the temperature drops after a rainstorm or freezing rain event. It then stays stuck until the temperature rises above 0°C or until a wind event occurs that is sufficiently strong to free it.

5.0 MONTHLY CLIMATIC DATA SUMMARIES
SHERMAN STATION
OCTOBER 1983 - DECEMBER 1984

Note:

Each month's climatic data summary report consists of the following 11 pages:

(1) Hourly Precipitation Summary Table (or note page)
(2) Three-Hour Summary Table (Days 1-9)
(3) Three-Hour Summary Table (Days 10-18)
(4) Three-Hour Summary Table (Days 19-27)
(5) Three-Hour Summary Table (Days 28-31)
(6) Monthly Summary Table
(7) Monthly Graphical Plot
(8) Wind Frequency Summary Table
(9) Wind Rose Plot
(10) Hourly Solar Radiation Summary Table
(11) Observation Summary and Note Page

R & M CONSULTANTS, INC.

SUSITNA HYDROELECTRIC PROJECT

HOURLY PRECIPITATION SUMMARY FOR SHERMAN WEATHER STATION
DATA TAKEN DURING October, 1983

PRECIPITATION VALUES ARE IN MILLIMETERS

	HOUR ENDING																							
DATE	0100	0200	0300	0400	0500	0600	0700	0800	0900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	2400	DATE
1	0.0	0.0	0.0	0.0	0.0	.4	.4	0.0	.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	.2	0.0	.2	.4	0.0	.2	1
2	.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2
3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3
4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4
5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5
6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	6
7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	7
8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	8
9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	9
10	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	.4	.4	.2	.2	.4	0.0	0.0	.2	.2	0.0	10
11	0.0	.2	0.0	.4	.2	0.0	0.0	.2	.2	.2	.6	.4	.4	.2	0.0	0.0	0.0	.2	0.0	0.0	0.0	0.0	0.0	.2	11
12	.2	.2	.2	.2	0.0	.4	0.0	.2	.2	.4	0.0	0.0	0.0	0.0	.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	12
13	0.0	0.0	.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	13
14	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	14
15	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	15
16	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	16
17	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	17
18	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	18
19	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	19
20	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	20
21	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	21
22	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	22
23	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	23
24	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	24
25	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	25
26	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	26
27	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	27
28	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	28
29	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	29
30	****	****	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	30
31	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	31

** SEE INTERPRETATION NOTES AT END OF MONTHLY REPORT **

R & M CONSULTANTS, INC.

SUSITNA HYDROELECTRIC PROJECT

THREE HOUR SUMMARY FOR SHERMAN WEATHER STATION
DATA TAKEN DURING October, 1983

DAY 01

HOUR NDNG	TEMP. DEG C	DEW POINT DEG C	RH %	WIND DIR. DEG.	WIND SPD. M/S	GUST DIR. DEG.	MAX. GUST M/S	RAD MW
0300	6.6	*****	74	208	1.5	209	5.1	0
0600	4.9	2.7	86	216	1.9	229	5.1	0
0900	3.8	*****	89	205	1.4	196	3.2	5
1200	6.9	2.8	75	031	.7	030	1.9	33
1500	7.6	*****	66	359	.1	074	1.9	6
1800	4.1	*****	90	204	.5	216	5.1	0
2100	3.1	*****	92	096	.4	074	1.3	0
2400	2.4	*****	90	048	.6	063	1.3	0

DAY 02

HOUR NDNG	TEMP. DEG C	DEW POINT DEG C	RH %	WIND DIR. DEG.	WIND SPD. M/S	GUST DIR. DEG.	MAX. GUST M/S	RAD MW
0300	2.1	*****	92	036	.6	044	1.9	0
0600	2.1	*****	93	048	.4	002	1.3	0
0900	4.3	2.3	87	035	.6	033	1.9	11
1200	9.3	3.3	66	035	1.2	057	3.2	36
1500	9.5	-2.2	44	046	2.3	027	5.7	9
1800	7.1	-5.4	41	064	2.6	063	6.3	0
2100	3.4	*****	47	048	1.8	061	7.0	0
2400	.6	*****	62	055	.6	075	1.9	0

DAY 03

HOUR NDNG	TEMP. DEG C	DEW POINT DEG C	RH %	WIND DIR. DEG.	WIND SPD. M/S	GUST DIR. DEG.	MAX. GUST M/S	RAD MW
0300	2.6	-7.9	46	083	1.0	052	3.8	0
0600	1.3	-8.6	48	080	1.0	071	3.8	0
0900	2.9	-7.7	46	067	.8	088	3.2	17
1200	7.3	-9.7	29	061	1.6	030	5.1	38
1500	7.5	-10.4	27	053	2.4	044	5.7	23
1800	1.8	*****	45	050	1.5	055	4.4	0
2100	-1.8	*****	68	093	.5	067	1.9	0
2400	-2.0	*****	68	050	.6	056	1.9	0

DAY 04

HOUR NDNG	TEMP. DEG C	DEW POINT DEG C	RH %	WIND DIR. DEG.	WIND SPD. M/S	GUST DIR. DEG.	MAX. GUST M/S	RAD MW
0300	-5.2	*****	85	075	.4	097	1.3	0
0600	-6.7	*****	88	071	.3	047	1.3	0
0900	-3.3	*****	80	088	.3	071	1.3	26
1200	6.4	-7.7	36	092	.3	084	2.5	38
1500	8.9	*****	22	074	.9	092	2.5	20
1800	-.4	*****	70	064	.3	085	1.3	0
2100	-1.5	*****	75	037	.2	337	1.9	0
2400	-1.2	*****	77	103	.1	075	1.3	0

DAY 05

HOUR NDNG	TEMP. DEG C	DEW POINT DEG C	RH %	WIND DIR. DEG.	WIND SPD. M/S	GUST DIR. DEG.	MAX. GUST M/S	RAD MW
0300	-.6	*****	76	008	.2	306	1.3	0
0600	-.6	*****	77	088	.2	125	1.3	0
0900	.7	*****	74	091	.3	000	1.3	3
1200	3.4	-3.8	59	059	.6	071	1.9	7
1500	.3	*****	90	358	.8	003	1.9	1
1800	.1	-.9	93	***	****	***	.6	0
2100	.1	-.8	94	***	****	***	****	0
2400	.1	-.8	94	***	****	***	****	0

DAY 06

HOUR NDNG	TEMP. DEG C	DEW POINT DEG C	RH %	WIND DIR. DEG.	WIND SPD. M/S	GUST DIR. DEG.	MAX. GUST M/S	RAD MW
0300	.2	*****	93	007	.2	304	1.3	0
0600	.3	*****	92	108	.1	199	1.9	0
0900	2.5	*****	68	150	.2	179	2.5	26
1200	4.2	*****	46	148	.7	138	3.2	36
1500	5.2	*****	34	166	.5	178	1.3	20
1800	-2.7	*****	89	160	.4	180	1.3	0
2100	-6.3	*****	86	119	.3	074	1.3	0
2400	-7.9	*****	87	069	.5	070	1.9	0

DAY 07

HOUR NDNG	TEMP. DEG C	DEW POINT DEG C	RH %	WIND DIR. DEG.	WIND SPD. M/S	GUST DIR. DEG.	MAX. GUST M/S	RAD MW
0300	-9.2	*****	84	082	.5	071	1.3	0
0600	-8.2	*****	86	069	.7	083	1.3	0
0900	-6.6	*****	86	064	.7	064	1.3	20
1200	.7	-12.5	37	078	.4	041	3.2	42
1500	.9	*****	33	078	1.0	075	3.2	14
1800	-6.2	*****	81	087	.5	100	3.2	0
2100	-9.3	*****	87	077	.5	087	1.3	0
2400	-11.7	*****	83	078	.5	067	1.3	0

DAY 08

HOUR NDNG	TEMP. DEG C	DEW POINT DEG C	RH %	WIND DIR. DEG.	WIND SPD. M/S	GUST DIR. DEG.	MAX. GUST M/S	RAD MW
0300	-12.1	*****	82	080	.5	100	1.3	0
0600	-13.0	*****	82	066	.6	067	1.3	0
0900	-8.9	*****	80	054	.5	082	1.3	7
1200	-.8	-13.5	38	026	1.1	060	3.2	45
1500	.8	-12.4	37	072	1.1	095	3.2	8
1800	-.6	*****	50	076	.5	087	1.9	0
2100	-2.3	*****	70	057	.3	048	1.9	0
2400	-2.5	*****	71	062	.2	046	1.3	0

DAY 09

HOUR NDNG	TEMP. DEG C	DEW POINT DEG C	RH %	WIND DIR. DEG.	WIND SPD. M/S	GUST DIR. DEG.	MAX. GUST M/S	RAD MW
0300	-3.3	*****	83	076	.3	083	1.3	0
0600	-3.3	*****	86	028	.4	053	1.3	0
0900	-3.0	-5.2	85	043	1.0	044	2.5	1
1200	-2.2	-4.7	83	051	1.3	052	3.2	2
1500	-2.1	-4.3	85	050	1.5	053	3.8	0
1800	-2.0	-3.6	89	044	1.4	043	3.2	0
2100	-1.6	*****	89	026	.8	037	2.5	0
2400	-1.3	*****	89	002	.6	006	1.9	0

** SEE INTERPRETATION NOTES AT END OF MONTHLY REPORT **

R & M CONSULTANTS, INC.

SUSITNA HYDROELECTRIC PROJECT

THREE HOUR SUMMARY FOR SHERMAN WEATHER STATION
DATA TAKEN DURING October, 1983

DAY 10

HOUR NDNG	TEMP. DEG C	DEW POINT DEG C	RH %	WIND DIR. DEG.	WIND SPD. M/S	GUST DIR. DEG.	MAX. GUST M/S	RAD MW
0300	-.8	*****	91	359	.6	359	1.3	0
0600	-.1	-1.3	92	***	****	***	1.3	0
0900	.3	-1.2	90	***	****	***	****	0
1200	.8	-1.4	85	***	****	***	****	5
1500	.7	*****	85	003	.3	004	1.3	2
1800	.4	*****	91	028	.5	007	1.3	0
2100	.3	*****	91	056	.3	070	1.9	0
2400	.7	*****	92	052	.6	046	1.9	0

DAY 11

HOUR NDNG	TEMP. DEG C	DEW POINT DEG C	RH %	WIND DIR. DEG.	WIND SPD. M/S	GUST DIR. DEG.	MAX. GUST M/S	RAD MW
0300	.9	*****	93	073	.7	075	1.9	0
0600	.8	*****	94	059	.6	045	1.9	0
0900	2.8	*****	84	051	.5	029	2.5	9
1200	6.1	*****	71	309	.1	240	2.5	14
1500	4.9	*****	87	219	1.1	233	2.5	3
1800	3.7	2.2	90	220	.8	208	4.4	0
2100	1.8	*****	90	093	.2	192	2.5	0
2400	3.4	1.3	86	204	1.0	217	3.8	0

DAY 12

HOUR NDNG	TEMP. DEG C	DEW POINT DEG C	RH %	WIND DIR. DEG.	WIND SPD. M/S	GUST DIR. DEG.	MAX. GUST M/S	RAD MW
0300	2.3	*****	87	207	1.4	215	3.8	0
0600	2.7	.6	86	204	.6	200	2.5	0
0900	3.4	.9	84	208	1.3	205	3.2	10
1200	4.2	*****	80	214	.7	206	3.2	11
1500	3.1	*****	89	180	.4	198	2.5	3
1800	1.0	*****	92	013	.2	014	1.3	0
2100	.6	*****	89	062	.2	167	.6	0
2400	.7	*****	88	008	.2	354	.6	0

DAY 13

HOUR NDNG	TEMP. DEG C	DEW POINT DEG C	RH %	WIND DIR. DEG.	WIND SPD. M/S	GUST DIR. DEG.	MAX. GUST M/S	RAD MW
0300	.5	*****	90	355	.2	037	1.3	0
0600	.1	*****	94	344	.1	001	.6	0
0900	.6	*****	91	290	.1	302	.6	1
1200	3.3	*****	75	001	.1	049	1.9	24
1500	3.3	*****	76	025	.8	032	1.9	9
1800	.1	*****	96	026	.3	356	1.3	0
2100	-1.6	-3.4	88	076	.3	075	1.3	0
2400	-4.2	-5.6	90	***	****	***	****	0

DAY 14

HOUR NDNG	TEMP. DEG C	DEW POINT DEG C	RH %	WIND DIR. DEG.	WIND SPD. M/S	GUST DIR. DEG.	MAX. GUST M/S	RAD MW
0300	-6.2	-7.9	88	***	****	***	****	0
0600	-7.5	-9.2	88	***	****	***	****	0
0900	-7.0	-8.8	87	***	****	***	****	5
1200	.6	*****	57	049	.6	043	1.9	40
1500	2.9	-8.2	44	061	.9	059	2.5	20
1800	-3.8	*****	89	044	.7	037	2.5	0
2100	-5.4	*****	86	***	****	***	1.3	0
2400	-3.7	*****	79	***	****	***	2.5	0

DAY 15

HOUR NDNG	TEMP. DEG C	DEW POINT DEG C	RH %	WIND DIR. DEG.	WIND SPD. M/S	GUST DIR. DEG.	MAX. GUST M/S	RAD MW
0300	-3.3	*****	79	***	****	***	1.9	0
0600	-3.2	*****	80	***	****	***	1.3	0
0900	-1.2	*****	72	***	****	***	1.9	6
1200	3.3	-6.4	49	035	.7	050	3.2	17
1500	3.2	-6.8	48	056	1.5	053	3.8	6
1800	1.2	*****	59	050	1.0	049	2.5	0
2100	.9	-6.9	56	049	1.2	052	3.8	0
2400	-1.2	-8.9	56	068	1.7	069	5.1	0

DAY 16

HOUR NDNG	TEMP. DEG C	DEW POINT DEG C	RH %	WIND DIR. DEG.	WIND SPD. M/S	GUST DIR. DEG.	MAX. GUST M/S	RAD MW
0300	-3.3	-9.7	61	062	1.1	064	3.2	0
0600	-4.4	-9.8	66	038	1.0	052	3.2	0
0900	-2.1	-9.2	58	054	1.3	063	4.4	9
1200	1.9	-9.2	44	067	2.1	058	5.1	24
1500	2.9	-9.2	41	061	1.8	063	4.4	4
1800	1.8	-9.0	45	067	1.5	068	3.8	0
2100	1.2	-8.1	50	070	1.3	069	3.2	0
2400	.1	-7.4	57	050	1.5	048	4.4	0

DAY 17

HOUR NDNG	TEMP. DEG C	DEW POINT DEG C	RH %	WIND DIR. DEG.	WIND SPD. M/S	GUST DIR. DEG.	MAX. GUST M/S	RAD MW
0300	-2.7	-7.6	69	019	1.1	023	2.5	0
0600	-4.4	-8.0	76	022	1.0	017	2.5	0
0900	-2.4	*****	71	041	.9	033	3.2	5
1200	6.0	-6.4	41	048	1.4	030	3.8	23
1500	6.3	-5.5	43	071	1.2	074	4.4	7
1800	-.5	*****	75	094	.5	116	1.9	0
2100	-.9	*****	79	058	.7	021	1.9	0
2400	.3	*****	79	079	.8	068	1.9	0

DAY 18

HOUR NDNG	TEMP. DEG C	DEW POINT DEG C	RH %	WIND DIR. DEG.	WIND SPD. M/S	GUST DIR. DEG.	MAX. GUST M/S	RAD MW
0300	-1.3	*****	82	080	.6	095	1.3	0
0600	-.2	*****	85	054	.5	051	1.3	0
0900	2.4	*****	71	055	.6	027	1.9	11
1200	6.5	-5.0	44	065	1.6	063	3.8	38
1500	5.4	-4.8	48	072	1.6	075	3.8	9
1800	2.4	*****	71	055	.8	060	2.5	0
2100	-.7	*****	84	042	.7	030	1.9	0
2400	-.4	-4.4	74	042	.9	044	1.9	0

** SEE INTERPRETATION NOTES AT END OF MONTHLY REPORT **

R & M CONSULTANTS, INC.

SUSITNA HYDROELECTRIC PROJECT

THREE HOUR SUMMARY FOR SHERMAN WEATHER STATION
DATA TAKEN DURING October, 1983

DAY 19

HOUR NDNG	TEMP. DEG C	DEW POINT DEG C	RH %	WIND DIR. DEG.	WIND SPD. M/S	GUST DIR. DEG.	MAX. GUST M/S	RAD MW
0300	-1.1	*****	66	022	.9	359	2.5	0
0600	-2.7	-4.7	86	018	1.0	029	2.5	0
0900	-1.2	-3.9	82	054	.6	079	1.9	2
1200	-.5	-5.3	70	013	1.2	003	3.2	6
1500	-.2	*****	62	022	1.0	019	1.9	5
1800	-5.1	*****	81	010	1.0	007	2.5	0
2100	-5.0	*****	79	078	.4	065	1.3	0
2400	-5.0	*****	66	021	1.0	028	2.5	0

DAY 20

HOUR NDNG	TEMP. DEG C	DEW POINT DEG C	RH %	WIND DIR. DEG.	WIND SPD. M/S	GUST DIR. DEG.	MAX. GUST M/S	RAD MW
0300	-5.2	*****	68	034	.8	020	2.5	0
0600	-5.2	*****	73	096	.5	092	1.9	0
0900	-4.4	*****	84	049	.8	023	1.9	2
1200	-1.4	*****	81	020	.9	006	2.5	3
1500	-1.0	*****	87	013	.8	025	1.9	0
1800	-.7	*****	90	028	.6	034	1.9	0
2100	-.3	*****	91	038	.4	040	1.3	0
2400	-1.2	*****	90	043	.5	033	1.3	0

DAY 21

HOUR NDNG	TEMP. DEG C	DEW POINT DEG C	RH %	WIND DIR. DEG.	WIND SPD. M/S	GUST DIR. DEG.	MAX. GUST M/S	RAD MW
0300	-2.5	*****	9[illegible]	060	.3	065	1.3	0
0600	-1.4	*****	92	045	.4	035	1.3	0
0900	-1.2	*****	83	026	.6	022	1.9	2
1200	2.2	-1.6	76	040	.9	054	3.2	7
1500	2.7	*****	77	047	.5	050	2.5	5
1800	-1.0	-3.2	85	049	.8	083	2.5	0
2100	1.3	*****	70	031	1.0	024	2.5	0
2400	1.4	*****	64	056	1.0	075	3.8	0

DAY 22

HOUR NDNG	TEMP. DEG C	DEW POINT DEG C	RH %	WIND DIR. DEG.	WIND SPD. M/S	GUST DIR. DEG.	MAX. GUST M/S	RAD MW
0300	-.8	*****	77	033	.8	028	2.5	0
0600	-1.8	*****	80	049	.7	036	1.9	0
0900	0.0	-5.2	68	029	1.0	042	1.9	6
1200	4.4	*****	45	055	.2	012	1.9	24
1500	3.6	-3.0	62	206	1.1	209	4.4	5
1800	0.0	*****	86	208	.9	224	5.7	0
2100	-4.9	*****	88	036	.2	035	1.3	0
2400	-7.0	*****	88	066	.2	113	1.3	0

DAY 23

HOUR NDNG	TEMP. DEG C	DEW POINT DEG C	RH %	WIND DIR. DEG.	WIND SPD. M/S	GUST DIR. DEG.	MAX. GUST M/S	RAD MW
0300	-10.0	*****	84	070	.2	098	.6	0
0600	-11.6	*****	83	063	.3	069	1.3	0
0900	-8.7	*****	86	063	.5	063	1.3	4
1200	2.3	-6.6	52	072	.9	081	3.2	29
1500	1.3	*****	52	081	.8	075	4.4	3
1800	-.6	-4.6	74	203	1.0	212	3.8	0
2100	-4.0	*****	83	188	.3	209	2.5	0
2400	-9.6	*****	86	080	.5	079	1.3	0

DAY 24

HOUR NDNG	TEMP. DEG C	DEW POINT DEG C	RH %	WIND DIR. DEG.	WIND SPD. M/S	GUST DIR. DEG.	MAX. GUST M/S	RAD MW
0300	-9.8	-11.9	85	070	.7	064	1.9	0
0600	-11.0	*****	84	066	.8	060	1.9	0
0900	-10.3	*****	85	094	.5	088	1.3	4
1200	-4.8	*****	73	102	.5	090	1.9	16
1500	-.4	-8.8	53	050	.8	024	2.5	11
1800	-1.6	-11.5	47	050	1.4	032	3.8	0
2100	-1.6	-12.4	44	035	1.4	035	3.2	0
2400	-2.6	-13.6	43	039	1.5	038	3.8	0

DAY 25

HOUR NDNG	TEMP. DEG C	DEW POINT DEG C	RH %	WIND DIR. DEG.	WIND SPD. M/S	GUST DIR. DEG.	MAX. GUST M/S	RAD MW
0300	-6.4	-14.9	51	068	1.2	080	3.2	0
0600	-11.2	-15.6	70	022	1.2	022	2.5	0
0900	-11.8	*****	79	075	.4	071	1.3	4
1200	-1.6	*****	37	082	.3	083	1.3	26
1500	-1.1	-15.1	34	060	1.5	066	5.1	6
1800	-4.1	-15.2	42	075	1.2	057	3.2	0
2100	-4.2	*****	47	042	.8	039	2.5	0
2400	-3.8	*****	53	012	1.0	003	2.5	0

DAY 26

HOUR NDNG	TEMP. DEG C	DEW POINT DEG C	RH %	WIND DIR. DEG.	WIND SPD. M/S	GUST DIR. DEG.	MAX. GUST M/S	RAD MW
0300	-5.7	-12.0	61	344	1.4	352	3.2	0
0600	-5.9	-8.6	81	222	1.7	213	4.4	0
0900	-6.1	*****	80	048	.2	209	1.9	5
1200	-.7	*****	52	002	.7	001	1.9	12
1500	-2.8	-9.7	59	218	1.1	210	5.7	9
1800	-4.8	-7.9	79	205	2.7	209	7.0	0
2100	-10.6	*****	83	185	1.0	197	3.2	0
2400	-11.0	*****	82	065	.6	062	1.3	0

DAY 27

HOUR NDNG	TEMP. DEG C	DEW POINT DEG C	RH %	WIND DIR. DEG.	WIND SPD. M/S	GUST DIR. DEG.	MAX. GUST M/S	RAD MW
0300	-7.7	*****	86	057	.7	041	1.9	0
0600	-5.9	-8.5	82	024	1.0	009	2.5	0
0900	-4.4	*****	77	048	.8	038	1.9	5
1200	2.6	-8.5	44	044	1.1	061	3.8	26
1500	1.6	-9.7	43	053	1.7	048	5.1	5
1800	0.0	-9.5	49	067	1.3	055	3.8	0
2100	.9	-8.7	49	063	1.2	064	3.8	0
2400	.1	-8.4	53	040	1.4	036	3.2	0

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R & M CONSULTANTS, INC.

SUSITNA HYDROELECTRIC PROJECT

THREE HOUR SUMMARY FOR SHERMAN WEATHER STATION
DATA TAKEN DURING October, 1983

DAY 28

HOUR NDNG	TEMP. DEG C	DEW POINT DEG C	RH %	WIND DIR. DEG.	WIND SPD. M/S	GUST DIR. DEG.	MAX. GUST M/S	RAD MW
0300	1.6	-8.9	46	053	1.3	053	3.8	0
0600	-.3	*****	55	047	1.5	042	3.8	0
0900	-1.6	*****	63	042	.6	058	1.9	4
1200	-.2	-2.9	82	199	1.1	220	5.7	9
1500	-.6	*****	85	210	1.1	203	3.2	1
1800	-.9	*****	86	241	.4	324	1.9	0
2100	-1.6	*****	91	***	****	***	1.3	0
2400	-2.6	*****	90	013	.4	010	1.3	0

DAY 29

HOUR NDNG	TEMP. DEG C	DEW POINT DEG C	RH %	WIND DIR. DEG.	WIND SPD. M/S	GUST DIR. DEG.	MAX. GUST M/S	RAD MW
0300	-8.7	*****	87	***	****	***	1.3	0
0600	-6.8	*****	88	***	****	***	1.9	0
0900	-6.1	*****	87	***	****	***	1.3	2
1200	-3.2	*****	76	***	****	***	1.3	3
1500	-2.0	*****	80	***	****	***	1.3	1
1800	-3.5	*****	90	***	****	***	1.3	0
2100	-5.1	*****	90	***	****	***	1.3	0
2400	-6.4	*****	89	***	****	***	.6	0

DAY 30

HOUR NDNG	TEMP. DEG C	DEW POINT DEG C	RH %	WIND DIR. DEG.	WIND SPD. M/S	GUST DIR. DEG.	MAX. GUST M/S	RAD MW
0300	-5.8	-7.3	89	***	****	***	****	0
0600	-2.6	-4.0	90	204	.4	084	1.9	0
0900	-2.7	-3.9	89	190	1.1	183	2.5	0
1200	-.8	*****	79	201	.9	199	3.2	3
1500	.1	*****	78	018	.3	073	1.3	2
1800	-1.1	-2.9	88	246	.3	238	3.2	0
2100	-1.6	-3.2	89	197	1.4	***	3.2	0
2400	-2.4	-4.3	87	197	1.2	200	2.5	0

DAY 31

HOUR NDNG	TEMP. DEG C	DEW POINT DEG C	RH %	WIND DIR. DEG.	WIND SPD. M/S	GUST DIR. DEG.	MAX. GUST M/S	RAD MW
0300	-3.6	*****	90	169	.2	201	2.5	0
0600	-4.9	*****	90	028	.5	055	1.3	0
0900	-4.0	*****	89	043	.4	043	1.3	0
1200	-2.3	*****	85	034	.5	039	1.9	1
1500	-1.9	-3.8	87	222	.6	203	3.2	1
1800	-2.8	-5.0	85	211	1.3	219	3.8	0
2100	-3.4	*****	86	211	1.4	216	3.8	0
2400	-5.4	*****	90	160	.4	171	1.3	0

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R & M CONSULTANTS, INC.

SUSITNA HYDROELECTRIC PROJECT

MONTHLY SUMMARY FOR SHERMAN WEATHER STATION
DATA TAKEN DURING October, 1983

DAY	MAX. TEMP. DEG C	MIN. TEMP. DEG C	MEAN TEMP. DEG C	RES. WIND DIR. DEG	RES. WIND SPD. M/S	AVG. WIND SPD. M/S	MAX. GUST DIR. DEG	MAX. GUST SPD. M/S	P'VAL DIR.	MEAN RH %	MEAN DP DEG C	PRECIP MM	DAY'S SOLAR ENERGY WH/SQM	DAY
1	[illegible]	2.4	5.2	206	.5	1.0	209	5.1	SSW	80	2.5	2.2	1240	1
2	10.3	-.3	5.0	049	1.3	1.3	061	7.0	NE	54	-1.5	.4	1618	2
3	7.9	-3.2	2.4	063	1.1	1.2	044	5.7	NE	37	-9.1	0.0	2285	3
4	9.1	-6.7	1.2	075	.3	.5	084	2.5	E	32	-8.8	0.0	2208	4
5	3.6	-1.1	1.3	046	.3	.4	071	1.9	N	91	-1.1	0.0	418	5
6	5.2	-7.9	-1.4	134	.3	.5	138	3.2	S	86	-2.0	.2	1718	6
7	.9	-11.7	-5.4	076	.6	.7	041	3.2	ENE	36	-13.1	0.0	2060	7
8	1.0	-13.4	-6.2	059	.6	.7	060	3.2	ENE	40	-13.1	0.0	1765	8
9	-1.3	-3.4	-2.4	041	.9	.9	053	3.8	NE	86	-4.4	0.0	75	9
10	1.0	-1.2	-.1	040	.4	.5	070	1.9	NNE	89	-1.4	2.0	175	10
11	7.4	.5	4.0	175	.2	.8	208	4.4	ENE	83	2.0	3.4	1270	11
12	4.5	.5	2.5	206	.5	.7	215	3.8	SSW	85	.8	2.2	810	12
13	3.5	-4.2	-.4	017	.2	.4	049	1.9	N	87	-3.8	.4	785	13
14	3.0	-8.0	-2.5	054	.8	.7	059	2.5	NE	80	-8.3	0.0	1930	14
15	3.4	-3.7	-.2	054	1.2	1.3	069	5.1	NE	53	-7.0	0.0	835	15
16	3.1	-4.6	-.8	060	1.4	1.5	059	5.1	ENE	52	-9.0	0.0	910	16
17	7.2	-4.4	1.4	050	.9	1.0	074	4.4	NNE	58	-6.7	0.0	1220	17
18	6.5	-1.3	2.6	060	.9	.9	063	3.8	ENE	51	-4.6	0.0	1465	18
19	.2	-6.7	-3.3	023	.8	.9	003	3.2	NNE	69	-6.4	0.0	380	19
20	.1	-6.7	-3.3	036	.6	.7	020	2.5	NNE	79	-6.8	0.0	155	20
21	3.8	-2.9	.5	044	.7	.7	075	3.8	NE	73	-3.1	0.0	385	21
22	5.4	-7.2	-.9	063	.1	.7	224	5.7	NNE	65	-4.2	.2	1210	22
23	3.4	-11.7	-4.2	097	.3	.6	075	4.4	ENE	63	-6.5	0.0	1005	23
24	1.5	-12.1	-5.3	055	.9	1.0	032	3.8	ENE	49	-11.2	0.0	795	24
25	-.2	-13.2	-6.7	052	.9	1.0	066	5.1	E	47	-14.5	0.0	1085	25
26	1.7	-11.4	-4.9	221	.5	1.4	209	7.0	SSW	67	-9.8	0.0	740	26
27	2.6	-9.3	-3.4	050	1.1	1.2	048	5.1	NE	55	-8.8	0.0	775	27
28	2.0	-2.7	-.4	080	.2	.9	220	5.7	SSW	62	-6.3	0.0	390	28
29	-2.0	-9.0	-5.5	***	****	.4	***	1.9	***	**	*****	0.0	170	29
30	.1	-7.0	-3.5	197	.7	1.0	199	3.2	SSW	88	-4.2	0.0	125	30
31	-1.9	-5.4	-3.7	205	.3	.7	219	3.8	SSW	86	-4.7	0.0	50	31
MONTH	10.3	-13.4	-1.2	060	.5	.9	061	7.0	ENE	65	-5.8	11.0	30050	

GUST VEL. AT MAX. GUST MINUS 2 INTERVALS 5.7
GUST VEL. AT MAX. GUST MINUS 1 INTERVAL 5.7
GUST VEL. AT MAX. GUST PLUS 1 INTERVAL 5.1
GUST VEL. AT MAX. GUST PLUS 2 INTERVALS 5.7

NOTE: RELATIVE HUMIDITY READINGS ARE UNRELIABLE WHEN WIND SPEEDS ARE LESS THAN ONE METER PER SECOND. SUCH READINGS HAVE NOT BEEN INCLUDED IN THE DAILY OR MONTHLY MEAN FOR RELATIVE HUMIDITY AND DEW POINT.

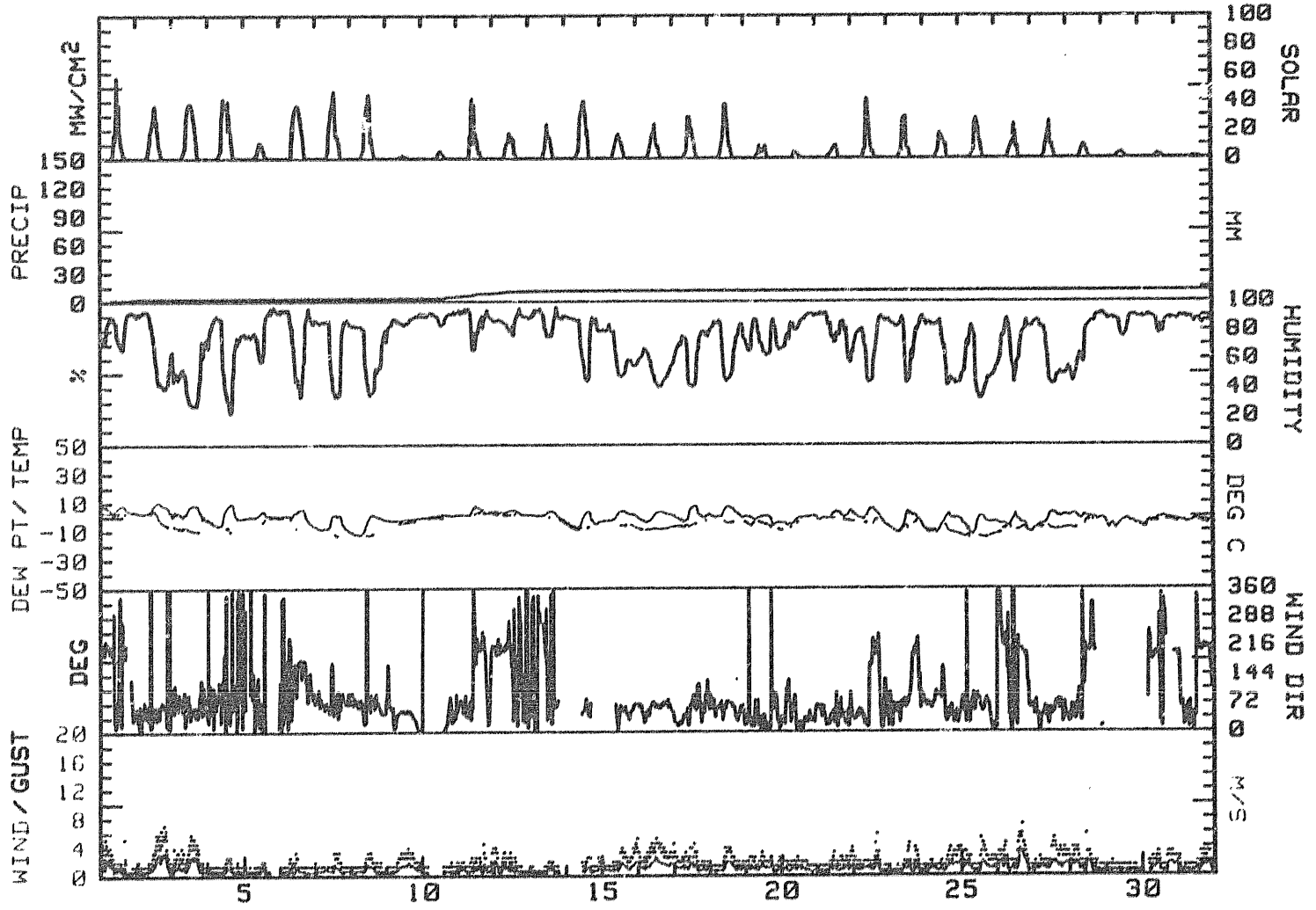
** SEE INTERPRETATION NOTES AT END OF MONTHLY REPORT **

R&M CONSULTANTS, INC.

SUSITNA HYDROELECTRIC PROJECT

SHERMAN WEATHER STATION

October, 1983



R & M CONSULTANTS, INC.

SUSITNA HYDROELECTRIC PROJECT

WIND FREQUENCY SUMMARY FOR SHERMAN WEATHER STATION
DATA TAKEN DURING October, 1983

	VELOCITY (M/S)							
DIRECTION	0.2 TO 1.0	1.0 TO 3.0	3.0 TO 6.0	6.0 TO 10.0	10.0 TO 15.0	15.0 TO 20.0	20.0 OR GREATER	TOTAL
N	4.12	2.19	0.00	0.00	0.00	0.00	0.00	6.31
NNE	7.91	5.45	0.00	0.00	0.00	0.00	0.00	13.36
NE	10.96	8.97	.07	0.00	0.00	0.00	0.00	20.00
ENE	15.35	8.77	.40	0.00	0.00	0.00	0.00	24.52
E	8.04	1.93	0.00	0.00	0.00	0.00	0.00	9.97
ESE	3.72	.07	0.00	0.00	0.00	0.00	0.00	3.79
SE	1.86	.07	0.00	0.00	0.00	0.00	0.00	1.93
SSE	1.26	0.00	0.00	0.00	0.00	0.00	0.00	1.26
S	1.86	.86	0.00	0.00	0.00	0.00	0.00	2.72
SSW	1.73	4.72	.33	0.00	0.00	0.00	0.00	6.78
SW	1.13	1.99	0.00	0.00	0.00	0.00	0.00	3.12
WSW	.60	.20	.07	0.00	0.00	0.00	0.00	.86
W	.20	.07	0.00	0.00	0.00	0.00	0.00	.27
WNW	.47	0.00	0.00	0.00	0.00	0.00	0.00	.47
NW	.60	0.00	0.00	0.00	0.00	0.00	0.00	.60
NNW	1.06	.27	0.00	0.00	0.00	0.00	0.00	1.33
CALM								2.72
TOTAL	60.86	35.55	.86	0.00	0.00	0.00	0.00	100.00

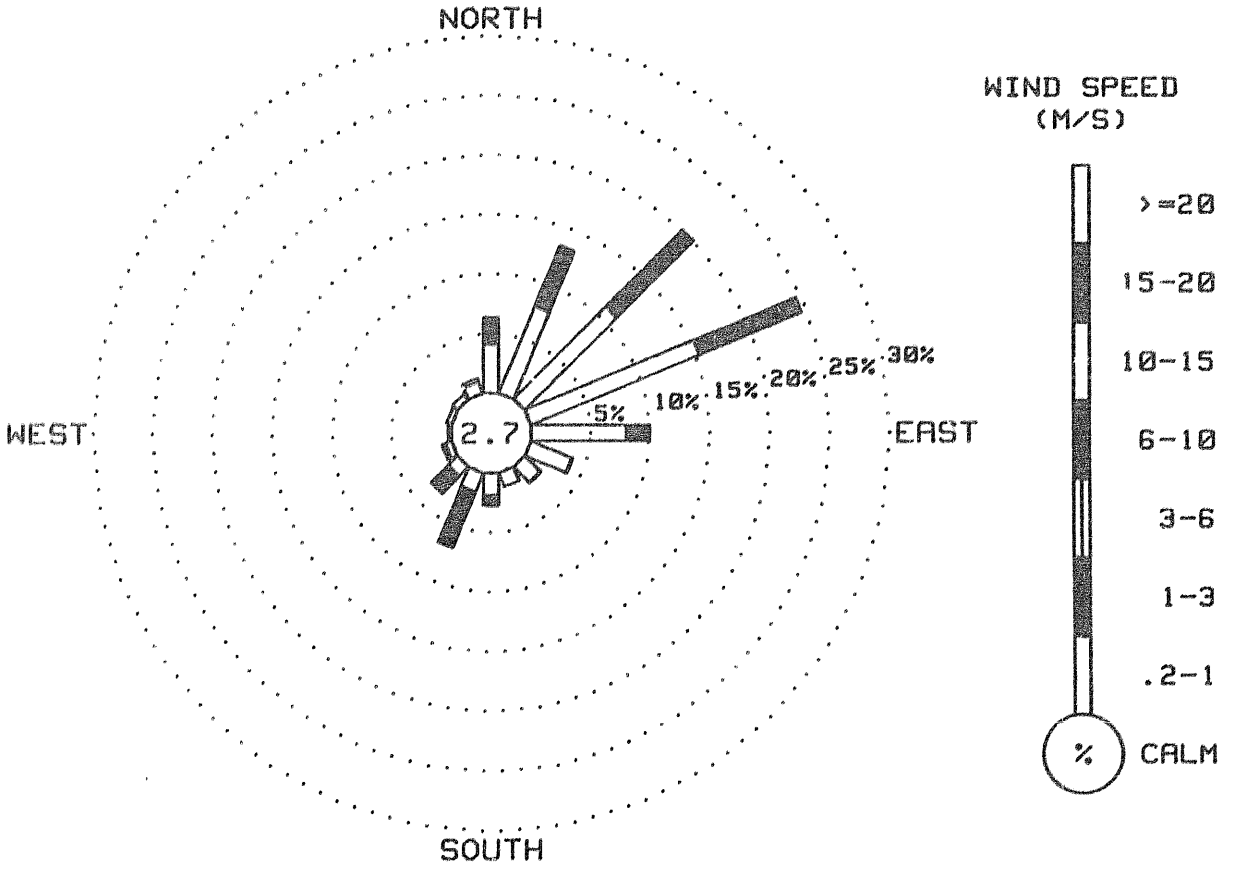
NOTE: ALL FREQUENCIES ARE EXPRESSED IN PERCENT
1505 VALID WIND OBSERVATIONS USED TO DEVELOP FREQUENCY SUMMARY
2976 WIND OBSERVATIONS WOULD HAVE BEEN CORRECT FOR 15 MINUTE DATA.
** SEE INTERPRETATION NOTES AT END OF MONTHLY REPORT **

R&M CONSULTANTS, INC.

SUSITNA HYDROELECTRIC PROJECT

SHERMAN WEATHER STATION

October, 1983



WIND ROSE PLOT

R & M CONSULTANTS, INC.

SUSITNA HYDROELECTRIC PROJECT

HOURLY SOLAR RADIATION SUMMARY FOR SHERMAN WEATHER STATION
DATA TAKEN DURING October, 1983

SOLAR RADIATION VALUES MEASURED IN MILLIWATTS PER SQUARE CENTIMETER

HOUR ENDING

DATE	0100	0200	0300	0400	0500	0600	0700	0800	0900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	2400	AVG
1	0	0	0	0	0	0	0	1	2	14	18	38	25	16	7	3	1	0	0	0	0	0	0	0	5
2	0	0	0	0	0	0	0	3	9	18	23	30	32	24	15	7	3	0	0	0	0	0	0	0	7
3	0	0	0	0	0	0	1	4	9	25	35	38	37	33	26	16	5	0	0	0	0	0	0	0	10
4	0	0	0	0	0	0	1	3	10	33	38	37	36	29	22	10	3	0	0	0	0	0	0	0	9
5	0	0	0	0	0	0	0	2	2	7	10	9	7	4	2	1	0	0	0	0	0	0	0	0	2
6	0	0	0	0	0	0	0	3	21	32	35	37	35	28	20	13	2	0	0	0	0	0	0	0	9
7	0	0	0	0	0	0	1	3	13	27	35	40	43	19	15	11	2	0	0	0	0	0	0	0	9
8	0	0	0	0	0	0	1	4	6	27	34	38	41	13	11	4	1	0	0	0	0	0	0	0	7
9	0	0	0	0	0	0	0	0	1	1	2	2	1	1	1	0	0	0	0	0	0	0	0	0	0
10	0	0	0	0	0	0	0	0	0	0	2	5	5	3	3	1	0	0	0	0	0	0	0	0	1
11	0	0	0	0	0	0	0	1	13	38	18	26	14	11	4	4	1	0	0	0	0	0	0	0	5
12	0	0	0	0	0	0	0	2	8	11	15	13	14	14	3	2	0	0	0	0	0	0	0	0	3
13	0	0	0	0	0	0	0	0	1	4	8	20	18	15	11	4	1	0	0	0	0	0	0	0	3
14	0	0	0	0	0	0	0	2	4	20	32	37	40	31	18	10	1	0	0	0	0	0	0	0	8
15	0	0	0	0	0	0	0	2	6	10	14	17	15	12	8	3	0	0	0	0	0	0	0	0	3
16	0	0	0	0	0	0	0	2	7	13	18	21	14	8	7	3	0	0	0	0	0	0	0	0	4
17	0	0	0	0	0	0	0	2	4	18	28	26	18	15	9	3	0	0	0	0	0	0	0	0	5
18	0	0	0	0	0	0	0	3	9	15	31	33	29	16	9	4	1	0	0	0	0	0	0	0	6
19	0	0	0	0	0	0	0	1	2	5	8	5	6	5	7	2	0	0	0	0	0	0	0	0	2
20	0	0	0	0	0	0	0	0	2	4	4	3	2	1	1	0	0	0	0	0	0	0	0	0	1
21	0	0	0	0	0	0	0	1	2	3	4	6	8	9	6	1	0	0	0	0	0	0	0	0	2
22	0	0	0	0	0	0	0	1	6	23	41	27	13	6	5	1	0	0	0	0	0	0	0	0	5
23	0	0	0	0	0	0	0	1	4	9	27	29	19	7	5	1	0	0	0	0	0	0	0	0	4
24	0	0	0	0	0	0	0	1	4	6	17	16	13	12	10	3	0	0	0	0	0	0	0	0	3
25	0	0	0	0	0	0	0	1	4	6	25	27	23	13	9	2	0	0	0	0	0	0	0	0	5
26	0	0	0	0	0	0	0	1	4	7	10	11	20	14	8	1	0	0	0	0	0	0	0	0	3
27	0	0	0	0	0	0	0	1	4	11	16	21	11	10	6	1	0	0	0	0	0	0	0	0	3
28	0	0	0	0	0	0	0	1	3	7	9	9	6	4	2	0	0	0	0	0	0	0	0	0	2
29	0	0	0	0	0	0	0	0	2	3	3	3	4	2	2	0	0	0	0	0	0	0	0	0	1
30	***	0	0	0	0	0	0	0	0	1	2	3	3	2	2	1	0	0	0	0	0	0	0	0	1
31	0	0	0	0	0	0	0	0	0	0	1	1	1	1	1	1	0	0	0	0	0	0	0	0	0

** SEE INTERPRETATION NOTES AT END OF MONTHLY REPORT **

R & M CONSULTANTS, INC.

SUSITNA HYDROELECTRIC PROJECT

OBSERVATION SUMMARY FOR SHERMAN WEATHER STATION
DATA TAKEN DURING October, 1983

PARAMETER	NUMBER OF USABLE OBSERVATIONS	PERCENT OF TOTAL OBSERVATIONS
TEMPERATURE	1742	100
WIND SPEED	1652	95
WIND DIRECTION	1512	87
PEAK GUST	1652	95
RELATIVE HUMIDITY	647	37
PRECIPITATION	1742	100
SOLAR RADIATION	1742	100
DEW POINT	647	37

THERE ARE 1742 POSSIBLE OBSERVATIONS THIS MONTH FOR EACH PARAMETER. THE DATA RECORDING INTERVAL IS 15 MINUTES.

THE FOLLOWING ADJUSTMENTS HAVE BEEN MADE TO THIS MONTH'S DATA:

1. RH -10 RH Points
2. Solar -1 mW/CM^2

Additional comments on this month's data:

1. Recording time interval was changed on 10/6 from 15 minutes to 30 minutes.
2. One hour of data "lost" between 0000 and 0100 on 10/30 due to change of official time zone. See note in section 4 of text.
3. Timing and quantity of precipitation are suspect since freezing temperatures occured almost every day. However, thawing temperatures also occured almost every day, so daily totals should be accurate.
4. Intermittent wind data lost due to frozen anemometer and wind vane.

No precipitation data for November

(See INTERPRETATION OF DATA).

R & M CONSULTANTS, INC.

SUSITNA HYDROELECTRIC PROJECT

THREE HOUR SUMMARY FOR SHERMAN WEATHER STATION
DATA TAKEN DURING November, 1983

DAY 01

HOUR NDNG	TEMP. DEG C	DEW POINT DEG C	RH %	WIND DIR. DEG.	WIND SPD. M/S	GUST DIR. DEG.	MAX. GUST M/S	RAD MW
0300	-7.7	*****	95	050	.5	042	1.3	0
0600	-7.4	-8.8	90	020	.9	033	1.9	0
0900	-6.3	*****	87	004	.9	001	2.5	0
1200	-2.0	-6.5	71	050	1.1	060	3.2	2
1500	-.6	-5.9	67	051	1.4	049	3.8	2
1800	-2.2	*****	78	051	.6	010	3.2	0
2100	-4.7	*****	93	047	.9	045	2.5	0
2400	-1.6	*****	93	055	.6	073	1.3	0

DAY 02

HOUR NDNG	TEMP. DEG C	DEW POINT DEG C	RH %	WIND DIR. DEG.	WIND SPD. M/S	GUST DIR. DEG.	MAX. GUST M/S	RAD MW
0300	-.9	-4.8	75	050	.8	056	3.2	0
0600	.2	-4.6	70	081	1.0	082	2.5	0
0900	1.9	-5.0	60	076	1.2	059	3.8	0
1200	3.4	-3.8	59	064	1.4	054	3.2	5
1500	3.7	*****	65	033	.6	070	1.9	5
1800	-1.6	*****	89	076	.4	064	1.3	0
2100	-1.4	*****	90	046	.7	031	1.9	0
2400	-5.8	*****	97	070	.7	089	1.3	0

DAY 03

HOUR NDNG	TEMP. DEG C	DEW POINT DEG C	RH %	WIND DIR. DEG.	WIND SPD. M/S	GUST DIR. DEG.	MAX. GUST M/S	RAD MW
0300	-8.4	-9.2	94	053	.8	058	1.9	0
0600	-7.9	-8.6	95	055	1.0	047	1.9	0
0900	-7.6	-8.3	95	072	.9	064	1.9	0
1200	-3.3	*****	74	070	1.0	057	2.5	22
1500	3.5	-4.9	54	033	1.2	028	3.2	20
1800	-1.6	-6.5	69	044	1.2	045	3.8	0
2100	-6.7	*****	92	060	.7	019	2.5	0
2400	-8.9	*****	96	075	.6	066	1.9	0

DAY 04

HOUR NDNG	TEMP. DEG C	DEW POINT DEG C	RH %	WIND DIR. DEG.	WIND SPD. M/S	GUST DIR. DEG.	MAX. GUST M/S	RAD MW
0300	-7.2	*****	86	082	.9	069	2.5	0
0600	-8.4	-10.6	84	104	.9	081	3.2	0
0900	-8.2	-10.7	82	072	1.0	046	3.8	0
1200	-3.7	*****	61	078	1.0	091	3.2	12
1500	-1.8	*****	62	090	.6	092	1.3	4
1800	-3.7	-9.3	65	055	.7	040	2.5	0
2100	-4.5	*****	88	084	.5	075	1.9	0
2400	-5.0	*****	80	056	.3	045	1.9	0

DAY 05

HOUR NDNG	TEMP. DEG C	DEW POINT DEG C	RH %	WIND DIR. DEG.	WIND SPD. M/S	GUST DIR. DEG.	MAX. GUST M/S	RAD MW
0300	-5.8	*****	84	060	.5	059	2.5	0
0600	-8.4	*****	96	091	.4	027	1.3	0
0900	-9.2	*****	96	351	.2	095	1.3	0
1200	-6.1	*****	75	098	.4	108	1.3	16
1500	-1.4	*****	51	084	.8	096	1.9	13
1800	-9.8	*****	93	077	.4	055	1.9	0
2100	-11.5	*****	89	039	.3	030	1.3	0
2400	-13.4	*****	89	063	.4	059	1.3	0

DAY 06

HOUR NDNG	TEMP. DEG C	DEW POINT DEG C	RH %	WIND DIR. DEG.	WIND SPD. M/S	GUST DIR. DEG.	MAX. GUST M/S	RAD MW
0300	-14.7	*****	87	043	.3	010	1.3	0
0600	-15.2	*****	87	071	.4	076	3.2	0
0900	-16.0	*****	86	062	.2	075	3.2	0
1200	-12.5	*****	90	059	.2	072	1.3	12
1500	-8.4	*****	87	085	.3	089	1.3	8
1800	-12.9	*****	90	073	.4	080	1.3	0
2100	-13.3	*****	90	066	.5	062	1.3	0
2400	-11.6	*****	90	060	.5	060	1.3	0

DAY 07

HOUR NDNG	TEMP. DEG C	DEW POINT DEG C	RH %	WIND DIR. DEG.	WIND SPD. M/S	GUST DIR. DEG.	MAX. GUST M/S	RAD MW
0300	-7.6	*****	93	050	.7	049	1.9	0
0600	-6.1	*****	86	041	.8	052	2.5	0
0900	-8.1	*****	87	039	.9	048	1.9	0
1200	-3.2	-9.0	64	043	1.3	051	4.4	5
1500	-1.6	-10.0	53	066	2.1	064	4.4	6
1800	-3.4	-10.5	58	054	1.4	067	3.8	0
2100	-7.4	-11.2	74	035	1.0	034	2.5	0
2400	-4.6	-9.0	71	036	1.1	040	2.5	0

DAY 08

HOUR NDNG	TEMP. DEG C	DEW POINT DEG C	RH %	WIND DIR. DEG.	WIND SPD. M/S	GUST DIR. DEG.	MAX. GUST M/S	RAD MW
0300	-1.9	-7.2	67	027	1.2	026	3.2	0
0600	-.8	-6.5	65	028	1.1	020	2.5	0
0900	-3.6	-7.9	72	032	1.0	035	2.5	0
1200	.2	-6.0	63	029	1.0	043	2.5	7
1500	1.3	*****	59	042	1.1	055	3.2	3
1800	2.0	*****	56	017	.8	040	3.8	0
2100	1.5	-6.1	57	025	.8	069	3.8	0
2400	-.7	-6.2	66	073	.8	046	2.5	0

DAY 09

HOUR NDNG	TEMP. DEG C	DEW POINT DEG C	RH %	WIND DIR. DEG.	WIND SPD. M/S	GUST DIR. DEG.	MAX. GUST M/S	RAD MW
0300	-2.3	*****	73	087	.6	091	1.9	0
0600	-.8	*****	65	059	.8	070	3.8	0
0900	-.9	-7.9	59	062	.8	111	1.9	0
1200	3.2	-9.2	40	037	1.1	011	3.8	11
1500	2.7	*****	31	090	1.4	081	3.2	6
1800	-1.0	-13.7	38	059	1.1	059	4.4	0
2100	-3.0	-13.6	44	055	1.3	040	3.2	0
2400	-2.5	-12.3	47	054	1.5	046	3.8	0

** SEE INTERPRETATION NOTES AT END OF MONTHLY REPORT **

R & M CONSULTANTS, INC.

SUSITNA HYDROELECTRIC PROJECT

THREE HOUR SUMMARY FOR SHERMAN WEATHER STATION
DATA TAKEN DURING November, 1983

DAY 10

HOUR NDNG	TEMP. DEG C	DEW POINT DEG C	RH %	WIND DIR. DEG.	WIND SPD. M/S	GUST DIR. DEG.	MAX. GUST M/S	RAD MW
0300	-2.2	-12.3	46	065	1.5	069	3.8	0
0600	-.6	-11.4	44	068	1.5	094	3.2	0
0900	-.1	-10.4	46	050	1.3	071	3.2	0
1200	2.5	-9.9	40	053	1.4	060	3.8	9
1500	.4	-11.8	40	060	1.2	035	3.2	3
1800	-1.2	-11.1	47	045	1.0	056	3.2	0
2100	0.0	-9.8	48	070	1.0	047	2.5	0
2400	-.3	-10.0	48	089	1.3	082	3.8	0

DAY 11

HOUR NDNG	TEMP. DEG C	DEW POINT DEG C	RH %	WIND DIR. DEG.	WIND SPD. M/S	GUST DIR. DEG.	MAX. GUST M/S	RAD MW
0300	-.6	-9.3	52	037	1.1	081	2.5	0
0600	-2.4	-10.0	56	033	1.1	026	3.2	0
0900	-4.2	-10.4	62	044	1.1	040	3.2	0
1200	-4.5	*****	61	066	1.0	071	2.5	7
1500	-1.6	-9.7	54	069	1.0	075	3.2	5
1800	-3.9	-10.9	58	052	1.0	017	3.2	0
2100	-3.3	*****	52	053	.9	071	3.8	0
2400	-8.3	*****	73	056	.8	040	1.9	0

DAY 12

HOUR NDNG	TEMP. DEG C	DEW POINT DEG C	RH %	WIND DIR. DEG.	WIND SPD. M/S	GUST DIR. DEG.	MAX. GUST M/S	RAD MW
0300	-4.7	*****	62	048	.8	038	2.5	0
0600	-3.7	*****	57	058	.8	070	2.5	0
0900	-3.3	*****	59	081	.6	082	1.9	0
1200	-2.4	*****	57	074	.7	093	1.9	4
1500	-1.7	*****	55	041	.7	047	1.9	5
1800	-6.1	*****	85	069	.4	040	1.3	0
2100	-4.8	*****	86	062	.4	060	1.3	0
2400	-5.0	*****	88	067	.5	057	1.3	0

DAY 13

HOUR NDNG	TEMP. DEG C	DEW POINT DEG C	RH %	WIND DIR. DEG.	WIND SPD. M/S	GUST DIR. DEG.	MAX. GUST M/S	RAD MW
0300	-9.5	*****	94	075	.5	088	1.3	0
0600	-13.2	*****	89	068	.5	076	1.3	0
0900	-13.8	*****	88	074	.5	074	1.3	0
1200	-12.9	*****	89	076	.5	077	1.3	4
1500	-8.3	*****	74	080	.7	082	1.9	6
1800	-13.3	*****	90	079	.6	073	1.9	0
2100	-12.4	*****	89	084	.6	080	1.9	0
2400	-14.4	*****	88	080	.6	071	2.5	0

DAY 14

HOUR NDNG	TEMP. DEG C	DEW POINT DEG C	RH %	WIND DIR. DEG.	WIND SPD. M/S	GUST DIR. DEG.	MAX. GUST M/S	RAD MW
0300	-16.6	*****	86	065	.5	103	1.3	0
0600	-17.1	*****	85	054	.3	057	1.3	0
0900	-16.4	*****	86	065	.5	063	1.9	0
1200	-13.4	*****	89	066	.6	068	1.3	4
1500	-7.9	*****	77	058	.6	050	2.5	6
1800	-11.6	*****	89	054	.7	058	1.9	0
2100	-11.2	*****	88	050	.8	055	1.9	0
2400	-13.3	*****	88	036	1.0	029	2.5	0

DAY 15

HOUR NDNG	TEMP. DEG C	DEW POINT DEG C	RH %	WIND DIR. DEG.	WIND SPD. M/S	GUST DIR. DEG.	MAX. GUST M/S	RAD MW
0300	-13.9	*****	87	042	.9	036	2.5	0
0600	-12.9	*****	89	061	.8	062	1.9	0
0900	-11.8	-13.5	87	067	.8	072	1.9	0
1200	-5.9	-9.1	78	018	1.3	013	2.5	6
1500	.1	-8.1	54	045	1.2	045	3.2	2
1800	-.6	*****	53	086	1.3	088	3.2	0
2100	-.3	-8.7	53	077	.8	073	2.5	0
2400	-2.6	*****	59	044	1.0	079	2.5	0

DAY 16

HOUR NDNG	TEMP. DEG C	DEW POINT DEG C	RH %	WIND DIR. DEG.	WIND SPD. M/S	GUST DIR. DEG.	MAX. GUST M/S	RAD MW
0300	-3.2	*****	93	065	.4	067	1.3	0
0600	-4.0	*****	87	049	1.0	058	2.5	0
0900	-8.2	*****	96	077	.5	053	1.9	0
1200	-10.0	*****	92	059	.6	062	2.5	4
1500	-7.4	*****	84	061	.6	063	1.9	3
1800	-6.4	*****	82	044	.8	031	2.5	0
2100	-7.1	*****	85	037	.9	034	2.5	0
2400	-7.5	*****	84	041	.8	050	3.2	0

DAY 17

HOUR NDNG	TEMP. DEG C	DEW POINT DEG C	RH %	WIND DIR. DEG.	WIND SPD. M/S	GUST DIR. DEG.	MAX. GUST M/S	RAD MW
0300	-13.4	*****	91	056	.7	051	1.9	0
0600	-14.6	*****	89	071	.7	077	1.9	0
0900	-13.7	*****	89	071	.6	072	1.3	0
1200	-9.8	*****	87	073	.7	069	1.9	3
1500	-7.3	*****	78	066	.7	067	1.9	2
1800	-11.8	*****	90	068	.7	066	1.9	0
2100	-11.7	*****	87	065	.4	064	1.3	0
2400	-8.8	*****	90	065	.3	050	1.3	0

DAY 18

HOUR NDNG	TEMP. DEG C	DEW POINT DEG C	RH %	WIND DIR. DEG.	WIND SPD. M/S	GUST DIR. DEG.	MAX. GUST M/S	RAD MW
0300	-8.0	*****	91	062	.4	071	1.3	0
0600	-9.7	*****	89	067	.5	068	1.3	0
0900	-7.5	*****	79	037	.7	036	1.9	0
1200	-6.6	*****	62	046	.7	037	2.5	4
1500	-9.4	*****	64	048	.7	018	1.9	2
1800	-14.6	*****	87	069	.6	041	1.9	0
2100	-16.0	*****	85	071	.6	075	1.3	0
2400	-16.5	*****	84	067	.7	060	1.3	0

** SEE INTERPRETATION NOTES AT END OF MONTHLY REPORT **

R & M CONSULTANTS, INC.

SUSITNA HYDROELECTRIC PROJECT

THREE HOUR SUMMARY FOR SHERMAN WEATHER STATION
DATA TAKEN DURING November, 1983

DAY 19

HOUR NDNG	TEMP. DEG C	DEW POINT DEG C	RH %	WIND DIR. DEG.	WIND SPD. M/S	GUST DIR. DEG.	MAX. GUST M/S	RAD MW
0300	-15.9	*****	85	072	.6	059	1.3	0
0600	-18.1	*****	82	069	.5	082	1.3	0
0900	-17.2	*****	82	044	.2	058	1.3	0
1200	-17.1	*****	82	056	.3	040	1.3	3
1500	-15.9	*****	83	071	.3	083	1.3	2
1800	-18.9	*****	80	050	.2	051	1.3	0
2100	-20.0	-22.7	79	061	.2	054	.6	0
2400	-20.2	*****	79	036	.2	036	1.3	0

DAY 20

HOUR NDNG	TEMP. DEG C	DEW POINT DEG C	RH %	WIND DIR. DEG.	WIND SPD. M/S	GUST DIR. DEG.	MAX. GUST M/S	RAD MW
0300	-18.4	*****	81	072	.4	064	1.3	0
0600	-15.0	*****	83	068	.7	059	1.9	0
0900	-15.9	*****	83	072	.5	071	1.3	0
1200	-9.2	*****	89	063	.5	067	1.3	3
1500	-6.6	*****	90	065	.4	056	1.3	0
1800	-5.8	-7.9	85	049	.9	052	3.2	0
2100	-4.3	-8.4	73	048	1.2	053	3.2	0
2400	-2.4	-7.3	69	050	1.1	040	2.5	0

DAY 21

HOUR NDNG	TEMP. DEG C	DEW POINT DEG C	RH %	WIND DIR. DEG.	WIND SPD. M/S	GUST DIR. DEG.	MAX. GUST M/S	RAD MW
0300	-1.0	-5.7	70	077	1.2	062	3.2	0
0600	1.2	-5.9	59	050	1.6	049	5.1	0
0900	.4	-6.0	62	054	1.4	048	4.4	0
1200	2.0	-4.5	62	040	1.1	047	3.2	1
1500	2.4	*****	64	035	.8	053	2.5	2
1800	-.6	*****	83	046	.4	016	1.9	0
2100	-.6	*****	89	122	.1	122	.6	0
2400	-.5	*****	93	088	.3	086	1.3	0

DAY 22

HOUR NDNG	TEMP. DEG C	DEW POINT DEG C	RH %	WIND DIR. DEG.	WIND SPD. M/S	GUST DIR. DEG.	MAX. GUST M/S	RAD MW
0300	-.1	*****	95	068	.3	069	1.3	0
0600	.1	-.5	96	359	.2	329	1.3	0
0900	-.9	*****	93	011	.1	311	1.3	0
1200	-2.0	*****	92	079	.2	065	.6	3
1500	-.7	*****	91	049	.3	030	1.3	0
1800	-2.6	*****	94	047	.3	041	1.3	0
2100	-2.7	*****	93	057	.3	046	1.3	0
2400	-4.2	*****	94	066	.3	066	1.3	0

DAY 23

HOUR NDNG	TEMP. DEG C	DEW POINT DEG C	RH %	WIND DIR. DEG.	WIND SPD. M/S	GUST DIR. DEG.	MAX. GUST M/S	RAD MW
0300	-3.6	*****	92	063	.4	071	1.3	0
0600	-3.8	*****	90	049	.5	035	1.9	0
0900	-5.1	*****	90	049	.5	031	1.9	0
1200	-4.7	*****	86	088	.4	090	1.3	2
1500	-4.7	*****	87	341	.1	019	1.3	1
1800	-8.4	*****	92	064	.1	034	.6	0
2100	-9.5	*****	92	064	.2	046	1.3	0
2400	-8.4	*****	91	047	.2	080	1.3	0

DAY 24

HOUR NDNG	TEMP. DEG C	DEW POINT DEG C	RH %	WIND DIR. DEG.	WIND SPD. M/S	GUST DIR. DEG.	MAX. GUST M/S	RAD MW
0300	-7.5	*****	92	039	.1	310	1.3	0
0600	-7.5	*****	92	022	.1	037	.6	0
0900	-12.4	*****	89	072	.1	091	.6	0
1200	-13.0	*****	87	069	.2	088	1.3	2
1500	-14.1	-16.0	86	064	.2	072	1.3	1
1800	-18.0	-20.2	83	***	****	***	****	0
2100	-19.4	-21.7	82	***	****	***	****	0
2400	-17.7	-19.9	83	***	****	***	****	0

DAY 25

HOUR NDNG	TEMP. DEG C	DEW POINT DEG C	RH %	WIND DIR. DEG.	WIND SPD. M/S	GUST DIR. DEG.	MAX. GUST M/S	RAD MW
0300	-14.6	-16.6	85	***	****	***	****	0
0600	-14.0	-15.9	86	***	****	***	****	0
0900	-15.2	-17.2	85	***	****	***	****	0
1200	-13.8	-15.5	87	***	****	***	****	2
1500	-9.6	-11.5	86	***	****	***	****	1
1800	-8.9	*****	83	030	.6	035	2.5	0
2100	-7.1	*****	76	025	.9	031	3.2	0
2400	-6.8	-11.2	71	025	1.2	030	3.2	0

DAY 26

HOUR NDNG	TEMP. DEG C	DEW POINT DEG C	RH %	WIND DIR. DEG.	WIND SPD. M/S	GUST DIR. DEG.	MAX. GUST M/S	RAD MW
0300	-6.9	*****	72	026	1.1	024	3.2	0
0600	-5.4	*****	78	016	.9	015	2.5	0
0900	-8.4	*****	81	039	.7	016	1.9	0
1200	-4.4	-9.8	66	015	1.0	015	2.5	2
1500	-6.9	*****	75	044	.7	048	1.9	0
1800	-5.6	*****	77	042	.7	041	2.5	0
2100	-5.5	*****	74	065	.6	050	1.9	0
2400	-5.6	*****	77	057	.7	051	1.9	0

DAY 27

HOUR NDNG	TEMP. DEG C	DEW POINT DEG C	RH %	WIND DIR. DEG.	WIND SPD. M/S	GUST DIR. DEG.	MAX. GUST M/S	RAD MW
0300	-6.1	*****	81	050	.7	042	1.9	0
0600	-7.9	*****	86	055	.8	051	1.9	0
0900	-5.2	*****	91	037	.8	021	2.5	0
1200	-3.7	*****	86	034	.7	005	1.9	1
1500	-3.0	*****	83	074	.6	079	1.9	0
1800	-4.6	*****	91	066	.6	069	1.3	0
2100	-3.5	*****	87	055	.7	058	1.3	0
2400	-2.7	*****	79	035	.9	035	1.9	0

** SEE INTERPRETATION NOTES AT END OF MONTHLY REPORT **

R & M CONSULTANTS, INC.

SUSITNA HYDROELECTRIC PROJECT

THREE HOUR SUMMARY FOR SHERMAN WEATHER STATION
DATA TAKEN DURING November, 1983

DAY 28									DAY 29									DAY 30								
HOUR NDNG	TEMP. DEG C	DEW POINT DEG C	RH %	WIND DIR. DEG.	WIND SPD. M/S	GUST DIR. DEG.	MAX. GUST M/S	RAD MW	HOUR NDNG	TEMP. DEG C	DEW POINT DEG C	RH %	WIND DIR. DEG.	WIND SPD. M/S	GUST DIR. DEG.	MAX. GUST M/S	RAD MW	HOUR NDNG	TEMP. DEG C	DEW POINT DEG C	RH %	WIND DIR. DEG.	WIND SPD. M/S	GUST DIR. DEG.	MAX. GUST M/S	RAD MW
0300	-2.0	*****	79	033	.8	011	2.5	0	0300	-2.6	*****	81	046	.9	037	1.9	0	0300	-3.6	*****	65	059	.8	051	3.2	0
0600	-1.1	*****	76	031	.9	040	2.5	0	0600	-.7	-5.1	72	043	1.0	046	2.5	0	0600	-7.0	*****	82	074	.4	058	1.3	0
0900	.4	-5.0	67	067	1.2	066	3.2	0	0900	.6	*****	66	031	1.0	018	1.9	0	0900	-6.7	*****	79	063	.8	066	1.9	0
1200	2.0	-5.4	58	066	1.4	054	3.8	3	1200	-.9	-6.2	67	061	.9	053	1.9	2	1200	-2.7	*****	77	048	.4	070	1.3	2
1500	2.6	-4.8	58	065	1.3	063	3.2	1	1500	.6	-5.6	63	055	.8	055	1.9	1	1500	.2	*****	64	052	.6	043	1.9	1
1800	1.3	-5.4	61	055	1.1	059	3.2	0	1800	1.2	*****	54	079	.8	041	1.9	0	1800	1.9	*****	53	063	.7	088	2.5	0
2100	-1.0	*****	70	059	.8	072	2.5	0	2100	-1.1	*****	60	071	.6	115	1.9	0	2100	-.6	*****	63	070	.9	048	2.5	0
2400	-2.6	*****	80	050	.8	034	1.9	0	2400	-.4	*****	57	054	.7	027	1.9	0	2400	0.0	*****	59	035	.9	036	3.2	0

** SEE INTERPRETATION NOTES AT END OF MONTHLY REPORT **

R & M CONSULTANTS, INC.

SUSITNA HYDROELECTRIC PROJECT

MONTHLY SUMMARY FOR SHERMAN WEATHER STATION
DATA TAKEN DURING November, 1983

DAY	MAX. TEMP. DEG C	MIN. TEMP. DEG C	MEAN TEMP. DEG C	RES. WIND DIR. DEG	RES. WIND SPD. M/S	AVG. WIND SPD. M/S	MAX. GUST DIR. DEG	MAX. GUST SPD. M/S	P'VAL DIR.	MEAN RH %	MEAN DP DEG C	PRECIP MM	DAY'S SOLAR ENERGY WH/SQM	DAY
1	-.6	-9.5	-5.1	040	.9	.9	049	3.8	NE	78	-7.0	****	125	1
2	4.2	-5.8	-.8	064	.8	.9	059	3.8	ENE	64	-4.6	****	205	2
3	3.5	-9.4	-3.0	056	.9	1.0	045	3.8	ENE	79	-6.8	****	865	3
4	-1.8	-10.5	-6.2	079	.7	.8	046	3.8	E	82	-10.0	****	440	4
5	-1.4	-13.7	-7.6	072	.4	.5	059	2.5	E	58	-9.4	****	775	5
6	-8.4	-17.3	-12.9	066	.4	.4	076	3.2	ENE	**	*****	****	510	6
7	-1.6	-10.5	-6.1	048	1.1	1.2	051	4.4	NE	65	-9.8	****	275	7
8	2.7	-3.6	-.5	034	.9	1.0	040	3.8	NNE	64	-6.7	****	305	8
9	4.3	-3.2	.6	062	1.0	1.1	059	4.4	NE	43	-11.4	****	510	9
10	2.9	-3.1	-.1	063	1.2	1.3	069	3.8	ENE	45	-10.9	****	360	10
11	.9	-8.3	-3.7	051	1.0	1.0	071	3.8	NE	55	-10.4	****	335	11
12	-1.4	-9.1	-5.3	061	.6	.6	038	2.5	ENE	57	-10.9	****	190	12
13	-5.5	-15.4	-10.5	077	.6	.6	071	2.5	ENE	89	-14.4	****	330	13
14	-7.3	-17.8	-12.6	054	.6	.6	050	2.5	NE	87	-13.1	****	315	14
15	.3	-13.9	-6.8	054	.9	1.0	045	3.2	ENE	66	-9.9	****	265	15
16	-2.2	-10.6	-6.4	051	.7	.7	050	3.2	NE	85	-7.6	****	220	16
17	-6.9	-15.4	-11.2	067	.6	.6	051	1.9	ENE	**	*****	****	200	17
18	-6.5	-17.6	-12.1	057	.6	.7	037	2.5	ENE	63	-12.7	****	225	18
19	-15.0	-21.2	-18.1	064	.3	.4	059	1.3	ENE	80	-22.4	****	145	19
20	-2.4	-20.6	-11.5	057	.7	.7	052	3.2	ENE	76	-8.0	****	85	20
21	3.4	-2.0	.7	054	.9	.9	049	5.1	NE	63	-5.8	****	110	21
22	.1	-4.5	-2.2	058	.3	.3	069	1.3	ENE	95	-.7	****	60	22
23	-3.4	-9.9	-6.7	059	.3	.3	035	1.9	ENE	**	*****	****	105	23
24	-7.4	-19.6	-13.5	052	.1	.2	310	1.3	ENE	85	-18.1	****	80	24
25	-6.7	-17.5	-12.1	025	1.0	1.0	031	3.2	ENE	84	-14.6	****	70	25
26	-4.4	-9.3	-6.9	036	.8	.8	024	3.2	NNE	71	-10.6	****	60	26
27	-2.5	-8.8	-5.7	050	.7	.7	021	2.5	NE	90	-5.6	****	55	27
28	2.6	-4.1	-.8	055	1.0	1.0	054	3.8	ENE	63	-5.2	****	100	28
29	4.0	-3.4	.3	054	.8	.9	046	2.5	NE	67	-5.9	****	90	29
30	3.4	-7.0	-1.8	057	.7	.7	051	3.2	NE	55	-7.8	****	105	30
MONTH	4.3	-21.2	-6.3	055	.7	.8	049	5.1	ENE	67	-9.6	****	7515	

GUST VEL. AT MAX. GUST MINUS 2 INTERVALS 2.5
GUST VEL. AT MAX. GUST MINUS 1 INTERVAL 3.8
GUST VEL. AT MAX. GUST PLUS 1 INTERVAL 5.1
GUST VEL. AT MAX. GUST PLUS 2 INTERVALS 5.1

NOTE: RELATIVE HUMIDITY READINGS ARE UNRELIABLE WHEN WIND SPEEDS ARE LESS THAN ONE METER PER SECOND. SUCH READINGS HAVE NOT BEEN INCLUDED IN THE DAILY OR MONTHLY MEAN FOR RELATIVE HUMIDITY AND DEW POINT.

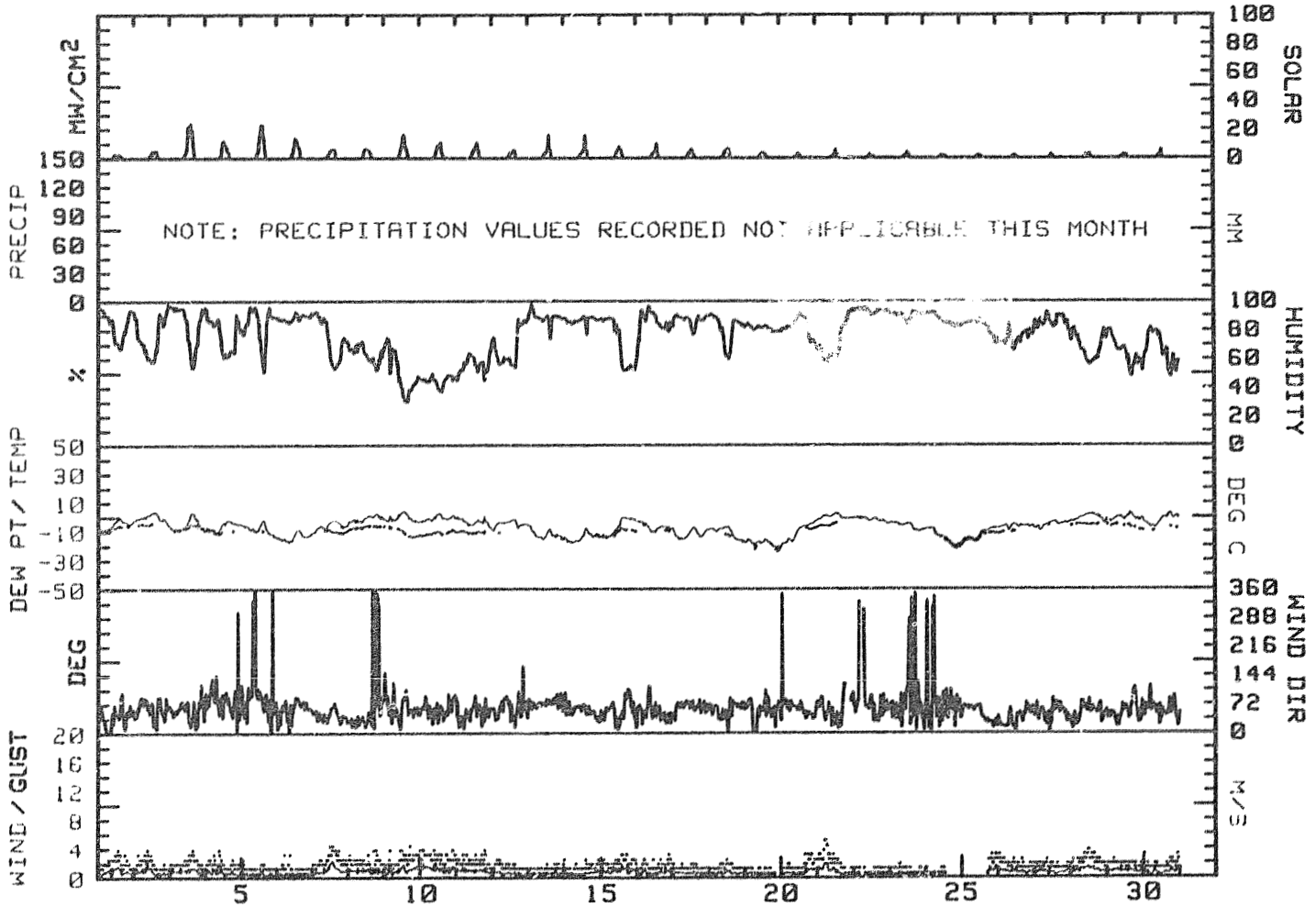
** SEE INTERPRETATION NOTES AT END OF MONTHLY REPORT **

R&M CONSULTANTS, INC.

SUSITNA HYDROELECTRIC PROJECT

SHERMAN WEATHER STATION

November, 1983



R & M CONSULTANTS, INC.

SUSITNA HYDROELECTRIC PROJECT

WIND FREQUENCY SUMMARY FOR SHERMAN WEATHER STATION
DATA TAKEN DURING November, 1983

	VELOCITY (M/S)							
DIRECTION	0.2 TO 1.0	1.0 TO 3.0	3.0 TO 6.0	6.0 TO 10.0	10.0 TO 15.0	15.0 TO 20.0	20.0 OR GREATER	TOTAL
N	1.33	1.11	0.00	0.00	0.00	0.00	0.00	2.43
NNE	7.22	5.75	0.00	0.00	0.00	0.00	0.00	12.97
NE	19.38	10.10	0.00	0.00	0.00	0.00	0.00	29.48
ENE	26.46	8.77	0.00	0.00	0.00	0.00	0.00	35.22
E	9.95	3.32	0.00	0.00	0.00	0.00	0.00	13.26
ESE	2.43	.07	0.00	0.00	0.00	0.00	0.00	2.51
SE	.44	0.00	0.00	0.00	0.00	0.00	0.00	.44
SSE	.15	0.00	0.00	0.00	0.00	0.00	0.00	.15
S	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
SSW	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
SW	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
WSW	.07	0.00	0.00	0.00	0.00	0.00	0.00	.07
W	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
WNW	.22	0.00	0.00	0.00	0.00	0.00	0.00	.22
NW	.22	0.00	0.00	0.00	0.00	0.00	0.00	.22
NNW	.37	0.00	0.00	0.00	0.00	0.00	0.00	.37
CALM								2.65
TOTAL	68.24	29..	0.00	0.00	0.00	0.00	0.00	100.00

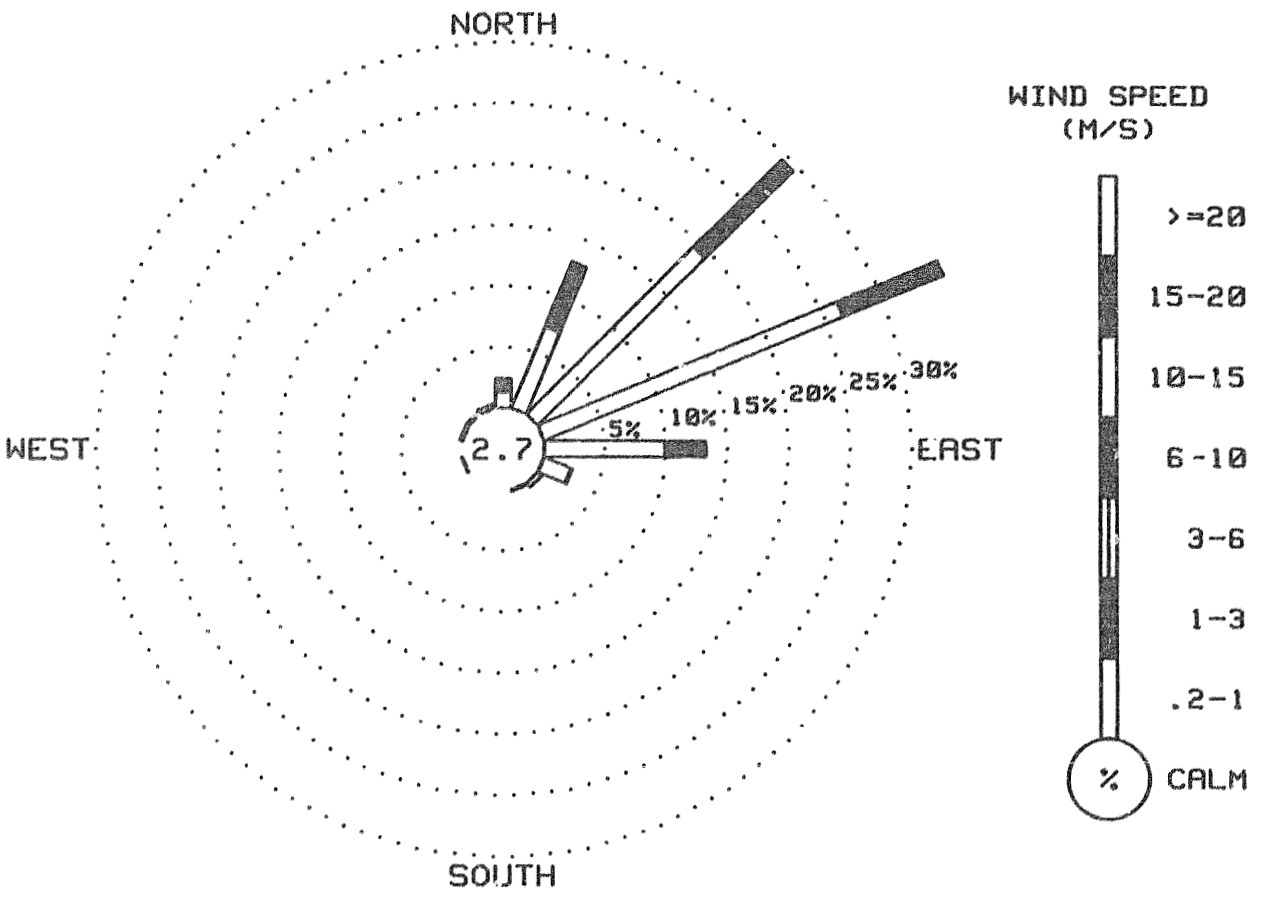
NOTE: ALL FREQUENCIES ARE EXPRESSED IN PERCENT
1357 VALID WIND OBSERVATIONS USED TO DEVELOP FREQUENCY SUMMARY
1440 WIND OBSERVATIONS WOULD HAVE BEEN CORRECT FOR 30 MINUTE DATA.
** SEE INTERPRETATION NOTES AT END OF MONTHLY REPORT **

R&M CONSULTANTS, INC.

SUSITNA HYDROELECTRIC PROJECT

SHERMAN WEATHER STATION

November, 1983



WIND ROSE PLOT

R & M CONSULTANTS, INC.

SUSITNA HYDROELECTRIC PROJECT

HOURLY SOLAR RADIATION SUMMARY FOR SHERMAN WEATHER STATION
DATA TAKEN DURING November, 1983

SOLAR RADIATION VALUES MEASURED IN MILLIWATTS PER SQUARE CENTIMETER

HOUR ENDING

DATE	0100	0200	0300	0400	0500	0600	0700	0800	0900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	2400	AVG
1	0	0	0	0	0	0	0	0	0	0	3	3	2	3	2	1	0	0	0	0	0	0	0	0	1
2	0	0	0	0	0	0	0	0	0	0	2	4	3	5	5	2	0	0	0	0	0	0	0	0	1
3	0	0	0	0	0	0	0	0	0	3	4	14	19	23	17	8	1	0	0	0	0	0	0	0	4
4	0	0	0	0	0	0	0	0	0	2	8	11	10	8	5	2	0	0	0	0	0	0	0	0	2
5	0	0	0	0	0	0	0	0	0	2	4	12	19	23	14	5	1	0	0	0	0	0	0	0	3
6	0	0	0	0	0	0	0	0	0	2	4	10	14	11	8	4	0	0	0	0	0	0	0	0	2
7	0	0	0	0	0	0	0	0	0	1	3	4	6	6	6	3	0	0	0	0	0	0	0	0	1
8	0	0	0	0	0	0	0	0	0	2	6	7	6	6	4	2	0	0	0	0	0	0	0	0	1
9	0	0	0	0	0	0	0	0	0	1	5	9	16	12	7	3	0	0	0	0	0	0	0	0	2
10	0	0	0	0	0	0	0	0	0	2	4	8	8	10	4	2	0	0	0	0	0	0	0	0	2
11	0	0	0	0	0	0	0	0	0	1	4	6	6	10	6	2	0	0	0	0	0	0	0	0	1
12	0	0	0	0	0	0	0	0	0	0	1	3	4	4	6	2	0	0	0	0	0	0	0	0	-
13	0	0	0	0	0	0	0	0	0	1	3	4	5	13	7	2	0	0	0	0	0	0	0	0	-
14	0	0	0	0	0	0	0	0	0	1	3	4	5	13	6	2	0	0	0	0	0	0	0	0	-
15	0	0	0	0	0	0	0	0	0	1	4	6	8	6	3	1	0	0	0	0	0	0	0	0	-
16	0	0	0	0	0	0	0	0	0	1	2	4	4	9	3	1	0	0	0	0	0	0	0	0	-
17	0	0	0	0	0	0	0	0	0	1	3	4	6	5	3	1	0	0	0	0	0	0	0	0	-
18	0	0	0	0	0	0	0	0	0	1	2	5	6	7	3	1	0	0	0	0	0	0	0	0	-
19	0	0	0	0	0	0	0	0	0	0	2	3	4	4	3	1	0	0	0	0	0	0	0	0	-
20	0	0	0	0	0	0	0	0	0	0	1	2	3	2	1	0	0	0	0	0	0	0	0	0	-
21	0	0	0	0	0	0	0	0	0	0	1	1	3	4	2	1	0	0	0	0	0	0	0	0	-
22	0	0	0	0	0	0	0	0	0	0	1	2	2	1	1	0	0	0	0	0	0	0	0	0	-
23	0	0	0	0	0	0	0	0	0	0	1	2	3	4	2	0	0	0	0	0	0	0	0	0	-
24	0	0	0	0	0	0	0	0	0	0	1	2	2	2	2	0	0	0	0	0	0	0	0	0	-
25	0	0	0	0	0	0	0	0	0	0	1	2	2	2	1	0	0	0	0	0	0	0	0	0	-
26	0	0	0	0	0	0	0	0	0	0	1	2	2	2	1	0	0	0	0	0	0	0	0	0	-
27	0	0	0	0	0	0	0	0	0	0	0	1	3	2	1	0	0	0	0	0	0	0	0	0	-
28	0	0	0	0	0	0	0	0	0	0	1	3	2	3	2	1	0	0	0	0	0	0	0	0	-
29	0	0	0	0	0	0	0	0	0	0	1	2	3	3	2	0	0	0	0	0	0	0	0	0	-
30	0	0	0	0	0	0	0	0	0	0	1	2	3	5	1	0	0	0	0	0	0	0	0	0	-

** SEE INTERPRETATION NOTES AT END OF MONTHLY REPORT **

R & M CONSULTANTS, INC.

SUSITNA HYDROELECTRIC PROJECT

OBSERVATION SUMMARY FOR SHERMAN WEATHER STATION
DATA TAKEN DURING November, 1983

PARAMETER	NUMBER OF USABLE OBSERVATIONS	PERCENT OF TOTAL OBSERVATIONS
TEMPERATURE	1440	100
WIND SPEED	1366	95
WIND DIRECTION	1426	99
PEAK GUST	1366	95
RELATIVE HUMIDITY	469	33
PRECIPITATION	0	0
SOLAR RADIATION	1440	100
DEW POINT	469	33

THERE ARE 1440 POSSIBLE OBSERVATIONS THIS MONTH FOR EACH PARAMETER. THE DATA RECORDING INTERVAL IS 30 MINUTES.

The following adjustments have been made to this month's data.

1. RH -3 RH Points
2. Solar -1 mW/CM^2

Additional comments on this month's data:

1. Intermittent wind speed and direction data lost due to frozen anemometer and wind vane.

No precipitation data for December

(See INTERPRETATION OF DATA).

R & M CONSULTANTS, INC.

SUSITNA HYDROELECTRIC PROJECT

THREE HOUR SUMMARY FOR SHERMAN WEATHER STATION
DATA TAKEN DURING December, 1983

DAY 01

HOUR NDNG	TEMP. DEG C	DEW POINT DEG C	RH %	WIND DIR. DEG.	WIND SPD. M/S	GUST DIR. DEG.	MAX. GUST M/S	RAD MW
0300	.4	*****	63	055	.7	064	2.5	0
0600	.4	*****	61	065	.8	057	1.9	0
0900	-2.1	-7.2	68	052	1.0	064	2.5	0
1200	-.8	*****	73	063	.6	045	1.9	2
1500	-.8	*****	74	070	.5	065	1.3	1
1800	-1.1	*****	80	061	.6	079	1.3	0
2100	-.9	*****	83	055	.7	058	1.3	0
2400	-2.0	*****	90	060	.6	064	1.3	0

DAY 02

HOUR NDNG	TEMP. DEG C	DEW POINT DEG C	RH %	WIND DIR. DEG.	WIND SPD. M/S	GUST DIR. DEG.	MAX. GUST M/S	RAD MW
0300	-6.7	*****	99	049	.4	075	1.9	0
0600	-7.4	*****	97	068	.4	044	1.3	0
0900	-6.7	*****	96	030	.3	358	1.3	0
1200	-7.9	*****	95	037	.4	037	1.3	3
1500	-5.0	*****	97	355	.2	070	1.3	1
1800	-4.6	*****	97	351	.3	327	1.3	0
2100	-3.8	*****	96	016	.3	000	1.3	0
2400	-4.7	*****	97	040	.2	054	1.3	0

DAY 03

HOUR NDNG	TEMP. DEG C	DEW POINT DEG C	RH %	WIND DIR. DEG.	WIND SPD. M/S	GUST DIR. DEG.	MAX. GUST M/S	RAD MW
0300	-5.2	*****	97	045	.2	059	1.3	0
0600	-5.8	*****	97	018	.3	018	1.3	0
0900	-5.0	*****	97	061	.3	061	.6	0
1200	-4.1	*****	96	088	.2	036	1.3	3
1500	-4.0	-4.8	94	063	.2	063	.6	0
1800	-6.3	-6.7	97	***	****	***	****	0
2100	-6.0	-6.6	96	***	****	017	.6	0
2400	-6.4	-6.8	97	***	****	***	****	0

DAY 04

HOUR NDNG	TEMP. DEG C	DEW POINT DEG C	RH %	WIND DIR. DEG.	WIND SPD. M/S	GUST DIR. DEG.	MAX. GUST M/S	RAD MW
0300	-7.7	-8.2	96	***	****	***	****	0
0600	-6.0	-6.4	97	***	****	***	****	0
0900	-4.7	-5.0	98	***	****	***	****	0
1200	-3.8	-4.4	96	***	****	***	****	0
1500	-3.5	*****	96	046	.5	046	1.9	0
1800	-3.3	*****	96	049	.5	041	1.3	0
2100	-3.2	*****	96	048	.4	066	1.9	0
2400	-2.9	*****	96	063	.3	054	1.9	0

DAY 05

HOUR NDNG	TEMP. DEG C	DEW POINT DEG C	RH %	WIND DIR. DEG.	WIND SPD. M/S	GUST DIR. DEG.	MAX. GUST M/S	RAD MW
0300	-3.3	*****	97	062	.4	062	1.9	0
0600	-3.2	*****	98	063	.2	040	1.3	0
0900	-3.3	*****	97	043	.5	047	1.3	0
1200	-2.9	*****	96	***	****	***	1.3	0
1500	-2.4	*****	96	***	****	***	1.9	0
1800	-2.8	-3.1	98	***	****	***	.6	0
2100	-3.1	-3.5	97	***	****	***	****	0
2400	-3.3	-3.6	98	***	****	***	****	0

DAY 06

HOUR NDNG	TEMP. DEG C	DEW POINT DEG C	RH %	WIND DIR. DEG.	WIND SPD. M/S	GUST DIR. DEG.	MAX. GUST M/S	RAD MW
0300	-2.6	*****	97	***	****	***	1.3	0
0600	-3.4	-3.8	97	***	****	***	1.3	0
0900	-3.3	-3.6	98	***	****	***	****	0
1200	-2.4	*****	96	080	.4	067	1.3	2
1500	-1.8	*****	96	069	.4	100	1.3	0
1800	-5.0	-5.3	98	068	.4	054	1.3	0
2100	-9.7	-10.5	94	***	****	092	.6	0
2400	-10.4	-11.3	93	***	****	***	****	0

DAY 07

HOUR NDNG	TEMP. DEG C	DEW POINT DEG C	RH %	WIND DIR. DEG.	WIND SPD. M/S	GUST DIR. DEG.	MAX. GUST M/S	RAD MW
0300	-13.1	-14.4	90	***	****	***	****	0
0600	-14.6	-15.9	90	***	****	***	****	0
0900	-15.0	-16.4	89	***	****	***	****	0
1200	-12.9	-14.1	91	***	****	***	****	3
1500	-11.6	-12.8	91	***	****	***	****	1
1800	-13.7	-15.0	90	***	****	***	****	0
2100	-15.1	-16.5	89	***	****	***	****	0
2400	-13.4	-14.7	90	***	****	***	****	0

DAY 08

HOUR NDNG	TEMP. DEG C	DEW POINT DEG C	RH %	WIND DIR. DEG.	WIND SPD. M/S	GUST DIR. DEG.	MAX. GUST M/S	RAD MW
0300	-12.3	-13.6	90	***	****	***	****	0
0600	-12.6	-13.8	91	***	****	***	****	0
0900	-14.4	-15.7	90	***	****	***	****	0
1200	-13.7	-14.9	91	***	****	***	****	2
1500	-15.6	-16.9	90	***	****	***	****	1
1800	-16.1	-17.5	89	***	****	***	****	0
2100	-20.2	-22.1	85	***	****	***	****	0
2400	-20.5	-22.5	84	***	****	***	****	0

DAY 09

HOUR NDNG	TEMP. DEG C	DEW POINT DEG C	RH %	WIND DIR. DEG.	WIND SPD. M/S	GUST DIR. DEG.	MAX. GUST M/S	RAD MW
0300	-19.9	-21.8	85	***	****	***	****	0
0600	-22.9	-25.1	82	***	****	***	****	0
0900	-14.7	-16.1	89	***	****	***	****	0
1200	-14.9	*****	87	074	.4	074	1.9	2
1500	-15.3	*****	85	035	.6	060	1.3	1
1800	-15.6	*****	81	049	.6	063	1.3	0
2100	-15.9	-20.1	70	068	.8	066	2.5	0
2400	-14.2	-20.1	61	056	1.2	049	3.8	0

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R & M CONSULTANTS, INC.

SUSITNA HYDROELECTRIC PROJECT

THREE HOUR SUMMARY FOR SHERMAN WEATHER STATION
DATA TAKEN DURING December, 1983

DAY 10

HOUR NDNG	TEMP. DEG C	DEW POINT DEG C	RH %	WIND DIR. DEG.	WIND SPD. M/S	GUST DIR. DEG.	MAX. GUST M/S	RAD MW
0300	-11.9	-18.7	57	052	1.6	049	4.4	0
0600	-10.9	-18.0	56	064	1.7	072	4.4	0
0900	-10.7	-18.0	55	061	1.5	059	4.4	0
1200	-9.7	-13.3	75	069	2.1	066	5.1	2
1500	-8.2	-14.0	63	069	2.1	069	5.1	1
1800	-7.2	-14.7	55	076	1.8	072	4.4	0
2100	-6.8	-11.5	69	083	1.8	080	3.8	0
2400	-6.2	-13.8	55	080	1.7	085	3.8	0

DAY 11

HOUR NDNG	TEMP. DEG C	DEW POINT DEG C	RH %	WIND DIR. DEG.	WIND SPD. M/S	GUST DIR. DEG.	MAX. GUST M/S	RAD MW
0300	-6.9	-12.2	66	073	1.8	074	3.8	0
0600	-7.8	-14.4	59	079	1.5	079	3.2	0
0900	-9.5	-15.4	62	060	1.5	043	3.8	0
1200	-6.4	-12.7	61	043	1.7	028	3.8	1
1500	-4.6	-10.8	62	077	1.8	081	4.4	0
1800	-5.1	-8.0	80	078	1.6	080	4.4	0
2100	-4.6	-9.8	67	073	1.7	072	3.8	0
2400	-8.3	-12.3	73	044	1.4	065	3.8	0

DAY 12

HOUR NDNG	TEMP. DEG C	DEW POINT DEG C	RH %	WIND DIR. DEG.	WIND SPD. M/S	GUST DIR. DEG.	MAX. GUST M/S	RAD MW
0300	-10.3	-13.7	76	029	1.3	038	3.2	0
0600	-14.0	*****	87	041	1.1	035	2.5	0
0900	-14.5	-16.1	88	054	.9	041	1.9	0
1200	-15.5	*****	88	064	.7	053	1.9	2
1500	-15.0	*****	87	062	.4	066	1.3	0
1800	-12.2	*****	87	064	.6	053	1.9	0
2100	-10.0	*****	83	054	.8	058	1.9	0
2400	-7.5	-12.0	70	031	.9	022	2.5	0

DAY 13

HOUR NDNG	TEMP. DEG C	DEW POINT DEG C	RH %	WIND DIR. DEG.	WIND SPD. M/S	GUST DIR. DEG.	MAX. GUST M/S	RAD MW
0300	-10.4	-14.3	73	030	1.0	024	2.5	0
0600	-7.6	-12.3	69	042	1.1	067	3.2	0
0900	-7.1	-12.7	64	064	1.4	066	4.4	0
1200	-5.9	-10.8	68	082	1.3	078	3.8	1
1500	-6.8	-8.5	88	078	1.2	089	3.2	0
1800	-8.5	*****	92	037	.8	049	2.5	0
2100	-11.4	*****	92	064	.3	046	1.3	0
2400	-14.3	*****	90	063	.4	069	1.3	0

DAY 14

HOUR NDNG	TEMP. DEG C	DEW POINT DEG C	RH %	WIND DIR. DEG.	WIND SPD. M/S	GUST DIR. DEG.	MAX. GUST M/S	RAD MW
0300	-19.0	-20.8	86	036	.4	045	1.9	0
0600	-21.1	*****	84	060	.3	352	1.3	0
0900	-20.2	-22.2	84	032	.2	063	1.3	0
1200	-20.2	*****	83	046	.3	051	1.3	2
1500	-20.1	*****	83	050	.3	066	1.3	1
1800	-16.4	*****	87	061	.4	071	1.9	0
2100	-16.5	*****	87	062	.7	076	1.9	0
2400	-21.2	-23.3	83	076	.5	080	1.9	0

DAY 15

HOUR NDNG	TEMP. DEG C	DEW POINT DEG C	RH %	WIND DIR. DEG.	WIND SPD. M/S	GUST DIR. DEG.	MAX. GUST M/S	RAD MW
0300	-23.1	*****	81	056	.3	082	1.3	0
0600	-24.7	*****	80	082	.6	090	1.9	0
0900	-25.3	-27.9	79	069	.4	079	1.9	0
1200	-24.2	-26.7	80	072	.6	072	2.5	2
1500	-22.3	-24.7	81	***	****	***	****	1
1800	-21.7	-23.9	82	***	****	***	****	0
2100	-18.7	-20.6	65	***	****	***	****	0
2400	-18.4	-20.3	85	***	****	***	****	0

DAY 16

HOUR NDNG	TEMP. DEG C	DEW POINT DEG C	RH %	WIND DIR. DEG.	WIND SPD. M/S	GUST DIR. DEG.	MAX. GUST M/S	RAD MW
0300	-16.8	-18.6	86	***	****	***	****	0
0600	-14.3	-16.1	86	***	****	***	****	0
0900	-14.6	-17.6	78	048	1.0	040	3.2	0
1200	-13.7	*****	75	047	.9	043	2.5	1
1500	-14.2	*****	73	057	1.1	056	3.2	1
1800	-13.2	-17.3	71	060	1.1	061	3.2	0
2100	-12.9	-17.5	68	055	1.4	059	3.8	0
2400	-12.5	-17.5	66	051	1.4	050	3.2	0

DAY 17

HOUR NDNG	TEMP. DEG C	DEW POINT DEG C	RH %	WIND DIR. DEG.	WIND SPD. M/S	GUST DIR. DEG.	MAX. GUST M/S	RAD MW
0300	-12.6	-15.0	82	057	1.4	059	3.2	0
0600	-12.1	*****	87	054	1.0	065	2.5	0
0900	-11.0	*****	86	045	.9	049	2.5	0
1200	-10.1	-11.9	87	054	.9	032	2.5	0
1500	-9.5	-11.6	85	075	1.0	086	2.5	0
1800	-9.6	*****	89	068	.9	081	2.5	0
2100	-9.1	*****	87	017	.7	029	2.5	0
2400	-8.6	-10.0	90	031	.8	060	2.5	0

DAY 18

HOUR NDNG	TEMP. DEG C	DEW POINT DEG C	RH %	WIND DIR. DEG.	WIND SPD. M/S	GUST DIR. DEG.	MAX. GUST M/S	RAD MW
0300	-8.0	*****	94	019	.8	008	1.9	0
0600	-8.8	*****	93	033	.8	075	2.5	0
0900	-12.5	*****	92	044	.7	041	1.9	0
1200	-14.1	*****	89	065	.8	071	1.3	1
1500	-13.4	*****	90	059	.8	052	1.9	0
1800	-15.8	-17.1	90	059	.8	072	1.9	0
2100	-17.2	*****	88	065	.6	068	1.9	0
2400	-16.1	*****	89	064	.5	058	1.9	0

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SUSITNA HYDROELECTRIC PROJECT

THREE HOUR SUMMARY FOR SHERMAN WEATHER STATION
DATA TAKEN DURING December, 1983

DAY 19

HOUR NDNG	TEMP. DEG C	DEW POINT DEG C	RH %	WIND DIR. DEG.	WIND SPD. M/S	GUST DIR. DEG.	MAX. GUST M/S	RAD MW
0300	-16.0	*****	88	066	.7	065	1.9	0
0600	-15.1	*****	88	057	.5	053	1.9	0
0900	-13.3	*****	90	061	.6	063	1.9	0
1200	-11.3	*****	91	069	.7	064	1.3	1
1500	-11.0	*****	91	058	.4	067	1.3	0
1800	-8.7	*****	93	066	.1	070	1.9	0
2100	-7.5	*****	95	077	.4	054	1.3	0
2400	-7.1	*****	89	080	.5	077	1.9	0

DAY 20

HOUR NDNG	TEMP. DEG C	DEW POINT DEG C	RH %	WIND DIR. DEG.	WIND SPD. M/S	GUST DIR. DEG.	MAX. GUST M/S	RAD MW
0300	-6.4	*****	81	083	.6	086	1.3	0
0600	-5.1	*****	76	075	.7	068	1.9	0
0900	-6.0	*****	90	057	.7	051	2.5	0
1200	-5.2	*****	89	052	.5	062	1.3	1
1500	-4.4	*****	86	059	.6	058	1.9	0
1800	-4.5	*****	89	065	.4	077	1.3	0
2100	-4.4	*****	92	057	.5	048	1.3	0
2400	-3.3	*****	88	055	.4	066	1.3	0

DAY 21

HOUR NDNG	TEMP. DEG C	DEW POINT DEG C	RH %	WIND DIR. DEG.	WIND SPD. M/S	GUST DIR. DEG.	MAX. GUST M/S	RAD MW
0300	-3.5	*****	96	060	.5	046	1.9	0
0600	-2.6	*****	97	057	.5	059	1.3	0
0900	-2.6	*****	97	049	.5	053	1.3	0
1200	-2.5	*****	96	059	.4	012	1.3	0
1500	-2.8	*****	96	063	.5	070	1.3	0
1800	-5.4	*****	97	065	.6	066	1.3	0
2100	-5.1	*****	96	060	.6	054	1.3	0
2400	-5.0	*****	95	060	.6	070	1.3	0

DAY 22

HOUR NDNG	TEMP. DEG C	DEW POINT DEG C	RH %	WIND DIR. DEG.	WIND SPD. M/S	GUST DIR. DEG.	MAX. GUST M/S	RAD MW
0300	-7.0	*****	93	037	.7	022	1.9	0
0600	-12.0	*****	93	063	.8	052	1.9	0
0900	-13.6	*****	93	074	.7	072	1.3	0
1200	-15.4	*****	90	065	.5	070	1.3	1
1500	-15.4	*****	90	074	.5	048	1.3	1
1800	-17.5	*****	89	058	.3	069	1.3	0
2100	-18.2	*****	88	071	.5	085	1.9	0
2400	-18.3	*****	88	050	.3	035	1.3	0

DAY 23

HOUR NDNG	TEMP. DEG C	DEW POINT DEG C	RH %	WIND DIR. DEG.	WIND SPD. M/S	GUST DIR. DEG.	MAX. GUST M/S	RAD MW
0300	-19.2	-21.0	86	015	.2	020	.6	0
0600	-21.0	*****	85	044	.2	030	1.3	0
0900	-19.4	-21.2	86	044	.2	064	1.3	0
1200	-17.6	*****	88	059	.5	058	1.3	1
1500	-17.1	*****	86	070	.7	061	1.9	1
1800	-19.4	*****	86	044	.3	046	1.3	0
2100	-19.8	*****	85	043	.4	049	1.3	0
2400	-18.5	*****	87	067	.6	072	1.9	0

DAY 24

HOUR NDNG	TEMP. DEG C	DEW POINT DEG C	RH %	WIND DIR. DEG.	WIND SPD. M/S	GUST DIR. DEG.	MAX. GUST M/S	RAD MW
0300	-16.5	*****	88	070	.8	074	1.9	0
0600	-16.8	*****	89	061	.7	071	1.9	0
0900	-18.0	*****	87	063	.7	064	1.9	0
1200	-16.8	*****	88	044	.5	054	1.9	2
1500	-15.9	*****	89	043	.4	040	1.3	1
1800	-10.8	*****	93	083	.6	063	1.3	0
2100	-10.7	*****	92	090	.5	094	1.3	0
2400	-10.0	*****	94	073	.5	075	1.3	0

DAY 25

HOUR NDNG	TEMP. DEG C	DEW POINT DEG C	RH %	WIND DIR. DEG.	WIND SPD. M/S	GUST DIR. DEG.	MAX. GUST M/S	RAD MW
0300	-8.2	*****	95	063	.8	065	1.9	0
0600	-6.3	-7.1	94	059	.9	064	1.9	0
0900	.6	-7.4	55	037	1.6	039	4.4	0
1200	-1.2	-9.1	55	045	1.3	053	3.2	1
1500	-1.1	*****	51	031	1.0	046	3.8	1
1800	-4.2	-10.6	61	043	1.3	038	2.5	0
2100	-6.0	*****	64	068	1.1	071	2.5	0
2400	-6.7	*****	66	081	.6	067	2.5	0

DAY 26

HOUR NDNG	TEMP. DEG C	DEW POINT DEG C	RH %	WIND DIR. DEG.	WIND SPD. M/S	GUST DIR. DEG.	MAX. GUST M/S	RAD MW
0300	-10.3	*****	78	083	.8	053	2.5	0
0600	-11.0	-13.6	81	075	.7	075	1.9	0
0900	-11.2	*****	79	083	.8	109	1.9	0
1200	-9.4	-13.8	70	074	1.1	078	2.5	1
1500	-9.5	-13.9	70	089	1.2	086	2.5	1
1800	-11.5	*****	79	108	.7	084	2.5	0
2100	-14.7	*****	90	054	.5	100	1.3	0
2400	-16.3	*****	90	042	.4	061	1.3	0

DAY 27

HOUR NDNG	TEMP. DEG C	DEW POINT DEG C	RH %	WIND DIR. DEG.	WIND SPD. M/S	GUST DIR. DEG.	MAX. GUST M/S	RAD MW
0300	-14.4	*****	88	072	.8	082	1.9	0
0600	-17.7	*****	87	056	.5	085	1.9	0
0900	-19.4	*****	85	039	.3	040	1.3	0
1200	-19.0	*****	85	041	.3	033	1.3	1
1500	-18.2	*****	85	037	.3	035	1.3	1
1800	-19.8	*****	84	049	.4	040	1.3	0
2100	-21.4	*****	83	042	.4	044	1.3	0
2400	-22.2	-24.4	82	049	.2	062	.6	0

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SUSITNA HYDROELECTRIC PROJECT

THREE HOUR SUMMARY FOR SHERMAN WEATHER STATION
DATA TAKEN DURING December, 1983

DAY 28

HOUR NDNG	TEMP. DEG C	DEW POINT DEG C	RH %	WIND DIR. DEG.	WIND SPD. M/S	GUST DIR. DEG.	MAX. GUST M/S	RAD MW
0300	-22.6	*****	82	036	.3	009	1.9	0
0600	-22.9	*****	81	046	.4	047	1.3	0
0900	-22.3	*****	81	055	.4	063	1.3	0
1200	-22.5	*****	81	013	.3	014	1.9	1
1500	-22.1	*****	82	035	.3	041	1.3	1
1800	-22.6	*****	81	039	.4	034	1.3	0
2100	-23.4	*****	80	062	.5	055	1.3	0
2400	-22.9	*****	81	046	.4	019	1.3	0

DAY 29

HOUR NDNG	TEMP. DEG C	DEW POINT DEG C	RH %	WIND DIR. DEG.	WIND SPD. M/S	GUST DIR. DEG.	MAX. GUST M/S	RAD MW
0300	-23.7	*****	81	048	.4	042	1.3	0
0600	-24.0	*****	81	066	.5	047	1.3	0
0900	-23.6	*****	80	048	.3	030	1.3	0
1200	-23.8	*****	81	056	.3	059	1.3	1
1500	-22.9	*****	81	072	.4	034	1.3	1
1800	-25.0	*****	79	039	.2	064	1.3	0
2100	-25.0	*****	79	063	.2	079	1.3	0
2400	-26.0	*****	78	050	.2	058	1.3	0

DAY 30

HOUR NDNG	TEMP. DEG C	DEW POINT DEG C	RH %	WIND DIR. DEG.	WIND SPD. M/S	GUST DIR. DEG.	MAX. GUST M/S	RAD MW
0300	-25.4	*****	78	066	.3	085	1.3	0
0600	-25.9	*****	77	038	.2	015	1.3	0
0900	-26.1	*****	77	029	.1	037	1.3	0
1200	-25.8	-28.5	78	036	.2	044	1.3	1
1500	-20.0	-22.2	83	***	****	***	****	1
1800	-21.9	-24.1	82	***	****	***	****	0
2100	-19.1	-21.3	83	***	****	***	****	0
2400	-16.7	*****	85	063	.5	049	1.3	0

DAY 31

HOUR NDNG	TEMP. DEG C	DEW POINT DEG C	RH %	WIND DIR. DEG.	WIND SPD. M/S	GUST DIR. DEG.	MAX. GUST M/S	RAD MW
0300	-15.1	*****	87	051	.5	039	1.9	0
0600	-15.1	*****	87	044	.5	041	1.9	0
0900	-13.5	*****	89	061	.5	072	1.3	0
1200	-11.8	*****	90	044	.4	057	1.9	1
1500	-10.4	*****	91	043	.6	046	1.3	0
1800	-14.1	*****	90	053	.5	027	1.3	0
2100	-13.4	*****	90	065	.7	059	1.3	0
2400	-11.9	*****	90	062	.7	075	1.9	0

** SEE INTERPRETATION NOTES AT END OF MONTHLY REPORT **

R & M CONSULTANTS, INC.

SUSITNA HYDROELECTRIC PROJECT

MONTHLY SUMMARY FOR SHERMAN WEATHER STATION
DATA TAKEN DURING December, 1983

DAY	MAX. TEMP. DEG C	MIN. TEMP. DEG C	MEAN TEMP. DEG C	RES. WIND DIR. DEG	RES. WIND SPD. M/S	AVG. WIND SPD. M/S	MAX. GUST DIR. DEG	MAX. GUST SPD. M/S	P'VAL DIR.	MEAN RH %	MEAN DP DEG C	PRECIP MM	DAY'S SOLAR ENERGY WH/SQM	DAY
1	2.2	-3.1	-.5	059	.7	.7	064	2.5	ENE	61	-6.2	****	70	1
2	-2.9	-8.5	-5.7	033	.3	.3	075	1.9	ENE	**	*****	****	80	2
3	-3.4	-6.5	-5.0	061	.2	.2	059	1.3	NE	96	-5.8	****	80	3
4	-2.8	-8.8	-5.8	052	.4	.4	046	1.9	NE	96	-6.1	****	0	4
5	-2.4	-3.8	-3.1	058	.3	.3	062	1.9	NE	97	-3.4	****	0	5
6	-1.5	-10.7	-6.1	072	.4	.3	067	1.3	ENE	96	-6.5	****	80	6
7	-10.7	-15.6	-13.2	***	****	****	***	****	ENE	90	-14.9	****	115	7
8	-11.4	-20.6	-16.0	***	****	****	***	****	ENE	89	-16.6	****	70	8
9	-12.9	-22.9	-17.9	054	.8	.8	049	3.8	ENE	82	-20.1	****	70	9
10	-6.1	-14.5	-10.3	070	1.8	1.8	066	5.1	ENE	61	-15.7	****	65	10
11	-4.5	-9.5	-7.0	067	1.6	1.6	081	4.4	ENE	65	-12.0	****	45	11
12	-7.2	-16.1	-11.7	046	.8	.9	038	3.2	NE	78	-14.2	****	60	12
13	-5.5	-14.3	-9.9	059	.9	1.0	066	4.4	ENE	69	-11.9	****	25	13
14	-16.0	-21.2	-18.6	057	.4	.4	045	1.9	NE	85	-21.6	****	65	14
15	-18.4	-25.7	-22.1	072	.5	.5	072	2.5	ENE	82	-25.9	****	71	15
16	-12.5	-17.7	-15.1	054	1.1	1.2	059	3.8	NE	76	-17.6	****	55	16
17	-8.5	-12.6	-10.6	052	.9	1.0	059	3.2	ENE	83	-13.3	****	5	17
18	-7.7	-17.8	-12.8	050	.7	.7	075	2.5	ENE	91	-14.2	****	35	18
19	-6.8	-17.5	-12.2	067	.5	.5	065	1.9	ENE	89	-16.9	****	30	19
20	-3.3	-7.1	-5.2	064	.5	.6	051	2.5	ENE	**	*****	****	15	20
21	-2.2	-5.8	-4.0	059	.5	.5	046	1.9	ENE	**	*****	****	10	21
22	-4.3	-19.8	-12.1	062	.5	.5	022	1.9	ENE	**	*****	****	60	22
23	-16.5	-21.3	-18.9	057	.4	.4	061	1.9	ENE	86	-21.6	****	55	23
24	-9.4	-19.5	-14.5	066	.6	.6	074	1.9	ENE	**	*****	****	70	24
25	.6	-10.0	-4.7	051	1.0	1.1	039	4.4	NE	65	-9.1	****	60	25
26	-7.7	-17.0	-12.4	080	.8	.8	053	2.5	ENE	75	-13.7	****	60	26
27	-13.3	-22.2	-17.8	052	.4	.4	082	1.9	NE	85	-21.1	****	55	27
28	-20.7	-23.9	-22.3	044	.4	.4	009	1.9	NE	82	-23.8	****	60	28
29	-21.7	-26.0	-23.9	057	.3	.3	042	1.3	NE	**	*****	****	60	29
30	-16.7	-27.3	-22.0	051	.2	.3	085	1.3	ENE	82	-23.7	****	75	30
31	-10.2	-16.3	-13.3	054	.5	.6	039	1.9	ENE	**	*****	****	35	31
MONTH	2.2	-27.3	-12.1	059	.7	.7	066	5.1	ENE	80	-14.7	****	1636	

GUST VEL. AT MAX. GUST MINUS 2 INTERVALS 3.8
GUST VEL. AT MAX. GUST MINUS 1 INTERVAL 4.4
GUST VEL. AT MAX. GUST PLUS 1 INTERVAL 3.8
GUST VEL. AT MAX. GUST PLUS 2 INTERVALS 4.4

NOTE: RELATIVE HUMIDITY READINGS ARE UNRELIABLE WHEN WIND SPEEDS ARE LESS THAN ONE METER PER SECOND. SUCH READINGS HAVE NOT BEEN INCLUDED IN THE DAILY OR MONTHLY MEAN FOR RELATIVE HUMIDITY AND DEW POINT.

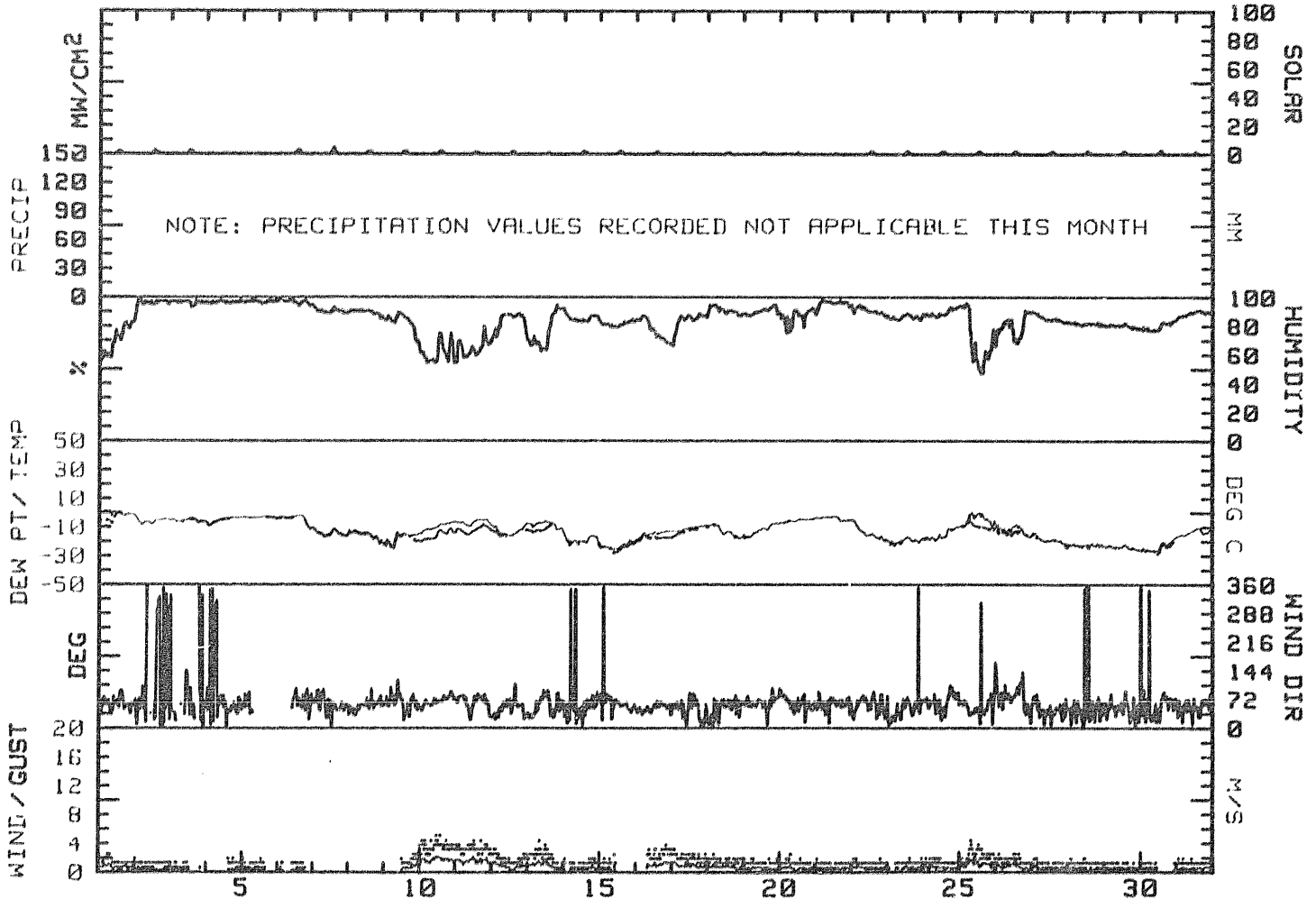
** SEE INTERPRETATION NOTES AT END OF MONTHLY REPORT **

R&M CONSULTANTS, INC.

SUSITNA HYDROELECTRIC PROJECT

SHERMAN WEATHER STATION

December, 1983



R & M CONSULTANTS, INC.

SUSITNA HYDROELECTRIC PROJECT

WIND FREQUENCY SUMMARY FOR SHERMAN WEATHER STATION
DATA TAKEN DURING December, 1983

	VELOCITY (M/S)							
DIRECTION	0.2 TO 1.0	1.0 TO 3.0	3.0 TO 6.0	6.0 TO 10.0	10.0 TO 15.0	15.0 TO 20.0	20.0 OR GREATER	TOTAL
N	2.20	0.00	0.00	0.00	0.00	0.00	0.00	2.20
NNE	9.15	2.38	0.00	0.00	0.00	0.00	0.00	11.53
NE	23.15	6.25	0.00	0.00	0.00	0.00	0.00	29.40
ENE	30.81	10.39	0.00	0.00	0.00	0.00	0.00	41.20
E	6.07	3.43	0.00	0.00	0.00	0.00	0.00	9.51
ESE	.97	.09	0.00	0.00	0.00	0.00	0.00	1.06
SE	.26	0.00	0.00	0.00	0.00	0.00	0.00	.26
SSE	.09	0.00	0.00	0.00	0.00	0.00	0.00	.09
S	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
SSW	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
SW	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
WSW	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
W	.09	0.00	0.00	0.00	0.00	0.00	0.00	.09
WNW	.18	0.00	0.00	0.00	0.00	0.00	0.00	.18
NW	.18	0.00	0.00	0.00	0.00	0.00	0.00	.18
NNW	.53	0.00	0.00	0.00	0.00	0.00	0.00	.53
CALM								3.79
TOTAL	73.68	22.54	0.00	0.00	0.00	0.00	0.00	100.00

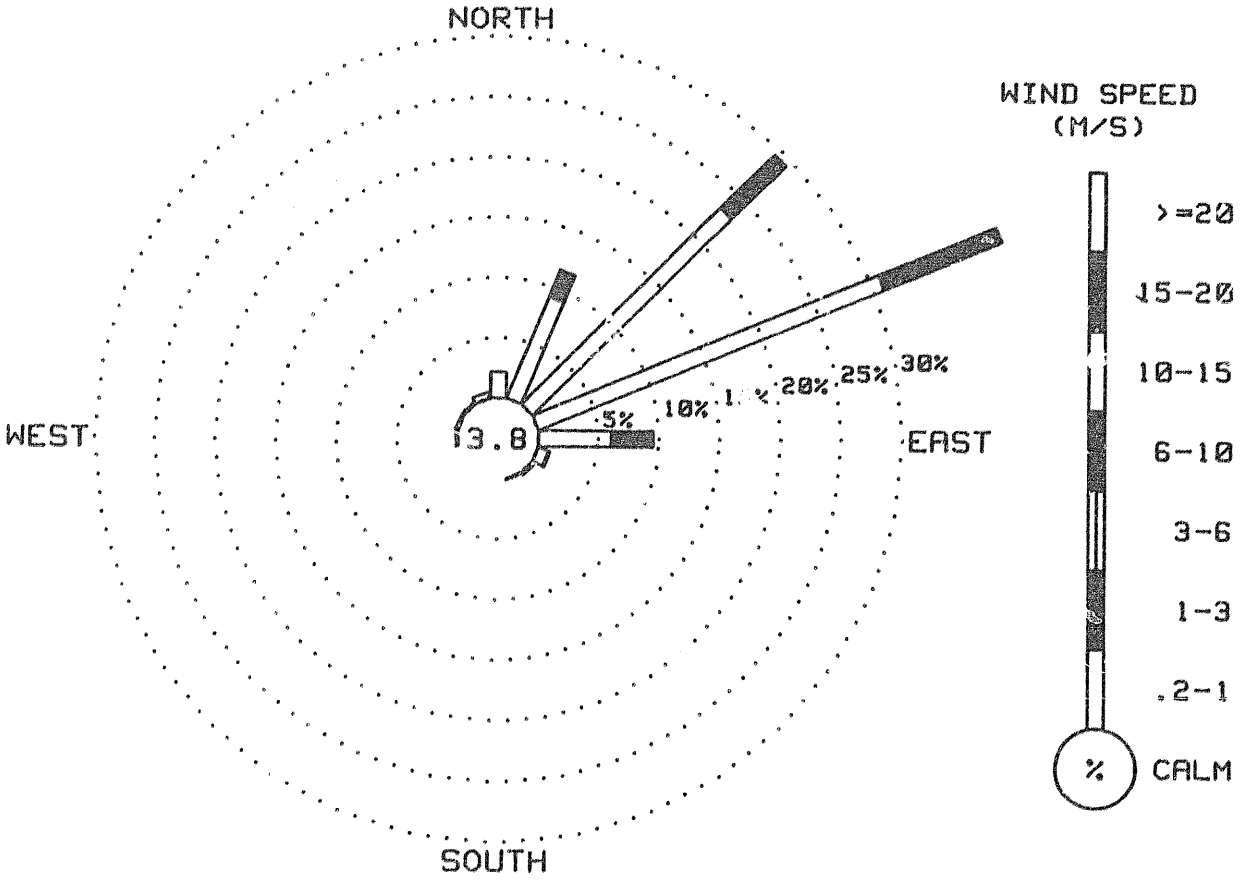
NOTE: ALL FREQUENCIES ARE EXPRESSED IN PERCENT
1136 VALID WIND OBSERVATIONS USED TO DEVELOP FREQUENCY SUMMARY
1488 WIND OBSERVATIONS WOULD HAVE BEEN CORRECT FOR 30 MINUTE DATA.
** SEE INTERPRETATION NOTES AT END OF MONTHLY REPORT **

R&M CONSULTANTS, INC.

SUSITNA HYDROELECTRIC PROJECT

SHERMAN WEATHER STATION

December, 1983



WIND ROSE PLOT

R & M CONSULTANTS, INC.

SUSITNA HYDROELECTRIC PROJECT

HOURLY SOLAR RADIATION SUMMARY FOR SHERMAN WEATHER STATION
DATA TAKEN DURING December, 1983

SOLAR RADIATION VALUES MEASURED IN MILLIWATTS PER SQUARE CENTIMETER

HOUR ENDING

DATE	0100	0200	0300	0400	0500	0600	0700	0800	0900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	2400	AVG
1	0	0	0	0	0	0	0	0	0	0	1	2	2	2	1	0	0	0	0	0	0	0	0	0	0
2	0	0	0	0	0	0	0	0	0	0	1	2	3	2	1	0	0	0	0	0	0	0	0	0	0
3	0	0	0	0	0	0	0	0	0	0	1	3	3	2	1	0	0	0	0	0	0	0	0	0	0
4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	0	0	0	0	0	0	0	0	0	0	1	2	3	3	1	0	0	0	0	0	0	0	0	0	0
7	0	0	0	0	0	0	0	0	0	0	1	3	5	3	2	0	0	0	0	0	0	0	0	0	0
8	0	0	0	0	0	0	0	0	0	0	1	2	2	2	1	0	0	0	0	0	0	0	0	0	0
9	0	0	0	0	0	0	0	0	0	0	1	2	2	2	1	0	0	0	0	0	0	0	0	0	0
10	0	0	0	0	0	0	0	0	0	0	0	2	2	2	1	0	0	0	0	0	0	0	0	0	0
11	0	0	0	0	0	0	0	0	0	0	1	1	2	1	1	0	0	0	0	0	0	0	0	0	0
12	0	0	0	0	0	0	0	0	0	0	0	2	2	2	1	0	0	0	0	0	0	0	0	0	0
13	0	0	0	0	0	0	0	0	0	0	0	1	1	1	0	0	0	0	0	0	0	0	0	0	0
14	0	0	0	0	0	0	0	0	0	0	0	2	2	2	1	0	0	0	0	0	0	0	0	0	0
15	0	0	0	0	0	0	0	0	0	0	1	2	2	2	1	0	0	0	0	0	0	0	0	0	0
16	0	0	0	0	0	0	0	0	0	0	0	1	2	2	1	0	0	0	0	0	0	0	0	0	0
17	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0
18	0	0	0	0	0	0	0	0	0	0	0	1	1	1	1	0	0	0	0	0	0	0	0	0	0
19	0	0	0	0	0	0	0	0	0	0	0	1	1	1	1	0	0	0	0	0	0	0	0	0	0
20	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0
21	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0
22	0	0	0	0	0	0	0	0	0	0	0	1	2	2	1	0	0	0	0	0	0	0	0	0	0
23	0	0	0	0	0	0	0	0	0	0	0	1	2	2	1	0	0	0	0	0	0	0	0	0	0
24	0	0	0	0	0	0	0	0	0	0	1	2	2	2	1	0	0	0	0	0	0	0	0	0	0
25	0	0	0	0	0	0	0	0	0	0	0	1	2	2	1	0	0	0	0	0	0	0	0	0	0
26	0	0	0	0	0	0	0	0	0	0	0	1	2	2	1	0	0	0	0	0	0	0	0	0	0
27	0	0	0	0	0	0	0	0	0	0	0	1	2	2	1	0	0	0	0	0	0	0	0	0	0
28	0	0	0	0	0	0	0	0	0	0	0	1	2	2	1	0	0	0	0	0	0	0	0	0	0
29	0	0	0	0	0	0	0	0	0	0	0	1	2	2	1	0	0	0	0	0	0	0	0	0	0
30	0	0	0	0	0	0	0	0	0	0	0	1	2	3	2	0	0	0	0	0	0	0	0	0	0
31	0	0	0	0	0	0	0	0	0	0	0	1	2	1	1	0	0	0	0	0	0	0	0	0	0

** SEE INTERPRETATION NOTES AT END OF MONTHLY REPORT **

R & M CONSULTANTS, INC.

SUSITNA HYDROELECTRIC PROJECT

OBSERVATION SUMMARY FOR SHERMAN WEATHER STATION
DATA TAKEN DURING December, 1983

PARAMETER	NUMBER OF USABLE OBSERVATIONS	PERCENT OF TOTAL OBSERVATIONS
TEMPERATURE	1488	100
WIND SPEED	1175	79
WIND DIRECTION	1413	95
PEAK GUST	1180	79
RELATIVE HUMIDITY	569	38
PRECIPITATION	0	0
SOLAR RADIATION	1487	100
DEW POINT	569	38

THERE ARE 1488 POSSIBLE OBSERVATIONS THIS MONTH FOR EACH PARAMETER. THE DATA RECORDING INTERVAL IS 30 MINUTES.

The following adjustments have been made to this month's data:

1. RH -2 RH Points
2. Solar -1 mW/CM^2

Additional comments on this month's data:

1. Intermittent wind speed and direction data lost due to frozen anemometer and wind vane.

No precipitation data for January

(See INTERPRETATION OF DATA).

R & M CONSULTANTS, INC.

SUSITNA HYDROELECTRIC PROJECT

THREE HOUR SUMMARY FOR SHERMAN WEATHER STATION
DATA TAKEN DURING January, 1984

DAY 01

HOUR NDNG	TEMP. DEG C	DEW POINT DEG C	RH %	WIND DIR. DEG.	WIND SPD. M/S	GUST DIR. DEG.	MAX. GUST M/S	RAD MW
0300	-10.0	*****	88	069	.7	059	1.9	0
0600	-7.3	-9.0	88	046	.7	067	1.9	0
0900	-3.3	-6.7	77	034	1.3	046	3.2	0
1200	-.5	-5.5	69	056	1.5	062	3.8	1
1500	.9	-4.5	67	074	1.4	096	3.2	0
1800	1.6	-3.8	67	060	1.2	062	3.2	0
2100	1.2	-3.6	70	082	1.2	076	3.2	0
2400	1.3	-4.3	66	074	1.4	067	3.2	0

DAY 02

HOUR NDNG	TEMP. DEG C	DEW POINT DEG C	RH %	WIND DIR. DEG.	WIND SPD. M/S	GUST DIR. DEG.	MAX. GUST M/S	RAD MW
0300	-.4	-2.6	85	051	1.1	072	2.5	0
0600	-1.3	*****	94	022	.9	024	2.5	0
0900	-1.4	*****	96	029	.7	016	2.5	0
1200	-1.4	*****	95	045	.7	043	1.9	0
1500	-1.1	*****	94	048	.8	047	2.5	0
1800	-2.6	*****	96	062	.5	051	1.9	0
2100	-4.6	*****	95	078	.4	034	1.3	0
2400	-5.2	*****	95	057	.5	072	1.9	0

DAY 03

HOUR NDNG	TEMP. DEG C	DEW POINT DEG C	RH %	WIND DIR. DEG.	WIND SPD. M/S	GUST DIR. DEG.	MAX. GUST M/S	RAD MW
0300	-3.9	*****	95	087	.6	082	1.3	0
0600	-3.6	*****	95	***	****	***	1.3	0
0900	-3.6	*****	94	***	****	***	1.3	0
1200	-4.2	*****	94	097	.3	064	1.3	0
1500	-3.3	*****	92	045	.3	049	1.3	0
1800	-6.6	*****	94	084	.2	067	1.3	0
2100	-6.2	*****	95	071	.3	082	1.3	0
2400	-5.2	*****	95	***	****	***	1.3	0

DAY 04

HOUR NDNG	TEMP. DEG C	DEW POINT DEG C	RH %	WIND DIR. DEG.	WIND SPD. M/S	GUST DIR. DEG.	MAX. GUST M/S	RAD MW
0300	-4.2	*****	95	***	****	***	1.3	0
0600	-6.5	-7.8	91	192	2.4	205	5.7	0
0900	-8.2	-9.3	92	208	2.5	199	7.0	0
1200	-10.0	-11.5	89	059	1.1	088	3.8	0
1500	-10.8	*****	86	049	1.5	049	3.2	0
1800	-12.3	-13.9	88	187	.8	199	3.2	0
2100	-17.0	*****	88	195	.8	191	3.2	0
2400	-22.8	*****	83	343	.5	338	1.3	0

DAY 05

HOUR NDNG	TEMP. DEG C	DEW POINT DEG C	RH %	WIND DIR. DEG.	WIND SPD. M/S	GUST DIR. DEG.	MAX. GUST M/S	RAD MW
0300	-27.0	-29.4	80	***	****	348	.6	0
0600	-27.0	-29.5	79	***	****	***	0.0	0
0900	-20.6	-22.9	82	***	****	***	****	0
1200	-17.7	-19.8	84	064	1.0	070	2.5	0
1500	-15.2	*****	86	072	.9	076	3.2	0
1800	-13.4	*****	89	050	.6	053	2.5	0
2100	-13.5	*****	90	***	****	***	1.9	0
2400	-12.5	*****	89	***	****	***	1.9	0

DAY 06

HOUR NDNG	TEMP. DEG C	DEW POINT DEG C	RH %	WIND DIR. DEG.	WIND SPD. M/S	GUST DIR. DEG.	MAX. GUST M/S	RAD MW
0300	-12.3	*****	89	107	.3	166	2.5	0
0600	-12.7	*****	89	***	****	***	1.3	0
0900	-13.9	*****	88	051	.6	045	1.9	0
1200	-13.3	*****	88	073	.4	076	1.9	0
1500	-12.5	*****	88	052	.5	055	1.9	0
1800	-12.1	*****	89	***	****	***	1.9	0
2100	-11.8	*****	89	***	****	***	1.9	0
2400	-10.8	*****	90	050	.5	***	1.9	0

DAY 07

HOUR NDNG	TEMP. DEG C	DEW POINT DEG C	RH %	WIND DIR. DEG.	WIND SPD. M/S	GUST DIR. DEG.	MAX. GUST M/S	RAD MW
0300	-10.0	*****	92	048	.5	043	1.9	0
0600	-9.2	*****	89	044	.6	044	1.9	0
0900	-8.7	*****	90	043	.5	045	1.9	0
1200	-8.2	*****	88	045	.6	043	1.9	0
1500	-11.1	*****	88	056	.5	061	1.9	1
1800	-15.8	*****	89	078	.3	072	1.3	0
2100	-17.1	*****	88	075	.1	065	.6	0
2400	-17.2	*****	87	093	.5	103	1.3	0

DAY 08

HOUR NDNG	TEMP. DEG C	DEW POINT DEG C	RH %	WIND DIR. DEG.	WIND SPD. M/S	GUST DIR. DEG.	MAX. GUST M/S	RAD MW
0300	-19.8	*****	85	092	.4	094	1.3	0
0600	-18.4	*****	86	103	.1	118	1.3	0
0900	-17.8	*****	86	078	.5	097	1.3	0
1200	-16.9	*****	88	072	.6	076	1.3	1
1500	-16.1	*****	88	075	.3	073	1.9	1
1800	-16.8	*****	88	058	.3	056	1.3	0
2100	-16.9	*****	88	061	.6	060	2.5	0
2400	-17.3	*****	86	063	.7	069	2.5	0

DAY 09

HOUR NDNG	TEMP. DEG C	DEW POINT DEG C	RH %	WIND DIR. DEG.	WIND SPD. M/S	GUST DIR. DEG.	MAX. GUST M/S	RAD MW
0300	-15.9	*****	88	060	.9	066	3.2	0
0600	-12.0	*****	89	059	.8	053	2.5	0
0900	-15.0	*****	88	071	.6	066	2.5	0
1200	-10.9	*****	90	089	.5	119	3.8	1
1500	-9.8	*****	90	074	.7	071	3.2	0
1800	-8.5	*****	92	070	.3	075	1.3	0
2100	-6.1	*****	90	053	.5	065	3.8	0
2400	-3.9	-7.7	75	052	.9	063	3.2	0

** SEE INTERPRETATION NOTES AT END OF MONTHLY REPORT **

R & M CONSULTANTS, INC.

SUSITNA HYDROELECTRIC PROJECT

THREE HOUR SUMMARY FOR SHERMAN WEATHER STATION
DATA TAKEN DURING January, 1984

DAY 10

HOUR NDNG	TEMP. DEG C	DEW POINT DEG C	RH %	WIND DIR. DEG.	WIND SPD. M/S	GUST DIR. DEG.	MAX. GUST M/S	RAD MW
0300	-4.1	-8.2	73	047	1.3	053	3.2	0
0600	-5.9	-9.9	73	053	1.7	046	3.8	0
0900	-4.3	-8.6	72	064	1.4	087	3.8	0
1200	-2.2	-6.5	72	035	1.0	032	2.5	0
1500	-1.9	*****	73	039	.9	028	3.2	1
1800	-2.1	-6.1	74	051	1.4	052	3.8	0
2100	-.3	-4.9	71	054	1.1	075	3.8	0
2400	2.2	-3.3	67	068	1.7	074	3.8	0

DAY 11

HOUR NDNG	TEMP. DEG C	DEW POINT DEG C	RH %	WIND DIR. DEG.	WIND SPD. M/S	GUST DIR. DEG.	MAX. GUST M/S	RAD MW
0300	-.7	*****	79	052	.9	064	3.8	0
0600	.1	-2.8	81	110	.7	159	6.3	0
0900	-.6	-1.6	93	208	2.3	216	5.1	0
1200	-.5	*****	92	197	1.1	205	3.8	1
1500	-3.2	*****	94	073	.4	146	1.3	1
1800	-.1	-4.2	74	041	1.1	035	3.8	0
2100	-.8	*****	72	036	1.1	060	3.2	0
2400	.1	*****	72	060	.6	074	1.9	0

DAY 12

HOUR NDNG	TEMP. DEG C	DEW POINT DEG C	RH %	WIND DIR. DEG.	WIND SPD. M/S	GUST DIR. DEG.	MAX. GUST M/S	RAD MW
0300	.3	*****	75	050	.7	050	3.2	0
0600	-.6	*****	84	044	.5	050	1.9	0
0900	1.3	*****	78	053	.7	054	2.5	0
1200	.2	*****	90	045	.5	043	1.3	0
1500	.5	*****	95	049	.5	024	1.9	1
1800	.1	*****	95	074	.5	089	1.3	0
2100	.1	*****	95	049	.5	033	1.3	0
2400	.1	*****	95	076	.4	074	1.9	0

DAY 13

HOUR NDNG	TEMP. DEG C	DEW POINT DEG C	RH %	WIND DI.. DEG.	WIND SPD. M/S	GUST DIR. DEG.	MAX. GUST M/S	RAD MW
0300	.1	*****	94	061	.3	020	1.9	0
0600	-1.7	*****	97	065	.4	075	1.9	0
0900	-2.6	*****	97	051	.4	033	1.9	0
1200	-2.3	*****	95	034	.4	012	1.9	5
1500	0.0	*****	94	043	.4	007	1.9	1
1800	-3.6	*****	93	***	****	***	1.3	0
2100	-6.6	*****	92	***	****	***	1.3	0
2400	-10.9	*****	90	***	****	***	1.3	0

DAY 14

HOUR NDNG	TEMP. DEG C	DEW POINT DEG C	RH %	WIND DIR. DEG.	WIND SPD. M/S	GUST DIR. DEG.	MAX. GUST M/S	RAD MW
0300	-9.3	*****	90	***	****	***	1.3	0
0600	-5.8	-6.9	92	***	****	***	.6	0
0900	-3.9	-5.0	92	***	****	***	****	0
1200	-2.6	-3.6	93	***	****	***	****	1
1500	-.3	-1.3	93	***	****	***	****	0
1800	.5	-.4	94	193	1.2	168	3.2	0
2100	.7	-.3	93	211	1.0	202	3.2	0
2400	.4	*****	95	206	1.3	209	3.8	0

DAY 15

HOUR NDNG	TEMP. DEG C	DEW POINT DEG C	RH %	WIND DIR. DEG.	WIND SPD. M/S	GUST DIR. DEG.	MAX. GUST M/S	RAD MW
0300	.1	-.8	94	243	.4	236	1.3	0
0600	-.2	-1.1	94	***	****	***	****	0
0900	-1.3	-2.2	94	***	****	***	****	0
1200	-3.1	-4.2	92	***	****	***	****	1
1500	-6.7	-8.0	91	***	****	***	****	1
1800	-9.6	-11.0	90	***	****	***	****	0
2100	-11.3	-12.6	90	***	****	***	****	0
2400	-13.9	-15.2	90	***	****	***	****	0

DAY 16

HOUR NDNG	TEMP. DEG C	DEW POINT DEG C	RH %	WIND DIR. DEG.	WIND SPD. M/S	GUST DIR. DEG.	MAX. GUST M/S	RAD MW
0300	-16.8	-18.3	88	***	****	***	****	0
0600	-17.7	-19.4	87	***	****	***	****	0
0900	-15.7	-17.3	88	***	****	***	****	0
1200	-11.7	-13.0	90	***	****	***	****	3
1500	-8.4	-9.4	93	***	****	***	****	2
1800	-10.6	-11.7	92	***	****	***	****	0
2100	-8.7	-9.8	92	***	****	***	****	0
2400	-7.5	-8.5	93	***	****	***	****	0

DAY 17

HOUR NDNG	TEMP. DEG C	DEW POINT DEG C	RH %	WIND DIR. DEG.	WIND SPD. M/S	GUST DIR. DEG.	MAX. GUST M/S	RAD MW
0300	-7.9	-8.9	93	***	****	***	****	0
0600	-7.4	-8.4	93	***	****	***	****	0
0900	-7.2	-8.0	94	***	****	***	****	0
1200	-5.8	-6.6	94	***	****	***	****	1
1500	-4.5	-5.5	93	***	****	***	****	1
1800	-5.6	-6.6	93	***	****	***	****	0
2100	-5.8	-6.8	93	***	****	***	****	0
2400	-5.5	-6.2	95	***	****	***	****	0

DAY 18

HOUR NDNG	TEMP. DEG C	DEW POINT DEG C	RH %	WIND DIR. DEG.	WIND SPD. M/S	GUST DIR. DEG.	MAX. GUST M/S	RAD MW
0300	-6.9	-7.9	93	***	****	***	****	0
0600	-8.7	-9.5	94	***	****	***	****	0
0900	-9.3	-10.4	92	***	****	***	****	0
1200	-9.2	-10.4	91	***	****	***	****	1
1500	-8.3	-9.5	91	***	****	***	****	1
1800	-11.6	-12.8	91	***	****	***	****	0
2100	-15.3	-16.6	90	***	****	***	****	0
2400	-18.1	-19.5	89	***	****	***	****	0

** SEE INTERPRETATION NOTES AT END OF MONTHLY REPORT **

R & M CONSULTANTS, INC.

SUSITNA HYDROELECTRIC PROJECT

THREE HOUR SUMMARY FOR SHERMAN WEATHER STATION
DATA TAKEN DURING January, 1984

DAY 19

HOUR NDNG	TEMP. DEG C	DEW POINT DEG C	RH %	WIND DIR. DEG.	WIND SPD. M/S	GUST DIR. DEG.	MAX. GUST M/S	RAD MW
0300	-19.3	-20.9	87	***	****	***	****	0
0600	-15.3	-16.7	89	***	****	***	****	0
0900	-13.4	-14.7	90	***	****	***	****	0
1200	-12.8	-14.3	89	***	****	***	****	1
1500	-9.9	-11.4	89	***	****	***	****	1
1800	-8.3	-10.4	85	***	****	***	****	0
2100	-12.0	-13.7	87	***	****	***	****	0
2400	-11.1	-13.4	83	***	****	***	****	0

DAY 20

HOUR NDNG	TEMP. DEG C	DEW POINT DEG C	RH %	WIND DIR. DEG.	WIND SPD. M/S	GUST DIR. DEG.	MAX. GUST M/S	RAD MW
0300	-15.8	-17.4	88	***	****	***	****	0
0600	-15.7	-17.3	88	***	****	***	****	0
0900	-16.8	-18.5	87	***	****	***	****	0
1200	-20.0	-22.3	82	***	****	***	****	1
1500	-17.5	-19.6	84	***	****	***	****	1
1800	-21.2	-23.2	84	***	****	***	****	0
2100	-22.7	-24.9	82	***	****	***	****	0
2400	-23.6	-25.9	81	***	****	***	****	0

DAY 21

HOUR NDNG	TEMP. DEG C	DEW POINT DEG C	RH %	WIND DIR. DEG.	WIND SPD. M/S	GUST DIR. DEG.	MAX. GUST M/S	RAD MW
0300	-24.4	-26.7	81	***	****	***	****	0
0600	-24.4	-26.7	81	***	****	***	****	0
0900	-24.6	-26.9	81	***	****	***	****	0
1200	-18.3	-20.2	85	***	****	***	****	3
1500	-15.1	-17.5	82	***	****	***	****	1
1800	-13.8	-16.1	83	***	****	***	****	0
2100	-14.2	-16.9	80	***	****	***	****	0
2400	-11.8	-18.4	58	***	****	***	****	0

DAY 22

HOUR NDNG	TEMP. DEG C	DEW POINT DEG C	RH %	WIND DIR. DEG.	WIND SPD. M/S	GUST DIR. DEG.	MAX. GUST M/S	RAD MW
0300	-12.3	*****	52	071	.1	071	.6	0
0600	-12.4	*****	45	053	.1	048	1.3	0
0900	-13.5	*****	44	064	.2	068	1.3	0
1200	-12.7	*****	41	053	.1	042	1.3	2
1500	-12.2	*****	35	060	.3	052	1.3	2
1800	-12.5	*****	34	047	.2	058	1.3	0
2100	-16.0	-26.9	39	***	****	***	****	0
2400	-22.3	-28.3	58	***	****	***	****	0

DAY 23

HOUR NDNG	TEMP. DEG C	DEW POINT DEG C	RH %	WIND DIR. DEG.	WIND SPD. M/S	GUST DIR. DEG.	MAX. GUST M/S	RAD MW
0300	-26.6	-30.2	71	***	****	***	****	0
0600	-28.8	-32.2	72	***	****	***	****	0
0900	-30.7	-34.3	70	***	****	***	****	0
1200	-29.5	-33.2	70	***	****	***	****	2
1500	-23.3	-27.2	70	***	****	***	****	2
1800	-27.3	-30.8	72	***	****	***	****	0
2100	-27.3	-30.6	73	***	****	***	****	0
2400	-28.1	-31.7	71	***	****	***	****	0

DAY 24

HOUR NDNG	TEMP. DEG C	DEW POINT DEG C	RH %	WIND DIR. DEG.	WIND SPD. M/S	GUST DIR. DEG.	MAX. GUST M/S	RAD MW
0300	-27.5	-31.1	71	***	****	***	****	0
0600	-25.5	-30.1	65	***	****	***	****	0
0900	-26.1	-30.1	69	***	****	***	****	0
1200	-26.4	-30.3	69	***	****	***	****	2
1500	-22.0	-26.8	65	***	****	***	****	2
1800	-29.8	-33.3	71	***	****	***	****	0
2100	-32.4	-36.3	68	***	****	***	****	0
2400	-32.9	-37.0	66	***	****	***	****	0

DAY 25

HOUR NDNG	TEMP. DEG C	DEW POINT DEG C	RH %	WIND DIR. DEG.	WIND SPD. M/S	GUST DIR. DEG.	MAX. GUST M/S	RAD MW
0300	-35.6	-39.9	64	***	****	***	****	0
0600	-35.5	-39.8	64	***	****	***	****	0
0900	-35.2	-39.5	64	***	****	***	****	0
1200	-32.0	-36.0	67	***	****	***	****	2
1500	-23.6	-27.3	71	***	****	***	****	2
1800	-20.1	-26.6	56	***	****	***	****	0
2100	-18.3	-27.1	46	***	****	***	****	0
2400	-15.5	-24.8	45	***	****	***	****	0

DAY 26

HOUR NDNG	TEMP. DEG C	DEW POINT DEG C	RH %	WIND DIR. DEG.	WIND SPD. M/S	GUST DIR. DEG.	MAX. GUST M/S	RAD MW
0300	-13.1	-23.7	41	***	****	***	****	0
0600	-12.5	-21.8	46	***	****	***	****	0
0900	-13.4	-20.1	57	***	****	***	****	0
1200	-15.2	-20.8	62	***	****	***	****	4
1500	-15.1	-20.7	62	***	****	***	****	3
1800	-21.3	-23.8	80	***	****	***	****	0
2100	-23.8	-26.8	76	***	****	***	****	0
2400	-25.5	-28.5	76	***	****	***	****	0

DAY 27

HOUR NDNG	TEMP. DEG C	DEW POINT DEG C	RH %	WIND DIR. DEG.	WIND SPD. M/S	GUST DIR. DEG.	MAX. GUST M/S	RAD MW
0300	-26.2	-29.4	74	***	****	***	****	0
0600	-25.6	-28.7	75	***	****	***	****	0
0900	-26.1	-29.2	75	***	****	***	****	0
1200	-21.5	-24.2	79	***	****	***	****	5
1500	-16.0	-19.4	75	***	****	***	****	3
1800	-18.8	-21.2	81	079	1.0	071	2.5	0
2100	-19.8	*****	81	074	.7	084	1.9	0
2400	-18.4	-21.4	77	250	.4	200	3.8	0

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R & M CONSULTANTS, INC.

SUSITNA HYDROELECTRIC PROJECT

THREE HOUR SUMMARY FOR SHERMAN WEATHER STATION
DATA TAKEN DURING January, 1984

DAY 28

HOUR NDNG	TEMP. DEG C	DEW POINT DEG C	RH %	WIND DIR. DEG.	WIND SPD. M/S	GUST DIR. DEG.	MAX. GUST M/S	RAD MW
0300	-22.7	*****	80	202	.2	273	1.3	0
0600	-20.0	*****	81	101	.5	088	1.3	0
0900	-24.6	*****	78	105	.5	088	1.3	0
1200	-25.4	*****	75	096	.5	090	1.9	4
1500	-19.3	*****	77	088	.7	102	1.9	3
1800	-17.4	*****	80	074	1.0	091	2.5	0
2100	-14.8	*****	84	068	.8	084	1.9	0
2400	-10.1	-11.9	87	060	1.2	064	3.8	0

DAY 29

HOUR NDNG	TEMP. DEG C	DEW POINT DEG C	RH %	WIND DIR. DEG.	WIND SPD. M/S	GUST DIR. DEG.	MAX. GUST M/S	RAD MW
0300	-7.9	-9.7	87	063	1.9	061	4.4	0
0600	-6.0	-8.1	85	054	1.6	064	3.8	0
0900	-5.6	*****	93	040	1.3	037	3.8	0
1200	-3.8	*****	89	023	.6	348	2.5	2
1500	-4.6	*****	87	047	.4	065	1.3	1
1800	-4.0	*****	93	089	.4	089	1.3	0
2100	-3.9	*****	94	082	.4	083	1.3	0
2400	-3.3	*****	95	***	****	***	1.3	0

DAY 30

HOUR NDNG	TEMP. DEG C	DEW POINT DEG C	RH %	WIND DIR. DEG.	WIND SPD. M/S	GUST DIR. DEG.	MAX. GUST M/S	RAD MW
0300	-3.3	-4.2	94	***	****	***	1.3	0
0600	-3.3	-4.2	94	***	****	***	****	0
0900	-3.3	-4.2	94	***	****	***	****	0
1200	-1.9	-3.2	91	***	****	***	****	1
1500	-1.2	-2.7	90	***	****	***	****	0
1800	-1.7	-2.6	94	***	****	***	****	0
2100	-1.1	-2.1	93	***	****	***	****	0
2400	-.3	-1.9	89	167	1.2	167	3.2	0

DAY 31

HOUR NDNG	TEMP. DEG C	DEW POINT DEG C	RH %	WIND DIR. DEG.	WIND SPD. M/S	GUST DIR. DEG.	MAX. GUST M/S	RAD MW
0300	-1.2	-3.1	87	***	****	***	3.2	0
0600	-2.4	*****	91	***	****	***	1.9	0
0900	-3.1	*****	93	***	****	***	1.9	0
1200	-4.4	*****	87	***	****	***	1.9	1
1500	-3.0	*****	82	***	****	***	2.5	2
1800	-6.9	-8.0	92	***	****	***	1.3	0
2100	-7.9	-8.9	93	***	****	***	****	0
2400	-13.7	-15.3	88	***	****	***	****	0

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R & M CONSULTANTS, INC.

SUSITNA HYDROELECTRIC PROJECT

MONTHLY SUMMARY FOR SHERMAN WEATHER STATION
DATA TAKEN DURING January, 1984

DAY	MAX. TEMP. DEG C	MIN. TEMP. DEG C	MEAN TEMP. DEG C	RES. WIND DIR. DEG	RES. WIND SPD. M/S	AVG. WIND SPD. M/S	MAX. GUST DIR. DEG	MAX. GUST SPD. M/S	P'VAL DIR.	MEAN RH %	MEAN DP DEG C	PRECIP MM	DAY'S SOLAR ENERGY WH/SQM	DAY
1	1.7	-12.2	-5.3	063	1.1	1.2	062	3.8	ENE	72	-5.2	****	35	1
2	1.2	-6.2	-2.5	046	.7	.7	072	2.5	NE	82	-3.0	****	0	2
3	-3.3	-7.4	-5.4	079	.3	.3	082	1.3	E	**	*****	****	5	3
4	-3.8	-22.8	-13.3	184	.8	1.1	199	7.0	SSW	89	-10.9	****	0	4
5	-12.5	-28.7	-20.6	063	.8	.6	076	3.2	ENE	81	-25.6	****	0	5
6	-10.8	-14.0	-12.4	065	.4	.5	166	2.5	NE	88	-13.6	****	0	6
7	-7.8	-18.7	-13.3	056	.4	.5	043	1.9	NE	**	*****	****	40	7
8	-12.6	-21.9	-17.3	071	.4	.5	060	2.5	ENE	**	*****	****	40	8
9	-3.6	-17.5	-10.6	064	.6	.7	119	3.8	ENE	84	-12.2	****	30	9
10	2.2	-5.9	-1.9	053	1.3	1.3	046	3.8	NE	70	-7.0	****	25	10
11	2.2	-4.1	-1.0	107	.3	1.1	159	6.3	NE	83	-2.9	****	75	11
12	1.3	-1.0	.2	054	.5	.5	050	3.2	NE	**	*****	****	25	12
13	.2	-10.9	-5.4	051	.4	.4	020	1.9	NE	**	*****	****	100	13
14	.7	-11.4	-5.4	206	1.2	.9	209	3.8	SSW	93	-2.8	****	35	14
15	.4	-13.9	-6.8	243	.4	.5	236	1.3	SW	92	-6.3	****	75	15
16	-7.1	-17.9	-12.5	***	****	****	***	****	***	90	-13.8	****	125	16
17	-4.5	-8.3	-6.4	***	****	****	***	****	***	93	-7.2	****	75	17
18	-5.5	-18.1	-11.8	***	****	****	***	****	***	92	-11.4	****	65	18
19	-7.4	-19.7	-13.6	***	****	****	***	****	***	88	-14.9	****	60	19
20	-11.1	-23.6	-17.4	***	****	****	***	****	***	85	-20.3	****	70	20
21	-10.5	-26.5	-18.5	***	****	****	***	****	NE	79	-21.5	****	115	21
22	-11.8	-22.3	-17.1	057	.2	.2	048	1.3	ENE	47	-24.5	****	130	22
23	-20.8	-31.5	-26.2	***	****	****	***	****	ENE	71	-30.8	****	130	23
24	-22.0	-33.7	-27.9	***	****	****	***	****	ENE	68	-31.6	****	135	24
25	-15.5	-36.0	-25.8	***	****	****	***	****	ENE	61	-33.3	****	115	25
26	-11.8	-25.5	-18.7	***	****	****	***	****	ENE	61	-23.4	****	215	26
27	-15.3	-26.5	-20.9	079	.4	.8	200	3.8	ENE	76	-25.5	****	210	27
28	-10.1	-27.0	-18.6	081	.6	.7	064	3.8	E	83	-16.5	****	180	28
29	-2.4	-9.9	-6.2	054	1.0	.9	061	4.4	NE	87	-9.0	****	95	29
30	0.0	-3.4	-1.7	167	1.2	.7	167	3.2	SSE	93	-3.1	****	45	30
31	-.6	-13.7	-7.2	***	****	.7	***	3.2	SSE	91	-7.9	****	115	31
MONTH	2.2	-36.0	-12.0	067	.5	.7	199	7.0	ENE	80	-14.8	****	2365	

GUST VEL. AT MAX. GUST MINUS 2 INTERVALS 5.7
GUST VEL. AT MAX. GUST MINUS 1 INTERVAL 5.7
GUST VEL. AT MAX. GUST PLUS 1 INTERVAL 5.7
GUST VEL. AT MAX. GUST PLUS 2 INTERVALS 6.3

NOTE: RELATIVE HUMIDITY READINGS ARE UNRELIABLE WHEN WIND SPEEDS ARE LESS THAN ONE METER PER SECOND. SUCH READINGS HAVE NOT BEEN INCLUDED IN THE DAILY OR MONTHLY MEAN FOR RELATIVE HUMIDITY AND DEW POINT.

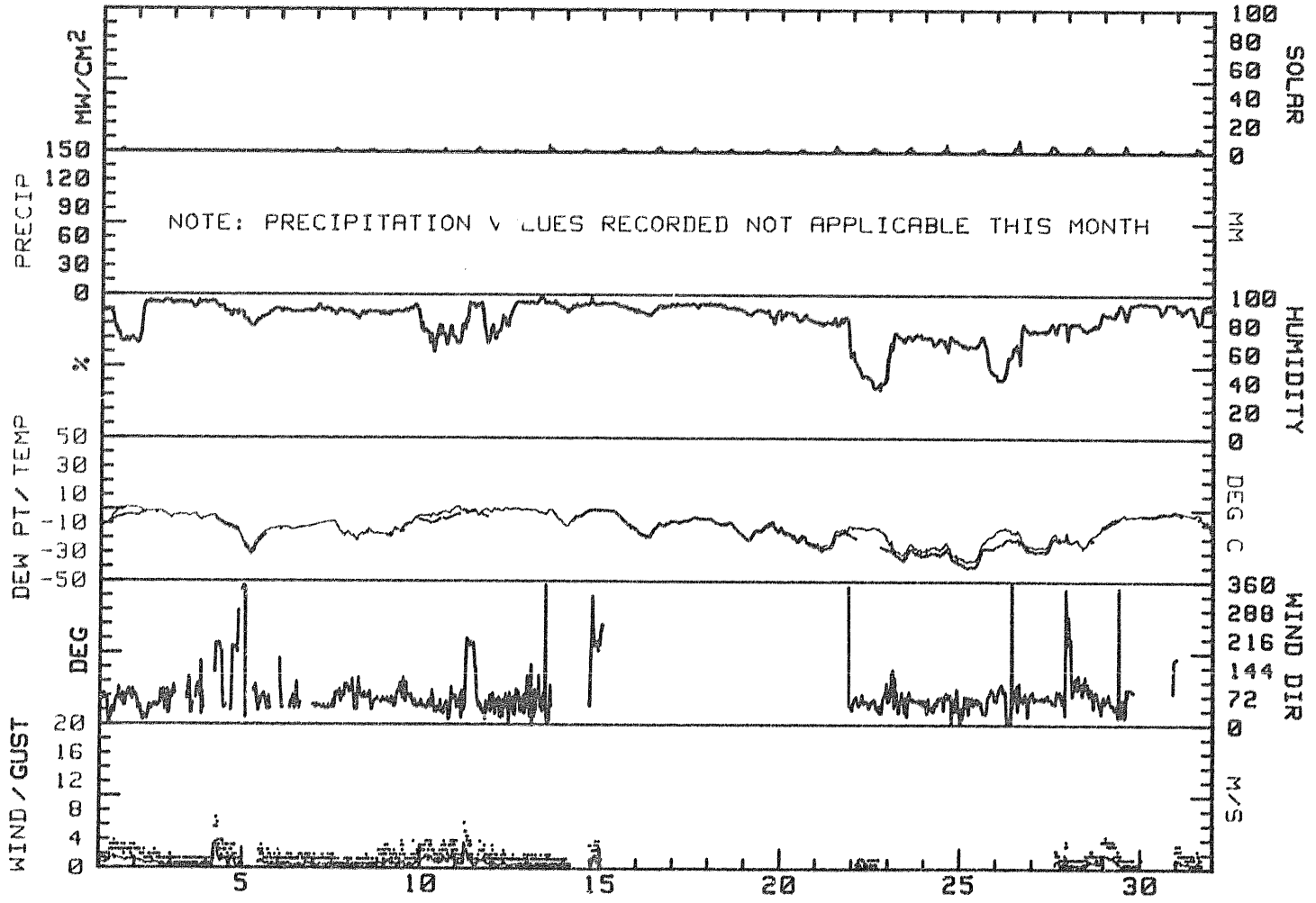
** SEE INTERPRETATION NOTES AT END OF MONTHLY REPORT **

R&M CONSULTANTS, INC.

SUSITNA HYDROELECTRIC PROJECT

SHERMAN WEATHER STATION

January, 1984



R & M CONSULTANTS, INC.

SUSITNA HYDROELECTRIC PROJECT

WIND FREQUENCY SUMMARY FOR SHERMAN WEATHER STATION
DATA TAKEN DURING January, 1984

	VELOCITY (M/S)							
DIRECTION	0.2 TO 1.0	1.0 TO 3.0	3.0 TO 6.0	6.0 TO 10.0	10.0 TO 15.0	15.0 TO 20.0	20.0 OR GREATER	TOTAL
N	.91	.30	0.00	0.00	0.00	0.00	0.00	1.21
NNE	5.61	2.28	0.00	0.00	0.00	0.00	0.00	7.89
NE	19.73	9.41	0.00	0.00	0.00	0.00	0.00	29.14
ENE	21.40	8.04	0.00	0.00	0.00	0.00	0.00	29.44
E	11.38	2.43	0.00	0.00	0.00	0.00	0.00	13.81
ESE	3.19	0.00	0.00	0.00	0.00	0.00	0.00	3.19
SE	.61	.15	0.00	0.00	0.00	0.00	0.00	.76
SSE	.46	.46	.15	0.00	0.00	0.00	0.00	1.06
S	.61	.61	0.00	0.00	0.00	0.00	0.00	1.21
SSW	.30	3.34	.76	0.00	0.00	0.00	0.00	4.40
SW	.46	.30	.15	0.00	0.00	0.00	0.00	.91
WSW	.46	.15	0.00	0.00	0.00	0.00	0.00	.61
W	.15	0.00	0.00	0.00	0.00	0.00	0.00	.15
WNW	.15	.15	0.00	0.00	0.00	0.00	0.00	.30
NW	.15	0.00	0.00	0.00	0.00	0.00	0.00	.15
NNW	.61	.15	0.00	0.00	0.00	0.00	0.00	.76
CALM								5.01
TOTAL	66.16	27.77	1.06	0.00	0.00	0.00	0.00	100.00

NOTE: ALL FREQUENCIES ARE EXPRESSED IN PERCENT
659 VALID WIND OBSERVATIONS USED TO DEVELOP FREQUENCY SUMMARY
1488 WIND OBSERVATIONS WOULD HAVE BEEN CORRECT FOR 30 MINUTE DATA.
** SEE INTERPRETATION NOTES AT END OF MONTHLY REPORT **

R & M CONSULTANTS, INC.

SUSITNA HYDROELECTRIC PROJECT

HOURLY SOLAR RADIATION SUMMARY FOR SHERMAN WEATHER STATION
DATA TAKEN DURING January, 1984

SOLAR RADIATION VALUES MEASURED IN MILLIWATTS PER SQUARE CENTIMETER

HOUR ENDING

DATE	0100	0200	0300	0400	0500	0600	0700	0800	0900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	2400	AVG
1	0	0	0	0	0	0	0	0	0	0	0	1	1	2	1	0	0	0	0	0	0	0	0	0	0
2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0
4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7	0	0	0	0	0	0	0	0	0	0	0	0	1	2	1	0	0	0	0	0	0	0	0	0	0
8	0	0	0	0	0	0	0	0	0	0	0	1	1	1	1	0	0	0	0	0	0	0	0	0	0
9	0	0	0	0	0	0	0	0	0	0	0	1	1	1	1	0	0	0	0	0	0	0	0	0	0
10	0	0	0	0	0	0	0	0	0	0	0	0	0	1	2	0	0	0	0	0	0	0	0	0	0
11	0	0	0	0	0	0	0	0	0	0	0	2	3	3	1	0	0	0	0	0	0	0	0	0	0
12	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	0	0	0	0	0	0	0	0	0	0
13	0	0	0	0	0	0	0	0	0	0	0	3	3	3	2	1	0	0	0	0	0	0	0	0	0
14	0	0	0	0	0	0	0	0	0	0	0	1	1	1	1	0	0	0	0	0	0	0	0	0	0
15	0	0	0	0	0	0	0	0	0	0	1	1	2	2	2	1	0	0	0	0	0	0	0	0	0
16	0	0	0	0	0	0	0	0	0	0	1	3	3	4	3	1	0	0	0	0	0	0	0	0	1
17	0	0	0	0	0	0	0	0	0	0	0	1	2	3	2	0	0	0	0	0	0	0	0	0	0
18	0	0	0	0	0	0	0	0	0	0	0	1	2	2	2	1	0	0	0	0	0	0	0	0	0
19	0	0	0	0	0	0	0	0	0	0	0	1	1	2	2	1	0	0	0	0	0	0	0	0	0
20	0	0	0	0	0	0	0	0	0	0	0	1	2	2	2	1	0	0	0	0	0	0	0	0	0
21	0	0	0	0	0	0	0	0	0	0	1	3	5	2	2	1	0	0	0	0	0	0	0	0	0
22	0	0	0	0	0	0	0	0	0	0	1	2	3	3	3	2	0	1	0	0	0	0	0	0	1
23	0	0	0	0	0	0	0	0	0	0	1	2	3	4	2	2	0	0	0	0	0	0	0	0	1
24	0	0	0	0	0	0	0	0	0	0	1	2	3	5	3	2	0	0	0	0	0	0	0	0	1
25	0	0	0	0	0	0	0	0	0	0	1	2	2	3	3	2	0	0	0	0	0	0	0	0	0
26	0	0	0	0	0	0	0	0	0	0	2	4	3	5	6	2	0	0	0	0	0	0	0	0	1
27	0	0	0	0	0	0	0	0	0	0	2	4	5	5	4	2	0	0	0	0	0	0	0	0	1
28	0	0	0	0	0	0	0	0	0	0	2	4	4	4	4	2	0	0	0	0	0	0	0	0	1
29	0	0	0	0	0	0	0	0	0	0	0	2	3	4	1	0	0	0	0	0	0	0	0	0	0
30	0	0	0	0	0	0	0	0	0	0	0	1	2	1	1	0	0	0	0	0	0	0	0	0	0
31	0	0	0	0	0	0	0	0	0	0	1	1	3	3	3	1	0	0	0	0	0	0	0	0	0

** SEE INTERPRETATION NOTES AT END OF MONTHLY REPORT **

R & M CONSULTANTS, INC.

SUSITNA HYDROELECTRIC PROJECT

OBSERVATION SUMMARY FOR SHERMAN WEATHER STATION
DATA TAKEN DURING January, 1984

PARAMETER	NUMBER OF USABLE OBSERVATIONS	PERCENT OF TOTAL OBSERVATIONS
TEMPERATURE	1488	100
WIND SPEED	810	54
WIND DIRECTION	924	62
PEAK GUST	820	55
RELATIVE HUMIDITY	878	59
PRECIPITATION	0	0
SOLAR RADIATION	1488	100
DEW POINT	878	59

THERE ARE 1488 POSSIBLE OBSERVATIONS THIS MONTH FOR EACH PARAMETER.
THE DATA RECORDING INTERVAL IS 30 MINUTES.

The following adjustments have been made to this month's data:

1. RH -3 RH Points
2. Solar -1 mW/CM^2

Additional comments on this month's data:

1. Several days of wind speed and direction lost due to frozen anemometer and wind vane.

No precipitation data for February

(See INTERPRETATION OF DATA).

R & M CONSULTANTS, INC.

SUSITNA HYDROELECTRIC PROJECT

THREE HOUR SUMMARY FOR SHERMAN WEATHER STATION
DATA TAKEN DURING February, 1984

DAY 01

HOUR NDNG	TEMP. DEG C	DEW POINT DEG C	RH %	WIND DIR. DEG.	WIND SPD. M/S	GUST DIR. DEG.	MAX. GUST M/S	RAD MW
0300	-19.0	*****	84	***	****	***	.6	0
0600	-19.5	*****	83	***	****	***	.6	0
0900	-16.1	*****	87	***	****	***	1.9	0
1200	-12.3	*****	84	***	****	***	1.9	2
1500	-7.7	-10.7	79	***	****	***	2.5	1
1800	-6.3	*****	82	***	****	***	3.2	0
2100	-8.5	-11.2	81	***	****	***	2.5	0
2400	-9.7	*****	85	***	****	***	1.9	0

DAY 02

HOUR NDNG	TEMP. DEG C	DEW POINT DEG C	RH %	WIND DIR. DEG.	WIND SPD. M/S	GUST DIR. DEG.	MAX. GUST M/S	RAD MW
0300	-10.1	*****	84	***	****	***	1.9	0
0600	-9.4	*****	85	***	****	***	1.3	0
0900	-9.8	*****	92	***	****	***	1.3	0
1200	-8.0	*****	68	***	****	***	2.5	2
1500	-10.4	-18.6	51	***	****	***	3.2	3
1800	-17.6	*****	71	***	****	***	3.2	0
2100	-20.7	*****	72	***	****	***	1.3	0
2400	-22.9	*****	73	***	****	***	1.3	0

DAY 03

HOUR NDNG	TEMP. DEG C	DEW POINT DEG C	RH %	WIND DIR. DEG.	WIND SPD. M/S	GUST DIR. DEG.	MAX. GUST M/S	RAD MW
0300	-20.5	*****	70	***	****	***	.6	0
0600	-16.5	*****	74	***	****	***	1.9	0
0900	-10.8	-14.5	74	***	****	***	3.2	0
1200	-8.1	-14.5	60	***	****	***	4.4	2
1500	-6.4	-13.3	58	***	****	***	3.8	1
1800	-6.6	-10.0	77	***	****	***	4.4	0
2100	-6.5	-7.8	91	***	****	***	4.4	0
2400	-5.1	-8.2	79	065	2.7	054	5.7	0

DAY 04

HOUR NDNG	TEMP. DEG C	DEW POINT DEG C	RH %	WIND DIR. DEG.	WIND SPD. M/S	GUST DIR. DEG.	MAX. GUST M/S	RAD MW
0300	-6.0	-8.9	80	082	2.3	063	5.7	0
0600	-4.2	-8.3	73	095	2.0	097	3.8	0
0900	-4.5	-5.6	92	093	1.8	102	4.4	0
1200	-5.1	*****	90	068	1.1	049	3.8	0
1500	-3.1	-5.0	87	097	.7	116	3.2	1
1800	-5.3	-6.9	89	***	****	***	5.7	0
2100	-6.7	-8.2	89	***	****	***	4.4	0
2400	-7.1	-8.6	89	***	****	***	3.8	0

DAY 05

HOUR NDNG	TEMP. DEG C	DEW POINT DEG C	RH %	WIND DIR. DEG.	WIND SPD. M/S	GUST DIR. DEG.	MAX. GUST M/S	RAD MW
0300	-7.5	*****	90	***	****	***	3.2	0
0600	-10.1	*****	93	***	****	***	2.5	0
0900	-9.2	*****	92	***	****	***	1.9	0
1200	-7.6	*****	87	***	****	***	1.9	1
1500	-6.8	*****	73	093	.6	065	3.2	5
1800	-10.1	*****	90	079	.6	089	1.9	0
2100	-10.1	*****	90	070	.5	047	1.9	0
2400	-8.9	-10.4	89	110	.3	122	4.4	0

DAY 06

HOUR NDNG	TEMP. DEG C	DEW POINT DEG C	RH %	WIND DIR. DEG.	WIND SPD. M/S	GUST DIR. DEG.	MAX. GUST M/S	RAD MW
0300	-11.8	*****	91	***	****	***	2.5	0
0600	-17.3	*****	88	***	****	***	1.3	0
0900	-17.2	*****	87	***	****	***	1.3	0
1200	-14.9	*****	80	***	****	***	1.3	2
1500	-11.2	*****	62	***	****	***	1.9	5
1800	-16.6	*****	87	***	****	***	1.3	0
2100	-12.1	-15.0	79	069	1.3	054	3.2	0
2400	-11.0	-14.1	78	069	1.3	038	3.2	0

DAY 07

HOUR NDNG	TEMP. DEG C	DEW POINT DEG C	RH %	WIND DIR. DEG.	WIND SPD. M/S	GUST DIR. DEG.	MAX. GUST M/S	RAD MW
0300	-8.9	-13.4	70	095	1.6	099	5.1	0
0600	-7.8	-12.3	70	087	1.3	107	3.2	0
0900	-8.1	-9.6	89	148	.9	150	5.7	0
1200	-8.5	-10.7	84	***	****	***	5.1	2
1500	-7.5	-11.8	71	***	****	***	4.4	6
1800	-12.9	*****	88	***	****	***	3.8	0
2100	-13.0	*****	90	***	****	***	1.3	0
2400	-16.5	*****	88	***	****	***	1.3	0

DAY 08

HOUR NDNG	TEMP. DEG C	DEW POINT DEG C	RH %	WIND DIR. DEG.	WIND SPD. M/S	GUST DIR. DEG.	MAX. GUST M/S	RAD MW
0300	-16.0	*****	88	***	****	***	1.3	0
0600	-18.5	*****	86	***	****	***	1.3	0
0900	-19.8	*****	84	***	****	***	1.3	0
1200	-17.7	*****	82	***	****	***	1.3	3
1500	-14.8	*****	71	***	****	***	1.3	2
1800	-17.6	*****	83	***	****	***	1.3	0
2100	-20.8	*****	83	***	****	***	1.3	0
2400	-22.1	*****	82	***	****	***	1.9	0

DAY 09

HOUR NDNG	TEMP. DEG C	DEW POINT DEG C	RH %	WIND DIR. DEG.	WIND SPD. M/S	GUST DIR. DEG.	MAX. GUST M/S	RAD MW
0300	-24.0	*****	81	***	****	***	1.3	0
0600	-25.0	*****	79	***	****	***	1.9	0
0900	-26.6	*****	78	***	****	***	1.3	0
1200	-24.4	*****	77	***	****	***	1.9	4
1500	-16.2	*****	51	***	****	***	1.3	7
1800	-25.1	*****	76	***	****	***	.6	0
2100	-29.3	*****	73	***	****	***	.6	0
2400	-30.9	*****	71	***	****	***	1.3	0

** SEE INTERPRETATION NOTES AT END OF MONTHLY REPORT **

R & M CONSULTANTS, INC.

SUSITNA HYDROELECTRIC PROJECT

THREE HOUR SUMMARY FOR SHERMAN WEATHER STATION
DATA TAKEN DURING February, 1984

DAY 10

HOUR NDNG	TEMP. DEG C	DEW POINT DEG C	RH %	WIND DIR. DEG.	WIND SPD. M/S	GUST DIR. DEG.	MAX. GUST M/S	RAD MW
0300	-30.9	*****	70	***	****	***	1.3	0
0600	-26.7	*****	74	***	****	***	1.9	0
0900	-23.0	*****	77	***	****	***	1.9	0
1200	-16.1	*****	76	***	****	***	1.3	3
1500	-11.7	-18.1	59	081	1.5	063	3.2	2
1800	-12.4	-15.6	77	079	1.8	093	3.8	0
2100	-11.5	-15.0	75	064	1.3	073	3.8	0
2400	-11.1	-15.0	73	085	1.6	084	3.2	0

DAY 11

HOUR NDNG	TEMP. DEG C	DEW POINT DEG C	RH %	WIND DIR. DEG.	WIND SPD. M/S	GUST DIR. DEG.	MAX. GUST M/S	RAD MW
0300	-11.5	-15.5	72	055	1.3	061	3.8	0
0600	-11.3	-14.5	77	***	****	***	3.8	0
0900	-12.8	*****	81	044	1.1	034	3.2	0
1200	-10.8	*****	70	079	.8	062	1.9	11
1500	-5.0	-14.4	48	056	1.1	065	3.8	7
1800	-12.1	-16.6	69	055	1.0	067	2.5	0
2100	-16.0	*****	86	067	.9	043	1.9	0
2400	-17.2	-19.3	84	079	.8	079	1.9	0

DAY 12

HOUR NDNG	TEMP. DEG C	DEW POINT DEG C	RH %	WIND DIR. DEG.	WIND SPD. M/S	GUST DIR. DEG.	MAX. GUST M/S	RAD MW
0300	-17.1	-18.9	86	076	1.0	076	1.9	0
0600	-16.5	*****	86	080	1.1	085	5.7	0
0900	-14.8	-16.8	85	080	1.0	080	1.9	0
1200	-8.8	-12.9	72	070	1.1	061	2.5	6
1500	-5.5	-11.8	61	***	****	***	3.2	5
1800	-10.1	-13.4	77	035	1.7	035	3.2	0
2100	-12.8	*****	87	075	1.0	063	1.9	0
2400	-10.5	*****	84	072	.8	063	2.5	0

DAY 13

HOUR NDNG	TEMP. DEG C	DEW POINT DEG C	RH %	WIND DIR. DEG.	WIND SPD. M/S	GUST DIR. DEG.	MAX. GUST M/S	RAD MW
0300	-16.0	*****	89	079	.8	071	1.9	0
0600	-14.8	*****	87	065	.8	064	1.9	0
0900	-14.4	-16.8	82	043	1.1	048	1.9	0
1200	-9.0	*****	63	072	.9	072	1.9	16
1500	-2.5	-12.6	46	058	.8	037	3.2	7
1800	-6.1	*****	63	***	****	***	2.5	0
2100	-13.7	*****	88	***	****	***	1.3	0
2400	-12.7	*****	82	***	****	***	1.9	0

DAY 14

HOUR NDNG	TEMP. DEG C	DEW POINT DEG C	RH %	WIND DIR. DEG.	WIND SPD. M/S	GUST DIR. DEG.	MAX. GUST M/S	RAD MW
0300	-14.4	*****	88	***	****	***	1.9	0
0600	-10.2	*****	83	***	****	***	1.9	0
0900	-9.2	*****	83	***	****	***	1.3	0
1200	-4.1	-6.3	85	039	1.0	050	2.5	3
1500	-3.9	-6.1	85	054	1.2	049	3.2	2
1800	-4.9	*****	89	072	.5	060	2.5	0
2100	-8.3	*****	93	099	.2	100	1.3	0
2400	-8.2	*****	93	***	****	***	1.3	0

DAY 15

HOUR NDNG	TEMP. DEG C	DEW POINT DEG C	RH %	WIND DIR. DEG.	WIND SPD. M/S	GUST DIR. DEG.	MAX. GUST M/S	RAD MW
0300	-8.8	*****	92	***	****	***	1.3	0
0600	-15.9	*****	89	***	****	***	1.3	0
0900	-12.9	*****	90	***	****	***	1.3	0
1200	-8.1	*****	75	064	.5	076	1.9	15
1500	-2.4	*****	50	080	.5	062	1.3	7
1800	-6.7	*****	72	023	.6	023	2.5	0
2100	-7.2	-11.0	74	***	****	***	3.2	0
2400	-6.6	-10.8	72	***	****	***	3.2	0

DAY 16

HOUR NDNG	TEMP. DEG C	DEW POINT DEG C	RH %	WIND DIR. DEG.	WIND SPD. M/S	GUST DIR. DEG.	MAX. GUST M/S	RAD MW
0300	-4.7	-8.8	73	028	1.5	***	3.2	0
0600	-10.7	*****	90	021	1.4	021	2.5	0
0900	-12.5	*****	92	038	.7	038	1.3	0
1200	-5.8	-10.4	70	048	.9	032	2.5	6
1500	-.9	-9.3	53	074	1.2	086	3.8	5
1800	-.4	-7.9	57	068	2.0	051	7.0	0
2100	-1.3	-8.0	60	065	1.9	050	6.3	0
2400	.5	-5.9	62	060	1.6	053	7.0	0

DAY 17

HOUR NDNG	TEMP. DEG C	DEW POINT DEG C	RH %	WIND DIR. DEG.	WIND SPD. M/S	GUST DIR. DEG.	MAX. GUST M/S	RAD MW
0300	.7	-5.5	63	062	2.1	052	7.0	0
0600	-.4	-6.3	64	068	1.8	057	5.1	0
0900	.5	-4.9	67	081	1.4	077	3.8	0
1200	2.2	-4.3	62	042	1.0	067	2.5	7
1500	3.5	*****	55	105	.3	194	2.5	11
1800	-1.1	*****	82	042	.3	040	1.3	0
2100	-3.7	*****	90	080	.5	066	1.9	0
2400	-6.8	*****	93	287	.2	064	1.3	0

DAY 18

HOUR NDNG	TEMP. DEG C	DEW POINT DEG C	RH %	WIND DIR. DEG.	WIND SPD. M/S	GUST DIR. DEG.	MAX. GUST M/S	RAD MW
0300	-8.8	*****	93	057	.2	337	1.3	0
0600	-6.9	*****	93	056	.4	042	1.3	0
0900	-5.8	*****	93	012	.2	326	1.3	0
1200	-2.9	*****	86	066	.5	030	1.3	7
1500	.6	-7.4	55	049	.7	050	2.5	7
1800	-1.7	*****	70	063	1.0	074	3.8	0
2100	-4.4	*****	81	078	.5	066	1.9	0
2400	-6.8	*****	85	069	.6	072	1.3	0

** SEE INTERPRETATION NOTES AT END OF MONTHLY REPORT **

R & M CONSULTANTS, INC.

SUSITNA HYDROELECTRIC PROJECT

THREE HOUR SUMMARY FOR SHERMAN WEATHER STATION
DATA TAKEN DURING February, 1984

DAY 19

HOUR NDNG	TEMP. DEG C	DEW POINT DEG C	RH %	WIND DIR. DEG.	WIND SPD. M/S	GUST DIR. DEG.	MAX. GUST M/S	RAD MW
0300	-6.2	*****	88	076	.4	076	1.3	0
0600	-8.8	*****	94	009	.4	000	1.3	0
0900	-12.9	*****	89	075	.4	078	1.3	0
1200	-8.9	*****	61	100	.2	116	1.3	8
1500	-5.8	-10.7	68	223	.4	214	2.5	11
1800	-8.7	*****	69	212	1.7	208	4.4	0
2100	-11.1	-15.1	72	036	1.1	025	3.8	0
2400	-12.9	-17.4	69	076	.9	074	3.2	0

DAY 20

HOUR NDNG	TEMP. DEG C	DEW POINT DEG C	RH %	WIND DIR. DEG.	WIND SPD. M/S	GUST DIR. DEG.	MAX. GUST M/S	RAD MW
0300	-14.7	*****	75	015	.8	027	1.9	0
0600	-15.6	*****	71	041	.5	005	2.5	0
0900	-16.0	-19.4	75	034	.8	020	1.9	0
1200	-15.1	-20.2	65	023	1.2	023	2.5	13
1500	-14.7	-22.2	53	030	1.4	019	3.2	12
1800	-15.5	-21.9	58	032	1.3	041	3.2	0
2100	-16.6	-22.5	60	022	1.3	028	3.2	0
2400	-17.1	-22.8	61	027	1.3	028	3.2	0

DAY 21

HOUR NDNG	TEMP. DEG C	DEW POINT DEG C	RH %	WIND DIR. DEG.	WIND SPD. M/S	GUST DIR. DEG.	MAX. GUST M/S	RAD MW
0300	-16.0	*****	68	037	1.1	033	2.5	0
0600	-13.3	-18.5	65	065	.8	064	2.5	0
0900	-14.3	*****	69	054	1.1	065	3.8	0
1200	-8.8	-15.8	57	051	.8	066	1.9	10
1500	-4.5	-12.9	52	051	1.4	039	3.8	10
1800	-5.7	-12.0	61	071	1.8	070	4.4	0
2100	-5.7	-12.0	61	097	1.5	098	3.2	0
2400	-7.9	*****	65	076	1.3	080	3.2	0

DAY 22

HOUR NDNG	TEMP. DEG C	DEW POINT DEG C	RH %	WIND DIR. DEG.	WIND SPD. M/S	GUST DIR. DEG.	MAX. GUST M/S	RAD MW
0300	-7.6	-12.8	66	033	1.1	039	2.5	0
0600	-7.9	*****	69	036	1.1	045	3.2	0
0900	-7.2	*****	91	055	.5	060	1.9	0
1200	-5.0	*****	84	021	.6	010	1.9	6
1500	-4.1	*****	81	048	.8	019	1.9	4
1800	-5.8	-5.7	95	042	.4	018	3.2	0
2100	-6.0	*****	96	076	.1	076	.6	0
2400	-6.0	-6.4	97	323	.1	319	1.3	0

DAY 23

HOUR NDNG	TEMP. DEG C	DEW POINT DEG C	RH %	WIND DIR. DEG.	WIND SPD. M/S	GUST DIR. DEG.	MAX. GUST M/S	RAD MW
0300	-6.4	-7.0	96	***	****	***	****	0
0600	-6.1	-6.5	97	***	****	***	****	0
0900	-6.4	*****	95	357	.2	357	.6	0
1200	-4.8	*****	90	349	.6	002	1.9	5
1500	-3.8	*****	88	358	.7	025	1.9	3
1800	-4.4	-5.1	95	010	.3	012	1.3	0
2100	-5.4	-6.0	96	041	.3	037	1.3	0
2400	-6.1	-6.7	96	***	****	***	****	0

DAY 24

HOUR NDNG	TEMP. DEG C	DEW POINT DEG C	RH %	WIND DIR. DEG.	WIND SPD. M/S	GUST DIR. DEG.	MAX. GUST M/S	RAD MW
0300	-6.2	-6.8	96	***	****	***	****	0
0600	-6.8	*****	95	041	.3	041	1.3	0
0900	-7.2	-7.9	95	038	.4	036	1.9	1
1200	-5.2	*****	86	043	.3	044	1.3	7
1500	-4.4	*****	88	044	.2	056	1.3	4
1800	-5.0	*****	94	041	.3	045	1.9	0
2100	-5.9	-6.6	95	***	****	***	****	0
2400	-5.9	-6.5	96	***	****	***	****	0

DAY 25

HOUR NDNG	TEMP. DEG C	DEW POINT DEG C	RH %	WIND DIR. DEG.	WIND SPD. M/S	GUST DIR. DEG.	MAX. GUST M/S	RAD MW
0300	-6.0	-6.6	96	***	****	***	****	0
0600	-6.4	-7.0	96	***	****	***	****	0
0900	-5.8	-6.4	96	***	****	***	****	0
1200	-3.3	*****	88	***	****	***	1.9	6
1500	-2.5	*****	85	***	****	***	2.5	10
1800	-5.1	*****	86	***	****	***	1.9	0
2100	-6.7	-8.2	89	***	****	***	2.5	0
2400	-7.8	*****	89	***	****	***	1.9	0

DAY 26

HOUR NDNG	TEMP. DEG C	DEW POINT DEG C	RH %	WIND DIR. DEG.	WIND SPD. M/S	GUST DIR. DEG.	MAX. GUST M/S	RAD MW
0300	-7.9	-9.4	89	041	.9	038	2.5	0
0600	-9.2	-10.8	88	037	1.2	034	3.2	0
0900	-11.5	*****	88	060	.4	057	1.9	2
1200	-7.2	*****	76	043	.5	038	1.9	10
1500	-2.0	-7.3	67	***	****	***	2.5	14
1800	-5.6	-9.3	75	***	****	***	2.5	0
2100	-9.7	-12.5	80	036	.9	034	2.5	0
2400	-13.4	-15.3	86	045	.8	043	2.5	0

DAY 27

HOUR NDNG	TEMP. DEG C	DEW POINT DEG C	RH %	WIND DIR. DEG.	WIND SPD. M/S	GUST DIR. DEG.	MAX. GUST M/S	RAD MW
0300	-13.4	-15.5	84	046	.8	043	1.9	0
0600	-13.1	*****	87	042	.7	043	1.9	0
0900	-10.6	*****	80	037	.7	038	1.9	2
1200	-4.3	-9.9	65	043	1.2	051	3.2	16
1500	-3.1	-9.3	62	036	1.7	048	4.4	14
1800	-4.5	-7.7	78	037	1.7	018	4.4	0
2100	-6.5	-9.9	77	043	1.5	052	3.8	0
2400	-10.3	-12.5	84	357	1.4	017	3.2	0

** SEE INTERPRETATION NOTES AT END OF MONTHLY REPORT **

R & M CONSULTANTS, INC.

SUSITNA HYDROELECTRIC PROJECT

THREE HOUR SUMMARY FOR SHERMAN WEATHER STATION
DATA TAKEN DURING February, 1984

DAY 28									DAY 29								
HOUR NDNG	TEMP. DEG C	DEW POINT DEG C	RH %	WIND DIR. DEG.	WIND SPD. M/S	GUST DIR. DEG.	MAX. GUST M/S	RAD MW	HOUR NDNG	TEMP. DEG C	DEW POINT DEG C	RH %	WIND DIR. DEG.	WIND SPD. M/S	GUST DIR. DEG.	MAX. GUST M/S	RAD MW
0300	-13.3	-15.3	85	025	1.2	349	3.8	0	0300	-5.2	-10.2	68	027	1.2	015	3.8	0
0600	-14.4	*****	88	064	1.0	052	3.2	0	0600	-5.8	-10.9	67	057	1.3	067	3.2	0
0900	-15.3	*****	92	102	.6	094	1.9	2	0900	-5.4	-10.9	65	043	1.5	044	3.8	2
1200	-6.7	-12.7	62	057	.9	057	3.2	24	1200	-.8	-10.2	49	056	2.0	047	5.1	28
1500	0.0	-8.5	53	354	2.0	338	4.4	26	1500	.6	-9.2	48	030	2.9	040	5.7	28
1800	-1.6	-9.0	57	039	1.5	042	3.8	1	1800	-2.0	-10.8	51	020	2.6	023	7.8	1
2100	-5.5	-10.6	67	028	1.3	037	3.2	0	2100	-5.7	-12.0	61	045	1.4	044	3.2	0
2400	-5.8	-10.9	67	017	1.4	022	3.8	0	2400	-11.1	*****	75	014	1.3	015	3.2	0

** SEE INTERPRETATION NOTES AT END OF MONTHLY REPORT **

R & M CONSULTANTS, INC.

SUSITNA HYDROELECTRIC PROJECT

MONTHLY SUMMARY FOR SHERMAN WEATHER STATION
DATA TAKEN DURING February, 1984

DAY	MAX. TEMP. DEG C	MIN. TEMP. DEG C	MEAN TEMP. DEG C	RES. WIND DIR. DEG	RES. WIND SPD. M/S	AVG. WIND SPD. M/S	MAX. GUST DIR. DEG	MAX. GUST SPD. M/S	P'VAL DIR.	MEAN RH %	MEAN DP DEG C	PRECIP MM	DAY'S SOLAR ENERGY WH/SQM	DAY
1	-6.3	-21.0	-13.7	***	****	.7	***	3.2	***	83	-13.0	****	75	1
2	-7.8	-22.9	-15.4	***	****	.5	***	3.2	***	54	-17.9	****	155	2
3	-4.9	-23.6	-14.3	065	2.7	1.4	054	5.7	ENE	74	-11.8	****	80	3
4	-3.1	-7.2	-5.2	087	1.6	1.8	063	5.7	E	86	-7.3	****	30	4
5	-6.8	-10.3	-8.6	083	.5	.7	***	4.4	ENE	86	-9.8	****	180	5
6	-9.5	-19.8	-14.7	069	1.3	.6	054	3.2	NE	83	-13.7	****	290	6
7	-4.7	-16.5	-10.6	098	1.3	1.4	***	5.7	E	76	-11.6	****	210	7
8	-13.3	-22.6	-18.0	***	****	.4	***	1.9	***	**	*****	****	300	8
9	-16.2	-31.2	-23.7	***	****	.5	***	1.9	***	77	-28.4	****	415	9
10	-10.9	-31.3	-21.1	078	1.5	1.0	093	3.8	E	71	-16.1	****	135	10
11	-5.0	-17.2	-11.1	060	1.0	1.1	065	3.8	ENE	71	-15.7	****	550	11
12	-5.3	-17.9	-11.6	074	1.0	1.2	085	5.7	ENE	78	-15.0	****	325	12
13	-2.5	-16.0	-9.3	063	.9	.8	037	3.2	ENE	72	-13.7	****	560	13
14	-3.3	-14.7	-9.0	057	.7	.6	049	3.2	ENE	84	-6.3	****	145	14
15	-2.2	-16.0	-9.1	067	.5	.6	***	3.2	E	70	-11.0	****	585	15
16	.5	-13.1	-6.3	061	1.5	1.3	051	7.0	ENE	63	-9.1	****	285	16
17	3.8	-6.8	-1.5	065	.9	1.1	052	7.0	ENE	65	-5.1	****	610	17
18	.7	-9.5	-4.4	060	.5	.6	074	3.8	ENE	54	-7.7	****	500	18
19	-5.2	-13.9	-9.6	091	.2	.8	208	4.4	NE	67	-14.0	****	695	19
20	-13.3	-17.1	-15.2	027	1.1	1.1	019	3.2	NNE	62	-21.3	****	860	20
21	-4.5	-16.8	-10.7	064	1.2	1.3	070	4.4	ENE	60	-14.9	****	740	21
22	-4.0	-8.7	-6.4	037	.7	.7	045	3.2	NE	78	-10.0	****	375	22
23	-3.2	-6.7	-5.0	359	.5	.5	002	1.9	NNE	96	-6.4	****	265	23
24	-4.2	-7.4	-5.8	041	.3	.3	036	1.9	NE	95	-6.8	****	305	24
25	-2.2	-7.8	-5.0	***	****	1.0	***	2.5	***	92	-6.7	****	630	25
26	-1.6	-13.4	-7.5	042	.8	.9	034	3.2	NE	79	-9.6	****	830	26
27	-2.8	-14.9	-8.9	033	1.2	1.3	042	4.4	NE	74	-10.8	****	1010	27
28	2.1	-17.7	-7.8	031	1.1	1.3	338	4.4	NNE	67	-11.4	****	1680	28
29	.6	-11.1	-5.3	036	1.7	1.8	023	7.0	NE	60	-11.1	****	1805	29
MONTH	3.8	-31.3	-10.1	054	.9	1.0	051	7.0	ENE	74	-12.0	****	14625	

GUST VEL. AT MAX. GUST MINUS 2 INTERVALS 3.8
GUST VEL. AT MAX. GUST MINUS 1 INTERVAL 5.1
GUST VEL. AT MAX. GUST PLUS 1 INTERVAL 7.0
GUST VEL. AT MAX. GUST PLUS 2 INTERVALS 5.1

NOTE: RELATIVE HUMIDITY READINGS ARE UNRELIABLE WHEN WIND SPEEDS ARE LESS THAN ONE METER PER SECOND. SUCH READINGS HAVE NOT BEEN INCLUDED IN THE DAILY OR MONTHLY MEAN FOR RELATIVE HUMIDITY AND DEW POINT.

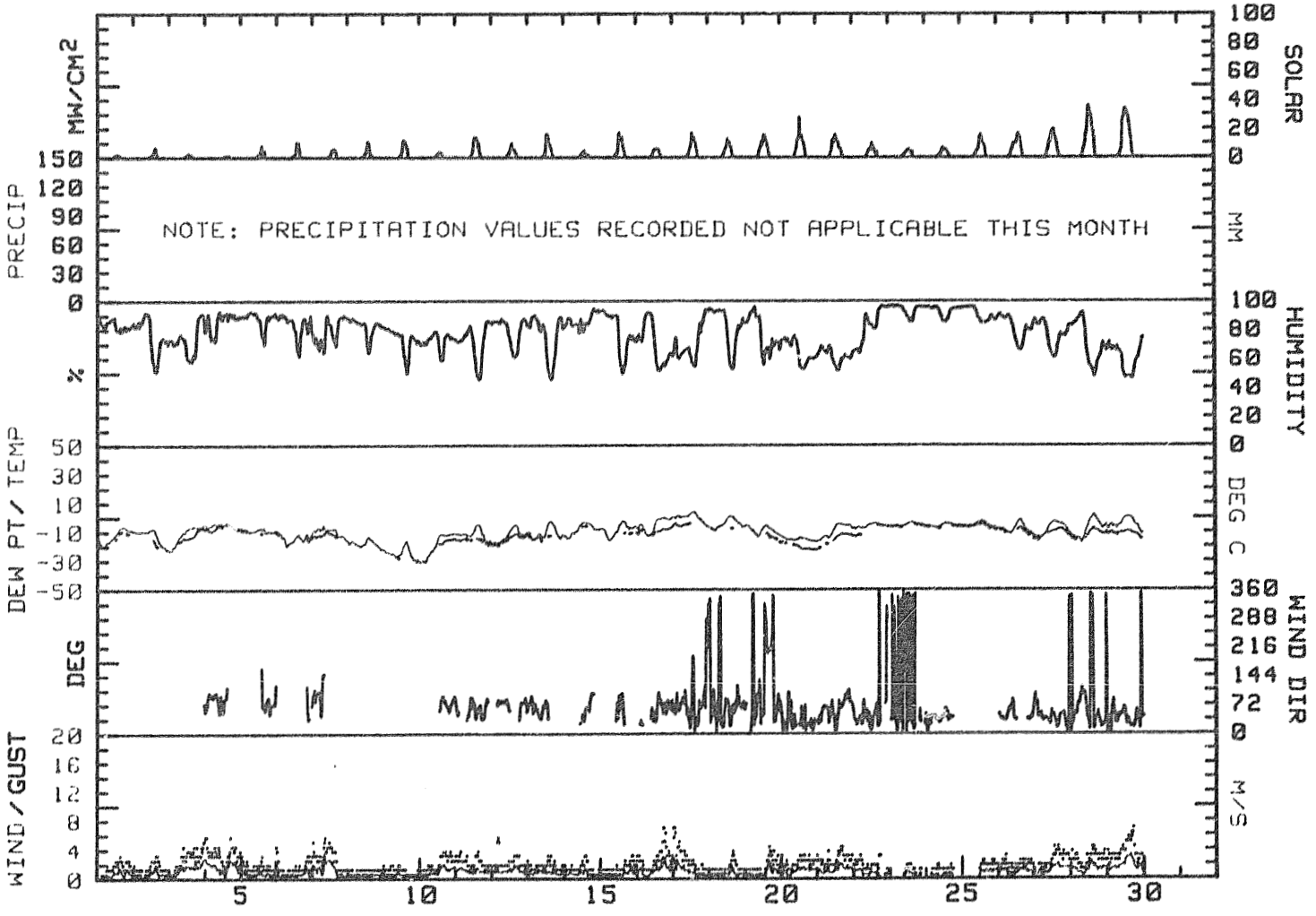
** SEE INTERPRETATION NOTES AT END OF MONTHLY REPORT **

R&M CONSULTANTS, INC.

SUSITNA HYDROELECTRIC PROJECT

SHERMAN WEATHER STATION

February, 1984



R & M CONSULTANTS, INC.

SUSITNA HYDROELECTRIC PROJECT

WIND FREQUENCY SUMMARY FOR SHERMAN WEATHER STATION
DATA TAKEN DURING February, 1984

	VELOCITY (M/S)							
DIRECTION	0.2 TO 1.0	1.0 TO 3.0	3.0 TO 6.0	6.0 TO 10.0	10.0 TO 15.0	15.0 TO 20.0	20.0 OR GREATER	TOTAL
N	1.88	2.15	0.00	0.00	0.00	0.00	0.00	4.04
NNE	6.33	10.23	.67	0.00	0.00	0.00	0.00	17.23
NE	10.90	15.07	.40	0.00	0.00	0.00	0.00	26.38
ENE	12.52	13.59	.13	0.00	0.00	0.00	0.00	26.24
E	6.59	7.94	0.00	0.00	0.00	0.00	0.00	14.54
ESE	1.75	1.88	0.00	0.00	0.00	0.00	0.00	3.63
SE	.40	0.00	0.00	0.00	0.00	0.00	0.00	.40
SSE	0.00	.27	0.00	0.00	0.00	0.00	0.00	.27
S	.13	0.00	0.00	0.00	0.00	0.00	0.00	.13
SSW	.27	.81	0.00	0.00	0.00	0.00	0.00	1.08
SW	0.00	.13	0.00	0.00	0.00	0.00	0.00	.13
WSW	.27	0.00	0.00	0.00	0.00	0.00	0.00	.27
W	.13	0.00	0.00	0.00	0.00	0.00	0.00	.13
WNW	.40	0.00	0.00	0.00	0.00	0.00	0.00	.40
NW	.54	0.00	0.00	0.00	0.00	0.00	0.00	.54
NNW	1.48	.94	0.00	0.00	0.00	0.00	0.00	2.42
CALM								2.15
TOTAL	43.61	53.03	1.21	0.00	0.00	0.00	0.00	100.00

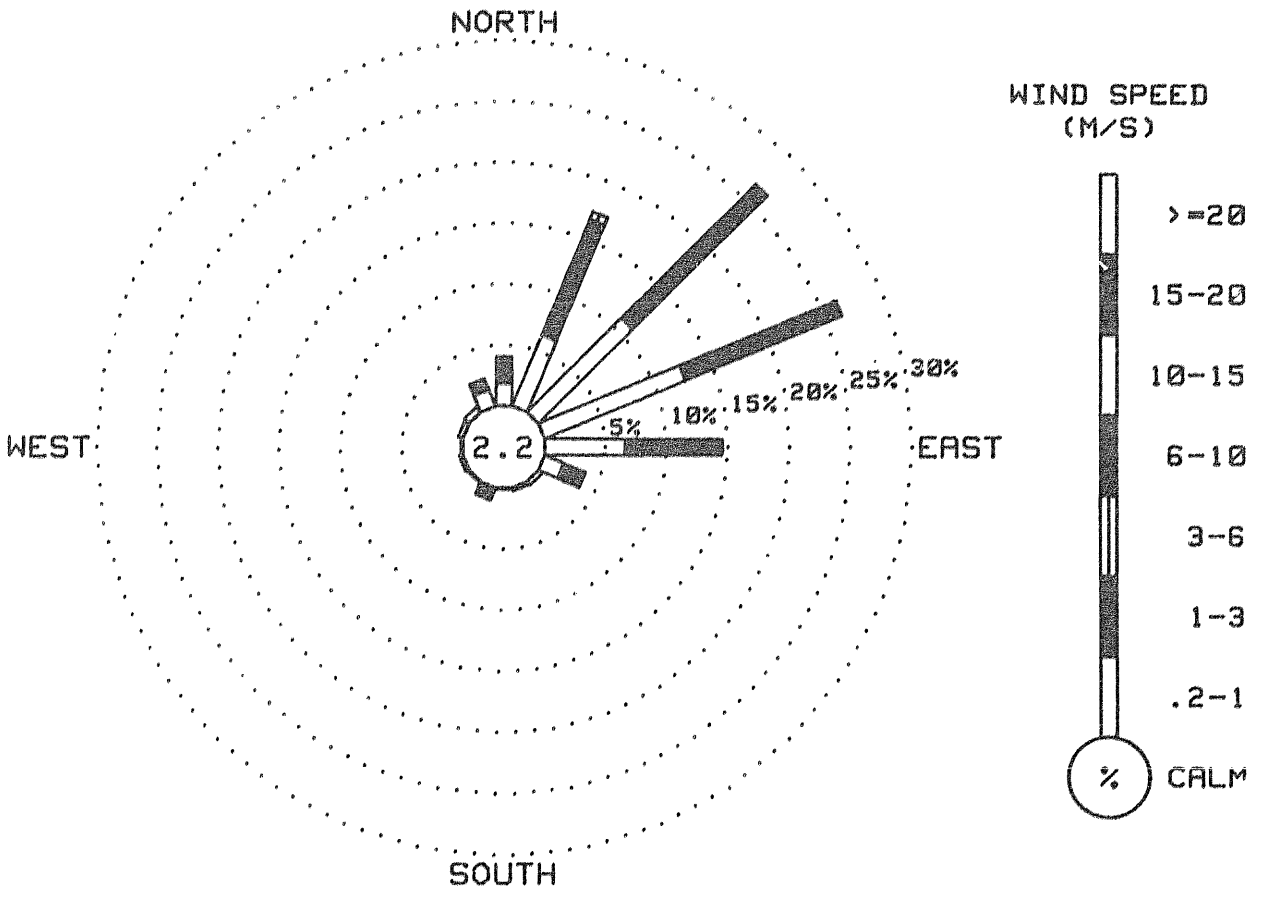
NOTE: ALL FREQUENCIES ARE EXPRESSED IN PERCENT
743 VALID WIND OBSERVATIONS USED TO DEVELOP FREQUENCY SUMMARY
1392 WIND OBSERVATIONS WOULD HAVE BEEN CORRECT FOR 30 MINUTE DATA.
** SEE INTERPRETATION NOTES AT END OF MONTHLY REPORT **

R&M CONSULTANTS, INC.

SUSITNA HYDROELECTRIC PROJECT

SHERMAN WEATHER STATION

February, 1984



WIND ROSE PLOT

R & M CONSULTANTS, INC.

SUSITNA HYDROELECTRIC PROJECT

HOURLY SOLAR RADIATION SUMMARY FOR SHERMAN WEATHER STATION
DATA TAKEN DURING February, 1984

SOLAR RADIATION VALUES MEASURED IN MILLIWATTS PER SQUARE CENTIMETER

HOUR ENDING

DATE	0100	0200	0300	0400	0500	0600	0700	0800	0900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	2400	AVG
1	0	0	0	0	0	0	0	0	0	0	1	2	2	2	1	1	0	0	0	0	0	0	0	0	0
2	0	0	0	0	0	0	0	0	0	0	1	2	2	5	5	2	0	0	0	0	0	0	0	0	1
3	0	0	0	0	0	0	0	0	0	0	1	2	3	2	1	0	0	0	0	0	0	0	0	0	0
4	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	1	0	0	0	0	0	0	0	0	0
5	0	0	0	0	0	0	0	0	0	0	1	1	4	6	4	3	0	0	0	0	0	0	0	0	1
6	0	0	0	0	0	0	0	0	0	0	1	2	7	10	8	1	1	0	0	0	0	0	0	0	1
7	0	0	0	0	0	0	0	0	0	0	1	2	4	6	5	4	1	0	0	0	0	0	0	0	1
8	0	0	0	0	0	0	0	0	0	1	2	3	9	11	4	2	1	0	0	0	0	0	0	0	1
9	0	0	0	0	0	0	0	0	0	0	2	3	12	12	9	5	1	0	0	0	0	0	0	0	2
10	0	0	0	0	0	0	0	0	0	0	1	3	4	3	3	1	0	0	0	0	0	0	0	0	1
11	0	0	0	0	0	0	0	0	0	0	3	8	14	14	10	7	2	0	0	0	0	0	0	0	2
12	0	0	0	0	0	0	0	0	0	1	3	5	9	6	6	4	1	0	0	0	0	0	0	0	1
13	0	0	0	0	0	0	0	0	0	1	2	10	16	12	9	6	2	0	0	0	0	0	0	0	2
14	0	0	0	0	0	0	0	0	0	0	1	3	3	4	3	2	1	0	0	0	0	0	0	0	1
15	0	0	0	0	0	0	0	0	0	1	3	9	16	13	11	6	2	0	0	0	0	0	0	0	2
16	0	0	0	0	0	0	0	0	0	1	3	6	6	6	6	3	1	0	0	0	0	0	0	0	1
17	0	0	0	0	0	0	0	0	0	1	3	7	14	13	13	9	4	1	0	0	0	0	0	0	3
18	0	0	0	0	0	0	0	0	0	1	4	7	12	11	9	6	2	0	0	0	0	0	0	0	2
19	0	0	0	0	0	0	0	0	0	4	7	10	13	16	12	7	3	0	0	0	0	0	0	0	3
20	0	0	0	0	0	0	0	0	0	2	6	13	21	16	14	11	5	1	0	0	0	0	0	0	4
21	0	0	0	0	0	0	0	0	0	3	9	11	15	14	11	7	5	1	0	0	0	0	0	0	3
22	0	0	0	0	0	0	0	0	0	2	4	6	8	8	6	3	3	1	0	0	0	0	0	0	2
23	0	0	0	0	0	0	0	0	0	2	3	4	5	6	4	4	1	0	0	0	0	0	0	0	1
24	0	0	0	0	0	0	0	0	1	2	3	6	6	6	5	3	2	0	0	0	0	0	0	0	1
25	0	0	0	0	0	0	0	0	0	2	4	6	14	15	10	9	4	1	0	0	0	0	0	0	3
26	0	0	0	0	0	0	0	0	1	5	8	10	10	15	16	12	6	1	0	0	0	0	0	0	3
27	0	0	0	0	0	0	0	0	1	6	11	14	19	20	15	11	5	1	0	0	0	0	0	0	4
28	0	0	0	0	0	0	0	0	2	7	13	21	36	32	28	20	11	2	0	0	0	0	0	0	7
29	0	0	0	0	0	0	0	0	2	4	16	28	34	33	29	22	13	3	0	0	0	0	0	0	8

** SEE INTERPRETATION NOTES AT END OF MONTHLY REPORT **

R & M CONSULTANTS, INC.

SUSITNA HYDROELECTRIC PROJECT

OBSERVATION SUMMARY FOR SHERMAN WEATHER STATION
DATA TAKEN DURING February, 1984

PARAMETER	NUMBER OF USABLE OBSERVATIONS	PERCENT OF TOTAL OBSERVATIONS
TEMPERATURE	1392	100
WIND SPEED	1303	94
WIND DIRECTION	778	56
PEAK GUST	1303	94
RELATIVE HUMIDITY	660	47
PRECIPITATION	0	0
SOLAR RADIATION	1392	100
DEW POINT	660	47

THERE ARE 1392 POSSIBLE OBSERVATIONS THIS MONTH FOR EACH PARAMETER. THE DATA RECORDING INTERVAL IS 30 MINUTES.

THE FOLLOWING ADJUSTMENTS HAVE BEEN MADE TO THIS MONTHS DATA:

1. RH -3 RH Points 2/1 - 2/22

   +7 2/22 - 2/29

2. Solar -1 mW/CM^2

Additional comments on this month's data:

1. Several days of wind direction data lost due to frozen wind vane.

2. Intermittent wind speed data lost due to frozen anemometer.

No precipitation data for March

(See INTERPRETATION OF DATA).

R & M CONSULTANTS, INC.

SUSITNA HYDROELECTRIC PROJECT

THREE HOUR SUMMARY FOR SHERMAN WEATHER STATION
DATA TAKEN DURING March, 1984

DAY 01

HOUR NDNG	TEMP. DEG C	DEW POINT DEG C	RH %	WIND DIR. DEG.	WIND SPD. M/S	GUST DIR. DEG.	MAX. GUST M/S	RAD MW
0300	-12.4	-15.7	76	051	1.2	054	2.5	0
0600	-12.6	-15.5	79	067	1.0	070	1.9	0
0900	-16.1	*****	85	050	1.1	042	1.9	2
1200	-.8	*****	42	039	.8	028	1.9	31
1500	1.2	-10.7	41	043	2.1	041	5.7	28
1800	-2.1	-11.2	50	040	2.1	043	4.4	1
2100	-6.3	*****	67	034	.8	038	3.8	0
2400	-7.3	*****	80	022	.7	016	1.9	0

DAY 02

HOUR NDNG	TEMP. DEG C	DEW POINT DEG C	RH %	WIND DIR. DEG.	WIND SPD. M/S	GUST DIR. DEG.	MAX. GUST M/S	RAD MW
0300	-6.9	*****	80	038	.6	051	1.9	0
0600	-7.0	*****	86	043	.6	057	1.3	0
0900	-5.2	*****	84	041	.5	051	1.3	3
1200	-.4	-8.6	54	043	1.1	047	3.2	23
1500	-.8	*****	74	002	.8	354	2.5	10
1800	-.9	*****	79	034	1.1	003	3.2	1
2100	-1.9	-5.9	74	029	.6	027	1.9	0
2400	-2.7	-6.8	73	025	1.1	036	3.8	0

DAY 03

HOUR NDNG	TEMP. DEG C	DEW POINT DEG C	RH %	WIND DIR. DEG.	WIND SPD. M/S	GUST DIR. DEG.	MAX. GUST M/S	RAD MW
0300	-3.4	*****	78	021	.8	024	2.5	0
0600	-3.2	*****	80	002	1.0	000	3.2	0
0900	-5.7	*****	89	056	.3	058	1.3	5
1200	2.5	*****	47	057	.5	060	1.9	33
1500	3.3	-5.1	54	041	1.6	040	4.4	15
1800	2.8	-4.2	60	018	1.7	031	4.4	1
2100	.6	-.1	95	050	1.5	041	5.1	0
2400	-1.4	*****	95	034	1.0	062	3.2	0

DAY 04

HOUR NDNG	TEMP. DEG C	DEW POINT DEG C	RH %	WIND DIR. DEG.	WIND SPD. M/S	GUST DIR. DEG.	MAX. GUST M/S	RAD MW
0300	-4.8	*****	96	***	****	***	1.9	0
0600	-1.8	*****	93	***	****	***	1.3	0
0900	-2.5	*****	92	***	****	***	1.3	2
1200	5.2	*****	67	058	.7	064	1.9	25
1500	6.8	.9	66	252	.4	198	3.8	19
1800	2.4	*****	93	196	.6	198	2.5	1
2100	.7	*****	95	***	****	***	.6	0
2400	.6	*****	95	061	.3	043	.6	0

DAY 05

HOUR NDNG	TEMP. DEG C	DEW POINT DEG C	RH %	WIND DIR. DEG.	WIND SPD. M/S	GUST DIR. DEG.	MAX. GUST M/S	RAD MW
0300	.7	*****	96	043	.4	059	1.3	0
0600	-.6	*****	95	043	.6	031	1.3	0
0900	1.8	*****	93	020	.6	004	1.9	5
1200	6.2	1.6	72	035	1.3	026	3.8	14
1500	9.1	.8	56	036	1.6	038	5.1	16
1800	5.7	*****	68	037	.9	006	5.1	1
2100	1.6	*****	88	338	.2	078	1.3	0
2400	.9	*****	94	120	.2	153	2.5	0

DAY 06

HOUR NDNG	TEMP. DEG C	DEW POINT DEG C	RH %	WIND DIR. DEG.	WIND SPD. M/S	GUST DIR. DEG.	MAX. GUST M/S	RAD MW
0300	0.0	*****	95	250	.2	259	1.3	0
0600	-.4	*****	94	330	.2	294	1.3	0
0900	-2.0	*****	94	021	.4	345	1.3	2
1200	6.9	1.2	67	032	.6	002	3.2	35
1500	9.3	1.5	58	033	1.6	038	5.1	26
1800	7.4	*****	66	037	1.7	034	4.4	2
2100	0.0	*****	94	062	.4	086	1.3	0
2400	-2.0	*****	95	053	.6	033	1.9	0

DAY 07

HOUR NDNG	TEMP. DEG C	DEW POINT DEG C	RH %	WIND DIR. DEG.	WIND SPD. M/S	GUST DIR. DEG.	MAX. GUST M/S	RAD MW
0300	-3.1	*****	94	018	.4	067	1.3	0
0600	-2.9	*****	94	041	.2	018	1.3	0
0900	.9	*****	91	027	.4	355	1.3	5
1200	5.4	*****	87	021	.4	037	1.3	12
1500	7.3	4.1	80	030	1.1	042	3.8	17
1800	4.3	*****	85	043	1.0	050	2.5	1
2100	1.3	*****	94	040	.3	057	1.3	0
2400	.8	*****	95	***	****	***	.6	0

DAY 08

HOUR NDNG	TEMP. DEG C	DEW POINT DEG C	RH %	WIND DIR. DEG.	WIND SPD. M/S	GUST DIR. DEG.	MAX. GUST M/S	RAD MW
0300	.7	*****	94	063	.3	067	1.3	0
0600	.5	*****	94	035	.5	355	1.3	0
0900	2.4	*****	92	031	.7	037	1.9	5
1200	9.5	3.1	64	028	1.0	021	3.2	30
1500	10.6	2.7	58	035	1.8	048	3.8	19
1800	4.9	*****	79	030	1.2	031	3.8	2
2100	2.9	*****	89	053	.6	071	1.3	0
2400	4.0	*****	89	025	.5	022	1.9	0

DAY 09

HOUR NDNG	TEMP. DEG C	DEW POINT DEG C	RH %	WIND DIR. DEG.	WIND SPD. M/S	GUST DIR. DEG.	MAX. GUST M/S	RAD MW
0300	2.1	*****	91	029	.9	030	3.2	0
0600	.7	*****	94	039	.5	044	1.9	0
0900	2.9	*****	87	025	.7	024	1.9	6
1200	10.4	1.8	55	031	1.0	045	3.8	21
1500	11.1	*****	48	034	.8	059	3.8	20
1800	4.8	*****	76	034	.4	001	1.9	2
2100	.6	*****	93	040	.5	034	1.9	0
2400	.2	*****	93	045	.6	028	1.9	0

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R & M CONSULTANTS, INC.

SUSITNA HYDROELECTRIC PROJECT

THREE HOUR SUMMARY FOR SHERMAN WEATHER STATION
DATA TAKEN DURING March, 1984

DAY 10

HOUR NDNG	TEMP. DEG C	DEW POINT DEG C	RH %	WIND DIR. DEG.	WIND SPD. M/S	GUST DIR. DEG.	MAX. GUST M/S	RAD MW
0300	.6	-.4	93	026	.9	022	1.9	0
0600	1.1	*****	92	053	.8	061	1.9	0
0900	-.5	*****	92	048	.5	065	1.3	5
1200	9.3	2.0	60	038	.6	042	3.2	21
1500	10.6	1.9	54	043	1.4	039	5.1	21
1800	7.4	*****	65	040	1.2	058	3.8	3
2100	.5	*****	93	048	.7	065	1.3	0
2400	-.4	*****	96	036	.7	030	1.9	0

DAY 11

HOUR NDNG	TEMP. DEG C	DEW POINT DEG C	RH %	WIND DIR. DEG.	WIND SPD. M/S	GUST DIR. DEG.	MAX. GUST M/S	RAD MW
0300	-1.6	*****	95	051	.4	039	1.3	0
0600	-2.8	*****	96	062	.2	074	1.3	0
0900	-4.2	*****	95	***	****	***	1.3	3
1200	5.6	*****	72	311	.3	291	1.9	25
1500	9.6	.2	52	170	.4	194	3.2	16
1800	7.1	*****	60	076	.5	134	2.5	2
2100	-1.5	*****	96	015	.1	016	1.3	0
2400	-3.8	*****	94	031	.3	046	1.3	0

DAY 12

HOUR NDNG	TEMP. DEG C	DEW POINT DEG C	RH %	WIND DIR. DEG.	WIND SPD. M/S	GUST DIR. DEG.	MAX. GUST M/S	RAD MW
0300	-5.2	*****	95	044	.4	359	1.3	0
0600	-7.3	*****	96	040	.4	038	1.3	0
0900	-7.2	*****	95	048	.4	049	1.3	3
1200	5.3	*****	54	064	.8	065	1.9	43
1500	10.8	-1.0	44	030	1.6	050	4.4	35
1800	8.9	-1.9	47	030	1.7	035	4.4	3
2100	2.0	-.9	81	042	1.1	017	3.8	0
2400	-.9	*****	89	037	.8	033	1.9	0

DAY 13

HOUR NDNG	TEMP. DEG C	DEW POINT DEG C	RH %	WIND DIR. DEG.	WIND SPD. M/S	GUST DIR. DEG.	MAX. GUST M/S	RAD MW
0300	-5.6	*****	97	073	.3	068	1.3	0
0600	-7.6	*****	97	058	.3	112	1.3	0
0900	-7.4	*****	96	048	.3	040	1.3	4
1200	7.0	*****	54	152	.2	358	1.3	40
1500	7.7	-2.4	49	052	1.2	043	3.2	35
1800	5.4	-2.4	57	046	1.1	068	3.2	3
2100	-2.7	*****	94	052	.6	043	1.9	0
2400	-3.2	*****	93	025	.3	048	1.3	0

DAY 14

HOUR NDNG	TEMP. DEG C	DEW POINT DEG C	RH %	WIND DIR. DEG.	WIND SPD. M/S	GUST DIR. DEG.	MAX. GUST M/S	RAD MW
0300	-2.3	*****	94	307	.1	263	1.3	0
0600	-1.7	*****	94	029	.2	016	1.3	0
0900	-.8	*****	92	023	.2	355	1.3	3
1200	2.6	-.5	80	344	.8	357	2.5	20
1500	5.7	*****	67	325	.4	320	1.3	26
1800	4.4	*****	70	203	1.0	236	2.5	5
2100	-.5	*****	94	165	.2	184	1.3	0
2400	-[illegible]	*****	95	028	.2	032	1.3	0

DAY 15

HOUR NDNG	TEMP. DEG C	DEW POINT DEG C	RH %	WIND DIR. DEG.	WIND SPD. M/S	GUST DIR. DEG.	MAX. GUST M/S	RAD MW
0300	-4.6	*****	95	***	****	***	.6	0
0600	-5.1	*****	95	321	.3	333	.6	0
0900	-4.0	*****	94	037	.4	028	1.3	7
1200	2.4	-4.3	61	017	.9	055	2.5	26
1500	6.7	-5.4	42	038	1.4	039	3.8	42
1800	2.8	*****	55	060	1.0	058	2.5	4
2100	-1.1	*****	79	051	.6	016	1.9	0
2400	-2.8	*****	85	022	.7	020	1.3	0

DAY 16

HOUR NDNG	TEMP. DEG C	DEW POINT DEG C	RH %	WIND DIR. DEG.	WIND SPD. M/S	GUST DIR. DEG.	MAX. GUST M/S	RAD MW
0300	-2.1	*****	80	011	.7	000	1.9	0
0600	-3.5	*****	82	346	1.0	349	1.9	0
0900	-4.9	*****	85	016	.8	003	2.5	5
1200	3.6	-6.2	49	043	1.4	045	3.8	42
1500	5.8	-5.9	43	051	2.2	051	5.1	38
1800	4.3	-7.0	44	037	2.1	042	4.4	3
2100	-1.1	*****	73	047	.9	024	3.8	0
2400	-4.2	-7.3	79	032	.9	033	2.5	0

DAY 17

HOUR NDNG	TEMP. DEG C	DEW POINT DEG C	RH %	WIND DIR. DEG.	WIND SPD. M/S	GUST DIR. DEG.	MAX. GUST M/S	RAD MW
0300	-6.2	-8.0	87	014	.9	009	2.5	0
0600	-9.4	*****	93	035	.8	017	1.9	0
0900	-7.2	*****	85	055	.8	056	1.9	6
1200	3.3	-6.7	48	059	1.2	063	4.4	42
1500	4.9	-7.4	41	039	2.1	036	5.1	38
1800	3.4	-8.1	43	032	1.9	031	4.4	3
2100	-5.0	*****	83	049	.7	005	1.9	0
2400	-8.4	*****	90	035	.6	026	1.3	0

DAY 18

HOUR NDNG	TEMP. DEG C	DEW POINT DEG C	RH %	WIND DIR. DEG.	WIND SPD. M/S	GUST DIR. DEG.	MAX. GUST M/S	RAD MW
0300	-10.7	*****	96	045	.7	046	1.3	0
0600	-12.3	*****	96	048	.8	045	1.3	0
0900	-11.7	*****	92	054	.9	053	1.9	5
1200	1.3	-9.7	44	023	1.0	022	3.2	49
1500	4.9	-8.4	38	047	2.1	050	5.1	39
1800	3.8	-9.7	37	039	1.9	034	5.1	4
2100	-4.9	*****	76	050	.7	021	3.2	0
2400	-8.5	*****	89	028	.6	029	1.3	0

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R & M CONSULTANTS, INC.

SUSITNA HYDROELECTRIC PROJECT

THREE HOUR SUMMARY FOR SHERMAN WEATHER STATION
DATA TAKEN DURING March, 1984

DAY 19

HOUR NDNG	TEMP. DEG C	DEW POINT DEG C	RH %	WIND DIR. DEG.	WIND SPD. M/S	GUST DIR. DEG.	MAX. GUST M/S	RAD MW
0300	-11.8	*****	95	044	.6	030	1.3	0
0600	-14.6	*****	94	050	.4	048	1.3	0
0900	-12.5	*****	94	045	.4	040	1.3	5
1200	-.1	-11.3	43	044	.7	032	3.2	46
1500	5.0	*****	34	045	.9	028	3.2	40
1800	1.3	*****	48	101	.5	075	2.5	4
2100	-5.8	*****	85	042	.5	016	1.9	0
2400	-10.7	*****	95	044	.5	057	1.3	0

DAY 20

HOUR NDNG	TEMP. DEG C	DEW POINT DEG C	RH %	WIND DIR. DEG.	WIND SPD. M/S	GUST DIR. DEG.	MAX. GUST M/S	RAD MW
0300	-9.8	*****	95	043	.5	033	1.3	0
0600	-7.1	*****	88	037	.6	357	1.3	0
0900	-4.2	*****	77	036	.6	048	1.3	6
1200	.8	-7.7	53	024	1.0	000	3.2	27
1500	4.3	-6.7	45	018	1.1	027	3.2	33
1800	2.3	*****	57	044	1.1	034	3.8	7
2100	-3.5	*****	91	048	.6	057	1.9	0
2400	-6.3	*****	94	051	.4	071	1.3	0

DAY 21

HOUR NDNG	TEMP. DEG C	DEW POINT DEG C	RH %	WIND DIR. DEG.	WIND SPD. M/S	GUST DIR. DEG.	MAX. GUST M/S	RAD MW
0300	-9.0	*****	97	039	.3	087	1.3	0
0600	-10.4	*****	97	052	.7	038	1.3	0
0900	-8.5	*****	91	054	.7	061	1.3	24
1200	1.8	-9.0	45	008	.9	006	2.5	51
1500	4.8	-8.1	39	029	1.0	004	3.8	27
1800	2.7	-7.8	46	043	.7	356	3.2	6
2100	-5.2	*****	86	061	.5	084	1.3	0
2400	-8.9	*****	93	045	.6	045	1.3	0

DAY 22

HOUR NDNG	TEMP. DEG C	DEW POINT DEG C	RH %	WIND DIR. DEG.	WIND SPD. M/S	GUST DIR. DEG.	MAX. GUST M/S	RAD MW
0300	-10.5	*****	96	046	.8	037	1.3	0
0600	-12.6	*****	97	044	.8	048	1.3	0
0900	-9.2	*****	84	048	.9	037	1.9	27
1200	1.0	-9.1	47	001	1.2	011	2.5	50
1500	5.0	-8.3	38	022	2.0	031	5.1	42
1800	4.3	-8.9	38	038	2.2	043	5.1	12
2100	-4.5	*****	80	042	.8	018	3.2	0
2400	-9.8	*****	94	028	.3	357	1.3	0

DAY 23

HOUR NDNG	TEMP. DEG C	DEW POINT DEG C	RH %	WIND DIR. DEG.	WIND SPD. M/S	GUST DIR. DEG.	MAX. GUST M/S	RAD MW
0300	-12.3	*****	96	028	.4	047	1.9	0
0600	-13.9	*****	95	036	.4	052	1.3	0
0900	-7.8	*****	81	034	.5	039	1.3	30
1200	.7	-10.9	42	015	.9	012	3.2	48
1500	3.8	-10.8	34	039	1.3	027	3.2	43
1800	2.6	*****	34	346	1.0	003	3.8	11
2100	-6.8	*****	81	054	.5	052	1.3	0
2400	-10.1	*****	87	043	.7	044	1.9	0

DAY 24

HOUR NDNG	TEMP. DEG C	DEW POINT DEG C	RH %	WIND DIR. DEG.	WIND SPD. M/S	GUST DIR. DEG.	MAX. GUST M/S	RAD MW
0300	-11.6	*****	88	057	.8	059	1.9	0
0600	-11.5	-13.5	85	053	.9	063	1.9	0
0900	-6.9	*****	70	046	.9	047	2.5	14
1200	2.6	-8.5	44	003	1.3	042	3.8	58
1500	4.5	-8.7	38	020	2.3	028	5.1	43
1800	2.6	-7.6	47	022	1.9	033	5.1	6
2100	-.4	-6.1	65	043	1.0	023	3.2	0
2400	-2.4	-7.3	69	049	1.1	051	2.5	0

DAY 25

HOUR NDNG	TEMP. DEG C	DEW POINT DEG C	RH %	WIND DIR. DEG.	WIND SPD. M/S	GUST DIR. DEG.	MAX. GUST M/S	RAD MW
0300	-3.6	*****	70	359	1.1	346	3.2	0
0600	-7.5	*****	86	033	.7	031	2.5	0
0900	-5.1	*****	67	084	.6	075	2.5	16
1200	2.3	*****	47	061	.7	078	1.9	40
1500	6.5	*****	44	285	.5	311	1.9	33
1800	5.7	*****	44	327	1.0	327	3.2	9
2100	-3.0	*****	92	044	.4	047	1.9	0
2400	-3.4	*****	91	040	.3	034	1.3	0

DAY 26

HOUR NDNG	TEMP. DEG C	DEW POINT DEG C	RH %	WIND DIR. DEG.	WIND SPD. M/S	GUST DIR. DEG.	MAX. GUST M/S	RAD MW
0300	-4.2	*****	92	286	.2	258	1.3	0
0600	-4.1	*****	86	062	.4	066	1.9	0
0900	-1.9	*****	89	023	.1	322	1.3	7
1200	3.4	-.1	78	355	.9	355	2.5	30
1500	4.9	*****	63	013	.9	352	2.5	40
1800	2.3	*****	92	004	.8	024	2.5	5
2100	.9	*****	96	325	.2	020	1.9	0
2400	-.3	*****	98	233	.5	214	2.5	0

DAY 27

HOUR NDNG	TEMP. DEG C	DEW POINT DEG C	RH %	WIND DIR. DEG.	WIND SPD. M/S	GUST DIR. DEG.	MAX. GUST M/S	RAD MW
0300	0.0	*****	95	011	.4	011	1.9	0
0600	-1.9	*****	95	018	.4	035	1.9	0
0900	-.3	*****	92	025	.2	055	1.3	7
1200	5.9	*****	49	356	.6	016	1.9	39
1500	3.1	.8	85	208	.8	204	3.8	10
1800	1.3	*****	93	219	.8	195	2.5	4
2100	.2	*****	95	285	.2	295	.6	0
2400	-.2	*****	98	***	****	***	1.9	0

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SUSITNA HYDROELECTRIC PROJECT

THREE HOUR SUMMARY FOR SHERMAN WEATHER STATION
DATA TAKEN DURING March, 1984

DAY 28

HOUR NDNG	TEMP. DEG C	DEW POINT DEG C	RH %	WIND DIR. DEG.	WIND SPD. M/S	GUST DIR. DEG.	MAX. GUST M/S	RAD MW
0300	-2.2	*****	95	***	****	***	1.3	0
0600	-5.2	*****	93	***	****	***	1.3	0
0900	-2.2	*****	87	***	****	***	1.3	29
1200	5.6	-5.2	46	349	1.0	328	3.2	58
1500	7.4	-6.5	37	019	2.0	003	5.1	46
1800	6.8	*****	36	087	1.4	065	3.8	15
2100	-2.1	*****	83	027	.8	014	3.8	0
2400	-2.9	*****	85	042	.7	056	1.3	0

DAY 29

HOUR NDNG	TEMP. DEG C	DEW POINT DEG C	RH %	WIND DIR. DEG.	WIND SPD. M/S	GUST DIR. DEG.	MAX. GUST M/S	RAD MW
0300	-2.6	*****	85	044	.6	045	1.3	0
0600	.2	-4.8	69	013	.8	071	3.2	0
0900	2.5	-5.1	57	063	1.2	058	3.2	10
1200	5.9	-4.3	48	022	2.1	031	5.7	33
1500	6.7	-4.5	45	039	2.4	035	5.1	24
1800	3.4	-.4	76	035	2.2	033	5.7	6
2100	-.1	*****	93	058	.7	049	3.2	0
2400	-.4	*****	94	042	.4	047	1.3	0

DAY 30

HOUR NDNG	TEMP. DEG C	DEW POINT DEG C	RH %	WIND DIR. DEG.	WIND SPD. M/S	GUST DIR. DEG.	MAX. GUST M/S	RAD MW
0300	-2.0	*****	95	051	.3	012	1.3	0
0600	-3.4	*****	96	050	.3	095	1.9	0
0900	-.7	*****	84	055	.4	011	1.9	15
1200	4.8	*****	55	341	1.2	335	3.2	33
1500	6.9	-3.1	49	258	.8	314	2.5	24
1800	3.6	-.4	75	204	2.1	196	5.1	12
2100	.1	*****	94	207	.3	236	1.9	0
2400	1.2	*****	93	085	.2	119	1.9	0

DAY 31

HOUR NDNG	TEMP. DEG C	DEW POINT DEG C	RH %	WIND DIR. DEG.	WIND SPD. M/S	GUST DIR. DEG.	MAX. GUST M/S	RAD MW
0300	.1	-.6	95	197	.9	178	2.5	0
0600	-1.1	*****	94	005	.1	268	1.3	0
0900	1.6	*****	88	021	.2	067	1.3	14
1200	2.6	.3	85	314	.5	280	2.5	14
1500	2.7	*****	87	007	.1	138	1.9	12
1800	2.0	*****	91	276	.2	005	1.9	26
2100	.1	*****	96	012	.6	359	1.9	0
2400	-.2	*****	95	051	.6	056	1.3	0

** SEE INTERPRETATION NOTES AT END OF MONTHLY REPORT **

R & M CONSULTANTS, INC.

SUSITNA HYDROELECTRIC PROJECT

MONTHLY SUMMARY FOR SHERMAN WEATHER STATION
DATA TAKEN DURING March, 1984

DAY	MAX. TEMP. DEG C	MIN. TEMP. DEG C	MEAN TEMP. DEG C	RES. WIND DIR. DEG	RES. WIND SPD. M/S	AVG. WIND SPD. M/S	MAX. GUST DIR. DEG	MAX. GUST SPD. M/S	P'VAL DIR.	MEAN RH %	MEAN DP DEG C	PRECIP MM	DAY'S SOLAR ENERGY WH/SQM	DAY
1	1.4	-16.1	-7.4	044	1.2	1.2	041	5.7	NE	63	-13.8	****	1785	1
2	.7	-7.0	-3.2	032	.8	.8	036	3.8	NE	68	-6.9	****	1225	2
3	3.8	-5.8	-1.0	032	1.0	1.1	041	5.1	NE	70	-4.2	****	1495	3
4	8.9	-5.1	1.9	184	.1	.6	198	3.8	SSW	64	.5	****	1290	4
5	9.1	-.7	4.2	036	.7	.8	038	5.1	NE	66	1.0	****	1075	5
6	9.5	-2.6	3.5	034	.6	.8	038	5.1	NE	60	1.4	****	2105	6
7	7.5	-3.1	2.2	032	.5	.5	042	3.8	NNE	80	4.0	****	1170	7
8	11.1	.4	5.8	034	.8	.8	048	3.8	NNE	62	2.9	****	1845	8
9	11.6	-.4	5.6	034	.7	.7	045	3.8	NE	60	1.8	****	1500	9
10	11.0	-1.2	4.9	041	.8	.9	039	5.1	NE	66	1.0	****	1575	10
11	11.1	-4.7	3.2	061	.2	.5	194	3.2	NE	51	.1	****	1880	11
12	11.4	-8.5	1.5	038	.9	.9	050	4.4	NE	58	-1.3	****	2665	12
13	8.5	-8.2	.2	054	.5	.6	043	3.2	NE	50	-2.1	****	2750	13
14	6.6	-3.2	1.7	310	.1	.4	357	2.5	NNE	70	-.5	****	1770	14
15	7.0	-5.5	.8	037	.8	.7	039	3.8	NE	50	-5.2	****	2570	15
16	6.1	-6.1	0.0	033	1.2	1.3	051	5.1	NE	56	-6.3	****	2955	16
17	5.2	-9.4	-2.1	039	1.1	1.1	036	5.1	NE	52	-7.6	****	3100	17
18	5.4	-12.9	-3.8	042	1.1	1.1	050	5.1	NE	41	-9.2	****	3330	18
19	5.4	-15.2	-4.9	050	.5	.6	032	3.2	NE	42	-10.4	****	3295	19
20	4.4	-14.1	-2.9	035	.7	.8	034	3.8	NE	51	-6.8	****	2245	20
21	5.3	-10.4	-2.6	039	.6	.7	004	3.8	NE	45	-8.4	****	3200	21
22	5.1	-12.9	-3.9	032	1.1	1.2	031	5.1	NE	44	-8.8	****	3715	22
23	4.2	-14.3	-5.1	027	.7	.8	003	3.8	NE	37	-11.1	****	3885	23
24	4.5	-11.6	-3.6	032	1.2	1.3	028	5.1	NE	55	-9.1	****	2915	24
25	8.1	-7.5	.3	022	.5	.7	346	3.2	NE	59	-7.3	****	2835	25
26	5.8	-4.2	.8	357	.3	.6	355	2.5	NNE	82	-.5	****	2185	26
27	7.1	-3.0	2.1	311	.1	.6	204	3.8	NE	70	-.9	****	1995	27
28	7.4	-6.0	.7	033	1.0	.9	003	5.1	NE	46	-5.8	****	4150	28
29	6.7	-3.9	1.4	037	1.3	1.3	031	5.7	NE	59	-4.0	****	2220	29
30	8.3	-4.0	2.2	244	.2	.8	196	5.1	NNE	64	-2.4	****	2475	30
31	4.3	-1.2	1.6	332	.1	.6	178	2.5	N	88	-.0	****	1665	31
MONTH	11.6	-16.1	.1	035	.7	.8	041	5.7	NE	58	-3.9	****	72865	

GUST VEL. AT MAX. GUST MINUS 2 INTERVALS 4.4
GUST VEL. AT MAX. GUST MINUS 1 INTERVAL 3.8
GUST VEL. AT MAX. GUST PLUS 1 INTERVAL 5.7
GUST VEL. AT MAX. GUST PLUS 2 INTERVALS 4.4

NOTE: RELATIVE HUMIDITY READINGS ARE UNRELIABLE WHEN WIND SPEEDS ARE LESS THAN ONE METER PER SECOND. SUCH READINGS HAVE NOT BEEN INCLUDED IN THE DAILY OR MONTHLY MEAN FOR RELATIVE HUMIDITY AND DEW POINT.

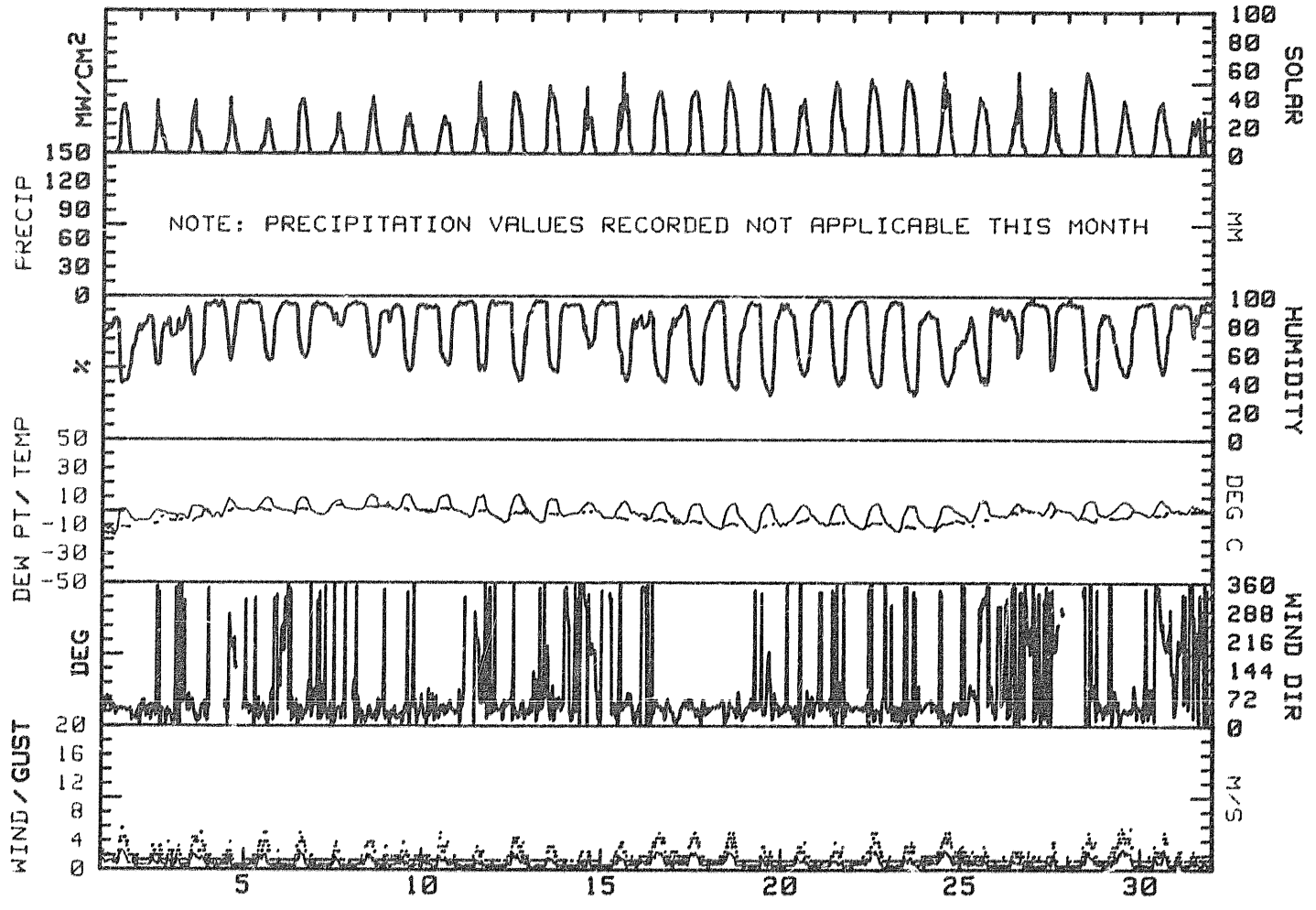
** SEE INTERPRETATION NOTES AT END OF MONTHLY REPORT **

R&M CONSULTANTS, INC.

SUSITNA HYDROELECTRIC PROJECT

SHERMAN WEATHER STATION

March, 1984



R & M CONSULTANTS, INC.

SUSITNA HYDROELECTRIC PROJECT

WIND FREQUENCY SUMMARY FOR SHERMAN WEATHER STATION
DATA TAKEN DURING March, 1984

	VELOCITY (M/S)							
DIRECTION	0.2 TO 1.0	1.0 TO 3.0	3.0 TO 6.0	6.0 TO 10.0	10.0 TO 15.0	15.0 TO 20.0	20.0 OR GREATER	TOTAL
N	5.31	4.23	0.00	0.00	0.00	0.00	0.00	9.54
NNE	12.05	8.90	0.00	0.00	0.00	0.00	0.00	20.95
NE	23.39	11.48	0.00	0.00	0.00	0.00	0.00	34.86
ENE	10.76	2.73	0.00	0.00	0.00	0.00	0.00	13.49
E	3.23	.43	0.00	0.00	0.00	0.00	0.00	3.66
ESE	1.00	.22	0.00	0.00	0.00	0.00	0.00	1.22
SE	.65	.07	0.00	0.00	0.00	0.00	0.00	.72
SSE	.29	0.00	0.00	0.00	0.00	0.00	0.00	.29
S	.86	.29	0.00	0.00	0.00	0.00	0.00	1.15
SSW	.86	1.22	0.00	0.00	0.00	0.00	0.00	2.08
SW	.65	.29	0.00	0.00	0.00	0.00	0.00	.93
WSW	1.15	0.00	0.00	0.00	0.00	0.00	0.00	1.15
W	.65	.14	0.00	0.00	0.00	0.00	0.00	.79
WNW	1.36	.07	0.00	0.00	0.00	0.00	0.00	1.43
NW	2.15	.22	0.00	0.00	0.00	0.00	0.00	2.37
NNW	2.65	1.94	0.00	0.00	0.00	0.00	0.00	4.59
CALM								.79
TOTAL	67.00	32.21	0.00	0.00	0.00	0.00	0.00	100.00

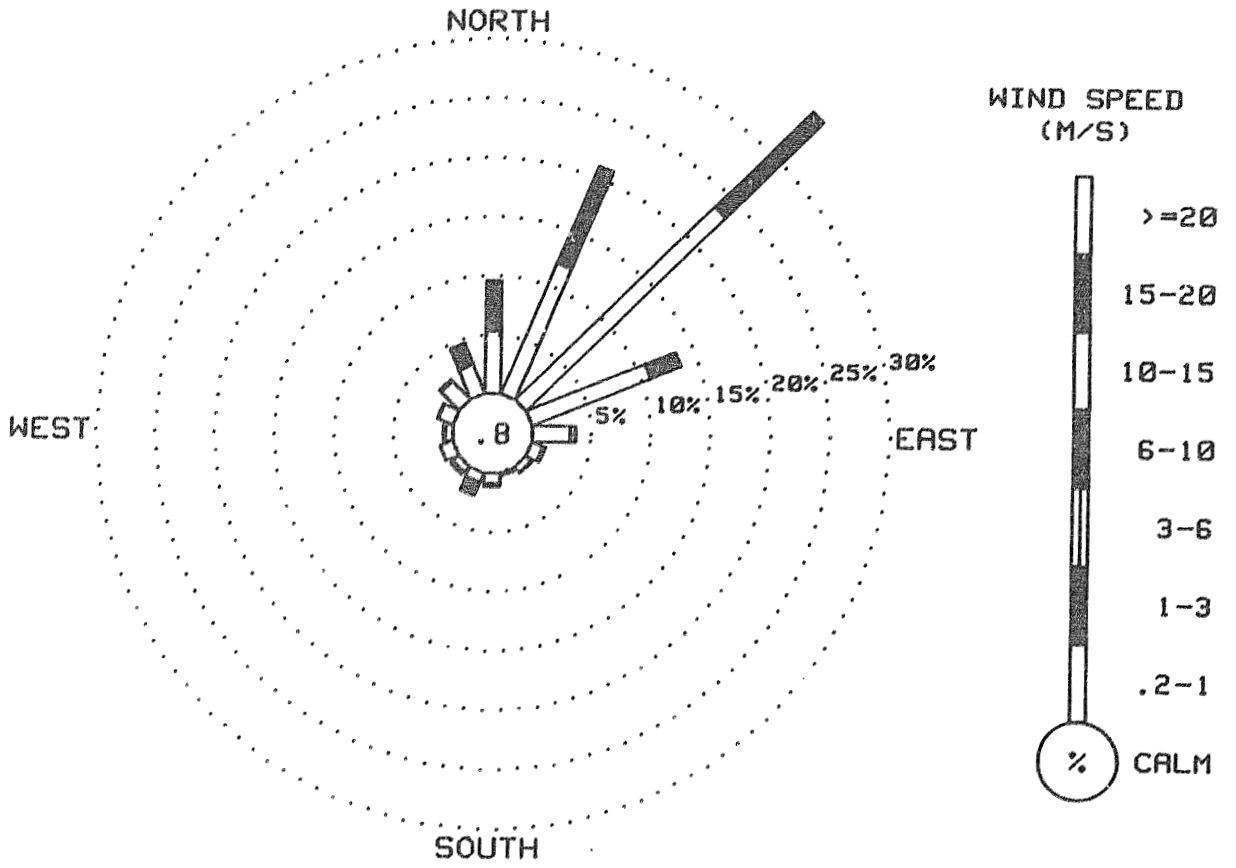
NOTE: ALL FREQUENCIES ARE EXPRESSED IN PERCENT
1394 VALID WIND OBSERVATIONS USED TO DEVELOP FREQUENCY SUMMARY
1488 WIND OBSERVATIONS WOULD HAVE BEEN CORRECT FOR 30 MINUTE DATA.
** SEE INTERPRETATION NOTES AT END OF MONTHLY REPORT **

R&M CONSULTANTS, INC.

SUSITNA HYDROELECTRIC PROJECT

SHERMAN WEATHER STATION

March, 1984



WIND ROSE PLOT

R & M CONSULTANTS, INC.

SUSITNA HYDROELECTRIC PROJECT

HOURLY SOLAR RADIATION SUMMARY FOR SHERMAN WEATHER STATION
DATA TAKEN DURING March, 1984

SOLAR RADIATION VALUES MEASURED IN MILLIWATTS PER SQUARE CENTIMETER

HOUR ENDING

DATE	0100	0200	0300	0400	0500	0600	0700	0800	0900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	2400	AVG
1	0	0	0	0	0	0	0	0	2	4	15	30	34	33	29	21	10	2	0	0	0	0	0	0	7
2	0	0	0	0	0	0	0	0	2	7	1C	30	25	18	11	11	5	2	0	0	0	0	0	0	5
3	0	0	0	0	0	0	0	0	3	5	24	31	36	16	15	12	7	2	0	0	0	0	0	0	6
4	0	0	0	0	0	0	0	0	2	6	9	21	32	23	20	11	6	2	0	0	0	0	0	0	5
5	0	0	0	0	0	0	0	0	3	6	5	13	20	24	18	12	6	2	0	0	0	0	0	0	4
6	0	0	0	0	0	0	0	0	2	4	31	34	38	37	30	22	10	4	0	0	0	0	0	0	9
7	0	0	0	0	0	0	0	0	5	6	8	11	22	25	17	15	8	2	0	0	0	0	0	0	5
8	0	0	0	0	0	0	0	0	4	13	22	31	37	33	22	13	8	4	0	0	0	0	0	0	8
9	0	0	0	0	0	0	0	1	4	11	20	24	20	26	20	14	8	4	0	0	0	0	0	0	6
10	0	0	0	0	0	0	0	0	4	10	15	21	25	22	22	21	15	5	1	0	0	0	0	0	7
11	0	0	0	0	0	0	0	1	3	7	18	23	47	31	17	16	23	5	1	0	0	0	0	0	8
12	0	0	0	0	0	0	0	1	3	14	33	43	41	40	37	28	20	7	1	0	0	0	0	0	11
13	0	0	0	0	0	0	0	1	4	17	35	44	42	41	37	29	20	8	1	0	0	0	0	0	11
14	0	0	0	0	0	0	0	0	2	8	23	23	32	24	26	23	13	6	1	0	0	0	0	0	7
15	0	0	0	0	0	0	0	1	6	28	26	24	49	35	38	30	15	5	1	0	0	0	0	0	11
16	0	0	0	0	0	0	0	2	5	28	34	41	44	44	39	29	23	9	1	0	0	0	0	0	12
17	0	0	0	0	0	0	0	2	6	32	40	42	44	44	40	30	23	9	1	0	0	0	0	0	13
18	0	0	0	0	0	0	0	2	5	34	45	50	46	45	41	33	24	10	1	0	0	0	0	0	14
19	0	0	0	0	0	0	0	2	5	33	45	48	46	45	42	34	19	11	1	0	0	0	0	0	14
20	0	0	0	0	0	0	0	1	6	12	23	31	34	33	36	24	17	8	2	0	0	0	0	0	9
21	0	0	0	0	0	0	0	3	15	32	41	49	49	47	32	23	18	12	2	0	0	0	0	0	13
22	0	0	0	0	0	0	0	3	16	37	48	52	48	48	43	36	27	15	2	0	0	0	0	0	15
23	0	0	0	0	0	0	0	4	20	42	50	50	49	49	45	37	28	15	2	0	0	0	0	0	16
24	0	0	0	0	0	0	0	4	12	19	40	48	36	42	39	29	15	8	2	0	0	0	0	0	12
25	0	0	0	0	0	0	1	4	12	23	28	38	38	36	34	32	23	15	4	0	0	0	0	0	12
26	0	0	0	0	0	0	0	4	7	16	19	26	27	47	42	19	7	6	1	0	0	0	0	0	9
27	0	0	0	0	0	0	1	2	6	14	20	43	37	37	16	14	7	5	2	0	0	0	0	0	8
28	0	0	0	0	0	0	1	4	22	38	48	57	55	52	48	41	31	19	3	0	0	0	0	0	17
29	0	0	0	0	0	0	1	4	9	16	23	31	37	33	27	20	15	8	3	0	0	0	0	0	9
30	0	0	9	0	0	0	1	5	11	21	27	33	35	34	29	22	15	12	5	0	0	0	0	0	10
31	0	0	0	0	0	0	1	5	13	22	22	15	21	24	19	3	5	17	3	0	0	0	0	0	7

** SEE INTERPRETATION NOTES AT END OF MONTHLY REPORT **

R & M CONSULTANTS, INC.

SUSITNA HYDROELECTRIC PROJECT

OBSERVATION SUMMARY FOR SHERMAN WEATHER STATION
DATA TAKEN DURING March, 1984

PARAMETER	NUMBER OF USABLE OBSERVATIONS	PERCENT OF TOTAL OBSERVATIONS
TEMPERATURE	1488	100
WIND SPEED	1488	100
WIND DIRECTION	1394	94
PEAK GUST	1488	100
RELATIVE HUMIDITY	449	30
PRECIPITATION	0	0
SOLAR RADIATION	1488	100
DEW POINT	449	30

THERE ARE 1488 POSSIBLE OBSERVATIONS THIS MONTH FOR EACH PARAMETER.
THE DATA RECORDING INTERVAL IS 30 MINUTES.

THE FOLLOWING ADJUSTMENTS HAVE BEEN MADE TO THIS MONTHS DATA:

1. RH +7 RH Points
2. Solar -1 mW/CM^2

Additional comments on this month's data:

1. Intermittent wind direction data lost due to frozen wind vane.

R & M CONSULTANTS, INC.

SUSITNA HYDROELECTRIC PROJECT

HOURLY PRECIPITATION SUMMARY FOR SHERMAN WEATHER STATION
DATA TAKEN DURING April, 1984

PRECIPITATION VALUES ARE IN MILLIMETERS

HOUR ENDING

DATE	0100	0200	0300	0400	0500	0600	0700	0800	0900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	2400	DATE
1	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	1
2	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	2
3	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	3
4	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	4
5	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	5
6	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	6
7	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	7
8	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	8
9	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	9
10	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	0
11	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	1
12	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	2
13	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	3
14	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	4
15	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	5
16	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	6
17	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	17
18	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	18
19	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	17
20	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	20
21	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	21
22	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	22
23	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	23
24	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	24
25	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	25
26	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	26
27	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	27
28	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	28
29	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	29
30	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	30

** SEE INTERPRETATION NOTES AT END OF MONTHLY REPORT **

R & M CONSULTANTS, INC.

SUSITNA HYDROELECTRIC PROJECT

THREE HOUR SUMMARY FOR SHERMAN WEATHER STATION
DATA TAKEN DURING April, 1984

DAY 01

HOUR NDNG	TEMP. DEG C	DEW POINT DEG C	RH %	WIND DIR. DEG.	WIND SPD. M/S	GUST DIR. DEG.	MAX. GUST M/S	RAD MW
0300	-.8	*****	93	***	****	***	2.5	0
0600	.9	-1.2	86	***	****	***	2.5	0
0900	3.7	-1.6	68	024	1.3	049	3.8	11
1200	5.8	-3.9	50	020	1.1	020	3.2	24
1500	6.0	-1.6	58	354	.3	182	4.4	30
1800	5.1	*****	60	244	1.1	248	3.2	12
2100	-1.1	*****	94	240	.2	285	1.3	0
2400	-2.0	*****	94	031	.2	304	1.3	0

DAY 02

HOUR NDNG	TEMP. DEG C	DEW POINT DEG C	RH %	WIND DIR. DEG.	WIND SPD. M/S	GUST DIR. DEG.	MAX. GUST M/S	RAD MW
0300	-5.0	*****	96	040	.4	038	1.9	0
0600	-3.6	*****	94	055	.2	048	1.3	0
0900	-2.4	*****	95	109	.1	156	1.3	2
1200	.5	-.7	92	213	.5	199	3.8	6
1500	5.7	1.1	72	219	1.3	230	2.5	46
1800	2.6	-.0	83	311	.4	311	3.2	18
2100	-2.8	*****	97	611	.4	025	2.5	0
2400	-8.7	*****	95	044	.3	057	1.3	0

DAY 03

HOUR NDNG	TEMP. DEG C	DEW POINT DEG C	RH %	WIND DIR. DEG.	WIND SPD. M/S	GUST DIR. DEG.	MAX. GUST M/S	RAD MW
0300	-11.1	*****	95	031	.2	030	1.3	0
0600	-13.4	*****	95	023	.4	029	1.3	0
0900	-4.7	*****	92	026	.2	026	1.3	23
1200	6.1	-6.9	39	029	1.0	025	2.5	53
1500	6.9	-6.6	38	360	2.3	350	6.3	49
1800	7.4	-6.5	37	354	2.5	002	5.7	19
2100	1.2	*****	82	019	.8	006	3.8	0
2400	-3.3	*****	95	044	.3	042	1.3	0

DAY 04

HOUR NDNG	TEMP. DEG C	DEW POINT DEG C	RH %	WIND DIR. DEG.	WIND SPD. M/S	GUST DIR. DEG.	MAX. GUST M/S	RAD MW
0300	-7.5	*****	96	039	.3	001	1.3	0
0600	-9.6	*****	95	033	.3	036	1.3	0
0900	-2.0	*****	77	030	.2	017	.6	34
1200	6.6	-4.6	45	162	.7	150	2.5	55
1500	9.4	*****	36	049	.2	138	2.5	49
1800	6.3	-5.5	43	215	1.2	213	4.4	6
2100	.1	*****	86	216	.3	232	3.2	0
2400	-1.1	*****	92	035	.4	056	1.9	0

DAY 05

HOUR NDNG	TEMP. DEG C	DEW POINT DEG C	RH %	WIND DIR. DEG.	WIND SPD. M/S	GUST DIR. DEG.	MAX. GUST M/S	RAD MW
0300	-.8	*****	94	021	.1	097	.6	0
0600	-2.0	*****	95	066	.3	065	1.3	0
0900	1.2	-.9	86	023	.5	005	2.5	12
1200	4.3	-.1	73	020	1.2	009	3.2	42
1500	5.2	.0	69	060	.5	021	2.5	33
1800	2.4	1.1	91	201	1.0	225	4.4	5
2100	.3	-.4	95	178	1.6	182	4.4	0
2400	-.1	-.8	95	178	1.3	174	3.2	0

DAY 06

HOUR NDNG	TEMP. DEG C	DEW POINT DEG C	RH %	WIND DIR. DEG.	WIND SPD. M/S	GUST DIR. DEG.	MAX. GUST M/S	RAD MW
0300	-.6	-1.5	94	181	1.3	180	2.5	0
0600	-1.2	*****	93	171	.9	171	2.5	0
0900	.6	-.9	90	234	.3	310	2.5	14
1200	1.5	-1.7	79	190	2.2	181	4.4	24
1500	3.6	-3.6	59	198	2.6	201	5.7	60
1800	1.4	-1.0	84	193	1.7	196	5.7	23
2100	-1.9	*****	96	190	.3	193	1.9	0
2400	-2.8	*****	96	084	.2	085	.6	0

DAY 07

HOUR NDNG	TEMP. DEG C	DEW POINT DEG C	RH %	WIND DIR. DEG.	WIND SPD. M/S	GUST DIR. DEG.	MAX. GUST M/S	RAD MW
0300	-2.0	*****	95	105	.1	121	1.3	0
0600	-2.7	*****	94	036	.3	038	1.9	0
0900	.1	*****	81	034	.1	028	1.3	9
1200	6.6	*****	47	000	.5	333	2.5	68
1500	2.0	-5.4	58	197	1.3	214	3.8	35
1800	.9	-2.8	76	246	1.0	237	3.8	8
2100	-1.6	*****	93	090	.3	163	1.9	0
2400	-2.0	*****	95	023	.8	045	2.5	0

DAY 08

HOUR NDNG	TEMP. DEG C	DEW POINT DEG C	RH %	WIND DIR. DEG.	WIND SPD. M/S	GUST DIR. DEG.	MAX. GUST M/S	RAD MW
0300	-3.2	*****	95	032	.8	039	1.9	0
0600	-3.9	*****	95	309	.1	280	1.3	0
0900	-1.9	-4.3	84	012	1.0	024	3.2	7
1200	3.5	-6.5	48	021	1.3	033	3.8	44
1500	5.1	-8.5	37	027	1.9	019	3.8	53
1800	3.3	-6.7	48	003	1.3	059	3.8	12
2100	-1.2	*****	78	054	.5	083	1.9	0
2400	-2.5	*****	87	037	.5	049	1.9	0

DAY 09

HOUR NDNG	TEMP. DEG C	DEW POINT DEG C	RH %	WIND DIR. DEG.	WIND SPD. M/S	GUST DIR. DEG.	MAX. GUST M/S	RAD MW
0300	-2.5	*****	83	036	.7	051	1.9	0
0600	-4.3	-6.0	88	031	.9	034	1.9	0
0900	1.5	*****	59	045	.5	143	2.5	21
1200	7.3	-9.3	30	047	1.5	044	3.8	49
1500	8.7	-10.8	24	026	1.6	342	5.1	56
1800	6.8	-11.5	26	344	1.9	319	5.1	19
2100	1.2	*****	44	062	1.0	077	2.5	0
2400	-1.4	-9.5	54	054	.8	041	2.5	0

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R & M CONSULTANTS, INC.

SUSITNA HYDROELECTRIC PROJECT

THREE HOUR SUMMARY FOR SHERMAN WEATHER STATION
DATA TAKEN DURING April, 1984

DAY 10

HOUR NDNG	TEMP. DEG C	DEW POINT DEG C	RH %	WIND DIR. DEG.	WIND SPD. M/S	GUST DIR. DEG.	MAX. GUST M/S	RAD MW
0300	-2.9	-10.9	54	067	.9	064	2.5	0
0600	-4.0	*****	70	046	.6	070	1.9	0
0900	-.7	-10.7	47	042	.7	042	1.9	30
1200	3.2	-10.9	35	055	1.2	055	2.5	49
1500	2.7	-11.0	36	325	1.8	327	5.1	49
1800	3.1	-10.3	37	345	1.4	342	3.8	30
2100	-2.1	*****	67	039	1.1	350	3.2	0
2400	-6.8	*****	88	050	.5	053	1.3	0

DAY 11

HOUR NDNG	TEMP. DEG C	DEW POINT DEG C	RH %	WIND DIR. DEG.	WIND SPD. M/S	GUST DIR. DEG.	MAX. GUST M/S	RAD MW
0300	-9.2	*****	92	043	.6	053	1.9	0
0600	-10.0	*****	96	051	.5	051	1.3	0
0900	-3.9	-9.5	65	019	.8	342	3.2	15
1200	5.0	-6.6	43	351	1.4	341	3.2	43
1500	7.9	-6.0	37	045	1.3	058	3.2	46
1800	6.8	-5.6	41	032	1.1	042	3.2	26
2100	.1	*****	81	001	1.0	352	3.2	0
2400	-4.2	*****	91	053	.4	355	1.9	0

DAY 12

HOUR NDNG	TEMP. DEG C	DEW POINT DEG C	RH %	WIND DIR. DEG.	WIND SPD. M/S	GUST DIR. DEG.	MAX. GUST M/S	RAD MW
0300	-6.3	*****	90	098	.4	090	1.3	0
0600	-8.0	*****	91	073	.8	076	1.9	1
0900	-1.1	*****	59	068	.9	077	1.9	43
1200	7.6	-4.6	42	013	1.1	037	3.8	44
1500	9.8	-5.5	34	051	1.9	041	4.4	46
1800	8.6	-5.4	37	076	1.2	025	3.8	24
2100	-.3	*****	88	034	.7	044	2.5	0
2400	-2.9	*****	87	040	.7	039	1.9	0

DAY 13

HOUR NDNG	TEMP. DEG C	DEW POINT DEG C	RH %	WIND DIR. DEG.	WIND SPD. M/S	GUST DIR. DEG.	MAX. GUST M/S	RAD MW
0300	-5.0	-6.6	89	048	.8	053	1.9	0
0600	-6.7	-8.2	89	042	1.0	042	1.9	1
0900	.6	-6.7	58	006	1.2	349	3.2	36
1200	8.7	-4.6	39	025	1.4	037	3.8	38
1500	10.1	-5.2	34	034	1.4	030	3.8	50
1800	8.7	-4.6	39	061	.9	010	3.8	18
2100	1.2	*****	84	040	.9	026	3.2	0
2400	-2.5	*****	95	022	.4	342	1.9	0

DAY 14

HOUR NDNG	TEMP. DEG C	DEW POINT DEG C	RH %	WIND DIR. DEG.	WIND SPD. M/S	GUST DIR. DEG.	MAX. GUST M/S	RAD MW
0300	-3.8	*****	94	034	.5	038	1.3	0
0600	-5.1	*****	97	040	.4	039	1.3	1
0900	0.0	*****	67	065	.4	342	1.3	27
1200	7.2	*****	39	034	.5	003	2.5	53
1500	7.7	-4.8	41	213	.6	186	3.2	33
1800	5.6	-2.2	57	297	.7	236	3.8	11
2100	2.2	*****	90	090	.4	170	3.8	0
2400	.3	*****	97	089	.2	056	1.3	0

DAY 15

HOUR NDNG	TEMP. DEG C	DEW POINT DEG C	RH %	WIND DIR. DEG.	WIND SPD. M/S	GUST DIR. DEG.	MAX. GUST M/S	RAD MW
0300	.5	*****	95	334	.1	218	2.5	0
0600	.6	*****	95	210	.6	190	1.9	0
0900	1.8	.3	90	190	.9	176	3.8	19
1200	5.0	-.4	68	193	2.3	192	4.4	76
1500	5.1	-1.5	62	188	2.2	192	4.4	42
1800	2.6	*****	78	097	.9	129	5.1	13
2100	.2	-.5	95	247	.2	265	3.8	0
2400	-1.7	*****	99	204	.3	200	2.5	0

DAY 16

HOUR NDNG	TEMP. DEG C	DEW POINT DEG C	RH %	WIND DIR. DEG.	WIND SPD. M/S	GUST DIR. DEG.	MAX. GUST M/S	RAD MW
0300	-1.2	*****	93	021	.3	348	1.9	0
0600	-2.1	*****	95	308	.4	356	1.9	0
0900	-1.6	-3.1	90	192	1.6	203	5.1	7
1200	-.8	-2.7	87	186	2.0	200	4.4	12
1500	-.7	-2.5	88	181	1.7	181	3.8	11
1800	-.3	-3.3	86	193	1.2	180	2.5	7
2100	-2.1	*****	95	182	1.0	176	2.5	0
2400	-2.5	*****	96	181	.2	207	1.3	0

DAY 17

HOUR NDNG	TEMP. DEG C	DEW POINT DEG C	RH %	WIND DIR. DEG.	WIND SPD. M/S	GUST DIR. DEG.	MAX. GUST M/S	RAD MW
0300	-2.9	*****	95	162	.1	166	1.3	0
0600	-3.3	*****	95	170	.2	187	1.3	0
0900	-.3	*****	83	183	.3	174	1.9	9
1200	1.9	*****	55	313	.2	038	1.9	53
1500	2.6	-6.8	50	268	1.4	270	4.4	31
1800	3.0	-8.2	44	274	1.3	289	3.8	28
2100	-2.8	*****	85	232	.5	292	3.2	0
2400	-7.6	*****	91	078	.4	056	1.3	0

DAY 18

HOUR NDNG	TEMP. DEG C	DEW POINT DEG C	RH %	WIND DIR. DEG.	WIND SPD. M/S	GUST DIR. DEG.	MAX. GUST M/S	RAD MW
0300	-9.9	*****	96	069	.5	060	1.3	0
0600	-11.8	*****	97	051	.5	063	1.3	2
0900	-3.2	-10.1	59	028	.9	001	3.2	47
1200	2.2	-9.5	42	040	1.6	052	3.8	63
1500	5.0	-11.7	29	049	1.8	057	3.8	57
1800	5.3	*****	24	351	1.2	317	3.8	25
2100	-3.7	*****	79	359	.6	008	3.2	0
2400	-8.2	*****	92	060	.3	068	1.3	0

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R & M CONSULTANTS, INC.

SUSITNA HYDROELECTRIC PROJECT

THREE HOUR SUMMARY FOR SHERMAN WEATHER STATION
DATA TAKEN DURING April, 1984

DAY 19

HOUR NDNG	TEMP. DEG C	DEW POINT DEG C	RH %	WIND DIR. DEG.	WIND SPD. M/S	GUST DIR. DEG.	MAX. GUST M/S	RAD MW
0300	-10.2	*****	93	060	.6	069	1.3	0
0600	-11.5	*****	95	060	.4	056	1.9	2
0900	-3.9	*****	55	053	.7	070	1.9	51
1200	4.3	-10.0	35	353	1.2	356	2.5	52
1500	6.0	-10.4	30	115	.8	162	3.8	52
1800	5.4	*****	31	134	.3	106	3.2	21
2100	1.8	*****	71	043	.4	356	1.9	0
2400	-.3	*****	98	039	.4	043	1.9	0

DAY 20

HOUR NDNG	TEMP. DEG C	DEW POINT DEG C	RH %	WIND DIR. DEG.	WIND SPD. M/S	GUST DIR. DEG.	MAX. GUST M/S	RAD MW
0300	-.8	*****	94	350	.6	006	1.3	0
0600	-.6	*****	94	353	.6	357	1.3	0
0900	1.6	*****	91	002	.5	008	1.3	14
1200	6.5	.7	66	352	1.1	358	3.2	52
1500	8.5	*****	55	220	.5	303	1.9	47
1800	6.1	*****	69	344	.7	300	3.8	12
2100	1.3	*****	94	064	.4	080	1.3	0
2400	-.8	*****	97	051	.6	049	1.9	0

DAY 21

HOUR NDNG	TEMP. DEG C	DEW POINT DEG C	RH %	WIND DIR. DEG.	WIND SPD. M/S	GUST DIR. DEG.	MAX. GUST M/S	RAD MW
0300	-.3	-1.3	93	040	.9	019	2.5	0
0600	-.4	*****	93	050	.6	051	1.9	1
0900	7.7	-.5	56	017	.6	031	1.9	23
1200	10.9	-3.0	38	019	1.5	042	4.4	38
1500	12.8	-5.9	27	069	1.0	017	3.2	61
1800	11.6	-6.4	28	054	1.6	053	4.4	17
2100	3.7	*****	74	034	.9	004	3.2	0
2400	-1.0	-2.6	89	195	3.4	207	8.9	0

DAY 22

HOUR NDNG	TEMP. DEG C	DEW POINT DEG C	RH %	WIND DIR. DEG.	WIND SPD. M/S	GUST DIR. DEG.	MAX. GUST M/S	RAD MW
0300	-2.5	-3.1	96	211	3.8	207	8.3	0
0600	-2.6	-4.6	86	206	2.7	211	5.7	2
0900	-1.2	-6.9	65	186	2.0	181	5.1	42
1200	1.8	-11.8	36	186	2.8	183	5.7	67
1500	4.8	-13.7	25	208	1.3	191	4.4	62
1800	2.6	-14.2	28	305	1.3	296	5.1	29
2100	-3.0	*****	67	277	.4	290	3.2	0
2400	-9.3	*****	90	070	.2	056	1.3	0

DAY 23

HOUR NDNG	TEMP. DEG C	DEW POINT DEG C	RH %	WIND DIR. DEG.	WIND SPD. M/S	GUST DIR. DEG.	MAX. GUST M/S	RAD MW
0300	-10.8	*****	96	062	.4	060	1.3	0
0600	-12.0	*****	95	057	.4	064	1.3	3
0900	-1.6	-12.1	45	039	.6	011	2.5	54
1200	4.3	-16.2	21	030	1.6	042	4.4	67
1500	5.6	-13.5	24	054	2.1	045	5.1	62
1800	5.6	-13.5	24	062	1.8	073	4.4	30
2100	-1.2	*****	70	005	.9	341	3.8	0
2400	-5.7	*****	89	054	.5	055	1.3	0

DAY 24

HOUR NDNG	TEMP. DEG C	DEW POINT DEG C	RH %	WIND DIR. DEG.	WIND SPD. M/S	GUST DIR. DEG.	MAX. GUST M/S	RAD MW
0300	-8.5	*****	96	041	.3	070	1.3	0
0600	-8.3	*****	93	013	.4	016	1.9	3
0900	.1	-9.7	48	019	.6	342	2.5	38
1200	5.3	-8.0	38	259	.3	210	4.4	53
1500	5.8	-5.6	44	210	2.1	235	4.4	40
1800	5.5	-6.5	42	227	1.8	212	5.1	20
2100	1.3	*****	71	246	1.1	241	3.8	0
2400	-1.1	*****	90	065	.3	141	1.9	0

DAY 25

HOUR NDNG	TEMP. DEG C	DEW POINT DEG C	RH %	WIND DIR. DEG.	WIND SPD. M/S	GUST DIR. DEG.	MAX. GUST M/S	RAD MW
0300	-.1	*****	73	164	.5	188	2.5	0
0600	-3.3	*****	88	137	.2	217	1.3	2
0900	2.5	-7.2	49	170	.1	204	2.5	26
1200	6.0	-6.4	41	202	1.9	202	4.4	91
1500	5.7	-7.6	38	211	2.8	218	6.3	31
1800	4.2	-7.1	44	233	2.3	230	6.3	19
2100	-.7	*****	84	212	.8	241	3.2	0
2400	-2.5	*****	92	021	.3	315	1.3	0

DAY 26

HOUR NDNG	TEMP. DEG C	DEW POINT DEG C	RH %	WIND DIR. DEG.	WIND SPD. M/S	GUST DIR. DEG.	MAX. GUST M/S	RAD MW
0300	-4.7	*****	96	050	.2	052	1.3	0
0600	-3.2	*****	93	042	.3	052	1.3	2
0900	1.6	-6..	77	019	.8	001	3.2	29
1200	5.6	-3.8	51	328	1.0	333	3.2	43
1500	6.3	-2.3	54	221	1.6	218	3.8	52
1800	7.3	*****	50	198	1.2	202	2.5	33
2100	1.6	*****	86	302	.4	257	1.9	0
2400	-2.5	*****	96	040	.2	042	1.3	0

DAY 27

HOUR NDNG	TEMP. DEG C	DEW POINT DEG C	RH %	WIND DIR. DEG.	WIND SPD. M/S	GUST DIR. DEG.	MAX. GUST M/S	RAD MW
0300	-2.1	*****	94	053	.6	059	1.3	0
0600	0.0	-2.4	84	009	.8	355	2.5	3
0900	5.5	-3.3	53	358	1.1	039	3.8	28
1200	8.6	-3.0	44	024	1.9	024	4.4	42
1500	10.1	-2.3	42	017	1.9	005	5.1	39
1800	9.6	-1.5	46	037	1.3	029	3.8	15
2100	3.1	*****	85	046	.6	042	3.2	0
2400	1.4	*****	96	032	.2	021	1.3	0

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SUSITNA HYDROELECTRIC PROJECT

THREE HOUR SUMMARY FOR SHERMAN WEATHER STATION
DATA TAKEN DURING April, 1984

DAY 28

HOUR NDNG	TEMP. DEG C	DEW POINT DEG C	RH %	WIND DIR. DEG.	WIND SPD. M/S	GUST DIR. DEG.	MAX. GUST M/S	RAD MW
0300	1.2	*****	95	032	.3	041	1.3	0
0600	1.1	*****	94	164	.1	130	.6	1
0900	3.7	*****	87	242	.0	188	1.3	21
1200	9.1	2.9	65	226	.7	206	4.4	54
1500	8.9	1.6	60	201	2.1	200	5.1	38
1800	8.6	*****	61	211	1.4	203	6.3	25
2100	3.2	*****	87	288	.3	279	1.3	0
2400	0.0	*****	94	022	.3	047	1.3	0

DAY 29

HOUR NDNG	TEMP. DEG C	DEW POINT DEG C	RH %	WIND DIR. DEG.	WIND SPD. M/S	GUST DIR. DEG.	MAX. GUST M/S	RAD MW
0300	-1.3	*****	94	036	.4	015	1.3	0
0600	-.8	*****	92	027	.4	056	1.3	8
0900	8.4	.4	57	036	.6	037	3.2	46
1200	11.4	-2.9	37	045	1.7	039	3.8	67
1500	12.7	-3.3	33	115	1.7	116	3.8	68
1800	10.7	*****	35	099	.8	120	3.2	17
2100	4.2	*****	77	064	.5	046	1.9	0
2400	1.6	*****	89	056	.2	044	1.3	0

DAY 30

HOUR NDNG	TEMP. DEG C	DEW POINT DEG C	RH %	WIND DIR. DEG.	WIND SPD. M/S	GUST DIR. DEG.	MAX. GUST M/S	RAD MW
0300	1.0	*****	92	033	.2	045	1.3	0
0600	.6	*****	93	031	.3	027	1.3	3
0900	6.5	*****	66	049	.5	076	1.9	24
1200	13.4	.7	42	014	1.1	013	3.2	55
1500	12.5	*****	40	124	1.2	129	3.8	37
1800	7.2	3.5	77	180	1.6	190	6.3	14
2100	3.3	*****	91	183	.8	188	3.2	0
2400	.9	*****	95	081	.3	177	1.3	0

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MONTHLY SUMMARY FOR SHERMAN WEATHER STATION
DATA TAKEN DURING April, 1984

DAY	MAX. TEMP. DEG C	MIN. TEMP. DEG C	MEAN TEMP. DEG C	RES. WIND DIR. DEG	RES. WIND SPD. M/S	AVG. WIND SPD. M/S	MAX. GUST DIR. DEG	MAX. GUST SPD. M/S	P'VAL DIR.	MEAN RH %	MEAN DP DEG C	PRECIP MM	DAY'S SOLAR ENERGY WH/SQM	DAY
1	8.4	-2.7	2.9	348	.3	.9	182	4.4	N	67	-2.0	****	2600	1
2	7.1	-8.7	-.8	251	.1	.6	199	3.8	NNE	83	-.1	****	1925	2
3	7.7	-13.8	-3.1	008	.9	1.0	350	6.3	NNE	42	-6.5	****	4265	3
4	9.4	-10.3	-.5	165	.1	.6	213	4.4	NNE	39	-5.5	****	4480	4
5	6.2	-2.0	2.1	148	.3	.9	225	4.4	S	86	-.3	****	2950	5
6	4.2	-2.8	.7	190	1.1	1.3	201	5.7	S	83	-1.5	****	2915	6
7	6.6	-3.1	1.8	275	.0	.7	214	3.8	NNE	65	-4.8	****	2870	7
8	6.1	-4.1	1.0	022	.9	1.0	033	3.8	NNE	61	-6.2	****	3375	8
9	9.5	-4.3	2.6	030	1.0	1.2	342	5.1	NE	40	-9.5	****	4190	9
10	4.2	-6.8	-1.3	022	.8	1.1	327	5.1	NE	42	-10.5	****	4540	10
11	8.4	-11.4	-1.5	024	.8	.9	342	3.2	NE	45	-6.9	****	4075	11
12	9.8	-8.1	.9	054	.9	1.0	041	4.4	ENE	44	-5.8	****	4715	12
13	11.9	-6.7	2.6	034	1.0	1.1	037	3.8	NE	54	-5.6	****	4340	13
14	8.9	-5.6	1.7	038	.2	.7	236	3.8	NE	56	-2.7	****	3735	14
15	5.1	-2.1	1.5	187	.8	1.2	129	5.1	S	81	-.4	****	3315	15
16	.3	-2.8	-1.3	188	.9	1.1	203	5.1	S	86	-2.9	****	1255	16
17	5.0	-7.6	-1.3	258	.4	.7	270	4.4	WNW	47	-7.7	****	3700	17
18	5.3	-12.4	-3.6	033	.8	1.0	052	3.8	NE	39	-10.9	****	5795	18
19	6.9	-12.2	-2.7	053	.4	.8	162	3.8	ENE	36	-10.7	****	5550	19
20	9.4	-1.0	4.2	360	.4	.7	300	3.8	N	68	.7	****	3605	20
21	14.3	-1.0	6.7	063	.5	1.5	207	8.9	NE	50	-3.4	****	4960	21
22	4.8	-9.3	-2.3	207	1.5	1.9	207	8.3	SSW	59	-8.5	****	5930	22
23	6.5	-12.0	-2.8	046	1.0	1.1	045	5.1	NE	26	-13.7	****	6340	23
24	7.5	-9.3	-.9	232	.5	1.1	212	5.1	SSW	43	-7.2	****	5345	24
25	6.2	-3.7	1.3	211	1.0	1.2	218	6.3	SSW	44	-6.9	****	5115	25
26	7.3	-5.0	1.2	268	.2	.8	218	3.8	NE	54	-4.0	****	4440	26
27	10.7	-2.6	4.1	023	1.0	1.1	005	5.1	NNE	50	-2.5	****	4230	27
28	10.9	0.0	5.5	213	.5	.7	203	6.3	SSW	66	2.4	****	4375	28
29	12.7	-2.3	5.2	070	.7	.8	039	3.8	NE	41	-2.3	****	5630	29
30	13.4	0.0	6.7	120	.3	.8	190	6.3	NNE	54	1.1	****	3910	30
MONTH	14.3	-13.8	1.0	048	.2	.3	207	8.9	NE	55	-4.8	****	124470	

GUST VEL. AT MAX. GUST MINUS 2 INTERVALS 7.6
GUST VEL. AT MAX. GUST MINUS 1 INTERVAL 8.3
GUST VEL. AT MAX. GUST PLUS 1 INTERVAL 8.9
GUST VEL. AT MAX. GUST PLUS 2 INTERVALS 7.6

NOTE: RELATIVE HUMIDITY READINGS ARE UNRELIABLE WHEN WIND SPEEDS ARE LESS THAN ONE METER PER SECOND. SUCH READINGS HAVE NOT BEEN INCLUDED IN THE DAILY OR MONTHLY MEAN FOR RELATIVE HUMIDITY AND DEW POINT.

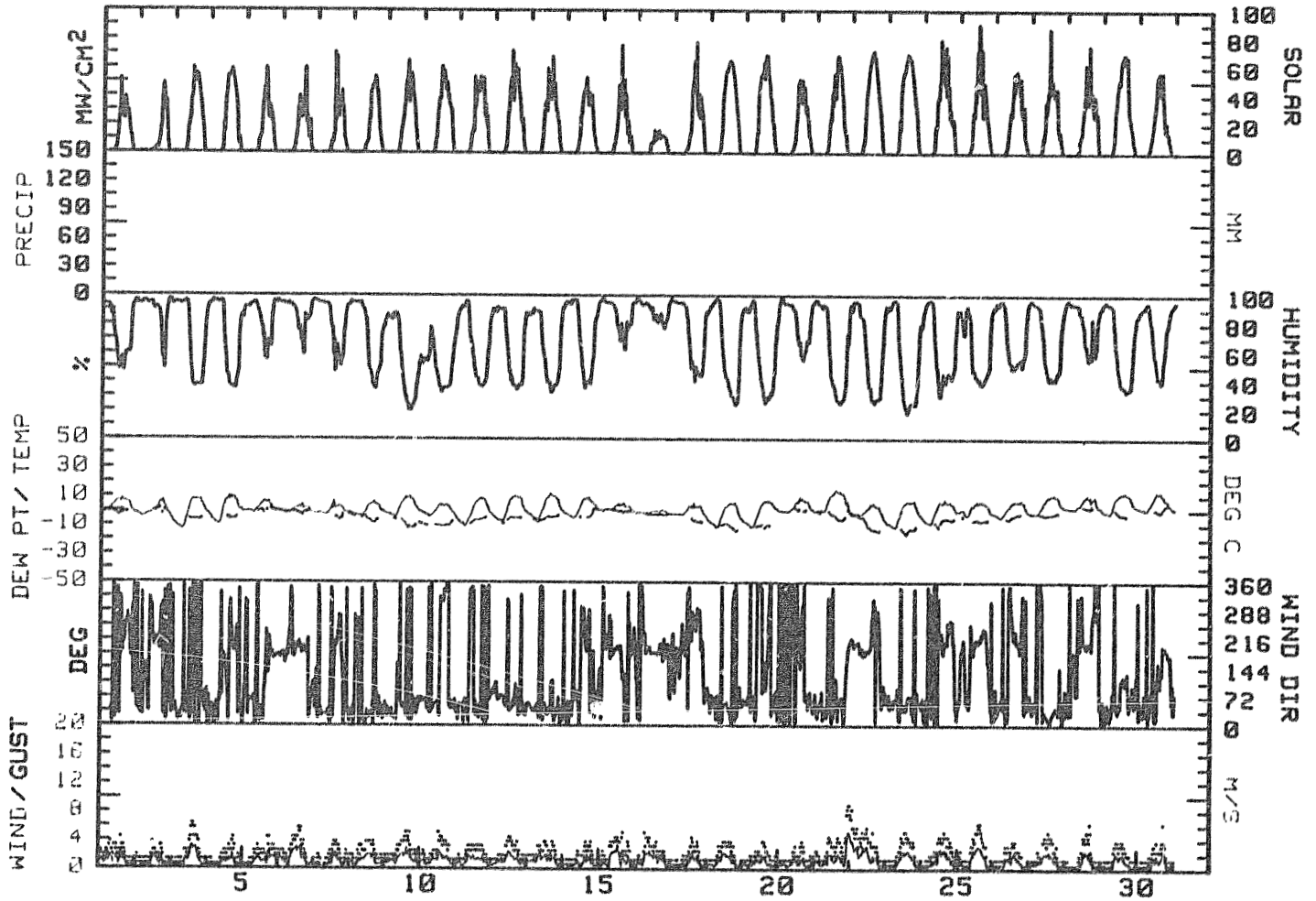
** SEE INTERPRETATION NOTES AT END OF MONTHLY REPORT **

R&M CONSULTANTS, INC.

SUSITNA HYDROELECTRIC PROJECT

SHERMAN WEATHER STATION

April, 1984



R & M CONSULTANTS, INC.

SUSITNA HYDROELECTRIC PROJECT

WIND FREQUENCY SUMMARY FOR SHERMAN WEATHER STATION
DATA TAKEN DURING April, 1984

	VELOCITY (M/S)							
DIRECTION	0.2 TO 1.0	1.0 TO 3.0	3.0 TO 6.0	6.0 TO 10.0	10.0 TO 15.0	15.0 TO 20.0	20.0 OR GREATER	TOTAL
N	4.91	4.84	.14	0.00	0.00	0.00	0.00	9.89
NNE	8.06	5.47	0.00	0.00	0.00	0.00	0.00	13.53
NE	11.85	6.52	0.00	0.00	0.00	0.00	0.00	18.37
ENE	9.19	2.95	0.00	0.00	0.00	0.00	0.00	12.13
E	3.65	.49	0.00	0.00	0.00	0.00	0.00	4.14
ESE	.98	1.12	0.00	0.00	0.00	0.00	0.00	2.10
SE	.91	.63	0.00	0.00	0.00	0.00	0.00	1.54
SSE	1.12	.98	0.00	0.00	0.00	0.00	0.00	2.10
S	2.24	5.33	.28	0.00	0.00	0.00	0.00	7.85
SSW	1.33	6.10	.56	0.00	0.00	0.00	0.00	7.99
SW	.91	1.33	.28	0.00	0.00	0.00	0.00	2.52
WSW	.91	1.05	0.00	0.00	0.00	0.00	0.00	1.96
W	.91	1.47	0.00	0.00	0.00	0.00	0.00	2.38
WNW	.91	1.26	0.00	0.00	0.00	0.00	0.00	2.17
NW	.91	.98	0.00	0.00	0.00	0.00	0.00	1.89
NNW	2.38	2.38	0.00	0.00	0.00	0.00	0.00	4.77
CALM								4.63
TOTAL	51.19	42.92	1.26	0.00	0.00	0.00	0.00	100.00

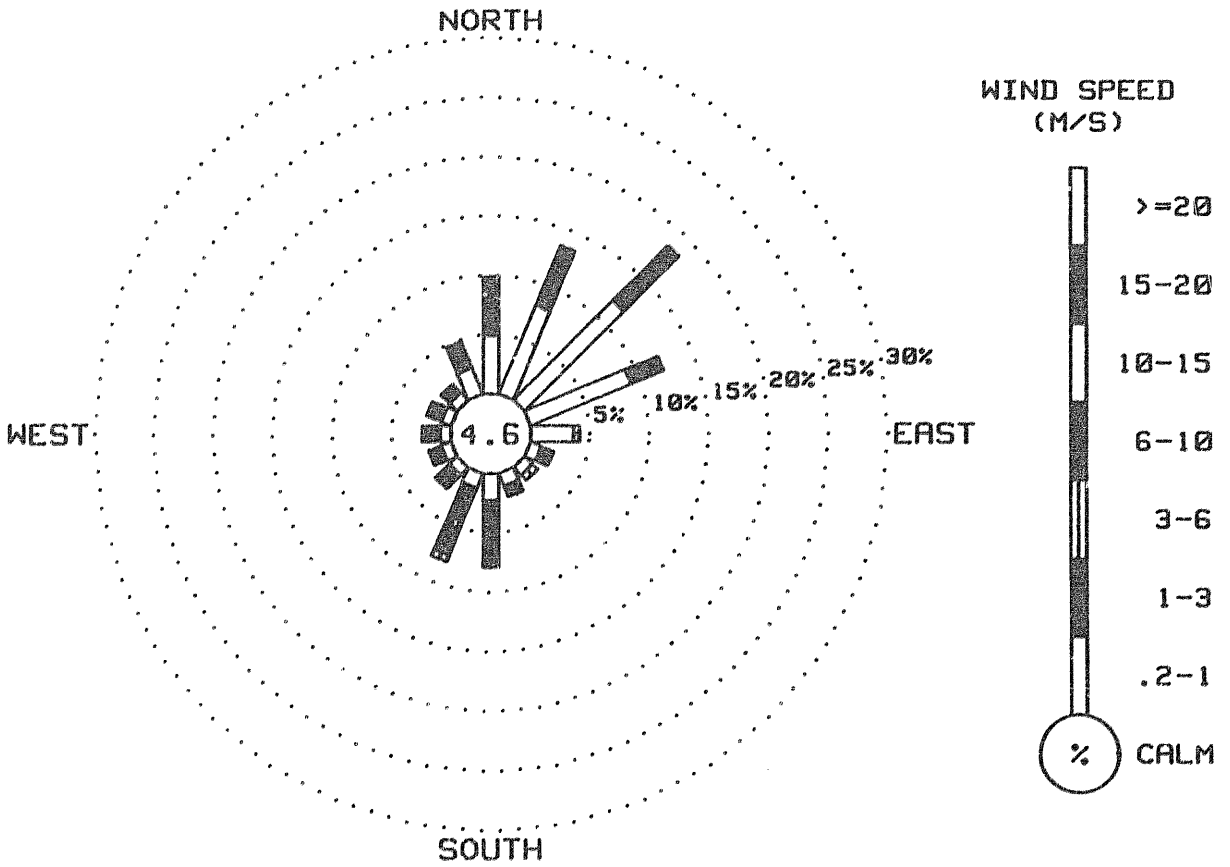
NOTE: ALL FREQUENCIES ARE EXPRESSED IN PERCENT
1426 VALID WIND OBSERVATIONS USED TO DEVELOP FREQUENCY SUMMARY
1440 WIND OBSERVATIONS WOULD HAVE BEEN CORRECT FOR 30 MINUTE DATA.
** SEE INTERPRETATION NOTES AT END OF MONTHLY REPORT **

R&M CONSULTANTS, INC.

SUSITNA HYDROELECTRIC PROJECT

SHERMAN WEATHER STATION

April, 1984



WIND ROSE PLOT

R & M CONSULTANTS, INC.

SUSITNA HYDROELECTRIC PROJECT

HOURLY SOLAR RADIATION SUMMARY FOR SHERMAN WEATHER STATION
DATA TAKEN DURING April, 1984

SOLAR RADIATION VALUES MEASURED IN MILLIWATTS PER SQUARE CENTIMETER

HOUR ENDING

DATE	0100	0200	0300	0400	0500	0600	0700	0800	0900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	2400	AVG
1	0	0	0	0	0	0	0	3	8	23	41	27	25	31	34	30	22	12	6	1	0	0	0	0	11
2	0	0	0	0	0	0	0	1	2	3	4	5	9	19	42	47	31	28	5	1	0	0	0	0	8
3	0	0	0	0	0	0	2	11	21	31	41	57	51	55	52	43	34	22	8	1	0	0	0	0	18
4	0	0	0	0	0	0	2	13	25	43	54	54	57	57	51	44	34	8	9	1	0	0	0	0	19
5	0	0	0	0	0	0	2	9	12	23	37	44	56	31	29	26	21	8	1	0	0	0	0	0	12
6	0	0	0	0	0	0	1	5	12	25	36	28	33	27	60	23	14	23	6	1	0	0	0	0	12
7	0	0	0	0	0	0	1	2	8	10	42	45	32	32	35	38	29	9	5	1	0	0	0	0	12
8	0	0	0	0	0	0	1	4	7	12	24	44	48	49	54	44	32	15	7	1	0	0	0	0	14
9	0	0	0	0	0	0	3	11	19	27	39	50	62	40	50	47	38	24	9	2	0	0	0	0	17
10	0	0	0	0	0	0	4	11	28	38	46	55	56	48	50	40	34	31	14	3	[illegible]	0	0	0	19
11	0	0	0	0	0	0	5	13	16	43	44	43	46	50	46	42	30	23	8	1	[illegible]	0	0	0	17
12	0	0	0	0	0	1	5	21	36	52	57	40	58	54	53	40	27	24	7	2	0	0	0	0	20
13	0	0	0	0	0	1	7	20	35	32	52	43	43	64	45	35	29	21	8	2	0	0	0	0	18
14	0	0	0	0	0	1	5	11	26	38	43	49	47	36	38	41	24	12	5	2	0	0	0	0	16
15	0	0	0	0	0	0	4	8	16	37	40	53	36	44	34	20	21	10	10	1	0	0	0	0	14
16	0	0	0	0	0	0	1	7	7	13	12	12	15	11	12	13	12	9	4	1	0	0	0	0	5
17	0	0	0	0	0	0	2	3	8	14	32	51	54	61	31	34	32	31	18	4	0	0	0	0	15
18	0	0	0	0	0	1	8	24	45	56	58	62	65	64	59	51	41	29	16	3	0	0	0	0	24
19	0	0	0	0	0	1	11	27	49	55	54	58	67	68	56	44	34	22	11	3	0	0	0	0	23
20	0	0	0	0	0	0	3	6	11	24	48	52	37	46	46	30	30	18	10	3	0	0	0	0	15
21	0	0	0	0	0	1	5	16	24	38	49	43	59	69	63	54	40	20	14	5	1	0	0	0	21
22	0	0	0	0	0	1	7	19	39	50	59	66	70	69	65	54	43	32	19	4	1	0	0	0	25
23	0	0	0	0	0	2	17	28	51	57	60	66	70	68	64	54	43	33	19	4	1	0	0	0	26
24	0	0	0	0	0	2	17	29	39	51	73	55	49	58	55	36	28	21	20	5	1	0	0	0	22
25	0	0	0	0	0	2	6	22	26	43	62	71	66	74	28	46	31	21	12	5	1	0	0	0	21
26	0	0	0	0	0	2	6	15	26	28	39	50	55	57	50	47	28	29	10	6	1	0	0	0	19
27	0	0	0	0	0	3	10	16	32	39	46	65	47	45	39	46	17	13	7	2	0	0	0	0	18
28	0	0	0	0	0	1	6	12	17	28	36	59	52	55	41	38	27	33	27	9	1	0	0	0	18
29	0	0	0	0	0	5	17	32	44	50	54	66	67	68	67	39	25	18	10	5	1	0	0	0	23
30	0	0	0	0	0	3	8	13	21	30	47	55	49	47	47	23	19	14	11	6	1	0	0	0	16

** SEE INTERPRETATION NOTES AT END OF MONTHLY REPORT **

R & M CONSULTANTS, INC.

SUSITNA HYDROELECTRIC PROJECT

OBSERVATION SUMMARY FOR SHERMAN WEATHER STATION
DATA TAKEN DURING April, 1984

PARAMETER	NUMBER OF USABLE OBSERVATIONS	PERCENT OF TOTAL OBSERVATIONS
TEMPERATURE	1440	100
WIND SPEED	1440	100
WIND DIRECTION	1426	99
PEAK GUST	1440	100
RELATIVE HUMIDITY	635	44
PRECIPITATION	0	0
SOLAR RADIATION	1440	100
DEW POINT	635	44

THERE ARE 1440 POSSIBLE OBSERVATIONS THIS MONTH FOR EACH PARAMETER. THE DATA RECORDING INTERVAL IS 30 MINUTES.

THE FOLLOWING ADJUSTMENTS HAVE BEEN MADE TO THIS MONTH'S DATA:

1. RH +7 RH Points
2. Solar -1 mW/CM^2

Additional comments on this month's data:

1. All precipitation data lost due to a faulty sensor (tipping bucket gage).

R & M CONSULTANTS, INC.

SUSITNA HYDROELECTRIC PROJECT

HOURLY PRECIPITATION SUMMARY FOR SHERMAN WEATHER STATION
DATA TAKEN DURING May, 1984

PRECIPITATION VALUES ARE IN MILLIMETERS

HOUR ENDING

DATE	0100	0200	0300	0400	0500	0600	0700	0800	0900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	2400	DATE
1	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	1
2	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	2
3	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	3
4	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	4
5	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	5
6	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	6
7	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	7
8	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	8
9	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	9
10	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	10
11	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	11
12	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	12
13	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	13
14	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	14
15	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	15
16	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	16
17	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	17
18	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	18
19	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	19
20	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	20
21	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	21
22	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	22
23	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	23
24	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	24
25	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	25
26	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	26
27	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	27
28	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	28
29	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	29
30	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	30
31	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	31

** SEE INTERPRETATION NOTES AT END OF MONTHLY REPORT **

R & M CONSULTANTS, INC.

SUSITNA HYDROELECTRIC PROJECT

R & M CONSULTANTS, INC.

SUSITNA HYDROELECTRIC PROJECT

THREE HOUR SUMMARY FOR SHERMAN WEATHER STATION
DATA TAKEN DURING May, 1984

DAY 01

HOUR NDNG	TEMP. DEG C	DEW POINT DEG C	RH %	WIND DIR. DEG.	WIND SPD. M/S	GUST DIR. DEG.	MAX. GUST M/S	RAD MW
0300	-.1	*****	95	065	.4	087	1.3	0
0600	-.3	*****	93	057	.6	059	1.9	5
0900	7.9	-.1	57	012	.9	354	3.2	29
1200	9.8	-.7	48	214	1.3	202	5.1	50
1500	9.0	1.7	60	185	2.5	174	6.3	48
1800	11.0	*****	46	234	1.0	190	3.2	33
2100	6.2	1.8	73	183	.9	158	6.3	0
2400	2.1	.9	92	180	1.0	191	6.3	0

DAY 02

HOUR NDNG	TEMP. DEG C	DEW POINT DEG C	RH %	WIND DIR. DEG.	WIND SPD. M/S	GUST DIR. DEG.	MAX. GUST M/S	RAD MW
0300	.9	.0	94	171	2.5	175	5.1	0
0600	.7	*****	94	178	.8	166	3.8	3
0900	2.5	1.0	90	183	1.1	183	3.2	23
1200	5.8	1.4	73	182	2.2	186	4.4	40
1500	6.9	-.5	59	189	2.0	190	5.7	46
1800	4.5	-.3	71	211	1.8	175	6.3	34
2100	1.8	.6	92	217	.7	226	3.2	0
2400	-1.4	*****	97	104	.1	188	1.3	0

DAY 03

HOUR NDNG	TEMP. DEG C	DEW POINT DEG C	RH %	WIND DIR. DEG.	WIND SPD. M/S	GUST DIR. DEG.	MAX. GUST M/S	RAD MW
0300	-2.3	*****	94	059	.2	047	1.3	0
0600	-1.3	*****	92	045	.4	065	1.3	11
0900	5.2	-1.4	62	013	.8	001	2.5	37
1200	8.1	-3.5	44	028	1.6	022	3.8	54
1500	10.2	-5.5	33	052	1.5	012	3.8	59
1800	8.5	-5.5	37	012	1.2	326	4.4	24
2100	3.5	*****	73	031	.5	324	3.8	1
2400	.9	*****	90	018	.2	106	1.3	0

DAY 04

HOUR NDNG	TEMP. DEG C	DEW POINT DEG C	RH %	WIND DIR. DEG.	WIND SPD. M/S	GUST DIR. DEG.	MAX. GUST M/S	RAD MW
0300	-1.4	*****	94	034	.2	007	1.3	0
0600	-1.1	*****	92	035	.2	036	1.3	6
0900	6.2	*****	56	355	.0	337	1.3	38
1200	7.5	-1.7	52	187	1.4	213	5.1	52
1500	7.8	-.7	55	205	2.0	193	5.7	42
1800	3.7	1.4	85	205	1.2	218	7.6	20
2100	.8	*****	95	154	.3	191	3.2	0
2400	.5	*****	94	171	.2	156	1.3	0

DAY 05

HOUR NDNG	TEMP. DEG C	DEW POINT DEG C	RH %	WIND DIR. DEG.	WIND SPD. M/S	GUST DIR. DEG.	MAX. GUST M/S	RAD MW
0300	.1	*****	95	132	.1	094	1.3	0
0600	.5	*****	94	071	.1	071	1.3	4
0900	5.6	*****	74	005	.5	349	2.5	25
1200	5.5	.9	72	181	1.6	181	4.4	45
1500	8.5	*****	45	209	.9	197	5.1	71
1800	6.2	-.5	62	187	1.7	209	4.4	35
2100	2.6	.9	89	188	1.7	193	4.4	1
2400	-1.3	*****	94	162	.3	192	2.5	0

DAY 06

HOUR NDNG	TEMP. DEG C	DEW POINT DEG C	RH %	WIND DIR. DEG.	WIND SPD. M/S	GUST DIR. DEG.	MAX. GUST M/S	RAD MW
0300	-1.4	*****	94	305	.3	329	1.9	0
0600	-.5	*****	92	148	.0	092	1.3	4
0900	5.2	*****	65	244	.2	165	1.9	46
1200	7.7	-4.5	42	238	.8	239	4.4	33
1500	10.5	-6.9	29	249	.9	266	3.2	72
1800	9.4	-7.4	30	272	1.4	279	3.2	35
2100	3.9	*****	64	251	.8	265	3.2	1
2400	-1.7	*****	93	073	.2	129	1.3	0

DAY 07

HOUR NDNG	TEMP. DEG C	DEW POINT DEG C	RH %	WIND DIR. DEG.	WIND SPD. M/S	GUST DIR. DEG.	MAX. GUST M/S	RAD MW
0300	-2.7	*****	93	054	.4	052	1.3	0
0600	-1.9	*****	87	059	.5	034	1.9	13
0900	5.5	-4.7	48	027	.7	015	2.5	49
1200	11.1	-6.9	28	041	1.7	050	5.1	72
1500	11.8	-7.7	25	357	2.4	342	6.3	66
1800	11.1	-9.3	23	353	2.9	350	6.3	34
2100	7.5	*****	40	357	1.9	338	5.7	2
2400	.5	*****	81	057	.8	042	2.5	0

DAY 08

HOUR NDNG	TEMP. DEG C	DEW POINT DEG C	RH %	WIND DIR. DEG.	WIND SPD. M/S	GUST DIR. DEG.	MAX. GUST M/S	RAD MW
0300	-1.3	*****	90	039	.7	047	1.9	0
0600	.7	-3.2	75	033	1.1	038	3.2	11
0900	10.2	-5.5	33	025	1.4	031	4.4	48
1200	12.3	-7.8	24	041	2.7	050	5.7	74
1500	13.1	-8.8	21	025	2.5	012	5.7	66
1800	12.7	-9.1	21	013	2.6	029	5.7	34
2100	5.9	*****	57	360	1.5	350	5.1	1
2400	.4	*****	86	052	.5	087	1.3	0

DAY 09

HOUR NDNG	TEMP. DEG C	DEW POINT DEG C	RH %	WIND DIR. DEG.	WIND SPD. M/S	GUST DIR. DEG.	MAX. GUST M/S	RAD MW
0300	-1.7	*****	92	064	.7	057	1.9	0
0600	0.0	*****	84	048	.5	033	1.3	9
0900	8.8	*****	45	021	.7	051	1.9	39
1200	13.8	-6.5	24	069	.9	091	3.2	66
1500	15.3	-7.0	21	141	1.1	118	3.8	66
1800	13.4	-6.9	24	302	1.9	278	3.8	35
2100	5.6	*****	65	351	.6	307	3.2	1
2400	-.7	*****	93	051	.3	088	1.3	0

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R & M CONSULTANTS, INC.

SUSITNA HYDROELECTRIC PROJECT

THREE HOUR SUMMARY FOR SHERMAN WEATHER STATION
DATA TAKEN DURING May, 1984

DAY 01

HOUR NDNG	TEMP. DEG C	DEW POINT DEG C	RH %	WIND DIR. DEG.	WIND SPD. M/S	GUST DIR. DEG.	MAX. GUST M/S	RAD MW
0300	-.1	*****	95	065	.4	087	1.3	0
0600	-.3	*****	93	057	.6	059	1.9	5
0900	7.9	-.1	57	012	.9	354	3.2	39
1200	9.8	-.7	48	214	1.3	202	5.1	50
1500	9.0	1.7	60	185	2.5	174	6.3	48
1800	11.0	*****	46	234	1.0	190	3.2	33
2100	6.2	1.8	73	183	.9	158	6.3	0
2400	2.1	.9	92	180	1.0	191	6.3	0

DAY 02

HOUR NDNG	TEMP. DEG C	DEW POINT DEG C	RH %	WIND DIR. DEG.	WIND SPD. M/S	GUST DIR. DEG.	MAX. GUST M/S	RAD MW
0300	.9	.0	94	171	2.5	175	5.1	0
0600	.7	*****	94	178	.8	166	3.8	3
0900	2.5	1.0	90	183	1.1	183	3.2	23
1200	5.8	1.4	73	182	2.2	186	4.4	40
1500	6.9	-.5	59	189	2.0	190	5.7	46
1800	4.5	-.3	71	211	1.8	175	6.3	34
2100	1.8	.6	92	217	.7	226	3.2	0
2400	-1.4	*****	97	104	.1	188	1.3	0

DAY 03

HOUR NDNG	TEMP. DEG C	DEW POINT DEG C	RH %	WIND DIR. DEG.	WIND SPD. M/S	GUST DIR. DEG.	MAX. GUST M/S	RAD MW
0300	-2.3	*****	94	059	.2	047	1.3	0
0600	-1.3	*****	92	045	.4	065	1.3	11
0900	5.2	-1.4	62	013	.8	001	2.5	37
1200	8.1	-3.5	44	028	1.6	022	3.8	54
1500	10.2	-5.5	33	052	1.5	012	3.8	59
1800	8.5	-5.5	37	012	1.2	326	4.4	24
2100	3.5	*****	73	031	.5	324	3.8	1
2400	.9	*****	90	018	.2	106	1.3	0

DAY 04

HOUR NDNG	TEMP. DEG C	DEW POINT DEG C	RH %	WIND DIR. DEG.	WIND SPD. M/S	GUST DIR. DEG.	MAX. GUST M/S	RAD MW
0300	-1.4	*****	94	034	.2	007	1.3	0
0600	-1.1	*****	92	035	.2	036	1.3	6
0900	6.2	*****	56	355	.0	337	1.3	38
1200	7.5	-1.7	52	187	1.4	213	5.1	52
1500	7.8	-.7	55	205	2.0	193	5.7	42
1800	3.7	1.4	85	205	1.2	218	7.6	20
2100	.8	*****	95	154	.3	191	3.2	0
2400	.5	*****	94	171	.2	156	1.3	0

DAY 05

HOUR NDNG	TEMP. DEG C	DEW POINT DEG C	RH %	WIND DIR. DEG.	WIND SPD. M/S	GUST DIR. DEG.	MAX. GUST M/S	RAD MW
0300	.1	*****	95	132	.1	094	1.3	0
0600	.5	*****	94	071	.1	071	1.3	4
0900	5.6	*****	74	005	.5	349	2.5	25
1200	5.5	.9	72	181	1.6	181	4.4	45
1500	8.5	*****	45	209	.9	197	5.1	71
1800	6.2	-.5	62	187	1.7	209	4.4	35
2100	2.6	.9	89	188	1.7	193	4.4	1
2400	-1.3	*****	94	162	.3	192	2.5	0

DAY 06

HOUR NDNG	TEMP. DEG C	DEW POINT DEG C	RH %	WIND DIR. DEG.	WIND SPD. M/S	GUST DIR. DEG.	MAX. GUST M/S	RAD MW
0300	-1.4	*****	94	305	.3	329	1.9	0
0600	-.5	*****	92	148	.0	092	1.3	4
0900	5.2	*****	65	244	.2	165	1.9	46
1200	7.7	-4.5	42	238	.8	239	4.4	33
1500	10.5	-6.9	29	249	.9	266	3.2	72
1800	9.4	-7.4	30	272	1.4	279	3.2	35
2100	3.9	*****	64	251	.8	265	3.2	1
2400	-1.7	*****	93	073	.2	129	1.3	0

DAY 07

HOUR NDNG	TEMP. DEG C	DEW POINT DEG C	RH %	WIND DIR. DEG.	WIND SPD. M/S	GUST DIR. DEG.	MAX. GUST M/S	RAD MW
0300	-2.7	*****	93	054	.4	052	1.3	0
0600	-1.9	*****	87	059	.5	034	1.9	13
0900	5.5	-4.7	48	027	.7	015	2.5	49
1200	11.1	-6.9	28	041	1.7	050	5.1	72
1500	11.8	-7.7	25	357	2.4	342	6.3	66
1800	11.1	-9.3	23	353	2.9	350	6.3	34
2100	7.5	*****	40	357	1.9	338	5.7	2
2400	.5	*****	81	057	.8	042	2.5	0

DAY 08

HOUR NDNG	TEMP. DEG C	DEW POINT DEG C	RH %	WIND DIR. DEG.	WIND SPD. M/S	GUST DIR. DEG.	MAX. GUST M/S	RAD MW
0300	-1.3	*****	90	039	.7	047	1.9	0
0600	.7	-3.2	75	033	1.1	038	3.2	11
0900	10.2	-5.5	33	025	1.4	031	4.4	48
1200	12.3	-7.8	24	041	2.7	050	5.7	74
1500	13.1	-8.8	21	025	2.5	012	5.7	66
1800	12.7	-9.1	21	013	2.6	029	5.7	34
2100	5.9	*****	57	360	1.5	350	5.1	1
2400	.4	*****	86	052	.5	087	1.3	0

DAY 09

HOUR NDNG	TEMP. DEG C	DEW POINT DEG C	RH %	WIND DIR. DEG.	WIND SPD. M/S	GUST DIR. DEG.	MAX. GUST M/S	RAD MW
0300	-1.7	*****	92	064	.7	057	1.9	0
0600	0.0	*****	84	048	.5	033	1.3	9
0900	8.8	*****	45	021	.7	051	1.9	39
1200	13.8	-6.5	24	069	.9	091	3.2	66
1500	15.[illegible]	[illegible].0	21	141	1.1	118	3.8	66
1800	13.[illegible]	[illegible].9	24	302	1.9	278	3.8	35
2100	5.6	*****	65	351	.6	307	3.2	1
2400	-.7	*****	93	051	.3	088	1.3	0

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DATA TAKEN DURING May, 1984

DAY 10

HOUR NDNG	TEMP. DEG C	DEW POINT DEG C	RH %	WIND DIR. DEG.	WIND SPD. M/S	GUST DIR. DEG.	MAX. GUST M/S	RAD MW
0300	-2.2	*****	93	025	.3	008	1.3	0
0600	-.8	*****	87	032	.2	039	1.3	14
0900	8.9	*****	44	010	.3	010	1.9	49
1200	12.9	-4.8	29	265	.8	237	3.2	73
1500	13.0	-4.8	29	207	1.2	190	3.8	35
1800	12.7	-5.5	28	316	1.7	297	4.4	34
2100	6.8	*****	58	259	.7	302	3.2	1
2400	-.9	*****	92	099	.3	090	1.9	0

DAY 11

HOUR NDNG	TEMP. DEG C	DEW POINT DEG C	RH %	WIND DIR. DEG.	WIND SPD. M/S	GUST DIR. DEG.	MAX. GUST M/S	RAD MW
0300	-2.6	*****	95	034	.2	064	1.3	0
0600	-.9	*****	89	023	.3	009	1.3	5
0900	7.7	-6.9	35	023	.9	021	4.4	49
1200	8.8	-9.8	26	024	2.0	003	5.1	77
1500	9.1	-11.6	22	341	2.6	332	6.3	66
1800	8.6	-13.2	20	341	2.7	352	3.7	35
2100	4.7	*****	26	002	1.6	348	5.1	2
2400	-.1	*****	49	074	.8	082	3.2	0

DAY 12

HOUR NDNG	TEMP. DEG C	DEW POINT DEG C	RH %	WIND DIR. DEG.	WIND SPD. M/S	GUST DIR. DEG.	MAX. GUST M/S	RAD MW
0300	-2.0	*****	67	027	.5	072	1.3	0
0600	-.6	*****	55	023	.8	009	2.5	12
0900	6.2	-11.1	28	052	1.5	044	3.8	49
1200	9.8	-13.5	18	051	1.7	059	4.4	74
1500	10.9	-14.0	16	357	1.2	334	4.4	67
1800	10.8	-10.7	21	311	2.3	311	5.1	35
2100	4.9	*****	46	296	.9	301	3.2	2
2400	-1.4	*****	89	288	.1	275	1.9	0

DAY 13

HOUR NDNG	TEMP. DEG C	DEW POINT DEG C	RH %	WIND DIR. DEG.	WIND SPD. M/S	GUST DIR. DEG.	MAX. GUST M/S	RAD MW
0300	-.4	*****	85	069	.3	041	1.3	0
0600	.6	*****	81	020	.3	358	1.3	6
0900	9.5	*****	37	029	.5	018	1.9	48
1200	12.3	-5.8	28	201	.9	213	3.2	74
1500	12.7	-6.9	25	237	1.5	297	5.1	72
1800	11.9	-7.6	25	307	1.9	303	4.4	34
2100	5.8	*****	59	295	.8	309	3.2	2
2400	-.7	*****	91	051	.2	019	1.3	0

DAY 14

HOUR NDNG	TEMP. DEG C	DEW POINT DEG C	RH %	WIND DIR. DEG.	WIND SPD. M/S	GUST DIR. DEG.	MAX. GUST M/S	RAD MW
0300	-2.5	*****	94	041	.3	028	1.3	0
0600	-1.1	*****	87	043	.2	048	.6	10
0900	9.0	*****	45	021	.5	030	1.9	48
1200	12.1	-3.8	33	057	1.1	020	3.2	44
1500	14.6	-3.4	29	294	1.6	297	4.4	67
1800	12.8	-4.0	31	310	2.2	305	6.3	30
2100	8.1	*****	47	008	.8	334	3.2	2
2400	-.3	*****	92	042	.3	042	1.3	0

DAY 15

HOUR NDNG	TEMP. DEG C	DEW POINT DEG C	RH %	WIND DIR. DEG.	WIND SPD. M/S	GUST DIR. DEG.	MAX. GUST M/S	RAD MW
0300	-1.7	*****	93	029	.4	041	1.9	0
0600	-.4	*****	89	045	.3	035	1.9	10
0900	6.3	*****	61	056	.5	067	1.9	41
1200	14.8	*****	30	330	.8	296	3.2	69
1500	14.9	-5.6	24	332	1.1	328	3.2	55
1800	14.9	-5.6	24	011	.9	315	3.8	32
2100	9.6	*****	48	353	.7	307	3.8	3
2400	1.6	*****	84	082	.5	077	1.9	0

DAY 16

HOUR NDNG	TEMP. DEG C	DEW POINT DEG C	RH %	WIND DIR. DEG.	WIND SPD. M/S	GUST DIR. DEG.	MAX. GUST M/S	RAD MW
0300	-1.4	*****	94	058	.3	050	1.3	0
0600	1.6	*****	80	061	.3	086	1.3	15
0900	10.4	-1.1	45	024	.6	007	2.5	51
1200	15.2	-3.8	27	046	1.5	064	4.4	75
1500	16.4	-6.0	21	039	1.2	089	4.4	68
1800	16.1	-6.9	20	326	1.8	317	5.7	46
2100	10.3	*****	36	338	1.4	339	3.8	2
2400	.9	*****	87	055	.3	064	1.3	0

DAY 17

HOUR NDNG	TEMP. DEG C	DEW POINT DEG C	RH %	WIND DIR. DEG.	WIND SPD. M/S	GUST DIR. DEG.	MAX. GUST M/S	RAD MW
0300	-1.7	*****	93	043	.5	047	1.9	0
0600	1.1	*****	80	053	.4	022	1.3	17
0900	11.3	-1.2	42	026	.9	009	3.2	52
1200	17.8	-4.9	21	050	1.4	069	4.4	75
1500	19.7	-5.3	18	321	1.9	294	7.0	66
1800	18.9	-7.5	16	317	2.6	329	5.1	39
2100	12.7	1.0	45	207	1.1	308	7.0	3
2400	8.1	1.3	62	181	1.8	166	6.3	0

DAY 18

HOUR NDNG	TEMP. DEG C	DEW POINT DEG C	RH %	WIND DIR. DEG.	WIND SPD. M/S	GUST DIR. DEG.	MAX. GUST M/S	RAD MW
0300	2.9	*****	88	145	.3	189	2.5	0
0600	3.9	*****	87	055	.2	124	1.3	6
0900	8.1	*****	79	135	.3	135	1.9	19
1200	12.3	4.3	58	016	1.0	037	3.8	69
1500	15.0	2.5	43	120	1.4	139	3.8	41
1800	15.5	.8	37	157	1.0	143	4.4	39
2100	10.5	*****	53	271	.9	288	3.8	2
2400	2.5	*****	90	052	.3	049	1.3	0

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DAY 19

HOUR NDNG	TEMP. DEG C	DEW POINT DEG C	RH %	WIND DIR. DEG.	WIND SPD. M/S	GUST DIR. DEG.	MAX. GUST M/S	RAD MW
0300	1.1	*****	95	057	.3	087	1.3	0
0600	4.0	*****	86	035	.3	343	1.9	9
0900	11.9	3.7	57	013	.3	076	2.5	53
1200	14.4	3.5	48	024	1.0	097	3.2	67
1500	18.5	3.0	36	293	1.7	262	5.1	80
1800	17.0	.1	32	296	1.6	286	5.1	12
2100	11.1	*****	55	050	.7	018	4.4	3
2400	6.6	*****	88	163	.5	161	1.9	0

DAY 20

HOUR NDNG	TEMP. DEG C	DEW POINT DEG C	RH %	WIND DIR. DEG.	WIND SPD. M/S	GUST DIR. DEG.	MAX. GUST M/S	RAD MW
0300	.9	*****	95	089	.2	190	1.3	0
0600	3.1	*****	91	052	.2	064	.6	11
0900	12.9	4.1	55	034	.5	069	1.9	53
1200	18.0	1.4	33	072	1.0	021	3.2	80
1500	18.9	.8	30	162	1.4	197	4.4	78
1800	11.7	7.1	73	185	2.4	153	6.3	12
2100	10.4	*****	80	191	1.7	183	5.7	2
2400	4.8	*****	89	110	.3	126	1.3	0

DAY 21

HOUR NDNG	TEMP. DEG C	DEW POINT DEG C	RH %	WIND DIR. DEG.	WIND SPD. M/S	GUST DIR. DEG.	MAX. GUST M/S	RAD MW
0300	1.4	*****	94	096	.3	126	1.3	0
0600	4.7	*****	90	054	.2	097	1.3	7
0900	12.6	4.1	56	006	.7	003	1.9	53
1200	16.2	4.5	46	207	1.2	213	3.8	60
1500	16.1	3.8	44	199	2.8	202	4.4	41
1800	8.3	5.9	85	196	3.3	209	7.6	3
2100	7.1	*****	89	183	1.4	198	4.4	1
2400	4.5	*****	92	140	.1	239	1.3	0

DAY 22

HOUR NDNG	TEMP. DEG C	DEW POINT DEG C	RH %	WIND DIR. DEG.	WIND SPD. M/S	GUST DIR. DEG.	MAX. GUST M/S	RAD MW
0300	4.0	*****	94	112	.2	128	.6	0
0600	5.0	*****	94	096	.1	086	.6	1
0900	6.1	*****	90	016	.2	085	1.3	12
1200	7.5	4.5	81	183	1.3	195	3.8	27
1500	9.8	5.6	75	208	1.0	159	2.5	35
1800	9.9	4.9	71	201	1.5	222	3.2	13
2100	8.2	*****	79	209	.4	212	1.9	3
2400	.7	*****	94	112	.1	282	.6	0

DAY 23

HOUR NDNG	TEMP. DEG C	DEW POINT DEG C	RH %	WIND DIR. DEG.	WIND SPD. M/S	GUST DIR. DEG.	MAX. GUST M/S	RAD MW
0300	-1.3	*****	98	063	.4	084	1.3	0
0600	-.1	*****	96	057	.3	029	1.9	7
0900	7.4	2.5	71	006	.6	006	1.9	28
1200	15.3	1.7	40	004	.8	351	3.2	78
1500	17.8	1.2	33	267	.8	268	3.8	76
1800	17.7	-.7	29	229	1.8	233	4.4	22
2100	13.2	3.0	50	154	2.2	131	6.3	3
2400	4.8	*****	87	118	.3	093	1.9	0

DAY 24

HOUR NDNG	TEMP. DEG C	DEW POINT DEG C	RH %	WIND DIR. DEG.	WIND SPD. M/S	GUST DIR. DEG.	MAX. GUST M/S	RAD MW
0300	2.3	*****	93	066	.2	056	.6	0
0600	7.7	4.3	79	138	.3	170	3.2	6
0900	10.0	2.9	61	171	1.6	172	3.2	29
1200	13.6	1.8	45	205	2.3	213	5.1	55
1500	14.1	1.0	41	220	2.4	211	5.1	30
1800	14.1	-.5	37	214	1.7	205	5.1	12
2100	11.5	-.7	43	185	1.6	192	4.4	1
2400	9.5	.1	52	178	2.0	176	6.3	0

DAY 25

HOUR NDNG	TEMP. DEG C	DEW POINT DEG C	RH %	WIND DIR. DEG.	WIND SPD. M/S	GUST DIR. DEG.	MAX. GUST M/S	RAD MW
0300	7.1	1.2	66	181	1.5	183	5.1	0
0600	6.9	1.7	69	178	1.2	183	3.2	6
0900	8.2	1.4	62	204	2.0	204	4.4	19
1200	12.5	.5	44	213	2.6	215	5.7	88
1500	12.7	-1.4	38	203	2.5	210	6.3	43
1800	7.0	*****	85	215	1.8	206	5.7	7
2100	5.2	*****	90	160	.8	168	5.1	2
2400	3.4	*****	93	122	.2	102	.6	0

DAY 26

HOUR NDNG	TEMP. DEG C	DEW POINT DEG C	RH %	WIND DIR. DEG.	WIND SPD. M/S	GUST DIR. DEG.	MAX. GUST M/S	RAD MW
0300	3.9	*****	91	161	.3	165	1.3	0
0600	3.9	*****	92	108	.1	173	1.3	6
0900	6.2	3.5	83	183	1.1	202	3.2	19
1200	8.5	2.8	67	199	1.6	202	4.4	36
1500	8.7	4.0	72	188	1.7	196	5.1	52
1800	10.2	2.6	59	200	2.4	194	7.6	50
2100	4.9	3.1	88	203	1.5	205	5.1	1
2400	2.2	*****	93	181	.5	186	2.5	0

DAY 27

HOUR NDNG	TEMP. DEG C	DEW POINT DEG C	RH %	WIND DIR. DEG.	WIND SPD. M/S	GUST DIR. DEG.	MAX. GUST M/S	RAD MW
0300	2.7	*****	94	114	.2	149	1.3	0
0600	3.0	*****	90	127	.1	196	2.5	6
0900	7.4	3.5	76	025	.8	056	2.5	68
1200	8.1	1.1	61	235	.5	251	3.8	23
1500	6.7	3.2	68	013	.9	351	3.8	35
1800	6.7	3.2	78	064	.3	254	5.7	12
2100	6.3	3.1	80	207	1.4	206	4.4	3
2400	-.5	*****	94	108	.2	117	1.3	0

** SEE INTERPRETATION NOTES AT END OF MONTHLY REPORT **

R & M CONSULTANTS, INC.

SUSITNA HYDROELECTRIC PROJECT

THREE HOUR SUMMARY FOR SHERMAN WEATHER STATION
DATA TAKEN DURING May, 1984

DAY 28

HOUR NDNG	TEMP. DEG C	DEW POINT DEG C	RH %	WIND DIR. DEG.	WIND SPD. M/S	GUST DIR. DEG.	MAX. GUST M/S	RAD MW
0300	-1.7	*****	96	083	.3	089	1.3	0
0600	.7	*****	90	070	.3	089	1.3	20
0900	8.5	1.2	60	027	.7	029	2.5	57
1200	12.6	-.8	40	120	.8	023	2.5	89
1500	13.1	-7.1	24	206	1.4	200	4.4	21
1800	14.7	-6.3	23	277	.8	251	3.2	39
2100	9.4	*****	46	237	.9	270	3.2	4
2400	.5	*****	87	057	.1	292	.6	0

DAY 29

HOUR NDNG	TEMP. DEG C	DEW POINT DEG C	RH %	WIND DIR. DEG.	WIND SPD. M/S	GUST DIR. DEG.	MAX. GUST M/S	RAD MW
0300	.4	*****	91	069	.3	105	1.3	0
0600	2.2	*****	82	067	.3	007	1.3	14
0900	9.0	1.5	59	318	.6	241	2.5	32
1200	11.6	2.4	53	190	1.8	201	3.8	42
1500	11.9	-.0	44	206	2.0	218	5.1	35
1800	8.0	3.3	72	199	1.0	153	6.3	10
2100	6.3	3.5	82	032	1.7	025	5.1	0
2400	3.1	*****	93	042	.2	326	1.9	0

DAY 30

HOUR NDNG	TEMP. DEG C	DEW POINT DEG C	RH %	WIND DIR. DEG.	WIND SPD. M/S	GUST DIR. DEG.	MAX. GUST M/S	RAD MW
0300	3.9	*****	92	043	.3	068	1.3	0
0600	4.0	*****	92	048	.1	064	1.3	2
0900	6.8	*****	81	338	.2	339	1.9	34
1200	12.1	3.1	54	348	.9	316	2.5	66
1500	10.2	4.4	67	329	.9	288	4.4	50
1800	10.2	2.6	59	047	1.1	030	4.4	16
2100	7.8	3.1	72	203	1.3	215	3.8	2
2400	2.5	*****	92	171	.8	182	2.5	0

DAY 31

HOUR NDNG	TEMP. DEG C	DEW POINT DEG C	RH %	WIND DIR. DEG.	WIND SPD. M/S	GUST DIR. DEG.	MAX. GUST M/S	RAD MW
0300	-.9	*****	94	075	.2	050	1.3	0
0600	2.4	*****	94	057	.2	113	1.3	10
0900	8.7	*****	68	296	.4	296	1.9	57
1200	14.6	-1.6	33	237	1.1	235	3.8	84
1500	16.4	-4.9	23	331	1.9	337	6.3	79
1800	17.8	-4.9	21	359	2.3	349	5.1	46
2100	13.9	-2.7	32	018	2.0	014	5.7	6
2400	5.2	*****	80	039	.6	015	4.4	0

** SEE INTERPRETATION NOTES AT END OF MONTHLY REPORT **

R & M CONSULTANTS, INC.

SUSITNA HYDROELECTRIC PROJECT

MONTHLY SUMMARY FOR SHERMAN WEATHER STATION
DATA TAKEN DURING May, 1984

DAY	MAX. TEMP. DEG C	MIN. TEMP. DEG C	MEAN TEMP. DEG C	RES. WIND DIR. DEG	RES. WIND SPD. M/S	AVG. WIND SPD. M/S	MAX. GUST DIR. DEG	MAX. GUST SPD. M/S	P'VAL DIR.	MEAN RH %	MEAN DP DEG C	PRECIP MM	DAY'S SOLAR ENERGY WH/SQM	DAY
1	12.7	-.6	6.1	189	.6	1.2	174	6.3	SSW	58	.5	****	5275	1
2	7.3	-1.4	3.0	187	1.3	1.5	175	6.3	S	80	.4	****	4330	2
3	10.9	-2.4	4.3	031	.8	.9	326	4.4	NNE	42	-4.2	****	5645	3
4	9.3	-1.8	3.8	194	.6	.9	218	7.6	SSW	64	-.6	****	4490	4
5	8.6	-1.3	3.7	187	.7	.9	197	5.1	SSW	71	.2	****	5035	5
6	11.1	-1.7	4.7	258	.5	.8	239	4.4	W	34	-6.0	****	6000	6
7	12.4	-4.0	4.2	013	1.3	1.5	342	6.3	NNE	30	-7.1	****	7050	7
8	13.9	-2.2	5.9	025	1.6	1.7	050	5.7	NNE	33	-7.2	****	6985	8
9	16.1	-2.5	6.8	028	.3	.9	118	3.8	NE	30	-5.9	****	6925	9
10	14.4	-2.9	5.8	285	.3	.9	297	4.4	WNW	28	-5.0	****	6880	10
11	9.3	-2.8	3.3	003	1.2	1.4	332	6.3	NNW	26	-10.9	****	6670	11
12	11.6	-3.4	4.1	003	.8	1.2	311	5.1	NE	23	-12.1	****	7170	12
13	13.1	-2.2	5.5	286	.4	.9	297	5.1	NE	27	-6.8	****	6795	13
14	14.7	-2.9	5.9	341	.6	.9	305	6.3	NE	32	-3.6	****	6680	14
15	15.9	-2.2	6.9	006	.5	.8	315	3.8	NE	26	-5.2	****	6365	15
16	17.7	-1.6	8.1	015	.7	1.0	317	5.7	NE	26	-4.7	****	7241	16
17	20.3	-2.5	8.9	333	.4	1.6	294	7.0	NE	31	-3.1	****	7455	17
18	16.7	1.5	9.1	114	.2	.9	143	4.4	NE	48	2.5	****	6455	18
19	18.5	1.1	9.8	336	.4	1.0	262	5.1	E	44	2.7	****	6080	19
20	21.0	-.3	10.4	159	.6	1.1	153	6.3	E	46	3.0	****	5860	20
21	17.4	1.4	9.4	193	.9	1.2	209	7.6	SSW	60	4.7	****	5080	21
22	10.3	.7	5.5	192	.5	.7	195	3.8	SSW	77	4.8	****	2680	22
23	19.7	-1.4	9.2	188	.2	1.2	131	6.3	NE	42	1.8	****	6580	23
24	15.1	2.2	8.7	196	1.4	1.5	176	6.3	SSW	49	1.1	****	3485	24
25	12.9	3.4	8.2	199	1.5	1.6	210	6.3	SSW	57	.7	****	4530	25
26	10.2	2.2	6.2	193	1.1	1.2	194	7.6	SSW	77	3.2	****	4740	26
27	10.4	-.5	5.0	070	.0	.9	254	5.7	ESE	71	2.8	****	3755	27
28	14.7	-2.0	6.4	204	.2	.8	200	4.4	E	35	-3.6	****	6040	28
29	11.9	-.8	5.6	187	.3	1.2	153	6.3	SSW	57	1.7	****	4375	29
30	12.5	2.5	7.5	003	.1	.9	288	4.4	ENE	66	3.3	****	4825	30
31	18.2	-.9	8.7	352	.8	1.2	337	6.3	NNE	32	-2.7	****	6745	31
MONTH	21.0	-4.0	6.4	251	.0	1.1	218	7.6	NE	46	-1.8	****	178221	

GUST VEL. AT MAX. GUST MINUS 2 INTERVALS	2.5
GUST VEL. AT MAX. GUST MINUS 1 INTERVAL	3.2
GUST VEL. AT MAX. GUST PLUS 1 INTERVAL	3.2
GUST VEL. AT MAX. GUST PLUS 2 INTERVALS	1.9

NOTE: RELATIVE HUMIDITY READINGS ARE UNRELIABLE WHEN WIND SPEEDS ARE LESS THAN ONE METER PER SECOND. SUCH READINGS HAVE NOT BEEN INCLUDED IN THE DAILY OR MONTHLY MEAN FOR RELATIVE HUMIDITY AND DEW POINT.

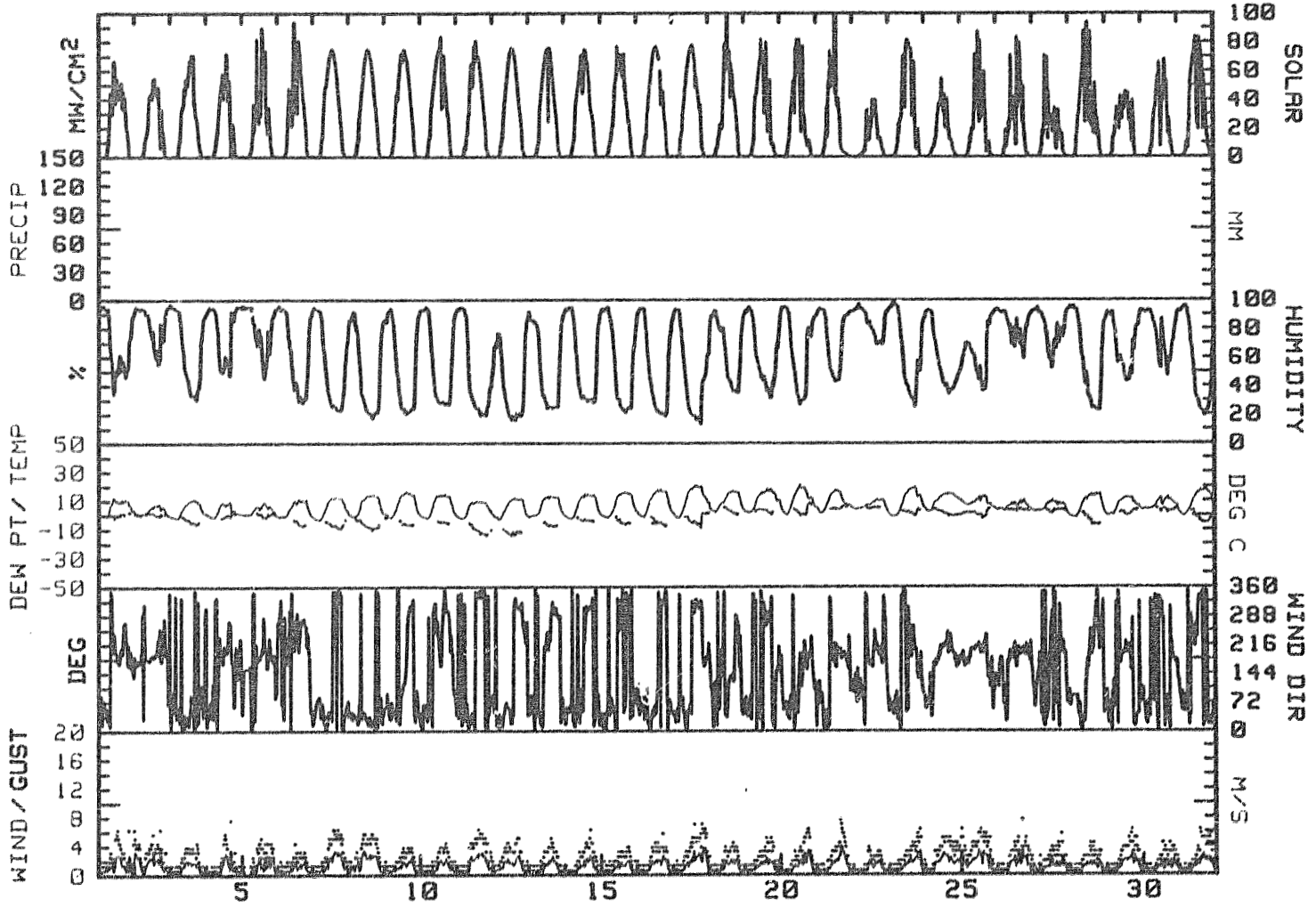
** SEE INTERPRETATION NOTES AT END OF MONTHLY REPORT **

R&M CONSULTANTS, INC.

SUSITNA HYDROELECTRIC PROJECT

SHERMAN WEATHER STATION

May, 1984



R & M CONSULTANTS, INC.

SUSITNA HYDROELECTRIC PROJECT

WIND FREQUENCY SUMMARY FOR SHERMAN WEATHER STATION
DATA TAKEN DURING May, 1984

	VELOCITY (M/S)							
DIRECTION	0.2 TO 1.0	1.0 TO 3.0	3.0 TO 6.0	6.0 TO 10.0	10.0 TO 15.0	15.0 TO 20.0	20.0 OR GREATER	TOTAL
N	3.16	3.63	.13	0.00	0.00	0.00	0.00	6.93
NNE	6.12	4.10	.07	0.00	0.00	0.00	0.00	10.29
NE	9.08	3.50	.13	0.00	0.00	0.00	0.00	12.71
ENE	8.20	1.61	0.00	0.00	0.00	0.00	0.00	9.82
E	5.11	.94	0.00	0.00	0.00	0.00	0.00	6.05
ESE	2.49	.81	0.00	0.00	0.00	0.00	0.00	3.30
SE	1.34	.94	.07	0.00	0.00	0.00	0.00	2.35
SSE	1.88	2.29	.27	0.00	0.00	0.00	0.00	4.44
S	1.48	6.46	.40	0.00	0.00	0.00	0.00	8.34
SSW	1.82	7.94	.61	0.00	0.00	0.00	0.00	10.36
SW	.74	3.09	.20	0.00	0.00	0.00	0.00	4.03
WSW	1.21	1.34	0.00	0.00	0.00	0.00	0.00	2.56
W	.94	1.95	0.00	0.00	0.00	0.00	0.00	2.89
WNW	1.14	2.35	.07	0.00	0.00	0.00	0.00	3.56
NW	1.14	3.56	.07	0.00	0.00	0.00	0.00	4.77
NNW	1.55	2.82	.27	0.00	0.00	0.00	0.00	4.64
CALM								2.96
TOTAL	47.41	47.34	2.29	0.00	0.00	0.00	0.00	100.00

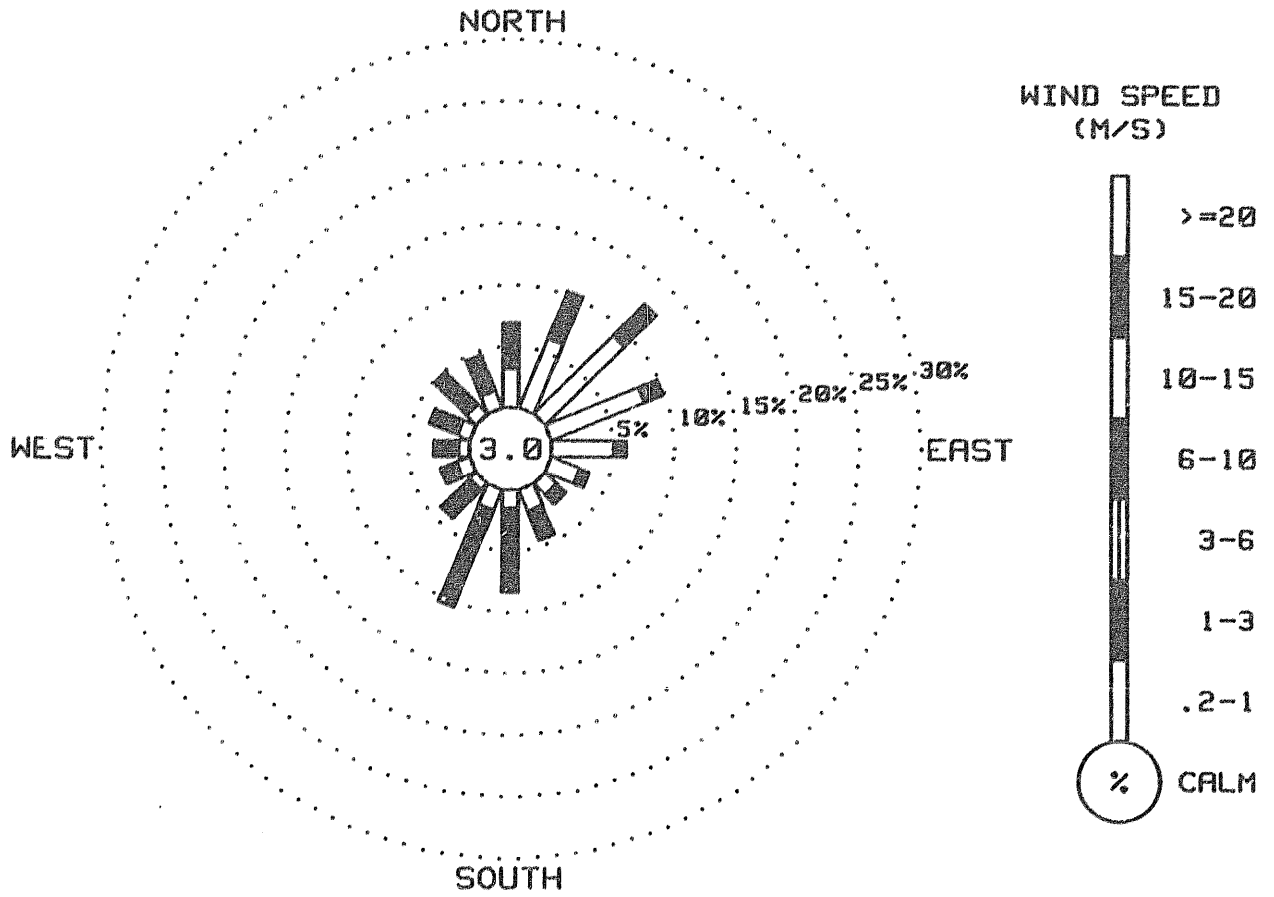
NOTE: ALL FREQUENCIES ARE EXPRESSED IN PERCENT
1487 VALID WIND OBSERVATIONS USED TO DEVELOP FREQUENCY SUMMARY
1488 WIND OBSERVATIONS WOULD HAVE BEEN CORRECT FOR 30 MINUTE DATA.
** SEE INTERPRETATION NOTES AT END OF MONTHLY REPORT **

R&M CONSULTANTS, INC.

SUSITNA HYDROELECTRIC PROJECT

SHERMAN WEATHER STATION

May, 1984



WIND ROSE PLOT

R & M CONSULTANTS, INC.

SUSITNA HYDROELECTRIC PROJECT

HOURLY SOLAR RADIATION SUMMARY FOR SHERMAN WEATHER STATION
DATA TAKEN DURING May, 1984

SOLAR RADIATION VALUES MEASURED IN MILLIWATTS PER SQUARE CENTIMETER

HOUR ENDING

DATE	0100	0200	0300	0400	0500	0600	0700	0800	0900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	2400	AVG
1	0	0	0	0	0	4	12	36	30	49	65	44	49	42	46	43	40	38	20	12		0	0	0	22
2	0	0	0	0	0	2	9	14	20	38	42	41	53	50	47	46	26	20	18	10	1	0	0	0	18
3	0	0	0	0	1	7	17	32	36	46	52	52	64	60	65	54	33	26	15	7	2	0	0	0	24
4	0	0	0	0	1	5	12	20	35	47	51	46	49	72	41	38	5	22	8	1	0	0	0	0	19
5	0	0	0	0	1	4	12	27	25	62	28	34	37	81	72	49	20	28	19	6	1	0	0	0	21
6	0	0	0	0	1	3	17	43	36	23	67	64	32	56	77	62	49	38	26	10	2	0	0	0	25
7	0	0	0	0	1	9	20	38	49	56	65	71	75	73	68	59	49	37	25	10	3	0	0	0	29
8	0	0	0	0	1	8	17	33	45	57	67	73	75	73	68	60	49	37	25	11	2	0	0	0	29
9	0	0	0	0	1	8	20	37	42	54	67	69	72	73	68	59	50	38	26	11	2	0	0	0	29
10	0	0	0	0	1	11	20	36	47	57	66	72	76	83	34	66	46	38	26	11	2	0	0	0	29
11	0	0	0	0	1	6	13	22	39	62	50	70	74	71	68	61	50	39	27	12	4	2	0	0	28
12	0	0	0	0	2	10	18	34	46	58	67	73	76	75	69	61	50	38	28	13	3	0	0	0	30
13	0	0	0	0	1	5	10	34	46	57	66	73	76	50	74	62	50	37	27	13	3	0	0	0	28
14	0	0	0	0	2	9	18	37	46	55	66	58	61	75	68	57	43	32	27	15	3	1	0	0	28
15	0	0	0	0	2	8	13	21	35	53	67	70	66	61	56	60	46	35	25	17	5	1	0	0	27
16	0	0	0	0	2	13	22	36	48	59	68	74	77	75	70	60	47	43	29	20	4	1	0	0	31
17	0	0	0	0	2	15	23	37	49	60	68	74	77	76	68	53	52	41	35	14	4	1	0	0	31
18	0	0	0	0	2	6	11	19	21	32	66	64	101	61	58	63	52	41	31	18	3	1	0	0	27
19	0	0	0	0	2	7	22	43	49	59	66	75	72	30	69	31	33	33	9	8	3	1	0	0	25
20	0	0	0	0	3	9	21	36	48	33	66	81	81	50	48	52	27	13	8	11	4	1	0	0	24
21	0	0	0	0	2	6	17	24	53	61	51	64	72	71	38	31	8	4	3	3	2	1	0	0	21
22	0	0	0	0	1	1	3	4	8	32	14	20	25	38	32	36	21	13	13	8	4	1	0	0	11
23	0	0	0	0	2	5	17	21	27	56	70	56	81	80	76	52	50	45	6	13	6	1	0	0	27
24	0	0	0	0	2	6	8	13	23	35	36	48	42	37	25	33	16	13	9	4	2	1	0	0	15
25	0	0	0	0	1	5	12	18	19	55	44	63	29	61	35	59	31	5	10	7	2	0	0	0	19
26	0	0	0	0	2	7	13	16	22	55	26	38	25	47	43	76	48	37	16	6	2	1	0	0	20
27	0	0	0	0	1	4	14	18	70	48	29	25	28	24	27	8	24	23	17	14	4	2	0	0	16
28	0	0	0	1	3	17	30	39	54	68	56	57	61	27	55	28	18	46	22	20	6	2	0	0	25
29	0	0	0	0	3	14	21	32	32	25	43	34	35	45	36	35	32	14	34	5	1	0	0	0	18
30	0	0	0	0	0	2	6	16	32	40	53	55	24	34	45	62	54	24	25	11	4	0	0	0	20
31	0	0	0	1	1	7	7	23	55	66	72	82	29	24	82	75	42	52	38	15	7	2	0	0	28

** SEE INTERPRETATION NOTES AT END OF MONTHLY REPORT **

R & M CONSULTANTS, INC.

SUSITNA HYDROELECTRIC PROJECT

OBSERVATION SUMMARY FOR SHERMAN WEATHER STATION
DATA TAKEN DURING May, 1984

PARAMETER	NUMBER OF USABLE OBSERVATIONS	PERCENT OF TOTAL OBSERVATIONS
TEMPERATURE	1486	100
WIND SPEED	1486	100
WIND DIRECTION	1486	100
PEAK GUST	1486	100
RELATIVE HUMIDITY	737	50
PRECIPITATION	0	0
SOLAR RADIATION	1486	100
DEW POINT	737	50

THERE ARE 1488 POSSIBLE OBSERVATIONS THIS MONTH FOR EACH PARAMETER. THE DATA RECORDING INTERVAL IS 30 MINUTES.

THE FOLLOWING ADJUSTMENTS HAVE BEEN MADE TO THIS MONTH'S DATA:

1. RH +7 RH Points
2. Solar -1 mW/CM^2

Additional comments on this month's data:

1. All precipitation data lost due to a faulty sensor (tipping bucket gage).

R & M CONSULTANTS, INC.

SUSITNA HYDROELECTRIC PROJECT

HOURLY PRECIPITATION SUMMARY FOR SHERMAN WEATHER STATION
DATA TAKEN DURING June, 1984

PRECIPITATION VALUES ARE IN MILLIMETERS

HOUR ENDING

DATE	0100	0200	0300	0400	0500	0600	0700	0800	0900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	2400	DATE
1	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	1
2	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	2
3	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	3
4	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	4
5	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	5
6	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	6
7	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	7
8	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	8
9	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	9
10	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	10
11	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	11
12	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	12
13	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	13
14	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	14
15	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	15
16	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	16
17	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	17
18	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	18
19	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	19
20	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	20
21	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	21
22	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	22
23	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	23
24	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	24
25	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	25
26	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	26
27	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	27
28	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	28
29	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	29
30	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	30

** SEE INTERPRETATION NOTES AT END OF MONTHLY REPORT **

R & M CONSULTANTS, INC.

SUSITNA HYDROELECTRIC PROJECT

THREE HOUR SUMMARY FOR SHERMAN WEATHER STATION
DATA TAKEN DURING June, 1984

DAY 01

HOUR NDNG	TEMP. DEG C	DEW POINT DEG C	RH %	WIND DIR. DEG.	WIND SPD. M/S	GUST DIR. DEG.	MAX. GUST M/S	RAD MW
0300	.3	*****	91	059	.3	070	1.3	0
0600	5.5	*****	73	102	.3	108	1.3	19
0900	16.4	-.9	31	019	.7	000	4.4	56
1200	18.6	-3.6	22	009	2.5	021	6.3	85
1500	17.7	-3.8	23	359	2.7	357	7.6	20
1800	17.8	-4.9	21	003	2.4	004	5.7	41
2100	14.2	*****	30	006	1.6	030	6.3	4
2400	3.4	*****	88	059	.4	054	1.9	0

DAY 02

HOUR NDNG	TEMP. DEG C	DEW POINT DEG C	RH %	WIND DIR. DEG.	WIND SPD. M/S	GUST DIR. DEG.	MAX. GUST M/S	RAD MW
0300	.1	*****	93	060	.3	066	1.3	0
0600	5.0	*****	74	081	.3	083	1.3	18
0900	14.6	*****	37	012	.8	009	1.9	54
1200	17.9	-4.2	22	037	1.6	057	5.1	29
1500	19.9	-5.2	18	343	1.3	001	4.4	34
1800	20.3	-6.4	16	021	1.1	357	5.1	41
2100	13.9	*****	41	337	1.3	000	5.1	3
2400	3.7	*****	89	052	.2	031	1.3	0

DAY 03

HOUR NDNG	TEMP. DEG C	DEW POINT DEG C	RH %	WIND DIR. DEG.	WIND SPD. M/S	GUST DIR. DEG.	MAX. GUST M/S	RAD MW
0300	.6	*****	93	058	.3	071	1.3	0
0600	3.6	*****	87	075	.3	060	1.3	12
0900	15.1	1.9	41	006	.9	353	2.5	42
1200	19.2	-3.7	21	025	1.7	031	5.7	27
1500	20.7	-6.1	16	015	2.0	004	6.3	70
1800	17.9	-3.6	23	005	2.3	017	5.3	20
2100	14.9	-.6	35	017	1.7	026	5.7	3
2400	4.5	*****	87	041	.4	019	3.2	0

DAY 04

HOUR NDNG	TEMP. DEG C	DEW POINT DEG C	RH %	WIND DIR. DEG.	WIND SPD. M/S	GUST DIR. DEG.	MAX. GUST M/S	RAD MW
0300	1.7	*****	98	072	.4	075	1.9	0
0600	6.5	*****	72	082	.3	032	1.3	19
0900	14.4	1.2	41	009	.8	340	2.5	54
1200	19.2	-5.0	19	028	1.9	037	5.7	84
1500	21.6	-7.1	14	012	2.4	016	7.6	81
1800	21.1	-7.5	14	018	1.7	043	4.4	48
2100	14.8	*****	52	336	1.0	347	7.6	5
2400	3.4	*****	90	046	.3	045	1.3	0

DAY 05

HOUR NDNG	TEMP. DEG C	DEW POINT DEG C	RH %	WIND DIR. DEG.	WIND SPD. M/S	GUST DIR. DEG.	MAX. GUST M/S	RAD MW
0300	.7	*****	93	055	.3	060	1.3	0
0600	6.1	*****	69	082	.3	044	1.3	19
0900	15.7	.5	36	012	.6	013	2.5	54
1200	21.3	-6.4	15	357	1.3	016	3.8	86
1500	22.8	-9.4	11	070	1.6	100	4.4	83
1800	21.3	-9.4	12	040	.7	079	5.1	20
2100	17.8	-.1	30	339	1.0	302	6.3	7
2400	8.9	*****	78	199	1.5	192	5.1	0

DAY 06

HOUR NDNG	TEMP. DEG C	DEW POINT DEG C	RH %	WIND DIR. DEG.	WIND SPD. M/S	GUST DIR. DEG.	MAX. GUST M/S	RAD MW
0300	3.6	*****	91	006	.1	310	1.3	0
0600	7.1	*****	85	064	.5	095	2.5	3
0900	9.4	*****	84	151	.2	057	1.9	8
1200	10.0	5.5	79	198	1.0	214	3.2	6
1500	8.4	6.2	86	195	1.4	209	3.8	10
1800	8.6	6.4	86	184	1.4	192	3.8	7
2100	8.2	*****	89	165	.7	162	1.9	1
2400	6.8	*****	92	148	.1	176	.6	0

DAY 07

HOUR NDNG	TEMP. DEG C	DEW POINT DEG C	RH %	WIND DIR. DEG.	WIND SPD. M/S	GUST DIR. DEG.	MAX. GUST M/S	RAD MW
0300	6.5	*****	93	098	.1	087	1.3	0
0600	7.7	*****	90	055	.1	088	1.3	10
0900	10.5	*****	70	017	.6	358	1.9	23
1200	14.6	5.1	53	178	.6	177	4.4	87
1500	13.6	4.2	53	203	2.4	216	5.7	35
1800	14.1	4.1	51	188	1.7	188	4.4	33
2100	12.1	5.6	64	187	1.5	156	5.1	9
2400	4.8	*****	90	175	.7	184	3.2	0

DAY 08

HOUR NDNG	TEMP. DEG C	DEW POINT DEG C	RH %	WIND DIR. DEG.	WIND SPD. M/S	GUST DIR. DEG.	MAX. GUST M/S	RAD MW
0300	2.1	*****	95	069	.1	108	.6	0
0600	5.4	*****	94	057	.1	085	.6	7
0900	11.6	7.2	74	306	.3	217	1.9	38
1200	16.1	4.8	47	190	1.4	186	3.2	54
1500	18.8	5.2	41	185	1.9	187	4.4	79
1800	17.0	3.9	42	192	2.1	185	5.1	14
2100	10.1	8.0	87	241	.8	210	3.8	0
2400	8.2	*****	91	028	.3	359	3.8	0

DAY 09

HOUR NDNG	TEMP. DEG C	DEW POINT DEG C	RH %	WIND DIR. DEG.	WIND SPD. M/S	GUST DIR. DEG.	MAX. GUST M/S	RAD MW
0300	7.5	*****	93	109	.2	106	1.3	0
0600	7.9	*****	94	063	.2	058	1.3	2
0900	9.3	*****	85	104	.2	139	1.3	10
1200	10.2	6.7	79	180	1.2	164	3.2	16
1500	12.8	6.7	66	197	1.3	200	3.3	30
1800	12.1	7.1	71	211	1.4	214	3.8	6
2100	11.0	*****	85	176	.4	170	1.3	2
2400	8.0	*****	90	091	.1	073	.6	0

** SEE INTERPRETATION NOTES AT END OF MONTHLY REPORT **

K & M CONSULTANTS, INC.

SUSITNA HYDROELECTRIC PROJECT

THREE HOUR SUMMARY FOR SHERMAN WEATHER STATION
DATA TAKEN DURING June, 1984

DAY 10

HOUR NDNG	TEMP. DEG C	DEW POINT DEG C	RH %	WIND DIR. DEG.	WIND SPD. M/S	GUST DIR. DEG.	MAX. GUST M/S	RAD MW
0300	5.8	*****	93	084	.2	053	1.3	0
0600	7.7	*****	90	023	.1	061	1.3	6
0900	13.5	*****	60	339	.3	293	1.9	76
1200	17.9	*****	42	315	.7	246	2.5	103
1500	18.5	1.8	33	218	.6	299	3.2	82
1800	18.9	1.7	32	213	1.1	195	3.8	39
2100	13.6	*****	59	193	1.1	190	3.2	4
2400	5.8	*****	90	184	.0	286	.6	0

DAY 11

HOUR NDNG	TEMP. DEG C	DEW POINT DEG C	RH %	WIND DIR. DEG.	WIND SPD. M/S	GUST DIR. DEG.	MAX. GUST M/S	RAD MW
0300	2.6	*****	95	075	.2	116	.6	0
0600	6.5	*****	85	073	.2	069	1.3	17
0900	14.0	*****	57	334	.4	312	1.9	55
1200	19.3	4.9	39	224	.9	209	2.5	80
1500	22.0	3.5	30	182	2.1	199	5.1	77
1800	19.0	4.6	39	192	2.0	179	4.4	21
2100	15.4	5.6	52	203	1.9	205	4.4	6
2400	8.4	*****	88	169	.4	182	2.5	0

DAY 12

HOUR NDNG	TEMP. DEG C	DEW POINT DEG C	RH %	WIND DIR. DEG.	WIND SPD. M/S	GUST DIR. DEG.	MAX. GUST M/S	RAD MW
0300	7.3	*****	90	092	.2	128	.6	0
0600	11.3	*****	73	100	.1	107	1.3	21
0900	15.4	5.3	51	170	1.0	167	3.2	53
1200	18.7	5.5	42	186	1.9	186	3.8	42
1500	19.0	6.1	43	189	1.5	184	3.2	26
1800	19.5	6.2	42	200	1.3	195	3.8	43
2100	16.1	7.1	55	209	2.1	217	5.1	3
2400	11.9	*****	70	190	1.4	194	3.8	0

DAY 13

HOUR NDNG	TEMP. DEG C	DEW POINT DEG C	RH %	WIND DIR. DEG.	WIND SPD. M/S	GUST DIR. DEG.	MAX. GUST M/S	RAD MW
0300	10.4	*****	83	154	.2	173	1.3	0
0600	9.5	*****	89	174	.9	178	2.5	3
0900	9.6	7.5	87	173	1.1	178	3.2	7
1200	10.9	8.3	84	169	1.0	167	2.5	26
1500	13.4	8.3	71	189	1.2	210	3.2	65
1800	13.8	7.2	64	200	1.4	203	3.2	20
2100	11.9	*****	79	215	.7	221	2.5	6
2400	3.8	*****	92	036	.1	312	1.3	0

DAY 14

HOUR NDNG	TEMP. DEG C	DEW POINT DEG C	RH %	WIND DIR. DEG.	WIND SPD. M/S	GUST DIR. DEG.	MAX. GUST M/S	RAD MW
0300	2.4	*****	94	058	.2	054	.6	0
0600	6.8	*****	87	077	.2	048	1.3	16
0900	13.9	*****	61	338	.6	316	2.5	57
1200	18.1	3.5	38	324	.9	323	3.2	81
1500	16.1	8.7	61	237	1.2	253	3.8	31
1800	12.6	8.1	74	191	1.6	190	5.1	6
2100	11.6	8.1	79	187	1.2	191	3.8	1
2400	9.0	*****	87	181	1.3	188	4.4	0

DAY 15

HOUR NDNG	TEMP. DEG C	DEW POINT DEG C	RH %	WIND DIR. DEG.	WIND SPD. M/S	GUST DIR. DEG.	MAX. GUST M/S	RAD MW
0300	8.4	6.7	89	171	1.0	170	2.5	0
0600	8.1	6.2	88	174	.9	173	2.5	2
0900	8.9	6.2	83	176	1.1	176	2.5	9
1200	10.2	6.7	79	201	1.3	191	3.2	26
1500	10.8	7.3	79	193	1.7	197	3.8	29
1800	11.6	7.7	77	192	1.6	190	3.8	30
2100	10.2	*****	80	187	1.3	196	3.8	1
2400	8.8	6.6	86	172	.9	175	3.2	0

DAY 16

HOUR NDNG	TEMP. DEG C	DEW POINT DEG C	RH %	WIND DIR. DEG.	WIND SPD. M/S	GUST DIR. DEG.	MAX. GUST M/S	RAD MW
0300	8.4	6.5	88	181	1.0	179	2.5	0
0600	8.2	*****	90	172	.9	169	2.5	1
0900	8.5	6.6	88	179	1.2	183	3.8	7
1200	9.7	7.3	85	179	1.4	176	3.2	26
1500	9.1	7.0	87	176	1.4	180	3.2	9
1800	9.0	7.1	88	173	1.3	176	3.2	6
2100	8.6	*****	89	175	.8	168	2.5	3
2400	7.7	*****	90	184	.5	164	1.9	0

DAY 17

HOUR NDNG	TEMP. DEG C	DEW POINT DEG C	RH %	WIND DIR. DEG.	WIND SPD. M/S	GUST DIR. DEG.	MAX. GUST M/S	RAD MW
0300	7.4	*****	92	307	.1	326	.6	0
0600	8.2	*****	92	342	.1	340	1.3	2
0900	10.2	*****	83	332	.4	307	1.3	16
1200	11.9	*****	76	314	.6	310	1.3	24
1500	15.3	7.1	58	195	1.2	180	3.8	44
1800	16.9	*****	54	195	1.1	177	2.5	50
2100	11.1	*****	76	218	.8	210	2.5	3
2400	4.4	*****	92	170	.1	280	.6	0

DAY 18

HOUR NDNG	TEMP. DEG C	DEW POINT DEG C	RH %	WIND DIR. DEG.	WIND SPD. M/S	GUST DIR. DEG.	MAX. GUST M/S	RAD MW
0300	1.9	*****	95	052	.2	049	.6	0
0600	5.4	*****	90	081	.2	052	1.3	20
0900	14.4	*****	57	007	.4	078	1.9	57
1200	20.3	1.6	29	019	.7	342	2.5	83
1500	22.3	.7	24	180	1.3	189	4.4	72
1800	22.4	-2.4	19	195	1.7	188	3.8	44
2100	14.4	*****	60	210	.6	204	2.5	3
2400	5.9	*****	90	141	.1	235	1.3	0

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R & M CONSULTANTS, INC.

SUSITNA HYDROELECTRIC PROJECT

THREE HOUR SUMMARY FOR SHERMAN WEATHER STATION
DATA TAKEN DURING June, 1984

DAY 19

HOUR NDNG	TEMP. DEG C	DEW POINT DEG C	RH %	WIND DIR. DEG.	WIND SPD. M/S	GUST DIR. DEG.	MAX. GUST M/S	RAD MW
0300	2.6	*****	96	088	.2	094	1.3	0
0600	7.7	*****	79	067	.2	082	1.3	21
0900	14.3	5.1	54	157	.8	158	3.2	58
1200	18.7	5.1	41	180	1.8	168	4.4	81
1500	22.0	6.1	36	185	2.1	169	3.8	70
1800	22.8	5.1	32	216	1.0	215	4.4	42
2100	18.6	*****	45	201	1.1	221	3.2	6
2400	10.6	*****	85	198	.7	207	3.2	0

DAY 20

HOUR NDNG	TEMP. DEG C	DEW POINT DEG C	RH %	WIND DIR. DEG.	WIND SPD. M/S	GUST DIR. DEG.	MAX. GUST M/S	RAD MW
0300	5.5	*****	92	099	.3	104	1.3	0
0600	8.4	*****	86	082	.2	079	.6	5
0900	16.5	*****	54	184	.3	222	1.9	56
1200	18.4	6.5	46	188	1.3	179	3.2	49
1500	20.2	*****	51	124	.5	099	2.5	74
1800	22.1	7.4	39	185	1.4	177	3.2	41
2100	18.2	*****	48	200	1.1	203	2.5	4
2400	11.9	*****	79	197	.6	186	2.5	0

DAY 21

HOUR NDNG	TEMP. DEG C	DEW POINT DEG C	RH %	WIND DIR. DEG.	WIND SPD. M/S	GUST DIR. DEG.	MAX. GUST M/S	RAD MW
0300	6.6	*****	91	114	.2	172	1.3	0
0600	10.4	*****	71	090	.2	120	1.3	20
0900	16.5	*****	50	123	.4	109	2.5	56
1200	19.9	6.9	43	188	1.4	186	3.2	79
1500	23.0	8.2	39	180	2.0	183	3.8	68
1800	22.9	8.1	39	197	1.8	187	3.8	40
2100	18.7	8.4	51	203	1.4	210	4.4	4
2400	11.9	*****	81	180	.6	183	2.5	0

DAY 22

HOUR NDNG	TEMP. DEG C	DEW POINT DEG C	RH %	WIND DIR. DEG.	WIND SPD. M/S	GUST DIR. DEG.	MAX. GUST M/S	RAD MW
0300	5.7	*****	93	084	.3	089	1.3	0
0600	10.5	*****	78	079	.2	091	.6	19
0900	16.1	7.9	58	174	.7	169	3.2	55
1200	20.1	7.8	45	172	1.8	172	4.4	79
1500	22.0	4.0	31	206	2.1	213	5.7	70
1800	22.3	3.3	29	220	2.3	217	5.1	40
2100	18.3	*****	43	219	1.2	223	3.8	3
2400	6.3	*****	90	163	.1	185	1.3	0

DAY 23

HOUR NDNG	TEMP. DEG C	DEW POINT DEG C	RH %	WIND DIR. DEG.	WIND SPD. M/S	GUST DIR. DEG.	MAX. GUST M/S	RAD MW
0300	3.3	*****	94	078	.2	069	1.3	0
0600	8.5	*****	75	064	.2	058	1.3	21
0900	12.5	*****	71	021	.2	083	1.3	27
1200	13.8	9.5	75	190	.6	177	2.5	20
1500	14.3	10.4	77	169	1.2	164	3.2	40
1800	17.5	7.3	51	179	1.7	181	3.2	55
2100	11.1	*****	83	206	.9	209	3.8	3
2400	5.8	*****	92	093	.1	300	.6	0

DAY 24

HOUR NDNG	TEMP. DEG C	DEW POINT DEG C	RH %	WIND DIR. DEG.	WIND SPD. M/S	GUST DIR. DEG.	MAX. GUST M/S	RAD MW
0300	2.8	*****	96	086	.2	105	1.3	0
0600	6.9	*****	94	070	.2	106	1.3	10
0900	13.8	*****	64	334	.2	207	1.9	24
1200	18.8	7.9	49	191	.8	172	3.8	51
1500	15.9	*****	75	163	.6	184	3.8	40
1800	18.7	*****	53	258	.5	296	1.9	38
2100	16.2	*****	61	212	.6	224	3.2	6
2400	12.5	*****	83	178	1.1	186	4.4	0

DAY 25

HOUR NDNG	TEMP. DEG C	DEW POINT DEG C	RH %	WIND DIR. DEG.	WIND SPD. M/S	GUST DIR. DEG.	MAX. GUST M/S	RAD MW
0300	9.3	*****	90	162	.0	147	1.9	0
0600	11.2	*****	84	056	.1	134	1.3	8
0900	16.3	*****	59	335	.5	258	1.9	38
1200	20.9	3.9	33	069	.7	127	3.2	86
1500	20.7	3.7	33	205	1.3	184	4.4	42
1800	20.3	3.8	34	187	1.8	181	4.4	20
2100	16.3	*****	50	197	.9	196	3.2	3
2400	8.1	*****	90	167	.1	222	1.3	0

DAY 26

HOUR NDNG	TEMP. DEG C	DEW POINT DEG C	RH %	WIND DIR. DEG.	WIND SPD. M/S	GUST DIR. DEG.	MAX. GUST M/S	RAD MW
0300	8.0	*****	91	051	.3	044	1.3	0
0600	10.4	*****	77	036	.2	031	1.3	20
0900	12.7	*****	69	152	.0	197	1.9	13
1200	15.5	7.3	38	170	1.5	176	5.1	42
1500	16.8	7.5	54	205	2.1	203	5.1	17
1800	12.7	*****	80	195	1.3	213	4.4	12
2100	11.9	*****	81	179	.7	178	2.5	1
2400	10.4	*****	87	232	.2	170	1.9	0

DAY 27

HOUR NDNG	TEMP. DEG C	DEW POINT DEG C	RH %	WIND DIR. DEG.	WIND SPD. M/S	GUST DIR. DEG.	MAX. GUST M/S	RAD MW
0300	10.2	8.3	88	182	.9	200	2.5	0
0600	9.4	7.3	87	175	1.4	177	3.2	2
0900	10.0	7.2	83	182	1.4	170	3.2	9
1200	10.4	7.1	80	208	1.5	218	3.8	16
1500	12.4	8.1	75	205	1.5	190	5.1	30
1800	13.9	7.5	65	208	1.6	211	3.8	47
2100	11.6	*****	79	196	1.1	211	3.8	2
2400	9.6	*****	89	202	.2	194	1.3	0

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R & M CONSULTANTS, INC.

SUSITNA HYDROELECTRIC PROJECT

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DATA TAKEN DURING June, 1984

DAY 28

HOUR NDNG	TEMP. DEG C	DEW POINT DEG C	RH %	WIND DIR. DEG.	WIND SPD. M/S	GUST DIR. DEG.	MAX. GUST M/S	RAD MW
0300	8.8	*****	90	089	.1	145	1.3	0
0600	10.3	*****	86	080	.1	151	1.3	6
0900	13.6	*****	67	345	.5	072	1.3	29
1200	17.5	6.4	48	232	.5	177	2.5	82
1500	17.8	7.8	52	189	1.6	176	4.4	63
1800	16.6	8.1	57	202	2.0	199	4.4	22
2100	15.2	*****	71	203	.9	212	3.8	3
2400	11.9	*****	87	195	.1	164	.6	0

DAY 29

HOUR NDNG	TEMP. DEG C	DEW POINT DEG C	RH %	WIND DIR. DEG.	WIND SPD. M/S	GUST DIR. DEG.	MAX. GUST M/S	RAD MW
0300	11.1	*****	88	240	.1	198	1.9	0
0600	12.7	*****	74	058	.2	080	2.5	9
0900	14.7	8.3	65	180	1.1	183	3.8	31
1200	17.4	6.0	47	184	1.2	185	3.8	44
1500	18.5	6.3	45	190	1.4	202	3.2	39
1800	17.8	6.0	46	196	1.2	185	2.5	21
2100	15.3	6.6	56	197	1.1	215	3.2	2
2400	10.4	*****	80	185	1.1	185	3.8	0

DAY 30

HOUR NDNG	TEMP. DEG C	DEW POINT DEG C	RH %	WIND DIR. DEG.	WIND SPD. M/S	GUST DIR. DEG.	MAX. GUST M/S	RAD MW
0300	8.2	*****	89	086	.2	170	1.3	0
0600	10.3	*****	86	051	.1	064	1.3	4
0900	13.6	7.7	67	229	.3	188	2.5	42
1200	17.8	6.3	47	179	1.2	171	3.2	63
1500	19.5	7.2	45	178	1.7	177	3.8	55
1800	19.8	7.2	44	200	1.5	193	3.2	30
2100	17.8	*****	50	209	1.1	216	3.8	8
2400	10.1	*****	87	179	.4	187	2.5	0

** SEE INTERPRETATION NOTES AT END OF MONTHLY REPORT **

R & M CONSULTANTS, INC.

SUSITNA HYDROELECTRIC PROJECT

MONTHLY SUMMARY FOR SHERMAN WEATHER STATION
DATA TAKEN DURING June, 1984

DAY	MAX. TEMP. DEG C	MIN. TEMP. DEG C	MEAN TEMP. DEG C	RES. WIND DIR. DEG	RES. WIND SPD. M/S	AVG. WIND SPD. M/S	MAX. GUST DIR. DEG	MAX. GUST SPD. M/S	P'VAL DIR.	MEAN RH %	MEAN DP DEG C	PRECIP MM	DAY'S SOLAR ENERGY WH/SQM	DAY
1	19.5	-.1	9.7	010	1.3	1.4	357	7.6	N	23	-3.7	****	7920	1
2	22.1	.1	11.1	013	.7	1.0	057	5.1	ENE	21	-4.7	****	7035	2
3	20.7	.6	10.7	018	1.2	1.2	004	6.3	N	26	-2.8	****	5980	3
4	22.2	1.1	11.7	018	1.0	1.2	016	7.6	NNE	22	-4.9	****	8250	4
5	23.0	.6	11.8	032	.4	1.1	302	6.3	E	21	-4.9	****	8395	5
6	10.0	3.3	6.7	180	.5	.8	209	3.8	S	84	6.5	****	1125	6
7	14.7	4.8	9.8	188	.8	1.1	216	5.7	S	55	4.6	****	5960	7
8	18.9	1.8	10.4	194	.7	1.1	185	5.1	S	54	5.7	****	5565	8
9	13.4	7.1	10.3	185	.5	.7	200	3.8	SSW	72	7.0	****	2680	9
10	19.3	5.5	12.4	226	.3	.7	195	3.8	SSW	40	3.1	****	6620	10
11	22.0	2.2	12.1	194	.8	1.1	190	5.1	S	38	4.2	****	7305	11
12	19.8	6.7	13.3	191	1.1	1.2	217	5.1	SSW	49	6.2	****	5385	12
13	14.4	3.8	9.1	184	.8	.9	178	3.2	S	77	7.6	****	3425	13
14	21.2	1.7	11.5	208	.5	1.0	190	5.1	S	61	7.0	****	6285	14
15	11.6	8.1	9.9	185	1.2	1.2	197	3.8	S	82	6.7	****	2375	15
16	9.7	7.7	8.7	177	1.1	1.1	183	3.8	S	87	6.9	****	1645	16
17	16.9	4.4	10.7	221	.3	.6	180	3.8	NW	58	7.2	****	4310	17
18	22.9	1.6	12.3	180	.3	.7	189	4.4	S	25	.3	****	8315	18
19	22.8	2.3	12.6	189	1.0	1.2	168	4.4	S	41	5.5	****	8300	19
20	22.2	5.1	13.7	180	.6	.8	179	3.2	S	46	7.4	****	5700	20
21	23.6	5.3	14.5	185	.9	1.1	210	4.4	S	42	7.5	****	8115	21
22	22.6	5.2	13.9	198	.9	1.1	213	5.7	SW	38	5.4	****	8075	22
23	17.5	2.8	10.2	175	.5	.7	209	3.8	S	65	9.0	****	4220	23
24	18.8	2.8	10.8	188	.4	.6	186	4.4	S	63	9.0	****	4805	24
25	22.2	8.1	15.2	188	.4	.8	184	4.4	S	34	4.1	****	7470	25
26	18.6	5.8	12.2	189	.7	.9	176	5.1	S	64	7.9	****	3490	26
27	13.9	9.4	11.7	195	1.2	1.2	190	5.1	SSW	79	7.5	****	2620	27
28	18.2	8.7	13.5	202	.6	.8	176	4.4	S	54	7.7	****	5345	28
29	18.5	10.4	14.5	188	.9	1.0	183	3.8	S	53	6.6	****	4340	29
30	20.6	7.1	13.9	189	.7	.9	177	3.8	S	49	7.2	****	6250	30
MONTH	23.6	-.1	11.6	187	.4	1.0	357	7.6	S	51	4.6	****	167305	

GUST VEL. AT MAX. GUST MINUS 2 INTERVALS 5.1
GUST VEL. AT MAX. GUST MINUS 1 INTERVAL 6.3
GUST VEL. AT MAX. GUST PLUS 1 INTERVAL 5.7
GUST VEL. AT MAX. GUST PLUS 2 INTERVALS 5.1

NOTE: RELATIVE HUMIDITY READINGS ARE UNRELIABLE WHEN WIND SPEEDS ARE LESS THAN ONE METER PER SECOND. SUCH READINGS HAVE NOT BEEN INCLUDED IN THE DAILY OR MONTHLY MEAN FOR RELATIVE HUMIDITY AND DEW POINT.

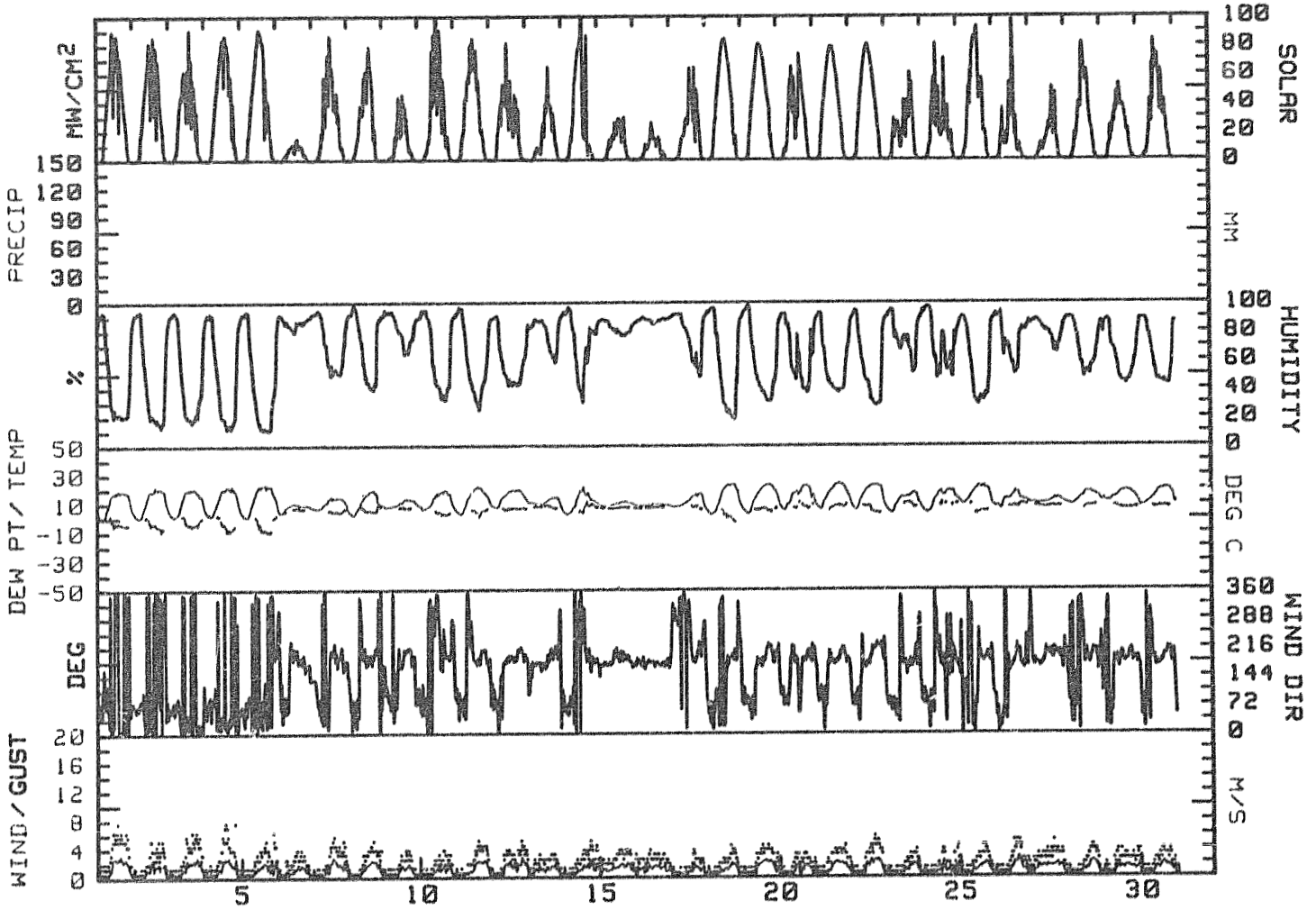
** SEE INTERPRETATION NOTES AT END OF MONTHLY REPORT **

R&M CONSULTANTS, INC.

SUSITNA HYDROELECTRIC PROJECT

SHERMAN WEATHER STATION

June, 1984



R & M CONSULTANTS, INC.

SUSITNA HYDROELECTRIC PROJECT

WIND FREQUENCY SUMMARY FOR SHERMAN WEATHER STATION
DATA TAKEN DURING June, 1984

	VELOCITY (M/S)							
DIRECTION	0.2 TO 1.0	1.0 TO 3.0	3.0 TO 6.0	6.0 TO 10.0	10.0 TO 15.0	15.0 TO 20.0	20.0 OR GREATER	TOTAL
N	2.43	3.75	.07	0.00	0.00	0.00	0.00	6.25
NNE	3.26	2.22	0.00	0.00	0.00	0.00	0.00	5.49
NE	3.82	.69	0.00	0.00	0.00	0.00	0.00	4.51
ENE	7.15	.56	0.00	0.00	0.00	0.00	0.00	7.71
E	5.63	.63	0.00	0.00	0.00	0.00	0.00	6.25
ESE	2.43	0.00	0.00	0.00	0.00	0.00	0.00	2.43
SE	1.25	.14	0.00	0.00	0.00	0.00	0.00	1.39
SSE	2.29	2.92	0.00	0.00	0.00	0.00	0.00	5.21
S	6.46	18.89	0.00	0.00	0.00	0.00	0.00	25.35
SSW	2.43	12.29	0.00	0.00	0.00	0.00	0.00	14.72
SW	1.47	3.26	0.00	0.00	0.00	0.00	0.00	4.93
WSW	1.25	.21	0.00	0.00	0.00	0.00	0.00	1.46
W	.83	.21	0.00	0.00	0.00	0.00	0.00	1.04
WNW	1.18	.21	0.00	0.00	0.00	0.00	0.00	1.39
NW	1.74	.63	0.00	0.00	0.00	0.00	0.00	2.36
NNW	1.25	1.25	0.00	0.00	0.00	0.00	0.00	2.50
CALM								7.01
TOTAL	45.07	47.85	.07	0.00	0.00	0.00	0.00	100.00

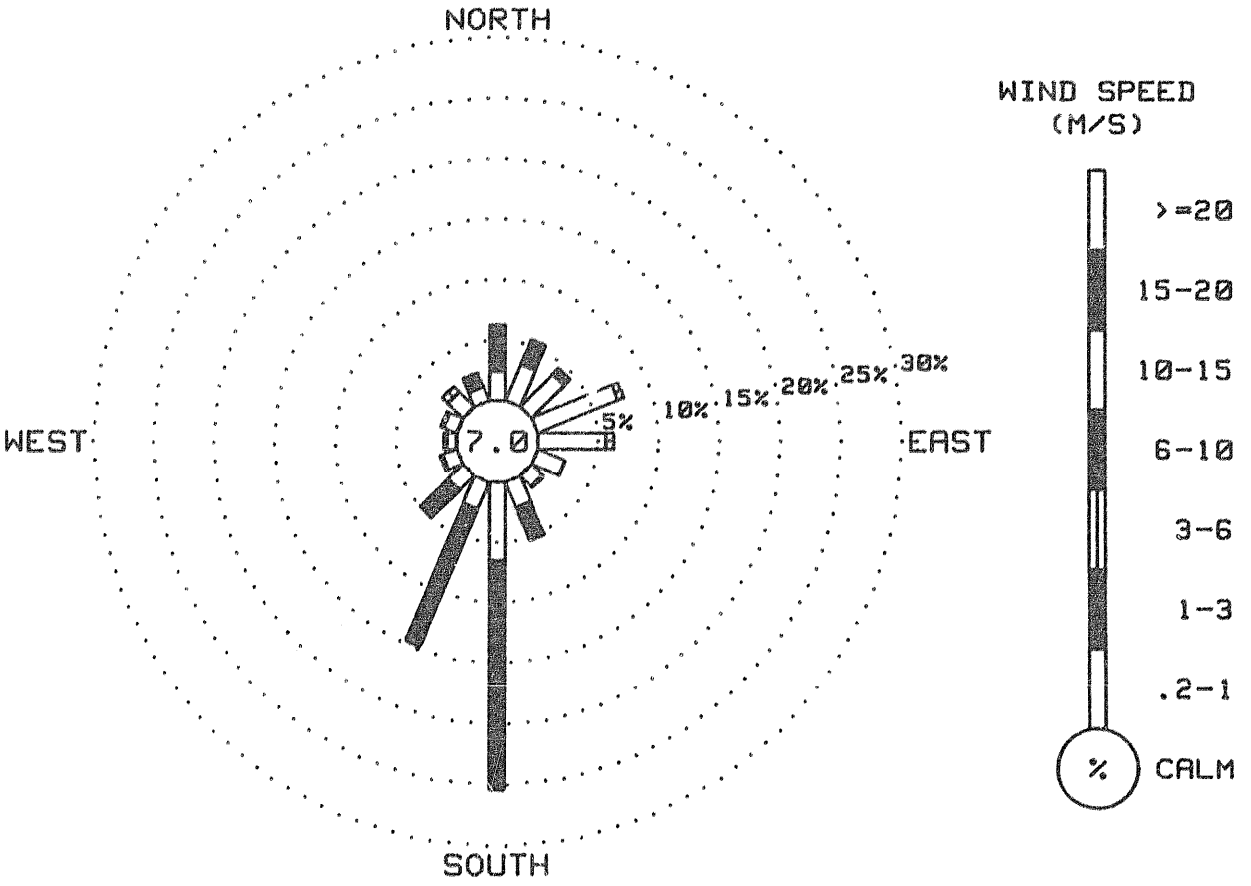
NOTE: ALL FREQUENCIES ARE EXPRESSED IN PERCENT
1440 VALID WIND OBSERVATIONS USED TO DEVELOP FREQUENCY SUMMARY
1440 WIND OBSERVATIONS WOULD HAVE BEEN CORRECT FOR 30 MINUTE DATA.
** SEE INTERPRETATION NOTES AT END OF MONTHLY REPORT **

R&M CONSULTANTS, INC.

SUSITNA HYDROELECTRIC PROJECT

SHERMAN WEATHER STATION

June, 1984



WIND ROSE PLOT

R & M CONSULTANTS, INC.

SUSITNA HYDROELECTRIC PROJECT

HOURLY SOLAR RADIATION SUMMARY FOR SHERMAN WEATHER STATION
DATA TAKEN DURING June, 1984

SOLAR RADIATION VALUES MEASURED IN MILLIWATTS PER SQUARE CENTIMETER

HOUR ENDING

DATE	0100	0200	0300	0400	0500	0600	0700	0800	0900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	2400	AVG
1	0	0	0	1	3	16	28	40	52	68	88	58	73	84	49	69	59	45	33	22	7	2	0	0	33
2	0	0	0	1	3	17	27	40	51	63	78	55	58	59	33	47	67	47	32	22	6	2	0	0	29
3	0	0	0	1	3	9	27	39	43	59	53	40	62	59	52	40	47	31	25	7	4	2	0	0	25
4	0	0	0	1	3	17	29	41	51	63	73	81	68	87	81	75	49	54	28	20	8	2	0	0	34
5	0	0	0	1	3	17	28	40	51	63	73	84	91	88	83	77	37	27	41	26	12	3	1	0	35
6	0	0	0	0	1	2	3	5	8	9	10	8	8	12	13	10	10	9	4	4	2	0	0	0	5
7	0	0	0	0	3	8	17	39	24	48	62	63	74	64	42	43	40	30	21	10	8	4	0	0	25
8	0	0	0	1	3	6	13	17	33	34	33	56	61	48	76	67	57	30	22	3	0	1	0	0	23
9	0	0	0	0	1	2	3	3	13	20	36	19	22	39	35	28	25	9	7	6	2	1	0	0	11
10	0	0	0	0	3	6	12	16	53	55	80	72	66	40	87	53	38	45	13	17	8	3	1	0	28
11	0	0	0	1	4	15	22	42	48	57	67	71	83	70	75	53	51	31	21	16	6	2	0	0	30
12	0	0	0	0	4	19	30	32	49	44	42	62	26	48	33	19	36	40	28	23	6	1	1	0	22
13	0	0	0	0	0	2	6	9	6	5	14	26	27	36	55	40	38	26	29	16	9	2	0	0	14
14	0	0	0	1	3	13	18	31	55	65	75	79	88	65	23	40	51	5	10	6	3	1	0	0	26
15	0	0	0	0	1	2	5	11	10	15	15	26	19	26	26	21	16	28	13	5	2	1	0	0	10
16	0	0	0	0	1	1	4	9	9	10	13	24	21	15	12	11	13	10	3	6	4	1	0	0	7
17	0	0	0	0	1	2	7	14	16	19	27	27	39	54	44	30	42	31	42	28	10	2	0	0	18
18	0	0	0	1	3	15	28	42	54	66	76	82	84	83	75	68	58	47	29	14	10	2	0	0	35
19	0	0	0	1	3	19	32	45	56	66	76	81	81	78	72	64	54	44	37	17	7	2	0	0	35
20	0	0	0	1	5	6	11	24	53	54	33	54	15	39	52	64	54	44	33	23	9	2	0	0	24
21	0	0	0	1	3	18	32	42	53	64	72	77	79	78	72	63	54	43	33	23	7	2	1	0	34
22	0	0	0	1	3	12	28	41	52	64	72	78	81	77	73	65	55	43	34	22	9	2	0	0	34
23	0	0	0	1	3	18	22	22	26	25	10	16	30	34	28	36	45	53	35	17	3	2	1	0	18
24	0	0	0	1	3	10	23	43	41	56	30	48	20	18	30	56	27	32	14	17	13	3	1	0	20
25	0	0	0	1	3	8	17	37	45	59	77	85	84	92	59	56	50	36	20	17	4	2	0	0	31
26	0	0	0	1	3	18	31	12	16	12	20	48	30	85	26	23	8	9	7	3	1	0	0	0	15
27	0	0	0	0	1	2	5	9	11	8	11	15	20	24	28	49	20	36	17	8	2	1	0	0	11
28	0	0	0	0	2	5	14	15	25	40	37	79	72	58	61	50	32	23	16	8	4	0	0	0	22
29	0	0	0	0	1	9	18	21	28	32	40	40	51	40	39	36	29	21	18	8	3	2	1	0	18
30	0	0	0	0	2	4	5	14	31	32	54	74	70	73	59	49	53	32	37	24	13	4	1	0	26

** SEE INTERPRETATION NOTES AT END OF MONTHLY REPORT **

R & M CONSULTANTS, INC.

SUSITNA HYDROELECTRIC PROJECT

OBSERVATION SUMMARY FOR SHERMAN WEATHER STATION
DATA TAKEN DURING June, 1984

PARAMETER	NUMBER OF USABLE OBSERVATIONS	PERCENT OF TOTAL OBSERVATIONS
TEMPERATURE	1440	100
WIND SPEED	1440	100
WIND DIRECTION	1440	100
PEAK GUST	1440	100
RELATIVE HUMIDITY	690	48
PRECIPITATION	0	0
SOLAR RADIATION	1440	100
DEW POINT	690	48

THERE ARE 1440 POSSIBLE OBSERVATIONS THIS MONTH FOR EACH PARAMETER. THE DATA RECORDING INTERVAL IS 30 MINUTES.

THE FOLLOWING ADJUSTMENTS HAVE BEEN MADE TO THIS MONTH'S DATA:

1. RH +7 RH Points
2. Solar -1 mW/CM^2

Additional comments on this month's data:

1. All precipitation data lost due to a faulty sensor (tipping bucket gage).

R & M CONSULTANTS, INC.

SUSITNA HYDROELECTRIC PROJECT

HOURLY PRECIPITATION SUMMARY FOR SHERMAN WEATHER STATION
DATA TAKEN DURING July, 1984

PRECIPITATION VALUES ARE IN MILLIMETERS

HOUR ENDING

DATE	0100	0200	0300	0400	0500	0600	0700	0800	0900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	2400	DATE
1	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	1
2	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	2
3	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	3
4	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	4
5	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	5
6	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	6
7	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	7
8	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	8
9	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	9
10	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	10
11	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	11
12	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	12
13	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	13
14	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	14
15	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	15
16	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	16
17	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	17
18	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	18
19	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	19
20	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	20
21	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	21
22	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	22
23	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	23
24	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	24
25	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	25
26	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	26
27	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	27
28	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	28
29	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	29
30	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	30
31	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	31

** SEE INTERPRETATION NOTES AT END OF MONTHLY REPORT **

R & M CONSULTANTS, INC.

SUSITNA HYDROELECTRIC PROJECT

THREE HOUR SUMMARY FOR SHERMAN WEATHER STATION
DATA TAKEN DURING July 1984

DAY 01

HOUR NDNG	TEMP. DEG C	DEW POINT DEG C	RH %	WIND DIR. DEG.	WIND SPD. M/S	GUST DIR. DEG.	MAX. GUST M/S	RAD MW
0300	9.3	*****	88	129	.2	131	1.3	0
0600	10.2	*****	71	083	.1	060	1.3	19
0900	15.3	*****	57	356	.3	002	1.9	29
1200	20.6	8.9	47	228	.7	187	3.8	78
1500	16.7	6.8	52	210	2.9	210	7.6	44
1800	12.3	8.4	77	207	2.5	207	7.6	23
2100	11.5	7.8	78	206	1.7	203	5.1	2
2400	9.5	*****	89	156	.6	166	2.5	0

DAY 02

HOUR NDNG	TEMP. DEG C	DEW POINT DEG C	RH %	WIND DIR. DEG.	WIND SPD. M/S	GUST DIR. DEG.	MAX. GUST M/S	RAD MW
0300	8.9	*****	90	154	.3	147	1.9	0
0600	9.6	*****	91	084	.1	087	.6	3
0900	11.9	*****	80	022	.2	337	1.3	15
1200	11.6	8.1	79	165	1.2	178	3.2	14
1500	13.7	8.8	72	180	1.5	174	3.2	29
1800	13.9	*****	73	178	1.0	204	3.2	11
2100	13.8	*****	75	191	.7	166	1.9	6
2400	10.6	*****	88	163	.2	176	1.3	0

DAY 03

HOUR NDNG	TEMP. DEG C	DEW POINT DEG C	RH %	WIND DIR. DEG.	WIND SPD. M/S	GUST DIR. DEG.	MAX. GUST M/S	RAD MW
0300	9.9	*****	89	142	.1	167	1.3	0
0600	10.6	*****	90	064	.1	052	.6	2
0900	14.5	9.8	73	172	.6	164	3.2	38
1200	17.3	9.0	58	187	1.5	176	3.2	49
1500	19.1	8.1	49	187	1.8	197	4.4	31
1800	18.1	7.8	51	205	1.9	207	4.4	20
2100	16.9	9.4	61	197	1.1	213	3.2	4
2400	10.9	*****	87	168	.4	182	1.9	0

DAY 04

HOUR NDNG	TEMP. DEG C	DEW POINT DEG C	RH %	WIND DIR. DEG.	WIND SPD. M/S	GUST DIR. DEG.	MAX. GUST M/S	RAD MW
0300	9.2	*****	91	072	.2	040	1.3	0
0600	11.1	*****	88	129	.2	144	1.3	3
0900	15.8	*****	63	015	.4	355	1.9	47
1200	21.3	*****	42	121	.2	003	1.9	69
1500	23.3	8.9	40	191	1.2	202	3.2	57
1800	24.4	7.4	34	194	1.2	192	3.2	32
2100	17.3	*****	79	284	.3	354	2.5	5
2400	16.1	*****	79	358	.2	028	1.9	0

DAY 05

HOUR NDNG	TEMP. DEG C	DEW POINT DEG C	RH %	WIND DIR. DEG.	WIND SPD. M/S	GUST DIR. DEG.	MAX. GUST M/S	RAD MW
0300	13.0	*****	91	006	.3	333	2.5	0
0600	12.4	*****	94	083	.1	061	1.3	3
0900	17.2	11.8	70	224	.2	199	2.5	43
1200	19.3	11.9	62	185	1.6	184	3.8	52
1500	21.6	10.8	50	185	1.5	185	3.2	46
1800	20.3	*****	62	197	.9	217	3.2	17
2100	15.9	10.9	72	034	.5	036	3.2	4
2400	11.4	*****	89	073	.2	073	1.3	0

DAY 06

HOUR NDNG	TEMP. DEG C	DEW POINT DEG C	RH %	WIND DIR. DEG.	WIND SPD. M/S	GUST DIR. DEG.	MAX. GUST M/S	RAD MW
0300	9.2	*****	97	074	.2	055	.6	0
0600	12.4	*****	77	076	.2	054	1.3	26
0900	16.7	*****	64	345	.6	331	2.5	33
1200	20.4	9.0	48	196	1.0	178	3.8	76
1500	17.3	*****	63	189	1.4	187	3.8	9
1800	19.1	8.5	50	205	.7	214	3.2	20
2100	14.8	*****	84	204	.4	182	1.9	2
2400	9.4	*****	92	142	.6	167	2.5	0

DAY 07

HOUR NDNG	TEMP. DEG C	DEW POINT DEG C	RH %	WIND DIR. DEG.	WIND SPD. M/S	GUST DIR. DEG.	MAX. GUST M/S	RAD MW
0300	5.8	*****	94	061	.4	088	1.3	0
0600	8.8	*****	84	058	.3	079	1.3	20
0900	15.0	*****	62	080	.3	136	1.3	28
1200	19.2	3.3	35	053	.2	106	2.5	94
1500	17.7	*****	44	229	.4	203	3.2	21
1800	18.7	*****	38	014	.9	029	3.2	16
2100	12.9	*****	69	077	.2	262	2.5	3
2400	8.4	*****	89	188	.1	219	1.3	0

DAY 08

HOUR NDNG	TEMP. DEG C	DEW POINT DEG C	RH %	WIND DIR. DEG.	WIND SPD. M/S	GUST DIR. DEG.	MAX. GUST M/S	RAD MW
0300	8.5	*****	95	065	.3	067	1.3	0
0600	9.8	*****	86	065	.3	126	1.3	4
0900	13.6	8.3	70	350	.5	022	2.5	24
1200	14.4	6.8	60	014	1.4	011	4.4	42
1500	17.3	3.8	41	020	1.7	013	4.4	48
1800	17.2	.7	33	017	1.7	024	5.7	22
2100	12.2	*****	70	013	1.0	010	4.4	4
2400	6.6	*****	88	062	.2	050	.6	0

DAY 09

HOUR NDNG	TEMP. DEG C	DEW POINT DEG C	RH %	WIND DIR. DEG.	WIND SPD. M/S	GUST DIR. DEG.	MAX. GUST M/S	RAD MW
0300	5.4	*****	92	065	.2	065	1.3	0
0600	7.8	*****	87	075	.2	115	.6	6
0900	12.7	*****	69	031	.4	063	1.3	21
1200	16.6	*****	48	355	.4	340	1.9	38
1500	19.4	*****	31	019	1.0	007	3.2	63
1800	17.5	6.0	47	200	.4	212	4.4	37
2100	13.9	7.5	65	198	1.6	203	4.4	2
2400	9.2	*****	87	170	.5	171	2.5	0

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R & M CONSULTANTS, INC.

SUSITNA HYDROELECTRIC PROJECT

THREE HOUR SUMMARY FOR SHERMAN WEATHER STATION
DATA TAKEN DURING July, 1984

DAY 10

HOUR NDNG	TEMP. DEG C	DEW POINT DEG C	RH %	WIND DIR. DEG.	WIND SPD. M/S	GUST DIR. DEG.	MAX. GUST M/S	RAD MW
0300	7.2	*****	91	076	.2	132	1.3	0
0600	8.7	*****	91	092	.1	059	.6	5
0900	13.9	8.4	69	161	.4	173	2.5	23
1200	14.0	*****	70	226	.5	245	3.2	34
1500	12.7	9.5	81	198	1.1	188	4.4	8
1800	12.5	*****	86	135	.2	193	3.2	9
2100	11.1	*****	87	331	.4	329	1.9	2
2400	7.3	*****	90	084	.2	008	.6	0

DAY 11

HOUR NDNG	TEMP. DEG C	DEW POINT DEG C	RH %	WIND DIR. DEG.	WIND SPD. M/S	GUST DIR. DEG.	MAX. GUST M/S	RAD MW
0300	7.9	*****	93	072	.2	177	1.3	0
0600	8.0	*****	92	001	.2	023	1.3	8
0900	12.6	*****	74	346	.7	317	1.9	29
1200	14.7	5.8	55	202	.4	162	4.4	24
1500	19.0	2.2	33	153	1.5	147	4.4	67
1800	18.3	2.5	35	200	1.1	212	3.2	23
2100	13.1	*****	69	171	1.1	158	4.4	6
2400	5.6	*****	91	062	.2	014	1.3	0

DAY 12

HOUR NDNG	TEMP. DEG C	DEW POINT DEG C	RH %	WIND DIR. DEG.	WIND SPD. M/S	GUST DIR. DEG.	MAX. GUST M/S	RAD MW
0300	3.5	*****	94	070	.2	087	.6	0
0600	5.5	*****	94	069	.2	043	1.3	9
0900	10.6	*****	75	025	.4	105	1.3	17
1200	19.3	6.7	44	237	.3	353	1.9	90
1500	15.5	5.1	50	201	1.4	195	4.4	1
1800	14.1	10.0	76	204	1.2	198	5.7	14
2100	13.3	9.0	75	187	1.4	180	3.8	5
2400	10.2	*****	88	153	.3	170	1.9	0

DAY 13

HOUR NDNG	TEMP. DEG C	DEW POINT DEG C	RH %	WIND DIR. DEG.	WIND SPD. M/S	GUST DIR. DEG.	MAX. GUST M/S	RAD MW
0300	9.6	*****	94	047	.0	091	.6	0
0600	10.5	*****	94	130	.1	190	1.3	3
0900	11.9	*****	79	171	.4	166	1.9	12
1200	12.2	8.9	80	179	1.1	198	3.2	28
1500	11.2	8.3	82	186	1.8	174	3.8	21
1800	15.8	6.3	53	180	1.8	170	3.8	44
2100	10.4	*****	84	203	.8	204	3.2	2
2400	6.5	*****	92	028	.1	267	.6	0

DAY 14

HOUR NDNG	TEMP. DEG C	DEW POINT DEG C	RH %	WIND DIR. DEG.	WIND SPD. M/S	GUST DIR. DEG.	MAX. GUST M/S	RAD MW
0300	5.9	*****	95	069	.1	066	.6	0
0600	7.8	*****	93	103	.2	120	1.3	6
0900	14.4	*****	62	144	.4	096	2.5	73
1200	16.6	5.5	48	202	1.5	184	3.8	68
1500	17.5	6.7	49	208	1.3	209	3.8	42
1800	15.3	6.4	55	208	1.7	216	5.7	19
2100	12.7	7.0	68	188	1.7	207	4.4	1
2400	12.0	7.6	74	175	1.2	179	3.2	0

DAY 15

HOUR NDNG	TEMP. DEG C	DEW POINT DEG C	RH %	WIND DIR. DEG.	WIND SPD. M/S	GUST DIR. DEG.	MAX. GUST M/S	RAD MW
0300	10.9	7.2	78	173	1.3	172	3.2	0
0600	11.1	*****	77	165	.4	174	2.5	4
0900	13.0	7.1	67	176	.8	158	2.5	29
1200	17.4	*****	42	172	.9	162	2.5	74
1500	19.7	6.0	41	135	.9	153	4.4	67
1800	21.1	*****	38	028	1.0	036	2.5	37
2100	16.4	*****	73	318	.5	318	1.9	2
2400	12.4	*****	87	015	.1	139	1.3	0

DAY 16

HOUR NDNG	TEMP. DEG C	DEW POINT DEG C	RH %	WIND DIR. DEG.	WIND SPD. M/S	GUST DIR. DEG.	MAX. GUST M/S	RAD MW
0300	10.2	*****	91	115	.2	141	1.3	0
0600	10.2	*****	92	053	.1	033	1.3	2
0900	15.0	9.0	67	159	.5	188	4.4	54
1200	16.6	8.6	59	208	2.4	214	5.7	80
1500	15.6	7.4	58	213	2.6	212	7.6	30
1800	14.3	8.1	66	202	2.0	207	5.1	6
2100	12.2	9.1	81	195	1.4	194	4.4	0
2400	11.5	8.9	84	166	1.3	170	3.2	0

DAY 17

HOUR NDNG	TEMP. DEG C	DEW POINT DEG C	RH %	WIND DIR. DEG.	WIND SPD. M/S	GUST DIR. DEG.	MAX. GUST M/S	RAD MW
0300	11.1	8.3	83	174	1.1	177	2.5	0
0600	10.9	*****	82	178	1.0	168	2.5	2
0900	11.2	8.3	82	173	1.1	177	2.5	9
1200	12.3	9.2	81	167	1.4	171	3.2	16
1500	12.8	9.5	80	178	1.5	173	3.2	17
1800	11.1	8.2	82	186	1.7	191	4.4	6
2100	10.4	8.3	87	184	1.5	195	3.8	2
2400	10.2	8.1	87	186	1.4	189	4.4	0

DAY 18

HOUR NDNG	TEMP. DEG C	DEW POINT DEG C	RH %	WIND DIR. DEG.	WIND SPD. M/S	GUST DIR. DEG.	MAX. GUST M/S	RAD MW
0300	9.7	*****	89	181	1.0	186	2.5	0
0600	10.1	7.9	86	181	1.1	177	3.2	2
0900	11.5	8.4	81	180	1.2	190	3.2	20
1200	12.1	8.4	78	204	1.7	214	4.4	27
1500	11.1	8.0	81	198	1.6	207	4.4	16
1800	11.1	8.3	83	172	1.4	188	3.2	10
2100	10.4	*****	86	173	1.0	172	2.5	1
2400	10.1	*****	86	177	.9	183	2.5	0

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SUSITNA HYDROELECTRIC PROJECT

THREE HOUR SUMMARY FOR SHERMAN WEATHER STATION
DATA TAKEN DURING July, 1984

DAY 19

HOUR NDNG	TEMP. DEG C	DEW POINT DEG C	RH %	WIND DIR. DEG.	WIND SPD. M/S	GUST DIR. DEG.	MAX. GUST M/S	RAD MW
0300	9.5	*****	87	169	.4	187	1.9	0
0600	9.7	*****	87	160	.3	167	1.3	1
0900	11.3	8.3	82	177	.9	186	3.2	18
1200	13.9	8.4	69	212	1.6	202	3.8	38
1500	11.7	8.6	81	200	1.7	218	4.4	9
1800	11.5	8.9	84	182	1.2	181	3.2	13
2100	10.4	8.3	87	172	1.2	165	3.8	0
2400	10.3	8.1	86	174	1.0	174	2.5	0

DAY 20

HOUR NDNG	TEMP. DEG C	DEW POINT DEG C	RH %	WIND DIR. DEG.	WIND SPD. M/S	GUST DIR. DEG.	MAX. GUST M/S	RAD MW
0300	9.9	7.8	87	183	1.0	187	2.5	0
0600	9.9	7.8	87	183	1.1	185	3.2	1
0900	10.5	7.9	84	180	1.2	184	3.2	9
1200	11.1	8.3	83	186	1.4	178	3.8	14
1500	11.9	8.9	82	192	1.4	202	3.8	30
1800	10.7	7.9	83	198	1.4	205	4.4	8
2100	10.3	8.2	87	183	1.2	194	4.4	0
2400	10.4	*****	88	175	1.0	172	2.5	0

DAY 21

HOUR NDNG	TEMP. DEG C	DEW POINT DEG C	RH %	WIND DIR. DEG.	WIND SPD. M/S	GUST DIR. DEG.	MAX. GUST M/S	RAD MW
0300	10.4	8.3	87	182	1.1	183	3.2	0
0600	10.5	8.4	87	165	1.1	161	3.2	1
0900	11.1	8.7	85	177	1.1	177	2.5	6
1200	12.1	9.3	83	192	1.1	200	3.2	19
1500	13.6	10.1	79	192	1.4	202	3.8	16
1800	13.6	10.2	80	184	1.3	168	3.2	6
2100	12.4	*****	87	156	.4	165	1.9	0
2400	11.6	*****	90	090	.2	073	1.3	0

DAY 22

HOUR NDNG	TEMP. DEG C	DEW POINT DEG C	RH %	WIND DIR. DEG.	WIND SPD. M/S	GUST DIR. DEG.	MAX. GUST M/S	RAD MW
0300	11.2	*****	94	054	.1	037	1.3	0
0600	11.4	*****	92	177	.5	168	2.5	2
0900	11.9	9.5	85	168	.9	169	2.5	10
1200	14.4	10.3	76	171	1.2	181	3.2	38
1500	16.2	10.1	67	168	1.6	164	3.8	34
1800	16.6	*****	67	177	1.1	176	3.2	14
2100	14.0	*****	85	208	.2	184	1.3	3
2400	11.1	*****	89	018	.1	029	1.3	0

DAY 23

HOUR NDNG	TEMP. DEG C	DEW POINT DEG C	RH %	WIND DIR. DEG.	WIND SPD. M/S	GUST DIR. DEG.	MAX. GUST M/S	RAD MW
0300	9.9	*****	93	073	.1	113	.6	0
0600	9.5	*****	93	077	.1	039	.6	10
0900	16.0	*****	66	349	.4	330	1.9	42
1200	21.9	*****	39	038	.6	028	2.5	78
1500	23.3	6.9	35	103	.5	152	2.5	67
1800	23.5	7.1	35	184	1.5	188	3.4	39
2100	19.1	11.0	59	192	1.1	209	3.2	5
2400	13.7	*****	82	180	.9	177	3.8	0

DAY 24

HOUR NDNG	TEMP. DEG C	DEW POINT DEG C	RH %	WIND DIR. DEG.	WIND SPD. M/S	GUST DIR. DEG.	MAX. GUST M/S	RAD MW
0300	13.6	9.3	75	188	.7	174	3.2	0
0600	12.7	*****	82	165	.3	169	2.5	4
0900	15.7	*****	67	010	.3	324	1.3	18
1200	16.9	9.4	61	184	1.0	188	3.8	22
1500	14.5	10.0	74	181	2.0	192	5.1	30
1800	17.0	9.7	62	174	1.7	164	3.8	26
2100	15.1	*****	74	178	1.2	183	3.2	2
2400	12.4	*****	88	324	.1	275	1.3	0

DAY 25

HOUR NDNG	TEMP. DEG C	DEW POINT DEG C	RH %	WIND DIR. DEG.	WIND SPD. M/S	GUST DIR. DEG.	MAX. GUST M/S	RAD MW
0300	13.3	9.9	80	148	.7	159	3.2	0
0600	12.9	9.2	78	172	1.2	180	3.2	2
0900	12.2	9.6	84	172	1.2	177	3.2	3
1200	12.6	*****	84	173	1.1	167	3.2	11
1500	12.1	9.5	84	173	.9	167	2.5	15
1800	12.0	9.2	83	178	1.3	195	3.2	7
2100	11.1	9.0	87	159	.5	***	2.5	1
2400	10.0	8.3	89	***	****	***	****	0

DAY 26

HOUR NDNG	TEMP. DEG C	DEW POINT DEG C	RH %	WIND DIR. DEG.	WIND SPD. M/S	GUST DIR. DEG.	MAX. GUST M/S	RAD MW
0300	9.6	8.8	95	***	****	***	****	0
0600	9.9	*****	93	069	.2	061	1.3	1
0900	11.4	*****	81	342	.4	332	1.9	17
1200	13.0	*****	77	346	.4	352	1.3	28
1500	15.0	9.6	70	199	.8	187	2.5	27
1800	15.6	9.8	68	182	1.1	186	2.5	19
2100	13.8	*****	79	189	.6	185	1.9	3
2400	10.0	*****	89	177	.1	259	.6	0

DAY 27

HOUR NDNG	TEMP. DEG C	DEW POINT DEG C	RH %	WIND DIR. DEG.	WIND SPD. M/S	GUST DIR. DEG.	MAX. GUST M/S	RAD MW
0300	10.5	*****	93	106	.2	099	1.3	0
0600	11.9	*****	82	154	.6	108	1.9	1
0900	13.2	*****	78	177	.7	165	3.2	13
1200	16.2	10.4	68	166	1.3	162	2.5	41
1500	17.5	10.0	61	192	1.5	206	4.4	25
1800	16.8	*****	65	208	1.3	214	4.4	15
2100	14.5	*****	84	182	.5	176	2.5	1
2400	12.7	*****	86	199	.4	188	1.9	0

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THREE HOUR SUMMARY FOR SHERMAN WEATHER STATION
DATA TAKEN DURING July, 1984

DAY 28

HOUR NDNG	TEMP. DEG C	DEW POINT DEG C	RH %	WIND DIR. DEG.	WIND SPD. M/S	GUST DIR. DEG.	MAX. GUST M/S	RAD MW
0300	11.7	*****	93	187	.2	184	1.3	0
0600	11.4	*****	94	182	.1	206	.6	2
0900	12.0	*****	84	153	.1	161	1.9	10
1200	14.5	10.0	74	269	.5	250	2.5	33
1500	16.2	10.1	67	183	1.4	159	3.2	28
1800	16.2	9.9	66	199	1.1	202	3.2	21
2100	13.6	*****	83	173	.7	165	1.9	1
2400	12.5	*****	83	186	.1	173	1.9	0

DAY 29

HOUR NDNG	TEMP. DEG C	DEW POINT DEG C	RH %	WIND DIR. DEG.	WIND SPD. M/S	GUST DIR. DEG.	MAX. GUST M/S	RAD MW
0300	11.4	8.1	80	185	.8	184	3.2	0
0600	10.7	*****	81	182	1.0	182	3.2	2
0900	11.1	8.3	83	171	1.1	169	2.5	6
1200	11.7	8.9	83	165	1.0	161	3.2	14
1500	11.9	*****	82	181	.9	194	2.5	17
1800	11.3	*****	84	177	.6	186	1.9	10
2100	10.2	*****	87	144	.3	157	1.3	0
2400	9.4	8.0	91	049	.1	022	.6	0

DAY 30

HOUR NDNG	TEMP. DEG C	DEW POINT DEG C	RH %	WIND DIR. DEG.	WIND SPD. M/S	GUST DIR. DEG.	MAX. GUST M/S	RAD MW
0300	9.4	8.5	94	***	****	***	****	0
0600	9.5	8.4	93	***	****	***	****	0
0900	11.1	*****	83	000	.3	351	1.3	15
1200	14.9	*****	69	351	.7	355	1.9	46
1500	18.6	7.7	49	215	1.0	206	4.4	76
1800	17.4	8.3	55	197	1.6	200	4.4	47
2100	12.3	*****	86	187	.6	186	2.5	1
2400	9.3	*****	91	123	.1	165	.6	0

DAY 31

HOUR NDNG	TEMP. DEG C	DEW POINT DEG C	RH %	WIND DIR. DEG.	WIND SPD. M/S	GUST DIR. DEG.	MAX. GUST M/S	RAD MW
0300	9.2	*****	95	058	.2	110	1.3	0
0600	11.2	*****	89	162	.6	171	2.5	2
0900	11.6	9.2	85	172	1.2	185	3.2	13
1200	12.6	9.6	82	179	1.3	178	3.2	25
1500	15.2	9.8	70	184	1.1	186	3.2	31
1800	14.0	9.7	75	198	1.2	211	3.8	10
2100	12.3	*****	83	179	.7	177	1.9	0
2400	11.1	*****	88	181	.2	127	1.9	0

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DATA TAKEN DURING July, 1984

DAY	MAX. TEMP. DEG C	MIN. TEMP. DEG C	MEAN TEMP. DEG C	RES. WIND DIR. DEG	RES. WIND SPD. M/S	AVG. WIND SPD. M/S	MAX. GUST DIR. DEG	MAX. GUST SPD. M/S	P'VAL DIR.	MEAN RH %	MEAN DP DEG C	PRECIP MM	DAY'S SOLAR ENERGY WH/SQM	DAY
1	20.6	6.2	13.4	205	1.0	1.2	210	7.6	SSW	64	7.7	****	5605	1
2	14.4	8.7	11.6	173	.6	.7	178	3.2	S	75	8.4	****	2360	2
3	19.8	9.8	14.8	190	.9	1.0	197	4.4	S	57	8.9	****	5810	3
4	24.6	9.2	16.9	185	.2	.6	202	3.2	N	35	7.6	****	6926	4
5	22.0	11.2	16.6	180	.4	.8	184	3.8	S	61	11.6	****	4635	5
6	20.4	7.7	14.1	186	.4	.7	178	3.8	S	53	9.1	****	4580	6
7	20.7	4.3	12.5	047	.2	.6	203	3.2	ENE	38	4.3	****	6420	7
8	18.1	6.6	12.4	019	.8	.9	024	5.7	NNE	47	4.2	****	4795	8
9	19.4	4.9	12.2	157	.1	.7	212	4.4	NNE	50	5.6	****	3985	9
10	15.2	6.8	11.0	185	.2	.5	188	4.4	S	74	9.3	****	2870	10
11	19.8	5.6	12.7	169	.3	.8	162	4.4	S	44	4.3	****	5465	11
12	19.5	3.5	11.5	192	.5	.8	198	5.7	SSW	63	8.3	****	4920	12
13	15.8	6.5	11.2	182	.7	.8	174	3.8	S	73	8.2	****	3190	13
14	17.6	5.5	11.6	192	.9	1.0	216	5.7	SSW	58	6.6	****	4550	14
15	21.2	10.3	15.8	155	.4	.8	153	4.4	S	58	6.6	****	6015	15
16	17.0	9.4	13.2	197	1.2	1.4	212	7.6	SSW	68	8.6	****	4200	16
17	13.1	10.2	11.7	179	1.3	1.4	191	4.4	S	83	8.6	****	1505	17
18	12.6	9.7	11.2	185	1.2	1.3	214	4.4	S	83	8.1	****	2390	18
19	13.9	9.4	11.7	187	1.0	1.1	218	4.4	S	81	8.4	****	2375	19
20	11.9	9.7	10.8	186	1.2	1.2	205	4.4	S	85	8.2	****	1830	20
21	14.9	10.4	12.7	179	.9	1.0	202	3.8	S	83	9.2	****	1820	21
22	17.0	11.1	14.1	171	.7	.8	164	3.8	S	76	10.0	****	2920	22
23	24.2	9.1	16.7	165	.3	.7	188	4.4	S	45	8.5	****	7590	23
24	17.2	12.1	14.7	179	.8	1.0	192	5.1	S	67	9.6	****	3145	24
25	13.6	10.0	11.8	171	1.0	1.1	159	3.2	S	83	9.4	****	1375	25
26	16.1	9.5	12.8	196	.3	.6	187	2.5	S	80	9.1	****	2785	26
27	17.9	9.9	13.9	183	.8	.9	206	4.4	S	68	9.9	****	3515	27
28	16.5	11.1	13.8	193	.5	.6	159	3.2	S	68	9.9	****	3070	28
29	12.2	9.4	10.8	174	.6	.8	184	3.2	S	84	8.2	****	1330	29
30	18.7	9.3	14.0	211	.4	.8	206	4.4	SSW	74	8.2	****	4830	30
31	15.2	8.7	12.0	179	.8	.8	211	3.8	S	80	9.6	****	2235	31
MONTH	24.6	3.5	13.0	183	.6	.9	210	7.6	S	70	8.2	****	119035	

GUST VEL. AT MAX. GUST MINUS 2 INTERVALS 5.7
GUST VEL. AT MAX. GUST MINUS 1 INTERVAL 7.0
GUST VEL. AT MAX. GUST PLUS 1 INTERVAL 5.7
GUST VEL. AT MAX. GUST PLUS 2 INTERVALS 7.6

NOTE: RELATIVE HUMIDITY READINGS ARE UNRELIABLE WHEN WIND SPEEDS ARE LESS THAN ONE METER PER SECOND. SUCH READINGS HAVE NOT BEEN INCLUDED IN THE DAILY OR MONTHLY MEAN FOR RELATIVE HUMIDITY AND DEW POINT.

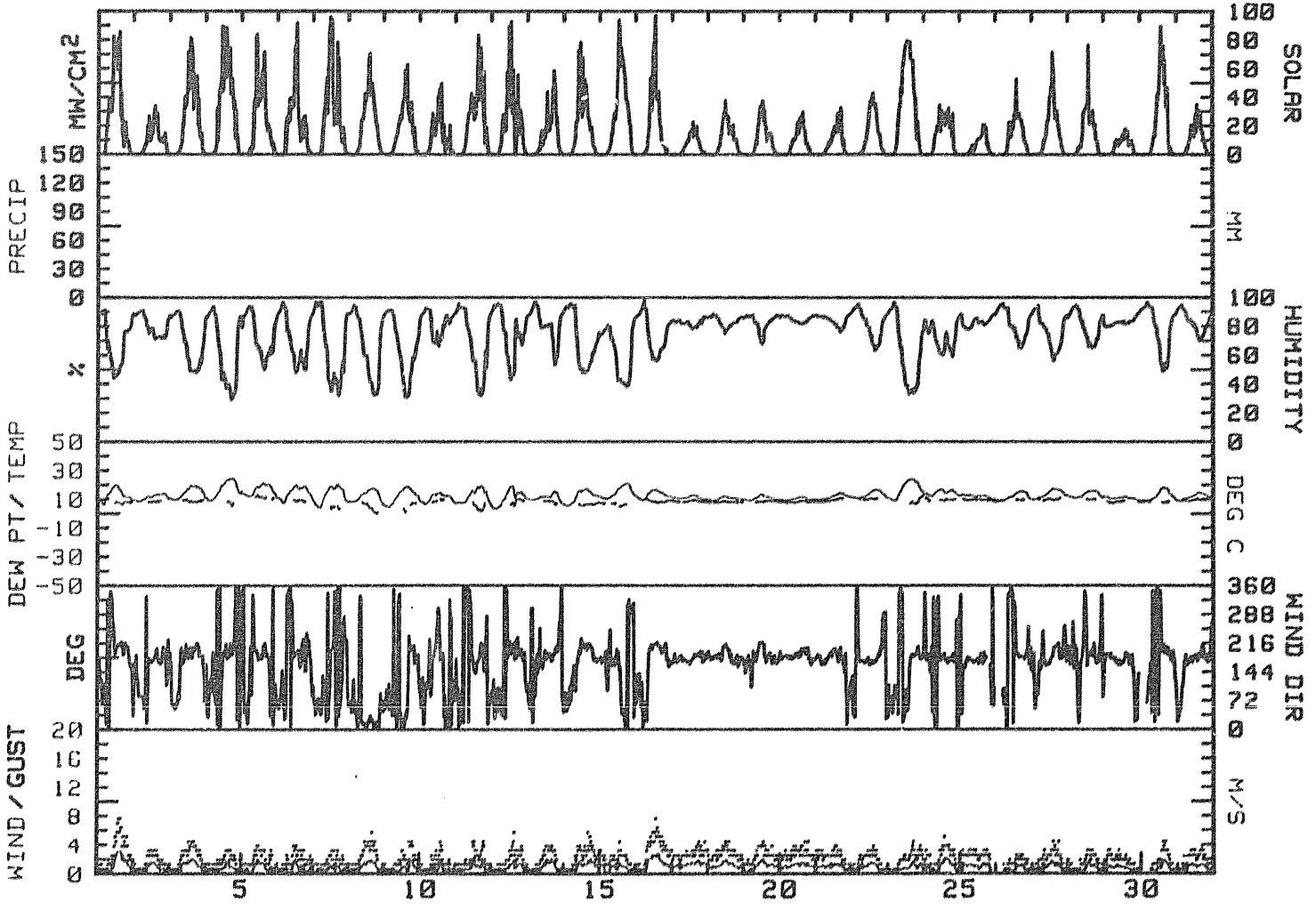
** SEE INTERPRETATION NOTES AT END OF MONTHLY REPORT **

R&M CONSULTANTS, INC.

SUSITNA HYDROELECTRIC PROJECT

SHERMAN WEATHER STATION

July, 1984



R & M CONSULTANTS, INC.

SUSITNA HYDROELECTRIC PROJECT

WIND FREQUENCY SUMMARY FOR SHERMAN WEATHER STATION
DATA TAKEN DURING July, 1984

	VELOCITY (M/S)							
DIRECTION	0.2 TO 1.0	1.0 TO 3.0	3.0 TO 6.0	6.0 TO 10.0	10.0 TO 15.0	15.0 TO 20.0	20.0 OR GREATER	TOTAL
N	3.45	.83	0.00	0.00	0.00	0.00	0.00	4.27
NNE	3.17	1.38	0.00	0.00	0.00	0.00	0.00	4.55
NE	3.51	.41	0.00	0.00	0.00	0.00	0.00	3.93
ENE	4.00	0.00	0.00	0.00	0.00	0.00	0.00	4.00
E	3.10	.14	0.00	0.00	0.00	0.00	0.00	3.24
ESE	2.34	.14	0.00	0.00	0.00	0.00	0.00	2.48
SE	2.27	.14	0.00	0.00	0.00	0.00	0.00	2.41
SSE	4.27	6.75	0.00	0.00	0.00	0.00	0.00	11.03
S	7.93	22.74	0.00	0.00	0.00	0.00	0.00	30.67
SSW	3.65	11.10	.34	0.00	0.00	0.00	0.00	15.09
SW	1.10	1.65	.14	0.00	0.00	0.00	0.00	2.89
WSW	.55	.07	0.00	0.00	0.00	0.00	0.00	.62
W	.69	.07	0.00	0.00	0.00	0.00	0.00	.76
WNW	.76	0.00	0.00	0.00	0.00	0.00	0.00	.76
NW	1.52	0.00	0.00	0.00	0.00	0.00	0.00	1.52
NNW	3.03	0.00	0.00	0.00	0.00	0.00	0.00	3.03
CALM								8.75
TOTAL	45.35	45.42	.48	0.00	0.00	0.00	0.00	100.00

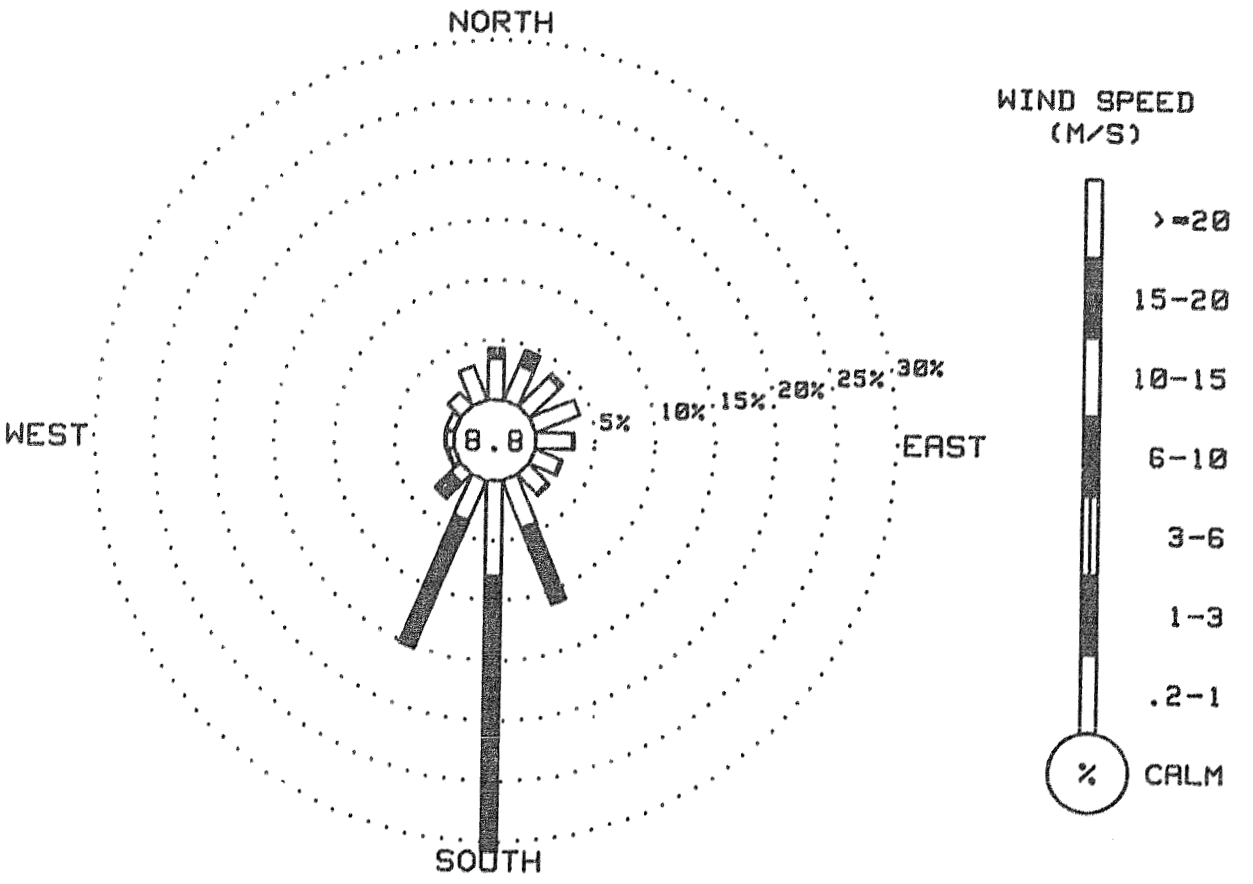
NOTE: ALL FREQUENCIES ARE EXPRESSED IN PERCENT
1451 VALID WIND OBSERVATIONS USED TO DEVELOP FREQUENCY SUMMARY
1488 WIND OBSERVATIONS WOULD HAVE BEEN CORRECT FOR 30 MINUTE DATA.
** SEE INTERPRETATION NOTES AT END OF MONTHLY REPORT **

R&M CONSULTANTS, INC.

SUSITNA HYDROELECTRIC PROJECT

SHERMAN WEATHER STATION

July, 1984



WIND ROSE PLOT

R & M CONSULTANTS, INC.

SUSITNA HYDROELECTRIC PROJECT

HOURLY PRECIPITATION SUMMARY FOR SHERMAN WEATHER STATION
DATA TAKEN DURING August, 1984

PRECIPITATION VALUES ARE IN MILLIMETERS

HOUR ENDING

DATE	0100	0200	0300	0400	0500	0600	0700	0800	0900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	2400	DATE
1	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	1
2	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	2
3	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	3
4	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	4
5	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	5
6	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	6
7	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	7
8	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	8
9	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	9
10	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	10
11	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	11
12	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	12
13	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	13
14	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	14
15	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	15
16	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	16
17	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	17
18	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	18
19	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	19
20	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	20
21	****	****	****	****	****	****	****	****	****	****	0.0	0.0	0.0	0.0	0.0	0.0	0.0	.2	.2	0.0	.4	0.0	0.0	.2	21
22	.4	.2	.4	.6	1.0	.8	.2	.8	.6	.4	.2	.2	.2	.2	0.0	.4	.8	.8	.8	.8	1.0	0.0	1.0	.6	22
23	1.2	.2	0.0	0.0	0.0	0.0	0.0	.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	.6	3.0	3.4	.6	.4	.4	1.8	23
24	1.6	4.0	4.6	1.8	2.6	1.4	2.6	.6	0.0	.4	2.4	2.4	2.0	2.2	1.6	2.4	2.2	1.8	2.2	2.8	1.8	1.2	.4	2.4	24
25	3.0	2.0	1.2	.4	.4	.6	.6	.8	2.0	4.8	3.8	4.6	3.2	1.8	.6	0.0	.2	0.0	0.0	0.0	0.0	0.0	0.0	.2	25
26	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	26
27	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	27
28	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	28
29	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	29
30	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	30
31	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	31

** SEE INTERPRETATION NOTES AT END OF MONTHLY REPORT **

R & M CONSULTANTS, INC.

SUSITNA HYDROELECTRIC PROJECT

THREE HOUR SUMMARY FOR SHERMAN WEATHER STATION
DATA TAKEN DURING August, 1984

DAY 01

HOUR NDNG	TEMP. DEG C	DEW POINT DEG C	RH %	WIND DIR. DEG.	WIND SPD. M/S	GUST DIR. DEG.	MAX. GUST M/S	RAD MW
0300	10.7	*****	88	178	.5	195	1.9	0
0600	10.8	*****	87	177	.4	170	1.9	2
0900	11.3	*****	84	229	.5	201	1.9	7
1200	12.8	9.5	80	187	.9	180	3.5	17
1500	13.6	9.9	78	175	1.4	175	3.2	23
1800	14.5	10.2	75	173	1.4	169	3.8	16
2100	12.5	10.2	86	174	1.1	173	2.5	2
2400	11.9	*****	89	171	.5	165	2.5	0

DAY 02

HOUR NDNG	TEMP. DEG C	DEW POINT DEG C	RH %	WIND DIR. DEG.	WIND SPD. M/S	GUST DIR. DEG.	MAX. GUST M/S	RAD MW
0300	11.9	*****	92	328	.0	173	.6	0
0600	12.2	*****	93	229	.1	220	1.3	0
0900	12.7	10.1	84	176	.9	180	2.5	7
1200	14.4	11.2	81	174	1.4	171	3.2	31
1500	16.0	11.8	76	172	1.6	167	3.2	26
1800	15.6	11.6	77	170	1.4	168	3.2	11
2100	14.7	*****	81	169	.7	166	2.5	1
2400	12.7	10.6	87	203	.1	192	.6	0

DAY 03

HOUR NDNG	TEMP. DEG C	DEW POINT DEG C	RH %	WIND DIR. DEG.	WIND SPD. M/S	GUST DIR. DEG.	MAX. GUST M/S	RAD MW
0300	12.3	*****	93	016	.1	016	.6	0
0600	12.5	*****	93	174	.0	273	.6	1
0900	14.2	*****	85	316	.1	015	1.3	12
1200	16.9	*****	69	327	.3	292	1.9	25
1500	17.9	*****	70	205	.6	227	1.9	20
1800	17.3	*****	73	360	.4	038	1.9	7
2100	15.3	*****	84	289	.1	244	.6	0
2400	13.8	*****	88	188	.1	206	1.3	0

DAY 04

HOUR NDNG	TEMP. DEG C	DEW POINT DEG C	RH %	WIND DIR. DEG.	WIND SPD. M/S	GUST DIR. DEG.	MAX. GUST M/S	RAD MW
0300	13.1	11.8	92	151	.2	151	.6	0
0600	13.4	*****	93	343	.1	343	.6	2
0900	16.1	*****	76	337	.2	357	1.3	20
1200	20.1	*****	58	317	.4	321	1.9	44
1500	24.6	*****	43	347	.6	032	2.5	80
1800	22.7	12.1	51	196	1.6	182	3.8	26
2100	16.5	*****	82	188	.6	205	2.5	1
2400	12.7	*****	91	096	.2	109	1.3	0

DAY 05

HOUR NDNG	TEMP. DEG C	DEW POINT DEG C	RH %	WIND DIR. DEG.	WIND SPD. M/S	GUST DIR. DEG.	MAX. GUST M/S	RAD MW
0300	12.7	*****	93	086	.1	093	.6	0
0600	14.4	13.1	92	154	.4	152	2.5	1
0900	14.4	*****	83	170	.9	166	2.5	4
1200	14.2	11.7	85	175	1.0	181	3.2	7
1500	15.0	12.0	82	170	1.0	190	2.5	10
1800	15.1	*****	84	158	.5	164	1.9	2
2100	14.4	*****	86	189	.2	171	1.3	0
2400	13.8	12.0	89	***	****	***	****	0

DAY 06

HOUR NDNG	TEMP. DEG C	DEW POINT DEG C	RH %	WIND DIR. DEG.	WIND SPD. M/S	GUST DIR. DEG.	MAX. GUST M/S	RAD MW
0300	13.5	12.2	92	***	****	***	****	0
0600	13.6	*****	93	019	.1	030	1.3	4
0900	15.2	*****	79	250	.3	001	1.3	21
1200	20.6	*****	56	206	.8	191	2.5	75
1500	21.7	*****	51	108	.4	132	1.9	42
1800	23.7	8.1	37	318	.6	000	3.2	36
2100	15.5	*****	81	327	.4	336	2.5	1
2400	8.2	*****	91	078	.2	079	1.3	0

DAY 07

HOUR NDNG	TEMP. DEG C	DEW POINT DEG C	RH %	WIND DIR. DEG.	WIND SPD. M/S	GUST DIR. DEG.	MAX. GUST M/S	RAD MW
0300	6.5	*****	93	079	.2	018	.6	0
0600	8.4	*****	94	078	.2	021	1.3	6
0900	14.6	*****	66	060	.3	083	1.3	46
1200	21.3	11.4	53	180	1.0	194	3.2	74
1500	22.1	10.3	47	190	1.6	177	3.2	39
1800	22.4	9.9	45	200	1.3	187	3.8	34
2100	14.7	*****	83	200	.7	210	3.2	1
2400	10.8	*****	91	099	.1	173	.6	0

DAY 08

HOUR NDNG	TEMP. DEG C	DEW POINT DEG C	RH %	WIND DIR. DEG.	WIND SPD. M/S	GUST DIR. DEG.	MAX. GUST M/S	RAD MW
0300	9.8	*****	95	064	.2	082	1.3	0
0600	11.9	*****	92	067	.3	066	1.3	2
0900	14.4	10.8	79	176	.5	175	2.5	12
1200	15.9	10.9	72	164	1.5	155	3.2	19
1500	17.7	11.8	68	174	1.7	174	4.4	43
1800	15.9	12.1	78	185	1.4	181	3.2	8
2100	14.4	*****	85	179	.6	168	1.9	0
2400	14.0	*****	86	175	.7	168	2.5	0

DAY 09

HOUR NDNG	TEMP. DEG C	DEW POINT DEG C	RH %	WIND DIR. DEG.	WIND SPD. M/S	GUST DIR. DEG.	MAX. GUST M/S	RAD MW
0300	11.4	*****	88	186	.5	179	2.5	0
0600	10.9	*****	91	164	.2	169	1.9	2
0900	14.5	*****	72	089	.1	348	1.3	34
1200	16.4	*****	59	178	.5	155	1.9	19
1500	17.3	*****	49	168	.4	165	1.9	30
1800	16.5	*****	58	326	.5	270	1.9	15
2100	13.0	*****	74	009	.6	005	2.5	0
2400	6.7	*****	91	075	.3	067	1.3	0

** SEE INTERPRETATION NOTES AT END OF MONTHLY REPORT **

R & M CONSULTANTS, INC.

SUSITNA HYDROELECTRIC PROJECT

THREE HOUR SUMMARY FOR SHERMAN WEATHER STATION
DATA TAKEN DURING August, 1984

DAY 10

HOUR NDNG	TEMP. DEG C	DEW POINT DEG C	RH %	WIND DIR. DEG.	WIND SPD. M/S	GUST DIR. DEG.	MAX. GUST M/S	RAD MW
0300	6.3	*****	93	090	.3	114	1.3	0
0600	7.9	*****	94	095	.2	126	.6	3
0900	11.7	*****	80	080	.3	077	1.3	16
1200	17.3	*****	46	094	.5	132	1.9	75
1500	15.9	*****	60	191	1.1	203	3.8	14
1800	16.1	*****	54	210	1.2	227	3.2	16
2100	12.6	9.4	81	194	.5	196	3.2	0
2400	9.4	*****	89	087	.1	087	.6	0

DAY 11

HOUR NDNG	TEMP. DEG C	DEW POINT DEG C	RH %	WIND DIR. DEG.	WIND SPD. M/S	GUST DIR. DEG.	MAX. GUST M/S	RAD MW
0300	8.5	*****	94	073	.2	059	1.3	0
0600	8.7	*****	93	110	.1	067	.6	2
0900	14.6	*****	67	059	.3	080	1.9	52
1200	18.2	*****	41	088	.9	099	2.5	17
1500	20.6	-.8	24	082	1.1	334	3.8	64
1800	19.5	-2.3	23	025	1.3	031	3.8	31
2100	9.5	*****	83	023	.8	020	4.4	1
2400	5.5	*****	89	055	.3	056	.6	0

DAY 12

HOUR NDNG	TEMP. DEG C	DEW POINT DEG C	RH %	WIND DIR. DEG.	WIND SPD. M/S	GUST DIR. DEG.	MAX. GUST M/S	RAD MW
0300	2.0	*****	94	059	.3	062	1.3	0
0600	2.4	*****	95	078	.2	091	1.3	2
0900	12.0	*****	59	066	.2	083	1.3	47
1200	16.1	*****	48	359	.4	021	1.9	33
1500	21.4	-6.4	15	156	.8	110	4.4	62
1800	20.6	-6.1	16	018	1.5	018	5.1	25
2100	10.2	*****	83	310	.2	000	2.5	0
2400	4.3	*****	91	120	.2	206	.6	0

DAY 13

HOUR NDNG	TEMP. DEG C	DEW POINT DEG C	RH %	WIND DIR. DEG.	WIND SPD. M/S	GUST DIR. DEG.	MAX. GUST M/S	RAD MW
0300	1.7	*****	94	050	.3	050	1.3	0
0600	3.0	*****	95	051	.2	088	1.3	1
0900	10.7	*****	63	047	.4	029	1.9	58
1200	20.2	*****	30	345	.7	359	2.5	68
1500	23.3	*****	18	033	.8	041	2.5	60
1800	22.4	*****	26	299	.4	008	2.5	30
2100	9.8	*****	84	296	.3	284	.3	0
2400	4.6	*****	93	058	.3	075	1.3	0

DAY 14

HOUR NDNG	TEMP. DEG C	DEW POINT DEG C	RH %	WIND DIR. DEG.	WIND SPD. M/S	GUST DIR. DEG.	MAX. GUST M/S	RAD MW
0300	4.5	*****	94	061	.3	046	1.3	0
0600	1.8	*****	96	076	.2	107	1.3	3
0900	11.8	*****	62	044	.3	004	1.9	43
1200	19.0	3.1	35	335	.4	218	2.5	29
1500	20.3	5.0	37	175	1.3	186	2.5	26
1800	21.0	2.7	30	180	1.4	182	3.8	24
2100	11.6	*****	84	202	.3	184	1.9	0
2400	6.3	*****	93	085	.1	083	1.3	0

DAY 15

HOUR NDNG	TEMP. DEG C	DEW POINT DEG C	RH %	WIND DIR. DEG.	WIND SPD. M/S	GUST DIR. DEG.	MAX. GUST M/S	RAD MW
0300	3.4	*****	94	055	.2	006	.6	0
0600	4.0	*****	96	056	.3	070	1.3	1
0900	12.1	*****	70	056	.4	072	1.3	43
1200	20.8	*****	38	027	.7	028	2.5	65
1500	22.5	4.0	30	192	.9	186	3.8	58
1800	21.1	4.1	33	209	1.3	213	3.2	12
2100	12.2	*****	85	204	.4	214	1.9	0
2400	8.0	*****	92	097	.2	119	1.3	0

DAY 16

HOUR NDNG	TEMP. DEG C	DEW POINT DEG C	RH %	WIND DIR. DEG.	WIND SPD. M/S	GUST DIR. DEG.	MAX. GUST M/S	RAD MW
0300	5.2	*****	92	061	.2	086	.6	0
0600	4.6	*****	94	066	.2	074	.6	2
0900	11.2	*****	86	082	.2	048	1.3	22
1200	16.7	*****	62	199	.4	164	1.3	38
1500	19.4	9.6	53	190	1.6	194	3.8	17
1800	20.2	*****	52	210	1.6	216	4.4	21
2100	15.5	*****	72	188	.8	193	2.5	0
2400	14.7	10.8	77	161	.7	163	2.5	0

DAY 17

HOUR NDNG	TEMP. DEG C	DEW POINT DEG C	RH %	WIND DIR. DEG.	WIND SPD. M/S	GUST DIR. DEG.	MAX. GUST M/S	RAD MW
0300	13.0	9.8	81	174	1.2	183	3.2	0
0600	12.6	*****	82	178	.5	179	1.9	0
0900	12.7	9.5	81	172	.8	178	2.5	5
1200	13.5	*****	78	181	.9	168	2.5	10
1500	14.4	9.9	74	197	1.2	191	3.2	22
1800	13.1	*****	80	209	.7	227	3.8	2
2100	11.6	*****	86	236	.0	041	.6	0
2400	11.1	*****	90	186	.1	183	1.9	0

DAY 18

HOUR NDNG	TEMP. DEG C	DEW POINT DEG C	RH %	WIND DIR. DEG.	WIND SPD. M/S	GUST DIR. DEG.	MAX. GUST M/S	RAD MW
0300	10.5	*****	92	093	.1	093	.6	0
0600	10.2	*****	93	064	.2	100	1.3	0
0900	11.9	*****	90	083	.0	192	1.3	11
1200	12.8	*****	81	016	.4	335	1.9	17
1500	12.5	*****	81	013	.4	326	1.9	16
1800	11.3	*****	84	336	.4	339	1.3	3
2100	10.2	*****	87	035	.1	327	1.3	0
2400	9.2	*****	92	035	.2	058	1.9	0

** SEE INTERPRETATION NOTES AT END OF MONTHLY REPORT **

R & M CONSULTANTS, INC.

SUSITNA HYDROELECTRIC PROJECT

THREE HOUR SUMMARY FOR SHERMAN WEATHER STATION
DATA TAKEN DURING August, 1984

DAY 19

HOUR NDNG	TEMP. DEG C	DEW POINT DEG C	RH %	WIND DIR. DEG.	WIND SPD. M/S	GUST DIR. DEG.	MAX. GUST M/S	RAD MW
0300	8.7	*****	92	041	.3	061	1.9	0
0600	8.5	*****	92	006	.4	010	1.3	0
0900	9.7	*****	85	350	.7	349	1.9	6
1200	11.9	*****	82	351	.7	349	1.9	15
1500	13.7	*****	80	000	.5	345	1.9	13
1800	12.8	*****	82	173	.3	080	1.9	11
2100	10.5	*****	87	195	.2	209	1.3	0
2400	9.7	*****	93	092	.1	042	1.3	0

DAY 20

HOUR NDNG	TEMP. DEG C	DEW POINT DEG C	RH %	WIND DIR. DEG.	WIND SPD. M/S	GUST DIR. DEG.	MAX. GUST M/S	RAD MW
0300	8.9	*****	95	026	.1	357	1.3	0
0600	8.7	*****	93	029	.1	098	.6	0
0900	10.6	9.0	90	211	.1	170	1.9	11
1200	11.9	8.6	80	176	1.7	179	3.8	25
1500	11.1	8.0	81	175	1.5	175	3.8	15
1800	11.5	8.7	83	171	1.5	169	3.8	9
2100	10.2	*****	84	170	1.2	180	2.5	0
2400	8.9	*****	88	177	.5	182	2.5	0

DAY 21

HOUR NDNG	TEMP. DEG C	DEW POINT DEG C	RH %	WIND DIR. DEG.	WIND SPD. M/S	GUST DIR. DEG.	MAX. GUST M/S	RAD MW
0300	7.6	*****	95	111	.1	090	1.3	0
0600	8.2	*****	92	038	.2	034	1.3	1
0900	9.8	*****	82	358	.4	346	1.9	12
1200	*****	*****	**	343	.4	343	.6	***
1500	*****	*****	**	***	****	***	****	***
1800	*****	*****	**	***	****	***	****	***
2100	*****	*****	**	***	****	***	****	***
2400	*****	*****	**	***	****	***	****	***

DAY 22

HOUR NDNG	TEMP. DEG C	DEW POINT DEG C	RH %	WIND DIR. DEG.	WIND SPD. M/S	GUST DIR. DEG.	MAX. GUST M/S	RAD MW
0300	*****	*****	**	***	****	***	****	***
0600	*****	*****	**	***	****	***	****	***
0900	*****	*****	**	***	****	***	****	***
1200	*****	*****	**	***	****	***	****	***
1500	*****	*****	**	***	****	***	****	***
1800	*****	*****	**	***	****	***	****	***
2100	*****	*****	**	***	****	***	****	***
2400	*****	*****	**	***	****	***	****	***

DAY 23

HOUR NDNG	TEMP. DEG C	DEW POINT DEG C	RH %	WIND DIR. DEG.	WIND SPD. M/S	GUST DIR. DEG.	MAX. GUST M/S	RAD MW
0300	*****	*****	**	***	****	***	****	***
0600	*****	*****	**	***	****	***	****	***
0900	*****	*****	**	***	****	***	****	***
1200	*****	*****	**	***	****	***	****	***
1500	*****	*****	**	***	****	***	****	***
1800	*****	*****	**	***	****	***	****	***
2100	*****	*****	**	***	****	***	****	***
2400	*****	*****	**	***	****	***	****	***

DAY 24

HOUR NDNG	TEMP. DEG C	DEW POINT DEG C	RH %	WIND DIR. DEG.	WIND SPD. M/S	GUST DIR. DEG.	MAX. GUST M/S	RAD MW
0300	*****	*****	**	***	****	***	****	***
0600	*****	*****	**	***	****	***	****	***
0900	*****	*****	**	***	****	***	****	***
1200	*****	*****	**	***	****	***	****	***
1500	*****	*****	**	***	****	***	****	***
1800	10.0	8.4	90	***	****	***	****	***
2100	9.1	8.0	93	***	****	***	****	***
2400	8.7	7.9	95	***	****	***	****	***

DAY 25

HOUR NDNG	TEMP. DEG C	DEW POINT DEG C	RH %	WIND DIR. DEG.	WIND SPD. M/S	GUST DIR. DEG.	MAX. GUST M/S	RAD MW
0300	8.3	7.2	93	***	****	***	****	***
0600	8.3	7.2	93	***	****	***	****	***
0900	8.7	7.4	92	***	****	***	****	***
1200	7.6	5.7	88	***	****	***	****	***
1500	6.8	5.4	91	***	****	***	****	***
1800	6.9	5.0	88	***	****	***	****	***
2100	5.5	4.3	92	***	****	***	****	***
2400	4.9	4.0	94	***	****	***	****	***

DAY 26

HOUR NDNG	TEMP. DEG C	DEW POINT DEG C	RH %	WIND DIR. DEG.	WIND SPD. M/S	GUST DIR. DEG.	MAX. GUST M/S	RAD MW
0300	3.8	3.0	95	***	****	***	****	***
0600	3.2	2.5	95	***	****	***	****	***
0900	7.3	*****	70	011	.1	011	3.8	37
1200	11.4	-1.2	42	110	.7	076	4.4	58
1500	11.4	-1.2	42	053	2.2	068	6.3	52
1800	9.0	-3.0	43	051	2.6	036	7.0	21
2100	5.3	-3.0	55	048	2.5	048	7.6	0
2400	.1	*****	79	031	1.0	050	3.2	0

DAY 27

HOUR NDNG	TEMP. DEG C	DEW POINT DEG C	RH %	WIND DIR. DEG.	WIND SPD. M/S	GUST DIR. DEG.	MAX. GUST M/S	RAD MW
0300	-2.2	*****	94	047	.3	010	1.3	0
0600	-3.3	*****	94	050	.2	019	1.3	0
0900	6.1	*****	65	075	.3	093	1.9	33
1200	11.0	-1.5	42	061	1.4	056	3.8	59
1500	12.7	-.7	40	043	1.6	041	3.8	52
1800	10.7	-2.5	40	030	1.6	016	5.1	21
2100	0.0	*****	92	047	.7	051	3.8	0
2400	-2.2	*****	94	089	.3	107	1.3	0

** SEE INTERPRETATION NOTES AT END OF MONTHLY REPORT **

R & M CONSULTANTS, INC.

SUSITNA HYDROELECTRIC PROJECT

THREE HOUR SUMMARY FOR SHERMAN WEATHER STATION
DATA TAKEN DURING August, 1984

DAY 28

HOUR NDNG	TEMP. DEG C	DEW POINT DEG C	RH %	WIND DIR. DEG.	WIND SPD. M/S	GUST DIR. DEG.	MAX. GUST M/S	RAD MW
0300	-3.4	*****	93	110	.4	091	1.3	0
0600	-3.5	*****	93	104	.4	094	1.3	0
0900	3.7	*****	74	080	.5	097	1.9	34
1200	11.5	-1.4	41	047	1.3	070	3.8	56
1500	14.2	-2.0	33	043	1.7	039	4.4	52
1800	13.4	*****	40	033	1.1	049	3.2	15
2100	1.4	*****	92	045	.3	015	2.5	0
2400	-2.2	*****	94	091	.2	120	1.3	0

DAY 29

HOUR NDNG	TEMP. DEG C	DEW POINT DEG C	RH %	WIND DIR. DEG.	WIND SPD. M/S	GUST DIR. DEG.	MAX. GUST M/S	RAD MW
0300	-3.3	*****	93	043	.2	048	1.3	0
0600	-4.3	*****	93	059	.2	074	1.3	0
0900	4.3	*****	79	070	.1	016	.6	37
1200	12.2	-.4	42	055	1.0	036	3.8	56
1500	14.3	-.3	37	032	1.5	020	3.8	53
1800	12.3	-2.1	37	031	1.3	016	3.8	21
2100	3.6	*****	70	020	1.0	018	3.8	0
2400	2.2	-2.7	70	074	.8	066	3.8	0

DAY 30

HOUR NDNG	TEMP. DEG C	DEW POINT DEG C	RH %	WIND DIR. DEG.	WIND SPD. M/S	GUST DIR. DEG.	MAX. GUST M/S	RAD MW
0300	-.3	*****	83	100	.7	115	2.5	0
0600	-.3	*****	82	083	.7	058	2.5	0
0900	6.8	-2.1	53	066	.8	066	4.4	28
1200	10.2	-2.2	42	045	2.4	042	7.0	57
1500	11.9	-1.0	41	043	2.5	044	5.7	51
1800	10.3	-2.5	41	048	2.1	031	5.1	16
2100	.1	*****	86	042	.9	041	3.8	0
2400	-1.2	*****	94	137	.2	123	1.3	0

DAY 31

HOUR NDNG	TEMP. DEG C	DEW POINT DEG C	RH %	WIND DIR. DEG.	WIND SPD. M/S	GUST DIR. DEG.	MAX. GUST M/S	RAD MW
0300	-.4	*****	96	109	.1	111	.6	0
0600	-1.3	*****	95	049	.2	081	1.3	0
0900	8.1	*****	66	035	.4	027	3.2	12
1200	10.8	1.9	54	053	1.6	053	5.1	19
1500	11.3	2.1	53	050	1.5	047	4.4	14
1800	11.9	*****	54	054	1.0	046	3.2	9
2100	3.7	*****	91	066	.3	063	1.9	0
2400	3.1	*****	94	079	.2	076	1.3	0

** SEE INTERPRETATION NOTES AT END OF MONTHLY REPORT **

R & M CONSULTANTS, INC.

SUSITNA HYDROELECTRIC PROJECT

MONTHLY SUMMARY FOR SHERMAN WEATHER STATION
DATA TAKEN DURING August, 1984

DAY	MAX. TEMP. DEG C	MIN. TEMP. DEG C	MEAN TEMP. DEG C	RES. WIND DIR. DEG	RES. WIND SPD. M/S	AVG. WIND SPD. M/S	MAX. GUST DIR. DEG	MAX. GUST SPD. M/S	P'VAL DIR.	MEAN RH %	MEAN DP DEG C	PRECIP MM	DAY'S SOLAR ENERGY WH/SQM	DAY
1	15.0	10.4	12.7	179	.8	.9	169	3.8	S	79	10.0	****	2030	1
2	16.1	11.9	14.0	174	.8	.9	171	3.2	S	81	11.1	****	2145	2
3	18.1	12.0	15.1	279	.1	.3	292	1.9	SSW	84	10.8	****	2180	3
4	24.6	12.7	18.7	219	.2	.7	182	3.8	SSW	71	11.8	****	4925	4
5	15.2	12.0	13.6	171	.6	.6	181	3.2	S	87	12.1	****	940	5
6	24.2	8.2	16.2	266	.1	.6	000	3.2	NNE	75	11.2	****	5345	6
7	23.3	6.5	14.9	183	.5	.7	187	3.8	SSW	49	10.9	****	6150	7
8	18.7	9.3	14.0	171	.8	.9	174	4.4	S	74	11.5	****	2810	8
9	18.7	6.7	12.7	148	.1	.5	179	2.5	S	74	10.1	****	3535	9
10	17.5	[illegible].5	11.5	172	.4	.6	203	3.8	E	68	7.9	****	3945	10
11	20.8	5.5	13.2	035	.5	.7	020	4.4	NE	27	-.3	****	6105	11
12	21.4	1.4	11.4	044	.3	.6	018	5.1	NNE	17	-5.4	****	5780	12
13	23.3	.9	12.1	013	.3	.5	359	2.5	NE	24	-1.3	****	5945	13
14	23.2	1.5	12.4	165	.3	.6	182	3.8	S	32	3.7	****	5245	14
15	22.8	3.3	13.1	171	.2	.6	186	3.8	ENE	31	4.3	****	5750	15
16	20.7	4.2	12.5	186	.6	.7	216	4.4	SSE	55	9.7	****	3795	16
17	14.7	10.8	12.8	185	.7	.7	227	3.8	S	77	9.9	****	1320	17
18	12.8	9.2	11.0	019	.2	.3	335	1.9	NNE	**	*****	****	1335	18
19	14.2	8.5	11.4	005	.3	.4	061	1.9	N	**	*****	****	1255	19
20	12.1	8.6	10.4	173	.8	.9	179	3.8	S	82	8.3	****	2000	20
21	10.2	7.4	8.8	021	.2	.3	346	1.9	NNE	**	*****	1.0	1667	21
22	*****	*****	*****	***	****	****	***	****	***	**	*****	12.4	******	22
23	*****	*****	*****	***	****	****	***	****	***	**	*****	11.8	******	23
24	10.1	8.6	9.4	***	****	****	***	****	NNE	92	8.2	47.4	******	24
25	9.3	4.9	7.1	***	****	****	***	****	NE	91	6.0	30.2	******	25
26	11.9	.1	6.0	052	1.7	1.8	048	7.6	NE	65	-.1	0.0	7223	26
27	12.8	-3.5	4.7	047	.8	.8	016	5.1	NE	42	-1.5	0.0	4855	27
28	14.8	-4.2	5.3	054	.7	.8	039	4.4	E	37	-1.6	0.0	4585	28
29	14.9	-4.3	5.3	041	.7	.8	036	3.8	NE	42	-1.1	0.0	4490	29
30	11.9	-2.0	5.0	051	1.2	1.3	042	7.0	NE	46	-2.0	0.0	4440	30
31	12.6	-1.3	5.7	054	.6	.7	053	5.1	ENE	54	2.0	0.0	1675	31
MONTH	24.6	-4.3	11.0	109	.2	.7	048	7.6	S	64	5.6	102.8	101471	

GUST VEL. AT MAX. GUST MINUS 2 INTERVALS	7.0
GUST VEL. AT MAX. GUST MINUS 1 INTERVAL	6.3
GUST VEL. AT MAX. GUST PLUS 1 INTERVAL	5.7
GUST VEL. AT MAX. GUST PLUS 2 INTERVALS	5.7

NOTE: RELATIVE HUMIDITY READINGS ARE UNRELIABLE WHEN WIND SPEEDS ARE LESS THAN ONE METER PER SECOND. SUCH READINGS HAVE NOT BEEN INCLUDED IN THE DAILY OR MONTHLY MEAN FOR RELATIVE HUMIDITY AND DEW POINT.

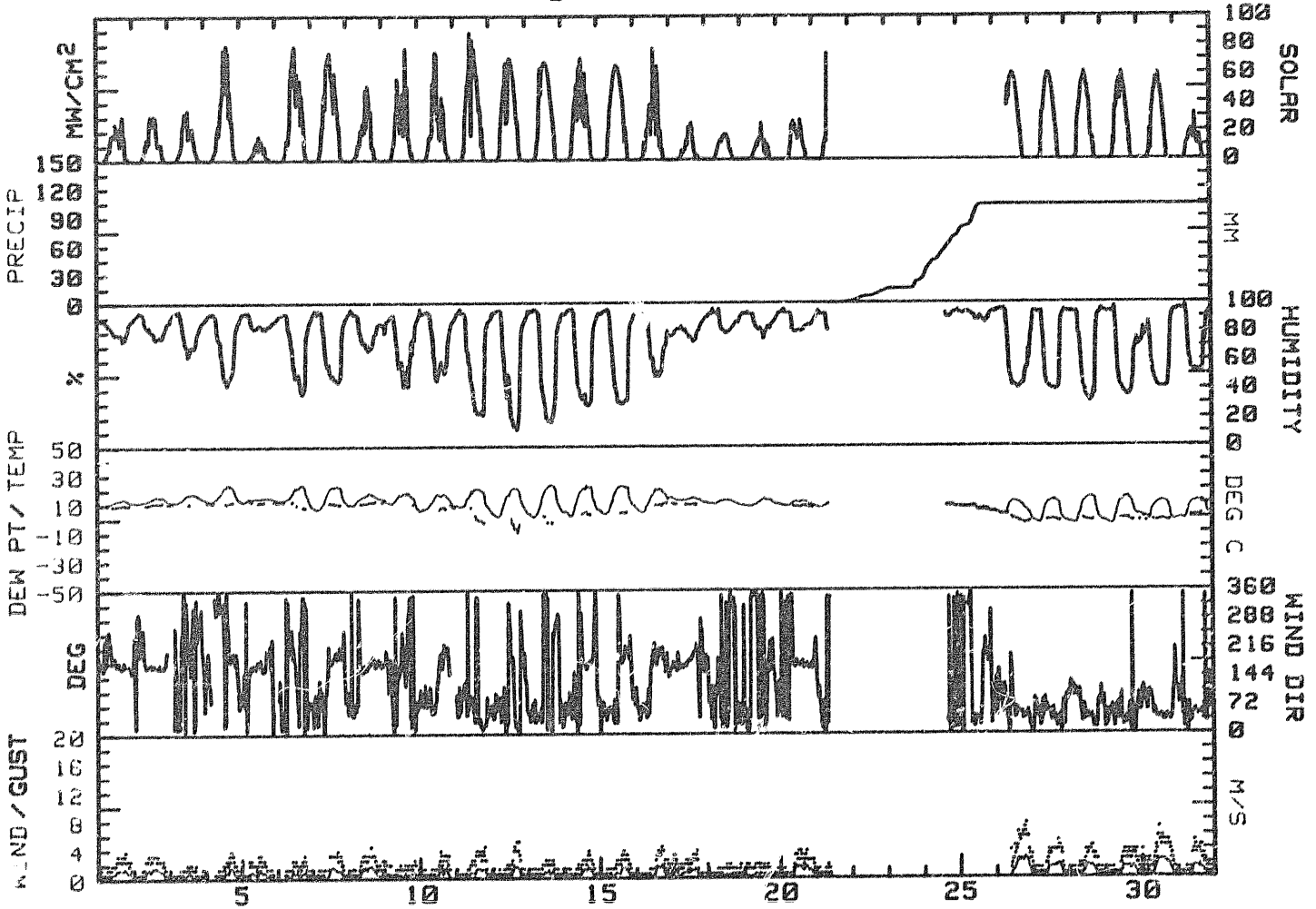
** SEE INTERPRETATION NOTES AT END OF MONTHLY REPORT **

R&M CONSULTANTS, INC.

SUSITNA HYDROELECTRIC PROJECT

SHERMAN WEATHER STATION

August, 1984



R & M CONSULTANTS, INC.

SUSITNA HYDROELECTRIC PROJECT

WIND FREQUENCY SUMMARY FOR SHERMAN WEATHER STATION
DATA TAKEN DURING August, 1984

	VELOCITY (M/S)							
DIRECTION	0.2 TO 1.0	1.0 TO 3.0	3.0 TO 6.0	6.0 TO 10.0	10.0 TO 15.0	15.0 TO 20.0	20.0 OR GREATER	TOTAL
N	3.64	.83	0.00	0.00	0.00	0.00	0.00	4.47
NNE	5.71	2.89	0.00	0.00	0.00	0.00	0.00	8.60
NE	6.53	5.96	.08	0.00	0.00	0.00	0.00	12.57
ENE	8.60	1.74	0.00	0.00	0.00	0.00	0.00	10.34
E	7.20	.17	0.00	0.00	0.00	0.00	0.00	7.36
ESE	3.47	.17	0.00	0.00	0.00	0.00	0.00	3.64
SE	1.82	.08	0.00	0.00	0.00	0.00	0.00	1.90
SSE	3.80	3.47	0.00	0.00	0.00	0.00	0.00	7.28
S	5.62	8.44	0.00	0.00	0.00	0.00	0.00	14.06
SSW	3.56	3.14	0.00	0.00	0.00	0.00	0.00	6.70
SW	1.49	1.08	0.00	0.00	0.00	0.00	0.00	2.56
WSW	1.57	.08	0.00	0.00	0.00	0.00	0.00	1.65
W	1.08	0.00	0.00	0.00	0.00	0.00	0.00	1.08
WNW	.83	.17	0.00	0.00	0.00	0.00	0.00	.99
NW	1.57	.08	0.00	0.00	0.00	0.00	0.00	1.65
NNW	3.14	.41	0.00	0.00	0.00	0.00	0.00	3.56
CALM								11.58
TOTAL	59.64	28.70	.08	0.00	0.00	0.00	0.00	100.00

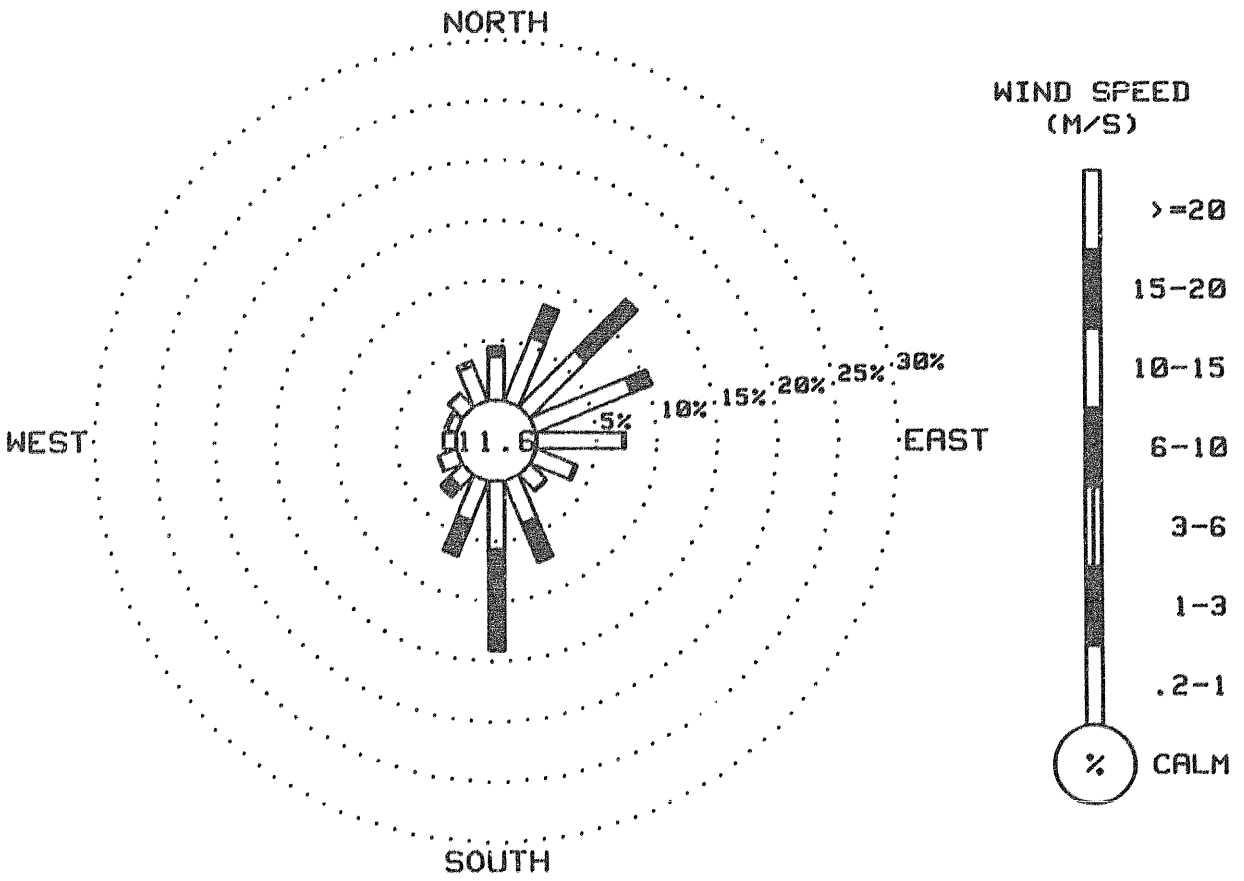
NOTE: ALL FREQUENCIES ARE EXPRESSED IN PERCENT
1209 VALID WIND OBSERVATIONS USED TO DEVELOP FREQUENCY SUMMARY
1488 WIND OBSERVATIONS WOULD HAVE BEEN CORRECT FOR 30 MINUTE DATA.
** SEE INTERPRETATION NOTES AT END OF MONTHLY REPORT **

R&M CONSULTANTS, INC.

SUSITNA HYDROELECTRIC PROJECT

SHERMAN WEATHER STATION

August, 1984



WIND ROSE PLOT

R & M CONSULTANTS, INC.

SUSITNA HYDROELECTRIC PROJECT

HOURLY SOLAR RADIATION SUMMARY FOR SHERMAN WEATHER STATION
DATA TAKEN DURING August, 1984

SOLAR RADIATION VALUES MEASURED IN MILLIWATTS PER SQUARE CENTIMETER

HOUR ENDING

DATE	0100	0200	0300	0400	0500	0600	0700	0800	0900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	2400	AVG
1	0	0	0	0	1	2	2	6	7	15	17	18	25	19	21	11	24	24	12	2	2	0	0	0	8
2	0	0	0	0	0	0	2	4	9	14	12	29	25	26	29	26	12	12	11	6	2	0	0	0	9
3	0	0	0	0	0	1	3	6	10	23	30	26	30	18	18	23	16	9	5	2	1	0	0	0	9
4	0	0	0	0	0	2	5	7	18	21	29	42	62	70	64	72	40	34	23	7	2	0	0	0	21
5	0	0	0	0	0	1	2	3	5	8	12	10	12	12	11	7	9	3	2	1	0	0	0	0	4
6	0	0	0	0	0	3	6	14	16	41	58	73	77	40	52	44	41	41	26	6	2	0	0	0	22
7	0	0	0	0	0	4	12	23	45	50	68	73	71	59	44	47	49	37	24	10	2	0	0	0	26
8	0	0	0	0	0	2	3	9	11	20	23	19	42	37	47	34	23	9	4	2	1	0	0	0	12
9	0	0	0	0	0	1	6	11	27	44	43	22	27	39	24	49	36	15	8	5	1	0	0	0	15
10	0	0	0	0	0	2	7	16	16	37	35	75	51	31	15	38	34	25	9	5	2	0	0	0	16
11	0	0	0	0	0	2	6	31	47	57	78	19	81	68	66	57	41	35	17	9	2	0	0	0	25
12	0	0	0	0	0	2	11	30	44	55	47	30	71	70	64	56	45	29	22	6	1	0	0	0	24
13	0	0	0	0	0	1	5	14	41	55	62	67	68	67	62	54	43	33	21	5	1	0	0	0	25
14	0	0	0	0	0	2	12	28	41	53	46	47	71	59	28	42	43	29	22	4	1	0	0	0	22
15	0	0	0	0	0	1	12	23	40	50	58	64	65	64	59	51	42	21	20	8	1	0	0	0	24
16	0	0	0	0	0	2	10	9	22	27	39	28	54	40	25	64	37	15	8	3	1	0	0	0	16
17	0	0	0	0	0	0	1	5	5	7	12	11	21	22	24	14	6	2	4	2	0	0	0	0	6
18	0	0	0	0	0	0	3	6	10	13	12	16	17	16	17	12	8	4	2	0	0	0	0	0	6
19	0	0	0	0	0	0	1	3	6	9	11	15	15	23	14	10	6	11	6	1	0	0	0	0	5
20	0	0	0	0	0	0	1	2	9	25	24	25	19	17	17	26	20	11	7	1	0	0	0	0	8
21	0	0	0	0	0	1	4	12	14	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	1
22	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***
23	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***
24	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***
25	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***
26	***	***	***	***	***	***	***	***	56	51	49	58	60	58	54	47	36	24	12	2	0	0	0	0	21
27	0	0	0	0	0	0	2	13	33	41	51	58	60	59	54	47	36	24	10	1	0	0	0	0	20
28	0	0	0	0	0	0	2	12	32	40	50	55	60	59	52	43	28	16	11	2	0	0	0	0	19
29	0	0	0	0	0	0	2	10	24	36	50	54	44	61	54	46	36	24	11	2	0	0	0	0	19
30	0	0	0	0	0	0	3	14	17	38	48	54	58	59	51	44	33	21	7	1	0	0	0	0	19
31	0	0	0	0	0	0	1	5	12	14	18	20	15	26	17	11	15	12	4	1	0	0	0	0	7

** SEE INTERPRETATION NOTES AT END OF MONTHLY REPORT **

R & M CONSULTANTS, INC.

SUSITNA HYDROELECTRIC PROJECT

OBSERVATION SUMMARY FOR SHERMAN WEATHER STATION
DATA TAKEN DURING August, 1984

PARAMETER	NUMBER OF USABLE OBSERVATIONS	PERCENT OF TOTAL OBSERVATIONS
TEMPERATURE	1332	90
WIND SPEED	1210	81
WIND DIRECTION	1306	88
PEAK GUST	1210	81
RELATIVE HUMIDITY	470	32
PRECIPITATION	272	18
SOLAR RADIATION	1250	84
DEW POINT	470	32

THERE ARE 1488 POSSIBLE OBSERVATIONS THIS MONTH FOR EACH PARAMETER. THE DATA RECORDING INTERVAL IS 30 MINUTES.

THE FOLLOWING ADJUSTMENTS HAVE BEEN MADE TO THIS MONTH'S DATA:

1. RH +7 RH Points 8/1 - 8/24
   +5 8/24 - 8/31
2. Solar -1 mW/CM^2

Additional comments on this month's data:

1. No data for all parameters except precipitation from 8/21 to 8/24. Station down for annual maintenance.
2. Solar and wind sensors replaced on 8/26. No data between 8/21 & 8/26.
3. No precipitation data prior to 8/21 when precipitation collector replaced.
4. Intermittent wind direction data lost due to stuck wind vane.

R & M CONSULTANTS, INC.

SUSITNA HYDROELECTRIC PROJECT

HOURLY PRECIPITATION SUMMARY FOR SHERMAN WEATHER STATION
DATA TAKEN DURING September, 1984

PRECIPITATION VALUES ARE IN MILLIMETERS

HOUR ENDING

DATE	0100	0200	0300	0400	0500	0600	0700	0800	0900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	2400	DATE
1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1
2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2
3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3
4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4
5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5
6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	6
7	.6	1.6	.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	.2	0.0	7
8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	8
9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	9
10	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	10
11	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	11
12	0.0	0.0	0.0	0.0	0.0	.6	.2	.8	.8	.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.0	.8	12
13	.8	.2	.2	.2	0.0	.2	.2	0.0	.4	1.0	.4	.2	0.0	0.0	.2	.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	13
14	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	14
15	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	15
16	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	.4	0.0	0.0	0.0	.8	1.6	0.0	0.0	16
17	.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	.6	.2	.2	17
18	3.0	1.6	.2	0.0	0.0	0.0	.2	0.0	1.4	1.2	.6	1.6	.6	0.0	0.0	.4	1.0	.4	0.0	0.0	0.0	0.0	0.0	2.2	18
19	.2	0.0	0.0	0.0	0.0	0.0	.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	.6	2.0	2.4	1.6	.6	2.6	2.8	1.6	.6	.2	19
20	.2	0.0	.6	.2	0.0	.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	20
21	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	21
22	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	22
23	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	23
24	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	24
25	0.0	.2	.6	1.0	.4	0.0	.2	0.0	.2	0.0	0.0	0.0	0.0	0.0	0.0	.2	0.0	0.0	0.0	.2	0.0	0.0	0.0	0.0	25
26	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	26
27	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	27
28	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	28
29	0.0	0.0	0.0	0.0	0.0	0.0	0.0	.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	.2	29
30	1.2	0.0	.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	30

** SEE INTERPRETATION NOTES AT END OF MONTHLY REPORT **

R & M CONSULTANTS, INC.

SUSITNA HYDROELECTRIC PROJECT

THREE HOUR SUMMARY FOR SHERMAN WEATHER STATION
DATA TAKEN DURING September, 1984

DAY 01

HOUR NDNG	TEMP. DEG C	DEW POINT DEG C	RH %	WIND DIR. DEG.	WIND SPD. M/S	GUST DIR. DEG.	MAX. GUST M/S	RAD MW
0300	2.8	*****	91	062	.6	026	1.9	0
0600	-.4	*****	95	084	.6	082	1.9	0
0900	6.7	*****	75	120	.4	125	1.3	28
1200	15.9	4.6	47	052	.8	056	2.5	57
1500	18.0	2.6	36	029	1.3	019	3.8	49
1800	16.7	*****	45	321	.9	328	3.2	14
2100	3.8	*****	95	273	.3	304	1.3	0
2400	.2	*****	96	075	.2	151	1.3	0

DAY 02

HOUR NDNG	TEMP. DEG C	DEW POINT DEG C	RH %	WIND DIR. DEG.	WIND SPD. M/S	GUST DIR. DEG.	MAX. GUST M/S	RAD MW
0300	-1.4	*****	96	057	.2	064	.6	0
0600	-2.9	*****	94	062	.1	074	.6	0
0900	4.7	*****	83	091	.1	135	1.3	29
1200	15.1	*****	49	094	.6	050	1.9	55
1500	18.5	4.2	39	182	.9	190	3.2	55
1800	16.9	*****	40	335	.6	257	2.5	17
2100	3.9	*****	96	326	.4	301	1.3	0
2400	.4	*****	97	075	.3	034	1.3	0

DAY 03

HOUR NDNG	TEMP. DEG C	DEW POINT DEG C	RH %	WIND DIR. DEG.	WIND SPD. M/S	GUST DIR. DEG.	MAX. GUST M/S	RAD MW
0300	-1.2	*****	95	066	.2	061	1.3	0
0600	-.9	*****	95	104	.4	121	1.3	0
0900	4.8	*****	80	105	.4	097	1.9	29
1200	15.8	3.5	44	042	.7	000	2.5	54
1500	16.6	1.3	36	053	1.6	068	4.4	19
1800	16.1	.5	35	037	1.6	041	5.1	19
2100	4.5	*****	91	046	.5	034	3.8	0
2400	1.3	*****	97	107	.2	134	1.9	0

DAY 04

HOUR NDNG	TEMP. DEG C	DEW POINT DEG C	RH %	WIND DIR. DEG.	WIND SPD. M/S	GUST DIR. DEG.	MAX. GUST M/S	RAD MW
0300	3.6	*****	96	055	.3	059	1.3	0
0600	1.9	*****	96	093	.3	070	.6	0
0900	10.2	*****	71	084	.4	071	1.3	29
1200	16.6	*****	46	021	.8	037	1.9	55
1500	19.4	5.0	39	046	1.7	041	4.4	54
1800	17.9	4.0	40	050	1.4	043	4.4	16
2100	12.1	*****	66	044	.8	037	3.8	0
2400	4.9	*****	92	079	.2	072	1.3	0

DAY 05

HOUR NDNG	TEMP. DEG C	DEW POINT DEG C	RH %	WIND DIR. DEG.	WIND SPD. M/S	GUST DIR. DEG.	MAX. GUST M/S	RAD MW
0300	1.8	*****	97	091	.3	062	1.3	0
0600	4.3	*****	95	060	.3	040	1.3	0
0900	12.5	*****	72	054	.4	030	1.9	29
1200	16.2	5.8	50	046	1.2	048	4.4	17
1500	18.4	6.5	46	032	1.0	042	3.2	46
1800	13.9	*****	72	253	1.0	246	4.4	3
2100	8.3	*****	92	203	.3	215	2.5	0
2400	7.7	*****	91	113	.2	130	.6	0

DAY 06

HOUR NDNG	TEMP. DEG C	DEW POINT DEG C	RH %	WIND DIR. DEG.	WIND SPD. M/S	GUST DIR. DEG.	MAX. GUST M/S	RAD MW
0300	6.2	*****	95	084	.2	044	1.3	0
0600	5.8	*****	95	057	.1	044	.6	0
0900	7.4	*****	90	140	.2	156	1.3	10
1200	15.1	7.9	62	092	.3	188	3.2	54
1500	16.9	6.1	49	246	2.1	257	5.1	48
1800	14.3	*****	58	241	1.4	230	3.8	6
2100	4.3	*****	93	162	.2	197	1.3	0
2400	5.6	*****	95	077	.3	068	1.3	0

DAY 07

HOUR NDNG	TEMP. DEG C	DEW POINT DEG C	RH %	WIND DIR. DEG.	WIND SPD. M/S	GUST DIR. DEG.	MAX. GUST M/S	RAD MW
0300	6.0	*****	96	031	.2	017	1.3	0
0600	5.1	*****	95	099	.1	150	.6	0
0900	7.0	*****	93	035	.2	011	1.3	7
1200	11.4	*****	79	036	.6	046	1.[illegible]	28
1500	14.5	*****	59	028	.6	029	1.9	26
1800	11.1	5.9	70	051	.9	032	3.2	5
2100	6.0	*****	93	059	.3	059	1.9	0
2400	4.2	*****	95	076	.2	077	.6	0

DAY 08

HOUR NDNG	TEMP. DEG C	DEW POINT DEG C	RH %	WIND DIR. DEG.	WIND SPD. M/S	GUST DIR. DEG.	MAX. GUST M/S	RAD MW
0300	3.3	*****	97	065	.2	048	1.3	0
0600	3.6	*****	97	049	.2	051	1.3	0
0900	8.6	*****	81	065	.4	069	1.9	23
1200	15.9	6.1	52	055	.7	088	2.5	51
1500	18.4	4.8	41	073	1.2	084	3.2	39
1800	17.7	*****	41	033	.8	045	2.5	16
2100	5.1	*****	97	334	.2	323	1.3	0
2400	1.8	*****	96	071	.2	061	1.3	0

DAY 09

HOUR NDNG	TEMP. DEG C	DEW POINT DEG C	RH %	WIND DIR. DEG.	WIND SPD. M/S	GUST DIR. DEG.	MAX. GUST M/S	RAD MW
0300	-.8	*****	95	080	.2	128	.6	0
0600	-1.3	*****	95	***	****	***	.6	0
0900	3.4	*****	92	101	.3	111	1.3	19
1200	14.2	5.3	55	091	.3	006	2.5	49
1500	20.2	5.3	38	081	.6	153	2.5	44
1800	17.7	*****	45	227	1.0	196	2.5	13
2100	4.8	*****	94	234	.1	269	1.3	0
2400	1.0	*****	97	090	.2	101	1.3	0

** SEE INTERPRETATION NOTES AT END OF MONTHLY REPORT **

R & M CONSULTANTS, INC.

SUSITNA HYDROELECTRIC PROJECT

THREE HOUR SUMMARY FOR SHERMAN WEATHER STATION
DATA TAKEN DURING September, 1984

DAY 10

HOUR NDNG	TEMP. DEG C	DEW POINT DEG C	RH %	WIND DIR. DEG.	WIND SPD. M/S	GUST DIR. DEG.	MAX. GUST M/S	RAD MW
0300	-.9	*****	94	051	.2	058	1.3	0
0600	-2.6	*****	94	***	****	***	.6	0
0900	3.8	*****	96	103	.4	089	1.3	24
1200	15.2	*****	54	061	.5	023	1.9	50
1500	20.3	3.4	33	040	.9	086	3.8	43
1800	17.9	*****	32	051	.9	029	3.2	5
2100	4.1	*****	95	076	.2	080	1.9	0
2400	1.8	*****	95	058	.3	078	1.3	0

DAY 11

HOUR NDNG	TEMP. DEG C	DEW POINT DEG C	RH %	WIND DIR. DEG.	WIND SPD. M/S	GUST DIR. DEG.	MAX. GUST M/S	RAD MW
0300	.4	*****	97	070	.3	074	1.3	0
0600	-1.6	*****	95	101	.3	104	1.3	0
0900	4.0	*****	84	130	.5	***	1.3	24
1200	15.2	4.8	50	024	.7	010	2.5	49
1500	18.7	2.8	35	055	.5	350	2.5	48
1800	8.6	*****	78	173	1.0	161	4.4	3
2100	2.9	*****	95	137	.2	170	1.3	0
2400	1.9	*****	97	060	.2	074	1.3	0

DAY 12

HOUR NDNG	TEMP. DEG C	DEW POINT DEG C	RH %	WIND DIR. DEG.	WIND SPD. M/S	GUST DIR. DEG.	MAX. GUST M/S	RAD MW
0300	2.9	*****	96	043	.3	065	1.3	0
0600	4.3	*****	95	052	.3	054	1.9	0
0900	5.6	*****	94	078	.4	063	1.9	2
1200	10.2	*****	83	030	.6	051	1.9	34
1500	13.1	*****	68	019	.8	007	1.9	20
1800	11.9	*****	76	036	.5	007	2.5	4
2100	8.4	*****	92	107	.1	139	1.3	0
2400	7.3	*****	93	132	.4	174	1.9	0

DAY 13

HOUR NDNG	TEMP. DEG C	DEW POINT DEG C	RH %	WIND DIR. DEG.	WIND SPD. M/S	GUST DIR. DEG.	MAX. GUST M/S	RAD MW
0300	6.4	*****	95	051	.3	064	1.3	0
0600	6.4	*****	96	067	.2	083	1.3	0
0900	7.0	*****	94	036	.2	016	1.3	3
1200	8.5	*****	90	037	.5	057	1.3	15
1500	9.7	*****	89	354	.4	346	1.3	14
1800	9.6	*****	89	045	.6	032	1.9	6
2100	4.3	*****	93	052	.3	019	1.3	0
2400	3.3	*****	96	080	.4	089	1.3	0

DAY 14

HOUR NDNG	TEMP. DEG C	DEW POINT DEG C	RH %	WIND DIR. DEG.	WIND SPD. M/S	GUST DIR. DEG.	MAX. GUST M/S	RAD MW
0300	1.8	*****	97	072	.6	059	1.9	0
0600	3.5	*****	97	069	.5	063	1.3	0
0900	5.6	*****	95	070	.4	063	1.9	12
1200	16.1	5.4	49	035	.7	036	3.2	40
1500	16.8	4.1	43	049	1.9	048	5.1	17
1800	15.3	*****	46	040	1.3	029	4.4	2
2100	8.5	*****	78	094	.5	089	2.5	0
2400	3.4	*****	95	074	.4	078	1.3	0

DAY 15

HOUR NDNG	TEMP. DEG C	DEW POINT DEG C	RH %	WIND DIR. DEG.	WIND SPD. M/S	GUST DIR. DEG.	MAX. GUST M/S	RAD MW
0300	4.5	*****	94	066	.3	054	1.3	0
0600	7.8	*****	85	093	.4	093	2.5	0
0900	11.0	*****	80	080	.3	107	1.3	11
1200	17.1	*****	51	059	.6	055	2.5	46
1500	18.2	6.0	45	199	.7	076	3.2	32
1800	11.9	8.8	81	249	1.0	253	3.8	5
2100	7.7	*****	95	262	.2	285	1.3	0
2400	6.4	*****	94	049	.2	075	.6	0

DAY 16

HOUR NDNG	TEMP. DEG C	DEW POINT DEG C	RH %	WIND DIR. DEG.	WIND SPD. M/S	GUST DIR. DEG.	MAX. GUST M/S	RAD MW
0300	1.7	*****	96	049	.2	059	.6	0
0600	1.5	*****	98	057	.3	054	1.3	0
0900	5.2	*****	99	076	.4	058	2.5	23
1200	13.1	*****	65	020	.8	061	2.5	43
1500	17.0	6.5	50	211	.9	217	5.1	39
1800	12.3	*****	74	252	1.3	221	5.1	6
2100	8.8	*****	92	089	.0	279	2.5	0
2400	6.0	*****	92	222	.7	254	4.4	0

DAY 17

HOUR NDNG	TEMP. DEG C	DEW POINT DEG C	RH %	WIND DIR. DEG.	WIND SPD. M/S	GUST DIR. DEG.	MAX. GUST M/S	RAD MW
0300	4.2	*****	95	137	.2	171	1.3	0
0600	4.3	*****	95	115	.2	151	.6	0
0900	4.8	*****	92	054	.4	063	1.9	7
1200	8.5	*****	86	051	.3	026	1.3	15
1500	11.4	7.9	79	244	.3	228	3.2	10
1800	10.9	7.6	90	205	1.3	208	3.2	3
2100	7.7	*****	91	163	.2	187	1.9	0
2400	7.7	*****	94	091	.4	086	1.3	0

DAY 18

HOUR NDNG	TEMP. DEG C	DEW POINT DEG C	RH %	WIND DIR. DEG.	WIND SPD. M/S	GUST DIR. DEG.	MAX. GUST M/S	RAD MW
0300	8.6	*****	89	085	.6	076	3.2	0
0600	8.5	*****	88	207	.7	215	3.2	0
0900	8.5	*****	91	210	.6	221	1.9	5
1200	8.6	6.9	89	210	1.0	214	3.2	5
1500	10.8	7.0	77	208	2.6	208	7.0	12
1800	9.5	6.8	83	219	1.7	229	7.0	2
2100	9.4	5.8	78	206	2.5	210	6.3	0
2400	6.8	*****	91	217	1.0	219	5.7	0

** SEE INTERPRETATION NOTES AT END OF MONTHLY REPORT **

R & M CONSULTANTS, INC.

SUSITNA HYDROELECTRIC PROJECT

THREE HOUR SUMMARY FOR SHERMAN WEATHER STATION
DATA TAKEN DURING September, 1984

DAY 19

HOUR NDNG	TEMP. DEG C	DEW POINT DEG C	RH %	WIND DIR. DEG.	WIND SPD. M/S	GUST DIR. DEG.	MAX. GUST M/S	RAD MW
0300	6.4	*****	95	054	.2	140	1.3	0
0600	6.0	*****	93	246	.3	267	2.5	0
0900	7.8	5.6	86	121	.2	214	3.2	12
1200	9.7	4.3	69	227	1.5	224	5.1	37
1500	7.8	*****	87	233	1.4	243	5.1	6
1800	5.0	*****	90	149	.3	259	3.2	0
2100	2.9	*****	94	195	.2	164	1.9	0
2400	1.9	*****	93	230	.9	220	3.2	0

DAY 20

HOUR NDNG	TEMP. DEG C	DEW POINT DEG C	RH %	WIND DIR. DEG.	WIND SPD. M/S	GUST DIR. DEG.	MAX. GUST M/S	RAD MW
0300	1.9	*****	96	214	.2	257	1.3	0
0600	3.4	*****	96	062	.2	100	1.3	0
0900	6.7	3.5	80	036	1.1	041	4.4	9
1200	11.9	2.6	53	056	2.3	055	5.7	46
1500	12.9	.5	43	057	2.6	076	5.7	35
1800	10.6	.0	48	035	1.9	049	5.1	2
2100	.1	*****	93	071	.3	350	1.9	0
2400	-2.3	*****	97	080	.3	057	1.3	0

DAY 21

HOUR NDNG	TEMP. DEG C	DEW POINT DEG C	RH %	WIND DIR. DEG.	WIND SPD. M/S	GUST DIR. DEG.	MAX. GUST M/S	RAD MW
0300	-3.2	*****	94	062	.3	053	1.3	0
0600	-3.6	*****	94	069	.3	036	1.3	0
0900	-.5	*****	96	083	.4	068	1.3	12
1200	9.8	*****	56	066	.5	058	1.9	42
1500	15 1	2.2	42	046	.9	063	3.8	35
1800	10.8	*****	56	143	.2	165	1.9	2
2100	.7	*****	94	347	.1	305	1.3	0
2400	-1.8	*****	97	063	.3	058	1.3	0

DAY 22

HOUR NDNG	TEMP. DEG C	DEW POINT DEG C	RH %	WIND DIR. DEG.	WIND SPD. M/S	GUST DIR. DEG.	MAX. GUST M/S	RAD MW
0300	-3.2	*****	95	064	.2	058	1.3	0
0600	-2.9	*****	95	091	.5	095	1.3	0
0900	-.4	*****	94	084	.4	084	1.9	11
1200	10.4	2.3	57	049	.9	077	2.5	43
1500	16.7	1.8	37	047	1.1	037	3.2	34
1800	10.4	*****	67	346	.2	077	1.9	3
2100	2.6	*****	89	133	.1	224	.6	0
2400	.1	*****	96	075	.2	062	.6	0

DAY 23

HOUR NDNG	TEMP. DEG C	DEW POINT DEG C	RH %	WIND DIR. DEG.	WIND SPD. M/S	GUST DIR. DEG.	MAX. GUST M/S	RAD MW
0300	.5	*****	95	048	.2	060	.6	0
0600	-.3	*****	95	064	.3	042	1.3	0
0900	3.8	*****	84	080	.5	072	1.9	15
1200	11.3	*****	59	051	.5	045	1.9	22
1500	12.7	*****	53	255	.8	241	3.8	12
1800	11.2	*****	62	318	.4	258	1.9	1
2100	6.7	*****	83	021	.2	040	1.3	0
2400	5.2	*****	86	055	.3	058	1.3	0

DAY 24

HOUR NDNG	TEMP. DEG C	DEW POINT DEG C	RH %	WIND DIR. DEG.	WIND SPD. M/S	GUST DIR. DEG.	MAX. GUST M/S	RAD MW
0300	4.2	*****	89	047	.2	334	1.3	0
0600	2.6	*****	93	042	.2	010	1.3	0
0900	5.7	*****	83	051	.1	061	.6	11
1200	11.5	1.1	49	034	.7	052	2.5	34
1500	13.0	*****	44	035	.6	037	1.9	11
1800	11.5	*****	57	218	.8	236	2.5	1
2100	7.7	*****	78	179	.1	256	1.3	0
2400	5.7	*****	91	052	.2	052	.6	0

DAY 25

HOUR NDNG	TEMP. DEG C	DEW POINT DEG C	RH %	WIND DIR. DEG.	WIND SPD. M/S	GUST DIR. DEG.	MAX. GUST M/S	RAD MW
0300	5.2	*****	95	064	.2	041	1.3	0
0600	5.5	*****	95	053	.2	019	1.3	0
0900	6.8	*****	92	058	.4	068	1.9	11
1200	9.9	6.5	79	046	.8	068	3.2	45
1500	11.1	*****	74	079	1.1	073	3.2	13
1800	9.8	*****	86	331	.2	057	1.3	2
2100	6.6	*****	95	150	.1	217	.6	0
2400	4.7	*****	95	037	.2	112	1.3	0

DAY 26

HOUR NDNG	TEMP. DEG C	DEW POINT DEG C	RH %	WIND DIR. DEG.	WIND SPD. M/S	GUST DIR. DEG.	MAX. GUST M/S	RAD MW
0300	2.5	*****	97	057	.2	085	1.3	0
0600	1.0	*****	98	072	.2	093	1.3	0
0900	1.7	*****	97	057	.2	054	.6	5
1200	6.3	*****	91	101	.2	078	1.3	7
1500	13.3	*****	61	225	.7	216	3.2	29
1800	12.2	*****	56	200	.9	193	2.5	1
2100	4.3	*****	92	108	.1	199	1.3	0
2400	-.2	*****	96	074	.3	068	.6	0

DAY 27

HOUR NDNG	TEMP. DEG C	DEW POINT DEG C	RH %	WIND DIR. DEG.	WIND SPD. M/S	GUST DIR. DEG.	MAX. GUST M/S	RAD MW
0300	-.9	*****	96	077	.3	050	1.3	0
0600	-.2	*****	97	061	.3	054	1.3	0
0900	3.4	*****	94	074	.5	096	1.9	10
1200	10.7	4.0	63	058	.7	066	2.5	53
1500	15.3	4.0	47	053	1.0	050	2.5	29
1800	12.9	*****	53	046	.8	054	2.5	1
2100	2.6	*****	94	054	.3	035	1.3	0
2400	1.0	*****	96	069	.3	069	1.3	0

** SEE INTERPRETATION NOTES AT END OF MONTHLY REPORT **

R & M CONSULTANTS, INC.

SUSITNA HYDROELECTRIC PROJECT

THREE HOUR SUMMARY FOR SHERMAN WEATHER STATION
DATA TAKEN DURING September, 1984

DAY 28

HOUR NDNG	TEMP. DEG C	DEW POINT DEG C	RH %	WIND DIR. DEG.	WIND SPD. M/S	GUST DIR. DEG.	MAX. GUST M/S	RAD MW
0300	-1.0	*****	96	069	.4	040	1.3	0
0600	-2.1	*****	96	090	.4	100	1.3	0
0900	-.3	*****	94	099	.5	045	1.3	3
1200	11.6	*****	61	087	.5	031	2.5	39
1500	15.1	1.5	40	055	1.9	050	5.7	15
1800	13.4	1.0	43	057	1.7	048	5.1	0
2100	9.7	4.3	69	058	2.0	043	6.3	0
2400	9.0	4.5	73	061	1.2	051	5.1	0

DAY 29

HOUR NDNG	TEMP. DEG C	DEW POINT DEG C	RH %	WIND DIR. DEG.	WIND SPD. M/S	GUST DIR. DEG.	MAX. GUST M/S	RAD MW
0300	9.4	4.1	69	055	1.5	050	4.4	0
0600	8.0	4.4	78	058	1.5	045	4.4	0
0900	8.6	5.9	83	070	.7	064	1.9	5
1200	12.2	6.5	68	056	1.9	053	6.3	18
1500	14.1	6.8	61	051	2.3	060	6.3	10
1800	13.4	6.6	63	054	1.2	049	3.2	0
2100	9.7	*****	85	079	.8	077	2.5	0
2400	8.5	*****	93	226	.4	233	2.5	0

DAY 30

HOUR NDNG	TEMP. DEG C	DEW POINT DEG C	RH %	WIND DIR. DEG.	WIND SPD. M/S	GUST DIR. DEG.	MAX. GUST M/S	RAD MW
0300	6.1	*****	96	073	.4	069	1.9	0
0600	5.6	*****	94	070	.4	049	1.9	0
0900	6.5	*****	93	222	.2	212	1.9	5
1200	12.6	7.1	69	039	.6	030	2.5	35
1500	14.5	4.8	52	055	1.3	055	3.8	14
1800	13.2	3.0	50	041	1.5	035	5.1	0
2100	11.9	2.6	53	064	1.4	049	4.4	0
2400	10.2	2.1	57	036	2.0	030	7.0	0

** SEE INTERPRETATION NOTES AT END OF MONTHLY REPORT **

R & M CONSULTANTS, INC.

SUSITNA HYDROELECTRIC PROJECT

MONTHLY SUMMARY FOR SHERMAN WEATHER STATION
DATA TAKEN DURING September, 1984

DAY	MAX. TEMP. DEG C	MIN. TEMP. DEG C	MEAN TEMP. DEG C	RES. WIND DIR. DEG	RES. WIND SPD. M/S	AVG. WIND SPD. M/S	MAX. GUST DIR. DEG	MAX. GUST SPD. M/S	P'VAL DIR.	MEAN RH %	MEAN DP DEG C	PRECIP MM	DAY'S SOLAR ENERGY WH/SQM	DAY
1	18.3	-.6	8.9	039	.4	.7	019	3.8	NE	41	2.7	0.0	4348	1
2	18.5	-2.9	7.8	078	.1	.5	190	3.2	ENE	40	3.9	0.0	4460	2
3	18.7	-2.0	8.4	055	.6	.7	041	5.1	NE	37	2.1	0.0	4005	3
4	19.4	1.3	10.4	050	.7	.8	041	4.4	ENE	41	4.5	0.0	3735	4
5	19.1	1.8	10.5	044	.2	.6	048	4.4	NE	49	6.3	0.0	2630	5
6	17.9	4.3	11.1	231	.3	.7	257	5.1	WSW	53	6.6	0.0	3545	6
7	14.5	4.0	9.3	045	.4	.4	032	3.2	NE	64	5.9	2.6	2020	7
8	18.4	1.7	10.1	056	.4	.5	084	3.2	ENE	44	5.1	0.0	3590	8
9	20.5	-1..	9.5	140	.1	.5	006	2.5	ESE	41	5.0	0.0	3690	9
10	20.3	-2.6	8.9	054	.5	.5	086	3.8	NE	35	2.9	0.0	3665	10
11	18.7	-2.3	8.2	093	.2	.6	161	4.4	E	45	3.2	0.0	3815	11
12	13.7	1.8	7.8	048	.4	.5	007	2.5	NE	72	7.5	5.6	1870	12
13	10.1	2.8	6.5	045	.3	.4	032	1.9	NNE	**	*****	4.2	1035	13
14	16.9	1.2	9.1	056	.8	.8	048	5.1	ENE	45	4.2	0.0	1905	14
15	18.4	3.1	10.8	156	.1	.5	253	3.8	NE	51	6.1	.4	2370	15
16	17.5	.1	8.8	243	.1	.8	217	5.1	NE	65	7.0	2.8	3215	16
17	11.7	3.8	7.8	158	.2	.5	228	3.2	ESE	79	7.8	1.2	1310	17
18	11.1	6.8	9.0	208	1.2	1.4	208	7.0	SSW	83	6.6	14.4	1065	18
19	10.5	1.9	6.2	222	.5	.8	224	5.1	SW	76	4.1	15.4	1535	19
20	13.3	-2.3	5.5	051	1.0	1.2	055	5.7	NE	56	1.8	1.2	2800	20
21	15.7	-3.6	6.1	062	.3	.5	063	3.8	NE	48	2.2	0.0	2855	21
22	16.9	-3.5	6.7	059	.4	.5	037	3.2	ENE	51	2.4	0.0	2715	22
23	13.1	-1.1	6.0	029	.2	.5	241	3.8	ENE	57	3.2	0.0	1280	23
24	13.3	2.6	8.0	044	.1	.4	052	2.5	NE	47	.9	0.0	1255	24
25	11.2	4.7	8.0	059	.4	.5	068	3.2	NE	76	6.4	3.0	1555	25
26	14.8	-.2	7.3	159	.1	.4	216	3.2	ENE	55	4.7	0.0	1550	26
27	16.0	-1.3	7.4	058	.5	.6	066	2.5	ENE	57	3.9	0.0	2205	27
28	16.0	-2.6	6.7	064	1.0	1.1	043	6.3	E	49	2.2	0.0	1525	28
29	14.2	7.2	10.7	058	1.2	1.4	053	6.3	NE	70	5.8	.4	890	29
30	15.0	4.2	9.6	049	.9	1.0	030	7.0	NE	54	3.6	1.4	1465	30
MONTH	20.5	-3.6	8.3	062	.3	.7	208	7.0	NE	56	4.4	52.6	73095	

GUST VEL. AT MAX. GUST MINUS 2 INTERVALS 2.5
GUST VEL. AT MAX. GUST MINUS 1 INTERVAL 4.4
GUST VEL. AT MAX. GUST PLUS 1 INTERVAL 5.7
GUST VEL. AT MAX. GUST PLUS 2 INTERVALS 5.7

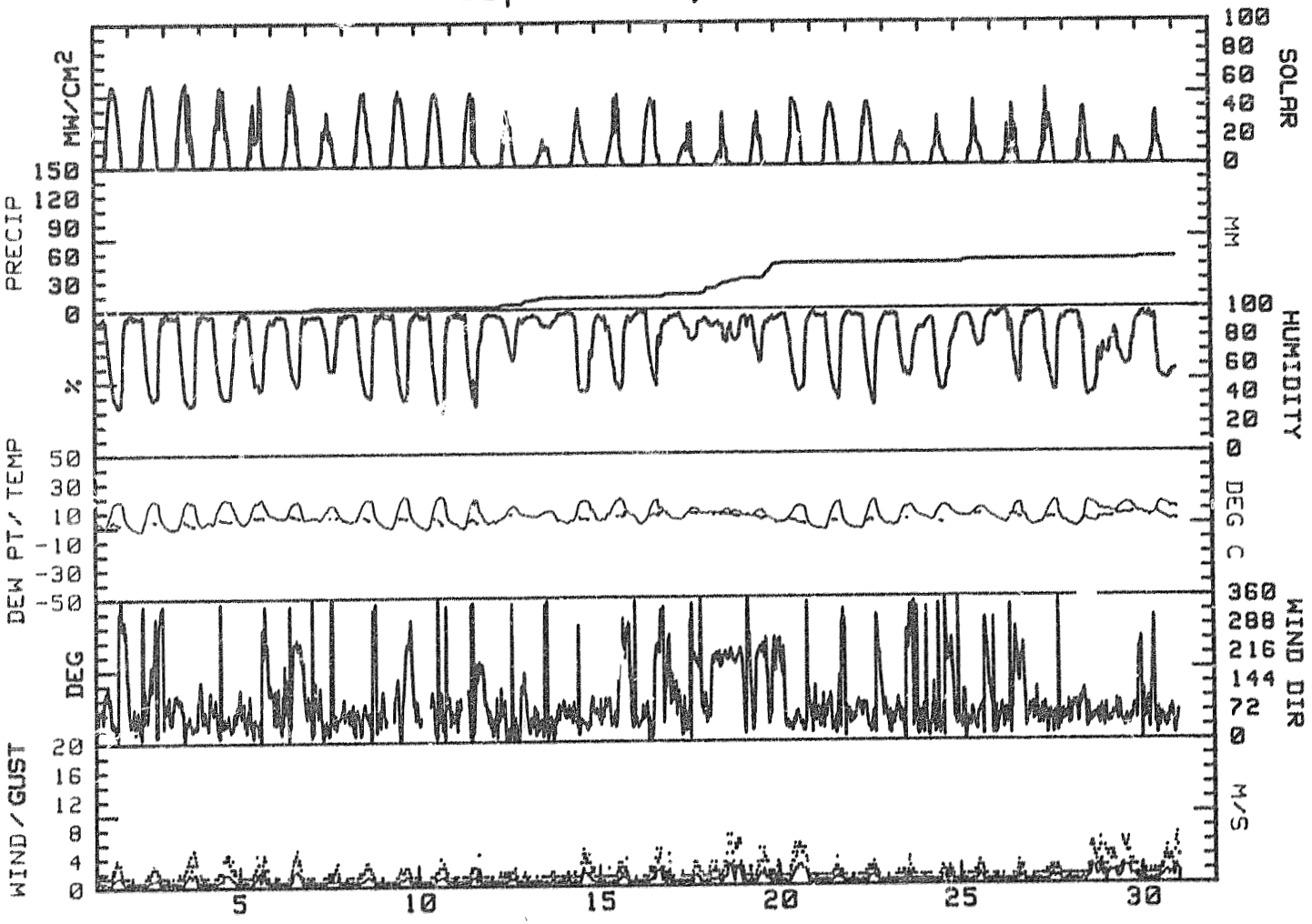
NOTE: RELATIVE HUMIDITY READINGS ARE UNRELIABLE WHEN WIND SPEEDS ARE LESS THAN ONE METER PER SECOND. SUCH READINGS HAVE NOT BEEN INCLUDED IN THE DAILY OR MONTHLY MEAN FOR RELATIVE HUMIDITY AND DEW POINT.
** SEE INTERPRETATION NOTES AT END OF MONTHLY REPORT **

R&M CONSULTANTS, INC.

SUSITNA HYDROELECTRIC PROJECT

SHERMAN WEATHER STATION

September, 1984



R & M CONSULTANTS, INC.

SUSITNA HYDROELECTRIC PROJECT

WIND FREQUENCY SUMMARY FOR SHERMAN WEATHER STATION
DATA TAKEN DURING September, 1984

	VELOCITY (M/S)							
DIRECTION	0.2 TO 1.0	1.0 TO 3.0	3.0 TO 6.0	6.0 TO 10.0	10.0 TO 15.0	15.0 TO 20.0	20.0 OR GREATER	TOTAL
N	2.55	.71	0.00	0.00	0.00	0.00	0.00	3.26
NNE	7.09	2.48	0.00	0.00	0.00	0.00	0.00	9.57
NE	13.04	7.51	.07	0.00	0.00	0.00	0.00	20.62
ENE	15.45	3.76	.07	0.00	0.00	0.00	0.00	19.28
E	11.76	1.06	0.00	0.00	0.00	0.00	0.00	12.83
ESE	5.88	.21	0.00	0.00	0.00	0.00	0.00	6.09
SE	3.05	.07	0.00	0.00	0.00	0.00	0.00	3.12
SSE	2.06	.21	0.00	0.00	0.00	0.00	0.00	2.27
S	1.42	.50	0.00	0.00	0.00	0.00	0.00	1.91
SSW	1.98	2.20	.14	0.00	0.00	0.00	0.00	4.32
SW	1.13	2.34	0.00	0.00	0.00	0.00	0.00	3.47
WSW	1.20	1.98	0.00	0.00	0.00	0.00	0.00	3.19
W	.99	.14	0.00	0.00	0.00	0.00	0.00	1.13
WNW	1.06	.14	0.00	0.00	0.00	0.00	0.00	1.20
NW	.85	.21	0.00	0.00	0.00	0.00	0.00	1.06
NNW	1.28	.28	0.00	0.00	0.00	0.00	0.00	1.56
CALM								5.10
TOTAL	70.80	23.81	.28	0.00	0.00	0.00	0.00	100.00

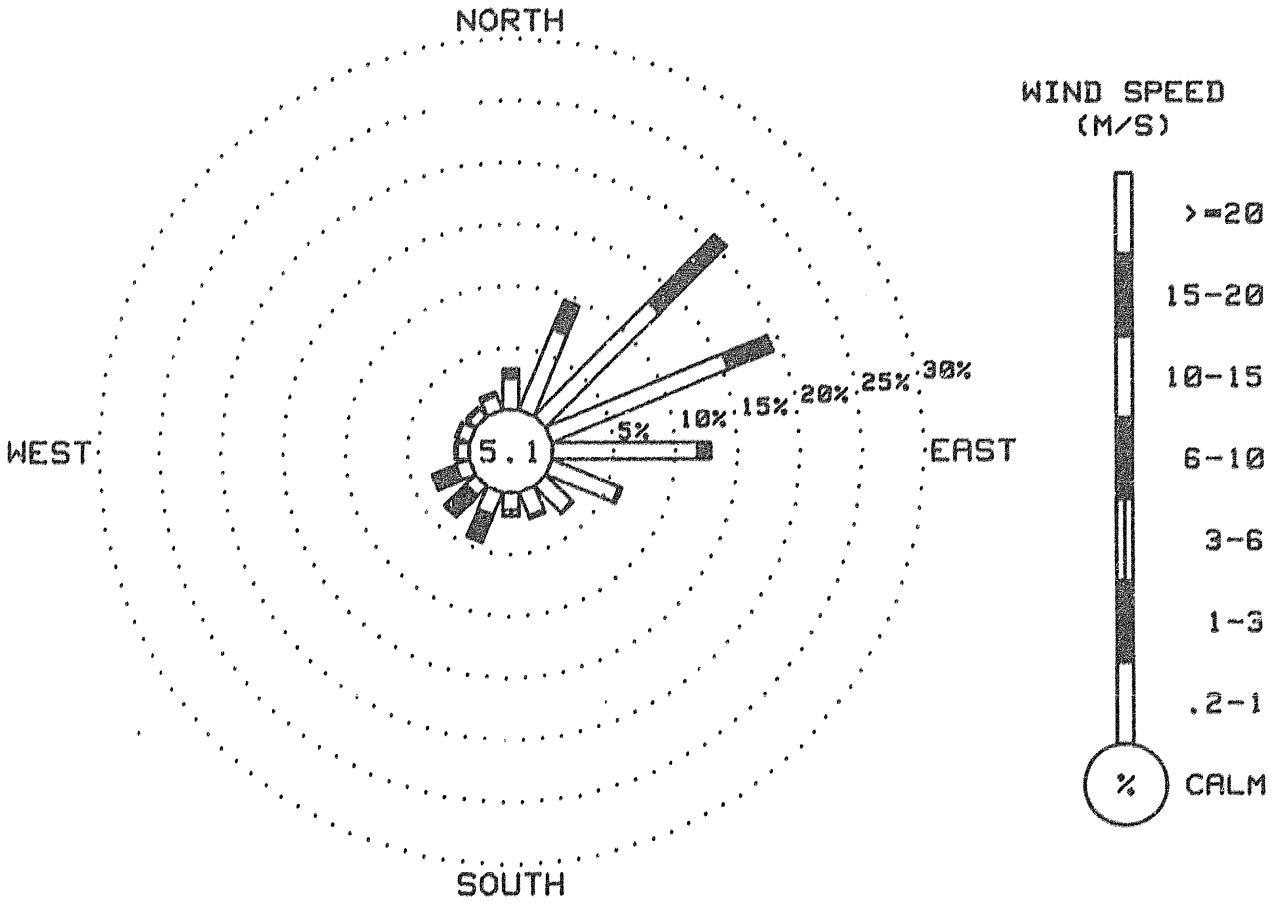
NOTE: ALL FREQUENCIES ARE EXPRESSED IN PERCENT
1411 VALID WIND OBSERVATIONS USED TO DEVELOP FREQUENCY SUMMARY
1440 WIND OBSERVATIONS WOULD HAVE BEEN CORRECT FOR 30 MINUTE DATA.
** SEE INTERPRETATION NOTES AT END OF MONTHLY REPORT **

R&M CONSULTANTS, INC.

SUSITNA HYDROELECTRIC PROJECT

SHERMAN WEATHER STATION

September, 1984



WIND ROSE PLOT

R & M CONSULTANTS, INC.

SUSITNA HYDROELECTRIC PROJECT

OURLY SOLAR RADIATION SUMMARY FOR SHERMAN WEATHER STATION
ATA TAKEN DURING September, 1984

OLAR RADIATION VALUES MEASURED IN MILLIWATTS PER SQUARE CENTIMETER

HOUR ENDING

DATE	0100	0200	0300	0400	0500	0600	0700	0800	0900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	2400	AVG
1	0	0	6	0	0	0	2	12	18	37	47	55	57	55	51	43	33	19	7	1	0	0	0	0	18
2	0	0	0	0	0	0	1	12	18	36	46	54	57	56	57	51	34	20	7	1	0	0	0	0	19
3	0	0	0	0	0	0	1	12	17	36	46	53	57	59	27	37	28	22	8	1	0	0	0	0	17
4	0	0	0	0	0	0	3	9	18	28	36	51	42	49	53	35	24	19	8	1	0	0	0	0	16
5	0	0	0	0	0	0	1	7	19	23	32	25	21	19	34	52	26	5	2	0	0	0	0	0	11
6	0	0	0	0	0	0	1	5	9	15	46	53	49	55	50	37	24	10	4	0	0	0	0	0	15
7	0	0	0	0	0	0	1	3	7	18	20	27	32	29	23	18	18	7	2	0	0	0	0	0	8
8	0	0	0	0	0	0	1	10	16	31	39	49	48	50	40	32	24	17	5	1	0	0	0	0	15
9	0	0	0	0	0	0	1	10	14	30	44	47	51	47	46	38	27	16	2	0	0	0	0	0	15
10	0	0	0	0	0	0	1	6	16	32	41	49	51	50	46	38	27	12	2	0	0	0	0	0	15
11	0	0	0	0	0	0	1	3	15	31	41	48	51	29	48	26	6	4	2	0	0	0	0	0	13
12	0	0	0	0	0	0	1	1	2	11	14	31	34	30	24	24	12	6	1	0	0	0	0	0	8
13	0	0	0	0	0	0	0	2	3	6	8	13	16	12	13	12	13	7	2	0	0	0	0	0	4
14	0	0	0	0	0	0	1	2	10	18	29	38	32	25	17	11	6	3	1	0	0	0	0	0	8
15	0	0	0	0	0	0	1	5	10	15	20	34	46	26	41	26	10	4	2	0	0	0	0	0	10
16	0	0	0	0	0	0	0	2	17	28	38	43	47	45	40	40	14	6	5	0	0	0	0	0	13
17	0	0	0	0	0	0	1	5	8	12	13	15	11	23	15	20	6	4	1	0	0	0	0	0	5
18	0	0	0	0	0	0	0	1	4	7	9	6	36	19	14	8	2	2	1	0	0	0	0	0	4
19	0	0	0	0	0	0	0	3	11	21	27	29	27	19	13	2	2	1	0	0	0	0	0	0	6
20	0	0	0	0	0	0	0	2	8	16	33	45	44	42	37	29	20	7	1	0	0	0	0	0	12
21	0	0	0	0	0	0	0	2	8	28	34	41	43	41	37	29	19	7	1	0	0	0	0	0	12
22	0	0	0	0	0	0	1	2	8	25	30	40	44	41	37	26	15	5	1	0	0	0	0	0	11
23	0	0	0	0	0	0	0	4	12	15	17	23	16	13	13	10	7	2	0	0	0	0	0	0	5
24	0	0	0	0	0	0	0	2	9	12	16	27	20	18	11	7	4	2	0	0	0	0	0	0	5
25	0	0	0	0	0	0	0	2	10	10	17	38	22	21	14	12	9	3	0	0	0	0	0	0	6
26	0	0	0	0	0	0	0	3	4	17	17	7	11	40	20	17	16	6	1	0	0	0	0	0	6
27	0	0	0	0	0	0	0	3	9	10	31	34	33	27	32	25	15	4	0	0	0	0	0	0	9
28	0	0	0	0	0	0	0	1	3	10	10	32	35	32	17	8	6	1	0	0	0	0	0	0	6
29	0	0	0	0	0	0	0	0	3	15	12	16	13	11	10	7	3	1	0	0	0	0	0	0	4
30	0	0	0	0	0	0	0	1	4	8	14	35	36	18	17	12	5	1	0	0	0	0	0	0	6

** SEE INTERPRETATION NOTES AT END OF MONTHLY REPORT **

R & M CONSULTANTS, INC.

SUSITNA HYDROELECTRIC PROJECT

OBSERVATION SUMMARY FOR SHERMAN WEATHER STATION
DATA TAKEN DURING September, 1984

PARAMETER	NUMBER OF USABLE OBSERVATIONS	PERCENT OF TOTAL OBSERVATIONS
TEMPERATURE	1440	100
WIND SPEED	1440	100
WIND DIRECTION	1411	98
PEAK GUST	1440	100
RELATIVE HUMIDITY	340	24
PRECIPITATION	1440	100
SOLAR RADIATION	1440	100
DEW POINT	340	24

THERE ARE 1440 POSSIBLE OBSERVATIONS THIS MONTH FOR EACH PARAMETER. THE DATA RECORDING INTERVAL IS 30 MINUTES.

THE FOLLOWING ADJUSTMENTS HAVE BEEN MADE TO THIS MONTH'S DATA:

1. RH +5 RH Points
2. Solar -1 mW/CM^2

Additional comments on this month's data:

1. Intermittent wind direction data lost due to frozen wind vane.
2. Timing and quantity of precipitation are suspect on days where freezing temperatures occur. However, thawing temperatures on these days also occur, so daily totals should be accurage.

No precipitation data for October

(See INTERPRETATION OF DATA).

R & M CONSULTANTS, INC.

SUSITNA HYDROELECTRIC PROJECT

THREE HOUR SUMMARY FOR SHERMAN WEATHER STATION
DATA TAKEN DURING October, 1984

DAY 01

HOUR NDNG	TEMP. DEG C	DEW POINT DEG C	RH %	WIND DIR. DEG.	WIND SPD. M/S	GUST DIR. DEG.	MAX. GUST M/S	RAD MW
0300	3.9	*****	86	092	.7	068	3.8	0
0600	4.8	*****	79	078	.7	090	3.2	0
0900	6.8	*****	80	066	.6	080	1.3	7
1200	13.8	3.0	48	064	1.6	066	5.1	10
1500	15.8	3.2	43	047	2.1	048	4.4	30
1800	11.5	*****	57	053	1.2	049	3.8	1
2100	4.5	*****	85	079	.4	103	1.3	0
2400	4.4	*****	90	072	.4	064	1.3	0

DAY 02

HOUR NDNG	TEMP. DEG C	DEW POINT DEG C	RH %	WIND DIR. DEG.	WIND SPD. M/S	GUST DIR. DEG.	MAX. GUST M/S	RAD MW
0300	4.7	*****	91	049	.4	043	1.3	0
0600	3.7	*****	96	070	.3	105	1.3	0
0900	5.8	*****	95	081	.3	035	1.3	10
1200	9.0	*****	83	050	.6	059	1.9	11
1500	12.7	3.9	55	165	.8	214	3.8	29
1800	8.4	*****	74	216	1.3	226	3.8	1
2100	3.4	*****	91	108	.3	097	1.9	0
2400	2.6	*****	94	084	.4	114	1.3	0

DAY 03

HOUR NDNG	TEMP. DEG C	DEW POINT DEG C	RH %	WIND DIR. DEG.	WIND SPD. M/S	GUST DIR. DEG.	MAX. GUST M/S	RAD MW
0300	.1	*****	96	070	.4	049	1.3	0
0600	-1.6	*****	96	051	.3	061	1.3	0
0900	.1	*****	97	075	.5	091	1.3	6
1200	6.8	*****	81	069	.4	028	1.9	22
1500	11.9	3.2	55	050	1.1	042	3.2	32
1800	8.3	*****	68	018	.8	041	2.5	1
2100	-.6	*****	94	069	.3	045	1.3	0
2400	-2.7	*****	97	075	.4	074	1.3	0

DAY 04

HOUR NDNG	TEMP. DEG C	DEW POINT DEG C	RH %	WIND DIR. DEG.	WIND SPD. M/S	GUST DIR. DEG.	MAX. GUST M/S	RAD MW
0300	-2.8	*****	95	078	.4	093	1.3	0
0600	-4.7	*****	95	079	.4	089	1.3	0
0900	-3.7	*****	95	084	.6	089	1.3	2
1200	6.2	.2	65	061	.7	025	3.2	33
1500	12.4	*****	44	060	.6	003	2.5	26
1800	5.1	*****	68	081	.3	119	2.5	0
2100	-2.1	*****	94	060	.3	062	1.3	0
2400	-3.4	*****	95	058	.3	053	1.3	0

DAY 05

HOUR NDNG	TEMP. DEG C	DEW POINT DEG C	RH %	WIND DIR. DEG.	WIND SPD. M/S	GUST DIR. DEG.	MAX. GUST M/S	RAD MW
0300	-2.4	*****	95	069	.6	070	1.9	0
0600	-1.3	*****	93	065	.5	068	1.3	0
0900	4.9	*****	67	066	.6	077	1.9	2
1200	9.6	-1.8	45	074	1.4	058	4.4	17
1500	11.3	-1.2	42	048	2.0	048	5.1	16
1800	9.4	-1.7	46	039	1.9	046	5.1	0
2100	8.7	-.9	51	051	1.3	034	3.8	0
2400	4.5	*****	64	057	.9	061	3.2	0

DAY 06

HOUR NDNG	TEMP. DEG C	DEW POINT DEG C	RH %	WIND DIR. DEG.	WIND SPD. M/S	GUST DIR. DEG.	MAX. GUST M/S	RAD MW
0300	6.5	.2	64	040	.8	036	3.2	0
0600	7.0	*****	56	075	.9	061	3.2	0
0900	3.6	*****	92	051	.5	043	1.9	1
1200	8.4	3.1	69	080	.8	089	2.5	21
1500	9.6	*****	69	053	.5	090	2.5	7
1800	8.3	*****	75	027	.4	010	1.9	0
2100	2.6	*****	90	075	.4	055	1.3	0
2400	-.6	*****	95	078	.5	078	1.3	0

DAY 07

HOUR NDNG	TEMP. DEG C	DEW POINT DEG C	RH %	WIND DIR. DEG.	WIND SPD. M/S	GUST DIR. DEG.	MAX. GUST M/S	RAD MW
0300	.1	*****	95	091	.7	087	1.9	0
0600	.5	*****	93	098	.5	086	1.9	0
0900	1.8	*****	90	069	.6	048	1.9	3
1200	6.6	*****	74	078	.7	097	1.9	12
1500	10.7	3.5	61	065	.9	094	2.5	5
1800	7.9	*****	75	072	.7	089	3.2	0
2100	.1	*****	94	074	.4	083	1.3	0
2400	0.0	*****	95	066	.3	051	1.3	0

DAY 08

HOUR NDNG	TEMP. DEG C	DEW POINT DEG C	RH %	WIND DIR. DEG.	WIND SPD. M/S	GUST DIR. DEG.	MAX. GUST M/S	RAD MW
0300	1.1	*****	94	070	.4	029	1.9	0
0600	.5	*****	94	074	.5	059	1.9	0
0900	2.2	*****	91	018	.4	356	3.2	6
1200	6.7	*****	84	274	.5	276	2.5	10
1500	5.5	4.1	91	221	1.2	207	3.8	3
1800	1.7	.7	93	214	2.4	217	5.7	0
2100	1.8	*****	94	212	.9	194	3.2	0
2400	1.5	*****	95	050	.2	020	1.3	0

DAY 09

HOUR NDNG	TEMP. DEG C	DEW POINT DEG C	RH %	WIND DIR. DEG.	WIND SPD. M/S	GUST DIR. DEG.	MAX. GUST M/S	RAD MW
0300	1.4	*****	96	101	.1	088	.6	0
0600	.9	*****	98	057	.3	030	1.3	0
0900	1.7	*****	97	066	.3	070	1.3	1
1200	4.1	*****	92	036	.7	031	1.9	8
1500	7.5	2.2	69	033	.8	004	2.5	24
1800	4.1	*****	89	031	.9	041	3.8	0
2100	-.6	*****	96	080	.3	119	1.3	0
2400	-2.7	*****	96	071	.2	071	1.3	0

** SEE INTERPRETATION NOTES AT END OF MONTHLY REPORT **

R & M CONSULTANTS, INC.

SUSITNA HYDROELECTRIC PROJECT

THREE HOUR SUMMARY FOR SHERMAN WEATHER STATION
DATA TAKEN DURING October, 1984

DAY 10

HOUR NDNG	TEMP. DEG C	DEW POINT DEG C	RH %	WIND DIR. DEG.	WIND SPD. M/S	GUST DIR. DEG.	MAX. GUST M/S	RAD MW
0300	-3.8	*****	94	***	****	***	1.3	0
0600	-4.4	*****	95	***	****	***	1.3	0
0900	-4.1	*****	94	***	****	***	1.3	2
1200	2.2	*****	82	115	.6	101	1.3	39
1500	10.1	*****	48	080	.5	063	3.8	22
1800	1.8	*****	85	099	.5	088	1.9	0
2100	-2.0	*****	95	062	.3	094	1.3	0
2400	-3.7	*****	95	053	.3	042	1.3	0

DAY 11

HOUR NDNG	TEMP. DEG C	DEW POINT DEG C	RH %	WIND DIR. DEG.	WIND SPD. M/S	GUST DIR. DEG.	MAX. GUST M/S	RAD MW
0300	-4.6	*****	96	080	.4	077	1.3	0
0600	-4.4	*****	95	130	.4	111	1.3	0
0900	-3.2	*****	95	093	.5	077	1.9	2
1200	3.3	*****	79	100	.7	138	1.9	26
1500	10.3	-.3	48	057	1.1	049	5.1	9
1800	3.9	-1.4	68	332	.3	326	5.7	0
2100	1.8	-.6	84	206	1.5	206	3.8	0
2400	.3	*****	96	209	.7	191	2.5	0

DAY 12

HOUR NDNG	TEMP. DEG C	DEW POINT DEG C	RH %	WIND DIR. DEG.	WIND SPD. M/S	GUST DIR. DEG.	MAX. GUST M/S	RAD MW
0300	.1	*****	97	005	.1	013	.6	0
0600	.1	*****	97	071	.1	062	.6	0
0900	.4	*****	96	064	.1	078	.6	2
1200	3.2	*****	91	048	.3	000	1.3	17
1500	6.1	*****	71	114	.4	047	1.9	13
1800	1.7	*****	89	050	.1	059	1.9	P
2100	-.8	*****	97	062	.2	090	.6	0
2400	-.9	*****	96	060	.3	076	1.3	0

DAY 13

HOUR NDNG	TEMP. DEG C	DEW POINT DEG C	RH %	WIND DIR. DEG.	WIND SPD. M/S	GUST DIR. DEG.	MAX. GUST M/S	RAD MW
0300	-1.2	*****	97	081	.3	121	1.3	0
0600	-1.4	*****	96	***	****	***	1.3	0
0900	-1.0	*****	95	***	****	***	1.3	2
1200	2.7	*****	88	063	.3	092	1.3	14
1500	7.4	*****	59	090	.5	121	2.5	10
1800	1.7	*****	78	054	.6	095	1.9	0
2100	-2.0	*****	92	065	.4	099	1.3	0
2400	-3.4	*****	94	***	****	***	1.3	0

DAY 14

HOUR NDNG	TEMP. DEG C	DEW POINT DEG C	RH %	WIND DIR. DEG.	WIND SPD. M/S	GUST DIR. DEG.	MAX. GUST M/S	RAD MW
0300	-5.0	*****	95	***	****	***	1.3	0
0600	-5.7	*****	94	***	****	***	1.3	0
0900	-6.0	*****	95	***	****	***	1.3	2
1200	.8	*****	67	083	.7	089	1.3	28
1500	4.7	-6.3	45	081	.8	075	2.5	20
1800	-2.0	*****	83	037	.2	068	2.5	0
2100	-3.9	*****	87	079	.2	043	1.3	0
2400	-4.0	*****	88	092	.2	109	1.3	0

DAY 15

HOUR NDNG	TEMP. DEG C	DEW POINT DEG C	RH %	WIND DIR. DEG.	WIND SPD. M/S	GUST DIR. DEG.	MAX. GUST M/S	RAD MW
0300	-3.8	*****	88	089	.4	099	1.9	0
0600	-7.7	*****	95	074	.3	081	1.3	0
0900	-5.2	*****	93	080	.3	075	1.3	1
1200	-1.4	*****	78	037	.5	339	1.9	10
1500	2.2	*****	61	333	.5	001	1.9	21
1800	-2.5	*****	85	020	.4	347	1.9	0
2100	-5.8	*****	93	081	.3	100	1.3	0
2400	-4.9	*****	93	078	.4	067	1.3	0

DAY 16

HOUR NDNG	TEMP. DEG C	DEW POINT DEG C	RH %	WIND DIR. DEG.	WIND SPD. M/S	GUST DIR. DEG.	MAX. GUST M/S	RAD MW
0300	-4.5	*****	93	104	.3	063	1.3	0
0600	-5.2	*****	94	064	.4	076	1.3	0
0900	-4.8	*****	93	070	.7	076	1.9	2
1200	5.2	-1.9	60	075	.8	087	2.5	26
1500	7.7	-3.6	45	050	1.8	056	5.1	18
1800	1.8	*****	56	048	1.2	028	4.4	0
2100	2.3	-6.3	53	077	.9	047	3.8	0
2400	2.2	-7.2	50	050	2.2	059	7.0	0

DAY 17

HOUR NDNG	TEMP. DEG C	DEW POINT DEG C	RH %	WIND DIR. DEG.	WIND SPD. M/S	GUST DIR. DEG.	MAX. GUST M/S	RAD MW
0300	1.3	-9.1	46	066	1.1	044	4.4	0
0600	-.7	-10.7	47	074	.9	102	3.2	0
0900	0.0	-10.3	46	093	.9	079	3.2	2
1200	6.0	-10.8	29	080	2.1	076	8.3	22
1500	8.8	-10.8	24	055	2.5	054	6.3	18
1800	6.0	-12.2	26	062	2.2	056	6.3	1
2100	-3.1	*****	65	096	.6	111	2.5	0
2400	-2.1	-9.0	59	071	.7	071	1.9	0

DAY 18

HOUR NDNG	TEMP. DEG C	DEW POINT DEG C	RH %	WIND DIR. DEG.	WIND SPD. M/S	GUST DIR. DEG.	MAX. GUST M/S	RAD MW
0300	-6.2	*****	70	096	.9	079	2.5	0
0600	-6.4	*****	75	080	.8	071	1.9	0
0900	-5.0	*****	72	067	.6	082	1.9	1
1200	6.5	-8.8	33	061	.8	033	2.5	25
1500	10.3	*****	22	093	.9	086	3.2	19
1800	2.7	*****	39	191	1.3	175	5.1	0
2100	-4.2	*****	75	198	.3	256	3.2	0
2400	-2.9	*****	76	066	.4	022	1.3	0

** SEE INTERPRETATION NOTES AT END OF MONTHLY REPORT **

R & M CONSULTANTS, INC.

SUSITNA HYDROELECTRIC PROJECT

THREE HOUR SUMMARY FOR SHERMAN WEATHER STATION
DATA TAKEN DURING October, 1984

DAY 19

HOUR NDNG	TEMP. DEG C	DEW POINT DEG C	RH %	WIND DIR. DEG.	WIND SPD. M/S	GUST DIR. DEG.	MAX. GUST M/S	RAD MW
0300	-5.0	*****	85	061	.4	079	1.9	0
0600	-7.1	*****	93	072	.5	044	1.9	0
0900	-8.9	*****	94	070	.4	063	1.3	1
1200	-2.4	*****	72	105	.4	114	1.3	16
1500	2.8	*****	51	353	.2	119	1.3	16
1800	-3.6	*****	85	214	.1	248	1.3	0
2100	-7.7	*****	93	074	.3	058	1.3	0
2400	-5.3	*****	91	066	.5	075	1.3	0

DAY 20

HOUR NDNG	TEMP. DEG C	DEW POINT DEG C	RH %	WIND DIR. DEG.	WIND SPD. M/S	GUST DIR. DEG.	MAX. GUST M/S	RAD MW
0300	-2.0	*****	69	039	.7	027	2.5	0
0600	-1.6	-8.6	59	081	.8	086	2.5	0
0900	-2.3	*****	68	086	.8	088	2.5	1
1200	1.0	-5.4	62	092	1.3	107	3.8	10
1500	1.6	-4.7	63	060	1.6	055	3.8	5
1800	.7	-3.4	74	051	1.7	048	4.4	0
2100	.1	-2.9	80	078	1.0	079	2.5	0
2400	.7	*****	77	048	.8	034	2.5	0

DAY 21

HOUR NDNG	TEMP. DEG C	DEW POINT DEG C	RH %	WIND DIR. DEG.	WIND SPD. M/S	GUST DIR. DEG.	MAX. GUST M/S	RAD MW
0300	-.9	*****	89	075	.7	090	2.5	0
0600	.3	*****	98	066	.7	050	3.8	0
0900	.4	*****	97	061	.6	078	1.9	0
1200	1.2	*****	97	062	.3	073	1.3	2
1500	1.7	*****	94	188	.2	190	1.9	3
1800	.9	*****	96	045	.2	062	1.3	0
2100	0.0	*****	97	050	.3	035	1.3	0
2400	1.3	*****	96	062	.5	073	1.3	0

DAY 22

HOUR NDNG	TEMP. DEG C	DEW POINT DEG C	RH %	WIND DIR. DEG.	WIND SPD. M/S	GUST DIR. DEG.	MAX. GUST M/S	RAD MW
0300	3.7	1.9	88	071	1.2	074	4.4	0
0600	4.6	*****	79	079	1.0	078	2.5	0
0900	5.9	*****	74	070	.8	063	2.5	1
1200	8.7	2.1	63	065	1.4	077	4.4	7
1500	9.5	2.4	61	068	1.2	053	4.4	3
1800	5.1	*****	93	075	.5	076	2.5	0
2100	3.9	2.8	93	157	.6	114	3.2	0
2400	2.8	1.8	93	198	1.4	188	3.8	0

DAY 23

HOUR NDNG	TEMP. DEG C	DEW POINT DEG C	RH %	WIND DIR. DEG.	WIND SPD. M/S	GUST DIR. DEG.	MAX. GUST M/S	RAD MW
0300	.8	.1	95	202	1.8	201	4.4	0
0600	.5	-.2	95	200	1.4	202	3.2	0
0900	.3	-.7	93	209	1.6	208	3.8	0
1200	.3	-.7	93	215	1.4	213	3.8	3
1500	.6	-1.2	88	215	1.3	220	4.4	7
1800	-.6	*****	97	188	.7	199	2.5	0
2100	-1.0	-2.0	93	268	.1	268	.6	0
2400	-1.2	-2.2	93	***	****	***	****	0

DAY 24

HOUR NDNG	TEMP. DEG C	DEW POINT DEG C	RH %	WIND DIR. DEG.	WIND SPD. M/S	GUST DIR. DEG.	MAX. GUST M/S	RAD MW
0300	-3.4	-4.3	94	***	****	***	****	0
0600	-7.4	-8.1	95	***	****	***	****	0
0900	-8.0	-8.8	94	***	****	***	****	1
1200	-3.3	*****	85	036	.4	036	1.3	14
1500	.9	*****	67	034	1.0	033	2.5	13
1800	-5.9	*****	95	134	.4	085	1.3	0
2100	-1.8	-4.5	82	***	****	***	2.5	0
2400	-1.6	-5.6	74	***	****	***	3.8	0

DAY 25

HOUR NDNG	TEMP. DEG C	DEW POINT DEG C	RH %	WIND DIR. DEG.	WIND SPD. M/S	GUST DIR. DEG.	MAX. GUST M/S	RAD MW
0300	0.0	-6.0	64	***	****	***	4.4	0
0600	1.1	-8.5	49	071	2.2	044	7.0	0
0900	.9	-9.5	46	063	3.0	051	7.0	1
1200	2.9	-9.8	39	065	2.7	065	6.3	22
1500	3.8	-11.1	33	067	2.6	060	5.7	14
1800	-1.1	-12.2	43	055	1.9	042	5.7	0
2100	-3.3	-12.0	51	081	1.1	089	2.5	0
2400	-8.5	*****	77	027	.4	040	1.9	0

DAY 26

HOUR NDNG	TEMP. DEG C	DEW POINT DEG C	RH %	WIND DIR. DEG.	WIND SPD. M/S	GUST DIR. DEG.	MAX. GUST M/S	RAD MW
0300	-8.9	*****	76	045	1.1	039	3.2	0
0600	-11.7	*****	88	066	.6	043	1.9	0
0900	-10.3	*****	89	082	.7	070	1.9	1
1200	-4.8	*****	65	083	.4	097	1.3	22
1500	1.1	*****	40	083	.8	057	2.5	12
1800	-6.6	*****	80	084	.5	094	1.9	0
2100	-8.5	*****	85	088	.7	079	1.9	0
2400	-10.5	*****	90	097	.5	074	1.9	0

DAY 27

HOUR NDNG	TEMP. DEG C	DEW POINT DEG C	RH %	WIND DIR. DEG.	WIND SPD. M/S	GUST DIR. DEG.	MAX. GUST M/S	RAD MW
0300	-11.0	*****	92	099	.5	098	1.3	0
0600	-12.5	*****	91	079	.8	089	1.9	0
0900	-12.7	*****	91	067	.6	055	2.5	1
1200	-6.4	*****	75	084	.7	097	1.9	23
1500	-.5	*****	49	072	.7	070	1.9	17
1800	-8.2	*****	87	132	.3	166	1.3	0
2100	-11.5	*****	94	097	.5	094	1.3	0
2400	-12.6	*****	93	097	.4	121	1.3	0

** SEE INTERPRETATION NOTES AT END OF MONTHLY REPORT **

R & M CONSULTANTS, INC.

SUSITNA HYDROELECTRIC PROJECT

THREE HOUR SUMMARY FOR SHERMAN WEATHER STATION
DATA TAKEN DURING October, 1984

DAY 28

HOUR NDNG	TEMP. DEG C	DEW POINT DEG C	RH %	WIND DIR. DEG.	WIND SPD. M/S	GUST DIR. DEG.	MAX. GUST M/S	RAD MW
0300	-12.8	*****	92	076	.5	067	1.9	0
0600	-13.7	-15.0	90	088	.5	084	1.3	0
0900	-13.4	-14.7	90	***	****	***	****	1
1200	-4.1	*****	79	059	.7	061	1.9	25
1500	.9	-10.7	42	056	2.0	052	5.7	12
1800	-2.2	-13.2	43	042	2.9	043	7.0	1
2100	-3.8	-15.2	41	065	1.9	051	5.7	1
2400	-5.7	-16.1	44	065	1.8	053	5.7	0

DAY 29

HOUR NDNG	TEMP. DEG C	DEW POINT DEG C	RH %	WIND DIR. DEG.	WIND SPD. M/S	GUST DIR. DEG.	MAX. GUST M/S	RAD MW
0300	-8.4	-16.1	54	062	1.2	078	3.2	0
0600	-10.3	*****	59	053	1.2	070	3.8	0
0900	-14.1	*****	76	052	.8	041	2.5	1
1200	-8.1	*****	57	078	.7	067	1.3	22
1500	-2.5	-18.2	29	088	.8	081	2.5	12
1800	-11.9	*****	66	093	.5	110	1.9	0
2100	-13.2	*****	79	059	.3	052	1.9	0
2400	-12.6	*****	82	055	.7	039	1.9	0

DAY 30

HOUR NDNG	TEMP. DEG C	DEW POINT DEG C	RH %	WIND DIR. DEG.	WIND SPD. M/S	GUST DIR. DEG.	MAX. GUST M/S	RAD MW
0300	-9.6	*****	66	050	.8	046	2.5	0
0600	-7.9	*****	62	060	.7	050	1.9	0
0900	-6.9	-15.1	52	065	1.3	068	3.2	0
1200	-5.0	-14.1	49	075	1.5	075	3.8	9
1500	-3.9	-13.4	48	061	1.5	061	3.8	5
1800	-4.2	-13.4	49	062	1.2	064	3.2	0
2100	-4.7	*****	52	059	1.2	065	3.8	0
2400	-5.0	*****	54	043	.9	045	2.5	0

DAY 31

HOUR NDNG	TEMP. DEG C	DEW POINT DEG C	RH %	WIND DIR. DEG.	WIND SPD. M/S	GUST DIR. DEG.	MAX. GUST M/S	RAD MW
0300	-4.4	-12.8	52	053	1.3	050	3.8	0
0600	-4.2	-12.1	54	057	1.3	068	4.4	0
0900	-6.8	-12.3	65	049	1.0	065	3.2	0
1200	-2.4	-10.2	55	048	1.2	064	3.8	17
1500	.7	-9.4	47	085	1.4	080	3.8	10
1800	-5.8	*****	75	083	.7	090	2.5	0
2100	-9.4	*****	87	058	.6	043	1.9	0
2400	-12.0	*****	93	067	.7	065	1.9	0

** SEE INTERPRETATION NOTES AT END OF MONTHLY REPORT **

R & M CONSULTANTS, INC.

SUSITNA HYDROELECTRIC PROJECT

MONTHLY SUMMARY FOR SHERMAN WEATHER STATION
DATA TAKEN DURING October, 1984

DAY	MAX. TEMP. DEG C	MIN. TEMP. DEG C	MEAN TEMP. DEG C	RES. WIND DIR. DEG	RES. WIND SPD. M/S	AVG. WIND SPD. M/S	MAX. GUST DIR. DEG	MAX. GUST SPD. M/S	P'VAL DIR.	MEAN RH %	MEAN DP DEG C	PRECIP MM	DAY'S SOLAR ENERGY WH/SQM	DAY
1	15.9	2.6	9.3	063	.9	1.0	066	5.1	NE	52	3.1	****	1800	1
2	13.2	1.9	7.6	130	.2	.6	214	3.8	ENE	57	4.3	****	1580	2
3	12.6	-2.7	5.0	055	.5	.6	042	3.2	ENE	58	2.9	****	1705	3
4	13.4	-5.0	4.2	070	.4	.6	025	3.2	E	57	.2	****	2025	4
5	11.3	-3.7	3.8	055	1.1	1.2	048	5.1	ENE	47	-1.6	****	1075	5
6	11.1	-.6	5.3	062	.6	.7	036	3.2	ENE	67	1.5	****	1070	6
7	11.1	-1.1	5.0	076	.6	.6	089	3.2	E	65	4.0	****	700	7
8	7.3	.5	3.9	215	.4	.9	217	5.7	SSW	92	2.4	****	575	8
9	8.5	-2.7	2.9	044	.4	.5	041	3.8	E	72	2.4	****	1265	9
10	10.7	-5.6	2.6	085	.4	.5	063	3.8	E	46	-.6	****	1645	10
11	11.0	-5.6	2.7	125	.3	1.0	326	5.7	ENE	68	-.8	****	1385	11
12	7.1	-1.2	3.0	067	.2	.3	047	1.9	ENE	68	.1	****	1065	12
13	7.4	-3.9	1.8	071	.4	.4	121	2.5	E	**	*****	****	830	13
14	5.4	-6.9	-.8	078	.4	.5	075	2.5	ESE	50	-5.8	****	1520	14
15	3.1	-8.0	-2.5	052	.3	.4	099	1.9	ENE	**	*****	****	835	15
16	7.9	-6.1	.9	059	1.0	1.1	059	7.0	ENE	52	-4.7	****	1315	16
17	8.8	-3.1	2.9	070	1.4	1.5	076	8.3	ENE	38	-10.4	****	1170	17
18	10.3	-7.4	1.5	102	.5	.9	175	5.1	E	40	-9.5	****	1225	18
19	4.0	-9.4	-2.7	071	.3	.4	079	1.9	ENE	**	*****	****	820	19
20	1.7	-5.0	-1.7	067	1.0	1.1	048	4.4	ENE	66	-5.0	****	480	20
21	2.2	-.9	.7	065	.4	.5	050	3.8	ENE	81	-1.6	****	130	21
22	9.9	2.6	6.3	089	.7	1.0	074	4.4	ENE	79	2.1	****	590	22
23	2.6	-1.2	.7	206	1.3	1.4	201	4.4	SSW	93	-.9	****	270	23
24	.9	-9.2	-4.2	048	.6	.9	***	3.8	NE	88	-6.0	****	705	24
25	3.9	-8.5	-2.3	064	1.9	2.0	044	7.0	ENE	47	-9.5	****	930	25
26	1.6	-13.1	-5.8	076	.6	.7	039	3.2	E	64	-11.5	****	890	26
27	-.3	-13.2	-6.8	086	.5	.6	055	2.5	E	71	-11.9	****	955	27
28	1.1	-13.9	-6.4	058	1.5	1.6	043	7.0	ENE	58	-13.6	****	945	28
29	-2.4	-14.3	-8.4	066	.8	.8	071	3.8	ENE	50	-16.8	****	815	29
30	-3.7	-12.9	-8.3	061	1.1	1.1	075	3.8	ENE	51	-13.9	****	420	30
31	.7	-12.0	-5.7	062	1.0	1.0	068	4.4	NE	55	-11.7	****	660	31
MONTH	15.9	-14.3	.5	071	.6	.8	076	8.3	ENE	62	-4.0	****	31395	

GUST VEL. AT MAX. GUST MINUS 2 INTERVALS 4.4
GUST VEL. AT MAX. GUST MINUS 1 INTERVAL 6.3
GUST VEL. AT MAX. GUST PLUS 1 INTERVAL 4.4
GUST VEL. AT MAX. GUST PLUS 2 INTERVALS 5.7

NOTE: RELATIVE HUMIDITY READINGS ARE UNRELIABLE WHEN WIND SPEEDS ARE LESS THAN ONE METER PER SECOND. SUCH READINGS HAVE NOT BEEN INCLUDED IN THE DAILY OR MONTHLY MEAN FOR RELATIVE HUMIDITY AND DEW POINT.

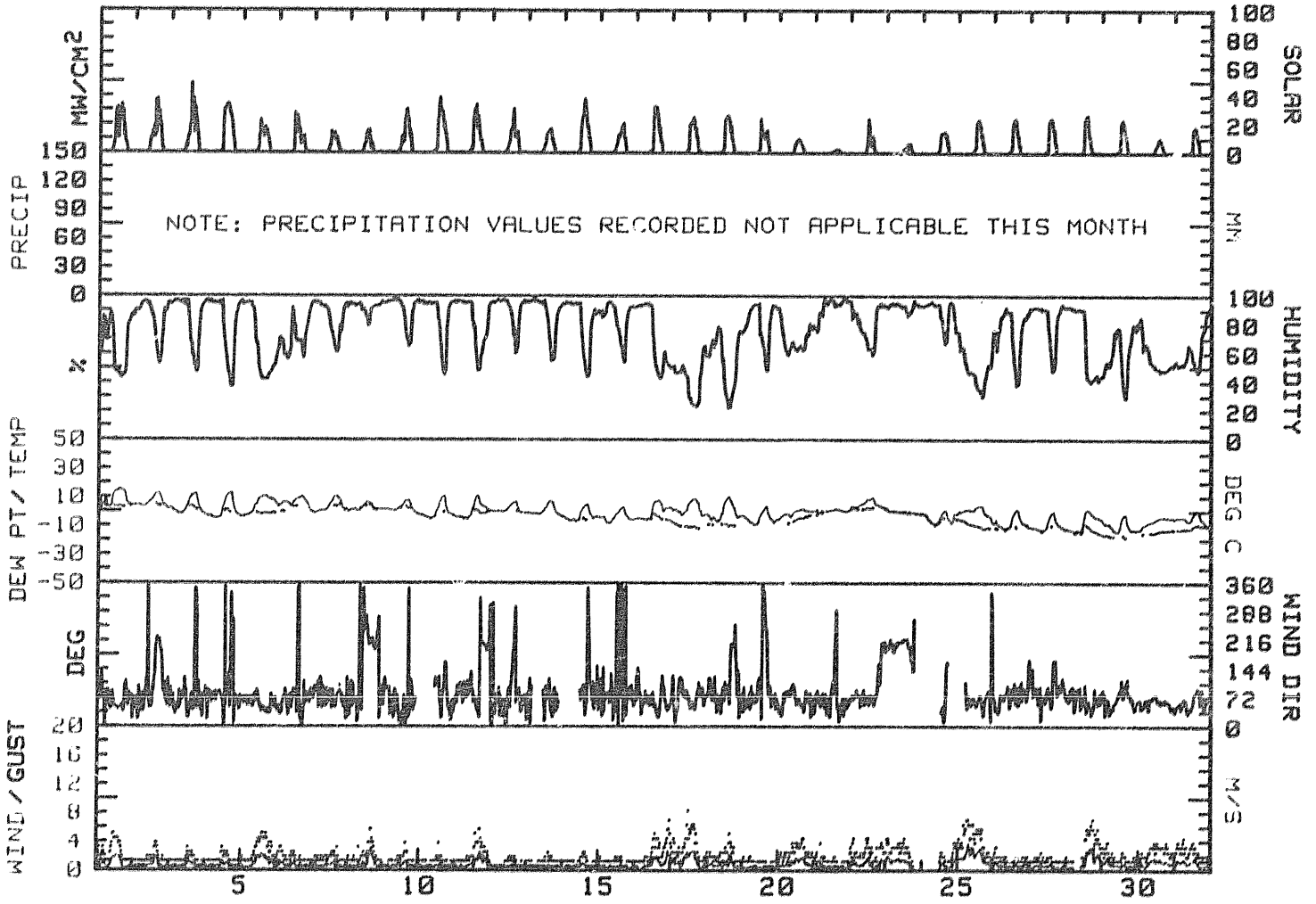
** SEE INTERPRETATION NOTES AT END OF MONTHLY REPORT **

R&M CONSULTANTS, INC.

SUSITNA HYDROELECTRIC PROJECT

SHERMAN WEATHER STATION

October, 1984

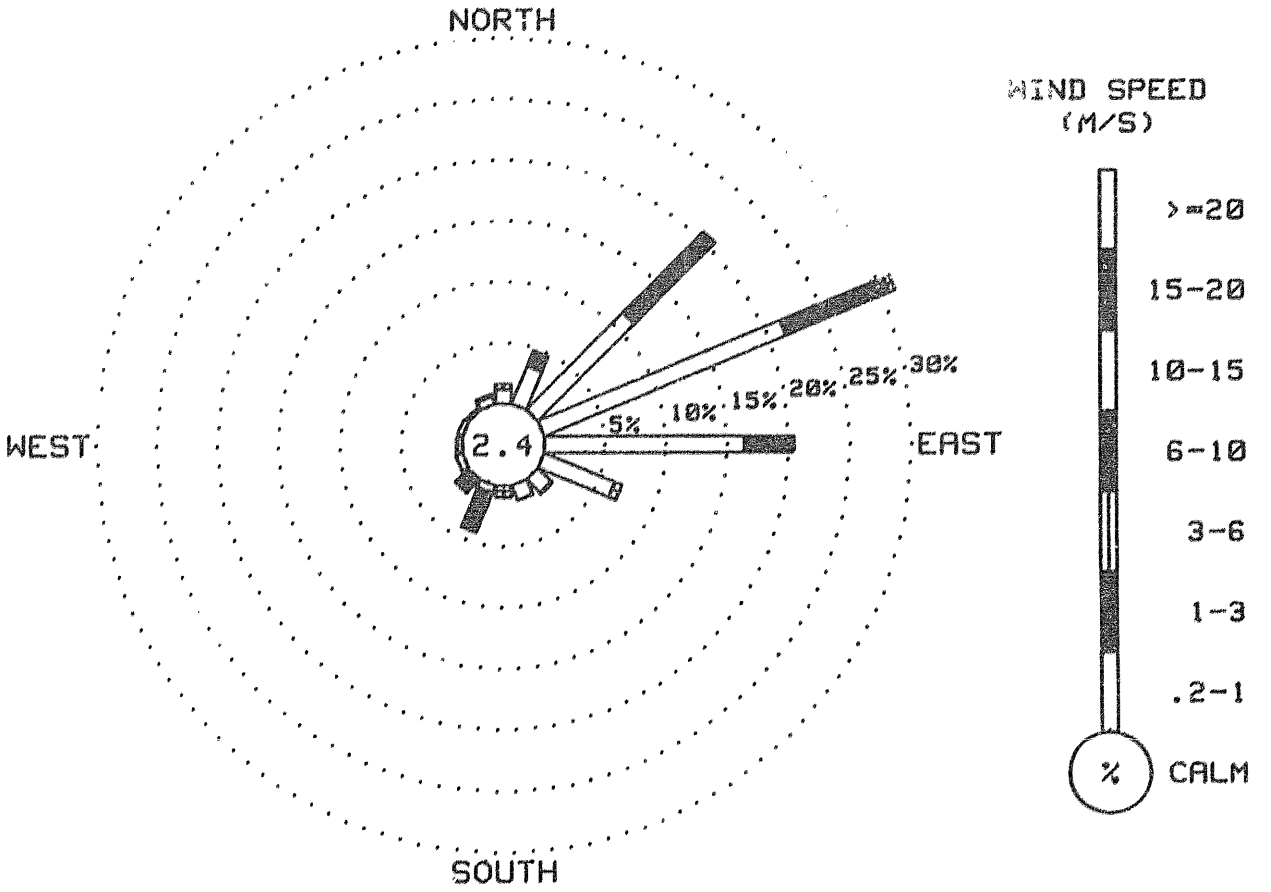


R&M CONSULTANTS, INC.

SUSITNA HYDROELECTRIC PROJECT

SHERMAN WEATHER STATION

October, 1984



WIND ROSE PLOT

R & M CONSULTANTS, INC.

SUSITNA HYDROELECTRIC PROJECT

HOURLY SOLAR RADIATION SUMMARY FOR SHERMAN WEATHER STATION
DATA TAKEN DURING October, 1984

SOLAR RADIATION VALUES MEASURED IN MILLIWATTS PER SQUARE CENTIMETER

HOUR ENDING

DATE	0100	0200	0300	0400	0500	0600	0700	0800	0900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	2400	AVG
1	0	0	0	0	0	0	0	1	5	19	26	21	25	29	29	16	8	4	0	0	0	0	0	0	8
2	0	0	0	0	0	0	0	1	6	10	15	15	26	32	24	21	8	2	0	0	0	0	0	0	7
3	0	0	0	0	0	0	0	1	5	8	12	21	35	29	23	24	14	2	0	0	0	0	0	0	7
4	0	0	0	0	0	0	0	1	2	13	31	32	34	32	27	21	11	1	0	0	0	0	0	0	8
5	0	0	0	0	0	0	0	0	2	8	19	17	14	16	15	12	7	1	0	0	0	0	0	0	4
6	0	0	0	0	0	0	0	0	1	16	18	24	17	8	9	12	4	1	0	0	0	0	0	0	4
7	0	0	0	0	0	0	0	0	2	5	13	12	14	10	8	5	2	1	0	0	0	0	0	0	3
8	0	0	0	0	0	0	0	0	4	7	12	13	13	4	5	2	0	0	0	0	0	0	0	0	2
9	0	0	0	0	0	0	0	0	2	5	10	9	24	31	25	14	9	1	0	0	0	0	0	0	5
10	0	0	0	0	0	0	0	1	2	3	24	36	30	29	20	14	7	1	0	0	0	0	0	0	7
11	0	0	0	0	0	0	0	0	2	4	26	29	26	26	14	9	4	1	0	0	0	0	0	0	6
12	0	0	0	0	0	0	0	1	2	4	8	17	20	24	12	14	7	1	0	0	0	0	0	0	4
13	0	0	0	0	0	0	0	0	2	4	8	14	15	17	13	8	4	1	0	0	0	0	0	0	3
14	0	0	0	0	0	0	0	0	2	3	20	27	37	31	19	11	5	0	0	0	0	0	0	0	6
15	0	0	0	0	0	0	0	0	1	3	7	12	14	17	17	11	4	0	0	0	0	0	0	0	3
16	0	0	0	0	0	0	0	0	2	2	14	30	29	26	17	9	4	1	0	0	0	0	0	0	5
17	0	0	0	0	0	0	0	0	2	2	12	21	22	24	18	12	5	2	1	0	0	0	0	0	5
18	0	0	0	0	0	0	0	0	1	3	13	25	26	24	17	10	4	1	0	0	0	0	0	0	5
19	0	0	0	0	0	0	0	0	1	2	14	17	13	11	15	9	2	0	0	0	0	0	0	0	3
20	0	0	0	0	0	0	0	0	1	6	9	10	10	8	6	3	0	0	0	0	0	0	0	0	2
21	0	0	0	0	0	0	0	0	0	1	1	2	2	3	3	2	1	0	0	0	0	0	0	0	1
22	0	0	0	0	0	0	0	0	1	4	17	14	6	10	7	2	0	0	0	0	0	0	0	0	2
23	0	0	0	0	0	0	0	0	0	2	3	3	7	4	6	3	1	0	0	0	0	0	0	0	1
24	0	0	0	0	0	0	0	0	1	2	6	14	14	15	12	8	1	0	0	0	0	0	0	0	3
25	0	0	0	0	0	0	0	0	1	3	4	22	23	20	13	7	2	1	0	0	0	0	0	0	4
26	0	0	0	0	0	0	0	0	1	2	3	21	24	21	13	6	1	0	0	0	0	0	0	0	4
27	0	0	0	0	0	0	0	0	1	2	3	22	24	21	17	7	1	0	0	0	0	0	0	0	4
28	0	0	0	0	0	0	0	0	1	2	2	24	26	22	12	5	1	1	0	0	1	0	0	0	4
29	0	0	0	0	0	0	0	0	1	2	3	21	22	17	12	5	1	0	0	0	0	0	0	0	3
30	0	0	0	0	0	0	0	0	0	3	5	8	10	9	6	3	1	0	0	0	0	0	0	0	2
31	0	0	0	0	0	0	0	0	0	2	2	17	18	16	10	3	0	0	0	0	0	0	0	0	3

** SEE INTERPRETATION NOTES AT END OF MONTHLY REPORT **

R & M CONSULTANTS, INC.

SUSITNA HYDROELECTRIC PROJECT

OBSERVATION SUMMARY FOR SHERMAN WEATHER STATION
DATA TAKEN DURING October, 1984

PARAMETER	NUMBER OF USABLE OBSERVATIONS	PERCENT OF TOTAL OBSERVATIONS
TEMPERATURE	1488	100
WIND SPEED	1443	97
WIND DIRECTION	1365	92
PEAK GUST	1444	97
RELATIVE HUMIDITY	483	32
PRECIPITATION	0	0
SOLAR RADIATION	1488	100
DEW POINT	483	32

THERE ARE 1488 POSSIBLE OBSERVATIONS THIS MONTH FOR EACH PARAMETER. THE DATA RECORDING INTERVAL IS 30 MINUTES.

THE FOLLOWING ADJUSTMENTS HAVE BEEN MADE TO THIS MONTH'S DATA:

1. RH +5 RH Points
2. Solar -1 mW/CM^2

Additional comments on this month's data:

1. Intermittent wind speed and direction data lost due to frozen anemometer and wind vane.

No precipitation data for November

(See INTERPRETATION OF DATA).

R & M CONSULTANTS, INC.

SUSITNA HYDROELECTRIC PROJECT

THREE HOUR SUMMARY FOR SHERMAN WEATHER STATION
DATA TAKEN DURING November, 1984

DAY 01

HOUR NDNG	TEMP. DEG C	DEW POINT DEG C	RH %	WIND DIR. DEG.	WIND SPD. M/S	GUST DIR. DEG.	MAX. GUST M/S	RAD MW
0300	-12.3	*****	92	088	.5	078	1.3	0
0600	-13.6	*****	91	062	.3	078	1.3	0
0900	-10.6	*****	92	061	.4	038	1.3	0
1200	-6.0	*****	90	077	.4	073	1.3	21
1500	2.9	-11.6	34	079	1.0	107	4.4	10
1800	-1.4	-13.7	39	098	1.2	100	3.2	0
2100	-3.1	-15.5	38	064	1.0	068	2.5	0
2400	-6.1	-16.2	45	061	1.1	061	3.2	0

DAY 02

HOUR NDNG	TEMP. DEG C	DEW POINT DEG C	RH %	WIND DIR. DEG.	WIND SPD. M/S	GUST DIR. DEG.	MAX. GUST M/S	RAD MW
0300	-7.5	-15.7	52	041	1.3	038	2.5	0
0600	-6.2	-15.7	47	046	1.3	055	3.2	0
0900	-8.4	-16.5	52	088	.9	074	2.5	1
1200	-6.0	*****	55	074	.8	069	1.9	16
1500	.1	*****	39	093	.7	069	3.2	10
1800	-5.8	*****	63	072	.8	053	3.2	0
2100	-10.4	*****	91	072	.5	070	1.3	0
2400	-12.8	*****	97	055	.5	053	1.3	0

DAY 03

HOUR NDNG	TEMP. DEG C	DEW POINT DEG C	RH %	WIND DIR. DEG.	WIND SPD. M/S	GUST DIR. DEG.	MAX. GUST M/S	RAD MW
0300	-13.4	-14.2	94	046	.3	067	1.3	0
0600	-13.9	-14.7	94	***	****	***	****	0
0900	-13.4	*****	93	065	.1	087	.6	0
1200	-7.6	*****	91	080	.3	042	1.3	20
1500	-2.5	*****	62	115	.7	115	1.9	5
1800	-7.7	*****	86	093	.4	075	1.3	0
2100	-12.5	*****	95	064	.5	054	1.9	0
2400	-13.5	*****	93	082	.4	085	1.9	0

DAY 04

HOUR NDNG	TEMP. DEG C	DEW POINT DEG C	RH %	WIND DIR. DEG.	WIND SPD. M/S	GUST DIR. DEG.	MAX. GUST M/S	RAD MW
0300	-15.7	*****	93	064	.4	048	1.3	0
0600	-16.6	*****	92	072	.4	056	1.3	0
0900	-16.5	*****	92	055	.4	061	1.3	0
1200	-10.1	*****	96	076	.1	101	1.3	17
1500	-6.9	*****	78	089	.5	095	1.9	12
1800	-12.2	*****	95	068	.4	067	1.3	0
2100	-11.1	*****	96	077	.5	092	1.9	0
2400	-8.9	*****	96	063	.3	066	1.3	0

DAY 05

HOUR NDNG	TEMP. DEG C	DEW POINT DEG C	RH %	WIND DIR. DEG.	WIND SPD. M/S	GUST DIR. DEG.	MAX. GUST M/S	RAD MW
0300	-7.1	*****	96	058	.5	057	1.3	0
0600	-6.1	*****	91	063	.6	030	1.9	0
0900	-4.9	*****	91	063	.6	076	1.3	0
1200	-1.6	-3.2	89	051	.6	038	2.5	3
1500	-1.4	-2.1	95	063	1.3	071	3.8	0
1800	-1.6	*****	95	051	1.1	053	4.4	0
2100	-1.2	*****	93	035	.9	043	2.5	0
2400	-2.7	*****	95	035	.8	026	1.9	0

DAY 06

HOUR NDNG	TEMP. DEG C	DEW POINT DEG C	RH %	WIND DIR. DEG.	WIND SPD. M/S	GUST DIR. DEG.	MAX. GUST M/S	RAD MW
0300	-4.8	*****	99	065	.5	062	1.3	0
0600	-6.3	*****	98	067	.6	070	1.9	0
0900	-8.9	*****	97	066	.4	057	1.9	0
1200	-4.8	-5.1	98	066	.2	066	1.3	3
1500	-.6	*****	87	090	.3	089	1.3	2
1800	-5.0	*****	98	055	.2	066	1.3	0
2100	-5.8	*****	98	***	****	***	.6	0
2400	-5.4	*****	98	***	****	***	.6	0

DAY 07

HOUR NDNG	TEMP. DEG C	DEW POINT DEG C	RH %	WIND DIR. DEG.	WIND SPD. M/S	GUST DIR. DEG.	MAX. GUST M/S	RAD MW
0300	-5.3	*****	99	***	****	***	.6	0
0600	-9.1	*****	97	***	****	***	.6	0
0900	-9.4	*****	96	***	****	***	1.3	0
1200	-5.9	-6.2	98	***	****	***	.6	4
1500	-3.8	*****	96	***	****	***	1.3	2
1800	-5.2	*****	98	***	****	***	.6	0
2100	-6.8	*****	98	***	****	***	1.3	0
2400	-11.6	*****	96	***	****	***	1.3	9

DAY 08

HOUR NDNG	TEMP. DEG C	DEW POINT DEG C	RH %	WIND DIR. DEG.	WIND SPD. M/S	GUST DIR. DEG.	MAX. GUST M/S	RAD MW
0300	-14.4	*****	94	***	****	***	1.3	0
0600	-13.2	*****	95	***	****	***	1.3	0
0900	-11.7	*****	96	***	****	***	1.9	0
1200	-6.1	-6.4	98	***	****	***	1.3	5
1500	-4.2	*****	85	315	.4	325	2.5	9
1800	-6.4	*****	97	044	.3	044	.6	0
2100	-6.4	*****	98	***	****	***	.6	0
2400	-10.7	*****	97	***	****	***	1.3	0

DAY 09

HOUR NDNG	TEMP. DEG C	DEW POINT DEG C	RH %	WIND DIR. DEG.	WIND SPD. M/S	GUST DIR. DEG.	MAX. GUST M/S	RAD MW
0300	-8.5	*****	98	***	****	***	.6	0
0600	-7.5	*****	98	***	****	***	.6	0
0900	-9.0	*****	97	***	****	***	1.3	0
1200	-8.0	*****	97	***	****	***	.6	3
1500	-7.3	*****	85	158	.3	169	1.3	6
1800	-12.6	*****	97	148	.2	148	1.3	0
2100	-16.9	*****	94	***	****	***	1.3	0
2400	-17.0	-17.9	93	***	****	***	1.3	0

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R & M CONSULTANTS, INC.

SUSITNA HYDROELECTRIC PROJECT

THREE HOUR SUMMARY FOR SHERMAN WEATHER STATION
DATA TAKEN DURING November, 1984

DAY 10

HOUR NDNG	TEMP. DEG C	DEW POINT DEG C	RH %	WIND DIR. DEG.	WIND SPD. M/S	GUST DIR. DEG.	MAX. GUST M/S	RAD MW
0300	-17.7	-18.7	92	***	****	***	****	0
0600	-19.1	-20.1	92	***	****	***	****	0
0900	-19.2	-20.2	92	***	****	***	****	0
1200	-18.5	-19.6	91	***	****	***	****	2
1500	-10.5	*****	70	***	****	***	1.3	10
1800	-17.3	-18.3	92	***	****	***	1.3	0
2100	-18.5	-19.5	92	***	****	***	****	0
2400	-19.8	-21.0	90	***	****	***	****	0

DAY 11

HOUR NDNG	TEMP. DEG C	DEW POINT DEG C	RH %	WIND DIR. DEG.	WIND SPD. M/S	GUST DIR. DEG.	MAX. GUST M/S	RAD MW
0300	-22.1	-23.4	89	***	****	***	****	0
0600	-21.2	-22.4	90	***	****	***	****	0
0900	-21.4	-22.7	89	***	****	***	****	0
1200	-20.0	-21.4	89	***	****	***	****	2
1500	-14.4	-18.6	70	***	****	***	****	7
1800	-20.3	-21.7	89	***	****	***	****	0
2100	-21.4	-22.7	89	***	****	***	****	0
2400	-23.1	-24.7	87	***	****	***	****	0

DAY 12

HOUR NDNG	TEMP. DEG C	DEW POINT DEG C	RH %	WIND DIR. DEG.	WIND SPD. M/S	GUST DIR. DEG.	MAX. GUST M/S	RAD MW
0300	-22.6	-24.2	87	***	****	***	****	0
0600	-24.2	-25.9	86	***	****	***	****	0
0900	-21.9	-23.4	88	***	****	***	****	0
1200	-18.7	-20.1	89	***	****	***	****	1
1500	-12.4	*****	69	***	****	***	1.3	5
1800	-17.6	-18.9	90	***	****	***	1.9	0
2100	-19.2	-20.6	89	***	****	***	****	0
2400	-20.5	-22.0	88	***	****	***	****	0

DAY 13

HOUR NDNG	TEMP. DEG C	DEW POINT DEG C	RH %	WIND DIR. DEG.	WIND SPD. M/S	GUST DIR. DEG.	MAX. GUST M/S	RAD MW
0300	-19.8	-21.3	88	***	****	***	****	6
0600	-21.4	-22.9	88	***	****	***	****	0
0900	-19.4	-20.8	89	***	****	***	****	0
1200	-17.1	-18.6	88	***	****	***	****	2
1500	-8.2	-13.4	66	***	****	***	2.5	6
1800	-11.0	-15.0	72	***	****	***	3.2	0
2100	-12.5	-16.6	71	***	****	***	3.2	0
2400	-15.2	-18.5	76	***	****	***	3.2	0

DAY 14

HOUR NDNG	TEMP. DEG C	DEW POINT DEG C	RH %	WIND DIR. DEG.	WIND SPD. M/S	GUST DIR. DEG.	MAX. GUST M/S	RAD MW
0300	-17.5	*****	86	***	****	***	1.9	0
0600	-17.1	*****	82	***	****	***	1.9	0
0900	-14.1	-18.2	71	***	****	***	3.2	0
1200	-11.2	-16.6	64	076	1.9	066	4.4	5
1500	-9.9	-16.0	61	076	2.2	073	5.1	0
1800	-8.9	-15.7	58	073	1.9	075	5.1	0
2100	-8.1	-14.7	59	071	1.8	076	5.1	0
2400	-7.1	-13.5	60	073	1.8	072	4.4	0

DAY 15

HOUR NDNG	TEMP. DEG C	DEW POINT DEG C	RH %	WIND DIR. DEG.	WIND SPD. M/S	GUST DIR. DEG.	MAX. GUST M/S	RAD MW
0300	-5.9	-12.0	62	077	2.0	077	5.1	0
0600	-4.7	-10.4	64	071	1.7	072	4.4	0
0900	-4.2	-10.2	63	071	1.7	073	4.4	0
1200	-2.4	-8.9	61	067	1.6	071	3.8	3
1500	-.8	-8.7	55	058	1.2	048	3.2	4
1800	-7.1	*****	84	055	.5	048	2.5	0
2100	-3.6	*****	81	061	.6	064	1.9	0
2400	-4.3	*****	97	061	.7	072	1.9	0

DAY 16

HOUR NDNG	TEMP. DEG C	DEW POINT DEG C	RH %	WIND DIR. DEG.	WIND SPD. M/S	GUST DIR. DEG.	MAX. GUST M/S	RAD MW
0300	-4.4	*****	96	075	.7	069	1.9	0
0600	-5.6	*****	97	065	.6	076	1.9	0
0900	-7.4	*****	98	059	.5	055	1.9	0
1200	-8.3	*****	97	070	.5	069	1.3	1
1500	-6.7	*****	94	054	.7	047	1.9	1
1800	-12.4	*****	96	048	.7	037	1.9	0
2100	-13.8	-14.3	96	066	.6	062	1.9	0
2400	-14.4	-15.0	95	075	.3	075	1.3	0

DAY 17

HOUR NDNG	TEMP. DEG C	DEW POINT DEG C	RH %	WIND DIR. DEG.	WIND SPD. M/S	GUST DIR. DEG.	MAX. GUST M/S	RAD MW
0300	-16.1	-16.9	94	***	****	***	****	0
0600	-16.9	-17.8	93	***	****	***	****	0
0900	-17.6	-18.6	92	***	****	***	****	0
1200	-13.5	*****	94	077	.4	078	1.3	1
1500	-9.1	*****	91	071	.6	070	2.5	2
1800	-12.8	*****	96	059	.7	059	3.2	0
2100	-10.9	*****	92	047	1.0	045	3.2	0
2400	-10.9	*****	94	049	.9	051	3.2	0

DAY 18

HOUR NDNG	TEMP. DEG C	DEW POINT DEG C	RH %	WIND DIR. DEG.	WIND SPD. M/S	GUST DIR. DEG.	MAX. GUST M/S	RAD MW
0300	-8.4	*****	95	066	.7	068	3.2	0
0600	-6.2	*****	93	048	.6	054	1.3	0
0900	-7.3	*****	94	030	.8	037	1.9	0
1200	-7.9	*****	93	051	.8	051	3.2	2
1500	-5.1	*****	84	043	.7	042	1.9	1
1800	-10.9	*****	93	044	.8	053	2.5	0
2100	-12.2	*****	95	058	.8	062	1.9	0
2400	-14.0	-14.6	95	063	.6	067	1.3	0

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R & M CONSULTANTS, INC.

SUSITNA HYDROELECTRIC PROJECT

THREE HOUR SUMMARY FOR SHERMAN WEATHER STATION
DATA TAKEN DURING November, 1984

DAY 19

HOUR NDNG	TEMP. DEG C	DEW POINT DEG C	RH %	WIND DIR. DEG.	WIND SPD. M/S	GUST DIR. DEG.	MAX. GUST M/S	RAD MW
0300	-13.4	*****	95	080	.5	081	1.9	0
0600	-14.2	*****	95	082	.5	072	1.3	0
0900	-16.5	*****	93	080	.5	079	1.3	0
1200	-15.5	*****	93	069	.3	079	1.3	1
1500	-13.0	*****	94	080	.4	079	1.3	0
1800	-13.5	*****	94	068	.4	053	1.9	0
2100	-9.2	*****	95	067	.6	065	1.9	0
2400	-6.0	*****	98	047	.7	048	1.9	0

DAY 20

HOUR NDNG	TEMP. DEG C	DEW POINT DEG C	RH %	WIND DIR. DEG.	WIND SPD. M/S	GUST DIR. DEG.	MAX. GUST M/S	RAD MW
0300	-3.2	-6.8	76	054	1.0	039	2.5	0
0600	-2.5	-7.6	68	068	1.3	076	4.4	0
0900	-2.5	*****	72	064	1.1	055	3.2	0
1200	-3.3	*****	96	058	1.0	080	2.5	0
1500	-2.3	-3.2	94	058	.9	069	5.1	0
1800	-.4	-1.7	91	066	.9	058	3.8	0
2100	1.9	-.5	84	064	1.2	064	4.4	0
2400	.5	*****	94	087	1.1	091	4.4	0

DAY 21

HOUR NDNG	TEMP. DEG C	DEW POINT DEG C	RH %	WIND DIR. DEG.	WIND SPD. M/S	GUST DIR. DEG.	MAX. GUST M/S	RAD MW
0300	.3	*****	98	109	.5	097	1.9	0
0600	-.2	*****	99	059	.6	070	1.9	0
0900	.2	*****	98	191	.8	090	5.1	0
1200	.3	*****	98	156	.3	195	1.9	3
1500	.4	*****	96	238	.6	252	2.5	0
1800	0.0	-.4	97	110	.2	161	1.3	0
2100	-.6	-.9	98	***	****	***	****	0
2400	-.8	-1.1	98	***	****	***	****	0

DAY 22

HOUR NDNG	TEMP. DEG C	DEW POINT DEG C	RH %	WIND DIR. DEG.	WIND SPD. M/S	GUST DIR. DEG.	MAX. GUST M/S	RAD MW
0300	-2.0	-2.3	98	***	****	***	****	0
0600	-5.2	-5.3	99	***	****	***	****	0
0900	-9.3	-9.7	97	***	****	***	****	0
1200	-10.7	-11.1	97	***	****	***	****	1
1500	-10.9	-11.4	96	***	****	***	****	1
1800	-13.9	-14.6	95	***	****	***	****	0
2100	-14.7	-15.5	94	***	****	***	****	0
2400	-15.8	-16.6	94	***	****	***	****	0

DAY 23

HOUR NDNG	TEMP. DEG C	DEW POINT DEG C	RH %	WIND DIR. DEG.	WIND SPD. M/S	GUST DIR. DEG.	MAX. GUST M/S	RAD MW
0300	-17.7	-18.6	93	***	****	***	****	0
0600	-17.0	-17.9	93	***	****	***	****	0
0900	-15.7	-16.5	94	***	****	***	****	0
1200	-14.3	-15.1	94	***	****	***	****	3
1500	-11.7	-12.2	96	***	****	***	****	1
1800	-10.6	-11.3	97	***	****	***	****	0
2100	-9.6	-10.0	97	***	****	***	****	0
2400	-9.1	-9.5	97	***	****	***	****	0

DAY 24

HOUR NDNG	TEMP. DEG C	DEW POINT DEG C	RH %	WIND DIR. DEG.	WIND SPD. M/S	GUST DIR. DEG.	MAX. GUST M/S	RAD MW
0300	-9.0	-9.4	97	***	****	***	****	0
0600	-8.9	-9.3	97	***	****	***	****	0
0900	-8.0	-8.3	98	***	****	***	****	0
1200	-7.7	-8.0	98	***	****	***	****	1
1500	-6.9	-7.6	95	***	****	***	****	0
1800	-8.4	-8.8	97	***	****	***	****	0
2100	-9.1	-9.5	97	***	****	***	****	0
2400	-9.4	-9.8	97	***	****	***	****	0

DAY 25

HOUR NDNG	TEMP. DEG C	DEW POINT DEG C	RH %	WIND DIR. DEG.	WIND SPD. M/S	GUST DIR. DEG.	MAX. GUST M/S	RAD MW
0300	-10.1	-10.4	98	***	****	***	****	0
0600	-10.9	-11.3	97	***	****	***	****	0
0900	-10.9	-11.3	97	***	****	***	****	0
1200	-9.9	-10.4	96	***	****	***	****	0
1500	-12.3	-13.2	93	***	****	***	****	0
1800	-11.3	-11.8	96	***	****	***	****	0
2100	-11.8	-12.3	96	***	****	***	****	0
2400	-10.8	-11.2	97	***	****	***	****	0

DAY 26

HOUR NDNG	TEMP. DEG C	DEW POINT DEG C	RH %	WIND DIR. DEG.	WIND SPD. M/S	GUST DIR. DEG.	MAX. GUST M/S	RAD MW
0300	-11.3	-11.8	96	***	****	***	****	0
0600	-11.8	-12.3	96	***	****	***	****	0
0900	-12.8	-13.5	95	***	****	***	****	0
1200	-13.1	-14.0	93	***	****	***	****	0
1500	-12.6	-13.5	93	***	****	***	****	0
1800	-14.9	-15.7	94	***	****	***	****	0
2100	-17.0	-17.9	93	***	****	***	****	0
2400	-20.6	-21.7	91	***	****	***	****	0

DAY 27

HOUR NDNG	TEMP. DEG C	DEW POINT DEG C	RH %	WIND DIR. DEG.	WIND SPD. M/S	GUST DIR. DEG.	MAX. GUST M/S	RAD MW
0300	-22.5	-23.7	90	***	****	***	****	0
0600	-19.3	-20.3	92	***	****	***	****	0
0900	-15.8	-16.7	93	***	****	***	****	0
1200	-13.3	-14.3	92	***	****	***	****	0
1500	-11.8	-12.7	93	***	****	***	****	0
1800	-11.6	-12.1	96	***	****	***	****	0
2100	-10.8	-11.2	97	***	****	***	****	0
2400	-10.9	-11.3	97	***	****	***	****	0

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R & M CONSULTANTS, INC.

SUSITNA HYDROELECTRIC PROJECT

THREE HOUR SUMMARY FOR SHERMAN WEATHER STATION
DATA TAKEN DURING November, 1984

DAY 28

HOUR NDNG	TEMP. DEG C	DEW POINT DEG C	RH %	WIND DIR. DEG.	WIND SPD. M/S	GUST DIR. DEG.	MAX. GUST M/S	RAD MW
0300	-12.0	-12.5	96	***	****	***	****	0
0600	-10.2	-10.9	95	***	****	***	****	0
0900	-12.3	-12.8	96	***	****	***	****	0
1200	-10.7	-11.2	96	***	****	***	****	2
1500	-8.2	-8.7	96	***	****	***	****	1
1800	-12.8	-13.9	92	***	****	***	****	0
2100	-13.1	-14.2	92	***	****	***	****	0
2400	-14.7	-15.9	91	***	****	***	****	0

DAY 29

HOUR NDNG	TEMP. DEG C	DEW POINT DEG C	RH %	WIND DIR. DEG.	WIND SPD. M/S	GUST DIR. DEG.	MAX. GUST M/S	RAD MW
0300	-10.4	-11.5	92	***	****	***	****	0
0600	-8.3	-9.5	91	***	****	***	****	0
0900	-7.7	-8.9	91	***	****	***	****	0
1200	-6.7	-8.1	90	***	****	***	****	1
1500	-5.9	-7.2	91	***	****	***	****	0
1800	-6.7	-7.5	94	***	****	***	****	0
2100	-6.7	-7.5	94	***	****	***	****	0
2400	-7.4	-8.1	95	***	****	***	****	0

DAY 30

HOUR NDNG	TEMP. DEG C	DEW POINT DEG C	RH %	WIND DIR. DEG.	WIND SPD. M/S	GUST DIR. DEG.	MAX. GUST M/S	RAD MW
0300	-7.6	-8.3	95	***	****	***	****	0
0600	-7.4	-8.2	94	***	****	***	****	0
0900	-7.1	-7.9	94	***	****	***	****	0
1200	-6.6	-7.9	91	***	****	***	****	1
1500	-6.5	-7.8	91	***	****	***	****	0
1800	-6.9	-8.1	91	***	****	***	****	0
2100	-8.0	-9.1	92	***	****	***	****	0
2400	-7.6	-8.4	94	***	****	***	****	0

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MONTHLY SUMMARY FOR SHERMAN WEATHER STATION
DATA TAKEN DURING November, 1984

DAY	MAX. TEMP. DEG C	MIN. TEMP. DEG C	MEAN TEMP. DEG C	RES. WIND DIR. DEG	RES. WIND SPD. M/S	AVG. WIND SPD. M/S	MAX. GUST DIR. DEG	MAX. GUST SPD. M/S	P'VAL DIR.	MEAN RH %	MEAN DP DEG C	PRECIP MM	DAY'S SOLAR ENERGY WH/SQM	DAY
1	2.9	-14.1	-5.6	075	.7	.8	107	4.4	ENE	38	-13.8	****	745	1
2	.1	-12.8	-6.4	064	.8	.9	055	3.2	ENE	50	-15.9	****	620	2
3	-1.4	-14.5	-8.0	086	.4	.4	115	1.9	NE	93	-14.7	****	655	3
4	-6.9	-17.1	-12.0	072	.4	.4	095	1.9	ENE	**	*****	****	530	4
5	-.9	-8.4	-4.7	052	.8	.8	053	4.4	ENE	92	-2.4	****	95	5
6	.2	-8.9	-4.4	068	.4	.4	070	1.9	ENE	97	-5.7	****	325	6
7	-3.8	-11.6	-7.7	***	****	.2	***	1.3	***	98	-6.5	****	170	7
8	-3.7	-15.1	-9.4	330	.3	.3	325	2.5	NE	97	-6.4	****	330	8
9	-3.6	-17.8	-10.7	157	.3	.2	169	1.3	SSE	93	-18.2	****	340	9
10	-10.1	-20.4	-15.3	***	****	.4	***	1.3	***	91	-19.1	****	315	10
11	-14.2	-23.1	-18.7	***	****	****	***	****	***	88	-21.8	****	215	11
12	-12.4	-24.6	-18.5	***	****	.4	***	1.9	***	88	-22.2	****	165	12
13	-7.8	-21.4	-14.6	***	****	1.0	***	3.2	***	82	-18.8	****	205	13
14	-7.1	-18.0	-12.6	074	1.9	1.5	073	5.1	ENE	62	-15.8	****	130	14
15	-.8	-7.1	-4.0	068	1.3	1.3	077	5.1	ENE	62	-10.5	****	235	15
16	-4.1	-15.5	-9.8	062	.6	.6	069	1.9	ENE	95	-14.9	****	50	16
17	-8.5	-17.7	-13.1	056	.7	.7	059	3.2	ENE	93	-16.6	****	105	17
18	-5.0	-14.0	-9.5	049	.7	.7	068	3.2	NE	93	-10.4	****	90	18
19	-6.0	-17.7	-11.9	070	.5	.5	081	1.9	ENE	95	-14.5	****	55	19
20	2.2	-4.9	-1.4	065	1.1	1.1	069	5.1	ENE	82	-4.5	****	0	20
21	1.6	-.8	.4	153	.2	.6	090	5.1	E	97	-.4	****	90	21
22	-.9	-15.8	-8.4	***	****	****	***	****	***	97	-10.0	****	70	22
23	-9.0	-17.8	-13.4	***	****	****	***	****	***	95	-14.3	****	100	23
24	-6.8	-9.4	-8.1	***	****	****	***	****	***	97	-8.9	****	30	24
25	-9.5	-12.6	-11.1	***	****	****	***	****	***	96	-11.4	****	20	25
26	-10.9	-20.6	-15.8	***	****	****	***	****	***	94	-14.5	****	15	26
27	-10.7	-23.4	-17.1	***	****	****	***	****	***	94	-15.9	****	0	27
28	-7.9	-15.1	-11.5	***	****	****	***	****	***	94	-12.4	****	65	28
29	-5.7	-13.9	-9.8	***	****	****	***	****	***	92	-9.0	****	55	29
30	-6.3	-8.5	-7.4	***	****	****	***	****	***	93	-8.2	****	30	30
MONTH	2.9	-24.6	-10.0	067	.7	.7	073	5.1	ENE	88	-12.3	****	5850	

GUST VEL. AT MAX. GUST MINUS 2 INTERVALS 4.4
GUST VEL. AT MAX. GUST MINUS 1 INTERVAL 3.8
GUST VEL. AT MAX. GUST PLUS 1 INTERVAL 3.8
GUST VEL. AT MAX. GUST PLUS 2 INTERVALS 5.1

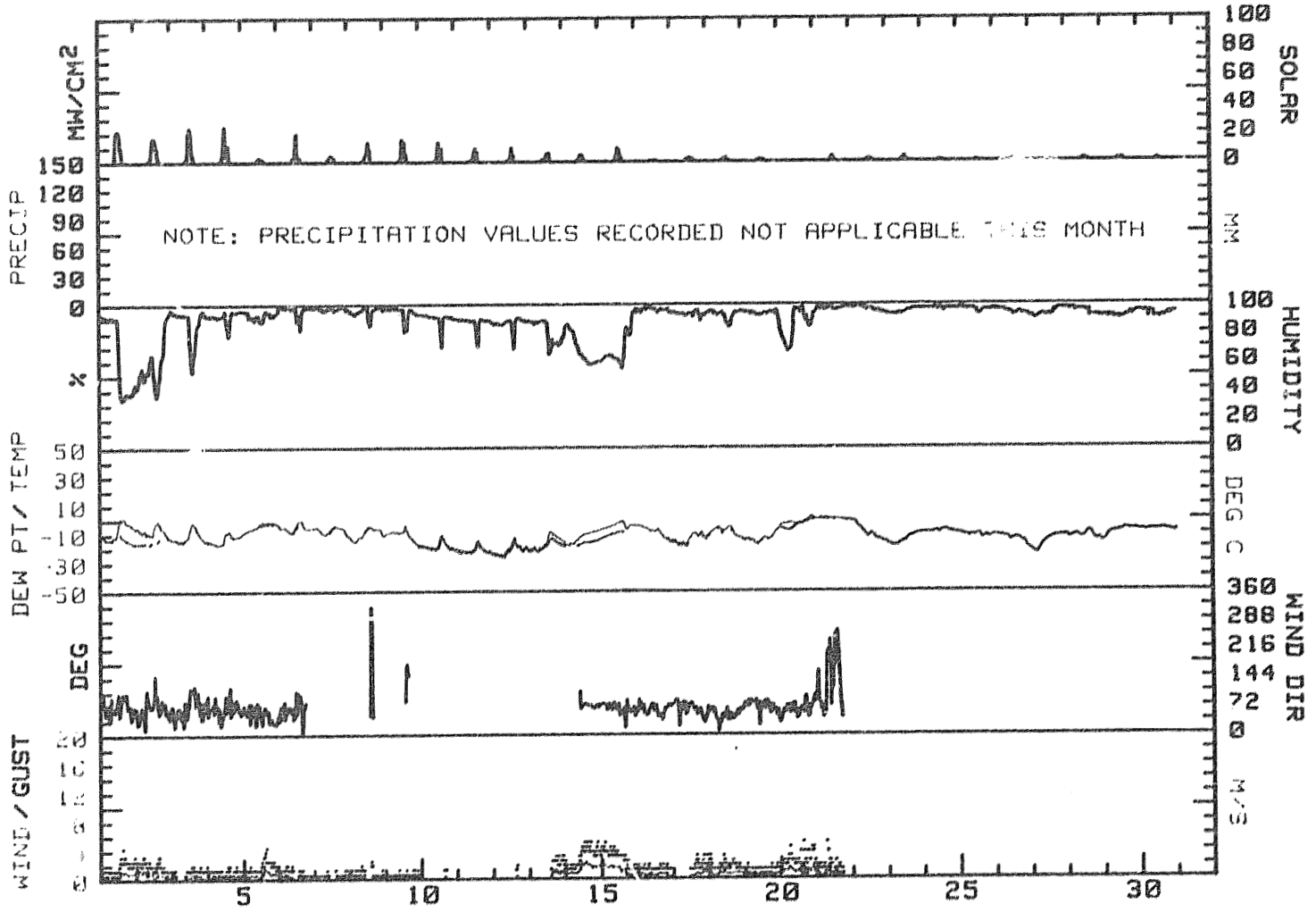
NOTE: RELATIVE HUMIDITY READINGS ARE UNRELIABLE WHEN WIND SPEEDS ARE LESS THAN ONE METER PER SECOND. SUCH READINGS HAVE NOT BEEN INCLUDED IN THE DAILY OR MONTHLY MEAN FOR RELATIVE HUMIDITY AND DEW POINT.
** SEE INTERPRETATION NOTES AT END OF MONTHLY REPORT **

R&M CONSULTANTS, INC.

SUSITNA HYDROELECTRIC PROJECT

SHERMAN WEATHER STATION

November, 1984



R & M CONSULTANTS, INC.

SUSITNA HYDROELECTRIC PROJECT

WIND FREQUENCY SUMMARY FOR SHERMAN WEATHER STATION
DATA TAKEN DURING November, 1984

	VELOCITY (M/S)							
DIRECTION	0.2 TO 1.0	1.0 TO 3.0	3.0 TO 6.0	6.0 TO 10.0	10.0 TO 15.0	15.0 TO 20.0	20.0 OR GREATER	TOTAL
N	.17	.17	0.00	0.00	0.00	0.00	0.00	.34
NNE	3.57	.68	0.00	0.00	0.00	0.00	0.00	4.25
NE	17.01	5.61	0.00	0.00	0.00	0.00	0.00	22.62
ENE	31.12	16.33	0.00	0.00	0.00	0.00	0.00	47.45
E	12.24	2.38	0.00	0.00	0.00	0.00	0.00	14.63
ESE	2.89	.68	0.00	0.00	0.00	0.00	0.00	3.57
SE	.34	0.00	0.00	0.00	0.00	0.00	0.00	.34
SSE	1.19	0.00	0.00	0.00	0.00	0.00	0.00	1.19
S	.51	0.00	0.00	0.00	0.00	0.00	0.00	.51
SSW	.51	.51	0.00	0.00	0.00	0.00	0.00	1.02
SW	.17	0.00	0.00	0.00	0.00	0.00	0.00	.17
WSW	.51	.17	0.00	0.00	0.00	0.00	0.00	.68
W	.34	0.00	0.00	0.00	0.00	0.00	0.00	.34
WNW	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
NW	.17	0.00	0.00	0.00	0.00	0.00	0.00	.17
NNW	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
CALM								2.72
TOTAL	70.75	26.53	0.00	0.00	0.00	0.00	0.00	100.00

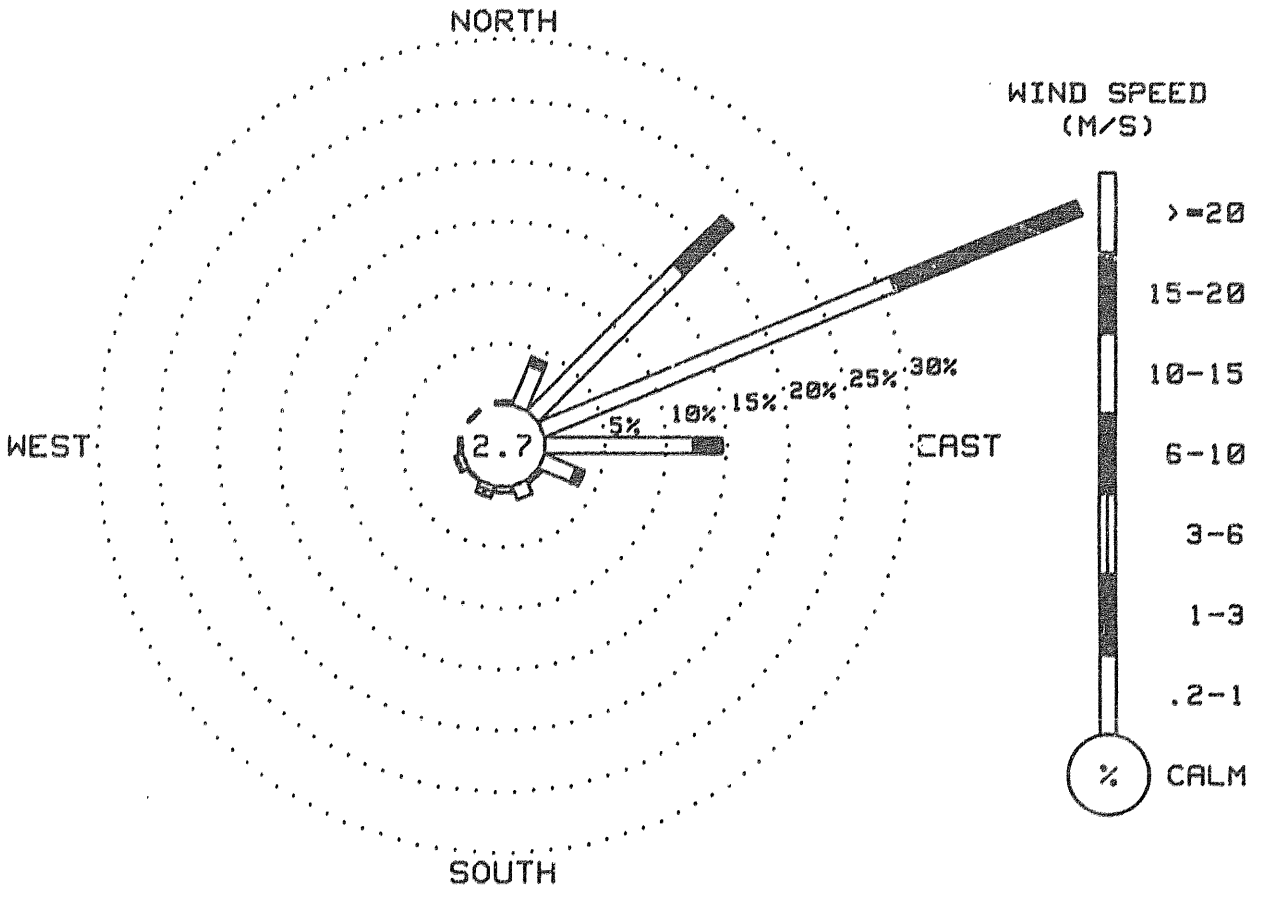
NOTE: ALL FREQUENCIES ARE EXPRESSED IN PERCENT
588 VALID WIND OBSERVATIONS USED TO DEVELOP FREQUENCY SUMMARY
1440 WIND OBSERVATIONS WOULD HAVE BEEN CORRECT FOR 30 MINUTE DATA.
** SEE INTERPRETATION NOTES AT END OF MONTHLY REPORT **

R&M CONSULTANTS, INC.

SUSITNA HYDROELECTRIC PROJECT

SHERMAN WEATHER STATION

November, 1984



WIND ROSE PLOT

R & M CONSULTANTS, INC.

SUSITNA HYDROELECTRIC PROJECT

HOURLY SOLAR RADIATION SUMMARY FOR SHERMAN WEATHER STATION
DATA TAKEN DURING November, 1984

SOLAR RADIATION VALUES MEASURED IN MILLIWATTS PER SQUARE CENTIMETER

HOUR ENDING

DATE	0100	0200	0300	0400	0500	0600	0700	0800	0900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	2400	AVG
1	0	0	0	0	0	0	0	0	0	0	1	20	22	20	10	3	0	0	0	0	0	0	0	0	3
2	0	0	0	0	0	0	0	0	1	2	2	13	17	15	10	4	1	0	0	0	0	0	0	0	3
3	0	0	0	0	0	0	0	0	0	1	2	11	23	21	7	2	0	0	0	0	0	0	0	0	3
4	0	0	0	0	0	0	0	0	0	1	3	12	20	6	10	2	0	0	0	0	0	0	0	0	2
5	0	0	0	0	0	0	0	0	0	1	2	3	2	2	1	0	0	0	0	0	0	0	0	0	0
6	0	0	0	0	0	0	0	0	0	1	3	3	18	4	3	2	0	0	0	0	0	0	0	0	1
7	0	0	0	0	0	0	0	0	0	1	2	4	5	4	3	1	0	0	0	0	0	0	0	0	1
8	0	0	0	0	0	0	0	0	0	1	1	4	6	14	8	1	0	0	0	0	0	0	0	0	1
9	0	0	0	0	0	0	0	0	0	1	1	2	11	14	5	1	0	0	0	0	0	0	0	0	1
10	0	0	0	0	0	0	0	0	0	0	1	2	12	10	7	1	0	0	0	0	0	0	0	0	1
11	0	0	0	0	0	0	0	0	0	1	1	2	5	8	5	1	0	0	0	0	0	0	0	0	1
12	0	0	0	0	0	0	0	0	0	0	1	1	2	8	4	1	0	0	0	0	0	0	0	0	1
13	0	0	0	0	0	0	0	0	0	1	2	2	3	6	6	1	0	0	0	0	0	0	0	0	1
14	0	0	0	0	0	0	0	0	0	0	2	4	4	3	1	0	0	0	0	0	0	0	0	0	1
15	0	0	0	0	0	0	0	0	0	0	1	4	8	8	3	1	0	0	0	0	0	0	0	0	1
16	0	0	0	0	0	0	0	0	0	0	1	1	1	1	1	0	0	0	0	0	0	0	0	0	0
17	0	0	0	0	0	0	0	0	0	0	2	2	3	3	2	1	0	0	0	0	0	0	0	0	0
18	0	0	0	0	0	0	0	0	0	0	1	2	2	3	1	1	0	0	0	0	0	0	0	0	0
19	0	0	0	0	0	0	0	0	0	0	1	1	2	2	1	0	0	0	0	0	0	0	0	0	0
20	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	***
21	0	0	0	0	0	0	0	0	0	0	1	3	4	2	1	0	0	0	0	0	0	0	0	0	0
22	0	0	0	0	0	0	0	0	0	0	1	1	2	2	1	1	0	0	0	0	0	0	0	0	0
23	0	0	0	0	0	0	0	0	0	0	2	3	4	2	1	0	0	0	0	0	0	0	0	0	0
24	0	0	0	0	0	0	0	0	0	0	0	1	1	1	1	0	0	0	0	0	0	0	0	0	0
25	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0
26	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0
27	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	***
28	0	0	0	0	0	0	0	0	0	0	1	2	2	2	1	0	0	0	0	0	0	0	0	0	0
29	0	0	0	0	0	0	0	0	0	0	1	1	2	2	1	0	0	0	0	0	0	0	0	0	0
30	0	0	0	0	0	0	0	0	0	0	0	1	1	1	0	0	0	0	0	0	0	0	0	0	0

** SEE INTERPRETATION NOTES AT END OF MONTHLY REPORT **

R & M CONSULTANTS, INC.

SUSITNA HYDROELECTRIC PROJECT

OBSERVATION SUMMARY FOR SHERMAN WEATHER STATION
DATA TAKEN DURING November, 1984

PARAMETER	NUMBER OF USABLE OBSERVATIONS	PERCENT OF TOTAL OBSERVATIONS
TEMPERATURE	1440	100
WIND SPEED	762	53
WIND DIRECTION	637	44
PEAK GUST	764	53
RELATIVE HUMIDITY	850	59
PRECIPITATION	0	0
SOLAR RADIATION	1440	100
DEW POINT	850	59

THERE ARE 1440 POSSIBLE OBSERVATIONS THIS MONTH FOR EACH PARAMETER. THE DATA RECORDING INTERVAL IS 30 MINUTES.

THE FOLLOWING ADJUSTMENTS HAVE BEEN MADE TO THIS MONTH'S DATA:

1.	RH	+5 RH Points	11/1 - 11/2
		+9	11/2 - 11/27
		+10	11/27 - 11/30
2.	Solar	-2 mW/CM^2	11/1
		-1	11/2 -11/30

Additional comments on this month's data:

1. Wind speed and direction data for half of month lost due to frozen anemometer and wind vane.

No precipitation data for December

(See INTERPRETATION OF DATA).

R & M CONSULTANTS, INC.

SUSITNA HYDROELECTRIC PROJECT

THREE HOUR SUMMARY FOR SHERMAN WEATHER STATION
DATA TAKEN DURING December, 1984

DAY 01

HOUR NDNG	TEMP. DEG C	DEW POINT DEG C	RH %	WIND DIR. DEG.	WIND SPD. M/S	GUST DIR. DEG.	MAX. GUST M/S	RAD MW
0300	-6.7	-7.5	94	***	****	***	****	0
0600	-6.4	-7.1	95	***	****	***	****	0
0900	-6.6	-7.3	95	***	****	***	****	0
1200	-6.0	-6.8	94	***	****	***	****	0
1500	-4.2	-4.9	95	***	****	***	****	0
1800	-3.6	-4.5	94	***	****	***	****	0
2100	-4.5	-5.1	96	***	****	***	****	0
2400	-5.9	-6.6	95	***	****	***	****	0

DAY 02

HOUR NDNG	TEMP. DEG C	DEW POINT DEG C	RH %	WIND DIR. DEG.	WIND SPD. M/S	GUST DIR. DEG.	MAX. GUST M/S	RAD MW
0300	-8.6	-9.3	95	***	****	***	****	0
0600	-8.3	-9.0	95	***	****	***	****	0
0900	-8.1	-8.8	95	***	****	***	****	0
1200	-6.1	-7.2	92	***	****	***	****	0
1500	-3.0	-4.6	89	***	****	***	****	0
1800	-2.5	-4.2	88	***	****	***	****	0
2100	-2.5	-3.6	92	***	****	***	****	0
2400	-1.2	-3.4	85	***	****	***	****	0

DAY 03

HOUR NDNG	TEMP. DEG C	DEW POINT DEG C	RH %	WIND DIR. DEG.	WIND SPD. M/S	GUST DIR. DEG.	MAX. GUST M/S	RAD MW
0300	-1.8	-2.7	94	***	****	***	****	0
0600	-1.2	-2.5	91	***	****	***	****	0
0900	-1.4	-2.6	92	***	****	***	****	0
1200	-.8	-2.1	91	***	****	***	****	0
1500	-1.6	-2.5	94	***	****	***	****	0
1800	-2.0	-2.9	94	***	****	***	****	0
2100	-.1	-2.0	87	***	****	***	****	0
2400	-.8	-1.8	93	***	****	***	****	0

DAY 04

HOUR NDNG	TEMP. DEG C	DEW POINT DEG C	RH %	WIND DIR. DEG.	WIND SPD. M/S	GUST DIR. DEG.	MAX. GUST M/S	RAD MW
0300	1.8	-.9	82	061	1.2	062	5.1	0
0600	1.9	*****	82	066	.8	047	2.5	0
0900	-.2	*****	94	041	.2	068	1.9	0
1200	3.5	*****	75	047	.1	058	1.9	0
1500	1.5	*****	84	076	.5	066	2.5	0
1800	2.8	*****	80	042	.4	036	1.9	0
2100	.5	*****	90	041	.0	024	1.3	0
2400	-1.3	*****	95	047	.3	106	1.3	0

DAY 05

HOUR NDNG	TEMP. DEG C	DEW POINT DEG C	RH %	WIND DIR. DEG.	WIND SPD. M/S	GUST DIR. DEG.	MAX. GUST M/S	RAD MW
0300	-3.3	*****	96	045	.1	039	1.3	0
0600	-3.6	-4.3	95	051	.2	059	1.3	0
0900	-.7	*****	94	049	.3	002	1.3	0
1200	.3	-.4	95	023	.2	023	1.3	1
1500	.2	-.5	95	***	****	***	****	0
1800	-2.5	*****	95	***	****	***	2.5	0
2100	-3.7	*****	96	***	****	***	1.9	0
2400	-4.2	*****	96	***	****	***	1.9	0

DAY 06

HOUR NDNG	TEMP. DEG C	DEW POINT DEG C	RH %	WIND DIR. DEG.	WIND SPD. M/S	GUST DIR. DEG.	MAX. GUST M/S	RAD MW
0300	-6.0	*****	94	***	****	***	1.9	0
0600	-7.7	*****	94	***	****	***	2.5	0
0900	-7.7	*****	95	***	****	***	1.3	0
1200	-7.0	*****	95	***	****	***	1.3	1
1500	-6.7	-7.5	94	***	****	***	.6	1
1800	-8.0	-8.8	94	***	****	***	****	0
2100	-7.3	-8.0	95	***	****	***	****	0
2400	-6.3	-7.1	94	***	****	***	****	0

DAY 07

HOUR NDNG	TEMP. DEG C	DEW POINT DEG C	RH %	WIND DIR. DEG.	WIND SPD. M/S	GUST DIR. DEG.	MAX. GUST M/S	RAD MW
0300	-6.1	*****	95	***	****	***	1.3	0
0600	-6.0	*****	95	***	****	***	1.3	0
0900	-5.6	-6.3	95	***	****	***	****	0
1200	-5.0	-5.7	95	***	****	***	****	0
1500	-5.0	-5.7	95	***	****	***	****	0
1800	-5.4	*****	95	***	****	***	1.3	0
2100	-5.1	*****	95	***	****	***	1.3	0
2400	-4.8	*****	96	***	****	***	.6	0

DAY 08

HOUR NDNG	TEMP. DEG C	DEW POINT DEG C	RH %	WIND DIR. DEG.	WIND SPD. M/S	GUST DIR. DEG.	MAX. GUST M/S	RAD MW
0300	-4.6	*****	96	***	****	***	1.3	0
0600	-5.2	-5.8	96	***	****	***	.6	0
0900	-9.8	-10.6	94	***	****	***	****	0
1200	-11.5	-12.6	92	***	****	***	****	0
1500	-6.3	-7.0	95	***	****	***	****	0
1800	-5.8	*****	95	***	****	***	1.9	0
2100	-6.4	-7.1	95	***	****	***	1.3	0
2400	-7.1	-7.8	95	***	****	***	****	0

DAY 09

HOUR NDNG	TEMP. DEG C	DEW POINT DEG C	RH %	WIND DIR. DEG.	WIND SPD. M/S	GUST DIR. DEG.	MAX. GUST M/S	RAD MW
0300	-14.2	-15.2	92	***	****	***	****	0
0600	-15.4	-16.4	92	***	****	***	****	0
0900	-15.3	-16.3	92	***	****	***	****	0
1200	-15.1	-16.3	91	***	****	***	****	1
1500	-15.4	-16.6	91	***	****	***	****	0
1800	-19.7	-21.1	89	***	****	***	****	0
2100	-22.3	-23.9	87	***	****	***	****	0
2400	-23.7	-25.4	86	***	****	***	****	0

** SEE INTERPRETATION NOTES AT END OF MONTHLY REPORT **

R & M CONSULTANTS, INC.

SUSITNA HYDROELECTRIC PROJECT

THREE HOUR SUMMARY FOR SHERMAN WEATHER STATION
DATA TAKEN DURING December, 1984

DAY 10

HOUR NDNG	TEMP. DEG C	DEW POINT DEG C	RH %	WIND DIR. DEG.	WIND SPD. M/S	GUST DIR. DEG.	MAX. GUST M/S	RAD MW
0300	-24.3	-26.0	86	***	****	***	****	0
0600	-22.3	-24.0	86	***	****	***	****	0
0900	-19.8	-21.3	88	***	****	***	****	0
1200	-19.1	-20.5	89	***	****	***	****	0
1500	-13.2	-14.5	90	***	****	***	****	0
1800	-12.7	*****	86	***	****	***	1.9	0
2100	-13.4	-15.3	86	***	****	***	1.9	0
2400	-11.0	*****	82	***	****	***	2.5	0

DAY 11

HOUR NDNG	TEMP. DEG C	DEW POINT DEG C	RH %	WIND DIR. DEG.	WIND SPD. M/S	GUST DIR. DEG.	MAX. GUST M/S	RAD MW
0300	-13.0	*****	85	***	****	***	1.9	0
0600	-14.9	-16.6	87	***	****	***	2.5	0
0900	-17.0	*****	88	***	****	***	1.9	0
1200	-17.9	*****	87	***	****	***	1.3	0
1500	-16.9	*****	88	***	****	***	1.3	0
1800	-19.3	*****	88	***	****	***	1.3	0
2100	-21.1	*****	87	***	****	***	1.3	0
2400	-22.2	*****	86	***	****	***	1.3	0

DAY 12

HOUR NDNG	TEMP. DEG C	DEW POINT DEG C	RH %	WIND DIR. DEG.	WIND SPD. M/S	GUST DIR. DEG.	MAX. GUST M/S	RAD MW
0300	-21.7	*****	86	***	****	***	1.9	0
0600	-22.5	*****	85	***	****	***	1.9	0
0900	-24.4	*****	85	***	****	***	1.3	0
1200	-23.4	*****	84	***	****	***	1.3	0
1500	-22.3	*****	85	***	****	***	1.9	0
1800	-23.6	*****	84	***	****	***	1.9	0
2100	-19.8	*****	85	***	****	***	1.9	0
2400	-15.0	*****	82	***	****	***	2.5	0

DAY 13

HOUR NDNG	TEMP. DEG C	DEW POINT DEG C	RH %	WIND DIR. DEG.	WIND SPD. M/S	GUST DIR. DEG.	MAX. GUST M/S	RAD MW
0300	-15.3	*****	82	***	****	***	2.5	0
0600	-15.2	-17.7	81	***	****	***	1.9	0
0900	-12.8	-16.1	76	***	****	***	3.8	0
1200	-14.6	-17.7	77	***	****	***	3.2	0
1500	-16.8	-19.0	83	***	****	***	2.5	0
1800	-20.9	-22.6	86	***	****	***	****	0
2100	-22.3	-24.3	84	***	****	***	****	0
2400	-24.4	-26.5	83	***	****	***	****	0

DAY 14

HOUR NDNG	TEMP. DEG C	DEW POINT DEG C	RH %	WIND DIR. DEG.	WIND SPD. M/S	GUST DIR. DEG.	MAX. GUST M/S	RAD MW
0300	-21.1	-23.0	85	***	****	***	****	0
0600	-19.8	-21.7	85	***	****	***	****	0
0900	-19.9	-22.1	83	***	****	***	****	0
1200	-20.2	-22.9	79	***	****	***	****	1
1500	-22.2	-24.6	81	***	****	***	****	1
1800	-22.6	-25.4	78	***	****	***	****	0
2100	-22.2	-24.7	80	***	****	***	****	0
2400	-22.9	-25.3	81	***	****	***	****	0

DAY 15

HOUR NDNG	TEMP. DEG C	DEW POINT DEG C	RH %	WIND DIR. DEG.	WIND SPD. M/S	GUST DIR. DEG.	MAX. GUST M/S	RAD MW
0300	-18.4	-20.4	84	***	****	***	****	0
0600	-15.5	*****	82	***	****	***	1.3	0
0900	-15.2	*****	88	***	****	***	1.9	0
1200	-13.4	*****	89	***	****	***	1.9	0
1500	-11.4	*****	90	***	****	***	1.3	0
1800	-11.3	*****	92	***	****	***	1.3	0
2100	-10.6	-11.7	92	***	****	***	.6	0
2400	-10.6	-11.7	92	***	****	***	****	0

DAY 16

HOUR NDNG	TEMP. DEG C	DEW POINT DEG C	RH %	WIND DIR. DEG.	WIND SPD. M/S	GUST DIR. DEG.	MAX. GUST M/S	RAD MW
0300	-10.4	-11.5	92	***	****	***	****	0
0600	-10.4	-11.5	92	***	****	***	****	0
0900	-9.9	-10.8	93	***	****	***	****	0
1200	-8.4	-9.2	94	***	****	***	****	0
1500	-8.4	-9.2	94	***	****	***	****	0
1800	-8.0	-8.8	94	***	****	***	****	0
2100	-7.6	-8.6	93	***	****	***	****	0
2400	-7.4	-8.5	92	***	****	***	****	0

DAY 17

HOUR NDNG	TEMP. DEG C	DEW POINT DEG C	RH %	WIND DIR. DEG.	WIND SPD. M/S	GUST DIR. DEG.	MAX. GUST M/S	RAD MW
0300	-7.6	-8.8	91	***	****	***	****	0
0600	-7.4	-8.4	93	***	****	***	****	0
0900	-7.1	-8.2	92	***	****	***	****	0
1200	-6.6	-7.7	92	***	****	***	****	0
1500	-6.6	-7.4	94	***	****	***	****	0
1800	-6.4	-7.2	94	***	****	***	****	0
2100	-6.0	-6.7	95	***	****	***	****	0
2400	-5.7	-6.4	95	***	****	***	****	0

DAY 18

HOUR NDNG	TEMP. DEG C	DEW POINT DEG C	RH %	WIND DIR. DEG.	WIND SPD. M/S	GUST DIR. DEG.	MAX. GUST M/S	RAD MW
0300	-5.3	-6.0	95	***	****	***	****	0
0600	-5.0	-5.7	95	***	****	***	****	0
0900	-4.4	-5.0	96	***	****	***	****	0
1200	-3.7	-4.7	93	***	****	***	****	0
1500	-3.4	-4.1	95	***	****	***	****	0
1800	-3.5	-4.2	95	***	****	***	****	0
2100	-3.4	-4.1	95	***	****	***	****	0
2400	-3.0	-3.6	96	***	****	***	****	0

** SEE INTERPRETATION NOTES AT END OF MONTHLY REPORT **

R & M CONSULTANTS, INC.

SUSITNA HYDROELECTRIC PROJECT

THREE HOUR SUMMARY FOR SHERMAN WEATHER STATION
DATA TAKEN DURING December, 1984

DAY 19

HOUR NDNG	TEMP. DEG C	DEW POINT DEG C	RH %	WIND DIR. DEG.	WIND SPD. M/S	GUST DIR. DEG.	MAX. GUST M/S	RAD MW
0300	-2.6	-3.0	97	***	****	***	****	0
0600	-3.8	-4.7	94	***	****	***	****	0
0900	-10.0	-10.7	95	***	****	***	****	0
1200	-10.6	*****	92	***	****	***	1.3	1
1500	-11.9	*****	91	***	****	***	1.9	0
1800	-17.7	-19.0	90	***	****	***	1.3	0
2100	-21.7	-23.2	88	***	****	***	****	0
2400	-21.6	-23.2	87	***	****	***	****	0

DAY 20

HOUR NDNG	TEMP. DEG C	DEW POINT DEG C	RH %	WIND DIR. DEG.	WIND SPD. M/S	GUST DIR. DEG.	MAX. GUST M/S	RAD MW
0300	-23.4	-25.2	85	***	****	***	****	0
0600	-23.1	-24.8	86	***	****	***	****	0
0900	-17.4	-18.8	89	***	****	***	****	0
1200	-19.4	-20.8	89	***	****	***	****	2
1500	-21.5	-23.1	87	***	****	***	****	1
1800	-24.3	-26.1	85	***	****	***	****	0
2100	-24.2	-26.0	85	***	****	***	****	0
2400	-25.4	-27.3	84	***	****	***	****	0

DAY 21

HOUR NDNG	TEMP. DEG C	DEW POINT DEG C	RH %	WIND DIR. DEG.	WIND SPD. M/S	GUST DIR. DEG.	MAX. GUST M/S	RAD MW
0300	-24.2	-26.0	85	***	****	***	****	0
0600	-19.5	-21.0	88	***	****	***	****	0
0900	-16.2	-17.5	90	***	****	***	****	0
1200	-14.4	*****	91	***	****	***	.6	0
1500	-12.6	*****	91	***	****	***	1.3	0
1800	-12.6	*****	91	***	****	***	1.3	0
2100	-12.1	*****	91	***	****	***	1.3	0
2400	-11.2	*****	91	***	****	***	1.3	0

DAY 22

HOUR NDNG	TEMP. DEG C	DEW POINT DEG C	RH %	WIND DIR. DEG.	WIND SPD. M/S	GUST DIR. DEG.	MAX. GUST M/S	RAD MW
0300	-10.5	*****	91	***	****	***	1.3	0
0600	-10.0	*****	92	***	****	***	1.3	0
0900	-9.1	-10.5	90	***	****	***	.6	0
1200	-8.4	-9.6	91	***	****	***	****	0
1500	-8.0	*****	91	***	****	***	1.3	0
1800	-7.8	-8.8	93	***	****	***	****	0
2100	-7.8	-8.6	94	***	****	***	****	0
2400	-6.9	-7.7	94	***	****	***	****	0

DAY 23

HOUR NDNG	TEMP. DEG C	DEW POINT DEG C	RH %	WIND DIR. DEG.	WIND SPD. M/S	GUST DIR. DEG.	MAX. GUST M/S	RAD MW
0300	-5.8	-6.5	95	***	****	***	****	0
0600	-5.1	-5.8	95	***	****	***	****	0
0900	-5.4	-6.2	94	***	****	***	****	0
1200	-5.3	-6.1	94	***	****	***	****	0
1500	-5.1	-5.9	94	***	****	***	****	0
1800	-4.6	-5.6	93	***	****	***	****	0
2100	-5.2	-5.9	95	***	****	***	****	0
2400	-5.9	-6.9	93	***	****	***	****	0

DAY 24

HOUR NDNG	TEMP. DEG C	DEW POINT DEG C	RH %	WIND DIR. DEG.	WIND SPD. M/S	GUST DIR. DEG.	MAX. GUST M/S	RAD MW
0300	-10.0	-10.7	95	***	****	***	****	0
0600	-15.9	-16.9	92	***	****	***	****	0
0900	-18.6	-19.9	90	***	****	***	****	0
1200	-21.1	-22.6	88	***	****	***	****	0
1500	-21.8	-23.4	87	***	****	***	****	0
1800	-21.9	-23.5	87	***	****	***	****	0
2100	-21.9	-23.5	87	***	****	***	****	0
2400	-19.7	-21.2	88	***	****	***	****	0

DAY 25

HOUR NDNG	TEMP. DEG C	DEW POINT DEG C	RH %	WIND DIR. DEG.	WIND SPD. M/S	GUST DIR. DEG.	MAX. GUST M/S	RAD MW
0300	-17.7	-19.1	89	***	****	***	****	0
0600	-15.6	-16.8	91	***	****	***	****	0
0900	-14.3	*****	91	***	****	***	1.3	0
1200	-12.9	*****	92	***	****	***	.6	0
1500	-10.7	-11.8	92	***	****	***	.6	0
1800	-10.4	-11.3	93	***	****	***	****	0
2100	-10.1	-11.0	93	***	****	***	****	0
2400	-9.9	-10.7	94	***	****	***	****	0

DAY 26

HOUR NDNG	TEMP. DEG C	DEW POINT DEG C	RH %	WIND DIR. DEG.	WIND SPD. M/S	GUST DIR. DEG.	MAX. GUST M/S	RAD MW
0300	-10.1	-10.9	94	***	****	***	****	0
0600	-12.9	-14.0	92	***	****	***	****	0
0900	-14.5	-15.7	91	***	****	***	****	0
1200	-19.4	-20.8	89	***	****	***	****	0
1500	-18.5	-20.0	88	***	****	***	****	0
1800	-20.9	-22.4	88	***	****	***	****	0
2100	-24.4	-26.1	86	***	****	***	****	0
2400	-25.9	-27.8	84	***	****	***	****	0

DAY 27

HOUR NDNG	TEMP. DEG C	DEW POINT DEG C	RH %	WIND DIR. DEG.	WIND SPD. M/S	GUST DIR. DEG.	MAX. GUST M/S	RAD MW
0300	-24.0	-25.7	86	***	****	***	****	0
0600	-23.6	-25.4	85	***	****	***	****	0
0900	-27.3	-29.5	83	***	****	***	****	0
1200	-23.3	-25.1	85	***	****	***	****	0
1500	-22.6	-24.3	86	***	****	***	****	0
1800	-20.5	-22.2	86	***	****	***	****	0
2100	-20.7	-22.4	86	***	****	***	****	0
2400	-22.0	-23.7	86	***	****	***	****	0

** SEE INTERPRETATION NOTES AT END OF MONTHLY REPORT **

R & M CONSULTANTS, INC.

SUSITNA HYDROELECTRIC PROJECT

THREE HOUR SUMMARY FOR SHERMAN WEATHER STATION
DATA TAKEN DURING December, 1984

DAY 28

HOUR NDNG	TEMP. DEG C	DEW POINT DEG C	RH %	WIND DIR. DEG.	WIND SPD. M/S	GUST DIR. DEG.	MAX. GUST M/S	RAD MW
0300	-16.3	-17.7	89	***	****	***	****	0
0600	-16.8	-18.2	89	***	****	***	****	0
0900	-17.1	-18.8	87	***	****	***	****	0
1200	-16.1	-18.1	85	***	****	***	****	0
1500	-15.8	-18.2	82	***	****	***	****	0
1800	-19.3	-21.1	86	***	****	***	****	0
2100	-14.8	-17.6	79	***	****	***	****	0
2400	-13.8	*****	79	040	.7	042	3.2	0

DAY 29

HOUR NDNG	TEMP. DEG C	DEW POINT DEG C	RH %	WIND DIR. DEG.	WIND SPD. M/S	GUST DIR. DEG.	MAX. GUST M/S	RAD MW
0300	-13.4	-15.7	83	040	1.3	040	3.2	0
0600	-13.1	-14.6	89	045	1.3	048	3.8	0
0900	-12.6	*****	89	044	1.1	046	3.2	0
1200	-11.7	*****	86	037	.8	043	2.5	0
1500	-11.3	-12.6	90	045	.2	045	2.5	0
1800	-10.8	-11.9	92	***	****	***	****	0
2100	-10.0	*****	92	***	****	***	1.9	0
2400	-8.9	*****	91	045	.8	043	2.5	0

DAY 30

HOUR NDNG	TEMP. DEG C	DEW POINT DEG C	RH %	WIND DIR. DEG.	WIND SPD. M/S	GUST DIR. DEG.	MAX. GUST M/S	RAD MW
0300	-8.8	-9.9	92	049	.6	049	2.5	0
0600	-8.4	-9.6	91	***	****	***	****	0
0900	-7.5	-8.6	92	***	****	***	****	0
1200	-6.3	-7.4	92	***	****	***	****	0
1500	-4.9	-5.9	93	***	****	***	****	0
1800	-2.9	*****	92	053	.3	052	2.5	0
2100	-2.4	-3.3	94	047	.6	046	2.5	0
2400	-3.0	-3.7	95	***	****	***	****	0

DAY 31

HOUR NDNG	TEMP. DEG C	DEW POINT DEG C	RH %	WIND DIR. DEG.	WIND SPD. M/S	GUST DIR. DEG.	MAX. GUST M/S	RAD MW
0300	-2.7	-3.4	95	***	****	***	****	0
0600	-2.8	-3.7	94	***	****	***	****	0
0900	-2.2	-2.9	95	***	****	***	****	0
1200	-1.6	-2.3	95	***	****	***	****	0
1500	-1.4	-2.1	95	***	****	***	****	0
1800	-1.8	-2.5	95	***	****	***	****	0
2100	-1.3	-2.2	94	***	****	***	****	0
2400	-1.9	-2.6	95	***	****	***	****	0

** SEE INTERPRETATION NOTES AT END OF MONTHLY REPORT **

R & M CONSULTANTS, INC.

SUSITNA HYDROELECTRIC PROJECT

MONTHLY SUMMARY FOR SHERMAN WEATHER STATION
DATA TAKEN DURING December, 1984

DAY	MAX. TEMP. DEG C	MIN. TEMP. DEG C	MEAN TEMP. DEG C	RES. WIND DIR. DEG	RES. WIND SPD. M/S	AVG. WIND SPD. M/S	MAX. GUST DIR. DEG	MAX. GUST SPD. M/S	P'VAL DIR.	MEAN RH %	MEAN DP DEG C	PRECIP MM	DAY'S SOLAR ENERGY WH/SQM	DAY
1	-3.6	-8.0	-5.8	***	****	****	***	****	***	95	-6.4	****	5	1
2	-.5	-9.0	-4.8	***	****	****	***	****	***	91	-6.4	****	10	2
3	-.1	-2.3	-1.2	***	****	****	***	****	***	92	-2.4	****	0	3
4	3.5	-1.5	1.0	059	.4	.4	062	5.1	ENE	86	-1.4	****	5	4
5	.4	-4.4	-2.0	047	.2	.4	***	2.5	NE	95	-1.5	****	15	5
6	-4.6	-8.3	-6.5	***	****	.4	***	2.5	***	95	-7.9	****	40	6
7	-4.8	-6.5	-5.7	***	****	.3	***	1.3	***	95	-6.1	****	0	7
8	-4.2	-11.5	-7.9	***	****	.3	***	1.9	***	94	-8.6	****	5	8
9	-7.5	-23.7	-15.6	***	****	****	***	****	***	90	-18.0	****	25	9
10	-11.0	-25.0	-18.0	***	****	.7	***	2.5	***	87	-21.7	****	5	10
11	-11.6	-22.7	-17.2	***	****	.5	***	2.5	***	88	-16.6	****	5	11
12	-15.0	-25.0	-20.0	***	****	.4	***	2.5	***	**	*****	****	0	12
13	-12.8	-24.4	-18.6	***	****	.8	***	3.8	***	82	-20.9	****	10	13
14	-18.7	-24.1	-21.4	***	****	****	***	****	***	81	-23.5	****	40	14
15	-10.6	-23.2	-16.9	***	****	.4	***	1.9	***	88	-16.3	****	5	15
16	-7.4	-10.6	-9.0	***	****	****	***	****	***	93	-9.9	****	0	16
17	-5.7	-8.1	-6.9	***	****	****	***	****	***	93	-7.7	****	0	17
18	-3.0	-5.7	-4.4	***	****	****	***	****	***	95	-4.8	****	0	18
19	-2.5	-22.7	-12.6	***	****	.6	***	1.9	***	92	-12.6	****	35	19
20	-16.9	-25.4	-21.2	***	****	****	***	****	***	86	-24.0	****	45	20
21	-11.2	-25.9	-18.6	***	****	.3	***	1.3	***	87	-21.6	****	0	21
22	-6.9	-11.2	-9.1	***	****	.4	***	1.3	***	92	-9.2	****	5	22
23	-4.6	-6.9	-5.8	***	****	****	***	****	***	94	-6.1	****	0	23
24	-6.9	-22.4	-14.7	***	****	****	***	****	***	89	-19.7	****	0	24
25	-9.9	-19.8	-14.9	***	****	.1	***	1.3	***	92	-14.1	****	10	25
26	-9.9	-25.9	-17.9	***	****	****	***	****	***	89	-19.2	****	10	26
27	-20.5	-28.5	-24.5	***	****	****	***	****	ENE	85	-25.8	****	0	27
28	-13.8	-21.1	-17.5	040	.7	.8	042	3.2	NE	86	-19.2	****	0	28
29	-8.9	-13.8	-11.4	042	1.1	.9	048	3.8	NE	88	-13.8	****	0	29
30	-2.3	-8.9	-5.6	049	.5	.5	049	2.5	NE	93	-7.3	****	0	30
31	-1.1	-3.2	-2.2	***	****	****	***	****	***	95	-2.7	****	0	31
MONTH	3.5	-28.5	-11.5	048	.6	.5	062	5.1	NE	90	-12.5	****	275	

GUST VEL. AT MAX. GUST MINUS 2 INTERVALS *****
GUST VEL. AT MAX. GUST MINUS 1 INTERVAL 1.3
GUST VEL. AT MAX. GUST PLUS 1 INTERVAL 4.4
GUST VEL. AT MAX. GUST PLUS 2 INTERVALS 2.5

NOTE: RELATIVE HUMIDITY READINGS ARE UNRELIABLE WHEN WIND SPEEDS ARE LESS THAN ONE METER PER SECOND. SUCH READINGS HAVE NOT BEEN INCLUDED IN THE DAILY OR MONTHLY MEAN FOR RELATIVE HUMIDITY AND DEW POINT.

** SEE INTERPRETATION NOTES AT END OF MONTHLY REPORT **

R & M CONSULTANTS, INC.

SUSITNA HYDROELECTRIC PROJECT

HOURLY SOLAR RADIATION SUMMARY FOR SHERMAN WEATHER STATION
DATA TAKEN DURING July, 1984

SOLAR RADIATION VALUES MEASURED IN MILLIWATTS PER SQUARE CENTIMETER

HOUR ENDING

DATE	0100	0200	0300	0400	0500	0600	0700	0800	0900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	2400	AVG
1	0	0	0	1	2	17	28	34	30	61	71	74	78	73	36	20	6	18	11	10	3	1	0	0	23
2	0	0	0	0	1	3	6	8	18	24	10	17	29	28	27	14	10	12	10	13	8	2	0	0	10
3	0	0	0	0	1	2	6	15	29	37	40	61	64	78	52	54	55	38	28	12	10	2	0	0	24
4	0	0	0	0	1	3	20	15	46	54	67	79	71	66	66	59	53	38	24	23	9	1	0	0	29
5	0	0	0	0	1	4	4	27	40	59	42	45	49	46	59	26	18	19	14	8	6	1	0	0	19
6	0	0	0	0	2	20	26	32	34	34	60	73	65	24	12	18	18	24	14	4	3	1	0	0	19
7	0	0	0	1	2	15	30	44	41	66	91	94	36	22	30	55	62	18	10	19	9	2	0	0	27
8	0	0	0	0	1	3	6	19	25	30	40	42	56	69	45	47	36	27	20	11	5	2	0	0	20
9	0	0	0	0	1	5	9	13	18	24	24	34	39	51	50	31	26	36	19	17	4	2	0	0	17
10	0	0	0	1	2	4	13	26	24	15	24	38	34	48	12	15	3	7	11	11	1	2	0	0	12
11	0	0	0	0	2	7	18	26	29	40	40	28	31	50	76	48	57	38	33	15	10	2	0	0	23
12	0	0	0	0	3	8	25	22	17	51	67	62	62	44	15	4	37	18	31	22	6	2	0	0	21
13	0	0	0	0	0	2	5	8	15	10	14	22	34	17	24	37	46	49	23	12	4	2	0	0	13
14	0	0	0	0	1	5	10	23	48	55	57	47	35	50	46	27	21	18	9	5	2	1	0	0	19
15	0	0	0	0	1	4	8	15	26	25	33	63	92	68	69	61	48	37	29	21	5	1	0	0	25
16	0	0	0	0	1	2	5	14	39	38	55	79	69	40	38	20	10	7	5	3	1	0	0	0	18
17	0	0	0	0	0	2	3	6	8	10	12	15	18	18	16	20	11	8	4	2	2	0	0	0	6
18	0	0	0	0	1	2	5	10	17	25	29	33	26	21	17	16	16	11	10	5	2	1	0	0	10
19	0	0	0	0	0	1	3	9	13	24	31	33	30	26	15	15	14	14	8	4	2	1	0	0	10
20	0	0	0	0	0	1	5	8	10	11	15	19	21	21	27	18	14	8	5	4	1	0	0	0	8
21	0	0	0	0	0	1	4	5	8	10	13	16	20	16	23	22	32	9	7	2	0	0	0	0	8
22	0	0	0	0	0	1	3	4	9	14	22	35	36	43	34	34	25	15	13	5	3	1	0	0	12
23	0	0	0	0	1	8	24	33	45	62	71	77	80	79	73	67	58	42	15	20	7	1	0	0	32
24	0	0	0	0	1	3	12	15	19	27	24	27	29	25	29	31	22	23	21	9	3	0	0	0	13
25	0	0	0	0	0	2	3	6	4	4	8	11	12	12	14	21	19	13	7	3	1	0	0	0	6
26	0	0	0	0	0	1	1	8	20	18	18	24	30	39	27	27	25	20	11	8	5	1	0	0	12
27	0	0	0	0	1	1	4	10	13	23	26	41	45	65	36	27	27	18	12	6	2	0	0	0	15
28	0	0	0	0	0	2	4	6	8	23	30	33	36	52	25	25	27	20	11	8	2	0	0	0	13
29	0	0	0	0	1	2	7	9	6	7	10	12	12	18	15	12	7	10	7	2	1	0	0	0	6
30	0	0	0	0	0	0	2	7	13	18	36	42	66	79	74	58	36	43	7	4	2	0	0	0	20
31	0	0	0	0	0	2	4	7	12	18	17	19	22	33	30	24	17	13	7	3	1	0	0	0	9

** SEE INTERPRETATION NOTES AT END OF MONTHLY REPORT **

R & M CONSULTANTS, INC.

SUSITNA HYDROELECTRIC PROJECT

OBSERVATION SUMMARY FOR SHERMAN WEATHER STATION
DATA TAKEN DURING July, 1984

PARAMETER	NUMBER OF USABLE OBSERVATIONS	PERCENT OF TOTAL OBSERVATIONS
TEMPERATURE	1488	100
WIND SPEED	1455	98
WIND DIRECTION	1464	98
PEAK GUST	1456	98
RELATIVE HUMIDITY	703	47
PRECIPITATION	0	0
SOLAR RADIATION	1488	100
DEW POINT	703	47

THERE ARE 1488 POSSIBLE OBSERVATIONS THIS MONTH FOR EACH PARAMETER. THE DATA RECORDING INTERVAL IS 30 MINUTES.

THE FOLLOWING ADJUSTMENTS HAVE BEEN MADE TO THIS MONTH'S DATA:

1. RH +7 RH Points
2. Solar -1 mW/CM^2

Additional comments on this month's data:

1. All precipitation data lost due to a faulty sensor (tipping bucket gage).
2. Intermittent wind speed and direction data lost due to stuck anemometer and wind vane.

R & M CONSULTANTS, INC.

SUSITNA HYDROELECTRIC PROJECT

WIND FREQUENCY SUMMARY FOR SHERMAN WFATHER STATION
DATA TAKEN DURING October, 1984

	VELOCITY (M/S)							
DIRECTION	0.2 TO 1.0	1.0 TO 3.0	3.0 TO 6.0	6.0 TO 10.0	10.0 TO 15.0	15.0 TO 20.0	20.0 OR GREATER	TOTAL
N	1.18	.44	0.00	0.00	0.00	0.00	0.00	1.62
NNE	3.40	1.26	.07	0.00	0.00	0.00	0.00	4.73
NE	11.23	9.08	.22	0.00	0.00	0.00	0.00	20.53
ENE	21.42	9.08	.52	0.00	0.00	0.00	0.00	31.02
E	16.40	3.99	0.00	0.00	0.00	0.00	0.00	20.38
ESE	6.28	.59	0.00	0.00	0.00	0.00	0.00	6.87
SE	1.55	.15	0.00	0.00	0.00	0.00	0.00	1.70
SSE	1.26	.07	0.00	0.00	0.00	0.00	0.00	1.33
S	.44	.52	0.00	0.00	0.00	0.00	0.00	.96
SSW	.66	3.47	0.00	0.00	0.00	0.00	0.00	4.14
SW	.22	1.26	.07	0.00	0.00	0.00	0.00	1.55
WSW	.59	0.00	0.00	0.00	0.00	0.00	0.00	.59
W	.44	.07	0.00	0.00	0.00	0.00	0.00	.52
WNW	.44	0.00	0.00	0.00	0.00	0.00	0.00	.44
NW	.22	.07	0.00	0.00	0.00	0.00	0.00	.30
NNW	.66	.22	0.00	0.00	0.00	0.00	0.00	.89
CALM								2.44
TOTAL	66.40	30.28	.89	0.00	0.00	0.00	0.00	100.00

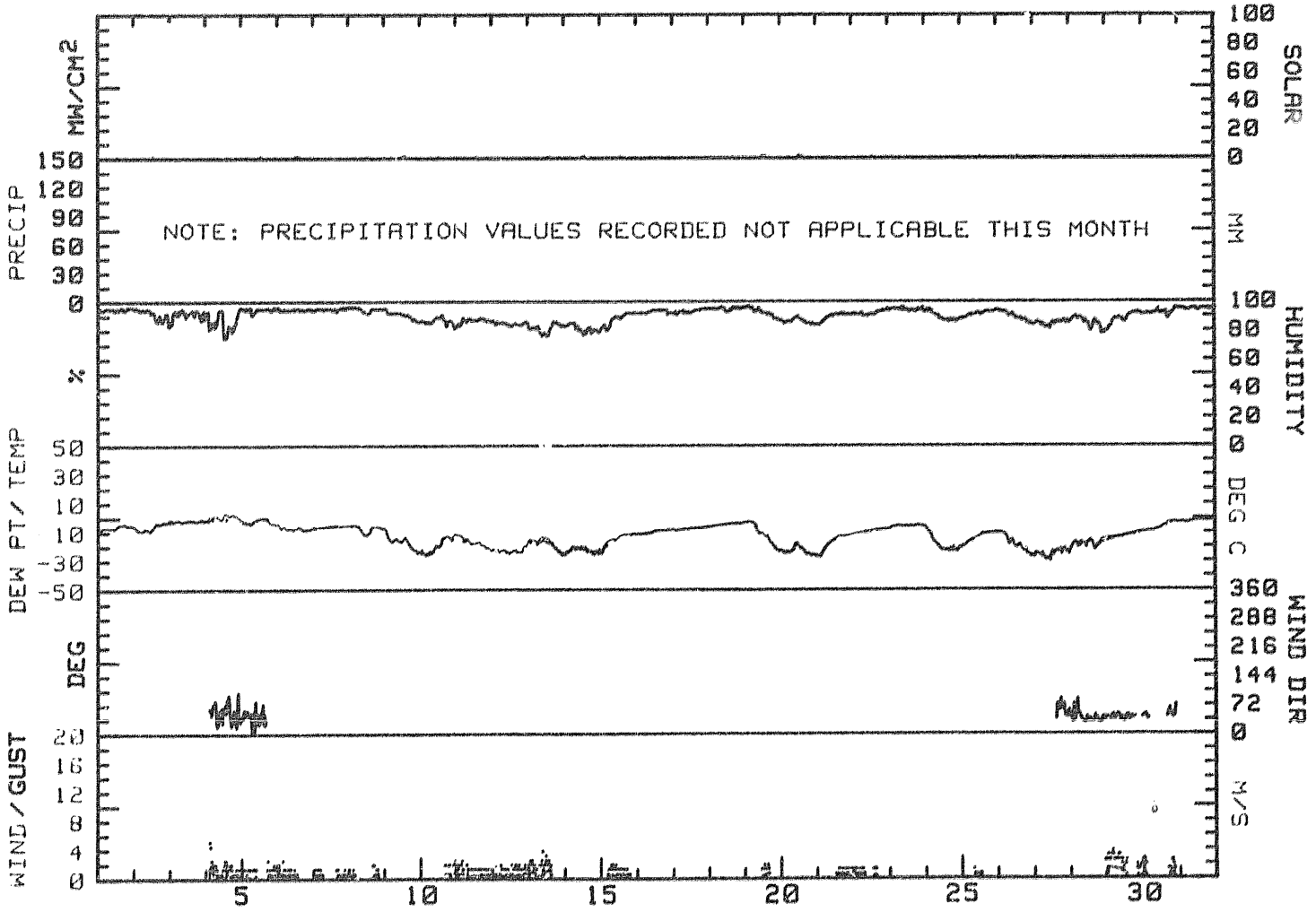
NOTE: ALL FREQUENCIES ARE EXPRESSED IN PERCENT
1354 VALID WIND OBSERVATIONS USED TO DEVELOP FREQUENCY SUMMARY
1488 WIND OBSERVATIONS WOULD HAVE BEEN CORRECT FOR 30 MINUTE DATA.
** SEE INTERPRETATION NOTES AT END OF MONTHLY REPORT **

R&M CONSULTANTS, INC.

SUSITNA HYDROELECTRIC PROJECT

SHERMAN WEATHER STATION

December, 1984



R & M CONSULTANTS, INC.

SUSITNA HYDROELECTRIC PROJECT

WIND FREQUENCY SUMMARY FOR SHERMAN WEATHER STATION
DATA TAKEN DURING December, 1984

	VELOCITY (M/S)							
DIRECTION	0.2 TO 1.0	1.0 TO 3.0	3.0 TO 6.0	6.0 TO 10.0	10.0 TO 15.0	15.0 TO 20.0	20.0 OR GREATER	TOTAL
N	.98	0.00	0.00	0.00	0.00	0.00	0.00	.98
NNE	6.86	0.00	0.00	0.00	0.00	0.00	0.00	6.86
NE	27.45	22.55	0.00	0.00	0.00	0.00	0.00	50.00
ENE	6.86	2.94	0.00	0.00	0.00	0.00	0.00	9.80
E	5.88	0.00	0.00	0.00	0.00	0.00	0.00	5.88
ESE	.98	0.00	0.00	0.00	0.00	0.00	0.00	.98
SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
SSE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
S	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
SSW	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
SW	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
WSW	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
W	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
WNW	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
NW	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
NNW	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
CALM								25.49
TOTAL	49.02	25.49	0.00	0.00	0.00	0.00	0.00	100.00

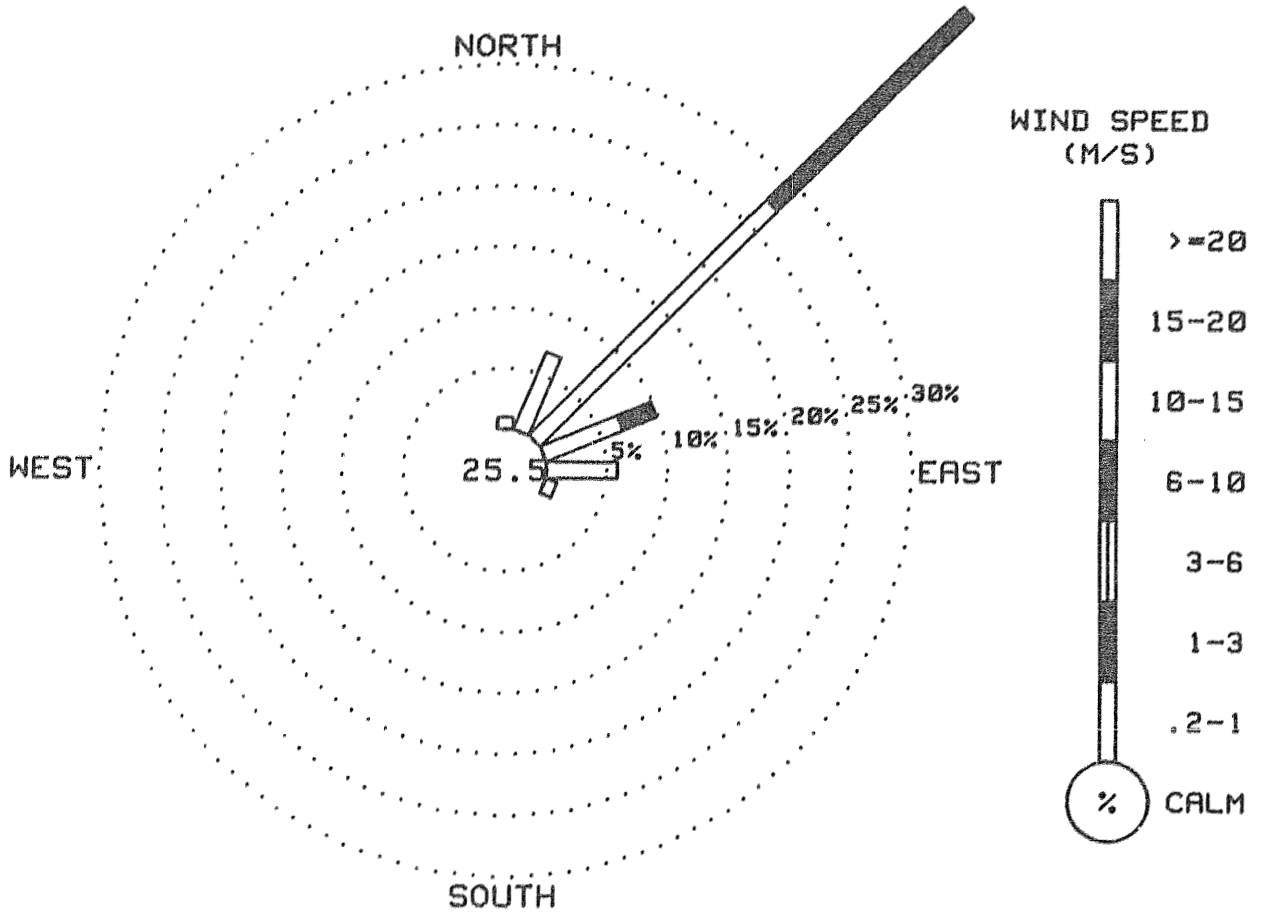
NOTE: ALL FREQUENCIES ARE EXPRESSED IN PERCENT
102 VALID WIND OBSERVATIONS USED TO DEVELOP FREQUENCY SUMMARY
1488 WIND OBSERVATIONS WOULD HAVE BEEN CORRECT FOR 30 MINUTE DATA.
** SEE INTERPRETATION NOTES AT END OF MONTHLY REPORT **

R&M CONSULTANTS, INC.

SUSITNA HYDROELECTRIC PROJECT

SHERMAN WEATHER STATION

December, 1984



WIND ROSE PLOT

R & M CONSULTANTS, INC.

SUSITNA HYDROELECTRIC PROJECT

HOURLY SOLAR RADIATION SUMMARY FOR SHERMAN WEATHER STATION
DATA TAKEN DURING December, 1984

SOLAR RADIATION VALUES MEASURED IN MILLIWATTS PER SQUARE CENTIMETER

HOUR ENDING

DATE	0100	0200	0300	0400	0500	0600	0700	0800	0900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	2400	AVG
1	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0
2	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0
3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	***
4	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0
5	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0
6	0	0	0	0	0	0	0	0	0	0	0	1	1	1	1	0	0	0	0	0	0	0	0	0	0
7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	***
8	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0
9	0	0	0	0	0	0	0	0	0	0	0	1	1	1	0	0	0	0	0	0	0	0	0	0	0
10	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0
11	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0
12	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	***
13	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0
14	0	0	0	0	0	0	0	0	0	0	0	1	1	1	1	0	0	0	0	0	0	0	0	0	0
15	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0
16	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	***
17	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	***
18	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	***
19	0	0	0	0	0	0	0	0	0	0	0	1	1	1	1	0	0	0	0	0	0	0	0	0	0
20	0	0	0	0	0	0	0	0	0	0	0	2	1	1	1	0	0	0	0	0	0	0	0	0	0
21	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	***
22	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0
23	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	***
24	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	***
25	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0
26	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0
27	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	***
28	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	***
29	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	***
30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	***
31	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	***

** SEE INTERPRETATION NOTES AT END OF MONTHLY REPORT **

R & M CONSULTANTS, INC.

SUSITNA HYDROELECTRIC PROJECT

OBSERVATION SUMMARY FOR SHERMAN WEATHER STATION
DATA TAKEN DURING December, 1984

PARAMETER	NUMBER OF USABLE OBSERVATIONS	PERCENT OF TOTAL OBSERVATIONS
TEMPERATURE	1488	100
WIND SPEED	418	28
WIND DIRECTION	202	14
PEAK GUST	421	28
RELATIVE HUMIDITY	1105	74
PRECIPITATION	0	0
SOLAR RADIATION	1488	100
DEW POINT	1105	74

THERE ARE 1488 POSSIBLE OBSERVATIONS THIS MONTH FOR EACH PARAMETER. THE DATA RECORDING INTERVAL IS 30 MINUTES.

THE FOLLOWING ADJUSTMENTS HAVE BEEN MADE TO THIS MONTH'S DATA:

1. RH +10 RH Points
2. Solar -1 mW/CM^2

Additional comments on this month's data:

1. Wind speed and direction data lost for most of month due to frozen anemometer and wind vane.

6.0 REFERENCES

Coffin, J. H. 1984. Solar and longwave radiation data for south-central Alaska. In: Proceedings, Alaska Section AWRA Annual Conference, Alyeska Resort, Alaska, November 1984. Published by Institute of Water Resources, University of Alaska, Fairbanks, Alaska, as Report IWR-106.

R&M Consultants, Inc. 1984. Processed climatic data, October 1982 - September 1983, Volume VI, Sherman Station (No. 0665). Prepared under contract to Harza-Ebasco Susitna Joint Venture for Alaska Power Authority. Document No. 1093. June.

APPENDIX

TABLE A.1 CONVERSION FACTORS

Multiply	by	To Obtain
millimeter (mm)	0.03937	inch (in)
centimeter (cm)	0.3937	inch (in)
square centimeter (cm^2)	0.1550	square inch (in^2)
meter (m)	3.281	foot (ft)
square meter (m^2)	10.76	square foot (ft^2)
meter per second (m/s)	3.821	foot per second (ft/s)
meter per second (m/s)	2.237	mile per hour (mph)
meter per second (m/s)	1.944	knot (kt)
degree Celsius (°C)	°F= 9/5(C) +32	degree Fahrenheit (°F)
watt-hour (WH)	3.413	British Thermal Unit (BTU)
watt-hour (WH)	3600	joule (J)
milliwatt (mw)	0.003413	BTU per hour (BTU/hr)
milliwatt per square centimeter (mw/cm^2)	0.1040	BTU per hour per square foot ($BTU/hr\text{-}ft^2$)
watt-hour per square meter (WH/m^2)	0.3171	BTU per square foot (BTU/ft^2)
watt-hour per square meter (WH/m^2)	0.0860	langley (ly)