SUSITNA HYDROELECTRIC PROJECT

PROCESSED CLIMATIC DATA

JUNE 1982 THRU SEPTEMBER 1982

VOLUME 8

0700 - EKLUTNA LAKE STATION

DECEMBER 1982

PREPARED BY:
R&M CONSULTANTS, INC.

PREPARED FOR:
ACRES

ALASKA POWER AUTHORITY

DCNO 49
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ALASKA POWER AUTHORITY
SUSITNA HYDROELECTRIC PROJECT

TASK 3 - HYDROLOGY

PROCESSED CLIMATIC DATA

VOLUME 8
0700 - EKLUTNA LAKE STATION
JUNE 1982 - SEPTEMBER 1982

DECEMBER 1982

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ALASKA POWER AUTHORITY
SUSITNA HYDROELECTRIC PROJECT

TASK 3 - HYDROLOGY

PROCESSED CLIMATIC DATA

OCTOBER 1981 - SEPTEMBER 1982

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ALASKA POWER AUTHORITY
SUSITNA HYDROELECTRIC PROJECT

EKLUTNA LAKE CLIMATIC DATA

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Acknowledgments

These climatic data were collected under contract to Acres American, Incorporated for the Alaska Power Authority's Susitna Hydroelectric Feasibility Study. The data recorders were Model 5100 Weather Wizards manufactured by Meteorology Research, Incorporated (MRI). All sensors were supplied by MRI. Field maintenance and data collection were performed by the hydrology staff of R&M Consultants, Incorporated. Data reduction and processing were performed by Lisa Fotherby, using computer programs developed by Mark Holmstrand. The computer hardware used was a Hewlett-Packard 9845 B system.

s9/x

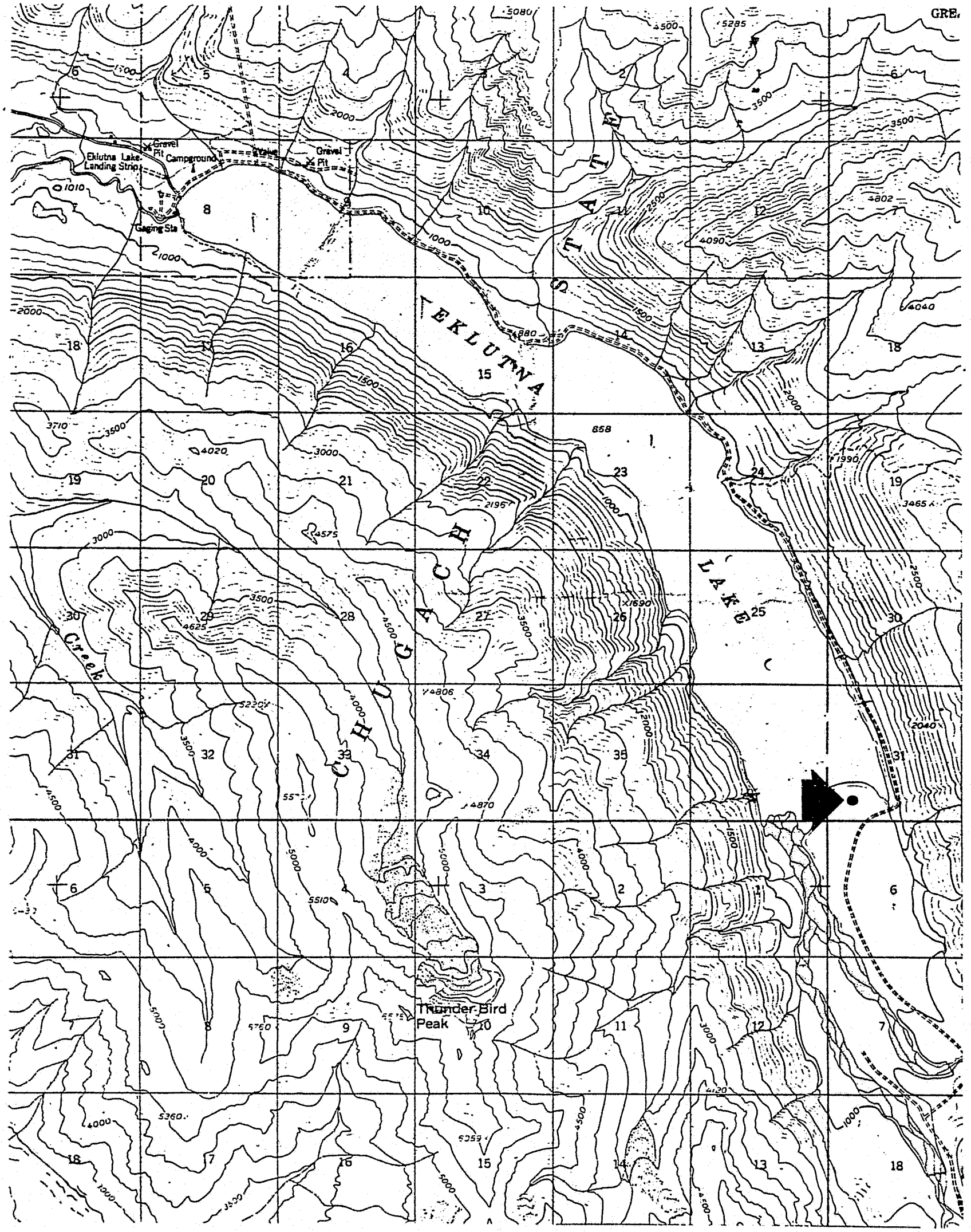
HISTORY OF EKLUTNA STATION (0700)

The only project climate station installed outside of the Susitna basin is at Eklutna Lake. To predict the temperature regime of the proposed Watana Reservoir, a DYRESM computer model of reservoir dynamics is being utilized. However, application of the model for cold regions requires verification of the model on an existing 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.

Eklutna Station was installed on June 3, 1982 at the upper, or southern, end of Eklutna Lake. The site is on the floodplain of the inflowing river and is composed of glacial till sparsely covered with low bushes. The climate station is approximately 100 yards east of the air strip and a quarter of a mile from the reservoir. Estimated elevation of the climate station is 880 feet.

Although the Weather Wizard unit began recording on June 3, the solar pyranometer was not installed until June 17, so no solar short wave radiation values were obtained during this period. Technical problems with the Weather Wizard caused poor data collection from July 7 through August 28.

There are no previous data reports for this station.



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EKLUTNA CLIMATE STATION

:Station Location

ACRES

INTERPRETING DATA

Missing sections of data can bias or "throw off" the values listed as daily averages in the monthly summary. The user should be aware that daily solar radiation values are averages computed from whatever section of data for the day is available, whether it is extrapolated from a minimum time (night) or a maximum period (noon). The user is advised to become familiar with the methods of summation for each parameter. These are described in the section "Data Computation Standards".

The relative humidity sensors used in the Weather Wizards are printed circuit elements which sense changes in relative humidity by changes in impedance. The chemically treated surfaces of these sensors degrade with time, however, and at an individual rate. Therefore, monthly variations in relative humidity values can occasionally be noted. The variations usually appear as a decrease in the R.H. range for successive months at one station.

Blocks of R.H. readings have been completely eliminated from Watana (0650) and Glacier (0610) climate data. The deterioration patterns of the sensors at these stations were so severe as to make these data unreliable.

The relative humidity sensors will also occasionally transmit values over 100 percent. These values are a system malfunction, but are recorded and appear on the data printout as values less than 10 percent. Therefore, values under 10 percent should not be used for further computations.

Precipitation data from Watana (0650) have been reported for the entire year. The data are collected with a heated precipitation bucket which tests out at 43°F during an air temperature of 18°F. Precipitation data measured at the remaining stations are reported for April through September only. These stations do not have heated precipitation buckets so April, September and occasionally May, may only be partial or inaccurate measures of the actual precipitation for that month. This is due to Alaska's extended winters. There may be blowing snow in April, May, and September, which can not be accurately collected by the precipitation buckets without the aid of a Wyoming Wind Gage (Watana is the only precipitation Station equipped with a Wyoming Wind Gage). In addition, snow collected in the precipitation bucket may not melt until a sunny day two weeks later, thereby indicating a rainstorm on this sunny day.

DATA COMPUTATION STANDARDS

Graphical Data Plot

Graphical representation of valid recorded and/or computed data.

Hourly Precipitation Summary Table

Hourly precipitation values are calculated as the difference between valid consecutive hourly readings. When either of the hourly precipitation readings is invalid, no value is reported and zero precipitation is assumed.

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 for 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).

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.

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 is determined by averaging the recorded solar intensity and converting the units. The monthly value is the sum of the daily values.

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.

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 preceeding 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.

Wind Frequency Summary Table

1. Reported data are determined from all valid readings.

Wind Rose Graphical Plot

1. Plot is a graphical representation of the wind frequency summary table.

General Notes

1. The following are the valid data ranges; data outside these ranges are not used:

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

   Temperature: -50 through +35 °C

   Wind: 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 & greater than the last precipitation except in the case of an automatic roll-over. The difference between precipitations cannot exceed 30mm. A '-1' implies a manual re-start.

   Solar: 0 through 150 milliwatts/cm

   Gust: 0 through 99.9 m/sec

   Battery: 9 through 14.5 volts

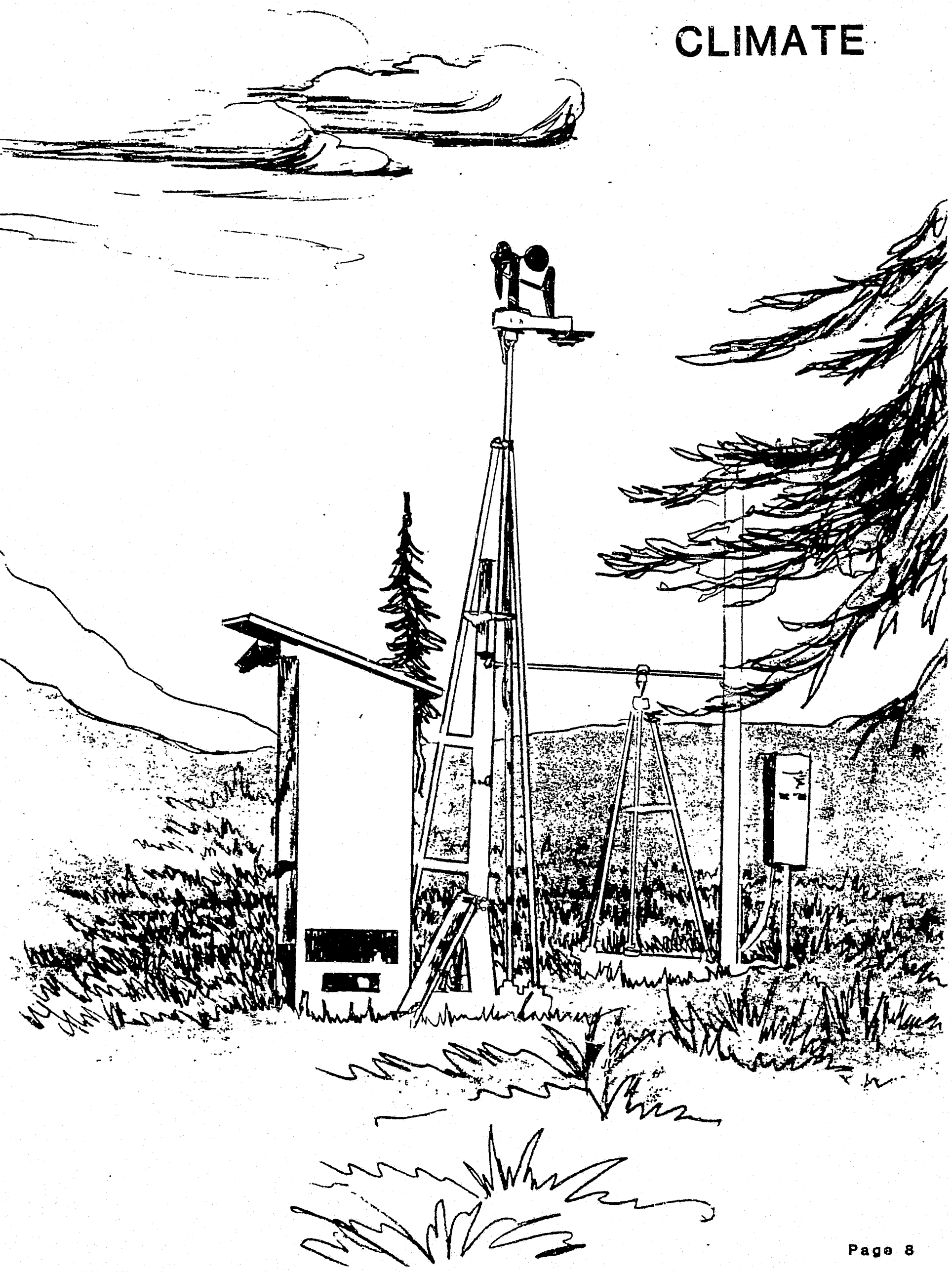
2. Accuracy of the MRI (Meteorology Research, Inc.) sensors and processor are as follows:

   Temperature: ±1°C
   Wind Speed: ±0.5 meters per second
   Wind Direction: ±1% of full scale
   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

CLIMATE



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SUSITNA HYDROELECTRIC PROJECT

HOURLY PRECIPITATION SUMMARY FOR EKLUTNA WEATHER STATION
DATA TAKEN DURING June, 1982

PRECIPITATION VALUES ARE IN MILLIMETERS

HOUR ENDING

DATE	0100	0200	0300	0400	0500	0600	0700	0800	0900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	2400	DATE
1	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	1
2	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	2
3	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	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	.2	.2	.2	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	.4	.2	.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	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	.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	0.0	0.0	0.0	0.0	0.0	15
16	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	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	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	.2	.4	.2	0.0	18
19	.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	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	.4	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	.4	.4	.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	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

R & M CONSULTANTS, INC.

SUSITNA HYDROELECTRIC PROJECT

THREE HOUR SUMMARY FOR EKLUTNA WEATHER STATION
DATA TAKEN DURING June, 1982

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	9.4	*****	28	150	.4	155	2.5	***
2400	1.3	*****	56	166	.7	154	1.9	***

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	1.1	*****	64	165	.8	164	1.9	***
0600	2.5	*****	58	162	.9	164	2.5	***
0900	15.3	-13.1	13	002	.8	004	5.1	***
1200	15.1	-16.5	10	147	5.1	150	8.9	***
1500	14.4	-17.0	10	141	5.0	137	9.5	***
1800	11.6	-6.0	29	149	4.7	139	8.9	***
2100	11.2	-5.4	31	157	5.0	161	9.5	***
2400	11.1	-4.7	33	147	4.8	141	8.9	***

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	12.6	-5.6	28	154	5.5	157	10.2	***
0600	12.2	-6.4	27	147	4.7	139	8.3	***
0900	12.9	-6.3	26	155	5.3	163	9.5	***
1200	13.1	-6.1	26	151	5.6	159	9.5	***
1500	13.0	-6.2	26	146	6.3	147	10.8	***
1800	11.1	-3.9	35	146	6.7	143	12.1	***
2100	11.3	-3.4	36	143	7.4	144	13.3	***
2400	12.6	-4.7	30	148	7.3	151	12.7	***

DAY 06

HOUR NDNG	TEMP. DEG C	DEW POINT DEG C	RH %	WIND DIR. DEG.	WIND SPD. M/S	GUST DIR. DEG.	MAX. GUST M/S	RAD MW
0300	12.3	-4.9	30	156	7.8	159	13.3	***
0600	12.4	-4.4	31	151	7.1	161	12.7	***
0900	12.8	-4.5	30	138	6.5	134	12.7	***
1200	13.3	-5.0	28	127	5.4	134	9.5	***
1500	12.7	-5.9	27	134	5.0	149	8.9	***
1800	10.9	-4.5	34	141	5.5	133	10.8	***
2100	11.7	-4.6	32	135	6.0	124	11.4	***
2400	7.0	*****	73	007	.9	113	6.3	***

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	6.4	*****	77	037	.3	329	1.9	***
0600	6.8	*****	77	135	.2	000	1.3	***
0900	8.5	*****	65	342	.8	002	1.9	***
1200	9.7	1.1	55	349	1.4	348	3.8	***
1500	10.4	.4	50	347	1.9	351	4.4	***
1800	10.6	-1.2	44	130	2.8	140	7.6	***
2100	8.8	*****	55	351	1.1	005	4.4	***
2400	5.0	*****	72	104	.3	133	1.9	***

DAY 08

HOUR NDNG	TEMP. DEG C	DEW POINT DEG C	RH %	WIND DIR. DEG.	WIND SPD. M/S	GUST DIR. DEG.	MAX. GUST M/S	RAD MW
0300	3.9	*****	77	152	.5	113	1.9	***
0600	7.7	*****	58	155	.6	132	1.9	***
0900	11.4	-.8	43	345	.6	156	1.9	***
1200	13.7	-2.8	32	307	.4	202	5.1	***
1500	16.1	-6.9	20	130	1.5	173	6.3	***
1800	15.3	-7.6	20	156	3.9	134	8.3	***
2100	13.6	-5.2	27	150	3.6	150	6.3	***
2400	9.4	-1.1	48	137	1.5	136	5.1	***

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	8.3	*****	60	349	.5	172	3.2	***
0600	8.1	*****	69	113	.3	128	1.3	***
0900	10.5	1.3	53	350	.8	340	3.2	***
1200	15.9	-3.7	26	079	.1	240	7.0	***
1500	15.6	-4.5	25	138	4.1	136	7.6	***
1800	14.6	-4.3	27	144	4.8	151	9.5	***
2100	13.7	-4.6	28	148	4.5	143	9.5	***
2400	14.0	-4.3	28	147	3.6	153	7.6	***

R & M CONSULTANTS, INC.

SUSITNA HYDROELECTRIC PROJECT

THREE HOUR SUMMARY FOR EKLUTNA WEATHER STATION
DATA TAKEN DURING June, 1982

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	13.8	-5.0	27	076	4.2	079	7.6	***
0600	13.2	-4.6	29	080	3.5	074	7.0	***
0900	13.6	-5.7	26	084	3.7	086	7.0	***
1200	12.1	-4.2	32	093	2.6	090	8.3	***
1500	11.4	-3.3	36	077	3.5	071	7.0	***
1800	12.3	-5.4	29	059	1.1	119	5.7	***
2100	11.0	-5.6	31	077	2.0	074	7.0	***
2400	7.8	*****	48	049	.5	064	4.4	***

DAY 11

HOUR NDNG	TEMP. DEG C	DEW POINT DEG C	RH %	WIND DIR. DEG.	WIND SPD. M/S	GUST DIR. DEG.	MAX. GUST M/S	RAD MW
0300	6.9	*****	55	004	.7	016	2.5	***
0600	10.8	-7.1	28	052	.5	148	7.0	***
0900	11.6	-7.4	26	146	3.8	154	7.6	***
1200	13.0	-8.9	21	144	3.6	132	7.0	***
1500	13.1	-8.8	21	143	3.4	140	8.3	***
1800	10.9	-2.3	40	156	1.9	162	4.4	***
2100	8.9	-1.0	50	009	1.5	028	5.1	***
2400	6.8	*****	60	335	.8	003	2.5	***

DAY 12

HOUR NDNG	TEMP. DEG C	DEW POINT DEG C	RH %	WIND DIR. DEG.	WIND SPD. M/S	GUST DIR. DEG.	MAX. GUST M/S	RAD MW
0300	5.2	*****	65	347	.8	355	3.2	***
0600	7.1	-.6	58	048	.4	002	2.5	***
0900	10.2	*****	43	249	.0	318	1.9	***
1200	12.7	-6.9	25	147	2.7	151	8.3	***
1500	11.3	-8.6	24	144	4.8	145	8.9	***
1800	10.2	-8.6	26	145	4.9	146	8.9	***
2100	9.3	-8.9	27	145	3.9	139	8.3	***
2400	8.9	-8.8	28	137	3.0	147	5.7	***

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	8.3	-8.8	29	143	2.9	148	5.7	***
0600	9.2	*****	35	085	.1	144	4.4	***
0900	11.8	-7.7	25	148	2.0	115	3.8	***
1200	14.1	-5.7	25	116	.5	160	4.4	***
1500	12.3	-5.4	29	357	2.4	002	4.4	***
1800	11.0	-4.0	35	009	1.7	002	3.8	***
2100	10.4	-4.9	34	021	1.6	004	3.8	***
2400	7.9	*****	46	018	1.1	030	3.8	***

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	4.0	*****	57	148	.4	175	1.9	***
0600	7.5	*****	50	140	.3	172	1.3	***
0900	7.9	*****	52	352	.7	305	1.3	***
1200	10.7	-1.8	42	339	1.1	322	3.2	***
1500	9.8	-1.3	46	352	1.9	002	3.8	***
1800	9.3	*****	51	000	1.5	355	3.2	***
2100	7.7	*****	55	353	1.0	354	3.2	***
2400	6.4	*****	69	031	.1	314	1.3	***

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	1.4	72	015	.7	010	3.2	***
0600	6.0	*****	64	356	1.1	007	2.5	***
0900	7.7	*****	54	323	.5	305	1.9	***
1200	9.9	*****	49	318	1.0	352	1.9	***
1500	9.6	*****	50	284	.6	217	3.2	***
1800	9.2	*****	52	164	.7	193	1.9	***
2100	8.0	*****	58	138	.4	299	1.3	***
2400	6.5	*****	71	121	.2	169	1.3	***

DAY 16

HOUR NDNG	TEMP. DEG C	DEW POINT DEG C	RH %	WIND DIR. DEG.	WIND SPD. M/S	GUST DIR. DEG.	MAX. GUST M/S	RAD MW
0300	5.2	*****	78	139	.3	106	1.3	***
0600	6.4	*****	75	141	.3	170	1.3	***
0900	8.9	*****	53	340	.7	309	1.9	***
1200	10.1	-.2	49	336	1.2	279	2.5	***
1500	9.6	*****	50	352	1.5	357	3.8	***
1800	10.0	*****	50	180	.7	193	2.5	***
2100	8.5	*****	55	356	.2	334	1.3	***
2400	7.4	*****	70	127	.3	158	1.3	***

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	6.6	*****	73	115	.1	016	1.3	***
0600	8.0	*****	63	100	.1	337	1.9	***
0900	10.0	-1.1	46	341	1.0	323	1.9	***
1200	15.3	-2.3	30	351	1.3	352	2.5	***
1500	*****	*****	**	351	1.7	329	2.5	***
1800	10.9	3.7	61	043	.8	027	1.9	***
2100	9.5	*****	64	055	.9	027	2.5	***
2400	5.4	*****	78	190	.1	221	1.9	***

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	3.1	*****	78	023	.1	041	3.2	1
0600	2.3	*****	78	218	.5	237	1.9	6
0900	11.5	-.1	45	062	.4	059	1.9	60
1200	14.7	.8	39	042	1.4	036	3.2	53
1500	15.3	-1.0	33	042	1.1	058	2.5	29
1800	12.2	-.4	42	069	.7	193	3.8	4
2100	9.0	*****	66	069	.9	067	4.4	1
2400	8.0	*****	75	129	.4	109	2.5	0

R & M CONSULTANTS, INC.

SUSITNA HYDROELECTRIC PROJECT

THREE HOUR SUMMARY FOR EKLUTNA WEATHER STATION
DATA TAKEN DURING June, 1982

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	7.5	*****	65	049	.6	000	3.2	1
0600	8.0	*****	64	076	.4	050	1.9	8
0900	10.4	-1.1	45	356	.8	031	3.2	24
1200	11.8	-1.8	39	078	.7	167	3.1	43
1500	11.5	.5	47	061	1.1	122	5.7	31
1800	12.4	-6.2	27	135	2.2	150	5.7	11
2100	9.7	*****	50	150	1.7	139	4.4	1
2400	4.4	-2.0	63	342	.5	325	3.8	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	.1	*****	79	154	.7	168	2.5	1
0600	1.3	*****	78	154	.6	163	1.9	6
0900	10.8	-1.0	44	019	.3	357	2.5	43
1200	14.4	-8.3	20	168	2.2	156	7.6	57
1500	13.8	-7.1	23	146	4.1	149	8.3	41
1800	14.2	-6.7	23	146	3.5	142	7.0	20
2100	11.9	-6.6	27	146	2.9	154	6.3	2
2400	6.4	*****	54	121	.5	103	1.9	1

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	4.9	*****	58	151	.5	131	1.3	2
0600	8.4	*****	51	151	.5	169	1.3	13
0900	12.4	-2.4	36	354	.7	005	1.9	27
1200	13.6	-1.7	35	348	1.6	359	3.8	44
1500	13.5	-1.8	35	345	2.0	353	4.4	31
1800	13.8	*****	36	349	1.2	352	3.8	28
2100	10.7	*****	48	001	.7	024	2.5	2
2400	8.1	*****	60	124	.4	114	1.9	1

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	6.9	*****	65	155	.5	168	1.3	1
0600	9.8	*****	55	130	.1	118	1.3	10
0900	12.7	.7	44	346	.8	339	1.9	64
1200	16.9	.4	33	343	1.4	331	2.5	75
1500	18.5	-2.0	25	346	1.5	342	3.8	64
1800	19.3	*****	24	330	1.4	335	3.2	28
2100	13.4	*****	36	166	1.2	184	3.2	2
2400	6.2	*****	63	156	.5	125	1.3	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	3.5	*****	76	163	.6	150	1.3	2
0600	7.2	*****	67	161	.6	132	1.9	7
0900	14.9	1.0	39	356	.5	156	1.9	66
1200	13.9	2.6	34	341	1.4	325	2.5	79
1500	20.5	1.3	28	347	1.6	348	3.2	64
1800	21.2	*****	25	336	1.4	351	2.5	27
2100	13.8	*****	41	162	1.0	153	2.5	2
2400	7.5	*****	64	156	.5	175	1.9	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	4.3	*****	75	161	.7	168	1.9	2
0600	8.5	*****	65	157	.5	170	1.3	9
0900	16.1	2.0	39	028	.3	091	1.9	55
1200	19.4	3.8	36	345	1.4	340	3.2	78
1500	20.8	2.5	30	339	1.5	340	3.2	53
1800	21.0	2.2	29	349	1.2	347	3.2	25
2100	18.1	*****	39	307	.5	352	2.5	6
2400	11.0	*****	63	155	.3	260	1.3	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	9.4	*****	65	157	.5	137	1.3	0
0600	9.5	*****	63	155	.6	162	1.9	8
0900	14.2	*****	47	078	.2	186	1.9	31
1200	17.3	*****	40	345	.9	349	1.9	41
1500	19.9	4.3	36	341	1.2	325	2.5	43
1800	24.2	-22.2	3	174	1.4	155	6.3	48
2100	21.5	-19.6	5	154	2.7	157	6.3	8
2400	18.3	*****	16	155	1.8	143	4.4	2

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	14.3	1.8	43	012	.7	034	3.8	1
0600	13.3	*****	48	341	.9	003	2.5	8
0900	18.8	1.2	31	006	.3	327	2.5	58
1200	21.7	-6.1	15	159	2.4	143	7.6	30
1500	20.3	-27.4	2	148	4.0	142	8.9	16
1800	17.6	-3.3	24	148	3.3	143	8.3	7
2100	15.1	1.5	40	140	2.1	137	5.7	1
2400	14.8	-1.0	34	151	3.6	146	8.9	1

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	12.5	-.2	42	151	4.7	158	11.4	1
0600	13.2	2.7	49	149	5.7	147	11.4	7
0900	14.4	-3.5	29	142	6.7	144	12.7	29
1200	15.4	-5.2	24	144	4.7	147	9.5	71
1500	15.4	-5.2	24	136	4.8	143	8.9	37
1800	14.4	-5.5	25	140	3.9	141	7.6	17
2100	12.4	-5.7	28	138	3.5	137	7.6	3
2400	9.8	-2.0	44	116	1.9	138	7.0	1

R & M CONSULTANTS, INC.

SUSITNA HYDROELECTRIC PROJECT

THREE HOUR SUMMARY FOR EKLUTNA WEATHER STATION
DATA TAKEN DURING June, 1982

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	7.0	*****	68	020	.6	357	3.8	1
0600	5.2	*****	71	147	.5	141	1.9	7
0900	10.3	*****	48	115	.4	014	2.5	22
1200	14.6	-7.0	22	123	1.0	148	7.6	81
1500	15.3	-10.4	16	154	4.2	148	7.6	52
1800	15.3	-8.2	19	158	3.9	147	7.6	37
2100	14.0	-4.3	28	166	1.6	168	6.3	2
2400	12.0	-3.1	35	141	1.7	132	5.1	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	9.4	*****	53	220	.7	169	3.2	1
0600	13.3	-2.8	33	168	1.4	170	5.7	9
0900	15.3	-3.7	27	154	.7	158	5.1	30
1200	15.5	-3.1	28	155	2.4	162	5.7	35
1500	15.6	-3.9	26	143	3.7	133	7.0	35
1800	14.0	-4.8	27	150	4.1	151	8.3	22
2100	13.0	-6.2	26	145	3.2	143	7.0	6
2400	8.7	*****	52	150	1.5	157	6.3	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	10.7	-5.5	32	147	2.6	144	6.3	1
0600	10.5	-6.1	31	142	3.1	162	7.0	4
0900	11.8	-5.4	30	137	2.8	130	6.3	27
1200	13.1	-6.6	25	135	3.9	129	7.6	66
1500	13.2	-6.5	25	136	4.7	142	9.5	25
1800	13.0	-6.7	25	135	3.8	140	7.0	23
2100	11.8	-6.7	27	137	3.1	134	7.0	6
2400	9.5	-2.9	42	127	1.1	141	5.1	1

R & M CONSULTANTS, INC.

SUSITNA HYDROELECTRIC PROJECT

MONTHLY SUMMARY FOR EKLUTNA WEATHER STATION
DATA TAKEN DURING June, 1982

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	15.3	1.3	8.3	160	.6	.8	155	2.5	S	22	-11.5	0.0	******	3
4	16.3	-.7	7.8	148	3.2	3.5	137	9.5	SSE	26	-9.9	0.0	******	4
5	13.6	11.0	12.3	148	6.1	6.1	144	13.3	SSE	30	-5.2	.6	******	5
6	13.6	7.0	10.3	141	5.3	5.7	159	13.3	SE	33	-4.2	0.0	******	6
7	14.1	5.0	9.6	030	.4	1.3	140	7.6	N	48	-.4	1.2	******	7
8	17.1	3.2	10.2	148	1.3	2.0	134	8.3	SSE	31	-4.4	0.0	******	8
9	16.1	7.8	12.0	142	2.1	2.7	151	9.5	SE	34	-2.8	0.0	******	9
10	14.2	7.7	11.0	079	2.6	2.9	090	8.3	ENE	36	-4.7	0.0	******	10
11	13.1	6.5	9.8	135	1.3	2.3	140	8.3	SE	33	-5.6	0.0	******	11
12	13.0	6.2	9.6	142	2.3	2.8	145	8.9	SE	31	-6.9	0.0	******	12
13	14.6	6.8	10.7	060	.6	1.9	148	5.7	N	39	-6.5	0.0	******	13
14	11.9	4.0	8.0	356	.7	1.0	002	3.8	N	46	-1.1	0.0	******	14
15	10.7	5.8	8.3	336	.3	.8	010	3.2	N	56	-.2	.8	******	15
16	10.6	5.2	7.9	352	.3	.7	357	3.8	NNW	51	-.2	.2	******	16
17	16.1	5.0	10.6	007	.5	.9	352	2.5	NNW	44	-.4	0.0	******	17
18	16.3	1.2	8.8	060	.5	1.0	067	4.4	NE	49	.4	.8	4815	18
19	13.3	4.4	8.9	097	.6	1.5	122	5.7	SE	39	-3.0	.2	3833	19
20	15.0	-.2	7.4	148	1.8	2.2	149	8.3	SSE	25	-6.6	0.0	5440	20
21	15.9	4.9	10.4	356	.6	1.0	353	4.4	NNW	37	-1.5	.4	5000	21
22	19.4	6.1	12.8	342	.3	1.0	342	3.8	NNW	31	-1.1	0.0	7188	22
23	21.7	3.1	12.4	346	.3	1.0	348	3.2	NNW	33	.9	0.0	7613	23
24	22.0	4.0	13.0	345	.4	.9	340	3.2	NNW	34	2.7	0.0	7374	24
25	25.3	7.9	16.6	155	.6	1.4	155	6.3	SSE	20	-8.9	0.0	5463	25
26	23.7	12.7	18.2	146	1.7	2.3	142	8.9	SSE	27	-3.2	0.0	3910	26
27	17.0	9.8	13.4	142	4.4	4.6	144	12.7	SE	31	-3.6	1.6	5053	27
28	17.8	4.2	11.0	149	1.6	2.0	148	7.6	SSE	29	-5.5	0.0	6575	28
29	16.1	8.5	12.3	152	2.2	2.4	151	8.3	SSE	30	-3.4	0.0	4578	29
30	14.5	8.5	11.5	136	3.1	3.2	142	9.5	SE	29	-5.9	0.0	5220	30
MONTH	25.3	-.7	10.8	135	1.3	2.2	144	13.3	SSE	33	-3.7	5.8	72059	

GUST VEL. AT MAX. GUST MINUS 2 INTERVALS 12.1
GUST VEL. AT MAX. GUST MINUS 1 INTERVAL 12.1
GUST VEL. AT MAX. GUST PLUS 1 INTERVAL 12.7
GUST VEL. AT MAX. GUST PLUS 2 INTERVALS 10.8

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 NOTES AT THE BACK OF THIS REPORT ****

R & M CONSULTANTS, INC.

SUSITNA HYDROELECTRIC PROJECT

WIND FREQUENCY SUMMARY FOR EKLUTNA WEATHER STATION
DATA TAKEN DURING June, 1982

	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	2.97	7.14	0.00	0.00	0.00	0.00	0.00	10.12
NNE	1.78	2.24	0.00	0.00	0.00	0.00	0.00	4.02
NE	1.47	1.39	0.00	0.00	0.00	0.00	0.00	2.86
ENE	1.93	1.47	1.08	0.00	0.00	0.00	0.00	4.48
E	1.16	.58	.93	0.00	0.00	0.00	0.00	2.66
ESE	2.82	.73	.31	.04	0.00	0.00	0.00	3.90
SE	4.17	3.67	12.16	2.39	0.00	0.00	0.00	22.39
SSE	6.18	5.02	10.42	2.24	0.00	0.00	0.00	23.86
S	3.09	1.51	.35	0.00	0.00	0.00	0.00	4.94
SSW	1.00	.27	.04	0.00	0.00	0.00	0.00	1.31
SW	.81	.12	.04	0.00	0.00	0.00	0.00	.97
WSW	.35	.19	.04	0.00	0.00	0.00	0.00	.58
W	.31	.12	0.00	0.00	0.00	0.00	0.00	.42
WNW	.66	.39	0.00	0.00	0.00	0.00	0.00	1.04
NW	1.27	1.97	0.00	0.00	0.00	0.00	0.00	3.24
NNW	3.09	8.73	.12	0.00	0.00	0.00	0.00	11.93
CALM								1.27
TOTAL	33.05	35.52	25.48	4.67	0.00	0.00	0.00	100.00

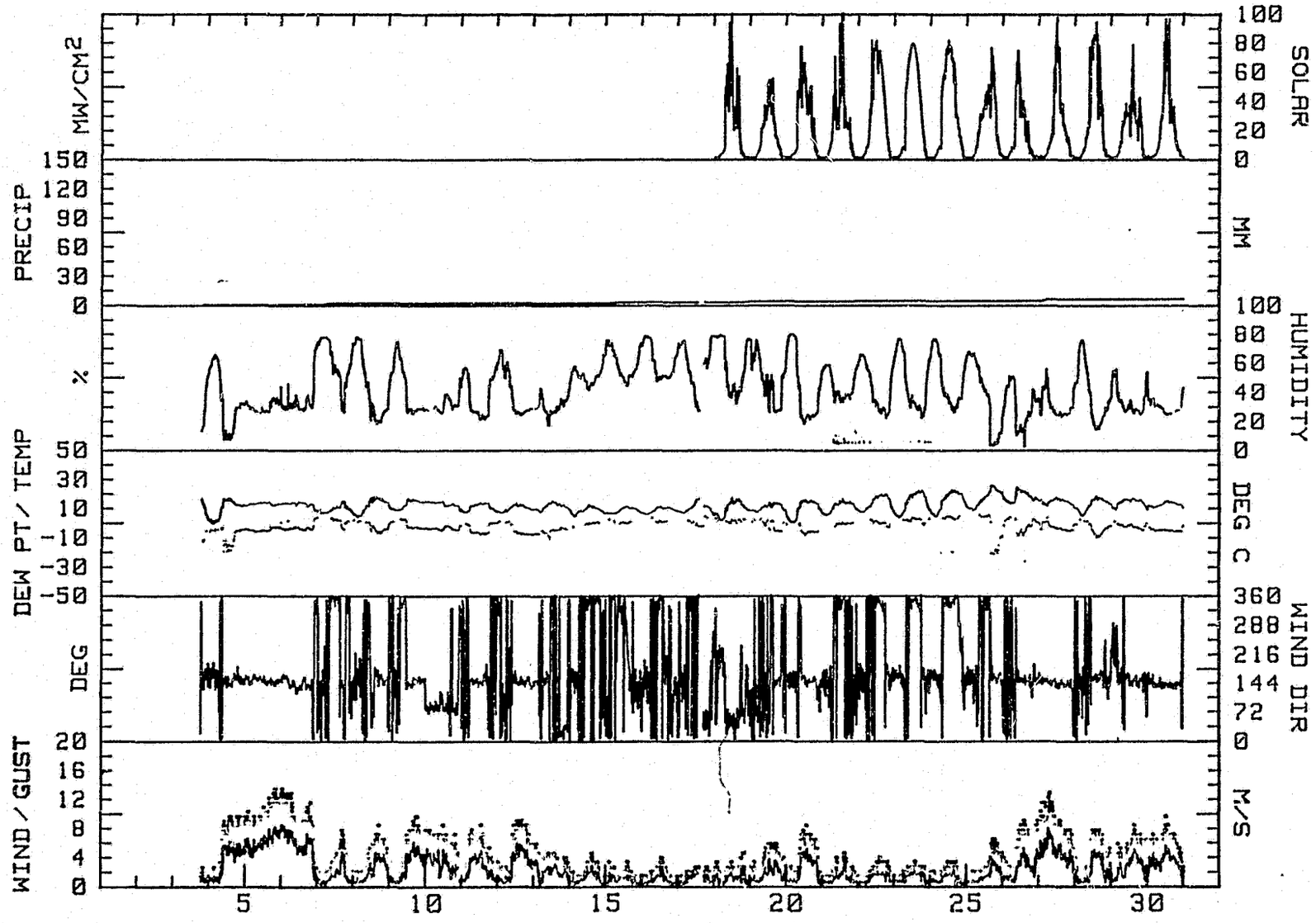
NOTE: ALL FREQUENCIES ARE EXPRESSED IN PERCENT
2590 VALID WIND OBSERVATIONS USED TO DEVELOP FREQUENCY SUMMARY

R&M CONSULTANTS, INC.

SUSITNA HYDROELECTRIC PROJECT

EKLUTNA WEATHER STATION

June, 1982

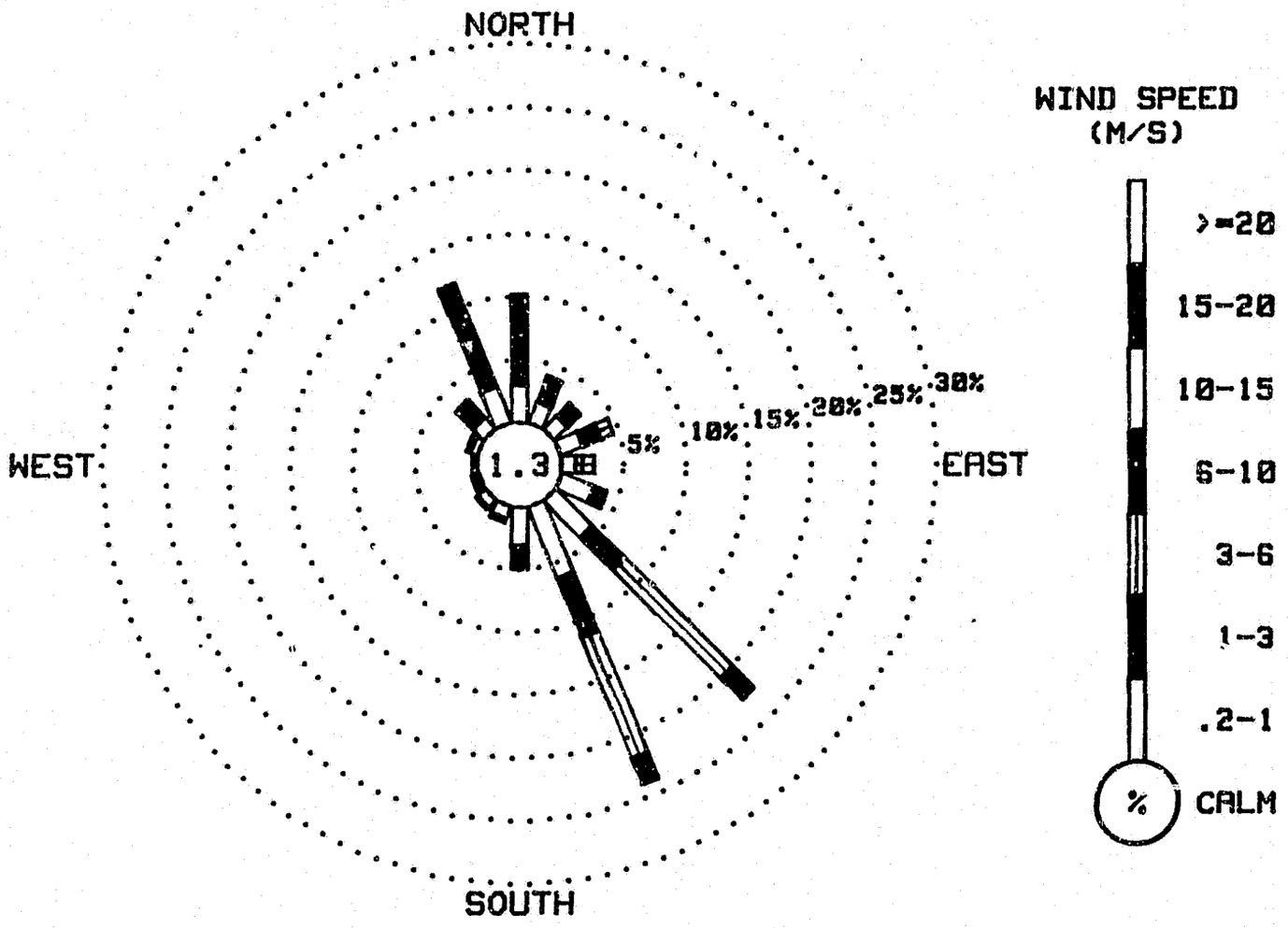


R&M CONSULTANTS, INC.

SUSITNA HYDROELECTRIC PROJECT

EKLUTNA WEATHER STATION

June, 1982



WIND ROSE PLOT

R & M CONSULTANTS, INC.

SUSITNA HYDROELECTRIC PROJECT

HOURLY PRECIPITATION SUMMARY FOR EKLUTNA WEATHER STATION
DATA TAKEN DURING July, 1982

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	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	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	4
5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	****	****	****	****	****	****	****	****	****	****	****	****	****	0.0	5
6	****	3.0	0.0	0.0	0.0	0.0	0.0	0.0	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	6
7	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	7
8	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	8
9	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	***	****	****	****	****	****	****	****	****	9
10	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	10
11	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	11
12	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	12
13	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	13
14	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	14
15	****	****	****	****	****	****	****	****	****	****	0.0	0.0	0.0	0.0	0.0	****	****	****	****	****	****	****	****	****	15
16	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	16
17	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	17
18	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	18
19	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	19
20	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	20
21	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	21
22	****	****	****	****	****	****	****	****	24.6	0.0	****	****	****	****	****	.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	22
23	0.0	.4	.4	0.0	.8	.8	.2	0.0	0.0	0.0	0.0	0.0	****	****	3.2	1.8	1.4	.8	.2	0.0	0.0	0.0	.2	0.0	23
24	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	24
25	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	25
26	3.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	26
27	****	****	****	****	****	****	****	****	****	0.0	****	.2	0.0	****	****	****	****	****	****	****	****	****	****	0.0	27
28	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	28
29	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	29
30	0.0	.2	.4	.2	0.0	.4	.4	.2	0.0	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	30
31	****	****	****	0.0	0.0	0.0	0.0	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	31

R & M CONSULTANTS, INC.

SUSITNA HYDROELECTRIC PROJECT

THREE HOUR SUMMARY FOR EKLUTNA WEATHER STATION
DATA TAKEN DURING July, 1982

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	2.2	*****	74	185	.3	182	2.5	1
0600	1.7	*****	74	148	.7	097	1.9	4
0900	11.9	-6.2	28	144	2.0	149	5.1	54
1200	14.6	-7.0	22	143	4.2	141	7.0	78
1500	15.1	-8.4	19	146	4.0	162	8.3	53
1800	13.2	-7.6	23	136	4.4	107	7.6	21
2100	11.7	-7.8	25	139	4.4	138	7.6	4
2400	11.1	-7.8	26	142	4.2	142	7.6	2

DAY 02

HOUR NDNG	TEMP. DEG C	DEW POINT DEG C	RH %	WIND DIR. DEG.	WIND SPD. M/S	GUST DIR. DEG.	MAX. GUST M/S	RAD MW
0300	9.0	-5.0	37	130	2.8	134	8.9	1
0600	2.3	*****	57	173	.4	278	2.5	4
0900	9.8	-5.5	34	131	.6	155	1.9	50
1200	15.6	-3.9	26	347	1.4	355	3.2	78
1500	*****	*****	**	***	****	228	3.2	***
1800	*****	*****	**	***	****	***	****	***
2100	*****	*****	**	***	****	***	****	***
2400	5.9	*****	53	157	.6	269	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	5.0	*****	60	159	.7	172	2.5	1
0600	7.7	-.5	56	130	.5	133	1.9	8
0900	13.5	*****	39	129	.4	161	2.5	17
1200	14.5	-.1	37	352	.8	344	3.2	31
1500	*****	*****	**	***	****	001	4.4	***
1800	13.0	-2.6	34	078	.5	153	5.1	12
2100	*****	*****	20	163	2.4	186	7.0	7
2400	10.5	-5.2	33	141	3.0	140	5.7	1

DAY 04

HOUR NDNG	TEMP. DEG C	DEW POINT DEG C	RH %	WIND DIR. DEG.	WIND SPD. M/S	GUST DIR. DEG.	MAX. GUST M/S	RAD MW
0300	7.5	*****	42	149	1.2	143	6.3	1
0600	8.3	*****	48	145	.7	172	4.4	12
0900	9.6	-2.1	44	329	.3	313	2.5	18
1200	11.4	*****	38	357	.8	350	2.5	58
1500	*****	*****	**	***	****	064	2.5	***
1800	*****	*****	**	***	****	***	****	***
2100	*****	*****	**	***	****	***	****	***
2400	9.8	*****	50	065	.3	271	1.9	1

DAY 05

HOUR NDNG	TEMP. DEG C	DEW POINT DEG C	RH %	WIND DIR. DEG.	WIND SPD. M/S	GUST DIR. DEG.	MAX. GUST M/S	RAD MW
0300	5.9	-1.5	59	119	.5	163	2.5	1
0600	4.9	*****	66	157	.6	132	1.9	5
0900	14.4	*****	38	109	.2	167	1.9	50
1200	*****	*****	**	***	****	066	5.1	***
1500	*****	*****	**	***	****	***	****	***
1800	*****	*****	**	***	****	***	****	***
2100	*****	*****	**	***	****	***	****	***
2400	0.0	*****	**	297	.4	***	****	***

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	5.9	-1.5	59	159	.9	163	2.5	1
0600	4.9	*****	66	157	.6	165	1.3	5
0900	*****	*****	**	***	****	063	1.9	***
1200	*****	*****	**	***	****	003	1.9	***
1500	*****	*****	**	***	****	***	****	***
1800	*****	*****	**	***	****	***	****	***
2100	*****	*****	**	***	****	***	****	***
2400	*****	*****	**	***	****	***	****	***

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

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

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

R & M CONSULTANTS, INC.

SUSITNA HYDROELECTRIC PROJECT

THREE HOUR SUMMARY FOR EKLUTNA WEATHER STATION
DATA TAKEN DURING July, 1982

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	13.9	3.3	49	335	1.1	356	1.9	91
1500	14.1	4.1	51	339	1.5	325	3.2	13
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	13.9	3.3	49	335	1.1	356	1.9	91
1500	14.1	4.1	51	339	1.5	325	3.2	13
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	*****	*****	**	***	****	***	****	***

R & M CONSULTANTS, INC.

SUSITNA HYDROELECTRIC PROJECT

THREE HOUR SUMMARY FOR EKLUTNA WEATHER STATION
DATA TAKEN DURING July, 1982

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	11.2	3.8	60	349	1.1	349	1.9	21
1200	*****	*****	**	***	****	***	****	***
1500	*****	*****	**	***	****	***	****	***
1800	12.4	5.4	62	350	1.1	358	3.2	4
2100	10.6	*****	74	345	.8	340	2.5	0
2400	9.9	*****	76	084	.2	341	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	14.2	3.9	50	160	2.8	175	8.3	1
0600	12.9	4.9	58	155	2.7	158	8.3	4
0900	14.0	6.7	61	206	1.2	179	7.0	30
1200	*****	*****	**	039	.2	146	8.3	21
1500	*****	*****	**	***	****	348	2.5	9
1800	13.3	*****	**	017	.4	005	3.2	6
2100	12.6	7.9	73	355	1.0	022	3.8	1
2400	11.9	7.5	74	357	1.1	001	3.2	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	10.7	6.9	77	014	.4	359	3.2	1
0600	11.5	*****	74	122	.2	159	1.9	11
0900	*****	*****	**	***	****	053	1.9	***
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	4.4	*****	78	151	.7	167	1.9	1
0600	5.3	*****	76	146	.7	126	2.5	4
0900	*****	*****	**	***	****	139	1.3	***
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	18.6	5.7	43	345	1.0	337	3.8	15
1500	*****	*****	**	***	****	358	2.5	***
1800	*****	*****	**	***	****	***	****	***
2100	*****	*****	**	***	****	***	****	***
2400	12.5	*****	71	357	.7	107	1.9	0

R & M CONSULTANTS, INC.

SUSITNA HYDROELECTRIC PROJECT

THREE HOUR SUMMARY FOR EKLUTNA WEATHER STATION
DATA TAKEN DURING July, 1982

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	9.7	*****	76	154	.5	197	1.3	1
0600	11.2	*****	75	150	.5	169	2.5	10
0900	*****	*****	**	***	****	162	1.9	***
1200	*****	*****	**	***	****	341	2.5	***
1500	*****	*****	**	***	****	***	****	***
1800	*****	*****	**	***	****	357	3.2	***
2100	*****	*****	**	***	****	***	****	***
2400	*****	*****	**	***	****	***	****	***

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

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	*****	*****	76	133	.4	036	1.9	1
0600	10.3	*****	74	121	.3	357	1.9	4
0900	*****	*****	66	334	1.4	341	3.8	25
1200	*****	*****	**	***	****	***	****	***
1500	*****	*****	**	***	****	***	****	***
1800	*****	*****	**	***	****	***	****	***
2100	*****	*****	**	***	****	***	****	***
2400	*****	*****	**	***	****	***	****	***

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

R & M CONSULTANTS, INC.

SUSITNA HYDROELECTRIC PROJECT

MONTHLY SUMMARY FOR EKLUTNA WEATHER STATION
DATA TAKEN DURING July, 1982

DAY	MAX. TEMP. DEG C	MIN. TEMP. DEG C	MEAN TEMP. DEG C	RES. WIND DIR. DEG	RES. WIND SPD. M/S	AVG. WIND SPD. M/S	MAX. GUST DIR. DEG	MAX. GUST SPD. M/S	P'VAL DIR.	MEAN RH %	MEAN DP DEG C	PRECIP MM	DAY'S SOLAR ENERGY WH/SQM	DAY
1	15.9	1.3	8.6	142	2.9	3.1	162	8.3	SE	24	-7.2	0.0	6358	1
2	15.6	2.0	8.8	122	.6	1.5	134	8.9	SE	30	-5.9	0.0	5239	2
3	15.3	4.1	9.7	143	.9	1.6	186	7.0	SE	36	-3.0	0.0	2616	3
4	13.6	6.3	10.0	113	.2	1.0	143	6.3	ESE	39	-3.4	0.0	3204	4
5	16.5	0.0	8.3	140	.5	.8	066	5.1	SSE	52	.9	0.0	2294	5
6	14.7	3.7	9.2	148	.5	.6	163	2.5	SSE	54	-.9	3.0	2040	6
7	*****	*****	*****	***	****	****	***	****	***	**	*****	****	******	7
8	*****	*****	*****	***	****	****	***	****	***	**	*****	****	******	8
9	*****	*****	*****	***	****	****	***	****	***	**	*****	****	******	9
10	*****	*****	*****	***	****	****	***	****	***	**	*****	****	******	10
11	*****	*****	*****	***	****	****	***	****	***	**	*****	****	******	11
12	*****	*****	*****	***	****	****	***	****	***	**	*****	****	******	12
13	*****	*****	*****	***	****	****	***	****	***	**	*****	****	******	13
14	*****	*****	*****	***	****	****	***	****	***	**	*****	****	******	14
15	15.3	12.3	13.8	338	1.3	1.4	325	3.2	NNW	50	4.0	0.0	10116	15
16	*****	*****	*****	***	****	****	***	****	***	**	*****	****	******	16
17	*****	*****	*****	***	****	****	***	****	***	**	*****	****	******	17
18	*****	*****	*****	***	****	****	***	****	***	**	*****	****	******	18
19	*****	*****	*****	***	****	****	***	****	***	**	*****	****	******	19
20	*****	*****	*****	***	****	****	***	****	***	**	*****	****	******	20
21	*****	*****	*****	***	****	****	***	****	***	**	*****	****	******	21
22	13.8	9.9	11.9	355	.6	.9	358	3.2	NNW	61	4.9	24.8	1284	22
23	18.2	9.9	14.1	158	.8	2.2	175	8.3	N	58	5.3	10.2	1903	23
24	12.5	10.2	11.4	043	.2	.6	359	3.2	N	73	6.8	0.0	1525	24
25	*****	*****	*****	***	****	****	***	****	***	**	*****	****	******	25
26	12.8	4.4	8.6	145	.6	.7	126	2.5	SSE	78	1.7	3.4	1995	26
27	19.7	12.5	16.1	355	.8	1.2	337	3.8	N	49	6.2	.2	9167	27
28	15.2	5.2	10.2	144	.3	.8	357	3.2	SSE	65	5.7	0.0	2644	28
29	*****	*****	*****	***	****	****	***	****	***	**	*****	****	******	29
30	11.9	9.4	10.7	001	.2	.8	341	3.8	SE	70	5.7	1.8	1056	30
31	*****	*****	*****	***	****	****	***	****	***	**	*****	0.0	1029	31
MONTH	19.7	0.0	10.8	136	.6	1.4	134	8.9	SSE	46	1.5	43.4	52470	

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

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

**** SEE NOTES AT THE BACK OF THIS REPORT ****

R & M CONSULTANTS, INC.

SUSITNA HYDROELECTRIC PROJECT

WIND FREQUENCY SUMMARY FOR EKLUTNA WEATHER STATION
DATA TAKEN DURING July, 1982

	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	2.97	8.11	0.00	0.00	0.00	0.00	0.00	11.08
NNE	2.30	.41	.27	0.00	0.00	0.00	0.00	2.97
NE	1.35	0.00	0.00	0.00	0.00	0.00	0.00	1.35
ENE	1.62	.41	0.00	0.00	0.00	0.00	0.00	2.03
E	2.84	0.00	0.00	0.00	0.00	0.00	0.00	2.84
ESE	6.08	.68	.14	0.00	0.00	0.00	0.00	6.89
SE	10.54	2.97	8.38	0.00	0.00	0.00	0.00	21.89
SSE	13.38	5.41	3.78	0.00	0.00	0.00	0.00	22.57
S	4.46	2.57	.68	0.00	0.00	0.00	0.00	7.70
SSW	1.76	.27	0.00	0.00	0.00	0.00	0.00	2.03
SW	.68	.68	0.00	0.00	0.00	0.00	0.00	1.35
WSW	.68	.27	0.00	0.00	0.00	0.00	0.00	.95
W	.14	0.00	0.00	0.00	0.00	0.00	0.00	.14
WNW	.54	.95	0.00	0.00	0.00	0.00	0.00	1.49
NW	.54	2.30	0.00	0.00	0.00	0.00	0.00	2.84
NNW	2.84	8.38	0.00	0.00	0.00	0.00	0.00	11.22
CALM								.68
TOTAL	52.70	33.38	13.24	0.00	0.00	0.00	0.00	100.00

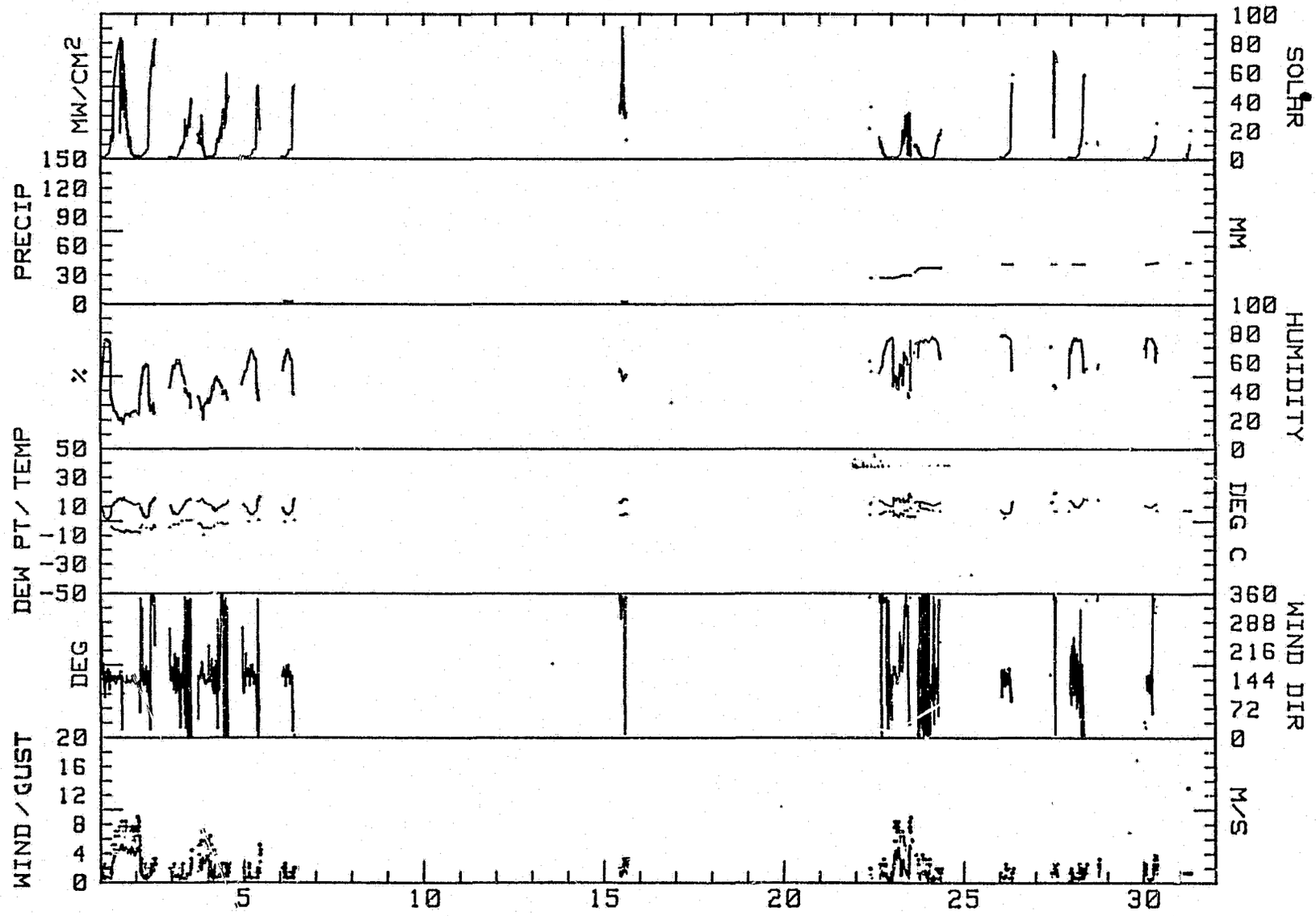
NOTE: ALL FREQUENCIES ARE EXPRESSED IN PERCENT
740 VALID WIND OBSERVATIONS USED TO DEVELOP FREQUENCY SUMMARY

R&M CONSULTANTS, INC.

SUSITNA HYDROELECTRIC PROJECT

EKLUTNA WEATHER STATION

July, 1982

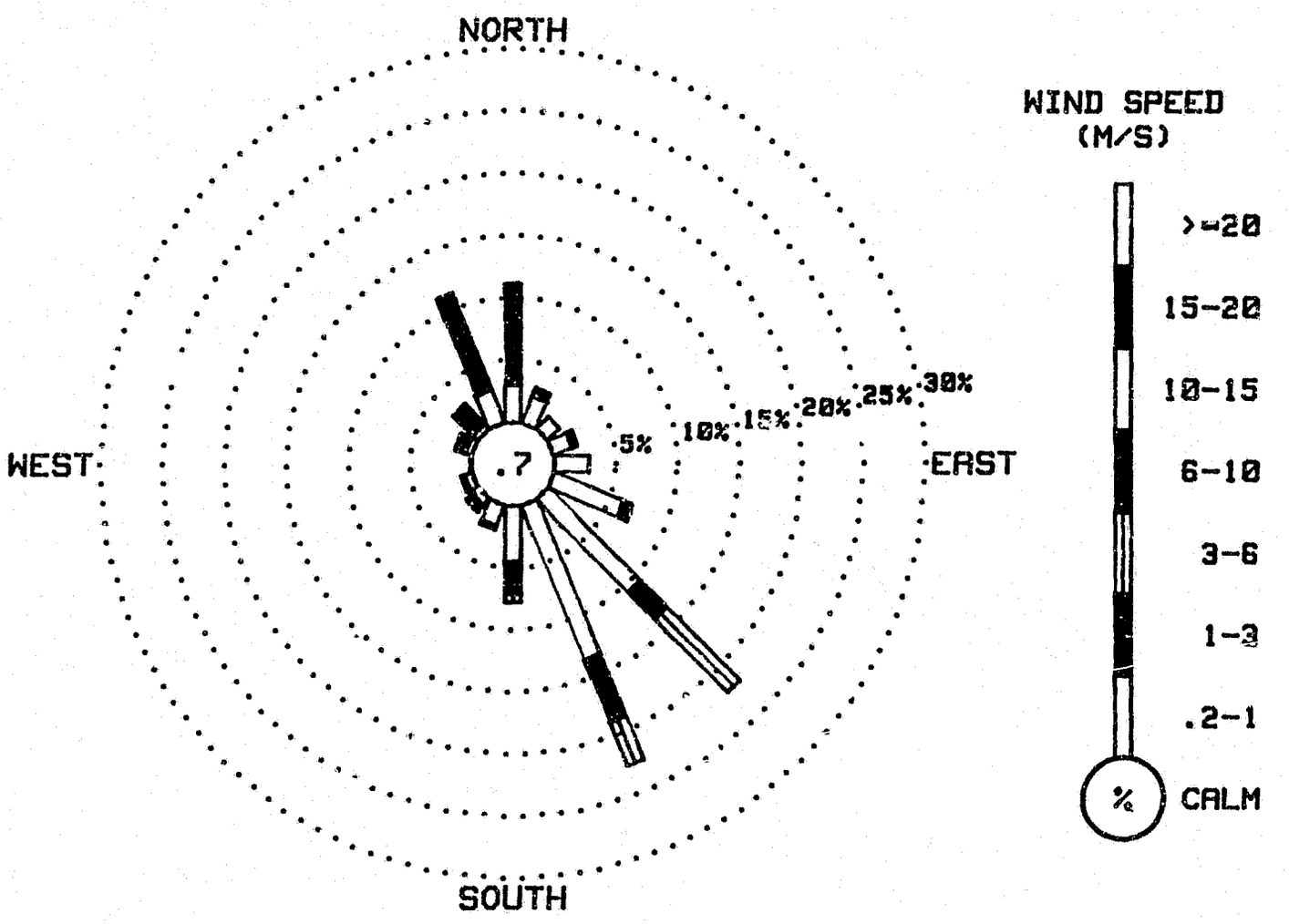


R&M CONSULTANTS, INC.

SUSITNA HYDROELECTRIC PROJECT

EKLUTNA WEATHER STATION

July, 1982



WIND ROSE PLOT

R & M CONSULTANTS, INC.

SUSITNA HYDROELECTRIC PROJECT

HOURLY PRECIPITATION SUMMARY FOR EKLUTNA WEATHER STATION
DATA TAKEN DURING August, 1982

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	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	1
2	****	****	****	****	0.0	0.0	0.0	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	2
3	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	3
4	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	4
5	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	5
6	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	6
7	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	7
8	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	8
9	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	9
10	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	10
11	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	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	13
14	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	14
15	****	****	****	****	.6	0.0	0.0	.2	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	15
16	****	****	****	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	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	17
18	****	****	****	****	****	****	0.0	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	18
19	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	19
20	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	20
21	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	21
22	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	22
23	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	23
24	****	****	****	****	****	****	****	****	****	****	****	****	****	****	0.0	****	****	****	****	****	****	****	****	****	24
25	****	****	****	****	****	****	****	0.0	****	****	****	****	****	****	.2	****	****	****	****	****	****	****	****	****	25
26	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	26
27	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	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	28
29	0.0	0.0	0.0	0.0	0.0	0.0	.2	1.2	1.0	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	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	.2	1.0	1.0	4.6	2.6	.2	0.0	0.0	0.0	.2	0.0	.6	30
31	.6	0.0	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	0.0	0.0	0.0	0.0	0.0	0.0	31

R & M CONSULTANTS, INC.

SUSITNA HYDROELECTRIC PROJECT

THREE HOUR SUMMARY FOR EKLUTNA WEATHER STATION
DATA TAKEN DURING August, 1982

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	*****	78	153	.8	153	1.3	1
0600	2.9	*****	77	161	.8	166	1.9	4
0900	*****	*****	**	***	***	157	1.3	***
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	3.4	*****	77	057	.2	057	1.3	4
0900	*****	*****	**	***	****	064	1.3	***
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	*****	*****	**	***	****	***	****	***
2100	*****	*****	**	***	****	***	****	***
2400	*****	*****	**	***	****	***	****	***

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

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

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

R & M CONSULTANTS, INC.

SUSITNA HYDROELECTRIC PROJECT

THREE HOUR SUMMARY FOR EKLUTNA WEATHER STATION
DATA TAKEN DURING August, 1982

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	*****	*****	**	***	****	290	1.9	***
2100	9.1	*****	75	143	.3	133	1.3	1
2400	8.5	*****	74	149	.5	169	1.3	0

DAY 12

HOUR NDNG	TEMP. DEG C	DEW POINT DEG C	RH %	WIND DIR. DEG.	WIND SPD. M/S	GUST DIR. DEG.	MAX. GUST M/S	RAD MW
0300	3.8	*****	78	150	.6	117	1.9	1
0600	2.6	*****	77	154	.8	153	1.9	3
0900	13.5	1.4	44	136	.8	129	1.9	53
1200	16.8	2.7	39	338	1.4	334	2.5	68
1500	18.6	4.3	39	345	1.5	355	3.2	52
1800	*****	*****	44	345	1.4	346	2.5	***
2100	8.7	*****	74	145	.7	120	1.3	1
2400	5.7	*****	77	158	.6	169	1.9	1

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	4.5	*****	77	153	.7	172	1.9	0
0600	3.8	*****	78	157	.7	166	1.9	3
0900	14.0	3.4	49	127	.4	168	1.9	51
1200	*****	*****	**	***	****	352	1.9	***
1500	*****	*****	**	***	****	***	****	***
1800	*****	*****	**	***	****	***	****	***
2100	*****	*****	**	***	****	***	****	***
2400	8.4	4.4	76	333	.3	156	1.9	1

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	8.2	4.1	75	153	.8	176	1.9	1
0600	11.5	*****	67	136	.7	038	3.2	8
0900	*****	*****	**	***	****	164	1.9	***
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	8.4	4.3	75	136	.5	112	1.3	9
0900	10.4	*****	**	160	.6	164	1.3	***
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	*****	*****	**	***	****	***	****	1
0600	8.9	*****	**	058	.3	104	1.3	4
0900	*****	*****	**	***	****	126	1.3	***
1200	*****	*****	**	***	****	***	****	***
1500	*****	*****	**	***	****	***	****	***
1800	*****	*****	**	***	****	***	****	***
2100	*****	*****	**	***	****	***	****	***
2400	4.4	*****	**	159	.6	124	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	3.9	*****	78	156	.8	159	1.9	1
0600	6.3	*****	76	156	.7	161	1.3	7
0900	*****	*****	**	***	****	112	1.9	***
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	*****	*****	78	164	.6	157	1.3	3
0900	*****	*****	**	***	****	160	1.3	***
1200	*****	*****	**	***	****	***	****	***
1500	*****	*****	**	***	****	***	****	***
1800	*****	*****	**	***	****	***	****	***
2100	*****	*****	**	***	****	***	****	***
2400	*****	*****	**	***	****	***	****	***

R & M CONSULTANTS, INC.

SUSITNA HYDROELECTRIC PROJECT

THREE HOUR SUMMARY FOR EKLUTNA WEATHER STATION
DATA TAKEN DURING August, 1982

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	*****	*****	**	***	****	298	1.9	***
1500	*****	*****	**	***	****	314	1.3	***
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	16.2	5.5	49	345	2.0	353	4.4	56
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	*****	*****	**	***	****	341	1.9	***
1200	*****	*****	**	***	****	***	****	***
1500	17.0	2.1	37	347	.9	340	2.5	48
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	*****	*****	**	***	****	349	3.8	***
1500	*****	*****	**	***	****	***	****	***
1800	*****	*****	**	***	****	***	****	***
2100	*****	*****	**	***	****	***	****	***
2400	*****	*****	**	347	2.3	***	****	***

R & M CONSULTANTS, INC.

SUSITNA HYDROELECTRIC PROJECT

THREE HOUR SUMMARY FOR EKLUTNA WEATHER STATION
DATA TAKEN DURING August, 1982

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	*****	*****	**	***	****	***	****	***
0600	*****	*****	**	***	****	***	****	***
0900	*****	*****	**	***	****	***	****	***
1200	16.5	3.1	41	351	1.8	352	4.4	68
1500	14.9	3.3	46	352	2.2	350	5.1	12
1800	11.7	*****	64	033	.4	005	1.9	3
2100	12.7	.0	42	039	.7	128	3.8	1
2400	14.2	-1.2	35	146	3.8	144	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	12.7	-.7	40	143	3.3	142	9.5	1
0600	11.8	-.5	43	127	3.1	127	6.3	2
0900	11.2	1.7	52	137	2.9	140	7.0	21
1200	14.4	-.2	37	137	3.8	131	8.3	27
1500	11.5	*****	59	127	1.7	132	5.7	9
1800	11.1	4.2	62	355	1.7	012	4.4	2
2100	8.7	*****	75	359	.1	317	2.5	1
2400	11.3	*****	53	129	.2	176	2.5	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	10.1	3.4	63	007	1.0	352	3.2	1
0600	8.4	*****	71	355	.5	019	3.2	7
0900	12.0	4.0	58	356	.7	000	3.2	15
1200	11.7	3.8	58	357	2.1	357	5.1	20
1500	8.8	4.1	72	356	2.2	001	5.1	4
1800	7.9	*****	74	011	1.0	010	3.8	2
2100	6.4	*****	78	132	.5	127	1.3	1
2400	6.4	*****	79	154	.6	093	1.3	1

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	5.6	*****	79	135	.4	142	1.3	1
0600	6.0	*****	78	149	.5	160	1.3	6
0900	9.4	*****	64	094	.2	137	1.9	22
1200	12.4	3.6	55	338	.5	345	3.8	81
1500	11.7	3.0	55	346	1.7	002	3.8	18
1800	9.9	*****	67	339	.8	343	3.2	2
2100	6.7	2.8	76	139	.5	172	1.9	1
2400	4.6	*****	76	145	.6	162	1.3	1

R & M CONSULTANTS, INC.

SUSITNA HYDROELECTRIC PROJECT

MONTHLY SUMMARY FOR EKLUTNA WEATHER STATION
DATA TAKEN DURING August, 1982

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	10.9	1.5	6.2	155	.6	.7	166	1.9	SSE	69	-1.1	0.0	2189	1
2	4.2	2.0	3.1	062	.4	.3	057	1.3	ENE	74	-2.7	0.0	720	2
3	*****	*****	*****	***	****	****	***	****	***	**	*****	****	******	3
4	*****	*****	*****	***	****	****	***	****	***	**	*****	****	******	4
5	*****	*****	*****	***	****	****	***	****	***	**	*****	****	******	5
6	*****	*****	*****	***	****	****	***	****	***	**	*****	****	******	6
7	*****	*****	*****	***	****	****	***	****	***	**	*****	****	******	7
8	*****	*****	*****	***	****	****	***	****	***	**	*****	****	******	8
9	*****	*****	*****	***	****	****	***	****	***	**	*****	****	******	9
10	*****	*****	*****	***	****	****	***	****	***	**	*****	****	******	10
11	13.5	7.9	10.7	147	.4	.5	290	1.9	SE	47	2.4	0.0	766	11
12	18.8	2.4	10.6	043	.1	1.0	355	3.2	SSE	47	3.3	0.0	5635	12
13	18.5	3.6	11.1	148	.3	.8	172	1.9	SSE	58	1.6	0.0	4173	13
14	14.0	6.1	10.1	144	.7	.8	038	3.2	SSE	71	4.8	0.0	1527	14
15	10.4	.7	5.6	151	.5	.6	112	1.3	SSE	64	3.9	.8	2345	15
16	8.9	4.2	6.6	110	.2	.5	104	1.3	NNE	69	-.1	0.0	436	16
17	10.3	3.3	6.8	151	.7	.7	159	1.9	SSE	77	.5	0.0	1283	17
18	4.2	2.0	3.1	145	.6	.7	157	1.3	SE	75	-1.1	0.0	864	18
19	*****	*****	*****	***	****	****	***	****	***	**	*****	****	******	19
20	*****	*****	*****	***	****	****	***	****	***	**	*****	****	******	20
21	*****	*****	*****	***	****	****	***	****	***	**	*****	****	******	21
22	*****	*****	*****	***	****	****	***	****	***	**	*****	****	******	22
23	16.9	16.2	16.6	305	1.1	1.1	298	1.9	WNW	46	4.7	****	7920	23
24	16.2	15.3	15.8	345	2.0	2.0	353	4.4	N	53	6.0	0.0	8760	24
25	17.0	11.0	14.0	347	.9	1.0	340	2.5	NNW	38	2.0	.2	7248	25
26	*****	*****	*****	***	****	****	***	****	***	**	*****	****	******	26
27	16.6	15.8	16.2	347	2.3	2.3	349	3.8	NNW	41	2.7	****	15696	27
28	16.6	10.1	13.4	082	.6	1.9	144	8.3	N	43	1.7	0.0	3760	28
29	14.6	8.6	11.6	130	1.7	2.3	142	9.5	SE	47	1.0	2.6	1335	29
30	12.3	5.8	9.1	005	.8	1.2	357	5.1	N	64	3.9	10.4	1513	30
31	13.6	4.6	9.1	019	.2	.8	345	3.8	NNW	57	3.2	1.0	3298	31
MONTH	18.8	.7	10.0	104	.4	1.2	142	9.5	SSE	54	2.0	15.0	69468	

GUST VEL. AT MAX. GUST MINUS 2 INTERVALS	7.6
GUST VEL. AT MAX. GUST MINUS 1 INTERVAL	8.3
GUST VEL. AT MAX. GUST PLUS 1 INTERVAL	7.0
GUST VEL. AT MAX. GUST PLUS 2 INTERVALS	6.3

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

**** SEE NOTES AT THE BACK OF THIS REPORT ****

R & M CONSULTANTS, INC.

SUSITNA HYDROELECTRIC PROJECT

WIND FREQUENCY SUMMARY FOR EKLUTNA WEATHER STATION
DATA TAKEN DURING August, 1982

	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	1.30	10.10	.33	0.00	0.00	0.00	0.00	11.73
NNE	1.63	1.95	0.00	0.00	0.00	0.00	0.00	3.58
NE	1.95	.16	0.00	0.00	0.00	0.00	0.00	2.12
ENE	2.28	.33	0.00	0.00	0.00	0.00	0.00	2.61
E	1.79	0.00	0.00	0.00	0.00	0.00	0.00	1.79
ESE	5.86	.98	.16	0.00	0.00	0.00	0.00	7.00
SE	14.66	3.42	5.86	0.00	0.00	0.00	0.00	23.94
SSE	18.40	4.72	1.47	0.00	0.00	0.00	0.00	24.59
S	3.75	1.14	0.00	0.00	0.00	0.00	0.00	4.89
SSW	.65	0.00	0.00	0.00	0.00	0.00	0.00	.65
SW	.16	.33	0.00	0.00	0.00	0.00	0.00	.49
WSW	.16	0.00	0.00	0.00	0.00	0.00	0.00	.16
W	.33	0.00	0.00	0.00	0.00	0.00	0.00	.33
WNW	.16	.49	0.00	0.00	0.00	0.00	0.00	.65
NW	.49	1.47	0.00	0.00	0.00	0.00	0.00	1.95
NNW	2.93	9.93	0.00	0.00	0.00	0.00	0.00	12.87
CALM								.65
TOTAL	56.51	35.02	7.82	0.00	0.00	0.00	0.00	100.00

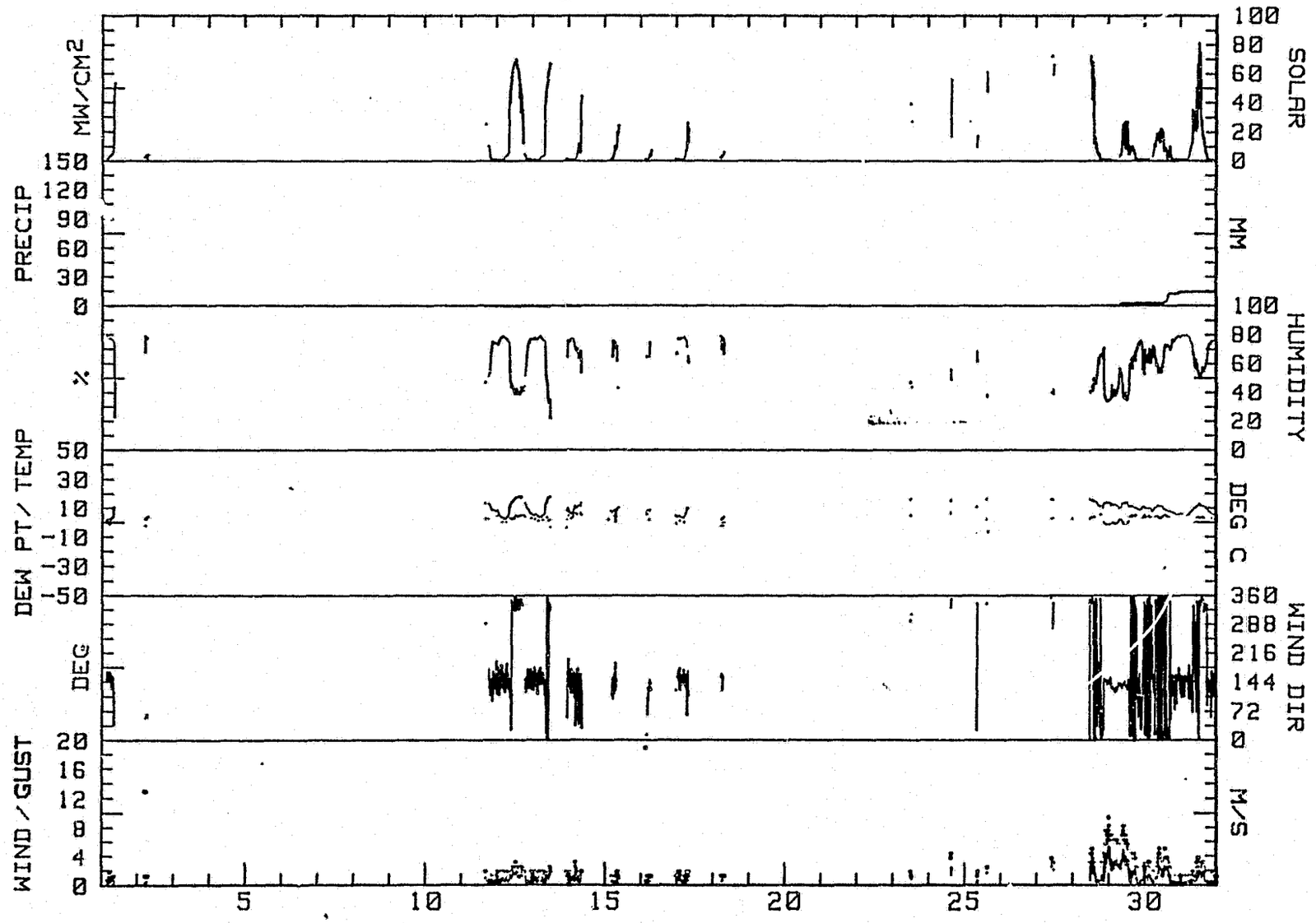
NOTE: ALL FREQUENCIES ARE EXPRESSED IN PERCENT
614 VALID WIND OBSERVATIONS USED TO DEVELOP FREQUENCY SUMMARY

R&M CONSULTANTS, INC.

SUSITNA HYDROELECTRIC PROJECT

EKLUTNA WEATHER STATION

August, 1982

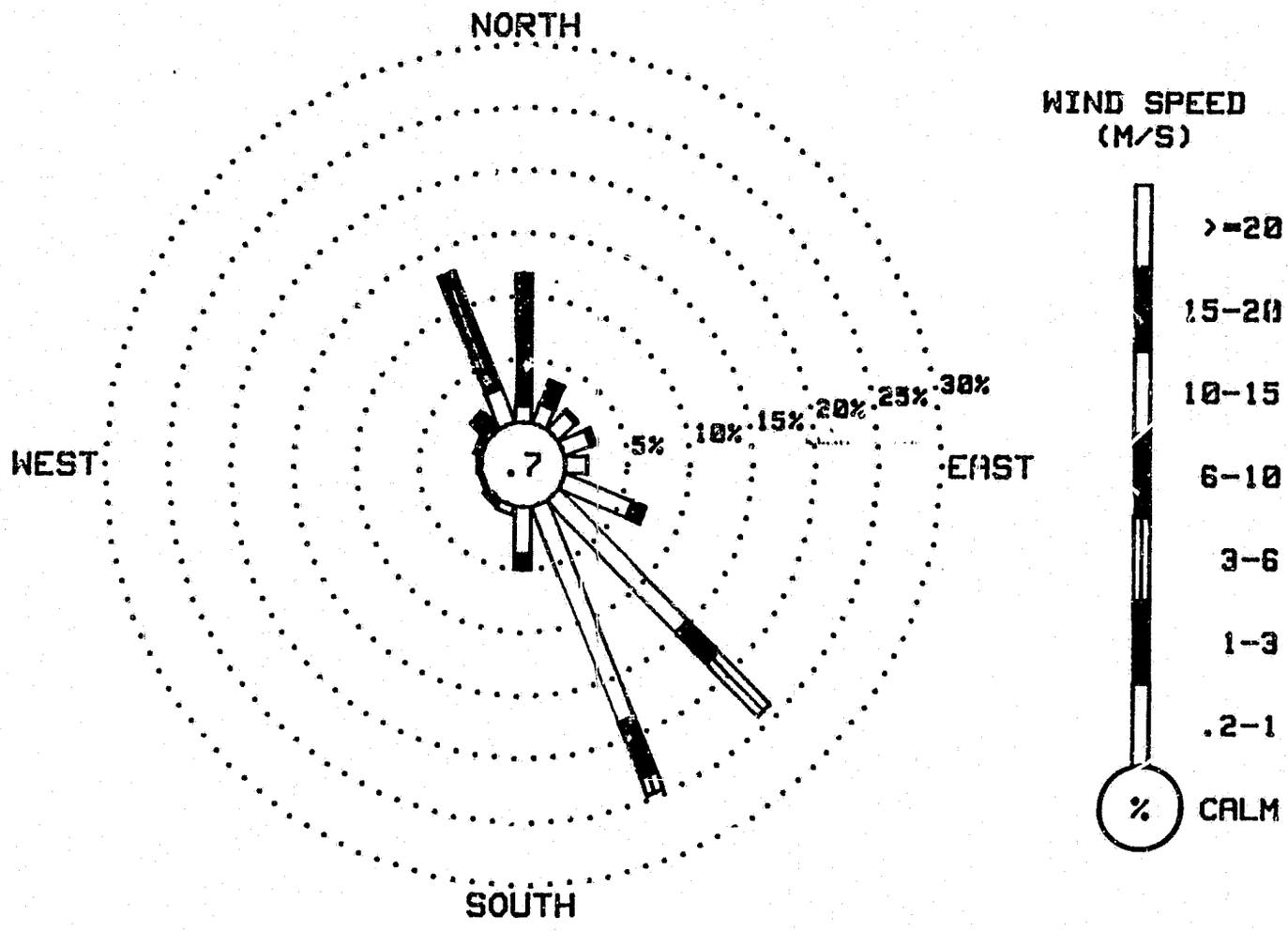


R&M CONSULTANTS, INC.

SUSITNA HYDROELECTRIC PROJECT

EKLUTNA WEATHER STATION

August, 1982



WIND ROSE PLOT

R & M CONSULTANTS, INC.

SUSITNA HYDROELECTRIC PROJECT

HOURLY PRECIPITATION SUMMARY FOR EKLUTNA WEATHER STATION
DATA TAKEN DURING September, 1982

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	.2	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	.2	.2	.2	.2	.2	.2	1.0	1.8	1.8	3.4	5.6	3.0	1.2	1.4	1.8	2.4	5
6	2.2	2.4	.8	.2	0.0	0.0	0.0	0.0	0.0	.2	.2	.4	.4	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	.2	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	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	.2	.4	0.0	.8	3.6	..	1.0	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	.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	0.0	.8	12
13	.2	0.0	.4	.2	0.0	.8	.8	1.6	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	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	.6	.2	.2	.2	.2	.4	1.0	1.0	.6	1.2	1.6	.2	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	.2	1.2	1.0	3.0	4.0	3.4	2.4	0.0	0.0	15
16	0.0	.2	.2	0.0	0.0	0.0	0.0	0.0	.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	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	.8	1.6	.8	.8	0.0	.2	18
19	0.0	0.0	0.0	0.0	0.0	.2	0.0	.4	.6	1.0	.4	.4	.4	1.2	.6	0.0	.6	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	.2	1.6	.2	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	.2	0.0	0.0	.4	.2	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	1.6	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	.6	1.4	2.2	1.4	1.2	.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	29
30	0.0	0.0	.2	.2	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	30

R & M CONSULTANTS, INC.

SUSITNA HYDROELECTRIC PROJECT

THREE HOUR SUMMARY FOR EKLUTNA WEATHER STATION
DATA TAKEN DURING September, 1982

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	*****	78	155	.6	158	1.9	1
0600	3.4	*****	78	148	.6	164	1.3	3
0900	10.6	*****	57	127	.6	062	1.9	22
1200	14.6	.3	38	348	.8	328	2.5	74
1500	13.2	2.4	48	358	1.6	354	3.8	18
1800	10.5	*****	57	010	1.0	356	3.8	3
2100	4.3	*****	76	144	.5	135	1.3	1
2400	5.4	*****	75	151	.5	163	1.9	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	4.2	*****	76	156	.7	168	1.9	0
0600	6.4	2.0	73	152	.7	151	1.9	5
0900	11.3	*****	52	103	.2	003	1.9	47
1200	13.1	1.4	45	349	1.3	356	3.2	22
1500	12.3	*****	50	345	1.5	348	3.2	11
1800	8.5	*****	73	103	.2	000	1.9	2
2100	7.8	*****	73	146	.6	159	1.9	0
2400	6.1	*****	76	147	.5	153	1.3	1

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	6.0	*****	76	140	.4	156	1.3	1
0600	6.3	*****	76	150	.5	146	1.3	2
0900	10.2	*****	65	069	.1	182	1.9	20
1200	11.2	2.8	56	355	1.7	004	4.4	29
1500	9.9	2.5	60	359	2.2	001	4.4	15
1800	8.2	*****	72	005	.7	353	4.4	2
2100	5.1	*****	76	134	.4	124	1.3	0
2400	2.6	*****	77	146	.6	109	1.3	1

DAY 04

HOUR NDNG	TEMP. DEG C	DEW POINT DEG C	RH %	WIND DIR. DEG.	WIND SPD. M/S	GUST DIR. DEG.	MAX. GUST M/S	RAD MW
0300	1.8	*****	78	151	.6	144	1.3	1
0600	1.1	*****	78	153	.5	157	1.3	3
0900	9.6	-.6	49	142	.6	132	1.9	45
1200	13.2	-1.7	36	339	1.1	321	2.5	58
1500	12.3	-.7	41	343	1.7	344	5.1	10
1800	11.1	-4.7	33	141	1.3	136	5.7	3
2100	12.0	-4.7	31	141	2.7	132	7.0	1
2400	11.9	-4.0	33	130	3.1	125	7.0	1

DAY 05

HOUR NDNG	TEMP. DEG C	DEW POINT DEG C	RH %	WIND DIR. DEG.	WIND SPD. M/S	GUST DIR. DEG.	MAX. GUST M/S	RAD MW
0300	12.7	-5.5	28	139	4.4	139	9.5	1
0600	12.5	-4.7	30	150	4.8	150	10.8	4
0900	11.5	-.4	44	148	5.1	147	12.7	18
1200	11.5	*****	54	111	.4	154	5.7	17
1500	10.1	*****	70	055	.5	029	2.5	7
1800	8.5	4.2	74	143	.8	170	3.2	1
2100	7.9	3.6	74	118	.6	058	2.5	1
2400	7.3	*****	74	144	.7	143	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	6.8	1.8	70	157	.8	198	3.2	1
0600	10.5	-1.3	44	140	2.9	136	7.0	4
0900	9.7	3.5	65	137	1.0	136	5.1	11
1200	10.0	*****	62	235	.2	233	3.2	18
1500	10.0	2.9	61	342	.8	337	1.9	19
1800	9.0	3.9	70	355	1.2	355	2.5	1
2100	7.6	*****	73	014	.7	009	2.5	1
2400	5.2	*****	76	139	.5	154	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	6.0	*****	77	140	.5	125	1.3	1
0600	5.7	2.0	77	150	.6	157	1.9	3
0900	8.3	*****	69	136	.6	104	1.9	40
1200	12.2	2.1	50	312	.3	144	2.5	55
1500	13.0	1.6	46	343	1.7	330	3.8	18
1800	8.8	*****	71	024	.4	356	3.2	2
2100	5.1	*****	75	149	.4	144	1.3	1
2400	2.9	*****	77	151	.5	162	1.3	1

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	5.0	*****	75	152	.6	155	1.9	1
0600	5.9	*****	74	143	.5	154	1.3	2
0900	9.7	*****	63	117	.2	344	1.9	15
1200	11.4	2.7	55	337	1.2	359	3.8	38
1500	11.3	2.6	55	330	1.1	353	3.8	17
1800	9.7	*****	70	087	.1	010	1.3	2
2100	7.7	*****	73	123	.4	099	1.3	1
2400	7.1	*****	73	140	.4	065	1.3	1

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	6.8	*****	74	140	.4	107	1.3	0
0600	6.1	*****	74	145	.4	144	1.3	7
0900	11.0	*****	59	146	.2	178	1.3	36
1200	14.6	-4.8	26	132	2.1	132	7.0	81
1500	13.5	-5.3	27	147	3.5	149	6.3	31
1800	11.3	-3.4	36	142	2.7	131	5.7	2
2100	11.4	-4.4	33	140	2.6	142	5.7	1
2400	11.3	-4.9	32	141	2.4	133	5.7	1

R & M CONSULTANTS, INC.

SUSITNA HYDROELECTRIC PROJECT

THREE HOUR SUMMARY FOR EKLUTNA WEATHER STATION
DATA TAKEN DURING September, 1982

DAY 10

HOUR NDNG	TEMP. DEG C	DEW POINT DEG C	RH %	WIND DIR. DEG.	WIND SPD. M/S	GUST DIR. DEG.	MAX. GUST M/S	RAD MW
0300	7.7	*****	55	162	.9	144	5.1	1
0600	6.5	*****	67	145	.4	036	1.3	3
0900	9.5	*****	56	142	.5	124	1.9	22
1200	11.9	*****	45	354	.7	337	1.9	29
1500	10.4	2.3	57	351	1.2	355	4.4	17
1800	9.3	*****	65	358	1.5	358	3.8	2
2100	7.7	*****	72	139	.3	140	1.3	1
2400	5.3	*****	75	145	.5	168	1.3	1

DAY 11

HOUR NDNG	TEMP. DEG C	DEW POINT DEG C	RH %	WIND DIR. DEG.	WIND SPD. M/S	GUST DIR. DEG.	MAX. GUST M/S	RAD MW
0300	6.1	*****	74	140	.5	110	1.3	1
0600	6.5	*****	74	150	.6	181	1.9	3
0900	8.9	*****	66	110	.2	139	1.3	27
1200	6.7	.8	66	008	2.1	010	5.1	26
1500	8.0	*****	63	112	.4	012	2.5	24
1800	5.7	*****	74	345	.2	199	1.9	1
2100	4.8	*****	74	051	.4	355	3.8	1
2400	1.6	*****	78	133	.6	142	1.3	1

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	-.8	*****	79	142	.2	130	1.3	0
0600	-1.3	*****	78	***	0.0	***	0.0	5
0900	5.5	*****	64	125	.1	131	1.3	38
1200	9.4	-1.7	46	356	.7	015	1.9	40
1500	10.5	-6.1	31	138	1.5	150	7.6	7
1800	8.4	-.6	53	135	2.1	138	5.7	1
2100	11.1	-3.2	37	143	5.4	143	12.7	1
2400	9.8	1.5	56	146	6.6	148	12.7	1

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	11.1	2.4	55	144	6.5	145	11.4	1
0600	11.0	-.9	44	147	5.7	148	13.3	2
0900	10.3	.6	51	147	4.7	146	8.9	17
1200	14.6	-2.9	30	145	6.1	146	11.4	14
1500	16.9	-3.3	25	140	5.4	138	10.8	32
1800	14.1	-3.8	29	149	4.1	141	8.9	2
2100	14.3	-4.6	27	144	3.4	142	8.3	1
2400	13.4	-5.3	27	150	3.8	146	8.3	1

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	13.2	-5.5	27	142	2.8	153	6.3	1
0600	13.7	-5.1	27	141	3.0	132	7.0	6
0900	14.6	-4.8	26	140	4.0	141	7.6	19
1200	11.7	-2.3	38	143	4.0	142	9.5	6
1500	11.4	-1.2	42	122	1.0	135	6.3	6
1800	13.5	2.7	48	141	5.9	151	12.1	1
2100	14.4	4.7	52	139	6.4	139	13.3	1
2400	16.1	4.1	45	113	1.9	157	8.3	1

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	17.7	1.1	33	145	6.2	133	13.3	1
0600	16.6	-.7	31	147	8.3	150	14.6	6
0900	18.1	-1.3	27	142	6.9	144	14.0	15
1200	17.8	-2.1	26	144	9.4	146	19.7	30
1500	16.5	-3.2	26	148	10.1	141	21.6	14
1800	11.3	.3	47	146	7.2	148	15.9	1
2100	11.1	.8	49	158	1.9	148	5.7	1
2400	14.9	-4.5	26	145	4.6	139	9.5	1

DAY 16

HOUR NDNG	TEMP. DEG C	DEW POINT DEG C	RH %	WIND DIR. DEG.	WIND SPD. M/S	GUST DIR. DEG.	MAX. GUST M/S	RAD MW
0300	8.5	2.1	64	092	1.2	147	8.9	0
0600	6.8	*****	68	008	.6	004	3.8	4
0900	8.7	.9	58	084	.3	121	1.9	56
1200	14.1	-14.0	13	125	2.3	133	8.9	71
1500	12.9	-15.0	13	139	4.5	143	8.9	37
1800	9.4	-2.6	43	139	2.2	150	7.6	1
2100	8.4	-1.7	49	343	1.7	316	3.8	1
2400	8.1	*****	50	273	.5	333	2.5	1

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	8.1	-2.6	47	326	1.1	229	3.8	1
0600	11.9	-21.5	8	123	1.4	149	7.0	6
0900	13.1	-22.1	7	153	3.3	142	8.3	60
1200	13.1	-22.1	7	129	5.2	137	9.5	22
1500	11.8	-21.6	8	135	5.6	127	10.8	6
1800	11.1	-20.8	9	128	4.9	127	8.9	2
2100	11.2	-15.4	14	147	3.5	149	9.5	2
2400	11.7	-13.3	16	144	4.0	135	8.3	1

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	13.1	-13.0	15	140	4.5	143	9.5	2
0600	13.6	-12.6	15	143	5.9	145	11.4	4
0900	14.6	-15.7	11	141	5.8	140	10.8	21
1200	14.2	-13.0	14	147	5.8	152	10.8	15
1500	14.6	-11.0	16	150	4.3	154	10.2	16
1800	13.0	-5.7	27	149	4.0	148	7.6	2
2100	8.3	*****	65	355	1.4	355	4.4	1
2400	7.8	*****	70	091	.2	357	1.3	0

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	7.5	*****	72	113	.2	157	1.3	0
0600	7.7	*****	74	127	.3	159	1.9	1
0900	8.5	*****	71	094	.1	175	1.3	8
1200	9.6	*****	65	143	.4	165	1.3	13
1500	9.4	*****	68	020	.1	167	1.3	10
1800	7.6	*****	64	003	1.2	001	3.8	1
2100	6.9	1.9	70	016	.2	327	3.2	1
2400	9.3	-3.1	42	011	.8	049	3.2	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	10.7	-5.9	31	161	1.6	155	5.7	1
0600	10.2	-5.5	33	141	2.9	137	5.7	4
0900	11.9	-7.6	25	145	3.1	146	7.6	15
1200	12.7	-10.4	19	141	3.7	131	8.3	24
1500	12.7	-11.1	18	142	4.8	149	10.2	10
1800	12.1	-10.9	19	138	4.3	141	9.5	2
2100	11.8	-10.5	20	146	4.8	149	8.9	2
2400	12.7	-11.8	17	144	5.8	148	12.7	2

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	12.2	-11.5	18	150	7.2	154	14.0	1
0600	13.0	-12.3	16	151	7.7	150	14.6	4
0900	13.5	-14.5	13	146	7.5	146	15.2	27
1200	11.9	-7.6	25	140	7.1	140	12.7	30
1500	9.0	-1.5	48	142	2.2	138	8.9	10
1800	7.1	*****	62	355	1.4	359	5.7	1
2100	8.5	-7.4	32	354	1.1	023	3.8	1
2400	6.1	-1.8	57	159	1.7	134	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	4.2	*****	51	027	.6	088	3.2	1
0600	5.0	*****	60	004	.8	354	4.4	3
0900	6.7	*****	47	123	.4	357	1.9	16
1200	8.8	-5.2	37	351	.2	351	3.8	76
1500	7.7	-5.9	38	351	2.1	345	3.8	15
1800	6.9	-6.2	39	012	1.2	009	3.2	1
2100	4.7	*****	62	092	.4	045	3.2	1
2400	3.7	*****	68	142	.9	153	2.5	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	3.4	*****	67	136	.5	139	1.9	1
0600	3.2	*****	69	144	.6	130	1.9	2
0900	5.6	*****	48	178	.2	264	1.9	13
1200	6.9	*****	38	319	.9	306	1.9	30
1500	7.8	-6.1	37	343	1.9	351	3.8	16
1800	6.0	*****	44	027	.7	354	3.8	1
2100	3.6	*****	59	140	.5	218	1.3	1
2400	-.8	-5.9	68	148	.7	142	1.9	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	-2.5	*****	68	152	.7	171	1.9	0
0600	-2.8	*****	67	151	.8	153	1.9	2
0900	4.0	-8.5	40	142	.7	176	1.9	46
1200	8.4	-15.3	17	333	.8	323	2.5	64
1500	7.9	-10.1	27	342	1.9	347	3.8	20
1800	6.5	-7.6	36	358	.9	338	3.2	1
2100	1.8	*****	59	118	.4	008	2.5	1
2400	-1.1	*****	65	154	1.0	161	1.9	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	0.0	-5.8	65	154	.9	156	2.5	0
0600	-1.8	*****	68	153	.9	158	1.9	2
0900	4.3	*****	41	147	.7	163	1.9	37
1200	8.1	-9.9	27	344	.5	156	1.9	17
1500	9.1	*****	26	004	.3	327	1.9	8
1800	7.2	-8.5	32	354	.7	020	3.2	1
2100	6.0	-5.1	45	100	.3	145	2.5	1
2400	9.1	-16.2	15	130	2.7	130	8.3	2

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	9.7	-13.5	18	168	1.5	150	6.3	2
0600	10.2	-13.8	17	142	4.3	135	8.3	3
0900	11.6	-17.0	12	152	4.0	146	8.9	16
1200	10.6	-12.8	18	138	4.0	131	8.3	76
1500	5.9	-4.0	49	006	3.1	001	6.3	12
1800	4.4	*****	57	134	.6	132	1.9	1
2100	3.4	*****	64	124	.4	197	1.9	1
2400	2.0	*****	66	146	.5	083	1.9	1

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	1.1	*****	70	147	.8	161	1.9	0
0600	-.3	*****	72	150	.7	182	1.3	2
0900	4.4	*****	54	148	.7	172	1.9	16
1200	9.7	-8.5	27	346	.7	327	3.2	61
1500	9.1	*****	23	274	.2	008	1.9	11
1800	1.3	-6.8	55	164	.8	176	2.5	1
2100	-.7	-7.9	58	153	.8	168	1.9	0
2400	-2.7	*****	62	154	.8	169	1.9	0

R & M CONSULTANTS, INC.

SUSITNA HYDROELECTRIC PROJECT

THREE HOUR SUMMARY FOR EKLUTNA WEATHER STATION
DATA TAKEN DURING September, 1982

DAY 28										DAY 29										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		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		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	-2.9	*****	60	154	.9	155	1.9	1		0300	10.6	-15.0	15	140	4.9	141	10.2	2		0300	3.8	*****	68	126	.4	118	1.3	1	
0600	-1.2	*****	56	160	.9	169	2.5	2		0600	10.7	-14.2	16	129	3.8	129	7.6	3		0600	3.5	*****	66	069	.3	357	1.9	1	
0900	10.6	-21.2	9	147	1.5	139	7.0	16		0900	6.2	-7.9	36	054	.8	133	7.0	11		0900	5.1	-4.8	49	358	1.1	091	3.2	29	
1200	10.2	-15.4	15	138	4.1	139	8.3	7		1200	5.1	*****	51	359	.6	325	2.5	7		1200	6.1	-7.3	38	343	1.7	341	3.2	34	
1500	8.3	-9.7	27	155	1.3	158	7.0	4		1500	5.6	-2.5	56	348	.5	334	2.5	14		1500	6.3	*****	44	330	1.1	330	2.5	7	
1800	9.4	-15.2	16	114	1.7	140	8.3	2		1800	4.5	-4.3	53	352	1.7	333	3.2	1		1800	4.3	*****	56	159	.5	282	1.9	1	
2100	10.4	-15.2	15	143	5.5	147	11.4	2		2100	3.9	*****	61	011	.8	349	2.5	1		2100	2.7	*****	64	144	.5	138	1.9	0	
2400	10.5	-15.1	15	138	4.8	142	8.9	2		2400	3.8	*****	67	148	.7	132	1.9	0		2400	.9	*****	68	137	.6	116	1.9	1	

R & M CONSULTANTS, INC.

SUSITNA HYDROELECTRIC PROJECT

MONTHLY SUMMARY FOR EKLUTNA WEATHER STATION
DATA TAKEN DURING September, 1982

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	15.3	2.6	9.0	051	.2	.9	354	3.8	SSE	45	1.1	0.0	3873	1
2	15.0	4.0	9.5	065	.1	.8	356	3.2	SSE	48	1.3	0.0	3130	2
3	11.2	2.6	6.9	020	.4	1.0	004	4.4	N	59	2.6	.2	1975	3
4	14.6	.9	7.8	128	.8	1.6	132	7.0	SE	35	-3.2	0.0	3793	4
5	13.8	7.3	10.6	142	2.1	2.3	147	12.7	SE	42	-1.9	24.6	1205	5
6	11.0	4.9	8.0	118	.4	1.2	136	7.0	SE	61	2.1	6.8	1798	6
7	14.2	2.9	8.6	089	.1	.8	330	3.8	SE	53	2.0	0.0	3285	7
8	11.9	2.9	7.4	067	.1	.7	359	3.8	SE	58	2.7	.8	2113	8
9	15.3	6.0	10.7	141	1.5	1.7	132	7.0	SE	31	-4.0	0.0	6028	9
10	12.5	5.1	8.8	025	.2	.9	144	5.1	N	48	.1	0.0	2989	10
11	8.9	1.6	5.3	064	.3	.8	010	5.1	N	67	1.4	6.6	1690	11
12	11.9	-1.7	5.1	141	1.9	2.3	143	12.7	SE	41	-2.9	1.4	2688	12
13	17.2	10.2	13.7	145	4.9	5.0	148	13.3	SE	34	-2.6	6.2	2340	13
14	16.1	9.7	12.9	138	3.6	3.8	139	13.3	SE	39	-1.3	7.4	1290	14
15	18.7	9.6	14.2	146	6.8	6.9	141	21.6	SE	34	-.8	15.2	2303	15
16	14.7	6.6	10.7	121	1.0	2.3	147	8.9	SE	34	-6.7	.6	4540	16
17	14.4	7.9	11.2	137	3.3	3.9	127	10.8	SE	15	-17.0	0.0	2560	17
18	15.5	7.8	11.7	143	3.6	4.1	145	11.4	SE	20	-11.2	4.2	1965	18
19	9.9	5.2	7.6	033	.3	.6	001	3.8	N	65	1.6	5.8	1090	19
20	13.1	8.5	10.8	144	3.9	3.9	148	12.7	SE	24	-8.9	0.0	1935	20
21	13.6	6.1	9.9	145	3.9	4.7	146	15.2	SSE	30	-8.4	2.0	2140	21
22	9.4	2.6	6.0	020	.5	1.1	354	4.4	N	46	-4.6	.8	2533	22
23	8.0	-.9	3.6	023	.2	.9	351	3.8	SSE	41	-5.9	0.0	2192	23
24	9.2	-3.2	3.0	066	.1	1.0	347	3.8	SSE	39	-9.2	0.0	3673	24
25	10.3	-2.5	3.9	128	.5	1.2	130	8.3	SSE	41	-8.9	0.0	2238	25
26	13.4	2.0	7.7	137	1.6	2.5	146	8.9	SE	21	-12.8	1.6	2925	26
27	10.2	-2.7	3.8	153	.5	.9	327	3.2	SSE	43	-8.5	0.0	3085	27
28	10.8	-3.1	3.9	141	2.5	2.8	147	11.4	SE	22	-14.1	0.0	1163	28
29	11.1	3.7	7.4	111	.9	2.0	141	10.2	SE	33	-9.6	7.2	1035	29
30	6.7	.9	3.8	011	.3	.9	091	3.2	NNW	48	-5.1	.8	2328	30
MONTH	18.7	-3.2	8.1	137	1.4	2.0	141	21.6	SE	36	-4.4	92.2	75896	

GUST VEL. AT MAX. GUST MINUS 2 INTERVALS 17.8
GUST VEL. AT MAX. GUST MINUS 1 INTERVAL 17.8
GUST VEL. AT MAX. GUST PLUS 1 INTERVAL 17.1
GUST VEL. AT MAX. GUST PLUS 2 INTERVALS 16.5

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 NOTES AT THE BACK OF THIS REPORT ****

R & M CONSULTANTS, INC.

SUSITNA HYDROELECTRIC PROJECT

WIND FREQUENCY SUMMARY FOR EKLUTNA WEATHER STATION
DATA TAKEN DURING September, 1982

	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	2.32	6.37	.35	0.00	0.00	0.00	0.00	9.05
NNE	1.77	1.16	.10	0.00	0.00	0.00	0.00	3.03
NE	1.58	.52	0.00	0.00	0.00	0.00	0.00	2.09
ENE	1.09	.29	.03	0.00	0.00	0.00	0.00	1.42
E	2.48	.32	0.00	0.00	0.00	0.00	0.00	2.80
ESE	5.89	.52	.39	.03	0.00	0.00	0.00	6.83
SE	9.59	4.38	13.33	3.67	.19	0.00	0.00	31.17
SSE	11.01	3.70	5.76	2.29	.16	0.00	0.00	22.92
S	3.19	1.22	0.00	0.00	0.00	0.00	0.00	4.41
SSW	.64	.29	0.00	0.00	0.00	0.00	0.00	.93
SW	.45	.39	0.00	0.00	0.00	0.00	0.00	.84
WSW	.16	.03	0.00	0.00	0.00	0.00	0.00	.19
W	.29	.10	0.00	0.00	0.00	0.00	0.00	.39
WNW	.35	.42	0.00	0.00	0.00	0.00	0.00	.77
NW	.84	1.80	0.00	0.00	0.00	0.00	0.00	2.64
NNW	2.00	6.09	.06	0.00	0.00	0.00	0.00	8.15
CALM								2.38
TOTAL	43.66	27.59	20.03	5.99	.35	0.00	0.00	100.00

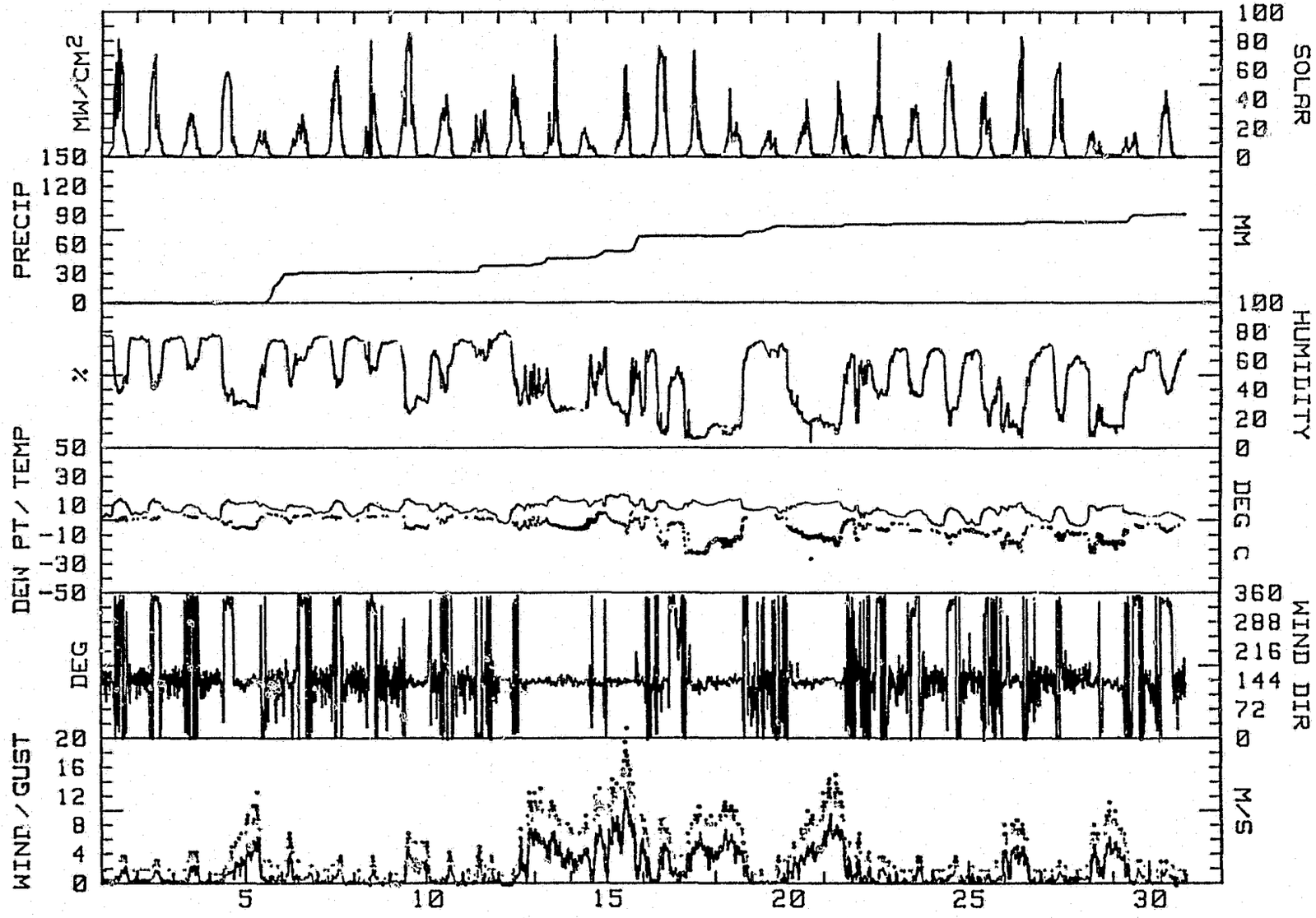
NOTE: ALL FREQUENCIES ARE EXPRESSED IN PERCENT
3106 VALID WIND OBSERVATIONS USED TO DEVELOP FREQUENCY SUMMARY

R&M CONSULTANTS, INC.

SUSITNA HYDROELECTRIC PROJECT

EKLUTNA WEATHER STATION

September, 1982



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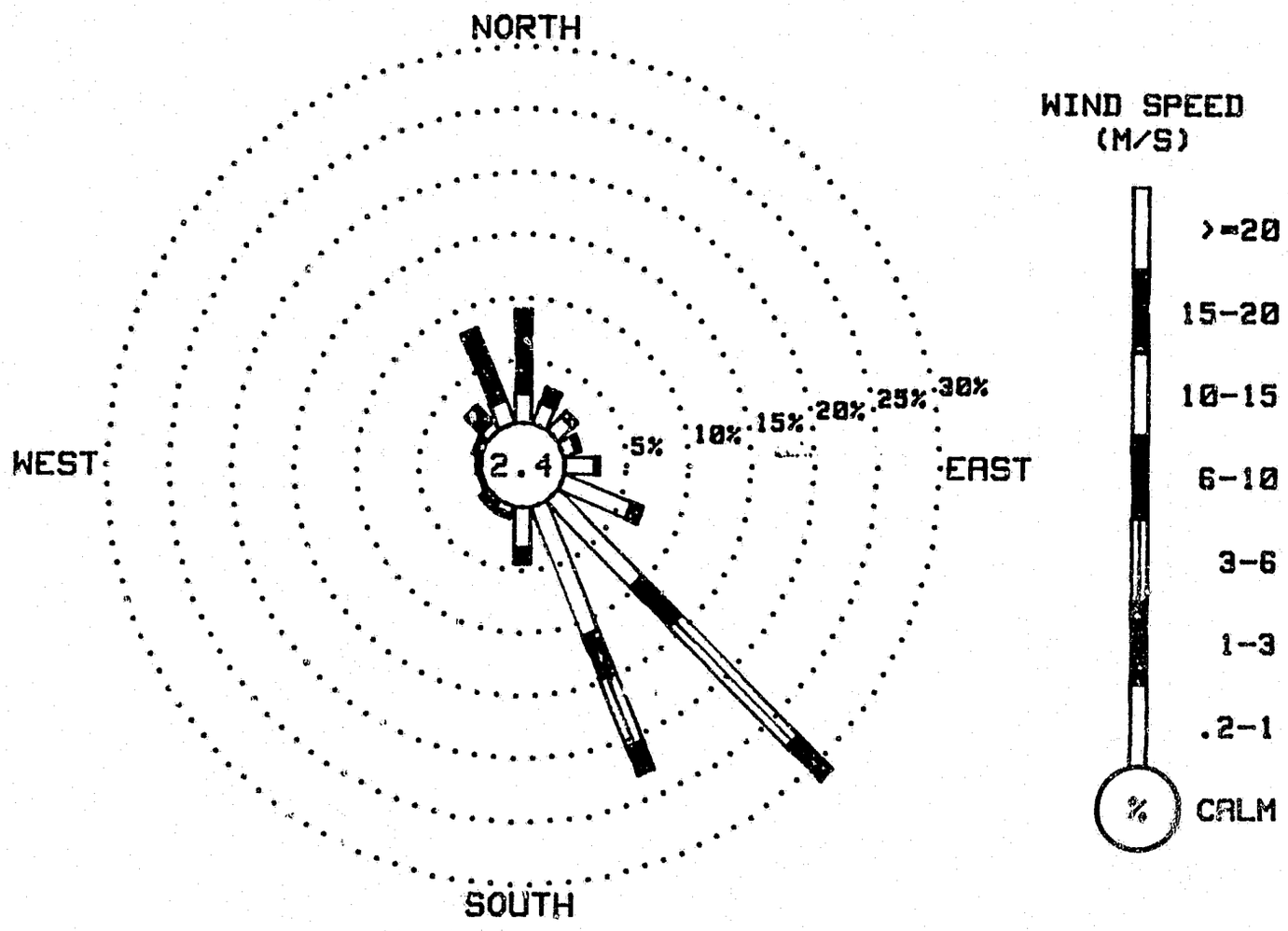
SUSITNA HYDROELECTRIC PROJECT

EKLUTNA WEATHER STATION

September, 1982



WIND ROSE PLOT

** Missing or bad data that has been deleted for various reasons (see STATION HISTORY, DATA COMPUTATION STANDARDS, or INTERPRETING DATA for an explanation).