SUSITNA
HYDROELECTRIC PROJECT

FEDERAL ENERGY REGULATORY COMMISSION
PROJECT No. 7114

PROCESSED CLIMATIC DATA
OCTOBER 1983 - DECEMBER 1984

VOLUME 7
EKLUTNA LAKE STATION
(No. 0686.5)

PREPARED BY

R&M CONSULTANTS, INC.
ENGINEERS GEOLOGISTS PLANNERS SURVEYORS

UNDER CONTRACT TO

HARZA-EBASCO
SUSITNA JOINT VENTURE

FINAL REPORT

JUNE 1985
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Final Report
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SUSITNA HYDROELECTRIC PROJECT

TASK 4 - HYDROLOGY

PROCESSED CLIMATIC DATA
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VOLUME INDEX

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SUSITNA HYDROELECTRIC PROJECT

PROCESSED CLIMATIC DATA - EKLUTNA LAKE STATION
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ACKNOWLEDGMENTS

These climatic data were collected under contract to Harza-Ebasco Susitna Joint Venture for the Alaska Power Authority on the Susitna Hydroelectric Project. Special permission was granted by Chugach State Park for installation and operation of the recording climate station at Eklutna Lake. 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 only project climate station installed outside of the Susitna basin is at Eklutna Lake. To predict the temperature and sediment regimes of the proposed Watana Reservoir, the DYRESM computer model of reservoir dynamics is being utilized. However, applicatiсn of the model for cold regions requires verification of the model on an existing lake system. Eklutna Lake, a deep glacier-fed lake approximately 25 miles northeast of Anchorage, was chosen for concentrated study to verify the DYRESM model. A climate station was necessary to aid in gathering the required data.

1.2 Station Description

The Eklutna Lake Climate Station is located near the southern end of Eklutna Lake at 61°21'30"N latitude, and 148°59'40"W longitude (see Figure 1.1). The site is approximately 100 yards east of the airstrip and a quarter-mile from the reservoir (see Figure 1.2). The climate station is on the floodplain of the inflowing Eklutna River and is composed of glacial till sparsely covered with small birch trees and low brush. The estimated elevation is 880 feet above mean sea level (MSL).

The site at the weather station is surrounded by several large mountains, also typical of Eklutna Lake itself. These mountains rise above 7000 feet in elevation, to angles up to 28° above the horizontal. Table 1.1 lists the vertical angles from the horizon to several significant peaks in the area. In almost every direction except toward the lake (284° to 10°), the height to the surrounding mountain tops is between the table values, so direct solar radiation to the site is blocked much of the day throughout the year. Indeed, for several

months around the winter solstice, the sun never shines on the lake or the weather station at all.

The valley in which the weather station is located is about a mile wide and lies along a northwest-southeast orientation, as shown in Figure 1.2. This causes winds to be predominately oriented along this axis as well, which is apparent from the monthly wind rose plots. The glacial valleys to the south are skewed up to 20° from the lake axis and thus cause some variation around the south and south-southeast directions. Winds recorded at the station are likely some what less than those experienced over the open lake surface, due to some protection afforded by vegetation surrounding the station.

1.3 Methods of Data Collection

The climatic data at Eklutna Lake 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 December 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, longwave 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, solar radiation sensor and longwave 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 24-inch post and plumbed vertically. The solar sensor is installed facing vertically upward atop a 1.5-meter tripod and the longwave sensor also faces vertically upward atop a 1.5-meter post. The station layout and photos of the site are shown in Figure 1.3 and photos 1.1 and 1.2. The sensor configurations are shown in Photos 1.3 and 1.4.

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

1.4 Station History

The Eklutna Station was installed on June 3, 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 8 Eklutna Lake Station (No. 0700) December 1982 (R&M Consultants)	June 1982 - September 1982

2. Processed Climatic Data October 1982 - Sept 1983
Volume VII
Eklutna Lake Station (No. 0686.5)
June 1984 (R&M Consultants)

It should be noted that the station identification number was changed in the October 1982 - September 1983 report. The previous station number, 0700, was changed to the current number, 0686.5. Number 0686.5 is the number used in the R&M Field Data Index and is consistent with the system whereby the prefix "06" designates the site for collection of climatic data. The number 0700 was used erroneously - the station location did not change.

The station was discontinued on December 14, 1984.

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 EKLUTNA LAKE WEATHER STATION

Azimuth(1) (True)	Elevation(2) (ft, MSL)	Vertical Angle(3)
10°	5191	11°
28°	5430	11°
41.5°	5745	11°
63°	5281	15°
87.5°	7522	28°
114°	5640	24°
142°	5495	9°
157°	4601	11°
192°	6410	16°
216°	6385	14°
244°	6575	17°
269°	4870	18°
284°	4806	13°

NOTES:

(1) Azimuth angles are in degrees from true north.

(2) Elevations were obtained from U.S.G.S 1:63,360 scale maps. Points used were selected mountain peaks and other features surrounding the weather station. Elevation differences from the weather station at 880 ft, msl. and horizontal distances were used to triangulate the vertical angles.

(3) Vertical angles are measured above the horizontal.

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
Longwave Radiation	PIR	Eppley Laboratory Inc.	Precision Infrared Radiometer (pyrgeometer)	0 to 700 Watts/m²	±1%
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
EKLUTNA LAKE CLIMATE STATION
OCTOBER 1983 TO DECEMBER 1984

Inspection Date	Maintenance
10/05/83	None
11/01/83	None
12/06/83	Replaced power supply. Changed recording interval to 30 min.
01/01/84	Changed date to 001.
02/16/84	RH sensor calibrated.
03/23/84	None
04/20/84	Replaced and calibrated RH sensor.
05/17/84	Longwave sensor removed.
06/01/84	Anemometer and wind vane replaced.
06/08/84	Longwave sensor replaced.
06/21/84	RH sensor calibrated.
06/26/84	RH sensor replaced.
07/06/84	Longwave reconnected.
08/10/84	None
09/03/84	Sensor array removed for annual maintenance.
09/04/84	Sensor array replaced. Fixed long wave connection. RH sensor replaced; calibrated.
10/01/84	None
10/09/84	RH oscillator replaced.
11/02/84	None
11/23/84	Longwave sensor battery replaced.
12/03/84	None
12/07/84	RH sensor calibrated
12/14/84	Station removed.

NOTES:

(1) Inspections noted where no maintenance was performed are dates when cassette tapes were replaced.

(2) The station was also inspected approximately twice per week between July and October 1984, but no maintenance was performed unless noted.

TABLE 1.4 EXPLANATION OF DATA GAPS
EKLUTNA LAKE CLIMATE STATION
OCTOBER 1983 TO DECEMBER 1984

Period	Approximate Number of Missing Days by Parameter								Explanation
	Temp	RH	WS	WD	Precip*	Solar	LW	Gust	
10/1 - 10/29/83				1					Frozen wind vane (intermittent)
10/30 - 11/2/83				3					Frozen Wind Vane
11/16 - 11/20/83				4					Frozen Wind Vane
11/29 - 12/6/83	6	6	6	6		6	6	6	Battery Died
12/13 - 12/31/83			12	3				12	Frozen Anemometer & Wind Vane (Intermittent)
1/2 - 1/10/84			3					3	Frozen Anemometer
1/14 - 1/28/84			14	14				14	Frozen Anemometer and Wind Vane
1/31 - 2/20/84				8.5					Frozen Wind Vane (Intermittent)
2/16 - 10/9/84		203							Bad RH Sensors and Oscillator
3/30 - 4/20/84				3					Frozen Wind Vane (Intermittent)
5/17 - 6/8/84							22		LW Sensor Moved to WTA Camp for Correlation Comparison
5/25 - 6/1/84			7	7				7	Wind Assembly Tower Tipped Over
7/5 - 7/6/84							1		LW Disconnected
8/2 - 9/4/84							4		Poor Connection to LW Sensor
10/10 - 11/23/84							45		LW Sensor Battery Ran Low
10/11 - 10/31/84			2	9				2	Frozen Anemometer and Wind Vane (Intermittent)
11/2/84	0.3	0.3	0.3	0.3		0.3		0.3	Tape not advanced adequately
11/21 - 12/3/84				9					Frozen Wind Vane
12/9 - 12/14/84	6	6	6	6		6	6	6	Battery Died
TOTAL	12.3	215.3	50.3	73.8		12.3	84	50.3	

*NOTES: Precipitation data not collected from November through March. Collector is not designed for winter temperatures.

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

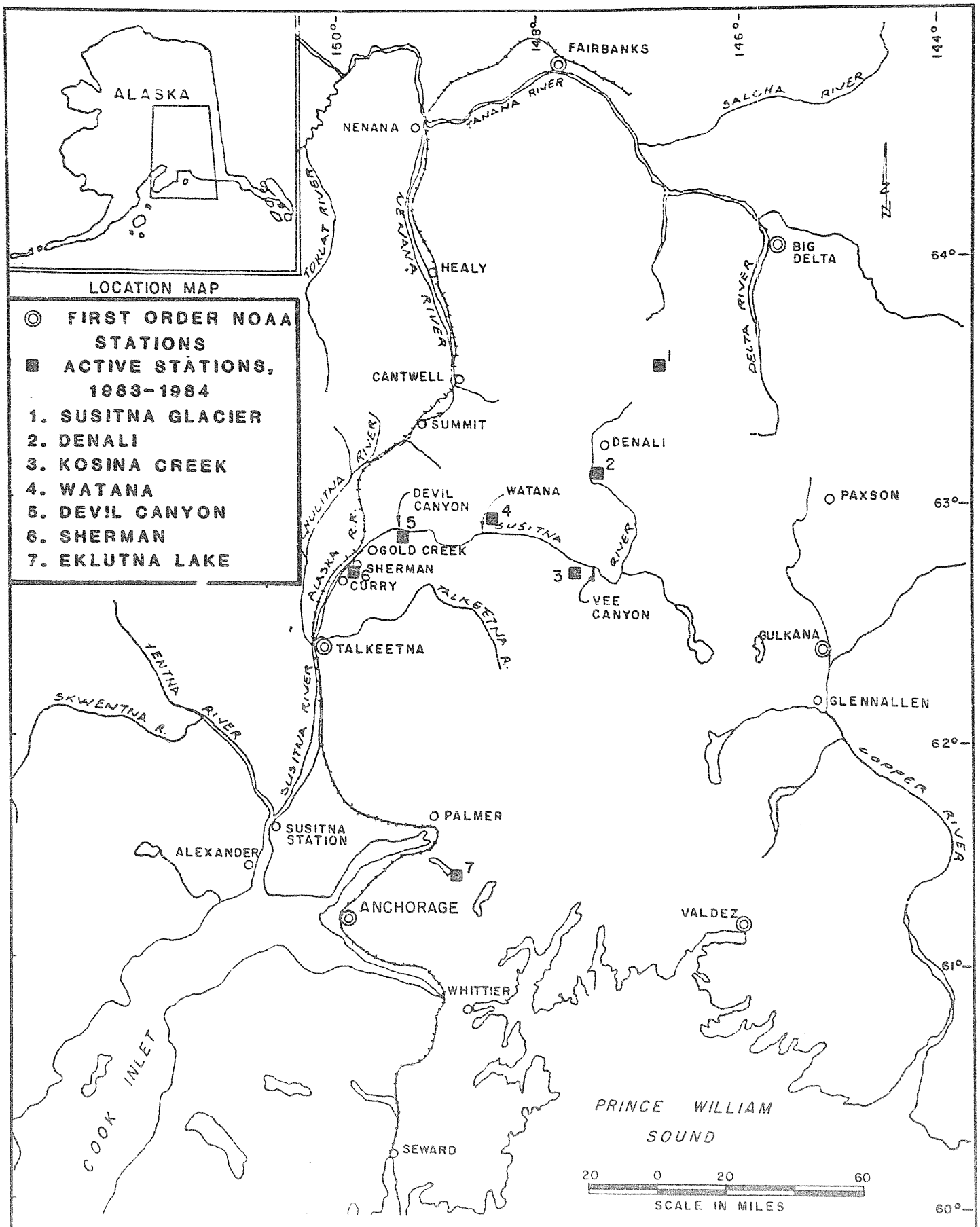
Period	Solar Radiation Adjustment	RH Adjustment
10/01/83 - 10/05/83	-1 mw/cm²	-15 RH points
10/05/83 - 11/30/83	-1	-11
12/01/83 - 01/02/84	-1	-3
01/02/84 - 06/21/84	-1	
01/11/84		-6
07/06/84 - 09/04/84	-1	
09/04/84 - 09/30/84	-1	-20
10/01/84 - 11/02/84	-1	-16
11/02/84 - 12/03/84	-1	-17
12/03/84 - 12/14/84	-1	

TABLE 1.6. ESTIMATED MISSING DATA
EKLUTNA LAKE CLIMATE STATION
OCTOBER 1983 TO DECEMBER 1984

Date	(AST) Time	Temp (°C)	RH (%)	WS (m/s)	WD (Deg)	Precip (mm)	Solar Rad. (MW/cm²)	Longwave Rad. (MW/cm²)	Gust (m/s)
04/20/84	1630	+6.2			160	0.0	30	38	
	1700	+6.3			172	0.0	24	39	
	1730	+6.4			185		18	40	
06/21/84	1900	+17.6		1.4	001	0.0	45	35	
09/03/84	1900						1		
09/04/84	1630					0.0	15		
	1700					0.0	10	30	
10/01/84	1030						15	33	
10/09/84	1100	+2.0	72			0.0	28	22	
12/07/84	1330	-5.6	89				4	27	

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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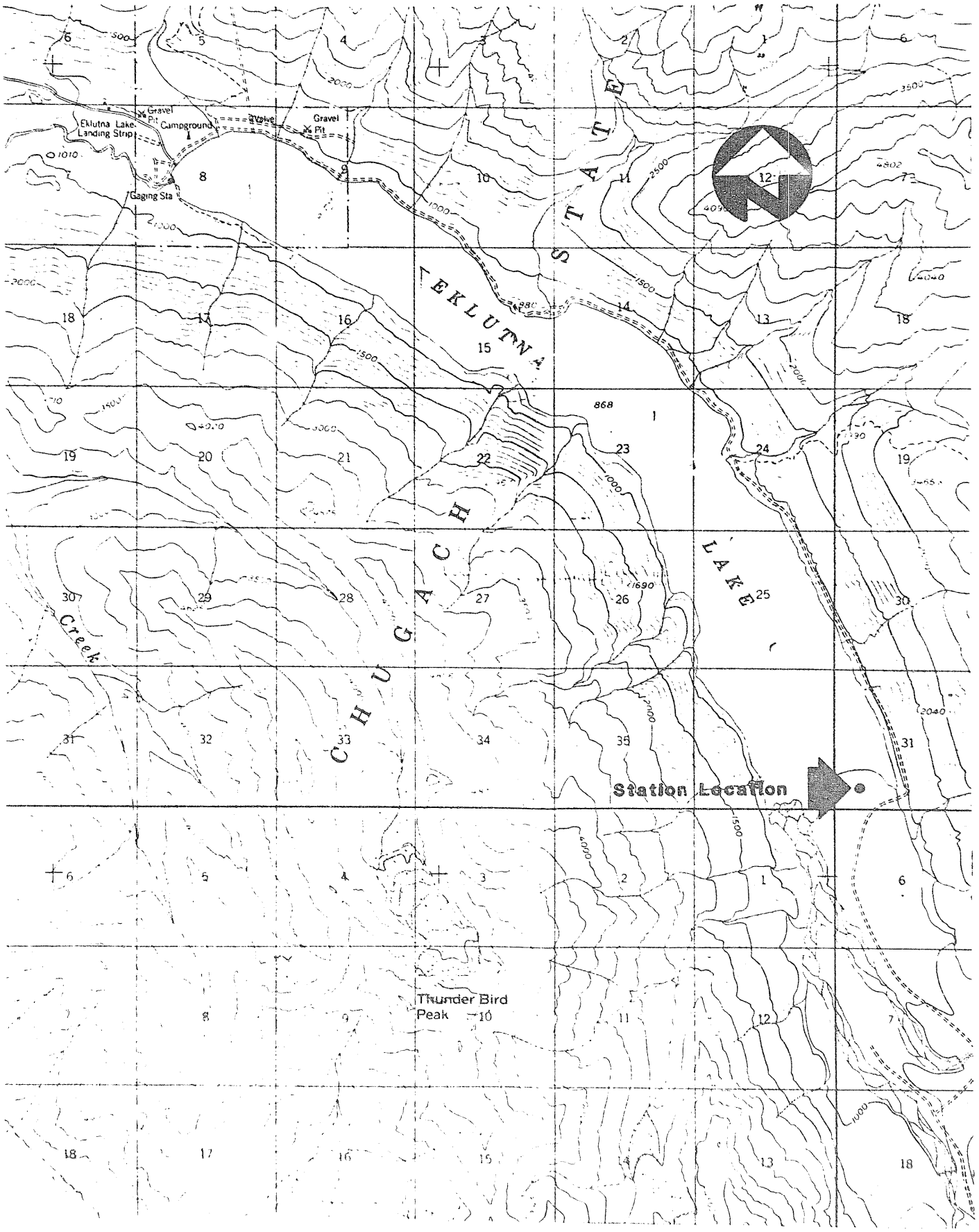
FIGURE 1-1

PREPARED FOR:
HARZA-EBASCO
SUSITNA JOINT VENTURE



USGS ANCHORAGE B-6 (1960) SCALE 1 : 63,360

EKLUTNA CLIMATE STATION

Figure 1.2

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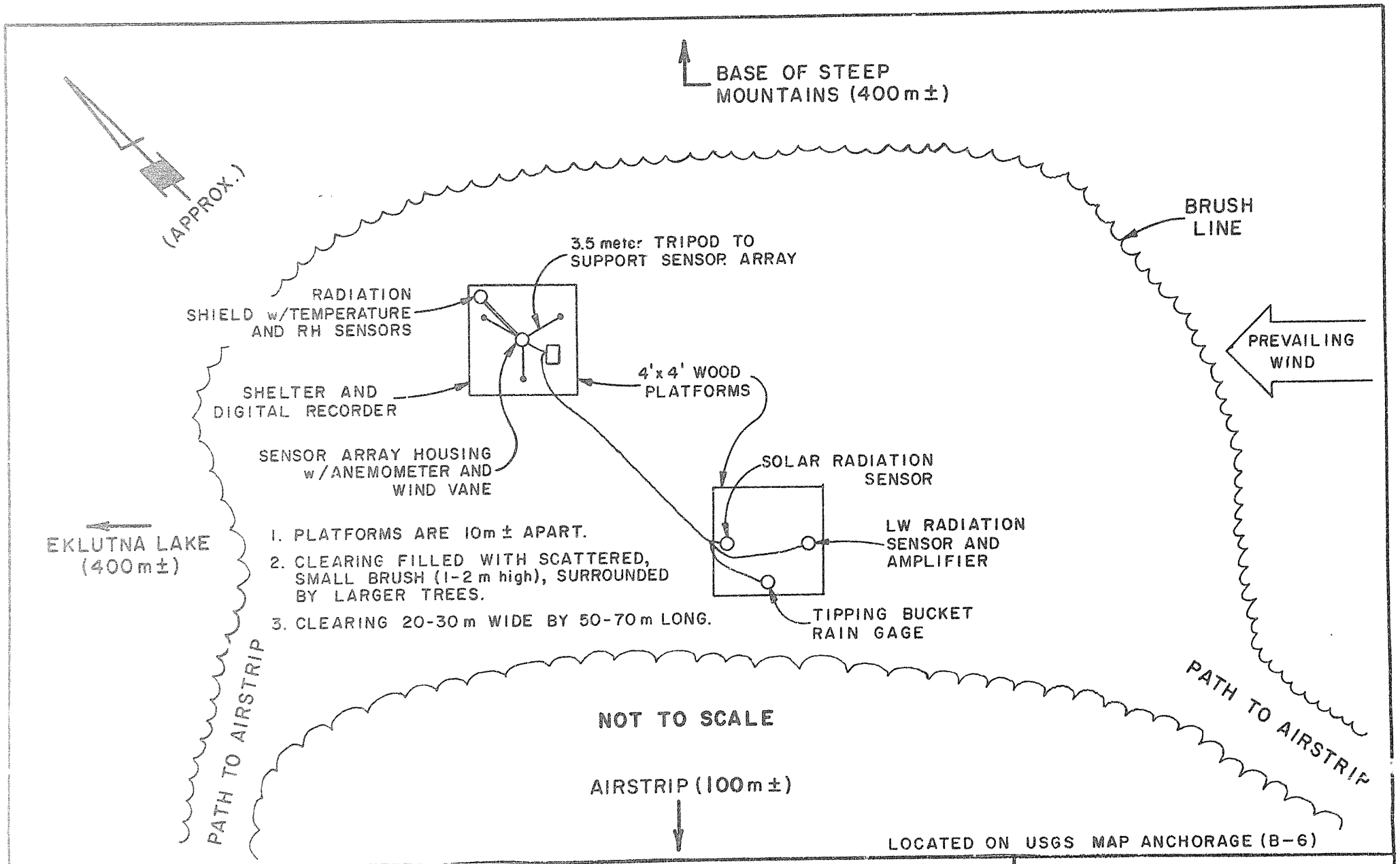

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FIGURE 1.3 - SITE SKETCH
EKLUTNA LAKE CLIMATE STATION
ESTABLISHED JUNE 3, 1982 - OWNER: ALASKA POWER AUTHORITY - OPERATOR: R&M CONSULTANTS, INC. UNDER CONTRACT TO HARZA-EBASCO SUSITNA JOINT VENTURE

PREPARED FOR:
HARZA-EBASCO
SUSITNA JOINT VENTURE

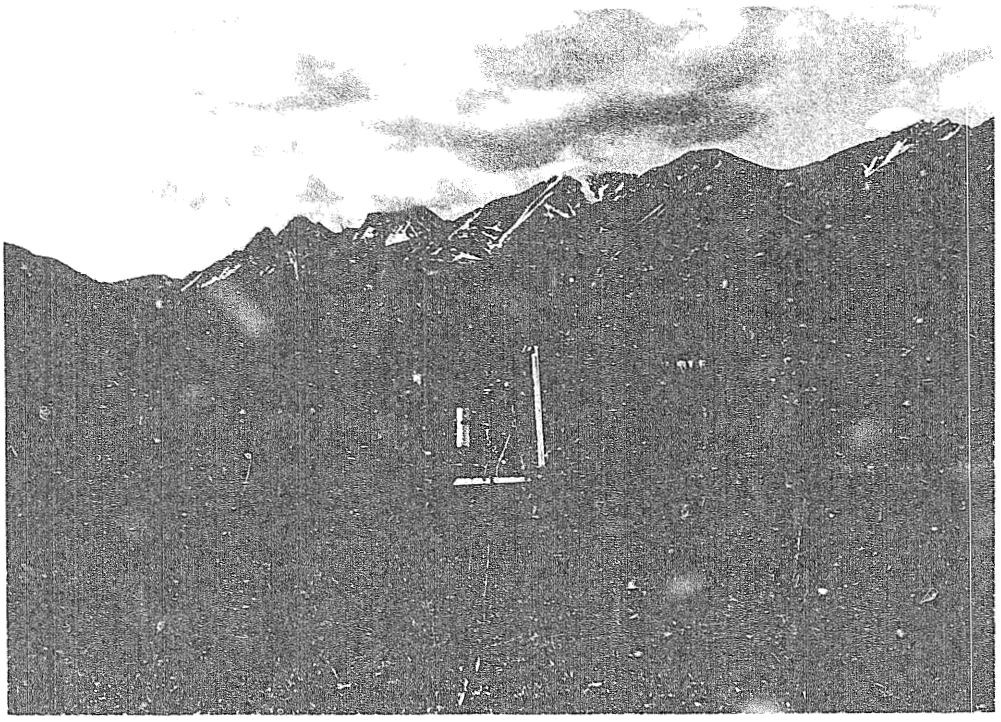


Photo 1.1 Eklutna Lake Climate Station site, looking NW toward Eklutna Lake.

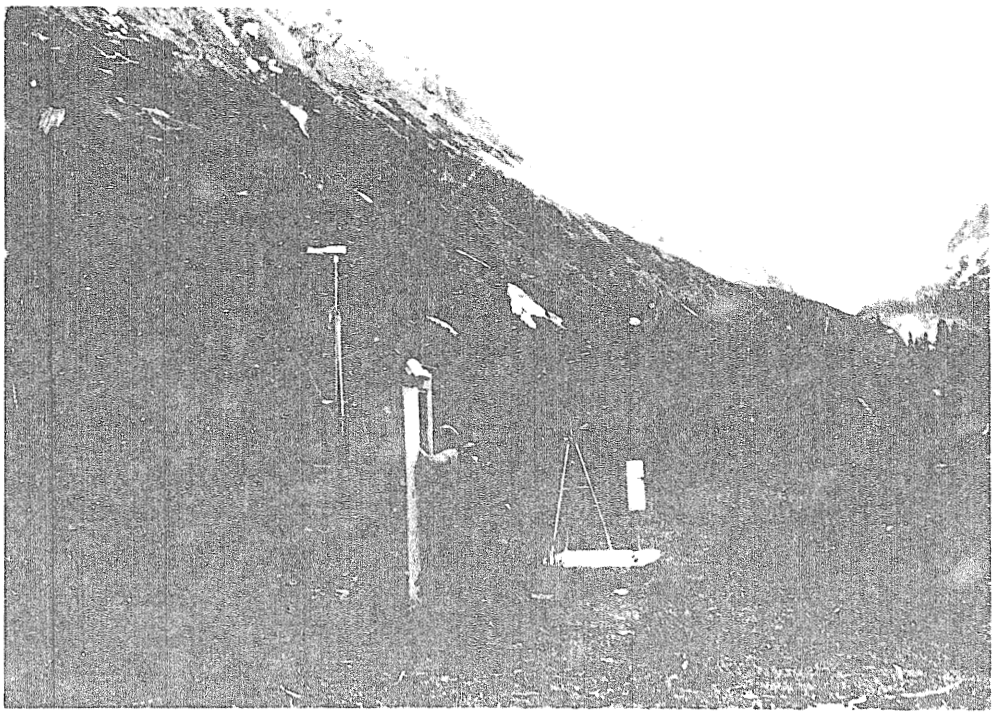


Photo 1.2 Eklutna Lake Climate Station site, looking SE toward upper basin.

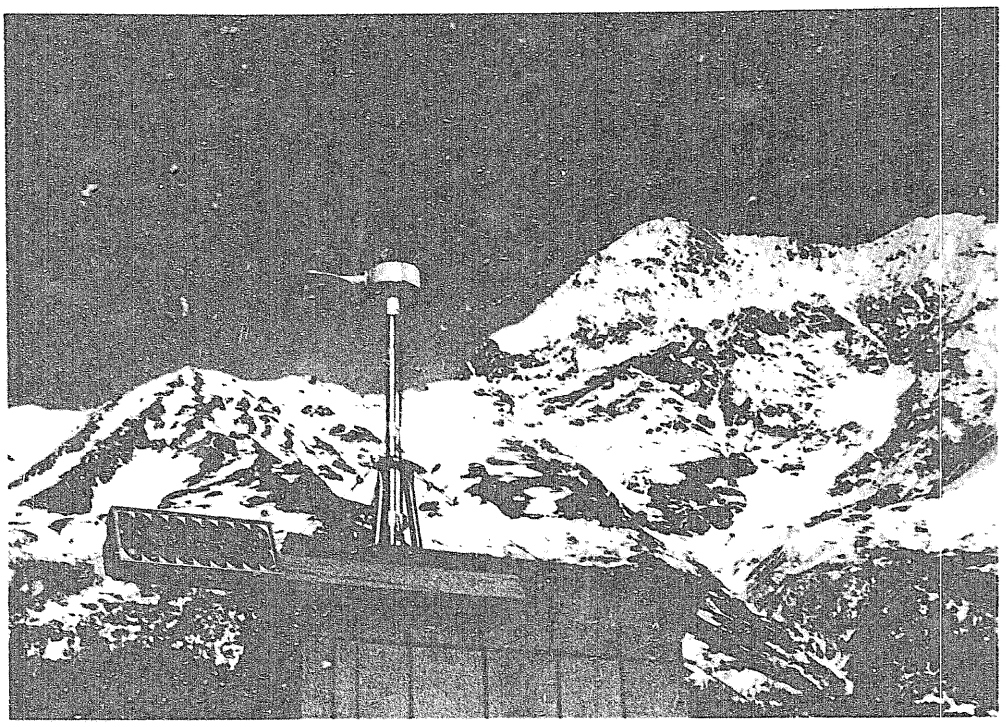


Photo 1.3 Sensor array and solar panel, Eklutna Lake Climate Station. Sensor array contains anemometer, wind vane, and radiation shield with temperature and RH sensors.

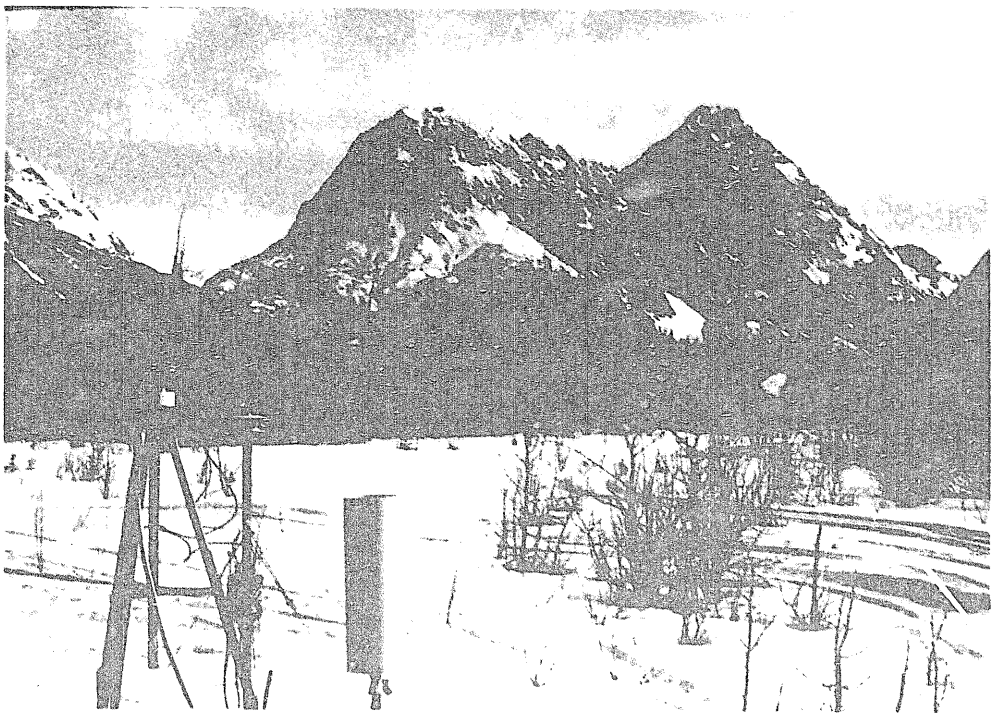


Photo 1.4 Auxiliary sensor platform, Eklutna Lake Climate Station. Sensors included (left to right) are solar radiation sensor, longwave radiation sensor, and tipping bucket precipitation gage.

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 except longwave radiation. 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 EKLUTNA LAKE STATION (NO. 0686.5)
OCTOBER 1983 TO DECEMBER 1984

Month	Temperature			Wind						Mean RH (%)	Mean DP (°C)	Precip (mm)	Total Solar Energy (WH/m²)
	Max (°C)	Min (°C)	Mean (°C)	Res. Dir. (°TRUE)	Res. Speed (m/sec)	Avg. Speed (m/sec)	Max Gust Dir. (°TRUE)	Max Gust Speed (m/sec)	P' Val. Dir. (°TRUE)				
October	12.9	-11.0	0.4	138M	0.6M	1.3M	147M	14.6	SSE(M)	66	M	35.0	41730
November	10.6M	-17.4M	-2.2M	146M	1.8M	2.0M	143M	17.1M	SSE(M)	67M	M	M	13595M
December	-2.3M	-25.4M	-13.2M	M	M	M	M	M	M	86M	M	M	1365M
January	7.5	-37.8	-10.7	M	M	M	M	M	M	75	M	M	4595
February	4.3	-33.8	-10.6	M	M	M	M	13.3M	M	M	M	M	22846
March	11.1	-17.7	0.5	142M	0.9M	0.8M	162M	17.1	SE(M)	M	M	M	96195
April	11.9	-9.6	1.5	122M	0.5M	1.5M	132M	10.8	NNW(M)	M	M	40.8	156550
May	21.2	-6.5	6.6	125M	0.4M	1.7M	147M	10.8M	SSE(M)	M	M	5.8	233853
June	24.0	-1.9	11.1	107M	0.2M	1.4M	157M	8.9M	SSE(M)	M	M	30.2	221415
July	22.3	3.1	12.6	012	0.2	0.3	145	6.3	SSE	M	M	28.0	168285
August	21.7	-4.7	11.2	116	0.2	1.2	160	10.2	S	M	M	45.8	147660
Sept	16.9M	-3.4M	7.3M	144M	0.6M	1.2M	146M	10.8M	SSE(M)	M	M	52.6	92056
October	12.8	-16.7	0.0	M	M	M	M	13.3M	M	62M	M	32.6	48315
November	6.5M	-22.5M	-7.5M	M	M	M	M	14.6M	M	65M	M	M	12567M
December	M	M	M	M	M	M	M	M	M	M	M	M	M
Annual-WY (10/83-9/84)	M	M	M	M	M	M	M	M	M	M	M	M	1200145M
Annual-CY (1/84-12/84)	M	M	M	M	M	M	M	M	M	M	M	M	M

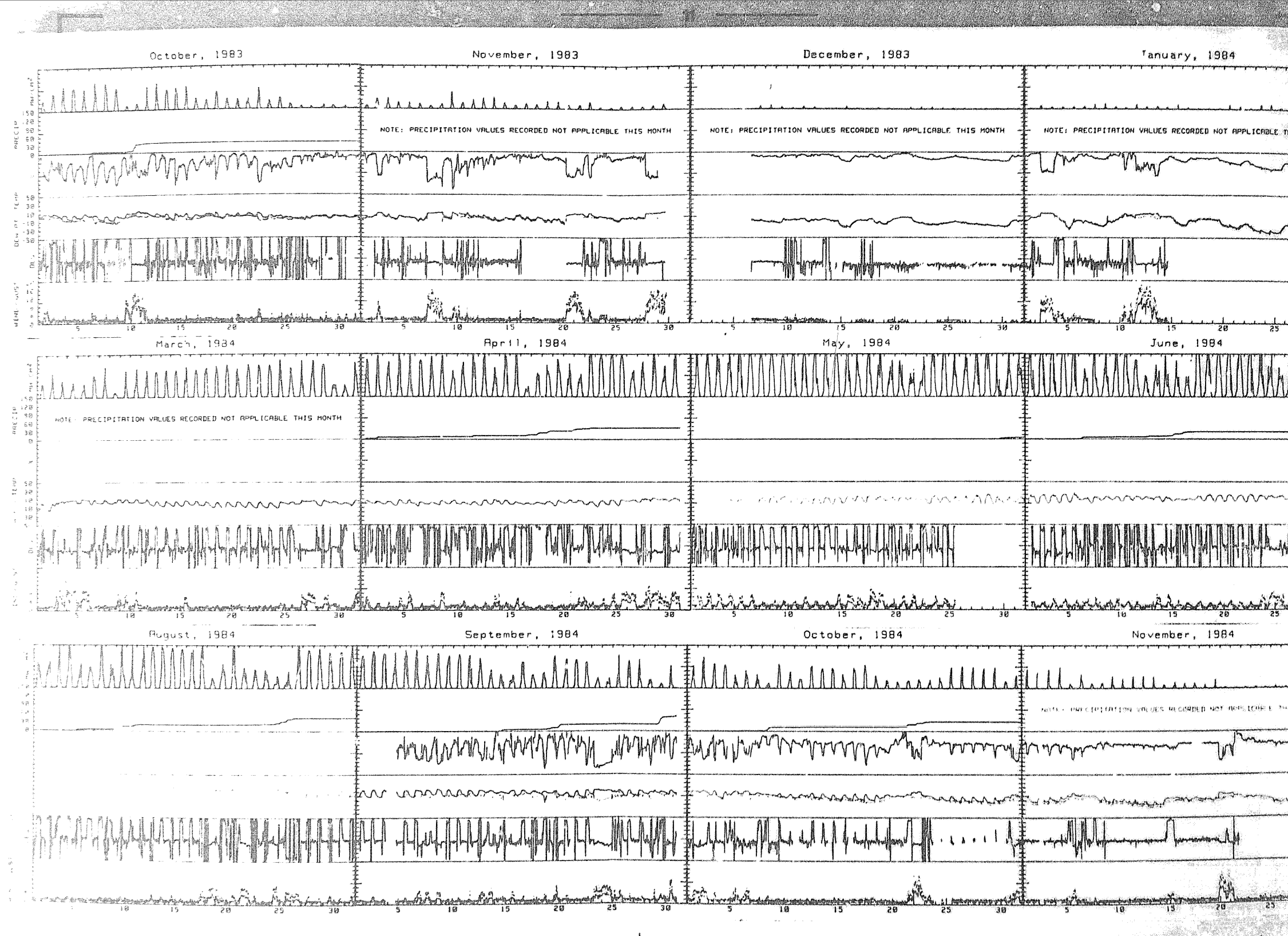
NOTE: See section on Interpretation of Data for explanation of symbols used.
Annual values are for water year (WY) and for calendar year (CY).

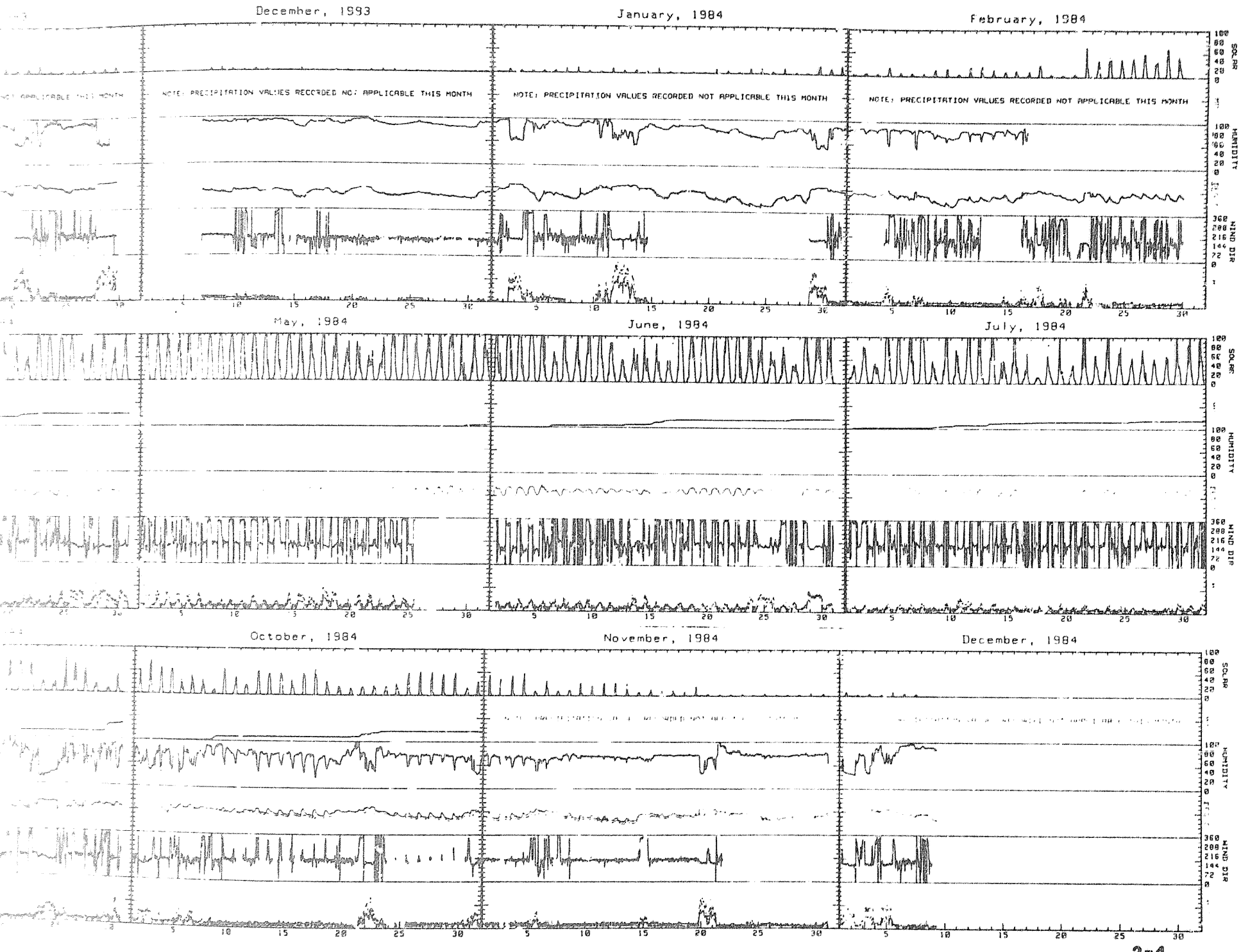
TABLE 2.2. PERCENT OF TOTAL POSSIBLE OBSERVATIONS RECORDED AT EKLUTNA LAKE CLIMATE STATION OCTOBER 1983 TO DECEMBER 1984

Month	Temp	Wind Speed	Wind Direction	Peak Gust	RH	Precip	Solar Radiation	Dew Point	Longwave Radiation
October 1983	100	99	90	99	45	100	100	45	100
November	95	95	77	96	46	0	96	46	96
December	82	43	72	43	43	0	82	43	82
January 1984	100	43	53	44	82	0	100	82	100
February	100	98	72	98	10	0	100	10	100
March	100	100	98	100	0	0	100	0	100
April	100	100	93	100	0	100	100	0	100
May	100	79	79	79	0	100	100	0	54
June	100	98	98	98	0	100	100	0	75
July	100	100	100	100	0	100	100	0	97
August	100	100	100	100	0	100	100	0	87
September	97	97	95	97	35	100	100	35	99
October	100	95	72	95	54	100	100	54	27
November	99	99	68	99	46	0	99	46	10
December	61	60	57	61	32	0	61	32	61
TOTAL	96	87	82	87	26	53	96	26	79

NOTES

(1) RH and dewpoint data are not valid and have been discarded for samples when the wind speed was less than 1.0 m/sec.
(2) Precipitation data not recorded from November through March. Collector is not designed for winter temperatures.
(3) The percentage for December 1984 is only for the period until the station was discontinued (12/14).
(4) The percentage reported as TOTAL is for the full 15-month period (10/83-12/84).


October, 1983
November, 1983
December, 1983
January, 1984
NOTE: PRECIPITATION VALUES RECORDED NOT APPLICABLE THIS MONTH
NOTE: PRECIPITATION VALUES RECORDED NOT APPLICABLE THIS MONTH
NOTE: PRECIPITATION VALUES RECORDED NOT APPLICABLE
March, 1984
April, 1984
May, 1984
June, 1984
NOTE: PRECIPITATION VALUES RECORDED NOT APPLICABLE THIS MONTH
August, 1984
September, 1984
October, 1984
November, 1984



NOTE: A larger copy of each plot is presented in Section 6, Climatic Data Summaries.

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

Continued

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 Hourly Longwave Radiation Table (Watana and Eklutna Stations Only)

Another addition to this year's report series, hourly longwave 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.

3.2.8 Wind Rose Graphical Plot

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

3.2.9 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.

3.2.10 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 Changes made to the format of this year's report series include addition of hourly tables of solar radiation and longwave radiation values 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 speed-only parameters (peak gust and daily average speed) when the wind direction sensor was not operational.

4.1.3 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 saving 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.

4.1.4 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, longwave radiation 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.

4.1.5 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.

4.1.6 The 3.5-meter tripod, which supports the sensor array assembly, tipped over on May 25 at the Eklutna Lake Station. The array contains the sensors for measuring wind speed, wind direction, temperature, and relative humidity. All wind data were lost until the sensors were replaced on June 1. The array and tripod were re-positioned on May 30. Temperature and relative humidity data continued to be recorded, even while the

array was on the ground. The temperature data have been reported but are suspicious since temperatures near the ground are probably somewhat warmer by day and cooler by night than the air temperature. The RH data have been deleted, anyway, due to a bad oscillator.

4.1.7 The Eklutna Lake Station was discontinued and removed December 14, 1984, following completion of the ice cover formation on the lake.

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 Eklutna Lake data are presented for October and April, 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 data 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.

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.

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.

The oscillator for the Eklutna Lake relative humidity sensor was bad for several months, which caused erratic reporting of the data. Data were recorded from mid-February through August, 1984, but have all been deleted due to the unreliable oscillator. The September data are somewhat erratic as well but generally follow the diurnal cycle typical of the summer RH and have been reported as indicative of

the true RH. The oscillator was replaced October 9, 1984, after which the data are felt to be good.

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 $watt\text{-}hr/cm^2$. 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

Quite a few measurements of wind speed, wind direction, and peak wind gusts were lost between October 1983 and April 1984 and again from October to December 1984 due to

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

4.2.5 Longwave Radiation

The longwave radiation sensor was removed from the Eklutna Lake site for a test with the Watana station sensor between May 17 and June 8. The sensors were found to be within 7.5% of each other. Following re-installation, data were periodically lost in July, August, and September due to poor electrical connections and in October and November due to a dead sensor battery.

5.0 MONTHLY CLIMATIC DATA SUMMARIES
EKLUTNA LAKE STATION
OCTOBER 1983 - DECEMBER 1984

Note:

Each month's climatic data summary report consists of the following 12 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) Hourly Longwave Radiation Summary Table
(12) Observation Summary and Note Page

R & M CONSULTANTS, INC.

SUSITNA HYDROELECTRIC PROJECT

HOURLY PRECIPITATION SUMMARY FOR EKLUTNA LAKE 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	0.0	0.0	0.0	0.0	0.0	0.0	0.0	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	.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	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	.2	0.0	.2	5
6	0.0	0.0	0.0	.4	.6	2.0	.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	0.0	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	1.0	.4	0.0	0.0	0.0	.2	.4	.2	0.0	0.0	.2	.2	0.0	.2	9
10	0.0	0.0	.4	2.8	3.2	4.0	2.4	1.2	2.8	3.6	3.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	.6	.4	.4	.2	10
11	0.0	.2	.2	.4	0.0	0.0	.6	0.0	0.0	0.0	.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	.2	.2	.2	0.0	.2	0.0	11
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	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	.2	12
13	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	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
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	3.0	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	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	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	.2	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	.2	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 SUSITNA LAKE 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	3.4	*****	91	140	.8	143	2.5	0
0600	2.6	*****	94	153	.7	123	1.9	0
0900	5.7	*****	82	162	.6	165	1.9	15
1200	7.7	.7	61	189	.4	240	1.9	16
1500	7.6	-1.1	54	150	1.0	134	5.7	7
1800	7.7	-2.1	50	144	1.9	133	5.7	0
2100	8.8	-2.9	44	119	1.5	137	5.7	0
2400	9.6	-3.5	40	134	3.1	138	8.3	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	6.1	-.8	61	141	1.5	130	7.6	0
0600	5.0	*****	71	328	1.7	339	4.4	0
0900	5.1	*****	81	219	.1	242	1.9	14
1200	7.8	2.1	67	017	.1	168	2.5	37
1500	8.4	1.8	63	334	2.0	339	4.4	15
1800	7.0	*****	70	337	1.6	332	3.8	0
2100	5.2	*****	70	341	.7	327	2.5	0
2400	2.6	*****	80	227	.3	296	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	-4.6	54	151	.3	010	3.2	0
0600	-1.8	*****	80	144	.1	004	3.2	0
0900	3.8	-4.9	53	154	.8	174	1.9	37
1200	5.4	-6.6	42	349	.6	314	2.5	53
1500	5.0	-7.3	41	299	1.1	357	3.2	9
1800	5.7	-8.0	37	045	.8	026	5.1	0
2100	-2.0	*****	53	030	.8	023	4.4	0
2400	-3.4	-7.9	71	155	.8	179	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	-5.0	*****	77	154	.8	140	1.9	0
0600	-5.8	*****	78	147	.9	124	1.9	0
0900	.1	*****	66	155	1.0	170	2.5	36
1200	4.6	*****	40	311	.3	148	1.9	53
1500	4.6	*****	35	223	.4	182	3.2	8
1800	0.0	-7.5	57	061	.2	359	3.8	0
2100	-1.6	*****	65	145	.7	160	1.9	0
2400	-.7	*****	65	154	.9	180	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	-2.3	-6.1	75	148	.9	160	1.9	0
0600	-1.0	*****	69	142	.7	160	1.9	0
0900	3.7	*****	55	159	.7	152	1.9	21
1200	8.0	*****	31	185	.2	168	2.5	33
1500	7.7	*****	34	280	.2	286	2.5	12
1800	4.9	*****	53	154	.5	147	1.9	0
2100	3.7	*****	71	157	.6	172	1.9	0
2400	2.9	*****	89	172	.7	218	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	2.9	*****	93	161	.8	153	1.9	0
0600	3.0	*****	98	161	.7	168	1.9	0
0900	3.4	-5.3	53	014	2.8	015	8.3	12
1200	4.7	-12.8	27	349	1.7	001	5.1	45
1500	3.2	-12.5	31	316	1.9	304	4.4	9
1800	1.3	*****	47	349	1.6	346	4.4	0
2100	-3.3	-8.3	68	155	.6	151	1.9	0
2400	-6.1	-9.5	77	160	1.0	168	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	-7.1	-10.0	80	152	1.0	152	1.9	0
0600	-8.5	-11.3	80	151	1.1	163	2.5	0
0900	-2.9	*****	61	148	.8	167	1.9	35
1200	1.5	-11.1	39	324	.6	336	2.5	57
1500	1.9	-12.8	33	333	1.6	357	4.4	11
1800	-1.3	*****	39	358	1.0	315	4.4	0
2100	-5.9	*****	60	151	.8	113	1.9	0
2400	-8.4	-13.8	65	152	.9	163	1.9	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	-8.9	-13.5	69	146	1.0	1[illegible]	1.9	0
0600	-11.0	-15.4	70	150	1.0	144	2.5	0
0900	-3.6	-11.6	54	158	.9	164	1.9	19
1200	1.9	*****	24	173	.8	176	2.5	51
1500	2.0	-14.3	29	327	1.2	346	3.2	16
1800	-.3	*****	43	343	1.6	354	5.1	0
2100	-.7	*****	47	357	.9	348	2.5	0
2400	-.8	*****	64	151	.5	159	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	-2.0	-3.9	87	155	.5	145	1.9	0
0600	-1.7	*****	92	149	.7	152	1.9	0
0900	0	0	*****	87	144	.6	157	1.9	2
1200	6.6	-.5	63	146	4.1	144	10.8	9
1500	7.8	-2.3	49	138	6.2	132	11.4	5
1800	7.7	-.5	56	134	5.8	135	10.8	0
2100	3.2	2.0	92	155	1.7	149	9.5	0
2400	2.6	*****	93	333	1.9	347	5.1	0

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R & M CONSULTANTS, INC.

SUSITNA HYDROELECTRIC PROJECT

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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	8.4	1.4	61	137	3.0	138	10.2	0
0600	8.4	3.7	72	144	7.6	145	13.3	0
0900	8.5	4.9	78	158	8.2	140	14.0	2
1200	10.1	2.7	60	145	8.9	147	14.6	11
1500	12.6	.9	45	142	6.8	147	10.8	5
1800	12.9	.2	42	140	7.7	131	12.7	0
2100	9.2	1.9	60	140	7.0	142	12.7	0
2400	10.1	1.2	54	136	3.7	137	7.6	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	9.8	.7	53	138	6.1	138	12.1	0
0600	8.8	.5	56	138	5.5	137	12.1	0
0900	9.6	-1.5	46	146	3.7	131	10.2	2
1200	9.6	.2	52	151	2.8	155	10.8	28
1500	7.2	1.1	65	140	.8	163	6.3	3
1800	6.3	*****	79	329	.5	347	3.2	0
2100	4.3	*****	93	137	.3	112	1.9	0
2400	2.3	*****	97	132	.6	161	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	1.9	*****	97	142	.7	177	1.9	0
0600	.8	*****	95	148	.7	142	1.9	0
0900	3.7	*****	83	148	.7	089	1.9	23
1200	6.4	-.8	60	212	.5	154	2.5	29
1500	6.5	-.2	62	334	1.3	340	3.2	9
1800	4.3	*****	70	352	1.4	355	4.4	0
2100	2.7	*****	83	069	.3	155	1.9	0
2400	1.7	*****	95	149	.6	150	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	1.2	*****	88	144	.9	144	1.9	0
0600	.6	*****	87	140	.3	047	1.9	0
0900	3.2	*****	68	142	.7	127	1.3	34
1200	5.7	-6.0	43	167	1.1	171	2.5	46
1500	4.8	-7.5	41	217	.5	177	2.5	15
1800	-1.5	-6.2	70	284	.2	176	3.8	0
2100	-3.1	*****	81	140	.7	144	1.3	0
2400	-4.1	-6.3	85	158	.7	179	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	-6.0	-8.1	85	151	.8	154	1.9	0
0600	-7.1	*****	86	154	.9	164	1.9	0
0900	.2	*****	55	152	.9	154	1.9	30
1200	4.2	-8.0	41	341	.5	323	1.9	44
1500	2.9	*****	41	308	.9	315	2.5	6
1800	-1.9	*****	64	153	.6	113	1.9	0
2100	1.0	*****	66	158	.6	168	1.9	0
2400	.7	*****	67	186	.6	152	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	-.1	*****	72	152	.7	155	1.9	0
0600	-.5	****	71	150	.7	168	1.9	0
0900	2.1	*****	64	145	.6	137	1.9	11
1200	5.5	-4.7	48	354	.2	323	3.2	48
1500	5.1	-7.8	39	200	1.1	167	4.4	6
1800	-2.1	-7.2	68	195	.2	332	2.5	0
2100	-4.3	*****	77	149	.8	158	1.9	0
2400	-5.3	-8.1	81	151	1.0	149	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	-6.3	-8.7	83	150	1.0	153	2.5	0
0600	-2.1	*****	75	148	.8	130	1.9	0
0900	.2	*****	70	149	.7	173	1.9	9
1200	3.0	*****	58	340	.1	346	1.9	23
1500	3.1	*****	55	336	.8	341	2.5	10
1800	.9	-6.2	59	338	1.5	332	3.8	0
2100	-.5	*****	70	118	.5	342	1.9	0
2400	.2	-3.5	76	086	.2	348	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	.1	-2.9	80	151	.8	158	2.5	0
0600	.4	-2.5	81	160	.8	150	2.5	3
0900	1.4	-.7	86	142	.7	141	1.9	10
1200	5.2	1.0	74	078	.5	108	2.5	18
1500	5.4	*****	69	348	.8	327	2.5	6
1800	4.4	*****	73	154	.5	194	2.5	0
2100	5.1	*****	70	140	.9	146	4.4	0
2400	5.1	*****	77	158	.8	158	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	3.6	*****	78	328	.9	322	3.2	0
0600	.6	-.9	90	200	.1	337	1.9	0
0900	1.1	*****	80	147	.8	152	1.9	9
1200	7.4	-1.8	52	348	.1	233	2.5	41
1500	4.3	*****	62	318	1.2	315	2.5	6
1800	-1.6	-3.5	87	170	.7	162	1.9	0
2100	-3.6	*****	89	161	.9	161	2.5	0
2400	-3.8	-4.9	92	157	.9	164	1.9	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	-5.2	*****	89	154	.9	167	1.9	0
0600	-3.6	*****	88	159	.8	168	1.9	0
0900	.6	*****	81	140	.7	150	1.9	8
1200	4.2	*****	59	118	.3	139	1.9	25
1500	3.4	-.9	73	340	.9	341	3.8	8
1800	.1	*****	89	118	.1	342	1.9	0
2100	0.0	-1.5	90	150	.8	166	1.9	0
2400	.6	*****	93	095	.4	019	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	-1.6	*****	97	147	.6	151	1.9	0
0600	-1.6	-2.5	94	153	.8	150	1.9	0
0900	1.0	*****	92	160	.7	206	2.5	10
1200	5.4	*****	66	326	1.2	329	5.1	19
1500	5.9	*****	66	155	1.2	132	5.7	3
1800	.4	*****	89	328	1.6	315	3.8	0
2100	-.3	*****	92	115	.5	047	3.2	0
2400	.2	-1.1	91	144	.8	149	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	*****	94	147	.7	141	1.9	0
0600	1.0	*****	90	142	.6	164	1.9	0
0900	2.6	*****	85	131	.7	183	2.5	12
1200	6.4	1.0	68	169	.3	160	1.9	21
1500	7.2	*****	61	094	.2	132	1.9	5
1800	3.9	*****	76	348	.8	307	3.2	0
2100	3.5	*****	73	341	1.1	337	3.8	0
2400	.1	*****	83	150	.9	152	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	-.4	-2.5	86	156	.8	142	1.9	0
0600	.6	*****	83	145	.9	133	2.5	0
0900	5.8	-1.8	58	142	.9	128	5.1	12
1200	7.3	-9.7	29	140	3.4	130	8.3	42
1500	5.1	-11.2	30	145	3.3	151	6.3	5
1800	2.0	*****	41	133	2.1	132	6.3	0
2100	-2.5	-9.0	61	152	.4	353	1.9	0
2400	-4.7	*****	69	148	.9	163	2.5	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	-4.2	-9.2	68	150	.9	169	1.9	0
0600	-4.8	-9.4	70	149	.9	147	2.5	0
0900	-2.1	-7.2	68	148	.9	145	1.9	5
1200	1.7	*****	65	105	.1	145	1.9	13
1500	1.2	*****	76	081	.1	162	2.5	8
1800	-.7	*****	58	133	.7	156	4.4	0
2100	-3.3	-8.5	67	126	.5	149	2.5	0
2400	-2.6	*****	65	155	.9	142	2.5	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	0.0	*****	60	136	.7	155	1.9	0
0600	-.6	-5.9	67	163	.7	206	2.5	0
0900	-.8	-6.1	67	346	.9	344	3.2	10
1200	.7	*****	61	307	.7	330	3.2	24
1500	-.6	-6.1	66	232	.4	324	4.4	6
1800	-3.8	*****	78	360	.9	345	4.4	0
2100	-4.9	*****	82	155	.9	158	1.9	0
2400	-3.6	*****	83	156	.7	169	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	-2.6	*****	69	360	.9	344	3.2	0
0600	-4.1	-10.1	63	351	1.1	349	4.4	0
0900	-3.8	*****	64	350	1.4	346	3.2	3
1200	-3.3	-9.5	62	346	1.3	343	3.8	9
1500	-5.2	-9.4	72	344	1.9	344	4.4	1
1800	-5.8	*****	87	011	.8	356	2.5	0
2100	-5.8	*****	88	158	.6	181	1.9	0
2400	-5.9	-7.7	87	006	1.2	356	3.8	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	-5.8	-7.8	86	064	.5	007	2.5	0
0600	-6.6	*****	88	018	.7	356	3.8	0
0900	-6.2	*****	88	005	1.4	016	3.2	0
1200	-4.5	-8.2	75	116	.9	068	2.5	7
1500	-5.0	-8.2	78	347	1.5	343	4.4	1
1800	-7.1	*****	89	017	.7	351	3.2	0
2100	-6.3	*****	90	153	.8	166	1.9	0
2400	-2.5	-4.1	89	026	.2	338	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	-5.2	*****	88	317	1.0	338	4.4	0
0600	-6.1	-7.8	88	157	.7	200	1.9	0
0900	-4.8	*****	89	161	.8	150	3.2	2
1200	-1.8	*****	74	151	.6	166	1.9	2
1500	-1.8	*****	87	145	.7	153	1.9	0
1800	-1.6	*****	93	153	.4	157	1.3	0
2100	-.7	*****	89	133	.4	153	1.3	0
2400	-.6	*****	92	154	.4	123	1.3	0

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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	*****	95	154	.5	154	1.3	0
0600	-.6	-3.0	84	089	.3	030	2.5	0
0900	-.9	*****	85	001	1.3	357	3.2	1
1200	-.6	*****	85	165	.7	163	1.9	1
1500	0.0	-2.4	84	***	****	***	1.9	6
1800	.7	-.9	89	287	.8	332	4.4	0
2100	-2.0	*****	88	329	1.9	328	5.1	0
2400	-6.0	*****	88	***	****	***	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	-6.0	*****	90	172	.8	169	1.9	0
0600	-5.9	*****	90	172	.8	185	1.9	0
0900	-2.5	*****	90	173	.8	173	2.5	1
1200	.7	-1.2	87	***	****	***	1.3	6
1500	.9	*****	85	***	****	***	1.3	2
1800	-.4	*****	99	***	****	***	1.3	0
2100	-.1	-1.0	94	341	1.6	204	3.8	0
2400	-.8	-3.0	85	346	1.7	344	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	*****	88	003	1.0	352	2.5	0
0600	-1.2	*****	86	003	.7	009	1.9	0
0900	-1.6	*****	87	***	****	***	1.3	1
1200	-.6	-2.7	86	***	****	***	1.9	3
1500	-.2	-3.6	78	352	1.3	350	5.1	3
1800	-2.4	-4.3	87	341	2.2	338	3.8	0
2100	-4.2	*****	89	***	****	***	1.9	0
2400	-4.7	*****	90	***	****	***	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	-4.0	*****	89	***	****	***	1.3	0
0600	-3.9	*****	90	***	****	***	1.9	0
0900	-3.0	*****	90	***	****	***	1.3	0
1200	-1.8	-3.4	89	***	****	***	3.8	0
1500	-1.2	*****	88	***	****	***	5.1	2
1800	-2.7	-4.9	85	***	****	***	3.2	0
2100	-6.5	*****	91	***	****	***	2.5	0
2400	-10.1	*****	90	***	****	***	1.9	0

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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	9.9	1.6	5.8	141	1.2	1.5	138	8.3	SE	54	-1.6	0.0	1118	1
2	10.2	1.6	5.9	334	.5	1.4	130	7.6	NNW	63	.6	.4	2038	2
3	6.2	-3.4	1.4	049	.1	1.1	026	5.1	SSE	47	-6.7	0.0	2513	3
4	6.3	-6.3	0.0	154	.5	1.0	359	3.8	SSE	61	-7.6	0.0	3043	4
5	8.7	-3.2	2.8	159	.5	.8	168	2.5	SSE	55	-5.3	.4	1900	5
6	5.1	-6.1	-.5	358	.5	1.5	015	8.3	SSE	56	-7.2	3.4	2218	6
7	2.6	-8.5	-3.0	133	.2	1.1	357	4.4	SSE	57	-11.2	0.0	3113	7
8	2.6	-11.0	-4.2	141	.1	1.0	354	5.1	SSE	49	-13.4	0.0	2615	8
9	8.8	-2.0	3.4	140	2.2	2.9	132	11.4	SE	70	-.4	2.8	455	9
10	12.9	2.6	7.8	141	6.6	6.7	147	14.6	SE	60	2.1	25.0	593	10
11	11.5	2.3	6.9	141	2.5	2.9	138	12.1	SE	55	.5	2.4	1118	11
12	7.6	-.6	3.5	094	.1	1.0	355	4.4	SE	74	.0	.2	2033	12
13	6.2	-5.0	.6	159	.6	1.0	176	3.8	S	62	-4.2	0.0	2525	13
14	8.1	-7.4	.4	165	.4	.8	315	2.5	SSE	60	-8.8	0.0	2403	14
15	7.0	-5.8	.6	160	.6	.9	167	4.4	SSE	58	-6.8	0.0	1805	15
16	3.3	-6.7	-1.7	095	.1	.9	332	3.8	SE	69	-5.7	0.0	1225	16
17	7.1	-1.1	3.0	140	.5	.9	146	4.4	SSE	76	-.5	0.0	960	17
18	9.3	-4.3	2.5	185	.2	1.0	322	3.2	SSE	72	-2.0	0.0	1888	18
19	4.7	-5.8	-.6	139	.4	.8	341	3.8	SSE	85	-2.8	0.0	1088	19
20	6.8	-1.6	2.6	150	.2	1.1	132	5.7	SE	82	-.5	0.0	945	20
21	7.6	.1	3.9	117	.2	.9	337	3.8	SE	77	-.1	0.0	1005	21
22	7.7	-4.7	1.5	143	1.6	1.7	130	8.3	SE	51	-7.5	0.0	1690	22
23	2.3	-5.9	-1.8	144	.6	.9	156	4.4	SE	66	-8.4	0.0	748	23
24	1.3	-5.0	-1.9	160	.1	1.0	324	4.4	SSE	68	-6.4	0.0	1175	24
25	-1.9	-6.0	-4.0	354	1.0	1.3	349	4.4	NNW	70	-8.7	0.0	478	25
26	-1.6	-10.1	-5.9	019	5	1.1	343	4.4	N	83	-7.7	0.0	203	26
27	-.1	-6.7	-3.4	159	.4	.7	338	4.4	SSE	83	-6.5	0.0	135	27
28	1.0	-6.0	-2.5	332	.4	.9	328	5.1	SSE	86	-2.4	.2	220	28
29	1.3	-6.8	-2.8	327	.2	.8	204	3.8	S	88	-2.8	.2	265	29
30	.5	-5.1	-2.3	354	1.2	.9	350	5.1	N	85	-3.3	0.0	172	30
31	-1.2	-10.2	-5.7	***	****	.8	***	5.1	***	89	-3.7	0.0	50	31
MONTH	12.9	-11.0	.4	138	.6	1.3	147	14.6	SSE	66	-4.5	35.0	41730	

GUST VEL. AT MAX. GUST MINUS 2 INTERVALS 14.0
GUST VEL. AT MAX. GUST MINUS 1 INTERVAL 13.3
GUST VEL. AT MAX. GUST PLUS 1 INTERVAL 12.7
GUST VEL. AT MAX. GUST PLUS 2 INTERVALS 13.3

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.

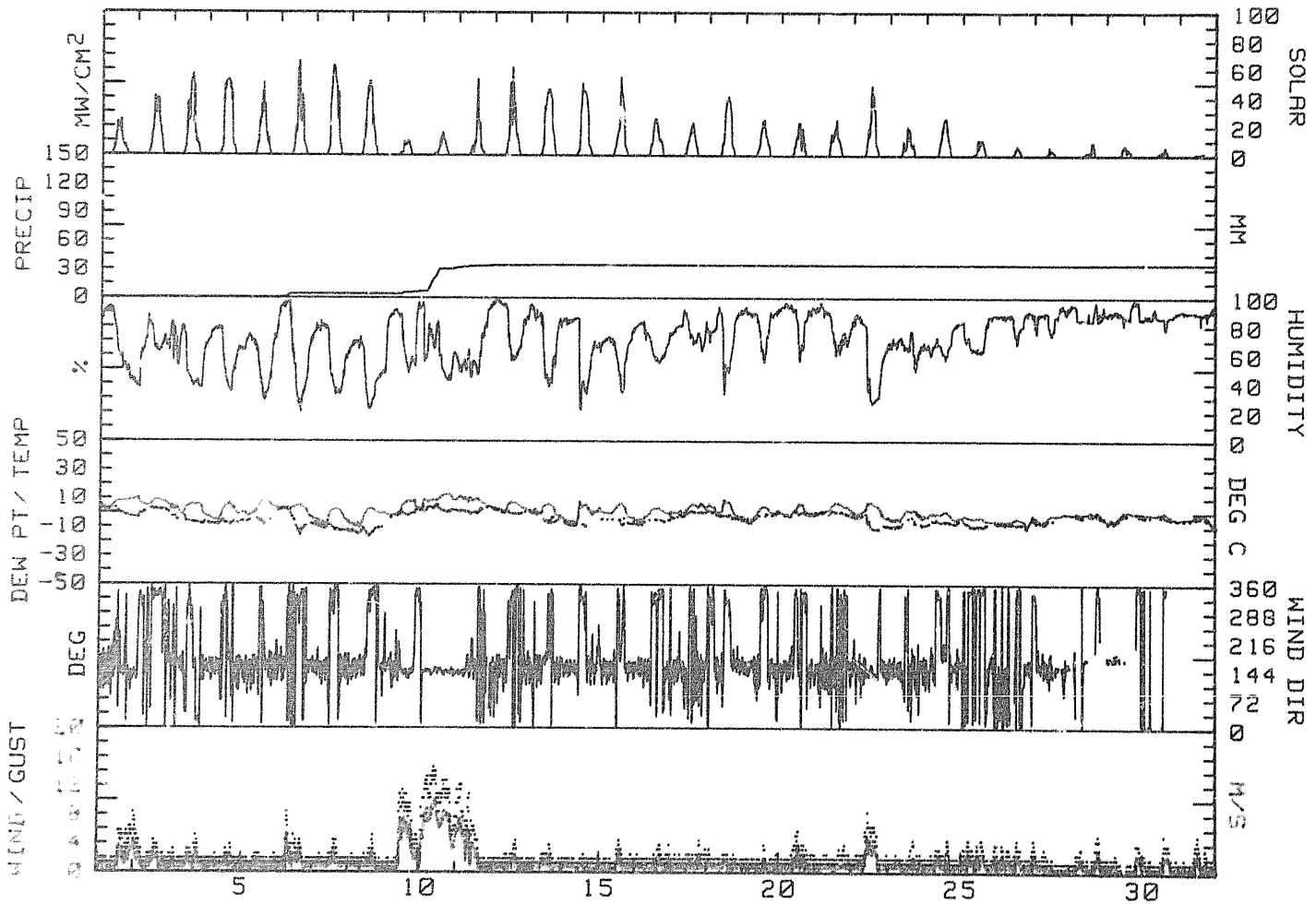
** SEE INTERPRETATION NOTES AT END OF MONTHLY REPORT **

R&M CONSULTANTS, INC.

SUSITNA HYDROELECTRIC PROJECT

EKLUTNA LAKE WEATHER STATION

October, 1983



R & M CONSULTANTS, INC.

SUSITNA HYDROELECTRIC PROJECT

WIND FREQUENCY SUMMARY FOR EKLUTNA LAKE 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	1.91	4.77	.08	0.00	0.00	0.00	0.00	6.75
NNE	1.13	1.43	.15	0.00	0.00	0.00	0.00	2.70
NE	.86	.34	.04	0.00	0.00	0.00	0.00	1.24
ENE	1.05	.15	0.00	0.00	0.00	0.00	0.00	1.20
E	1.84	.30	0.00	0.00	0.00	0.00	0.00	2.14
ESE	5.25	.86	.23	.04	0.00	0.00	0.00	6.38
SE	11.37	3.75	3.30	3.23	0.00	0.00	0.00	21.65
SSE	15.57	9.53	.94	.45	.04	0.00	0.00	26.53
S	5.63	3.68	.08	0.00	0.00	0.00	0.00	9.38
SSW	1.43	.60	0.00	0.00	0.00	0.00	0.00	2.03
SW	.49	.45	0.00	0.00	0.00	0.00	0.00	.94
WSW	.53	.38	0.00	0.00	0.00	0.00	0.00	.90
W	.83	.11	0.00	0.00	0.00	0.00	0.00	.94
WNW	1.13	.71	0.00	0.00	0.00	0.00	0.00	1.84
NW	1.35	3.23	.04	0.00	0.00	0.00	0.00	4.62
NNW	2.10	8.48	.08	0.00	0.00	0.00	0.00	10.66
CALM								.11
TOTAL	52.46	38.76	4.92	3.71	.04	0.00	0.00	100.00

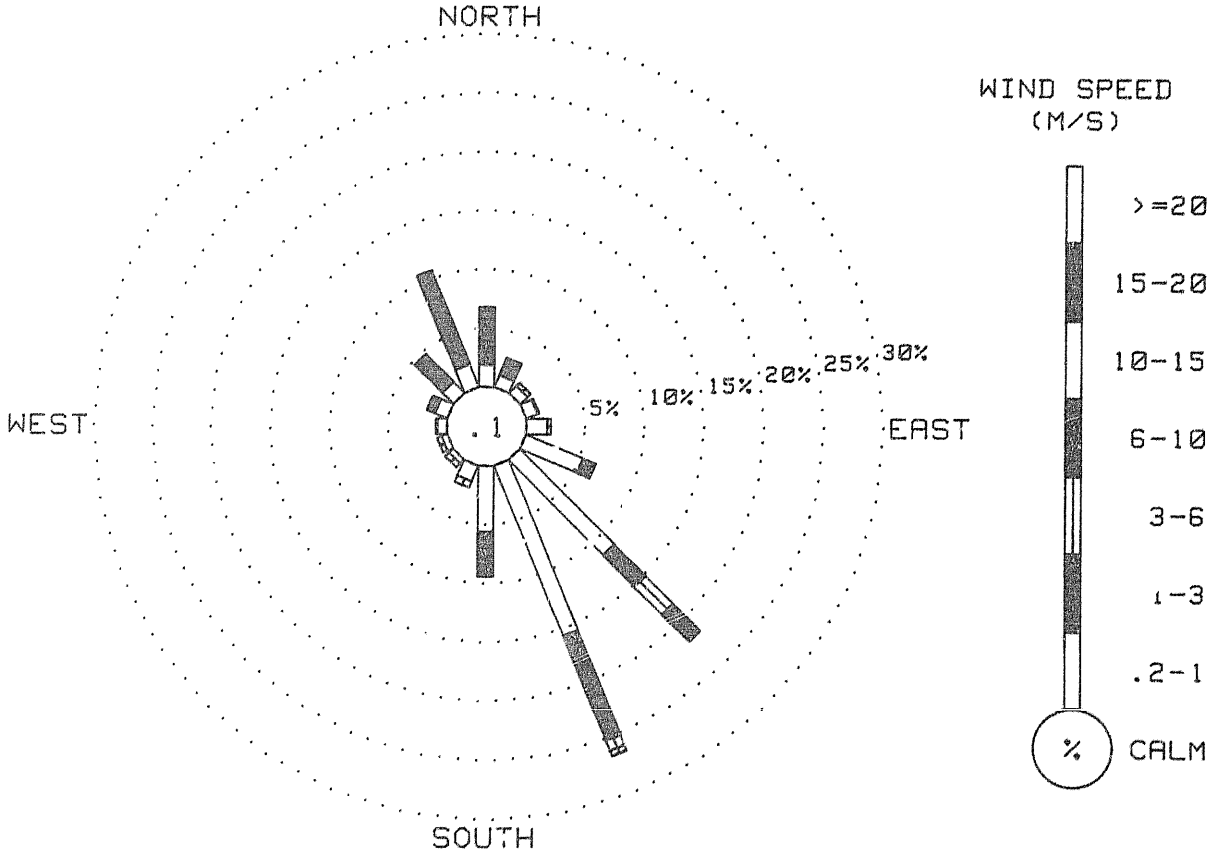
NOTE: ALL FREQUENCIES ARE EXPRESSED IN PERCENT
2665 VALID WIND OBSERVATIONS USED TO DEVELOP FREQUENCY SUMMARY
2976 WIND OBSERVATIONS WOULD HAVE BEEN CORRECT FOR 15 MINUTE DATA.
** SEE INTERPRETATION NOTES AT END OF MONTHLY REPORT **

R&M CONSULTANTS, INC.

SUSITNA HYDROELECTRIC PROJECT

EKLUTNA LAKE WEATHER STATION

October, 1983



WIND ROSE PLOT

R & M CONSULTANTS, INC.

SUSITNA HYDROELECTRIC PROJECT

HOURLY SOLAR RADIATION SUMMARY FOR EKLUTNA LAKE 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	1	5	10	19	20	20	16	8	6	5	2	0	0	0	0	0	0	0	5
2	0	0	0	0	0	0	1	4	10	19	35	34	37	33	19	11	2	0	0	0	0	0	0	0	8
3	0	0	0	0	0	0	2	7	25	26	40	53	46	32	10	8	3	0	0	0	0	0	0	0	10
4	0	0	0	0	0	0	1	4	21	47	50	53	51	45	25	6	3	0	0	0	0	0	0	0	13
5	0	0	0	0	0	0	2	8	19	28	37	38	30	15	10	5	1	0	0	0	0	0	0	0	8
6	0	0	0	0	0	0	0	3	10	18	47	53	28	33	22	7	3	0	0	0	0	0	0	0	9
7	0	0	0	0	0	0	1	4	20	44	59	61	52	37	26	8	2	0	0	0	0	0	0	0	13
8	0	0	0	0	0	0	1	8	17	37	45	51	47	27	18	8	3	0	0	0	0	0	0	0	11
9	0	0	0	0	0	0	0	0	2	2	6	9	8	9	7	3	0	0	0	0	0	0	0	0	2
10	0	0	0	0	0	0	0	1	2	4	7	11	14	11	7	3	0	0	0	0	0	0	0	0	2
11	0	0	0	0	0	0	0	3	5	8	16	40	22	13	4	2	0	0	0	0	0	0	0	0	5
12	0	0	0	0	0	0	0	6	14	44	25	47	30	18	12	6	1	0	0	0	0	0	0	0	8
13	0	0	0	0	0	0	0	4	18	33	41	46	45	40	17	9	1	0	0	0	0	0	0	0	11
14	0	0	0	0	0	0	0	3	14	38	46	44	42	35	12	5	1	0	0	0	0	0	0	0	10
15	0	0	0	0	0	0	0	4	8	14	19	43	43	34	12	4	1	0	0	0	0	0	0	0	8
16	0	0	0	0	0	0	0	3	8	15	24	25	19	11	11	7	1	0	0	0	0	0	0	0	5
17	0	0	0	0	0	0	0	2	7	12	16	19	20	12	7	2	0	0	0	0	0	0	0	0	4
18	0	0	0	0	0	0	0	3	9	24	36	40	37	30	7	4	0	0	0	0	0	0	0	0	8
19	0	0	0	0	0	0	0	3	6	15	21	23	17	12	8	4	0	0	0	0	0	0	0	0	5
20	0	0	0	0	0	0	0	2	7	12	17	22	8	16	9	3	0	0	0	0	0	0	0	0	4
21	0	0	0	0	0	0	0	4	12	12	16	19	17	11	7	3	0	0	0	0	0	0	0	0	4
22	0	0	0	0	0	0	0	2	10	16	28	42	37	24	7	3	0	0	0	0	0	0	0	0	7
23	0	0	0	0	0	0	0	2	3	5	10	15	18	8	7	3	0	0	0	0	0	0	0	0	3
24	0	0	0	0	0	0	0	2	8	15	20	25	23	15	9	3	0	0	0	0	0	0	0	0	5
25	0	0	0	0	0	0	0	1	2	9	7	9	10	7	3	1	0	0	0	0	0	0	0	0	2
26	0	0	0	0	0	0	0	0	0	1	3	5	5	4	2	0	0	0	0	0	0	0	0	0	1
27	0	0	0	0	0	0	0	0	1	3	4	3	2	1	0	0	0	0	0	0	0	0	0	0	1
28	0	0	0	0	0	0	0	0	1	2	2	2	2	5	7	2	0	0	0	0	0	0	0	0	1
29	0	0	0	0	0	0	0	0	1	4	6	7	3	4	3	1	0	0	0	0	0	0	0	0	1
30	***	0	0	0	0	0	0	0	0	1	2	3	2	4	5	2	0	0	0	0	0	0	0	0	1
31	0	0	0	0	0	0	0	0	0	0	1	0	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

HOURLY LONGWAVE RADIATION SUMMARY FOR EKLUTNA LAKE WEATHER STATION
DATA TAKEN DURING October, 1983

LONGWAVE RADIATI. . VALUES 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	32	31	31	30	32	33	32	33	35	34	35	36	35	36	34	35	34	33	33	34	35	34	34	34	34
2	34	35	37	36	38	37	35	38	34	35	34	39	35	36	38	39	40	39	38	38	29	35	29	30	36
3	32	34	33	32	29	27	27	30	29	26	32	33	30	31	28	29	29	28	25	29	25	25	25	25	29
4	25	25	24	24	24	25	26	26	26	26	29	31	27	29	28	25	30	27	26	26	28	31	32	29	27
5	28	26	27	31	31	31	31	31	29	29	28	33	34	36	34	35	34	34	33	32	34	34	36	33	32
6	33	35	34	34	34	33	34	31	31	34	25	34	30	30	29	30	23	25	22	25	25	24	23	24	29
7	24	23	23	23	24	24	24	25	26	26	29	30	30	30	27	27	24	23	22	23	23	23	23	22	25
8	22	22	23	23	23	22	24	26	26	26	27	28	30	34	35	30	28	35	30	32	31	32	31	32	28
9	32	32	32	32	32	32	32	34	33	36	33	34	34	35	35	34	35	35	35	34	36	40	39	38	34
10	32	36	35	35	36	36	35	35	36	36	36	36	37	37	37	36	36	36	35	35	36	35	35	35	36
11	35	35	35	35	34	34	34	33	33	34	36	34	35	34	37	33	35	34	34	33	32	34	32	30	34
12	30	31	33	32	32	32	31	32	33	35	32	32	37	37	34	34	34	34	3.	30	34	33	32	34	33
13	32	29	31	32	33	30	28	28	27	29	28	27	28	33	31	31	26	24	24	25	24	24	24	24	28
14	24	24	25	25	26	26	26	27	27	26	28	32	31	28	25	25	25	24	32	32	33	32	38	34	28
15	32	31	32	31	31	32	31	32	32	33	32	35	30	28	28	26	24	25	24	24	25	24	24	24	29
16	23	25	26	29	32	31	31	32	31	34	33	36	36	34	35	31	30	35	30	30	31	28	28	33	31
17	31	31	31	30	32	28	27	30	32	32	32	36	36	35	34	35	34	34	32	33	32	30	32	32	32
18	33	33	31	35	31	29	27	27	28	27	30	31	33	32	30	27	26	26	26	26	26	26	27	27	29
19	27	28	27	28	29	31	31	30	30	31	32	36	34	37	35	32	29	30	33	32	31	30	32	31	31
20	30	29	30	30	30	29	30	33	34	34	34	32	34	34	34	37	37	32	30	30	30	31	31	31	32
21	31	32	33	34	33	31	31	29	29	30	32	31	29	32	35	33	31	32	36	35	34	31	29	29	32
22	28	28	27	28	31	32	33	33	31	30	31	29	27	26	25	24	25	25	23	24	24	24	24	24	27
23	25	24	26	26	30	25	26	27	30	29	30	34	34	30	29	28	27	24	26	24	24	28	27	30	28
24	30	29	31	32	32	30	31	32	29	33	30	28	28	26	27	25	22	24	28	27	30	30	31	31	29
25	31	36	32	30	36	34	30	33	26	29	31	36	36	36	36	31	27	30	30	31	32	33	27	32	32
26	29	28	28	29	31	30	30	29	26	26	26	30	32	38	30	32	28	29	31	29	31	30	29	34	30
27	38	35	31	31	30	31	31	31	31	31	32	32	32	31	32	32	32	32	32	32	31	33	32	32	32
28	32	32	32	32	28	29	29	31	31	33	33	34	34	33	33	34	34	37	36	39	35	33	32	32	33
29	31	31	31	31	31	31	31	31	31	32	33	33	34	33	33	33	33	34	34	33	38	34	39	34	33
30	***	29	29	29	31	30	29	28	28	28	28	28	29	29	37	40	39	39	39	38	38	38	37	37	31
31	37	37	38	38	38	38	38	38	38	38	39	39	39	39	39	39	39	39	39	38	38	37	36	36	38

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

R & M CONSULTANTS, INC.

SUSITNA HYDROELECTRIC PROJECT

OBSERVATION SUMMARY FOR EKLUTNA LAKE WEATHER STATION
DATA TAKEN DURING October, 1983

PARAMETER	NUMBER OF USABLE OBSERVATIONS	PERCENT OF TOTAL OBSERVATIONS
TEMPERATURE	2971	100
WIND SPEED	2948	99
WIND DIRECTION	2667	90
PEAK GUST	2948	99
RELATIVE HUMIDITY	1337	45
PRECIPITATION	2971	100
SOLAR RADIATION	2971	100
DEW POINT	1337	45
LONGWAVE RADIATION	2971	100

THERE ARE 2976 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	-15 RH points	10/1-10/5
		-11	10/5-10/31
2.		-1 MW/CM^2	

Additional comments on this month's data:

1. 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.

2. Timing and quantity of precipitation are suspect since freezing temperatures occurred almost every day. However, thawing temperatures also occurred almost every day, so daily totals should be fair.

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

No precipitation data for November

(See INTERPRETATION OF DATA).

R. A. M. CONSULTANTS, INC.

SUSITNA HYDROELECTRIC PROJECT

THREE HOUR SUMMARY FOR EKLUTNA LAKE 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	-7.5	*****	90	***	****	***	1.9	0
0600	-5.4	*****	96	***	****	***	1.9	0
0900	-5.9	*****	96	***	****	***	1.3	1
1200	-3.0	*****	77	***	****	***	1.9	6
1500	-2.4	*****	87	118	1.0	125	1.9	6
1800	-3.5	*****	91	***	****	***	1.9	0
2100	-3.3	*****	91	***	****	***	1.9	0
2400	-3.5	*****	94	***	****	***	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	-2.2	*****	95	***	****	***	2.5	0
0600	.4	-.5	94	336	.6	235	1.9	0
0900	.9	*****	94	166	.5	035	1.9	3
1200	5.6	-.4	65	156	1.2	150	5.7	21
1500	6.3	-3.4	50	140	3.9	131	10.2	15
1800	7.0	-4.5	44	140	4.7	142	10.8	0
2100	5.8	-4.1	49	129	2.9	138	7.6	0
2400	4.4	-.4	71	146	.6	131	5.1	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	1.9	*****	84	351	.7	070	2.5	0
0600	-.7	*****	87	132	.6	182	2.5	0
0900	-2.3	-3.5	92	161	.8	155	2.5	2
1200	2.8	*****	75	157	.7	160	1.9	18
1500	2.1	*****	72	171	.3	325	1.9	8
1800	-3.2	*****	91	158	.7	130	2.5	0
2100	-4.1	*****	89	149	.9	159	1.9	0
2400	-5.0	*****	89	157	.9	159	2.5	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	-7.1	-9.1	86	160	.9	149	2.5	0
0600	-7.9	*****	87	158	1.0	169	2.5	0
0900	-6.1	-7.9	87	159	1.1	173	2.5	2
1200	-.8	-4.1	78	152	.7	163	1.9	16
1500	.8	*****	71	118	.4	128	1.3	4
1800	-.8	*****	93	166	.6	180	2.5	0
2100	-1.5	*****	88	338	.8	351	3.2	0
2400	-2.4	*****	92	031	.3	339	3.2	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	-3.5	*****	92	150	.6	161	1.9	0
0600	-2.6	*****	92	139	.5	169	1.9	0
0900	-3.3	*****	95	159	.5	154	1.9	1
1200	-3.0	*****	85	159	1.1	178	2.5	15
1500	-3.6	-5.6	86	174	.7	183	1.9	2
1800	-4.3	-5.3	93	167	1.1	173	2.5	0
2100	-4.2	-5.5	91	152	.8	135	2.5	0
2400	-5.2	-6.6	90	153	1.4	152	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	-6.9	-9.0	85	159	1.1	146	3.2	0
0600	-11.6	*****	86	162	1.0	166	2.5	0
0900	-9.9	-11.4	89	161	1.1	162	2.5	1
1200	-7.8	-10.2	83	157	1.0	155	2.5	11
1500	-7.4	-9.2	87	171	.8	179	1.9	3
1800	-10.3	-12.1	87	158	.9	175	1.9	0
2100	-9.4	-10.9	89	157	1.0	139	2.5	0
2400	-2.9	-4.8	87	147	.8	038	3.8	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	1.1	-3.5	71	344	.7	320	4.4	0
0600	6.4	-10.9	28	142	5.1	141	12.7	0
0900	6.0	-10.4	30	141	7.4	136	13.3	1
1200	5.8	-8.6	35	148	6.6	154	12.1	6
1500	6.4	-8.1	35	146	9.8	140	15.9	3
1800	5.7	-7.6	38	145	8.4	146	14.6	0
2100	6.9	-6.2	39	152	5.2	160	12.1	0
2400	6.1	-5.6	43	153	6.0	157	11.4	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	7.5	-5.7	39	145	5.0	150	10.2	0
0600	7.7	-6.2	37	144	5.8	142	12.1	0
0900	7.3	-6.2	38	127	2.4	137	7.0	0
1200	7.7	-7.7	33	134	5.2	136	9.5	6
1500	3.7	-3.3	60	124	4.2	137	8.9	7
1800	-.4	-4.6	73	314	.8	324	2.5	0
2100	-2.1	-4.9	81	156	.8	162	2.5	0
2400	-2.5	-5.0	83	160	1.0	165	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	-4.3	-6.3	86	153	.9	171	2.5	0
0600	-5.0	*****	80	151	1.0	165	2.5	0
0900	-4.2	-7.3	79	160	1.0	169	2.5	1
1200	2.2	*****	52	148	1.0	155	2.5	38
1500	7.8	-16.5	16	148	2.1	118	6.3	8
1800	4.3	-4.2	54	144	2.9	143	7.0	0
2100	4.0	-2.6	62	125	2.1	144	7.6	0
2400	2.1	-.0	86	193	1.2	158	7.6	0

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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	5.4	-3.2	54	138	1.3	133	7.0	0
0600	6.1	-3.9	49	139	2.6	126	7.6	0
0900	4.1	*****	62	147	1.0	116	5.1	2
1200	4.3	-1.9	64	122	.7	135	4.4	7
1500	3.8	-1.7	67	060	.3	014	2.5	7
1800	1.0	*****	78	148	.9	168	2.5	0
2100	1.5	-1.9	78	168	.5	186	3.8	0
2400	6.0	-5.4	44	193	1.1	178	7.0	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	1.0	*****	67	276	.1	266	3.2	0
0600	0.0	*****	81	153	.8	161	2.5	0
0900	-2.7	*****	84	147	.8	156	2.5	1
1200	-.7	-3.7	80	158	.8	168	1.9	10
1500	1.0	*****	71	306	.1	341	3.2	8
1800	-1.8	-4.2	84	152	.5	180	2.5	0
2100	-2.2	*****	84	157	.8	169	1.9	0
2400	1.1	-1.3	84	319	.1	015	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	-1.7	*****	84	156	.7	183	1.9	0
0600	-2.9	*****	84	149	.8	161	1.9	0
0900	-4.9	-6.8	87	152	.8	164	1.9	1
1200	1.3	*****	62	144	.8	142	1.9	25
1500	-.1	*****	67	167	.8	165	1.9	7
1800	-3.7	*****	81	144	.7	133	1.9	0
2100	-2.5	*****	72	151	.9	167	1.9	0
2400	-5.1	*****	80	140	1.0	141	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	-7.3	*****	91	139	1.0	156	1.9	0
0600	-9.3	-10.9	88	154	.9	150	1.9	0
0900	-9.5	-11.3	87	155	1.0	163	2.5	1
1200	-6.5	-9.9	77	155	1.0	138	1.9	25
1500	-5.3	*****	78	156	.9	136	1.9	4
1800	-10.6	*****	89	162	1.0	167	2.5	0
2100	-12.0	*****	82	157	1.1	167	1.9	0
2400	-12.2	-14.7	82	161	1.1	175	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	-9.7	-11.9	84	158	1.1	161	2.5	0
0600	-10.2	*****	84	152	.9	163	1.9	0
0900	-9.0	*****	86	157	.8	172	1.9	1
1200	-5.6	*****	88	160	.8	171	1.9	14
1500	-4.1	*****	85	157	.7	161	1.9	4
1800	-4.8	*****	89	153	.6	142	1.3	0
2100	-7.3	-8.4	92	152	.8	155	2.5	0
2400	-6.9	*****	93	159	.9	162	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	-6.7	*****	93	159	.9	167	1.9	0
0600	-7.9	*****	90	153	.8	176	1.9	0
0900	-9.2	-10.8	88	155	.9	160	1.9	1
1200	-3.2	*****	91	153	.8	142	1.9	6
1500	1.4	*****	83	126	.7	114	2.5	4
1800	.9	*****	93	152	.8	136	2.5	0
2100	.7	*****	91	131	.6	149	2.5	0
2400	-.4	-1.6	92	336	.7	343	5.7	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	-2.6	*****	88	330	1.2	334	3.8	0
0600	-6.2	*****	94	***	****	***	1.9	0
0900	-7.4	-8.9	89	***	****	***	1.9	1
1200	-5.7	-6.8	92	***	****	***	1.9	7
1500	-3.0	*****	86	***	****	***	2.5	6
1800	-6.8	*****	92	***	****	***	1.9	0
2100	-9.2	*****	88	***	****	***	1.9	0
2400	-9.7	-10.1	97	***	****	***	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	-7.7	-9.5	87	***	****	***	2.5	0
0600	-8.4	*****	87	***	****	***	2.5	0
0900	-9.2	-11.1	86	***	****	***	2.5	1
1200	-5.0	*****	93	***	****	***	1.9	9
1500	-2.9	*****	90	***	****	***	1.9	3
1800	-4.0	*****	90	***	****	***	1.9	0
2100	-4.2	-5.0	94	***	****	***	1.9	0
2400	-6.3	*****	94	***	****	***	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	-10.4	*****	86	***	****	***	1.9	0
0600	-13.0	*****	83	***	****	***	1.9	0
0900	-10.4	*****	85	***	****	***	1.9	1
1200	-8.9	*****	83	***	****	***	1.9	17
1500	-9.7	*****	82	***	****	***	1.9	3
1800	-12.4	*****	84	***	****	***	1.9	0
2100	-13.9	-16.5	81	***	****	***	1.9	0
2400	-9.8	*****	84	***	****	***	1.9	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	-7.8	*****	87	***	****	***	1.9	0
0600	-7.5	*****	89	***	****	***	1.9	0
0900	-11.5	*****	85	***	****	***	1.9	0
1200	-7.9	*****	83	***	****	***	1.9	16
1500	-9.4	*****	84	***	****	***	1.9	3
1800	-13.4	-15.5	84	***	****	***	1.9	0
2100	-13.6	-16.0	82	***	****	***	1.9	0
2400	-16.6	*****	79	***	****	***	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	-12.7	*****	77	***	****	***	1.9	0
0600	-.7	-9.1	53	***	****	***	5.1	0
0900	2.6	-8.8	43	135	5.0	129	8.9	1
1200	2.4	-7.6	48	140	5.8	133	10.2	9
1500	3.8	-8.0	42	143	6.2	142	11.4	2
1800	4.2	-8.0	41	138	6.5	135	12.7	0
2100	4.4	-7.8	41	140	7.6	140	14.0	0
2400	5.3	-6.7	42	143	8.3	138	14.6	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	6.1	-5.3	44	144	8.5	143	14.6	0
0600	4.9	-3.9	53	144	8.0	152	14.0	0
0900	5.1	-2.9	56	137	6.5	133	13.3	1
1200	4.3	-2.5	61	144	5.8	147	12.7	7
1500	5.3	-4.6	49	144	5.8	148	10.8	4
1800	5.4	-4.8	48	134	4.6	125	9.5	0
2100	3.3	-1.6	70	141	1.3	110	7.0	0
2400	1.3	*****	87	328	1.4	328	5.1	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	*****	91	132	.6	164	2.5	0
0600	-1.3	*****	95	156	.8	136	3.2	0
0900	5.1	-3.4	54	155	1.0	111	5.1	1
1200	6.8	-5.6	41	128	2.8	130	7.0	14
1500	6.5	-5.9	41	119	2.5	124	6.3	5
1800	2.6	*****	72	329	.7	106	3.2	0
2100	.7	-2.9	77	148	.7	148	1.9	0
2400	-1.5	*****	87	140	.8	164	2.5	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	-3.4	86	151	.7	178	1.9	0
0600	-2.3	*****	89	143	.6	169	1.9	0
0900	-1.4	*****	88	153	.7	166	1.9	0
1200	-.1	-1.0	94	331	1.1	336	3.2	4
1500	-.8	-1.7	94	341	2.0	343	3.8	1
1800	-1.5	-3.0	90	338	2.1	343	3.8	0
2100	-1.4	-3.0	89	332	1.8	347	3.8	0
2400	-1.8	*****	94	344	1.3	351	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	-3.3	-5.2	87	347	1.7	343	5.1	0
0600	-3.3	*****	93	318	.2	331	3.2	0
0900	-3.3	*****	91	155	.6	161	1.9	1
1200	-2.9	*****	80	350	.9	051	3.2	3
1500	-3.3	-6.6	78	177	.9	156	1.9	2
1800	-6.0	-8.7	81	174	1.2	177	2.5	0
2100	-7.8	*****	82	156	1.1	160	2.5	0
2400	-9.4	*****	83	145	.9	158	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	-10.5	-12.7	84	150	.9	148	1.9	0
0600	-9.6	-11.8	84	150	.9	173	2.5	0
0900	-8.3	*****	85	155	.9	160	1.9	0
1200	-5.5	*****	85	159	.8	150	1.9	7
1500	-3.6	*****	86	160	.8	175	1.9	2
1800	-3.9	*****	87	174	.2	339	1.9	0
2100	-4.2	*****	88	144	.2	358	2.5	0
2400	-4.4	*****	88	145	.7	150	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	-4.0	*****	89	149	.7	146	1.9	0
0600	-4.0	*****	90	161	.8	146	1.9	0
0900	-3.3	*****	90	300	.4	321	4.4	1
1200	-2.6	*****	89	156	.8	160	1.9	3
1500	-1.9	*****	90	135	.5	161	1.9	3
1800	-4.4	-6.0	89	153	.7	147	1.9	0
2100	-4.5	*****	90	156	.8	170	1.9	0
2400	-3.6	*****	86	155	.8	155	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	-2.5	*****	85	121	.5	156	2.5	0
0600	-2.5	*****	92	181	.6	271	2.5	0
0900	-3.2	*****	88	304	.7	326	3.8	1
1200	-3.7	*****	82	153	.7	158	1.9	4
1500	-3.2	*****	83	159	.8	151	2.5	2
1800	-2.9	*****	92	170	.9	181	3.2	0
2100	7.0	-4.8	43	145	2.6	137	8.3	0
2400	6.1	-4.4	47	136	5.0	130	9.5	0

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DAY 28

HOUR ENDNG	TEMP. DEG C	DEW POINT DEG C	RH %	WIND DIR. DEG.	WIND SPD. M/S	GUST DIR. DEG.	MAX. GUST M/S	RAD MW
0300	6.8	-4.7	44	144	5.2	144	10.8	0
0600	7.5	-6.4	37	147	6.4	147	13.3	0
0900	6.8	-5.0	43	145	8.8	143	17.1	1
1200	6.9	-4.6	44	143	7.6	151	15.2	6
1500	7.6	-4.9	41	150	7.9	152	15.9	2
1800	7.5	-4.3	43	142	6.5	143	12.7	1
2100	7.7	-4.8	41	148	6.8	147	13.3	0
2400	8.1	-4.8	40	152	9.2	152	17.1	0

DAY 29

HOUR ENDNG	TEMP. 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	*****	**	149	8.5	150	15.2	0
0600	8.1	*****	**	149	5.1	142	10.8	0
0900	9.3	*****	**	160	5.7	161	12.7	1
1200	*****	*****	**	137	3.9	002	13.3	6
1500	9.9	*****	**	151	5.3	151	12.1	5
1800	*****	*****	**	151	5.6	150	15.9	0
2100	*****	*****	**	***	****	***	14.0	***
2400	*****	*****	**	***	****	***	****	***

DAY 30

HOUR ENDNG	TEMP. 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	*****	*****	**	***	****	***	****	***

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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	-1.2	-10.0	-5.6	118	1.0	.7	***	2.5	ESE	87	-5.6	****	373	1
2	7.5	-3.4	2.1	140	2.2	2.1	142	10.8	SE	61	-2.8	****	1158	2
3	4.0	-5.2	-.6	152	.5	.9	070	2.5	SSE	85	-3.1	****	830	3
4	1.1	-9.2	-4.1	151	.5	.8	351	3.2	SSE	87	-7.3	****	585	4
5	-2.0	-5.4	-3.7	157	.8	.9	178	2.5	SSE	91	-5.3	****	345	5
6	-2.9	-13.4	-8.2	159	1.0	1.0	038	3.8	SSE	88	-10.3	****	433	6
7	7.4	-6.2	.6	146	6.0	6.3	140	15.9	SSE	39	-8.1	****	303	7
8	8.8	-2.8	3.0	138	2.9	3.3	142	12.1	SE	46	-6.1	****	440	8
9	8.5	-5.9	1.3	149	1.5	1.7	144	7.6	SSE	56	-8.0	****	1070	9
10	7.4	.6	4.0	146	1.0	1.5	126	7.6	SE	63	-2.4	****	585	10
11	6.5	-3.1	1.7	157	.4	.9	266	3.2	SSE	74	-3.8	****	665	11
12	2.2	-5.1	-1.5	150	.8	.9	141	2.5	SSE	76	-6.0	****	778	12
13	-3.4	-12.2	-7.8	155	1.0	1.0	163	2.5	SSE	83	-11.1	****	663	13
14	-3.6	-11.4	-7.5	156	.8	.9	161	2.5	SSE	87	-10.1	****	453	14
15	3.0	-9.2	-3.1	148	.6	1.0	343	5.7	SSE	88	-4.3	****	318	15
16	-.6	-11.5	-6.1	330	1.2	.9	334	3.8	WNW	88	-7.7	****	423	16
17	-1.8	-11.8	-6.8	***	****	.8	***	2.5	***	88	-9.2	****	355	17
18	-6.6	-14.2	-10.4	***	****	.8	***	1.9	***	84	-13.3	****	410	18
19	-5.5	-16.6	-11.1	***	****	.8	***	1.9	***	84	-13.6	****	355	19
20	5.3	-17.4	-6.1	140	6.7	5.1	138	14.6	SE	47	-9.0	****	278	20
21	6.1	1.2	3.7	141	4.9	5.4	143	14.6	SE	53	-3.9	****	343	21
22	7.0	-1.6	2.7	132	1.0	1.4	130	7.0	ESE	60	-3.7	****	525	22
23	.2	-2.4	-1.1	340	.8	1.4	343	3.8	NNW	92	-2.2	****	165	23
24	-1.8	-9.4	-5.6	157	.2	1.1	343	5.1	SSE	84	-7.0	****	168	24
25	-3.0	-10.8	-6.9	153	.7	.8	173	2.5	SSE	85	-9.8	****	258	25
26	-.8	-5.8	-3.3	155	.6	.8	321	4.4	SSE	89	-5.0	****	235	26
27	7.0	-4.8	1.1	146	1.3	1.6	130	9.5	SSE	66	-4.2	****	230	27
28	8.2	5.4	6.8	147	7.3	7.3	143	17.1	SSE	42	-4.8	****	318	28
29	10.6	7.6	9.1	150	5.8	6.2	***	15.9	SSE	**	*****	****	540	29
30	*****	*****	*****	***	****	****	***	****	***	**	*****	****	******	30
MONTH	10.6	-17.4	-2.2	146	1.8	2.0	143	17.1	SSE	67	-6.7	****	13595	

GUST VEL. AT MAX. GUST MINUS 2 INTERVALS 13.3
GUST VEL. AT MAX. GUST MINUS 1 INTERVAL 14.0
GUST VEL. AT MAX. GUST PLUS 1 INTERVAL 15.2
GUST VEL. AT MAX. GUST PLUS 2 INTERVALS 14.6

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.

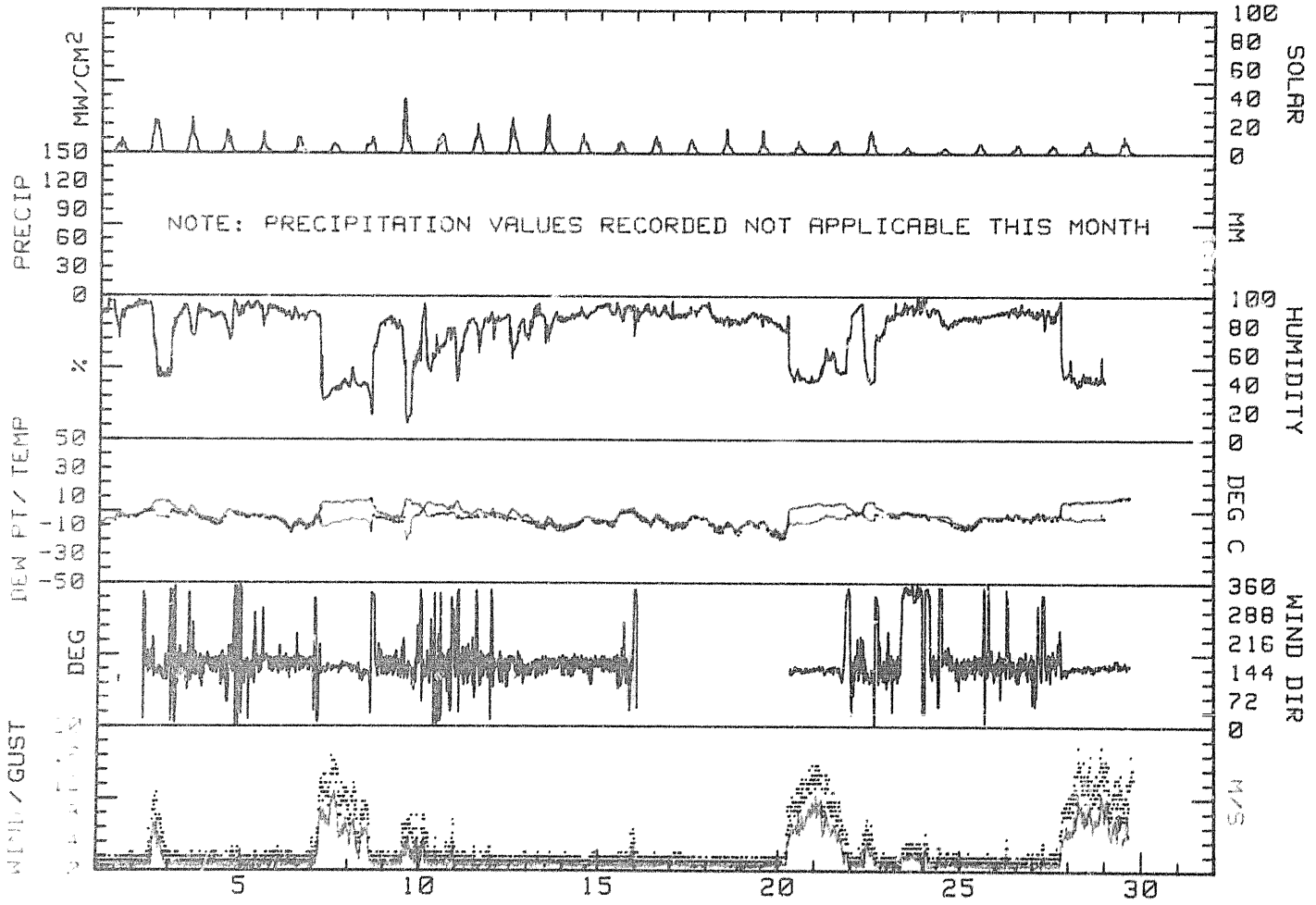
** SEE INTERPRETATION NOTES AT END OF MONTHLY REPORT **

R&M CONSULTANTS, INC.

SUSITNA HYDROELECTRIC PROJECT

EKLUTNA LAKE WEATHER STATION

November, 1983



R & M CONSULTANTS, INC.

SUSITNA HYDROELECTRIC PROJECT

WIND FREQUENCY SUMMARY FOR EKLUTNA LAKE 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	.40	.67	0.00	.09	0.00	0.00	0.00	1.17
NNE	.40	.40	0.00	0.00	0.00	0.00	0.00	.81
NE	.58	.18	0.00	0.00	0.00	0.00	0.00	.76
ENE	.54	.04	0.00	0.00	0.00	0.00	0.00	.58
E	.76	.13	0.00	0.00	0.00	0.00	0.00	.90
ESE	4.13	2.11	1.03	0.00	0.00	0.00	0.00	7.28
SE	9.98	5.26	6.52	6.83	.27	0.00	0.00	28.85
SSE	16.31	13.48	2.97	4.63	.36	0.00	0.00	37.75
S	5.75	4.22	0.00	0.00	0.00	0.00	0.00	9.98
SSW	1.21	.58	.04	0.00	0.00	0.00	0.00	1.84
SW	.76	.40	0.00	0.00	0.00	0.00	0.00	1.17
WSW	.31	.36	0.00	0.00	0.00	0.00	0.00	.67
W	.31	.22	0.00	0.00	0.00	0.00	0.00	.54
WNW	.18	.36	0.00	0.00	0.00	0.00	0.00	.54
NW	.54	1.84	0.00	0.00	0.00	0.00	0.00	2.38
NNW	.67	3.82	.13	0.00	0.00	0.00	0.00	4.63
CALM								.13
TOTAL	42.88	34.11	10.70	11.55	.63	0.00	0.00	100.00

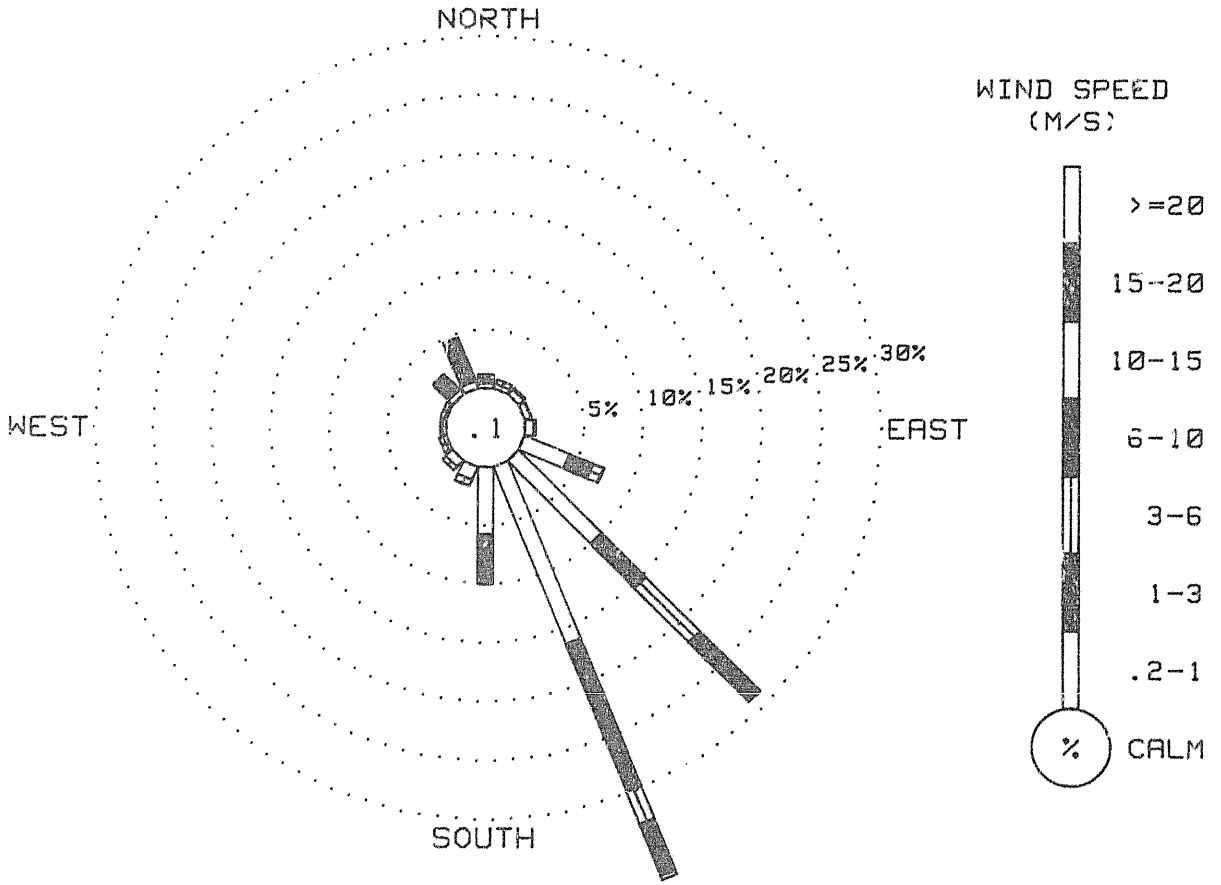
NOTE: ALL FREQUENCIES ARE EXPRESSED IN PERCENT
2225 VALID WIND OBSERVATIONS USED TO DEVELOP FREQUENCY SUMMARY
2880 WIND OBSERVATIONS WOULD HAVE BEEN CORRECT FOR 15 MINUTE DATA.
** SEE INTERPRETATION NOTES AT END OF MONTHLY REPORT **

R&M CONSULTANTS, INC.

SUSITNA HYDROELECTRIC PROJECT

EKLUTNA LAKE WEATHER STATION

November, 1983



WIND ROSE PLOT

R & M CONSULTANTS, INC.

SUSITNA HYDROELECTRIC PROJECT

HOURLY SOLAR RADIATION SUMMARY FOR EKLUTNA LAKE 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	1	3	4	6	5	8	7	4	1	0	0	0	0	0	0	0	2
2	0	0	0	0	0	0	0	0	2	9	14	21	21	22	16	10	2	1	0	0	0	0	0	0	5
3	0	0	0	0	0	0	0	0	1	4	10	15	22	13	10	7	2	1	0	0	0	0	0	0	3
4	0	0	0	0	0	0	0	0	1	4	8	15	12	11	6	2	1	0	0	0	0	0	0	0	2
5	0	0	0	0	0	0	0	0	1	2	4	9	10	4	3	2	1	0	0	0	0	0	0	0	1
6	0	0	0	0	0	0	0	0	1	2	6	11	11	7	4	2	1	0	0	0	0	0	0	0	2
7	0	0	0	0	0	0	0	0	0	2	5	6	6	5	4	2	0	0	0	0	0	0	0	0	1
8	0	0	0	0	0	0	0	0	0	4	6	6	6	9	10	4	0	0	0	0	0	0	0	0	2
9	0	0	0	0	0	0	0	0	1	4	14	37	28	9	10	5	1	0	0	0	0	0	0	0	4
10	0	0	0	0	0	0	0	0	1	4	9	7	11	13	10	4	1	0	0	0	0	0	0	0	2
11	0	0	0	0	0	0	0	0	1	4	8	11	16	13	9	5	1	0	0	0	0	0	0	0	3
12	0	0	0	0	0	0	0	0	1	4	12	19	17	12	9	4	1	0	0	0	0	0	0	0	3
13	0	0	0	0	0	0	0	0	1	3	8	16	22	7	5	3	1	0	0	0	0	0	0	0	3
14	0	0	0	0	0	0	0	0	0	3	7	11	9	7	6	2	1	0	0	0	0	0	0	0	2
15	0	0	0	0	0	0	0	0	0	2	4	5	7	7	5	2	1	0	0	0	0	0	0	0	1
16	0	0	0	0	0	0	0	0	1	2	5	9	10	7	6	3	0	0	0	0	0	0	0	0	2
17	0	0	0	0	0	0	0	0	0	2	5	8	9	6	4	1	1	0	0	0	0	0	0	0	1
18	0	0	0	0	0	0	0	0	1	2	5	9	13	6	4	2	1	0	0	0	0	0	0	0	2
19	0	0	0	0	0	0	0	0	0	2	5	8	12	5	4	2	1	0	0	0	0	0	0	0	1
20	0	0	0	0	0	0	0	1	1	2	4	6	5	5	3	2	1	0	0	0	0	0	0	0	1
21	0	0	0	0	0	0	0	0	1	1	3	6	6	9	6	2	1	0	0	0	0	0	0	0	1
22	0	0	0	0	0	0	0	0	1	2	7	13	13	10	6	2	1	0	0	0	0	0	0	0	2
23	0	0	0	0	0	0	0	0	0	2	2	4	4	2	1	1	1	0	0	0	0	0	0	0	1
24	0	0	0	0	0	0	0	0	1	1	2	3	4	3	2	1	1	0	0	0	0	0	0	0	1
25	0	0	0	0	0	0	0	0	0	1	3	6	7	5	3	2	0	0	0	0	0	0	0	0	1
26	0	0	0	0	0	0	0	0	0	1	2	3	6	6	4	2	0	0	0	0	0	0	0	0	1
27	0	0	0	0	0	0	0	0	1	1	3	4	6	5	4	1	0	0	0	0	0	0	0	0	1
28	0	0	0	0	0	0	0	0	1	1	5	5	7	7	3	1	1	1	1	0	0	0	0	0	1
29	0	0	0	0	0	0	0	0	1	2	6	6	9	8	6	3	2	1	***	***	***	***	***	***	2
30	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***

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

R & M CONSULTANTS, INC.

SUSITNA HYDROELECTRIC PROJECT

HOURLY LONGWAVE RADIATION SUMMARY FOR EKLUTNA LAKE WEATHER STATION
DATA TAKEN DURING November, 1983

LONGWAVE RADIATION VALUES 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	35	36	36	36	36	37	37	37	37	37	37	38	38	33	32	31	30	30	31	31	31	31	31	29	34
2	32	32	33	33	33	33	33	33	33	32	33	34	32	30	29	28	28	28	28	29	31	30	30	31	31
3	28	31	29	29	30	28	27	27	28	28	29	29	31	25	28	26	26	25	25	27	27	28	26	26	28
4	27	27	26	25	26	26	27	28	29	29	30	31	30	29	32	32	32	34	33	33	33	31	36	31	30
5	31	30	32	31	31	31	32	32	33	32	32	31	33	33	32	32	31	31	32	31	31	31	31	31	31
6	32	30	30	30	30	28	27	28	29	29	30	30	32	31	30	30	30	29	28	28	29	29	30	34	30
7	34	30	33	36	29	29	29	30	31	31	31	31	31	31	31	31	30	31	32	33	32	32	33	33	31
8	33	33	31	30	30	31	31	31	31	30	30	31	31	30	30	32	32	29	28	28	27	27	25	26	30
9	25	25	25	24	26	28	28	27	26	26	26	25	27	25	27	26	30	33	31	36	34	34	34	36	28
10	34	32	32	30	31	32	33	33	32	30	32	34	31	31	32	30	28	31	33	30	32	32	31	30	32
11	32	27	28	29	28	29	29	28	27	27	27	25	27	31	28	27	30	29	30	30	28	28	32	33	29
12	30	30	30	30	29	29	26	26	26	28	31	31	30	26	26	25	24	26	28	30	31	29	26	24	28
13	23	23	23	24	25	25	26	26	26	26	27	27	26	24	24	24	24	24	24	24	25	26	25	25	25
14	26	26	28	27	28	27	29	28	29	29	29	28	30	29	30	31	30	29	29	28	27	29	29	29	28
15	30	29	28	28	28	27	28	28	27	29	31	33	31	33	32	33	35	33	33	32	32	33	33	26	30
16	29	23	25	28	28	28	28	29	28	28	29	30	31	30	30	30	29	28	27	27	27	27	26	26	28
17	26	27	28	28	28	27	27	27	28	28	29	29	30	31	31	31	31	30	29	30	30	30	30	29	29
18	28	27	27	26	26	26	26	26	26	26	26	27	28	28	27	27	26	26	26	26	26	27	28	28	27
19	28	28	29	29	29	28	27	27	27	27	28	28	28	28	27	27	26	26	25	25	25	25	25	25	27
20	25	25	25	25	26	27	31	31	28	30	31	32	32	32	31	31	32	32	32	32	32	32	32	32	30
21	32	32	33	33	32	33	32	33	34	33	33	33	33	33	32	32	32	32	32	31	32	35	35	31	33
22	32	27	29	29	30	28	32	34	32	30	29	30	30	31	30	29	33	34	32	32	30	28	26	27	30
23	31	29	30	31	27	29	29	31	32	33	37	33	38	38	37	35	37	37	37	37	35	37	37	33	34
24	33	35	34	36	33	32	32	31	32	32	33	34	32	32	32	32	32	30	29	29	29	28	28	28	32
25	28	28	27	28	29	29	29	29	30	29	30	31	31	32	31	33	33	31	35	31	31	31	30	31	30
26	32	31	30	31	31	31	34	37	31	31	31	32	32	31	32	31	30	31	32	31	30	31	31	31	31
27	31	32	34	34	31	31	36	37	33	31	31	30	31	31	32	31	31	33	34	32	31	32	33	32	32
28	33	34	33	32	32	31	32	31	32	33	33	34	33	34	33	34	33	34	34	33	33	33	33	32	33
29	32	30	30	28	27	28	27	28	28	27	29	26	27	27	28	27	28	27	***	***	***	***	***	***	21
30	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***

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

R & M CONSULTANTS, INC.

SUSITNA HYDROELECTRIC PROJECT

OBSERVATION SUMMARY FOR EKLUTNA LAKE WEATHER STATION
DATA TAKEN DURING November, 1983

PARAMETER	NUMBER OF USABLE OBSERVATIONS	PERCENT OF TOTAL OBSERVATIONS
TEMPERATURE	2748	95
WIND SPEED	2748	95
WIND DIRECTION	2227	77
PEAK GUST	2763	96
RELATIVE HUMIDITY	1326	46
PRECIPITATION	2764	96
SOLAR RADIATION	2764	96
DEW POINT	1326	46
LONGWAVE RADIATION	2764	96

THERE ARE 2880 POSSIBLE OBSERVATIONS THIS MONTH FOR EACH PARAMETER. THE DATA RECORDING INTERVAL IS 15 MINUTES.

THE FOLLOWING ADJUSTMENTS HAVE BEEN MADE TO THIS MONTHS DATA:

1. RH -11 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.

2. All data lost after 11/29 due to dead power supply.

No precipitation data for December

(See INTERPRETATION OF DATA).

R & M CONSULTANTS, INC.

SUSITNA HYDROELECTRIC PROJECT

THREE HOUR SUMMARY FOR EKLUTNA LAKE 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	*****	*****	**	***	****	***	****	***
0600	*****	*****	**	***	****	***	****	***
0900	*****	*****	**	***	****	***	****	***
1200	*****	*****	**	***	****	***	****	***
1500	*****	*****	**	***	****	***	****	***
1800	*****	*****	**	***	****	***	****	***
2100	*****	*****	**	***	****	***	****	***
2400	*****	*****	**	***	****	***	****	***

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	*****	*****	**	***	****	***	****	***
0600	*****	*****	**	***	****	***	****	***
0900	*****	*****	**	***	****	***	****	***
1200	*****	*****	**	***	****	***	****	***
1500	*****	*****	**	***	****	***	****	***
1800	*****	*****	**	***	****	***	****	***
2100	*****	*****	**	***	****	***	****	***
2400	*****	*****	**	***	****	***	****	***

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	*****	*****	**	***	****	***	****	***
0600	*****	*****	**	***	****	***	****	***
0900	*****	*****	**	***	****	***	****	***
1200	*****	*****	**	***	****	***	****	***
1500	*****	*****	**	***	****	***	****	***
1800	*****	*****	**	***	****	***	****	***
2100	*****	*****	**	***	****	***	****	***
2400	*****	*****	**	***	****	***	****	***

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	*****	*****	**	***	****	***	****	***
0600	*****	*****	**	***	****	***	****	***
0900	*****	*****	**	***	****	***	****	***
1200	*****	*****	**	***	****	***	****	***
1500	*****	*****	**	***	****	***	****	***
1800	*****	*****	**	***	****	***	****	***
2100	*****	*****	**	***	****	***	****	***
2400	*****	*****	**	***	****	***	****	***

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	*****	*****	**	***	****	***	****	***
0600	*****	*****	**	***	****	***	****	***
0900	*****	*****	**	***	****	***	****	***
1200	*****	*****	**	***	****	***	****	***
1500	*****	*****	**	***	****	***	****	***
1800	*****	*****	**	***	****	***	****	***
2100	*****	*****	**	***	****	***	****	***
2400	*****	*****	**	***	****	***	****	***

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	*****	*****	**	***	****	***	****	***
0600	*****	*****	**	***	****	***	****	***
0900	*****	*****	**	***	****	***	****	***
1200	*****	*****	**	***	****	***	****	***
1500	*****	*****	**	***	****	***	****	***
1800	-7.7	*****	92	144	.7	066	1.9	0
2100	-7.6	-8.3	95	155	.9	154	2.5	0
2400	-9.9	-11.0	92	153	.9	145	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	-9.7	-10.9	91	156	.9	158	1.9	0
0600	-10.9	*****	89	155	1.0	157	2.5	0
0900	-11.3	*****	89	158	.9	157	2.5	0
1200	-9.2	-10.4	91	154	.9	155	1.9	3
1500	-8.7	*****	92	162	.9	166	1.9	1
1800	-10.4	*****	89	153	.9	165	1.9	0
2100	-11.3	*****	89	156	.9	157	1.9	0
2400	-11.4	*****	89	158	.9	158	1.9	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	-12.2	*****	89	159	.9	160	1.9	0
0600	-12.8	*****	91	156	.9	152	1.9	0
0900	-13.3	-14.6	90	157	1.0	159	1.9	0
1200	-11.8	*****	90	154	.9	155	1.9	3
1500	-11.9	*****	89	156	.9	161	1.9	1
1800	-12.5	*****	89	156	.8	163	1.9	0
2100	-12.6	*****	91	152	.9	156	1.9	0
2400	-13.8	*****	91	152	.9	160	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	-15.5	*****	88	153	.8	158	1.9	0
0600	-15.4	*****	88	153	.8	152	1.3	0
0900	-15.6	*****	87	154	.8	157	1.9	0
1200	-13.7	*****	89	152	.7	160	1.3	3
1500	-7.5	*****	94	147	.5	157	1.3	1
1800	-7.3	*****	94	131	.4	066	1.9	0
2100	-8.2	*****	89	013	.7	115	2.5	0
2400	-8.9	*****	92	046	.2	333	3.2	0

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

R & M CONSULTANTS, INC.

SUSITNA HYDROELECTRIC PROJECT

THREE HOUR SUMMARY FOR EKLUTNA LAKE 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	-8.9	-10.0	92	033	.4	041	2.5	0
0600	-9.2	*****	92	070	.2	348	1.9	0
0900	-8.5	*****	92	026	.3	341	2.5	0
1200	-8.0	-9.1	92	092	.2	101	1.9	1
1500	-7.5	*****	92	032	.4	001	1.9	1
1800	-6.2	*****	93	354	.9	016	2.5	0
2100	-7.7	-9.7	86	330	.7	329	4.4	0
2400	-7.8	*****	92	150	.3	308	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	-7.8	*****	93	144	.6	144	1.3	0
0600	-6.1	*****	92	130	.5	140	1.9	0
0900	-5.7	*****	93	069	.4	119	1.9	0
1200	-5.4	*****	93	108	.5	118	1.9	1
1500	-6.1	*****	94	118	.4	042	1.9	1
1800	-10.1	*****	93	086	.5	033	2.5	0
2100	-12.2	*****	89	153	.7	149	1.9	0
2400	-12.6	*****	91	157	.7	159	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	-10.9	*****	89	151	.8	159	1.9	0
0600	-7.0	*****	95	144	.6	156	1.9	0
0900	-9.2	*****	92	115	.6	036	2.5	0
1200	-8.7	*****	93	149	.7	160	1.9	2
1500	-7.5	*****	93	157	.5	151	1.3	1
1800	-9.1	*****	93	131	.6	098	1.9	0
2100	-9.1	*****	92	150	.7	146	1.9	0
2400	-9.9	*****	93	140	.7	144	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	-8.2	*****	94	146	.7	140	1.9	0
0600	-6.9	*****	94	146	.4	133	1.3	0
0900	-6.7	*****	94	349	.4	335	1.9	0
1200	-6.3	*****	94	328	.2	343	1.3	0
1500	-7.3	*****	94	350	.4	341	1.3	0
1800	-8.2	-9.0	94	339	.3	332	1.3	0
2100	-8.3	-9.1	94	***	****	***	****	0
2400	-10.6	-11.5	93	***	****	***	****	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	-10.4	-11.5	92	***	****	***	****	0
0600	-10.1	-11.2	92	***	****	***	****	0
0900	-11.9	-13.4	89	***	****	***	****	0
1200	-11.1	-12.6	89	***	****	***	****	1
1500	-10.9	-12.5	88	***	****	***	****	0
1800	-12.6	-13.9	90	***	****	***	****	0
2100	-17.8	-19.7	85	***	****	***	****	0
2400	-22.1	-24.3	82	***	****	***	****	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	-22.7	-25.2	80	***	****	***	****	0
0600	-24.2	-26.7	80	***	****	***	****	0
0900	-25.1	-27.8	78	***	****	***	****	0
1200	-24.3	-27.0	78	***	****	***	****	1
1500	-23.9	-26.5	79	***	****	***	****	0
1800	-24.8	-27.5	78	***	****	***	****	0
2100	-23.3	-26.1	78	***	****	***	****	0
2400	-18.2	-20.4	83	***	****	***	****	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		-17.6	86	***	****	***	****	0
0600	-	-14.9	09	***	****	***	****	0
0900	-11.8	*****	91	111	.3	091	1.3	0
1200	-10.1	*****	90	087	.2	135	1.3	1
1500	-9.7	*****	88	081	.2	093	1.3	0
1800	-9.2	*****	87	090	.2	135	1.3	0
2100	-8.0	*****	91	126	.5	082	1.9	0
2400	-9.7	*****	88	314	.3	003	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	-9.0	*****	89	072	.3	038	1.9	0
0600	-9.7	*****	89	353	.3	338	1.9	0
0900	-11.1	*****	89	117	.2	140	1.3	0
1200	-8.4	-10.1	88	128	.1	121	.6	1
1500	-6.5	*****	92	087	.2	040	1.3	0
1800	-6.3	*****	94	109	.1	101	1.3	0
2100	-6.4	*****	95	009	.2	067	1.3	0
2400	-9.1	*****	93	048	.1	335	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	-13.4	-14.6	91	***	****	***	****	0
0600	-15.1	-16.7	88	***	****	***	****	0
0900	-15.8	-17.2	89	***	****	***	****	0
1200	-13.0	-14.3	90	***	****	***	****	2
1500	-13.2	-14.3	92	***	****	***	****	0
1800	-16.3	-18.0	87	***	****	***	****	0
2100	-17.7	-19.6	85	***	****	***	****	0
2400	-17.9	-20.0	84	***	****	***	****	0

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

R & M CONSULTANTS, INC.

SUSITNA HYDROELECTRIC PROJECT

THREE HOUR SUMMARY FOR EKLUTNA LAKE 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	-18.2	-20.0	86	***	****	***	****	0
0600	-17.4	-19.3	85	***	****	***	****	0
0900	-14.1	*****	89	132	.5	144	2.5	0
1200	-13.3	*****	90	127	.3	125	1.3	1
1500	-11.6	*****	91	139	.3	147	1.3	0
1800	-9.2	*****	89	126	.4	129	1.3	0
2100	-6.8	*****	93	121	.4	119	1.9	0
2400	-5.9	*****	95	118	.1	127	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	-5.5	*****	95	135	.2	127	.6	0
0600	-4.5	-5.1	96	***	****	***	****	0
0900	-4.2	*****	96	111	.1	121	1.3	0
1200	-3.2	*****	95	131	.1	135	1.3	0
1500	-2.5	*****	97	116	.2	123	1.3	0
1800	-2.5	*****	97	101	.3	085	1.9	0
2100	-2.5	*****	96	128	.2	118	1.3	0
2400	-2.6	*****	97	120	.2	120	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	-2.8	*****	98	113	.2	111	.6	0
0600	-2.4	*****	97	119	.3	120	1.3	0
0900	-3.3	-3.6	98	089	.1	056	.6	0
1200	-3.3	-4.2	94	***	****	***	****	1
1500	-6.6	-7.4	94	***	****	***	****	0
1800	-10.3	-11.8	89	***	****	***	****	0
2100	-12.1	-13.3	91	***	****	***	****	0
2400	-13.2	-14.1	93	***	****	***	****	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	-14.3	-15.6	90	***	****	***	****	0
0600	-15.1	-16.7	88	***	****	***	****	0
0900	-15.8	-17.5	87	***	****	***	****	0
1200	-15.3	-16.9	88	***	****	***	****	1
1500	-15.1	-16.9	86	***	****	***	****	0
1800	-17.0	-18.9	85	***	****	***	****	0
2100	-18.0	-19.9	85	***	****	***	****	0
2400	-18.5	-20.5	84	***	****	***	****	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	-18.9	-21.1	83	***	****	***	****	0
0600	-18.8	-20.8	84	***	****	***	****	0
0900	-19.7	-22.0	82	***	****	***	****	0
1200	-19.2	-21.4	83	***	****	***	****	1
1500	-17.4	-19.3	85	***	****	***	****	0
1800	-19.1	-21.3	83	***	****	***	****	0
2100	-18.8	-21.0	83	***	****	***	****	0
2400	-18.9	-21.1	83	***	****	***	****	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	-18.6	*****	83	149	.3	151	1.3	0
0600	[illegible]	*****	85	130	.2	142	1.3	0
0900	-18.6	-18.5	85	137	.3	129	1.3	0
1200	-17.2	*****	85	124	.1	132	.6	1
1500	-15.8	*****	86	133	.2	127	1.3	0
1800	-17.0	*****	85	129	.2	124	1.3	0
2100	-15.4	*****	87	130	.3	146	1.3	0
2400	-15.7	*****	87	120	.4	101	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	-14.3	*****	88	125	.5	124	1.3	0
0600	-13.9	*****	89	130	.4	132	1.3	0
0900	-14.7	*****	88	127	.4	112	1.3	0
1200	-13.5	*****	89	131	.3	147	1.3	1
1500	-11.8	*****	91	134	.4	109	1.3	0
1800	-12.6	*****	93	118	.4	133	1.3	0
2100	-13.7	*****	89	124	.3	129	1.3	0
2400	-14.7	*****	88	135	.3	140	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	-14.4	*****	88	125	.2	117	1.3	0
0600	-15.1	-16.8	87	***	****	***	****	0
0900	-14.8	-16.4	88	133	.3	098	1.3	0
1200	-15.2	-16.9	87	***	****	120	1.3	1
1500	-14.5	*****	88	136	.2	142	1.3	0
1800	-16.3	-18.1	86	129	.1	134	.6	0
2100	-16.9	-18.8	85	***	****	***	****	0
2400	-17.7	-19.6	85	***	****	***	****	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	-17.3	-19.2	85	***	****	***	****	0
0600	-17.7	-19.6	85	***	****	***	****	0
0900	-18.2	-20.1	85	***	****	***	****	0
1200	-17.7	-19.9	83	***	****	***	****	1
1500	-16.8	-18.7	85	***	****	***	****	0
1800	-18.4	-20.4	84	***	****	***	****	0
2100	-19.0	-21.2	83	***	****	***	****	0
2400	-19.4	-21.7	82	***	****	***	****	0

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

R & M CONSULTANTS, INC.

SUSITNA HYDROELECTRIC PROJECT

THREE HOUR SUMMARY FOR EKLUTNA LAKE 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	-19.5	-21.8	82	***	****	***	****	0
0600	-20.3	-22.7	81	***	****	***	****	0
0900	-20.7	-23.1	81	***	****	***	****	0
1200	-19.7	-22.0	82	***	****	***	****	1
1500	-19.2	-21.5	82	***	****	***	****	0
1800	-20.2	-22.6	81	***	****	***	****	0
2100	-20.9	-23.3	81	***	****	***	****	0
2400	-21.7	-24.2	80	***	****	***	****	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	-22.1	-24.5	81	***	****	***	****	0
0600	-22.2	-24.6	81	***	****	***	****	0
0900	-22.7	-25.1	81	***	****	***	****	0
1200	-22.0	-24.4	81	***	****	***	****	1
1500	-21.4	-23.8	81	***	****	***	****	0
1800	-22.8	-25.3	80	***	****	***	****	0
2100	-23.4	-26.0	79	***	****	***	****	0
2400	-23.8	-26.4	79	***	****	***	****	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	-24.0	-26.6	79	***	****	***	****	0
0600	-23.7	*****	79	136	.1	136	.6	0
0900	-23.6	-26.3	78	126	.1	124	.6	0
1200	-22.5	-25.0	80	***	****	***	****	1
1500	-20.7	-23.2	80	***	****	***	****	0
1800	-16.0	-17.8	86	***	****	***	****	0
2100	-12.2	*****	88	122	.2	137	1.3	0
2400	-10.9	-12.0	92	127	.1	128	.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	-10.0	*****	91	116	.1	119	.6	0
0600	-8.9	*****	89	125	.1	123	.6	0
0900	-11.1	*****	90	128	.3	143	1.3	0
1200	-12.9	-14.2	90	123	.1	124	.6	1
1500	-10.1	-11.3	91	***	****	***	****	0
1800	-11.0	*****	91	135	.2	135	.6	0
2100	-10.6	*****	91	117	.1	120	.6	0
2400	-10.3	*****	90	124	.1	121	.6	0

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

R & M CONSULTANTS, INC.

SUSITNA HYDROELECTRIC PROJECT

MONTHLY SUMMARY FOR EKLUTNA LAKE 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	*****	*****	*****	***	****	****	***	****	***	**	*****	****	******	1
2	*****	*****	*****	***	****	****	***	****	***	**	*****	****	******	2
3	*****	*****	*****	***	****	****	***	****	***	**	*****	****	******	3
4	*****	*****	*****	***	****	****	***	****	***	**	*****	****	******	4
5	*****	*****	*****	***	****	****	***	****	***	**	*****	****	******	5
6	-7.0	-10.1	-8.6	152	.9	.9	154	2.5	SSE	93	-9.9	****	0	6
7	-7.5	-12.0	-9.8	157	.9	.9	157	2.5	SSE	90	-11.2	****	135	7
8	-10.6	-14.3	-12.5	155	.9	.9	160	1.9	SSE	90	-13.9	****	140	8
9	-5.0	-15.8	-10.4	139	.4	.7	333	3.2	SSE	90	-10.8	****	110	9
10	-6.2	-9.8	-8.0	002	.4	.7	329	4.4	NNW	91	-9.1	****	65	10
11	-4.8	-13.0	-8.9	128	.5	.6	033	2.5	SSE	91	-9.3	****	150	11
12	-7.0	-13.1	-10.1	142	.6	.7	036	2.5	SSE	91	-11.5	****	100	12
13	-6.1	-10.6	-8.4	075	.1	.4	140	1.9	NNW	94	-9.5	****	5	13
14	-9.8	-22.1	-16.0	***	****	****	***	****	E	89	-14.3	****	30	14
15	-18.2	-25.4	-21.8	***	****	****	***	****	SE	79	-26.2	****	65	15
16	-8.0	-17.3	-12.7	092	.2	.3	082	1.9	SE	87	-16.4	****	35	16
17	-6.0	-11.1	-8.6	059	.1	.3	038	1.9	ESE	92	-8.8	****	15	17
18	-9.9	-18.1	-14.0	***	****	****	***	****	SE	89	-16.4	****	55	18
19	-5.9	-18.4	-12.2	128	.3	.3	144	2.5	SE	85	-19.6	****	40	19
20	-2.3	-6.0	-4.2	118	.2	.2	085	1.9	SE	95	-5.9	****	5	20
21	-2.3	-13.2	-7.8	116	.2	.2	120	1.3	SE	93	-8.6	****	50	21
22	-13.4	-18.5	-16.0	***	****	****	***	****	SE	87	-17.5	****	50	22
23	-17.4	-19.7	-18.6	***	****	****	***	****	SE	83	-21.1	****	50	23
24	-15.1	-19.2	-17.2	130	.3	.3	151	1.3	SE	84	-19.5	****	40	24
25	-10.9	-15.2	-13.1	128	.4	.4	124	1.3	SE	**	*****	****	35	25
26	-13.4	-17.7	-15.6	131	.2	.2	117	1.3	ESE	87	-17.5	****	35	26
27	-16.7	-19.4	-18.1	***	****	****	***	****	SE	84	-20.0	****	30	27
28	-18.7	-21.7	-20.2	***	****	****	***	****	SE	81	-22.5	****	30	28
29	-21.0	-23.9	-22.5	***	****	****	***	****	SE	80	-25.0	****	30	29
30	-10.9	-24.1	-17.5	125	.1	.1	137	1.3	SE	80	-23.9	****	30	30
31	-8.8	-12.9	-10.9	124	.2	.2	143	1.3	ESE	91	-12.5	****	35	31
MONTH	-2.3	-25.4	-13.2	136	.3	.5	329	4.4	SE	86	-15.2	****	1365	

GUST VEL. AT MAX. GUST MINUS 2 INTERVALS 3.2
GUST VEL. AT MAX. GUST MINUS 1 INTERVAL 3.8
GUST VEL. AT MAX. GUST PLUS 1 INTERVAL 3.2
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.

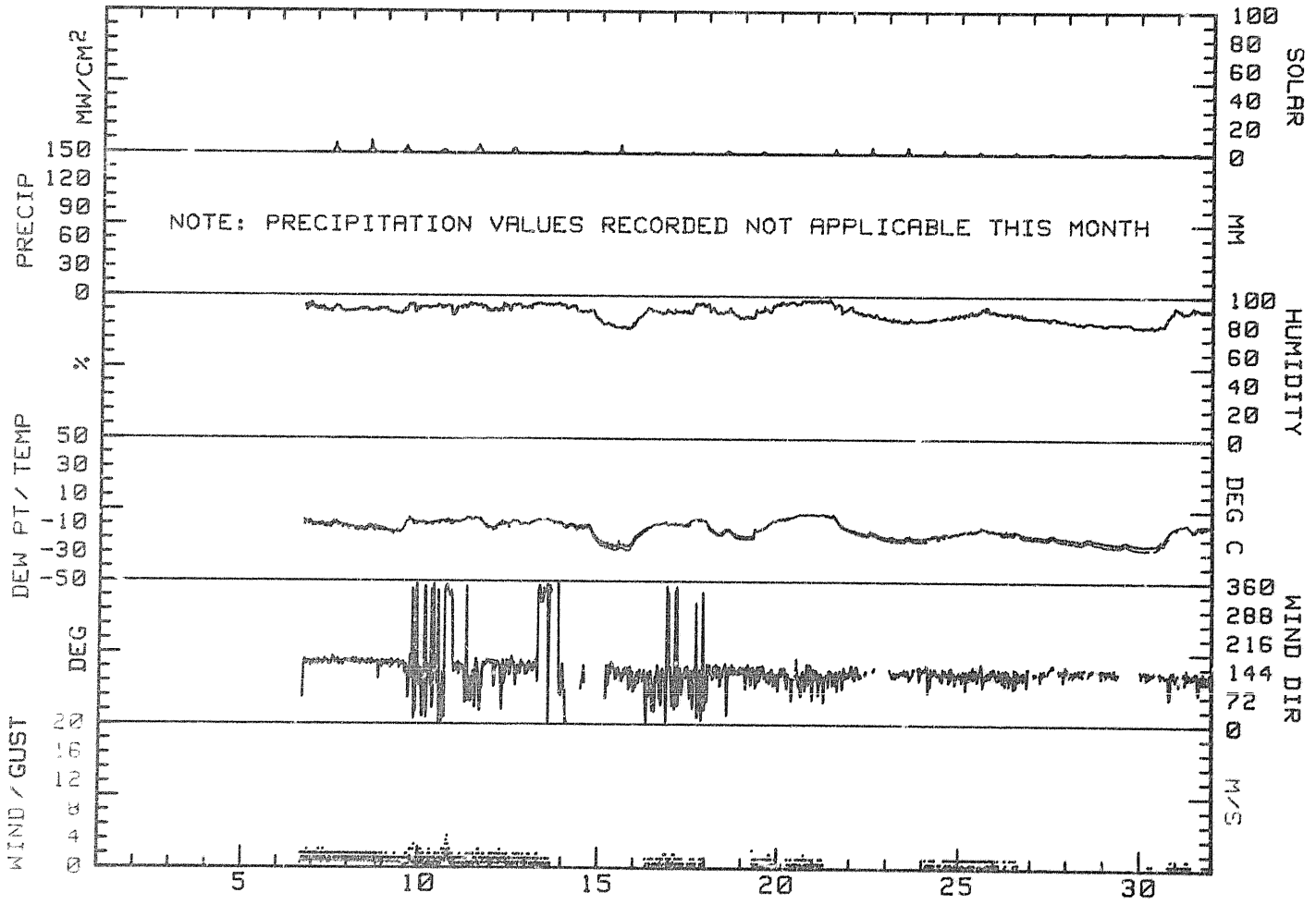
** SEE INTERPRETATION NOTES AT END OF MONTHLY REPORT **

R&M CONSULTANTS, INC.

SUSITNA HYDROELECTRIC PROJECT

EKLUTNA LAKE WEATHER STATION

December, 1983



R & M CONSULTANTS, INC.

SUSITNA HYDROELECTRIC PROJECT

WIND FREQUENCY SUMMARY FOR EKLUTNA LAKE 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	2.19	0.00	0.00	0.00	0.00	0.00	0.00	2.19
NNE	1.09	.31	0.00	0.00	0.00	0.00	0.00	1.41
NE	1.88	.16	0.00	0.00	0.00	0.00	0.00	2.03
ENE	2.81	0.00	0.00	0.00	0.00	0.00	0.00	2.81
E	3.75	0.00	0.00	0.00	0.00	0.00	0.00	3.75
ESE	10.78	.16	0.00	0.00	0.00	0.00	0.00	10.94
SE	23.28	.31	0.00	0.00	0.00	0.00	0.00	23.59
SSE	22.34	7.34	0.00	0.00	0.00	0.00	0.00	29.69
S	.47	0.00	0.00	0.00	0.00	0.00	0.00	.47
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	.63	.16	0.00	0.00	0.00	0.00	0.00	.78
NNW	2.19	2.19	0.00	0.00	0.00	0.00	0.00	4.38
CALM								17.97
TOTAL	71.41	10.63	0.00	0.00	0.00	0.00	0.00	100.00

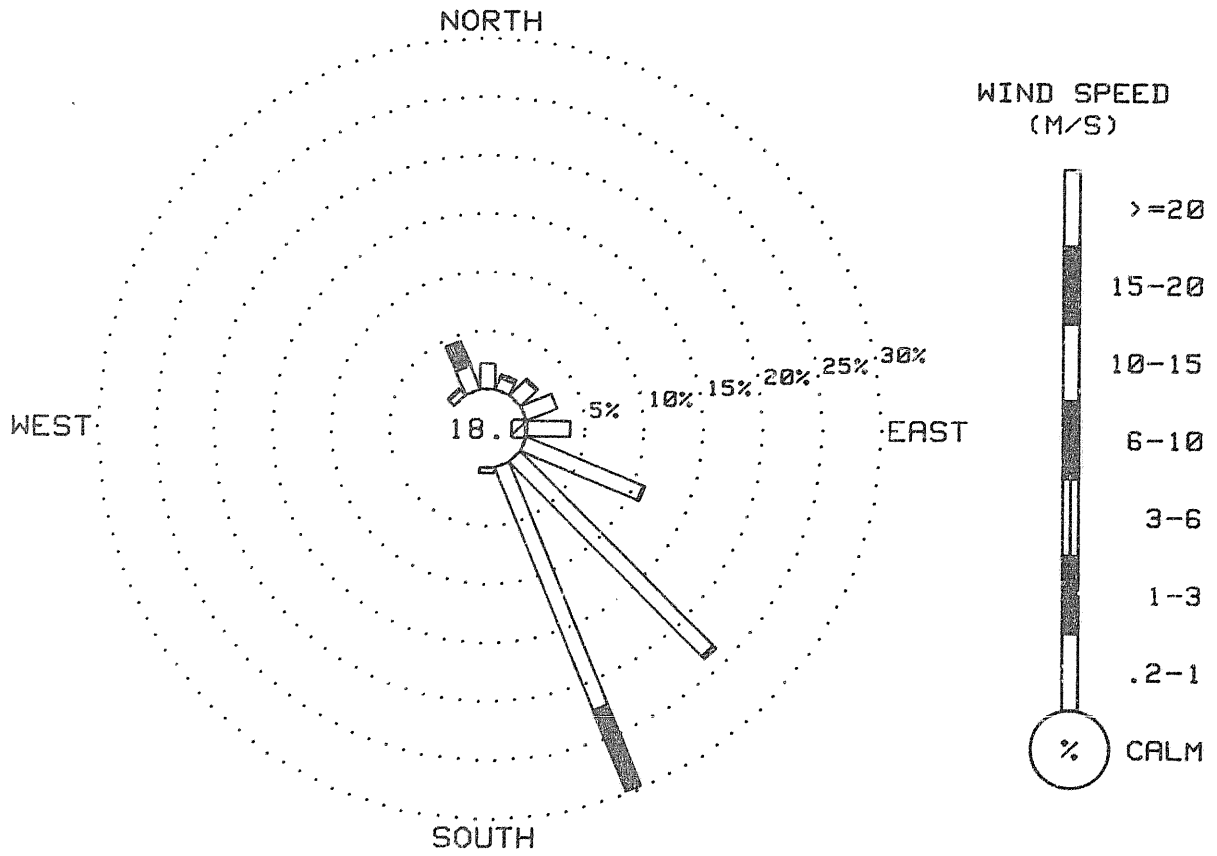
NOTE: ALL FREQUENCIES ARE EXPRESSED IN PERCENT
640 VALID WIND OBSERVATIONS USED TO DEVELOP FREQUENCY SUMMARY
1488 WIND OBSERVATIONS WOULD HAVE BEEN CORRECT FOR 30 MINUTE DATA.
** SEE INTERPRETATION NOTES AT END OF MONTHLY REPORT **

R&M CONSULTANTS, INC.

SUSITNA HYDROELECTRIC PROJECT

EKLUTNA LAKE WEATHER STATION

December, 1983



WIND ROSE PLOT

R & M CONSULTANTS, INC.

SUSITNA HYDROELECTRIC PROJECT

HOURLY SOLAR RADIATION SUMMARY FOR EKLUTNA LAKE 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	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***
2	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***
3	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***
4	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***
5	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***
6	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	0	0	0	0	0	0	0	0	***
7	0	0	0	0	0	0	0	0	0	0	2	3	5	3	2	0	0	0	0	0	0	0	0	0	1
8	0	0	0	0	0	0	0	0	0	0	2	3	6	3	2	0	0	0	0	0	0	0	0	0	1
9	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
10	0	0	0	0	0	0	0	0	0	0	0	1	2	2	2	0	0	0	0	0	0	0	0	0	0
11	0	0	0	0	0	0	0	0	0	0	2	3	5	4	2	0	0	0	0	0	0	0	0	0	1
12	0	0	0	0	0	0	0	0	0	0	1	3	4	3	1	0	0	0	0	0	0	0	0	0	0
13	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
14	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
15	0	0	0	0	0	0	0	0	0	0	1	1	4	1	1	0	0	0	0	0	0	0	0	0	0
16	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
17	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
18	0	0	0	0	0	0	0	0	0	0	1	2	2	1	1	0	0	0	0	0	0	0	0	0	0
19	0	0	0	0	0	0	0	0	0	0	1	1	2	1	0	0	0	0	0	0	0	0	0	0	0
20	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
21	0	0	0	0	0	0	0	0	0	0	0	1	3	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	3	1	0	0	0	0	0	0	0	0	0	0	0
23	0	0	0	0	0	0	0	0	0	0	0	1	3	1	0	0	0	0	0	0	0	0	0	0	0
24	0	0	0	0	0	0	0	0	0	0	0	1	2	1	0	0	0	0	0	0	0	0	0	0	0
25	0	0	0	0	0	0	0	0	0	0	0	1	2	1	0	0	0	0	0	0	0	0	0	0	0
26	0	0	0	0	0	0	0	0	0	0	0	1	2	1	0	0	0	0	0	0	0	0	0	0	0
27	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
28	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
29	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
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
31	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

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

R & M CONSULTANTS, INC.

SUSITNA HYDROELECTRIC PROJECT

HOURLY LONGWAVE RADIATION SUMMARY FOR EKLUTNA LAKE WEATHER STATION
DATA TAKEN DURING December, 1983

LONGWAVE RADIATION VALUES 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	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***
2	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***
3	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***
4	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***
5	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***
6	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	27	27	28	28	28	27	28	28	9
7	28	28	28	28	28	28	28	28	27	28	28	28	29	29	29	27	28	28	28	27	27	28	27	27	28
8	27	27	27	27	28	27	27	27	27	27	27	28	28	27	27	27	27	27	27	27	26	27	26	26	27
9	26	27	26	27	26	27	26	26	26	26	27	26	28	28	30	28	30	31	35	33	28	28	29	27	28
10	28	31	26	31	29	28	27	32	32	30	29	31	29	27	30	31	31	31	35	35	30	29	28	29	30
11	29	27	30	30	30	29	32	30	31	27	29	33	31	29	29	30	28	27	28	27	27	27	27	26	29
12	26	27	28	29	29	30	29	27	27	28	28	27	29	29	29	29	29	28	29	28	29	28	27	28	28
13	27	29	30	29	30	30	33	36	36	35	31	36	32	27	32	36	36	36	36	36	32	28	29	30	32
14	27	26	24	24	25	25	25	24	24	24	24	26	27	29	24	24	24	24	24	23	22	22	21	21	24
15	21	21	20	20	25	24	25	25	25	24	24	25	25	25	26	24	25	25	24	24	25	24	24	25	24
16	25	25	26	26	27	27	26	24	28	27	28	34	27	28	30	29	26	28	30	28	32	31	33	29	28
17	33	28	30	33	29	31	29	31	28	29	28	29	28	30	30	31	32	32	33	30	33	28	31	29	30
18	29	29	28	28	26	26	25	28	28	25	26	27	27	26	28	28	27	27	28	26	26	26	25	26	27
19	27	25	26	26	25	25	26	26	25	28	27	27	27	29	27	27	28	30	28	29	30	31	29	31	27
20	30	30	30	30	30	29	31	30	31	31	31	31	31	31	34	32	32	29	32	31	31	32	31	31	31
21	32	32	29	32	31	30	31	31	30	31	31	31	32	31	31	30	29	28	28	28	28	27	27	26	30
22	27	27	27	27	26	26	26	26	26	26	26	26	27	27	27	27	26	26	26	26	26	26	26	26	26
23	26	26	26	24	26	26	25	26	25	25	25	26	25	25	25	26	26	26	25	25	25	26	26	26	25
24	26	25	26	25	25	26	24	26	26	26	26	26	26	27	25	27	25	26	27	27	27	26	26	28	26
25	25	24	29	27	28	28	29	26	27	27	27	26	28	27	28	27	28	27	28	27	26	27	27	28	27
26	29	26	27	27	26	27	30	26	27	25	26	26	26	26	26	26	26	26	26	26	25	26	26	26	26
27	26	26	26	25	25	25	26	25	26	25	25	26	26	26	27	26	26	26	26	25	25	25	26	25	26
28	25	25	25	26	25	25	25	25	25	25	25	25	25	26	26	25	25	25	25	25	25	25	25	25	25
29	25	25	24	25	25	25	25	25	24	24	24	25	25	25	25	25	25	25	25	25	25	25	25	25	25
30	24	24	24	24	24	24	25	24	24	24	24	24	25	25	25	25	25	26	26	25	27	27	27	27	25
31	29	27	28	28	28	29	31	28	29	29	27	27	28	28	27	29	28	28	27	27	28	28	28	29	28

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

R & M CONSULTANTS, INC.

SUSITNA HYDROELECTRIC PROJECT

OBSERVATION SUMMARY FOR EKLUTNA LAKE WEATHER STATION
DATA TAKEN DURING December, 1983

PARAMETER	NUMBER OF USABLE OBSERVATIONS	PERCENT OF TOTAL OBSERVATIONS
TEMPERATURE	1216	82
WIND SPEED	641	43
WIND DIRECTION	1064	72
PEAK GUST	643	43
RELATIVE HUMIDITY	643	43
PRECIPITATION	1216	82
SOLAR RADIATION	1216	82
DEW POINT	643	43
LONGWAVE RADIATION	1216	82

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. Recording time interval was changed 12/6 from 15 minutes to 30 minutes.
2. All data lost prior to 12/6 due to dead power supply.
3. Intermittent wind speed and direction data last 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 EKLUTNA 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	-11.4	*****	91	119	.2	109	.6	0
0600	-10.1	*****	91	116	.2	143	1.3	0
0900	-8.4	*****	89	106	.1	092	.6	0
1200	-6.4	*****	91	107	.0	112	.6	1
1500	-2.3	*****	96	146	.1	138	1.3	1
1800	-2.7	-3.3	96	***	****	***	****	0
2100	-3.1	-3.7	96	***	****	***	****	0
2400	-3.0	-3.6	96	***	****	***	****	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	-2.5	-3.1	96	***	****	***	****	0
0600	-.5	-.9	97	***	****	***	****	0
0900	0.0	-.3	98	***	****	***	****	0
1200	6.4	.1	64	160	3.1	147	9.5	5
1500	7.5	-2.0	51	142	5.8	146	10.8	2
1800	6.1	-2.3	55	138	5.9	135	9.5	0
2100	6.3	-2.6	53	137	5.8	136	10.2	0
2400	6.9	-2.3	52	138	5.8	135	12.7	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	6.5	-1.6	56	136	6.3	130	10.8	0
0600	6.5	-2.7	52	137	6.6	139	11.4	0
0900	6.5	-2.7	52	131	5.2	136	8.9	0
1200	6.1	-3.0	52	140	6.4	144	11.4	3
1500	5.1	-4.0	52	130	5.5	135	10.8	2
1800	2.9	-2.0	70	142	.9	130	6.3	0
2100	.3	-1.5	88	337	1.6	331	3.8	0
2400	-1.2	-1.5	98	308	.6	318	3.8	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	-3.3	-4.0	95	354	2.9	358	5.7	0
0600	-8.3	-9.4	92	344	3.0	351	5.1	0
0900	-10.1	-11.3	91	342	2.4	340	4.4	0
1200	-11.0	-12.1	92	342	2.1	341	4.4	2
1500	-11.8	-15.0	77	347	2.2	348	5.7	2
1800	-17.7	*****	89	077	.3	007	2.5	0
2100	-23.8	*****	82	141	.7	131	2.5	0
2400	-26.8	*****	78	141	.6	154	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	-28.5	*****	76	165	.5	190	1.9	0
0600	-26.2	-29.0	77	153	1.0	160	3.2	0
0900	-19.4	-21.6	83	135	.9	141	3.2	0
1200	-14.0	*****	87	153	.8	118	3.2	2
1500	-12.9	-15.1	84	027	.5	336	5.1	2
1800	-10.3	-11.9	88	306	1.1	301	3.2	0
2100	-9.9	-11.3	90	287	.8	269	3.2	0
2400	-10.1	*****	94	157	.8	120	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	-10.1	-10.9	94	181	1.0	225	3.2	0
0600	-10.9	-11.7	94	170	1.0	180	3.2	0
0900	-15.0	*****	91	151	.8	188	1.9	0
1200	-13.5	*****	90	149	.8	160	2.5	4
1500	-10.0	*****	95	164	.8	150	1.9	1
1800	-11.6	*****	96	152	.6	163	1.9	0
2100	-13.4	*****	91	145	.7	140	1.9	0
2400	-15.0	*****	90	150	.5	136	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	-14.3	-15.6	90	171	.8	159	1.9	0
0600	-16.0	-17.4	89	139	.4	090	1.9	0
0900	-17.8	*****	85	125	.6	083	1.9	0
1200	-18.2	*****	86	151	.4	159	1.3	3
1500	-18.5	-20.4	85	154	.7	154	1.9	2
1800	-18.9	-20.5	87	***	****	***	****	0
2100	-20.1	-22.1	84	***	****	***	****	0
2400	-21.6	-23.6	84	***	****	***	****	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	-21.8	-23.8	84	***	****	***	****	0
0600	-22.2	-24.3	83	***	****	***	****	0
0900	-22.4	-24.6	82	***	****	***	****	0
1200	-20.7	-23.0	82	***	****	***	****	3
1500	-17.0	-20.9	85	***	****	***	****	2
1800	0.0	-2.6	83	***	****	***	****	0
2100	-11.8	-13.1	90	***	****	***	****	0
2400	-11.3	-12.2	93	***	****	***	****	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	-14.6	-15.8	91	***	****	***	****	0
0600	-12.6	-13.5	93	***	****	***	****	0
0900	-12.1	-13.0	93	***	****	***	****	0
1200	-9.8	-10.5	95	***	****	***	****	2
1500	-7.5	-8.6	92	***	****	***	****	2
1800	-7.0	-8.2	91	***	****	***	****	0
2100	-4.2	-5.2	93	***	****	***	****	0
2400	-2.3	-2.6	98	***	****	***	****	0

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

R & M CONSULTANTS, INC.

SUSITNA HYDROELECTRIC PROJECT

THREE HOUR SUMMARY FOR EKLUTNA 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	-3.3	-3.6	98	***	****	***	****	0
0600	-.2	-.9	95	244	.4	149	3.8	0
0900	5.6	-.6	64	104	1.2	150	7.0	0
1200	6.0	-1.4	59	140	4.6	136	8.3	3
1500	2.4	-.0	84	137	1.4	144	5.1	1
1800	2.0	*****	95	163	.6	189	3.2	0
2100	.9	.8	99	312	.7	278	2.5	0
2400	2.7	1.7	93	173	1.0	176	5.7	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	.3	-.7	93	139	4.4	141	9.5	0
0600	.1	*****	99	345	2.4	341	6.3	0
0900	-3.1	*****	90	227	.1	263	1.3	0
1200	3.4	-3.8	59	160	1.6	153	7.6	2
1500	3.2	-2.9	64	142	5.1	140	11.4	1
1800	3.8	-3.5	59	137	7.4	138	14.0	0
2100	4.1	-2.9	60	139	9.0	138	16.5	0
2400	5.1	-3.2	55	138	9.6	141	16.5	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	4.4	-1.8	64	140	10.1	142	17.8	0
0600	5.3	-.5	66	144	7.2	147	13.3	0
0900	6.3	.3	65	143	8.2	142	15.9	0
1200	6.2	1.4	71	131	7.2	133	14.6	5
1500	6.3	1.9	73	137	10.0	136	17.1	1
1800	6.7	-.0	62	144	7.6	146	13.3	0
2100	7.4	.4	61	145	8.1	146	17.1	0
2400	4.9	.1	71	142	8.4	144	15.2	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	4.2	-.7	70	147	4.2	137	11.4	0
0600	5.4	-.6	65	136	3.4	132	8.3	0
0900	7.0	-4.2	45	135	6.8	141	12.1	0
1200	6.6	-4.3	46	140	4.8	140	10.8	3
1500	6.2	-5.2	44	138	2.2	115	5.7	3
1800	1.1	*****	71	155	.6	156	2.5	0
2100	.1	*****	75	210	.6	168	2.5	0
2400	.1	*****	76	168	.7	234	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	-.3	*****	79	134	.6	130	1.9	0
0600	-.1	*****	79	132	.6	151	1.9	0
0900	-.2	*****	84	084	.3	088	1.9	0
1200	.1	*****	81	129	.8	145	2.5	2
1500	.1	*****	88	143	.6	158	2.5	0
1800	.1	-1.4	90	***	****	***	.6	0
2100	.1	-1.2	91	***	****	***	****	0
2400	-2.7	-4.6	87	***	****	***	****	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	-4.2	-5.8	89	***	****	***	****	0
0600	-7.9	-10.3	83	***	****	***	****	0
0900	-13.7	-16.1	82	***	****	***	****	0
1200	-14.7	-17.2	81	***	****	***	****	2
1500	-14.7	-17.2	81	***	****	***	****	1
1800	-15.8	-18.3	81	***	****	***	****	0
2100	-18.0	-20.9	78	***	****	***	****	0
2400	-18.0	-20.9	78	***	****	***	****	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	-19.3	-22.3	77	***	****	***	****	0
0600	-19.1	-22.1	77	***	****	***	****	0
0900	-18.8	-21.8	77	***	****	***	****	0
1200	-15.5	-18.0	81	***	****	***	****	2
1500	-10.4	-12.9	82	***	****	***	****	1
1800	-9.1	-11.2	85	***	****	***	****	0
2100	-8.1	-9.9	87	***	****	***	****	0
2400	-10.2	-12.4	84	***	****	***	****	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	-9.1	-11.2	85	***	****	***	****	0
0600	-10.3	-12.5	84	***	****	***	****	0
0900	-7.7	-9.5	87	***	****	***	****	0
1200	-5.7	-7.7	86	***	****	***	****	1
1500	-4.8	-6.8	86	***	****	***	****	1
1800	-5.3	-7.3	86	***	****	***	****	0
2100	-5.0	-7.0	86	***	****	***	****	0
2400	-4.7	-6.7	86	***	****	***	****	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	-4.6	-6.8	85	***	****	***	****	0
0600	-5.4	-7.5	85	***	****	***	****	0
0900	-5.4	-7.4	86	***	****	***	****	0
1200	-4.1	-6.3	85	***	****	***	****	2
1500	-4.2	-6.4	85	***	****	***	****	1
1800	-5.5	-7.5	86	***	****	***	****	0
2100	-5.8	-7.8	86	***	****	***	****	0
2400	-6.1	-8.1	86	***	****	***	****	0

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

R & M CONSULTANTS, INC.

SUSITNA HYDROELECTRIC PROJECT

THREE HOUR SUMMARY FOR EKLUTNA 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	-6.4	-8.2	87	***	****	***	****	0
0600	-7.0	-8.7	88	***	****	***	****	0
0900	-8.5	-10.3	87	***	****	***	****	0
1200	-6.6	-9.0	83	***	****	***	****	1
1500	-10.8	-13.3	82	***	****	***	****	1
1800	-14.8	-17.2	82	***	****	***	****	0
2100	-17.2	-19.7	81	***	****	***	****	0
2400	-19.0	-21.6	80	***	****	***	****	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	-19.9	-22.6	79	***	****	***	****	0
0600	-21.1	-23.9	78	***	****	***	****	0
0900	-23.1	-26.1	76	***	****	***	****	0
1200	-20.3	-23.4	76	***	****	***	****	2
1500	-20.1	-23.5	74	***	****	***	****	1
1800	-22.3	-25.5	75	***	****	***	****	0
2100	-22.9	-26.2	74	***	****	***	****	0
2400	-24.6	-27.9	74	***	****	***	****	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	-25.2	-28.6	73	***	****	***	****	0
0600	-27.1	-30.6	72	***	****	***	****	0
0900	-25.6	-29.1	72	***	****	***	****	0
1200	-24.1	-28.0	70	***	****	***	****	3
1500	-18.7	-22.2	74	***	****	***	****	2
1800	-20.8	-23.9	76	***	****	***	****	0
2100	-17.0	-19.8	79	***	****	***	****	0
2400	-16.3	-18.9	80	***	****	***	****	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	-15.5	-18.2	80	***	****	***	****	0
0600	-16.4	-19.0	80	***	****	***	****	0
0900	-19.4	-22.3	78	***	****	***	****	0
1200	-22.0	-25.5	73	***	****	***	****	2
1500	-21.0	-24.4	74	***	****	***	****	1
1800	-25.9	-29.6	71	***	****	***	****	0
2100	-28.2	-31.9	70	***	****	***	****	0
2400	-30.4	-34.3	68	***	****	***	****	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	-31.7	-35.7	67	***	****	***	****	0
0600	-32.3	-36.3	67	***	****	***	****	0
0900	-33.9	-38.1	65	***	****	***	****	0
1200	-32.6	-36.7	66	***	****	***	****	2
1500	-31.5	-36.2	63	***	****	***	****	1
1800	-34.3	-38.8	63	***	****	***	****	0
2100	-34.3	-38.8	63	***	****	***	****	0
2400	-34.0	-39.4	63	***	****	***	****	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	-35.9	-40.5	62	***	****	***	****	0
0600	-36.3	-40.9	62	***	****	***	****	0
0900	-37.8	-42.5	61	***	****	***	****	0
1200	-34.7	-39.7	60	***	****	***	****	2
1500	-33.7	-38.9	59	***	****	***	****	1
1800	-35.4	-40.2	61	***	****	***	****	0
2100	-35.1	-39.9	61	***	****	***	****	0
2400	-35.9	-40.7	61	***	****	***	****	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	-35.9	-40.7	61	***	****	***	****	0
0600	-36.2	-40.9	61	***	****	***	****	0
0900	-36.1	-40.8	61	***	****	***	****	0
1200	-33.3	-38.2	61	***	****	***	****	3
1500	-28.0	-32.8	63	***	****	***	****	2
1800	-25.2	-29.0	70	***	****	***	****	0
2100	-21.1	-24.5	74	***	****	***	****	0
2400	-19.0	-22.2	76	***	****	***	****	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	-17.9	-21.1	76	***	****	***	****	0
0600	-17.3	-20.5	76	***	****	***	****	0
0900	-15.4	-18.4	78	***	****	***	****	0
1200	-14.6	-17.9	76	***	****	***	****	5
1500	-16.5	-20.0	74	***	****	***	****	1
1800	-21.7	-25.1	74	***	****	***	****	0
2100	-21.9	-25.3	74	***	****	***	****	0
2400	-20.0	-23.3	75	***	****	***	****	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	-19.5	-22.6	76	***	****	***	****	0
0600	-17.9	-21.1	76	***	****	***	****	0
0900	-16.3	-19.2	78	***	****	***	****	0
1200	-11.9	-15.4	75	***	****	***	****	2
1500	-10.2	-13.0	80	***	****	***	****	1
1800	-11.2	-13.7	82	***	****	***	****	0
2100	-10.9	-13.2	83	***	****	***	****	0
2400	-12.6	-15.0	82	***	****	***	****	0

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

R & M CONSULTANTS, INC.

SUSITNA HYDROELECTRIC PROJECT

THREE HOUR SUMMARY FOR EKLUTNA 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	-19.0	-21.7	79	***	****	***	****	0
0600	-23.6	-26.8	75	***	****	***	****	0
0900	-26.2	-29.6	73	***	****	***	****	0
1200	-21.8	-25.5	72	***	****	***	****	2
1500	-17.5	-21.0	74	***	****	***	****	1
1800	-13.3	-15.9	81	***	****	***	****	0
2100	.7	-4.7	67	149	4.2	151	10.2	0
2400	2.7	-4.5	59	141	5.8	137	12.1	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	1.8	-2.5	73	142	6.6	146	14.0	0
0600	3.7	-5.0	53	138	7.7	137	14.0	0
0900	4.8	-7.5	41	140	7.7	145	13.3	0
1200	5.5	-7.5	39	141	6.1	141	12.7	10
1500	5.3	-7.3	40	144	3.8	148	8.3	6
1800	4.7	-6.0	46	149	3.4	153	6.3	0
2100	5.1	-6.6	43	145	3.8	143	7.6	0
2400	4.7	-6.9	43	148	4.4	150	8.9	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	4.6	-8.0	40	145	3.5	131	8.3	0
0600	4.4	-8.8	38	135	4.3	139	8.3	0
0900	-.9	-7.0	63	112	1.0	128	7.0	0
1200	-.6	*****	85	155	.5	149	1.9	4
1500	-.1	*****	72	121	.3	118	2.5	7
1800	-1.5	*****	83	350	.6	333	1.9	0
2100	-2.6	*****	86	359	.7	346	1.9	0
2400	-2.0	*****	86	147	.3	202	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	-1.8	*****	86	148	.4	163	1.9	0
0600	-2.9	*****	86	163	.4	142	1.3	0
0900	-3.7	*****	84	200	.2	082	1.3	0
1200	-3.2	*****	81	196	.3	185	2.5	16
1500	-3.8	*****	79	164	.8	198	1.9	4
1800	-5.2	*****	83	***	****	***	1.9	0
2100	-5.3	*****	84	***	****	***	1.9	0
2400	-11.3	*****	83	***	****	***	1.3	0

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

R & M CONSULTANTS, INC.

SUSITNA HYDROELECTRIC PROJECT

MONTHLY SUMMARY FOR EKLUTNA 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	-1.6	-11.7	-6.7	121	.1	.1	143	1.3	ESE	96	-3.3	****	25	1
2	7.5	-2.9	2.3	140	5.5	5.6	135	12.7	SE	73	-1.7	****	195	2
3	6.9	-1.2	2.9	134	3.6	4.3	139	11.4	SE	60	-2.5	****	135	3
4	-1.6	-27.9	-14.8	350	1.4	1.8	358	5.7	NNW	89	-10.1	****	110	4
5	-6.7	-32.0	-19.4	169	.3	1.0	336	5.1	SSE	83	-16.9	****	130	5
6	-9.5	-16.2	-12.9	160	.8	.8	225	3.2	SSE	94	-11.7	****	160	6
7	-13.6	-21.6	-17.6	152	.5	.6	159	1.9	SSE	85	-20.6	****	165	7
8	0.0	-22.6	-11.3	***	****	****	***	****	SSE	85	-19.8	****	175	8
9	-1.2	-14.6	-7.9	***	****	****	***	****	SSE	93	-10.0	****	120	9
10	6.4	-3.3	1.6	144	1.1	1.8	136	8.3	SSE	83	-.6	****	90	10
11	5.6	-4.5	.6	138	4.4	5.0	138	16.5	SE	70	-2.1	****	180	11
12	7.5	4.4	6.0	141	8.3	8.4	142	17.8	SE	66	.1	****	130	12
13	7.2	-.6	3.3	141	2.8	3.0	141	12.1	SE	58	-2.7	****	185	13
14	.7	-2.9	-1.1	128	.5	.6	145	2.5	SE	89	-2.3	****	95	14
15	-2.6	-19.9	-11.3	***	****	****	***	****	***	82	-15.0	****	120	15
16	-7.9	-20.2	-14.1	***	****	****	***	****	***	81	-16.7	****	85	16
17	-4.1	-10.9	-7.5	***	****	****	***	****	***	86	-8.8	****	45	17
18	-3.5	-6.2	-4.9	***	****	****	***	****	***	86	-7.1	****	65	18
19	-6.2	-19.6	-12.9	***	****	****	***	****	***	84	-12.9	****	45	19
20	-17.1	-24.6	-20.9	***	****	****	***	****	***	76	-24.5	****	145	20
21	-16.3	-27.1	-21.7	***	****	****	***	****	***	74	-25.7	****	135	21
22	-15.4	-30.4	-22.9	***	****	****	***	****	***	75	-25.1	****	75	22
23	-29.6	-35.2	-32.4	***	****	****	***	****	***	65	-37.0	****	165	23
24	-30.0	-37.8	-33.9	***	****	****	***	****	***	61	-40.2	****	195	24
25	-19.0	-36.9	-28.0	***	****	****	***	****	***	65	-34.8	****	130	25
26	-13.7	-23.2	-18.5	***	****	****	***	****	***	75	-21.4	****	160	26
27	-10.1	-20.7	-15.4	***	****	****	***	****	***	79	-17.1	****	75	27
28	2.7	-27.0	-12.2	145	5.0	5.0	137	12.1	SE	73	-19.0	****	85	28
29	5.6	1.8	3.7	142	5.4	5.5	146	14.0	SE	49	-6.0	****	420	29
30	5.1	-2.8	1.2	132	1.1	1.7	131	8.3	SE	50	-7.2	****	410	30
31	-1.7	-11.4	-6.6	170	.3	.5	185	2.5	S	81	-8.7	****	345	31
MONTH	7.5	-37.8	-10.7	139	2.4	2.9	142	17.8	SE	75	-13.8	****	4595	

GUST VEL. AT MAX. GUST MINUS 2 INTERVALS 16.5
GUST VEL. AT MAX. GUST MINUS 1 INTERVAL 14.6
GUST VEL. AT MAX. GUST PLUS 1 INTERVAL 17.8
GUST VEL. AT MAX. GUST PLUS 2 INTERVALS 17.8

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.

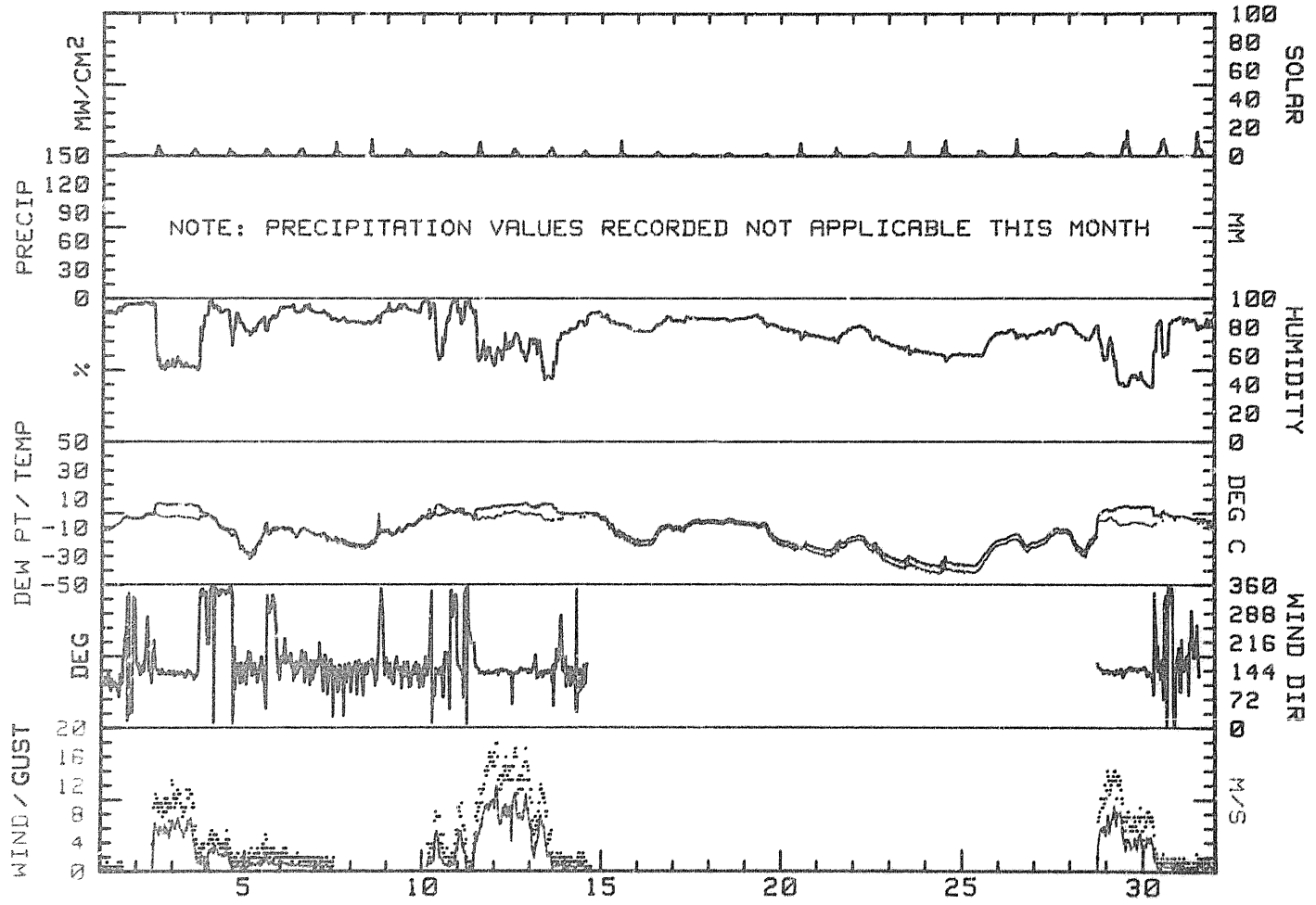
** SEE INTERPRETATION NOTES AT END OF MONTHLY REPORT **

R&M CONSULTANTS, INC.

SUSITNA HYDROELECTRIC PROJECT

EKLUTNA WEATHER STATION

January, 1984



R & M CONSULTANTS, INC.

SUSITNA HYDROELECTRIC PROJECT

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

DIRECTION	VELOCITY (M/S) 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	1.29	1.45	.32	0.00	0.00	0.00	0.00	3.06
NNE	.32	.16	0.00	0.00	0.00	0.00	0.00	.48
NE	.97	.16	0.00	0.00	0.00	0.00	0.00	1.13
ENE	.16	.48	.32	0.00	0.00	0.00	0.00	.97
E	1.77	.48	0.00	0.00	0.00	0.00	0.00	2.26
ESE	4.03	.81	.48	0.00	0.00	0.00	0.00	5.32
SE	6.29	2.74	11.77	16.94	1.77	0.00	0.00	39.52
SSE	10.16	4.35	4.84	1.61	0.00	0.00	0.00	20.97
S	4.19	1.77	.16	0.00	0.00	0.00	0.00	6.13
SSW	2.58	.16	0.00	0.00	0.00	0.00	0.00	2.74
SW	.81	.48	0.00	0.00	0.00	0.00	0.00	1.29
WSW	.32	.32	0.00	0.00	0.00	0.00	0.00	.65
W	.48	.32	0.00	0.00	0.00	0.00	0.00	.81
WNW	.65	.81	0.00	0.00	0.00	0.00	0.00	1.45
NW	.81	1.29	0.00	0.00	0.00	0.00	0.00	2.10
NNW	1.13	5.00	.97	0.00	0.00	0.00	0.00	7.10
CALM								4.03
TOTAL	35.97	20.81	18.87	18.55	1.77	0.00	0.00	100.00

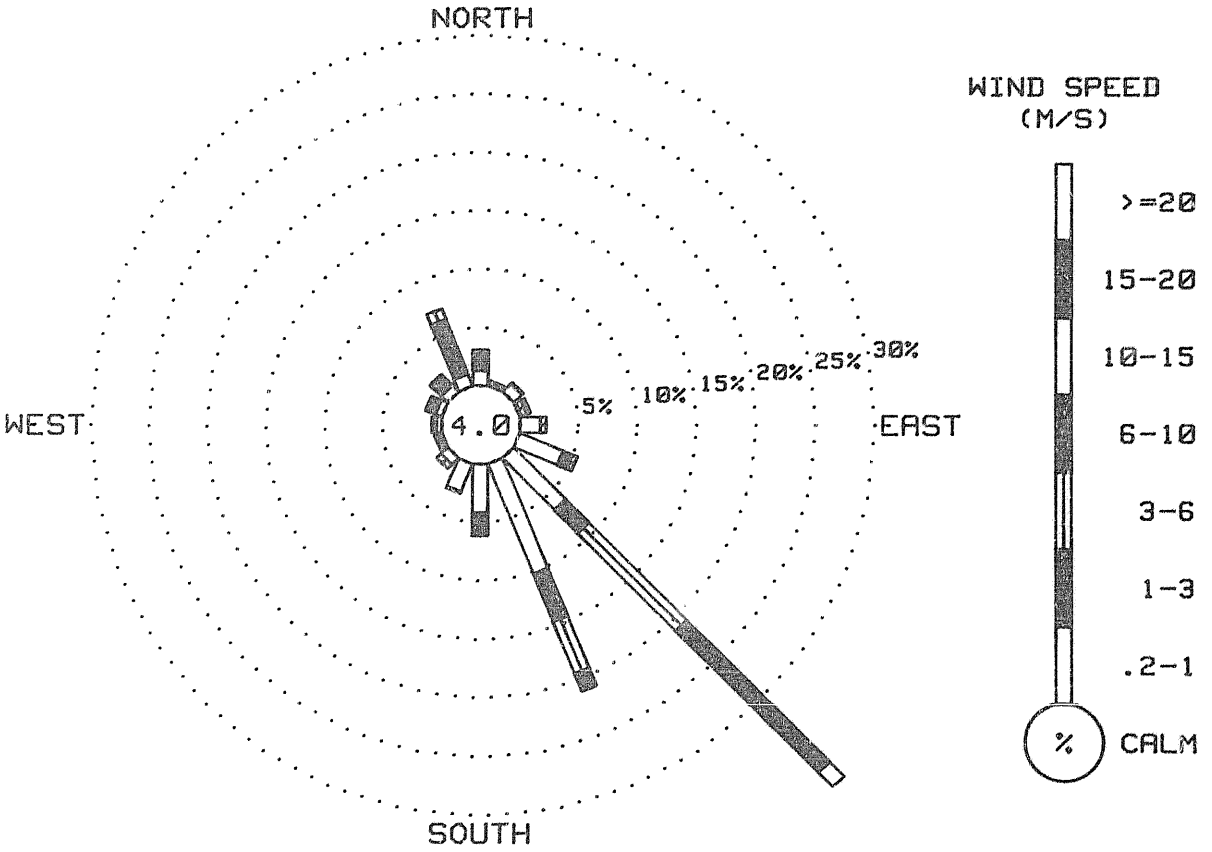
NOTE: ALL FREQUENCIES ARE EXPRESSED IN PERCENT
620 VALID WIND OBSERVATIONS USED TO DEVELOP FREQUENCY SUMMARY
1488 WIND OBSERVATIONS WOULD HAVE BEEN CORRECT FOR 30 MINUTE DATA.
** SEE INTERPRETATION NOTES AT END OF MONTHLY REPORT **

R&M CONSULTANTS, INC.

SUSITNA HYDROELECTRIC PROJECT

EKLUTNA WEATHER STATION

January, 1984



WIND ROSE PLOT

R & M CONSULTANTS, INC.

SUSITNA HYDROELECTRIC PROJECT

HOURLY SOLAR RADIATION SUMMARY FOR EKLUTNA 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	0	1	1	0	0	0	0	0	0	0	0	0	0
2	0	0	0	0	0	0	0	0	0	0	1	4	7	5	2	1	0	0	0	0	0	0	0	0	1
3	0	0	0	0	0	0	0	0	0	0	1	3	4	4	3	1	0	0	0	0	0	0	0	0	1
4	0	0	0	0	0	0	0	0	0	0	0	2	4	3	2	1	0	0	0	0	0	0	0	0	0
5	0	0	0	0	0	0	0	0	0	0	1	2	5	4	2	1	0	0	0	0	0	0	0	0	1
6	0	0	0	0	0	0	0	0	0	0	2	4	5	5	2	0	0	0	0	0	0	0	0	0	1
7	0	0	0	0	0	0	0	0	0	0	2	3	7	3	2	1	0	0	0	0	0	0	0	0	1
8	0	0	0	0	0	0	0	0	0	0	2	3	8	3	2	1	0	0	0	0	0	0	0	0	1
9	0	0	0	0	0	0	0	0	0	0	1	2	4	4	2	0	0	0	0	0	0	0	0	0	1
10	0	0	0	0	0	0	0	0	0	0	1	3	2	2	2	1	0	0	0	0	0	0	0	0	0
11	0	0	0	0	0	0	0	0	0	0	1	2	8	7	2	0	0	0	0	0	0	0	0	0	1
12	0	0	0	0	0	0	0	0	0	0	1	4	4	3	2	0	0	0	0	0	0	0	0	0	1
13	0	0	0	0	0	0	0	0	0	0	1	3	4	6	4	2	0	0	0	0	0	0	0	0	1
14	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
15	0	0	0	0	0	0	0	0	0	0	1	2	7	2	1	0	0	0	0	0	0	0	0	0	1
16	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
17	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
18	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
19	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
20	0	0	0	0	0	0	0	0	0	0	1	2	9	2	1	1	0	0	0	0	0	0	0	0	1
21	0	0	0	0	0	0	0	0	0	0	1	3	5	3	2	1	0	0	0	0	0	0	0	0	1
22	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
23	0	0	0	0	0	0	0	0	0	0	2	2	10	2	1	1	0	0	0	0	0	0	0	0	1
24	0	0	0	0	0	0	0	0	0	0	4	2	11	2	2	1	0	0	0	0	0	0	0	0	1
25	0	0	0	0	0	0	0	0	0	0	3	2	4	3	2	1	0	0	0	0	0	0	0	0	1
26	0	0	0	0	0	0	0	0	0	0	1	4	8	2	1	1	0	0	0	0	0	0	0	0	1
27	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
28	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
29	0	0	0	0	0	0	0	0	0	1	4	9	7	15	7	2	0	0	0	0	0	0	0	0	2
30	0	0	0	0	0	0	0	0	0	1	3	5	10	11	8	4	1	0	0	0	0	0	0	0	2
31	0	0	0	0	0	0	0	0	0	0	2	11	12	5	4	2	0	0	0	0	0	0	0	0	1

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

R & M CONSULTANTS, INC.

SUSITNA HYDROELECTRIC PROJECT

HOURLY LONGWAVE RADIATION SUMMARY FOR EKLUTNA WEATHER STATION
DATA TAKEN DURING January, 1984

LONGWAVE RADIATION VALUES 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	27	28	27	27	27	27	29	28	28	28	28	29	30	32	38	34	33	33	31	36	37	34	32	32	30
2	32	31	31	30	32	30	35	34	32	32	32	32	31	31	31	30	29	30	30	31	32	33	33	32	31
3	32	33	31	30	31	31	31	31	31	32	30	30	32	31	30	29	33	30	30	33	36	35	34	31	31
4	34	32	32	37	31	35	25	35	35	30	34	30	24	30	31	29	28	27	27	24	23	24	22	27	29
5	25	28	22	25	25	25	25	25	24	29	27	28	32	34	33	28	29	33	28	29	31	31	29	32	28
6	31	32	31	33	27	31	31	30	27	27	25	25	28	28	27	27	26	27	26	29	27	25	28	29	28
7	27	26	28	31	28	28	26	28	25	27	25	26	25	29	30	26	26	24	26	25	25	25	25	23	26
8	25	28	27	23	26	25	25	22	26	27	26	26	27	29	26	26	28	31	31	31	27	27	29	28	27
9	29	27	29	25	28	28	27	30	28	31	28	30	32	29	33	31	26	35	30	30	29	30	32	32	30
10	33	31	35	33	36	34	36	35	33	33	33	33	36	36	32	34	35	34	37	36	36	33	34	34	34
11	34	34	36	38	34	31	35	35	35	34	34	33	33	31	33	32	33	33	33	34	33	34	33	33	33
12	33	33	33	34	33	34	35	34	33	34	34	34	34	35	34	35	35	35	35	34	34	35	35	34	34
13	34	34	34	36	34	33	31	31	31	32	31	32	31	29	29	31	29	31	31	33	26	30	31	33	31
14	30	34	35	31	31	31	29	30	32	34	32	30	32	32	30	30	30	30	29	29	31	33	33	33	31
15	32	32	32	32	31	30	30	30	29	28	28	28	28	28	28	28	28	27	27	27	27	26	26	26	29
16	26	26	26	26	26	26	26	26	26	26	27	27	28	28	29	29	29	29	30	30	30	30	30	29	28
17	29	29	29	29	29	29	29	29	29	30	30	30	31	31	31	31	31	31	31	31	31	31	31	31	30
18	31	31	31	31	31	31	31	31	31	31	31	31	32	32	32	32	32	32	31	31	31	31	31	31	31
19	31	31	31	31	30	30	30	30	30	30	30	30	30	31	31	30	29	29	28	27	27	27	27	26	29
20	26	26	26	26	26	26	26	26	26	26	26	26	26	27	27	27	26	26	26	26	25	25	25	25	26
21	25	25	25	25	25	25	25	25	25	25	25	25	26	26	26	26	26	26	26	26	26	27	27	27	26
22	27	27	27	27	27	27	27	27	27	27	26	26	26	26	26	26	26	25	25	25	25	24	24	24	26
23	24	24	24	24	24	24	24	24	24	24	24	24	24	24	25	24	24	24	24	24	24	24	24	24	24
24	23	24	23	23	23	23	23	23	23	23	23	23	24	24	24	24	24	24	23	23	24	23	23	23	23
25	23	23	24	24	23	23	23	23	23	23	24	24	24	24	24	25	25	25	25	25	26	26	26	26	24
26	26	27	27	27	27	27	27	27	27	27	27	28	28	28	28	28	27	26	26	26	25	26	26	26	27
27	26	26	26	26	26	26	26	26	27	27	27	28	28	29	29	29	29	29	29	29	29	29	29	29	28
28	29	28	28	27	26	26	26	25	25	25	25	25	25	26	26	26	27	27	29	31	32	33	32	32	27
29	33	32	33	33	32	33	33	28	26	25	28	31	32	32	32	33	33	33	33	33	32	33	32	33	31
30	32	30	28	30	30	31	31	33	32	30	30	34	31	29	35	30	28	30	29	27	25	30	32	33	30
31	30	33	32	33	32	31	33	34	34	33	31	35	33	31	31	31	30	30	30	30	29	29	28	27	31

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

R & M CONSULTANTS, INC.

SUSITNA HYDROELECTRIC PROJECT

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

PARAMETER	NUMBER OF USABLE OBSERVATIONS	PERCENT OF TOTAL OBSERVATIONS
TEMPERATURE	1488	100
WIND SPEED	647	43
WIND DIRECTION	788	53
PEAK GUST	648	44
RELATIVE HUMIDITY	1215	82
PRECIPITATION	1488	100
SOLAR RADIATION	1488	100
DEW POINT	1215	82
LONGWAVE RADIATION	1487	100

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 -6 RH points 1/11
2. Solar -1 MW/CM^2

Additional comments on this month's data:

1. Several days of wind speed and direction data 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 EKLUTNA 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	-17.5	*****	80	***	****	***	1.3	0
0600	-11.0	*****	83	***	****	***	1.9	0
0900	-10.2	*****	83	***	****	***	1.9	0
1200	-7.5	*****	81	***	****	***	1.9	3
1500	-4.7	*****	80	***	****	***	1.9	3
1800	-5.4	*****	85	***	****	***	1.3	0
2100	-6.0	*****	85	***	****	***	1.9	0
2400	-8.3	*****	86	***	****	***	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	*****	85	***	****	***	1.3	0
0600	-7.0	*****	86	***	****	***	1.3	0
0900	-7.5	*****	86	***	****	***	1.9	0
1200	-6.7	*****	81	***	****	***	1.3	3
1500	-5.9	*****	76	***	****	***	1.3	3
1800	-8.4	*****	80	***	****	***	1.9	0
2100	-10.1	*****	83	***	****	***	1.9	0
2400	-9.9	*****	83	***	****	***	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	-10.9	*****	83	***	****	***	1.3	0
0600	-11.9	*****	82	***	****	***	1.3	0
0900	-12.2	*****	82	***	****	***	1.9	0
1200	-10.0	*****	79	***	****	***	1.3	2
1500	-8.7	*****	79	***	****	***	1.9	2
1800	-8.7	*****	83	***	****	***	1.9	0
2100	-8.4	*****	84	***	****	***	1.9	0
2400	-7.4	*****	85	***	****	***	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	-5.8	*****	85	***	****	***	1.9	0
0600	-4.4	-6.4	86	120	2.0	120	4.4	0
0900	-4.8	-7.0	85	127	1.8	106	5.7	0
1200	1.8	-7.0	52	150	3.1	140	8.9	8
1500	1.5	-8.1	49	147	4.6	155	10.8	7
1800	-4.9	-7.4	83	352	2.5	357	7.0	0
2100	-7.0	-9.4	83	343	2.7	340	5.1	0
2400	-8.3	-10.5	84	346	2.7	345	5.7	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	-10.7	-12.9	84	339	1.6	349	3.8	0
0600	-12.8	*****	84	132	.1	311	1.3	0
0900	-15.1	-17.6	81	162	.5	217	2.5	0
1200	-10.0	*****	83	153	.8	151	2.5	4
1500	-9.2	-12.0	80	013	.7	010	3.2	2
1800	-9.4	*****	82	278	.2	341	1.9	0
2100	-9.3	*****	83	097	.3	042	1.3	0
2400	-11.0	-13.3	83	325	.3	336	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	-9.9	*****	84	125	.5	104	1.3	0
0600	-12.0	*****	83	044	.2	108	1.3	0
0900	-17.3	*****	80	222	.6	241	1.9	0
1200	-14.4	*****	78	139	.6	115	1.9	6
1500	-16.2	*****	77	002	.5	029	1.3	2
1800	-16.5	*****	81	275	.6	274	2.5	0
2100	-.8	-11.6	44	180	1.2	144	8.9	0
2400	-10.1	-14.0	73	133	3.0	143	7.0	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	-8.0	*****	83	043	.7	024	3.8	0
0600	-8.4	*****	84	337	1.6	340	7.0	0
0900	-9.5	-12.0	82	345	1.8	355	4.4	0
1200	-8.9	-11.9	79	340	.9	337	3.2	4
1500	-10.3	-13.1	80	346	2.7	345	5.7	1
1800	-11.0	*****	83	332	.8	343	2.5	0
2100	-11.7	*****	82	019	.2	019	1.3	0
2400	-11.8	-14.4	81	011	.7	001	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	-15.8	*****	82	003	.6	356	3.2	0
0600	-21.8	*****	78	148	.4	173	1.3	0
0900	-24.4	*****	77	***	****	***	1.3	0
1200	-23.1	*****	66	***	****	***	1.3	5
1500	-23.2	*****	69	015	.4	002	1.9	3
1800	-24.2	*****	74	021	.1	030	1.3	0
2100	-25.6	*****	72	144	.5	169	1.3	0
2400	-27.7	*****	70	149	.4	162	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	-30.3	*****	68	160	.3	126	1.3	0
0600	-28.8	*****	69	150	.5	160	1.9	0
0900	-30.3	*****	68	158	.4	158	1.3	0
1200	-24.6	*****	58	306	.8	178	1.3	15
1500	-26.7	*****	63	019	.3	334	1.3	3
1800	-29.1	*****	66	067	.1	334	1.3	0
2100	-31.6	*****	65	147	.5	154	1.9	0
2400	-32.9	*****	64	161	.4	170	1.9	0

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

R & M CONSULTANTS, INC.

SUSITNA HYDROELECTRIC PROJECT

THREE HOUR SUMMARY FOR EKLUTNA 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	-33.8	*****	63	151	.5	168	1.9	0
0600	-31.1	*****	65	159	.5	178	2.5	0
0900	-28.1	*****	66	105	.3	163	1.3	0
1200	-22.3	*****	66	098	.4	041	1.9	3
1500	-16.0	*****	69	350	.5	035	1.3	3
1800	-15.4	*****	78	306	.4	324	1.3	0
2100	-14.3	*****	80	079	.1	165	.6	0
2400	-13.9	*****	81	049	.5	026	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	-14.5	*****	81	148	.5	160	2.5	0
0600	-15.2	*****	80	143	.6	145	1.9	0
0900	-17.1	*****	80	135	.5	166	1.9	0
1200	-13.5	*****	69	139	.2	166	1.3	15
1500	-14.0	*****	74	256	.4	222	1.9	3
1800	-17.7	*****	77	257	.1	319	1.3	0
2100	-21.1	*****	77	200	.3	169	1.3	0
2400	-22.0	*****	75	144	.4	201	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	-19.0	*****	77	148	.5	153	1.9	0
0600	-20.4	*****	75	147	.5	195	1.9	0
0900	-18.2	*****	78	179	.4	167	1.9	0
1200	-12.7	*****	67	091	.5	048	1.9	12
1500	-11.9	*****	71	000	.5	074	1.9	3
1800	-15.7	*****	80	***	****	***	1.9	0
2100	-15.5	*****	80	***	****	***	1.9	0
2400	-17.6	*****	79	***	****	***	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	-18.7	*****	79	***	****	***	1.9	0
0600	-20.0	*****	78	***	****	***	1.9	0
0900	-17.7	*****	78	***	****	***	1.3	0
1200	-12.0	*****	72	***	****	***	1.3	7
1500	-8.9	*****	70	***	****	***	1.9	4
1800	-10.4	*****	81	***	****	***	1.3	0
2100	-12.4	*****	82	***	****	***	1.3	0
2400	-12.0	*****	83	***	****	***	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	-13.7	*****	82	***	****	***	1.3	0
0600	-12.8	*****	82	***	****	***	1.3	0
0900	-11.2	*****	82	***	****	***	1.3	0
1200	-9.7	-13.1	76	***	****	***	2.5	5
1500	-4.5	-8.4	74	***	****	***	4.4	8
1800	-8.4	*****	85	***	****	***	5.1	0
2100	-14.4	*****	82	***	****	***	1.9	0
2400	-17.5	*****	80	***	****	***	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	-20.5	*****	78	***	****	***	1.3	0
0600	-21.1	*****	77	***	****	***	1.3	0
0900	-21.8	*****	76	***	****	***	1.3	0
1200	-16.7	*****	65	***	****	***	1.3	13
1500	-13.4	*****	69	***	****	***	1.3	5
1800	-12.9	*****	79	***	****	***	1.9	0
2100	-11.0	-13.5	82	***	****	***	2.5	0
2400	-8.7	*****	82	***	****	***	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	1.4	-7.2	53	229	1.8	259	7.6	0
0600	-2.4	-4.3	87	138	1.5	169	6.3	0
0900	.1	-5.9	64	315	1.3	275	6.3	0
1200	-.8	-5.2	72	250	1.1	185	5.1	2
1500	-.2	*****	**	327	1.2	314	3.8	11
1800	-1.4	*****	**	163	.9	169	2.5	0
2100	-1.9	*****	**	128	.4	171	1.9	0
2400	-1.6	*****	**	156	.5	144	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	-1.6	*****	**	129	.6	167	3.2	0
0600	.8	*****	**	054	.8	075	3.8	0
0900	-.3	*****	**	308	1.0	341	3.8	0
1200	3.4	*****	**	171	1.3	143	8.9	10
1500	3.8	*****	**	132	4.5	140	8.3	17
1800	1.7	*****	**	132	4.5	128	9.5	0
2100	.1	*****	**	146	3.4	144	8.3	0
2400	1.2	*****	**	230	.9	218	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	-1.9	*****	**	135	2.3	125	9.5	0
0600	-2.0	*****	**	295	.2	315	1.3	0
0900	-2.4	*****	**	144	.2	180	1.3	0
1200	-1.0	*****	**	173	.4	148	1.9	5
1500	-1.0	*****	**	352	.2	336	1.9	3
1800	-3.3	*****	**	307	.5	303	1.9	0
2100	-5.5	*****	**	309	.6	340	2.5	0
2400	-5.6	*****	**	335	.4	336	1.9	0

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

R & M CONSULTANTS, INC.

SUSITNA HYDROELECTRIC PROJECT

THREE HOUR SUMMARY FOR EKLUTNA 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	-6.4	*****	**	260	.1	351	.6	0
0600	-5.7	*****	**	197	.1	224	1.3	0
0900	-5.2	*****	**	292	.0	287	.6	0
1200	-7.6	*****	**	333	.9	335	3.8	3
1500	-10.0	*****	**	336	1.7	341	3.8	2
1800	-10.6	*****	**	326	.6	333	2.5	0
2100	-12.3	*****	**	004	.3	337	3.2	0
2400	-14.3	*****	**	338	1.6	340	3.8	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	-14.5	*****	**	305	.2	301	1.9	0
0600	-14.7	*****	**	079	.2	079	1.3	0
0900	-16.0	*****	**	024	1.0	022	2.5	0
1200	-14.7	*****	**	***	****	***	1.9	3
1500	-12.8	*****	**	***	****	***	****	4
1800	-14.8	*****	**	***	****	***	****	0
2100	-18.1	*****	**	***	****	***	****	0
2400	-21.6	*****	**	046	.4	031	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	-18.9	*****	**	058	.3	053	1.9	0
0600	-17.0	*****	**	120	.2	030	1.3	0
0900	-15.2	*****	**	131	.5	146	1.9	0
1200	.3	*****	**	144	3.1	150	8.3	39
1500	1.3	*****	**	145	3.7	148	8.3	20
1800	.9	*****	**	148	6.4	150	13.3	0
2100	2.1	*****	**	134	4.0	130	7.6	0
2400	-5.1	*****	**	108	1.8	139	7.0	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	*****	**	018	1.1	071	5.1	0
0600	-7.1	*****	**	013	.8	115	4.4	0
0900	-7.0	*****	**	102	.3	026	1.9	2
1200	-5.0	*****	**	008	.3	065	1.9	19
1500	-2.1	*****	**	356	.7	334	1.9	23
1800	-2.5	*****	**	315	.3	334	1.9	0
2100	-5.4	*****	**	297	.5	322	1.9	0
2400	-8.0	*****	**	349	.3	182	1.9	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	-13.4	*****	**	155	.5	146	1.9	0
0600	-18.3	*****	**	160	.4	170	1.3	0
0900	-20.2	*****	**	188	.2	182	1.3	2
1200	-15.6	*****	**	090	.1	159	1.3	39
1500	-7.4	*****	**	359	.3	343	1.3	37
1800	-14.3	*****	**	002	.4	007	1.3	0
2100	-16.3	*****	**	080	.3	159	1.9	0
2400	-19.4	*****	**	157	.7	156	2.5	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	-19.7	*****	**	161	.7	143	2.5	0
0600	-21.5	*****	**	136	.6	188	2.5	0
0900	-21.8	*****	**	158	.7	168	2.5	2
1200	-14.2	*****	**	186	.4	159	1.9	37
1500	-8.3	*****	**	344	.7	348	1.9	20
1800	-6.5	*****	**	147	.3	334	1.9	0
2100	-8.8	*****	**	143	.7	181	2.5	0
2400	-8.6	*****	**	154	.7	128	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	-8.7	*****	**	160	.5	202	1.9	0
0600	-7.9	*****	**	123	.7	079	1.9	0
0900	-8.5	*****	**	136	.6	148	1.9	5
1200	-5.0	*****	**	110	.5	139	1.9	28
1500	-.8	*****	**	339	.9	334	2.5	25
1800	-3.1	*****	**	308	1.0	292	2.5	0
2100	-3.7	*****	**	204	.3	274	1.9	0
2400	-5.8	*****	**	164	.4	102	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	-6.7	*****	**	141	.5	160	1.3	0
0600	-9.7	*****	**	139	.4	113	1.3	0
0900	-10.3	*****	**	153	.4	146	1.9	5
1200	-2.6	*****	**	263	.1	143	1.9	49
1500	-2.7	*****	**	317	.5	228	1.3	24
1800	-4.1	*****	**	344	.2	357	1.3	0
2100	-6.3	*****	**	063	.3	028	1.3	0
2400	-7.4	*****	**	155	.5	141	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	-9.7	*****	**	099	.4	074	1.3	0
0600	-10.2	*****	**	146	.5	162	1.9	0
0900	-9.4	*****	**	129	.5	116	1.9	4
1200	-6.4	*****	**	125	.4	141	1.9	23
1500	-.5	*****	**	284	.4	314	2.5	32
1800	-4.6	*****	**	332	.7	337	1.9	0
2100	-8.4	*****	**	332	.3	333	2.5	0
2400	-11.3	*****	**	152	.3	277	1.9	0

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

R & M CONSULTANTS, INC.

SUSITNA HYDROELECTRIC PROJECT

THREE HOUR SUMMARY FOR EKLUTNA WEATHER STATION
DATA TAKEN DURING February, 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	-10.9	*****	**	108	.1	134	1.9	0
0600	-12.4	*****	**	004	.2	151	1.9	0
0900	-12.5	*****	**	111	.5	097	1.9	5
1200	-1.4	*****	**	106	.5	102	1.9	60
1500	-2.1	*****	**	262	.2	117	1.9	22
1800	-4.5	*****	**	016	.3	080	1.9	1
2100	-10.1	*****	**	111	.5	103	1.9	0
2400	-13.3	*****	**	162	.5	126	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	-15.2	*****	**	152	.9	129	2.5	0
0600	-14.8	*****	**	131	.5	132	1.9	0
0900	-16.2	*****	**	142	.6	168	1.9	3
1200	-9.9	*****	**	102	.4	147	1.9	16
1500	-4.2	*****	**	061	.5	349	2.5	19
1800	-7.4	*****	**	151	.5	138	1.9	2
2100	-9.5	*****	**	207	.3	220	1.9	0
2400	-11.7	*****	**	152	.5	151	1.9	0

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

R & M CONSULTANTS, INC.

SUSITNA HYDROELECTRIC PROJECT

MONTHLY SUMMARY FOR EKLUTNA 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 D: DEG C	PRECIP MM	DAY'S SOLAR ENERGY WH/SQM	DAY
1	-4.2	-17.5	-10.9	***	****	.5	***	1.9	***	82	-13.0	****	200	1
2	-5.4	-10.1	-7.8	***	****	.4	***	1.9	***	**	*****	****	200	2
3	-7.4	-12.5	-10.0	***	****	.4	***	1.9	***	**	*****	****	130	3
4	3.1	-8.3	-2.6	092	.6	2.6	155	10.8	NNW	76	-7.5	****	600	4
5	-8.1	-15.1	-11.6	005	.2	.8	349	3.8	SSE	81	-12.8	****	190	5
6	.7	-17.6	-8.5	150	.7	1.1	144	8.9	ESE	59	-13.4	****	185	6
7	-6.5	-12.9	-9.7	347	1.3	1.2	340	7.0	NNW	80	-11.9	****	135	7
8	-11.7	-27.7	-19.7	093	.1	.5	356	3.2	SSE	80	-14.5	****	360	8
9	-22.1	-32.9	-27.5	145	.2	.4	160	1.9	SSE	**	*****	****	505	9
10	-13.6	-33.8	-23.7	090	.1	.5	178	2.5	SSE	**	*****	****	210	10
11	-9.2	-22.2	-15.7	160	.3	.5	160	2.5	SSE	81	-17.8	****	550	11
12	-9.4	-21.7	-15.6	133	.3	.6	153	1.9	SE	80	-18.4	****	535	12
13	-8.9	-20.9	-14.9	***	****	.5	***	1.9	***	**	*****	****	350	13
14	-4.5	-17.5	-11.0	***	****	.9	***	5.1	***	76	-10.8	****	390	14
15	-8.6	-21.9	-15.3	***	****	.5	***	2.5	***	83	-13.1	****	415	15
16	1.4	-10.4	-4.5	213	.3	1.2	259	7.6	SE	74	-5.7	****	176	16
17	4.3	-1.8	1.3	140	1.6	2.4	128	9.5	SE	**	*****	****	900	17
18	1.0	-5.9	-2.5	148	.1	.7	125	9.5	NW	**	*****	****	165	18
19	-5.1	-14.3	-9.7	334	.6	.7	335	3.8	NNW	**	*****	****	155	19
20	-12.5	-21.6	-17.1	023	.5	.6	022	2.5	NNE	**	*****	****	205	20
21	2.1	-20.3	-9.1	139	2.4	2.6	150	13.3	SE	**	*****	****	1365	21
22	.8	-8.9	-4.1	000	.4	.8	071	5.1	NNE	**	*****	****	1360	22
23	-7.3	-20.3	-13.8	131	.2	.5	156	2.5	SSE	**	*****	****	2020	23
24	-5.1	-22.1	-13.6	151	.4	.7	143	2.5	SE	**	*****	****	1460	24
25	-.3	-9.2	-4.8	144	.1	.7	334	2.5	SSE	**	*****	****	1790	25
26	1.2	-11.0	-4.9	140	.1	.5	146	1.9	SSE	**	*****	****	2290	26
27	-.5	-11.4	-6.0	116	.1	.6	314	2.5	SE	**	*****	****	1765	27
28	.6	-13.4	-6.4	111	.2	.6	134	1.9	SE	**	*****	****	2625	28
29	-2.1	-16.2	-9.2	136	.5	.7	129	2.5	SSE	**	*.***	****	1615	29
MONTH	4.3	-33.8	-10.6	125	.3	.8	150	13.3	SE	75	-12.6	****	22846	

GUST VEL. AT MAX. GUST MINUS 2 INTERVALS 8.9
GUST VEL. AT MAX. GUST MINUS 1 INTERVAL 10.2
GUST VEL. AT MAX. GUST PLUS 1 INTERVAL 11.4
GUST VEL. AT MAX. GUST PLUS 2 INTERVALS 10.2

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.

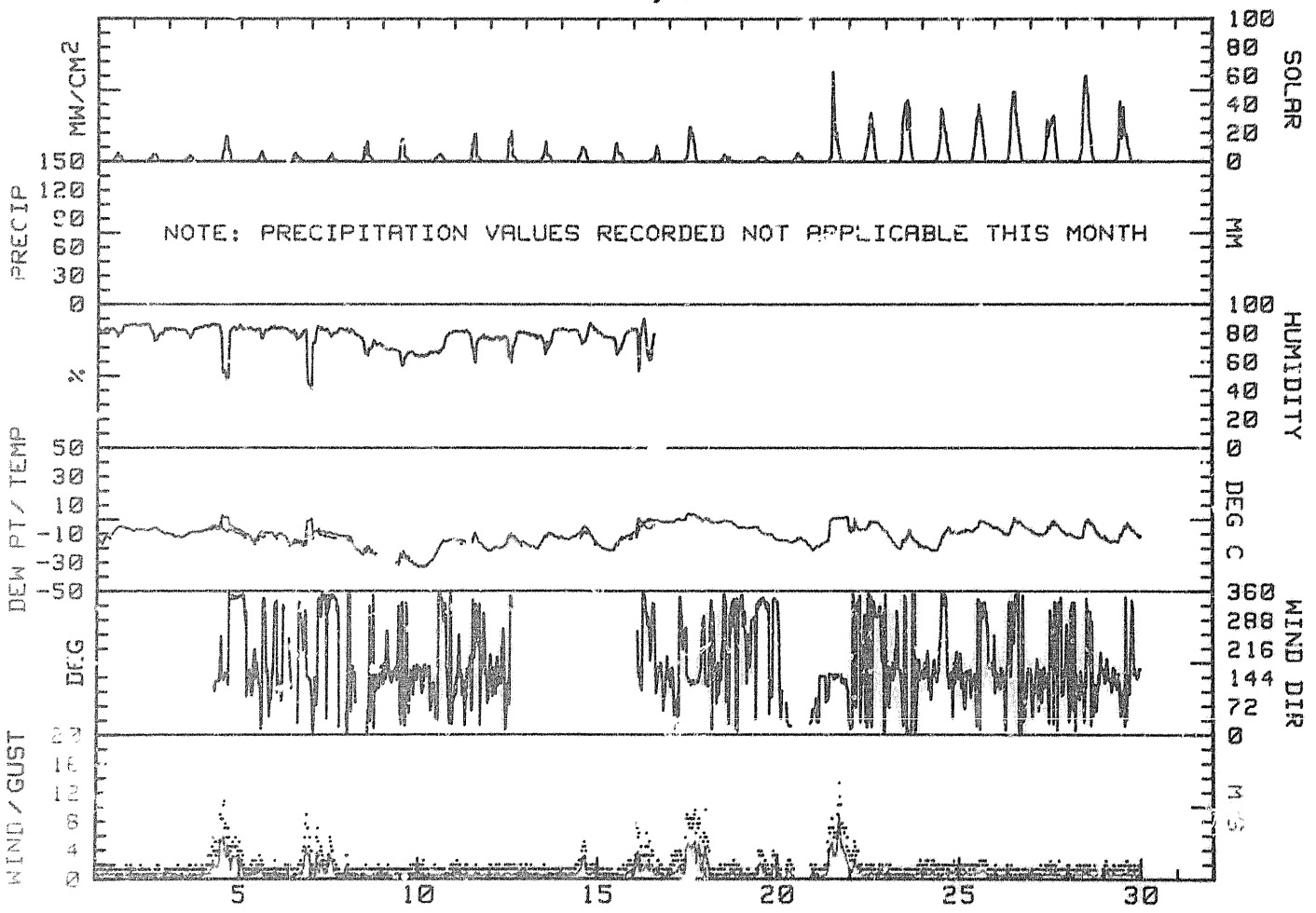
** SEE INTERPRETATION NOTES AT END OF MONTHLY REPORT **

R&M CONSULTANTS, INC.

SUSITNA HYDROELECTRIC PROJECT

EKLUTNA WEATHER STATION

February, 1984



R & M CONSULTANTS, INC.

SUSITNA HYDROELECTRIC PROJECT

WIND FREQUENCY SUMMARY FOR EKLUTNA 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	4.12	1.31	.20	0.00	0.00	0.00	0.00	5.62
NNE	4.12	.80	0.00	0.00	0.00	0.00	0.00	4.92
NE	2.01	.20	0.00	0.00	0.00	0.00	0.00	2.21
ENE	3.41	.40	0.00	0.00	0.00	0.00	0.00	3.82
E	4.82	.40	0.00	0.00	0.00	0.00	0.00	5.22
ESE	5.32	1.20	.20	0.00	0.00	0.00	0.00	6.73
SE	11.65	1.71	4.12	0.00	0.00	0.00	0.00	17.47
SSE	13.55	1.41	1.61	.30	0.00	0.00	0.00	16.87
S	3.92	.50	0.00	0.00	0.00	0.00	0.00	4.42
SSW	2.11	.10	0.00	0.00	0.00	0.00	0.00	2.21
SW	1.00	.50	0.00	0.00	0.00	0.00	0.00	1.51
WSW	1.41	.40	.10	0.00	0.00	0.00	0.00	1.91
W	1.91	.60	0.00	0.00	0.00	0.00	0.00	2.51
WNW	2.61	1.00	0.00	0.00	0.00	0.00	0.00	3.61
NW	4.52	1.61	0.00	0.00	0.00	0.00	0.00	6.12
NNW	5.32	5.42	1.00	0.00	0.00	0.00	0.00	11.75
CALM								3.11
TOTAL	71.72	17.57	7.23	.30	0.00	0.00	0.00	100.00

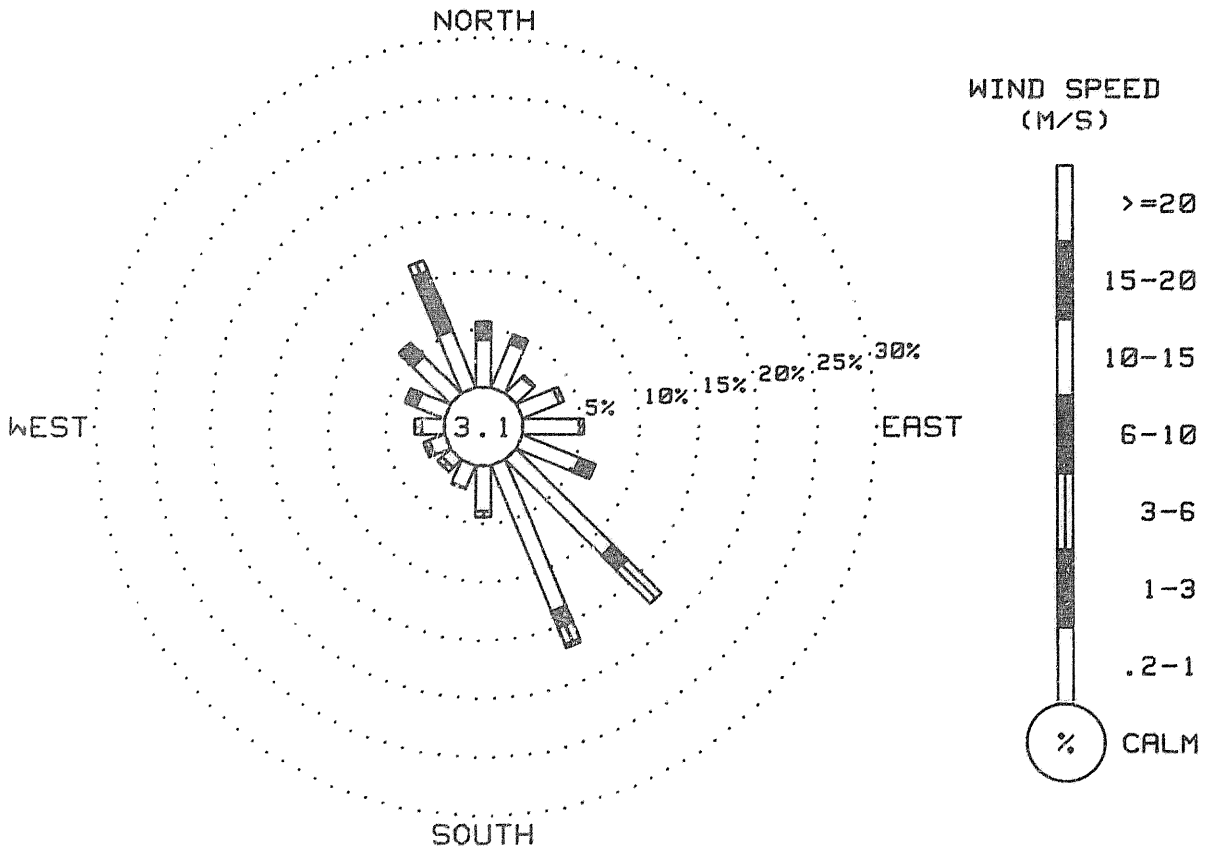
NOTE: ALL FREQUENCIES ARE EXPRESSED IN PERCENT
996 VALID WIND OBSERVATIONS USED TO DEVELOP FREQUENCY SUMMARY
1392 WIND OBSERVATIONS WOULD HAVE BEEN CORRECT FOR 30 MINUTE DATA.
** SEE INTERPRETATION NOTES AT END OF MONTHLY REPORT **

R&M CONSULTANTS, INC.

SUSITNA HYDROELECTRIC PROJECT

EKLUTNA WEATHER STATION

February, 1984



WIND ROSE PLOT

R & M CONSULTANTS, INC.

SUSITNA HYDROELECTRIC PROJECT

HOURLY SOLAR RADIATION SUMMARY FOR EKLUTNA 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	2	3	5	5	4	2	1	0	0	0	0	0	0	0	1
2	0	0	0	0	0	0	0	0	0	1	2	3	5	5	4	2	0	0	0	0	0	0	0	0	1
3	0	0	0	0	0	0	0	0	0	1	2	2	4	4	2	0	0	0	0	0	0	0	0	0	1
4	0	0	0	0	0	0	0	0	0	0	4	8	15	18	10	7	1	0	0	0	0	0	0	0	3
5	0	0	0	0	0	0	0	0	0	1	2	3	6	6	2	1	0	0	0	0	0	0	0	0	1
6	0	0	0	0	0	0	0	0	0	1	3	5	4	3	3	2	0	0	0	0	0	0	0	0	1
7	0	0	0	0	0	0	0	0	0	0	2	4	5	2	1	1	0	0	0	0	0	0	0	0	1
8	0	0	0	0	0	0	0	0	0	1	6	6	13	5	4	2	1	0	0	0	0	0	0	0	2
9	0	0	0	0	0	0	0	0	0	1	6	14	16	10	3	2	1	0	0	0	0	0	0	0	2
10	0	0	0	0	0	0	0	0	0	1	2	3	5	5	4	2	1	0	0	0	0	0	0	0	1
11	0	0	0	0	0	0	0	0	0	1	7	12	19	11	3	2	1	0	0	0	0	0	0	0	2
12	0	0	0	0	0	0	0	0	0	1	4	14	17	13	3	3	1	0	0	0	0	0	0	0	2
13	0	0	0	0	0	0	0	0	0	2	3	6	12	5	5	3	1	0	0	0	0	0	0	0	1
14	0	0	0	0	0	0	0	0	0	1	3	5	9	10	8	5	1	0	0	0	0	0	0	0	2
15	0	0	0	0	0	0	0	0	0	1	7	13	7	6	6	3	1	0	0	0	0	0	0	0	2
16	0	0	0	0	0	0	0	0	0	0	1	2	2	***	7	7	2	0	0	0	0	0	0	0	1
17	0	0	0	0	0	0	0	0	0	1	3	8	23	20	19	13	5	1	0	0	0	0	0	0	4
18	0	0	0	0	0	0	0	0	0	1	2	4	3	3	2	2	1	0	0	0	0	0	0	0	1
19	0	0	0	0	0	0	0	0	0	1	2	3	3	3	3	2	1	0	0	0	0	0	0	0	1
20	0	0	0	0	0	0	0	0	0	0	2	3	6	5	4	3	1	0	0	0	0	0	0	0	1
21	0	0	0	0	0	0	0	0	0	1	3	21	53	25	18	11	6	1	0	0	0	0	0	0	6
22	0	0	0	0	0	0	0	0	1	6	11	17	31	32	22	14	5	1	0	0	0	0	0	0	6
23	0	0	0	0	0	0	0	0	1	5	29	36	40	33	38	14	6	1	0	0	0	0	0	0	8
24	0	0	0	0	0	0	0	0	2	5	12	27	35	25	21	13	7	2	0	0	0	0	0	0	6
25	0	0	0	0	0	0	0	0	3	10	18	29	36	30	26	18	9	1	0	0	0	0	0	0	7
26	0	0	0	0	0	0	0	0	3	15	36	46	45	34	25	16	9	2	0	0	0	0	0	0	10
27	0	0	0	0	0	0	0	0	3	8	27	20	26	29	31	22	12	2	0	0	0	0	0	0	7
28	0	0	0	0	0	0	0	0	4	10	39	56	56	47	25	19	6	2	0	0	0	0	0	0	11
29	0	0	0	0	0	0	0	0	2	7	39	19	29	23	19	13	9	4	0	0	0	0	0	0	7

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

R & M CONSULTANTS, INC.

SUSITNA HYDROELECTRIC PROJECT

HOURLY LONGWAVE RADIATION SUMMARY FOR EKLUTNA WEATHER STATION
DATA TAKEN DURING February, 1984

LONGWAVE RADIATION VALUES 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	26	26	26	26	26	27	27	27	28	28	28	29	29	30	30	31	30	30	30	29	29	29	29	29	28
2	29	29	29	29	29	29	29	29	29	29	29	29	30	30	31	30	30	29	29	29	28	28	28	28	29
3	28	28	28	27	27	27	27	27	27	27	28	28	28	29	29	29	29	29	28	28	28	29	29	29	28
4	29	29	29	29	30	30	30	30	30	32	33	32	33	32	33	34	36	36	36	36	35	36	31	30	32
5	35	25	32	27	28	27	27	28	30	30	28	29	33	33	35	32	29	30	26	27	29	30	33	30	30
6	28	28	27	34	34	33	33	33	27	24	23	23	24	24	30	28	30	30	27	32	31	31	31	29	29
7	30	29	30	31	35	27	34	35	34	28	34	35	30	34	33	33	34	28	27	27	26	26	26	29	30
8	34	27	28	27	28	31	31	31	31	31	32	32	33	25	29	25	28	28	25	23	23	24	24	23	28
9	23	24	27	24	27	22	24	25	24	22	25	27	32	23	22	25	22	22	25	22	25	24	24	26	24
10	23	26	25	25	25	24	24	22	24	23	30	28	32	28	32	27	29	30	27	26	34	26	30	30	27
11	30	27	30	29	28	26	25	30	27	27	27	31	30	27	32	27	23	28	32	26	28	23	26	27	27
12	26	22	26	25	28	26	27	29	28	30	30	30	31	31	34	33	33	32	32	32	32	32	32	32	29
13	31	31	31	31	31	31	31	31	31	31	32	33	34	34	34	34	34	34	33	33	33	32	32	33	32
14	33	32	32	33	32	32	33	33	33	33	34	34	35	35	35	35	35	34	33	33	32	32	32	31	33
15	31	31	31	31	31	31	30	30	30	30	31	33	32	32	33	33	33	32	33	33	33	33	33	34	32
16	34	34	32	34	34	38	30	33	36	35	33	35	38	***	36	32	33	33	37	30	32	35	34	32	32
17	34	35	34	30	36	36	37	37	35	33	32	33	31	31	31	30	30	26	29	30	33	36	30	27	32
18	28	32	35	32	30	32	32	31	35	31	31	34	35	35	37	37	30	34	35	31	31	28	32	35	32
19	35	34	32	32	32	33	34	34	35	36	36	36	36	36	35	35	35	34	29	28	34	34	29	33	33
20	29	26	25	26	26	25	24	24	23	23	24	24	24	25	25	25	25	25	24	24	24	24	23	24	25
21	23	23	22	24	26	26	27	27	25	27	31	32	33	33	32	32	32	32	32	31	27	25	26	25	28
22	31	26	30	33	34	24	26	31	30	32	27	30	31	31	31	35	34	34	31	35	28	30	32	31	30
23	29	25	27	26	26	28	30	26	25	23	26	28	30	19	19	19	19	22	23	22	23	22	26	26	24
24	27	27	25	24	23	28	27	24	24	26	28	27	25	26	26	25	27	29	28	25	26	27	31	31	26
25	31	31	30	30	30	27	27	30	26	26	26	33	32	33	29	34	33	34	34	31	29	27	28	33	30
26	28	29	28	25	27	27	24	27	32	28	29	32	27	30	30	22	22	27	27	24	26	29	29	26	27
27	29	24	26	28	30	27	27	26	31	27	25	32	28	29	32	25	31	27	31	24	26	25	29	27	28
28	32	30	29	27	24	25	26	25	27	25	29	27	30	29	28	29	22	21	20	27	27	25	28	24	26
29	26	26	23	25	30	25	26	27	23	25	25	27	26	30	26	23	23	27	30	25	27	26	26	26	26

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

R & M CONSULTANTS, INC.

SUSITNA HYDROELECTRIC PROJECT

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

PARAMETER	NUMBER OF USABLE OBSERVATIONS	PERCENT OF TOTAL OBSERVATIONS
TEMPERATURE	1389	100
WIND SPEED	1361	98
WIND DIRECTION	998	72
PEAK GUST	1361	98
RELATIVE HUMIDITY	137	10
PRECIPITATION	1389	100
SOLAR RADIATION	1389	100
DEW POINT	137	10
LONGWAVE RADIATION	1388	100

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 month's data:

1. Solar -1 MW/CM^2

Additional comments on this month's data:

1. RH sensor calibrated 2/16. Recorded data invalid after 2/16 due to bad oscillator.

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

No precipitation data for March

(See INTERPRETATION OF DATA).

R & M CONSULTANTS, INC.

SUSITNA HYDROELECTRIC PROJECT

THREE HOUR SUMMARY FOR EKLUTNA 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	-14.7	*****	**	152	.6	152	1.9	0
0600	-13.2	*****	**	145	.5	146	1.9	0
0900	-10.9	*****	**	170	.2	084	1.3	6
1200	-3.8	*****	**	089	.2	162	1.9	32
1500	1.6	*****	**	266	.3	185	1.3	31
1800	-2.0	*****	**	343	.3	346	2.5	2
2100	-6.2	*****	**	106	.1	343	1.9	0
2400	-9.8	*****	**	161	.6	159	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	-13.4	*****	**	159	.4	154	1.3	0
0600	-15.1	*****	**	149	.6	153	1.9	0
0900	-17.7	*****	**	135	.3	174	1.9	3
1200	-6.2	*****	**	138	.7	115	2.5	21
1500	-.7	*****	**	149	.2	138	1.9	40
1800	-4.0	*****	**	309	.4	013	1.3	1
2100	-2.1	*****	**	324	1.4	325	3.8	0
2400	3.4	*****	**	154	3.7	147	11.4	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	*****	**	113	1.6	131	8.9	0
0600	4.0	*****	**	140	6.4	141	11.4	0
0900	4.7	*****	**	146	6.3	149	11.4	6
1200	6.6	*****	**	134	4.6	140	10.2	40
1500	5.4	*****	**	135	4.3	130	9.5	12
1800	1.6	*****	**	150	1.3	116	7.0	1
2100	5.4	*****	**	153	5.1	162	17.1	0
2400	6.5	*****	**	140	7.1	137	14.0	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	4.7	*****	**	138	8.1	139	15.2	0
0600	7.2	*****	**	134	4.9	147	11.4	0
0900	7.1	*****	**	139	3.8	125	9.5	6
1200	7.2	*****	**	116	4.4	121	8.3	17
1500	8.5	*****	**	136	5.3	132	10.2	25
1800	8.5	*****	**	142	5.6	147	9.5	3
2100	8.4	*****	**	142	5.1	146	9.5	0
2400	1.0	*****	**	063	1.5	110	6.3	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	1.9	*****	**	342	1.7	011	3.8	0
0600	1.8	*****	**	331	1.1	315	3.2	0
0900	7.8	*****	**	318	1.1	341	4.4	8
1200	10.8	*****	**	148	4.2	145	10.2	17
1500	9.9	*****	**	141	5.5	138	10.8	22
1800	9.2	*****	**	135	4.9	144	10.2	2
2100	8.3	*****	**	134	5.6	139	10.2	1
2400	7.8	*****	**	135	4.4	147	8.9	1

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	9.0	*****	**	133	4.4	134	7.6	1
0600	-.7	*****	**	121	1.0	103	5.1	0
0900	-1.1	*****	**	169	.7	208	1.9	3
1200	5.0	*****	**	183	.5	203	1.9	51
1500	8.2	*****	**	274	.4	176	1.9	43
1800	3.1	*****	**	093	.2	167	1.9	3
2100	1.8	*****	**	085	.4	010	1.9	0
2400	1.4	*****	**	168	.9	195	2.5	1

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	*****	**	156	.7	153	2.5	0
0600	1.0	*****	**	106	.5	084	1.9	0
0900	1.8	*****	**	150	.4	090	1.9	7
1200	7.1	*****	**	239	.6	195	2.5	52
1500	7.6	*****	**	314	.8	332	4.4	25
1800	4.1	*****	**	297	.2	357	3.2	2
2100	2.3	*****	**	148	.5	156	1.9	0
2400	1.1	*****	**	137	.6	140	1.9	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	*****	**	142	.8	160	1.9	0
0600	.1	*****	**	151	.8	109	1.9	0
0900	.7	*****	**	148	.8	132	1.9	5
1200	3.8	*****	**	154	.9	145	1.9	11
1500	2.9	*****	**	146	.6	143	1.9	7
1800	6.0	*****	**	301	1.1	313	4.4	1
2100	10.1	*****	**	100	1.1	354	7.6	0
2400	9.6	*****	**	140	2.5	144	7.6	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	3.7	*****	**	177	2.0	146	8.9	0
0600	3.9	*****	**	332	.9	315	3.2	0
0900	6.5	*****	**	003	1.1	343	3.2	6
1200	9.4	*****	**	162	1.8	187	6.3	45
1500	10.1	*****	**	125	4.2	135	10.2	25
1800	8.3	*****	**	133	3.1	131	7.6	1
2100	3.2	*****	**	318	1.0	261	4.4	0
2400	3.1	*****	**	138	.8	101	1.9	0

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

R & M CONSULTANTS, INC.

SUSITNA HYDROELECTRIC PROJECT

THREE HOUR SUMMARY FOR EKLUTNA 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	2.8	*****	**	140	.7	124	1.9	0
0600	2.2	*****	**	133	.8	139	2.5	0
0900	4.0	*****	**	142	.8	145	2.5	13
1200	9.1	*****	**	150	2.0	139	7.0	30
1500	10.3	*****	**	136	5.0	142	8.9	52
1800	5.9	*****	**	134	3.4	132	8.3	4
2100	2.6	*****	**	275	.8	185	3.2	0
2400	1.9	*****	**	327	1.1	316	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	2.1	*****	**	336	1.1	334	3.8	0
0600	3.0	*****	**	147	.6	127	1.9	0
0900	2.3	*****	**	128	.9	141	1.9	7
1200	6.0	*****	**	062	.2	136	2.5	48
1500	5.3	*****	**	194	.2	305	2.5	33
1800	4.8	*****	**	253	.4	287	2.5	2
2100	.7	*****	**	171	.2	310	1.9	0
2400	-1.5	*****	**	154	.7	158	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	-3.3	*****	**	151	.5	161	1.9	0
0600	-5.0	*****	**	163	.5	175	1.3	0
0900	-4.4	*****	**	157	.6	155	1.9	4
1200	2.4	*****	**	003	.2	155	1.9	57
1500	5.2	*****	**	342	.8	355	1.9	51
1800	1.8	*****	**	004	.4	328	1.9	3
2100	-2.5	*****	**	148	.7	099	1.9	0
2400	-4.3	*****	**	155	.6	158	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	-5.2	*****	**	148	.6	137	1.9	0
0600	-6.6	*****	**	159	.6	172	1.9	0
0900	-5.9	*****	**	150	.7	148	1.9	5
1200	3.2	*****	**	241	.3	311	1.9	51
1500	5.5	*****	**	305	.5	192	2.5	20
1800	2.3	*****	**	291	.8	296	2.5	3
2100	.9	*****	**	173	.4	266	1.9	0
2400	-1.6	*****	**	147	.6	147	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	-3.7	*****	**	152	.8	133	1.9	0
0600	-5.9	*****	**	140	.5	156	1.3	0
0900	-5.4	*****	**	152	.7	150	1.9	5
1200	4.3	*****	**	150	.3	155	1.3	57
1500	4.2	*****	**	021	.2	327	2.5	51
1800	2.3	*****	**	301	.8	320	1.9	4
2100	-2.7	*****	**	150	.6	157	1.9	0
2400	-4.9	*****	**	149	.5	164	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	-5.8	*****	**	155	.6	189	1.9	0
0600	-5.0	*****	**	152	.6	112	1.9	0
0900	0.0	*****	**	168	.7	176	1.9	9
1200	6.0	*****	**	139	2.9	129	6.3	38
1500	6.8	*****	**	140	3.4	140	6.3	63
1800	5.4	*****	**	150	2.9	137	6.3	5
2100	.2	*****	**	102	.3	146	3.2	0
2400	-1.7	*****	**	117	.1	350	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	-2.6	*****	**	152	.6	145	1.9	0
0600	-3.1	*****	**	172	.6	184	1.9	0
0900	-2.5	*****	**	130	.4	150	1.3	11
1200	5.7	*****	**	354	.5	335	1.9	59
1500	5.1	*****	**	337	.9	338	1.9	55
1800	1.7	*****	**	340	.3	319	1.9	5
2100	-2.5	*****	**	230	.1	165	1.9	0
2400	-2.8	*****	**	132	.8	125	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	-3.4	*****	**	120	.7	110	1.9	0
0600	-4.6	*****	**	285	.1	142	1.9	0
0900	-4.1	*****	**	153	.6	158	1.9	7
1200	3.5	*****	**	111	.4	141	1.9	63
1500	4.4	*****	**	331	.9	337	1.9	56
1800	2.5	*****	**	322	1.2	347	3.2	5
2100	-2.9	*****	**	165	.6	160	1.9	0
2400	-5.8	*****	**	165	.4	173	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	-7.8	*****	**	157	.6	172	1.3	0
0600	-8.8	*****	**	158	.6	156	1.9	0
0900	-8.1	*****	**	154	.5	166	1.9	5
1200	0.0	*****	**	355	.3	328	1.9	72
1500	3.0	*****	**	334	1.2	343	2.5	57
1800	.3	*****	**	301	.7	300	2.5	5
2100	-3.9	*****	**	173	.7	169	1.9	0
2400	-7.8	*****	**	166	.6	160	1.3	0

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

R & M CONSULTANTS, INC.

SUSITNA HYDROELECTRIC PROJECT

THREE HOUR SUMMARY FOR EKLUTNA 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	-9.4	*****	**	158	.6	164	1.9	0
0600	-10.1	*****	**	168	.7	148	1.9	0
0900	-9.6	*****	**	162	.7	170	1.9	5
1200	-.6	*****	**	090	.2	158	1.9	70
1500	3.9	*****	**	335	.9	344	1.9	58
1800	.7	*****	**	337	.7	326	1.9	5
2100	-2.2	*****	**	148	.7	141	2.5	0
2400	-5.4	*****	**	149	.8	161	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	-6.3	*****	**	154	.7	146	1.9	0
0600	-7.6	*****	**	156	.7	170	2.5	0
0900	-6.8	*****	**	146	.7	153	1.9	6
1200	4.0	*****	**	141	.7	097	2.5	66
1500	2.9	*****	**	313	.7	243	2.5	30
1800	3.1	*****	**	348	1.5	357	3.2	8
2100	-1.9	*****	**	026	.1	351	3.2	0
2400	-5.2	*****	**	152	.6	150	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	-6.7	*****	**	158	.6	142	1.9	0
0600	-8.6	*****	**	153	.5	146	1.9	0
0900	-8.3	*****	**	162	.7	162	1.9	5
1200	-.8	*****	**	001	.2	166	1.3	73
1500	3.3	*****	**	331	1.0	329	2.5	61
1800	1.2	*****	**	321	.8	322	2.5	5
2100	-3.0	*****	**	154	.2	170	1.9	0
2400	-7.0	*****	**	145	.6	131	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	-9.2	*****	**	154	.7	156	1.9	0
0600	-10.3	*****	**	148	.7	144	1.9	0
0900	-9.3	*****	**	158	.6	160	1.9	6
1200	.8	*****	**	357	.3	000	1.3	74
1500	4.3	*****	**	329	1.3	338	3.2	61
1800	.6	*****	**	313	.8	317	1.9	5
2100	-4.4	*****	**	191	.5	171	1.9	0
2400	-7.3	*****	**	160	.4	180	1.9	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	-8.3	*****	**	175	.6	166	1.9	0
0600	-11.2	*****	**	167	.9	155	2.5	0
0900	-9.6	*****	**	162	.6	169	1.3	6
1200	-1.6	*****	**	003	.3	328	1.9	72
1500	2.1	*****	**	327	1.1	330	2.5	62
1800	-.8	*****	**	307	1.2	330	2.5	5
2100	-5.3	*****	**	146	.5	111	1.3	0
2400	-7.0	*****	**	132	.4	146	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	-8.5	*****	**	152	.7	148	1.9	0
0600	-10.4	*****	**	153	.8	167	1.9	0
0900	-9.1	*****	**	151	.7	127	2.5	9
1200	1.5	*****	**	087	.3	341	2.5	86
1500	2.2	*****	**	322	1.5	332	3.8	29
1800	2.1	*****	**	325	1.4	335	3.2	9
2100	1.3	*****	**	191	.5	166	2.5	0
2400	.7	*****	**	159	1.1	184	3.2	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	-.2	*****	**	138	.6	123	1.3	0
0600	-1.6	*****	**	252	.1	095	1.3	0
0900	-.8	*****	**	309	.3	314	1.3	14
1200	1.9	*****	**	332	.6	319	1.9	60
1500	3.4	*****	**	340	1.5	341	3.2	38
1800	3.1	*****	**	311	1.1	329	2.5	10
2100	-1.4	*****	**	195	.2	315	1.9	0
2400	-1.6	*****	**	161	.6	158	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	-1.6	*****	**	159	.5	154	1.9	0
0600	-1.5	*****	**	135	.5	151	1.3	0
0900	0.0	*****	**	160	.3	136	1.3	10
1200	1.1	*****	**	123	.5	150	2.5	42
1500	5.9	*****	**	149	4.0	137	8.3	20
1800	5.0	*****	**	144	3.1	141	6.3	3
2100	3.9	*****	**	147	2.4	147	8.3	0
2400	5.1	*****	**	150	3.2	154	7.0	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	4.6	*****	**	142	3.3	139	7.6	0
0600	4.9	*****	**	141	4.6	145	8.3	0
0900	5.4	*****	**	141	4.2	141	8.3	17
1200	5.7	*****	**	146	3.9	151	8.3	46
1500	7.2	*****	**	143	3.6	132	7.6	83
1800	5.7	*****	**	144	3.5	139	6.3	10
2100	1.3	*****	**	142	1.4	129	5.7	0
2400	-2.7	*****	**	314	.3	333	1.9	0

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

R & M CONSULTANTS, INC.

SUSITNA HYDROELECTRIC PROJECT

THREE HOUR SUMMARY FOR EKLUTNA 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	-4.2	*****	**	158	.5	144	1.9	0
0600	-6.4	*****	**	155	.6	164	1.3	0
0900	-5.2	*****	**	146	.5	168	1.9	6
1200	3.3	*****	**	345	.6	344	1.9	71
1500	7.5	*****	**	018	.7	032	5.7	67
1800	4.8	*****	**	139	3.2	141	6.3	11
2100	4.2	*****	**	132	3.1	116	6.3	0
2400	3.7	*****	**	141	2.9	138	8.3	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	1.1	*****	**	169	1.8	149	7.0	0
0600	.9	*****	**	327	.9	315	4.4	0
0900	1.2	*****	**	151	1.1	155	2.5	14
1200	3.7	*****	**	175	1.6	181	3.2	20
1500	3.2	*****	**	175	1.8	176	3.2	20
1800	2.3	*****	**	171	1.7	176	3.2	11
2100	-.7	*****	**	149	.5	165	1.9	0
2400	-1.1	*****	**	146	.5	127	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	-2.2	*****	**	111	.2	141	1.3	0
0600	-2.6	*****	**	323	.4	009	1.3	0
0900	-1.6	*****	**	292	.2	297	1.3	8
1200	.9	*****	**	329	.4	323	1.3	18
1500	.5	*****	**	339	.7	338	1.9	20
1800	.2	*****	**	331	.7	336	1.9	7
2100	-1.4	*****	**	***	****	***	1.3	0
2400	-2.5	*****	**	***	****	***	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	-5.7	*****	**	***	****	***	1.3	0
0600	-4.7	*****	**	***	****	***	2.5	0
0900	2.2	*****	**	266	.8	242	3.2	11
1200	6.5	*****	**	161	1.8	161	5.7	76
1500	6.8	*****	**	141	3.6	148	7.6	47
1800	6.0	*****	**	143	3.7	138	8.9	12
2100	5.6	*****	**	132	4.0	135	8.3	0
2400	3.7	*****	**	140	5.3	145	10.2	0

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

R & M CONSULTANTS, INC.

SUSITNA HYDROELECTRIC PROJECT

MONTHLY SUMMARY FOR EKLUTNA 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	1.6	-15.4	-6.9	155	.2	.5	346	2.5	SSE	**	*****	****	1885	1
2	3.5	-17.7	-7.1	155	.5	1.2	147	11.4	SE	**	*****	****	2000	2
3	6.6	-.7	3.0	141	4.6	4.9	162	17.1	SE	**	*****	****	1355	3
4	8.8	1.0	4.9	134	4.7	5.0	139	15.2	SE	**	*****	****	1690	4
5	11.1	.9	6.0	136	2.6	3.6	138	10.8	SE	**	*****	****	1505	5
6	9.6	-2.0	3.8	140	.9	1.3	134	7.6	SE	**	*****	****	2870	6
7	9.8	.7	5.3	164	.2	.8	332	4.4	SE	**	*****	****	2580	7
8	10.5	-.7	4.9	142	.8	1.5	354	7.6	SE	**	*****	****	715	8
9	10.7	2.1	6.4	137	1.1	2.1	135	10.2	SE	**	*****	****	2230	9
10	10.5	1.6	6.1	140	1.4	1.9	142	8.9	SE	**	*****	****	2840	10
11	11.0	-1.7	4.7	149	.2	.8	334	3.8	SE	**	*****	****	2510	11
12	5.5	-5.2	.2	141	.2	.6	161	1.9	SSE	**	*****	****	3545	12
13	6.1	-7.0	-.5	182	.3	.7	192	2.5	SSE	**	*****	****	3360	13
14	5.3	-6.3	-.5	154	.3	.7	327	2.5	SSE	**	*****	****	3585	14
15	7.3	-6.1	.6	144	1.4	1.7	129	6.3	SSE	**	*****	****	3260	15
16	6.0	-3.7	1.2	116	.1	.7	145	1.9	SE	**	*****	****	3870	16
17	5.2	-5.8	-.3	138	.1	.7	347	3.2	NNW	**	*****	****	3970	17
18	3.8	-9.6	-2.9	192	.1	.7	347	2.5	SSE	**	*****	****	3935	18
19	4.1	-10.9	-3.4	150	.3	.7	141	2.5	SSE	**	*****	****	4080	19
20	4.2	-8.1	-2.0	132	.2	.9	357	3.2	SSE	**	*****	****	3155	20
21	3.5	-9.8	-3.2	167	.1	.7	329	2.5	SSE	**	*****	****	4370	21
22	4.9	-11.2	-3.2	202	.1	.7	338	3.2	SSE	**	*****	****	4410	22
23	2.4	-11.2	-4.4	216	.1	.8	155	2.5	SSE	**	*****	****	4505	23
24	4.4	-11.6	-3.6	184	.1	1.0	332	3.8	SSE	**	*****	****	4065	24
25	4.0	-2.1	1.0	317	.2	.7	341	3.2	NW	**	*****	****	3655	25
26	7.4	-1.9	2.8	147	1.8	1.8	137	8.3	SSE	**	*****	****	3020	26
27	7.2	-2.7	2.3	143	3.0	3.2	145	8.3	SE	**	*****	****	4675	27
28	7.6	-6.7	.5	135	1.2	1.7	138	8.3	SE	**	*****	****	4875	28
29	3.7	-1.6	1.1	169	1.0	1.3	149	7.0	S	**	*****	****	2150	29
30	.9	-2.6	-.9	333	.4	.5	338	1.9	NNW	**	*****	****	1565	30
31	7.4	-7.4	0.0	142	3.4	2.6	145	10.2	SE	**	*****	****	3965	31
MONTH	11.1	-17.7	.5	142	.9	.8	162	17.1	SE	**	*****	****	96195	

GUST VEL. AT MAX. GUST MINUS 2 INTERVALS 5.1
GUST VEL. AT MAX. GUST MINUS 1 INTERVAL 4.4
GUST VEL. AT MAX. GUST PLUS 1 INTERVAL 15.2
GUST VEL. AT MAX. GUST PLUS 2 INTERVALS 14.0

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

WIND FREQUENCY SUMMARY FOR EKLUTNA 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	1.78	1.30	.07	0.00	0.00	0.00	0.00	3.15
NNE	1.23	.14	.07	0.00	0.00	0.00	0.00	1.44
NE	.75	.34	0.00	0.00	0.00	0.00	0.00	1.10
ENE	.96	.14	0.00	0.00	0.00	0.00	0.00	1.10
E	1.92	.07	0.00	0.00	0.00	0.00	0.00	1.99
ESE	3.77	.62	1.64	.07	0.00	0.00	0.00	6.10
SE	11.16	2.81	10.00	1.78	0.00	0.00	0.00	25.75
SSE	17.19	4.86	2.53	.41	0.00	0.00	0.00	25.00
S	5.21	2.47	.07	0.00	0.00	0.00	0.00	7.74
SSW	2.33	.41	0.00	0.00	0.00	0.00	0.00	2.74
SW	1.30	.34	0.00	0.00	0.00	0.00	0.00	1.64
WSW	1.16	.41	0.00	0.00	0.00	0.00	0.00	1.58
W	1.23	.34	0.00	0.00	0.00	0.00	0.00	1.58
WNW	1.71	.82	0.00	0.00	0.00	0.00	0.00	2.53
NW	2.67	3.70	.07	0.00	0.00	0.00	0.00	6.44
NNW	5.00	5.14	0.00	0.00	0.00	0.00	0.00	10.14
CALM								0.00
TOTAL	59.38	23.90	14.45	2.26	0.00	0.00	0.00	100.00

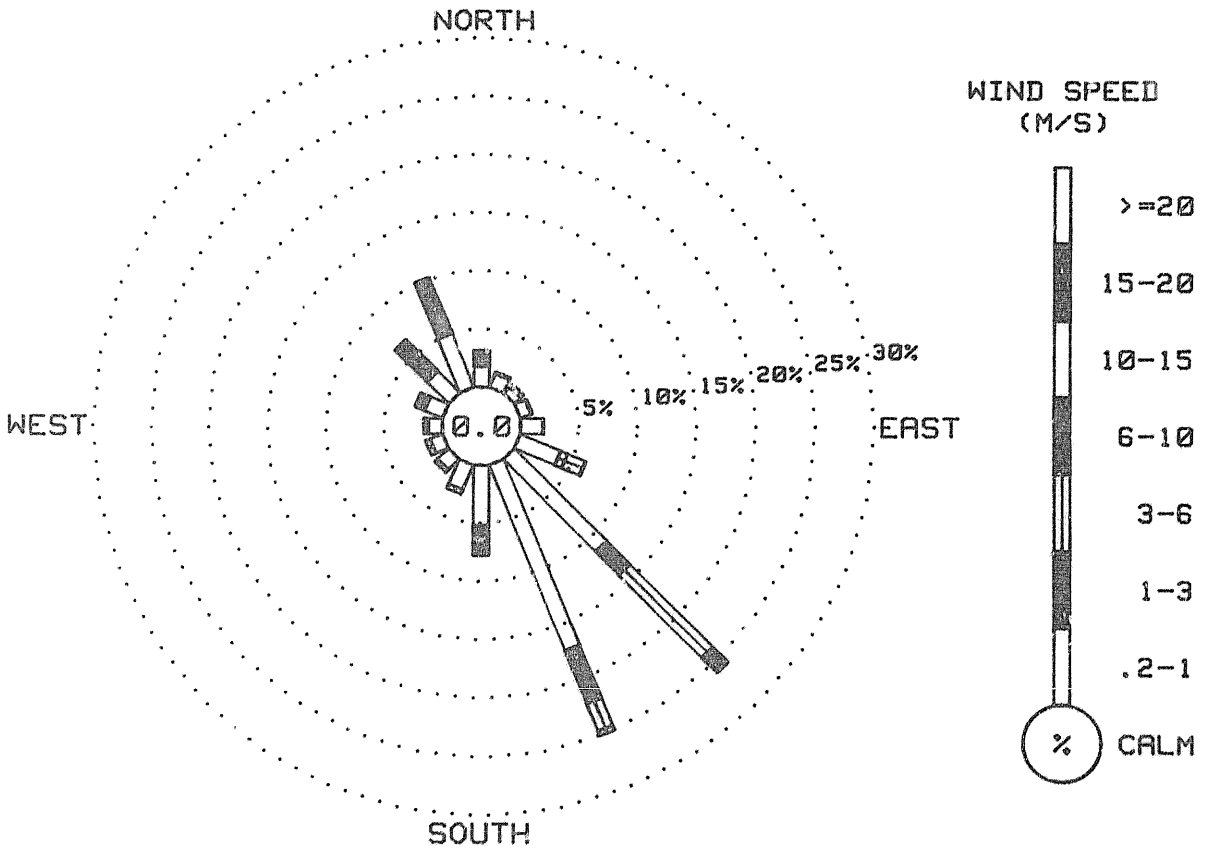
NOTE: ALL FREQUENCIES ARE EXPRESSED IN PERCENT
1460 VALID WIND OBSERVATIONS USED TO DEVELOP FREQUENCY SUMMARY
1488 WIND OBSERVATIONS WOULD HAVE BEEN CORRECT FOR 30 MINUTE DATA.
** SEE INTERPRETATION NOTES AT END OF MONTHLY REPORT **

R&M CONSULTANTS, INC.

SUSITNA HYDROELECTRIC PROJECT

EKLUTNA WEATHER STATION

March, 1984



WIND ROSE PLOT

R & M CONSULTANTS, INC.

SUSITNA HYDROELECTRIC PROJECT

HOURLY SOLAR RADIATION SUMMARY FOR EKLUTNA 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	4	11	20	30	27	32	30	21	12	4	0	0	0	0	0	0	8
2	0	0	0	0	0	0	0	0	3	10	16	21	38	44	35	22	10	3	0	0	0	0	0	0	8
3	0	0	0	0	0	0	0	1	4	7	15	32	26	24	15	6	3	2	0	0	0	0	0	0	6
4	0	0	0	0	0	0	0	1	5	11	19	17	26	31	28	18	11	5	0	0	0	0	0	0	7
5	0	0	0	0	0	0	0	0	6	11	14	17	18	24	28	16	10	3	1	1	1	1	1	1	6
6	1	1	1	1	1	0	0	1	3	6	43	46	49	44	44	30	13	6	1	1	0	0	0	1	12
7	0	0	0	0	0	0	0	1	5	18	33	51	41	51	27	18	10	5	0	0	0	0	0	0	11
8	0	0	0	0	0	0	0	1	4	7	10	11	11	10	7	6	5	2	0	0	0	0	1	0	3
9	1	0	0	0	0	0	0	1	4	7	17	38	61	43	24	18	9	2	0	0	0	0	0	0	9
10	0	0	0	0	0	0	0	1	9	19	19	29	40	60	59	28	13	8	1	0	0	0	0	0	12
11	0	0	0	0	0	0	0	1	6	11	24	36	27	45	46	38	14	4	1	0	0	0	0	0	10
12	0	0	0	0	0	0	0	1	3	20	50	58	58	59	53	42	8	4	1	0	0	0	0	0	15
13	0	0	0	0	0	0	0	1	4	21	45	55	61	62	38	30	18	5	1	0	0	0	0	0	14
14	0	0	0	0	0	0	0	1	4	21	47	56	61	61	55	39	10	5	1	0	0	0	0	0	15
15	0	0	0	0	0	0	0	1	8	29	31	37	37	57	64	47	10	7	1	0	0	0	0	0	14
16	0	0	0	0	0	0	0	3	10	29	43	57	63	63	57	45	11	7	1	0	0	0	0	0	16
17	0	0	0	0	0	0	0	2	6	32	48	59	64	66	58	47	11	6	1	0	0	0	0	0	17
18	0	0	0	0	0	0	0	2	4	23	48	64	67	65	59	48	8	6	1	0	0	0	0	0	16
19	0	0	0	0	0	0	0	2	4	24	49	66	71	66	60	49	12	6	2	0	0	0	0	0	17
20	0	0	0	0	0	0	0	3	6	28	58	46	37	46	32	35	16	9	3	0	0	0	0	0	13
21	0	0	0	0	0	0	0	2	5	25	52	68	73	68	63	50	25	7	2	0	0	0	0	0	18
22	0	0	0	0	0	0	0	3	6	26	49	72	72	69	63	52	24	6	2	0	0	0	0	0	18
23	0	0	0	0	0	0	0	3	6	26	55	70	73	70	64	53	25	6	2	0	0	0	0	0	19
24	0	0	0	0	0	0	0	3	7	26	64	63	75	38	45	33	22	11	3	0	0	0	0	0	17
25	0	0	0	0	0	0	1	4	12	20	37	64	66	51	43	32	23	13	4	0	0	0	0	0	15
26	0	0	0	0	0	0	0	3	10	17	25	51	60	45	27	28	12	5	2	0	0	0	0	0	13
27	0	0	0	0	0	0	1	9	16	29	48	50	67	77	79	51	28	12	5	0	0	0	0	0	19
28	0	0	0	0	0	0	1	3	6	28	63	72	75	75	69	58	25	11	5	1	0	0	0	0	20
29	0	0	0	0	0	0	1	5	12	21	26	20	26	26	20	21	24	11	5	0	0	0	0	0	9
30	0	0	0	0	0	0	1	3	7	10	11	15	27	22	21	17	12	9	5	1	0	0	0	0	7
31	0	0	0	0	0	0	1	5	12	16	37	78	33	56	50	41	31	15	5	0	0	0	0	0	17

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

R & M CONSULTANTS, INC.

SUSITNA HYDROELECTRIC PROJECT

HOURLY LONGWAVE RADIATION SUMMARY FOR EKLUTNA WEATHER STATION
DATA TAKEN DURING March, 1984

LONGWAVE RADIATION VALUES 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	24	24	24	24	26	28	28	30	30	31	30	29	32	33	34	30	28	26	27	27	26	26	26	29	28
2	25	25	25	26	23	27	25	25	22	26	28	31	34	33	31	30	30	27	34	35	31	31	29	28	28
3	32	29	29	29	26	25	25	26	26	27	29	30	31	31	32	32	35	34	36	34	34	33	31	33	30
4	31	32	32	34	31	32	35	31	32	32	33	33	33	33	34	34	34	32	28	27	27	29	29	31	31
5	30	35	36	34	33	31	35	32	32	34	34	35	33	33	33	33	33	33	33	34	32	33	34	29	33
6	29	32	34	34	28	25	25	25	28	27	32	25	29	33	33	29	27	28	29	32	34	31	35	32	30
7	35	36	30	35	35	32	32	36	34	34	31	35	30	32	32	29	35	35	34	30	33	32	33	32	33
8	28	25	29	29	32	32	33	29	31	33	36	34	34	33	34	38	34	39	34	34	34	33	36	36	33
9	29	31	34	35	34	31	37	34	38	35	34	33	34	32	33	33	33	35	37	34	35	32	35	33	34
10	33	34	35	38	32	36	35	38	35	34	34	33	32	33	31	32	33	34	35	35	33	33	36	32	34
11	32	28	32	33	33	32	30	31	30	35	30	34	31	31	31	34	35	38	32	27	26	27	26	26	31
12	26	26	26	27	27	27	27	28	29	30	32	33	28	32	29	32	24	24	25	25	25	26	25	25	27
13	24	25	25	25	26	27	25	27	27	28	33	28	29	28	29	31	34	35	34	34	29	31	28	24	28
14	24	24	26	25	28	25	26	26	26	31	27	30	27	32	32	31	29	24	25	25	25	26	26	25	27
15	26	25	27	28	28	29	30	30	29	31	30	30	31	32	28	27	27	26	28	24	28	30	28	29	28
16	27	29	30	25	28	28	30	25	26	25	26	24	28	32	28	32	27	24	24	24	24	23	24	27	26
17	25	24	29	29	31	26	27	25	25	26	28	28	33	32	32	27	29	28	24	24	25	25	24	25	27
18	25	24	23	24	24	25	25	25	27	30	28	30	26	31	31	31	28	26	26	23	24	24	24	24	26
19	22	24	23	24	24	24	25	25	26	26	28	24	27	31	31	31	28	24	24	25	24	27	24	24	25
20	25	30	28	26	25	27	25	24	23	24	30	28	33	31	34	35	30	26	28	25	24	24	24	25	27
21	23	26	25	24	25	23	25	25	26	27	31	31	31	32	32	31	26	26	29	26	23	22	21	24	26
22	22	23	23	25	21	23	24	24	26	25	21	27	26	26	31	30	28	27	25	24	24	23	23	23	25
23	24	25	26	24	27	23	23	25	23	26	31	31	30	30	30	30	28	25	24	24	23	26	27	21	26
24	27	24	24	24	22	22	24	25	25	25	28	32	30	31	34	36	37	36	34	33	32	33	32	32	29
25	31	32	33	31	37	35	35	33	32	29	31	35	34	30	30	36	34	35	30	27	29	29	30	31	32
26	31	32	33	32	30	33	32	32	32	30	28	35	32	32	34	34	33	33	33	33	32	32	31	28	32
27	29	28	27	28	31	31	31	31	30	31	31	32	32	31	30	30	28	28	26	26	24	22	24	26	28
28	24	25	25	25	23	25	25	24	24	23	31	32	33	31	27	26	25	25	26	28	29	30	31	32	27
29	30	36	34	32	33	35	35	33	33	33	34	35	34	34	33	34	34	34	30	31	28	31	32	31	33
30	32	30	37	36	33	34	30	38	31	39	37	34	34	39	38	35	35	37	36	35	35	36	36	36	35
31	36	35	33	34	34	35	37	38	29	33	37	30	32	33	32	31	30	29	30	30	31	31	31	32	32

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

R & M CONSULTANTS, INC.

SUSITNA HYDROELECTRIC PROJECT

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

PARAMETER	NUMBER OF USABLE OBSERVATIONS	PERCENT OF TOTAL OBSERVATIONS
TEMPERATURE	1486	100
WIND SPEED	1486	100
WIND DIRECTION	1458	98
PEAK GUST	1486	100
RELATIVE HUMIDITY	0	0
PRECIPITATION	1486	100
SOLAR RADIATION	1486	100
DEW POINT	0	0
LONGWAVE RADIATION	1485	100

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. Solar -1 MW/CM^2

Additional comments on this month's data:

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

2. Recorded RH data invalid due to bad oscillator.

R & M CONSULTANTS, INC.

SUSITNA HYDROELECTRIC PROJECT

HOURLY PRECIPITATION SUMMARY FOR EKLUTNA 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	0.0	0.0	0.0	0.0	.4	.6	0.0	0.0	0.0	2.2	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	1
2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.6	2.8	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	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	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	.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	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	2.8	.4	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	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	12
13	0.0	0.0	0.0	0.0	0.0	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	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	.2	.8	.4	.4	0.0	0.0	1.0	.2	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	.2	0.0	0.0	1.4	1.4	.6	1.2	1.0	.4	.2	.2	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	.8	.6	1.4	1.0	.6	.2	1.0	.8	.2	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	.8	.4	1.6	1.4	.4	.2	20
21	.6	.2	.4	.6	.4	.2	.2	0.0	0.0	0.0	0.0	0.0	0.0	.2	.2	0.0	0.0	.2	.8	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	1.8	.8	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	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	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	0.0	0.0	30

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

R & M CONSULTANTS, INC.

SUSITNA HYDROELECTRIC PROJECT

THREE HOUR SUMMARY FOR EKLUTNA 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	2.3	*****	**	143	.6	173	6.3	0
0600	.4	*****	**	146	1.8	138	7.0	0
0900	.9	*****	**	209	.2	186	1.9	9
1200	5.7	*****	**	072	.7	129	5.7	67
1500	6.9	*****	**	126	3.6	127	8.3	70
1800	2.8	*****	**	035	.8	129	5.1	9
2100	2.4	*****	**	339	1.3	351	3.8	0
2400	.2	*****	**	143	.6	162	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	*****	**	186	.1	130	1.3	0
0600	-.5	*****	**	***	****	***	.6	0
0900	-1.1	*****	**	155	.2	167	1.3	5
1200	2.6	*****	**	358	.7	328	2.5	86
1500	3.5	*****	**	347	1.5	344	3.2	76
1800	2.8	*****	**	320	1.5	310	3.2	14
2100	.6	*****	**	311	.6	306	1.9	0
2400	-1.4	*****	**	024	.2	251	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	*****	**	229	.1	311	1.3	0
0600	-1.7	*****	**	136	.3	137	1.3	0
0900	-1.3	*****	**	317	.5	317	1.3	16
1200	2.6	*****	**	339	.6	060	1.3	48
1500	2.4	*****	**	338	1.7	345	3.8	38
1800	3.0	*****	**	344	1.1	354	3.2	12
2100	.2	*****	**	134	.4	185	1.9	0
2400	-2.4	*****	**	138	.7	147	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	-4.9	*****	**	150	.6	140	1.9	0
0600	-5.8	*****	**	135	.6	146	1.9	0
0900	-4.6	*****	**	265	.6	222	1.9	7
1200	3.6	*****	**	008	.5	345	1.9	85
1500	8.8	*****	**	050	.6	126	5.7	47
1800	6.0	*****	**	095	1.6	019	5.7	14
2100	1.2	*****	**	112	.8	115	4.4	0
2400	-.4	*****	**	014	.3	298	2.5	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	-1.6	*****	**	048	.6	084	2.5	0
0600	-.9	*****	**	145	.7	128	1.9	0
0900	5.3	*****	**	165	1.3	135	5.7	25
1200	7.1	*****	**	136	3.7	130	8.9	95
1500	1.5	*****	**	052	1.2	139	7.0	13
1800	.3	*****	**	344	2.7	345	5.1	6
2100	-.6	*****	**	319	.8	311	2.5	0
2400	-1.1	*****	**	***	****	***	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	-3.4	*****	**	***	****	***	1.3	0
0600	-7.0	*****	**	***	****	***	1.3	0
0900	-7.1	*****	**	***	****	***	1.3	5
1200	-.3	*****	**	343	.6	344	1.3	82
1500	2.7	*****	**	334	1.3	333	2.5	67
1800	.9	*****	**	345	1.7	348	3.2	14
2100	-.8	*****	**	359	.2	288	1.9	0
2400	-2.0	*****	**	277	.2	316	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	-1.8	*****	**	113	.5	040	1.9	0
0600	-2.8	*****	**	346	.7	022	1.9	0
0900	-1.6	*****	**	336	.4	359	1.9	26
1200	1.3	*****	**	329	1.0	328	1.9	49
1500	2.8	*****	**	332	1.6	334	2.5	51
1800	.6	*****	**	326	1.2	325	2.5	16
2100	-.9	*****	**	353	1.5	334	4.4	0
2400	-1.8	*****	**	321	.6	326	1.9	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	-2.6	*****	**	336	.3	303	1.3	0
0600	-4.2	*****	**	349	.4	313	1.9	0
0900	.5	*****	**	356	.7	029	3.8	24
1200	4.7	*****	**	143	3.9	138	8.3	77
1500	5.3	*****	**	135	4.4	132	8.3	60
1800	3.3	*****	**	140	3.8	138	7.6	16
2100	1.6	*****	**	155	1.1	122	5.1	0
2400	-1.2	*****	**	340	.2	097	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	-2.3	*****	**	162	.6	154	1.9	0
0600	-2.4	*****	**	126	.6	111	1.9	0
0900	-1.1	*****	**	092	.3	349	2.5	16
1200	2.3	*****	**	201	.6	264	3.2	42
1500	4.1	*****	**	340	1.4	340	2.5	43
1800	6.8	*****	**	279	.7	200	3.2	23
2100	1.2	*****	**	212	.7	175	2.5	0
2400	-1.6	*****	**	208	.3	266	2.5	0

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

R & M CONSULTANTS, INC.

SUSITNA HYDROELECTRIC PROJECT

THREE HOUR SUMMARY FOR EKLUTNA 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	-1.8	*****	**	287	.2	342	2.5	0
0600	-2.8	*****	**	328	.5	333	3.2	1
0900	-2.1	*****	**	332	1.1	335	3.2	30
1200	1.6	*****	**	331	1.5	319	2.5	69
1500	1.1	*****	**	337	2.2	343	4.4	44
1800	.1	*****	**	337	1.7	348	3.8	16
2100	-1.0	*****	**	327	.7	339	2.5	0
2400	-1.6	*****	**	161	.4	149	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	-3.4	*****	**	323	.5	224	1.9	0
0600	-4.2	*****	**	325	.4	301	1.3	0
0900	-3.3	*****	**	343	.3	313	1.3	8
1200	1.8	*****	**	343	.7	334	1.9	96
1500	2.2	*****	**	342	1.4	335	3.2	79
1800	1.5	*****	**	339	1.2	336	2.5	8
2100	-2.3	*****	**	044	.4	005	1.9	0
2400	-4.3	*****	**	144	.3	169	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	-6.4	*****	**	114	.4	129	1.3	0
0600	-5.3	*****	**	112	.3	165	1.3	1
0900	-2.5	*****	**	073	.2	040	1.3	16
1200	4.2	*****	**	303	.6	285	1.9	52
1500	5.9	*****	**	340	1.4	352	3.2	54
1800	6.6	*****	**	357	1.4	062	5.1	16
2100	1.3	*****	**	108	.3	056	3.2	0
2400	-1.5	*****	**	151	.8	161	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	-2.5	*****	**	135	.4	154	1.9	0
0600	-3.7	*****	**	148	.5	092	1.9	1
0900	-.4	*****	**	099	.6	160	1.9	15
1200	8.3	*****	**	066	.6	107	5.1	46
1500	7.8	*****	**	147	2.7	138	8.3	39
1800	4.1	*****	**	173	1.6	148	5.7	6
2100	2.1	*****	**	173	1.2	139	3.8	0
2400	4.1	*****	**	147	2.9	187	7.6	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	-2.5	*****	**	235	.5	259	2.5	0
0600	-3.4	*****	**	144	.5	148	1.9	1
0900	.3	*****	**	136	.7	147	2.5	24
1200	5.2	*****	**	338	1.0	329	2.5	108
1500	6.7	*****	**	334	2.0	339	3.8	85
1800	4.5	*****	**	338	1.3	345	3.2	14
2100	.1	*****	**	314	.8	335	3.2	0
2400	-2.4	*****	**	136	.5	147	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	-2.9	*****	**	147	.5	136	1.9	0
0600	-4.0	*****	**	152	.4	125	1.9	1
0900	-1.6	*****	**	127	.2	182	1.3	15
1200	1.6	*****	**	344	.9	334	2.5	99
1500	2.0	*****	**	340	2.1	344	5.1	51
1800	.3	*****	**	340	3.0	342	5.7	19
2100	-.7	*****	**	338	1.4	342	5.1	0
2400	-1.0	*****	**	342	.3	342	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	-1.6	*****	**	344	.8	347	3.2	0
0600	-3.5	*****	**	338	1.1	335	3.2	0
0900	-2.6	*****	**	335	1.3	346	3.8	9
1200	-1.3	*****	**	324	.7	315	1.9	14
1500	-1.2	*****	**	340	.7	328	1.9	13
1800	-.9	*****	**	337	.6	339	1.9	9
2100	-2.1	*****	**	045	.2	065	1.3	0
2400	-3.5	*****	**	067	.1	155	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	-2.8	*****	**	166	.5	204	1.3	0
0600	-2.9	*****	**	***	****	***	.6	0
0900	-1.2	*****	**	353	.6	353	1.3	7
1200	.8	*****	**	339	.7	346	1.3	47
1500	.8	*****	**	338	.8	331	1.3	42
1800	.2	*****	**	333	1.0	329	1.9	11
2100	-1.1	*****	**	328	.7	339	1.9	0
2400	-1.5	*****	**	***	****	***	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	-1.6	*****	**	***	****	***	.6	0
0600	-3.6	*****	**	***	****	***	1.9	0
0900	.2	*****	**	167	.3	151	1.9	12
1200	2.0	*****	**	342	1.0	100	2.5	52
1500	2.6	*****	**	325	1.1	255	2.5	47
1800	3.5	*****	**	329	1.0	339	2.5	24
2100	.9	*****	**	244	.3	293	1.9	0
2400	-1.7	*****	**	164	1.1	174	3.8	0

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

R & M CONSULTANTS, INC.

SUSITNA HYDROELECTRIC PROJECT

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

DAY 19

HOUR ENDNG	TEMP. 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	*****	**	155	.4	132	1.3	0
0600	-7.3	*****	**	163	.4	159	1.3	2
0900	-3.1	*****	**	158	.4	128	1.3	37
1200	3.4	*****	**	346	.5	318	1.9	65
1500	4.4	*****	**	335	.8	342	1.9	57
1800	3.0	*****	**	336	1.3	341	2.5	22
2100	1.5	*****	**	323	.5	347	3.8	0
2400	.1	*****	**	138	.8	132	1.9	0

DAY 20

HOUR ENDNG	TEMP. 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	*****	**	080	.3	084	1.9	0
0600	-.5	*****	**	140	.5	157	1.9	2
0900	2.5	*****	**	248	.4	352	1.9	43
1200	5.6	*****	**	291	.6	295	2.5	44
1500	6.0	*****	**	357	1.3	021	8.3	19
1800	6.6	*****	**	131	1.5	111	6.3	11
2100	1.9	*****	**	197	.7	176	8.3	0
2400	1.0	*****	**	149	1.2	149	3.2	0

DAY 21

HOUR ENDNG	TEMP. 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	*****	**	149	1.1	148	2.5	0
0600	1.4	*****	**	151	1.3	148	2.5	1
0900	5.2	*****	**	159	2.1	140	7.0	38
1200	4.8	*****	**	148	2.6	150	5.7	44
1500	5.1	*****	**	169	1.8	174	3.8	49
1800	3.8	*****	**	160	1.8	157	3.8	7
2100	-.9	*****	**	204	.9	227	6.3	0
2400	-2.5	*****	**	344	2.7	352	5.7	0

DAY 22

HOUR ENDNG	TEMP. 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	*****	**	327	1.9	327	4.4	0
0600	-4.0	*****	**	343	1.7	346	5.1	1
0900	-2.8	*****	**	093	.2	146	2.5	20
1200	2.1	*****	**	051	.4	117	3.2	96
1500	1.9	*****	**	322	1.3	326	2.5	94
1800	3.5	*****	**	316	1.6	336	3.2	39
2100	-1.6	*****	**	186	.9	221	3.8	0
2400	-4.2	*****	**	134	.9	127	1.9	0

DAY 23

HOUR ENDNG	TEMP. 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	*****	**	145	.9	146	1.9	0
0600	-9.2	*****	**	166	.7	168	1.9	2
0900	-3.3	*****	**	147	.5	145	1.9	58
1200	2.8	*****	**	340	1.0	334	2.5	94
1500	4.8	*****	**	322	1.5	329	2.5	88
1800	4.7	*****	**	108	.8	144	5.1	34
2100	1.2	*****	**	158	2.1	155	5.1	0
2400	-2.7	*****	**	173	.5	164	2.5	0

DAY 24

HOUR ENDNG	TEMP. 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	*****	**	195	.6	159	2.5	0
0600	-5.3	*****	**	239	.3	349	1.9	3
0900	.9	*****	**	182	.4	144	1.9	68
1200	6.5	*****	**	355	.2	245	3.2	95
1500	6.2	*****	**	163	2.5	142	6.3	91
1800	5.3	*****	**	148	4.0	150	7.0	40
2100	1.9	*****	**	156	3.3	151	7.6	0
2400	2.3	*****	**	157	.7	131	1.9	0

DAY 25

HOUR ENDNG	TEMP. 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	*****	**	149	.6	142	1.9	0
0600	-6.5	*****	**	141	.7	135	1.9	3
0900	-2.5	*****	**	140	.6	153	2.5	62
1200	6.5	*****	**	357	1.2	010	5.1	95
1500	6.9	*****	**	143	4.3	139	7.6	88
1800	6.0	*****	**	146	4.7	141	7.6	41
2100	4.1	*****	**	146	4.2	147	7.0	0
2400	4.1	*****	**	142	4.6	135	8.3	0

DAY 26

HOUR ENDNG	TEMP. 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	*****	**	135	3.7	139	7.0	0
0600	4.0	*****	**	131	3.4	132	7.0	3
0900	5.2	*****	**	114	3.3	117	6.3	33
1200	5.6	*****	**	125	4.4	126	7.6	46
1500	6.2	*****	**	118	4.2	122	7.6	44
1800	6.6	*****	**	124	4.1	122	7.0	23
2100	3.5	*****	**	115	2.9	119	7.0	0
2400	2.4	*****	**	205	.2	295	1.9	0

DAY 27

HOUR ENDNG	TEMP. 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	*****	**	066	.3	025	1.9	0
0600	.9	*****	**	127	.6	158	1.9	3
0900	6.0	*****	**	099	.4	098	1.9	63
1200	9.4	*****	**	326	1.1	337	1.9	46
1500	3.9	*****	**	330	1.5	344	3.8	41
1800	10.1	*****	**	027	1.0	126	8.3	7
2100	6.1	*****	**	135	4.0	135	8.3	0
2400	8.4	*****	**	112	4.4	121	10.2	0

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

R & M CONSULTANTS, INC.

SUSITNA HYDROELECTRIC PROJECT

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

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	8.0	*****	**	128	5.6	132	10.8	0	0300	7.4	*****	**	127	3.4	130	7.6	0	0300	7.8	*****	**	130	.7	157	5.1	0
0600	3.6	*****	**	099	1.5	122	7.6	3	0600	8.0	*****	**	125	3.3	123	7.0	4	0600	7.3	*****	**	132	3.4	127	7.6	3
0900	8.3	*****	**	117	2.6	118	7.6	15	0900	10.0	*****	**	124	2.7	118	5.7	30	0900	8.5	*****	**	134	4.4	130	8.3	26
1200	11.4	*****	**	127	4.3	130	7.6	112	1200	8.0	*****	**	160	.8	136	4.4	36	1200	10.4	*****	**	136	4.2	138	8.3	85
1500	11.1	*****	**	140	3.9	139	7.6	88	1500	9.0	*****	**	347	1.9	002	5.7	48	1500	11.3	*****	**	142	3.8	137	8.3	99
1800	10.1	*****	**	137	4.7	137	8.3	43	1800	7.7	*****	**	337	1.8	329	6.3	12	1800	9.3	*****	**	157	2.8	174	7.6	19
2100	7.7	*****	**	126	4.4	137	7.6	0	2100	5.4	*****	**	350	1.2	012	3.8	0	2100	8.3	*****	**	131	3.0	137	5.7	0
2400	7.4	*****	**	126	4.2	125	8.9	0	2400	3.8	*****	**	330	.9	312	3.2	0	2400	3.8	*****	**	150	1.3	132	6.3	0

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

R & M CONSULTANTS, INC.

SUSITNA HYDROELECTRIC PROJECT

MONTHLY SUMMARY FOR EKLUTNA 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	6.9	.1	3.5	115	.8	1.7	127	8.3	SE	**	*****	3.4	4530	1
2	4.6	-1.4	1.6	336	.7	.7	344	3.2	NNW	**	*****	4.4	4790	2
3	4.1	-2.4	.9	350	.3	.7	345	3.8	NNW	**	*****	0.0	4610	3
4	8.8	-6.5	1.2	096	.4	1.1	126	5.7	ESE	**	*****	0.0	4960	4
5	8.2	-1.6	3.3	093	.5	1.8	130	8.9	SE	**	*****	0.0	4645	5
6	2.8	-8.2	-2.7	338	.8	.8	348	3.2	NNW	**	*****	1.8	5485	6
7	2.8	-2.8	0.0	338	.8	1.0	334	4.4	NNW	**	*****	0.0	5325	7
8	5.8	-5.4	.2	137	1.5	2.0	138	8.3	SE	**	*****	.2	5500	8
9	6.8	-2.4	2.2	221	.2	1.0	244	3.2	SE	**	*****	0.0	3950	9
10	2.2	-3.0	-.4	332	.9	1.2	343	4.4	NNW	**	*****	0.0	4935	10
11	3.0	-4.5	-.8	343	.5	.8	335	3.2	NNW	**	*****	3.2	5940	11
12	7.4	-6.6	.4	010	.3	.9	062	5.1	NNW	**	*****	0.0	5740	12
13	8.3	-3.8	2.3	147	1.2	1.5	138	8.3	SSE	**	*****	.2	3800	13
14	6.8	-3.5	1.7	332	.4	1.1	339	3.8	NNW	**	*****	0.0	6220	14
15	3.2	-4.0	-.4	343	.7	1.3	342	5.7	NNW	**	*****	0.0	5220	15
16	.2	-3.9	-1.9	340	.7	.8	346	3.8	NNW	**	*****	3.0	1595	16
17	2.1	-3.3	-.6	335	.7	.5	329	1.9	NNW	**	*****	6.6	3445	17
18	3.9	-3.6	.2	315	.4	.9	174	3.8	NNW	**	*****	6.6	4715	18
19	6.8	-7.3	-.3	343	.1	.8	347	3.8	NNW	**	*****	0.0	5725	19
20	7.4	-1.1	3.2	148	.2	.9	021	8.3	SSE	**	*****	4.8	4250	20
21	6.5	-2.5	2.0	159	1.1	2.0	140	7.0	SSE	**	*****	4.0	3630	21
22	2.5	-5.0	-1.3	329	.6	1.3	346	5.1	NNW	**	*****	2.6	7605	22
23	5.5	-9.6	-2.1	152	.3	1.2	144	5.1	SSE	**	*****	0.0	7790	23
24	6.7	-5.3	.7	159	1.4	1.8	151	7.6	SSE	**	*****	0.0	7950	24
25	7.0	-7.5	-.3	142	2.3	2.6	135	8.3	SE	**	*****	0.0	7940	25
26	7.2	2.4	4.8	124	3.2	3.4	126	7.6	SE	**	*****	0.0	4410	26
27	10.6	.9	5.8	103	.9	2.0	121	10.2	SE	**	*****	0.0	4585	27
28	11.7	3.6	7.7	128	3.8	4.0	132	10.8	SE	**	*****	0.0	6640	28
29	10.4	3.8	7.1	097	.8	2.2	130	7.6	SE	**	*****	0.0	4365	29
30	11.9	2.6	7.3	138	2.9	3.1	130	8.3	SE	**	*****	0.0	6255	30
MONTH	11.9	-9.6	1.5	122	.5	1.5	132	10.8	NNW	**	**###	40.8	156550	

GUST VEL. AT MAX. GUST MINUS 2 INTERVALS 8.3
GUST VEL. AT MAX. GUST MINUS 1 INTERVAL 10.2
GUST VEL. AT MAX. GUST PLUS 1 INTERVAL 10.8
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.

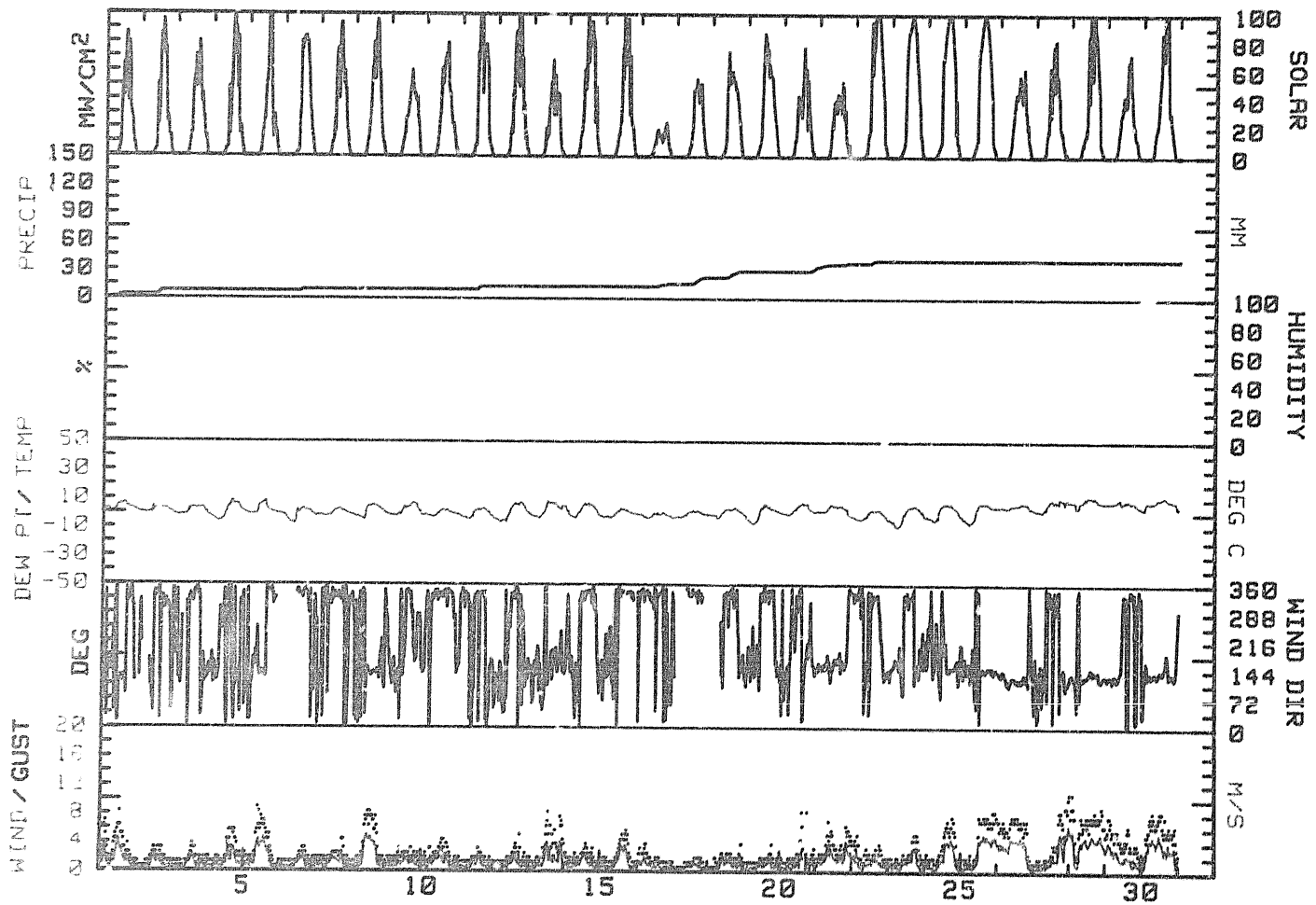
** SEE INTERPRETATION NOTES AT END OF MONTHLY REPORT **

R&M CONSULTANTS, INC.

SUSITNA HYDROELECTRIC PROJECT

EKLUTNA WEATHER STATION

April, 1984



R & M CONSULTANTS, INC.

SUSITNA HYDROELECTRIC PROJECT

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

DIRECTION	VELOCITY (M/S) 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	2.31	2.54	.07	0.00	0.00	0.00	0.00	4.93
NNE	1.72	1.04	0.00	0.00	0.00	0.00	0.00	2.76
NE	1.42	.37	0.00	0.00	0.00	0.00	0.00	1.79
ENE	1.87	.37	0.00	0.00	0.00	0.00	0.00	2.24
E	1.72	.67	0.00	0.00	0.00	0.00	0.00	2.39
ESE	3.06	1.12	3.58	0.00	0.00	0.00	0.00	7.76
SE	6.87	2.61	10.60	.07	0.00	0.00	0.00	20.15
SSE	5.37	4.70	2.31	0.00	0.00	0.00	0.00	12.39
S	2.31	2.24	.22	0.00	0.00	0.00	0.00	4.78
SSW	1.57	.75	0.00	0.00	0.00	0.00	0.00	2.31
SW	.82	.30	.07	0.00	0.00	0.00	0.00	1.19
WSW	1.57	.37	0.00	0.00	0.00	0.00	0.00	1.94
W	1.42	.22	0.00	0.00	0.00	0.00	0.00	1.64
WNW	2.24	1.19	0.00	0.00	0.00	0.00	0.00	3.43
NW	3.81	4.48	0.00	0.00	0.00	0.00	0.00	8.28
NNW	6.87	14.25	.75	0.00	0.00	0.00	0.00	21.87
CALM								.15
TOTAL	44.93	37.24	17.61	.07	0.00	0.00	0.00	100.00

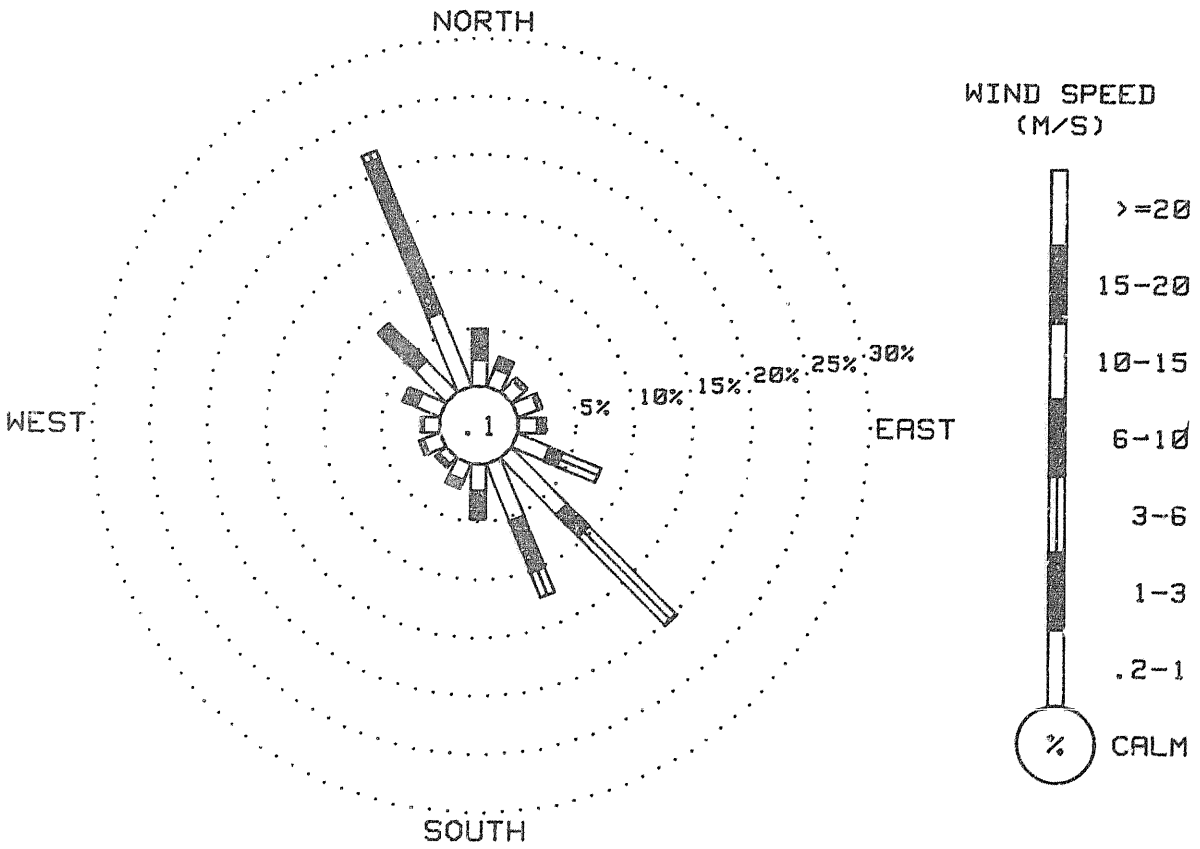
NOTE: ALL FREQUENCIES ARE EXPRESSED IN PERCENT
1340 VALID WIND OBSERVATIONS USED TO DEVELOP FREQUENCY SUMMARY
1440 WIND OBSERVATIONS WOULD HAVE BEEN CORRECT FOR 30 MINUTE DATA.
** SEE INTERPRETATION NOTES AT END OF MONTHLY REPORT **

R&M CONSULTANTS, INC.

SUSITNA HYDROELECTRIC PROJECT

EKLUTNA WEATHER STATION

April, 1984



WIND ROSE PLOT

R & M CONSULTANTS, INC.

SUSITNA HYDROELECTRIC PROJECT

HOURLY SOLAR RADIATION SUMMARY FOR EKLUTNA 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	2	8	38	56	55	87	55	75	33	27	13	7	0	0	0	0	0	19
2	0	0	0	0	0	0	0	2	5	34	28	77	82	93	74	35	27	15	10	1	0	0	0	0	20
3	0	0	0	0	0	0	2	9	16	47	57	60	56	77	46	41	28	14	11	1	0	0	0	0	19
4	0	0	0	0	0	0	2	5	7	32	36	69	104	81	64	58	17	18	7	1	0	0	0	0	21
5	0	0	0	0	0	0	2	11	22	32	53	79	116	73	19	26	19	11	4	0	0	0	0	0	19
6	0	0	0	0	0	0	1	3	4	32	78	81	84	83	74	53	33	17	8	1	0	0	0	0	23
7	0	0	0	0	0	0	4	10	19	39	74	44	90	83	56	54	39	18	5	1	0	0	0	0	22
8	0	0	0	0	0	0	4	11	21	38	58	79	67	95	76	55	28	13	8	1	0	0	0	0	23
9	0	0	0	0	0	0	4	10	15	27	30	40	50	56	45	42	41	26	12	1	0	0	0	0	16
10	0	0	0	0	0	1	5	14	27	57	54	69	69	66	45	33	23	20	10	4	0	0	0	0	21
11	0	0	0	0	0	0	1	6	8	57	84	89	72	74	77	69	42	10	6	2	0	0	0	0	25
12	0	0	0	0	0	1	3	12	18	42	77	70	94	74	75	50	37	14	7	3	0	0	0	0	24
13	0	0	0	0	0	1	4	14	14	25	37	49	49	57	34	45	36	13	4	2	0	0	0	0	16
14	0	0	0	0	0	1	6	14	21	48	52	89	77	83	90	79	24	32	7	2	0	0	0	0	26
15	0	0	0	0	0	1	4	9	15	24	57	77	79	76	74	50	26	21	10	2	0	0	0	0	22
16	0	0	0	0	0	0	2	3	8	12	18	15	14	13	15	20	23	12	6	1	0	0	0	0	7
17	0	0	0	0	0	0	1	3	7	14	34	47	52	46	40	51	31	16	6	1	0	0	0	0	14
18	0	0	0	0	0	0	2	4	10	51	63	53	60	54	50	47	39	27	13	3	0	0	0	0	20
19	0	0	0	0	0	1	5	10	26	63	86	73	66	63	57	51	35	24	13	3	0	0	0	0	24
20	0	0	0	0	0	1	6	13	35	35	40	36	68	59	41	45	27	15	5	1	0	0	0	0	18
21	0	0	0	0	0	1	7	22	29	39	36	44	36	33	51	27	24	9	6	3	0	0	0	0	15
22	0	0	0	0	0	1	3	12	18	79	67	86	98	99	98	81	63	44	10	5	1	0	0	0	32
23	0	0	0	0	0	2	5	8	37	79	88	92	97	97	89	72	57	38	15	6	1	0	0	0	32
24	0	0	0	0	0	2	6	8	39	70	83	93	102	111	95	81	64	28	10	5	1	0	0	0	33
25	0	0	0	0	0	2	6	9	37	75	83	93	98	97	91	79	64	46	9	6	1	0	0	0	33
26	0	0	0	0	0	2	7	17	29	39	43	45	56	43	41	54	31	22	10	5	1	0	0	0	18
27	0	0	0	0	0	3	13	18	49	36	62	62	67	56	43	20	17	9	4	3	0	0	0	0	19
28	0	0	0	0	0	2	8	11	15	21	71	75	91	67	96	82	66	48	8	4	1	0	0	0	28
29	0	0	0	0	0	3	11	19	29	36	43	36	55	62	60	35	22	14	11	4	1	0	0	0	18
30	0	0	0	0	0	2	11	18	23	40	55	86	74	104	94	52	30	22	12	5	1	0	0	0	26

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

R & M CONSULTANTS, INC.

SUSITNA HYDROELECTRIC PROJECT

HOURLY LONGWAVE RADIATION SUMMARY FOR EKLUTNA WEATHER STATION
DATA TAKEN DURING April, 1984

LONGWAVE RADIATION VALUES 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	37	30	34	33	34	35	39	34	33	30	33	30	29	28	30	30	37	37	27	35	30	31	31	31	32
2	35	38	33	33	33	33	33	32	31	32	37	30	35	37	30	35	33	32	31	35	31	30	33	35	33
3	30	29	27	31	33	35	32	31	27	25	31	34	35	35	35	36	35	29	27	27	26	24	25	24	30
4	26	28	24	23	23	24	29	25	30	29	23	34	32	32	30	33	35	30	27	32	30	34	28	28	28
5	26	31	29	33	35	32	31	25	29	31	32	31	33	37	34	39	34	38	38	38	38	38	38	38	33
6	38	38	37	36	36	35	35	35	35	38	37	32	32	32	33	33	29	32	28	27	24	26	36	33	33
7	31	28	26	27	30	34	32	34	33	34	35	36	30	34	35	35	28	33	33	30	32	37	37	32	32
8	36	33	33	28	36	34	27	35	33	28	28	29	27	29	29	29	30	31	31	26	29	34	32	30	30
9	30	29	28	28	32	31	28	28	31	29	31	35	32	33	37	37	36	31	31	33	30	30	26	30	31
10	35	34	31	34	26	35	36	32	33	33	32	35	36	37	38	38	32	36	36	36	35	33	32	32	34
11	36	38	38	37	32	36	38	29	34	35	35	28	34	38	33	34	33	22	22	24	24	26	23	23	31
12	26	24	25	27	28	24	22	25	30	30	34	35	37	35	32	39	34	33	32	30	28	28	27	25	29
13	27	30	29	29	28	26	27	29	26	27	32	32	33	34	32	33	33	35	32	35	26	27	25	26	29
14	26	27	26	26	24	24	25	28	31	35	36	33	36	36	30	35	33	33	31	28	23	24	26	25	29
15	28	25	28	31	27	31	29	31	28	34	38	36	37	32	35	28	27	32	33	35	32	34	35	32	31
16	38	39	39	32	33	39	38	37	38	39	38	34	39	29	39	39	34	34	33	33	32	32	29	36	35
17	32	32	32	32	32	32	32	32	36	40	39	39	34	33	37	37	37	38	38	38	37	37	37	37	35
18	38	37	37	37	37	37	37	35	36	38	38	39	31	34	34	38	33	35	35	33	31	30	27	23	34
19	22	24	25	24	27	24	25	25	26	28	33	31	30	37	37	37	37	36	37	32	31	32	31	30	29
20	31	31	31	31	37	34	35	34	31	37	33	38	40	31	45	36	39	40	36	36	35	34	33	34	34
21	34	33	33	34	34	34	34	34	33	32	37	35	35	34	36	35	34	35	34	38	38	38	28	33	34
22	37	37	36	36	37	32	37	30	31	27	26	26	30	28	33	31	29	29	26	25	23	22	23	22	29
23	22	23	22	22	23	23	23	22	23	31	29	32	31	32	31	27	27	26	26	29	26	24	25	28	26
24	28	29	29	27	26	22	26	27	26	26	28	32	30	32	27	26	25	24	24	25	25	24	26	22	26
25	23	25	24	25	23	23	24	23	21	26	27	25	26	27	26	27	26	26	25	25	25	26	27	27	25
26	27	28	29	31	32	32	32	31	31	33	32	33	33	32	34	33	34	33	33	32	34	35	35	33	32
27	34	31	30	32	32	32	30	37	34	34	33	37	33	39	39	36	37	35	34	35	33	34	33	34	34
28	33	33	34	34	34	31	33	30	29	29	30	31	34	32	30	30	29	28	27	27	27	26	27	27	30
29	28	28	28	27	28	31	30	30	32	35	37	39	39	31	35	33	33	37	29	31	32	36	31	30	32
30	31	35	32	32	31	32	31	32	33	33	32	32	32	34	35	33	31	31	32	33	32	31	32	29	32

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

R & M CONSULTANTS, INC.

SUSITNA HYDROELECTRIC PROJECT

OBSERVATION SUMMARY FOR EKLUTNA WEATHER STATION
DATA TAKEN DURING Apr .., 1984

PARAMETER	NUMBER OF USABLE OBSERVATIONS	PERCENT OF TOTAL OBSERVATIONS
TEMPERATURE	1440	100
WIND SPEED	1437	100
WIND DIRECTION	1343	9.
PEAK GUST	1437	100
RELATIVE HUMIDITY	0	0
PRECIPITATION	1439	100
SOLAR RADIATION	1440	100
DEW POINT	0	0
LONGWAVE RADIATION	1439	100

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. Solar -1 MW/CM^2

Additional comments on this month's data:

1. Timing and quantity of precipitation are suspect since freezing temperatures occurred almost every day. However, thawing temperatures also occurred almost every day, so daily totals should be fair.

2. RH sensor replaced and calibrated 4/20. Recorded data still invalid due to bad oscillator.

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

R & M CONSULTANTS, INC.

SUSITNA HYDROELECTRIC PROJECT

HOURLY PRECIPITATION SUMMARY FOR EKLUTNA 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	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	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	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	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	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	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	12
13	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	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
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	.2	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	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	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0	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	0.1	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	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	.2	.2	.2	.4	1.8	.2	0.0	.2	.4	0.0	0.0	29
30	0.0	.2	0.0	.2	.2	0.0	0.0	0.0	0.0	.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	30
31	0.0	.4	.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	31

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

R & M CONSULTANTS, INC.

SUSITNA HYDROELECTRIC PROJECT

THREE HOUR SUMMARY FOR EKLUTNA 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	1.9	*****	**	016	.6	046	2.5	0
0600	2.2	*****	**	315	.8	349	3.2	3
0900	5.1	*****	**	082	.3	359	3.2	20
1200	10.6	*****	**	082	.8	058	5.7	124
1500	10.0	*****	**	129	3.4	129	7.0	69
1800	7.2	*****	**	350	2.4	014	5.1	15
2100	6.0	*****	**	359	1.6	337	6.5	0
2400	2.2	*****	**	122	.9	154	5.7	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	*****	**	292	1.1	285	3.2	0
0600	.7	*****	**	138	.5	136	1.3	3
0900	2.5	*****	**	314	.2	166	1.9	39
1200	7.9	*****	**	135	2.0	147	6.3	98
1500	8.5	*****	**	129	3.0	136	7.6	74
1800	7.0	*****	**	138	4.2	138	7.6	44
2100	4.4	*****	**	144	3.3	141	6.3	1
2400	-1.7	*****	**	191	.2	026	3.2	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	-1.7	*****	**	109	.5	150	1.9	0
0600	.6	*****	**	135	.8	147	1.9	10
0900	6.6	*****	**	012	.6	008	1.9	70
1200	8.1	*****	**	313	2.0	313	7.6	93
1500	8.6	*****	**	132	3.8	142	7.0	89
1800	7.4	*****	**	145	3.3	133	7.0	17
2100	5.9	*****	**	142	2.6	144	5.1	1
2400	1.7	*****	**	252	.5	159	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	-.3	*****	**	306	.7	322	2.5	0
0600	-.1	*****	**	165	.7	154	2.5	5
0900	5.0	*****	**	170	1.0	161	2.5	26
1200	7.7	*****	**	042	.5	073	6.3	66
1500	9.2	*****	**	139	3.3	121	7.6	80
1800	7.8	*****	**	161	2.8	137	6.3	56
2100	3.6	*****	**	129	2.9	132	7.6	1
2400	1.0	*****	**	352	.7	343	4.4	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	-1.6	*****	**	155	.5	166	1.9	0
0600	.2	*****	**	153	.5	166	2.5	6
0900	4.5	*****	**	130	.4	092	1.9	65
1200	6.7	*****	**	336	1.9	335	5.1	109
1500	7.3	*****	**	341	3.6	332	5.7	94
1800	7.7	*****	**	129	2.4	142	6.3	48
2100	3.4	*****	**	130	1.2	150	6.3	1
2400	-1.7	*****	**	169	.6	273	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	-3.8	*****	**	159	.8	161	1.9	0
0600	-3.6	*****	**	157	.9	168	1.9	6
0900	4.6	*****	**	110	.3	150	1.3	62
1200	8.9	*****	**	338	1.5	343	3.2	95
1500	8.9	*****	**	129	2.8	115	6.3	96
1800	8.5	*****	**	148	4.2	151	7.0	50
2100	5.9	*****	**	030	.7	154	5.1	1
2400	-1.6	*****	**	010	.5	013	4.4	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	-2.6	*****	**	159	.8	165	1.9	0
0600	-3.2	*****	**	160	.7	169	1.9	5
0900	7.7	*****	**	159	.6	157	1.9	60
1200	8.6	*****	**	328	1.3	327	2.5	98
1500	11.0	*****	**	337	1.7	324	2.5	91
1800	12.3	*****	**	327	1.8	339	3.8	46
2100	7.3	*****	**	198	1.4	243	3.2	1
2400	-.1	*****	**	150	.9	136	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	-2.5	*****	**	166	.9	170	2.5	0
0600	-3.1	*****	**	162	.9	155	1.9	5
0900	7.7	*****	**	154	.6	164	1.9	63
1200	11.2	*****	**	339	1.4	339	2.5	99
1500	14.7	*****	**	328	1.6	338	2.5	93
1800	15.1	*****	**	305	1.2	287	3.2	48
2100	10.7	*****	**	200	1.9	203	4.4	2
2400	4.3	*****	**	151	.9	153	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	-.8	*****	**	162	.9	169	2.5	0
0600	-1.2	*****	**	161	.8	172	1.9	5
0900	11.1	*****	**	157	.8	162	1.9	63
1200	12.7	*****	**	334	1.3	322	3.2	94
1500	13.9	*****	**	342	2.5	346	4.4	96
1800	15.1	*****	**	327	1.9	294	3.8	52
2100	9.4	*****	**	336	.9	280	3.2	2
2400	1.9	*****	**	158	.9	100	1.9	0

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

R & M CONSULTANTS, INC.

SUSITNA HYDROELECTRIC PROJECT

THREE HOUR SUMMARY FOR EKLUTNA WEATHER STATION
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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	-1.1	*****	**	162	.8	153	1.9	0
0600	-1.8	*****	**	160	.8	156	1.9	5
0900	10.0	*****	**	143	.7	163	2.5	65
1200	12.7	*****	**	334	1.4	340	3.2	99
1500	14.2	*****	**	335	2.1	327	3.2	95
1800	12.2	*****	**	339	2.0	341	3.8	28
2100	10.9	*****	**	356	1.1	343	2.5	2
2400	4.4	*****	**	167	.5	160	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	-1.5	*****	**	160	.8	116	1.9	0
0600	-2.0	*****	**	156	.9	163	1.9	5
0900	7.3	*****	**	146	.6	168	1.9	78
1200	9.7	*****	**	337	2.0	340	4.4	100
1500	10.3	*****	**	344	3.4	337	5.7	93
1800	10.7	*****	**	336	2.8	344	6.3	51
2100	6.8	*****	**	338	1.7	334	3.8	2
2400	-.7	*****	**	026	.2	349	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	-3.1	*****	**	157	.8	154	1.9	0
0600	-3.6	*****	**	158	.9	159	1.9	5
0900	8.8	*****	**	152	.8	164	1.9	65
1200	10.4	*****	**	333	1.7	337	3.8	99
1500	10.8	*****	**	335	2.3	334	3.8	39
1800	11.2	*****	**	343	1.8	346	3.8	43
2100	9.2	*****	**	345	.4	338	3.2	2
2400	-.3	*****	**	226	.3	237	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	-1.9	*****	**	157	.8	141	1.9	0
0600	-1.5	*****	**	157	1.0	167	1.9	6
0900	8.8	*****	**	149	.6	146	1.9	65
1200	11.7	*****	**	339	1.3	325	2.5	100
1500	12.4	*****	**	336	2.2	343	3.8	37
1800	11.3	*****	**	342	1.9	341	3.8	24
2100	7.9	*****	**	345	1.1	353	2.5	2
2400	.3	*****	**	169	.7	215	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	-2.2	*****	**	163	.9	170	1.9	0
0600	-1.7	*****	**	162	.9	163	1.9	7
0900	7.2	*****	**	139	.5	098	1.9	66
1200	11.9	*****	**	338	1.5	334	2.5	99
1500	15.3	*****	**	347	2.1	036	5.1	92
1800	14.2	*****	**	152	4.2	152	7.0	49
2100	11.0	*****	**	165	3.1	159	7.0	3
2400	2.7	*****	**	153	.9	160	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	.2	*****	**	151	1.0	164	2.5	0
0600	-.3	*****	**	159	.9	178	1.9	7
0900	7.2	*****	**	134	.8	141	1.9	46
1200	14.1	*****	**	300	.8	279	6.3	101
1500	14.7	*****	**	145	3.9	160	7.0	97
1800	13.4	*****	**	138	3.6	137	6.3	48
2100	11.5	*****	**	136	3.3	136	7.0	4
2400	10.8	*****	**	134	3.2	136	6.3	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	5.9	*****	**	153	1.8	140	5.1	0
0600	4.5	*****	**	309	.7	275	3.8	6
0900	8.5	*****	**	136	.8	152	1.9	65
1200	14.7	*****	**	297	.7	141	5.7	62
1500	15.8	*****	**	164	2.8	155	5.1	53
1800	15.2	*****	**	172	2.5	152	5.1	21
2100	13.3	*****	**	149	1.6	164	3.8	2
2400	6.8	*****	**	094	.6	137	3.8	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	2.0	*****	**	110	.3	157	3.2	0
0600	.3	*****	**	157	.9	155	3.2	5
0900	14.3	*****	**	152	.6	160	1.9	70
1200	14.2	*****	**	347	1.7	331	3.8	104
1500	16.1	*****	**	018	1.4	101	8.9	99
1800	13.1	*****	**	146	5.9	147	10.8	35
2100	10.7	*****	**	141	5.1	144	9.5	1
2400	10.6	*****	**	137	4.5	145	8.3	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	10.5	*****	**	127	3.7	135	7.6	0
0600	6.9	*****	**	193	.6	278	5.1	10
0900	13.3	*****	**	021	.7	121	6.3	54
1200	13.0	*****	**	129	4.6	128	8.9	58
1500	15.5	*****	**	134	3.6	133	7.6	113
1800	14.0	*****	**	147	4.2	147	7.0	57
2100	9.6	*****	**	147	3.3	150	7.0	2
2400	6.1	*****	**	006	.6	358	3.8	0

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R & M CONSULTANTS, INC.

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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	5.9	*****	**	138	.8	144	1.9	0
0600	5.7	*****	**	153	.6	152	2.5	6
0900	8.2	*****	**	094	.2	168	1.3	35
1200	9.9	*****	**	335	1.1	320	1.9	52
1500	11.9	*****	**	336	1.4	319	2.5	55
1800	12.9	*****	**	341	1.2	006	2.5	52
2100	9.2	*****	**	349	2.0	352	5.1	3
2400	5.9	*****	**	344	.3	349	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	4.8	*****	**	117	.4	167	1.9	0
0600	3.3	*****	**	118	.3	009	1.3	7
0900	10.5	*****	**	125	.4	094	2.5	73
1200	12.2	*****	**	335	1.4	334	2.5	63
1500	14.4	*****	**	002	.8	044	5.7	42
1800	14.3	*****	**	137	3.5	134	6.3	19
2100	13.5	*****	**	143	3.2	132	6.3	2
2400	10.9	*****	**	148	1.0	148	3.8	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	7.5	*****	**	169	.3	049	2.5	0
0600	7.7	*****	**	119	.3	166	1.3	8
0900	10.2	*****	**	011	.4	330	2.5	29
1200	11.0	*****	**	340	2.0	342	4.4	45
1500	11.7	*****	**	115	1.8	133	7.0	39
1800	12.9	*****	**	142	3.1	146	6.3	58
2100	9.9	*****	**	140	3.3	139	6.3	3
2400	6.3	*****	**	154	.7	166	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	3.8	*****	**	172	.5	186	1.3	0
0600	5.3	*****	**	137	.6	128	1.9	10
0900	7.7	*****	**	002	.4	325	1.9	28
1200	8.4	*****	**	342	1.7	344	3.8	39
1500	9.4	*****	**	349	2.2	347	5.1	63
1800	11.1	*****	**	338	1.6	345	3.2	70
2100	9.2	*****	**	340	.7	336	2.5	4
2400	.9	*****	**	183	.3	154	1.9	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	-1.8	*****	**	162	.8	153	1.9	0
0600	-1.2	*****	**	154	.8	152	1.9	5
0900	7.4	*****	**	141	.7	170	1.9	71
1200	13.6	*****	**	341	1.5	332	2.5	105
1500	14.6	*****	**	334	1.9	331	4.4	78
1800	15.3	*****	**	172	2.8	166	6.3	25
2100	13.4	*****	**	138	2.4	150	5.1	3
2400	7.5	*****	**	100	.0	125	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	3.5	*****	**	152	.7	165	1.9	0
0600	2.0	*****	**	147	.7	146	1.9	7
0900	9.5	*****	**	129	.5	160	1.9	63
1200	12.1	*****	**	343	2.2	348	5.1	119
1500	13.0	*****	**	351	3.2	347	5.1	104
1800	12.9	*****	**	343	2.6	333	4.4	52
2100	9.2	*****	**	353	1.7	347	4.4	3
2400	2.6	*****	**	327	.3	357	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	3.1	*****	**	153	.7	160	1.9	0
0600	5.5	*****	**	155	.5	153	1.9	9
0900	8.4	*****	**	042	.4	009	1.9	46
1200	10.6	*****	**	339	1.9	339	4.4	97
1500	13.6	*****	**	346	2.3	346	4.4	59
1800	8.6	*****	**	***	****	***	****	19
2100	6.8	*****	**	***	****	***	****	3
2400	2.7	*****	**	***	****	***	****	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	2.8	*****	**	***	****	***	****	0
0600	5.0	*****	**	***	****	***	****	7
0900	8.1	*****	**	***	****	***	****	43
1200	12.7	*****	**	***	****	***	****	90
1500	13.6	*****	**	***	****	***	****	79
1800	10.0	*****	**	***	****	***	****	33
2100	6.1	*****	**	***	****	***	****	6
2400	1.1	*****	**	***	****	***	****	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	.5	*****	**	***	****	***	****	0
0600	4.9	*****	**	***	****	***	****	12
0900	10.4	*****	**	***	****	***	****	39
1200	15.3	*****	**	***	****	***	****	88
1500	17.7	*****	**	***	****	***	****	101
1800	14.5	*****	**	***	****	***	****	59
2100	8.2	*****	**	***	****	***	****	3
2400	-3.3	*****	**	***	****	***	****	0

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DAY 28

HOUR ENDNG	TEMP. 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	*****	**	***	****	***	****	0
0600	-3.5	*****	**	***	****	***	****	5
0900	9.8	*****	**	***	****	***	****	73
1200	17.5	*****	**	***	****	***	****	109
1500	19.9	*****	**	***	****	***	****	104
1800	19.4	*****	**	***	****	***	****	61
2100	8.6	*****	**	***	****	***	****	5
2400	1.8	*****	**	***	****	***	****	0

DAY 29

HOUR ENDNG	TEMP. 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	*****	**	***	****	***	****	0
0600	.3	*****	**	***	****	***	****	9
0900	12.6	*****	**	***	****	***	****	76
1200	11.6	*****	**	***	****	***	****	15
1500	7.2	*****	**	***	****	***	****	15
1800	6.0	*****	**	***	****	***	****	7
2100	5.1	*****	**	***	****	***	****	1
2400	1.0	*****	**	***	****	***	****	0

DAY 30

HOUR ENDNG	TEMP. 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
0600	4.2	*****	**	***	****	***	****	9
0900	7.8	*****	**	***	****	***	****	36
1200	10.1	*****	**	***	****	***	****	89
1500	12.3	*****	**	***	****	***	****	66
1800	10.3	*****	**	***	****	***	****	33
2100	6.8	*****	**	***	****	***	****	4
2400	4.6	*****	**	***	****	***	****	0

DAY 31

HOUR ENDNG	TEMP. 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	*****	**	***	****	***	****	0
0600	3.1	*****	**	***	****	***	****	12
0900	10.2	*****	**	***	****	***	****	75
1200	12.2	*****	**	***	****	***	****	66
1500	14.4	*****	**	***	****	***	****	64
1800	11.4	*****	**	***	****	***	****	27
2100	10.1	*****	**	***	****	***	****	4
2400	1.2	*****	**	***	****	***	****	0

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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	10.8	.8	5.8	040	.6	1.7	129	7.0	NNW	**	*****	0.0	5870	1
2	8.8	-2.1	3.4	140	1.5	2.1	136	7.6	SE	**	*****	0.6	7555	2
3	8.7	-2.0	3.4	139	1.0	1.9	313	7.6	SE	**	*****	0.0	7225	3
4	9.4	-1.6	3.9	142	1.1	2.0	121	7.6	SE	**	*****	0.0	6570	4
5	9.3	-1.7	3.8	058	.2	1.8	142	6.3	SSE	**	*****	0.0	8265	5
6	9.6	-5.0	2.3	131	.9	1.8	151	7.0	SSE	**	*****	0.0	9275	6
7	12.3	-3.2	4.6	276	.2	1.2	339	3.8	SSE	**	*****	0.0	8645	7
8	16.1	-3.5	6.3	228	.3	1.3	203	4.4	SSE	**	*****	0.0	8910	8
9	15.3	-1.2	7.1	331	.4	1.3	346	4.4	SSE	**	*****	0.0	8795	9
10	14.2	-1.8	6.2	341	.5	1.2	341	3.8	NNW	**	*****	0.0	8095	10
11	11.1	-2.1	4.5	342	1.0	1.7	344	6.3	NNW	**	*****	0.0	8515	11
12	11.4	-3.9	3.8	335	.5	1.3	337	3.8	SSE	**	*****	0.0	7595	12
13	13.1	-2.5	5.3	342	.4	1.3	343	3.8	SSE	**	*****	0.0	7685	13
14	15.6	-2.4	6.6	153	.9	1.8	152	7.0	SSE	**	*****	0.0	9145	14
15	14.7	-.8	7.0	141	2.0	2.3	160	7.0	SE	**	*****	0.0	8260	15
16	16.1	4.2	10.2	161	1.0	1.8	141	5.7	SSE	**	*****	0.0	6950	16
17	16.7	-.2	8.3	135	1.9	2.8	147	10.8	SE	**	*****	0.0	8320	17
18	15.5	6.1	10.8	135	2.4	3.0	128	9.9	SE	**	*****	0.0	8265	18
19	13.4	4.6	9.0	349	.6	1.1	352	5.1	NNW	**	*****	.2	6030	19
20	16.3	2.9	9.6	131	.9	1.6	134	6.3	SSE	**	*****	0.0	5540	20
21	13.2	6.3	9.8	129	.9	1.8	133	7.0	SE	**	*****	0.0	4965	21
22	11.1	.9	6.0	345	.7	1.1	347	5.1	NNW	**	*****	0.0	5870	22
23	17.0	-2.2	7.4	153	.5	1.6	168	6.3	SSE	**	*****	0.0	8320	23
24	13.8	.5	7.2	352	1.0	1.6	348	5.1	NNW	**	*****	0.0	9810	24
25	16.1	.8	8.5	358	.4	1.0	339	4.4	SSE	**	*****	0.0	6170	25
26	17.3	.6	9.0	***	****	****	***	****	***	**	*****	0.0	7310	26
27	18.8	-3.3	7.8	***	****	****	***	****	***	**	*****	0.0	8870	27
28	21.2	-6.5	7.4	***	****	****	***	****	***	**	*****	0.0	9513	28
29	15.1	-3.3	5.9	***	****	****	***	****	***	**	*****	3.6	3780	29
30	13.7	-.2	6.8	***	****	****	***	****	***	**	*****	1.2	6640	30
31	15.3	1.0	8.2	***	****	****	***	****	***	**	*****	.8	7075	31
MONTH	21.2	-6.5	6.6	125	.4	1.7	147	10.8	SSE	**	*****	5.8	233853	

GUST VEL. AT MAX. GUST MINUS 2 INTERVALS 9.5
GUST VEL. AT MAX. GUST MINUS 1 INTERVAL 8.9
GUST VEL. AT MAX. GUST PLUS 1 INTERVAL 9.5
GUST VEL. AT MAX. GUST PLUS 2 INTERVALS 9.5

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.

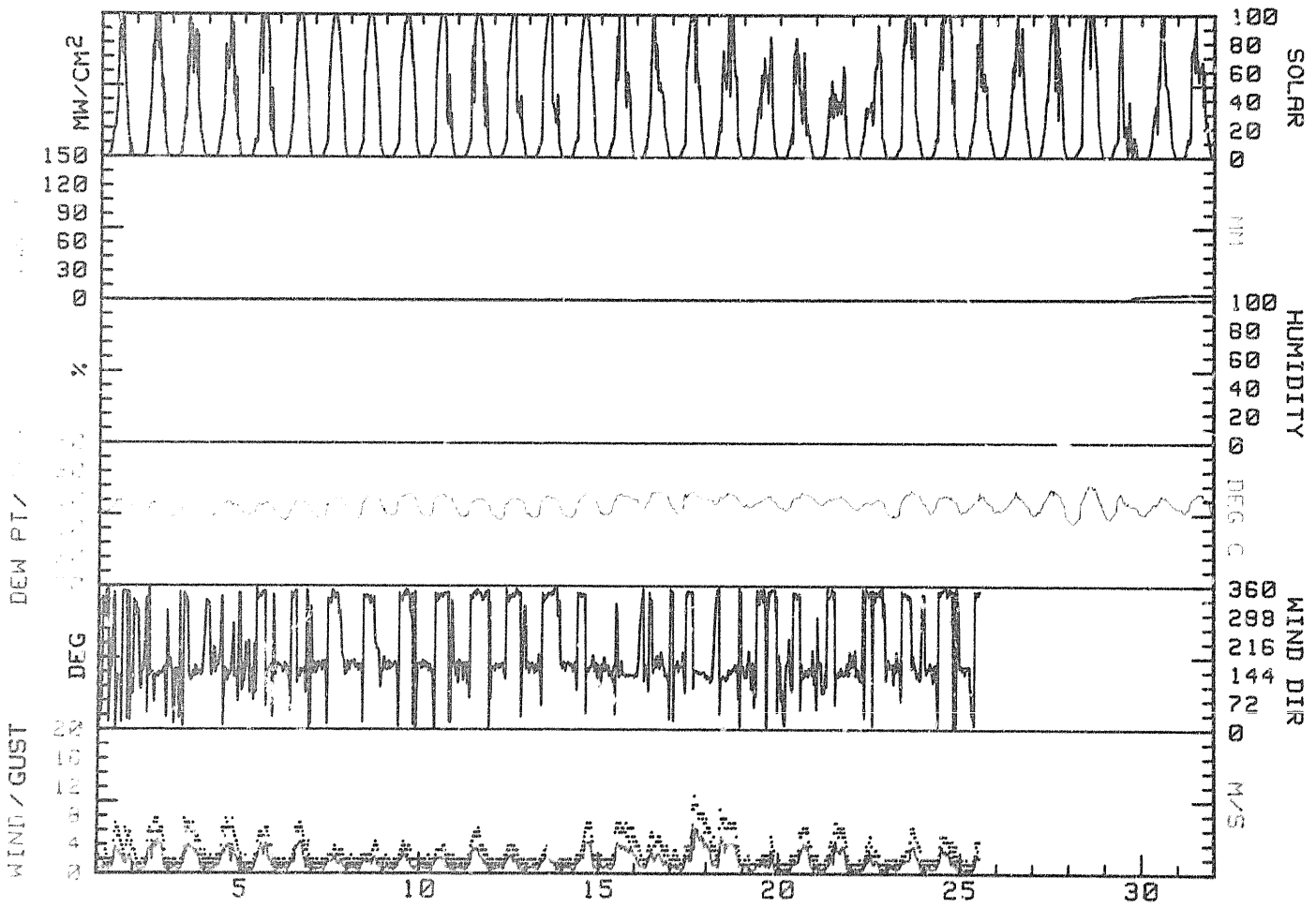
** SEE INTERPRETATION NOTES AT END OF MONTHLY REPORT **

R&M CONSULTANTS, INC.

SUSITNA HYDROELECTRIC PROJECT

EKLUTNA WEATHER STATION

May, 1984



R & M CONSULTANTS, INC.

SUSITNA HYDROELECTRIC PROJECT

WIND FREQUENCY SUMMARY FOR EKLUTNA WFATHER 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	1.10	3.82	.42	0.00	0.00	0.00	0.00	5.35
NNE	1.02	1.02	0.00	0.00	0.00	0.00	0.00	2.04
NE	1.02	.34	0.00	0.00	0.00	0.00	0.00	1.36
ENE	.51	.68	0.00	0.00	0.00	0.00	0.00	1.19
E	1.70	.42	.08	0.00	0.00	0.00	0.00	2.21
ESE	2.55	.68	.59	0.00	0.00	0.00	0.00	3.82
SE	4.75	3.48	9.68	.25	0.00	0.00	0.00	18.17
SSE	15.53	8.23	3.71	.17	0.00	0.00	0.00	27.67
S	2.55	1.27	.42	0.00	0.00	0.00	0.00	4.24
SSW	.93	.68	0.00	0.00	0.00	0.00	0.00	1.61
SW	.93	.17	.08	0.00	0.00	0.00	0.00	1.19
WSW	.51	.42	0.00	0.00	0.00	0.00	0.00	.93
W	.08	.51	.08	0.00	0.00	0.00	0.00	.68
WNW	.85	1.36	0.00	0.00	0.00	0.00	0.00	2.21
NW	1.10	3.48	.08	0.00	0.00	0.00	0.00	4.67
NNW	1.78	18.93	1.95	0.00	0.00	0.00	0.00	22.67
CALM								0.00
TOTAL	36.93	45.50	17.15	.42	0.00	0.00	0.00	100.00

NOTE: ALL FREQUENCIES ARE EXPRESSED IN PERCENT
1178 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

WIND FREQUENCY SUMMARY FOR EKLUTNA 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	1.10	3.82	.42	0.00	0.00	0.00	0.00	5.35
NNE	1.02	1.02	0.00	0.00	0.00	0.00	0.00	2.04
NE	1.02	.34	0.00	0.00	0.00	0.00	0.00	1.36
ENE	.51	.68	0.00	0.00	0.00	0.00	0.00	1.19
E	1.70	.42	.08	0.00	0.00	0.00	0.00	2.21
ESE	2.55	.68	.59	0.00	0.00	0.00	0.00	3.82
SE	4.75	3.48	9.68	.25	0.00	0.00	0.00	18.17
SSE	15.53	8.23	3.74	.17	0.00	0.00	0.00	27.67
S	2.55	1.27	.42	0.00	0.00	0.00	0.00	4.24
SSW	.93	.68	0.00	0.00	0.00	0.00	0.00	1.61
SW	.93	.17	.08	0.00	0.00	0.00	0.00	1.19
WSW	.51	.42	0.00	0.00	0.00	0.00	0.00	.93
W	.08	.51	.08	0.00	0.00	0.00	0.00	.68
WNW	.85	1.36	0.00	0.00	0.00	0.00	0.00	2.21
NW	1.10	3.48	.08	0.00	0.00	0.00	0.00	4.67
NNW	1.78	18.93	1.95	0.00	0.00	0.00	0.00	22.67
CALM								0.00
TOTAL	36.93	45.50	17.15	.42	0.00	0.00	0.00	100.00

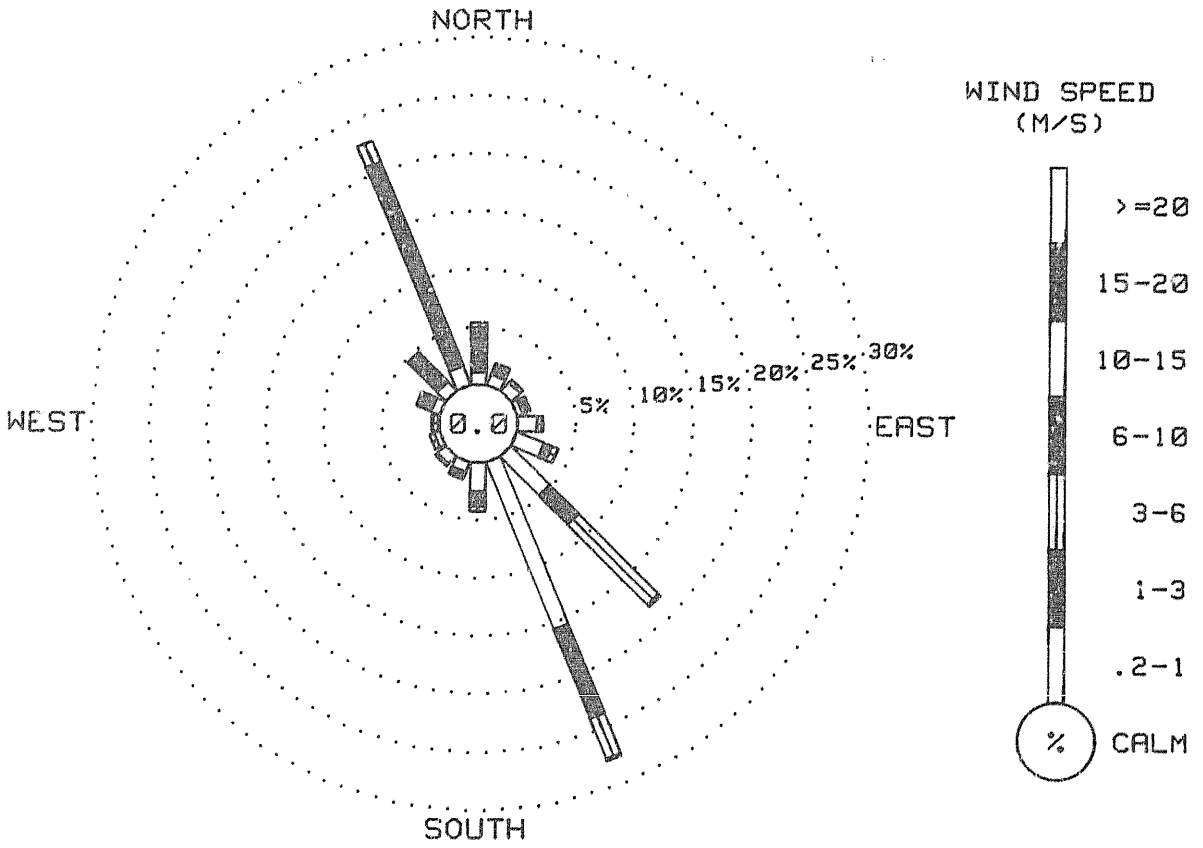
NOTE: ALL FREQUENCIES ARE EXPRESSED IN PERCENT
1178 VALID WIND OBSERVATIONS USED TO DEVELOP FREQUENCY SUMMARY
1488 WIND OBSERVATIONS WOULD HAVE BEEN CORRECT FOR 30 MINUTE DATA.
** SEE INTERPRETATION NOTES AT END OF MONTHLY REPORT **

R&M CONSULTANTS, INC.

SUSITNA HYDROELECTRIC PROJECT

EKLUTNA WEATHER STATION

May, 1984



WIND ROSE PLOT

R & M CONSULTANTS, INC.

SUSITNA HYDROELECTRIC PROJECT

HOURLY SOLAR RADIATION SUMMARY FOR EKLUTNA 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	3	8	15	30	27	42	99	85	75	87	57	39	19	7	7	1	0	0	0	24
2	0	0	0	0	0	2	10	23	35	64	73	104	98	88	87	62	56	37	14	6	2	0	0	0	31
3	0	0	0	0	1	7	14	26	48	73	81	89	70	74	88	71	37	24	15	8	2	0	0	0	30
4	0	0	0	0	0	4	11	17	26	36	73	67	68	89	76	69	54	44	14	11	2	0	0	0	27
5	0	0	0	0	1	6	11	11	41	81	98	83	111	114	99	88	24	33	24	6	2	0	0	0	35
6	0	0	0	0	1	5	13	22	50	71	95	109	112	104	98	86	70	54	32	10	2	0	0	0	39
7	0	0	0	0	1	4	7	10	54	74	88	97	101	99	93	82	67	50	31	8	2	0	0	0	36
8	0	0	0	0	1	4	7	10	61	76	90	98	103	101	95	84	69	53	33	7	3	0	0	0	37
9	0	0	0	0	1	5	7	10	59	72	79	94	95	104	99	86	70	57	33	9	3	0	0	0	37
10	0	0	0	0	1	4	7	10	60	77	89	97	101	101	97	61	24	43	26	12	4	0	0	0	34
11	0	0	0	0	1	4	8	11	69	57	90	98	102	101	95	85	51	36	33	8	4	0	0	0	35
12	0	0	0	0	1	4	7	11	61	77	90	98	102	102	70	35	33	35	21	11	5	1	0	0	32
13	0	0	0	0	2	5	8	11	61	77	90	98	103	105	70	37	31	24	37	9	4	0	0	0	32
14	0	0	0	0	2	6	11	12	62	78	90	98	103	103	96	86	71	53	34	10	4	1	0	0	38
15	0	0	0	0	2	6	10	13	34	74	58	107	107	106	99	57	38	54	42	16	6	1	0	0	34
16	0	0	0	0	2	7	13	26	48	85	104	75	78	55	51	47	45	30	18	11	4	1	0	0	29
17	0	0	0	0	2	4	7	9	65	77	91	100	97	114	76	62	52	43	23	11	2	0	0	0	35
18	0	0	0	0	2	8	20	22	56	65	57	53	90	77	115	98	66	57	28	12	4	0	0	0	34
19	0	0	0	0	1	4	14	23	34	38	43	49	62	56	57	48	72	65	33	12	5	1	0	0	25
20	0	0	0	0	4	7	13	14	68	66	72	68	46	34	33	58	23	22	16	10	4	1	0	0	23
21	0	0	0	0	2	6	14	29	36	45	36	41	40	35	37	32	41	61	29	11	5	1	0	0	21
22	0	0	0	0	3	10	15	25	32	34	34	36	26	42	62	66	84	72	31	13	7	1	0	0	24
23	0	0	0	0	2	4	6	8	67	80	89	103	110	87	74	83	63	27	16	12	5	1	0	0	35
24	0	0	0	0	2	5	13	12	62	83	79	116	108	115	105	100	87	45	36	11	5	1	0	0	41
25	0	0	0	0	1	9	14	23	36	60	67	82	76	52	59	46	41	20	17	10	5	1	0	0	26
26	0	0	0	0	2	6	13	22	36	55	58	76	88	79	69	77	62	39	25	18	9	1	0	0	30
27	0	0	0	1	4	10	18	29	40	53	81	93	114	103	74	89	52	63	45	19	5	1	0	0	37
28	0	0	0	1	3	5	7	8	69	85	97	107	116	105	108	98	82	66	34	17	7	2	0	0	42
29	0	0	0	1	5	8	10	12	70	91	60	23	20	15	9	29	6	4	12	8	1	0	0	0	16
30	0	0	0	0	3	8	19	27	33	21	54	69	96	97	68	50	48	36	23	10	5	1	0	0	28
31	0	0	0	1	3	10	12	13	72	71	72	85	65	57	62	66	49	30	22	13	7	2	0	0	29

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

R & M CONSULTANTS, INC.

SUSITNA HYDROELECTRIC PROJECT

HOURLY LONGWAVE RADIATION SUMMARY FOR EKLUTNA WEATHER STATION
DATA TAKEN DURING May, 1984

LONGWAVE RADIATION VALUES 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	28	29	35	32	30	35	30	33	36	39	31	37	34	33	34	38	39	35	37	33	31	30	32	34	33
2	36	33	30	28	33	34	33	25	30	33	30	32	34	30	30	30	31	29	26	26	28	23	25	27	30
3	27	28	33	31	31	28	26	27	30	36	33	32	33	33	33	32	31	31	31	29	28	29	29	25	30
4	28	30	29	29	34	31	33	32	30	31	31	33	32	32	32	31	34	32	26	29	31	34	34	33	31
5	27	29	31	32	31	29	27	27	26	29	35	37	37	36	30	31	27	26	25	30	31	25	24	26	29
6	26	26	26	26	26	26	27	26	35	34	34	34	32	31	29	28	28	29	28	37	36	24	26	27	29
7	28	26	25	26	25	25	26	26	27	31	34	34	30	35	35	35	34	34	30	28	27	26	25	27	29
8	26	27	26	25	26	26	26	26	32	35	31	35	32	36	35	31	31	32	31	30	28	28	27	29	29
9	28	29	28	28	27	28	27	27	29	31	36	37	37	38	38	33	37	34	35	31	32	28	27	28	31
10	27	27	27	27	27	27	26	26	29	31	36	36	37	37	37	36	35	36	31	32	30	29	31	29	31
11	27	27	26	26	25	26	24	25	28	29	34	35	35	31	31	35	34	33	33	29	31	22	27	25	29
12	24	25	25	25	25	25	25	26	29	34	34	36	35	30	35	32	33	36	38	33	32	30	26	27	30
13	26	26	27	26	26	26	25	28	29	35	30	35	32	36	36	36	37	36	36	33	31	28	27	26	30
14	27	27	26	26	26	26	26	27	32	35	36	31	33	36	30	30	31	29	30	29	28	25	26	27	29
15	25	29	30	28	27	26	25	25	29	31	35	32	31	31	31	30	31	29	30	29	29	30	30	31	29
16	32	34	31	32	32	26	28	33	37	38	36	32	33	33	38	36	35	33	34	33	32	30	31	32	33
17	28	27	30	27	26	27	28	29	31	37	37	38	34	40	35	35	***	***	***	***	***	***	***	***	21
18	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***
19	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***
20	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***
21	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***
22	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***
23	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***
24	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***
25	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***
26	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***
27	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***
28	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***
29	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***
30	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***
31	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***

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

R & M CONSULTANTS, INC.

SUSITNA HYDROELECTRIC PROJECT

HOURLY PRECIPITATION SUMMARY FOR EKLUTNA 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	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	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	.6	0.0	0.0	0.0	0.0	5
6	0.0	0.0	.2	0.0	.8	1.0	1.6	1.0	1.2	.2	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	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	.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	8
9	0.0	0.0	0.0	0.0	0.0	0.0	.4	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	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	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	.2	0.0	.4	.8	1.4	0.0	0.0	0.0	0.0	0.0	0.0	12
13	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	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
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	.2	.6	0.0	0.0	0.0	0.0	0.0	0.0	.2	.4	.4	14
15	0.0	.4	.8	.8	1.0	1.4	1.0	.4	.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	.2	.6	.2	0.0	0.0	15
16	.2	.4	1.6	1.0	.4	.2	.6	.2	0.0	.4	0.0	0.0	.2	.4	.4	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	.6	.4	.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	1.0	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	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	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	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	.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	26
27	0.0	0.0	0.0	.2	1.0	1.0	.6	.4	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	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

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

R & M CONSULTANTS, INC.

SUSITNA HYDROELECTRIC PROJECT

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

PARAMETER	NUMBER OF USABLE OBSERVATIONS	PERCENT OF TOTAL OBSERVATIONS
TEMPERATURE	1486	100
WIND SPEED	1178	79
WIND DIRECTION	1178	79
PEAK GUST	1178	79
RELATIVE HUMIDITY	0	0
PRECIPITATION	1486	100
SOLAR RADIATION	1486	100
DEW POINT	0	0
LONGWAVE RADIATION	800	54

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. Solar -1 MW/CM^2

Additional comments on this month's data:

1. Recorded RH data invalid due to bad oscillator.
2. LW radiation sensor removed 5/17 for comparison test at Watana station.
3. All wind data lost 5/25-5/31 after sensor assembly tripod tipped over.
4. Temperature data suspicious from 5/25 at 1330 to 5/30 at 1230 since sensor was next to ground after sensor assembly tripod tipped over. Recorded temperatures are probably somewhat warmer by day and cooler by night than true air temperatures.

R & M CONSULTANTS, INC.

SUSITNA HYDROELECTRIC PROJECT

THREE HOUR SUMMARY FOR EKLUTNA 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	-1.2	*****	**	***	****	***	****	0
0600	.5	*****	**	***	****	***	****	6
0900	11.5	*****	**	***	****	***	****	73
1200	17.0	*****	**	***	****	***	****	96
1500	14.3	*****	**	339	2.0	333	3.8	28
1800	14.9	*****	**	050	.8	350	3.8	30
2100	13.7	*****	**	149	1.7	138	3.8	6
2400	4.5	*****	**	119	.7	136	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	.7	*****	**	125	.7	136	1.9	0
0600	.4	*****	**	120	.8	128	1.9	5
0900	12.2	*****	**	109	.5	002	1.9	74
1200	16.4	*****	**	319	1.3	312	3.2	109
1500	18.9	*****	**	306	1.8	300	3.2	107
1800	19.5	*****	**	322	1.5	301	3.2	72
2100	14.2	*****	**	011	1.0	012	3.8	3
2400	4.8	*****	**	101	.6	101	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	.8	*****	**	135	.7	134	1.9	0
0600	1.4	*****	**	129	.7	126	2.5	6
0900	12.8	*****	**	116	.6	139	1.3	71
1200	17.6	*****	**	316	1.4	303	3.2	105
1500	17.5	*****	**	332	2.5	333	5.1	104
1800	17.4	*****	**	332	1.6	330	4.4	20
2100	14.0	*****	**	125	1.1	108	5.1	6
2400	7.4	*****	**	101	.7	126	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	1.7	*****	**	112	.7	112	1.3	0
0600	2.0	*****	**	119	.7	114	1.9	6
0900	13.7	*****	**	[illegible]	5	108	1.9	73
1200	18.7	*****	**	30	1.3	297	3.8	108
1500	19.6	*****	**	285	1.8	274	3.8	117
1800	20.1	*****	**	326	1.8	329	5.1	62
2100	12.7	*****	**	110	1.0	016	4.4	3
2400	5.0	*****	**	100	.6	108	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	2.6	*****	**	120	.7	125	1.9	0
0600	3.7	*****	**	118	.7	130	1.9	15
0900	11.8	*****	**	036	.3	337	1.9	74
1200	18.8	*****	**	326	1.3	311	2.5	112
1500	19.8	*****	**	330	1.0	330	2.5	84
1800	17.9	*****	**	325	1.2	346	3.8	9
2100	13.7	*****	**	191	1.1	194	4.4	6
2400	9.2	*****	**	109	.4	057	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	8.4	*****	**	191	.6	179	1.9	0
0600	7.9	*****	**	127	.4	152	1.9	2
0900	8.1	*****	**	126	.7	064	3.8	9
1200	10.2	*****	**	020	.3	088	3.2	40
1500	10.4	*****	**	352	1.8	000	3.8	49
1800	11.3	*****	**	346	1.6	346	3.8	38
2100	9.3	*****	**	097	1.2	043	5.1	3
2400	3.9	*****	**	315	.6	323	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	.9	*****	**	178	.7	204	2.5	0
0600	.1	*****	**	181	.7	185	1.9	5
0900	10.7	*****	**	156	.8	172	1.9	75
1200	13.9	*****	**	352	1.9	357	4.4	110
1500	13.8	*****	**	004	2.5	000	5.7	39
1800	13.7	*****	**	245	1.1	205	5.1	21
2100	12.1	*****	**	012	1.2	021	3.2	3
2400	8.5	*****	**	020	1.4	029	3.8	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	6.3	*****	**	156	.4	072	1.9	0
0600	7.5	*****	**	129	.5	117	1.3	8
0900	10.2	*****	**	321	.3	328	1.9	31
1200	12.3	*****	**	343	.8	003	1.9	51
1500	16.2	*****	**	334	1.5	330	3.2	118
1800	15.0	*****	**	356	1.6	001	3.2	28
2100	13.8	*****	**	355	1.4	342	3.8	6
2400	10.1	*****	**	358	1.8	002	4.4	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	8.9	*****	**	003	1.2	004	3.2	0
0600	7.9	*****	**	078	.3	003	2.5	2
0900	10.0	*****	**	180	.5	152	1.3	38
1200	12.9	*****	**	016	.5	354	3.2	77
1500	14.7	*****	**	355	2.0	352	5.1	129
1800	15.5	*****	**	342	1.8	346	4.4	66
2100	12.2	*****	**	255	.7	299	5.1	3
2400	5.1	*****	**	152	.4	047	1.3	0

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

R & M CONSULTANTS, INC.

SUSITNA HYDROELECTRIC PROJECT

THREE HOUR SUMMARY FOR EKLUTNA 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	4.3	*****	**	178	.6	154	1.9	0
0600	5.6	*****	**	172	.7	182	2.5	7
0900	11.3	*****	**	097	.2	052	1.9	71
1200	15.5	*****	**	345	1.3	000	2.5	107
1500	17.4	*****	**	356	1.8	359	3.8	100
1800	15.4	*****	**	006	2.2	000	3.8	30
2100	14.4	*****	**	008	1.5	006	3.2	6
2400	8.5	*****	**	264	.3	347	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	7.4	*****	**	161	.6	137	4.4	0
0600	7.9	*****	**	164	.5	172	1.3	16
0900	11.9	*****	**	015	.4	026	1.9	60
1200	14.8	*****	**	340	1.4	337	3.8	85
1500	15.4	*****	**	349	1.6	350	3.8	50
1800	15.1	*****	**	359	1.4	357	2.5	19
2100	13.4	*****	**	315	.4	348	1.9	5
2400	10.2	*****	**	175	.3	142	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	9.4	*****	**	146	.4	171	1.9	0
0600	10.0	*****	**	145	.3	163	1.3	7
0900	12.7	*****	**	029	.3	043	2.5	34
1200	14.6	*****	**	352	.9	022	1.9	47
1500	13.8	*****	**	047	.2	350	1.9	33
1800	12.1	*****	**	145	.5	165	1.9	17
2100	11.1	*****	**	149	.7	157	2.5	1
2400	11.1	*****	**	101	.6	075	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	10.5	*****	**	001	.8	358	3.8	0
0600	8.6	*****	**	334	.3	017	2.5	13
0900	11.9	*****	**	125	.7	091	2.5	37
1200	14.4	*****	**	126	2.0	138	7.0	62
1500	13.5	*****	**	149	2.9	147	5.7	24
1800	15.1	*****	**	154	2.5	182	5.7	52
2100	11.3	*****	**	170	2.3	162	5.1	6
2400	6.9	*****	**	172	.5	173	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	3.2	*****	**	168	.7	190	1.9	0
0600	4.3	*****	**	154	.6	152	1.9	6
0900	11.4	*****	**	136	.7	174	1.9	79
1200	13.6	*****	**	336	1.2	308	5.7	37
1500	10.9	*****	**	165	3.8	163	7.0	52
1800	12.0	*****	**	154	2.6	163	6.3	16
2100	9.0	*****	**	140	1.6	135	5.1	2
2400	6.4	*****	**	159	.2	234	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	6.0	*****	**	148	.6	140	1.3	0
0600	6.4	*****	**	160	.5	117	1.3	5
0900	8.5	*****	**	187	.8	173	1.9	41
1200	10.1	*****	**	339	.9	341	2.5	47
1500	9.7	*****	**	357	1.8	002	4.4	28
1800	10.1	*****	**	352	1.1	352	2.5	12
2100	8.7	*****	**	352	.9	357	2.5	6
2400	7.9	*****	**	319	.3	346	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	7.6	*****	**	175	.3	162	1.9	0
0600	7.8	*****	**	177	.5	205	1.9	2
0900	8.2	*****	**	045	.4	358	3.2	23
1200	9.3	*****	**	356	1.4	355	3.2	27
1500	9.4	*****	**	353	1.4	348	3.2	24
1800	10.1	*****	**	339	1.1	348	2.5	11
2100	9.6	*****	**	320	.5	315	1.9	2
2400	8.2	*****	**	216	.2	282	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	8.0	*****	**	144	.3	176	1.3	0
0600	8.0	*****	**	147	.4	096	1.3	5
0900	9.8	*****	**	304	.3	183	1.9	26
1200	14.3	*****	**	353	1.6	357	3.2	114
1500	15.6	*****	**	347	1.7	343	3.2	113
1800	15.6	*****	**	002	2.4	000	3.8	68
2100	12.5	*****	**	347	1.3	002	3.2	6
2400	8.8	*****	**	160	.5	164	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	5.2	*****	**	151	.5	132	1.3	0
0600	6.8	*****	**	166	.6	190	1.3	9
0900	13.0	*****	**	141	.3	147	1.3	51
1200	17.3	*****	**	348	1.2	347	1.9	109
1500	19.5	*****	**	352	1.6	358	3.2	99
1800	20.2	*****	**	354	1.5	358	3.2	61
2100	15.6	*****	**	320	.7	343	3.2	8
2400	10.8	*****	**	162	.7	171	1.9	0

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

R & M CONSULTANTS, INC.

SUSITNA HYDROELECTRIC PROJECT

THREE HOUR SUMMARY FOR EKLUTNA 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	4.7	*****	**	168	.7	163	2.5	0
0600	5.1	*****	**	175	.6	180	1.9	8
0900	12 5	*****	**	138	.5	177	1.3	72
1200	17.0	*****	**	343	1.3	347	3.2	105
1500	18.2	*****	**	348	1.6	354	3.8	100
1800	18.2	*****	**	354	1.5	354	3.2	60
2100	15.2	*****	**	343	.7	358	2.5	7
2400	7.5	*****	**	183	.6	180	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	4.1	*****	**	168	.6	136	1.9	0
0600	5.2	*****	**	168	.7	173	1.9	5
0900	14.2	*****	**	162	.5	080	1.9	73
1200	18.5	*****	**	346	1.2	343	3.2	105
1500	19.9	*****	**	350	1.7	354	3.8	99
1800	17.3	*****	**	356	2.2	359	4.4	16
2100	14.9	*****	**	340	1.0	341	3.8	6
2400	8.0	*****	**	014	.3	021	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	4.8	*****	**	175	.7	165	1.9	0
0600	7.7	*****	**	177	.6	169	1.3	11
0900	13.1	*****	**	116	.4	128	1.9	79
1200	17.1	*****	**	344	1.4	346	3.8	106
1500	18.0	*****	**	351	1.8	347	3.2	99
1800	18.5	*****	**	354	1.6	356	3.2	61
2100	15.3	*****	**	349	1.0	359	3.2	9
2400	8.1	*****	**	163	.6	164	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	4.5	**3**	**	169	.6	166	1.3	1
0600	4.0	*****	**	169	.8	171	1.9	6
0900	13.6	*****	**	137	.6	088	1.9	75
1200	17.7	*****	**	345	1.3	343	2.5	106
1500	20.7	*****	**	344	1.7	348	3.8	104
1800	20.2	*****	**	346	1.1	348	3.2	66
2100	15.5	*****	**	188	1.1	175	2.5	8
2400	7.4	*****	**	163	.7	168	1.9	1

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	4.8	*****	**	174	.8	170	1.9	1
0600	5.8	*****	**	161	.7	169	1.9	9
0900	12.4	*****	**	180	.6	174	1.9	30
1200	19.7	*****	**	333	1.1	342	3.2	89
1500	17.7	*****	**	358	1.8	349	5.1	47
1800	16.9	*****	**	149	3.3	160	7.0	29
2100	16.0	*****	**	159	3.4	157	5.7	11
2400	14.4	*****	**	154	2.7	155	6.3	1

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	9.5	*****	**	210	.5	166	4.4	1
0600	10.5	*****	**	185	.5	177	2.5	11
0900	15.8	*****	**	207	.8	175	3.2	32
1200	15.8	*****	**	154	2.5	154	5.7	46
1500	17.0	*****	**	163	3.0	167	7.0	47
1800	15.8	*****	**	154	3.3	154	7.6	25
2100	14.5	*****	**	149	3.7	148	8.3	9
2400	13.5	*****	**	145	3.2	147	6.3	1

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	14.3	*****	**	152	2.6	145	5.7	1
0600	13.9	*****	**	149	2.7	152	6.3	9
0900	14.9	*****	**	145	2.6	152	5.7	32
1200	16.3	*****	**	156	2.5	142	6.3	47
1500	16.7	*****	**	181	1.5	162	5.1	43
1800	16.8	*****	**	134	1.7	103	5.7	47
2100	14.6	*****	**	159	3.3	139	7.0	11
2400	10.2	*****	**	173	.7	182	3.8	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	*****	**	157	.6	160	1.9	1
0600	10.3	*****	**	136	.6	105	1.9	8
0900	10.3	*****	**	183	.4	190	1.3	14
1200	12.4	*****	**	317	.4	333	2.5	39
1500	14.4	*****	**	338	1.3	345	3.2	61
1800	14.6	*****	**	341	1.2	336	3.2	25
2100	13.2	*****	**	340	.9	342	2.5	4
2400	11.1	*****	**	081	.9	121	4.4	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	9.4	*****	**	131	.4	088	1.3	1
0600	9.5	*****	**	022	.8	004	3.8	7
0900	10.5	*****	**	357	1.1	356	2.5	38
1200	10.7	*****	**	348	.8	021	3.8	30
1500	10.8	*****	**	026	2.2	028	4.4	41
1800	11.7	*****	**	008	2.1	022	4.4	16
2100	10.6	*****	**	005	.8	016	3.2	7
2400	6.7	*****	**	163	.6	158	1.3	0

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

R & M CONSULTANTS, INC.

SUSITNA HYDROELECTRIC PROJECT

THREE HOUR SUMMARY FOR EKLUTNA WEATHER STATION
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	6.1	*****	**	164	.5	172	1.3	1
0600	4.6	*****	**	161	.5	165	1.3	6
0900	12.8	*****	**	150	.5	171	1.9	75
1200	16.1	*****	**	345	1.3	349	2.5	103
1500	18.0	*****	**	344	1.4	334	3.2	48
1800	18.6	*****	**	310	.9	218	6.3	52
2100	15.4	*****	**	156	5.0	157	8.9	6
2400	14.4	*****	**	144	5.0	149	8.3	1

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	14.1	*****	**	133	4.2	133	7.0	1
0600	14.4	*****	**	135	4.0	131	8.3	17
0900	16.4	*****	**	138	3.5	138	7.0	78
1200	18.9	*****	**	155	4.3	155	7.6	140
1500	17.1	*****	**	157	4.2	162	7.6	54
1800	17.0	*****	**	161	4.5	157	7.0	47
2100	13.7	*****	**	157	4.1	161	7.6	5
2400	13.6	*****	**	149	3.2	146	7.0	1

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	10.8	*****	**	147	1.1	148	5.7	1
0600	10.3	*****	**	207	.3	263	1.9	9
0900	15.2	*****	**	118	.3	107	1.9	96
1200	15.5	*****	**	134	1.3	159	4.4	56
1500	17.1	*****	**	358	1.7	000	3.2	93
1800	16.7	*****	**	003	1.8	000	3.8	20
2100	15.1	*****	**	022	1.7	028	3.8	2
2400	12.3	*****	**	325	.4	003	3.2	1

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

R & M CONSULTANTS, INC.

SUSITNA HYDROELECTRIC PROJECT

MONTHLY SUMMARY FOR EKLUTNA 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	19.6	-1.9	8.9	090	.4	1.4	333	3.8	SE	**	*****	0.0	7660	1
2	19.5	-.4	9.6	348	.4	1.1	012	3.8	ESE	**	*****	0.0	10130	2
3	19.0	.1	9.6	006	.3	1.3	333	5.1	SE	**	*****	0.0	9125	3
4	20.4	.5	10.5	345	.2	1.2	329	5.1	ESE	**	*****	0.0	10595	4
5	24.0	1.6	12.8	346	.2	1.0	194	4.4	ESE	**	*****	.6	8795	5
6	13.0	3.9	8.5	020	.4	1.2	043	5.1	NNW	**	*****	6.2	4510	6
7	15.3	-.4	7.5	000	.5	1.3	000	5.7	N	**	*****	0.0	7235	7
8	16.2	5.9	11.1	352	.8	1.1	002	4.4	N	**	*****	.2	6785	8
9	15.6	5.1	10.4	350	.6	1.2	352	5.1	N	**	*****	.6	8955	9
10	17.4	4.1	10.8	001	.7	1.2	359	3.8	N	**	*****	0.0	9300	10
11	16.1	6.1	11.1	350	.5	.9	137	4.4	NNW	**	*****	0.0	6960	11
12	14.9	8.9	11.9	107	.2	.7	043	2.5	SE	**	*****	2.8	3565	12
13	15.1	6.9	11.0	147	1.2	1.7	138	7.0	SSE	**	*****	0.0	5660	13
14	14.6	3.1	8.9	156	1.1	1.5	163	7.0	SSE	**	*****	1.8	4995	14
15	10.4	6.0	8.2	350	.4	.9	002	4.4	N	**	*****	7.0	4625	15
16	10.3	7.4	8.9	347	.4	.9	358	3.2	N	**	*****	6.0	3325	16
17	16.3	7.8	12.1	355	.8	1.2	000	3.8	N	**	*****	1.2	11120	17
18	20.2	4.3	12.3	355	.3	1.0	358	3.2	NNW	**	*****	0.0	9905	18
19	19.1	3.8	11.5	348	.3	1.0	354	3.8	S	**	*****	0.0	10455	19
20	20.1	4.1	12.1	353	.6	1.1	359	4.4	NNW	**	*****	0.0	9575	20
21	19.4	4.6	12.0	354	.5	1.0	346	3.8	NNW	**	*****	0.0	10545	21
22	21.2	3.4	12.3	318	.1	1.0	348	3.8	S	**	*****	0.0	9060	22
23	19.7	3.9	11.8	154	1.1	1.9	160	7.0	SSE	**	*****	0.0	7355	23
24	18.2	8.3	13.3	157	2.1	2.3	146	8.3	SSE	**	*****	0.0	6275	24
25	17.8	10.2	14.0	154	2.2	2.3	139	7.0	SSE	**	*****	0.0	5770	25
26	15.3	8.7	12.0	002	.3	.9	121	4.4	NNW	**	*****	.4	4905	26
27	12.0	6.0	9.0	015	.9	1.2	028	4.4	N	**	*****	3.4	3885	27
28	19.7	4.6	12.2	149	1.0	2.0	157	8.9	SSE	**	*****	0.0	8795	28
29	18.9	13.6	16.3	148	3.9	4.0	131	8.3	SSE	**	*****	0.0	9875	29
30	17.8	9.2	13.5	033	.5	1.3	148	5.7	N	**	*****	0.0	6670	30
MONTH	24.0	-1.9	11.1	107	.2	1.4	157	8.9	SSE	**	*****	30.2	226410	

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

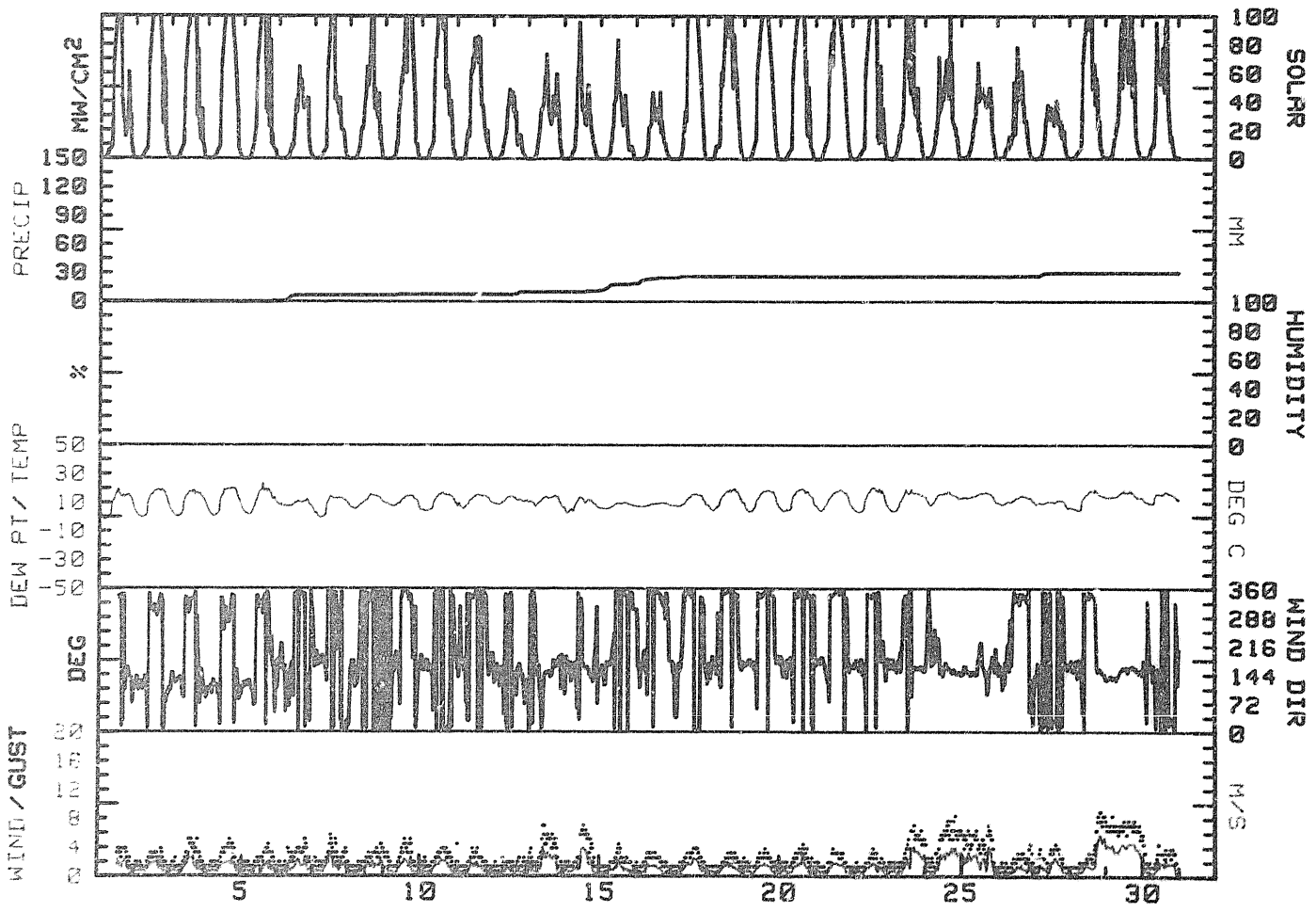
** SEE INTERPRETATION NOTES AT END OF MONTHLY REPORT **

R&M CONSULTANTS, INC.

SUSITNA HYDROELECTRIC PROJECT

EKLUTNA WEATHER STATION

June, 1984



R & M CONSULTANTS, INC.

SUSITNA HYDROELECTRIC PROJECT

WIND FREQUENCY SUMMARY FOR EKLUTNA 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	1.63	14.22	.21	0.00	0.00	0.00	0.00	16.05
NNE	1.06	2.62	0.00	0.00	0.00	0.00	0.00	3.68
NE	.42	.50	0.00	0.00	0.00	0.00	0.00	.92
ENE	1.06	.42	0.00	0.00	0.00	0.00	0.00	1.49
E	2.12	.50	.07	0.00	0.00	0.00	0.00	2.69
ESE	5.02	.42	0.00	0.00	0.00	0.00	0.00	5.45
SE	4.88	2.69	2.69	0.00	0.00	0.00	0.00	10.25
SSE	11.03	3.82	5.59	0.00	0.00	0.00	0.00	20.44
S	9.69	2.40	.14	0.00	0.00	0.00	0.00	12.23
SSW	1.56	.50	0.00	0.00	0.00	0.00	0.00	2.05
SW	.78	.35	.07	0.00	0.00	0.00	0.00	1.20
WSW	.50	.28	0.00	0.00	0.00	0.00	0.00	.78
W	.50	.35	0.00	0.00	0.00	0.00	0.00	.85
WNW	.64	.99	0.00	0.00	0.00	0.00	0.00	1.63
NW	1.98	2.33	0.00	0.00	0.00	0.00	0.00	4.31
NNW	2.12	13.30	.07	0.00	0.00	0.00	0.00	15.49
CALM								.50
TOTAL	44.98	45.69	9.84	0.00	0.00	0.00	0.00	100.00

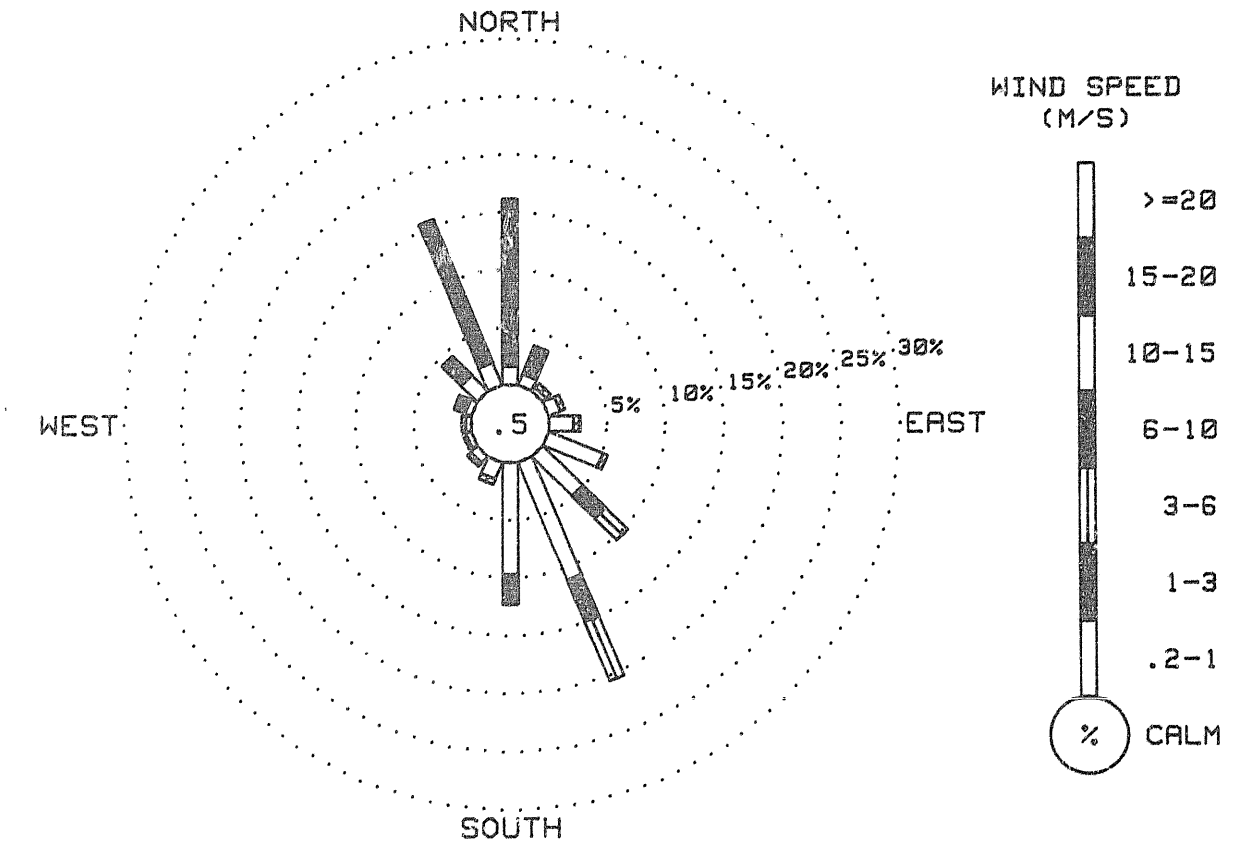
NOTE: ALL FREQUENCIES ARE EXPRESSED IN PERCENT
1414 VALID WIND OBSERVATIONS USED TO DEVELOP FREQUENCY SUMMARY
1440 WIND OBSERVATIONS WOULD HAVE BEEN CORRECT FOR 31 MINUTE DATA.
** SEE INTERPRETATION NOTES AT END OF MONTHLY REPORT **

R&M CONSULTANTS, INC.

SUSITNA HYDROELECTRIC PROJECT

EKLUTNA WEATHER STATION

June, 1984



WIND ROSE PLOT

R & M CONSULTANTS, INC.

SUSITNA HYDROELECTRIC PROJECT

HOURLY SOLAR RADIATION SUMMARY FOR EKLUTNA 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	6	7	13	69	85	98	101	113	80	35	26	17	25	54	29	8	2	0	0	32
2	0	0	0	1	3	5	7	16	70	85	97	107	113	117	109	100	65	48	55	13	5	2	0	0	42
3	0	0	0	1	3	6	9	22	67	83	94	104	109	106	110	64	65	24	18	23	8	1	0	0	38
4	0	0	0	1	3	5	7	25	69	85	97	106	112	111	114	102	84	69	48	20	5	2	0	0	44
5	0	0	0	1	4	9	15	30	71	84	97	109	126	107	59	71	26	47	14	7	6	2	0	0	37
6	0	0	0	0	0	2	4	8	8	19	38	36	58	56	52	38	36	39	43	11	4	2	0	0	19
7	0	0	0	1	3	5	7	32	71	88	112	112	82	48	39	32	35	21	20	14	4	1	0	0	30
8	0	0	0	1	3	7	17	21	27	41	57	51	65	95	118	41	42	32	38	18	8	1	0	0	28
9	0	0	0	0	1	2	9	16	36	54	59	70	86	93	128	112	96	71	47	11	7	2	0	0	37
10	0	0	0	1	5	7	10	28	71	84	103	103	106	91	100	54	55	35	41	24	6	2	0	0	39
11	0	0	0	1	4	14	18	32	61	67	81	79	70	82	68	38	33	21	12	14	5	1	0	0	29
12	0	0	0	1	3	5	11	17	28	38	48	43	40	40	31	11	12	17	10	4	2	1	0	0	15
13	0	0	0	1	3	11	20	33	36	42	56	68	39	29	24	37	34	41	51	32	10	3	0	0	24
14	0	0	0	0	4	6	15	41	67	85	47	35	29	25	45	41	27	18	10	6	2	1	0	0	21
15	0	0	0	0	2	4	12	22	40	55	76	47	43	34	26	37	30	16	7	6	8	2	0	0	19
16	0	0	0	0	1	2	4	16	23	32	45	31	29	35	28	33	24	15	11	6	3	1	0	0	14
17	0	0	0	0	1	3	12	27	29	97	106	113	121	120	115	108	91	72	54	34	13	2	0	0	46
18	0	0	0	1	7	9	9	33	56	67	91	104	98	109	103	61	85	65	50	31	13	4	0	0	41
19	0	0	0	1	3	7	11	33	69	83	94	104	109	108	102	93	79	64	46	29	12	4	0	0	44
20	0	0	0	1	3	5	7	30	69	84	96	104	108	108	102	93	64	18	43	19	7	3	0	0	40
21	0	0	0	2	6	10	13	34	73	87	75	104	109	108	102	93	80	65	49	31	14	5	1	1	44
22	0	0	1	2	4	5	7	33	71	86	98	105	110	111	106	52	14	40	15	31	13	5	1	1	38
23	0	0	1	2	4	8	15	22	26	55	92	100	89	57	46	78	36	32	35	22	13	4	1	1	31
24	1	1	1	2	5	10	19	28	32	36	46	44	54	70	48	71	60	27	23	19	13	3	1	1	26
25	1	1	1	2	4	8	14	25	29	43	61	44	49	44	44	38	36	43	46	27	14	6	1	0	24
26	0	1	1	1	4	8	8	15	12	18	51	28	75	50	54	58	38	26	25	13	6	2	1	1	20
27	0	0	1	1	2	6	11	26	33	30	30	33	29	28	33	34	24	22	19	19	8	3	1	1	16
28	0	1	1	2	4	5	7	16	71	86	97	102	91	99	73	67	50	55	26	21	7	3	1	1	37
29	1	1	1	2	8	16	22	28	66	93	93	134	72	62	54	119	80	66	47	14	7	4	1	1	41
30	1	1	1	1	3	8	10	17	64	63	59	54	59	66	70	95	45	24	14	10	4	2	1	1	28

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

R & M CONSULTANTS, INC.

SUSITNA HYDROELECTRIC PROJECT

HOURLY LONGWAVE RADIATION SUMMARY FOR EKLUTNA WEATHER STATION
DATA TAKEN DURING June, 1984

LONGWAVE RADIATION VALUES 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	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***
2	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***
3	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***
4	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***
5	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***
6	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***
7	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***
8	***	***	***	***	***	***	***	***	***	***	***	42	42	40	37	40	37	41	36	41	40	33	32	35	21
9	31	41	33	42	36	37	39	38	38	41	41	42	38	33	34	38	37	31	32	33	32	32	30	32	36
10	33	34	33	33	31	30	29	29	38	38	32	35	40	37	37	32	35	35	35	36	31	33	35	30	34
11	35	39	37	34	32	32	28	28	36	39	40	37	42	38	38	38	34	38	43	40	36	35	37	37	36
12	36	35	37	36	34	36	36	34	36	42	43	43	38	36	37	36	38	38	38	36	36	35	40	37	37
13	37	37	37	39	30	32	34	35	40	32	34	34	35	35	35	35	37	36	34	31	31	33	29	35	34
14	32	31	31	35	34	30	31	33	30	40	34	39	36	36	36	37	37	36	35	36	39	38	35	35	35
15	35	36	34	35	36	36	36	38	38	33	41	37	37	32	38	41	33	37	33	37	41	40	41	41	37
16	39	37	35	37	38	37	37	33	42	42	34	38	35	42	37	38	38	37	37	40	37	40	37	37	37
17	37	36	33	35	37	38	39	38	35	36	39	36	40	33	32	33	37	35	34	37	35	35	31	35	35
18	34	31	31	31	32	31	32	31	30	36	39	40	37	40	40	36	42	39	31	32	34	34	32	34	34
19	31	29	30	30	30	31	30	31	35	34	34	40	36	40	40	32	40	39	38	34	34	32	31	30	34
20	31	29	30	31	29	31	31	32	35	31	36	36	41	37	41	33	41	39	39	38	35	28	30	32	34
21	34	31	31	32	32	32	31	32	32	36	39	41	41	36	37	36	40	35	33	39	35	33	31	31	34
22	31	30	31	30	31	30	29	31	33	36	41	40	42	37	42	35	37	38	35	34	33	32	31	31	34
23	31	31	32	31	31	31	31	34	35	37	42	41	40	34	39	37	38	36	35	35	34	34	35	34	35
24	35	34	32	33	33	36	34	37	35	36	38	37	38	38	37	37	36	36	35	36	35	36	33	34	35
25	35	35	36	35	36	36	36	35	36	35	38	38	36	36	36	35	38	34	34	34	35	34	37	37	35
26	38	37	34	36	35	36	38	40	37	41	43	38	34	33	42	43	39	38	41	37	38	37	36	38	38
27	36	35	39	42	38	38	42	34	38	38	41	33	38	33	34	33	39	38	31	30	32	31	31	35	35
28	37	34	34	34	30	29	30	30	35	34	39	36	42	33	37	38	38	37	35	34	33	32	32	31	34
29	32	30	31	31	32	32	33	33	35	35	37	39	37	38	37	38	36	36	36	35	33	35	37	38	35
30	39	37	32	38	34	33	29	31	40	37	38	39	39	39	44	34	34	36	40	36	35	43	39	39	37

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

R & M CONSULTANTS, INC.

SUSITNA HYDROELECTRIC PROJECT

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

PARAMETER	NUMBER OF USABLE OBSERVATIONS	PERCENT OF TOTAL OBSERVATIONS
TEMPERATURE	1440	100
WIND SPEED	1414	98
WIND DIRECTION	1414	98
PEAK GUST	1413	98
RELATIVE HUMIDITY	0	0
PRECIPITATION	1440	100
SOLAR RADIATION	1440	100
DEW POINT	0	0
LONGWAVE RADIATION	1081	75

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 MONTHS DATA:

1. Solar -1 MW/CM^2 6/1-6/21

Additional Comments on this month's data:

1. Wind sensor assembly replaced 6/1 at 1330. No wind data recorded prior to that time.
2. Recorded RH data invalid due to bad oscillator.
3. LW radiation sensor replaced 6/8 after comparison test at Watana station.

R & M CONSULTANTS, INC.

SUSITNA HYDROELECTRIC PROJECT

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

PRECIPITATION VALUES ARE IN MILLIMETERS

DATE	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	
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	.4	1.0	.2	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	.2	0.0	.4	.2	.2	.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	2
3	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	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	.2	0.0	0.0	0.0	0.0	0.0	5
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	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	.4	.4	.4	0.0	.2	0.0	0.0	0.0	0.0	.2	1.4	.6	.2	0.0	0.0	0.0	.2	0.0	8
9	.2	0.0	.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	.2	.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	9
10	0.0	0.0	0.0	.4	.4	.6	.8	0.0	.2	.8	.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	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	0.0	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	12
13	0.0	.2	0.0	.2	.2	.6	1.6	2.0	1.0	.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	13
14	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	.2	1.0	0.0	0.0	0.0	.2	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	.4	.2	.2	0.0	.4	.2	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	.2	0.0	0.0	0.0	0.0	0.0	.2	0.0	.2	.2	0.0	0.0	.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	17
18	0.0	0.0	0.0	.2	0.0	0.0	0.0	.2	.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	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	.2	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	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	0.0	0.0	0.0	0.0	.2	0.0	.4	.4	.8	.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	.2	.4	25
26	.4	.2	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	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	.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	28
29	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	0.0	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	.2	.2	31

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

R & M CONSULTANTS, INC.

SUSITNA HYDROELECTRIC PROJECT

THREE HOUR SUMMARY FOR EKLUTNA 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	11.2	*****	**	158	.3	124	1.3	1
0600	11.2	*****	**	138	.4	152	1.3	4
0900	12.5	*****	**	012	.2	178	1.3	12
1200	11.8	*****	**	014	.3	350	1.9	15
1500	10.7	*****	**	346	1.0	343	2.5	22
1800	11.6	*****	**	347	1.0	358	2.5	22
2100	11.1	*****	**	344	1.0	357	3.2	5
2400	9.6	*****	**	349	.4	000	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	8.3	*****	**	155	.4	152	1.3	1
0600	9.2	*****	**	163	.5	166	1.3	8
0900	11.4	*****	**	192	.4	179	1.3	27
1200	12.8	*****	**	342	.8	344	1.9	80
1500	14.6	*****	**	352	1.4	354	3.2	77
1800	13.9	*****	**	348	1.3	352	3.2	26
2100	13.0	*****	**	354	.4	350	1.9	6
2400	10.3	*****	**	127	.2	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	9.5	*****	**	153	.4	162	1.9	0
0600	9.6	*****	**	156	.6	154	1.3	4
0900	12.2	*****	**	147	.4	136	1.9	24
1200	13.5	*****	**	309	.5	293	1.9	41
1500	14.4	*****	**	299	.5	350	1.9	23
1800	14.8	*****	**	182	.9	176	2.5	23
2100	13.7	*****	**	151	.4	198	1.3	4
2400	11.7	*****	**	160	.6	141	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	8.5	*****	**	151	.5	170	1.9	1
0600	10.1	*****	**	158	.5	173	1.9	6
0900	14.4	*****	**	163	.2	344	1.9	58
1200	19.4	*****	**	339	1.3	345	2.5	108
1500	21.2	*****	**	351	1.9	359	4.4	85
1800	21.2	*****	**	007	2.0	006	3.8	69
2100	18.4	*****	**	298	.7	323	3.2	7
2400	12.7	*****	**	157	.5	174	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	12.1	*****	**	176	.4	176	1.3	1
0600	10.7	*****	**	179	.4	179	1.3	6
0900	16.2	*****	**	111	.6	144	2.5	73
1200	20.3	*****	**	352	1.1	340	2.5	105
1500	20.6	*****	**	343	1.6	344	3.8	38
1800	19.9	*****	**	001	1.5	013	4.4	17
2100	16.4	*****	**	179	1.1	163	2.5	3
2400	14.2	*****	**	140	.6	180	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	9.4	*****	**	167	.6	159	2.5	0
0600	11.9	*****	**	164	.6	132	1.9	12
0900	16.5	*****	**	098	.3	131	1.3	47
1200	21.2	*****	**	358	1.1	345	2.5	94
1500	21.2	*****	**	358	1.9	002	3.8	76
1800	20.2	*****	**	358	1.5	003	3.8	18
2100	18.8	*****	**	265	.4	201	2.5	5
2400	16.9	*****	**	153	.2	170	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	10.4	*****	**	126	.3	067	3.2	0
0600	7.4	*****	**	174	.8	170	1.9	4
0900	16.1	*****	**	154	.7	157	1.9	38
1200	20.4	*****	**	325	.9	355	3.8	109
1500	20.2	*****	**	009	2.6	000	5.1	96
1800	20.3	*****	**	001	1.8	003	3.8	54
2100	16.1	*****	**	219	.6	180	3.2	6
2400	10.5	*****	**	146	.5	154	1.9	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	9.2	*****	**	163	.6	160	1.9	0
0600	11.2	*****	**	164	.7	170	1.9	2
0900	10.8	*****	**	342	.1	338	2.5	14
1200	12.7	*****	**	003	.4	348	1.9	42
1500	12.7	*****	**	348	.9	350	3.2	34
1800	11.7	*****	**	291	.2	343	2.5	15
2100	11.1	*****	**	164	.6	163	1.9	2
2400	10.0	*****	**	169	.6	160	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	9.6	*****	**	158	.6	177	1.9	0
0600	9.8	*****	**	170	.5	168	1.9	1
0900	11.9	*****	**	173	.8	177	1.9	24
1200	13.3	*****	**	001	.4	109	1.3	79
1500	16.5	*****	**	356	1.8	356	3.8	131
1800	14.4	*****	**	352	2.3	359	4.4	28
2100	11.8	*****	**	351	1.2	005	3.2	3
2400	7.6	*****	**	165	.6	145	1.3	0

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

R & M CONSULTANTS, INC.

SUSITNA HYDROELECTRIC PROJECT

THREE HOUR SUMMARY FOR EKLUTNA 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	8.6	*****	**	162	.7	165	1.9	0
0600	9.0	*****	**	163	.8	173	1.9	3
0900	10.6	*****	**	154	.8	168	1.9	15
1200	13.6	*****	**	017	.4	343	2.5	71
1500	15.2	*****	**	344	1.6	347	3.8	62
1800	14.5	*****	**	141	2.0	127	5.7	21
2100	13.3	*****	**	148	2.9	145	6.3	2
2400	13.2	*****	**	144	2.8	142	5.7	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	12.9	*****	**	151	2.2	142	5.1	0
0600	12.0	*****	**	244	.3	186	3.2	9
0900	14.9	*****	**	144	2.1	144	5.1	56
1200	17.8	*****	**	139	1.5	163	5.1	108
1500	17.8	*****	**	154	3.2	155	5.1	58
1800	16.1	*****	**	006	1.3	102	3.8	25
2100	13.7	*****	**	013	1.8	015	5.1	7
2400	6.8	*****	**	169	.3	028	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	5.3	*****	**	166	.6	168	1.9	0
0600	4.8	*****	**	172	.7	174	1.9	5
0900	14.0	*****	**	142	.6	150	1.9	61
1200	16.9	*****	**	345	1.3	357	2.5	65
1500	17.5	*****	**	347	1.8	010	3.8	54
1800	14.2	*****	**	043	1.4	091	5.1	21
2100	12.6	*****	**	021	.5	019	3.8	3
2400	10.4	*****	**	160	.5	144	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	9.4	*****	**	154	.4	153	1.9	0
0600	9.1	*****	**	159	.5	156	1.3	0
0900	10.2	*****	**	163	.5	159	1.9	25
1200	12.7	*****	**	330	.7	336	2.5	47
1500	17.0	*****	**	339	1.7	334	3.2	98
1800	17.2	*****	**	024	1.5	013	5.7	74
2100	13.2	*****	**	137	.9	108	3.8	3
2400	10.7	*****	**	198	.8	177	4.4	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	4.7	*****	**	161	.3	336	1.9	0
0600	5.9	*****	**	164	.7	174	1.9	10
0900	11.9	*****	**	172	.6	164	1.9	46
1200	10.9	*****	**	338	.2	047	1.9	11
1500	12.5	*****	**	331	.1	189	1.9	36
1800	12.7	*****	**	344	.6	339	1.9	21
2100	12.2	*****	**	207	.2	039	1.3	4
2400	8.0	*****	**	153	.5	154	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	3.8	*****	**	166	.8	170	1.9	0
0600	6.3	*****	**	166	.7	177	1.9	8
0900	11.8	*****	**	199	.2	306	1.9	37
1200	15.6	*****	**	327	.9	327	2.5	105
1500	18.0	*****	**	341	1.8	347	3.2	63
1800	17.4	*****	**	003	.9	349	2.5	25
2100	15.8	*****	**	225	.6	184	2.5	10
2400	10.9	*****	**	146	.4	155	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	10.1	*****	**	156	.5	144	1.9	0
0600	10.9	*****	**	158	.7	140	1.9	6
0900	13.1	*****	**	036	.3	054	1.3	11
1200	12.4	*****	**	353	1.2	351	3.2	19
1500	12.6	*****	**	356	1.2	010	3.2	66
1800	12.7	*****	**	359	.9	012	3.2	7
2100	11.4	*****	**	032	.4	017	2.5	0
2400	11.2	*****	**	108	.3	012	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	10.3	*****	**	356	1.0	341	2.5	0
0600	9.4	*****	**	164	.7	039	1.9	1
0900	10.4	*****	**	103	.3	057	1.9	4
1200	11.1	*****	**	179	.5	185	1.9	14
1500	12.2	*****	**	134	.3	035	1.9	14
1800	12.0	*****	**	359	1.2	354	3.2	7
2100	10.8	*****	**	014	.5	002	2.5	1
2400	9.4	*****	**	129	.4	134	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	*****	**	165	.5	163	1.3	0
0600	9.1	*****	**	163	.4	156	1.3	7
0900	11.7	*****	**	158	.4	177	1.3	44
1200	13.0	*****	**	355	1.5	351	3.2	38
1500	12.3	*****	**	339	1.3	355	3.2	24
1800	11.8	*****	**	349	1.1	352	2.5	12
2100	11.0	*****	**	352	.4	339	1.9	1
2400	9.8	*****	**	136	.1	095	1.3	0

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

R & M CONSULTANTS, INC.

SUSITNA HYDROELECTRIC PROJECT

THREE HOUR SUMMARY FOR EKLUTNA WEATHER STATION
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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	9.4	***** **	173	.5	129	1.3	0	
0600	9.6	***** **	168	.5	158	1.3	2	
0900	11.9	***** **	175	.1	344	1.9	41	
1200	14.4	***** **	346	1.6	358	3.2	44	
1500	13.3	***** **	359	1.6	013	4.4	24	
1800	12.9	***** **	346	.9	349	2.5	14	
2100	11.2	***** **	069	.1	358	1.3	1	
2400	9.6	***** **	161	.3	194	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	9.3	***** **	157	.4	170	1.3	0	
0600	10.1	***** **	167	.5	146	1.9	2	
0900	11.4	***** **	215	.1	328	1.9	17	
1200	12.7	***** **	314	.4	253	1.9	31	
1500	13.4	***** **	336	1.1	337	2.5	21	
1800	11.6	***** **	355	1.2	359	3.2	7	
2100	11.1	***** **	347	.8	331	2.5	0	
2400	10.3	***** **	122	.1	347	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	9.9	***** **	145	.5	170	1.3	0	
0600	10.2	***** **	164	.5	140	1.3	11	
0900	13.1	***** **	158	.4	164	2.5	39	
1200	16.1	***** **	340	1.4	338	3.2	59	
1500	18.3	***** **	353	1.9	000	4.4	112	
1800	16.2	***** **	355	1.6	352	3.2	19	
2100	13.2	***** **	360	1.0	003	3.8	3	
2400	8.5	***** **	184	.6	175	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	9.1	***** **	169	.7	168	1.9	0	
0600	10.2	***** **	161	.6	174	1.9	3	
0900	12.5	***** **	166	.7	153	1.9	19	
1200	15.2	***** **	356	.9	356	1.9	61	
1500	16.1	***** **	337	1.2	327	2.5	75	
1800	16.0	***** **	335	.8	332	1.9	17	
2100	14.5	***** **	013	.3	346	1.9	4	
2400	12.4	***** **	171	.6	176	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	11.3	***** **	161	.3	161	1.3	0	
0600	11.9	***** **	181	.4	171	1.3	4	
0900	14.2	***** **	209	.3	173	1.3	17	
1200	17.5	***** **	339	1.1	340	3.2	71	
1500	18.7	***** **	342	1.4	347	3.2	58	
1800	17.9	***** **	354	1.5	003	3.8	23	
2100	15.1	***** **	313	.3	345	1.9	2	
2400	11.4	***** **	182	.3	154	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	13.0	***** **	142	.5	161	1.9	0	
0600	11.6	***** **	180	.3	324	1.9	2	
0900	14.9	***** **	120	.3	107	1.3	36	
1200	16.9	***** **	346	.8	316	1.9	67	
1500	18.1	***** **	334	1.0	350	3.2	66	
1800	17.5	***** **	360	1.4	357	3.2	23	
2100	14.8	***** **	014	.3	359	1.9	2	
2400	11.9	***** **	158	.6	195	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	11.4	***** **	146	.4	156	1.9	0	
0600	11.1	***** **	146	.3	018	1.9	2	
0900	12.1	***** **	151	.2	161	1.3	7	
1200	13.7	***** **	176	.1	195	1.3	9	
1500	14.7	***** **	337	1.1	338	2.5	49	
1800	14.5	***** **	345	1.2	338	2.5	21	
2100	12.3	***** **	341	.7	336	1.9	1	
2400	10.6	***** **	142	.2	076	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	9.5	***** **	164	.6	153	1.3	0	
0600	9.4	***** **	150	.5	140	1.3	6	
0900	12.1	***** **	169	.4	169	1.3	23	
1200	13.9	***** **	327	.7	334	2.5	48	
1500	15.0	***** **	336	1.0	352	2.5	40	
1800	14.1	***** **	331	.2	341	1.9	7	
2100	13.1	***** **	172	.6	173	1.9	3	
2400	9.9	***** **	184	.4	194	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	9.6	***** **	167	.6	170	1.9	0	
0600	10.2	***** **	167	.7	169	1.3	1	
0900	12.2	***** **	179	.5	198	1.9	20	
1200	14.6	***** **	341	.8	304	1.9	47	
1500	16.8	***** **	336	.9	328	1.9	37	
1800	16.4	***** **	330	.4	324	1.3	10	
2100	13.7	***** **	155	.4	071	1.3	1	
2400	12.3	***** **	161	.4	147	1.3	0	

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

R & M CONSULTANTS, INC.

SUSITNA HYDROELECTRIC PROJECT

THREE HOUR SUMMARY FOR EKLUTNA 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	*****	**	174	.6	173	1.3	0
0600	11.1	*****	**	187	.6	242	2.5	0
0900	11.3	*****	**	162	.8	157	1.9	6
1200	12.9	*****	**	171	1.4	174	2.5	33
1500	15.3	*****	**	311	.4	162	1.9	53
1800	14.8	*****	**	340	1.2	341	2.5	13
2100	13.1	*****	**	343	.4	348	2.5	0
2400	12.7	*****	**	166	.4	155	2.5	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	*****	**	030	.7	073	3.8	0
0600	10.2	*****	**	132	.4	121	1.3	5
0900	12.7	*****	**	167	.5	170	1.3	35
1200	16.2	*****	**	012	.9	357	4.4	105
1500	14.4	*****	**	000	2.4	000	5.1	34
1800	13.7	*****	**	356	1.8	358	3.8	29
2100	11.8	*****	**	354	1.3	354	3.8	1
2400	9.5	*****	**	181	.4	306	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	9.3	*****	**	165	.5	165	1.9	0
0600	7.7	*****	**	160	.6	121	1.3	3
0900	12.8	*****	**	169	.7	171	2.5	33
1200	15.3	*****	**	349	.7	121	2.5	56
1500	17.2	*****	**	349	1.7	349	3.8	68
1800	16.5	*****	**	353	1.7	349	3.8	25
2100	14.8	*****	**	345	.9	347	3.2	1
2400	11.8	*****	**	010	.4	345	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	10.7	*****	**	175	.3	206	1.3	0
0600	9.5	*****	**	184	.4	172	1.9	7
0900	14.8	*****	**	103	.4	063	1.9	66
1200	17.8	*****	**	350	1.2	353	3.2	125
1500	16.6	*****	**	357	2.3	359	4.4	47
1800	14.8	*****	**	002	2.3	003	4.4	15
2100	12.2	*****	**	003	1.8	009	3.8	0
2400	10.8	*****	**	351	1.0	002	3.2	0

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

R & M CONSULTANTS, INC.

SUSITNA HYDROELECTRIC PROJECT

MONTHLY SUMMARY FOR EKLUTNA WEATHER STATION
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	12.5	9.6	11.1	354	.4	.7	357	3.2	NNW	**	*****	1.6	2830	1
2	14.6	8.1	11.4	351	.3	.7	354	3.2	NNW	**	*****	1.2	6090	2
3	14.9	9.2	12.1	176	.3	.7	176	2.5	SSE	**	*****	.2	3655	3
4	21.5	8.3	14.9	353	.5	1.0	359	4.4	N	**	*****	0.0	9700	4
5	22.0	10.7	16.4	017	.2	1.0	013	4.4	NNW	**	*****	.2	7585	5
6	22.3	8.7	15.5	002	.4	1.0	002	3.8	N	**	*****	.2	7735	6
7	21.0	7.1	14.1	009	.3	1.2	000	5.1	N	**	*****	0.0	9645	7
8	13.3	8.8	11.1	163	.1	.8	350	3.2	SSE	**	*****	4.0	3150	8
9	16.7	7.6	12.2	359	.4	1.1	359	4.4	N	**	*****	1.4	7610	9
10	15.2	7.5	11.4	143	1.0	1.6	145	6.3	SSE	**	*****	3.4	4640	10
11	18.9	6.8	12.9	135	.9	1.9	142	5.1	SSE	**	*****	0.0	9665	11
12	19.9	4.1	12.0	026	.3	1.1	091	5.1	SSE	**	*****	.2	6990	12
13	17.8	8.9	13.4	033	.1	1.0	013	5.7	SSE	**	*****	6.0	8015	13
14	12.9	3.4	8.2	173	.1	.7	336	1.9	SSE	**	*****	1.4	3655	14
15	19.0	3.1	11.1	312	.2	.9	347	3.2	NNW	**	*****	0.0	7665	15
16	13.4	10.0	11.7	019	.4	.8	351	3.2	N	**	*****	1.4	2695	16
17	12.5	9.4	11.0	046	.2	.7	354	3.2	N	**	*****	1.0	1200	17
18	13.0	8.4	10.7	353	.4	.8	351	3.2	N	**	*****	.6	3700	18
19	14.7	9.4	12.1	355	.3	.8	013	4.4	NNW	**	*****	0.0	3990	19
20	13.4	9.1	11.3	343	.3	.7	359	3.2	NNW	**	*****	.4	2460	20
21	18.4	8.5	13.5	355	.5	1.1	000	4.4	N	**	*****	0.0	7185	21
22	16.4	8.8	12.6	338	.1	.8	327	2.5	NNW	**	*****	0.0	4080	22
23	20.0	11.1	15.6	335	.4	.8	003	3.8	NNW	**	*****	0.0	6405	23
24	18.7	11.0	14.9	007	.2	.8	350	3.2	N	**	*****	0.0	4970	24
25	14.9	10.6	12.8	350	.2	.6	338	2.5	NNW	**	*****	2.6	3580	25
26	15.0	9.3	12.2	204	.1	.7	334	2.5	SSE	**	*****	1.0	4545	26
27	17.0	9.3	13.2	203	.1	.7	170	1.9	SSE	**	*****	0.0	3575	27
28	16.3	10.8	13.6	188	.2	.9	242	2.5	S	**	*****	.2	3600	28
29	16.2	9.4	12.8	006	.7	1.2	000	5.1	N	**	*****	.6	5230	29
30	19.4	7.5	13.5	354	.5	1.0	349	3.8	NNW	**	*****	0.0	6410	30
31	17.8	9.1	13.5	000	1.0	1.3	359	4.4	N	**	*****	.4	6030	31
MONTH	22.3	3.1	12.6	012	.2	.3	145	6.3	SSE	**	*****	28.0	168285	

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

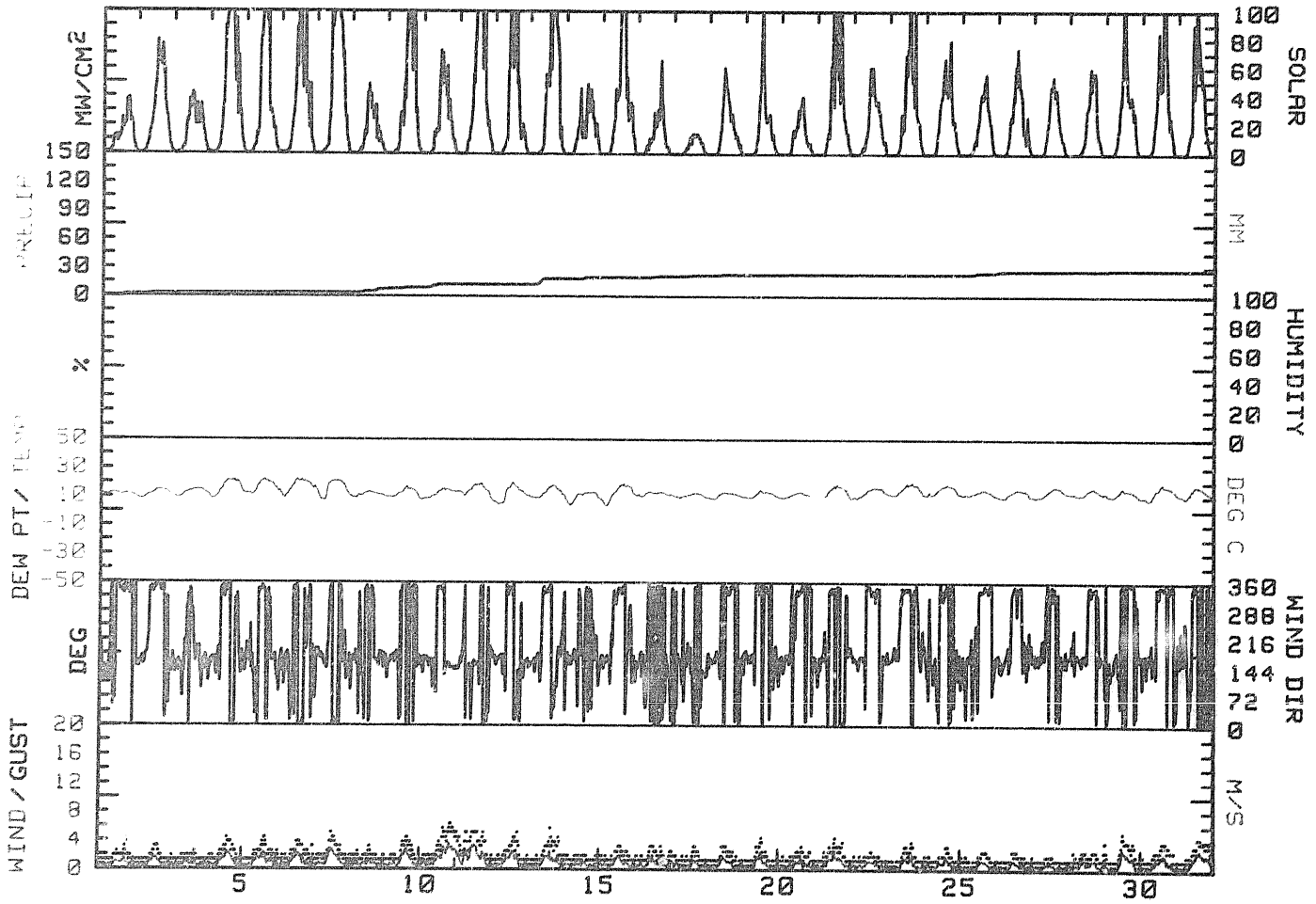
** SEE INTERPRETATION NOTES AT END OF MONTHLY REPORT **

R&M CONSULTANTS, INC.

SUSITNA HYDROELECTRIC PROJECT

EKLUTNA WEATHER STATION

July, 1984



R & M CONSULTANTS, INC.

SUSITNA HYDROELECTRIC PROJECT

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

DIRECTION	VELOCITY (M/S) 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	3.83	12.16	0.00	0.00	0.00	0.00	0.00	15.99
NNE	1.81	1.81	0.00	0.00	0.00	0.00	0.00	3.63
NE	1.34	.40	0.00	0.00	0.00	0.00	0.00	1.75
ENE	.74	.20	0.00	0.00	0.00	0.00	0.00	.94
E	1.55	.40	0.00	0.00	0.00	0.00	0.00	1.95
ESE	3.29	.34	0.00	0.00	0.00	0.00	0.00	3.63
SE	6.92	.81	.20	0.00	0.00	0.00	0.00	7.93
SSE	17.88	2.08	.60	0.00	0.00	0.00	0.00	20.56
S	12.70	2.15	0.00	0.00	0.00	0.00	0.00	14.85
SSW	3.36	.34	0.00	0.00	0.00	0.00	0.00	3.70
SW	1.01	.07	0.00	0.00	0.00	0.00	0.00	1.08
WSW	1.14	.20	0.00	0.00	0.00	0.00	0.00	1.34
W	.47	.13	0.00	0.00	0.00	0.00	0.00	.60
WNW	.47	.27	0.00	0.00	0.00	0.00	0.00	.74
NW	2.49	.67	0.00	0.00	0.00	0.00	0.00	3.16
NNW	4.97	13.04	0.00	0.00	0.00	0.00	0.00	18.01
CALM								.13
TOTAL	63.98	35.08	.81	0.00	0.00	0.00	0.00	100.00

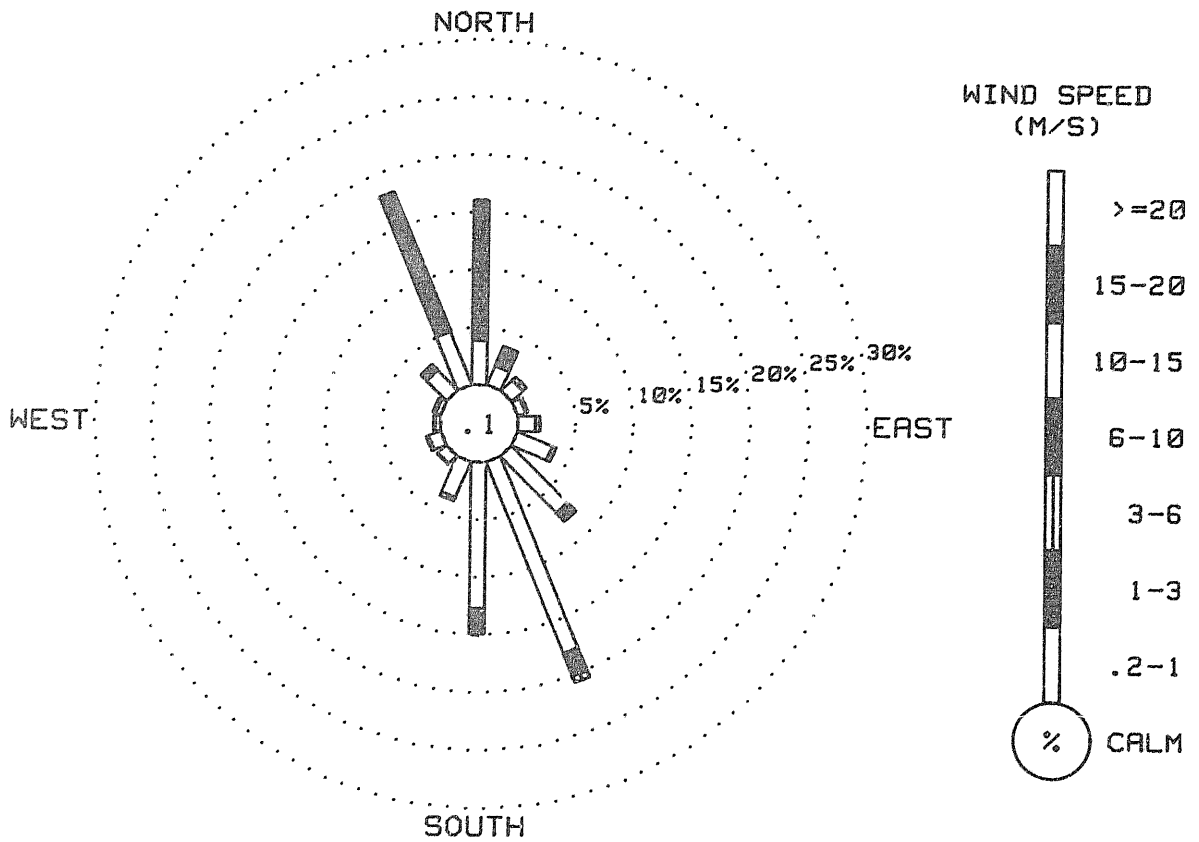
NOTE: ALL FREQUENCIES ARE EXPRESSED IN PERCENT
1488 VALID WIND OBSERVATIONS USED TO DEVELOP FREQUENCY SUMMARY
1488 WIND OBSERVATIONS WOULD HAVE BEEN CORRECT FOR 30 MINUTE DATA.
** SEE INTERPRETATION NOTES AT END OF MONTHLY REPORT **

R&M CONSULTANTS, INC.

SUSITNA HYDROELECTRIC PROJECT

EKLUTNA WEATHER STATION

July, 1984



WIND ROSE PLOT

R & M CONSULTANTS, INC.

SUSITNA HYDROELECTRIC PROJECT

HOURLY LONGWAVE RADIATION SUMMARY FOR EKLUTNA WEATHER STATION
DATA TAKEN DURING July, 1984

LONGWAVE RADIATION VALUES 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	39	37	37	36	37	38	41	39	41	38	42	38	43	39	43	39	38	42	36	41	32	41	42	38	39
2	36	36	36	37	36	37	38	39	40	38	43	34	42	39	40	42	38	42	35	38	41	40	36	36	38
3	37	36	36	37	36	37	37	40	39	40	42	40	43	43	40	39	40	41	37	37	38	38	38	37	38
4	34	33	36	35	38	36	38	36	38	33	41	37	42	39	40	43	42	43	42	39	36	37	36	35	38
5	34	37	36	36	35	34	36	35	35	36	35	34	35	40	39	37	45	45	41	***	***	***	***	***	29
6	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	42	40	40	38	40	40	10
7	38	38	34	32	30	30	30	31	35	37	31	40	40	32	40	36	31	32	37	39	36	33	36	36	35
8	33	34	37	36	37	39	43	39	38	39	40	43	39	41	39	43	39	39	38	38	38	38	39	38	38
9	38	37	37	38	37	38	38	39	38	40	39	44	36	43	41	43	39	36	37	39	35	32	33	33	38
10	35	36	38	37	37	37	38	37	38	37	38	41	41	38	42	37	35	37	36	35	35	34	35	36	37
11	35	34	32	33	33	33	33	34	33	40	36	37	38	37	38	39	42	33	34	31	34	32	32	32	35
12	32	32	31	31	32	31	31	31	36	33	36	38	42	45	36	34	35	35	38	38	37	36	37	37	35
13	36	37	36	37	36	37	37	36	37	38	41	34	42	37	36	37	37	36	35	32	32	34	34	31	36
14	33	31	30	29	31	32	34	36	35	37	39	38	39	35	43	38	39	37	41	38	38	34	31	34	35
15	34	30	30	30	33	36	35	37	40	39	43	37	37	39	43	39	40	42	39	43	37	34	36	35	37
16	36	37	34	38	37	36	42	41	34	41	34	34	39	39	40	40	34	34	42	38	38	37	37	43	37
17	38	39	40	39	38	39	38	39	38	39	38	39	39	35	40	43	40	34	42	34	36	36	36	36	38
18	37	37	36	37	37	37	38	39	38	39	36	39	42	42	42	34	38	42	38	41	38	33	37	38	38
19	37	36	38	37	37	38	39	41	39	43	39	42	34	36	34	36	37	39	39	36	36	38	36	35	37
20	37	38	37	37	38	39	38	40	42	35	40	43	38	43	39	39	37	38	34	42	38	39	38	38	39
21	38	37	39	36	37	36	36	34	38	37	41	38	41	42	42	41	33	37	36	31	35	33	34	35	37
22	38	38	35	37	37	38	39	39	35	34	40	40	44	44	35	44	44	44	37	35	38	39	39	39	39
23	38	38	38	39	39	38	39	40	43	42	39	39	46	45	43	43	41	40	43	42	36	37	36	37	40
24	37	36	41	36	37	36	37	37	39	38	44	43	39	45	41	45	40	40	43	39	37	36	38	37	39
25	37	37	36	41	39	38	39	38	40	40	39	36	39	43	36	38	37	41	38	38	40	36	37	39	38
26	38	38	36	36	37	37	38	38	38	41	39	36	44	44	40	43	38	38	38	34	37	34	37	38	38
27	38	36	37	39	38	38	41	39	42	39	35	44	40	43	42	44	43	36	37	39	38	39	40	39	39
28	39	39	39	36	38	40	39	39	38	39	39	39	43	41	45	44	41	44	39	42	39	38	38	37	40
29	39	37	38	37	37	37	38	39	40	35	40	41	43	38	38	38	38	37	34	33	37	37	36	37	38
30	35	38	35	34	34	33	34	37	37	41	37	43	40	39	35	33	39	36	42	42	40	38	40	38	37
31	38	35	38	35	37	32	30	37	33	42	38	44	38	38	43	39	35	43	43	34	43	35	42	41	38

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

R & M CONSULTANTS, INC.

SUSITNA HYDROELECTRIC PROJECT

HOURLY SOLAR RADIATION SUMMARY FOR EKLUTNA 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	1	1	1	1	2	4	10	11	13	9	12	14	22	20	21	34	36	29	23	15	6	2	1	0	12
2	0	0	1	1	4	7	13	18	24	33	47	70	68	69	70	62	49	30	24	14	6	3	1	0	25
3	0	1	0	1	3	5	7	20	23	35	35	42	32	25	29	21	28	26	17	11	5	2	1	0	15
4	1	0	1	1	3	6	15	28	47	89	96	105	110	111	97	57	84	48	34	26	10	4	1	0	40
5	0	0	1	2	5	6	14	16	53	82	96	102	108	93	72	30	29	21	18	9	4	1	1	1	32
6	0	1	1	2	3	10	19	28	42	81	79	100	88	58	65	73	47	29	36	11	7	1	0	0	32
7	0	0	0	1	2	4	5	13	31	99	97	107	114	105	100	94	76	63	29	19	8	2	0	0	40
8	0	0	0	0	2	3	5	13	13	36	44	40	32	28	33	22	16	12	10	7	3	1	0	0	13
9	0	0	0	0	2	1	5	17	27	22	41	59	116	92	118	58	104	60	29	10	4	2	0	0	32
10	0	0	0	0	1	3	15	15	16	29	64	60	51	57	51	24	33	22	12	10	4	1	0	0	19
11	0	0	0	1	6	9	17	24	45	62	94	108	124	127	97	115	68	29	21	13	8	2	0	0	40
12	0	0	0	0	3	5	8	11	60	101	83	63	92	131	51	34	13	17	16	13	4	1	0	0	29
13	0	0	0	0	0	1	2	4	16	46	52	49	110	92	103	102	89	78	40	15	4	2	0	0	33
14	0	0	0	0	3	9	14	20	37	13	19	13	30	47	33	38	31	23	14	17	8	1	0	0	15
15	0	0	0	0	2	7	16	24	42	40	45	96	112	122	91	46	30	25	33	25	11	2	0	0	32
16	0	0	0	0	2	6	7	8	10	12	24	22	28	24	53	35	20	11	5	4	1	0	0	0	11
17	0	0	0	0	0	1	2	4	4	8	11	11	14	13	14	13	11	8	7	3	1	0	0	0	5
18	0	0	0	0	1	5	13	22	40	59	49	41	34	24	26	17	13	13	8	6	2	0	0	0	15
19	0	0	0	0	0	2	6	13	33	58	101	51	27	23	25	27	15	12	6	3	1	0	0	0	17
20	0	0	0	0	0	2	9	17	15	19	25	28	32	40	25	14	9	7	6	3	0	0	0	0	10
21	0	0	0	0	2	9	15	20	51	88	68	66	108	84	74	55	32	22	15	11	4	1	0	0	30
22	0	0	0	0	2	4	4	11	16	38	58	52	48	37	35	34	29	19	11	8	7	0	0	0	17
23	0	0	0	0	0	3	10	22	20	45	63	73	126	58	54	75	38	24	22	8	4	1	0	0	27
24	0	0	0	0	0	2	11	19	33	39	47	62	46	42	59	62	28	22	17	8	3	0	0	0	21
25	0	0	0	0	0	2	3	9	9	18	23	36	41	39	50	48	31	24	19	8	2	0	0	0	15
26	0	0	0	0	1	4	11	24	24	37	47	55	65	51	43	33	16	10	19	12	5	1	0	0	19
27	0	0	0	0	0	1	4	10	19	30	45	46	50	41	41	28	18	13	9	5	1	0	0	0	15
28	0	0	0	0	0	0	2	3	6	12	26	32	42	52	55	55	45	16	10	6	1	0	0	0	15
29	0	0	0	0	1	4	8	16	31	39	79	80	62	41	36	39	36	27	20	7	2	0	0	0	22
30	0	0	0	0	1	3	8	19	30	55	66	50	57	116	98	61	31	21	17	11	2	0	0	0	27
31	0	0	0	0	1	5	11	15	40	65	58	115	69	60	55	49	34	16	9	4	1	0	0	0	25

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

R & M CONSULTANTS, INC.

SUSITNA HYDROELECTRIC PROJECT

OBSERVATION SUMMARY FOR EKLUTNA WEATHER STATION
DATA TAKEN DURING July, 1984

PARAMETER	NUMBER OF USABLE OBSERVATIONS	PERCENT OF TOTAL OBSERVATIONS
TEMPERATURE	1488	100
WIND SPEED	1488	100
WIND DIRECTION	1488	100
PEAK GUST	1488	100
RELATIVE HUMIDITY	0	0
PRECIPITATION	1488	100
SOLAR RADIATION	1488	100
DEW POINT	0	0
LONGWAVE RADIATION	1442	97

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. Solar -1 MW/CM^2 7/6-7/31

Additional comments on this month's data:

1. Recorded RH data invalid due to bad oscillator.
2. LW radiation data lost 7/5-7/6 due to disconnected wire.

R & M CONSULTANTS, INC.

SUSITNA HYDROELECTRIC PROJECT

HOURLY PRECIPITATION SUMMARY FOR EKLUTNA 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	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	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	.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	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	.6	2.6	.6	.4	0.0	.2	.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	.2	5
6	0.0	.2	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	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	.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	8
9	0.0	.6	1.6	3.0	4.2	.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	0.0	0.0	0.0	0.0	0.0	9
10	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	.2	1.0	1.2	.8	1.0	.6	.2	.2	10
11	.2	.2	0.0	.2	0.0	.2	.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	11
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	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	12
13	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	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
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	.2	0.0	.2	.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	19
20	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	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	.2	.2	0.0	.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	22
23	0.0	0.0	0.0	0.0	.4	.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	23
24	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	.6	.8	1.0	.4	0.0	0.0	0.0	0.0	0.0	.2	.6	1.0	.6	1.8	24
25	.6	.6	0.0	.2	0.0	0.0	.2	0.0	0.0	.2	.4	.2	3.4	2.4	1.2	0.0	0.0	0.0	0.0	0.0	.2	0.0	0.0	.4	25
26	.2	.2	.6	.4	1.4	.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	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	9.0	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 EKLUTNA 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	10.5	*****	**	043	.5	047	1.9	0
0600	10.7	*****	**	151	.5	169	1.3	5
0900	12.8	*****	**	194	.2	194	1.3	40
1200	14.3	*****	**	341	1.1	345	2.5	36
1500	15.1	*****	**	343	1.4	340	2.5	33
1800	15.1	*****	**	341	1.2	357	3.2	11
2100	14.4	*****	**	350	.6	002	1.9	1
2400	10.7	*****	**	159	.4	146	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	10.5	*****	**	171	.6	173	1.3	0
0600	12.1	*****	**	155	.5	180	1.3	2
0900	14.6	*****	**	152	.5	017	1.9	34
1200	15.8	*****	**	318	.6	182	1.9	41
1500	17.7	*****	**	336	1.2	328	2.5	50
1800	16.3	*****	**	353	1.6	354	3.2	15
2100	14.9	*****	**	008	.9	359	2.5	0
2400	13.4	*****	**	149	.3	185	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	12.4	*****	**	168	.4	180	1.3	0
0600	12.3	*****	**	204	.3	177	1.3	2
0900	12.5	*****	**	218	.2	218	1.9	15
1200	16.0	*****	**	327	.8	333	2.5	66
1500	16.1	*****	**	344	1.7	357	3.8	20
1800	15.9	*****	**	354	1.2	357	3.2	10
2100	14.6	*****	**	159	.8	126	1.9	1
2400	13.4	*****	**	187	.3	168	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	13.0	*****	**	166	.6	157	1.3	0
0600	12.8	*****	**	154	.4	152	1.3	1
0900	14.9	*****	**	178	.9	158	1.9	19
1200	17.8	*****	**	155	.9	176	2.5	63
1500	20.4	*****	**	345	1.6	339	3.2	89
1800	20.6	*****	**	338	1.3	343	2.5	31
2100	15.4	*****	**	179	.9	274	1.9	1
2400	11.9	*****	**	162	.6	161	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	12.2	*****	**	158	.6	170	1.9	0
0600	12.9	*****	**	177	.4	147	1.9	1
0900	13.3	*****	**	153	.3	076	2.5	16
1200	14.1	*****	**	343	.4	123	1.3	34
1500	16.0	*****	**	322	.6	298	1.9	51
1800	16.1	*****	**	325	.6	303	1.9	7
2100	14.0	*****	**	163	.3	339	1.9	0
2400	12.0	*****	**	176	1.0	184	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	12.0	*****	**	178	.3	181	1.9	0
0600	11.9	*****	**	179	.7	179	1.9	2
0900	13.6	*****	**	294	.1	309	1.9	24
1200	14.9	*****	**	342	1.1	346	2.5	49
1500	16.5	*****	**	338	1.0	343	1.9	38
1800	17.2	*****	**	335	.8	337	1.3	19
2100	14.4	*****	**	176	.7	217	1.9	1
2400	8.8	*****	**	143	.5	145	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	7.0	*****	**	170	.7	186	1.9	0
0600	7.1	*****	**	176	.6	167	1.3	2
0900	13.2	*****	**	161	.5	172	1.9	22
1200	18.3	*****	**	337	.8	332	1.9	117
1500	20.4	*****	**	339	1.7	350	3.2	87
1800	19.8	*****	**	348	1.3	350	2.5	25
2100	16.3	*****	**	187	.8	275	2.5	1
2400	13.9	*****	**	147	.5	168	1.9	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	14.2	*****	**	357	.1	040	2.5	0
0600	12.6	*****	**	353	.9	001	2.5	1
0900	13.1	*****	**	048	.2	001	2.5	14
1200	14.5	*****	**	352	.4	326	2.5	37
1500	16.3	*****	**	311	.6	189	2.5	46
1800	16.7	*****	**	224	.5	169	2.5	25
2100	14.5	*****	**	156	.5	144	1.9	1
2400	11.5	*****	**	154	.6	158	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	*****	**	170	.5	170	1.9	0
0600	12.3	*****	**	129	.5	102	2.5	0
0900	13.2	*****	**	160	.6	144	1.9	24
1200	16.9	*****	**	210	.5	182	2.5	121
1500	16.5	*****	**	352	1.7	001	4.4	29
1800	16.1	*****	**	354	.5	005	2.5	17
2100	11.7	*****	**	162	.9	178	1.9	1
2400	9.0	*****	**	160	.7	162	1.9	0

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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	8.9	*****	**	133	.4	098	1.9	0
0600	10.2	*****	**	145	.8	167	2.5	3
0900	13.5	*****	**	165	.6	164	1.9	19
1200	15.5	*****	**	288	.3	202	1.9	39
1500	17.2	*****	**	299	.5	309	1.9	18
1800	13.5	*****	**	197	.4	159	1.9	8
2100	11.0	*****	**	177	.8	175	1.9	0
2400	10.1	*****	**	175	.6	179	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	9.4	*****	**	167	.4	176	1.3	0
0600	9.4	*****	**	175	.4	178	1.9	2
0900	12.4	*****	**	160	.6	157	1.9	33
1200	15.6	*****	**	182	.2	150	1.9	68
1500	18.0	*****	**	018	.3	142	1.9	97
1800	17.4	*****	**	324	.6	323	2.5	16
2100	12.9	*****	**	177	.7	175	1.9	0
2400	8.2	*****	**	171	.5	166	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	5.1	*****	**	171	.7	181	1.9	0
0600	3.1	*****	**	169	.7	155	1.9	2
0900	10.3	*****	**	178	.6	180	1.9	56
1200	16.6	*****	**	008	.5	319	2.5	91
1500	18.7	*****	**	346	2.0	000	5.1	87
1800	19.5	*****	**	003	1.7	008	3.8	44
2100	9.1	*****	**	209	.4	342	1.9	0
2400	5.1	*****	**	172	.7	177	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	4.0	*****	**	169	.8	162	1.9	0
0600	4.7	*****	**	172	.8	166	1.9	3
0900	11.5	*****	**	173	.6	176	1.9	26
1200	17.4	*****	**	316	.6	281	2.5	91
1500	19.8	*****	**	340	1.6	340	3.8	86
1800	19.4	*****	**	328	1.0	342	3.2	44
2100	9.8	*****	**	171	1.0	163	2.5	0
2400	6.0	*****	**	167	.8	147	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	3.4	*****	**	165	.8	160	1.9	0
0600	2.7	*****	**	174	.9	180	1.9	1
0900	10.5	*****	**	178	.6	174	1.3	50
1200	19.0	*****	**	131	.6	167	1.9	89
1500	21.4	*****	**	339	1.5	340	3.8	88
1800	20.0	*****	**	007	2.0	356	4.4	43
2100	10.9	*****	**	171	.7	176	2.5	0
2400	6.7	*****	**	177	.6	174	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	*****	**	175	.7	168	1.9	0
0600	3.4	*****	**	177	.7	175	1.9	2
0900	11.2	*****	**	176	.7	179	1.3	54
1200	20.0	*****	**	006	.4	034	1.9	88
1500	21.1	*****	**	344	1.5	350	3.2	83
1800	20.7	*****	**	336	1.1	352	2.5	30
2100	13.1	*****	**	161	1.0	177	1.9	0
2400	8.5	*****	**	175	.5	168	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	6.4	*****	**	175	.6	175	1.3	0
0600	6.4	*****	**	176	.6	178	1.9	2
0900	13.5	*****	**	171	.6	177	1.9	45
1200	18.7	*****	**	344	.7	327	1.9	71
1500	20.1	*****	**	345	1.4	354	3.2	58
1800	18.0	*****	**	312	.3	340	2.5	16
2100	11.1	*****	*	169	.8	171	2.5	0
2400	7.7	*****	**	168	.7	169	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	6.7	*****	**	160	.8	149	1.9	0
0600	5.0	*****	**	163	.7	140	1.9	3
0900	11.1	*****	**	171	.7	174	1.9	53
1200	17.0	*****	**	004	1.3	041	3.2	95
1500	17.1	*****	**	355	2.3	354	5.1	53
1800	17.0	*****	**	145	2.7	149	7.6	15
2100	13.3	*****	**	130	2.2	143	6.3	0
2400	11.9	*****	**	355	1.8	003	3.8	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	11.6	*****	**	356	1.2	356	3.2	0
0600	14.4	*****	**	342	1.1	328	3.8	0
0900	15.8	*****	**	129	2.5	141	7.0	9
1200	15.6	*****	**	142	3.4	144	7.6	25
1500	15.7	*****	**	148	3.4	153	7.6	19
1800	15.9	*****	**	164	4.6	162	9.5	5
2100	14.8	*****	**	163	3.7	160	10.2	0
2400	11.9	*****	**	164	1.6	155	6.3	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	14.5	*****	**	173	3.1	161	8.3	0
0600	13.2	*****	**	148	2.2	155	7.0	5
0900	14.8	*****	**	100	.9	092	4.4	23
1200	13.2	*****	**	345	1.4	002	4.4	40
1500	12.2	*****	**	356	1.9	000	4.4	35
1800	12.7	*****	**	347	1.4	349	3.2	11
2100	10.9	*****	**	340	.9	345	3.2	0
2400	10.1	*****	**	192	.1	319	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	*****	**	356	.6	044	2.5	0
0600	9.5	*****	**	296	.0	343	2.5	1
0900	11.1	*****	**	350	.1	170	1.9	24
1200	14.4	*****	**	009	.8	039	3.2	55
1500	17.0	*****	**	345	1.8	358	4.4	62
1800	12.6	*****	**	019	1.7	035	5.1	18
2100	11.4	*****	**	345	1.3	336	3.8	0
2400	9.3	*****	**	006	.7	351	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	11.2	*****	**	168	.2	193	1.9	0
0600	11.1	*****	**	288	.7	320	2.5	0
0900	14.0	*****	**	158	2.5	154	6.3	24
1200	15.4	*****	**	163	4.5	160	7.6	44
1500	15.1	*****	**	157	4.2	162	8.3	15
1800	15.5	*****	**	151	4.3	144	7.6	15
2100	14.1	*****	**	149	3.9	162	7.6	0
2400	14.3	*****	**	132	3.7	126	7.0	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	14.3	*****	**	139	3.1	142	6.3	0
0600	9.7	*****	**	081	.5	136	3.8	0
0900	10.5	*****	**	010	.5	353	1.3	12
1200	13.9	*****	**	355	.7	344	1.9	44
1500	15.0	*****	**	332	1.1	338	4.4	33
1800	12.5	*****	**	360	1.9	002	4.4	10
2100	11.4	*****	**	349	.7	354	3.2	0
2400	10.8	*****	**	173	.2	171	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	10.2	*****	**	163	.4	189	1.3	0
0600	9.5	*****	**	150	.3	170	1.3	0
0900	10.5	*****	**	184	.4	262	1.9	5
1200	12.8	*****	**	180	.6	168	1.9	42
1500	12.7	*****	**	340	.6	316	1.9	23
1800	13.3	*****	**	328	.5	340	1.9	19
2100	9.4	*****	**	015	.1	153	1.9	0
2400	6.9	*****	**	165	.5	171	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	8.0	*****	**	169	.6	156	1.9	0
0600	7.9	*****	**	168	.5	168	1.9	1
0900	14.5	*****	**	174	1.1	150	7.0	11
1200	12.0	*****	**	151	4.4	150	9.5	10
1500	14.6	*****	**	145	3.1	143	7.6	14
1800	16.5	*****	**	139	4.4	140	8.9	7
2100	10.8	*****	**	086	.7	150	6.3	0
2400	9.9	*****	**	179	.5	242	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	9.7	*****	**	170	.7	182	1.9	0
0600	9.7	*****	**	184	.8	193	2.5	0
0900	10.7	*****	**	180	.5	176	1.9	6
1200	11.1	*****	**	200	.3	112	1.3	5
1500	7.8	*****	**	023	3.0	356	9.5	30
1800	9.4	*****	**	032	2.5	031	5.7	7
2100	9.4	*****	**	007	1.9	329	6.3	0
2400	6.0	*****	**	015	2.0	003	5.1	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	5.2	*****	**	045	2.3	041	5.1	0
0600	4.2	*****	**	020	2.5	029	5.1	0
0900	6.0	*****	**	033	1.5	041	3.8	16
1200	10.2	*****	**	027	2.5	015	5.7	103
1500	11.0	*****	**	345	2.8	340	6.3	100
1800	9.6	*****	**	353	2.5	347	5.1	11
2100	4.0	*****	**	015	1.6	357	7.0	0
2400	-1.5	*****	**	139	.4	038	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	-2.7	*****	**	164	.7	160	1.9	0
0600	-3.6	*****	**	161	.6	164	1.3	0
0900	-2.3	*****	**	166	.6	174	1.3	5
1200	8.9	*****	**	328	.7	330	2.5	84
1500	12.5	*****	**	348	1.4	357	3.8	85
1800	10.7	*****	**	325	1.8	322	4.4	7
2100	1.5	*****	**	222	.1	304	3.8	0
2400	-.9	*****	**	176	.7	165	1.9	0

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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	-3.0	*****	**	171	.7	176	1.9	0
0600	-4.7	*****	**	175	.7	184	1.9	0
0900	-.8	*****	**	170	.7	167	1.9	12
1200	9.2	*****	**	022	.4	128	1.9	72
1500	12.4	*****	**	343	1.5	339	3.2	62
1800	10.6	*****	**	354	1.7	345	3.2	16
2100	2.4	*****	**	221	.1	341	1.9	0
2400	-1.6	*****	**	176	.6	171	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	-2.4	*****	**	172	.7	168	1.3	0
0600	-3.4	*****	**	173	.7	174	1.9	0
0900	-2.1	*****	**	174	.6	174	1.3	6
1200	11.8	*****	**	016	.5	335	2.5	84
1500	12.6	*****	**	353	2.0	356	4.4	61
1800	11.1	*****	**	001	2.1	359	3.8	14
2100	2.1	*****	**	288	.1	002	2.5	0
2400	-1.2	*****	**	174	.6	169	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	-1.7	*****	**	174	.8	174	1.9	0
0600	-2.9	*****	**	170	.6	158	1.3	0
0900	-1.3	*****	**	171	.7	170	1.3	7
1200	8.5	*****	**	058	.4	115	2.5	82
1500	11.5	*****	**	342	1.6	345	3.2	76
1800	9.2	*****	**	325	.6	349	3.2	12
2100	.8	*****	**	189	.6	195	1.9	0
2400	-1.8	*****	**	176	.7	174	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	-3.4	*****	**	172	.7	170	1.3	0
0600	-4.3	*****	**	174	.7	177	1.9	0
0900	-2.9	*****	**	167	.7	171	1.9	5
1200	9.5	*****	**	001	.6	330	2.5	79
1500	10.6	*****	**	350	2.1	357	4.4	66
1800	10.1	*****	**	001	1.8	359	5.1	19
2100	4.2	*****	**	077	.2	353	1.9	0
2400	1.9	*****	**	172	.4	160	1.3	0

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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	15.6	10.3	13.0	351	.4	.8	357	3.2	NNW	**	*****	0.0	4130	1
2	17.8	9.6	13.7	353	.3	.9	354	3.2	NNW	**	*****	0.0	4235	2
3	16.7	12.1	15.4	330	.2	.8	357	3.8	SSE	**	*****	.2	4160	3
4	20.7	11.3	16.0	179	.2	1.0	339	3.2	SSE	**	*****	0.0	6640	4
5	16.4	11.6	14.0	196	.1	.7	076	2.5	S	**	*****	4.8	2765	5
6	17.4	8.8	13.1	286	.1	.8	346	2.5	NNW	**	*****	.4	3905	6
7	20.7	5.7	13.2	313	.1	.9	350	3.2	S	**	*****	0.0	6480	7
8	17.2	11.5	14.4	332	.1	.8	040	2.5	SSE	**	*****	.4	3350	8
9	17.4	9.0	13.2	152	.2	.9	001	4.4	S	**	*****	10.6	5150	9
10	19.0	8.4	13.7	177	.4	.7	167	2.5	S	**	*****	5.4	3025	10
11	19.2	8.2	13.7	175	.3	.7	323	2.5	S	**	*****	1.0	5285	11
12	20.2	3.1	11.7	351	.1	1.1	000	5.1	S	**	*****	0.0	7730	12
13	20.2	2.9	11.6	218	.2	1.0	340	3.8	S	**	*****	0.0	7505	13
14	21.7	2.5	12.1	134	.1	1.0	356	4.4	S	**	*****	0.0	7300	14
15	21.7	3.4	12.6	208	.1	.9	350	3.2	S	**	*****	0.0	7220	15
16	21.1	6.0	13.6	193	.2	.8	354	3.2	S	**	*****	0.0	5850	16
17	18.0	4.4	11.2	096	.4	1.7	149	7.6	N	**	*****	0.0	5940	17
18	15.9	11.3	13.6	150	2.1	2.8	160	10.2	SSE	**	*****	0.0	1605	18
19	15.4	10.1	12.8	084	.2	1.6	161	8.3	NNW	**	*****	.6	3860	19
20	17.0	9.3	13.2	359	.8	1.1	035	5.1	NNW	**	*****	.2	5960	20
21	16.1	8.9	12.5	153	2.8	3.1	162	8.3	SSE	**	*****	0.0	3190	21
22	15.7	9.5	12.6	039	.4	1.2	142	6.3	N	**	*****	.8	2625	22
23	13.7	6.9	10.3	184	.1	.5	262	1.9	SSE	**	*****	1.2	2540	23
24	16.5	7.5	12.0	148	1.8	2.1	150	9.5	SSE	**	*****	7.0	1500	24
25	11.4	6.0	8.7	026	.9	1.5	356	9.5	NNE	**	*****	10.0	1575	25
26	12.1	-1.5	5.3	016	1.8	2.1	357	7.0	NE	**	*****	3.2	5560	26
27	12.8	-3.6	4.6	302	.2	1.0	322	4.4	SSE	**	*****	0.0	6415	27
28	12.4	-4.7	3.9	341	.1	.9	339	3.2	S	**	*****	0.0	5800	28
29	12.6	-3.6	4.5	004	.2	1.1	356	4.4	S	**	*****	0.0	5765	29
30	12.3	-3.0	4.7	194	.1	.9	345	3.2	S	**	*****	0.0	5385	30
31	11.1	-4.4	3.4	007	.2	1.0	359	5.1	S	**	*****	0.0	5710	31
MONTH	21.7	-4.7	11.2	116	.2	1.2	160	10.2	S	**	*****	45.8	147660	

GUST VEL. AT MAX. GUST MINUS 2 INTERVALS	9.5
GUST VEL. AT MAX. GUST MINUS 1 INTERVAL	8.3
GUST VEL. AT MAX. GUST PLUS 1 INTERVAL	7.6
GUST VEL. AT MAX. GUST PLUS 2 INTERVALS	7.0

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.

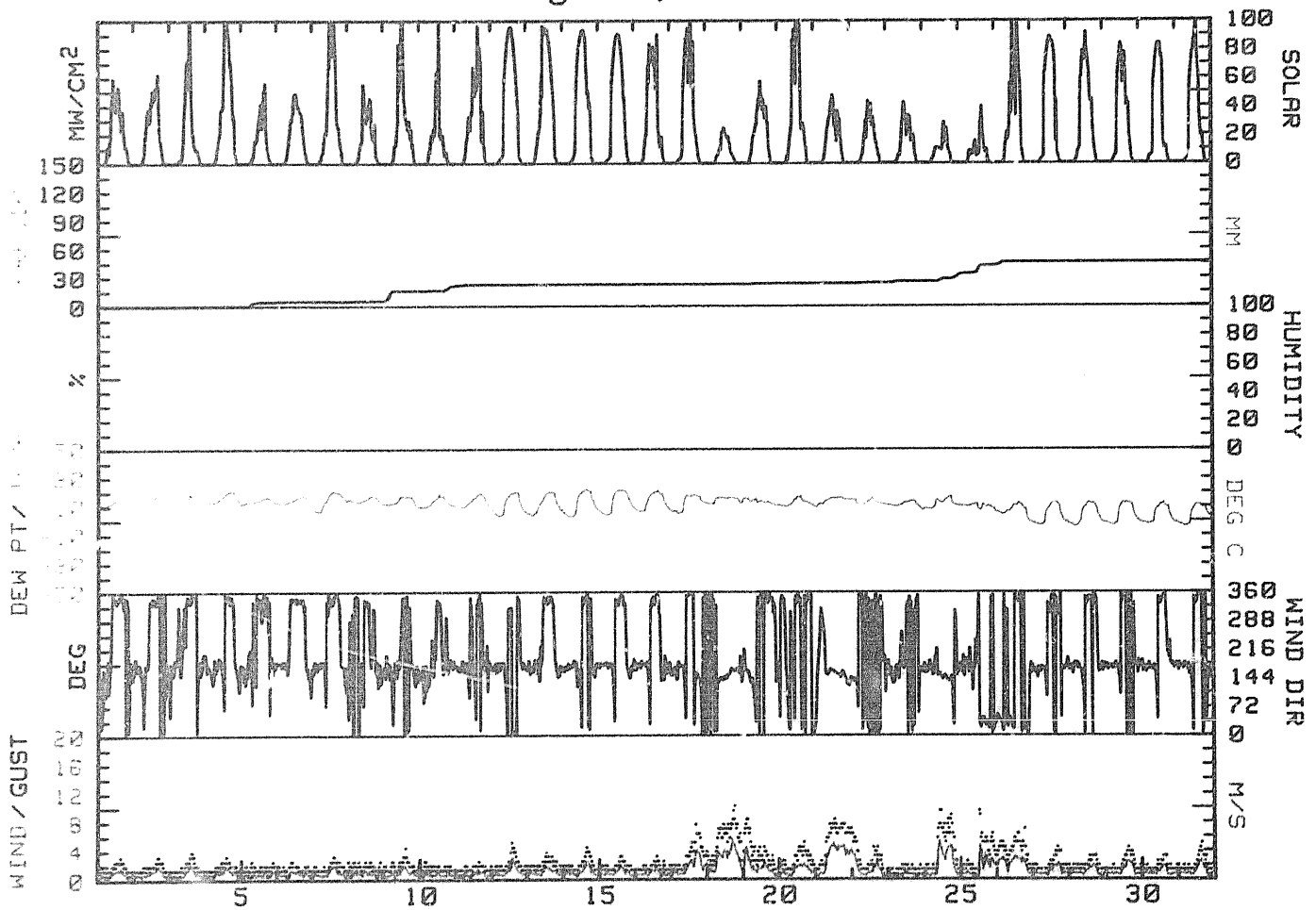
** SEE INTERPRETATION NOTES AT END OF MONTHLY REPORT **

R&M CONSULTANTS, INC.

SUSITNA HYDROELECTRIC PROJECT

EKLUTNA WEATHER STATION

August, 1984



R & M CONSULTANTS, INC.

SUSITNA HYDROELECTRIC PROJECT

WIND FREQUENCY SUMMARY FOR EKLUTNA 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	2.35	10.15	.13	0.00	0.00	0.00	0.00	12.63
NNE	.87	1.95	.47	0.00	0.00	0.00	0.00	3.29
NE	.81	1.88	0.00	0.00	0.00	0.00	0.00	2.69
ENE	.40	.20	0.00	0.00	0.00	0.00	0.00	.60
E	.74	.07	0.00	0.00	0.00	0.00	0.00	.81
ESE	1.81	.47	.07	0.00	0.00	0.00	0.00	2.35
SE	3.90	1.41	2.49	0.00	0.00	0.00	0.00	7.80
SSE	14.38	2.96	3.56	0.00	0.00	0.00	0.00	20.90
S	19.89	2.82	.07	0.00	0.00	0.00	0.00	22.78
SSW	2.49	.20	0.00	0.00	0.00	0.00	0.00	2.69
SW	.94	.27	0.00	0.00	0.00	0.00	0.00	1.21
WSW	.81	.13	0.00	0.00	0.00	0.00	0.00	.94
W	1.08	.13	0.00	0.00	0.00	0.00	0.00	1.21
WNW	1.01	.47	0.00	0.00	0.00	0.00	0.00	1.48
NW	1.81	1.48	0.00	0.00	0.00	0.00	0.00	3.29
NNW	4.10	10.89	0.00	0.00	0.00	0.00	0.00	14.99
CALM								.34
TOTAL	57.39	35.48	6.79	0.00	0.00	0.00	0.00	100.00

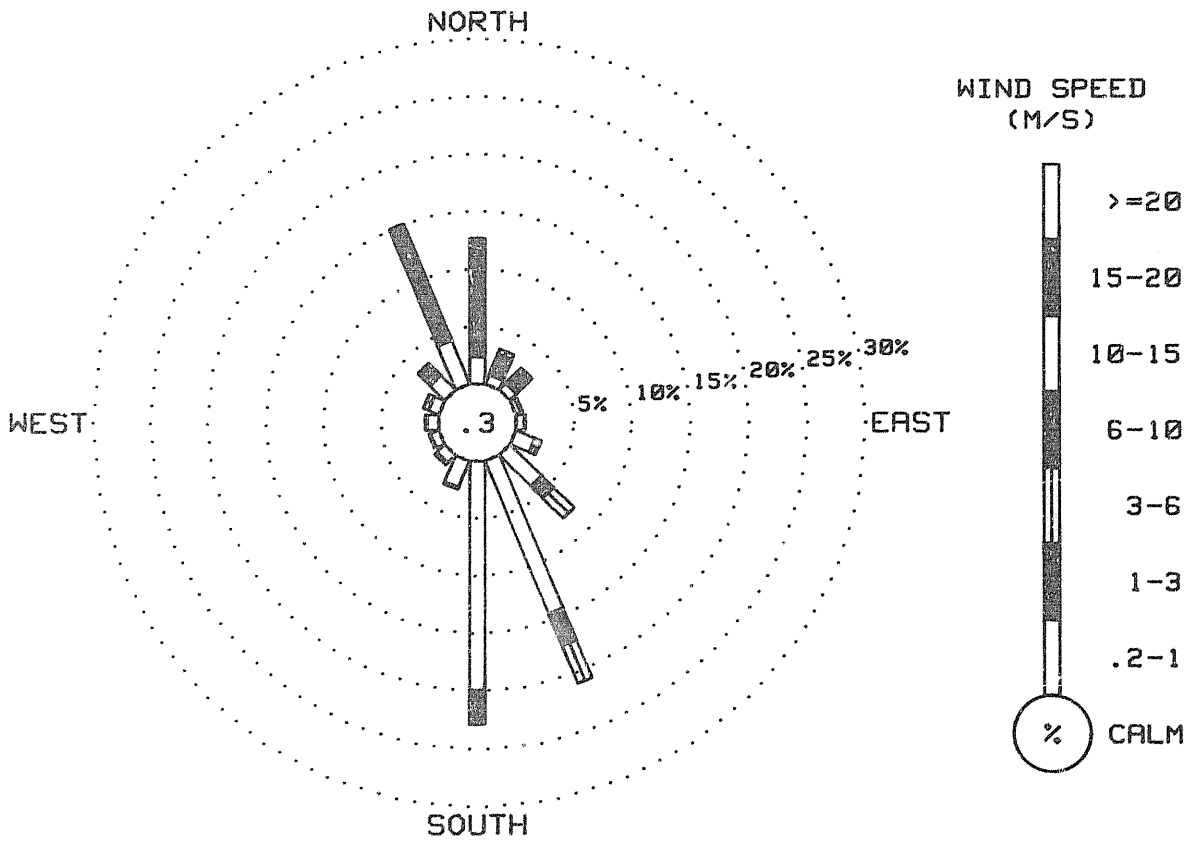
NOTE: ALL FREQUENCIES ARE EXPRESSED IN PERCENT
1488 VALID WIND OBSERVATIONS USED TO DEVELOP FREQUENCY SUMMARY
1488 WIND OBSERVATIONS WOULD HAVE BEEN CORRECT FOR 30 MINUTE DATA.
** SEE INTERPRETATION NOTES AT END OF MONTHLY REPORT **

R&M CONSULTANTS, INC.

SUSITNA HYDROELECTRIC PROJECT

EKLUTNA WEATHER STATION

August, 1984



WIND ROSE PLOT

R & M CONSULTANTS, INC.

SUSITNA HYDROELECTRIC PROJECT

HOURLY SOLAR RADIATION SUMMARY FOR EKLUTNA 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	0	4	12	11	29	50	49	37	46	52	34	27	31	15	12	8	2	0	0	0	17
2	0	0	0	0	0	2	6	19	30	35	30	42	48	45	52	57	34	16	8	2	1	0	0	0	18
3	0	0	0	0	0	1	3	2	11	36	57	69	76	85	29	16	11	10	8	4	1	0	0	0	17
4	0	0	0	0	0	1	3	11	17	30	38	51	92	103	92	76	69	43	33	7	2	0	0	0	28
5	0	0	0	0	0	1	3	4	13	15	20	29	38	27	42	52	21	9	4	2	1	0	0	0	12
6	0	0	0	0	0	2	4	12	22	30	35	48	49	42	39	36	33	22	12	6	2	0	0	0	16
7	0	0	0	0	1	2	7	11	21	22	55	92	106	87	101	66	31	25	16	9	1	0	0	0	27
8	0	0	0	0	0	1	2	6	12	16	54	38	33	36	43	35	19	21	17	4	2	0	0	0	14
9	0	0	0	0	0	0	4	13	19	56	65	90	93	42	32	27	27	19	18	12	2	0	0	0	21
10	0	0	0	0	0	2	8	17	17	22	33	52	78	22	18	17	8	8	3	1	0	0	0	0	13
11	0	0	0	0	0	2	7	16	27	24	34	54	48	53	74	70	74	16	25	8	1	0	0	0	22
12	0	0	0	0	0	2	3	5	31	68	80	90	95	96	89	79	66	49	20	4	1	0	0	0	32
13	0	0	0	0	0	2	9	18	24	46	72	91	94	94	88	79	65	49	20	4	1	0	0	0	31
14	0	0	0	0	0	1	3	5	29	69	81	86	93	94	89	66	50	41	21	4	1	0	0	0	30
15	0	0	0	0	0	2	3	4	30	66	78	87	91	91	85	74	54	39	17	5	1	0	0	0	30
16	0	0	0	0	0	1	7	17	32	62	83	74	78	71	55	58	18	14	14	3	1	0	0	0	24
17	0	0	0	0	0	2	3	4	31	66	84	88	66	87	53	60	24	18	8	3	0	0	0	0	25
18	0	0	0	0	0	0	3	5	8	10	19	23	23	20	18	15	8	6	4	2	0	0	0	0	7
19	0	0	0	0	0	3	9	18	22	27	37	43	52	42	40	33	34	20	7	1	0	0	0	0	16
20	0	0	0	0	0	1	4	11	22	58	86	57	97	94	82	25	28	22	12	2	0	0	0	0	25
21	0	0	0	0	0	0	3	10	20	28	33	43	46	27	21	36	29	17	7	2	0	0	0	0	13
22	0	0	0	0	0	0	1	4	9	21	24	38	29	41	30	28	18	13	7	4	0	0	0	0	11
23	0	0	0	0	0	0	1	4	6	14	30	43	31	20	29	29	18	20	10	4	0	0	0	0	11
24	0	0	0	0	0	1	3	6	11	11	11	10	9	19	22	22	16	8	4	1	0	0	0	0	6
25	0	0	0	0	0	0	4	7	8	7	13	11	7	7	29	32	16	9	10	2	0	0	0	0	7
26	0	0	0	0	0	0	4	15	19	23	45	70	69	55	67	89	64	30	7	2	0	0	0	0	23
27	0	0	0	0	0	0	2	3	5	64	74	82	89	88	85	79	41	26	5	2	0	0	0	0	27
28	0	0	0	0	0	0	3	8	11	60	74	74	87	78	67	45	44	22	9	3	0	0	0	0	24
29	0	0	0	0	0	0	2	4	6	54	71	82	68	62	70	43	41	18	7	2	0	0	0	0	22
30	0	0	0	0	0	0	4	5	7	59	70	80	84	84	75	43	12	11	6	1	0	0	0	0	22
31	0	0	0	0	0	0	2	3	5	56	70	79	87	98	72	50	22	20	9	1	0	0	0	0	24

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

R & M CONSULTANTS, INC.

SUSITNA HYDROELECTRIC PROJECT

HOURLY LONGWAVE RADIATION SUMMARY FOR EKLUTNA WEATHER STATION
DATA TAKEN DURING August, 1984

LONGWAVE RADIATION VALUES 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	38	36	41	38	38	38	38	39	44	44	44	44	44	45	44	44	44	44	40	43	38	40	38	33	41
2	37	37	39	37	39	36	37	39	44	45	45	45	45	45	46	46	47	***	***	***	***	***	42	43	33
3	39	39	40	40	42	42	40	42	43	41	45	41	***	42	37	41	41	42	41	41	40	41	41	41	39
4	40	40	40	39	39	40	40	41	41	41	40	40	47	44	38	37	42	37	38	36	35	34	35	37	39
5	36	39	39	42	41	41	44	42	40	45	37	45	43	46	41	44	45	43	39	41	40	40	40	40	41
6	40	40	40	40	40	40	40	41	45	40	41	45	46	45	41	45	40	44	40	39	33	32	30	32	40
7	34	34	32	34	35	37	39	40	42	43	43	40	46	40	45	44	46	44	39	40	40	38	37	39	40
8	43	39	39	40	44	45	40	38	40	39	41	41	40	44	40	41	41	41	39	40	37	36	35	39	40
9	40	38	38	39	40	35	39	38	38	38	36	43	39	39	40	36	39	38	37	35	32	35	34	35	37
10	35	35	36	38	36	36	37	37	37	39	35	44	44	43	38	39	40	38	39	39	39	38	38	38	38
11	38	37	37	37	37	37	38	36	35	39	38	38	42	40	42	39	42	36	36	36	34	34	32	32	37
12	31	31	31	31	32	32	33	33	35	31	39	40	38	36	39	31	35	34	34	32	30	31	32	30	33
13	31	30	31	31	34	35	36	35	35	35	34	36	***	40	48	40	38	41	36	31	30	31	30	30	33
14	30	31	30	31	30	31	33	33	35	35	40	32	54	41	42	24	***	***	***	***	***	***	45	32	26
15	32	31	31	32	33	32	33	34	36	35	36	38	***	***	***	***	***	***	***	***	***	***	***	***	17
16	36	31	32	33	35	34	34	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	10
17	32	30	36	33	33	34	33	33	34	32	37	38	37	34	***	36	38	38	38	36	38	37	33	42	34
18	41	42	33	38	39	36	38	37	39	39	39	38	39	38	38	38	38	37	38	37	38	37	38	40	38
19	39	36	36	36	36	37	39	41	37	37	40	43	39	38	42	33	33	38	38	43	39	37	37	38	38
20	43	43	43	39	38	35	36	44	38	34	41	40	38	37	***	***	***	***	***	***	***	***	***	***	23
21	***	***	***	***	***	38	37	38	37	38	38	39	39	39	39	38	37	37	38	37	37	38	36	37	30
22	36	38	38	41	36	35	41	36	35	39	39	36	42	38	36	39	34	43	35	38	38	39	37	37	38
23	39	40	41	37	38	38	39	40	39	40	39	42	42	40	38	41	42	34	32	35	34	35	34	37	38
24	36	37	37	35	38	36	37	38	38	37	38	37	38	38	37	37	38	39	42	42	41	38	38	39	38
25	39	37	37	36	40	37	38	41	38	41	40	42	32	32	35	34	33	32	35	35	35	36	35	31	36
26	37	33	37	41	44	46	48	49	43	44	48	52	61	62	62	61	58	55	54	42	49	45	45	26	47
27	31	33	29	29	27	29	28	30	29	32	33	34	31	40	40	50	44	33	28	***	***	***	***	***	26
28	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	28	28	2
29	28	***	***	***	36	***	35	30	30	29	26	28	***	32	28	30	24	***	***	***	***	***	***	***	15
30	26	28	29	30	***	30	31	30	30	28	32	***	***	35	31	35	33	29	30	27	27	27	27	27	26
31	27	27	29	30	29	29	29	30	31	33	36	31	34	39	36	39	28	37	32	32	31	32	34	31	32

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

R & M CONSULTANTS, INC.

SUSITNA HYDROELECTRIC PROJECT

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

PARAMETER	NUMBER OF USABLE OBSERVATIONS	PERCENT OF TOTAL OBSERVATIONS
TEMPERATURE	1488	100
WIND SPEED	1488	100
WIND DIRECTION	1488	100
PEAK GUST	1488	100
RELATIVE HUMIDITY	0	0
PRECIPITATION	1488	100
SOLAR RADIATION	1488	100
DEW POINT	0	0
LONGWAVE RADIATION	1293	87

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. Solar -1 MW/CM^2

Additional comments on this month's data:

1. LW radiation data suspected to be poor 8/2-8/31 due to intermittent electrical connection.

2. Recorded RH data invalid due to bad oscillator.

R & M CONSULTANTS, INC.

SUSITNA HYDROELECTRIC PROJECT

HOURLY PRECIPITATION SUMMARY FOR FKLUTNA 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	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	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	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	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	12
13	.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	13
14	0.0	0.0	0.0	0.0	0.0	0.0	.4	.4	0.0	.2	0.0	.2	.2	1.2	1.0	1.8	.4	.2	0.0	0.0	0.0	0.0	0.0	0.0	14
15	.2	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	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	.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	.4	.6	.4	.2	.2	0.0	18
19	0.0	0.0	.2	1.0	.8	1.2	.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	.4	2.2	.8	2.0	2.2	19
20	1.6	1.2	0.0	.2	.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	20
21	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	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	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	.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	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	.2	.2	.2	.6	1.6	2.4	3.2	4.0	3.2	2.4	1.2	1.6	1.6	1.2	.6	.2	0.0	0.0	0.0	0.0	.4	29
30	.4	.2	.2	0.0	0.0	0.0	0.0	.4	.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	.2	.6	0.0	.4	.6	1.0	0.0	0.0	30

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

R & M CONSULTANTS, INC.

SUSITNA HYDROELECTRIC PROJECT

THREE HOUR SUMMARY FOR EKLUTNA 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	-.1	*****	**	170	.6	161	1.9	0
0600	0.0	*****	**	174	.7	178	1.3	0
0900	5.5	*****	**	163	.7	168	1.9	23
1200	11.4	*****	**	352	.7	338	2.5	71
1500	13.8	*****	**	331	1.2	343	1.9	68
1800	10.6	*****	**	296	.5	316	1.9	5
2100	2.6	*****	**	166	.6	179	1.9	0
2400	.1	*****	**	176	.7	172	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	-.8	*****	**	176	.7	177	1.3	0
0600	-1.6	*****	**	179	.7	170	1.3	0
0900	-.6	*****	**	181	.7	179	1.3	5
1200	13.6	*****	**	355	.5	003	1.9	80
1500	13.4	*****	**	339	1.4	358	3.8	12
1800	12.3	*****	**	191	1.2	174	3.8	9
2100	3.9	*****	**	160	.6	147	1.9	0
2400	.8	*****	**	170	.7	161	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	-1.3	*****	**	174	.7	178	1.9	0
0600	-2.2	*****	**	177	.7	178	1.3	0
0900	-.9	*****	**	175	.7	176	1.3	5
1200	12.5	*****	**	034	.5	101	1.9	78
1500	16.1	*****	**	326	1.2	335	2.5	75
1800	10.2	*****	**	220	.2	333	1.9	6
2100	*****	*****	**	***	****	***	****	0
2400	*****	*****	**	***	****	***	****	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	*****	*****	**	***	****	***	****	0
0600	*****	*****	**	***	****	***	****	0
0900	*****	*****	**	***	****	***	****	14
1200	*****	*****	**	***	****	***	****	48
1500	*****	*****	**	***	****	***	****	33
1800	10.8	*****	52	181	.7	181	1.3	6
2100	2.8	*****	48	153	.6	165	1.9	0
2400	.3	*****	63	159	.6	151	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	-1.4	*****	65	157	.7	154	1.9	0
0600	-1.6	*****	65	162	.7	161	1.9	0
0900	-.4	*****	65	163	.7	159	1.9	5
1200	13.4	*****	37	352	.5	050	1.9	52
1500	14.4	2.2	44	326	1.4	343	3.2	76
1800	11.1	*****	**	319	.9	321	2.5	9
2100	4.8	*****	63	161	.5	154	1.3	0
2400	.6	*****	63	161	.7	160	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	-.9	*****	69	161	.7	155	1.9	0
0600	-1.9	*****	72	164	.7	169	1.9	0
0900	-.5	*****	63	160	.7	165	1.9	5
1200	13.6	2.8	48	342	.6	319	2.5	80
1500	14.7	1.5	41	338	1.5	327	3.2	68
1800	14.1	-1.7	34	006	.4	152	5.1	5
2100	12.7	-2.1	36	130	2.9	123	5.7	0
2400	12.3	-2.1	37	128	2.9	128	6.3	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	6.3	*****	**	106	1.0	132	4.4	0
0600	1.8	*****	59	155	.6	124	1.9	0
0900	5.1	*****	57	164	.7	165	1.9	9
1200	14.9	.2	37	175	.9	194	5.1	47
1500	14.3	-2.3	32	137	3.1	141	5.7	27
1800	13.6	-2.9	32	139	3.0	141	5.7	11
2100	10.1	-2.0	43	169	1.2	141	3.8	0
2400	4.6	*****	59	234	.8	239	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	3.6	*****	69	158	.6	158	1.9	0
0600	3.3	*****	88	164	.7	150	1.9	0
0900	4.5	*****	69	161	.7	148	1.9	11
1200	16.0	*****	31	093	.2	341	2.5	62
1500	15.9	-4.2	25	137	2.5	144	5.7	44
1800	14.3	-4.1	28	144	2.8	140	5.1	7
2100	12.2	-4.2	32	138	2.5	140	5.7	0
2400	3.8	*****	31	140	.6	123	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	1.1	*****	66	164	.6	164	1.9	0
0600	-.2	*****	68	165	.7	172	1.9	0
0900	3.9	*****	60	162	.6	164	1.3	11
1200	13.9	-1.4	35	327	.6	343	1.9	65
1500	15.6	2.3	41	322	1.3	322	2.5	67
1800	9.5	*****	**	350	.4	326	2.5	5
2100	3.2	*****	62	160	.5	130	1.3	0
2400	2.0	*****	70	161	.6	159	1.9	0

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R & M CONSULTANTS, INC.

SUSITNA HYDROELECTRIC PROJECT

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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	1.2	*****	75	161	.8	163	1.9	0
0600	-1.1	*****	72	162	.7	147	1.3	0
0900	.1	*****	73	165	.7	162	1.9	5
1200	13.9	1.5	43	352	.5	340	1.9	73
1500	15.8	4.5	47	334	1.6	339	3.2	67
1800	10.7	*****	**	281	.5	326	2.5	5
2100	4.4	*****	61	161	.6	155	1.9	0
2400	4.7	*****	67	163	.6	153	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	2.0	*****	74	167	.6	169	1.9	0
0600	-.4	*****	70	163	.8	157	1.9	0
0900	.3	*****	75	163	.7	160	1.9	5
1200	14.2	2.1	44	002	.3	068	1.9	74
1500	13.5	1.1	43	323	1.2	316	4.4	10
1800	11.6	*****	87	190	.8	214	6.3	6
2100	6.3	*****	61	143	.6	134	1.9	0
2400	3.0	*****	69	160	.6	164	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	*****	77	162	.7	152	1.9	0
0600	1.3	*****	73	164	.7	168	1.9	0
0900	5.6	*****	66	172	.6	174	1.9	14
1200	13.9	3.6	50	347	1.0	333	3.2	70
1500	13.3	2.5	48	352	1.9	355	4.4	36
1800	13.4	-2.7	33	079	.7	131	5.7	6
2100	12.2	-1.5	39	127	2.8	127	5.7	0
2400	9.8	6.0	77	142	2.0	137	5.1	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	7.4	*****	37	173	.9	168	4.4	0
0600	9.5	*****	**	198	.8	200	3.2	0
0900	10.0	*****	**	299	.6	236	2.5	14
1200	13.0	-1.5	37	149	1.6	135	5.7	21
1500	12.9	-2.3	35	139	2.8	154	5.7	22
1800	12.0	-3.1	35	126	3.0	123	7.6	3
2100	9.0	*****	59	168	1.0	148	4.4	0
2400	7.5	*****	87	170	.6	159	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	6.9	*****	**	146	.7	125	2.5	0
0600	8.5	*****	**	123	1.0	155	3.2	0
0900	8.3	2.2	65	140	.8	142	3.2	14
1200	9.9	2.1	58	210	.6	181	2.5	12
1500	9.2	*****	58	193	.7	174	3.2	4
1800	10.0	-9.2	25	204	.7	215	3.8	2
2100	7.7	*****	63	325	.8	018	3.2	0
2400	7.0	*****	77	044	.2	337	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	6.3	*****	77	151	.6	127	1.9	0
0600	6.3	*****	77	161	.7	155	1.9	0
0900	9.6	*****	62	164	.6	161	1.9	18
1200	12.2	*****	88	176	.5	183	2.5	14
1500	13.4	2.3	47	148	1.8	136	5.7	31
1800	13.1	-.7	39	142	2.9	136	5.7	9
2100	4.7	*****	59	146	1.0	144	4.4	0
2400	1.8	*****	70	144	.7	150	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	1.8	*****	78	157	.8	159	1.9	0
0600	3.2	*****	75	153	.7	150	1.9	0
0900	5.4	*****	71	161	.6	191	1.9	10
1200	13.1	*****	52	175	.3	139	1.9	61
1500	14.2	3.0	47	321	1.1	325	2.5	59
1800	12.7	*****	68	336	1.6	335	3.8	7
2100	8.3	*****	60	161	.4	197	1.3	0
2400	6.7	*****	72	158	.5	160	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	5.7	*****	79	154	.5	157	1.9	0
0600	5.5	*****	77	164	.5	160	1.9	0
0900	7.0	*****	89	151	.6	145	1.9	13
1200	10.6	-3.6	37	339	.6	327	1.9	32
1500	11.9	*****	**	326	.7	327	1.9	16
1800	11.4	*****	**	337	.9	336	3.8	6
2100	9.1	*****	62	071	.4	070	1.9	0
2400	7.0	*****	71	301	.2	341	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	8.1	*****	80	158	.7	175	2.5	0
0600	4.9	*****	85	153	.6	158	1.9	0
0900	6.8	3.6	80	152	.8	127	1.9	3
1200	10.1	*****	47	192	.5	131	1.9	26
1500	10.6	-13.5	17	343	1.5	349	4.4	20
1800	9.4	-6.2	33	346	1.6	347	4.4	2
2100	7.1	*****	84	357	.7	352	3.8	0
2400	6.7	*****	91	131	.3	118	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	6.6	*****	84	335	.0	065	1.9	0
0600	6.2	*****	86	159	.4	187	1.3	0
0900	6.9	*****	85	139	.5	126	1.3	14
1200	10.7	*****	**	032	.6	335	3.8	66
1500	11.5	2.8	55	331	1.6	333	3.8	46
1800	6.1	-5.6	43	044	1.4	006	8.3	3
2100	3.2	-2.3	67	004	3.0	002	7.0	0
2400	1.1	*****	79	139	1.1	111	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	*****	82	148	.6	137	1.9	0
0600	1.3	*****	82	151	.8	153	1.9	0
0900	2.7	*****	77	154	.7	153	2.5	13
1200	4.9	*****	45	127	.3	341	2.5	30
1500	7.7	7.2	97	309	1.0	305	2.5	58
1800	6.4	*****	**	320	1.2	337	3.8	3
2100	2.2	-1.6	76	146	1.0	150	3.8	0
2400	-1.2	*****	81	155	.8	140	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	-1.8	*****	87	***	****	***	1.9	0
0600	-2.5	*****	83	***	****	***	1.9	0
0900	-1.6	*****	78	***	****	***	1.9	5
1200	7.9	2.0	66	002	.5	356	1.9	63
1500	11.3	1.5	51	326	1.3	323	2.5	56
1800	4.8	*****	63	244	.2	323	1.9	3
2100	-.2	*****	63	163	.8	172	1.9	0
2400	-.6	*****	73	162	.9	165	1.9	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	*****	75	161	.9	151	1.9	0
0600	-3.3	*****	70	163	.9	158	1.9	0
0900	0.0	-4.6	71	157	.9	164	2.5	12
1200	12.4	*****	20	033	.3	344	2.5	61
1500	12.8	*****	37	311	.8	300	1.9	27
1800	10.1	3.2	62	331	1.0	330	3.2	4
2100	4.9	*****	37	173	.4	286	1.9	0
2400	4.1	-4.4	54	160	.9	146	1.9	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	2.6	*****	68	166	.8	168	2.5	0
0600	13.0	-10.8	18	153	1.3	131	6.3	0
0900	13.4	-12.8	15	133	2.9	123	6.3	7
1200	13.8	-11.6	16	138	3.2	139	7.6	17
1500	14.0	-10.7	17	148	3.2	141	7.0	19
1800	13.1	-13.9	14	150	2.4	158	8.3	3
2100	11.6	-10.7	20	143	2.9	144	7.0	0
2400	12.1	-10.9	19	145	3.3	142	6.3	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	11.8	-9.9	21	137	4.0	140	7.6	0
0600	11.2	-9.8	22	126	4.4	126	8.3	0
0900	11.2	-8.7	24	124	3.8	122	7.6	3
1200	12.4	-7.2	25	128	4.4	135	8.3	10
1500	12.5	-6.6	26	120	3.6	134	7.0	15
1800	12.0	-6.5	27	120	3.9	126	7.6	3
2100	11.4	-6.6	28	130	3.2	127	7.0	0
2400	8.1	-5.9	37	103	1.3	120	5.7	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	7.2	*****	42	300	.9	311	2.5	0
0600	7.6	-2.8	48	142	1.2	124	5.7	0
0900	6.8	*****	61	307	.3	339	3.8	2
1200	9.2	-3.1	42	210	.1	088	2.5	23
1500	10.9	6.3	73	266	.6	287	2.5	26
1800	11.9	-.7	42	159	.8	306	5.1	3
2100	7.6	.1	59	098	1.1	125	5.7	0
2400	4.9	-.7	67	302	1.0	315	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	-.1	-1.4	91	171	.9	195	1.9	0
0600	-1.2	-4.2	80	159	.9	157	1.9	0
0900	-.8	*****	80	160	.8	161	1.9	4
1200	11.3	*****	50	343	.2	036	1.9	59
1500	11.9	4.9	62	330	1.5	324	3.2	44
1800	7.0	*****	**	292	.7	319	4.4	2
2100	1.3	*****	63	164	.8	168	1.9	0
2400	1.6	*****	71	163	.9	151	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	2.3	.2	86	161	.9	164	2.5	0
0600	.3	*****	85	158	.8	152	1.9	0
0900	-.6	-3.5	81	160	.9	158	1.9	4
1200	10.1	*****	62	159	1.0	165	2.5	17
1500	11.9	*****	51	293	.5	201	1.9	20
1800	10.9	*****	84	336	.6	355	1.9	2
2100	7.9	*****	58	259	.8	276	3.2	0
2400	4.9	*****	59	223	.5	275	2.5	0

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

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	4.7	*****	58	151	.8	148	1.9	0	0300	7.6	*****	71	201	.5	178	1.9	0	0300	5.5	*****	87	143	.8	105	1.9	0
0600	4.2	*****	69	172	.8	173	1.9	0	0600	6.4	*****	88	319	.4	264	1.9	0	0600	3.4	2.0	91	160	.9	178	3.2	0
0900	4.7	*****	70	151	.8	158	1.9	8	0900	6.8	*****	88	130	.5	086	1.9	2	0900	10.6	8.2	85	148	1.1	156	7.0	7
1200	8.2	*****	44	148	.8	143	1.9	11	1200	9.0	*****	76	295	.7	264	3.2	5	1200	12.3	-1.7	38	141	5.5	149	10.2	30
1500	9.3	*****	26	030	.3	060	1.9	15	1500	10.0	3.1	62	265	1.0	211	4.4	8	1500	11.1	-3.9	35	146	4.7	146	10.8	6
1800	8.5	*****	67	354	.6	333	1.9	2	1800	8.7	*****	80	343	1.0	348	2.5	0	1800	6.9	*****	79	107	.9	141	4.4	0
2100	7.3	*****	75	061	.5	016	1.9	0	2100	9.4	*****	**	027	1.1	062	3.8	0	2100	6.1	3.1	81	095	1.0	093	3.2	0
2400	10.8	*****	81	144	2.1	131	6.3	0	2400	6.9	3.0	76	012	1.0	347	3.2	0	2400	6.6	1.8	71	197	1.0	189	3.2	0

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

R & M CONSULTANTS, INC.

SUSITNA HYDROELECTRIC PROJECT

MONTHLY SUMMARY FOR EKLUTNA 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 LN/SQM	DAY
1	14.6	-.5	7.1	201	.2	.8	338	2.5	S	**	*****	0.0	4960	1
2	15.6	-2.0	6.8	189	.3	.9	358	3.8	S	**	*****	0.0	5335	2
3	16.1	-2.2	7.0	205	.2	.8	335	2.5	S	**	*****	0.0	4985	3
4	10.8	.3	5.6	158	.6	.6	165	1.9	SSE	**	*****	0.0	3426	4
5	14.4	-1.9	6.3	207	.1	.8	343	3.2	SSE	49	1.7	0.0	4870	5
6	15.6	-2.0	6.8	126	.7	1.5	128	6.3	SSE	41	-1.0	0.0	4160	6
7	15.2	1.8	8.5	149	1.2	1.5	141	5.7	SE	49	-.9	0.0	3515	7
8	16.9	1.9	9.4	143	1.3	1.4	144	5.7	SSE	29	-3.7	0.0	4635	8
9	16.0	-.8	7.6	196	.1	.7	322	2.5	SSE	41	.9	0.0	4265	9
10	15.8	-1.1	7.4	190	.2	.8	339	3.2	SSE	52	3.7	0.0	4790	10
11	14.2	-.9	6.7	173	.3	.8	214	6.3	SSE	54	2.7	0.0	3210	11
12	14.3	.2	7.3	117	.6	1.5	131	5.7	SSE	45	.7	0.0	3930	12
13	14.1	7.4	10.8	150	1.2	1.6	123	7.6	SE	41	-1.1	.2	1890	13
14	11.1	5.9	8.5	165	.4	.9	215	3.8	SE	62	.9	6.0	1615	14
15	13.6	1.8	7.7	149	1.1	1.1	136	5.7	SSE	48	1.3	.4	1815	15
16	14.4	.6	7.5	202	.1	.6	335	3.8	SSE	58	4.0	0.0	3360	16
17	12.5	4.4	8.5	355	.1	.7	336	3.8	SSE	63	2.8	0.0	1965	17
18	11.3	3.4	7.4	007	.1	1.0	349	4.4	SSE	40	-5.0	2.2	1975	18
19	11.9	1.1	6.5	023	.6	1.4	006	9.3	SSE	62	.1	11.0	3670	19
20	8.3	-1.2	3.6	163	.3	.9	-	.8	SSE	80	1.3	3.2	3330	20
21	11.7	-2.9	4.4	244	.1	.9	32	2.5	SSE	64	-.4	.2	3930	21
22	13.7	-3.4	5.2	172	.3	.9	330	3.2	SSE	58	-3.0	0.0	3315	22
23	14.3	2.6	8.5	144	2.5	2.5	156	8.3	SE	22	-10.5	0.0	1355	23
24	13.0	8.1	10.6	125	3.6	3.7	126	8.3	SE	26	-7.7	0.0	1070	24
25	12.7	4.9	8.8	212	.1	1.4	124	5.7	WNW	52	-.7	.4	2105	25
26	12.3	-1.6	5.4	185	.3	1.0	319	4.4	SSE	68	.4	0.0	3175	26
27	12.2	-1.0	5.6	189	.4	.9	276	3.2	SSE	66	-1.0	0.0	2350	27
28	12.8	2.6	7.7	138	.6	.9	131	6.3	SE	53	-.3	0.0	1120	28
29	10.7	6.4	8.6	330	.4	.9	211	4.4	NNW	67	2.8	24.8	550	29
30	12.6	3.2	7.9	143	1.9	2.1	146	10.8	SE	65	1.1	4.2	1385	30
MONTH	16.9	-3.4	7.3	144	.6	1.2	146	10.8	SSE	48	-.4	52.6	92056	

GUST VEL. AT MAX. GUST MINUS 2 INTERVALS 10.2
GUST VEL. AT MAX. GUST MINUS 1 INTERVAL 9.5
GUST VEL. AT MAX. GUST PLUS 1 INTERVAL 10.8
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.

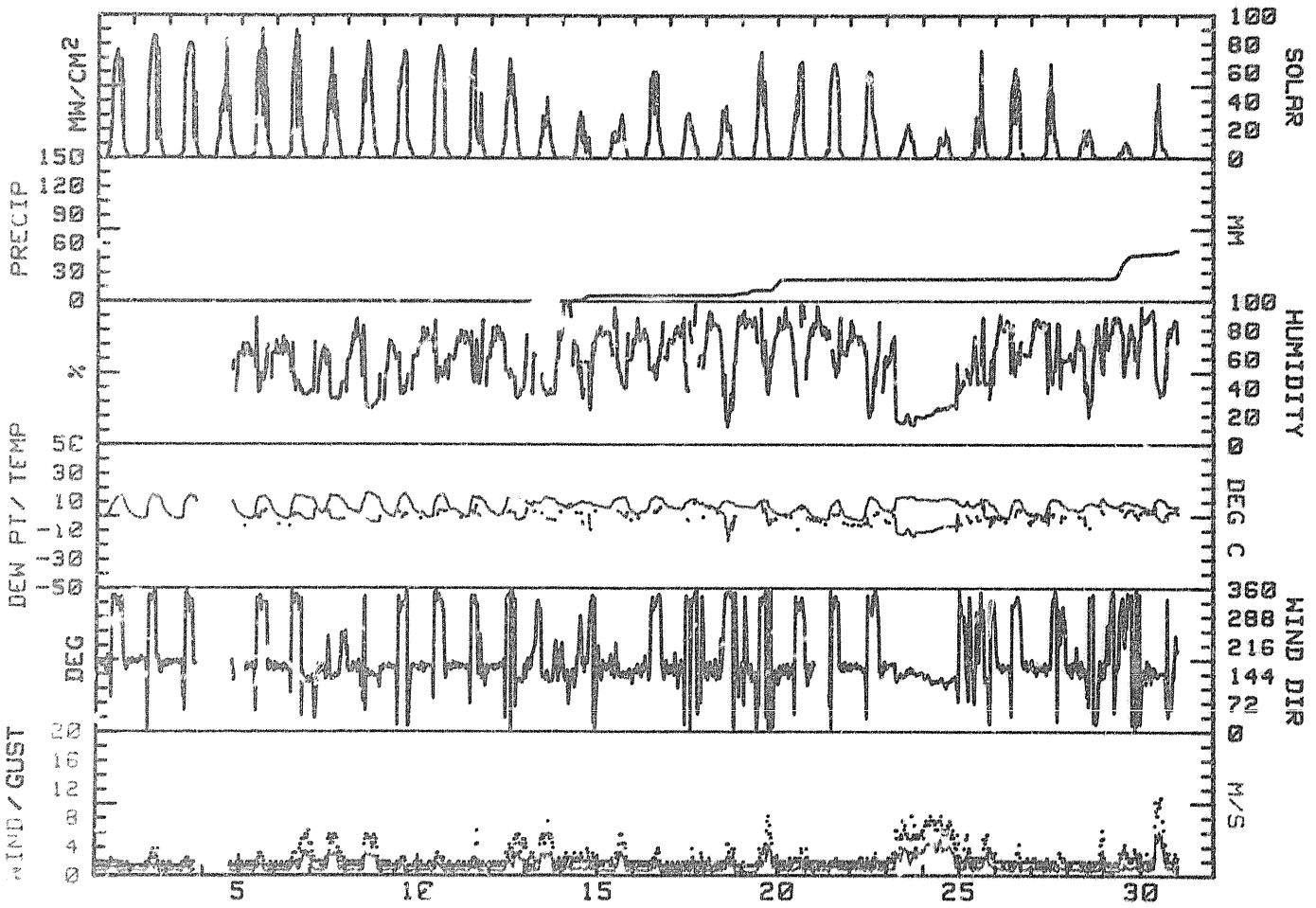
** SEE INTERPRETATION NOTES AT END OF MONTHLY REPORT **

R&M CONSULTANTS, INC.

SUSITNA HYDROELECTRIC PROJECT

EKLUTNA WEATHER STATION

September, 1984



R & M CONSULTANTS, INC.

SUSITNA HYDROELECTRIC PROJECT

WIND FREQUENCY SUMMARY FOR EKLUTNA 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	1.09	1.24	.29	0.00	0.00	0.00	0.00	2.62
NNE	1.16	.66	.07	0.00	0.00	0.00	0.00	1.89
NE	.51	.36	0.00	0.00	0.00	0.00	0.00	.87
ENE	.87	.66	0.00	0.00	0.00	0.00	0.00	1.53
E	1.02	.22	0.00	0.00	0.00	0.00	0.00	1.24
ESE	1.60	1.02	1.67	0.00	0.00	0.00	0.00	4.29
SE	6.62	5.68	5.39	.07	0.00	0.00	0.00	17.76
SSE	26.27	5.39	1.02	0.00	0.00	0.00	0.00	32.68
S	10.12	1.67	0.00	0.00	0.00	0.00	0.00	11.79
SSW	.95	.73	0.00	0.00	0.00	0.00	0.00	1.67
SW	1.16	.36	0.00	0.00	0.00	0.00	0.00	1.53
WSW	.73	.66	0.00	0.00	0.00	0.00	0.00	1.38
W	.95	.66	0.00	0.00	0.00	0.00	0.00	1.60
WNW	1.53	1.24	0.00	0.00	0.00	0.00	0.00	2.77
NW	2.04	5.02	0.00	0.00	0.00	0.00	0.00	7.06
NNW	2.47	6.77	0.00	0.00	0.00	0.00	0.00	9.24
CALM								.07
TOTAL	59.10	32.31	8.44	.07	0.00	0.00	0.00	100.00

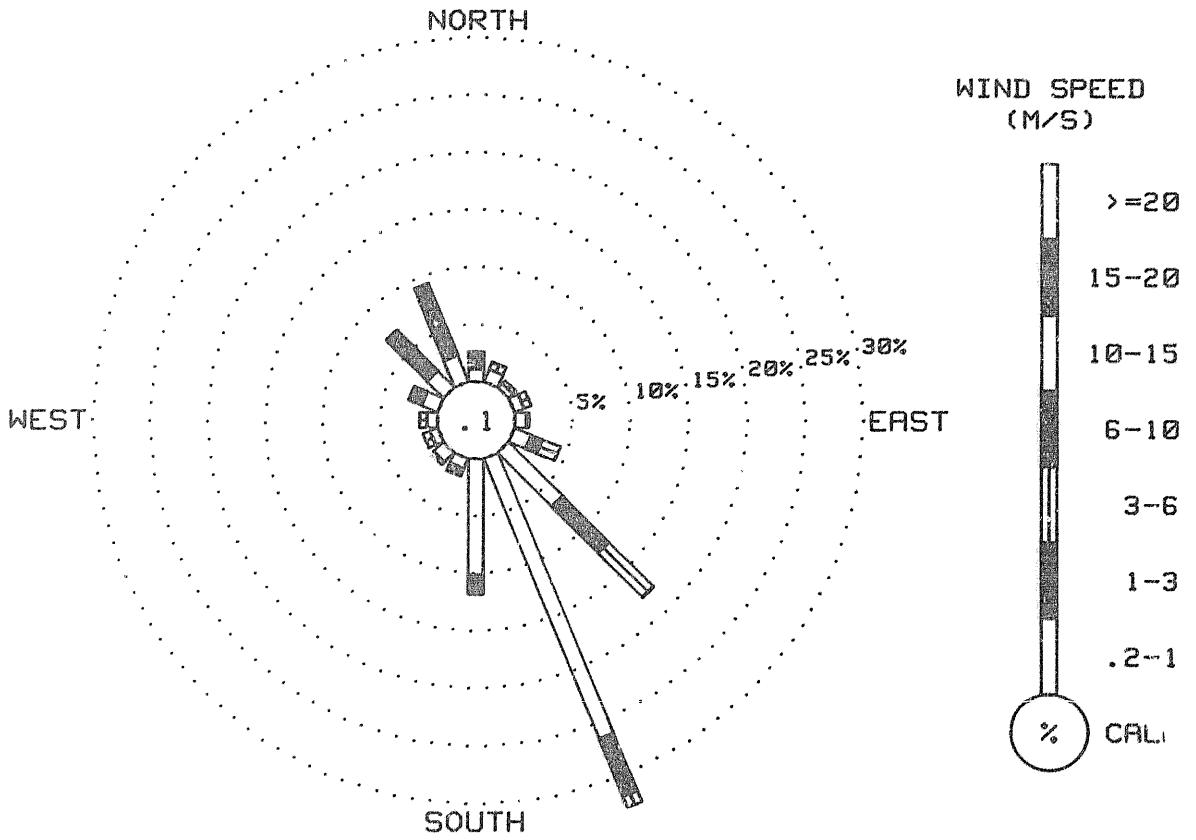
NOTE: ALL FREQUENCIES ARE EXPRESSED IN PERCENT
1374 VALID WIND OBSERVATIONS USED TO DEVELOP FREQUENCY SUMMARY
1440 WIND OBSERVATIONS WOULD HAVE BEEN CORRECT FOR 30 MINUTE DATA.
** SEE INTERPRETATION NOTES AT END OF MONTHLY REPORT **

R&M CONSULTANTS, INC.

SUSITNA HYDROELECTRIC PROJECT

EKLUTNA WEATHER STATION

September, 1984



WIND ROSE PLOT

R & M CONSULTANTS, INC.

SUSITNA HYDROELECTRIC PROJECT

HOURLY SOLAR RADIATION SUMMARY FOR EKLUTNA WEATHER STATION
DATA TAKEN DURING September, 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	3	8	18	48	64	67	75	66	60	45	32	6	4	1	0	0	0	0	21
2	0	0	0	0	0	0	2	3	5	54	68	78	85	86	48	45	41	14	6	1	0	0	0	0	22
3	0	0	0	0	0	0	2	3	5	56	68	77	81	81	77	14	29	7	2	1	0	0	0	0	21
4	0	0	0	0	0	0	3	13	13	35	35	48	47	59	33	33	13	5	3	1	0	0	0	0	14
5	0	0	0	0	0	0	2	3	5	54	72	64	46	60	77	46	44	10	7	1	0	0	0	0	20
6	0	0	0	0	0	0	2	3	5	54	66	77	57	53	50	26	15	7	4	0	0	0	0	0	17
7	0	0	0	0	0	0	2	9	9	27	41	51	56	45	43	38	19	12	4	0	0	0	0	0	15
8	0	0	0	0	0	0	2	7	11	48	45	63	79	78	58	38	24	9	5	1	0	0	0	0	19
9	0	0	0	0	0	0	2	9	11	50	50	64	68	75	71	12	8	6	3	0	0	0	0	0	18
10	0	0	0	0	0	0	1	3	5	48	62	71	77	75	70	55	8	6	3	0	0	0	0	0	20
11	0	0	0	0	0	0	1	3	5	47	62	72	49	18	12	13	29	9	4	0	0	0	0	0	13
12	0	0	0	0	0	0	3	9	14	38	43	64	62	52	44	38	18	9	2	0	0	0	0	0	16
13	0	0	0	0	0	0	1	3	12	16	29	24	24	35	23	14	8	4	0	0	0	0	0	0	8
14	0	0	0	0	0	0	0	4	10	21	26	23	25	15	11	13	12	4	1	0	0	0	0	0	7
15	0	0	0	0	0	0	1	7	18	14	15	14	13	22	28	25	13	11	2	0	0	0	0	0	8
16	0	0	0	0	0	0	1	7	11	23	56	50	42	46	55	20	16	9	3	0	0	0	0	0	14
17	0	0	0	0	0	0	1	5	12	22	29	31	28	22	19	14	9	8	1	0	0	0	0	0	8
18	0	0	0	0	0	0	1	6	7	19	30	30	31	22	20	20	11	3	1	0	0	0	0	0	8
19	0	0	0	0	0	0	0	7	13	29	59	67	60	39	50	25	17	4	0	0	0	0	0	0	15
20	0	0	0	0	0	0	1	5	8	17	26	28	38	61	62	64	18	7	1	0	0	0	0	0	14
21	0	0	0	0	0	0	1	5	5	25	54	62	66	65	58	46	6	4	1	0	0	0	0	0	16
22	0	0	0	0	0	0	0	5	11	29	53	61	59	45	28	23	14	6	1	0	0	0	0	0	14
23	0	0	0	0	0	0	0	2	6	8	12	16	20	23	19	14	12	5	1	0	0	0	0	0	6
24	0	0	0	0	0	0	0	2	3	8	15	11	10	11	14	22	11	3	1	0	0	0	0	0	4
25	0	0	0	0	0	0	0	3	3	10	26	23	17	47	51	18	9	4	1	0	0	0	0	0	9
26	0	0	0	0	0	0	0	2	4	21	48	42	62	40	51	40	6	4	1	0	0	0	0	0	13
27	0	0	0	0	0	0	0	2	4	13	38	33	53	44	24	12	11	3	0	0	0	0	0	0	10
28	0	0	0	0	0	0	0	3	9	10	18	13	13	17	15	12	3	2	0	0	0	0	0	0	5
29	0	0	0	0	0	0	0	0	2	4	4	4	9	11	10	7	5	2	0	0	0	0	0	0	2
30	0	0	0	0	0	0	0	1	6	23	28	41	17	8	7	6	3	1	0	0	0	0	0	0	6

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

R & M CONSULTANTS, INC.

SUSITNA HYDROELECTRIC PROJECT

HOURLY LONGWAVE RADIATION SUMMARY FOR EKLUTNA WEATHER STATION
DATA TAKEN DURING September, 1984

LONGWAVE RADIATION VALUES 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	29	30	30	31	31	31	31	34	35	30	30	37	38	37	32	37	32	31	28	28	28	28	29	30	31
2	29	30	29	30	29	30	31	31	31	35	33	37	38	35	38	35	34	33	30	29	29	28	29	29	32
3	30	30	29	29	30	30	30	30	31	30	35	37	38	37	***	39	41	***	***	***	***	35	31	31	26
4	30	31	31	30	31	31	31	33	29	31	33	34	***	***	***	***	34	31	28	28	29	28	27	29	25
5	28	28	29	30	29	30	30	32	31	30	39	31	36	40	39	38	36	30	32	32	31	30	30	29	32
6	29	29	28	28	29	30	29	31	30	30	37	39	40	38	36	35	38	37	35	35	35	34	34	35	33
7	34	30	31	30	29	27	34	31	30	33	38	39	36	36	36	36	35	34	33	34	34	32	35	32	33
8	30	33	32	32	32	30	30	32	32	33	32	36	34	33	33	34	35	33	32	31	31	31	29	30	32
9	29	29	29	29	30	30	29	31	30	34	36	34	39	38	39	36	31	30	30	28	30	30	32	32	32
10	33	32	30	29	29	30	30	30	31	36	33	34	39	39	39	38	32	32	30	31	31	34	34	34	33
11	30	30	31	31	29	28	29	30	30	31	33	30	38	39	37	37	37	32	33	31	32	32	31	29	32
12	33	30	29	31	32	32	32	32	33	34	38	39	34	35	32	40	34	34	34	35	34	36	36	35	34
13	36	34	35	36	35	38	38	40	38	38	35	36	36	35	36	36	35	35	37	33	36	36	35	34	36
14	35	32	37	38	38	37	34	34	38	38	39	40	37	39	36	38	38	38	33	35	37	34	37	35	36
15	33	35	34	35	35	33	36	37	37	40	37	41	37	37	35	33	33	30	29	33	31	29	28	27	34
16	31	34	33	34	35	33	32	32	33	31	34	30	41	40	39	35	36	39	36	35	33	34	34	34	34
17	35	34	34	36	35	33	33	32	33	41	41	41	41	36	40	34	36	36	34	35	35	36	35	34	36
18	34	31	33	35	33	32	31	36	36	36	36	37	35	36	33	31	40	37	41	37	37	36	35	36	35
19	33	36	35	36	36	36	33	32	33	35	33	37	39	34	29	33	34	37	31	39	33	34	33	32	34
20	33	32	33	33	33	33	33	31	35	32	38	33	37	35	33	35	37	31	29	30	29	25	29	27	32
21	28	30	27	28	28	28	28	29	29	27	29	32	34	35	35	34	28	28	26	26	27	26	27	29	29
22	27	27	28	29	29	29	29	29	31	29	33	32	30	35	35	32	36	35	34	32	31	31	32	30	31
23	32	31	32	30	33	34	34	34	34	35	35	34	34	34	35	35	34	34	34	33	33	34	34	34	33
24	33	34	33	32	32	33	33	33	33	33	33	34	34	33	34	33	33	33	33	32	34	33	33	38	33
25	34	32	32	31	34	35	35	32	33	36	35	35	36	37	37	35	32	31	29	34	35	34	30	26	33
26	28	26	25	26	25	25	26	25	25	24	29	32	35	35	35	34	33	27	27	28	26	25	25	26	28
27	28	26	31	31	32	30	29	28	27	28	29	29	36	36	39	35	36	30	33	35	32	29	32	32	31
28	33	31	33	30	31	31	30	30	30	30	30	32	35	35	40	35	37	35	36	33	31	34	35	38	33
29	38	36	34	37	35	35	36	34	37	41	35	35	36	38	35	34	36	32	31	33	37	36	35	33	35
30	34	33	30	31	29	32	29	34	31	31	32	32	33	33	33	32	35	31	35	37	33	34	31	32	32

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

R & M CONSULTANTS, INC.

SUSITNA HYDROELECTRIC PROJECT

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

PARAMETER	NUMBER OF USABLE OBSERVATIONS	PERCENT OF TOTAL OBSERVATIONS
TEMPERATURE	1393	97
WIND SPEED	1393	97
WIND DIRECTION	1374	95
PEAK GUST	1393	97
RELATIVE HUMIDITY	507	35
PRECIPITATION	1439	100
SOLAR RADIATION	1439	100
DEW POINT	507	35
LONGWAVE RADIATION	1421	99

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 -20 RH points
2. Solar -1 MW/CM^2

Additional comments on this month's data:

1. RH data suspected to be poor all month, due to bad oscillator but have been published as indicative of true RH. Many erratic values have been deleted throughout the month.
2. Wind sensor bearing replaced 9/4.
3. No temperature, RH, or wind data 9/3-9/4 due to annual maintenance.
4. RH sensor replaced and calibrated 9/4.
5. LW radiation data suspected to be poor 9/1-9/4 due to intermittent bad electrical connection.

R & M CONSULTANTS, INC.

SUSITNA HYDROELECTRIC PROJECT

HOURLY PRECIPITATION SUMMARY FOR EKLUTNA WEATHER STATION
DATA TAKEN DURING October, 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	.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	1
2	0.0	0.0	.2	.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	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	.4	.2	5
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	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	.2	0.0	0.0	.2	0.0	0.0	0.0	0.0	0.0	.2	.2	0.0	0.0	7
8	0.0	0.0	0.0	.2	0.0	0.0	0.0	.2	1.0	1.4	.2	1.4	.8	2.0	2.0	.4	.2	.6	.8	.2	.2	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	.2	0.0	0.0	0.0	0.0	0.0	0.0	.2	0.0	0.0	.2	.2	.2	0.0	11
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	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	12
13	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	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
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	.2	.2	0.0	0.0	.6	.2	.2	.2	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	1.4	1.4	2.0	1.6	.6	0.0	0.0	0.0	0.0	0.0	.2	0.0	0.0	0.0	0.0	0.0	21
22	0.0	0.0	0.0	0.0	.2	.8	.4	1.4	1.2	0.0	0.0	.2	.2	.4	0.0	0.0	0.0	0.0	0.0	0.0	.2	.8	.6	22
23	.6	.2	.2	.2	.4	.2	.2	0.0	.2	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	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	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 EKLUTNA 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	6.8	*****	61	154	.9	171	3.8	0
0600	5.6	*****	84	146	.8	171	2.5	0
0900	6.7	*****	74	148	.8	161	3.2	6
1200	11.3	5.5	67	137	.9	100	3.2	19
1500	12.4	1.1	46	066	.9	123	5.7	23
1800	11.7	.7	47	134	2.2	142	6.3	0
2100	10.9	1.4	52	125	3.4	123	5.7	0
2400	11.3	.9	49	117	2.9	125	5.7	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	7.9	-.8	54	123	2.7	128	7.6	0
0600	9.0	4.7	74	145	.9	140	5.1	0
0900	10.2	1.0	53	125	3.2	127	7.6	9
1200	12.5	-3.1	34	129	3.8	127	7.6	64
1500	11.6	-3.5	35	132	3.5	130	7.0	17
1800	10.0	-2.4	42	141	3.2	139	5.7	1
2100	9.0	-2.7	44	141	2.3	141	5.7	0
2400	6.3	*****	43	260	.7	179	2.5	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	2.4	*****	67	257	.4	291	1.9	0
0600	1.8	*****	71	166	.8	177	1.9	0
0900	3.2	*****	76	160	.8	153	1.9	7
1200	11.2	-1.7	41	059	.4	003	4.4	54
1500	11.3	-4.9	32	151	2.9	167	5.1	12
1800	4.1	*****	74	221	.5	197	3.8	1
2100	-.9	-5.8	69	159	.8	160	1.9	0
2400	-2.5	*****	74	155	.9	161	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	-2.7	*****	78	164	.9	169	1.9	0
0600	-3.7	-7.0	78	155	1.0	152	2.5	0
0900	-3.9	-7.7	75	158	1.0	163	1.9	3
1200	7.2	*****	52	128	.6	153	1.9	52
1500	10.0	-4.2	37	315	1.1	319	2.5	43
1800	3.0	*****	**	204	.4	307	1.9	1
2100	3.3	*****	**	167	.8	177	2.5	0
2400	2.6	*****	**	308	.6	204	2.5	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	3.1	*****	**	210	.6	324	3.2	0
0600	6.5	*****	57	236	1.0	191	4.4	0
0900	8.5	-4.4	40	132	1.8	144	5.7	12
1200	11.1	-3.9	35	136	1.5	121	7.6	16
1500	10.9	-2.6	39	126	1.9	114	7.0	7
1800	8.6	2.7	66	176	2.1	171	4.4	0
2100	5.8	*****	74	165	1.0	194	3.2	0
2400	5.0	.6	73	139	.7	124	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	5.8	*****	72	127	.8	154	2.5	0
0600	7.8	*****	69	136	.9	166	3.8	0
0900	10.2	.8	52	151	1.6	144	5.1	12
1200	9.7	2.4	60	135	2.6	130	6.3	34
1500	10.5	.2	49	118	3.3	109	7.6	11
1800	10.0	.0	50	129	2.7	135	6.3	0
2100	3.5	-9.0	40	145	1.8	128	6.3	0
2400	3.0	*****	59	140	.8	099	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	3.5	*****	73	149	.8	140	1.9	0
0600	3.0	*****	70	160	.7	144	1.9	0
0900	4.2	*****	77	154	.7	159	1.3	8
1200	6.9	*****	73	126	.5	100	1.9	32
1500	7.7	*****	61	247	.3	143	1.9	20
1800	6.4	.1	64	320	.9	340	3.2	0
2100	5.0	*****	80	322	.7	314	1.9	0
2400	3.3	*****	89	251	.2	198	1.9	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	4.2	*****	89	157	.6	144	1.9	0
0600	4.7	*****	86	252	.2	330	1.9	0
0900	4.5	2.0	84	208	.4	164	2.5	2
1200	4.3	-1.0	68	340	1.8	337	3.2	9
1500	2.9	-2.2	69	008	.7	346	3.8	12
1800	3.0	*****	82	122	.6	154	1.9	0
2100	2.5	*****	88	144	.5	142	1.9	0
2400	2.4	*****	87	158	.7	165	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	2.2	*****	88	144	.7	133	1.3	1
0600	.7	*****	92	140	.7	155	1.9	0
0900	1.3	-.3	89	120	.8	168	2.5	2
1200	3.4	*****	61	164	.4	124	2.5	56
1500	6.8	*****	46	326	1.1	335	2.5	38
1800	.4	*****	79	190	.7	286	1.9	0
2100	-.6	-3.1	83	169	.8	161	1.9	0
2400	-.9	*****	80	165	.6	183	1.3	0

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

R & M CONSULTANTS, INC.

SUSITNA HYDROELECTRIC PROJECT

THREE HOUR SUMMARY FOR EKLUTNA 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	-3.5	-6.9	77	165	.7	170	1.9	0
0600	-3.2	-7.5	72	161	.8	156	1.9	0
0900	-1.6	*****	72	158	.8	161	1.9	6
1200	2.0	*****	65	169	.6	175	1.3	20
1500	4.5	-5.1	50	193	.6	208	1.9	28
1800	.3	*****	74	164	.7	172	1.9	0
2100	-2.3	-5.3	80	166	.9	159	1.9	0
2400	-3.3	*****	78	***	****	***	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	-4.6	*****	73	***	****	***	2.5	0
0600	-3.4	*****	72	***	****	***	1.9	0
0900	-1.6	*****	72	***	****	***	1.9	3
1200	1.9	-3.2	69	173	.7	165	2.5	19
1500	3.6	*****	63	167	.7	162	1.9	17
1800	1.9	*****	72	173	.5	158	1.9	0
2100	.9	*****	81	152	.6	149	1.3	0
2400	-.2	-3.2	80	163	.9	167	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	1.5	*****	69	147	.7	145	2.5	0
0600	-.8	-4.5	76	150	.9	160	2.5	0
0900	-1.8	*****	75	161	.6	153	1.3	5
1200	6.0	*****	43	161	.5	172	1.9	48
1500	6.8	-8.1	34	290	.8	283	2.5	26
1800	.6	*****	69	300	.6	325	2.5	0
2100	-2.5	*****	76	163	.8	163	1.9	0
2400	-3.3	*****	73	***	****	***	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	-3.3	*****	71	***	****	***	1.9	0
0600	-3.3	*****	72	***	****	***	1.9	0
0900	-4.7	*****	73	***	****	***	1.9	3
1200	4.0	-5.3	51	170	1.0	160	2.5	44
1500	5.6	-5.5	45	259	.6	204	2.5	34
1800	-.3	*****	70	211	.5	218	2.5	0
2100	-.3	*****	70	158	.7	169	1.9	0
2400	-2.4	*****	71	162	.7	165	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	-4.9	*****	72	***	****	***	1.9	0
0600	-5.4	*****	73	***	****	***	1.9	0
0900	-5.9	-9.4	76	***	****	***	1.9	3
1200	1.7	*****	58	082	.5	053	1.9	45
1500	2.9	-7.4	47	329	1.2	336	3.2	30
1800	-2.6	*****	70	263	.6	319	2.5	0
2100	-5.7	-9.9	72	162	1.0	151	1.9	0
2400	-6.2	-10.2	73	***	****	***	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	-6.7	-10.7	73	***	****	***	2.5	0
0600	-7.9	*****	77	***	****	***	1.9	0
0900	-5.0	*****	74	***	****	***	1.9	6
1200	1.1	*****	60	171	.9	183	2.5	17
1500	3.4	-8.1	43	195	.6	214	1.9	14
1800	-1.2	*****	66	064	.2	337	1.9	0
2100	-4.0	*****	70	160	.8	155	1.9	0
2400	-5.3	-9.5	72	***	****	***	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	-5.0	*****	71	***	****	***	2.5	0
0600	-7.0	*****	74	***	****	***	1.9	0
0900	-6.7	*****	73	***	****	***	2.5	2
1200	3.2	-7.7	45	165	1.0	159	2.5	42
1500	6.1	*****	33	205	.9	246	2.5	30
1800	-1.9	-7.8	64	168	1.0	188	1.9	0
2100	-5.2	-9.6	71	162	1.0	177	1.9	0
2400	-6.7	-10.9	72	161	1.0	157	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	-6.1	*****	71	160	1.1	139	2.5	0
0600	-7.6	*****	70	165	1.3	170	2.5	0
0900	-8.5	-12.6	72	166	1.0	182	1.9	2
1200	2.4	-11.7	35	159	1.0	175	3.2	54
1500	4.1	-15.8	22	225	.7	300	2.5	29
1800	-3.7	*****	48	165	.9	173	2.5	0
2100	-7.3	-13.5	61	163	1.0	170	2.5	0
2400	-8.2	-13.6	65	165	1.2	163	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	-9.2	-14.7	64	166	1.3	158	3.2	0
0600	-8.4	-14.0	64	164	1.3	166	3.2	0
0900	-9.2	-13.6	70	167	1.1	157	2.5	5
1200	1.2	*****	44	165	.8	163	1.9	28
1500	1.5	-9.4	45	230	.3	183	1.9	10
1800	-2.2	*****	58	162	.7	164	1.9	0
2100	-5.8	*****	64	163	.8	162	1.9	0
2400	-4.0	-10.4	61	168	1.0	166	2.5	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	-2.8	*****	60	164	.9	170	1.9	0
0600	-2.4	-9.3	59	163	.8	168	1.9	0
0900	2.1	*****	52	162	.9	173	2.5	3
1200	3.1	*****	52	141	.7	167	1.9	19
1500	4.0	*****	50	175	.5	161	1.9	13
1800	2.7	-5.4	55	208	.2	160	1.9	0
2100	.1	*****	66	088	.1	337	1.3	0
2400	-.2	*****	69	162	.7	164	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	-.7	*****	70	161	.6	181	1.9	0
0600	-.8	*****	78	164	.4	169	1.3	0
0900	-.4	*****	79	165	.4	159	1.3	1
1200	1.1	*****	70	161	.4	159	1.9	15
1500	1.2	*****	70	167	.6	138	1.3	9
1800	.3	*****	80	166	.5	156	1.3	0
2100	.2	*****	85	162	.4	180	1.3	0
2400	.4	*****	99	149	.6	150	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	*****	89	164	.5	202	1.3	0
0600	.2	*****	96	168	.5	162	1.9	0
0900	4.3	-.5	71	180	.7	198	4.4	2
1200	2.9	-.9	76	319	1.6	337	6.3	14
1500	3.2	-1.0	74	338	2.1	336	4.4	14
1800	3.0	-1.0	75	338	2.8	334	5.1	0
2100	8.7	-3.3	43	048	.8	128	7.0	0
2400	9.9	-3.5	39	143	2.9	161	9.5	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	10.1	-4.1	37	146	6.0	148	13.3	0
0600	8.5	-.5	53	148	5.6	148	10.8	0
0900	8.2	-.0	56	144	4.9	140	10.8	2
1200	11.1	-1.8	41	146	6.3	143	13.3	19
1500	10.9	-2.3	40	140	5.6	130	11.4	15
1800	4.5	.1	73	146	4.0	132	8.3	0
2100	3.4	.5	81	002	2.8	025	6.3	0
2400	1.9	-.2	86	360	2.0	353	4.4	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	-.7	89	357	2.0	357	3.8	0
0600	1.2	-.6	88	270	.5	324	2.5	0
0900	.9	-3.7	71	003	1.9	021	3.8	2
1200	.2	-4.8	69	009	2.0	019	4.4	12
1500	.5	-4.3	70	320	.5	347	3.2	12
1800	-1.0	*****	73	158	.8	159	1.9	0
2100	-2.8	-6.4	76	161	.9	161	1.9	0
2400	-6.0	-9.9	74	***	****	***	****	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	-11.3	74	***	****	***	****	0
0600	-8.4	-12.2	74	***	****	***	****	0
0900	-8.4	-12.2	74	***	****	***	****	2
1200	-2.0	-7.3	67	***	****	***	****	15
1500	-1.5	-6.4	69	175	.8	167	2.5	10
1800	-4.5	*****	72	***	****	***	1.9	0
2100	-7.5	-10.8	77	***	****	***	****	0
2400	-9.2	-13.3	72	***	****	***	****	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	-9.9	-13.8	73	***	****	***	****	0
0600	-9.6	-13.7	72	***	****	***	****	0
0900	-9.2	-13.3	72	***	****	***	****	2
1200	-1.0	*****	51	174	.4	159	1.9	42
1500	-2.0	-8.9	59	161	1.4	168	3.2	6
1800	-5.0	-10.3	66	144	1.2	142	2.5	0
2100	-8.9	-13.5	69	***	****	***	2.5	0
2400	-10.4	-15.0	69	***	****	***	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	-11.4	-15.9	69	***	****	***	2.5	0
0600	-12.7	-17.0	70	***	****	***	2.5	0
0900	-11.5	-15.7	71	***	****	***	3.2	2
1200	-2.1	-10.2	54	163	1.0	***	2.5	43
1500	-4.1	-10.9	59	173	1.0	168	1.9	5
1800	-7.4	*****	72	170	1.0	178	1.9	0
2100	-10.9	-15.4	69	***	****	***	2.5	0
2400	-11.6	-15.6	72	***	****	***	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	-9.9	*****	74	***	****	***	2.5	0
0600	-13.3	*****	71	***	****	***	2.5	0
0900	-11.1	-15.3	71	***	****	***	1.9	1
1200	-2.6	-10.2	56	186	.7	***	2.5	40
1500	-2.7	*****	59	176	.9	165	1.9	5
1800	-8.4	-12.5	72	***	1.1	180	2.5	0
2100	-10.5	-14.6	72	***	****	***	2.5	0
2400	-11.4	-15.4	72	***	****	***	2.5	0

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

R & M CONSULTANTS, INC.

SUSITNA HYDROELECTRIC PROJECT

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

DAY 28

HOUR ENDNG	TEMP. 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	-15.8	72	***	****	***	2.5	0
0600	-11.3	-15.5	71	***	****	***	2.5	0
0900	-12.6	-16.7	71	***	****	***	1.9	2
1200	-2.5	*****	62	172	.6	***	2.5	41
1500	-5.0	*****	65	183	1.0	197	2.5	5
1800	-10.0	-13.7	74	***	****	***	2.5	0
2100	-12.4	-16.9	69	***	****	***	1.9	0
2400	-12.8	-16.8	72	***	****	***	2.5	0

DAY 29

HOUR ENDNG	TEMP. DEG C	DEW POINT DEG C	RH %	WIND DIR. DEG.	WIND SPD. M/S	GUST DIR. DEG.	MAX. GUST M/S	RAD MW
0300	-13.7	*****	69	***	****	***	2.5	0
0600	-16.2	-20.4	70	***	****	***	1.9	0
0900	-15.6	-19.8	70	***	****	***	1.9	1
1200	-5.0	-14.1	49	***	****	***	2.5	37
1500	-7.9	-13.9	62	205	.6	203	1.9	4
1800	-11.9	-16.8	67	***	****	***	2.5	0
2100	-13.3	-18.1	67	***	****	***	2.5	0
2400	-10.1	*****	67	***	****	***	2.5	0

DAY 30

HOUR ENDNG	TEMP. 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	-15.0	69	***	****	***	2.5	0
0600	-8.7	*****	68	***	****	***	2.5	0
0900	-6.5	*****	66	***	****	***	3.2	1
1200	-2.4	-9.8	57	***	****	***	3.8	16
1500	-.9	*****	57	167	.6	169	1.9	13
1800	-.6	-6.5	64	174	.7	176	3.2	0
2100	-1.8	-8.7	59	323	1.6	338	4.4	0
2400	-2.0	*****	72	209	.5	312	3.2	0

DAY 31

HOUR ENDNG	TEMP. 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	-8.7	40	142	2.3	146	5.1	0
0600	3.4	-9.4	39	115	1.8	136	5.7	1
0900	3.6	-10.2	36	129	2.9	130	6.	2
1200	4.7	-11.5	30	143	3.4	139	7.[illegible]	28
1500	3.4	-11.5	33	147	3.8	143	6.3	4
1800	-1.7	*****	49	162	1.8	165	5.7	0
2100	-5.2	*****	65	157	.8	166	1.9	0
2400	-7.6	-12.6	67	172	.8	187	1.9	0

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

R & M CONSULTANTS, INC.

SUSITNA HYDROELECTRIC PROJECT

THREE HOUR SUMMARY FOR EKLUTNA 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	-11.8	-15.8	72	***	****	***	2.5	0
0600	-11.3	-15.5	71	***	****	***	2.5	0
0900	-12.6	-16.7	71	***	****	***	1.9	2
1200	-2.5	*****	62	172	.6	***	2.5	41
1500	-5.0	*****	65	183	1.0	187	2.5	5
1800	-10.0	-13.7	74	***	****	***	2.5	0
2100	-12.4	-16.9	69	***	****	***	1.9	0
2400	-12.8	-16.8	72	***	****	***	2.5	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	-13.7	*****	69	***	****	***	2.5	0
0600	-16.2	-20.4	70	***	****	***	1.9	0
0900	-15.6	-19.8	70	***	****	***	1.9	1
1200	-5.0	-14.1	49	***	****	***	2.5	37
1500	-7.9	-13.9	62	205	.6	203	1.9	4
1800	-11.9	-16.8	67	***	****	***	2.5	0
2100	-13.3	-18.1	67	***	****	***	2.5	0
2400	-10.1	*****	67	***	****	***	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	-10.4	-15.0	69	***	****	***	2.5	0
0600	-8.7	*****	68	***	****	***	2.5	0
0900	-6.5	*****	66	***	****	***	3.2	1
1200	-2.4	-9.8	57	***	****	***	3.8	16
1500	-.9	*****	57	167	.6	169	1.9	13
1800	-.6	-6.5	64	174	.7	176	3.2	0
2100	-1.8	-8.7	59	323	1.6	338	4.4	0
2400	-2.0	*****	72	209	.5	312	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	3.8	-8.7	40	142	2.3	146	5.1	0
0600	3.4	-9.4	39	115	1.8	136	5.7	1
0900	3.6	-10.2	36	129	2.9	130	6.3	2
1200	4.7	-11.5	30	143	3.4	139	7.0	28
1500	3.4	-11.5	33	147	3.8	143	6.3	4
1800	-1.7	*****	49	162	1.8	165	5.7	0
2100	-5.2	*****	65	157	.8	166	1.9	0
2400	-7.6	-12.6	67	172	.8	187	1.9	0

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

R & M CONSULTANTS, INC.

SUSITNA HYDROELECTRIC PROJECT

MONTHLY SUMMARY FOR EKLUTNA 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	12.8	4.9	8.9	127	1.5	1.8	142	6.3	SE	58	2.1	.2	1920	1
2	12.6	6.3	9.5	134	2.4	2.6	128	7.6	SE	46	-1.1	.4	2780	2
3	12.2	-2.5	4.9	160	.8	1.1	167	5.1	SSE	52	-2.9	0.0	2670	3
4	10.0	-4.9	2.6	176	.4	.9	152	2.5	SSE	62	-6.0	0.0	2900	4
5	11.6	.7	6.2	156	1.1	1.6	121	7.6	S	46	-2.5	.6	1330	5
6	11.8	2.6	7.2	133	1.8	1.9	109	7.6	SE	56	.2	.2	1730	6
7	7.8	2.6	5.2	183	.1	.7	340	3.2	SSE	67	.8	.8	1305	7
8	4.7	2.1	3.4	078	.0	.9	346	3.8	SSE	72	-.8	11.6	500	8
9	6.8	-2.2	2.3	158	.4	.8	168	2.5	SSE	75	-1.6	0.0	2285	9
10	5.0	-3.7	.7	167	.7	.8	170	1.9	SSE	71	-6.1	0.0	1560	10
11	3.8	-4.7	-.5	165	.7	.8	165	2.5	SSE	74	-4.7	1.0	1150	11
12	7.0	-3.5	1.8	176	.4	.8	145	2.5	SSE	59	-5.3	9.0	2365	12
13	6.0	-5.5	.3	184	.6	.9	160	2.5	SSE	63	-6.3	0.0	2380	13
14	2.9	-7.5	-2.3	306	.3	1.0	336	3.2	SSE	66	-8.4	0.0	2295	14
15	3.4	-8.5	-2.6	168	.5	.9	183	2.5	SSE	67	-9.2	0.0	1295	15
16	6.1	-7.5	-.7	172	.9	1.0	159	2.5	SSE	64	-9.6	0.0	2255	16
17	4.8	-9.9	-2.6	168	1.0	1.1	175	3.2	SSE	56	-12.8	0.0	2385	17
18	2.4	-10.3	-4.0	168	.9	1.0	158	3.2	SSE	63	-12.9	0.0	1185	18
19	4.0	-4.0	0.0	161	.6	.8	173	2.5	SSE	59	-8.2	0.0	775	19
20	1.8	-.8	.5	162	.5	.5	181	1.9	SSE	**	*****	1.6	595	20
21	9.9	-.1	4.9	351	.4	1.9	161	9.5	NNW	67	-1.5	7.2	930	21
22	11.3	1.9	6.6	139	3.6	4.7	148	13.3	SSE	55	-1.3	6.4	935	22
23	1.7	-6.0	-2.2	358	.8	1.4	019	4.4	NNW	76	-4.2	2.6	775	23
24	-1.4	-9.2	-5.3	175	.8	.9	167	2.5	S	72	-10.5	0.0	960	24
25	.1	-10.9	-5.4	157	1.1	1.1	168	3.2	SSE	67	-12.4	0.0	1545	25
26	-1.1	-12.7	-6.9	170	1.0	1.1	***	3.2	SSE	67	-14.1	0.0	1560	26
27	-1.0	-13.3	-7.2	178	.9	1.1	***	2.5	S	69	-13.8	0.0	1485	27
28	-.6	-13.9	-7.3	182	1.0	1.1	187	2.5	S	69	-14.8	0.0	1430	28
29	-2.4	-16.7	-9.6	205	.6	1.1	***	2.5	W	66	-17.5	0.0	1370	29
30	-.3	-12.0	-6.2	248	.3	1.1	338	4.4	S	65	-11.3	0.0	705	30
31	5.0	-8.0	-1.5	142	2.1	2.3	139	7.0	SE	39	-10.2	0.0	940	31
MONTH	12.8	-16.7	.8	148	.8	1.3	148	13.3	SSE	62	-6.9	32.6	48315	

GUST VEL. AT MAX. GUST MINUS 2 INTERVALS 5.7
GUST VEL. AT MAX. GUST MINUS 1 INTERVAL 9.5
GUST VEL. AT MAX. GUST PLUS 1 INTERVAL 9.5
GUST VEL. AT MAX. GUST PLUS 2 INTERVALS 9.5

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.

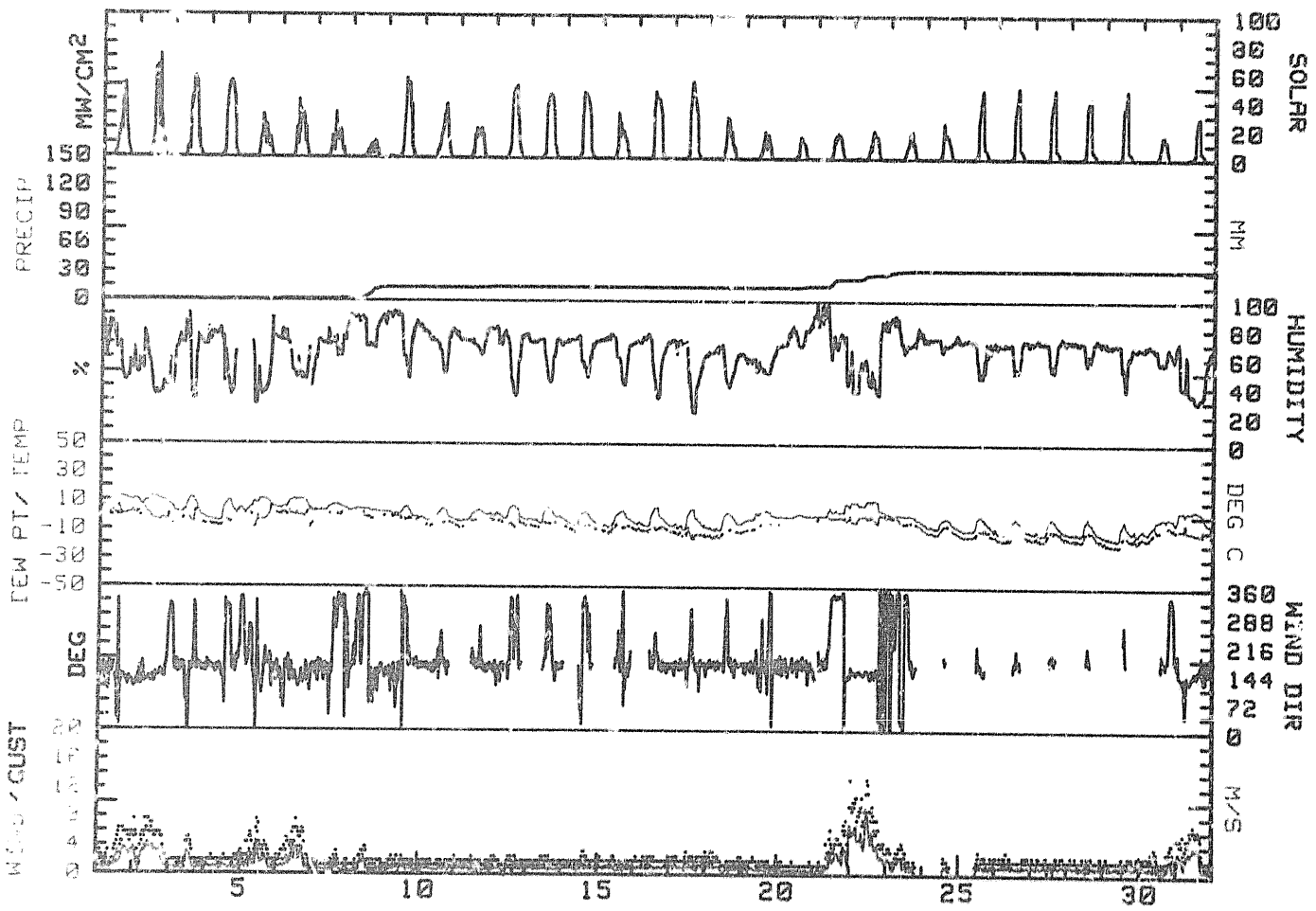
** SEE INTERPRETATION NOTES AT END OF MONTHLY REPORT **

R&M CONSULTANTS, INC.

SUSITNA HYDROELECTRIC PROJECT

EKLUTNA WEATHER STATION

October, 1984



R & M CONSULTANTS, INC.

SUSITNA HYDROELECTRIC PROJECT

WIND FREQUENCY SUMMARY FOR EKLUTNA WEATHER 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	.37	2.15	.19	0.00	0.00	0.00	0.00	2.71
NNE	.19	.56	.09	0.00	0.00	0.00	0.00	.84
NE	.37	.19	0.00	0.00	0.00	0.00	0.00	.56
ENE	.47	.19	0.00	0.00	0.00	0.00	0.00	.65
E	.75	.56	0.00	0.00	0.00	0.00	0.00	1.31
ESE	1.96	1.87	1.87	0.00	0.00	0.00	0.00	5.70
SE	6.16	4.48	5.42	.56	0.00	0.00	0.00	16.62
SSE	21.57	11.58	2.33	.47	0.00	0.00	0.00	35.95
S	8.78	7.10	0.00	0.00	0.00	0.00	0.00	15.87
SSW	2.80	1.31	0.00	0.00	0.00	0.00	0.00	4.11
SW	.75	.28	0.00	0.00	0.00	0.00	0.00	1.03
WSW	.65	.47	0.00	0.00	0.00	0.00	0.00	1.12
W	1.49	.56	0.00	0.00	0.00	0.00	0.00	2.05
WNW	1.12	.75	0.00	0.00	0.00	0.00	0.00	1.87
NW	.93	1.96	0.00	0.00	0.00	0.00	0.00	2.89
NNW	1.21	4.48	.37	0.00	0.00	0.00	0.00	6.07
CALM								.65
TOTAL	49.58	38.47	10.27	1.03	0.00	0.00	0.00	100.00

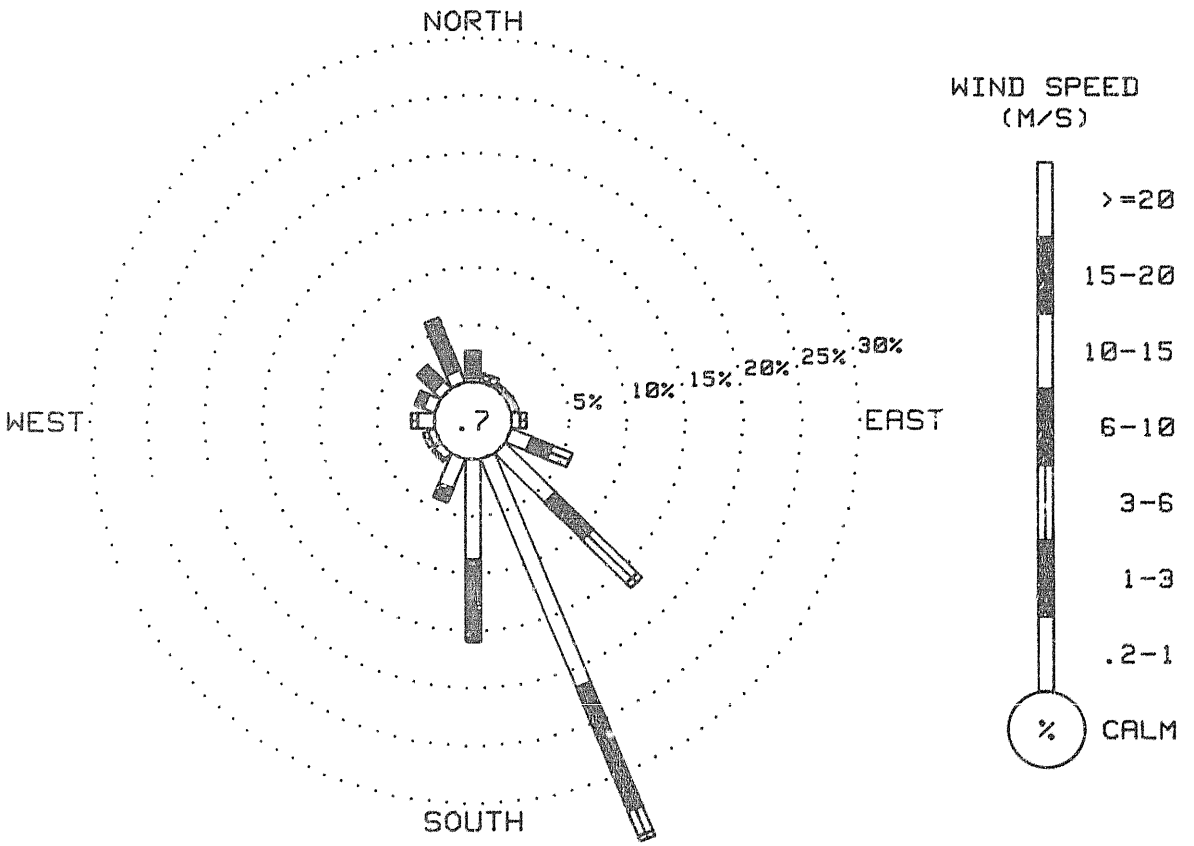
NOTE: ALL FREQUENCIES ARE EXPRESSED IN PERCENT
1071 VALID WIND OBSERVATIONS USED TO DEVELOP FREQUENCY SUMMARY
1488 WIND OBSERVATIONS WOULD HAVE BEEN CORRECT FOR 3% MINUTE DATA.
** SEE INTERPRETATION NOTES AT END OF MONTHLY REPORT **

R&M CONSULTANTS, INC.

SUSITNA HYDROELECTRIC PROJECT

EKLUTNA WEATHER STATION

October, 1984



WIND ROSE PLOT

R & M CONSULTANTS, INC.

SUSITNA HYDROELECTRIC PROJECT

HOURLY SOLAR RADIATION SUMMARY FOR EKLUTNA 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	2	5	13	18	21	36	43	32	16	7	2	0	0	0	0	0	0	8
2	0	0	0	0	0	0	0	2	8	19	61	61	29	52	23	12	9	4	0	0	0	0	0	0	12
3	0	0	0	0	0	0	0	5	7	13	39	48	57	55	27	13	5	2	0	0	0	0	0	0	11
4	0	0	0	0	0	0	0	1	3	20	41	50	54	52	45	20	4	2	0	0	0	0	0	0	12
5	0	0	0	0	0	0	0	2	10	15	30	21	16	16	9	12	5	1	0	0	0	0	0	0	6
6	0	0	0	0	0	0	0	2	8	16	25	26	28	29	20	16	7	1	0	0	0	0	0	0	7
7	0	0	0	0	0	0	0	1	6	14	10	22	22	16	19	15	5	4	0	0	0	0	0	0	5
8	0	0	0	0	0	0	0	0	2	4	4	8	9	3	12	7	4	0	0	0	0	0	0	0	2
9	1	1	1	0	0	0	0	1	2	8	24	46	49	50	37	8	4	1	0	0	0	0	0	0	10
10	0	0	0	0	0	0	0	1	6	8	13	19	27	32	33	14	5	1	0	0	0	0	0	0	7
11	0	0	0	0	0	0	0	1	4	15	18	17	16	19	16	8	2	0	0	0	0	0	0	0	5
12	0	0	0	0	0	0	0	1	5	9	34	47	49	50	29	10	5	1	0	0	0	0	0	0	10
13	0	0	0	0	0	0	0	1	3	17	38	43	45	43	36	9	5	1	0	0	0	0	0	0	10
14	0	0	0	0	0	0	0	.	3	17	40	46	44	40	33	6	3	1	0	0	0	0	0	0	10
15	0	0	0	0	0	0	0	1	4	20	23	21	19	18	14	9	4	0	0	0	0	0	0	0	5
16	0	0	0	0	0	0	0	0	2	18	43	43	42	40	33	5	2	1	0	0	0	0	0	0	9
17	0	0	0	0	0	0	0	0	2	19	42	54	46	40	32	4	2	1	0	0	0	0	0	0	10
18	0	0	0	0	0	0	0	0	3	9	24	27	20	17	10	7	3	0	0	0	0	0	0	0	5
19	0	0	0	0	0	0	0	0	2	4	9	16	9	12	15	9	2	0	0	0	0	0	0	0	3
20	0	0	0	0	0	0	0	0	1	2	3	13	15	12	10	5	1	0	0	0	0	0	0	0	2
21	0	0	0	0	0	0	0	0	2	6	13	15	17	16	15	8	3	0	0	0	0	0	0	0	4
22	0	0	1	1	0	0	0	0	2	6	8	17	19	16	16	9	2	0	0	0	0	0	0	0	4
23	0	0	0	0	0	0	0	0	1	4	8	11	16	19	11	8	2	0	0	0	0	0	0	0	3
24	0	0	0	0	0	0	0	0	2	6	22	16	17	15	11	7	2	0	0	0	0	0	0	0	4
25	0	0	0	0	0	0	0	0	2	14	30	40	48	18	7	4	2	0	0	0	0	0	0	0	6
26	0	0	0	0	0	0	0	0	2	15	33	41	50	7	6	4	2	0	0	0	0	0	0	0	7
27	0	0	0	0	0	0	0	0	1	14	33	39	47	6	6	4	1	0	0	0	0	0	0	0	6
28	0	0	0	0	0	0	0	0	2	9	34	40	45	6	5	3	1	0	0	0	0	0	0	0	6
29	0	0	0	0	0	0	0	0	1	9	35	35	46	6	5	3	1	0	0	0	0	0	0	0	6
30	0	0	0	0	0	0	0	0	1	2	7	13	15	14	13	6	1	0	0	0	0	0	0	0	3
31	0	0	0	0	0	1	1	0	2	4	20	27	29	5	5	3	1	0	0	0	0	0	0	0	4

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

R & M CONSULTANTS, INC.

SUSITNA HYDROELECTRIC PROJECT

HOURLY LONGWAVE RADIATION SUMMARY FOR EKLUTNA WEATHER STATION
DATA TAKEN DURING October, 1984

LONGWAVE RADIATION VALUES IN MILLIWATTS PER SQUARE CENTIMETER

HOUR ENDING

DATE	0100	0 0300	0400	0500	0600	0700	0800	0900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	2400	AVG
1	33	31	30	30	34	35	32	31	34	32	33	37	39	32	31	32	32	32	32	31	30	31	31	32
2	30	33	31	32	33	32	30	30	29	30	31	29	28	31	31	31	32	31	31	28	29	33	32	31
3	33	27	27	29	28	28	28	30	27	22	31	31	28	28	28	32	27	25	24	26	22	24	24	27
4	23	23	22	22	23	23	22	23	23	24	28	32	32	32	31	28	23	23	23	22	23	28	29	26	25
5	26	29	31	30	32	33	31	30	32	36	33	33	32	32	34	33	33	33	33	31	33	31	31	30	31
6	32	28	30	32	32	30	29	26	30	30	31	31	31	30	30	31	29	29	28	21	22	22	28	26	29
7	28	27	27	26	28	28	25	27	26	29	29	28	28	32	29	26	25	30	31	27	27	28	24	26	27
8	27	27	26	27	29	32	28	27	31	31	31	27	26	23	25	23	24	25	25	24	25	24	24	25	26
9	24	25	23	22	19	25	24	23	23	24	21	***	***	***	***	***	***	***	***	***	***	***	***	***	10
10	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***
11	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***
12	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***
13	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***
14	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***
15	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***
16	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***
17	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***
18	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***
19	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***
20	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***
21	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***
22	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***
23	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***
24	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***
25	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***
26	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***
27	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***
28	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***
29	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***
30	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***
31	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***

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

R & M CONSULTANTS, INC.

SUSITNA HYDROELECTRIC PROJECT

OBSERVATION SUMMARY FOR EKLUTNA WEATHER STATION
DATA TAKEN DURING October, 1984

PARAMETER	NUMBER OF USABLE OBSERVATIONS	PERCENT OF TOTAL OBSERVATIONS
TEMPERATURE	1488	100
WIND SPEED	1415	95
WIND DIRECTION	1071	72
PEAK GUST	1415	95
RELATIVE HUMIDITY	807	54
PRECIPITATION	1487	100
SOLAR RADIATION	1488	100
DEW POINT	807	54
LONGWAVE RADIATION	407	27

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 -16 RH points
2. Solar -1 MW/CM^2

Additional comments on this month's data:

1. RH oscillator replaced 10/9. RH data poor prior to 10/9.
2. Timing and quantity of precipitation are suspect since freezing temperatures occurred almost every day. However, thawing temperatures also occurred almost every day, so daily totals should be fair.
3. LW radiation data poor after 10/9 due to low sensor battery.
4. 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 EKLUTNA 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	-10.3	-14.9	69	161	1.1	159	2.5	0
0600	-11.7	-15.7	72	167	1.1	164	1.9	0
0900	-12.4	-16.6	71	169	1.1	165	2.5	1
1200	-3.0	-12.5	48	168	.9	179	2.5	37
1500	-6.0	-13.1	57	173	1.0	166	1.9	4
1800	-10.6	-15.3	68	166	1.2	169	2.5	0
2100	-13.4	-17.9	69	163	1.1	144	2.5	0
2400	-13.7	-18.0	70	166	1.1	163	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	-14.7	-19.3	68	165	1.1	169	2.5	0
0600	-13.4	-17.9	69	170	1.1	172	2.5	0
0900	-14.3	-19.1	67	168	1.0	170	1.9	1
1200	-4.3	*****	51	170	1.0	172	2.5	35
1500	*****	*****	**	***	****	***	****	***
1800	*****	*****	**	***	****	***	****	***
2100	*****	*****	**	***	****	***	****	***
2400	-11.9	-16.4	69	164	1.3	170	2.5	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	-11.6	-16.5	67	157	1.1	134	1.9	0
0600	-12.0	-17.2	65	168	1.2	169	2.5	0
0900	-13.5	-18.7	65	166	1.3	170	2.5	1
1200	-3.9	-13.9	46	169	1.2	173	2.5	38
1500	-4.8	-13.7	50	174	1.0	195	2.5	5
1800	-7.7	-13.7	62	166	1.2	172	2.5	0
2100	-9.3	-14.6	65	167	1.3	169	3.2	0
2400	-9.4	-14.0	69	156	1.2	112	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	-12.2	*****	66	161	1.2	152	2.5	0
0600	-12.6	*****	69	168	1.1	169	2.5	0
0900	-12.1	-16.4	70	166	1.2	177	2.5	1
1200	-3.6	*****	50	167	1.0	173	2.5	34
1500	-4.7	-10.8	62	176	.8	181	2.5	3
1800	-6.8	-12.6	63	172	1.1	176	2.5	0
2100	-5.9	*****	67	165	1.2	175	2.5	0
2400	-4.6	*****	66	170	1.0	170	3.2	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	.9	*****	70	172	.8	173	3.2	0
0600	-.2	-6.4	63	311	1.1	320	3.8	0
0900	-1.4	*****	63	240	.3	325	3.2	0
1200	-.1	-7.1	59	321	1.1	341	3.8	10
1500	6.3	-7.5	37	349	1.3	122	6.3	4
1800	6.0	-8.1	36	128	3.4	121	7.0	0
2100	1.6	-4.7	63	122	1.9	134	6.3	0
2400	1.6	*****	61	068	.8	042	3.8	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	-7.0	60	102	.8	071	2.5	0
0600	-.5	*****	60	152	1.0	175	2.5	0
0900	-1.3	*****	63	154	.7	166	1.9	1
1200	2.6	-6.8	50	094	.1	023	3.2	25
1500	2.9	-5.8	53	298	.8	332	3.2	11
1800	1.7	-5.0	61	154	.4	086	2.5	0
2100	-.3	*****	62	340	.9	340	3.2	0
2400	-1.1	*****	65	163	.5	170	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	.4	-6.0	62	160	.6	116	3.2	0
0600	-1.1	*****	67	161	.6	147	1.9	0
0900	-1.1	*****	67	154	.7	156	1.3	0
1200	.7	*****	65	160	.7	168	1.3	10
1500	1.0	-5.4	62	296	.1	356	2.5	5
1800	.1	-6.1	63	346	1.5	342	3.2	0
2100	-1.6	*****	61	282	.1	348	1.9	0
2400	-5.9	*****	69	135	.7	140	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	-9.2	-13.5	71	159	.9	150	1.9	0
0600	-9.9	*****	71	158	.9	160	1.9	0
0900	-10.9	*****	70	166	.9	171	1.9	1
1200	-3.3	-9.3	63	161	.8	177	1.9	12
1500	-2.4	-8.5	63	198	.3	169	1.9	4
1800	-8.0	*****	73	146	.4	016	1.9	0
2100	-12.0	-16.0	72	162	.9	147	1.9	0
2400	-12.4	-16.7	70	163	1.1	174	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	-12.6	-17.3	68	166	1.0	170	1.9	0
0600	-14.3	-19.2	66	169	1.0	173	1.9	0
0900	-15.1	*****	65	167	1.0	166	1.9	1
1200	-8.5	*****	64	167	1.0	168	1.9	26
1500	-8.6	*****	68	172	.9	178	1.9	6
1800	-12.1	-16.6	69	168	1.1	171	1.9	0
2100	-11.0	-15.5	69	163	1.0	171	1.9	0
2400	-12.3	-16.8	69	163	1.0	162	1.9	0

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

R & M CONSULTANTS, INC.

SUSITNA HYDROELECTRIC PROJECT

THREE HOUR SUMMARY FOR EKLUTNA 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	-11.8	-16.1	70	167	1.1	172	1.9	0
0600	-11.7	-16.0	70	164	1.0	153	1.9	0
0900	-12.3	-16.8	69	171	1.2	175	1.9	0
1200	-9.2	*****	65	165	.9	155	1.9	22
1500	-10.5	-15.1	69	175	.8	192	1.9	2
1800	-13.6	-18.0	69	171	1.1	162	1.9	0
2100	-15.7	-20.1	69	166	1.0	166	1.9	0
2400	-13.0	*****	69	169	1.1	169	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	*****	69	162	1.2	163	2.5	0
0600	-17.2	-21.5	69	161	.9	136	1.9	0
0900	-17.7	-22.0	69	166	1.0	168	1.9	0
1200	-12.6	-18.0	64	167	1.1	169	2.5	26
1500	-12.9	-17.5	68	165	1.0	177	3.2	2
1800	-16.5	-21.0	68	148	1.0	109	2.5	0
2100	-17.1	*****	69	164	1.1	171	2.5	0
2400	-18.2	-22.3	70	166	1.0	171	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	-18.1	-22.5	68	164	1.2	160	2.5	0
0600	-19.1	-23.7	67	163	1.2	170	2.5	0
0900	-16.8	-21.1	69	168	1.4	171	2.5	0
1200	-15.1	-20.9	61	167	1.2	170	2.5	27
1500	-14.1	-18.9	67	167	1.1	167	1.9	1
1800	-14.6	-19.3	67	167	1.1	151	2.5	0
2100	-18.5	-22.9	68	158	1.2	174	2.5	0
2400	-20.6	-25.8	63	163	1.1	137	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	-19.7	-24.6	65	166	1.2	179	2.5	0
0600	-21.3	-26.4	63	164	1.2	150	2.5	0
0900	-19.0	-23.9	65	169	1.2	174	2.5	0
1200	-13.7	-20.2	58	169	1.1	174	2.5	19
1500	-15.1	-19.7	68	169	1.2	172	1.9	2
1800	-18.9	-23.5	67	165	1.2	167	1.9	0
2100	-20.6	-25.8	63	163	1.1	153	1.9	0
2400	-18.8	-23.7	65	167	1.2	166	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	-20.1	-25.1	64	165	1.3	169	2.5	0
0600	-19.9	-24.8	65	168	1.1	169	2.5	0
0900	-17.3	-22.3	65	168	1.2	172	2.5	0
1200	-9.2	*****	66	174	1.0	168	2.5	7
1500	-6.5	*****	68	183	.7	175	3.2	2
1800	-5.2	-10.9	64	311	.7	338	3.8	0
2100	-5.3	-11.0	64	335	2.1	334	4.4	0
2400	-6.6	-13.5	58	337	1.6	340	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	-6.0	-12.5	60	345	1.8	344	4.4	0
0600	-5.0	-11.1	62	33.	2.4	337	5.1	0
0900	-6.5	-12.2	64	329	1.6	331	4.4	0
1200	-5.0	*****	61	171	.8	220	1.9	5
1500	-2.8	-8.8	63	147	.9	114	3.2	4
1800	-2.7	-8.3	65	154	.8	154	2.5	0
2100	-4.4	*****	71	164	1.0	158	3.2	0
2400	-6.8	-11.2	71	167	1.0	166	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	-6.5	*****	71	162	1.0	167	2.5	0
0600	-6.7	-10.9	72	165	1.0	176	2.5	0
0900	-8.1	-12.2	72	170	.9	169	1.9	0
1200	-5.9	*****	73	170	.9	172	1.9	10
1500	-4.9	*****	71	167	.6	173	1.9	3
1800	-10.3	-14.4	72	164	.9	151	2.5	0
2100	-11.4	*****	70	167	.9	165	1.9	0
2400	-10.8	*****	70	172	.9	175	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	-7.8	-11.9	72	170	.9	166	1.9	0
0600	-7.1	-11.1	73	169	.9	167	2.5	0
0900	-6.8	*****	71	166	.8	166	1.9	0
1200	-3.7	*****	70	167	.6	167	1.9	12
1500	-3.3	-8.1	69	176	.7	168	1.9	3
1800	-4.3	*****	71	163	.7	170	1.9	0
2100	-7.0	*****	72	167	.9	163	1.9	0
2400	-7.7	*****	72	166	.9	176	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	-8.8	-12.9	72	163	1.0	160	2.5	0
0600	-8.3	-12.4	72	181	.9	176	2.5	0
0900	-9.3	*****	71	165	.9	168	1.9	0
1200	-6.7	*****	71	168	.9	165	1.9	5
1500	-7.1	*****	72	171	.7	163	1.9	2
1800	-8.4	*****	71	169	.8	144	1.9	0
2100	-7.8	*****	72	169	.7	180	1.9	0
2400	-7.7	*****	72	165	.7	168	2.5	0

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

R & M CONSULTANTS, INC.

SUSITNA HYDROELECTRIC PROJECT

THREE HOUR SUMMARY FOR EKLUTNA 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	-9.5	*****	71	170	.8	164	1.9	0
0600	-11.2	*****	70	171	.9	176	1.9	0
0900	-10.9	*****	70	173	.9	175	1.9	0
1200	-4.4	*****	72	171	.7	165	1.9	20
1500	-7.3	-11.5	72	170	.8	155	1.9	2
1800	-7.2	*****	72	165	.8	167	2.5	0
2100	5.7	-8.0	37	149	2.8	146	8.9	1
2400	5.6	-8.8	35	151	7.1	154	12.1	1

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	5.7	-9.5	33	141	6.6	143	14.0	1
0600	3.4	-5.0	54	146	7.3	144	12.7	0
0900	4.3	-7.0	44	145	4.9	142	9.5	0
1200	3.0	-3.8	61	140	4.9	140	10.2	1
1500	3.1	-2.8	65	229	1.6	259	5.7	1
1800	3.6	-2.3	65	203	2.0	159	7.0	0
2100	3.9	-1.6	67	152	6.4	144	14.6	0
2400	3.2	-2.3	67	143	4.9	140	9.5	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	5.0	-4.1	52	138	4.8	134	8.9	0
0600	4.7	-3.2	65	136	3.2	136	6.3	0
0900	.3	*****	71	002	1.8	023	7.0	0
1200	.5	*****	99	164	.5	172	1.3	1
1500	1.1	-.1	92	173	.6	185	2.5	1
1800	.3	*****	93	169	.5	200	1.9	0
2100	.1	*****	92	168	.5	158	1.3	0
2400	0.0	*****	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	-2.5	*****	80	***	****	***	1.9	0
0600	-4.5	*****	78	***	****	***	1.3	0
0900	-6.8	*****	75	***	****	***	1.3	0
1200	-4.3	*****	77	***	****	***	1.3	2
1500	-3.0	*****	80	***	****	***	1.9	1
1800	-2.5	*****	79	***	****	***	1.9	0
2100	-2.4	*****	80	***	****	***	1.9	0
2400	-3.1	*****	78	***	****	***	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	-4.1	*****	80	***	****	***	1.3	0
0600	-5.3	*****	82	***	****	***	1.3	0
0900	-3.6	*****	71	***	****	***	1.3	0
1200	-3.7	*****	72	***	****	***	1.3	3
1500	-3.2	*****	72	***	****	***	1.9	2
1800	-3.5	*****	70	***	****	***	1.3	0
2100	-4.1	*****	75	***	****	***	1.3	0
2400	-4.1	-8.7	70	***	****	***	2.5	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	-4.9	*****	72	***	****	***	2.5	0
0600	-4.7	-9.1	71	***	****	***	1.9	0
0900	-5.4	*****	71	***	****	***	2.5	0
1200	-5.6	-9.8	72	***	****	***	3.2	2
1500	-5.7	*****	70	***	****	***	3.2	0
1800	-6.7	*****	74	***	****	***	1.3	0
2100	-7.4	*****	75	***	****	***	1.3	0
2400	-7.5	*****	75	***	****	***	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	-8.6	*****	73	***	****	***	1.3	0
0600	-10.3	-14.5	71	***	****	***	1.9	0
0900	-14.4	*****	69	***	****	***	1.9	0
1200	-14.7	*****	70	***	****	***	1.9	5
1500	-11.0	-16.3	65	***	****	***	1.9	1
1800	-16.1	*****	71	***	****	***	1.9	0
2100	-17.5	*****	72	***	****	***	1.9	0
2400	-18.3	-23.1	67	***	****	***	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	-18.4	*****	67	***	****	***	2.5	0
0600	-13.7	*****	70	***	****	***	1.9	0
0900	-12.7	*****	70	***	****	***	1.9	0
1200	-11.3	*****	69	***	****	***	1.9	2
1500	-14.6	*****	70	***	****	***	1.9	1
1800	-18.0	*****	69	***	****	***	1.9	0
2100	-15.5	*****	71	***	****	***	1.3	0
2400	-14.3	*****	70	***	****	***	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	-13.8	*****	70	***	****	***	1.9	0
0600	-12.4	*****	69	***	****	***	1.9	0
0900	-13.8	*****	69	***	****	***	1.9	0
1200	-12.7	*****	70	***	****	***	1.9	2
1500	-12.7	*****	69	***	****	***	1.9	1
1800	-12.5	*****	69	***	****	***	1.3	0
2100	-12.9	*****	70	***	****	***	1.3	0
2400	-11.9	*****	71	***	****	***	1.9	0

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

R & M CONSULTANTS, INC.

SUSITNA HYDROELECTRIC PROJECT

THREE HOUR SUMMARY FOR EKLUTNA WEATHER STATION
DATA TAKEN DURING November, 1984

DAY 28

HOUR ENDNG	TEMP. 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	*****	71	***	****	***	1.9	0
0600	-10.1	*****	73	***	****	***	1.9	0
0900	-10.1	*****	73	***	****	***	1.3	0
1200	-7.2	*****	70	***	****	***	1.9	2
1500	-6.2	*****	72	***	****	***	1.9	1
1800	-8.3	*****	74	***	****	***	1.3	0
2100	-7.8	*****	74	***	****	***	1.3	0
2400	-8.9	*****	73	***	****	***	1.9	0

DAY 29

HOUR ENDNG	TEMP. 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	*****	74	***	****	***	1.9	0
0600	-12.0	*****	70	***	****	***	1.3	0
0900	-11.5	*****	71	***	****	***	1.3	0
1200	-9.4	*****	72	***	****	***	1.9	2
1500	-9.7	*****	72	***	****	***	1.3	1
1800	-13.9	*****	71	***	****	***	1.3	0
2100	-7.6	*****	75	***	****	***	1.3	0
2400	-9.6	*****	73	***	****	***	1.9	0

DAY 30

HOUR ENDNG	TEMP. 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	*****	73	***	****	***	1.3	0
0600	-7.3	*****	74	***	****	***	1.3	0
0900	-8.7	*****	74	***	****	***	1.3	0
1200	-8.4	*****	73	***	****	***	1.3	1
1500	-9.1	*****	73	***	****	***	2.5	2
1800	-7.3	*****	75	***	****	***	1.9	0
2100	-4.2	-7.8	76	***	****	***	2.5	0
2400	2.7	-5.7	54	***	****	***	5.1	0

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

R & M CONSULTANTS, INC.

SUSITNA HYDROELECTRIC PROJECT

MONTHLY SUMMARY FOR EKLUTNA 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	-1.5	-13.7	-7.6	167	1.1	1.1	159	2.5	SSE	67	-15.0	****	1205	1
2	-4.3	-15.1	-9.7	167	1.1	1.1	169	2.5	SSE	68	-18.1	****	1032	2
3	-2.2	-13.7	-8.0	165	1.2	1.2	169	3.2	SSE	62	-15.6	****	1210	3
4	-1.2	-13.4	-7.3	168	1.1	1.1	170	3.2	SSE	66	-14.0	****	1110	4
5	6.5	-4.2	1.2	106	.4	1.7	121	7.0	NNW	53	-6.7	****	395	5
6	3.7	-1.3	1.2	145	.2	.9	023	3.2	SSE	58	-5.8	****	985	6
7	1.3	-5.9	-2.3	149	.2	.8	116	3.2	SSE	63	-5.9	****	425	7
8	-1.8	-12.5	-7.2	162	.8	.9	150	1.9	SSE	70	-13.6	****	490	8
9	-6.9	-15.4	-11.2	167	1.0	1.0	170	1.9	SSE	68	-16.8	****	670	9
10	-6.8	-15.7	-11.3	168	1.0	1.0	169	2.5	SSE	69	-17.2	****	470	10
11	-8.8	-16.6	-13.7	162	1.1	1.1	177	3.2	SSE	68	-19.3	****	605	11
12	-12.2	-21.4	-16.8	165	1.2	1.2	160	2.5	SSE	66	-22.1	****	590	12
13	-12.9	-22.5	-17.7	166	1.2	1.2	179	2.5	SSE	64	-23.8	****	470	13
14	-4.5	-21.1	-12.8	222	.2	1.7	334	4.4	SSE	64	-17.8	****	285	14
15	-2.7	-6.8	-4.8	323	.2	1.3	337	5.1	SSE	63	-11.2	****	365	15
16	-4.1	-11.	-7.8	167	.9	.9	167	2.5	SSE	72	-12.1	****	355	16
17	-3.3	-11.3	-7.3	168	.9	.8	167	2.5	SSE	71	-10.8	****	365	17
18	-5.6	-10.3	-8.0	169	.8	.9	160	2.5	SSE	72	-12.4	****	165	18
19	6.3	-12.3	-3.0	157	1.9	1.9	154	12.1	SSE	52	-9.9	****	390	19
20	6.4	2.4	4.4	150	4.5	4.9	144	14.6	SE	54	-4.8	****	130	20
21	6.0	-.2	2.9	135	1.2	1.6	134	8.9	SE	59	-3.9	****	65	21
22	.1	-7.9	-3.9	***	****	.6	***	1.9	***	82	-4.7	****	95	22
23	-2.4	-5.9	-4.2	***	****	.6	***	2.5	***	71	-8.1	****	115	23
24	-4.2	-7.5	-5.9	***	****	.9	***	3.2	***	71	-9.5	****	55	24
25	-7.7	-18.6	-13.2	***	****	.9	***	2.5	***	70	-18.4	****	100	25
26	-10.8	-18.9	-14.9	***	****	.8	***	2.5	***	68	-21.1	****	70	26
27	-10.5	-15.3	-12.9	***	****	.8	***	1.9	***	70	-16.5	****	80	27
28	-6.1	-12.0	-9.1	***	****	.6	***	1.9	***	72	-15.1	****	85	28
29	-7.0	-13.4	-10.2	***	****	.5	***	1.9	***	73	-13.1	****	85	29
30	2.7	-10.5	-3.9	***	****	.6	***	5.1	***	72	-7.6	****	115	30
MONTH	6.5	-22.5	-7.5	160	1.0	1.1	144	14.6	SSE	65	-13.0	****	12567	

GUST VEL. AT MAX. GUST MINUS 2 INTERVALS 7.6
GUST VEL. AT MAX. GUST MINUS 1 INTERVAL 12.1
GUST VEL. AT MAX. GUST PLUS 1 INTERVAL 13.3
GUST VEL. AT MAX. GUST PLUS 2 INTERVALS 12.1

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.

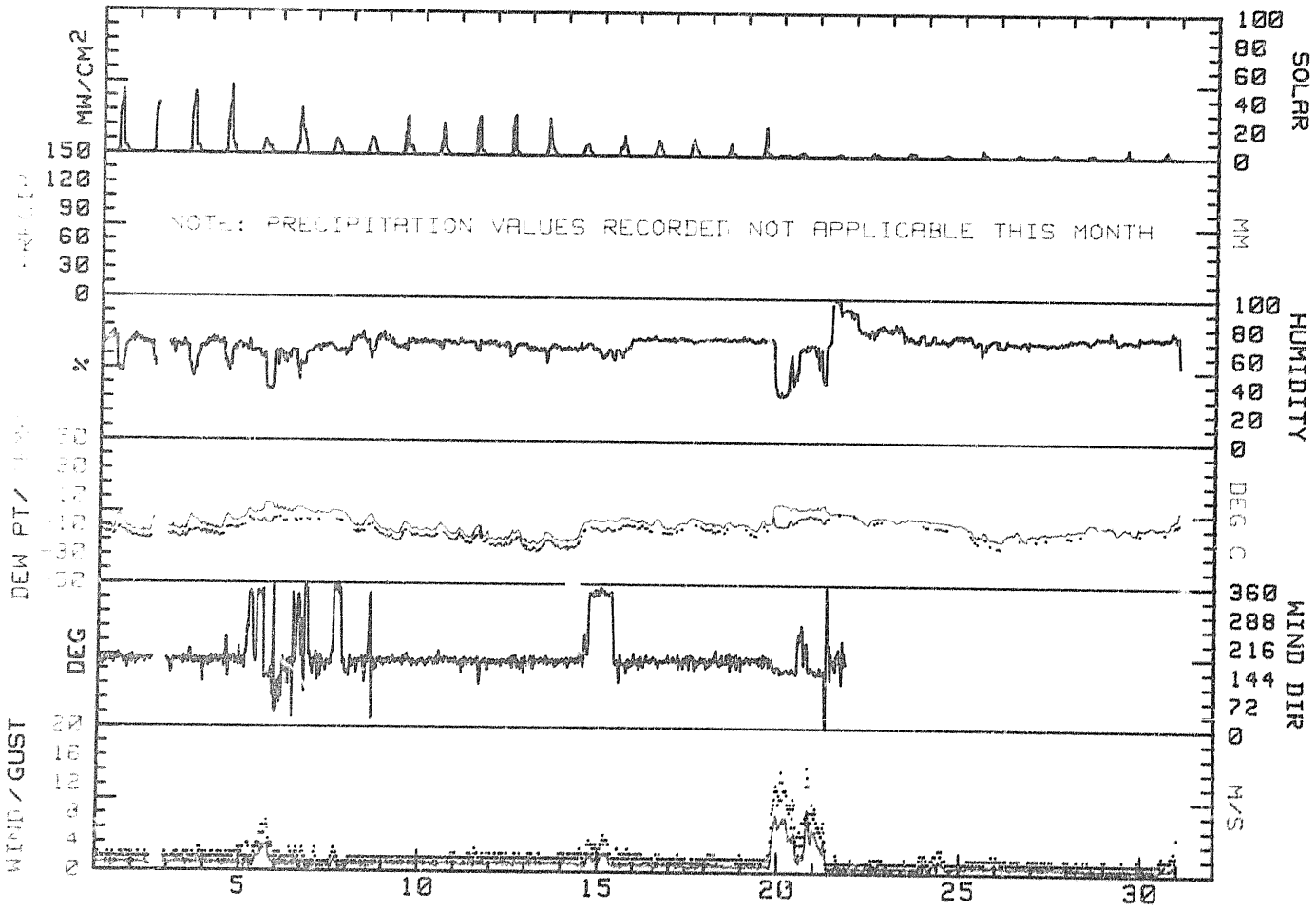
** SEE INTERPRETATION NOTES AT END OF MONTHLY REPORT **

R&M CONSULTANTS, INC.

SUSITNA HYDROELECTRIC PROJECT

EKLUTNA WEATHER STATION

November, 1984



R & M CONSULTANTS, INC.

SUSITNA HYDROELECTRIC PROJECT

WIND FREQUENCY SUMMARY FOR EKLUTNA WEATHER STATION
DATA TAKEN DURING November, 1984

DIRECTION	VELOCITY (M/S) 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	0.00	.81	.10	0.00	0.00	0.00	0.00	.92
NNE	.20	.10	.10	0.00	0.00	0.00	0.00	.41
NE	.10	.20	0.00	0.00	0.00	0.00	0.00	.31
ENE	.10	.31	0.00	0.00	0.00	0.00	0.00	.41
E	.10	.10	0.00	0.00	0.00	0.00	0.00	.20
ESE	.92	.61	.31	0.00	0.00	0.00	0.00	1.83
SE	2.34	1.12	3.05	1.32	0.00	0.00	0.00	7.84
SSE	19.14	28.82	.71	.92	0.00	0.00	0.00	49.59
S	12.02	15.58	0.00	0.00	0.00	0.00	0.00	27.60
SSW	1.43	.71	.20	0.00	0.00	0.00	0.00	2.34
SW	.61	.31	0.00	0.00	0.00	0.00	0.00	.92
WSW	.31	.41	0.00	0.00	0.00	0.00	0.00	.71
W	.31	.10	0.00	0.00	0.00	0.00	0.00	.41
WNW	0.00	.10	0.00	0.00	0.00	0.00	0.00	.10
NW	.10	.92	0.00	0.00	0.00	0.00	0.00	1.02
NNW	.20	5.09	0.00	0.00	0.00	0.00	0.00	5.30
CALM								.10
TOTAL	37.88	55.30	4.48	2.24	0.00	0.00	0.00	100.00

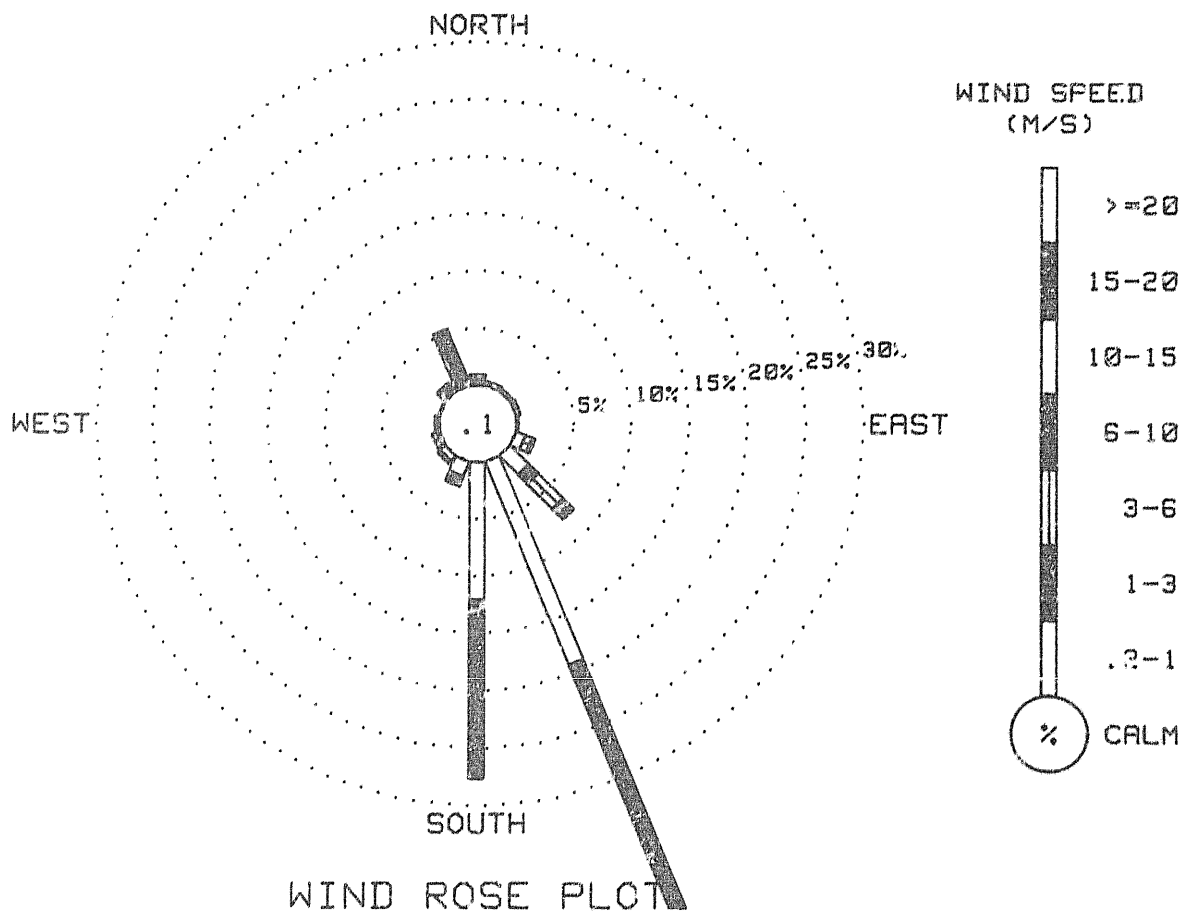
NOTE: ALL FREQUENCIES ARE EXPRESSED IN PERCENT
982 VALID WIND OBSERVATIONS USED TO DEVELOP FREQUENCY SUMMARY
1440 WIND OBSERVATIONS WOULD HAVE BEEN CORRECT FOR 30 MINUTE DATA.
** SEE INTERPRETATION NOTES AT END OF MONTHLY REPORT **

R&M CONSULTANTS, INC.

SUSITNA HYDROELECTRIC PROJECT

EKLUTNA WEATHER STATION

November, 1984



WIND ROSE PLOT

R & M CONSULTANTS, INC.

SUSITNA HYDROELECTRIC PROJECT

HOURLY SOLAR RADIATION SUMMARY FOR EKLUTNA 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	1	3	28	35	42	5	5	3	1	0	0	0	0	0	0	0	5
2	0	0	0	0	0	0	0	0	1	2	28	34	***	***	***	***	***	***	***	***	***	0	0	0	3
3	0	0	0	0	0	0	0	0	1	3	28	36	41	5	5	4	1	0	0	0	0	0	0	0	5
4	0	0	0	0	0	0	0	0	1	3	20	33	41	8	4	4	0	0	0	0	0	0	0	0	5
5	0	0	0	0	0	0	0	0	0	2	6	10	8	5	5	4	1	0	0	0	0	0	0	0	2
6	0	0	0	0	0	0	0	0	1	5	7	23	26	16	14	8	1	0	0	0	0	0	0	0	4
7	0	0	0	0	0	0	0	0	0	2	6	9	11	8	6	2	0	0	0	0	0	0	0	0	2
8	0	0	0	0	0	0	0	0	1	4	6	11	12	10	5	2	0	0	0	0	0	0	0	0	2
9	0	0	0	0	0	0	0	0	1	2	10	25	16	6	6	3	0	0	0	0	0	0	0	0	3
10	0	0	0	0	0	0	0	0	0	3	7	19	11	4	3	1	0	0	0	0	0	0	0	0	2
11	0	0	0	0	0	0	0	0	0	2	12	26	16	3	3	1	0	0	0	0	0	0	0	0	3
12	0	0	0	0	0	0	0	0	0	2	12	27	16	3	2	0	0	0	0	0	0	0	0	0	2
13	0	0	0	0	0	0	0	0	0	2	6	23	8	5	3	1	0	0	0	0	0	0	0	0	2
14	0	0	0	0	0	0	0	0	0	2	5	7	8	4	3	1	0	0	0	0	0	0	0	0	1
15	0	0	0	0	0	0	0	0	0	2	5	5	8	11	6	1	0	0	0	0	0	0	0	0	2
16	0	0	0	0	0	0	0	0	0	2	4	9	10	7	4	1	0	0	0	0	0	0	0	0	1
17	0	0	0	0	0	0	0	0	0	2	7	10	8	6	4	1	0	0	0	0	0	0	0	0	2
18	0	0	0	0	0	0	0	0	0	1	2	4	7	2	2	1	0	0	0	0	0	0	0	0	1
19	0	0	0	0	0	0	0	0	0	1	4	14	12	2	2	1	0	0	0	0	1	1	1	1	2
20	1	1	1	1	0	0	0	0	1	0	2	1	3	2	1	0	0	0	0	0	0	0	0	0	1
21	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
22	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
23	0	0	0	0	0	0	0	0	0	0	2	3	2	3	3	0	0	0	0	0	0	0	0	0	0
24	0	0	0	0	0	0	0	0	0	0	1	2	2	1	1	0	0	0	0	0	0	0	0	0	0
25	0	0	0	0	0	0	0	0	0	0	1	3	3	2	2	0	0	0	0	0	0	0	0	0	0
26	0	0	0	0	0	0	0	0	0	0	1	2	2	1	1	0	0	0	0	0	0	0	0	0	0
27	0	0	0	0	0	0	0	0	0	0	2	2	2	2	1	0	0	0	0	0	0	0	0	0	0
28	0	0	0	0	0	0	0	0	0	0	2	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	2	2	4	1	1	0	0	0	0	0	0	0	0	0	0
30	0	0	0	0	0	0	0	0	0	0	1	1	3	4	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

HOURLY LONGWAVE RADIATION SUMMARY FOR EKLUTNA WEATHER STATION
DATA TAKEN DURING November, 1984

LONGWAVE RADIATION VALUES 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	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***
2	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***
3	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***
4	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***
5	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***
6	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***
7	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***
8	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***
9	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***
10	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***
11	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***
12	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***
13	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***
14	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***
15	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***
16	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***
17	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***
18	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***
19	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***
20	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***
21	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***
22	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***
23	***	***	***	***	***	***	***	***	***	***	***	***	34	32	31	28	20	19	18	18	18	18	17	17	11
24	17	17	17	17	17	17	17	17	17	18	18	18	17	17	17	18	18	19	20	20	20	20	20	21	18
25	22	23	23	26	31	29	33	33	28	28	28	27	28	28	29	***	***	***	***	***	***	27	27	27	21
26	27	27	27	27	27	28	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	7
27	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***
28	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***
29	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***
30	***	***	***	***	***	***	***	***	***	***	***	***	25	24	24	25	26	26	28	29	28	28	29	30	13

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

R & M CONSULTANTS, INC.

SUSITNA HYDROELECTRIC PROJECT

OBSERVATION SUMMARY FOR EKLUTNA WEATHER STATION
DATA TAKEN DURING November, 1984

PARAMETER	NUMBER OF USABLE OBSERVATIONS	PERCENT OF TOTAL OBSERVATIONS
TEMPERATURE	1422	99
WIND SPEED	1422	99
WIND DIRECTION	982	68
PEAK GUST	1422	99
RELATIVE HUMIDITY	668	46
PRECIPITATION	1422	99
SOLAR RADIATION	1422	99
DEW POINT	668	46
LONGWAVE RADIATION	144	10

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 MONTHS DATA:

1.	RH	-16 RH points	11/1-11/2
		-17	11/2-11/30
2.	Solar	-1 MW/CM^2	

Additional comments on this month's data:

1. Battery in LW radiation sensor replaced 11/23. Some data lost afterward due to poor electrical connection.

2. Data lost for 9 hours on 11/2 when data cassette tape was replaced without adequate "leader" provided.

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

No precipitation data for December

(See INTERPRETATION OF DATA).

R & M CONSULTANTS, INC.

SUSITNA HYDROELECTRIC PROJECT

THREE HOUR SUMMARY FOR EKLUTNA 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	3.6	-7.3	45	142	2.3	111	7.0	0
0600	-.8	*****	66	183	1.1	148	4.4	0
0900	4.7	-8.9	37	140	2.7	140	5.7	1
1200	5.5	-8.9	35	140	3.6	135	7.0	9
1500	5.3	-9.1	35	136	3.9	141	7.6	2
1800	4.9	-9.8	34	144	5.2	148	8.9	1
2100	4.9	-10.2	33	129	3.6	125	7.6	1
2400	4.3	-10.7	33	129	3.7	127	7.0	1

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	4.4	-11.0	32	132	3.2	126	7.0	1
0600	5.1	-11.2	30	130	3.1	127	6.3	1
0900	1.0	-8.0	51	112	1.3	113	5.7	0
1200	.3	*****	57	297	.7	319	1.9	3
1500	.8	-4.4	68	223	.6	262	2.5	1
1800	.3	*****	72	161	.8	166	2.5	0
2100	.7	-3.9	71	214	.7	204	3.2	0
2400	.2	-3.7	75	267	.8	217	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	*****	71	***	****	***	3.2	0
0600	6.6	-7.2	37	152	3.2	147	8.9	1
0900	6.8	-7.4	36	140	5.0	131	9.5	1
1200	7.5	-7.5	34	137	4.9	131	8.9	5
1500	7.7	-1.8	51	134	4.6	126	8.9	1
1800	1.9	-1.7	77	140	2.6	132	8.3	0
2100	6.7	1.1	67	155	1.8	129	8.9	0
2400	4.2	*****	78	161	1.9	155	7.6	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	3.4	1.4	87	290	.9	313	3.2	0
0600	4.3	1.0	79	330	1.1	319	3.8	0
0900	1.9	.1	88	003	.8	026	3.2	0
1200	2.2	1.5	95	320	.8	298	3.2	2
1500	4.5	1.0	78	143	2.3	149	8.9	1
1800	5.7	-.8	63	144	4.0	148	9.5	0
2100	6.1	-2.3	55	137	3.7	143	8.3	0
2400	4.2	.9	79	135	4.8	136	10.2	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	6.7	-1.7	55	139	4.9	143	10.2	1
0600	6.8	-.4	60	141	3.8	148	10.2	0
0900	6.3	-.9	60	139	4.9	133	10.8	0
1200	4.7	-.1	71	146	3.2	146	8.9	3
1500	3.0	*****	76	197	.3	136	6.3	1
1800	1.5	*****	79	285	.6	327	2.5	0
2100	.9	*****	80	153	.6	137	1.9	0
2400	1.6	*****	81	146	.8	155	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	-2.2	*****	92	132	.6	121	1.9	0
0600	-2.7	*****	93	117	.3	008	1.9	0
0900	-3.3	-4.3	93	147	.6	132	1.9	0
1200	-3.0	*****	94	170	.4	157	1.3	5
1500	-2.0	*****	93	144	.5	174	1.3	1
1800	-3.3	*****	94	151	.5	149	1.3	0
2100	-5.2	*****	97	159	.5	147	1.9	0
2400	-6.0	-6.6	96	167	.8	155	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	-3.8	-4.4	96	156	.7	149	1.9	0
0600	-6.3	*****	96	149	.6	150	1.9	0
0900	-8.3	*****	93	152	.9	151	1.9	0
1200	-7.8	*****	87	164	.7	138	1.9	4
1500	-4.9	*****	91	167	.3	172	1.9	1
1800	-4.8	*****	87	170	.5	156	1.9	0
2100	-4.2	*****	88	155	.6	167	1.9	0
2400	-3.8	*****	90	015	.6	356	3.8	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	-4.0	*****	93	252	.2	290	1.9	0
0600	-4.2	*****	89	326	.4	336	1.9	0
0900	-3.8	-5.5	88	324	1.0	309	2.5	0
1200	-4.0	-5.7	88	004	1.6	004	3.8	0
1500	-4.5	*****	90	313	.6	340	1.9	0
1800	-5.2	*****	89	177	.2	160	1.3	0
2100	-11.3	*****	90	142	.4	152	1.3	0
2400	-14.9	*****	89	134	.5	124	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	-16.6	*****	88	***	****	***	1.9	0
0600	-16.0	-17.8	86	***	****	***	1.9	0
0900	*****	*****	**	***	****	***	1.3	***
1200	*****	*****	**	***	****	***	****	***
1500	*****	*****	**	***	****	***	****	***
1800	*****	*****	**	***	****	***	****	***
2100	*****	*****	**	***	****	***	****	***
2400	*****	*****	**	***	****	***	****	***

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

R & M CONSULTANTS, INC.

SUSITNA HYDROELECTRIC PROJECT

THREE HOUR SUMMARY FOR EKLUTNA 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	*****	*****	**	***	****	***	****	***
0600	*****	*****	**	***	****	***	****	***
0900	*****	*****	**	***	****	***	****	***
1200	*****	*****	**	***	****	***	****	***
1500	*****	*****	**	***	****	***	****	***
1800	*****	*****	**	***	****	***	****	***
2100	*****	*****	**	***	****	***	****	***
2400	*****	*****	**	***	****	***	****	***

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	*****	*****	**	***	****	***	****	***
0600	*****	*****	**	***	****	***	****	***
0900	*****	*****	**	***	****	***	****	***
1200	*****	*****	**	***	****	***	****	***
1500	*****	*****	**	***	****	***	****	***
1800	*****	*****	**	***	****	***	****	***
2100	*****	*****	**	***	****	***	****	***
2400	*****	*****	**	***	****	***	****	***

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	*****	*****	**	***	****	***	****	***
0600	*****	*****	**	***	****	***	****	***
0900	*****	*****	**	***	****	***	****	***
1200	*****	*****	**	***	****	***	****	***
1500	*****	*****	**	***	****	***	****	***
1800	*****	*****	**	***	****	***	****	***
2100	*****	*****	**	***	****	***	****	***
2400	*****	*****	**	***	****	***	****	***

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	*****	*****	**	***	****	***	****	***
0600	*****	*****	**	***	****	***	****	***
0900	*****	*****	**	***	****	***	****	***
1200	*****	*****	**	***	****	***	****	***
1500	*****	*****	**	***	****	***	****	***
1800	*****	*****	**	***	****	***	****	***
2100	*****	*****	**	***	****	***	****	***
2400	*****	*****	**	***	****	***	****	***

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	*****	*****	**	***	****	***	****	***
0600	*****	*****	**	***	****	***	****	***
0900	*****	*****	**	***	****	***	****	***
1200	*****	*****	**	***	****	***	****	***
1500	*****	*****	**	***	****	***	****	***
1800	*****	*****	**	***	****	***	****	***
2100	*****	*****	**	***	****	***	****	***
2400	*****	*****	**	***	****	***	****	***

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	*****	*****	**	***	****	***	****	***
0600	*****	*****	**	***	****	***	****	***
0900	*****	*****	**	***	****	***	****	***
1200	*****	*****	**	***	****	***	****	***
1500	*****	*****	**	***	****	***	****	***
1800	*****	*****	**	***	****	***	****	***
2100	*****	*****	**	***	****	***	****	***
2400	*****	*****	**	***	****	***	****	***

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	*****	*****	**	***	****	***	****	***
0600	*****	*****	**	***	****	***	****	***
0900	*****	*****	**	***	****	***	****	***
1200	*****	*****	**	***	****	***	****	***
1500	*****	*****	**	***	****	***	****	***
1800	*****	*****	**	***	****	***	****	***
2100	*****	*****	**	***	****	***	****	***
2400	*****	*****	**	***	****	***	****	***

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	*****	*****	**	***	****	***	****	***
0600	*****	*****	**	***	****	***	****	***
0900	*****	*****	**	***	****	***	****	***
1200	*****	*****	**	***	****	***	****	***
1500	*****	*****	**	***	****	***	****	***
1800	*****	*****	**	***	****	***	****	***
2100	*****	*****	**	***	****	***	****	***
2400	*****	*****	**	***	****	***	****	***

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	*****	*****	**	***	****	***	****	***
0600	*****	*****	**	***	****	***	****	***
0900	*****	*****	**	***	****	***	****	***
1200	*****	*****	**	***	****	***	****	***
1500	*****	*****	**	***	****	***	****	***
1800	*****	*****	**	***	****	***	****	***
2100	*****	*****	**	***	****	***	****	***
2400	*****	*****	**	***	****	***	****	***

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

R & M CONSULTANTS, INC.

SUSITNA HYDROELECTRIC PROJECT

THREE HOUR SUMMARY FOR EKLUTNA 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	*****	*****	**	***	****	***	****	***
0600	*****	*****	**	***	****	***	****	***
0900	*****	*****	**	***	****	***	****	***
1200	*****	*****	**	***	****	***	****	***
1500	*****	*****	**	***	****	***	****	***
1800	*****	*****	**	***	****	***	****	***
2100	*****	*****	**	***	****	***	****	***
2400	*****	*****	**	***	****	***	****	***

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	*****	*****	**	***	****	***	****	***
0600	*****	*****	**	***	****	***	****	***
0900	*****	*****	**	***	****	***	****	***
1200	*****	*****	**	***	****	***	****	***
1500	*****	*****	**	***	****	***	****	***
1800	*****	*****	**	***	****	***	****	***
2100	*****	*****	**	***	****	***	****	***
2400	*****	*****	**	***	****	***	****	***

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	*****	*****	**	***	****	***	****	***
0600	*****	*****	**	***	****	***	****	***
0900	*****	*****	**	***	****	***	****	***
1200	*****	*****	**	***	****	***	****	***
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	*****	*****	**	***	****	***	****	***
2100	*****	*****	**	***	****	***	****	***
2400	*****	*****	**	***	****	***	****	***

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	*****	*****	**	***	****	***	****	***
0600	*****	*****	**	***	****	***	****	***
0900	*****	*****	**	***	****	***	****	***
1200	*****	*****	**	***	****	***	****	***
1500	*****	*****	**	***	****	***	****	***
1800	*****	*****	**	***	****	***	****	***
2100	*****	*****	**	***	****	***	****	***
2400	*****	*****	**	***	****	***	****	***

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	*****	*****	**	***	****	***	****	***
0600	*****	*****	**	***	****	***	****	***
0900	*****	*****	**	***	****	***	****	***
1200	*****	*****	**	***	****	***	****	***
1500	*****	*****	**	***	****	***	****	***
1800	*****	*****	**	***	****	***	****	***
2100	*****	*****	**	***	****	***	****	***
2400	*****	*****	**	***	****	***	****	***

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	*****	*****	**	***	****	***	****	***
0600	*****	*****	**	***	****	***	****	***
0900	*****	*****	**	***	****	***	****	***
1200	*****	*****	**	***	****	***	****	***
1500	*****	*****	**	***	****	***	****	***
1800	*****	*****	**	***	****	***	****	***
2100	*****	*****	**	***	****	***	****	***
2400	*****	*****	**	***	****	***	****	***

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

R & M CONSULTANTS, INC.

SUSITNA HYDROELECTRIC PROJECT

THREE HOUR SUMMARY FOR EKLUTNA WEATHER STATION
DATA TAKEN DURING December, 1984

DAY 28

HOUR ENDNG	TEMP. 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 29

HOUR ENDNG	TEMP. 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 30

HOUR ENDNG	TEMP. 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 31

HOUR ENDNG	TEMP. 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	*****	*****	**	***	****	***	****	***

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

R & M CONSULTANTS, INC.

SUSITNA HYDROELECTRIC PROJECT

MONTHLY SUMMARY FOR EKLUTNA 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	5.7	-.9	2.4	139	3.2	3.3	148	8.9	SE	38	-8.9	****	370	1
2	5.1	-.1	2.5	147	.9	1.6	126	7.0	SE	49	-8.0	****	145	2
3	7.9	-.8	3.6	143	3.4	3.4	131	9.5	SE	50	-3.7	****	230	3
4	6.3	1.7	4.0	138	1.4	2.5	136	10.2	SE	75	.1	****	100	4
5	7.2	.7	4.0	143	2.2	2.6	133	10.8	SE	65	-.7	****	160	5
6	1.8	-7.0	-2.6	150	.5	.6	121	1.9	SSE	95	-5.4	****	165	6
7	-3.3	-9.3	-6.3	152	.5	.7	356	3.8	SSE	92	-6.7	****	155	7
8	-3.6	-14.9	-9.3	339	.4	.7	004	3.8	NW	89	-5.6	****	15	8
9	-14.8	-17.7	-16.3	***	****	.6	***	1.9	***	85	-17.8	****	0	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
MONTH	7.9	-17.7	-2.0	142	1.5	1.9	133	10.8	SE	59	-6.3	****	1340	

GUST VEL. AT MAX. GUST MINUS 2 INTERVALS 7.0
GUST VEL. AT MAX. GUST MINUS 1 INTERVAL 8.3
GUST VEL. AT MAX. GUST PLUS 1 INTERVAL 7.6
GUST VEL. AT MAX. GUST PLUS 2 INTERVALS 8.3

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.

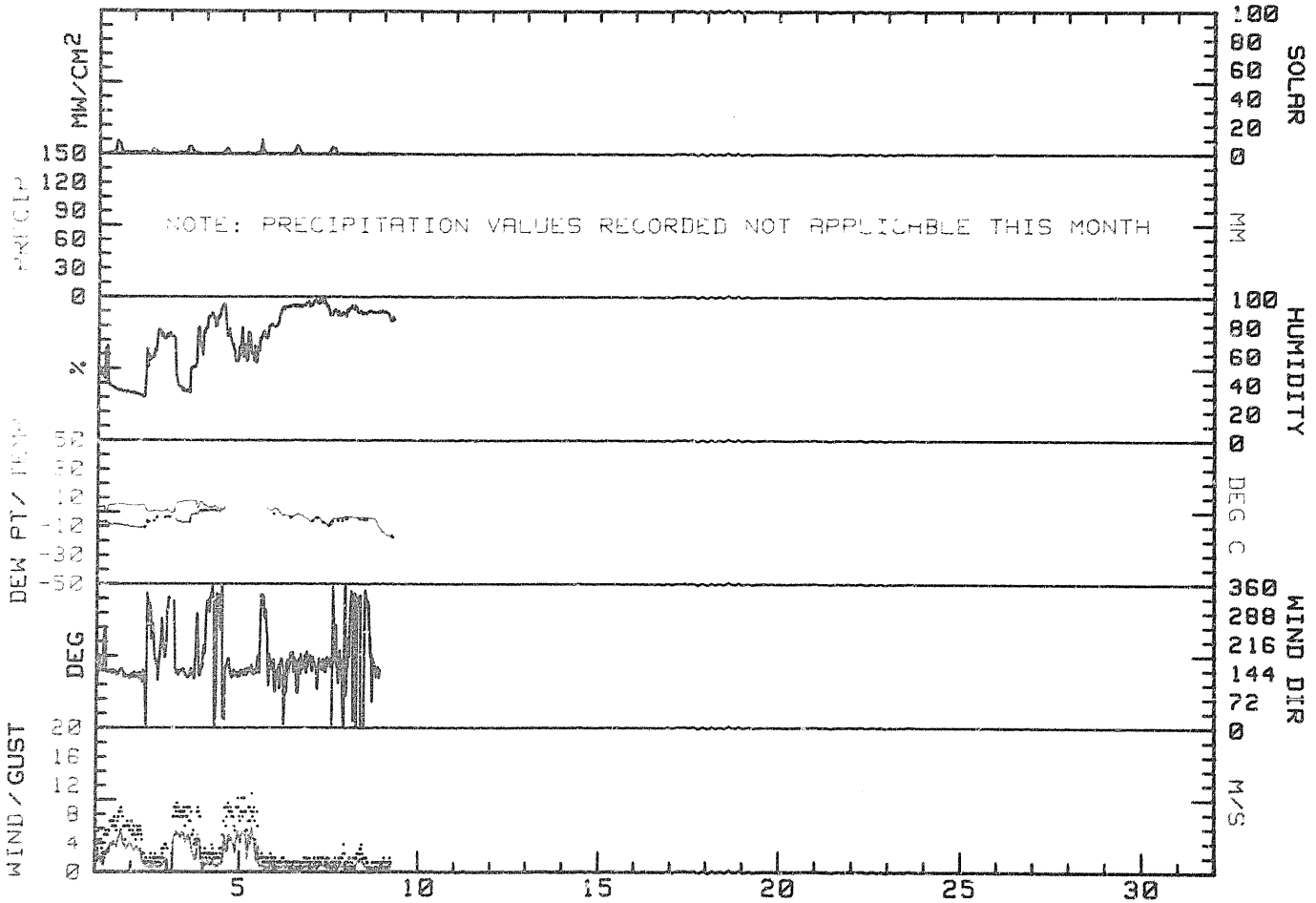
** SEE INTERPRETATION NOTES AT END OF MONTHLY REPORT **

R&M CONSULTANTS, INC.

SUSITNA HYDROELECTRIC PROJECT

EKLUTNA WEATHER STATION

December, 1984



R & M CONSULTANTS, INC.

SUSITNA HYDROELECTRIC PROJECT

WIND FREQUENCY SUMMARY FOR EKLUTNA 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	1.61	2.14	0.00	0.00	0.00	0.00	0.00	3.75
NNE	.27	1.34	0.00	0.00	0.00	0.00	0.00	1.61
NE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
ENE	.54	.54	0.00	0.00	0.00	0.00	0.00	1.07
E	2.14	0.00	0.00	0.00	0.00	0.00	0.00	2.14
ESE	1.88	1.07	.80	0.00	0.00	0.00	0.00	3.75
SE	5.90	4.02	24.66	.27	0.00	0.00	0.00	34.85
SSE	10.46	4.29	3.49	0.00	0.00	0.00	0.00	18.23
S	7.51	2.68	.27	0.00	0.00	0.00	0.00	10.46
SSW	1.07	1.34	0.00	0.00	0.00	0.00	0.00	2.41
SW	1.88	1.07	0.00	0.00	0.00	0.00	0.00	2.95
WSW	1.88	.54	.27	0.00	0.00	0.00	0.00	2.68
W	1.07	.80	0.00	0.00	0.00	0.00	0.00	1.88
WNW	1.61	1.61	0.00	0.00	0.00	0.00	0.00	3.22
NW	2.68	2.95	0.00	0.00	0.00	0.00	0.00	5.63
NNW	2.68	1.88	0.00	0.00	0.00	0.00	0.00	4.56
CALM								.80
TOTAL	43.16	26.27	29.49	.27	0.00	0.00	0.00	100.00

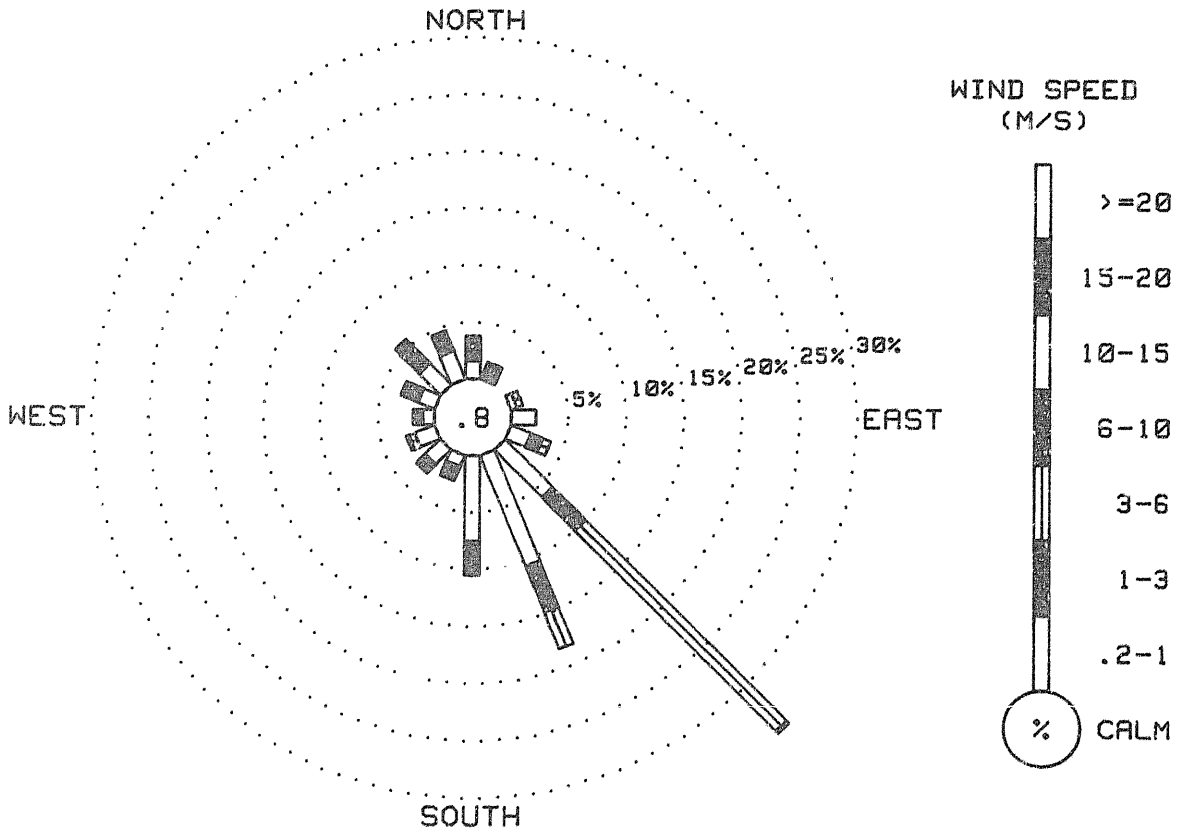
NOTE: ALL FREQUENCIES ARE EXPRESSED IN PERCENT
373 VALID WIND OBSERVATIONS USED TO DEVELOP FREQUENCY SUMMARY
1488 WIND OBSERVATIONS WOULD HAVE BEEN CORRECT FOR 30 MINUTE DATA.
** SEE INTERPRETATION NOTES AT END OF MONTHLY REPORT **

R&M CONSULTANTS, INC.

SUSITNA HYDROELECTRIC PROJECT

EKLUTNA WEATHER STATION

December, 1984



WIND ROSE PLOT

R & M CONSULTANTS, INC.

SUSITNA HYDROELECTRIC PROJECT

HOURLY SOLAR RADIATION SUMMARY FOR FKLUTNA 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	1	1	1	3	8	9	7	3	1	0	1	1	1	1	0	1	1	2
2	1	1	1	1	1	1	1	1	0	0	1	3	3	2	1	0	0	0	0	0	0	0	0	0	1
3	0	0	0	0	0	1	1	0	1	1	3	5	5	4	2	1	1	1	0	0	0	0	0	0	1
4	0	0	0	0	0	0	0	0	0	0	1	2	4	3	1	0	0	0	0	0	0	0	0	0	0
5	0	0	1	0	0	0	0	0	0	1	1	2	9	2	2	0	0	0	0	0	0	0	0	0	1
6	0	0	0	0	0	0	0	0	0	0	2	4	6	4	2	0	0	0	0	0	0	0	0	0	1
7	0	0	0	0	0	0	0	0	0	0	2	4	5	4	3	0	0	0	0	0	0	0	0	0	1
8	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
9	0	0	0	0	0	0	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***
10	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***
11	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***
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14	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***
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18	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***
19	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***
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21	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***
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27	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***
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30	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	**	***	***	***	***	***
31	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***

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

R & M CONSULTANTS, INC.

SUSITNA HYDROELECTRIC PROJECT

HOURLY LONGWAVE RADIATION SUMMARY FOR EKLUTNA WEATHER STATION
DATA TAKEN DURING December, 1984

LONGWAVE RADIATION VALUES 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	29	27	27	26	27	28	26	26	27	27	27	29	29	28	27	26	27	26	27	25	27	25	26	26	27
2	26	25	26	26	29	30	30	29	34	33	29	31	29	37	34	34	35	34	35	33	34	33	36	37	31
3	36	36	36	33	32	30	29	31	30	31	30	28	30	31	33	33	33	34	32	36	34	33	34	33	32
4	35	36	38	34	38	38	34	38	34	34	33	35	37	34	34	33	34	32	30	30	30	31	32	32	34
5	31	31	30	33	34	33	34	33	31	34	33	33	34	36	33	32	33	31	32	33	33	33	31	30	32
6	27	25	27	25	25	31	30	28	27	27	28	27	27	28	31	29	26	28	28	23	27	25	24	28	27
7	28	34	32	34	25	26	24	24	24	25	26	27	28	27	32	32	31	30	31	28	33	28	32	33	29
8	33	33	33	36	29	32	36	36	32	28	28	32	36	36	33	32	33	31	28	30	28	27	26	27	31
9	27	27	27	27	26	27	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	7
10	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***
11	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***
12	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***
13	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***
14	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***
15	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***
16	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***
17	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***
18	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***
19	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***
20	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***
21	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***
22	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***
23	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***
24	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***
25	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***
26	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***
27	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***
28	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***
29	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***
30	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***
31	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***

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

R & M CONSULTANTS, INC.

SUSITNA HYDROELECTRIC PROJECT

OBSERVATION SUMMARY FOR EKLUTNA WEATHER STATION
DATA TAKEN DURING December, 1984

PARAMETER	NUMBER OF USABLE OBSERVATIONS	PERCENT OF TOTAL OBSERVATIONS
TEMPERATURE	396	27
WIND SPEED	395	27
WIND DIRECTION	373	25
PEAK GUST	396	27
RELATIVE HUMIDITY	212	14
PRECIPITATION	396	27
SOLAR RADIATION	397	27
DEW POINT	212	14
LONGWAVE RADIATION	397	27

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 -17 RH points
2. Solar -1 MW/CM^2

Additional comments on this month's data:

1. RH sensor calibrated 12/7.
2. Several days of wind direction data lost due to frozen wind vane.
3. All data lost after 12/9 due to dead power supply.
4. Station discontinued and removed 12/14.

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 VII, Eklutna Lake Station (No. 0686.5). Prepared under contract to Harza-Ebasco Susitna Joint Venture for Alaska Power Authority. Document No. 1094. 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)