SUSITNA HYDROELECTRIC PROJECT

PROCESSED CLIMATIC DATA

VOLUME 1

SUSITNA GLACIER STATION

PREPARED BY:

R&M CONSULTANTS, INC.

PREPARED FOR:

ALASKA POWER AUTHORITY

HARZA-EBASCO
Susitna Joint Venture
Document Number

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SUSITNA HYDROELECTRIC PROJECT

PROCESSED CLIMATIC DATA

VOLUME 1

SUSITNA GLACIER STATION

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Public Participation Office
Alaska Power Authority
534 West Fifth Avenue, 2nd floor
Anchorage, Alaska 99501
(907) 276-0001

PREPARED BY:

R&M CONSULTANTS, INC.

PREPARED FOR:

ACRES

ALASKA POWER AUTHORITY

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ALASKA POWER AUTHORITY
SUSITNA HYDROELECTRIC PROJECT

TASK 3 - HYDROLOGY

PROCESSED CLIMATIC DATA
VOLUME 1 - SUSITNA GLACIER STATION

MARCH 1982

PLEASE RETURN TO
Public Participation Office
Alaska Power Authority
334 West Fifth Avenue, 2nd floor
Anchorage, Alaska 99501
(907) 276-0001

Prepared for:

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s14/n7

ALASKA POWER AUTHORITY
SUSITNA HYDROELECTRIC PROJECT

TASK 3 - HYDROLOGY

PROCESSED CLIMATIC DATA

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PROCESSED CLIMATIC DATA

VOLUME 1

SUSITNA GLACIER STATION

JULY 20, 1980 THRU SEPTEMBER 30, 1981

The Susitna Glacier Climate Station was installed on July 20, 1980 in the Upper Susitna River Basin, adjacent to Susitna Glacier. The site is on a hillside to the north of the main glacier at about the 4,700-foot elevation. It is located on map Healy (A-1) SW¼ Section 13, R1[illegible], T21S, Fairbanks Meridian. The data were collected using a Meteorology Research Incorporated (MRI) Digital Weather Station. Data thru June 30, 1981 were processed by MRI and all subsequent data by R&M Consultants. An explanation of the parameters measured is located at the back of this report.

R&M CONSULTANTS, INC.

SUSITNA HYDROELECTRIC PROJECT

HOURLY PRECIPITATION SUMMARY FOR GLACIER WEATHER STATION
DATA TAKEN DURING JULY , 1980

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
01	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	01
02	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	02
03	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	03
04	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	04
05	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	05
06	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	06
07	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	07
08	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	08
09	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	09
10	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	10
11	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	11
12	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	12
13	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	13
14	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	14
15	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	15
16	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	16
17	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	17
18	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	18
19	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	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	20
21	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	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	1.0	0.0	0.0	.2	0.0	24
25	0.0	0.0	0.0	0.0	1.6	0.0	1.2	.2	0.0	.4	.8	.2	.2	.2	.4	0.0	0.0	5.8	1.4	.2	.2	0.0	.4	.2	25
26	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	.2	.2	2.6	1.0	.8	.4	1.6	2.0	26
27	2.8	1.4	1.0	2.0	1.6	1.0	1.0	1.0	1.4	2.0	1.2	2.4	3.0	1.0	.8	.4	1.0	1.0	1.2	3.0	3.2	3.2	2.2	2.0	27
28	3.0	1.6	1.2	1.4	1.0	.6	.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	.2	0.0	0.0	0.0	0.0	.2	.2	1.0	.4	0.0	28
29	1.2	0.0	0.0	.8	.6	0.0	0.0	.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	.2	0.0	0.0	.8	.6	.6	.4	29
30	.8	.4	.4	.2	.2	.2	.4	.2	.4	.4	0.0	0.0	0.0	0.0	0.0	0.0	.6	0.0	0.0	0.0	0.0	0.0	.8	1.0	30
31	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	31

R&M CONSULTANTS, INC.

SUSITNA HYDROELECTRIC PROJECT

THREE HOUR SUMMARY FOR GLACIER WEATHER STATION
DATA TAKEN DURING JULY , 1980

DAY 01

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

DAY 02

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

DAY 03

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

DAY 04

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

DAY 05

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

DAY 06

HOUR NDNG	TEMP. DEG C	DEW POINT DEG C	RH %	WIND DIR. DEG.	WIND SPD. M/S	GUST DIR. DEG.	MAX. GUST M/S	RAD MW
0300	*****	*****	**	***	****	***	****	***
0600	*****	*****	**	***	****	***	****	***
0900	*****	*****	**	***	****	***	****	***
1200	*****	*****	**	***	****	***	****	***
1500	*****	*****	**	***	****	***	****	***
1800	*****	*****	**	***	****	***	****	***
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 GLACIER WEATHER STATION
DATA TAKEN DURING JULY , 1980

DAY 10

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

DAY 11

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

DAY 12

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

DAY 13

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

DAY 14

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

DAY 15

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

DAY 16

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

DAY 17

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

DAY 18

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

R&M CONSULTANTS, INC.

SUSITNA HYDROELECTRIC PROJECT

THREE HOUR SUMMARY FOR GLACIER WEATHER STATION
DATA TAKEN DURING JULY , 1980

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	*****	*****	**	150	4.8	***	****	***
1500	13.2	*****	**	127	3.0	152	5.7	061
1800	13.1	*****	**	032	2.7	031	8.3	025
2100	10.3	*****	**	092	1.1	051	7.0	401
2400	9.4	*****	**	058	1.1	057	3.8	000

DAY 21

HOUR NDNG	TEMP. DEG C	DEW POINT DEG C	RH %	WIND DIR. DEG.	WIND SPD. M/S	GUST DIR. DEG.	MAX. GUST M/S	RAD MW
0300	9.4	*****	**	071	1.7	068	3.8	001
0600	9.9	*****	**	052	.8	024	2.5	007
0900	12.8	*****	**	219	.1	277	3.2	061
1200	14.3	*****	**	189	2.4	180	5.1	069
1500	14.7	*****	**	182	2.3	202	5.1	036
1800	14.8	*****	**	182	2.0	205	3.8	022
2100	11.2	*****	**	205	.8	156	3.2	001
2400	11.5	*****	**	063	1.0	042	3.2	000

DAY 22

HOUR NDNG	TEMP. DEG C	DEW POINT DEG C	RH %	WIND DIR. DEG.	WIND SPD. M/S	GUST DIR. DEG.	MAX. GUST M/S	RAD MW
0300	10.4	*****	**	056	1.1	078	3.2	001
0600	10.2	*****	**	082	1.0	079	3.2	006
0900	13.1	*****	**	109	1.4	121	3.8	059
1200	13.0	*****	**	127	3.5	126	7.6	041
1500	14.8	*****	**	134	2.4	051	8.3	055
1800	13.7	*****	**	145	2.8	130	6.3	016
2100	11.7	*****	**	095	1.3	107	5.7	001
2400	11.5	*****	**	070	1.1	042	3.2	000

DAY 23

HOUR NDNG	TEMP. DEG C	DEW POINT DEG C	RH %	WIND DIR. DEG.	WIND SPD. M/S	GUST DIR. DEG.	MAX. GUST M/S	RAD MW
0300	11.2	*****	**	056	1.1	044	3.2	001
0600	11.0	*****	**	068	1.1	051	2.5	004
0900	12.8	*****	**	039	.6	014	2.5	059
1200	15.6	*****	**	193	1.8	143	6.3	075
1500	16.2	*****	**	155	3.1	147	5.7	055
1800	15.7	*****	**	208	1.9	224	5.1	023
2100	12.6	*****	**	252	.4	177	3.8	001
2400	11.5	*****	**	045	.8	075	3.8	000

DAY 24

HOUR NDNG	TEMP. DEG C	DEW POINT DEG C	RH %	WIND DIR. DEG.	WIND SPD. M/S	GUST DIR. DEG.	MAX. GUST M/S	RAD MW
0300	11.3	*****	**	055	.8	031	2.5	001
0600	9.7	*****	**	050	.9	050	3.8	013
0900	11.5	*****	**	176	.8	168	2.5	042
1200	13.5	*****	**	216	1.7	242	5.1	078
1500	14.4	*****	**	213	2.2	224	5.7	033
1800	12.0	*****	**	250	.9	217	3.8	013
2100	9.4	*****	**	353	1.3	317	3.8	001
2400	7.7	*****	**	347	.9	331	4.4	000

DAY 25

HOUR NDNG	TEMP. DEG C	DEW POINT DEG C	RH %	WIND DIR. DEG.	WIND SPD. M/S	GUST DIR. DEG.	MAX. GUST M/S	RAD MW
0300	7.5	*****	**	095	.9	050	2.5	001
0600	6.8	*****	**	078	.8	047	3.2	003
0900	6.8	*****	**	298	1.1	261	3.2	006
1200	6.8	*****	**	246	2.6	224	7.6	011
1500	6.9	*****	**	226	5.4	226	8.9	018
1800	6.6	*****	**	266	2.0	248	6.3	003
2100	6.1	*****	**	242	3.7	255	6.3	000
2400	5.1	*****	**	265	1.8	288	5.1	000

DAY 26

HOUR NDNG	TEMP. DEG C	DEW POINT DEG C	RH %	WIND DIR. DEG.	WIND SPD. M/S	GUST DIR. DEG.	MAX. GUST M/S	RAD MW
0300	3.2	*****	**	305	.7	269	3.8	001
0600	3.1	*****	**	047	1.1	017	3.2	012
0900	5.7	*****	**	317	.8	336	3.2	058
1200	8.3	*****	**	261	1.2	191	4.4	025
1500	7.8	*****	**	164	1.6	165	4.4	020
1800	6.7	*****	**	109	1.6	113	5.1	012
2100	6.5	*****	**	065	1.8	044	6.3	000
2400	6.0	*****	**	260	.9	252	5.1	000

DAY 27

HOUR NDNG	TEMP. DEG C	DEW POINT DEG C	RH %	WIND DIR. DEG.	WIND SPD. M/S	GUST DIR. DEG.	MAX. GUST M/S	RAD MW
0300	5.1	*****	**	204	3.1	191	7.6	000
0600	4.9	*****	**	196	3.3	168	6.3	004
0900	5.4	*****	**	137	2.3	129	7.6	016
1200	4.4	*****	**	139	3.0	128	10.2	012
1500	4.2	*****	**	213	2.5	200	7.6	010
1800	3.9	*****	**	107	1.0	000	3.2	004
2100	2.8	*****	**	029	1.6	050	4.4	000
2400	2.6	*****	**	031	1.1	027	2.5	000

R&M CONSULTANTS, INC.

SUSITNA HYDROELECTRIC PROJECT

THREE HOUR SUMMARY FOR GLACIER WEATHER STATION
DATA TAKEN DURING JULY , 1980

DAY 28									DAY 29									DAY 30								
HOUR NDNG	TEMP. DEG C	DEW POINT DEG C	RH %	WIND DIR. DEG.	WIND SPD. M/S	GUST DIR. DEG.	MAX. GUST M/S	RAD MW	HOUR NDNG	TEMP. DEG C	DEW POINT DEG C	RH %	WIND DIR. DEG.	WIND SPD. M/S	GUST DIR. DEG.	MAX. GUST M/S	RAD MW	HOUR NDNG	TEMP. DEG C	DEW POINT DEG C	RH %	WIND DIR. DEG.	WIND SPD. M/S	GUST DIR. DEG.	MAX. GUST M/S	RAD MW
0300	2.3	*****	**	041	1.1	045	3.2	001	0300	3.3	*****	**	047	1.0	016	3.8	000	0300	3.4	*****	**	003	.6	353	1.9	001
0600	1.8	*****	**	018	1.2	017	2.5	014	0600	3.7	*****	**	097	1.3	094	3.8	007	0600	3.2	*****	**	328	.5	354	2.5	006
0900	3.2	*****	**	260	.5	014	2.5	043	0900	5.2	*****	**	010	.8	012	3.2	024	0900	3.7	*****	**	190	1.1	171	2.5	025
1200	4.2	*****	**	185	1.9	209	3.8	028	1200	6.6	*****	**	289	1.1	308	3.8	036	1200	6.3	*****	**	201	2.0	210	3.8	052
1500	4.8	*****	**	224	1.2	286	4.4	052	1500	6.0	*****	**	310	1.3	333	3.2	021	1500	7.7	*****	**	176	2.4	189	5.1	029
1800	6.8	*****	**	207	1.8	177	4.4	022	1800	5.1	*****	**	265	.6	347	2.5	008	1800	6.8	*****	**	136	2.5	161	4.4	008
2100	3.7	*****	**	095	1.8	146	4.4	000	2100	4.4	*****	**	356	.9	352	1.9	000	2100	5.9	*****	**	252	.3	147	3.2	000
2400	3.1	*****	**	021	1.2	027	3.8	000	2400	3.6	*****	**	008	.7	014	1.9	000	2400	5.1	*****	**	094	1.8	107	5.1	000

DAY 31									DAY 31									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	HOUR NDNG	TEMP. DEG C	DEW POINT DEG C	RH %	WIND DIR. DEG.	WIND SPD. M/S	GUST DIR. DEG.	MAX. GUST M/S	RAD MW	HOUR NDNG	TEMP. DEG C	DEW POINT DEG C	RH %	WIND DIR. DEG.	WIND SPD. M/S	GUST DIR. DEG.	MAX. GUST M/S	RAD MW
0300	4.7	*****	**	020	.7	050	2.5	001	0300	*****	*****	**	***	****	***	****	***	0300	*****	*****	**	***	****	***	****	***
0600	5.0	*****	**	066	.6	031	3.2	015	0600	*****	*****	**	***	****	***	****	***	0600	*****	*****	**	***	****	***	****	***
0900	6.9	*****	**	171	1.2	168	3.2	081	0900	*****	*****	**	***	****	***	****	***	0900	*****	*****	**	***	****	***	****	***
1200	7.7	*****	**	170	2.1	151	5.1	077	1200	*****	*****	**	***	****	***	****	***	1200	*****	*****	**	***	****	***	****	***
1500	8.5	*****	**	171	2.3	140	5.7	057	1500	*****	*****	**	***	****	***	****	***	1500	*****	*****	**	***	****	***	****	***
1800	8.4	*****	**	177	2.9	187	5.7	020	1800	*****	*****	**	***	****	***	****	***	1800	*****	*****	**	***	****	***	****	***
2100	5.7	*****	**	135	.6	143	4.4	001	2100	*****	*****	**	***	****	***	****	***	2100	*****	*****	**	***	****	***	****	***
2400	4.3	*****	**	011	.8	354	1.9	000	2400	*****	*****	**	***	****	***	****	***	2400	*****	*****	**	***	****	***	****	***

R&M CONSULTANTS, INC.

SUSITNA HYDROELECTRIC PROJECT

MONTHLY SUMMARY FOR GLACIER WEATHER STATION
DATA TAKEN DURING JULY , 1980

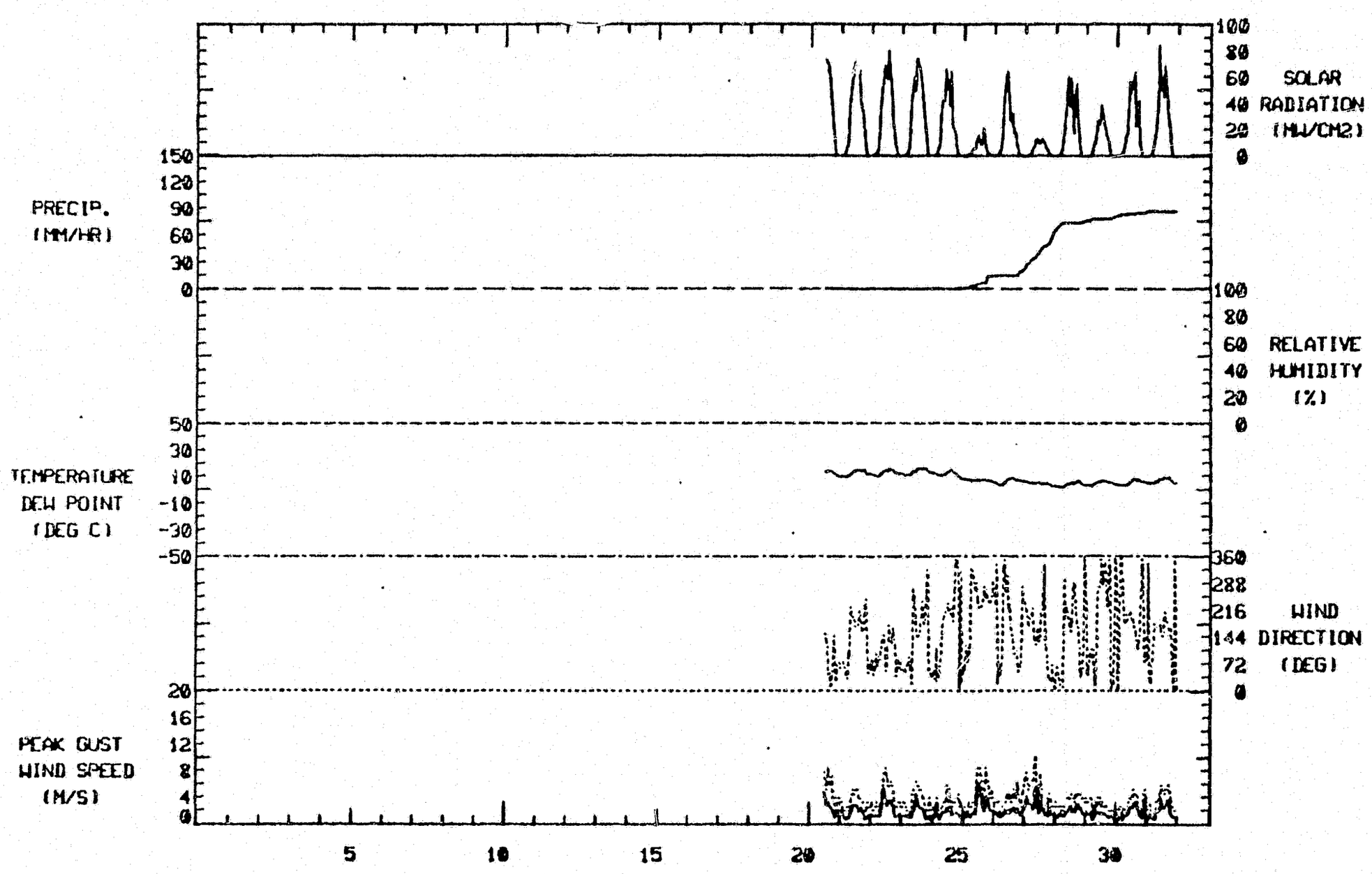
DAY	MAX. TEMP. DEG C	MIN. TEMP. DEG C	MEAN TEMP. DEG C	RES. WIND DIR. DEG	RES. WIND SPD. M/S	AVG. WIND SPD. M/S	MAX. GUST DIR. DEG	MAX. GUST SPD. M/S	P'VAL DIR.	MEAN RH %	MEAN DP DEG C	PRECIP MM	DAY'S SOLAR ENERGY WH/SQM	DAY
01	*****	*****	*****	***	****	****	***	****	MSG	**	*****	****	***	01
02	*****	*****	*****	***	****	****	***	****	MSG	**	*****	****	***	02
03	*****	*****	*****	***	****	****	***	****	MSG	**	*****	****	***	03
04	*****	*****	*****	***	****	****	***	****	MSG	**	*****	****	***	04
05	*****	*****	*****	***	****	****	***	****	MSG	**	*****	****	***	05
06	*****	*****	*****	***	****	****	***	****	MSG	**	*****	****	***	06
07	*****	*****	*****	***	****	****	***	****	MSG	**	*****	****	***	07
08	*****	*****	*****	***	****	****	***	****	MSG	**	*****	****	***	08
09	*****	*****	*****	***	****	****	***	****	MSG	**	*****	****	***	09
10	*****	*****	*****	***	****	****	***	****	MSG	**	*****	****	***	10
11	*****	*****	*****	***	****	****	***	****	MSG	**	*****	****	***	11
12	*****	*****	*****	***	****	****	***	****	MSG	**	*****	****	***	12
13	*****	*****	*****	***	****	****	***	****	MSG	**	*****	****	***	13
14	*****	*****	*****	***	****	****	***	****	MSG	**	*****	****	***	14
15	*****	*****	*****	***	****	****	***	****	MSG	**	*****	****	***	15
16	*****	*****	*****	***	****	****	***	****	MSG	**	*****	****	***	16
17	*****	*****	*****	***	****	****	***	****	MSG	**	*****	****	***	17
18	*****	*****	*****	***	****	****	***	****	MSG	**	*****	****	***	18
19	*****	*****	*****	***	****	****	***	****	MSG	**	*****	****	***	19
20	*****	*****	*****	177	1.0	1.6	180	5.1	SSW	**	*****	0.0	8002	20
21	15.3	9.3	12.3	***	****	****	***	****	MSG	**	*****	****	***	21
22	15.6	9.4	12.5	115	1.6	2.1	051	8.3	E	**	*****	0.0	6690	22
23	16.6	10.5	13.5	151	.6	1.7	143	6.3	ME	**	*****	0.0	6855	23
24	15.0	7.7	11.4	239	.3	1.4	224	5.7	SSW	**	*****	1.2	5275	24
25	7.8	5.1	6.5	244	1.8	2.5	226	8.9	SW	**	*****	13.4	1335	25
26	8.6	3.0	5.8	085	.2	1.6	044	6.3	E	**	*****	9.0	4295	26
27	5.8	2.2	4.0	167	1.3	2.5	128	10.2	SE	**	*****	40.8	1255	27
28	6.8	1.3	4.1	143	.2	1.8	288	4.4	NNE	**	*****	11.0	5155	28
29	6.6	2.7	4.7	354	.5	1.3	016	3.8	N	**	*****	5.4	2860	29
30	9.0	3.1	6.1	159	.8	1.7	189	5.1	SSW	**	*****	6.0	4865	30
31	8.9	4.3	6.6	160	1.0	1.7	140	5.7	SSE	**	*****	0.0	5990	31
MONTH	16.6	1.3	7.9	168	.5	1.8	128	10.2	SSW	**	*****	86.8	52577	

GUST VEL. AT MAX. GUST MINUS 2 INTERVALS	7.6
GUST VEL. AT MAX. GUST MINUS 1 INTERVAL	7.0
GUST VEL. AT MAX. GUST PLUS 1 INTERVAL	4.4
GUST VEL. AT MAX. GUST PLUS 2 INTERVALS	3.2

NOTE: RELATIVE HUMIDITY READINGS ARE UNRELIABLE WHEN WIND SPEED ARE <1.0 METERS PER SECOND. SUCH READINGS HAVE NOT BEEN INCLUDED IN THE DAILY OR MONTHLY MEAN FOR RELATIVE HUMIDITY AND DEW POINT.

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

R&M CONSULTANT, INC. SUSITNA HYDROELECTRIC PROJECT



DAY OF THE MONTH GLACIER WEATHER STATION

DATA START: 20 JULY , 1980

R&M CONSULTANTS, INC.

SUSITNA HYDROELECTRIC PROJECT

WIND FREQUENCY SUMMARY FOR GLACIER WEATHER STATION
DATA TAKEN DURING JULY , 1980

	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	GREATER THAN 20.0	TOTAL
N	2.89	5.06	0.00	0.00	0.00	0.00	0.00	7.96
NNE	1.08	5.06	.36	0.00	0.00	0.00	0.00	6.51
NE	2.35	5.97	.36	0.00	0.00	0.00	0.00	8.68
ENE	3.25	5.42	0.00	0.00	0.00	0.00	0.00	8.68
E	2.35	5.24	.18	0.00	0.00	0.00	0.00	7.78
ESE	1.08	2.17	.90	0.00	0.00	0.00	0.00	4.16
SE	.18	3.07	2.89	.16	0.00	0.00	0.00	6.33
SSE	.54	5.24	3.07	0.00	0.00	0.00	0.00	8.86
S	.36	5.97	1.45	0.00	0.00	0.00	0.00	7.78
SSW	.36	7.05	1.45	0.00	0.00	0.00	0.00	8.86
SW	.54	3.44	1.63	.36	0.00	0.00	0.00	5.97
WSW	.36	3.62	.72	0.00	0.00	0.00	0.00	4.70
W	.90	3.44	0.00	0.00	0.00	0.00	0.00	4.34
WNW	.18	2.89	0.00	0.00	0.00	0.00	0.00	3.07
NW	.54	1.99	0.00	0.00	0.00	0.00	0.00	2.53
NNW	1.27	2.53	0.00	0.00	0.00	0.00	0.00	3.80
CALM								0.00
TOTAL	18.20	66.17	13.02	.54	0.00	0.00	0.00	100.00

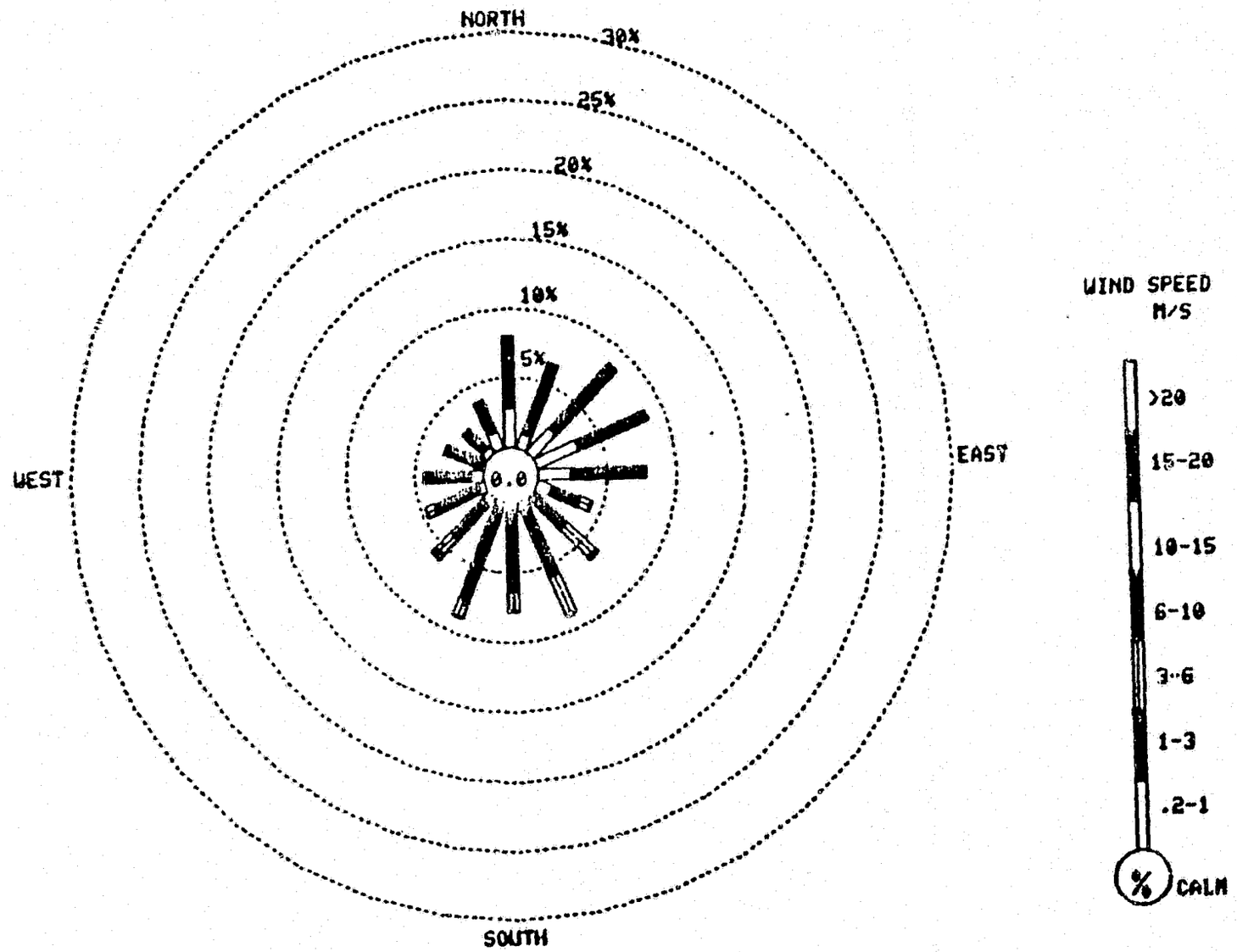
NOTE: ALL FREQUENCIES EXPRESSED IN PERCENT.

553 VALID WIND OBSERVATIONS USED TO DEVELOP FREQUENCY SUMMARY

SUSITNA HYDROELECTRIC PROJECT

GLACIER WEATHER STATION

JULY, 1980



WIND ROSE PLOT

R&M CONSULTANTS, INC.

SUSITNA HYDROELECTRIC PROJECT

HOURLY PRECIPITATION SUMMARY FOR GLACIER WEATHER STATION
DATA TAKEN DURING AUGUST , 1989

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
01	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	01
02	0.0	0.0	0.0	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	.8	.6	.2	.4	.2	0.0	02
03	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	.2	0.0	.2	0.0	0.0	0.0	0.0	0.0	0.0	.4	.8	0.0	0.0	.2	.4	1.0	03
04	0.0	.8	0.0	.4	.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	04
05	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	05
06	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	.4	0.0	0.0	0.0	0.0	0.0	.6	1.4	1.0	06
07	1.4	.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	.8	2.4	1.2	1.4	1.0	1.2	1.0	.4	.8	.4	.2	07
08	0.0	0.0	.2	.2	.4	0.0	0.0	0.0	0.0	.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	08
09	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	.2	.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	09
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	****	****	****	****	12
13	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	13
14	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	14
15	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	15
16	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	16
17	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	17
18	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	18
19	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	19
20	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	20
21	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	21
22	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	22
23	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	23
24	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	24
25	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	25
26	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	26
27	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	27
28	****	****	****	****	****	****	****	****	****	.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	28
29	0.0	0.0	0.0	0.0	0.0	.2	0.0	0.0	2.4	2.6	2.2	2.6	3.4	3.4	1.8	.6	.4	0.0	0.0	0.0	.2	0.0	.2	0.0	29
30	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	30
31	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	31

R&M CONSULTANTS, INC.

SUSITNA HYDROELECTRIC PROJECT

THREE HOUR SUMMARY FOR GLACIER WEATHER STATION
DATA TAKEN DURING AUGUST , 1980

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	3.7	*****	**	060	.9	047	2.5	001
0600	4.2	*****	**	044	1.2	046	3.2	004
0900	5.6	*****	**	119	1.7	134	5.7	058
1200	7.7	*****	**	145	4.2	146	6.3	071
1500	9.0	*****	**	161	3.5	165	5.7	058
1800	9.7	*****	**	162	3.0	155	5.7	020
2100	7.1	*****	**	143	.6	144	3.8	001
2400	5.8	*****	**	070	.8	059	2.5	000

DAY 02

HOUR NDNG	TEMP. DEG C	DEW POINT DEG C	RH %	WIND DIR. DEG.	WIND SPD. M/S	GUST DIR. DEG.	MAX. GUST M/S	RAD MW
0300	6.2	*****	**	067	.9	067	3.2	001
0600	6.0	*****	**	049	1.1	035	2.5	006
0900	8.7	*****	**	074	1.6	065	5.1	049
1200	7.5	*****	**	146	3.5	137	7.0	012
1500	5.2	*****	**	127	1.8	123	7.0	007
1800	4.3	*****	**	160	.3	224	3.8	003
2100	4.0	*****	**	025	1.0	011	3.2	000
2400	3.4	*****	**	051	.5	013	1.9	000

DAY 03

HOUR NDNG	TEMP. DEG C	DEW POINT DEG C	RH %	WIND DIR. DEG.	WIND SPD. M/S	GUST DIR. DEG.	MAX. GUST M/S	RAD MW
0300	3.5	*****	**	074	.9	045	1.9	001
0600	3.2	*****	**	146	.4	053	1.9	010
0900	4.7	*****	**	246	.6	330	3.2	024
1200	7.1	*****	**	234	1.3	213	4.4	038
1500	9.1	*****	**	211	1.9	214	4.4	073
1800	6.2	*****	**	162	.6	151	5.1	006
2100	5.6	*****	**	061	.8	040	3.2	000
2400	5.1	*****	**	350	1.1	339	5.1	000

DAY 04

HOUR NDNG	TEMP. DEG C	DEW POINT DEG C	RH %	WIND DIR. DEG.	WIND SPD. M/S	GUST DIR. DEG.	MAX. GUST M/S	RAD MW
0300	4.4	*****	**	018	1.1	011	3.2	001
0600	4.1	*****	**	299	.8	299	3.2	006
0900	4.6	*****	**	335	1.4	352	3.2	017
1200	7.8	*****	**	318	1.1	019	4.4	072
1500	8.5	*****	**	310	1.1	224	5.1	034
1800	9.6	*****	**	235	1.2	253	3.8	017
2100	7.4	*****	**	145	.7	188	3.2	001
2400	6.9	*****	**	063	.9	039	2.5	000

DAY 05

HOUR NDNG	TEMP. DEG C	DEW POINT DEG C	RH %	WIND DIR. DEG.	WIND SPD. M/S	GUST DIR. DEG.	MAX. GUST M/S	RAD MW
0300	5.8	*****	**	066	1.0	018	2.5	001
0600	6.1	*****	**	063	.8	011	1.9	004
0900	8.9	*****	**	152	.7	176	3.8	056
1200	11.5	*****	**	205	1.8	229	3.8	068
1500	12.7	*****	**	224	1.9	207	3.8	052
1800	11.2	*****	**	203	1.5	209	3.2	008
2100	10.2	*****	**	122	.2	241	1.9	000
2400	9.7	*****	**	040	1.0	014	2.5	000

DAY 06

HOUR NDNG	TEMP. DEG C	DEW POINT DEG C	RH %	WIND DIR. DEG.	WIND SPD. M/S	GUST DIR. DEG.	MAX. GUST M/S	RAD MW
0300	9.5	*****	**	042	.8	022	3.8	000
0600	10.8	*****	**	068	1.1	089	3.2	005
0900	11.3	*****	**	044	.7	075	3.2	013
1200	10.3	*****	**	058	1.3	081	4.4	021
1500	10.3	*****	**	221	.7	279	5.1	013
1800	11.5	*****	**	083	1.2	044	3.8	010
2100	9.2	*****	**	068	.9	073	3.2	000
2400	6.7	*****	**	078	1.0	132	5.7	000

DAY 07

HOUR NDNG	TEMP. DEG C	DEW POINT DEG C	RH %	WIND DIR. DEG.	WIND SPD. M/S	GUST DIR. DEG.	MAX. GUST M/S	RAD MW
0300	7.2	*****	**	108	.7	138	3.8	000
0600	6.1	*****	**	023	1.2	356	5.1	006
0900	6.6	*****	**	014	.2	345	3.8	018
1200	7.5	*****	**	292	1.0	236	5.1	015
1500	6.3	*****	**	266	.8	209	5.1	013
1800	5.5	*****	**	293	.7	303	1.9	005
2100	5.1	*****	**	104	.2	184	1.9	001
2400	4.3	*****	**	089	.4	115	1.9	001

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	3.5	*****	**	223	.5	147	1.9	000
0600	4.2	*****	**	302	.8	287	2.5	010
0900	6.1	*****	**	183	1.1	146	3.2	036
1200	6.6	*****	**	212	1.4	183	3.2	039
1500	7.0	*****	**	216	1.6	212	3.2	020
1800	6.5	*****	**	243	1.0	257	3.2	012
2100	5.8	*****	**	249	.3	215	2.5	000
2400	6.0	*****	**	075	.7	126	3.2	000

DAY 09

HOUR NDNG	TEMP. DEG C	DEW POINT DEG C	RH %	WIND DIR. DEG.	WIND SPD. M/S	GUST DIR. DEG.	MAX. GUST M/S	RAD MW
0300	5.5	*****	**	046	.8	080	2.5	001
0600	5.7	*****	**	026	.7	017	2.5	008
0900	7.1	*****	**	094	2.6	107	8.3	015
1200	8.0	*****	**	091	3.5	092	8.3	016
1500	9.2	*****	**	090	3.1	097	8.9	013
1800	8.6	*****	**	100	4.3	096	8.9	003
2100	7.8	*****	**	078	3.9	080	9.5	001
2400	7.7	*****	**	071	3.5	074	8.3	000

R&M CONSULTANTS, INC.

SUSITNA HYDROELECTRIC PROJECT

THREE HOUR SUMMARY FOR GLACIER WEATHER STATION
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DAY 10

HOUR NDNG	TEMP. DEG C	DEW POINT DEG C	RH %	WIND DIR. DEG.	WIND SPD. M/S	GUST DIR. DEG.	MAX. GUST M/S	RAD MW
0300	7.7	*****	**	081	3.0	080	7.0	001
0600	7.0	*****	**	068	1.5	077	5.1	003
0900	9.8	*****	**	013	.7	057	10.2	054
1200	12.8	*****	**	130	2.7	126	8.3	067
1500	15.3	*****	**	175	2.3	140	7.0	052
1800	15.3	*****	**	135	3.9	139	7.0	017
2100	14.0	*****	**	087	1.5	097	5.1	001
2400	13.6	*****	**	070	2.7	060	6.3	001

DAY 11

HOUR NDNG	TEMP. DEG C	DEW POINT DEG C	RH %	WIND DIR. DEG.	WIND SPD. M/S	GUST DIR. DEG.	MAX. GUST M/S	RAD MW
0300	13.5	*****	**	063	2.9	069	6.3	001
0600	13.4	*****	**	062	2.7	064	6.3	007
0900	14.3	*****	**	106	2.4	132	5.1	058
1200	16.9	*****	**	156	3.8	144	6.3	070
1500	17.0	*****	**	141	4.9	138	7.6	035
1800	15.4	*****	**	120	3.4	131	7.0	007
2100	15.1	*****	**	078	2.5	081	5.1	001
2400	14.5	*****	**	076	2.3	074	4.4	001

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	13.6	*****	**	075	2.0	073	4.4	001
0600	12.8	*****	**	093	1.5	044	3.2	010
0900	14.6	*****	**	111	.4	110	2.5	043
1200	17.2	*****	**	184	2.1	174	5.1	066
1500	18.4	*****	**	170	2.7	173	5.1	055
1800	16.1	*****	**	219	1.8	199	6.3	015
2100	*****	*****	**	033	3.5	059	10.8	***
2400	*****	*****	**	***	****	***	****	***

DAY 13

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

DAY 14

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

DAY 15

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

DAY 16

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

DAY 17

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

DAY 18

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

R&M CONSULTANTS, INC.

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

DAY 20

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

DAY 21

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

DAY 22

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

DAY 23

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

DAY 24

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

DAY 25

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

DAY 26

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

DAY 27

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

R&M CONSULTANTS, INC.

SUSITNA HYDROELECTRIC PROJECT

THREE HOUR SUMMARY FOR GLACIER WEATHER STATION
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DAY 28

HOUR NDNG	TEMP. DEG C	DEW POINT DEG C	RH %	WIND DIR. DEG.	WIND SPD. M/S	GUST DIR. DEG.	MAX. GUST M/S	RAD MW
0300	*****	*****	**	***	****	***	****	***
0600	*****	*****	**	***	****	***	****	***
0900	*****	*****	**	***	****	***	****	***
1200	3.5	*****	**	329	1.5	336	3.2	072
1500	4.1	*****	**	279	1.0	288	3.8	021
1800	4.6	*****	**	264	.7	249	3.2	003
2100	2.9	*****	**	118	.2	214	3.2	000
2400	2.5	*****	**	014	1.1	018	3.2	000

DAY 29

HOUR NDNG	TEMP. DEG C	DEW POINT DEG C	RH %	WIND DIR. DEG.	WIND SPD. M/S	GUST DIR. DEG.	MAX. GUST M/S	RAD MW
0300	1.8	*****	**	050	1.1	085	4.4	000
0600	.3	*****	**	322	.9	304	3.2	001
0900	1.2	*****	**	045	.9	020	4.4	007
1200	1.5	*****	**	014	2.2	016	4.4	010
1500	1.6	*****	**	023	2.2	044	5.1	012
1800	2.7	*****	**	016	.5	032	4.4	003
2100	2.1	*****	**	296	1.2	302	3.2	000
2400	1.7	*****	**	005	1.1	032	2.5	001

DAY 30

HOUR NDNG	TEMP. DEG C	DEW POINT DEG C	RH %	WIND DIR. DEG.	WIND SPD. M/S	GUST DIR. DEG.	MAX. GUST M/S	RAD MW
0300	1.5	*****	**	053	1.4	043	3.8	001
0600	2.2	*****	**	063	1.8	045	4.4	003
0900	3.6	*****	**	060	1.1	029	3.2	022
1200	5.3	*****	**	205	1.6	177	3.8	059
1500	6.0	*****	**	171	2.1	141	5.7	016
1800	5.9	*****	**	121	2.7	122	5.1	003
2100	4.9	*****	**	066	2.2	067	4.4	000
2400	5.9	*****	**	067	2.5	062	6.3	000

DAY 31

HOUR NDNG	TEMP. DEG C	DEW POINT DEG C	RH %	WIND DIR. DEG.	WIND SPD. M/S	GUST DIR. DEG.	MAX. GUST M/S	RAD MW
0300	3.1	*****	**	072	3.1	070	7.6	000
0600	3.3	*****	**	066	1.2	057	3.8	005
0900	3.9	*****	**	161	1.0	135	3.2	013
1200	4.9	*****	**	173	.4	103	3.2	035
1500	6.4	*****	**	186	.7	085	5.1	019
1800	4.9	*****	**	002	1.3	022	3.2	003
2100	4.2	*****	**	021	1.3	027	3.2	000
2400	3.7	*****	**	027	.7	006	2.5	000

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	*****	*****	**	***	****	***	****	***

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.

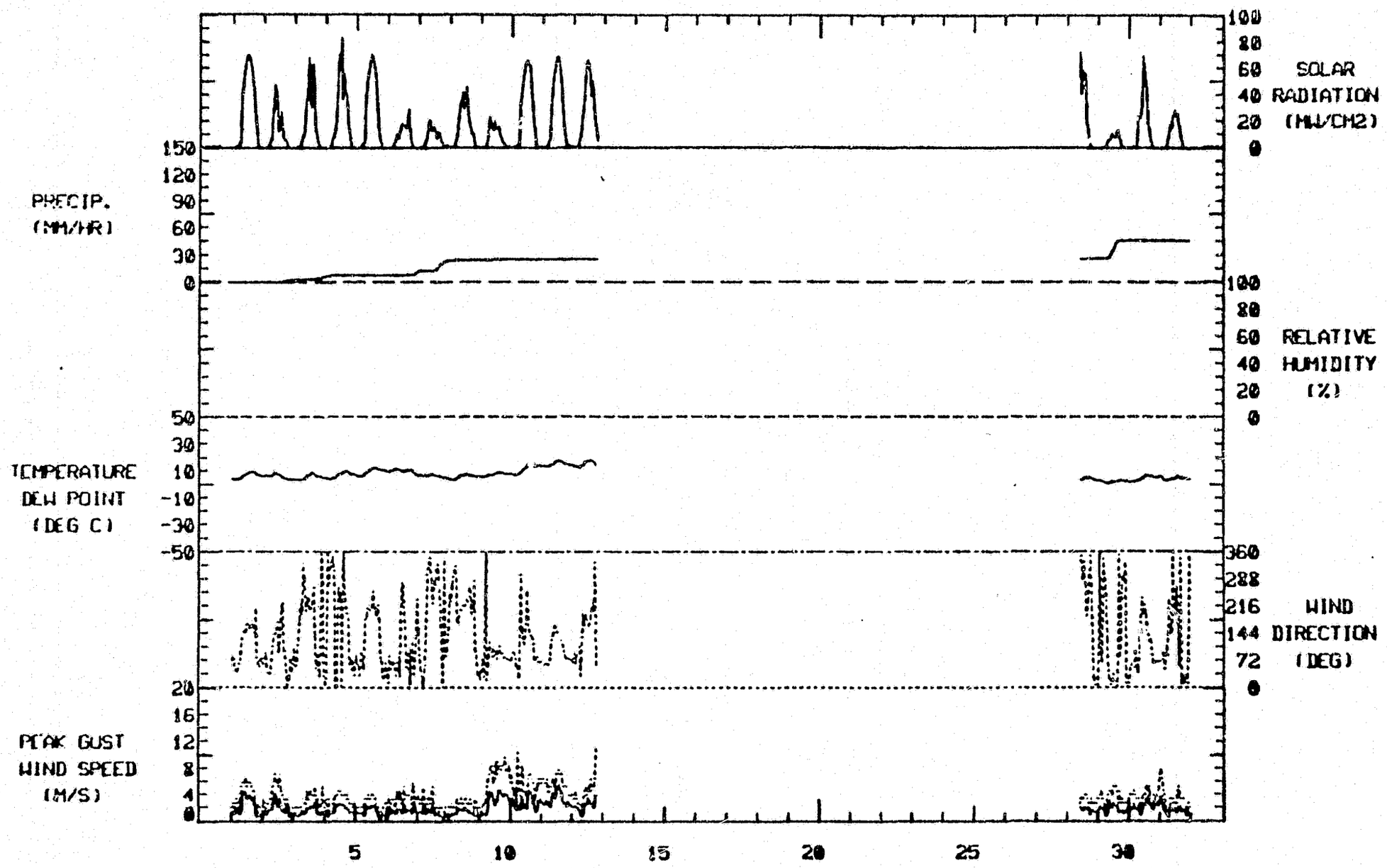
SUSITNA HYDROELECTRIC PROJECT

MONTHLY SUMMARY FOR GLACIER WEATHER STATION
DATA TAKEN DURING AUGUST , 1980

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
01	9.7	3.0	6.4	137	1.6	2.1	146	6.3	ENE	**	*****	.0	6590	01
02	8.9	3.4	6.1	102	1.0	1.7	137	7.0	ENE	**	*****	3.0	2705	02
03	9.4	2.9	6.1	202	.2	1.3	151	5.1	NE	**	*****	3.2	4090	03
04	10.3	3.6	6.9	325	.5	1.5	224	5.1	N	**	*****	1.4	5395	04
05	12.7	5.7	9.2	179	.5	1.3	176	3.8	SSW	**	*****	0.0	6020	05
06	11.9	6.7	9.3	067	.8	1.4	132	5.7	E	**	*****	3.6	1960	06
07	8.1	4.2	6.2	344	.2	1.1	356	5.1	N	**	*****	12.4	1735	07
08	7.6	3.0	5.3	220	.6	1.2	146	3.2	SSW	**	*****	1.0	3700	08
09	9.2	5.2	7.2	084	2.7	2.9	080	9.5	ENE	**	*****	.8	1865	09
10	15.8	5.9	10.9	106	1.8	2.6	057	10.2	ENE	**	*****	0.0	6000	10
11	17.8	12.7	15.3	107	2.6	3.2	138	7.6	ENE	**	*****	0.0	5845	11
12	*****	*****	*****	138	.9	2.1	059	10.8	ENE	**	*****	0.0	6622	12
13	*****	*****	*****	***	****	****	***	****	MSG	**	*****	****	***	13
14	*****	*****	*****	***	****	****	***	****	MSG	**	*****	****	***	14
15	*****	*****	*****	***	****	****	***	****	MSG	**	*****	****	***	15
16	*****	*****	*****	***	****	****	***	****	MSG	**	*****	****	***	16
17	*****	*****	*****	***	****	****	***	****	MSG	**	*****	****	***	17
18	*****	*****	*****	***	****	****	***	****	MSG	**	*****	****	***	18
19	*****	*****	*****	***	****	****	***	****	MSG	**	*****	****	***	19
20	*****	*****	*****	***	****	****	***	****	MSG	**	*****	****	***	20
21	*****	*****	*****	***	****	****	***	****	MSG	**	*****	****	***	21
22	*****	*****	*****	***	****	****	***	****	MSG	**	*****	****	***	22
23	*****	*****	*****	***	****	****	***	****	MSG	**	*****	****	***	23
24	*****	*****	*****	***	****	****	***	****	MSG	**	*****	****	***	24
25	*****	*****	*****	***	****	****	***	****	MSG	**	*****	****	***	25
26	*****	*****	*****	***	****	****	***	****	MSG	**	*****	****	***	26
27	*****	*****	*****	***	****	****	***	****	MSG	**	*****	****	***	27
28	5.5	2.2	3.8	***	****	1.4	288	3.8	N	**	*****	.6	5611	28
29	2.8	0.0	1.4	010	1.1	1.6	044	5.1	NNE	**	*****	20.0	1035	29
30	7.3	1.5	4.4	095	1.3	2.1	062	6.3	ENE	**	*****	0.0	3670	30
31	6.4	2.4	4.4	064	.7	1.5	070	7.6	N	**	*****	0.0	2185	31
MONTH	17.8	0.0	6.9	100	.8	1.8	059	10.8	ENE	**	*****	46.0	65028	

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

R&M CONSULTANT, INC. SUSITNA HYDROELECTRIC PROJECT



DAY OF THE MONTH GLACIER WEATHER STATION

DATA START: 01 AUGUST , 1980

R&M CONSULTANTS, INC.

SUSITNA HYDROELECTRIC PROJECT

WIND FREQUENCY SUMMARY FOR GLACIER WEATHER STATION
DATA TAKEN DURING AUGUST , 1980

	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	GREATER THAN 20.0	TOTAL
N	.81	4.73	.14	0.00	0.00	0.00	0.00	5.68
NNE	1.89	6.22	.41	0.00	0.00	0.00	0.00	8.51
NE	3.11	5.27	0.00	0.00	0.00	0.00	0.00	8.38
ENE	4.05	9.59	3.65	.14	0.00	0.00	0.00	17.43
E	1.76	5.81	1.62	0.00	0.00	0.00	0.00	9.19
ESE	1.62	3.38	1.49	0.00	0.00	0.00	0.00	6.49
SE	.41	2.43	3.78	0.00	0.00	0.00	0.00	6.62
SSE	.95	1.89	2.70	0.00	0.00	0.00	0.00	5.54
S	.54	3.24	.68	0.00	0.00	0.00	0.00	4.46
SSW	.95	5.95	.27	0.00	0.00	0.00	0.00	7.16
SW	.95	4.05	0.00	0.00	0.00	0.00	0.00	5.00
WSW	1.08	2.70	0.00	0.00	0.00	0.00	0.00	3.78
W	.41	.81	0.00	0.00	0.00	0.00	0.00	1.22
WNW	1.76	1.76	0.00	0.00	0.00	0.00	0.00	3.51
NW	1.22	1.35	0.00	0.00	0.00	0.00	0.00	2.57
NNW	1.08	3.11	0.00	0.00	0.00	0.00	0.00	4.19
CALM								.27
TOTAL	22.57	62.30	14.73	.14	0.00	0.00	0.00	100.00

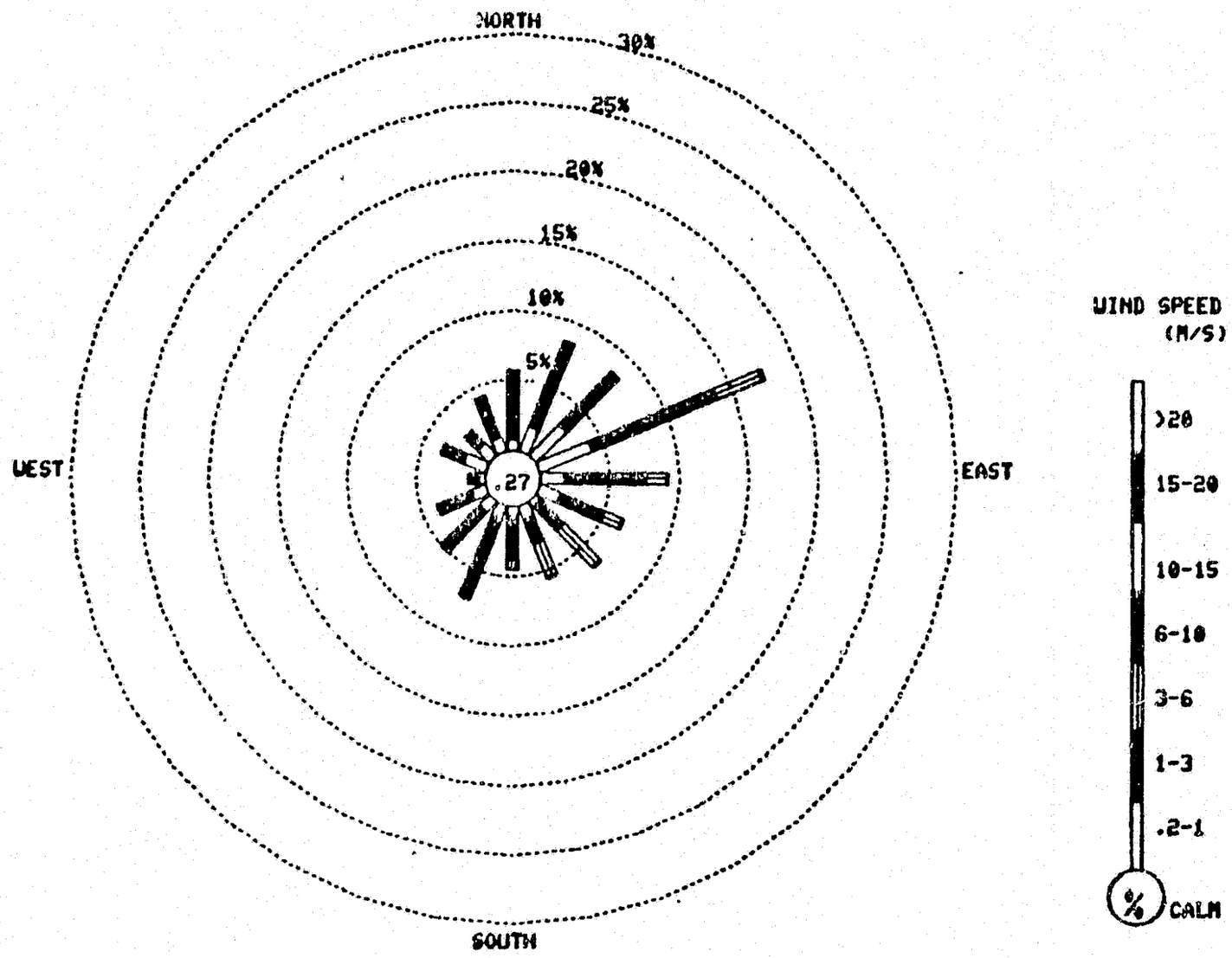
NOTE: ALL FREQUENCIES EXPRESSED IN PERCENT.

740 VALID WIND OBSERVATIONS USED TO DEVELOP FREQUENCY SUMMARY

SUSITNA HYDROELECTRIC PROJECT

GLACIER WEATHER STATION

AUGUST, 1980



WIND ROSE PLOT

R&M CONSULTANTS, INC.

SUSITNA HYDROELECTRIC PROJECT

HOURLY PRECIPITATION SUMMARY FOR GLACIER WEATHER STATION
DATA TAKEN DURING SEPTEMBER , 1980

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
01	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	01
02	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	02
03	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	03
04	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	.4	.6	.4	.6	.2	.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	04
05	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	.4	.8	.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	05
06	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	06
07	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	07
08	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	08
09	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0	0.0	0.0	0.0	0.0	0.0	.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	09
10	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.8	1.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	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	.2	1.2	2.8	2.0	1.4	.6	.4	0.0	0.0	0.0	.2	.6	.4	.8	13
14	0.0	.4	1.2	1.2	1.2	1.4	2.0	2.0	1.4	1.0	1.0	.4	.2	.6	1.0	.6	1.6	1.4	1.2	.8	.8	1.6	.4	1.0	14
15	1.4	1.8	.8	.8	1.2	2.4	3.8	1.6	.2	.6	1.2	.2	0.0	0.0	.2	1.0	.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	15
16	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	16
17	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	17
18	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	18
19	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	19
20	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	.2	.2	0.0	.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	20
21	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	21
22	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	.2	0.0	0.0	0.0	2.2	2.0	.6	.6	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	.6	1.4	1.0	.6	.6	.4	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	.2	.6	1.4	.6	1.2	.8	.4	.2	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	.2	.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	25
26	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	.4	.6	1.0	.6	.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	26
27	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	27
28	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	.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	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	.2	.4	1.0	.6	29
30	.6	.6	0.0	.2	.2	.2	.2	0.0	.6	.2	.4	0.0	.4	0.0	.2	.2	0.0	0.0	.2	0.0	0.0	0.0	0.0	0.0	30

R&M CONSULTANTS, INC.

SUSITNA HYDROELECTRIC PROJECT

THREE HOUR SUMMARY FOR GLACIER WEATHER STATION
DATA TAKEN DURING SEPTEMBER , 1980

DAY 01

HOUR NDNG	TEMP. DEG C	DEW POINT DEG C	RH %	WIND DIR. DEG.	WIND SPD. M/S	GUST DIR. DEG.	MAX. GUST M/S	RAD MW
0300	2.3	*****	**	056	1.0	040	3.8	000
0600	1.8	*****	**	058	.8	108	2.5	003
0900	2.3	*****	**	016	1.1	070	2.5	006
1200	-1.2	*****	**	337	1.5	038	9.5	007
1500	-4.5	*****	**	101	3.7	093	15.2	016
1800	-5.3	*****	**	149	.4	119	5.7	006
2100	-7.6	*****	**	201	2.0	147	8.3	000
2400	-9.2	*****	**	218	1.8	215	3.8	000

DAY 02

HOUR NDNG	TEMP. DEG C	DEW POINT DEG C	RH %	WIND DIR. DEG.	WIND SPD. M/S	GUST DIR. DEG.	MAX. GUST M/S	RAD MW
0300	-10.3	*****	**	097	.6	219	4.4	000
0600	-10.2	*****	**	078	2.1	094	4.4	006
0900	-6.0	*****	**	052	1.6	051	4.4	047
1200	.7	*****	**	097	.9	057	2.5	061
1500	-3.9	*****	**	146	1.2	155	3.8	028
1800	-6.2	*****	**	098	1.5	093	4.4	003
2100	-6.4	*****	**	057	.9	115	3.2	000
2400	-6.9	*****	**	066	1.2	053	3.2	000

DAY 03

HOUR NDNG	TEMP. DEG C	DEW POINT DEG C	RH %	WIND DIR. DEG.	WIND SPD. M/S	GUST DIR. DEG.	MAX. GUST M/S	RAD MW
0300	-8.5	*****	**	059	1.0	065	3.2	000
0600	-9.0	*****	**	046	1.3	045	3.2	003
0900	-6.2	*****	**	080	2.0	113	5.7	036
1200	-4.2	*****	**	116	4.7	118	8.3	061
1500	-3.8	*****	**	144	3.3	130	8.3	047
1800	-5.9	*****	**	107	4.4	085	8.9	005
2100	-6.8	*****	**	061	2.6	078	7.0	000
2400	-7.7	*****	**	028	1.7	034	4.4	000

DAY 04

HOUR NDNG	TEMP. DEG C	DEW POINT DEG C	RH %	WIND DIR. DEG.	WIND SPD. M/S	GUST DIR. DEG.	MAX. GUST M/S	RAD MW
0300	-8.1	*****	**	001	1.7	003	3.8	000
0600	-7.5	*****	**	044	2.1	069	7.6	003
0900	-2.9	*****	**	034	1.2	021	4.4	044
1200	-1.8	*****	**	057	.3	244	4.4	057
1500	.4	*****	**	222	1.1	190	4.4	037
1800	.8	*****	**	114	.9	048	7.0	005
2100	-2.1	*****	**	053	.9	067	3.2	000
2400	-1.5	*****	**	037	1.3	011	3.2	000

DAY 05

HOUR NDNG	TEMP. DEG C	DEW POINT DEG C	RH %	WIND DIR. DEG.	WIND SPD. M/S	GUST DIR. DEG.	MAX. GUST M/S	RAD MW
0300	-.8	*****	**	043	1.0	014	2.5	000
0600	-.5	*****	**	030	.9	012	2.5	006
0900	3.1	*****	**	022	1.0	080	5.1	048
1200	4.7	*****	**	101	1.7	076	5.1	056
1500	5.0	*****	**	020	1.1	090	7.6	035
1800	3.4	*****	**	247	1.4	280	5.7	006
2100	.9	*****	**	043	.8	007	3.2	000
2400	0.0	*****	**	031	1.9	023	5.1	000

DAY 06

HOUR NDNG	TEMP. DEG C	DEW POINT DEG C	RH %	WIND DIR. DEG.	WIND SPD. M/S	GUST DIR. DEG.	MAX. GUST M/S	RAD MW
0300	.2	*****	**	081	1.4	072	3.2	000
0600	-.8	*****	**	077	1.0	038	2.5	002
0900	1.1	*****	**	009	.7	319	2.5	042
1200	1.7	*****	**	189	1.8	164	4.4	030
1500	1.5	*****	**	259	.7	191	3.2	014
1800	1.5	*****	**	104	1.7	076	4.4	003
2100	1.8	*****	**	049	1.0	064	3.2	000
2400	1.0	*****	**	071	1.0	069	3.2	000

DAY 07

HOUR NDNG	TEMP. DEG C	DEW POINT DEG C	RH %	WIND DIR. DEG.	WIND SPD. M/S	GUST DIR. DEG.	MAX. GUST M/S	RAD MW
0300	1.0	*****	**	069	1.1	063	2.5	000
0600	.5	*****	**	071	.9	058	3.2	003
0900	2.8	*****	**	127	.7	139	4.4	022
1200	4.6	*****	**	163	3.1	173	7.0	054
1500	5.1	*****	**	150	4.1	147	7.0	036
1800	3.2	*****	**	119	2.0	138	5.7	002
2100	2.8	*****	**	077	2.8	068	6.3	000
2400	2.5	*****	**	067	3.2	072	7.6	000

DAY 08

HOUR NDNG	TEMP. DEG C	DEW POINT DEG C	RH %	WIND DIR. DEG.	WIND SPD. M/S	GUST DIR. DEG.	MAX. GUST M/S	RAD MW
0300	2.8	*****	**	054	1.6	053	4.4	000
0600	2.9	*****	**	065	1.8	098	6.3	003
0900	5.1	*****	**	061	1.2	031	3.8	023
1200	7.0	*****	**	168	2.3	178	6.3	024
1500	4.3	*****	**	162	1.9	142	7.0	012
1800	4.4	*****	**	013	.6	277	3.2	001
2100	4.0	*****	**	073	1.0	047	3.2	000
2400	2.6	*****	**	082	1.2	167	3.2	000

DAY 09

HOUR NDNG	TEMP. DEG C	DEW POINT DEG C	RH %	WIND DIR. DEG.	WIND SPD. M/S	GUST DIR. DEG.	MAX. GUST M/S	RAD MW
0300	1.9	*****	**	049	.6	066	1.9	000
0600	-.2	*****	**	304	.6	355	2.5	002
0900	1.7	*****	**	054	.8	007	3.2	018
1200	1.5	*****	**	230	1.4	236	5.1	050
1500	-.2	*****	**	209	1.4	223	3.8	004
1800	.9	*****	**	144	.5	141	2.5	001
2100	.5	*****	**	139	.4	203	1.9	000
2400	-.5	*****	**	094	.6	076	2.5	000

R&M CONSULTANTS, INC.

SUSITNA HYDROELECTRIC PROJECT

THREE HOUR SUMMARY FOR GLACIER WEATHER STATION
DATA TAKEN DURING SEPTEMBER , 1980

DAY 10

HOUR NDNG	TEMP. DEG C	DEW POINT DEG C	RH %	WIND DIR. DEG.	WIND SPD. M/S	GUST DIR. DEG.	MAX. GUST M/S	RAD MW
0300	-.8	*****	**	356	.7	359	1.9	000
0600	-.8	*****	**	307	.5	327	1.9	002
0900	1.0	*****	**	105	.5	063	1.9	017
1200	2.2	*****	**	209	1.5	220	3.8	059
1500	2.8	*****	**	208	2.1	207	4.4	047
1800	1.4	*****	**	187	1.7	195	3.8	002
2100	1.3	*****	**	072	.7	052	1.9	000
2400	1.1	*****	**	064	.8	044	2.5	000

DAY 11

HOUR NDNG	TEMP. DEG C	DEW POINT DEG C	RH %	WIND DIR. DEG.	WIND SPD. M/S	GUST DIR. DEG.	MAX. GUST M/S	RAD MW
0300	1.3	*****	**	074	1.0	057	2.5	000
0600	1.6	*****	**	055	1.0	054	2.5	002
0900	3.0	*****	**	076	1.2	062	3.2	038
1200	4.5	*****	**	157	1.7	143	5.1	054
1500	6.0	*****	**	187	2.7	177	4.4	033
1800	3.5	*****	**	221	1.7	201	4.4	002
2100	3.5	*****	**	045	.8	050	2.5	000
2400	2.8	*****	**	059	1.3	048	3.2	000

DAY 12

HOUR NDNG	TEMP. DEG C	DEW POINT DEG C	RH %	WIND DIR. DEG.	WIND SPD. M/S	GUST DIR. DEG.	MAX. GUST M/S	RAD MW
0300	2.6	*****	**	068	1.6	063	5.1	000
0600	2.2	*****	**	070	1.5	081	3.8	002
0900	4.1	*****	**	113	2.3	083	5.1	029
1200	4.3	*****	**	150	3.8	153	7.0	029
1500	3.6	*****	**	146	3.7	136	7.6	011
1800	1.3	*****	**	113	4.3	101	7.6	001
2100	0.0	*****	**	206	.2	148	5.1	000
2400	-1.1	*****	**	022	.6	025	2.5	000

DAY 13

HOUR NDNG	TEMP. DEG C	DEW POINT DEG C	RH %	WIND DIR. DEG.	WIND SPD. M/S	GUST DIR. DEG.	MAX. GUST M/S	RAD MW
0300	-.6	*****	**	009	1.1	000	1.9	000
0600	.4	*****	**	043	.7	033	1.9	002
0900	1.6	*****	**	047	1.0	023	2.5	010
1200	2.3	*****	**	105	.3	145	1.9	024
1500	1.8	*****	**	128	.5	146	1.9	021
1800	1.2	*****	**	098	.8	127	2.5	001
2100	1.3	*****	**	072	1.1	028	3.8	000
2400	2.7	*****	**	035	1.2	021	3.2	000

DAY 14

HOUR NDNG	TEMP. DEG C	DEW POINT DEG C	RH %	WIND DIR. DEG.	WIND SPD. M/S	GUST DIR. DEG.	MAX. GUST M/S	RAD MW
0300	3.5	*****	**	061	1.2	052	3.2	000
0600	5.1	*****	**	062	1.3	062	2.5	002
0900	5.1	*****	**	046	1.7	043	3.8	010
1200	5.0	*****	**	070	.6	032	2.5	018
1500	5.3	*****	**	108	1.3	076	3.8	006
1800	5.9	*****	**	118	1.1	141	3.2	001
2100	6.0	*****	**	051	1.3	026	3.8	000
2400	5.5	*****	**	063	1.4	045	3.2	000

DAY 15

HOUR NDNG	TEMP. DEG C	DEW POINT DEG C	RH %	WIND DIR. DEG.	WIND SPD. M/S	GUST DIR. DEG.	MAX. GUST M/S	RAD MW
0300	5.5	*****	**	088	1.0	102	2.5	000
0600	5.1	*****	**	024	1.0	030	3.8	001
0900	5.1	*****	**	107	.7	078	4.4	010
1200	5.7	*****	**	060	.3	000	1.9	018
1500	4.4	*****	**	204	.7	105	1.9	006
1800	3.1	*****	**	238	.0	258	1.9	001
2100	2.3	*****	**	247	.5	248	2.5	000
2400	1.8	*****	**	256	.9	232	3.2	000

DAY 16

HOUR NDNG	TEMP. DEG C	DEW POINT DEG C	RH %	WIND DIR. DEG.	WIND SPD. M/S	GUST DIR. DEG.	MAX. GUST M/S	RAD MW
0300	.7	*****	**	217	.7	239	2.5	000
0600	-.1	*****	**	127	.6	234	4.4	002
0900	.6	*****	**	024	1.0	016	2.5	020
1200	2.2	*****	**	167	2.0	163	5.7	044
1500	4.4	*****	**	205	2.1	211	4.4	026
1800	2.5	*****	**	158	1.6	169	4.4	001
2100	.7	*****	**	045	.9	074	3.8	000
2400	.5	*****	**	090	1.0	125	3.2	000

DAY 17

HOUR NDNG	TEMP. DEG C	DEW POINT DEG C	RH %	WIND DIR. DEG.	WIND SPD. M/S	GUST DIR. DEG.	MAX. GUST M/S	RAD MW
0300	-.4	*****	**	070	.9	069	2.5	000
0600	-.8	*****	**	060	.8	045	2.5	002
0900	.7	*****	**	108	.4	171	3.2	034
1200	2.3	*****	**	191	2.0	187	3.8	047
1500	5.2	*****	**	177	2.4	169	4.4	026
1800	1.5	*****	**	226	.7	184	3.8	001
2100	0.0	*****	**	054	.4	025	1.9	000
2400	-.7	*****	**	105	.7	114	1.9	000

DAY 18

HOUR NDNG	TEMP. DEG C	DEW POINT DEG C	RH %	WIND DIR. DEG.	WIND SPD. M/S	GUST DIR. DEG.	MAX. GUST M/S	RAD MW
0300	-1.2	*****	**	057	.8	016	2.5	000
0600	-2.1	*****	**	055	1.1	049	3.2	002
0900	-2.1	*****	**	350	1.3	349	3.2	022
1200	-.1	*****	**	295	1.2	238	3.8	029
1500	.3	*****	**	243	1.1	339	3.8	013
1800	-.1	*****	**	331	5.3	329	10.2	001
2100	0.0	*****	**	336	5.3	325	10.8	000
2400	-1.9	*****	**	304	4.0	326	13.3	000

R&M CONSULTANTS, INC.

SUSITNA HYDROELECTRIC PROJECT

THREE HOUR SUMMARY FOR GLACIER WEATHER STATION
DATA TAKEN DURING SEPTEMBER , 1980

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	-3.9	*****	**	301	1.6	294	5.7	000
0600	-1.0	*****	**	120	1.7	096	4.4	003
0900	-.9	*****	**	142	.7	119	3.2	035
1200	.8	*****	**	315	1.3	346	3.8	042
1500	1.7	*****	**	273	.8	192	3.8	026
1800	-1.0	*****	**	274	1.1	216	5.1	001
2100	-1.7	*****	**	291	.5	225	3.8	000
2400	-2.9	*****	**	272	1.5	268	3.8	000

DAY 20

HOUR NDNG	TEMP. DEG C	DEW POINT DEG C	RH %	WIND DIR. DEG.	WIND SPD. M/S	GUST DIR. DEG.	MAX. GUST M/S	RAD MW
0300	-3.9	*****	**	075	.9	048	3.2	000
0600	-4.0	*****	**	064	1.1	046	3.2	002
0900	-2.3	*****	**	071	1.2	062	3.8	044
1200	-1.0	*****	**	020	1.0	055	5.1	030
1500	-.1	*****	**	013	1.0	023	3.8	015
1800	-.1	*****	**	158	.5	204	2.5	001
2100	-.3	*****	**	072	.8	131	2.5	000
2400	-.5	*****	**	065	.8	077	2.5	000

DAY 21

HOUR NDNG	TEMP. DEG C	DEW POINT DEG C	RH %	WIND DIR. DEG.	WIND SPD. M/S	GUST DIR. DEG.	MAX. GUST M/S	RAD MW
0300	-1.1	*****	**	029	.8	077	2.5	000
0600	-1.3	*****	**	065	.3	011	1.9	001
0900	-1.3	*****	**	226	.3	162	2.5	019
1200	-1.2	*****	**	213	1.2	175	3.2	022
1500	-.9	*****	**	207	1.3	195	2.5	014
1800	-1.8	*****	**	208	.8	213	1.9	000
2100	-2.1	*****	**	152	.4	160	1.3	000
2400	-2.1	*****	**	106	.3	098	1.3	000

DAY 22

HOUR NDNG	TEMP. DEG C	DEW POINT DEG C	RH %	WIND DIR. DEG.	WIND SPD. M/S	GUST DIR. DEG.	MAX. GUST M/S	RAD MW
0300	-2.1	*****	**	068	.4	021	1.3	000
0600	-2.0	*****	**	082	.1	037	1.3	001
0900	4.3	*****	**	102	.3	044	1.3	017
1200	1.6	*****	**	186	.4	154	1.3	030
1500	-.1	*****	**	204	.5	171	1.3	014
1800	-1.6	*****	**	286	.2	221	1.3	000
2100	-1.3	*****	**	097	.4	063	1.3	000
2400	-1.3	*****	**	013	.2	061	.6	000

DAY 23

HOUR NDNG	TEMP. DEG C	DEW POINT DEG C	RH %	WIND DIR. DEG.	WIND SPD. M/S	GUST DIR. DEG.	MAX. GUST M/S	RAD MW
0300	-1.3	*****	**	010	.3	003	1.3	000
0600	-1.6	*****	**	352	1.0	001	1.9	001
0900	-.8	*****	**	336	1.5	339	3.2	008
1200	-.5	*****	**	318	1.4	345	3.2	022
1500	.7	*****	**	070	.8	043	4.4	012
1800	.3	*****	**	068	.8	095	2.5	000
2100	.6	*****	**	078	1.3	072	3.2	000
2400	.5	*****	**	094	1.3	094	2.5	000

DAY 24

HOUR NDNG	TEMP. DEG C	DEW POINT DEG C	RH %	WIND DIR. DEG.	WIND SPD. M/S	GUST DIR. DEG.	MAX. GUST M/S	RAD MW
0300	-.3	*****	**	077	1.0	076	2.5	000
0600	-.7	*****	**	047	1.0	052	3.2	002
0900	1.8	*****	**	063	1.0	012	2.5	020
1200	4.1	*****	**	040	.6	016	1.9	047
1500	3.2	*****	**	110	.6	143	1.9	020
1800	-.2	*****	**	084	.4	022	1.9	000
2100	-.5	*****	**	063	1.0	074	2.5	000
2400	-.4	*****	**	057	.7	061	2.5	000

DAY 25

HOUR NDNG	TEMP. DEG C	DEW POINT DEG C	RH %	WIND DIR. DEG.	WIND SPD. M/S	GUST DIR. DEG.	MAX. GUST M/S	RAD MW
0300	-.5	*****	**	072	1.6	065	3.8	000
0600	-.7	*****	**	066	1.4	074	3.8	002
0900	-.3	*****	**	065	1.6	057	3.8	027
1200	7.5	*****	**	021	.6	359	3.2	047
1500	.3	*****	**	106	1.2	148	4.4	009
1800	.4	*****	**	060	1.6	075	3.8	000
2100	-.6	*****	**	054	1.0	034	3.2	000
2400	.1	*****	**	038	1.1	046	2.5	000

DAY 26

HOUR NDNG	TEMP. DEG C	DEW POINT DEG C	RH %	WIND DIR. DEG.	WIND SPD. M/S	GUST DIR. DEG.	MAX. GUST M/S	RAD MW
0300	.6	*****	**	061	1.0	045	2.5	000
0600	1.8	*****	**	075	1.2	077	3.2	001
0900	3.6	*****	**	063	1.6	039	4.4	029
1200	7.1	*****	**	072	1.8	092	5.1	024
1500	7.0	*****	**	102	3.1	113	7.0	014
1800	6.0	*****	**	091	2.1	095	9.5	000
2100	5.8	*****	**	090	2.9	109	7.0	000
2400	4.6	*****	**	083	2.5	088	5.7	000

DAY 27

HOUR NDNG	TEMP. DEG C	DEW POINT DEG C	RH %	WIND DIR. DEG.	WIND SPD. M/S	GUST DIR. DEG.	MAX. GUST M/S	RAD MW
0300	4.8	*****	**	103	4.4	104	11.4	000
0600	3.4	*****	**	101	2.8	097	8.9	001
0900	5.1	*****	**	112	1.3	067	3.8	015
1200	5.0	*****	**	150	1.4	143	4.4	024
1500	4.3	*****	**	026	.5	132	2.5	025
1800	2.3	*****	**	087	1.7	114	6.3	000
2100	1.6	*****	**	101	1.1	066	3.2	000
2400	2.0	*****	**	074	1.3	090	3.2	000

R&M CONSULTANTS, INC.

SUSITNA HYDROELECTRIC PROJECT

THREE HOUR SUMMARY FOR GLACIER WEATHER STATION
DATA TAKEN DURING SEPTEMBER , 1980

	DAY 28								DAY 29								DAY 30							
HOUR NDNG	TEMP. DEG C	DEW POINT DEG C	RH %	WIND DIR. DEG.	WIND SPD. M/S	GUST DIR. DEG.	MAX. GUST M/S	RAD MW	HOUR NDNG	TEMP. DEG C	DEW POINT DEG C	RH %	WIND DIR. DEG.	WIND SPD. M/S	GUST DIR. DEG.	MAX. GUST M/S	RAD MW	HOUR NDNG	TEMP. DEG C	DEW POINT DEG C	RH %	WIND DIR. DEG.	WIND SPD. M/S	GUST DIR. DEG.	MAX. GUST M/S	RAD MW
0300	.4	*****	**	065	1.8	069	4.4	000	0300	1.5	*****	**	041	1.4	077	3.8	000	0300	2.9	*****	**	066	2.7	113	8.9	000
0600	-1.2	*****	**	065	.7	055	2.5	001	0600	1.4	*****	**	055	.8	068	2.5	001	0600	2.9	*****	**	095	6.5	096	14.0	001
0900	2.2	*****	**	065	1.2	035	3.2	029	0900	2.9	*****	**	078	1.1	060	3.2	027	0900	1.9	*****	**	115	6.5	116	13.3	010
1200	2.8	*****	**	015	1.1	026	5.7	028	1200	4.1	*****	**	185	1.9	186	4.4	030	1200	2.5	*****	**	096	4.2	089	8.3	021
1500	4.8	*****	**	056	1.7	111	5.7	022	1500	4.0	*****	**	112	1.7	129	6.3	013	1500	.9	*****	**	081	.9	151	3.8	005
1800	1.1	*****	**	353	1.0	078	5.7	000	1800	4.1	*****	**	089	1.8	062	7.0	000	1800	1.5	*****	**	050	1.0	027	3.2	002
2100	.9	*****	**	040	1.2	036	3.2	000	2100	2.4	*****	**	080	3.7	075	7.0	000	2100	.9	*****	**	103	1.2	120	3.8	002
2400	1.9	*****	**	056	1.3	056	4.4	000	2400	.9	*****	**	051	1.8	049	4.4	000	2400	1.9	*****	**	089	3.0	106	6.3	002

R&M CONSULTANTS, INC.

SUSITNA HYDROELECTRIC PROJECT

MONTHLY SUMMARY FOR GLACIER WEATHER STATION
DATA TAKEN DURING SEPTEMBER , 1980

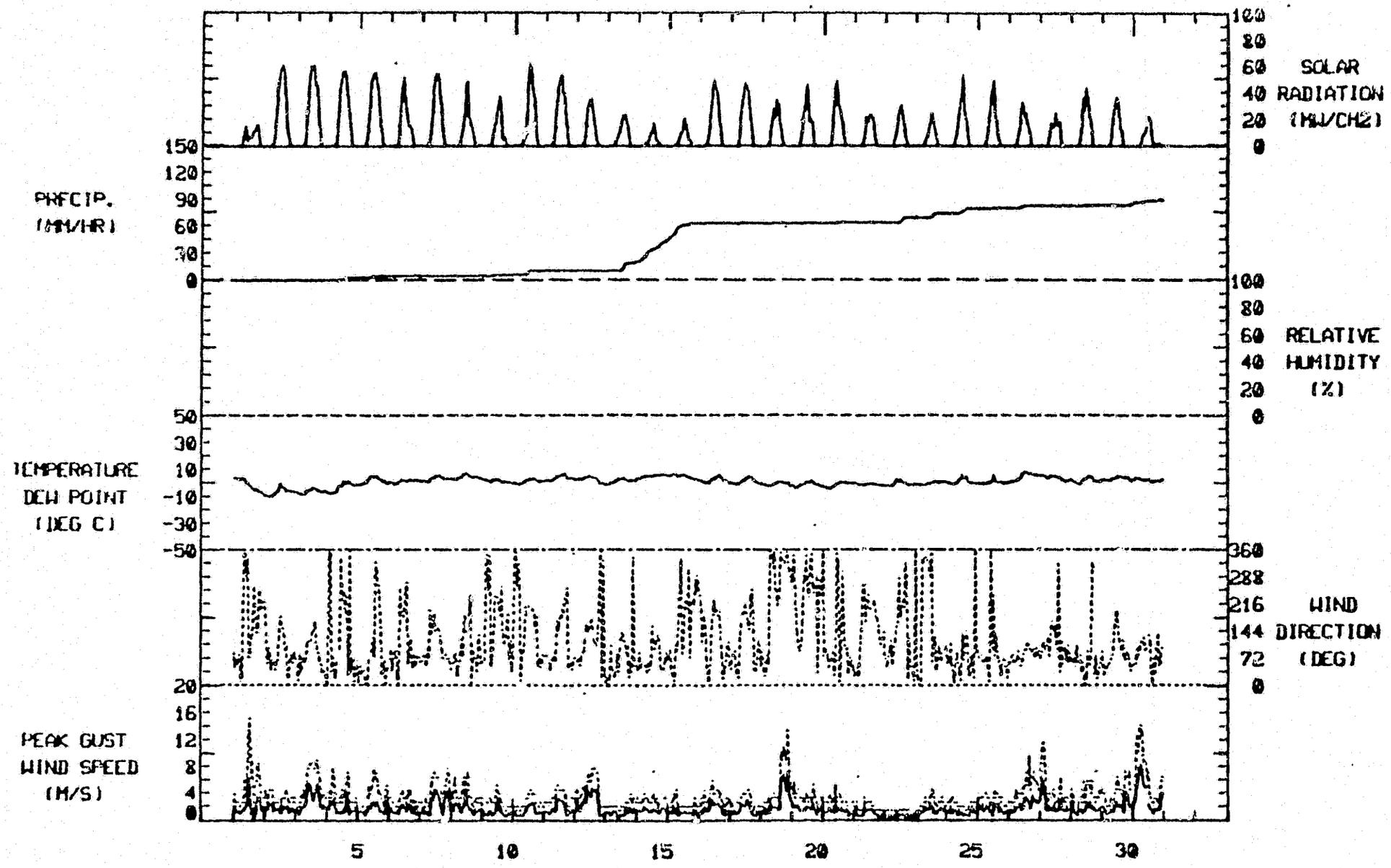
DAY	MAX. TEMP. DEG C	MIN. TEMP. DEG C	MEAN TEMP. DEG C	RES. WIND DIR. DEG	RES. WIND SPD. M/S	AVG. WIND SPD. M/S	MAX. GUST DIR. DEG	MAX. GUST SPD. M/S	P'VAL DIR.	MEAN RH %	MEAN DP DEG C	PRECIP MM	DAY'S SOLAR ENERGY WH/SQM	DAY
01	3.5	-9.3	-2.9	105	.4	1.8	093	15.2	SW	**	*****	0.0	1320	01
02	.7	-10.5	-4.9	083	1.1	1.6	219	4.4	NE	**	*****	0.0	4515	02
03	-2.1	-9.0	-5.6	095	2.2	2.8	085	8.9	NE	**	*****	0.0	4855	03
04	2.3	-8.4	-3.0	040	.8	1.6	069	7.6	N	**	*****	2.6	4375	04
05	5.2	-2.1	1.5	038	.8	1.6	090	7.6	NE	**	*****	1.8	4360	05
06	2.3	-1.1	.6	092	.6	1.4	164	4.4	ENE	**	*****	0.0	2870	06
07	5.5	.5	3.0	112	1.7	2.4	072	7.6	ENE	**	*****	0.0	3795	07
08	7.0	2.0	4.5	096	.9	1.7	142	7.0	NE	**	*****	0.0	2360	08
09	3.1	-.5	1.3	180	.2	1.0	236	5.1	ENE	**	*****	1.2	1970	09
10	3.1	-1.1	1.0	187	.4	1.2	207	4.4	SSW	**	*****	4.4	3550	10
11	6.2	.7	3.4	130	.6	1.6	143	5.1	ENE	**	*****	0.0	3735	11
12	4.7	-1.1	1.8	120	1.9	2.5	136	7.6	ENE	**	*****	0.0	2300	12
13	4.7	-.8	2.0	050	.7	1.0	028	3.8	NNE	**	*****	10.6	1650	13
14	6.4	3.3	4.9	070	1.1	1.4	043	3.8	ENE	**	*****	24.4	830	14
15	6.2	1.8	4.0	107	.1	1.0	078	4.4	WSW	**	*****	17.8	1095	15
16	5.6	-.4	2.6	153	.7	1.6	163	5.7	ENE	**	*****	0.0	3220	16
17	5.2	-1.2	2.0	154	.6	1.3	169	4.4	NE	**	*****	0.0	3290	17
18	.9	-2.5	-.8	329	2.1	2.7	326	13.3	NNW	**	*****	0.0	2185	18
19	1.7	-3.9	-1.1	279	.5	1.6	294	5.7	NNW	**	*****	0.0	2510	19
20	.3	-4.3	-2.0	058	.8	1.2	055	5.1	ENE	**	*****	.8	2800	20
21	-.2	-2.1	-1.1	196	.3	.8	175	3.2	SW	**	*****	0.0	1645	21
22	4.3	-2.3	1.0	129	.1	.4	021	1.3	ENE	**	*****	5.6	1785	22
23	1.0	-1.6	-.3	028	.6	1.2	043	4.4	NNW	**	*****	4.6	1335	23
24	7.5	-1.2	3.2	065	.7	1.0	052	3.2	ENE	**	*****	5.4	2625	24
25	7.5	-1.1	3.2	063	1.2	1.5	148	4.4	ENE	**	*****	.6	2520	25
26	8.5	0.0	4.3	084	2.0	2.1	095	9.5	E	**	*****	2.8	2020	26
27	5.6	.1	2.9	101	1.7	2.1	104	11.4	ESE	**	*****	0.0	1585	27
28	5.0	-1.2	1.9	048	1.2	1.5	026	5.7	NNE	**	*****	.2	2585	28
29	5.0	.9	2.9	085	1.4	1.9	062	7.0	ENE	**	*****	2.2	2160	29
30	2.3	.6	1.5	095	3.1	3.5	096	14.0	E	**	*****	4.2	1220	30
MONTH	8.5	-10.5	1.1	085	.7	1.6	093	15.2	ENE	**	*****	89.2	77065	

GUST VEL. AT MAX. GUST MINUS 2 INTERVALS	9.5
GUST VEL. AT MAX. GUST MINUS 1 INTERVAL	13.3
GUST VEL. AT MAX. GUST PLUS 1 INTERVAL	8.3
GUST VEL. AT MAX. GUST PLUS 2 INTERVALS	6.3

NOTE: RELATIVE HUMIDITY READINGS ARE UNRELIABLE WHEN WIND SPEED ARE <1.0 METERS PER SECOND. SUCH READINGS HAVE NOT BEEN INCLUDED IN THE DAILY OR MONTHLY MEAN FOR RELATIVE HUMIDITY AND DEW POINT.

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

R&M CONSULTANT, INC. SUSITNA HYDROELECTRIC PROJECT



DAY OF THE MONTH GLACIER WEATHER STATION

DATA START: 01 SEPTEMBER , 1980

R&M CONSULTANTS, INC.

SUSITNA HYDROELECTRIC PROJECT

WIND FREQUENCY SUMMARY FOR GLACIER WEATHER STATION
DATA TAKEN DURING SEPTEMBER , 1980

	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	GREATER THAN 20.0	TOTAL
N	1.67	3.82	.07	0.00	0.00	0.00	0.00	5.56
NNE	3.27	6.32	.07	0.00	0.00	0.00	0.00	9.66
NE	3.82	7.85	.14	0.00	0.00	0.00	0.00	11.81
ENE	3.96	11.67	1.18	0.00	0.00	0.00	0.00	16.82
E	2.92	6.60	1.88	.28	0.00	0.00	0.00	11.67
ESE	2.15	5.07	1.74	.56	0.00	0.00	0.00	9.52
SE	1.81	2.43	1.18	0.00	0.00	0.00	0.00	5.42
SSE	.97	2.43	1.32	0.00	0.00	0.00	0.00	4.73
S	.69	2.71	.42	0.00	0.00	0.00	0.00	3.82
SSW	.69	3.06	0.00	0.00	0.00	0.00	0.00	3.75
SW	1.18	2.85	.07	0.00	0.00	0.00	0.00	4.10
WSW	.90	1.60	0.00	0.00	0.00	0.00	0.00	2.50
W	.42	.97	.14	0.00	0.00	0.00	0.00	1.53
WNW	.69	1.32	0.00	0.00	0.00	0.00	0.00	2.02
NW	.63	.69	.14	.28	0.00	0.00	0.00	1.74
NNW	.90	2.50	.28	.21	0.00	0.00	0.00	3.89
CALM								1.46
TOTAL	26.69	61.92	8.62	1.32	0.00	0.00	0.00	100.00

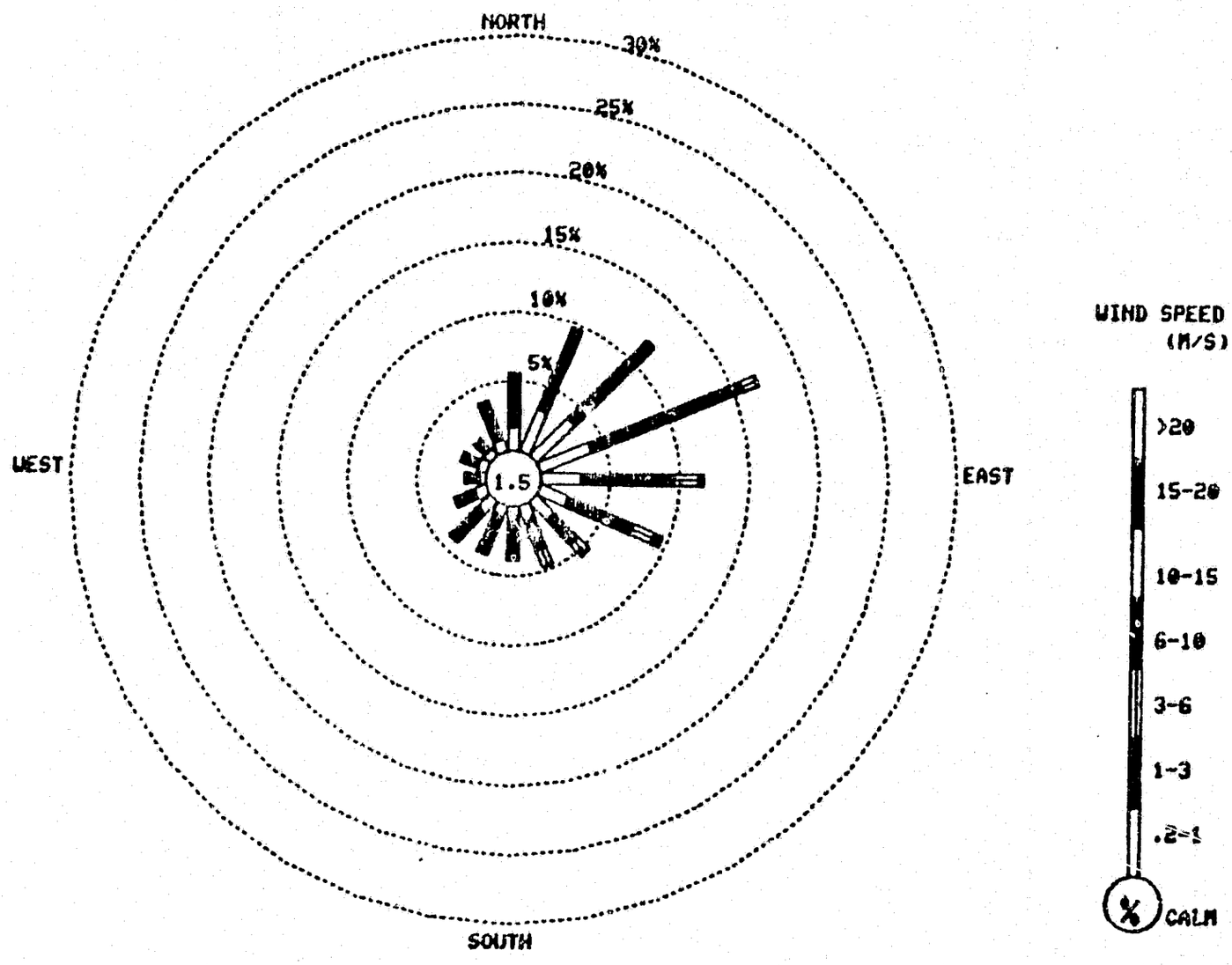
NOTE: ALL FREQUENCIES EXPRESSED IN PERCENT.

1439 VALID WIND OBSERVATIONS USED TO DEVELOP FREQUENCY SUMMARY

SUSITNA HYDROELECTRIC PROJECT

GLACIER WEATHER STATION

SEPTEMBER, 1980



WIND ROSE PLOT

R&M CONSULTANTS, INC.

SUSITNA HYDROELECTRIC PROJECT

HOURLY PRECIPITATION SUMMARY FOR GLACIER WEATHER STATION
DATA TAKEN DURING OCTOBER , 1980

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
01	0.0	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	01
02	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	02
03	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	03
04	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	04
05	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	05
06	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	06
07	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	07
08	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	08
09	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	09
10	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	10
11	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	11
12	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	12
13	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	13
14	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	14
15	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	15
16	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	16
17	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	17
18	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	18
19	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	19
20	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	20
21	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	21
22	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	22
23	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	23
24	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	24
25	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	25
26	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	26
27	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	27
28	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	28
29	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	29
30	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	30
31	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	31

R&M CONSULTANTS, INC.

SUSITNA HYDROELECTRIC PROJECT

THREE HOUR SUMMARY FOR GLACIER WEATHER STATION
DATA TAKEN DURING OCTOBER , 1980

DAY 01

HOUR NDNG	TEMP. DEG C	DEW POINT DEG C	RH %	WIND DIR. DEG.	WIND SPD. M/S	GUST DIR. DEG.	MAX. GUST M/S	RAD MW
0300	2.3	*****	**	079	3.9	081	8.3	002
0600	2.6	*****	**	077	3.0	092	5.7	000
0900	3.0	*****	**	075	2.1	071	5.1	022
1200	3.4	*****	**	099	1.6	118	4.4	034
1500	3.9	*****	**	086	.6	344	4.4	020
1800	1.8	*****	**	112	1.1	139	4.4	000
2100	1.5	*****	**	060	1.3	057	3.8	000
2400	.4	*****	**	063	1.4	064	3.8	002

DAY 02

HOUR NDNG	TEMP. DEG C	DEW POINT DEG C	RH %	WIND DIR. DEG.	WIND SPD. M/S	GUST DIR. DEG.	MAX. GUST M/S	RAD MW
0300	.2	*****	**	069	1.7	059	4.4	002
0600	-1.9	*****	**	010	.9	336	3.2	000
0900	-1.2	*****	**	009	1.1	023	2.5	010
1200	-.9	*****	**	032	.4	236	3.2	011
1500	-1.4	*****	**	163	1.1	125	5.7	004
1800	-2.6	*****	**	063	1.1	056	3.2	000
2100	-2.5	*****	**	068	1.5	071	3.2	002
2400	-1.7	*****	**	062	1.9	054	5.1	000

DAY 03

HOUR NDNG	TEMP. DEG C	DEW POINT DEG C	RH %	WIND DIR. DEG.	WIND SPD. M/S	GUST DIR. DEG.	MAX. GUST M/S	RAD MW
0300	-.8	*****	**	056	2.1	069	5.7	000
0600	-1.6	*****	**	014	1.8	356	5.7	002
0900	.1	*****	**	068	1.9	060	7.0	018
1200	.2	*****	**	088	2.4	089	7.6	031
1500	-1.0	*****	**	120	1.4	085	5.7	008
1800	-3.3	*****	**	061	.9	093	5.1	002
2100	-4.1	*****	**	354	.8	001	1.9	002
2400	-3.1	*****	**	042	.2	015	1.3	000

DAY 04

HOUR NDNG	TEMP. DEG C	DEW POINT DEG C	RH %	WIND DIR. DEG.	WIND SPD. M/S	GUST DIR. DEG.	MAX. GUST M/S	RAD MW
0300	-3.3	*****	**	046	.2	089	1.3	002
0600	-3.6	*****	**	305	.6	263	3.2	000
0900	-2.9	*****	**	074	1.0	046	3.8	008
1200	-1.2	*****	**	092	1.0	093	3.2	053
1500	*****	*****	**	103	2.0	121	3.8	015
1800	-2.2	*****	**	069	1.8	083	3.8	000
2100	-.9	*****	**	052	1.7	080	4.4	001
2400	-.9	*****	**	070	1.8	085	5.1	000

DAY 05

HOUR NDNG	TEMP. DEG C	DEW POINT DEG C	RH %	WIND DIR. DEG.	WIND SPD. M/S	GUST DIR. DEG.	MAX. GUST M/S	RAD MW
0300	-.3	*****	**	069	1.9	098	4.4	000
0600	-.6	*****	**	064	1.2	093	3.8	000
0900	-2.5	*****	**	029	1.3	094	5.7	020
1200	.7	*****	**	028	1.7	353	7.6	017
1500	2.0	*****	**	135	2.5	135	9.5	007
1800	1.2	*****	**	085	1.8	093	5.7	002
2100	1.7	*****	**	106	2.8	102	6.3	000
2400	-.3	*****	**	136	1.1	123	7.6	002

DAY 06

HOUR NDNG	TEMP. DEG C	DEW POINT DEG C	RH %	WIND DIR. DEG.	WIND SPD. M/S	GUST DIR. DEG.	MAX. GUST M/S	RAD MW
0300	-.3	*****	**	346	1.1	018	3.2	002
0600	.1	*****	**	009	1.0	335	4.4	002
0900	1.0	*****	**	008	1.3	047	5.1	017
1200	1.2	*****	**	051	1.2	075	3.8	014
1500	*****	*****	**	058	2.2	039	7.6	007
1800	3.3	*****	**	078	3.3	077	7.0	002
2100	2.2	*****	**	084	4.0	082	9.5	000
2400	1.6	*****	**	084	2.3	107	7.6	001

DAY 07

HOUR NDNG	TEMP. DEG C	DEW POINT DEG C	RH %	WIND DIR. DEG.	WIND SPD. M/S	GUST DIR. DEG.	MAX. GUST M/S	RAD MW
0300	3.0	*****	**	049	1.3	023	3.8	000
0600	2.2	*****	**	099	1.7	118	4.4	001
0900	1.6	*****	**	095	3.7	083	8.3	005
1200	2.1	*****	**	026	3.6	093	3.8	013
1500	1.7	*****	**	034	1.0	357	3.8	007
1800	1.2	*****	**	065	2.2	094	5.7	001
2100	.9	*****	**	053	1.3	034	3.8	001
2400	.9	*****	**	054	.9	033	2.5	001

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	*****	**	032	1.0	048	3.2	000
0600	-.8	*****	**	019	0.0	011	.6	001
0900	-.6	*****	**	092	3.8	095	10.2	008
1200	-3.8	*****	**	124	4.4	104	10.8	022
1500	-3.9	*****	**	244	1.4	244	5.7	007
1800	-6.3	*****	**	233	.5	245	3.2	001
2100	-6.0	*****	**	312	1.0	328	2.5	000
2400	-6.2	*****	**	012	.6	020	3.2	001

DAY 09

HOUR NDNG	TEMP. DEG C	DEW POINT DEG C	RH %	WIND DIR. DEG.	WIND SPD. M/S	GUST DIR. DEG.	MAX. GUST M/S	RAD MW
0300	-5.0	*****	**	065	1.5	095	3.8	000
0600	-6.3	*****	**	085	1.1	088	4.4	000
0900	-7.5	*****	**	122	.8	079	3.2	006
1200	-7.6	*****	**	034	.9	046	3.8	009
1500	-7.8	*****	**	339	1.2	327	3.2	003
1800	-6.0	*****	**	326	1.8	348	5.7	000
2100	-3.3	*****	**	016	2.6	004	5.7	001
2400	-.3	*****	**	069	2.8	085	9.5	001

R&M CONSULTANTS, INC.

SUSITNA HYDROELECTRIC PROJECT

THREE HOUR SUMMARY FOR GLACIER WEATHER STATION
DATA TAKEN DURING OCTOBER , 1980

DAY 10

HOUR NDNG	TEMP. DEG C	DEW POINT DEG C	RH %	WIND DIR. DEG.	WIND SPD. M/S	GUST DIR. DEG.	MAX. GUST M/S	RAD MW
0300	-1.5	*****	**	028	1.1	126	7.0	001
0600	-1.1	*****	**	103	6.4	112	15.9	000
0900	-2.3	*****	**	162	3.1	122	16.5	021
1200	-2.3	*****	**	167	2.4	177	6.3	032
1500	-4.6	*****	**	060	1.1	150	5.7	017
1800	-6.1	*****	**	065	.7	096	2.5	001
2100	-6.9	*****	**	050	.9	090	3.2	000
2400	-7.4	*****	**	030	.8	013	2.5	000

DAY 11

HOUR NDNG	TEMP. DEG C	DEW POINT DEG C	RH %	WIND DIR. DEG.	WIND SPD. M/S	GUST DIR. DEG.	MAX. GUST M/S	RAD MW
0300	-7.1	*****	**	325	1.0	323	3.2	000
0600	-6.8	*****	**	065	1.4	070	3.8	000
0900	-7.2	*****	**	062	1.3	045	3.2	018
1200	-5.1	*****	**	083	1.5	096	3.2	042
1500	-5.0	*****	**	036	1.0	090	2.5	015
1800	-6.7	*****	**	081	1.0	117	2.5	000
2100	-6.4	*****	**	065	.7	089	3.2	000
2400	-6.2	*****	**	103	1.3	062	3.8	000

DAY 12

HOUR NDNG	TEMP. DEG C	DEW POINT DEG C	RH %	WIND DIR. DEG.	WIND SPD. M/S	GUST DIR. DEG.	MAX. GUST M/S	RAD MW
0300	-6.0	*****	**	042	1.1	057	3.2	000
0600	-6.7	*****	**	074	1.0	072	3.2	000
0900	-6.7	*****	**	083	.4	127	2.5	014
1200	-6.5	*****	**	135	1.1	130	3.2	025
1500	-6.8	*****	**	087	.9	117	3.2	017
1800	-8.2	*****	**	080	.9	063	3.2	000
2100	-7.8	*****	**	062	1.2	028	2.5	000
2400	-8.3	*****	**	029	1.3	353	3.2	000

DAY 13

HOUR NDNG	TEMP. DEG C	DEW POINT DEG C	RH %	WIND DIR. DEG.	WIND SPD. M/S	GUST DIR. DEG.	MAX. GUST M/S	RAD MW
0300	-7.5	*****	**	088	1.5	111	3.2	000
0600	-6.0	*****	**	065	1.7	051	3.8	000
0900	-3.4	*****	**	063	1.2	046	3.2	018
1200	-4.7	*****	**	060	1.0	038	3.2	021
1500	-4.9	*****	**	062	1.0	076	3.6	014
1800	-6.4	*****	**	082	.9	113	2.5	000
2100	-6.6	*****	**	069	1.1	067	3.2	000
2400	-6.8	*****	**	075	1.4	095	3.2	000

DAY 14

HOUR NDNG	TEMP. DEG C	DEW POINT DEG C	RH %	WIND DIR. DEG.	WIND SPD. M/S	GUST DIR. DEG.	MAX. GUST M/S	RAD MW
0300	-6.0	*****	**	071	1.8	068	4.4	000
0600	-4.9	*****	**	063	2.2	071	5.7	000
0900	-3.8	*****	**	061	1.9	077	3.8	015
1200	-2.5	*****	**	051	1.4	045	4.4	016
1500	-1.6	*****	**	105	5.5	096	11.4	005
1800	-2.5	*****	**	097	.3	134	7.6	000
2100	-.7	*****	**	069	3.3	066	9.5	000
2400	-.1	*****	**	073	5.3	060	11.4	000

DAY 15

HOUR NDNG	TEMP. DEG C	DEW POINT DEG C	RH %	WIND DIR. DEG.	WIND SPD. M/S	GUST DIR. DEG.	MAX. GUST M/S	RAD MW
0300	.1	*****	**	114	4.1	091	10.2	001
0600	.9	*****	**	126	9.5	134	22.2	000
0900	-2.3	*****	**	152	10.9	146	24.1	009
1200	-2.8	*****	**	246	3.7	242	10.8	018
1500	-4.2	*****	**	274	.8	221	10.8	007
1800	-4.9	*****	**	221	2.0	221	7.6	000
2100	-5.7	*****	**	221	1.7	221	5.7	000
2400	-6.3	*****	**	221	.1	221	3.2	000

DAY 16

HOUR NDNG	TEMP. DEG C	DEW POINT DEG C	RH %	WIND DIR. DEG.	WIND SPD. M/S	GUST DIR. DEG.	MAX. GUST M/S	RAD MW
0300	-6.4	*****	**	221	1.0	221	3.2	000
0600	-6.9	*****	**	221	1.1	221	3.2	000
0900	-5.0	*****	**	215	1.2	221	4.4	016
1200	-4.6	*****	**	112	2.7	109	7.0	022
1500	-5.0	*****	**	092	3.2	111	6.3	008
1800	-4.2	*****	**	084	2.3	077	4.4	001
2100	-5.6	*****	**	067	2.0	095	4.4	001
2400	-6.0	*****	**	067	1.8	057	3.8	001

DAY 17

HOUR NDNG	TEMP. DEG C	DEW POINT DEG C	RH %	WIND DIR. DEG.	WIND SPD. M/S	GUST DIR. DEG.	MAX. GUST M/S	RAD MW
0300	-4.2	*****	**	056	2.0	055	4.4	001
0600	-2.3	*****	**	061	1.8	052	4.4	001
0900	-1.5	*****	**	054	2.5	086	7.0	008
1200	-1.8	*****	**	046	1.0	000	3.2	019
1500	-1.8	*****	**	031	1.5	020	4.4	007
1800	-.9	*****	**	095	1.8	121	10.2	001
2100	-2.5	*****	**	113	5.3	138	13.3	000
2400	-1.7	*****	**	053	1.2	005	4.4	000

DAY 18

HOUR NDNG	TEMP. DEG C	DEW POINT DEG C	RH %	WIND DIR. DEG.	WIND SPD. M/S	GUST DIR. DEG.	MAX. GUST M/S	RAD MW
0300	.4	*****	**	075	3.1	025	15.2	001
0600	-.2	*****	**	090	4.9	093	8.9	001
0900	0.0	*****	**	109	5.4	111	12.1	006
1200	.2	*****	**	086	4.3	082	10.8	015
1500	.1	*****	**	099	3.5	107	8.3	006
1800	-.8	*****	**	102	3.1	113	8.9	000
2100	-.8	*****	**	087	4.7	084	9.5	000
2400	-2.6	*****	**	094	2.8	095	7.6	000

R&M CONSULTANTS, INC.

SUSITNA HYDROELECTRIC PROJECT

THREE HOUR SUMMARY FOR GLACIER WEATHER STATION
DATA TAKEN DURING OCTOBER , 1980

DAY 19

HOUR NDNG	TEMP. DEG C	DEW POINT DEG C	RH %	WIND DIR. DEG.	WIND SPD. M/S	GUST DIR. DEG.	MAX. GUST M/S	RAD MW
0300	-2.9	*****	**	359	1.1	050	5.1	000
0600	-3.3	*****	**	280	1.1	314	3.8	000
0900	-2.0	*****	**	117	2.7	131	8.3	007
1200	-.6	*****	**	078	4.7	071	9.5	017
1500	.6	*****	**	084	5.0	088	9.5	006
1800	1.0	*****	**	086	4.7	085	8.9	001
2100	1.3	*****	**	088	4.5	096	10.8	001
2400	-.2	*****	**	065	3.0	069	7.0	001

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	1.2	*****	**	056	1.5	078	4.4	001
0600	-.6	*****	**	076	2.5	094	7.6	001
0900	-1.6	*****	**	044	1.5	022	4.4	011
1200	-.8	*****	**	066	1.6	102	4.4	018
1500	*****	*****	**	128	2.5	141	7.0	007
1800	-3.4	*****	**	058	2.3	089	7.0	000
2100	-3.0	*****	**	076	1.3	007	3.8	001
2400	-3.3	*****	**	140	1.3	154	6.3	000

DAY 21

HOUR NDNG	TEMP. DEG C	DEW POINT DEG C	RH %	WIND DIR. DEG.	WIND SPD. M/S	GUST DIR. DEG.	MAX. GUST M/S	RAD MW
0300	-3.9	*****	**	105	3.5	090	8.3	000
0600	-3.4	*****	**	091	3.5	092	7.6	001
0900	-3.4	*****	**	094	4.3	098	8.3	012
1200	*****	*****	**	082	2.4	081	7.0	013
1500	-2.6	*****	**	090	2.4	116	8.3	004
1800	-1.7	*****	**	039	2.2	065	8.3	001
2100	-.1	*****	**	091	2.0	085	7.0	001
2400	2.7	*****	**	094	5.3	077	11.4	001

DAY 22

HOUR NDNG	TEMP. DEG C	DEW POINT DEG C	RH %	WIND DIR. DEG.	WIND SPD. M/S	GUST DIR. DEG.	MAX. GUST M/S	RAD MW
0300	1.6	*****	**	088	5.6	086	10.8	001
0600	3.4	*****	**	088	5.2	094	10.8	001
0900	5.0	*****	**	081	5.7	084	11.4	010
1200	3.4	*****	**	080	3.7	080	10.8	022
1500	*****	*****	**	061	1.5	085	4.4	005
1800	3.4	*****	**	086	4.9	094	10.8	001
2100	3.2	*****	**	096	5.5	100	9.5	001
2400	2.8	*****	**	066	2.8	099	7.6	001

DAY 23

HOUR NDNG	TEMP. DEG C	DEW POINT DEG C	RH %	WIND DIR. DEG.	WIND SPD. M/S	GUST DIR. DEG.	MAX. GUST M/S	RAD MW
0300	2.6	*****	**	079	1.7	057	4.4	001
0600	3.4	*****	**	067	1.4	042	3.2	001
0900	4.3	*****	**	052	2.0	027	4.4	008
1200	*****	*****	**	055	1.1	057	3.8	017
1500	1.9	*****	**	029	2.1	048	5.7	003
1800	4.3	*****	**	072	2.1	072	6.3	001
2100	4.6	*****	**	061	1.3	071	5.1	001
2400	6.3	*****	**	059	1.6	044	5.7	001

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	2.1	*****	**	070	2.0	105	7.6	000
0600	5.2	*****	**	071	3.5	092	12.1	001
0900	2.9	*****	**	091	4.6	098	10.2	006
1200	4.0	*****	**	084	4.1	112	11.4	016
1500	3.3	*****	**	105	6.4	111	12.7	011
1800	1.8	*****	**	118	4.4	105	12.1	001
2100	1.5	*****	**	074	3.9	085	8.3	001
2400	.3	*****	**	068	2.3	075	6.3	001

DAY 25

HOUR NDNG	TEMP. DEG C	DEW POINT DEG C	RH %	WIND DIR. DEG.	WIND SPD. M/S	GUST DIR. DEG.	MAX. GUST M/S	RAD MW
0300	1.3	*****	**	070	1.9	063	5.1	001
0600	1.0	*****	**	088	2.8	069	5.1	001
0900	1.4	*****	**	083	3.7	091	7.6	020
1200	.7	*****	**	107	1.5	122	3.8	026
1500	.2	*****	**	147	.4	060	2.5	007
1800	-2.3	*****	**	028	.8	040	2.5	000
2100	-3.1	*****	**	076	.9	070	3.2	000
2400	-3.0	*****	**	073	1.3	086	3.8	001

DAY 26

HOUR NDNG	TEMP. DEG C	DEW POINT DEG C	RH %	WIND DIR. DEG.	WIND SPD. M/S	GUST DIR. DEG.	MAX. GUST M/S	RAD MW
0300	-3.3	*****	**	071	1.7	051	3.8	001
0600	-3.9	*****	**	067	2.4	070	5.7	001
0900	-1.2	*****	**	067	1.9	054	5.7	012
1200	-.9	*****	**	045	1.0	018	3.8	020
1500	*****	*****	**	091	1.1	047	4.4	006
1800	-2.1	*****	**	068	2.5	075	5.7	001
2100	-2.9	*****	**	049	1.7	082	4.4	001
2400	-2.5	*****	**	076	2.3	049	4.4	001

DAY 27

HOUR NDNG	TEMP. DEG C	DEW POINT DEG C	RH %	WIND DIR. DEG.	WIND SPD. M/S	GUST DIR. DEG.	MAX. GUST M/S	RAD MW
0300	-2.2	*****	**	068	1.5	071	3.8	001
0600	-2.2	*****	**	072	1.8	066	4.4	001
0900	*****	*****	**	065	1.6	069	4.4	008
1200	.2	*****	**	076	1.7	059	5.7	021
1500	-3.6	*****	**	069	1.8	073	4.4	002
1800	-3.8	*****	**	060	1.4	055	4.4	001
2100	-2.1	*****	**	062	1.5	019	3.8	000
2400	-.3	*****	**	072	1.6	069	5.1	001

R&M CONSULTANTS, INC.

SUSITNA HYDROELECTRIC PROJECT

THREE HOUR SUMMARY FOR GLACIER WEATHER STATION
DATA TAKEN DURING OCTOBER , 1980

DAY 28

HOUR NDNG	TEMP. DEG C	DEW POINT DEG C	RH %	WIND DIR. DEG.	WIND SPD. M/S	GUST DIR. DEG.	MAX. GUST M/S	RAD MW
0300	-2.5	*****	**	071	1.8	056	5.1	000
0600	-.5	*****	**	063	1.4	082	3.8	001
0900	-2.2	*****	**	086	1.0	043	3.2	006
1200	-1.2	*****	**	058	1.3	051	3.8	015
1500	-2.1	*****	**	064	1.9	091	3.2	002
1800	-3.3	*****	**	064	1.0	041	3.2	000
2100	-3.3	*****	**	063	1.2	100	2.5	000
2400	-5.7	*****	**	334	.8	012	2.5	000

DAY 29

HOUR NDNG	TEMP. DEG C	DEW POINT DEG C	RH %	WIND DIR. DEG.	WIND SPD. M/S	GUST DIR. DEG.	MAX. GUST M/S	RAD MW
0300	-7.5	*****	**	303	1.0	284	3.2	000
0600	-8.0	*****	**	289	.2	240	1.9	000
0900	-7.0	*****	**	049	.4	006	1.9	003
1200	-5.8	*****	**	059	.4	072	1.9	004
1500	-6.1	*****	**	033	1.2	071	3.2	001
1800	-6.0	*****	**	066	.7	040	2.5	001
2100	-6.3	*****	**	089	.7	115	2.5	000
2400	-5.9	*****	**	078	1.0	105	3.2	000

DAY 30

HOUR NDNG	TEMP. DEG C	DEW POINT DEG C	RH %	WIND DIR. DEG.	WIND SPD. M/S	GUST DIR. DEG.	MAX. GUST M/S	RAD MW
0300	-6.7	*****	**	078	1.1	044	3.2	001
0600	-6.5	*****	**	081	.8	044	3.2	001
0900	-6.7	*****	**	078	1.1	056	2.5	015
1200	-4.7	*****	**	066	1.6	068	3.8	017
1500	-5.8	*****	**	055	1.5	059	5.1	004
1800	-6.6	*****	**	076	1.2	070	4.4	001
2100	-6.8	*****	**	068	2.0	057	4.4	001
2400	-7.0	*****	**	066	2.2	073	5.7	001

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	-6.9	*****	**	054	2.8	080	6.3	001
0600	-6.5	*****	**	048	4.0	043	7.6	001
0900	*****	*****	**	063	3.3	074	7.6	010
1200	*****	*****	**	050	1.9	063	3.2	016
1500	*****	*****	**	049	.9	079	1.9	003
1800	-9.4	*****	**	047	1.0	077	3.8	001
2100	-9.4	*****	**	060	1.4	073	3.8	001
2400	-9.5	*****	**	062	1.8	065	4.4	001

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	*****	*****	**	***	****	***	****	***

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 GLACIER WEATHER STATION
DATA TAKEN DURING OCTOBER , 1980

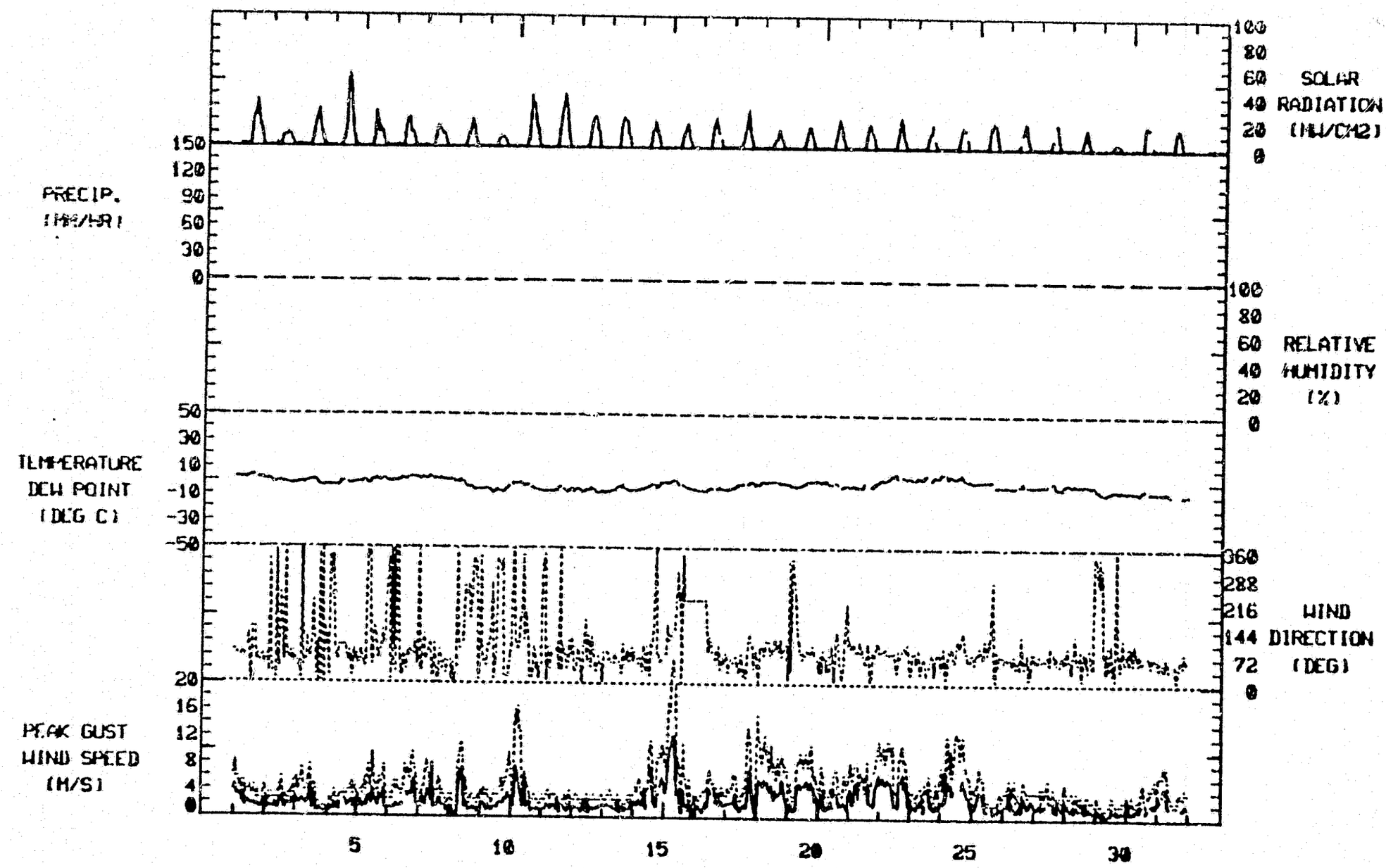
DAY	MAX. TEMP. DEG C	MIN. TEMP. DEG C	MEAN TEMP. DEG C	RES. WIND DIR. DEG	RES. WIND SPD. M/S	AVG. WIND SPD. M/S	MAX. GUST DIR. DEG	MAX. GUST SPD. M/S	P'VAL DIR.	MEAN RH %	MEAN DP DEG C	PRECIP MM	DAY'S SOLAR ENERGY WH/SQM	DAY
01	4.8	.4	2.6	079	1.8	2.1	081	8.3	ENE	**	*****	0.0	2150	01
02	1.2	-2.9	-.9	059	.9	1.6	125	5.7	ENE	**	*****	****	915	02
03	1.1	-4.1	-1.5	062	1.2	1.7	089	7.6	ENE	**	*****	****	1680	03
04	.9	-3.9	-1.5	071	1.1	1.4	085	5.1	E	**	*****	****	2590	04
05	2.2	-2.5	-.2	087	1.4	2.2	135	9.5	ENE	**	*****	****	1365	05
06	3.3	-.6	1.4	062	1.7	2.3	082	9.5	ENE	**	*****	****	1330	06
07	3.6	.7	2.2	062	1.7	2.2	083	8.3	NNE	**	*****	****	1170	07
08	1.1	-7.2	-3.1	103	.7	1.8	104	10.8	N	**	*****	****	1075	08
09	.9	-9.2	-4.2	038	1.1	1.8	085	9.5	ENE	**	*****	****	580	09
10	-1.0	-7.6	-4.3	108	1.4	2.5	122	16.5	E	**	*****	****	2015	10
11	-3.6	-9.3	-6.4	065	.9	1.3	070	3.8	ENE	**	*****	****	2145	11
12	-4.6	-9.1	-6.9	070	.8	1.2	057	3.2	ENE	**	*****	****	1455	12
13	-2.0	-8.1	-5.1	071	1.2	1.3	051	3.8	ENE	**	*****	****	1450	13
14	.3	-7.0	-3.3	077	2.6	3.1	096	11.4	ENE	**	*****	****	960	14
15	1.1	-6.3	-2.6	155	2.9	4.4	146	24.1	SW	**	*****	****	895	15
16	-4.1	-6.0	-5.1	103	1.1	1.9	109	7.0	SW	**	*****	****	1185	16
17	.1	-6.2	-3.0	074	1.9	2.3	138	13.3	ENE	**	*****	****	1265	17
18	.7	-2.5	-.9	093	3.9	4.2	025	15.2	E	**	*****	****	750	18
19	1.3	-3.3	-1.0	082	2.9	3.5	096	10.8	E	**	*****	****	920	19
20	1.8	-4.0	-1.1	078	1.5	2.1	094	7.6	NE	**	*****	****	1155	20
21	1.8	-4.2	-1.2	089	3.1	3.4	077	11.4	E	**	*****	****	1100	21
22	6.8	1.5	4.2	084	4.4	4.5	084	11.4	E	**	*****	****	1175	22
23	6.9	-.7	3.1	060	1.6	1.8	072	6.3	ENE	**	*****	****	899	23
24	6.8	-.3	3.3	089	3.6	4.0	111	12.7	E	**	*****	****	1042	24
25	2.0	-3.3	-.7	083	1.7	1.9	091	7.6	E	**	*****	****	1241	25
26	.3	-4.0	-1.8	067	1.8	1.9	070	5.7	ENE	**	*****	****	1057	26
27	1.2	-4.7	-1.8	068	1.6	1.7	059	5.7	ENE	**	*****	****	904	27
28	-.3	-5.2	-2.8	063	1.2	1.4	056	5.1	ENE	**	*****	****	670	28
29	-5.1	-8.2	-6.7	045	.5	.9	284	3.2	ENE	**	*****	****	275	29
30	-4.1	-8.0	-6.1	070	1.4	1.5	073	5.7	ENE	**	*****	****	1012	30
31	-5.8	-9.7	-7.8	055	2.4	2.4	043	7.6	NE	**	*****	****	991	31
MONTH	6.9	-9.7	-2.0	080	1.7	2.3	146	24.1	ENE	**	*****	0.0	37415	

GUST VEL. AT MAX. GUST MINUS 2 INTERVALS 22.2
GUST VEL. AT MAX. GUST MINUS 1 INTERVAL 19.7
GUST VEL. AT MAX. GUST PLUS 1 INTERVAL 19.7
GUST VEL. AT MAX. GUST PLUS 2 INTERVALS 17.8

NOTE: RELATIVE HUMIDITY READINGS ARE UNRELIABLE WHEN WIND SPEED ARE <1.0 METERS PER SECOND, SUCH READINGS HAVE NOT BEEN INCLUDED IN THE DAILY OR MONTHLY MEAN FOR RELATIVE HUMIDITY AND DEW POINT.

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

R&M CONSULTANT, INC. SUSITNA HYDROELECTRIC PROJECT



DAY OF THE MONTH GLACIER WEATHER STATION

DATA START: 01 OCTOBER , 1980

R&M CONSULTANTS, INC.

SUSITNA HYDROELECTRIC PROJECT

WIND FREQUENCY SUMMARY FOR GLACIER WEATHER STATION
DATA TAKEN DURING OCTOBER , 1980

	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	GREATER THAN 20.0	TOTAL
N	1.11	3.48	.14	0.00	0.00	0.00	0.00	4.73
NNE	1.18	6.19	.49	0.00	.07	0.00	0.00	7.93
NE	1.67	10.22	1.32	0.00	0.00	0.00	0.00	13.21
ENE	2.64	17.25	5.08	.07	0.00	0.00	0.00	25.03
E	1.95	10.85	7.86	1.18	0.00	0.00	0.00	21.84
ESE	1.25	3.69	3.06	1.25	.14	0.00	0.00	9.39
SE	.49	2.09	1.11	.07	.42	0.00	0.00	4.17
SSE	.28	.76	.35	0.00	.07	0.00	0.00	1.46
S	0.00	.35	.14	0.00	.07	0.00	0.00	.56
SSW	.21	.42	.07	0.00	.07	0.00	0.00	.76
SW	.90	1.74	.21	0.00	0.00	0.00	0.00	2.85
WSW	.07	.70	0.00	.07	0.00	0.00	0.00	.83
W	.07	.49	0.00	0.00	0.00	0.00	0.00	.56
WNW	.35	.63	.07	0.00	0.00	0.00	0.00	1.04
NW	.70	.83	0.00	0.00	0.00	0.00	0.00	1.53
NNW	.97	1.88	.07	0.00	0.00	0.00	0.00	2.92
CALM								1.18
TOTAL	13.84	61.54	19.96	2.64	.83	0.00	0.00	100.00

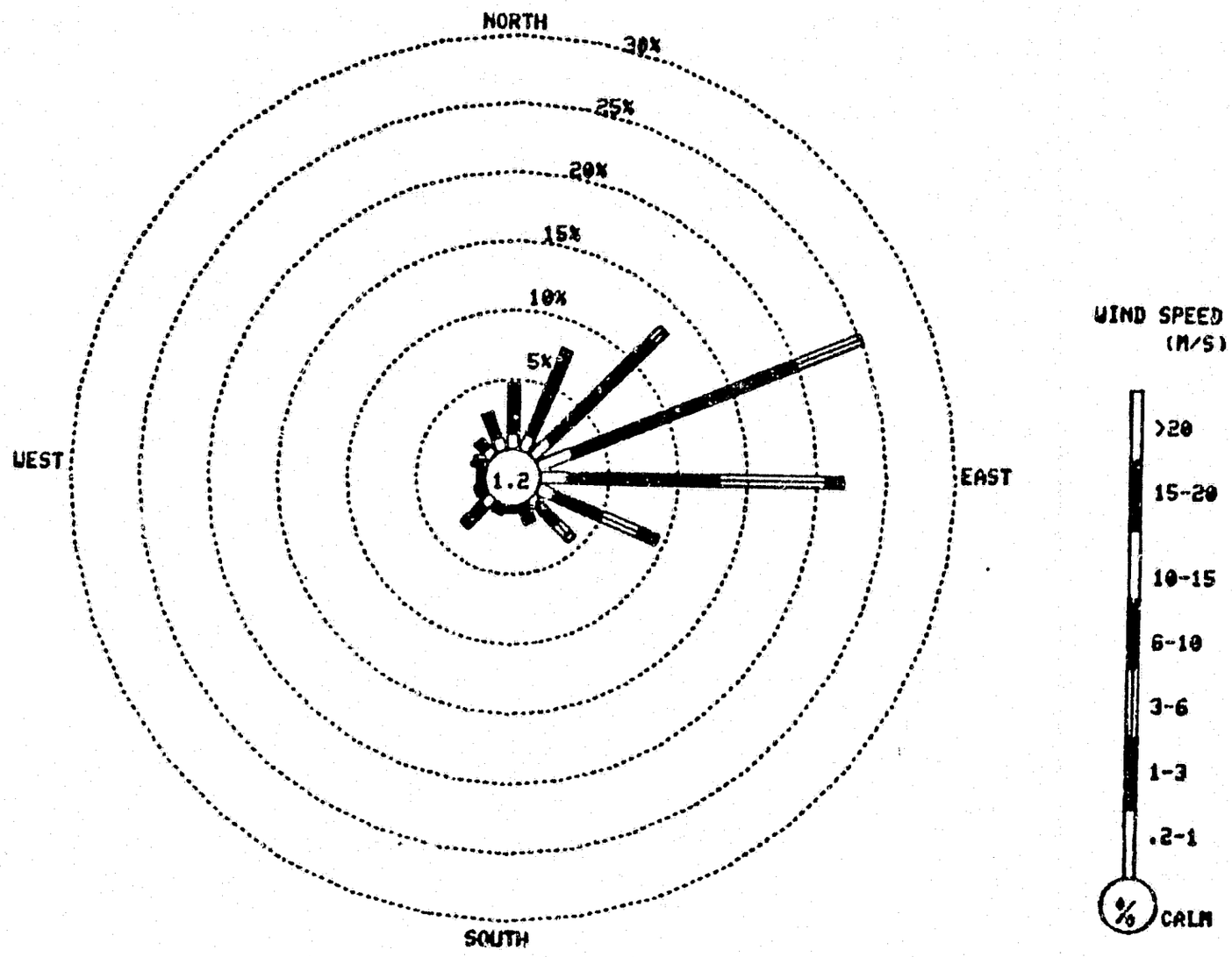
NOTE: ALL FREQUENCIES EXPRESSED IN PERCENT.

1438 VALID WIND OBSERVATIONS USED TO DEVELOP FREQUENCY SUMMARY

SUSITNA HYDROELECTRIC PROJECT

GLACIER WEATHER STATION

OCTOBER, 1980



WIND ROSE PLOT

R&M CONSULTANTS, INC.

SUSITNA HYDROELECTRIC PROJECT

HOURLY PRECIPITATION SUMMARY FOR GLACIER WEATHER STATION
DATA TAKEN DURING NOVEMBER , 1980

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
01	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	01
02	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	02
03	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	03
04	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	04
05	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	05
06	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	06
07	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	07
08	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	08
09	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	09
10	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	10
11	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	11
12	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	12
13	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	13
14	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	14
15	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	15
16	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	16
17	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	17
18	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	18
19	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	19
20	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	20
21	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	21
22	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	22
23	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	23
24	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	24
25	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	25
26	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	26
27	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	27
28	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	28
29	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	29
30	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	30

R&M CONSULTANTS, INC.

SUSITNA HYDROELECTRIC PROJECT

THREE HOUR SUMMARY FOR GLACIER WEATHER STATION
DATA TAKEN DURING NOVEMBER , 1980

DAY 01

HOUR NDNG	TEMP. DEG C	DEW POINT DEG C	RH %	WIND DIR. DEG.	WIND SPD. M/S	GUST DIR. DEG.	MAX. GUST M/S	RAD MW
0300	-9.0	*****	**	033	1.7	006	3.8	001
0600	-10.9	*****	**	061	1.6	098	3.8	001
0900	-7.9	*****	**	045	1.3	063	3.8	009
1200	-6.4	*****	**	066	1.5	067	3.2	016
1500	-7.3	*****	**	044	1.3	029	3.8	002
1800	-5.5	*****	**	085	1.0	121	3.8	001
2100	-5.3	*****	**	078	1.3	033	4.4	001
2400	-7.5	*****	**	066	.9	029	3.2	001

DAY 02

HOUR NDNG	TEMP. DEG C	DEW POINT DEG C	RH %	WIND DIR. DEG.	WIND SPD. M/S	GUST DIR. DEG.	MAX. GUST M/S	RAD MW
0300	-6.1	*****	**	069	1.1	045	3.8	001
0600	-9.2	*****	**	103	1.0	120	3.2	001
0900	-5.0	*****	**	076	.6	347	3.2	006
1200	*****	*****	**	077	.8	073	2.5	011
1500	-2.8	*****	**	089	.8	101	2.5	002
1800	-3.7	*****	**	053	1.4	058	5.7	001
2100	-3.3	*****	**	077	1.3	086	3.8	001
2400	-3.2	*****	**	099	2.2	093	6.3	001

DAY 03

HOUR NDNG	TEMP. DEG C	DEW POINT DEG C	RH %	WIND DIR. DEG.	WIND SPD. M/S	GUST DIR. DEG.	MAX. GUST M/S	RAD MW
0300	-3.1	*****	**	077	1.5	069	4.4	001
0600	-1.7	*****	**	075	1.0	031	4.4	001
0900	-1.9	*****	**	068	1.9	061	4.4	006
1200	-4.2	*****	**	070	1.4	070	5.1	008
1500	-3.4	*****	**	065	2.0	039	4.4	001
1800	-.7	*****	**	081	1.3	078	3.8	000
2100	-2.6	*****	**	051	1.3	045	3.2	000
2400	-.8	*****	**	019	.9	347	4.4	000

DAY 04

HOUR NDNG	TEMP. DEG C	DEW POINT DEG C	RH %	WIND DIR. DEG.	WIND SPD. M/S	GUST DIR. DEG.	MAX. GUST M/S	RAD MW
0300	-2.1	*****	**	014	1.4	061	7.6	000
0600	-.7	*****	**	060	1.4	054	4.4	001
0900	-.1	*****	**	075	2.2	085	5.1	006
1200	1.3	*****	**	073	1.8	073	5.7	009
1500	0.0	*****	**	070	1.1	121	3.2	002
1800	-.9	*****	**	056	2.0	092	7.0	001
2100	-1.9	*****	**	354	1.3	004	3.2	000
2400	-1.4	*****	**	066	.6	118	1.9	000

DAY 05

HOUR NDNG	TEMP. DEG C	DEW POINT DEG C	RH %	WIND DIR. DEG.	WIND SPD. M/S	GUST DIR. DEG.	MAX. GUST M/S	RAD MW
0300	-1.0	*****	**	038	.9	020	5.1	000
0600	-2.4	*****	**	049	1.1	091	5.1	000
0900	-1.6	*****	**	044	.8	035	2.5	002
1200	-1.8	*****	**	078	1.1	077	2.5	005
1500	*****	*****	**	061	.9	093	3.2	002
1800	-4.8	*****	**	066	1.4	061	3.2	001
2100	-1.5	*****	**	064	1.2	078	3.8	001
2400	*****	*****	**	087	1.1	082	4.4	***

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	*****	*****	**	094	.5	087	1.9	000
0600	-3.6	*****	**	051	1.1	053	3.2	001
0900	-4.5	*****	**	034	1.0	012	2.5	004
1200	*****	*****	**	064	.9	019	1.9	006
1500	*****	*****	**	067	.7	013	2.5	001
1800	-5.4	*****	**	066	1.0	055	3.8	000
2100	-4.3	*****	**	034	.7	005	2.5	000
2400	-6.4	*****	**	042	.5	099	1.9	000

DAY 07

HOUR NDNG	TEMP. DEG C	DEW POINT DEG C	RH %	WIND DIR. DEG.	WIND SPD. M/S	GUST DIR. DEG.	MAX. GUST M/S	RAD MW
0300	-7.1	*****	**	044	.6	010	2.5	001
0600	-8.5	*****	**	083	2.0	077	7.0	000
0900	-8.5	*****	**	073	2.3	102	5.1	004
1200	-9.3	*****	**	035	1.2	049	2.6	008
1500	-10.8	*****	**	031	1.4	047	3.2	001
1800	-11.8	*****	**	029	1.9	021	5.1	000
2100	-11.4	*****	**	047	1.4	031	3.8	001
2400	-12.8	*****	**	031	1.9	034	4.4	001

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	-13.4	*****	**	044	1.8	009	3.8	001
0600	-12.9	*****	**	048	1.3	074	3.8	001
0900	-13.7	*****	**	058	1.6	053	4.4	003
1200	*****	*****	**	096	1.9	114	7.6	022
1500	-10.7	*****	**	101	3.4	108	6.3	002
1800	-14.2	*****	**	023	2.0	036	5.7	001
2100	-13.0	*****	**	041	1.7	025	4.4	001
2400	-13.6	*****	**	027	1.4	011	3.8	001

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	-13.4	*****	**	069	1.3	056	3.8	001
0600	-13.2	*****	**	054	1.4	023	3.2	001
0900	-12.7	*****	**	069	1.6	068	3.8	003
1200	-10.2	*****	**	071	1.0	037	2.5	003
1500	-11.6	*****	**	077	1.3	065	3.2	002
1800	-12.5	*****	**	076	1.3	069	3.8	001
2100	-12.0	*****	**	067	1.1	087	2.5	001
2400	-11.0	*****	**	075	1.1	095	2.5	001

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DAY 10

HOUR NDNG	TEMP. DEG C	DEW POINT DEG C	RH %	WIND DIR. DEG.	WIND SPD. M/S	GUST DIR. DEG.	MAX. GUST M/S	RAD MW
0300	-10.1	*****	**	084	1.4	093	4.4	001
0600	-10.4	*****	**	073	1.0	079	2.5	001
0900	-9.8	*****	**	083	1.5	045	3.2	006
1200	*****	*****	**	078	1.9	098	5.1	012
1500	-7.3	*****	**	070	1.3	090	3.8	002
1800	-8.4	*****	**	098	4.0	091	10.2	001
2100	-7.0	*****	**	108	2.2	111	8.9	001
2400	-6.0	*****	**	112	4.4	114	8.3	001

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	-5.4	*****	**	102	4.9	098	9.5	001
0600	-6.0	*****	**	095	5.1	095	8.9	001
0900	-5.1	*****	**	113	2.8	142	7.0	002
1200	*****	*****	**	087	3.1	103	6.3	007
1500	-4.5	*****	**	066	1.7	083	3.8	001
1800	-4.2	*****	**	078	1.9	066	5.1	002
2100	-4.7	*****	**	065	1.6	071	5.1	001
2400	-5.8	*****	**	073	1.9	076	5.1	001

DAY 12

HOUR NDNG	TEMP. DEG C	DEW POINT DEG C	RH %	WIND DIR. DEG.	WIND SPD. M/S	GUST DIR. DEG.	MAX. GUST M/S	RAD MW
0300	-6.5	*****	**	066	1.8	075	5.1	001
0600	-6.2	*****	**	064	1.7	059	5.1	001
0900	-3.6	*****	**	048	1.7	084	5.7	002
1200	-1.2	*****	**	075	2.4	130	10.8	013
1500	-3.3	*****	**	120	4.7	126	12.7	001
1800	-6.1	*****	**	114	3.7	100	11.4	000
2100	-6.9	*****	**	256	1.4	253	7.0	001
2400	-5.2	*****	**	080	4.1	093	8.9	001

DAY 13

HOUR NDNG	TEMP. DEG C	DEW POINT DEG C	RH %	WIND DIR. DEG.	WIND SPD. M/S	GUST DIR. DEG.	MAX. GUST M/S	RAD MW
0300	-6.1	*****	**	072	1.7	084	5.7	000
0600	-5.4	*****	**	086	2.5	070	6.3	001
0900	-5.7	*****	**	061	1.3	118	5.1	002
1200	-4.9	*****	**	077	1.0	052	3.8	007
1500	-5.8	*****	**	066	.8	049	2.5	001
1800	-6.6	*****	**	075	.9	043	2.5	001
2100	-7.0	*****	**	072	1.3	095	3.2	001
2400	-6.2	*****	**	070	1.6	057	3.8	001

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	-7.1	*****	**	056	2.0	047	5.7	001
0600	-7.4	*****	**	077	1.1	089	2.5	001
0900	-6.3	*****	**	057	1.0	052	2.5	003
1200	-7.0	*****	**	083	.9	121	2.5	007
1500	-8.2	*****	**	058	1.4	067	3.8	001
1800	*****	*****	**	067	1.9	064	3.2	001
2100	-7.9	*****	**	072	1.8	060	3.8	001
2400	-6.3	*****	**	069	1.4	073	3.8	001

DAY 15

HOUR NDNG	TEMP. DEG C	DEW POINT DEG C	RH %	WIND DIR. DEG.	WIND SPD. M/S	GUST DIR. DEG.	MAX. GUST M/S	RAD MW
0300	-5.1	*****	**	082	2.1	046	4.4	001
0600	-6.6	*****	**	067	1.1	103	3.8	001
0900	-5.9	*****	**	058	2.1	048	4.4	002
1200	-2.6	*****	**	065	2.3	087	5.7	006
1500	-4.5	*****	**	058	2.7	069	6.3	001
1800	-2.9	*****	**	043	1.5	032	5.1	001
2100	-3.0	*****	**	030	1.9	002	5.8	001
2400	-2.5	*****	**	037	1.8	030	4.4	001

DAY 16

HOUR NDNG	TEMP. DEG C	DEW POINT DEG C	RH %	WIND DIR. DEG.	WIND SPD. M/S	GUST DIR. DEG.	MAX. GUST M/S	RAD MW
0300	.3	*****	**	068	1.3	088	4.4	001
0600	-5.2	*****	**	046	1.6	102	6.3	000
0900	-4.6	*****	**	044	1.3	055	7.6	002
1200	-3.5	*****	**	054	1.1	344	4.4	008
1500	-5.6	*****	**	089	1.1	120	3.2	000
1800	-5.1	*****	**	070	.9	***	3.2	000
2100	-6.9	*****	**	053	.6	133	2.5	000
2400	-6.2	*****	**	066	.5	125	2.5	000

DAY 17

HOUR NDNG	TEMP. DEG C	DEW POINT DEG C	RH %	WIND DIR. DEG.	WIND SPD. M/S	GUST DIR. DEG.	MAX. GUST M/S	RAD MW
0300	-6.7	*****	**	093	.7	047	3.2	000
0600	-6.9	*****	**	124	.5	132	1.9	000
0900	-7.7	*****	**	173	.7	170	3.8	001
1200	-6.6	*****	**	119	.6	114	3.2	005
1500	-7.4	*****	**	090	2.2	093	5.1	001
1800	-6.7	*****	**	064	2.2	071	4.4	001
2100	-6.3	*****	**	063	1.8	055	3.8	001
2400	-5.6	*****	**	040	1.6	05?	3.8	001

DAY 18

HOUR NDNG	TEMP. DEG C	DEW POINT DEG C	RH %	WIND DIR. DEG.	WIND SPD. M/S	GUST DIR. DEG.	MAX. GUST M/S	RAD MW
0300	-6.3	*****	**	072	2.0	075	4.4	001
0600	-5.7	*****	**	075	1.7	062	4.4	001
0900	-4.8	*****	**	064	1.5	060	4.4	002
1200	-3.3	*****	**	075	2.4	088	7.0	006
1500	*****	*****	**	099	2.1	114	7.0	001
1800	-4.6	*****	**	073	1.7	111	5.7	001
2100	-5.3	*****	**	104	2.3	101	7.6	001
2400	-5.4	*****	**	102	2.7	088	5.7	000

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DAY 19

HOUR NDNG	TEMP. DEG C	DEW POINT DEG C	RH %	WIND DIR. DEG.	WIND SPD. M/S	GUST DIR. DEG.	MAX. GUST M/S	RAD MW
0300	-5.7	*****	**	098	1.2	099	3.2	000
0600	-6.2	*****	**	051	1.0	083	3.2	000
0900	-3.6	*****	**	066	2.9	074	10.2	002
1200	-3.5	*****	**	075	4.5	074	8.3	005
1500	-3.2	*****	**	067	3.4	070	8.3	001
1800	-2.5	*****	**	068	4.0	070	8.3	001
2100	-1.4	*****	**	068	3.9	066	7.6	001
2400	-2.4	*****	**	070	3.3	077	7.6	001

DAY 20

HOUR NDNG	TEMP. DEG C	DEW POINT DEG C	RH %	WIND DIR. DEG.	WIND SPD. M/S	GUST DIR. DEG.	MAX. GUST M/S	RAD MW
0300	-3.9	*****	**	076	2.0	062	5.7	001
0600	-3.2	*****	**	065	1.5	112	5.1	001
0900	-5.5	*****	**	123	1.6	125	5.1	002
1200	-7.4	*****	**	055	1.1	075	3.2	005
1500	-7.2	*****	**	000	.9	349	3.8	001
1800	-8.3	*****	**	349	.8	302	3.2	000
2100	-7.9	*****	**	063	1.0	090	2.5	000
2400	-7.3	*****	**	016	.9	040	2.5	001

DAY 21

HOUR NDNG	TEMP. DEG C	DEW POINT DEG C	RH %	WIND DIR. DEG.	WIND SPD. M/S	GUST DIR. DEG.	MAX. GUST M/S	RAD MW
0300	-7.7	*****	**	025	.9	028	2.5	000
0600	-8.0	*****	**	092	1.6	091	5.1	000
0900	-7.5	*****	**	074	1.5	058	3.8	001
1200	-6.9	*****	**	098	1.1	076	3.2	004
1500	-7.4	*****	**	086	1.1	084	2.5	001
1800	-7.4	*****	**	078	1.6	063	4.4	001
2100	-8.4	*****	**	082	1.7	083	4.4	001
2400	-7.5	*****	**	077	1.6	099	4.4	001

DAY 22

HOUR NDNG	TEMP. DEG C	DEW POINT DEG C	RH %	WIND DIR. DEG.	WIND SPD. M/S	GUST DIR. DEG.	MAX. GUST M/S	RAD MW
0300	-7.9	*****	**	054	1.0	037	3.2	000
0600	-7.2	*****	**	054	1.3	024	3.8	001
0900	-6.3	*****	**	065	1.6	071	5.1	001
1200	-6.1	*****	**	049	1.9	048	5.1	002
1500	-5.2	*****	**	073	1.2	089	3.8	000
1800	-3.6	*****	**	087	2.9	106	8.9	001
2100	-5.8	*****	**	172	.6	136	8.3	000
2400	*****	*****	**	069	.8	070	3.2	000

DAY 23

HOUR NDNG	TEMP. DEG C	DEW POINT DEG C	RH %	WIND DIR. DEG.	WIND SPD. M/S	GUST DIR. DEG.	MAX. GUST M/S	RAD MW
0300	-5.0	*****	**	054	1.4	058	3.8	001
0600	-5.3	*****	**	056	1.5	059	3.8	001
0900	-5.6	*****	**	077	.9	022	2.5	001
1200	-6.0	*****	**	064	1.2	084	3.8	004
1500	-6.2	*****	**	075	1.0	061	3.2	000
1800	-5.8	*****	**	060	1.1	088	4.4	000
2100	-4.7	*****	**	111	3.5	094	8.3	000
2400	-3.7	*****	**	072	4.2	086	8.3	001

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	-2.6	*****	**	081	4.5	083	8.3	001
0600	-1.2	*****	**	088	4.7	087	10.2	001
0900	-1.4	*****	**	066	2.5	080	10.2	002
1200	-2.6	*****	**	108	6.6	119	15.2	009
1500	-3.5	*****	**	119	7.6	125	14.6	001
1800	-4.3	*****	**	116	3.0	123	7.6	000
2100	-3.2	*****	**	088	2.5	093	6.3	001
2400	-5.4	*****	**	118	2.5	108	8.9	000

DAY 25

HOUR NDNG	TEMP. DEG C	DEW POINT DEG C	RH %	WIND DIR. DEG.	WIND SPD. M/S	GUST DIR. DEG.	MAX. GUST M/S	RAD MW
0300	-5.8	*****	**	126	1.1	123	3.2	000
0600	-5.5	*****	**	082	2.1	081	5.7	001
0900	-6.1	*****	**	083	1.3	090	5.7	001
1200	-5.2	*****	**	045	1.2	045	4.4	004
1500	-5.8	*****	**	074	2.6	056	6.3	000
1800	-4.2	*****	**	076	4.0	086	8.3	001
2100	-4.4	*****	**	088	4.6	101	12.7	001
2400	-5.1	*****	**	092	5.0	082	10.2	001

DAY 26

HOUR NDNG	TEMP. DEG C	DEW POINT DEG C	RH %	WIND DIR. DEG.	WIND SPD. M/S	GUST DIR. DEG.	MAX. GUST M/S	RAD MW
0300	-5.8	*****	**	066	1.3	126	4.4	000
0600	-5.6	*****	**	044	1.4	031	5.1	000
0900	-6.3	*****	**	062	2.7	090	7.0	001
1200	-3.0	*****	**	060	2.9	048	5.7	004
1500	-2.0	*****	**	067	4.2	056	14.0	001
1800	-3.3	*****	**	045	8.5	048	17.8	001
2100	-6.9	*****	**	090	5.6	050	10.8	001
2400	-7.0	*****	**	068	.4	158	5.7	000

DAY 27

HOUR NDNG	TEMP. DEG C	DEW POINT DEG C	RH %	WIND DIR. DEG.	WIND SPD. M/S	GUST DIR. DEG.	MAX. GUST M/S	RAD MW
0300	-7.5	*****	**	053	.8	047	3.2	000
0600	-7.8	*****	**	057	.6	010	2.5	000
0900	-8.4	*****	**	012	1.1	352	3.2	001
1200	-9.2	*****	**	011	1.5	043	3.2	004
1500	-10.9	*****	**	054	.6	048	2.5	001
1800	-11.3	*****	**	029	.7	004	2.5	000
2100	-12.3	*****	**	056	.8	064	3.2	000
2400	-10.1	*****	**	048	.6	023	2.5	000

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DAY 28

HOUR NDNG	TEMP. DEG C	DEW POINT DEG C	RH %	WIND DIR. DEG.	WIND SPD. M/S	GUST DIR. DEG.	MAX. GUST M/S	RAD MW
0300	-13.1	*****	**	332	.6	349	3.2	001
0600	-12.7	*****	**	347	.6	036	2.5	001
0900	-12.4	*****	**	236	.5	151	3.8	001
1200	-12.6	*****	**	346	.9	015	4.4	002
1500	-13.3	*****	**	086	.7	071	2.5	000
1800	-14.8	*****	**	110	1.6	128	3.8	001
2100	-14.3	*****	**	090	2.0	071	7.0	001
2400	-15.5	*****	**	096	2.1	114	5.7	001

DAY 29

HOUR NDNG	TEMP. DEG C	DEW POINT DEG C	RH %	WIND DIR. DEG.	WIND SPD. M/S	GUST DIR. DEG.	MAX. GUST M/S	RAD MW
0300	-14.8	*****	**	092	3.2	098	7.6	001
0600	-15.1	*****	**	076	1.6	086	5.1	001
0900	-15.9	*****	**	073	2.4	091	7.0	001
1200	-16.0	*****	**	081	1.7	090	5.1	002
1500	-15.8	*****	**	073	1.3	066	3.8	001
1800	-13.2	*****	**	087	1.5	111	4.4	001
2100	-9.5	*****	**	084	2.1	068	7.0	001
2400	-10.5	*****	**	080	2.3	090	5.7	001

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	*****	**	044	1.6	053	3.8	001
0600	-9.2	*****	**	055	1.5	044	3.8	001
0900	-8.9	*****	**	063	1.3	069	3.8	002
1200	-9.5	*****	**	068	1.2	028	3.8	003
1500	-8.6	*****	**	052	1.0	017	2.5	001
1800	-7.1	*****	**	066	1.3	069	3.2	001
2100	-7.7	*****	**	084	1.6	105	3.8	001
2400	-7.9	*****	**	054	1.2	016	3.2	001

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MONTHLY SUMMARY FOR GLACIER WEATHER STATION
DATA TAKEN DURING NOVEMBER , 1980

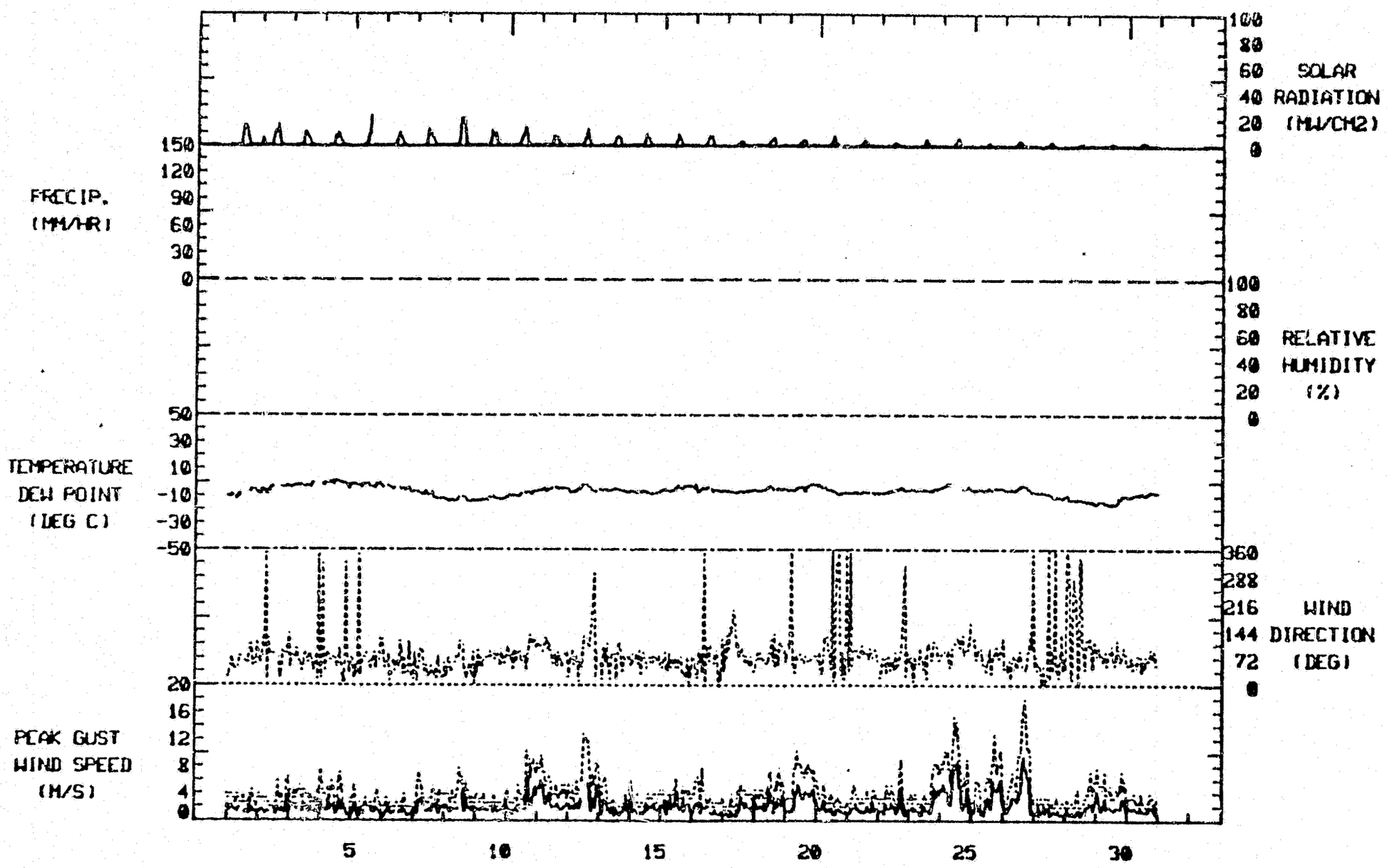
DAY	MAX. TEMP. DEG C	MIN. TEMP. DEG C	MEAN TEMP. DEG C	RES. WIND DIR. DEG	RES. WIND SPD. M/S	AVG. WIND SPD. M/S	MAX. GUST DIR. DEG	MAX. GUST SPD. M/S	P'VAL DIR.	MEAN RH %	MEAN DP DEG C	PRECIP MM	DAY'S SOLAR ENERGY WH/SQM	DAY
01	-4.0	-10.9	-7.4	058	1.3	1.5	033	4.4	ENE	**	*****	****	915	01
02	-2.0	-9.2	-5.6	082	1.2	1.4	093	6.3	E	**	*****	****	850	02
03	.1	-3.8	-1.9	066	1.5	1.7	070	5.1	ENE	**	*****	****	560	03
04	2.2	-2.5	-.2	054	1.3	1.7	061	7.6	ENE	**	*****	****	530	04
05	1.0	-3.2	-1.1	062	1.0	1.2	020	5.1	ENE	**	*****	****	613	05
06	-2.0	-7.6	-4.8	055	.8	1.0	055	3.8	NNE	**	*****	****	460	06
07	-6.7	-12.8	-9.8	049	1.5	1.7	077	7.0	NNE	**	*****	****	605	07
08	-9.9	-14.8	-12.4	057	1.6	1.9	114	7.6	NE	**	*****	****	1045	08
09	-9.9	-13.9	-11.9	070	1.3	1.4	056	3.8	ENE	**	*****	****	625	09
10	-6.0	-10.8	-8.4	096	2.2	2.4	091	10.2	E	**	*****	****	685	10
11	-3.7	-6.5	-5.1	090	2.8	3.0	098	9.5	E	**	*****	****	495	11
12	-1.2	-7.9	-4.6	088	1.9	2.8	126	12.7	ENE	**	*****	****	495	12
13	-4.2	-7.5	-5.9	074	1.4	1.6	070	6.3	E	**	*****	****	430	13
14	-6.1	-8.6	-7.4	066	1.4	1.5	047	5.7	ENE	**	*****	****	485	14
15	-1.9	-6.7	-4.3	053	1.9	2.1	069	6.3	NE	**	*****	****	455	15
16	.3	-9.2	-4.5	060	1.0	1.4	055	7.6	NE	**	*****	****	380	16
17	-5.6	-7.8	-6.7	079	1.1	1.4	093	5.1	NE	**	*****	****	245	17
18	-2.8	-6.6	-4.7	085	2.0	2.2	101	7.6	ENE	**	*****	****	390	18
19	-1.3	-6.2	-3.8	070	3.0	3.1	074	10.2	ENE	**	*****	****	340	19
20	-1.6	-9.2	-5.4	059	.9	1.4	062	5.7	N	**	*****	****	340	20
21	-6.7	-8.4	-7.6	079	1.3	1.5	091	5.1	E	**	*****	****	280	21
22	-3.5	-7.9	-5.7	070	1.3	1.7	106	8.9	ENE	**	*****	****	180	22
23	-3.7	-6.6	-5.2	078	1.8	2.0	094	8.3	ENE	**	*****	****	315	23
24	-.8	-5.4	-3.1	101	4.1	4.3	119	15.2	E	**	*****	****	345	24
25	-4.2	-6.2	-5.2	084	2.7	2.9	101	12.7	E	**	*****	****	225	25
26	-1.7	-7.1	-4.4	062	3.2	3.7	048	17.8	NE	**	*****	****	290	26
27	-7.3	-12.3	-9.8	035	.8	1.0	047	3.2	N	**	*****	****	165	27
28	-8.9	-16.1	-12.5	079	.7	1.4	071	7.0	ESE	**	*****	****	195	28
29	-9.4	-16.4	-12.9	082	2.0	2.1	098	7.6	E	**	*****	****	270	29
30	-6.6	-11.0	-8.8	061	1.3	1.4	053	3.8	ENE	**	*****	****	330	30
MONTH	2.2	-16.4	-6.4	074	1.6	1.9	048	17.8	ENE	**	*****	****	13538	

GUST VEL. AT MAX. GUST MINUS 2 INTERVALS 16.5
GUST VEL. AT MAX. GUST MINUS 1 INTERVAL 12.1
GUST VEL. AT MAX. GUST PLUS 1 INTERVAL 12.1
GUST VEL. AT MAX. GUST PLUS 2 INTERVALS 14.6

NOTE: RELATIVE HUMIDITY READINGS ARE UNRELIABLE WHEN WIND SPEED ARE <1.0 METERS PER SECOND. SUCH READINGS HAVE NOT BEEN INCLUDED IN THE DAILY OR MONTHLY MEAN FOR RELATIVE HUMIDITY AND DEW POINT.

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

R&M CONSULTANT, INC. SUSITNA HYDROELECTRIC PROJECT



DAY OF THE MONTH GLACIER WEATHER STATION

DATA START: 01 NOVEMBER , 1980

R&M CONSULTANTS, INC.

SUSITNA HYDROELECTRIC PROJECT

WIND FREQUENCY SUMMARY FOR GLACIER WEATHER STATION
DATA TAKEN DURING NOVEMBER , 1980

	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	GREATER THAN 20.0	TOTAL
N	1.01	3.81	.14	0.00	0.00	0.00	0.00	4.96
NNE	1.73	8.20	.07	0.00	0.00	0.00	0.00	10.00
NE	2.30	13.88	.79	.50	.07	0.00	0.00	17.55
ENE	3.88	18.56	4.17	0.00	0.00	0.00	0.00	26.62
E	3.02	13.17	4.25	.65	0.00	0.00	0.00	21.80
ESE	1.29	6.40	2.88	.65	0.00	0.00	0.00	11.22
SE	1.15	1.58	.43	.07	0.00	0.00	0.00	3.24
SSE	.29	.65	0.00	0.00	0.00	0.00	0.00	.94
S	0.00	.22	0.00	0.00	0.00	0.00	0.00	.22
SSW	.14	.14	0.00	0.00	0.00	0.00	0.00	.29
SW	.07	0.00	.07	0.00	0.00	0.00	0.00	.14
WSW	.22	.14	.07	0.00	0.00	0.00	0.00	.43
W	.07	.14	0.00	0.00	0.00	0.00	0.00	.22
WNW	.07	.29	0.00	0.00	0.00	0.00	0.00	.36
NW	.22	.22	0.00	0.00	0.00	0.00	0.00	.43
NNW	.65	.94	0.00	0.00	0.00	0.00	0.00	1.58
CALM								0.00
TOTAL	16.12	68.35	13.60	1.87	.07	0.00	0.00	100.00

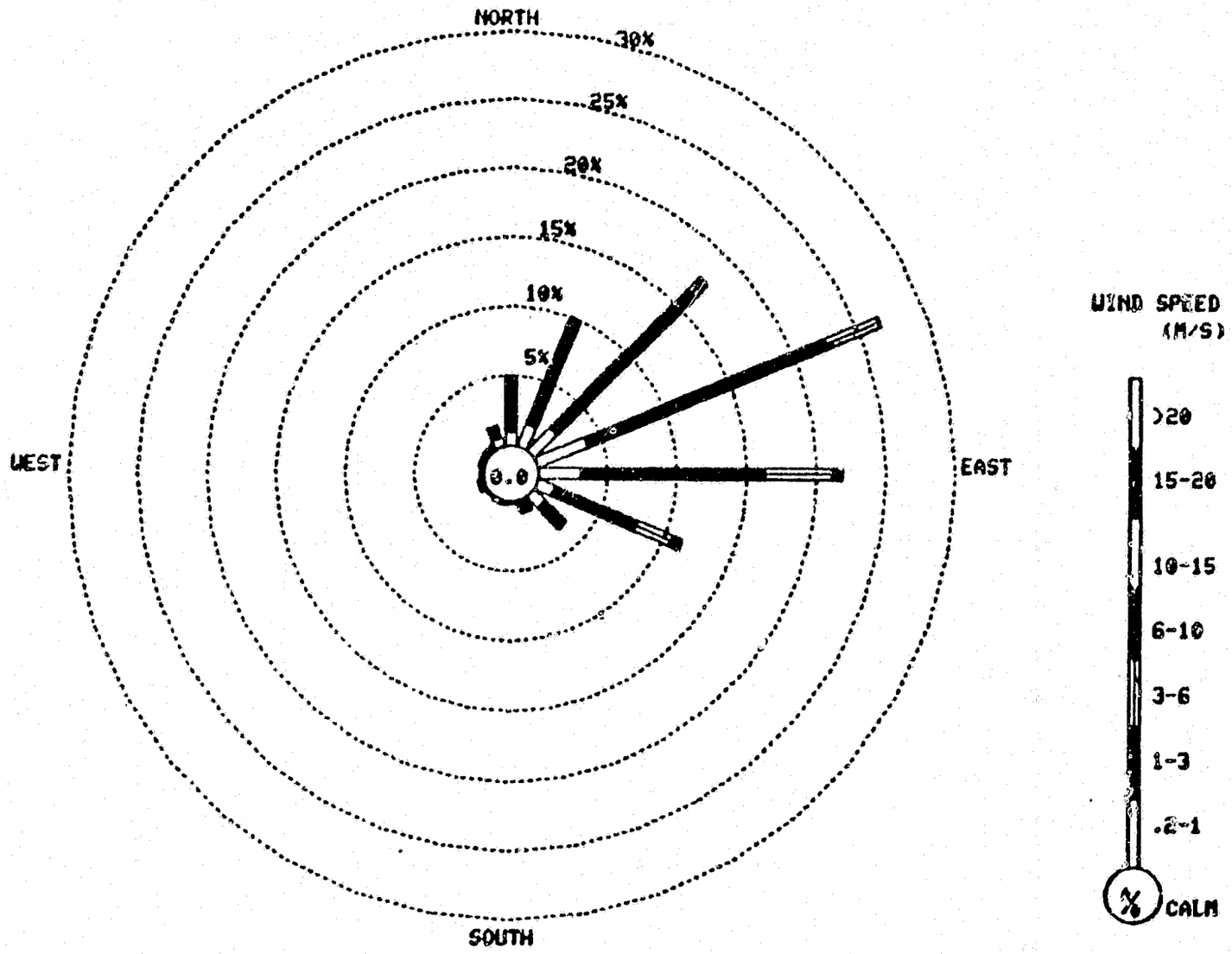
NOTE: ALL FREQUENCIES EXPRESSED IN PERCENT.

1390 VALID WIND OBSERVATIONS USED TO DEVELOP FREQUENCY SUMMARY

SUSITNA HYDROELECTRIC PROJECT

GLACIER WEATHER STATION

NOVEMBER, 1980



WIND ROSE PLOT

R&M CONSULTANTS, INC.

SUSITNA HYDROELECTRIC PROJECT

HOURLY PRECIPITATION SUMMARY FOR GLACIER WEATHER STATION
DATA TAKEN DURING DECEMBER , 1980

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
01	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	01
02	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	02
03	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	03
04	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	04
05	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	05
06	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	06
07	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	07
08	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	08
09	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	09
10	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	10
11	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	11
12	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	12
13	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	13
14	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	14
15	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	15
16	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	16
17	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	17
18	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	18
19	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	19
20	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	20
21	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	21
22	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	22
23	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	23
24	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	24
25	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	25
26	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	26
27	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	27
28	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	28
29	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	29
30	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	30
31	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	31

R&M CONSULTANTS, INC.

SUSITNA HYDROELECTRIC PROJECT

THREE HOUR SUMMARY FOR GLACIER WEATHER STATION
DATA TAKEN DURING DECEMBER , 1980

DAY 01

HOUR NDNG	TEMP. DEG C	DEW POINT DEG C	RH %	WIND DIR. DEG.	WIND SPD. M/S	GUST DIR. DEG.	MAX. GUST M/S	RAD MW
0300	-7.7	-24.0	26	052	1.1	046	2.5	001
0600	-7.5	-16.5	49	059	1.1	046	1.9	001
0900	-7.6	*****	26	053	1.0	044	1.9	001
1200	-5.8	-21.5	28	054	.9	048	2.5	003
1500	-6.3	*****	31	071	.6	027	1.9	001
1800	-6.2	*****	34	078	.8	110	2.5	001
2100	-2.9	*****	31	072	.8	084	1.9	001
2400	-3.2	*****	31	035	.9	030	2.5	001

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	-3.7	*****	32	059	.9	063	1.9	001
0600	-.9	-16.9	29	069	1.0	054	3.8	001
0900	-.4	-17.3	27	067	1.6	065	4.4	001
1200	-1.6	-17.5	29	068	1.4	041	3.8	005
1500	-1.1	-17.4	28	072	1.2	078	2.5	001
1800	-1.6	*****	30	057	1.1	061	2.5	001
2100	-4.4	*****	34	041	1.0	027	2.5	001
2400	-4.3	-18.0	34	061	1.0	038	3.8	001

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	-4.5	-18.5	33	058	1.1	076	3.2	001
0600	-5.8	-19.6	33	060	1.1	054	2.5	001
0900	-6.7	-20.1	34	057	.9	337	4.4	002
1200	-5.4	-19.3	33	051	.9	063	3.8	004
1500	-7.3	-19.0	39	044	.8	351	3.2	001
1800	-6.6	-19.0	37	056	1.1	061	3.2	001
2100	-6.5	*****	35	082	1.2	105	3.2	001
2400	-6.3	-19.7	34	058	1.0	067	2.5	001

DAY 04

HOUR NDNG	TEMP. DEG C	DEW POINT DEG C	RH %	WIND DIR. DEG.	WIND SPD. M/S	GUST DIR. DEG.	MAX. GUST M/S	RAD MW
0300	-6.6	-20.0	34	031	1.0	037	2.5	001
0600	-6.5	-19.9	34	079	1.0	127	3.8	001
0900	-9.9	-19.4	46	033	.9	083	3.8	002
1200	-9.0	*****	41	065	.8	041	3.2	003
1500	-9.6	-20.8	40	062	.4	062	1.9	001
1800	-10.5	*****	44	075	.8	084	2.5	001
2100	-11.5	-20.4	48	071	.6	068	1.9	001
2400	-13.5	-19.5	61	086	.8	119	3.2	001

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	-14.3	-19.9	63	004	1.0	020	3.2	000
0600	-15.0	*****	66	020	.8	341	3.2	001
0900	-13.9	-19.5	63	061	1.2	041	3.2	001
1200	-13.7	*****	62	031	.7	343	1.9	003
1500	-14.1	-19.7	63	076	1.3	031	3.2	001
1800	-14.2	-20.2	61	073	1.7	081	3.8	001
2100	-14.3	*****	62	061	.8	046	2.5	001
2400	-14.5	-20.6	60	044	3.2	054	7.6	001

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	-15.0	-21.5	58	037	4.1	055	6.3	001
0600	-17.7	-23.8	59	045	2.0	043	6.3	001
0900	-18.9	-25.4	57	045	1.3	356	3.2	001
1200	-17.7	-26.6	46	064	1.8	054	5.1	003
1500	-20.0	-27.8	50	068	1.5	072	5.7	001
1800	-18.7	-28.2	43	055	2.1	042	5.1	001
2100	-19.2	-29.2	41	062	1.9	052	4.4	001
2400	-18.8	-29.1	40	044	2.6	051	7.0	001

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	-19.5	-29.7	40	032	2.6	035	5.7	001
0600	-17.7	-29.5	35	064	1.8	045	5.7	001
0900	-17.2	-29.1	35	073	3.3	073	10.2	002
1200	-18.4	-30.8	33	056	2.2	061	9.5	003
1500	-15.4	-29.5	29	075	1 5	100	3.8	002
1800	-14.3	-29.7	26	102	1.3	103	3.8	002
2100	-15.6	-30.8	26	116	1.5	129	4.4	002
2400	-13.2	-29.6	24	054	1.7	058	3.8	002

DAY 08

HOUR NDNG	TEMP. DEG C	DEW POINT DEG C	RH %	WIND DIR. DEG.	WIND SPD. M/S	GUST DIR. DEG.	MAX. GUST M/S	RAD MW
0300	-12.5	-29.4	23	071	2.0	085	4.4	001
0600	-15.3	-30.5	26	068	1.6	076	4.4	002
0900	-12.9	-28.9	25	068	1.4	035	3.8	002
1200	-12.2	-29.2	23	081	2.1	099	5.1	004
1500	-15.4	-30.2	27	085	1.4	071	5.1	002
1800	-14.5	-30.3	25	067	1.2	052	3.2	002
2100	-13.8	-29.7	25	086	1.3	103	4.4	002
2400	-13.4	-29.7	24	065	1.8	047	5.1	002

DAY 09

HOUR NDNG	TEMP. DEG C	DEW POINT DEG C	RH %	WIND DIR. DEG.	WIND SPD. M/S	GUST DIR. DEG.	MAX. GUST M/S	RAD MW
0300	-12.3	-29.3	23	078	1.9	086	5.8	002
0600	-11.3	-30.4	19	072	1.4	081	3.2	002
0900	-12.4	-29.3	23	072	1.4	076	3.2	002
1200	-12.5	-29.4	23	061	1.3	066	3.2	003
1500	-12.1	-29.6	22	063	1.5	053	3.8	002
1800	-14.3	-30.1	25	061	1.6	068	3.2	002
2100	-14.3	-29.7	26	047	1.6	038	3.8	002
2400	-15.8	-30.2	28	054	2.0	045	4.4	002

R&M CONSULTANTS, INC.

SUSITNA HYDROELECTRIC PROJECT

THREE HOUR SUMMARY FOR GLACIER WEATHER STATION
DATA TAKEN DURING DECEMBER , 1980

DAY 10

HOUR NDNG	TEMP. DEG C	DEW POINT DEG C	RH %	WIND DIR. DEG.	WIND SPD. M/S	GUST DIR. DEG.	MAX. GUST M/S	RAD MW
0300	-17.8	-30.9	31	056	1.5	050	4.4	002
0600	-19.2	-30.3	37	058	1.3	036	4.4	002
0900	-19.4	-30.2	38	052	1.8	067	3.8	001
1200	-20.1	-30.8	38	049	1.2	023	3.2	003
1500	-20.9	-31.0	40	055	1.4	050	3.2	001
1800	-21.9	-31.4	42	059	1.0	063	3.2	001
2100	-22.4	-32.1	41	047	1.2	057	3.2	001
2400	-22.4	-32.1	41	042	1.3	031	3.8	001

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	-23.1	-33.0	40	038	1.3	051	3.2	001
0600	-25.0	-34.2	42	036	1.2	032	4.4	001
0900	-27.0	-35.6	44	032	1.5	017	3.8	001
1200	-26.6	-35.0	45	05[illegible]	[illegible].2	078	5.7	003
1500	-27.9	-35.7	47	04[illegible]	.7	002	4.4	001
1800	-28.7	-35.3	53	028	1.6	359	4.4	001
2100	-29.8	-35.9	55	037	1.4	044	4.4	001
2400	-29.2	-35.4	55	002	1.9	352	4.4	001

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	-29.3	-34.6	60	017	.9	049	3.2	001
0600	-29.3	-34.4	61	047	1.2	020	3.8	000
0900	-29.5	*****	61	059	.7	010	3.2	001
1200	-25.9	*****	58	083	.7	070	2.5	004
1500	-23.1	-29.3	57	017	1.3	009	3.8	001
1800	-20.2	-28.4	48	068	1.3	066	4.4	001
2100	-19.5	-27.3	50	059	1.8	065	4.4	001
2400	-17.8	-26.7	46	057	2.3	058	5.1	001

DAY 13

HOUR NDNG	TEMP. DEG C	DEW POINT DEG C	RH %	WIND DIR. DEG.	WIND SPD. M/S	GUST DIR. DEG.	MAX. GUST M/S	RAD MW
0300	-16.3	-25.8	44	064	2.0	045	4.4	001
0600	-14.5	-21.2	57	070	1.6	055	3.8	001
0900	-14.3	-17.5	77	054	1.2	060	3.8	001
1200	-17.1	-20.7	74	338	1.2	334	3.8	002
1500	-11.7	-14.5	80	054	1.3	033	3.8	001
1800	-12.2	-14.8	81	360	1.2	338	5.7	000
2100	-10.7	-13.1	83	335	1.2	021	3.8	001
2400	-15.6	-18.0	82	338	1.4	007	7.0	000

DAY 14

HOUR NDNG	TEMP. DEG C	DEW POINT DEG C	RH %	WIND DIR. DEG.	WIND SPD. M/S	GUST DIR. DEG.	MAX. GUST M/S	RAD MW
0300	-21.9	-24.9	77	076	1.6	036	5.7	001
0600	-21.8	-24.8	77	064	1.6	070	6.3	001
0900	-25.6	-28.9	74	095	1.4	075	3.8	001
1200	-24.6	*****	75	096	1.0	082	3.2	002
1500	-23.7	-26.9	75	096	1.0	137	3.8	001
1800	-27.8	-31.3	72	079	1.1	086	3.8	001
2100	-26.3	-29.9	72	057	1.0	105	4.4	000
2400	-26.3	*****	72	101	1.2	103	7.0	001

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	-26.8	*****	73	012	.6	060	1.9	000
0600	-28.2	*****	71	301	.4	298	1.9	001
0900	-28.1	*****	71	092	.5	100	3.2	001
1200	-28.4	*****	71	045	.5	097	2.5	001
1500	-30.3	-34.0	70	034	.7	121	2.5	001
1800	-31.3	*****	68	091	.7	060	1.9	001
2100	-31.4	-35.3	68	041	1.0	034	2.5	001
2400	-31.0	-35.0	68	066	1.0	082	3.8	001

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	-32.0	-35.9	68	047	1.2	033	3.2	000
0600	-32.9	-36.9	67	035	1.9	023	4.4	001
0900	-32.6	*****	66	062	1.3	038	3.2	001
1200	-32.2	-36.6	65	025	1.7	003	4.4	001
1500	-31.7	-37.2	58	039	1.3	016	3.2	001
1800	-29.5	-35.5	56	045	1.3	041	2.5	001
2100	-27.8	-34.8	51	058	.9	006	3.2	001
2400	-26.1	-34.5	45	073	1.1	065	2.5	001

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	-24.5	-34.5	39	073	1.1	065	2.5	001
0600	-22.1	*****	31	065	1.0	092	2.5	002
0900	-20.7	-34.8	27	059	.9	069	2.5	002
1200	-19.7	-36.0	22	071	1.3	055	2.5	003
1500	-18.6	-35.0	22	07[illegible]	1.2	071	3.2	002
1800	-19.0	*****	30	069	.9	067	2.5	002
2100	-16.9	-31.2	28	078	.9	102	1.9	002
2400	-14.8	-30.9	24	060	1.0	045	2.5	002

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	-15.9	-31.5	25	061	1.0	043	3.2	002
0600	-15.6	-31.6	24	070	1.2	065	3.2	002
0900	-16.3	-32.2	24	060	1.3	039	3.2	002
1200	-18.6	-33.4	26	068	1.1	090	2.5	003
1500	-17.2	-33.0	24	067	1.2	068	2.5	002
1800	-17.0	*****	24	059	.8	060	2.5	002
2100	-15.1	-33.1	20	075	1.4	083	3.8	002
2400	-15.5	-31.1	25	067	1.4	046	4.4	002

R&M CONSULTANTS, INC.

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DAY 19

HOUR NDNG	TEMP. DEG C	DEW POINT DEG C	RH %	WIND DIR. DEG.	WIND SPD. M/S	GUST DIR. DEG.	MAX. GUST M/S	RAD MW
0300	-14.1	-29.1	27	055	1.7	069	5.1	002
0600	-14.7	-29.2	28	048	1.4	059	4.4	001
0900	-17.4	-30.9	30	084	1.6	071	3.8	002
1200	-17.7	-31.5	29	022	1.5	003	5.1	003
1500	-14.3	-29.7	26	025	1.5	009	3.8	002
1800	-13.1	-29.5	24	032	1.3	024	3.8	002
2100	-12.5	-29.9	22	017	1.3	049	3.8	002
2400	-12.2	-30.6	20	006	1.7	352	3.3	002

DAY 20

HOUR NDNG	TEMP. DEG C	DEW POINT DEG C	RH %	WIND DIR. DEG.	WIND SPD. M/S	GUST DIR. DEG.	MAX. GUST M/S	RAD MW
0300	-12.9	-31.2	20	030	1.1	355	3.2	002
0600	-11.9	-32.0	17	078	1.3	072	3.8	002
0900	-10.8	-31.1	17	071	1.3	078	3.8	002
1200	-9.7	-27.5	22	073	3.1	062	7.6	003
1500	-9.3	-30.5	16	064	4.2	074	7.6	002
1800	-10.5	-30.9	17	074	2.3	063	7.0	002
2100	-10.9	-31.8	16	082	1.4	080	3.2	002
2400	-9.2	-31.1	15	067	1.6	035	4.4	002

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	-8.8	-30.1	16	076	1.5	073	3.8	002
0600	-7.6	-29.8	15	062	1.5	053	3.8	002
0900	-6.4	-29.6	14	062	1.8	057	4.4	002
1200	-6.5	-28.9	15	065	1.7	063	4.4	003
1500	-6.9	-29.3	15	065	1.4	063	3.2	002
1800	-5.8	-28.4	15	060	1.9	048	3.2	002
2100	-5.5	-28.1	15	067	1.6	063	4.4	002
2400	-4.1	-28.5	13	065	2.5	060	7.6	002

DAY 22

HOUR NDNG	TEMP. DEG C	DEW POINT DEG C	RH %	WIND DIR. DEG.	WIND SPD. M/S	GUST DIR. DEG.	MAX. GUST M/S	RAD MW
0300	-5.2	-28.6	14	065	2.8	081	6.3	002
0600	-6.2	-28.7	15	064	2.3	061	7.0	002
0900	-6.5	-29.7	14	067	1.2	100	3.2	002
1200	-6.3	-29.5	14	073	1.4	081	3.2	003
1500	-7.3	-28.9	16	072	1.3	045	3.2	002
1800	-7.4	-27.7	18	057	1.3	027	3.2	002
2100	-8.3	*****	18	076	1.2	065	2.5	002
2400	-8.2	-28.4	18	082	1.3	044	2.5	002

DAY 23

HOUR NDNG	TEMP. DEG C	DEW POINT DEG C	RH %	WIND DIR. DEG.	WIND SPD. M/S	GUST DIR. DEG.	MAX. GUST M/S	RAD MW
0300	-8.1	-29.6	16	076	1.4	071	3.2	002
0600	-8.1	-30.2	15	078	1.7	076	3.8	001
0900	-8.3	-28.5	18	069	1.2	096	2.5	002
1200	-8.7	*****	18	059	.9	065	2.5	003
1500	-8.8	-27.3	21	063	1.3	040	3.2	002
1800	-8.2	-26.3	22	071	1.3	063	4.4	002
2100	-7.8	*****	22	083	1.5	061	4.4	002
2400	-4.6	-25.4	18	073	1.7	079	5.1	002

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	-4.0	-25.6	17	067	2.2	082	5.1	002
0600	-6.1	-26.7	18	076	2.2	060	5.1	002
0900	-6.4	-26.9	18	069	2.1	068	6.3	002
1200	-7.8	-25.9	22	074	1.7	070	4.4	003
1500	-8.7	-26.2	23	069	1.3	098	3.8	002
1800	-11.6	-24.2	29	054	1.7	054	3.8	001
2100	-12.3	-25.4	33	071	3.0	100	9.5	002
2400	-12.9	-24.1	39	091	4.9	093	9.5	001

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	-9.8	-22.8	34	057	4.0	085	11.4	002
0600	-11.2	-26.2	28	075	4.1	061	12.7	002
0900	-13.5	-27.1	31	089	3.0	071	7.0	002
1200	-14.2	-28.8	28	102	3.2	111	6.3	003
1500	-14.8	-30.9	24	099	2.0	105	5.7	002
1800	-14.9	-31.0	24	077	2.6	088	6.3	002
2100	-15.8	-31.0	26	347	3.8	318	14.6	002
2400	-16.9	-32.3	25	125	1.6	285	11.4	002

DAY 26

HOUR NDNG	TEMP. DEG C	DEW POINT DEG C	RH %	WIND DIR. DEG.	WIND SPD. M/S	GUST DIR. DEG.	MAX. GUST M/S	RAD MW
0300	-17.5	-32.8	25	091	2.6	081	6.3	001
0600	-17.5	-34.1	22	094	3.3	093	7.0	002
0900	-19.7	-33.9	27	059	1.7	051	5.1	002
1200	-20.2	-34.4	27	049	1.6	017	3.8	003
1500	-20.3	-34.5	27	047	1.7	036	3.8	002
1800	-20.2	-34.8	26	039	2.5	031	5.7	002
2100	-20.8	-35.3	26	039	2.1	037	5.7	002
2400	-21.7	-36.0	26	044	2.4	040	6.3	002

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	-20.2	-38.0	23	049	1.1	074	3.8	002
0600	-21.8	-35.8	27	059	1.1	029	2.5	002
0900	-18.6	-36.0	20	052	1.2	072	3.2	002
1200	-20.9	*****	21	061	.8	108	2.5	003
1500	-22.5	-37.5	24	048	.9	012	3.2	002
1800	-22.3	-36.6	26	056	.9	045	1.9	002
2100	-21.6	-36.0	26	059	1.0	071	1.9	002
2400	-19.5	-35.8	22	059	1.1	061	2.5	002

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DAY 28										DAY 29										DAY 30									
HOUR NDNG	TEMP. DEG C	DEW POINT DEG C	RH %	WIND DIR. DEG.	WIND SPD. M/S	GUST DIR. DEG.	MAX. GUST M/S	RAD MW	HOUR NDNG	TEMP. DEG C	DEW POINT DEG C	RH %	WIND DIR. DEG.	WIND SPD. M/S	GUST DIR. DEG.	MAX. GUST M/S	RAD MW	HOUR NDNG	TEMP. DEG C	DEW POINT DEG C	RH %	WIND DIR. DEG.	WIND SPD. M/S	GUST DIR. DEG.	MAX. GUST M/S	RAD MW
0300	-18.5	-35.9	20	042	1.1	029	3.2	002	0300	-10.1	-29.4	19	067	1.4	070	3.2	002	0300	-10.0	*****	86	020	.6	092	3.8	001
0600	-18.8	-36.1	20	052	1.2	092	3.2	002	0600	-9.6	-29.6	18	069	1.3	094	3.2	002	0600	-8.9	*****	89	070	.5	101	1.9	001
0900	-16.8	-34.0	21	059	1.2	026	3.2	002	0900	-7.7	-29.2	16	072	1.6	062	3.8	002	0900	-9.3	-10.8	89	141	1.6	141	5.7	000
1200	-14.0	-33.8	17	072	1.4	061	3.2	003	1200	-7.2	-24.0	25	069	1.6	095	4.4	007	1200	-8.7	*****	86	052	.4	120	1.9	002
1500	-13.0	-32.4	18	057	1.1	059	2.5	002	1500	-6.7	-17.0	44	074	1.7	096	3.8	001	1500	-8.6	*****	83	078	.5	076	2.5	001
1800	-11.9	-32.0	17	069	1.3	090	3.2	002	1800	-6.2	*****	50	078	1.3	070	4.4	001	1800	-6.2	-11.4	67	084	1.7	105	8.3	001
2100	-13.3	-32.6	18	077	1.5	086	3.8	002	2100	-11.0	-13.5	82	040	.9	337	3.8	000	2100	-7.2	-9.3	85	085	3.1	092	8.3	000
2400	-13.4	-31.1	21	051	1.3	016	3.2	002	2400	-11.8	-14.4	81	069	1.5	043	8.3	001	2400	-4.6	-7.9	78	085	3.3	090	10.2	001

DAY 31										DAY 31										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	HOUR NDNG	TEMP. DEG C	DEW POINT DEG C	RH %	WIND DIR. DEG.	WIND SPD. M/S	GUST DIR. DEG.	MAX. GUST M/S	RAD MW	HOUR NDNG	TEMP. DEG C	DEW POINT DEG C	RH %	WIND DIR. DEG.	WIND SPD. M/S	GUST DIR. DEG.	MAX. GUST M/S	RAD MW
0300	-2.8	-6.5	76	102	7.9	105	17.1	001	0300	*****	*****	**	***	****	***	****	***	0300	*****	*****	**	***	****	***	****	***
0600	-1.2	-4.4	79	116	9.5	113	21.6	001	0600	*****	*****	**	***	****	***	****	***	0600	*****	*****	**	***	****	***	****	***
0900	-.4	-4.0	77	127	8.3	126	17.8	001	0900	*****	*****	**	***	****	***	****	***	0900	*****	*****	**	***	****	***	****	***
1200	1.0	-4.7	66	150	5.7	154	17.1	005	1200	*****	*****	**	***	****	***	****	***	1200	*****	*****	**	***	****	***	****	***
1500	.2	-4.7	70	193	5.1	140	19.0	001	1500	*****	*****	**	***	****	***	****	***	1500	*****	*****	**	***	****	***	****	***
1800	-.3	-6.4	64	166	10.4	156	30.5	001	1800	*****	*****	**	***	****	***	****	***	1800	*****	*****	**	***	****	***	****	***
2100	-.9	-7.1	63	129	6.2	150	19.7	001	2100	*****	*****	**	***	****	***	****	***	2100	*****	*****	**	***	****	***	****	***
2400	-1.6	-7.8	63	116	6.8	116	18.4	001	2400	*****	*****	**	***	****	***	****	***	2400	*****	*****	**	***	****	***	****	***

R&M CONSULTANTS, INC.

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MONTHLY SUMMARY FOR GLACIER WEATHER STATION
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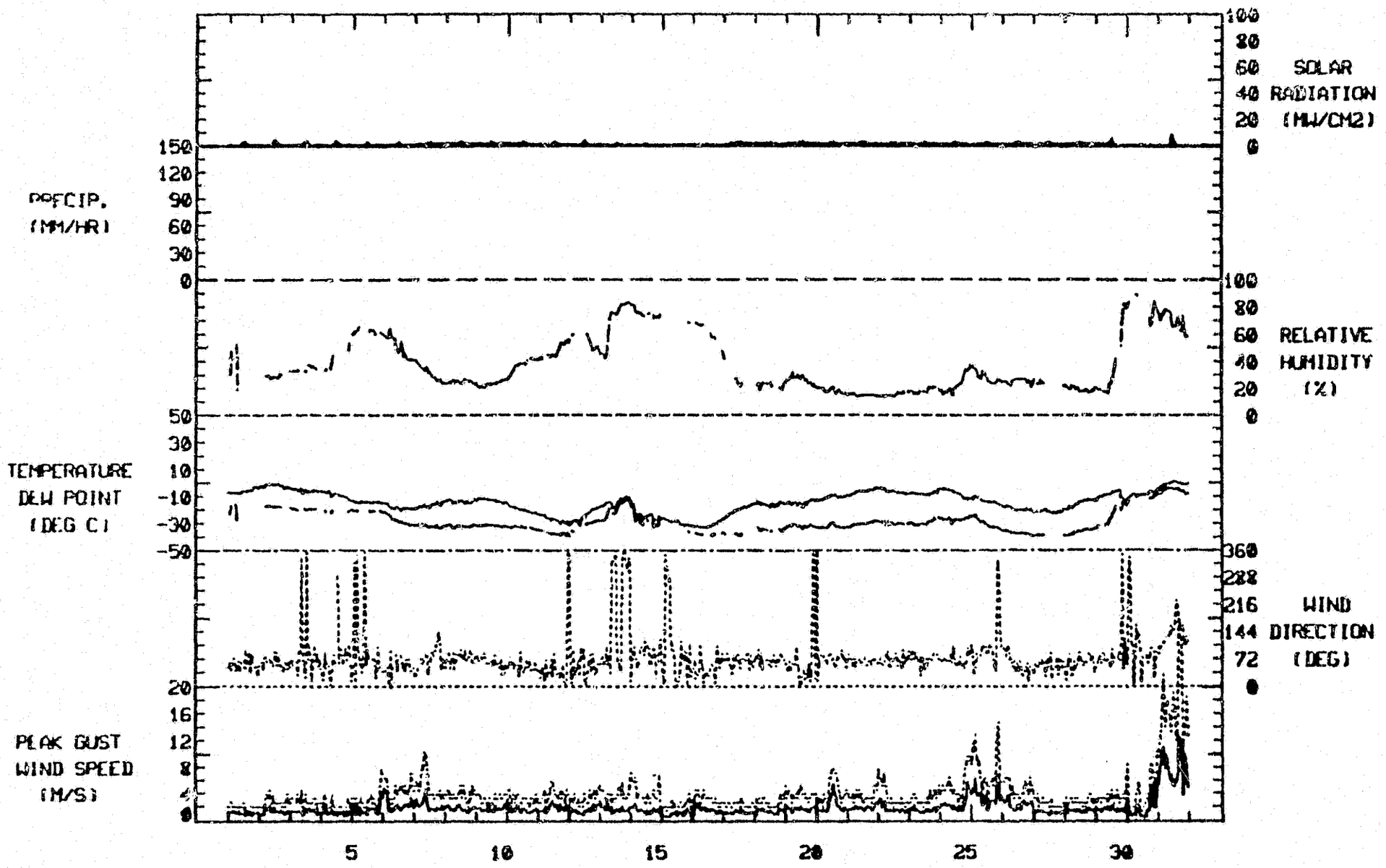
DAY	MAX. TEMP. DEG C	MIN. TEMP. DEG C	MEAN TEMP. DEG C	RES. WIND DIR. DEG	RES. WIND SPD. M/S	AVG. WIND SPD. M/S	MAX. GUST DIR. DEG	MAX. GUST SPD. M/S	P'VAL DIR.	MEAN RH %	MEAN DP DEG C	PRECIP MM	DAY'S SOLAR ENERGY WH/SQM	DAY
01	-2.4	-8.4	-5.4	058	.9	1.0	046	2.5	NE	35	-20.7	****	290	01
02	-.4	-4.8	-2.6	063	1.1	1.2	065	4.4	NE	30	-17.4	****	360	02
03	-3.5	-8.4	-5.9	059	1.0	1.2	337	4.4	ENE	34	-19.3	****	340	03
04	-8.4	-13.9	-11.1	062	.7	1.0	127	3.8	ENE	41	-20.0	****	332	04
05	-13.0	-15.2	-14.1	050	1.2	1.5	054	7.6	NE	62	-20.0	****	290	05
06	-14.6	-20.7	-17.7	050	2.1	2.3	051	7.0	NE	50	-26.5	****	290	06
07	-12.9	-19.6	-16.3	067	1.8	2.1	073	10.2	ENE	31	-29.8	****	465	07
08	-11.5	-15.8	-13.6	074	1.6	1.7	099	5.1	ENE	25	-29.7	****	515	08
09	-10.8	-15.8	-13.3	063	1.6	1.6	045	4.4	ENE	24	-29.7	****	520	09
10	-15.7	-23.0	-19.4	052	1.3	1.4	050	4.4	ENE	38	-31.1	****	405	10
11	-23.1	-31.5	-27.3	034	1.6	1.8	078	5.7	NNE	47	-35.0	****	325	11
12	-17.6	-33.5	-25.5	051	1.2	1.4	058	5.1	ENE	55	-30.1	****	310	12
13	-10.1	-19.1	-14.6	027	1.1	1.6	007	7.0	NNW	70	-18.2	****	220	13
14	-11.3	-28.3	-19.8	082	1.2	1.4	103	7.0	E	75	-27.8	****	180	14
15	-25.3	-32.2	-28.8	049	.5	.9	082	3.8	N	69	-34.8	****	220	15
16	-26.1	-33.2	-29.6	046	1.3	1.5	023	4.4	NE	61	-35.9	****	235	16
17	-14.8	-26.5	-20.7	068	1.0	1.1	071	3.2	ENE	29	-33.7	****	485	17
18	-13.6	-18.8	-16.2	066	1.2	1.3	046	4.4	ENE	22	-32.3	****	515	18
19	-12.0	-19.1	-15.5	036	1.4	1.6	069	5.1	NNE	26	-30.1	****	500	19
20	-9.2	-13.6	-11.4	069	2.0	2.1	062	7.6	ENE	18	-30.8	****	520	20
21	-2.9	-10.4	-6.6	065	1.7	1.8	060	7.6	ENE	15	-29.1	****	535	21
22	-3.3	-8.4	-5.9	068	1.6	1.7	061	7.0	ENE	15	-28.8	****	530	22
23	-4.1	-9.5	-6.8	072	1.4	1.4	079	5.1	ENE	18	-27.9	****	515	23
24	-3.9	-12.9	-8.4	075	2.3	2.5	100	9.5	ENE	24	-25.9	****	475	24
25	-9.8	-17.5	-13.6	073	2.4	3.6	318	14.6	E	28	-28.8	****	475	25
26	-16.5	-21.7	-19.1	061	2.1	2.3	093	7.0	NE	25	-34.5	****	515	26
27	-18.6	-23.1	-20.8	055	1.0	1.1	074	3.8	ENE	24	-36.2	****	515	27
28	-11.9	-20.0	-16.0	061	1.2	1.4	086	3.8	ENE	19	-33.5	****	520	28
29	-5.6	-15.5	-10.6	069	1.4	1.6	043	8.3	ENE	38	-22.5	****	440	29
30	-4.6	-11.4	-8.0	087	1.3	1.7	090	10.2	E	80	-9.9	****	160	30
31	1.1	-4.3	-1.6	135	6.7	7.9	156	30.5	ESE	70	-5.7	****	420	31
MONTH	1.1	-33.5	-14.4	070	1.4	1.8	156	30.5	ENE	39	-27.0	****	12417	

GUST VEL. AT MAX. GUST MINUS 2 INTERVALS 12.7
GUST VEL. AT MAX. GUST MINUS 1 INTERVAL 16.5
GUST VEL. AT MAX. GUST PLUS 1 INTERVAL 26.7
GUST VEL. AT MAX. GUST PLUS 2 INTERVALS 19.7

NOTE: RELATIVE HUMIDITY READINGS ARE UNRELIABLE WHEN WIND SPEED ARE <1.0 METERS PER SECOND. SUCH READINGS HAVE NOT BEEN INCLUDED IN THE DAILY OR MONTHLY MEAN FOR RELATIVE HUMIDITY AND DEW POINT.

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

R&M CONSULTANT, INC. SUSITNA HYDROELECTRIC PROJECT



DAY OF THE MONTH GLACIER WEATHER STATION

DATA START: 01 DECEMBER , 1980

R&M CONSULTANTS, INC.

SUSITNA HYDROELECTRIC PROJECT

WIND FREQUENCY SUMMARY FOR GLACIER WEATHER STATION
DATA TAKEN DURING DECEMBER , 1980

	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	GREATER THAN 20.0	TOTAL
N	1.14	3.90	.07	0.00	0.00	0.00	0.00	5.11
NNE	1.01	7.94	.61	0.00	0.00	0.00	0.00	9.55
NE	3.56	17.01	1.34	.07	0.00	0.00	0.00	21.99
ENE	4.37	25.49	1.61	.07	0.00	0.00	0.00	31.54
E	2.22	13.72	1.88	.27	0.00	0.00	0.00	18.09
ESE	1.01	4.30	.94	.61	.34	0.00	0.00	7.20
SE	.20	1.01	.07	.61	.07	0.00	0.00	1.95
SSE	.07	.07	.20	.27	.13	.13	0.00	.87
S	0.00	.20	.07	.07	0.00	0.00	0.00	.34
SSW	0.00	0.00	0.00	.07	0.00	0.00	0.00	.07
SW	0.00	0.00	.07	.20	0.00	0.00	0.00	.27
WSW	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
W	.13	0.00	0.00	0.00	0.00	0.00	0.00	.13
WNW	.07	0.00	.07	0.00	0.00	0.00	0.00	.13
NW	.34	.61	0.00	.13	0.00	0.00	0.00	1.08
NNW	.27	1.34	.07	0.00	0.00	0.00	0.00	1.68
CALM								0.00
TOTAL	14.39	75.59	6.99	2.35	.54	.13	0.00	100.00

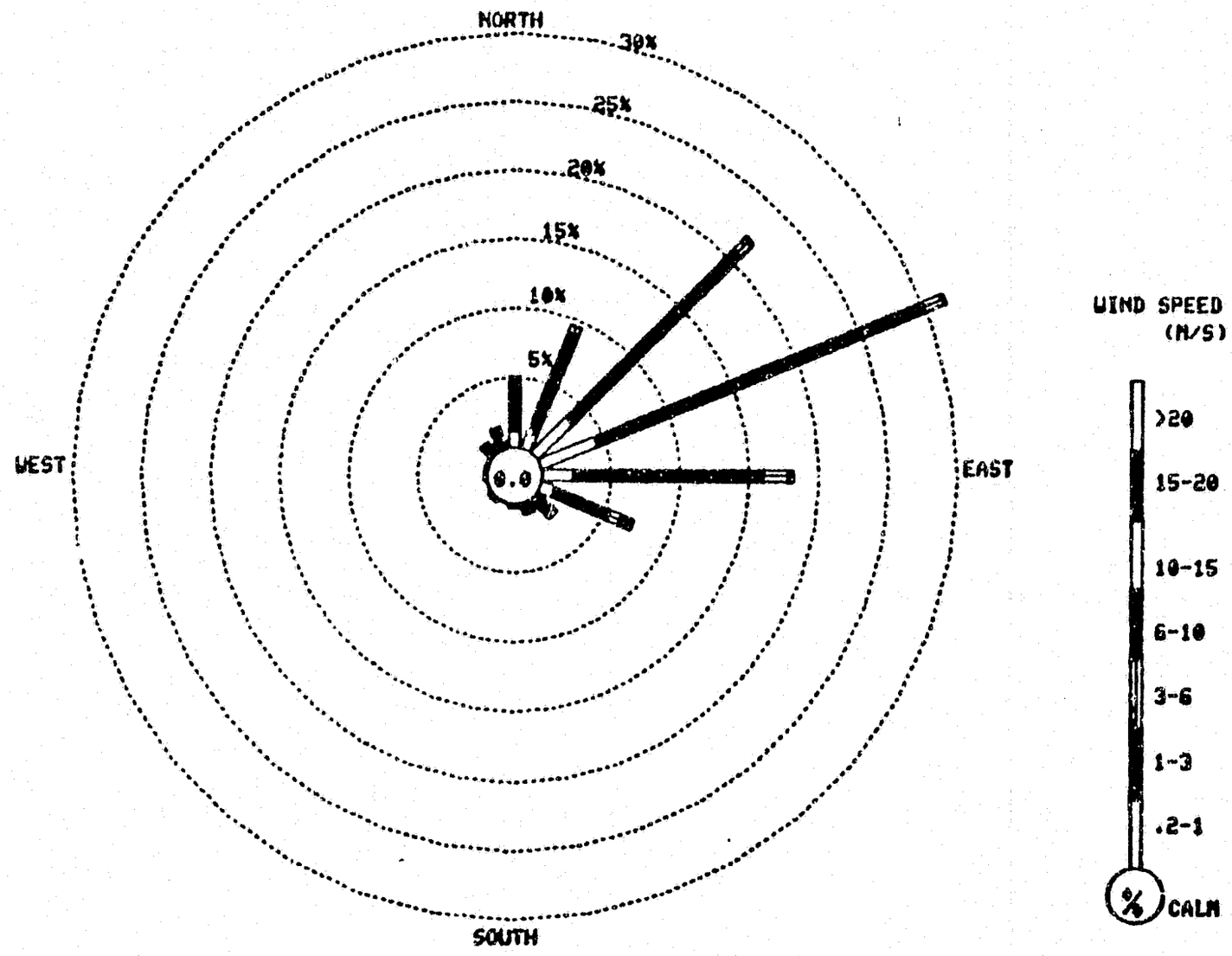
NOTE: ALL FREQUENCIES EXPRESSED IN PERCENT.

1487 VALID WIND OBSERVATIONS USED TO DEVELOP FREQUENCY SUMMARY

SUSITNA HYDROELECTRIC PROJECT

GLACIER WEATHER STATION

DECEMBER, 1980



WIND ROSE PLOT

R&M CONSULTANTS, INC.

SUSITNA HYDROELECTRIC PROJECT

HOURLY PRECIPITATION SUMMARY FOR GLACIER WEATHER STATION
DATA TAKEN DURING JANUARY , 1981

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
01	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	01
02	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	02
03	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	03
04	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	04
05	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	05
06	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	06
07	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	07
08	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	08
09	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	09
10	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	10
11	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	11
12	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	12
13	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	13
14	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	14
15	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	15
16	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	16
17	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	17
18	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	18
19	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	19
20	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	20
21	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	21
22	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	22
23	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	23
24	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	24
25	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	25
26	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	26
27	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	27
28	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	28
29	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	29
30	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	30
31	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	31

R&M CONSULTANTS, INC.

SUSITNA HYDROELECTRIC PROJECT

THREE HOUR SUMMARY FOR GLACIER WEATHER STATION
DATA TAKEN DURING JANUARY , 1981

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	-1.1	-6.7	66	094	5.8	103	14.0	001
0600	-.7	-5.9	68	105	5.4	114	12.1	001
0900	.2	-5.7	65	100	6.3	093	13.3	001
1200	2.2	-5.3	58	081	5.7	099	12.7	001
1500	1.3	-5.5	61	073	3.8	068	10.8	000
1800	1.6	-3.7	68	067	2.4	092	7.0	001
2100	.1	-5.6	66	155	3.2	132	21.0	001
2400	-1.8	-8.0	63	155	14.2	151	27.9	001

DAY 02

HOUR NDNG	TEMP. DEG C	DEW POINT DEG C	RH %	WIND DIR. DEG.	WIND SPD. M/S	GUST DIR. DEG.	MAX. GUST M/S	RAD MW
0300	-1.9	-8.9	59	152	15.5	154	32.4	001
0600	-1.9	-10.1	54	155	10.4	152	22.9	001
0900	-2.9	-10.1	58	177	2.2	143	13.3	001
1200	-3.5	-12.1	52	087	1.8	082	3.8	003
1500	-4.0	-13.0	50	076	1.7	082	5.1	001
1800	-4.3	-14.3	46	067	2.0	067	4.4	001
2100	-4.0	-15.7	40	069	1.7	081	4.4	001
2400	-3.9	-17.3	35	075	1.7	081	4.4	001

DAY 03

HOUR NDNG	TEMP. DEG C	DEW POINT DEG C	RH %	WIND DIR. DEG.	WIND SPD. M/S	GUST DIR. DEG.	MAX. GUST M/S	RAD MW
0300	-3.5	-18.7	30	072	1.2	074	3.2	001
0600	-4.7	-12.9	53	053	1.9	047	3.8	000
0900	-5.2	-20.6	29	052	1.5	075	3.8	001
1200	-2.3	-29.8	10	070	1.6	097	4.4	002
1500	-4.6	-30.6	11	078	1.7	057	3.8	000
1800	-2.8	-30.2	10	061	1.6	033	5.1	000
2100	-2.9	-11.0	54	067	1.6	076	5.1	001
2400	-1.9	-12.1	46	073	1.9	063	5.1	001

DAY 04

HOUR NDNG	TEMP. DEG C	DEW POINT DEG C	RH %	WIND DIR. DEG.	WIND SPD. M/S	GUST DIR. DEG.	MAX. GUST M/S	RAD MW
0300	-3.3	*****	56	047	1.0	024	3.2	001
0600	-2.9	-11.3	53	074	1.9	051	5.1	001
0900	-2.5	-10.9	53	082	3.2	077	6.3	001
1200	-3.1	-10.7	56	097	2.8	125	7.0	002
1500	-4.2	-9.7	66	057	2.6	075	6.3	001
1800	-5.1	-31.0	11	353	.8	***	2.5	000
2100	-4.2	-10.3	63	***	****	***	2.5	001
2400	-6.7	*****	99	***	****	***	3.2	001

DAY 05

HOUR NDNG	TEMP. DEG C	DEW POINT DEG C	RH %	WIND DIR. DEG.	WIND SPD. M/S	GUST DIR. DEG.	MAX. GUST M/S	RAD MW
0300	-6.6	*****	83	***	****	***	3.2	001
0600	-5.1	-13.8	51	***	****	***	3.8	001
0900	-6.4	-15.7	48	***	****	***	3.2	001
1200	-5.8	-16.8	42	***	****	***	3.2	003
1500	-5.7	-21.4	28	***	****	***	4.4	001
1800	-5.4	-31.3	11	***	****	***	4.4	000
2100	-3.7	-30.9	10	025	2.9	011	8.3	000
2400	-2.6	-30.1	10	062	2.1	069	7.0	000

DAY 06

HOUR NDNG	TEMP. DEG C	DEW POINT DEG C	RH %	WIND DIR. DEG.	WIND SPD. M/S	GUST DIR. DEG.	MAX. GUST M/S	RAD MW
0300	-4.0	-20.8	26	077	1.9	067	8.9	001
0600	-6.2	-15.0	50	099	1.0	139	5.7	001
0900	-4.1	-12.9	51	041	1.4	354	3.8	001
1200	-1.9	-10.3	53	071	1.2	084	4.4	007
1500	.2	-8.9	51	094	2.5	073	8.3	001
1800	.7	-8.4	51	090	4.7	079	8.3	001
2100	-.5	-8.3	56	105	5.6	112	12.1	001
2400	-.3	-8.1	56	098	5.4	101	11.4	000

DAY 07

HOUR NDNG	TEMP. DEG C	DEW POINT DEG C	RH %	WIND DIR. DEG.	WIND SPD. M/S	GUST DIR. DEG.	MAX. GUST M/S	RAD MW
0300	-.2	-7.6	58	072	3.4	073	7.6	001
0600	.8	-8.1	52	063	2.9	065	6.3	001
0900	-.1	-7.9	56	082	2.9	090	7.6	001
1200	.6	-7.8	54	035	1.1	030	6.3	003
1500	1.3	-8.1	50	093	1.7	085	3.8	001
1800	2.2	-8.1	47	074	4.7	079	9.5	001
2100	-1.5	-7.3	65	104	5.5	119	12.7	001
2400	-1.2	-8.7	57	106	5.3	102	10.8	001

DAY 08

HOUR NDNG	TEMP. DEG C	DEW POINT DEG C	RH %	WIND DIR. DEG.	WIND SPD. M/S	GUST DIR. DEG.	MAX. GUST M/S	RAD MW
0300	-2.2	-8.8	61	118	3.2	126	8.3	000
0600	-3.0	-8.7	65	153	3.8	155	9.5	001
0900	-4.6	-8.4	75	061	.8	075	3.2	001
1200	-4.5	-10.4	64	053	1.9	035	3.8	003
1500	-4.6	-15.1	44	065	1.8	069	4.4	001
1800	-3.7	-18.5	31	063	2.8	063	6.3	001
2100	-2.2	-29.7	10	057	1.9	066	6.3	000
2400	1.6	-29.1	08	074	2.2	090	7.6	000

DAY 09

HOUR NDNG	TEMP. DEG C	DEW POINT DEG C	RH %	WIND DIR. DEG.	WIND SPD. M/S	GUST DIR. DEG.	MAX. GUST M/S	RAD MW
0300	-1.2	-30.1	09	074	4.1	070	7.6	000
0600	-1.7	-29.4	10	023	1.4	053	4.4	000
0900	-3.2	-9.7	61	006	1.9	006	4.4	001
1200	-1.3	-30.1	09	079	2.4	091	7.6	003
1500	-2.6	-17.5	31	072	2.0	055	6.3	001
1800	-.8	-11.7	44	127	4.2	124	12.7	001
2100	-2.5	-13.2	44	105	2.7	109	10.2	001
2400	-2.1	-12.6	45	101	4.6	114	12.7	001

R&M CONSULTANTS, INC.

SUSITNA HYDROELECTRIC PROJECT

THREE HOUR SUMMARY FOR GLACIER WEATHER STATION
DATA TAKEN DURING JANUARY , 1981

DAY 10

HOUR NDNG	TEMP. DEG C	DEW POINT DEG C	RH %	WIND DIR. DEG.	WIND SPD. M/S	GUST DIR. DEG.	MAX. GUST M/S	RAD MW
0300	-3.3	-10.9	56	108	5.2	123	12.1	001
0600	-4.4	*****	71	076	2.1	082	8.3	001
0900	-3.9	-10.8	59	058	2.3	074	6.3	001
1200	-3.3	-12.4	50	092	4.1	092	7.0	006
1500	-4.3	-15.1	43	075	3.4	077	5.7	001
1800	-4.8	-15.9	42	073	2.2	082	4.4	001
2100	-4.1	-11.0	59	062	2.2	075	5.1	001
2400	-2.9	-8.1	68	074	1.6	065	4.4	001

DAY 11

HOUR NDNG	TEMP. DEG C	DEW POINT DEG C	RH %	WIND DIR. DEG.	WIND SPD. M/S	GUST DIR. DEG.	MAX. GUST M/S	RAD MW
0300	-4.1	-8.5	72	054	1.2	065	4.4	000
0600	-3.7	-11.1	57	057	1.5	072	3.8	001
0900	-2.6	-11.7	50	068	1.8	065	5.1	001
1200	-1.8	-9.5	56	069	2.2	096	6.3	003
1500	-.8	-10.0	50	074	3.4	066	7.6	001
1800	-3.4	-4.4	93	076	3.1	082	7.0	001
2100	-3.5	-6.7	79	076	1.8	092	5.7	001
2400	-4.1	-11.5	57	133	.9	087	6.3	000

DAY 12

HOUR NDNG	TEMP. DEG C	DEW POINT DEG C	RH %	WIND DIR. DEG.	WIND SPD. M/S	GUST DIR. DEG.	MAX. GUST M/S	RAD MW
0300	-4.1	-6.6	83	083	1.2	057	4.4	001
0600	-4.7	*****	49	071	.6	068	3.2	001
0900	-4.6	*****	01	117	.5	137	1.9	001
1200	-3.6	-7.8	73	084	.7	080	2.5	002
1500	-4.5	-8.5	74	046	1.3	081	3.2	000
1800	-5.3	-9.8	71	047	1.3	045	4.4	001
2100	-5.4	-12.2	59	076	1.6	100	3.8	000
2400	-2.9	-15.4	38	055	1.7	054	4.4	001

DAY 13

HOUR NDNG	TEMP. DEG C	DEW POINT DEG C	RH %	WIND DIR. DEG.	WIND SPD. M/S	GUST DIR. DEG.	MAX. GUST M/S	RAD MW
0300	-3.4	-17.5	33	059	2.2	085	5.1	001
0600	-2.2	-16.5	33	078	3.0	087	9.5	001
0900	-1.4	-16.1	32	069	2.7	098	8.9	001
1200	1.7	-11.9	36	116	4.9	143	16.5	004
1500	2.4	-10.0	40	111	6.1	132	15.2	001
1800	3.0	-8.8	42	097	6.1	105	12.1	001
2100	2.8	-9.9	39	106	5.4	121	13.3	001
2400	2.4	-10.0	40	094	4.5	102	11.4	001

DAY 14

HOUR NDNG	TEMP. DEG C	DEW POINT DEG C	RH %	WIND DIR. DEG.	WIND SPD. M/S	GUST DIR. DEG.	MAX. GUST M/S	RAD MW
0300	.2	-7.9	55	123	7.9	132	17.1	001
0600	-.4	-8.9	53	105	5.3	107	18.4	001
0900	.3	-10.1	46	086	3.4	105	8.3	001
1200	-1.1	-7.8	61	076	2.9	090	7.0	003
1500	.8	-6.0	61	093	5.3	108	13.3	001
1800	-.8	-17.6	27	086	3.9	098	12.7	001
2100	2.1	-.2	85	099	5.7	120	15.2	001
2400	1.8	-4.0	66	134	10.1	143	24.8	000

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	.7	-3.8	72	109	11.4	113	24.1	001
0600	2.1	-5.4	58	114	11.3	120	22.9	001
0900	.7	-5.0	66	157	2.8	148	15.9	001
1200	-.9	-4.1	79	161	2.3	125	10.2	002
1500	-1.4	-5.0	77	147	1.4	091	9.5	001
1800	-2.1	-5.1	80	105	5.6	105	8.9	001
2100	-2.1	-6.9	70	149	4.2	147	11.4	001
2400	-3.3	*****	77	146	4.1	142	11.4	000

DAY 16

HOUR NDNG	TEMP. DEG C	DEW POINT DEG C	RH %	WIND DIR. DEG.	WIND SPD. M/S	GUST DIR. DEG.	MAX. GUST M/S	RAD MW
0300	-2.6	-12.2	48	082	1.6	087	3.8	001
0600	-2.5	-12.7	46	068	3.4	070	9.5	001
0900	-1.1	-10.3	50	086	5.1	082	10.2	001
1200	-1.0	-10.7	48	074	4.0	077	8.9	004
1500	.9	-11.3	40	068	2.8	097	6.3	001
1800	1.7	-10.6	40	084	4.2	096	7.6	001
2100	-.8	-7.1	63	115	3.1	111	12.1	001
2400	-1.2	-9.0	56	145	5.8	133	21.6	001

DAY 17

HOUR NDNG	TEMP. DEG C	DEW POINT DEG C	RH %	WIND DIR. DEG.	WIND SPD. M/S	GUST DIR. DEG.	MAX. GUST M/S	RAD MW
0300	-1.6	-8.9	58	131	7.7	145	19.7	001
0600	-.5	-10.6	47	100	6.4	111	14.6	001
0900	-.5	-12.0	42	092	5.8	098	17.1	001
1200	.9	-11.0	41	081	5.1	087	11.4	005
1500	0.0	-11.5	42	082	3.2	075	8.3	001
1800	1.5	-11.1	39	072	2.6	090	7.6	001
2100	2.0	-6.2	55	078	2.7	104	8.9	001
2400	3.9	-11.4	32	074	4.8	072	8.3	001

DAY 18

HOUR NDNG	TEMP. DEG C	DEW POINT DEG C	RH %	WIND DIR. DEG.	WIND SPD. M/S	GUST DIR. DEG.	MAX. GUST M/S	RAD MW
0300	2.2	-10.5	39	119	6.1	122	18.4	001
0600	-.4	-8.7	54	119	8.4	118	22.2	001
0900	-.2	-10.6	46	101	5.9	116	12.7	001
1200	-.3	-11.8	42	098	5.1	103	10.8	004
1500	-.2	-10.3	47	102	3.6	099	8.9	001
1800	1.1	-9.9	44	067	2.9	090	5.7	001
2100	2.6	-10.4	38	068	4.2	079	9.5	001
2400	2.6	-13.8	29	057	2.6	072	7.0	001

R&M CONSULTANTS, INC.

SUSITNA HYDROELECTRIC PROJECT

THREE HOUR SUMMARY FOR GLACIER WEATHER STATION
DATA TAKEN DURING JANUARY , 1981

DAY 19

HOUR NDNG	TEMP. DEG C	DEW POINT DEG C	RH %	WIND DIR. DEG.	WIND SPD. M/S	GUST DIR. DEG.	MAX. GUST M/S	RAD MW
0300	-.1	-13.9	35	038	1.2	052	2.5	001
0600	-1.2	-12.6	42	039	1.0	027	3.2	001
0900	-1.5	-8.4	60	052	1.8	045	4.4	001
1200	-4.7	-7.5	81	100	4.0	089	16.5	002
1500	-6.8	-23.7	25	123	6.4	111	15.9	001
1800	-8.0	-13.1	67	137	5.8	157	14.6	001
2100	-9.3	-13.1	74	159	4.8	152	11.4	001
2400	-9.6	-15.2	64	122	1.6	087	7.6	001

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	-10.0	-14.7	69	149	3.8	149	12.1	001
0600	-9.4	-15.6	61	087	4.3	078	8.3	001
0900	-9.5	-14.0	70	138	1.9	127	7.6	001
1200	-8.4	-14.3	63	143	.7	047	5.1	004
1500	-8.7	-16.0	56	101	4.3	113	7.6	001
1800	-9.9	-17.8	53	060	2.4	086	5.1	001
2100	-7.3	-31.9	12	068	2.0	050	5.1	000
2400	-6.7	-32.3	11	064	2.2	057	6.3	000

DAY 21

HOUR NDNG	TEMP. DEG C	DEW POINT DEG C	RH %	WIND DIR. DEG.	WIND SPD. M/S	GUST DIR. DEG.	MAX. GUST M/S	RAD MW
0300	-7.5	-23.0	28	066	1.5	047	4.4	001
0600	-7.2	-21.6	31	047	1.6	032	4.4	001
0900	-10.7	-19.0	51	034	1.2	047	4.4	001
1200	-6.2	-9.3	79	076	1.2	012	3.8	003
1500	.7	-5.8	62	096	3.3	117	14.6	001
1800	1.6	-6.6	55	101	7.2	110	16.5	001
2100	1.7	-7.5	51	116	6.0	092	15.2	001
2400	1.7	-7.7	50	091	4.1	089	10.2	001

DAY 22

HOUR NDNG	TEMP. DEG C	DEW POINT DEG C	RH %	WIND DIR. DEG.	WIND SPD. M/S	GUST DIR. DEG.	MAX. GUST M/S	RAD MW
0300	-1.2	-5.7	72	103	4.8	100	8.9	001
0600	-1.2	-5.9	71	088	3.4	088	8.9	001
0900	-1.0	-6.4	67	068	3.8	072	8.3	001
1200	-.5	-8.1	57	075	4.1	082	8.9	007
1500	-.9	-8.2	58	102	5.3	113	10.8	001
1800	-3.0	-21.4	23	098	2.9	106	6.3	000
2100	-1.4	-7.0	66	104	3.6	112	7.6	001
2400	-3.0	-3.7	95	175	.8	144	6.3	001

DAY 23

HOUR NDNG	TEMP. DEG C	DEW POINT DEG C	RH %	WIND DIR. DEG.	WIND SPD. M/S	GUST DIR. DEG.	MAX. GUST M/S	RAD MW
0300	-2.0	-7.0	69	111	3.8	128	10.8	001
0600	-2.1	-7.1	69	095	5.2	097	8.3	001
0900	-2.5	-6.6	74	105	6.1	097	10.8	001
1200	-2.8	-7.2	72	105	5.0	152	11.4	003
1500	-2.1	-7.1	69	090	6.8	095	11.4	001
1800	-1.5	-8.1	61	106	6.9	132	19.7	001
2100	-2.8	-7.6	70	141	11.9	129	23.5	000
2400	-3.3	-8.4	68	154	7.6	161	14.6	001

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	-4.0	-9.9	64	147	10.6	146	19.0	001
0600	-5.5	-10.9	66	141	6.6	147	13.3	001
0900	-5.3	-11.5	62	113	4.6	137	12.1	001
1200	-4.8	-12.6	55	102	5.7	108	12.1	003
1500	-2.5	-13.5	43	092	6.5	089	12.7	001
1800	-.8	-16.4	30	076	6.3	084	12.1	001
2100	1.6	-29.1	08	080	5.8	093	10.8	000
2400	-.9	-18.1	26	107	4.6	093	12.1	001

DAY 25

HOUR NDNG	TEMP. DEG C	DEW POINT DEG C	RH %	WIND DIR. DEG.	WIND SPD. M/S	GUST DIR. DEG.	MAX. GUST M/S	RAD MW
0300	1.3	-16.7	25	102	3.3	055	12.7	001
0600	.9	-17.1	25	103	2.5	116	10.8	001
0900	2.6	-14.2	28	106	3.6	106	13.3	002
1200	.1	-10.3	46	143	12.0	147	22.9	010
1500	-1.7	-8.1	62	126	7.2	131	17.1	002
1800	-1.3	-9.3	55	133	10.0	139	22.9	001
2100	-1.6	-9.1	57	136	9.0	142	20.3	001
2400	-2.7	-9.1	62	141	6.3	128	19.7	001

DAY 26

HOUR NDNG	TEMP. DEG C	DEW POINT DEG C	RH %	WIND DIR. DEG.	WIND SPD. M/S	GUST DIR. DEG.	MAX. GUST M/S	RAD MW
0300	-3.6	*****	68	148	1.2	178	7.6	001
0600	-3.3	-10.3	59	084	1.9	063	5.1	001
0900	-3.8	-11.9	54	061	1.9	077	4.4	001
1200	-4.6	-11.9	57	051	.9	021	2.5	009
1500	-6.7	*****	91	074	.8	078	2.5	001
1800	-6.7	-8.8	85	358	1.1	334	3.2	001
2100	-7.7	-22.0	31	336	.9	244	4.4	000
2400	-8.4	-28.6	18	324	.7	004	2.5	000

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	-8.9	*****	15	300	.6	329	1.9	001
0600	-9.6	*****	06	080	.8	054	1.9	001
0900	-9.3	-15.9	59	073	1.5	057	3.2	001
1200	-9.2	-17.8	50	070	1.2	059	3.2	004
1500	-10.3	-17.3	57	055	1.2	020	3.8	001
1800	-10.8	-16.0	66	080	1.3	055	3.8	001
2100	-11.3	*****	73	050	.9	026	3.8	000
2400	-11.9	-16.3	70	077	1.5	071	3.8	000

R&M CONSULTANTS, INC.

SUSITNA HYDROELECTRIC PROJECT

THREE HOUR SUMMARY FOR GLACIER WEATHER STATION
DATA TAKEN DURING JANUARY , 1981

DAY 28

HOUR NDNG	TEMP. DEG C	DEW POINT DEG C	RH %	WIND DIR. DEG.	WIND SPD. M/S	GUST DIR. DEG.	MAX. GUST M/S	RAD MW
0300	-12.5	-17.8	65	064	1.2	052	3.2	001
0600	-12.9	-21.7	48	068	1.7	080	3.8	001
0900	-11.7	-23.3	38	062	2.2	083	5.7	001
1200	-11.0	-24.6	32	066	2.0	065	5.7	005
1500	-10.3	-33.5	13	078	1.7	072	3.8	001
1800	-10.9	-33.9	13	075	1.7	045	3.8	000
2100	-10.2	-33.4	13	076	2.3	056	4.4	000
2400	-9.6	-24.8	28	049	1.7	067	3.8	001

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	-9.0	-21.8	35	083	1.9	089	10.8	001
0600	-9.4	-14.8	65	093	4.6	106	9.5	001
0900	-8.4	-15.5	57	093	6.1	099	10.2	002
1200	-7.0	-14.4	56	083	4.8	081	8.3	006
1500	-6.5	-13.5	58	092	5.9	098	9.5	002
1800	-6.0	-12.4	61	106	6.9	104	12.1	001
2100	-5.1	-12.2	58	108	5.1	093	11.4	001
2400	-4.0	-13.3	49	098	6.1	096	14.6	001

DAY 30

HOUR NDNG	TEMP. DEG C	DEW POINT DEG C	RH %	WIND DIR. DEG.	WIND SPD. M/S	GUST DIR. DEG.	MAX. GUST M/S	RAD MW
0300	-3.1	-11.2	54	107	7.8	108	14.0	001
0600	-2.0	-11.2	50	109	10.4	111	17.1	001
0900	-.3	-14.4	30	105	9.8	110	17.8	002
1200	.1	-12.0	40	106	9.2	116	21.6	010
1500	.1	-12.4	39	118	8.3	119	17.1	002
1800	-1.7	-9.7	55	118	7.5	113	16.5	001
2100	-1.4	-9.9	53	101	7.1	112	15.9	001
2400	-3.2	-10.1	59	138	3.3	115	10.2	000

DAY 31

HOUR NDNG	TEMP. DEG C	DEW POINT DEG C	RH %	WIND DIR. DEG.	WIND SPD. M/S	GUST DIR. DEG.	MAX. GUST M/S	RAD MW
0300	-3.9	-6.9	80	100	1.8	136	7.0	000
0600	-3.8	*****	98	043	1.5	024	3.8	001
0900	-3.8	*****	98	056	.7	035	2.5	002
1200	-3.6	-8.5	69	127	1.4	129	5.7	007
1500	-3.3	-11.6	53	094	4.7	108	8.3	002
1800	-3.1	-12.7	48	085	3.9	100	8.3	001
2100	-2.9	-13.6	44	066	2.0	073	5.1	001
2400	-1.8	-16.8	31	054	2.0	055	4.4	001

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	*****	*****	**	***	****	***	****	***

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 GLACIER WEATHER STATION
DATA TAKEN DURING JANUARY , 1981

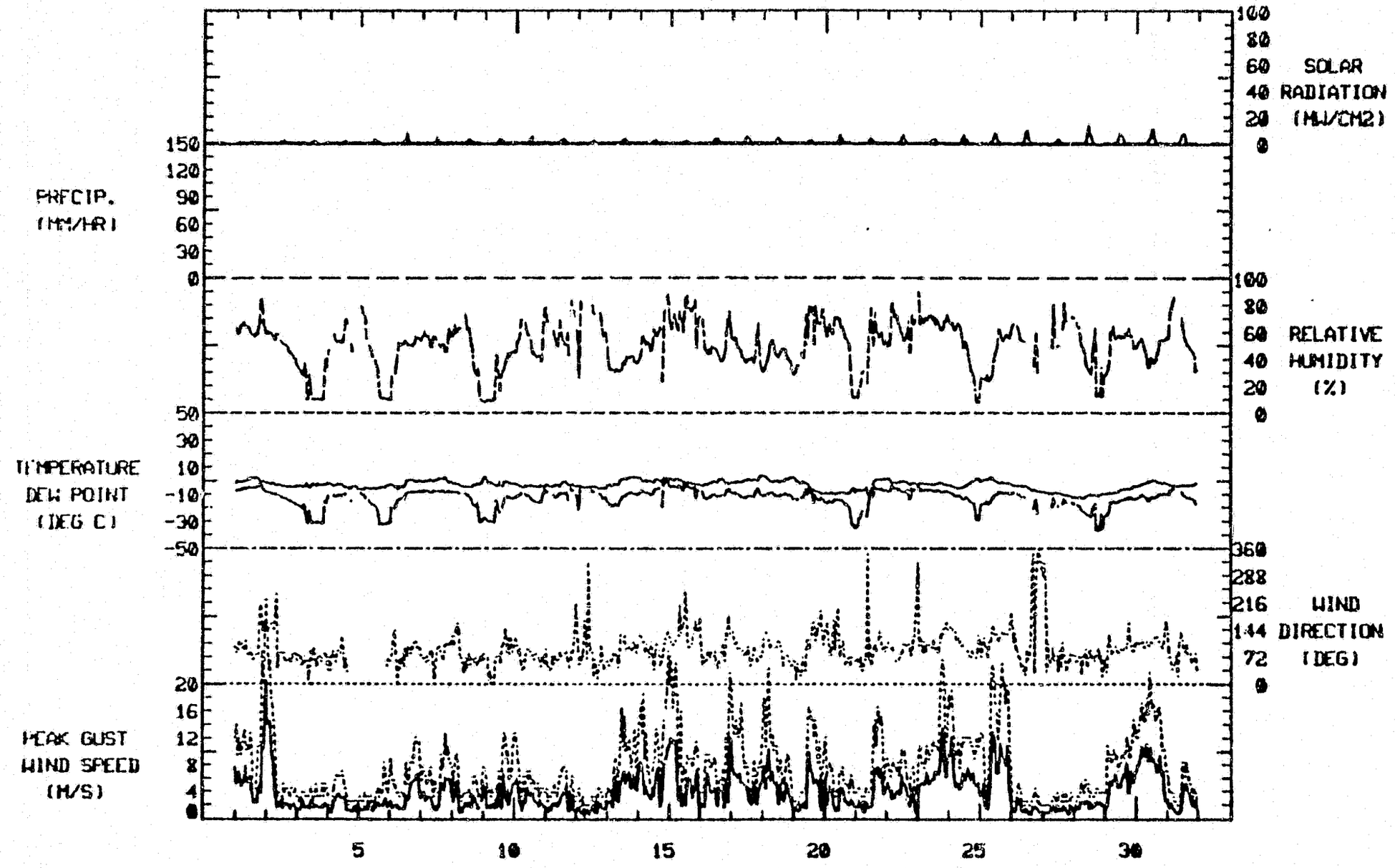
DAY	MAX. TEMP. DEG C	MIN. TEMP. DEG C	MEAN TEMP. DEG C	RES. WIND DIR. DEG	RES. WIND SPD. M/S	AVG. WIND SPD. M/S	MAX. GUST DIR. DEG	MAX. GUST SPD. M/S	P'VAL DIR.	MEAN RH %	MEAN DP DEG C	PRECIP MM	DAY'S SOLAR ENERGY WH/SQM	DAY
01	2.8	-1.8	.5	114	4.9	6.2	151	27.9	E	64	-5.8	****	210	01
02	-1.3	-4.9	-3.1	139	3.8	4.8	154	32.4	ENE	51	-12.7	****	285	02
03	-1.7	-6.1	-3.9	066	1.6	1.7	033	5.1	ENE	21	-20.8	****	175	03
04	-1.7	-7.0	-4.4	075	2.1	1.9	125	7.0	ENE	58	-14.0	****	250	04
05	-2.6	-6.8	-4.7	***	****	1.7	011	8.3	NE	34	-22.8	****	200	05
06	1.1	-6.2	-2.6	092	2.9	3.2	112	12.1	E	48	-11.6	****	345	06
07	2.4	-1.5	.5	085	3.3	3.6	119	12.7	ENE	54	-7.9	****	290	07
08	1.6	-4.9	-1.6	089	1.8	2.4	155	9.5	ENE	46	-16.1	****	225	08
09	3.5	-5.5	-1.0	087	2.4	3.1	124	12.7	E	28	-19.3	****	240	09
10	-2.5	-5.6	-4.1	082	2.8	3.0	123	12.1	ENE	55	-12.0	****	335	10
11	-.3	-4.4	-2.3	073	1.9	2.1	066	7.6	ENE	62	-9.2	****	260	11
12	-2.9	-6.7	-4.8	066	1.0	1.3	057	4.4	NE	63	-10.1	****	210	12
13	3.3	-3.9	-.3	097	4.2	4.5	143	16.5	E	36	-12.6	****	315	13
14	2.6	-1.8	.4	108	5.3	5.8	143	24.8	E	59	-7.8	****	270	14
15	2.1	-3.3	-.6	124	5.1	5.9	113	24.1	ESE	72	-5.1	****	210	15
16	1.9	-3.6	-.8	094	3.3	3.9	133	21.6	E	51	-10.5	****	350	16
17	3.9	-1.6	1.2	094	4.5	4.9	145	19.7	E	45	-10.3	****	380	17
18	4.4	-1.4	1.5	099	4.5	4.9	118	22.2	ESE	42	-10.7	****	340	18
19	2.2	-9.7	-3.8	120	2.8	3.6	089	16.5	SSE	60	-13.4	****	265	19
20	-4.8	-10.1	-7.5	099	2.3	2.9	149	12.1	ENE	52	-19.6	****	335	20
21	1.7	-10.7	-4.5	094	3.0	3.5	110	16.5	E	47	-12.6	****	280	21
22	1.6	-3.1	-.8	093	3.4	3.7	113	10.8	E	65	-8.3	****	355	22
23	-1.5	-3.3	-2.4	117	6.2	6.9	129	23.5	E	69	-7.4	****	295	23
24	1.8	-5.7	-2.0	111	5.7	6.4	146	19.0	E	45	-15.3	****	360	24
25	2.7	-2.8	-.1	131	6.6	6.9	147	22.9	SE	43	-11.7	****	480	25
26	-3.0	-8.4	-5.7	055	.7	1.4	178	7.6	ENE	52	-15.6	****	440	26
27	-8.4	-12.6	-10.5	067	1.0	1.2	020	3.8	ENE	60	-16.7	****	240	27
28	-9.2	-13.7	-11.5	068	1.8	1.9	083	5.7	ENE	39	-26.6	****	535	28
29	-3.9	-10.9	-7.4	096	5.1	5.4	096	14.6	E	54	-14.7	****	495	29
30	.5	-4.1	-1.8	110	7.9	8.0	110	21.6	ESE	48	-11.3	****	590	30
31	-1.3	-3.9	-2.6	082	2.1	2.4	108	8.3	E	58	-11.7	****	500	31
MONTH	4.4	-13.7	-2.9	102	3.3	3.8	154	32.4	E	51	-13.0	****	10060	

GUST VEL. AT MAX. GUST MINUS 2 INTERVALS	27.3
GUST VEL. AT MAX. GUST MINUS 1 INTERVAL	27.9
GUST VEL. AT MAX. GUST PLUS 1 INTERVAL	27.3
GUST VEL. AT MAX. GUST PLUS 2 INTERVALS	19.0

NOTE: RELATIVE HUMIDITY READINGS ARE UNRELIABLE WHEN WIND SPEED ARE <1.0 METERS PER SECOND. SUCH READINGS HAVE NOT BEEN INCLUDED IN THE DAILY OR MONTHLY MEAN FOR RELATIVE HUMIDITY AND DEW POINT.

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

R&M CONSULTANT, INC. SUSITNA HYDROELECTRIC PROJECT



DAY OF THE MONTH GLACIER WEATHER STATION

DATA START: 01 JANUARY , 1981

R&M CONSULTANTS, INC.

SUSITNA HYDROELECTRIC PROJECT

WIND FREQUENCY SUMMARY FOR GLACIER WEATHER STATION
DATA TAKEN DURING JANUARY , 1981

	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	GREATER THAN 20.0	TOTAL
N	.49	1.05	.07	0.00	0.00	0.00	0.00	1.61
NNE	.49	3.15	.28	0.00	0.00	0.00	0.00	3.92
NE	.70	9.59	1.05	0.00	0.00	0.00	0.00	11.34
ENE	.98	13.02	7.35	.28	0.00	0.00	0.00	21.62
E	.98	8.47	11.76	5.95	.14	0.00	0.00	27.29
ESE	.49	2.17	5.46	6.58	1.33	0.00	0.00	16.03
SE	.14	1.47	2.59	2.59	1.40	.07	0.00	8.26
SSE	.21	.84	1.47	1.26	1.12	.21	.14	5.25
S	.21	.63	.35	0.00	0.00	0.00	0.00	1.19
SSW	0.00	.91	0.00	0.00	0.00	0.00	0.00	.91
SW	0.00	.35	.07	0.00	0.00	0.00	0.00	.42
WSW	.07	.07	.21	0.00	0.00	0.00	0.00	.35
W	.07	.14	0.00	0.00	0.00	0.00	0.00	.21
WNW	.28	.07	0.00	0.00	0.00	0.00	0.00	.35
NW	.14	.14	0.00	0.00	0.00	0.00	0.00	.28
NNW	.21	.49	.07	0.00	0.00	0.00	0.00	.77
CALM								.21
TOTAL	5.46	42.55	30.72	16.66	3.99	.28	.14	100.00

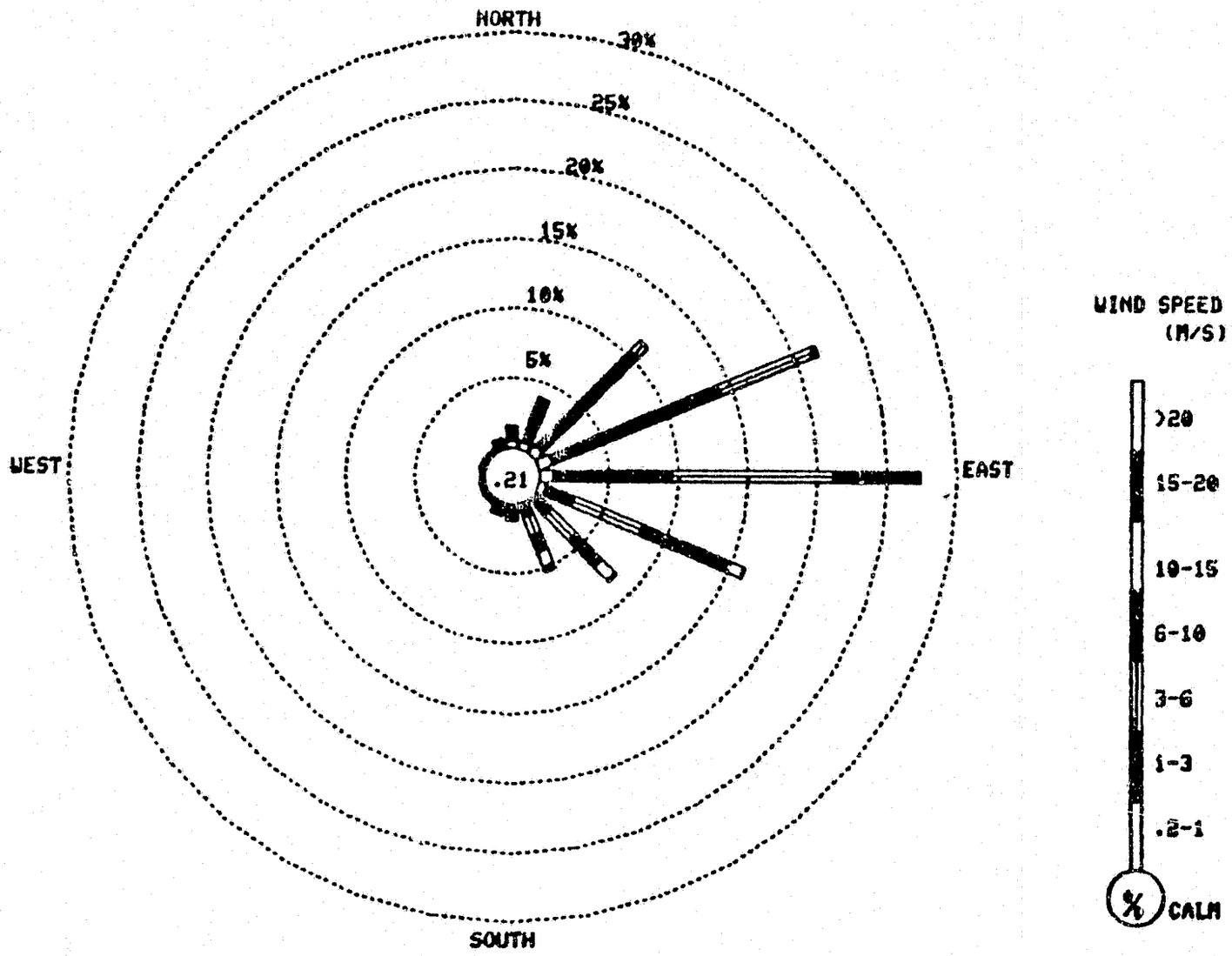
NOTE: ALL FREQUENCIES EXPRESSED IN PERCENT.

1429 VALID WIND OBSERVATIONS USED TO DEVELOP FREQUENCY SUMMARY

SUSITNA HYDROELECTRIC PROJECT

GLACIER WEATHER STATION

JANUARY, 1981



WIND ROSE PLOT

R&M CONSULTANTS, INC.

SUSITNA HYDROELECTRIC PROJECT

HOURLY PRECIPITATION SUMMARY FOR GLACIER WEATHER STATION
DATA TAKEN DURING FEBRUARY , 1981

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
01	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	01
02	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	02
03	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	03
04	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	04
05	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	05
06	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	06
07	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	07
08	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	08
09	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	09
10	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	10
11	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	11
12	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	12
13	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	13
14	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	14
15	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	15
16	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	16
17	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	17
18	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	18
19	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	19
20	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	20
21	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	21
22	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	22
23	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	23
24	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	24
25	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	25
26	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	26
27	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	27
28	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	28

R&M CONSULTANTS, INC.

SUSITNA HYDROELECTRIC PROJECT

THREE HOUR SUMMARY FOR GLACIER WEATHER STATION
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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	-1.0	-7.7	61	040	2.2	063	7.6	001
0600	-1.0	-4.1	74	079	2.1	077	5.1	001
0900	-1.6	-7.8	63	047	1.2	056	4.4	003
1200	-.4	-6.7	63	125	7.1	119	19.0	007
1500	-.8	-6.6	65	146	8.1	151	21.6	003
1800	-1.0	-6.8	65	187	3.6	183	15.2	001
2100	-1.6	-8.0	62	145	3.2	138	12.1	001
2400	-1.2	-9.4	54	124	5.5	116	11.4	001

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	-9.2	54	114	5.6	124	16.5	001
0600	-1.6	-10.3	52	132	7.5	137	21.6	001
0900	-3.2	-10.6	57	128	11.4	145	25.4	002
1200	-4.5	-9.6	68	163	9.5	153	24.8	008
1500	-5.0	-10.3	67	147	11.5	148	21.6	002
1800	-5.2	-12.3	58	149	9.4	152	20.3	000
2100	-5.8	-12.2	61	146	7.4	152	14.6	001
2400	-6.2	-12.2	63	153	4.6	150	13.3	001

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	-6.9	-17.2	44	047	.9	134	3.8	000
0600	-7.4	-18.2	42	275	.7	050	5.7	000
0900	-7.0	-18.7	39	125	.9	126	7.0	001
1200	-5.8	*****	73	123	1.4	119	5.7	006
1500	-5.2	-10.6	66	100	2.4	124	7.6	002
1800	-5.8	-6.2	97	044	1.6	100	5.7	000
2100	-5.8	*****	61	004	1.2	012	3.8	000
2400	-5.8	*****	30	307	.5	219	1.9	001

DAY 04

HOUR NDNG	TEMP. DEG C	DEW POINT DEG C	RH %	WIND DIR. DEG.	WIND SPD. M/S	GUST DIR. DEG.	MAX. GUST M/S	RAD MW
0300	-5.8	-7.8	86	070	2.6	067	5.7	001
0600	-6.0	-30.0	13	049	2.0	046	5.7	001
0900	-6.0	-34.9	08	060	2.6	071	7.0	001
1200	-5.4	-9.0	76	012	1.2	006	2.5	013
1500	-5.4	*****	84	002	.7	002	1.9	001
1800	-6.0	*****	47	108	.4	124	1.9	000
2100	-5.6	-18.8	35	355	.5	333	3.2	000
2400	-5.7	-12.1	61	059	.7	014	2.5	000

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	-5.7	-11.3	65	123	1.2	108	2.5	000
0600	-5.4	*****	65	078	.3	082	2.5	000
0900	-4.9	-32.9	09	063	.8	039	1.9	001
1200	-4.2	-7.7	77	101	.9	077	2.5	004
1500	-4.1	-7.9	75	093	.6	070	3.2	001
1800	-4.4	-6.7	84	090	1.1	098	4.4	001
2100	-4.0	-7.3	78	080	1.1	069	2.5	001
2400	-4.7	-14.4	47	097	1.5	074	3.8	000

DAY 06

HOUR NDNG	TEMP. DEG C	DEW POINT DEG C	RH %	WIND DIR. DEG.	WIND SPD. M/S	GUST DIR. DEG.	MAX. GUST M/S	RAD MW
0300	-4.1	*****	75	071	.8	067	2.5	000
0600	-4.2	-8.0	75	318	1.7	325	4.4	000
0900	-3.7	-18.1	32	256	.5	183	4.4	001
1200	-3.3	-6.5	79	094	3.7	099	7.0	007
1500	-4.1	-5.7	89	102	3.1	103	5.7	003
1800	-5.0	-8.5	77	107	.7	091	2.5	000
2100	-5.4	-8.8	77	257	1.4	252	3.8	001
2400	-5.7	-8.5	81	274	1.4	263	3.2	000

DAY 07

HOUR NDNG	TEMP. DEG C	DEW POINT DEG C	RH %	WIND DIR. DEG.	WIND SPD. M/S	GUST DIR. DEG.	MAX. GUST M/S	RAD MW
0300	-7.5	-14.2	59	349	.9	001	4.4	000
0600	-7.0	-15.3	52	058	1.3	071	3.2	000
0900	-5.6	-10.1	71	065	1.4	048	3.2	003
1200	-4.1	-16.5	38	055	1.5	044	3.8	015
1500	-4.4	-13.4	50	044	1.0	037	3.2	002
1800	-4.8	-11.9	58	063	1.5	037	3.8	001
2100	-4.9	-9.8	69	074	1.4	088	3.8	001
2400	-5.2	-10.1	69	069	1.2	053	3.2	001

DAY 08

HOUR NDNG	TEMP. DEG C	DEW POINT DEG C	RH %	WIND DIR. DEG.	WIND SPD. M/S	GUST DIR. DEG.	MAX. GUST M/S	RAD MW
0300	-4.7	-9.6	69	070	1.3	105	3.8	001
0600	-4.9	*****	68	075	1.0	051	1.9	001
0900	-4.5	-10.0	66	072	1.1	096	2.5	003
1200	-3.9	-11.7	55	061	1.3	064	3.2	011
1500	-5.2	*****	60	086	1.4	066	3.8	003
1800	-4.5	-11.2	60	***	****	***	4.4	000
2100	-3.8	*****	51	***	****	***	2.5	001
2400	-4.2	*****	54	***	****	***	2.5	001

DAY 09

HOUR NDNG	TEMP. DEG C	DEW POINT DEG C	RH %	WIND DIR. DEG.	WIND SPD. M/S	GUST DIR. DEG.	MAX. GUST M/S	RAD MW
0300	-3.4	-12.5	50	***	****	***	1.9	001
0600	-4.4	-12.2	55	***	****	***	2.5	001
0900	-4.6	*****	55	175	.8	***	3.2	004
1200	-2.1	-9.4	58	148	.3	018	4.4	012
1500	-4.7	*****	98	158	.9	141	2.5	003
1800	-5.7	-9.8	73	292	.9	305	3.2	000
2100	-8.3	-16.3	53	329	1.4	***	3.8	000
2400	-7.0	-13.0	68	334	1.7	311	4.4	000

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DAY 10

HOUR NDNG	TEMP. DEG C	DEW POINT DEG C	RH %	WIND DIR. DEG.	WIND SPD. M/S	GUST DIR. DEG.	MAX. GUST M/S	RAD MW
0300	-7.3	-12.8	65	270	1.1	266	3.8	000
0600	-8.3	-16.5	52	229	1.1	236	5.7	000
0900	-8.2	-15.5	56	352	1.1	305	3.8	003
1200	-8.4	-13.9	65	280	1.4	254	3.8	006
1500	-9.1	-18.2	48	330	1.1	353	3.8	001
1800	-10.1	-23.4	33	303	1.0	355	2.5	001
2100	-10.9	*****	21	***	****	***	1.9	001
2400	-12.8	*****	01	***	****	***	2.5	000

DAY 11

HOUR NDNG	TEMP. DEG C	DEW POINT DEG C	RH %	WIND DIR. DEG.	WIND SPD. M/S	GUST DIR. DEG.	MAX. GUST M/S	RAD MW
0300	-14.7	*****	90	***	****	***	3.2	001
0600	-13.7	*****	92	***	****	***	2.5	001
0900	-12.5	*****	98	***	****	***	1.9	002
1200	-14.0	*****	85	***	****	***	4.4	006
1500	-13.9	*****	78	***	****	***	2.5	002
1800	-13.0	-17.0	72	***	****	***	3.2	000
2100	-12.2	-18.5	60	***	****	***	7.0	001
2400	-12.4	-20.3	52	***	****	***	7.0	001

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	-13.4	-21.9	49	***	****	***	5.7	001
0600	-15.3	-22.4	55	***	****	***	3.2	001
0900	-14.5	-23.2	48	***	****	***	3.8	003
1200	-13.4	-26.0	34	***	****	***	3.2	025
1500	-13.1	*****	36	***	****	***	2.5	004
1800	-15.0	*****	47	***	****	***	2.5	001
2100	-19.1	*****	75	***	****	***	1.9	001
2400	-15.3	*****	73	***	****	***	1.9	001

DAY 13

HOUR NDNG	TEMP. DEG C	DEW POINT DEG C	RH %	WIND DIR. DEG.	WIND SPD. M/S	GUST DIR. DEG.	MAX. GUST M/S	RAD MW
0300	-16.8	*****	76	***	****	***	2.5	001
0600	-16.5	-21.2	67	***	****	***	2.5	001
0900	-14.7	*****	54	***	****	***	3.2	003
1200	-13.9	-25.0	39	***	****	***	3.8	029
1500	-15.6	-27.4	36	***	****	***	3.8	011
1800	-17.4	-24.1	56	***	****	***	3.2	001
2100	-19.6	-27.0	52	***	****	***	3.8	001
2400	-19.5	-27.6	49	***	****	***	4.4	001

DAY 14

HOUR NDNG	TEMP. DEG C	DEW POINT DEG C	RH %	WIND DIR. DEG.	WIND SPD. M/S	GUST DIR. DEG.	MAX. GUST M/S	RAD MW
0300	-19.1	-27.6	47	***	****	***	6.3	001
0600	-20.2	-28.7	47	***	****	***	8.3	001
0900	-19.8	-29.0	44	***	****	***	8.9	003
1200	-22.5	-31.9	42	***	****	***	5.7	031
1500	-22.9	-33.1	39	***	****	***	5.1	012
1800	-24.0	-31.7	49	***	****	***	4.4	001
2100	-24.3	-32.0	49	***	****	***	6.3	001
2400	-24.6	-32.5	48	***	****	***	6.3	001

DAY 15

HOUR NDNG	TEMP. DEG C	DEW POINT DEG C	RH %	WIND DIR. DEG.	WIND SPD. M/S	GUST DIR. DEG.	MAX. GUST M/S	RAD MW
0300	-23.3	-31.7	46	***	****	***	5.1	001
0600	-25.1	-32.7	49	***	****	***	3.8	001
0900	-23.3	-32.2	44	***	****	***	2.5	004
1200	-21.7	*****	33	***	****	***	3.2	026
1500	-14.3	-35.9	14	***	****	***	2.5	015
1800	-22.2	*****	47	***	****	***	1.9	001
2100	-22.8	-27.8	64	***	****	***	2.5	001
2400	-21.5	-26.7	63	***	****	***	3.8	001

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	-21.6	*****	63	***	****	***	3.8	001
0600	-20.2	*****	60	***	****	***	3.2	001
0900	-18.6	-23.8	64	***	****	***	2.5	006
1200	-18.6	*****	48	***	****	***	3.2	017
1500	-17.7	*****	43	***	****	***	2.5	008
1800	-19.7	*****	54	***	****	***	3.2	001
2100	-19.0	-27.3	48	***	****	***	1.9	001
2400	-17.7	-27.1	44	***	****	***	3.2	001

DAY 17

HOUR NDNG	TEMP. DEG C	DEW POINT DEG C	RH %	WIND DIR. DEG.	WIND SPD. M/S	GUST DIR. DEG.	MAX. GUST M/S	RAD MW
0300	-16.5	-27.3	39	***	****	***	4.4	001
0600	-16.6	-27.4	39	***	****	***	2.5	001
0900	-16.4	-27.8	37	***	****	***	3.2	012
1200	-14.8	-20.9	60	***	****	***	3.2	025
1500	*****	*****	14	***	****	***	2.5	006
1800	-16.6	-28.6	35	***	****	***	3.2	001
2100	-16.8	-28.4	36	***	****	***	4.4	001
2400	-17.4	-29.0	36	***	****	***	3.8	001

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	-16.8	*****	36	***	****	***	2.5	001
0600	-17.3	-28.3	38	***	****	***	3.2	001
0900	*****	*****	14	***	****	***	5.7	011
1200	-11.0	-34.0	13	***	****	***	4.4	022
1500	-8.2	-32.6	12	***	****	***	4.4	006
1800	-9.9	-18.2	51	***	****	***	4.4	001
2100	-10.2	-16.6	60	***	****	***	4.4	001
2400	-10.9	*****	92	***	****	***	1.9	000

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DAY 19

HOUR NDNG	TEMP. DEG C	DEW POINT DEG C	RH %	WIND DIR. DEG.	WIND SPD. M/S	GUST DIR. DEG.	MAX. GUST M/S	RAD MW
0300	-9.7	-13.7	73	***	****	***	5.7	001
0600	-8.3	-16.7	51	***	****	***	3.8	001
0900	-8.2	-17.1	49	***	****	***	5.7	004
1200	-8.4	-12.8	71	***	****	***	5.1	014
1500	-7.6	-12.6	68	***	****	***	3.2	008
1800	-9.0	*****	48	***	****	***	3.8	001
2100	-8.7	-13.8	67	090	1.8	089	3.2	001
2400	-8.4	-15.3	58	086	2.6	080	6.3	001

DAY 20

HOUR NDNG	TEMP. DEG C	DEW POINT DEG C	RH %	WIND DIR. DEG.	WIND SPD. M/S	GUST DIR. DEG.	MAX. GUST M/S	RAD MW
0300	-8.5	-15.6	57	077	3.7	074	7.0	001
0600	-7.7	-14.6	58	080	2.7	083	5.7	001
0900	-7.5	-15.3	54	077	3.5	081	6.3	008
1200	-6.5	-17.7	41	074	3.1	067	7.0	***
1500	*****	*****	36	072	6.3	***	5.7	011
1800	-6.2	-18.3	38	069	3.5	085	7.6	001
2100	-6.2	-14.8	51	083	3.1	078	9.5	001
2400	-5.2	-10.4	67	091	3.4	112	10.2	001

DAY 21

HOUR NDNG	TEMP. DEG C	DEW POINT DEG C	RH %	WIND DIR. DEG.	WIND SPD. M/S	GUST DIR. DEG.	MAX. GUST M/S	RAD MW
0300	-5.8	-10.8	68	109	5.5	125	12.7	001
0600	-6.1	-13.8	55	108	6.3	112	12.1	001
0900	-6.2	-16.1	46	086	4.3	087	11.4	010
1200	*****	*****	**	095	4.0	***	8.3	***
1500	-5.1	-21.8	26	286	4.4	***	3.8	015
1800	-10.6	-11.1	96	030	1.9	***	3.8	001
2100	-10.4	*****	21	***	****	***	2.5	000
2400	-12.1	-34.9	13	***	****	***	2.5	000

DAY 22

HOUR NDNG	TEMP. DEG C	DEW POINT DEG C	RH %	WIND DIR. DEG.	WIND SPD. M/S	GUST DIR. DEG.	MAX. GUST M/S	RAD MW
0300	-12.6	-51.6	02	***	****	***	3.2	000
0600	-12.6	*****	04	***	****	***	2.5	000
0900	-10.9	-20.1	47	***	****	***	4.4	015
1200	-13.2	-21.3	51	***	****	***	5.1	***
1500	-13.0	-22.3	46	***	****	***	3.2	005
1800	-12.9	-23.0	43	***	****	***	3.8	001
2100	-12.1	-23.9	37	***	****	***	3.2	001
2400	-10.9	-22.3	39	***	****	***	4.4	001

DAY 23

HOUR NDNG	TEMP. DEG C	DEW POINT DEG C	RH %	WIND DIR. DEG.	WIND SPD. M/S	GUST DIR. DEG.	MAX. GUST M/S	RAD MW
0300	-8.8	-19.0	44	***	****	***	3.8	001
0600	-8.8	-43.3	04	***	****	***	3.2	000
0900	-7.5	-9.9	83	***	****	***	2.5	007
1200	-5.3	*****	64	***	****	***	2.5	021
1500	-8.7	*****	79	***	****	***	2.5	004
1800	-10.9	-24.8	31	***	****	***	3.8	000
2100	-10.5	-12.6	85	***	****	***	3.2	001
2400	-10.3	-15.1	68	***	****	***	3.2	001

DAY 24

HOUR NDNG	TEMP. DEG C	DEW POINT DEG C	RH %	WIND DIR. DEG.	WIND SPD. M/S	GUST DIR. DEG.	MAX. GUST M/S	RAD MW
0300	-9.9	-17.3	55	***	****	***	3.2	001
0600	-8.4	-17.8	47	***	****	***	2.5	001
0900	-7.1	-20.8	33	***	****	***	3.2	008
1200	-5.5	-21.7	27	***	****	***	3.8	013
1500	-7.6	*****	67	019	1.0	020	3.2	003
1800	-8.0	*****	26	019	1.4	020	5.1	000
2100	-7.7	-8.2	96	019	1.8	018	5.1	000
2400	-7.8	*****	49	019	1.1	019	3.2	000

DAY 25

HOUR NDNG	TEMP. DEG C	DEW POINT DEG C	RH %	WIND DIR. DEG.	WIND SPD. M/S	GUST DIR. DEG.	MAX. GUST M/S	RAD MW
0300	-7.2	*****	67	009	1.3	020	6.3	001
0600	-7.2	-24.5	24	078	2.4	102	8.9	000
0900	-6.1	*****	79	026	.9	012	3.8	004
1200	-3.6	-10.8	58	058	1.3	074	4.4	011
1500	-3.7	*****	56	094	.9	113	3.2	006
1800	-4.2	-9.7	66	066	1.2	092	3.2	001
2100	-3.9	*****	62	039	1.3	029	3.2	001
2400	-4.6	-9.7	68	064	1.6	085	5.1	000

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	-10.9	61	057	1.6	051	5.1	001
0600	-4.8	-11.7	59	067	1.1	059	2.5	001
0900	-4.3	-12.3	54	056	.9	021	3.2	007
1200	-3.6	-11.4	55	054	1.1	037	3.2	018
1500	-3.2	-8.5	67	042	1.3	056	3.2	010
1800	-4.6	*****	54	075	1.0	038	1.9	000
2100	-5.9	*****	18	066	.3	071	1.9	001
2400	-6.1	*****	14	349	.4	359	1.9	000

DAY 27

HOUR NDNG	TEMP. DEG C	DEW POINT DEG C	RH %	WIND DIR. DEG.	WIND SPD. M/S	GUST DIR. DEG.	MAX. GUST M/S	RAD MW
0300	-6.3	*****	88	347	.5	310	1.9	000
0600	-6.7	*****	94	006	.3	018	1.9	000
0900	-3.3	*****	69	004	.3	004	1.3	008
1200	-3.3	*****	59	042	.5	076	2.5	014
1500	-5.5	*****	70	020	.4	344	2.5	005
1800	-7.1	-8.2	92	109	.9	152	3.2	001
2100	-7.9	-9.9	86	079	.9	126	3.2	000
2400	-7.1	-16.4	48	101	2.3	100	5.1	001

R&M CONSULTANTS, INC.

SUSITNA HYDROELECTRIC PROJECT

THREE HOUR SUMMARY FOR GLACIER WEATHER STATION
DATA TAKEN DURING FEBRUARY , 1981

	DAY 28									DAY 29									DAY 30								
HOUR NDNG	TEMP. DEG C	DEW POINT DEG C	RH %	WIND DIR. DEG.	WIND SPD. M/S	GUST DIR. DEG.	MAX. GUST M/S	RAD MW	HOUR NDNG	TEMP. DEG C	DEW POINT DEG C	RH %	WIND DIR. DEG.	WIND SPD. M/S	GUST DIR. DEG.	MAX. GUST M/S	RAD MW	HOUR NDNG	TEMP. DEG C	DEW POINT DEG C	RH %	WIND DIR. DEG.	WIND SPD. M/S	GUST DIR. DEG.	MAX. GUST M/S	RAD MW
0300	-6.7	-16.8	45	081	1.6	095	3.2	001	0300	*****	*****	**	***	****	***	****	***	0300	*****	*****	**	***	****	***	****	***
0600	-5.9	-15.0	49	088	2.6	089	5.7	001	0600	*****	*****	**	***	****	***	****	***	0600	*****	*****	**	***	****	***	****	***
0900	-5.7	-17.6	39	086	4.1	091	7.6	011	0900	*****	*****	**	***	****	***	****	***	0900	*****	*****	**	***	****	***	****	***
1200	-5.6	-18.4	36	098	7.2	093	10.8	022	1200	*****	*****	**	***	****	***	****	***	1200	*****	*****	**	***	****	***	****	***
1500	-4.9	-14.6	47	100	5.4	104	8.9	015	1500	*****	*****	**	***	****	***	****	***	1500	*****	*****	**	***	****	***	****	***
1800	-6.0	-14.9	50	093	4.0	087	9.5	001	1800	*****	*****	**	***	****	***	****	***	1800	*****	*****	**	***	****	***	****	***
2100	-4.4	-10.9	61	086	4.6	090	10.2	001	2100	*****	*****	**	***	****	***	****	***	2100	*****	*****	**	***	****	***	****	***
2400	-4.3	-10.8	61	092	6.3	088	10.8	001	2400	*****	*****	**	***	****	***	****	***	2400	*****	*****	**	***	****	***	****	***

R&M CONSULTANTS, INC.

SUSITNA HYDROELECTRIC PROJECT

MONTHLY SUMMARY FOR GLACIER WEATHER STATION
DATA TAKEN DURING FEBRUARY , 1981

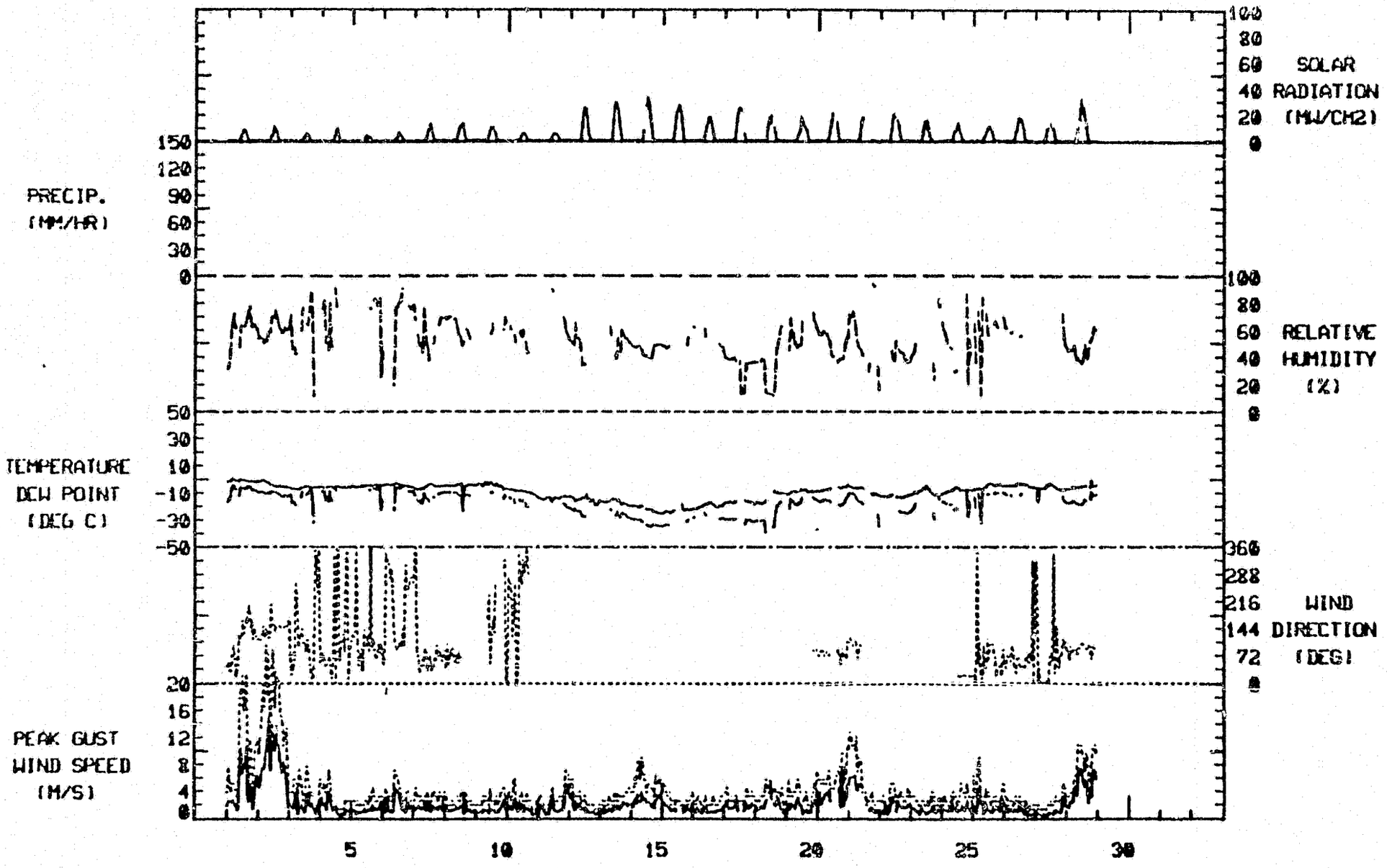
DAY	MAX. TEMP. DEG C	MIN. TEMP. DEG C	MEAN TEMP. DEG C	RES. WIND DIR. DEG	RES. WIND SPD. M/S	AVG. WIND SPD. M/S	MAX. GUST DIR. DEG	MAX. GUST SPD. M/S	P'VAL DIR.	MEAN RH %	MEAN DP DEG C	PRECIP MM	DAY'S SOLAR ENERGY WH/SQM	DAY
01	.4	-2.5	-1.0	130	3.4	4.4	151	21.6	ESE	62	-7.2	****	550	01
02	-.4	-6.2	-3.3	142	8.1	8.6	145	25.4	SSE	60	-10.8	****	610	02
03	-5.0	-7.4	-6.2	073	.7	1.7	124	7.6	NE	58	-14.2	****	350	03
04	-5.0	-6.3	-5.7	051	1.2	1.5	071	7.0	ENE	66	-18.8	****	400	04
05	-3.9	-5.8	-4.9	093	.9	1.2	098	4.4	ESE	70	-12.6	****	285	05
06	-2.6	-5.7	-4.1	089	.5	1.8	099	7.0	E	72	-9.2	****	350	06
07	-3.1	-7.6	-5.4	056	1.2	1.4	001	4.4	ENE	57	-12.6	****	615	07
08	-2.5	-5.2	-3.8	***	****	1.2	***	4.4	ENE	61	-10.6	****	770	08
09	-1.6	-8.3	-4.9	319	.3	1.2	018	4.4	N	62	-12.0	****	665	09
10	-7.0	-12.9	-10.0	293	.9	1.2	236	5.7	N	53	-16.7	****	365	10
11	-12.0	-15.3	-13.6	***	****	1.7	***	7.0	MSG	76	-18.6	****	420	11
12	-9.7	-19.2	-14.5	***	****	1.3	***	5.7	MSG	48	-23.4	****	1310	12
13	-12.3	-19.6	-15.9	***	****	1.5	***	4.4	MSG	55	-25.4	****	1575	13
14	-19.1	-25.7	-22.4	***	****	2.6	***	8.9	MSG	45	-30.8	****	1634	14
15	-14.3	-25.3	-19.8	***	****	1.3	***	5.1	MSG	44	-31.2	****	1605	15
16	-16.9	-21.8	-19.4	***	****	1.0	***	3.8	MSG	54	-26.1	****	1120	16
17	-9.4	-18.3	-13.9	***	****	1.6	***	4.4	MSG	34	-27.0	****	1476	17
18	-8.4	-18.1	-13.3	***	****	1.9	***	5.7	MSG	34	-25.9	****	1028	18
19	-6.5	-11.8	-9.1	***	****	1.7	080	6.3	E	61	-14.6	****	1010	19
20	-4.2	-8.9	-6.6	079	3.4	3.5	112	10.2	ENE	49	-15.3	****	1132	20
21	-3.6	-12.1	-7.9	100	4.1	3.5	125	12.7	ESE	51	-18.1	****	1216	21
22	-10.5	-13.4	-12.0	***	****	1.6	***	5.1	MSG	36	-26.3	****	1210	22
23	-3.9	-11.4	-7.6	***	****	1.1	***	3.8	MSG	58	-20.8	****	800	23
24	-5.2	-10.5	-7.9	***	****	1.[illegible]	020	5.1	NNE	50	-17.2	****	760	24
25	-2.6	-7.5	-5.1	057	1.3	1.[illegible]	102	8.9	NNE	61	-13.6	****	760	25
26	-2.5	-6.1	-4.3	055	.9	1.0	051	5.1	NE	58	-11.0	****	1130	26
27	-2.7	-8.3	-5.5	073	.6	.9	100	5.1	N	75	-11.5	****	786	27
28	-4.2	-7.1	-5.7	092	4.4	4.5	093	10.8	E	47	-14.9	****	1765	28
MONTH	.4	-25.7	-9.1	102	1.7	2.1	145	25.4	E	56	-17.7	****	25698	

GUST VEL. AT MAX. GUST MINUS 2 INTERVALS 15.2
GUST VEL. AT MAX. GUST MINUS 1 INTERVAL 21.6
GUST VEL. AT MAX. GUST PLUS 1 INTERVAL 18.4
GUST VEL. AT MAX. GUST PLUS 2 INTERVALS 18.4

NOTE: RELATIVE HUMIDITY READINGS ARE UNRELIABLE WHEN WIND SPEED ARE <1.0 METERS PER SECOND. SUCH READINGS HAVE NOT BEEN INCLUDED IN THE DAILY OR MONTHLY MEAN FOR RELATIVE HUMIDITY AND DEW POINT.

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

R&M CONSULTANT, INC. SUSITNA HYDROELECTRIC PROJECT



DAY OF THE MONTH GLACIER WEATHER STATION

DATA START: 01 FEBRUARY , 1981

R&M CONSULTANTS, INC.

SUSITNA HYDROELECTRIC PROJECT

WIND FREQUENCY SUMMARY FOR GLACIER WEATHER STATION
DATA TAKEN DURING FEBRUARY , 1981

	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	GREATER THAN 20.0	TOTAL
N	3.95	3.39	0.00	0.00	0.00	0.00	0.00	7.33
NNE	2.40	6.91	0.00	0.00	0.00	0.00	0.00	9.31
NE	2.26	7.62	.14	0.00	0.00	0.00	0.00	10.01
ENE	3.24	9.45	3.67	.14	0.00	0.00	0.00	16.50
E	2.26	8.46	6.49	1.41	0.00	0.00	0.00	18.62
ESE	1.55	3.81	2.82	2.40	.42	.14	0.00	11.14
SE	1.27	2.54	.28	2.26	.56	0.00	0.00	6.91
SSE	.56	.85	.56	1.41	1.41	0.00	0.00	4.80
S	.28	.71	.56	.14	0.00	0.00	0.00	1.69
SSW	.28	.14	0.00	.28	0.00	0.00	0.00	.71
SW	.42	.42	.14	0.00	0.00	0.00	0.00	.99
WSW	.28	.85	.28	0.00	0.00	0.00	0.00	1.41
W	.42	1.97	0.00	.14	0.00	0.00	0.00	2.54
WNW	.42	.85	.28	0.00	0.00	0.00	0.00	1.55
NW	1.41	1.41	0.00	0.00	0.00	0.00	0.00	2.82
NNW	1.69	1.55	0.00	0.00	0.00	0.00	0.00	3.24
CALM								.42
TOTAL	22.71	50.92	15.23	8.18	2.40	.14	0.00	100.00

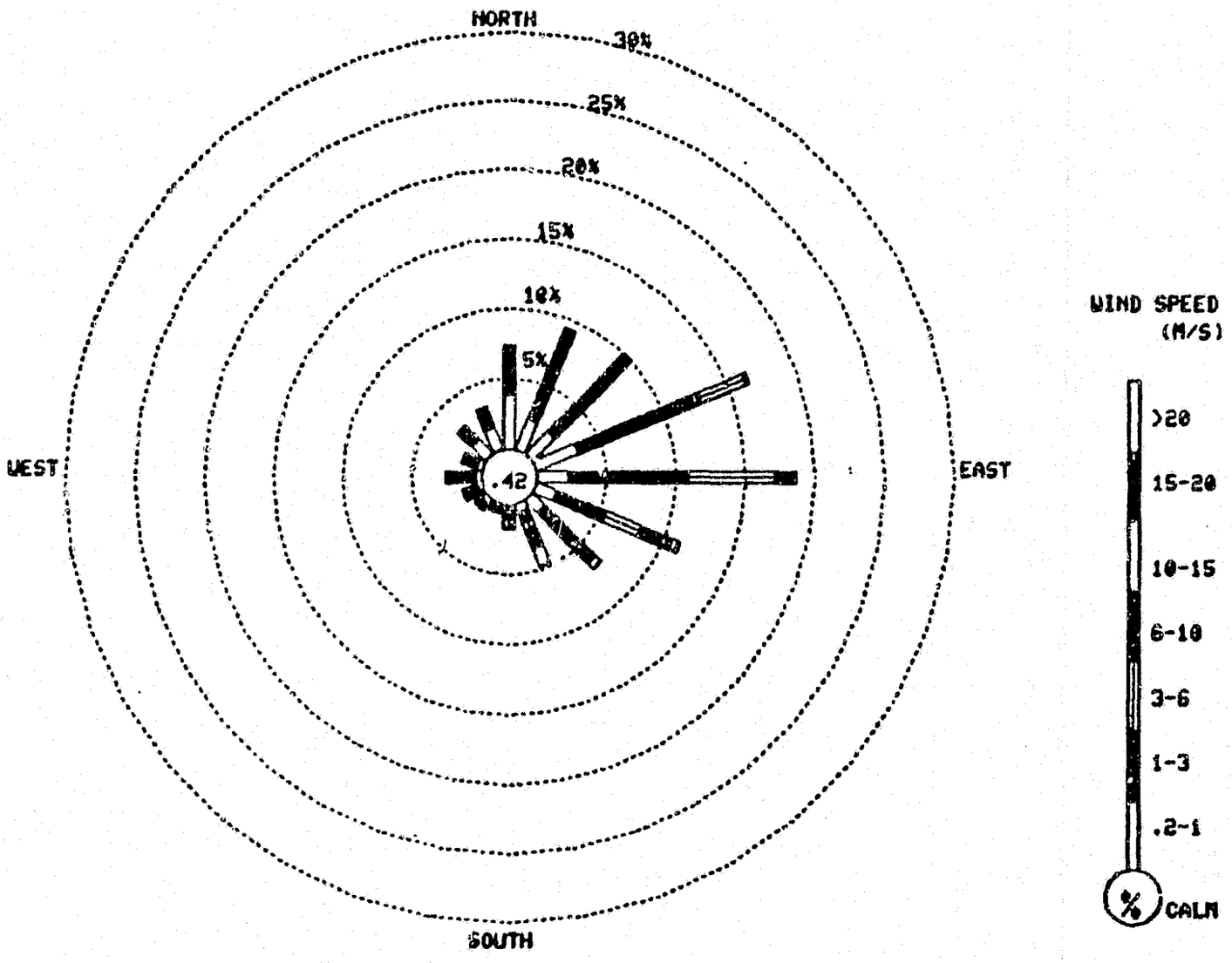
NOTE: ALL FREQUENCIES EXPRESSED IN PERCENT.

709 VALID WIND OBSERVATIONS USED TO DEVELOP FREQUENCY SUMMARY

SUSITNA HYDROELECTRIC PROJECT

GLACIER WEATHER STATION

FEBRUARY, 1981



WIND ROSE PLOT

R&M CONSULTANTS, INC.

SUSITNA HYDROELECTRIC PROJECT

HOURLY PRECIPITATION SUMMARY FOR GLACIER WEATHER STATION
DATA TAKEN DURING MARCH , 1981

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
01	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	01
02	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	02
03	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	03
04	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	04
05	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	05
06	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	06
07	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	07
08	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	08
09	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	09
10	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	10
11	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	11
12	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	12
13	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	13
14	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	14
15	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	15
16	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	16
17	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	17
18	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	18
19	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	19
20	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	20
21	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	21
22	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	22
23	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	23
24	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	24
25	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	25
26	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	26
27	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	27
28	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	28
29	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	29
30	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	30
31	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	31

R&M CONSULTANTS, INC.

SUSITNA HYDROELECTRIC PROJECT

THREE HOUR SUMMARY FOR GLACIER WEATHER STATION.
DATA TAKEN DURING MARCH , 1981

DAY 01

HOUR NDNG	TEMP. DEG C	DEW POINT DEG C	RH %	WIND DIR. DEG.	WIND SPD. M/S	GUST DIR. DEG.	MAX. GUST M/S	RAD MW
0300	-4.8	-9.1	72	094	5.9	086	10.8	001
0600	-4.6	-9.7	68	108	6.2	109	9.5	001
0900	-4.0	-10.9	59	100	6.0	107	9.5	008
1200	-3.0	-11.6	52	102	6.2	095	12.1	019
1500	-2.7	-12.3	48	101	4.5	107	10.8	***
1800	-4.3	-9.2	69	102	5.7	102	11.4	001
2100	-5.0	-9.5	71	087	4.2	086	7.0	000
2400	-5.0	-8.8	75	065	.9	115	4.4	001

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	-4.8	-6.5	88	052	.7	086	2.5	001
0600	-4.8	-9.0	73	051	1.4	070	3.2	001
0900	-6.1	-9.2	79	033	.7	043	2.5	012
1200	-7.1	-15.9	50	172	.3	248	5.7	022
1500	-7.9	-13.6	64	264	4.1	257	5.7	010
1800	-9.2	-12.2	79	259	4.2	254	7.6	000
2100	-9.6	-14.7	67	289	1.6	279	4.4	001
2400	-10.1	-14.6	70	324	.9	008	2.5	001

DAY 03

HOUR NDNG	TEMP. DEG C	DEW POINT DEG C	RH %	WIND DIR. DEG.	WIND SPD. M/S	GUST DIR. DEG.	MAX. GUST M/S	RAD MW
0300	-10.6	*****	63	319	.8	026	3.2	001
0600	-12.2	-24.6	35	054	.9	018	3.2	001
0900	-11.1	-16.3	66	053	1.4	032	3.8	010
1200	*****	*****	59	048	1.6	020	9.9	030
1500	*****	*****	**	089	.5	***	1.9	020
1800	-12.2	-15.3	78	055	1.5	054	3.2	001
2100	-11.9	-16.3	70	071	1.4	048	4.4	000
2400	-12.4	-18.3	62	057	1.6	057	4.4	001

DAY 04

HOUR NDNG	TEMP. DEG C	DEW POINT DEG C	RH %	WIND DIR. DEG.	WIND SPD. M/S	GUST DIR. DEG.	MAX. GUST M/S	RAD MW
0300	-13.1	-20.1	56	068	2.1	061	5.7	001
0600	-12.9	-19.3	59	071	1.4	074	3.8	001
0900	-10.8	-18.2	55	056	1.5	034	3.2	018
1200	*****	*****	32	102	1.0	142	3.8	038
1500	*****	*****	39	070	3.2	***	****	020
1800	-10.7	-15.2	70	086	3.2	085	8.3	001
2100	-10.6	-11.9	90	029	1.7	028	5.7	001
2400	-9.6	-12.4	80	053	1.4	055	5.1	000

DAY 05

HOUR NDNG	TEMP. DEG C	DEW POINT DEG C	RH %	WIND DIR. DEG.	WIND SPD. M/S	GUST DIR. DEG.	MAX. GUST M/S	RAD MW
0300	-8.4	-13.7	66	070	3.2	064	5.7	001
0600	-7.8	-15.1	56	076	4.0	078	7.0	001
0900	-6.6	-15.9	48	084	4.0	076	7.0	014
1200	*****	*****	42	105	3.6	103	6.3	021
1500	-5.2	-16.0	43	087	3.9	095	8.3	010
1800	-5.8	-15.2	48	076	3.8	069	7.6	001
2100	-5.8	-15.4	47	075	4.4	080	7.0	001
2400	-5.8	-15.2	48	076	4.1	072	7.0	001

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	-7.0	*****	52	077	2.0	114	7.0	001
0600	-6.3	-14.7	52	073	1.7	086	5.7	001
0900	-8.0	-15.6	55	051	1.9	095	6.3	026
1200	*****	*****	44	078	1.1	***	3.2	035
1500	-6.2	-19.6	34	056	****	***	****	***
1800	-8.4	-17.1	50	066	1.2	083	2.5	001
2100	-8.2	-18.4	44	058	1.6	039	3.8	001
2400	-7.9	-19.3	40	065	1.6	067	3.2	001

DAY 07

HOUR NDNG	TEMP. DEG C	DEW POINT DEG C	RH %	WIND DIR. DEG.	WIND SPD. M/S	GUST DIR. DEG.	MAX. GUST M/S	RAD MW
0300	-8.1	-20.0	38	066	3.3	062	3.2	001
0600	-8.3	-21.2	35	071	1.9	073	4.4	001
0900	*****	*****	11	080	1.5	050	3.8	020
1200	*****	*****	11	065	1.9	***	4.4	036
1500	*****	*****	10	102	1.4	109	2.5	019
1800	-4.9	-30.9	11	054	4.3	***	4.4	000
2100	-5.7	-31.5	11	066	1.9	056	6.3	000
2400	-6.4	-32.0	11	078	1.7	100	4.4	000

DAY 08

HOUR NDNG	TEMP. DEG C	DEW POINT DEG C	RH %	WIND DIR. DEG.	WIND SPD. M/S	GUST DIR. DEG.	MAX. GUST M/S	RAD MW
0300	-8.4	-32.7	12	044	1.5	012	3.8	000
0600	-7.5	-32.0	12	071	1.6	079	3.8	000
0900	-4.5	-20.8	27	072	1.2	059	3.2	017
1200	-3.0	-16.5	35	069	1.8	039	3.8	031
1500	*****	*****	**	104	3.8	***	6.3	***
1800	-2.5	-16.0	35	067	2.7	088	5.7	001
2100	-.6	-16.6	29	074	3.0	076	7.6	001
2400	-2.2	-11.9	48	090	4.8	106	10.8	001

DAY 09

HOUR NDNG	TEMP. DEG C	DEW POINT DEG C	RH %	WIND DIR. DEG.	WIND SPD. M/S	GUST DIR. DEG.	MAX. GUST M/S	RAD MW
0300	-2.4	-9.4	59	075	2.9	089	6.3	001
0600	-2.8	-14.4	41	072	5.1	074	8.9	001
0900	-1.6	-16.3	32	077	3.4	077	8.3	027
1200	*****	*****	29	083	3.4	083	3.8	***
1500	-2.1	-17.1	31	055	.9	347	2.5	016
1800	-6.8	-11.6	69	025	1.1	351	5.1	001
2100	-5.8	*****	75	053	1.1	042	3.2	001
2400	-5.7	-7.1	90	093	1.1	073	3.2	001

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DAY 10

HOUR NDNG	TEMP. DEG C	DEW POINT DEG C	RH %	WIND DIR. DEG.	WIND SPD. M/S	GUST DIR. DEG.	MAX. GUST M/S	RAD MW
0300	-6.7	-8.5	87	084	1.0	030	3.2	001
0600	-6.1	-9.4	78	095	1.3	102	4.4	001
0900	-3.0	-12.1	50	087	2.8	110	6.3	014
1200	-3.2	-11.8	52	110	5.7	131	9.5	023
1500	-2.5	-13.2	44	125	4.9	186	10.2	044
1800	-6.2	-11.8	65	113	3.1	111	7.6	001
2100	-5.4	-12.7	57	092	2.2	069	6.3	001
2400	-4.9	-15.4	44	074	4.5	076	7.6	001

DAY 11

HOUR NDNG	TEMP. DEG C	DEW POINT DEG C	RH %	WIND DIR. DEG.	WIND SPD. M/S	GUST DIR. DEG.	MAX. GUST M/S	RAD MW
0300	-3.8	-18.6	31	075	2.9	088	5.7	001
0600	-4.0	-13.0	50	080	6.4	093	12.1	001
0900	*****	*****	68	068	4.3	095	14.0	014
1200	-.6	-6.4	65	113	9.5	114	18.4	021
1500	-1.3	-6.3	69	120	9.7	122	16.5	013
1800	-2.5	-7.5	69	140	7.6	148	17.8	000
2100	-4.8	-10.1	67	152	10.7	159	26.0	001
2400	-5.6	-7.8	85	192	4.7	154	14.0	000

DAY 12

HOUR NDNG	TEMP. DEG C	DEW POINT DEG C	RH %	WIND DIR. DEG.	WIND SPD. M/S	GUST DIR. DEG.	MAX. GUST M/S	RAD MW
0300	-6.5	-10.1	76	134	11.1	129	23.5	001
0600	-7.0	-10.2	78	128	5.6	139	21.0	001
0900	-6.5	-10.8	72	100	4.0	080	9.5	013
1200	-5.1	-12.0	59	136	4.8	148	12.1	022
1500	-5.3	-10.2	69	125	3.6	114	12.1	015
1800	-6.5	-8.2	88	064	.7	039	3.8	001
2100	-7.0	-11.3	72	220	1.0	176	5.7	001
2400	-6.4	-12.4	63	099	3.9	110	8.9	001

DAY 13

HOUR NDNG	TEMP. DEG C	DEW POINT DEG C	RH %	WIND DIR. DEG.	WIND SPD. M/S	GUST DIR. DEG.	MAX. GUST M/S	RAD MW
0300	-5.8	-15.7	46	073	3.0	078	6.3	001
0600	-6.3	-32.0	11	072	1.9	090	4.4	001
0900	2.9	-25.8	10	079	2.5	067	5.7	018
1200	*****	*****	35	112	****	136	12.1	029
1500	-2.0	-16.3	33	116	5.3	116	17.1	019
1800	-4.2	-15.0	43	115	6.7	137	15.9	001
2100	-4.2	-13.4	49	087	6.1	090	11.4	001
2400	-3.7	-16.1	38	084	4.9	082	10.8	001

DAY 14

HOUR NDNG	TEMP. DEG C	DEW POINT DEG C	RH %	WIND DIR. DEG.	WIND SPD. M/S	GUST DIR. DEG.	MAX. GUST M/S	RAD MW
0300	-3.3	-18.2	31	075	4.2	068	7.0	001
0600	-1.4	-18.1	27	068	3.4	063	7.6	001
0900	-1.3	-16.4	31	089	4.7	124	12.7	017
1200	-4.5	-11.0	61	105	6.0	120	13.3	028
1500	-4.8	-8.4	76	069	2.3	080	7.6	015
1800	-6.2	*****	01	026	.8	345	4.4	001
2100	-5.6	-11.4	64	110	1.8	087	5.7	001
2400	-6.2	-14.8	51	063	6.1	077	7.0	001

DAY 15

HOUR NDNG	TEMP. DEG C	DEW POINT DEG C	RH %	WIND DIR. DEG.	WIND SPD. M/S	GUST DIR. DEG.	MAX. GUST M/S	RAD MW
0300	-6.7	-16.5	46	085	2.3	101	4.4	001
0600	-7.6	-19.6	38	071	2.1	079	6.3	001
0900	-6.1	-22.2	27	070	1.6	058	4.4	027
1200	-3.3	-30.6	10	022	****	022	3.2	***
1500	*****	*****	11	065	1.4	075	3.8	024
1800	-7.2	-18.3	41	069	1.1	093	2.5	001
2100	-4.1	-15.8	40	060	2.0	053	3.8	001
2400	-8.1	-18.3	44	067	1.8	064	5.1	001

DAY 16

HOUR NDNG	TEMP. DEG C	DEW POINT DEG C	RH %	WIND DIR. DEG.	WIND SPD. M/S	GUST DIR. DEG.	MAX. GUST M/S	RAD MW
0300	-6.3	-15.9	47	069	2.0	062	4.4	001
0600	-6.8	-16.1	48	067	1.8	069	5.7	001
0900	-6.1	-18.9	36	064	1.5	***	5.1	022
1200	*****	*****	**	090	1.8	106	3.8	***
1500	*****	*****	32	075	1.4	095	3.8	***
1800	-5.8	-19.6	33	073	1.1	***	4.4	001
2100	-4.9	-17.8	36	082	2.3	080	5.1	001
2400	-2.1	-17.9	29	079	3.5	096	8.9	001

DAY 17

HOUR NDNG	TEMP. DEG C	DEW POINT DEG C	RH %	WIND DIR. DEG.	WIND SPD. M/S	GUST DIR. DEG.	MAX. GUST M/S	RAD MW
0300	-1.8	-17.2	30	091	6.7	098	10.8	001
0600	-1.9	-17.3	30	074	5.8	073	12.7	001
0900	-2.0	-15.9	34	082	5.8	111	12.7	017
1200	-1.8	-14.4	38	115	9.4	119	15.2	026
1500	-1.3	-17.2	29	119	7.6	107	12.1	016
1800	-.5	-9.8	50	114	7.1	110	14.6	001
2100	-.5	-19.8	22	115	7.5	121	15.9	001
2400	.9	-28.5	09	117	8.8	120	19.0	000

DAY 18

HOUR NDNG	TEMP. DEG C	DEW POINT DEG C	RH %	WIND DIR. DEG.	WIND SPD. M/S	GUST DIR. DEG.	MAX. GUST M/S	RAD MW
0300	1.2	-15.5	28	113	7.9	126	17.1	001
0600	.8	-15.4	29	106	7.7	102	17.8	001
0900	.9	-3.8	71	114	8.2	113	14.6	017
1200	2.0	-28.8	08	114	9.3	116	15.9	018
1500	2.9	-28.2	08	102	8.8	114	19.0	014
1800	1.4	-29.3	08	125	12.4	130	22.2	001
2100	1.0	-28.4	09	117	12.0	126	21.0	000
2400	.1	-29.1	09	107	7.7	106	18.4	000

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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	.4	-28.8	09	116	8.6	123	18.4	000
0600	-.3	-29.4	09	131	6.0	125	15.9	001
0900	-1.5	-29.2	10	136	4.1	155	10.8	012
1200	-2.7	-13.7	43	078	1.5	080	5.1	036
1500	-4.4	-10.3	64	302	1.3	342	5.1	021
1800	-5.3	-6.1	94	067	.8	348	3.2	001
2100	-6.1	-36.3	07	065	1.1	020	2.5	001
2400	-5.7	-11.5	64	068	2.4	075	5.1	001

DAY 20

HOUR NDNG	TEMP. DEG C	DEW POINT DEG C	RH %	WIND DIR. DEG.	WIND SPD. M/S	GUST DIR. DEG.	MAX. GUST M/S	RAD MW
0300	-7.3	-15.6	52	058	1.9	040	4.4	001
0600	-6.6	-17.5	42	067	1.8	060	3.8	001
0900	-5.7	-19.2	34	058	1.4	088	3.8	031
1200	-3.7	-17.4	34	108	3.0	101	8.3	047
1500	-3.3	-17.4	33	114	4.5	107	7.0	027
1800	-5.1	-18.3	35	129	3.6	118	6.3	002
2100	-6.1	-15.4	48	358	2.4	331	9.5	001
2400	-6.5	-16.1	47	326	5.4	332	12.7	001

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	-8.7	-15.6	58	003	1.7	328	10.8	001
0600	-6.6	-14.9	52	028	.9	349	7.6	001
0900	-5.4	-17.9	37	357	3.5	332	10.2	032
1200	-5.4	-19.3	33	090	3.4	095	8.9	049
1500	-5.8	-20.0	32	085	5.2	108	9.5	027
1800	-8.4	-18.9	43	075	4.0	083	10.2	001
2100	-9.6	-18.4	49	028	1.7	037	4.4	001
2400	-10.5	-18.8	51	059	1.2	030	3.2	001

DAY 22

HOUR NDNG	TEMP. DEG C	DEW POINT DEG C	RH %	WIND DIR. DEG.	WIND SPD. M/S	GUST DIR. DEG.	MAX. GUST M/S	RAD MW
0300	-10.6	-19.6	48	082	1.2	070	3.2	001
0600	-10.5	-20.0	46	070	1.9	051	4.4	002
0900	-8.0	-21.6	33	072	1.8	077	3.8	031
1200	-5.8	-21.5	28	143	1.4	160	4.4	048
1500	-6.7	-22.3	28	225	1.0	208	3.2	025
1800	-8.0	*****	40	324	.6	281	2.5	002
2100	-8.4	-14.3	63	052	1.2	057	3.2	001
2400	-8.9	*****	90	082	.9	087	2.5	001

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	-7.1	-11.4	72	079	1.1	075	2.5	000
0600	-6.8	-13.8	58	075	1.5	065	3.8	001
0900	-2.5	-16.7	33	079	1.6	084	5.7	047
1200	-1.8	-16.8	31	075	1.1	057	3.8	039
1500	-2.5	*****	42	141	1.1	131	3.2	021
1800	-5.3	*****	59	119	.6	112	1.9	001
2100	-4.8	-14.2	48	031	1.0	045	3.2	001
2400	-5.7	-7.0	91	045	.9	035	2.5	000

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	-5.3	*****	16	083	.9	036	3.2	000
0600	-6.1	-113.	00	067	1.0	039	2.5	002
0900	-3.7	-12.5	51	074	1.3	076	3.2	023
1200	*****	*****	42	085	1.1	071	2.5	040
1500	-2.5	*****	38	138	1.0	091	2.5	030
1800	-5.0	-9.5	71	079	1.3	040	3.2	001
2100	-5.9	-11.1	67	078	1.3	045	3.2	001
2400	-5.6	-13.3	55	072	1.4	052	3.8	001

DAY 25

HOUR NDNG	TEMP. DEG C	DEW POINT DEG C	RH %	WIND DIR. DEG.	WIND SPD. M/S	GUST DIR. DEG.	MAX. GUST M/S	RAD MW
0300	-5.4	-14.3	50	069	1.5	059	4.4	001
0600	-6.0	-14.9	50	071	1.2	077	2.5	002
0900	-4.1	-17.1	36	076	1.4	088	3.2	034
1200	-2.2	-15.1	37	117	1.2	079	4.4	050
1500	1.0	-15.2	29	171	1.3	172	3.2	031
1800	-5.8	-12.2	61	156	1.0	153	3.2	001
2100	-5.8	-13.3	56	058	.9	031	2.5	001
2400	-7.8	*****	72	078	1.0	105	3.8	001

DAY 26

HOUR NDNG	TEMP. DEG C	DEW POINT DEG C	RH %	WIND DIR. DEG.	WIND SPD. M/S	GUST DIR. DEG.	MAX. GUST M/S	RAD MW
0300	-6.2	-13.0	59	068	1.3	039	3.2	001
0600	-7.2	-10.8	76	062	1.2	087	4.4	002
0900	-4.8	-7.9	79	018	1.6	019	3.8	019
1200	-2.5	-8.7	63	043	1.3	011	3.8	031
1500	-2.2	-9.7	57	069	1.2	052	3.2	020
1800	-3.4	-7.3	75	092	2.1	106	6.3	001
2100	-4.6	*****	04	085	.8	057	5.1	000
2400	-4.6	-32.7	09	087	.7	086	3.2	000

DAY 27

HOUR NDNG	TEMP. DEG C	DEW POINT DEG C	RH %	WIND DIR. DEG.	WIND SPD. M/S	GUST DIR. DEG.	MAX. GUST M/S	RAD MW
0300	-5.0	*****	33	039	.7	010	2.5	000
0600	-6.1	-14.7	51	244	1.9	234	5.1	002
0900	-5.0	-8.1	79	312	1.6	256	4.4	020
1200	-4.7	-8.7	74	310	1.1	342	2.5	021
1500	-4.9	-8.5	76	267	1.4	224	5.1	012
1800	-5.7	-12.5	59	069	1.2	056	3.8	001
2100	-5.8	-12.6	59	064	1.3	114	3.2	001
2400	-6.2	-12.2	63	054	1.4	056	5.1	001

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DAY 28									DAY 29									DAY 30								
HOUR NDNG	TEMP. DEG C	DEW POINT DEG C	RH %	WIND DIR. DEG.	WIND SPD. M/S	GUST DIR. DEG.	MAX. GUST M/S	RAD MW	HOUR NDNG	TEMP. DEG C	DEW POINT DEG C	RH %	WIND DIR. DEG.	WIND SPD. M/S	GUST DIR. DEG.	MAX. GUST M/S	RAD MW	HOUR NDNG	TEMP. DEG C	DEW POINT DEG C	RH %	WIND DIR. DEG.	WIND SPD. M/S	GUST DIR. DEG.	MAX. GUST M/S	RAD MW
0300	-7.7	-14.8	57	069	2.2	074	3.8	001	0300	-7.0	-16.8	46	067	1.6	062	3.2	001	0300	-8.6	-15.7	57	062	1.4	065	3.2	001
0600	-7.7	-15.1	56	073	1.1	069	2.5	002	0600	-5.8	-16.0	45	059	1.1	059	3.8	003	0600	-8.5	-15.6	57	064	1.7	057	3.8	002
0900	-5.4	-18.3	36	070	1.5	070	3.2	043	0900	-4.8	-18.4	34	080	1.1	053	3.8	027	0900	-6.5	-19.9	34	064	1.1	063	2.5	034
1200	-3.9	-20.7	26	077	1.0	050	3.2	053	1200	-4.3	-19.4	30	112	1.7	112	3.8	053	1200	-4.3	*****	28	100	.7	084	1.9	054
1500	-.9	*****	09	102	.7	070	3.8	040	1500	-4.2	-17.2	36	129	.8	157	3.2	034	1500	.1	*****	09	075	.5	023	2.5	034
1800	-6.4	*****	44	073	.7	102	3.2	002	1800	-7.6	-13.9	61	101	1.1	153	3.8	002	1800	-8.8	-13.7	68	084	.6	096	2.5	002
2100	-6.2	-15.5	48	064	1.2	044	3.2	001	2100	-8.4	-15.3	58	072	1.8	090	3.2	000	2100	-8.5	-12.2	75	062	1.1	055	2.5	001
2400	-6.2	-16.9	43	065	1.9	069	4.4	001	2400	-7.7	-15.3	55	063	1.8	065	3.8	001	2400	-9.3	-13.1	74	053	1.0	036	3.8	001

DAY 31									DAY 31									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	HOUR NDNG	TEMP. DEG C	DEW POINT DEG C	RH %	WIND DIR. DEG.	WIND SPD. M/S	GUST DIR. DEG.	MAX. GUST M/S	RAD MW	HOUR NDNG	TEMP. DEG C	DEW POINT DEG C	RH %	WIND DIR. DEG.	WIND SPD. M/S	GUST DIR. DEG.	MAX. GUST M/S	RAD MW
0300	-9.8	-55.0	01	062	1.2	065	3.2	000	0300	*****	*****	**	***	****	***	****	***	0300	*****	*****	**	***	****	***	****	***
0600	-9.5	-11.7	84	098	1.4	088	6.3	004	0600	*****	*****	**	***	****	***	****	***	0600	*****	*****	**	***	****	***	****	***
0900	-7.7	-14.6	58	043	3.0	062	8.9	028	0900	*****	*****	**	***	****	***	****	***	0900	*****	*****	**	***	****	***	****	***
1200	-7.3	-16.1	50	010	1.7	350	3.8	054	1200	*****	*****	**	***	****	***	****	***	1200	*****	*****	**	***	****	***	****	***
1500	-6.4	*****	41	054	1.2	085	6.3	043	1500	*****	*****	**	***	****	***	****	***	1500	*****	*****	**	***	****	***	****	***
1800	-9.5	-12.3	80	105	.4	108	3.2	003	1800	*****	*****	**	***	****	***	****	***	1800	*****	*****	**	***	****	***	****	***
2100	-8.0	-15.1	57	086	1.4	081	4.4	001	2100	*****	*****	**	***	****	***	****	***	2100	*****	*****	**	***	****	***	****	***
2400	-8.4	-16.2	54	099	2.5	090	5.1	001	2400	*****	*****	**	***	****	***	****	***	2400	*****	*****	**	***	****	***	****	***

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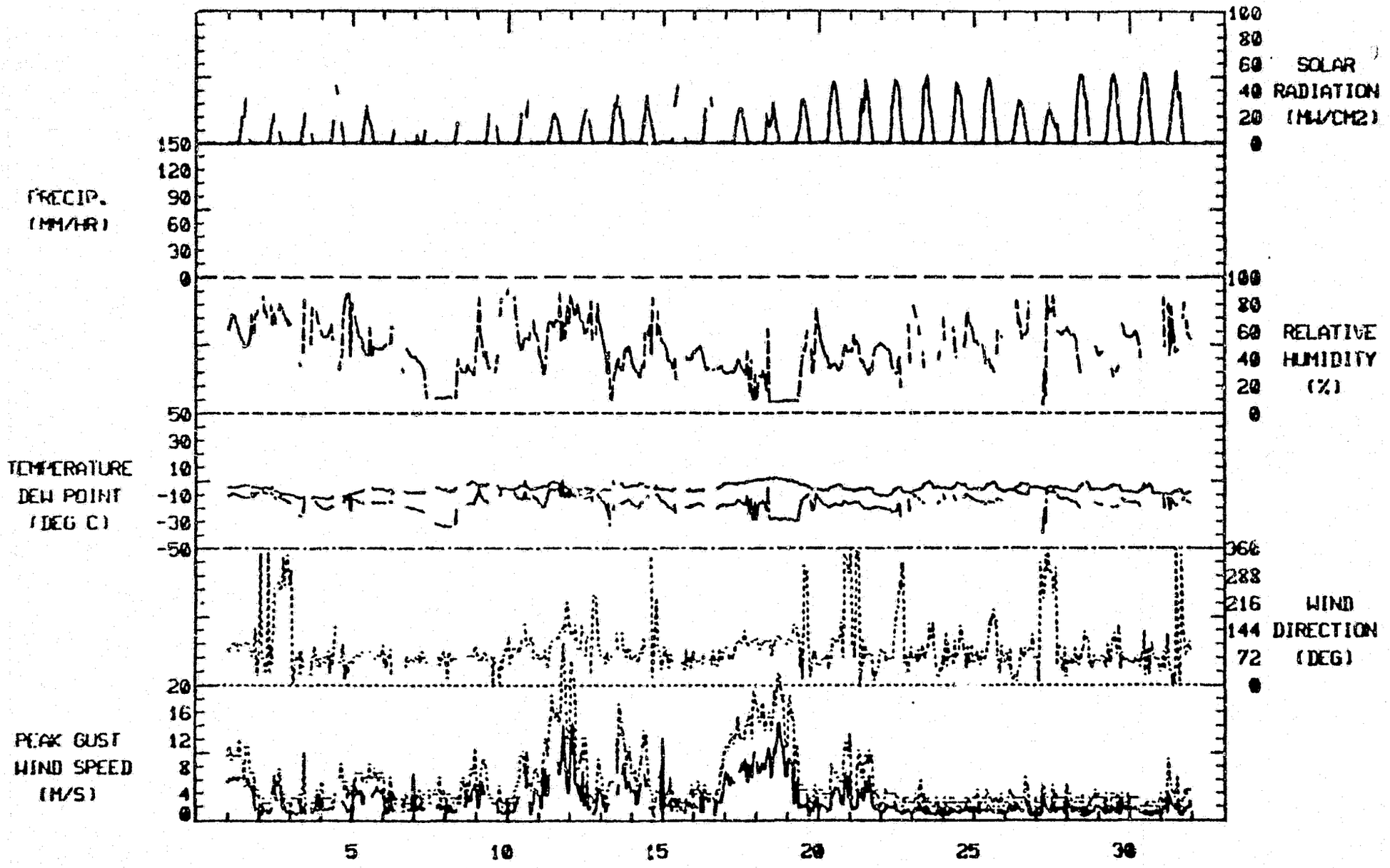
DAY	MAX. TEMP. DEG C	MIN. TEMP. DEG C	MEAN TEMP. DEG C	RES. WIND DIR. DEG	RES. WIND SPD. M/S	AVG. WIND SPD. M/S	MAX. GUST DIR. DEG	MAX. GUST SPD. M/S	P'VAL DIR.	MEAN RH %	MEAN DP DEG C	PRECIP MM	DAY'S SOLAR ENERGY WH/SQM	DAY
01	-2.5	-5.0	-3.8	098	4.8	5.0	095	12.1	ESE	63	-10.1	****	1419	01
02	-2.4	-10.1	-6.3	286	.9	2.1	254	7.6	WSW	72	-11.9	****	1310	02
03	-6.1	-13.1	-9.6	052	1.1	1.4	020	9.9	NE	59	-18.2	****	1353	03
04	-7.4	-13.5	-10.5	066	1.7	1.9	085	8.3	ENE	60	-16.2	****	1942	04
05	-4.9	-9.5	-7.2	079	3.9	3.9	095	8.3	ENE	52	-15.2	****	1565	05
06	-4.0	-10.0	-7.0	066	1.7	1.8	114	7.0	ENE	46	-17.4	****	1372	06
07	-1.1	-8.6	-4.9	071	2.1	2.1	056	6.3	ENE	22	-27.1	****	1737	07
08	.4	-8.4	-4.0	077	2.4	2.5	106	10.8	ENE	26	-20.9	****	1248	08
09	0.0	-6.8	-3.4	071	2.4	2.6	074	8.9	ENE	55	-12.6	****	1658	09
10	-2.5	-6.7	-4.6	098	2.7	3.1	186	10.2	ESE	61	-11.9	****	1800	10
11	-.3	-6.0	-3.2	125	5.4	7.1	159	26.0	ESE	60	-10.0	****	1505	11
12	-4.9	-7.2	-6.1	124	4.1	4.7	129	23.5	SE	70	-10.6	****	1598	12
13	-.7	-7.0	-3.8	093	4.1	4.4	116	17.1	ENE	38	-19.2	****	2354	13
14	-.8	-6.7	-3.8	079	3.5	3.9	120	13.3	ENE	48	-14.0	****	2075	14
15	-1.9	-8.1	-5.0	070	1.8	1.9	079	6.3	ENE	36	-20.2	****	2297	15
16	-1.1	-7.7	-4.4	075	2.0	2.2	096	8.9	ENE	37	-17.7	****	2373	16
17	.8	-2.7	-.9	105	6.9	7.3	120	19.0	ESE	30	-17.5	****	1870	17
18	3.0	.1	1.5	113	9.2	9.4	130	22.2	ESE	16	-22.3	****	1830	18
19	1.2	-6.6	-2.7	112	2.6	3.5	123	18.4	ESE	33	-20.7	****	2130	19
20	-2.5	-7.5	-5.0	069	1.5	3.3	332	12.7	ESE	42	-17.1	****	3310	20
21	-4.1	-11.1	-7.6	057	2.2	3.1	328	10.8	NE	43	-18.0	****	2985	21
22	-3.7	-11.2	-7.5	082	.8	1.4	051	4.4	ENE	44	-19.9	****	3335	22
23	.7	-7.9	-3.6	078	.9	1.2	084	5.7	ENE	54	-13.3	****	3140	23
24	0.0	-6.8	-3.4	082	1.1	1.3	052	3.8	NE	56	-31.8	****	3100	24
25	1.0	-8.1	-3.6	096	.9	1.3	059	4.4	ENE	46	-14.6	****	3555	25
26	-1.1	-8.0	-4.6	064	1.1	1.5	106	6.3	E	62	-12.8	****	2430	26
27	-3.3	-6.4	-4.9	337	.4	1.6	234	5.1	WNW	56	-11.1	****	2075	27
28	4.7	-8.0	-1.7	072	1.3	1.4	069	4.4	ENE	48	-16.9	****	4045	28
29	-.7	-8.4	-4.6	082	1.3	1.5	059	3.8	ENE	45	-16.5	****	3875	29
30	.1	-9.4	-4.6	067	1.0	1.1	057	3.8	ENE	55	-15.0	****	3990	30
31	-5.5	-10.5	-8.0	065	1.4	1.8	062	8.9	NNE	63	-20.1	****	3765	31
MONTH	4.7	-13.5	-4.8	091	2.2	2.9	159	26.0	ENE	48	-16.8	****	73041	

GUST VEL. AT MAX. GUST MINUS 2 INTERVALS 23.5
GUST VEL. AT MAX. GUST MINUS 1 INTERVAL 24.8
GUST VEL. AT MAX. GUST PLUS 1 INTERVAL 22.9
GUST VEL. AT MAX. GUST PLUS 2 INTERVALS 17.1

NOTE: RELATIVE HUMIDITY READINGS ARE UNRELIABLE WHEN WIND SPEED ARE <1.0 METERS PER SECOND. SUCH READINGS HAVE NOT BEEN INCLUDED IN THE DAILY OR MONTHLY MEAN FOR RELATIVE HUMIDITY AND DEW POINT.

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

R&M CONSULTANT, INC. SUSITNA HYDROELECTRIC PROJECT



DAY OF THE MONTH GLACIER WEATHER STATION

DATA START: 01 MARCH , 1981

R&M CONSULTANTS, INC.

SUSITNA HYDROELECTRIC PROJECT

WIND FREQUENCY SUMMARY FOR GLACIER WEATHER STATION
DATA TAKEN DURING MARCH , 1981

	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	GREATER THAN 20.0	TOTAL
N	.53	1.89	.15	0.00	0.00	0.00	0.00	2.57
NNE	.45	4.45	.15	0.00	0.00	0.00	0.00	5.06
NE	1.89	9.58	.83	0.00	0.00	0.00	.08	12.38
ENE	2.42	17.13	7.02	.45	.08	0.00	0.00	27.09
E	1.74	10.19	5.36	2.42	0.00	0.00	0.00	19.70
ESE	1.81	4.15	3.09	5.51	1.28	0.00	0.00	15.85
SE	1.21	1.74	.53	.91	.75	.15	0.00	5.28
SSE	.53	1.51	.53	.45	.15	0.00	0.00	3.17
S	.15	.68	.15	.15	0.00	0.00	0.00	1.13
SSW	.08	.38	.08	0.00	0.00	0.00	0.00	.53
SW	.08	.45	.15	.15	0.00	0.00	0.00	.83
WSW	.08	.30	.53	.08	0.00	0.00	0.00	.98
W	.08	.98	.08	0.00	0.00	0.00	0.00	1.13
WNW	.23	.83	0.00	0.00	0.00	0.00	0.00	1.06
NW	.30	.30	.08	0.00	0.00	0.00	0.00	.68
NNW	.60	1.21	.30	.45	0.00	0.00	0.00	2.57
CALM								0.00
TOTAL	12.15	55.77	19.02	10.57	2.26	.15	.08	100.00

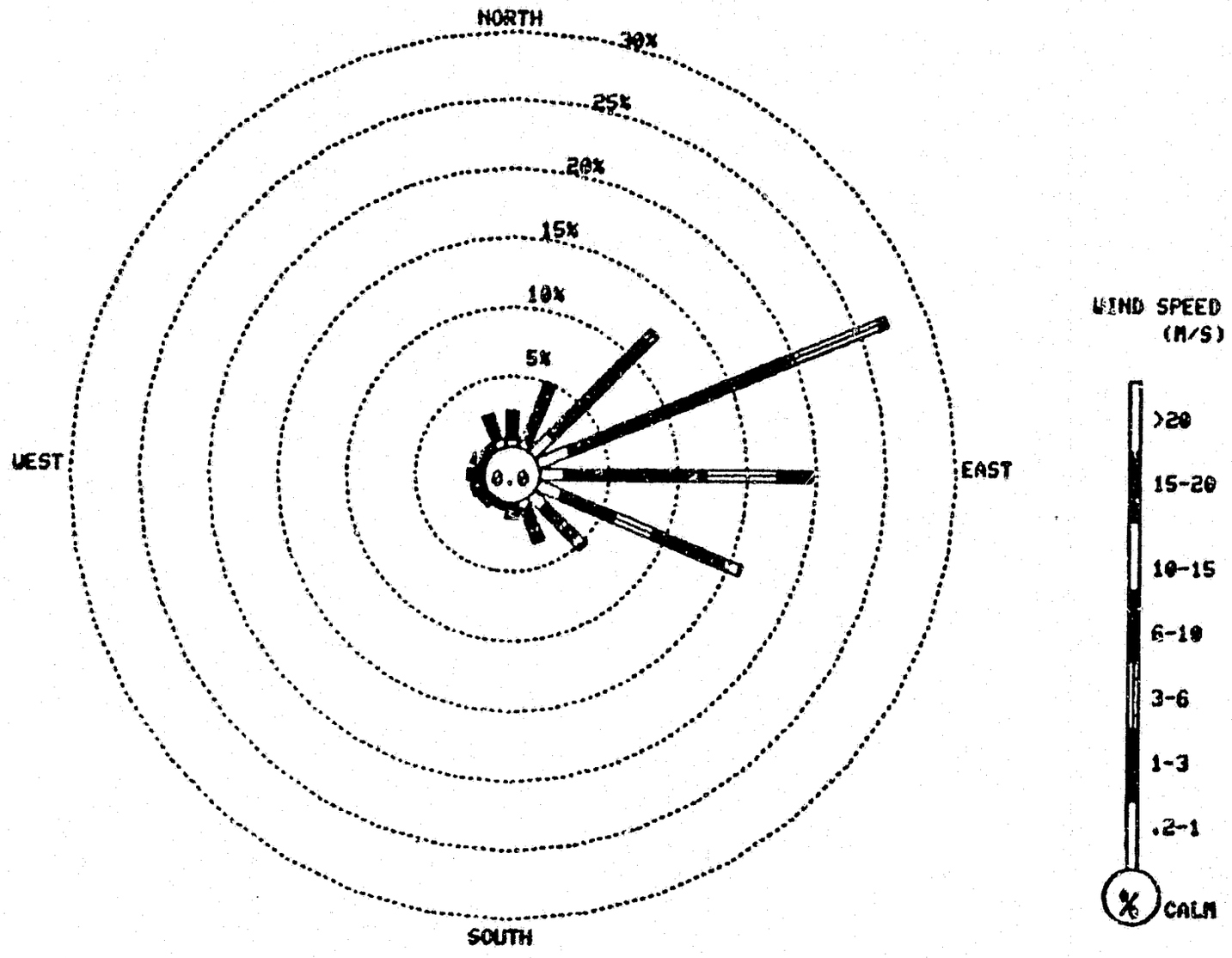
NOTE: ALL FREQUENCIES EXPRESSED IN PERCENT.

1325 VALID WIND OBSERVATIONS USED TO DEVELOP FREQUENCY SUMMARY

SUSITNA HYDROELECTRIC PROJECT

GLACIER WEATHER STATION

MARCH, 1981



WIND ROSE PLOT

R&M CONSULTANTS, INC.

SUSITNA HYDROELECTRIC PROJECT

HOURLY PRECIPITATION SUMMARY FOR GLACIER WEATHER STATION
DATA TAKEN DURING APRIL , 1981

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
01	1.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	.2	.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	01
02	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	.2	****	****	****	****	****	****	****	****	****	****	****	****	02
03	.8	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	03
04	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	04
05	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	05
06	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	06
07	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	07
08	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	08
09	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	09
10	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	10
11	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	11
12	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	12
13	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	13
14	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	14
15	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	15
16	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	16
17	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	17
18	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	18
19	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	19
20	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	20
21	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	21
22	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	22
23	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	23
24	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	24
25	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	25
26	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	26
27	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	27
28	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	28
29	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	.2	0.0	0.0	2.2	1.0	.2	.4	.6	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	.2	0.0	0.0	.4	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 GLACIER WEATHER STATION
DATA TAKEN DURING APRIL , 1981

DAY 01

HOUR NDNG	TEMP. DEG C	DEW POINT DEG C	RH %	WIND DIR. DEG.	WIND SPD. M/S	GUST DIR. DEG.	MAX. GUST M/S	RAD MW
0300	-7.6	-15.6	53	088	3.4	087	7.6	001
0600	-8.8	-22.6	32	092	2.5	063	7.0	004
0900	-6.7	-11.5	69	028	1.4	006	4.4	034
1200	-4.7	*****	49	284	.5	339	1.9	031
1500	-5.8	*****	63	198	.5	184	1.9	023
1800	-8.4	*****	51	131	.6	123	1.9	002
2100	-8.8	*****	33	012	.5	002	1.9	000
2400	-9.6	-46.3	03	010	.5	117	1.9	000

DAY 02

HOUR NDNG	TEMP. DEG C	DEW POINT DEG C	RH %	WIND DIR. DEG.	WIND SPD. M/S	GUST DIR. DEG.	MAX. GUST M/S	RAD MW
0300	-10.0	-17.2	56	076	1.0	067	3.8	001
0600	-10.8	-12.4	88	090	1.2	081	3.8	003
0900	-8.6	-17.7	48	062	1.4	065	4.4	033
1200	-7.2	-16.2	49	352	1.3	038	3.8	057
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	-2.7	*****	46	058	.9	***	****	001
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 GLACIER WEATHER STATION
DATA TAKEN DURING APRIL , 1981

DAY 10

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

DAY 11

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

DAY 12

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

DAY 13

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

DAY 14

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

DAY 15

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

DAY 16

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

DAY 17

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

DAY 18

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

R&M CONSULTANTS, INC.

SUSITNA HYDROELECTRIC PROJECT

THREE HOUR SUMMARY FOR GLACIER WEATHER STATION
DATA TAKEN DURING APRIL , 1981

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	-3.1	-13.5	45	086	1.1	095	2.5	001
0600	-3.4	-14.3	43	060	.9	050	2.5	004
0900	*****	*****	34	071	1.4	053	4.4	056
1200	2.6	-14.7	27	179	2.1	162	4.4	053
1500	.7	-15.9	28	233	1.1	186	3.2	052
1800	-1.9	-12.4	45	240	.9	194	2.5	009
2100	*****	*****	45	081	1.3	122	4.4	001
2400	-3.0	-13.4	45	069	2.0	090	5.1	001

DAY 24

HOUR NDNG	TEMP. DEG C	DEW POINT DEG C	RH %	WIND DIR. DEG.	WIND SPD. M/S	GUST DIR. DEG.	MAX. GUST M/S	RAD MW
0300	-3.6	-14.2	44	065	1.9	060	5.1	001
0600	-2.7	-15.8	36	071	2.0	084	5.7	004
0900	-.4	-19.2	23	057	1.9	059	5.1	054
1200	*****	*****	22	101	1.4	126	6.3	069
1500	1.8	-18.4	21	145	4.3	137	6.3	050
1800	.1	*****	29	336	.5	195	2.5	007
2100	-2.7	*****	41	055	.9	088	1.9	001
2400	-3.0	*****	42	086	.7	057	2.5	001

DAY 25

HOUR NDNG	TEMP. DEG C	DEW POINT DEG C	RH %	WIND DIR. DEG.	WIND SPD. M/S	GUST DIR. DEG.	MAX. GUST M/S	RAD MW
0300	-3.6	*****	45	075	.8	113	1.9	001
0600	-3.8	-14.4	44	047	.9	027	3.2	010
0900	-1.8	-13.8	40	353	.8	059	2.5	041
1200	*****	*****	35	224	1.8	234	3.8	068
1500	-1.6	-13.0	42	290	1.4	272	3.8	052
1800	1.8	-13.7	31	300	.7	***	2.5	013
2100	-3.7	*****	51	270	2.0	262	3.2	001
2400	-4.3	*****	50	063	.9	066	1.9	001

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	-4.8	*****	48	056	1.1	050	3.2	001
0600	-4.2	-15.0	43	060	1.1	059	3.2	005
0900	-1.4	-16.5	31	131	.9	162	3.8	056
1200	1.1	*****	25	247	.8	216	2.5	067
1500	-.2	-16.7	28	305	1.0	285	2.5	047
1800	.2	*****	30	324	.9	358	2.5	012
2100	-4.1	-13.9	47	076	.4	058	2.5	001
2400	-4.1	-15.2	42	074	1.1	075	2.5	001

DAY 27

HOUR NDNG	TEMP. DEG C	DEW POINT DEG C	RH %	WIND DIR. DEG.	WIND SPD. M/S	GUST DIR. DEG.	MAX. GUST M/S	RAD MW
0300	-4.5	-17.1	37	061	1.3	058	3.2	002
0600	-3.9	-18.7	31	064	1.4	038	3.8	007
0900	-1.5	-20.1	23	052	1.7	045	3.8	054
1200	*****	*****	30	111	1.6	078	7.0	068
1500	.3	-15.8	29	212	1.5	151	3.8	050
1800	.1	*****	**	229	.9	***	3.8	013
2100	-3.3	*****	47	040	.7	007	1.9	001
2400	-2.5	-14.1	41	045	1.4	038	3.2	001

R&M CONSULTANTS, INC.

SUSITNA HYDROELECTRIC PROJECT

THREE HOUR SUMMARY FOR GLACIER WEATHER STATION
DATA TAKEN DURING APRIL , 1981

DAY 28									DAY 29								DAY 30								
HOUR NDNG	TEMP. DEG C	DEW POINT DEG C	RH %	WIND DIR. DEG.	WIND SPD. M/S	GUST DIR. DEG.	MAX. GUST M/S	RAD MW	HOUR NDNG	TEMP. DEG C	DEW POINT DEG C	RH %	WIND DIR. DEG.	WIND SPD. M/S	GUST DIR. DEG.	MAX. GUST M/S	RAD MW	HOUR NDNG	TEMP. DEG C	DEW POINT DEG C	RH %	WIND DIR. DEG.	WIND SPD. M/S	GUST DIR. DEG.	MAX. GUST M/S	RAD MW
0300	-3.2	-14.1	43	026	1.1	017	2.5	001	0300	-3.6	-9.5	64	341	.7	346	1.9	001	0300	-2.5	-13.2	44	059	1.3	084	3.8	001
0600	-3.0	*****	44	077	.8	058	1.9	010	0600	-3.4	-9.7	62	269	1.2	244	3.2	006	0600	-2.0	*****	42	061	1.3	048	3.2	008
0900	-2.6	-14.2	41	185	.6	218	3.2	034	0900	-2.5	-11.4	51	241	2.5	237	5.7	020	0900	2.3	-14.9	27	097	.7	041	2.5	050
1200	.1	-12.4	39	308	1.0	326	3.8	***	1200	*****	*****	**	254	2.1	238	5.1	048	1200	*****	*****	**	140	1.1	182	5.1	068
1500	-1.5	-13.5	40	326	.4	224	3.2	078	1500	.1	-14.8	32	021	2.4	020	4.4	049	1500	4.8	*****	24	192	1.1	190	3.2	045
1800	*****	*****	59	023	1.1	***	3.2	009	1800	-.3	-13.7	36	015	1.3	030	3.2	016	1800	4.3	*****	25	179	.8	191	2.5	011
2100	-3.6	*****	65	195	2.4	187	2.5	001	2100	-1.8	-12.3	45	079	1.8	036	4.4	001	2100	1.4	*****	30	081	.6	040	2.5	001
2400	-3.6	*****	64	176	.5	204	1.9	001	2400	-2.4	-13.1	44	065	1.3	055	3.8	001	2400	1.8	-13.3	32	081	2.0	101	7.0	001

R&M CONSULTANTS, INC.

SUSITNA HYDROELECTRIC PROJECT

MONTHLY SUMMARY FOR GLACIER WEATHER STATION
DATA TAKEN DURING APRIL , 1981

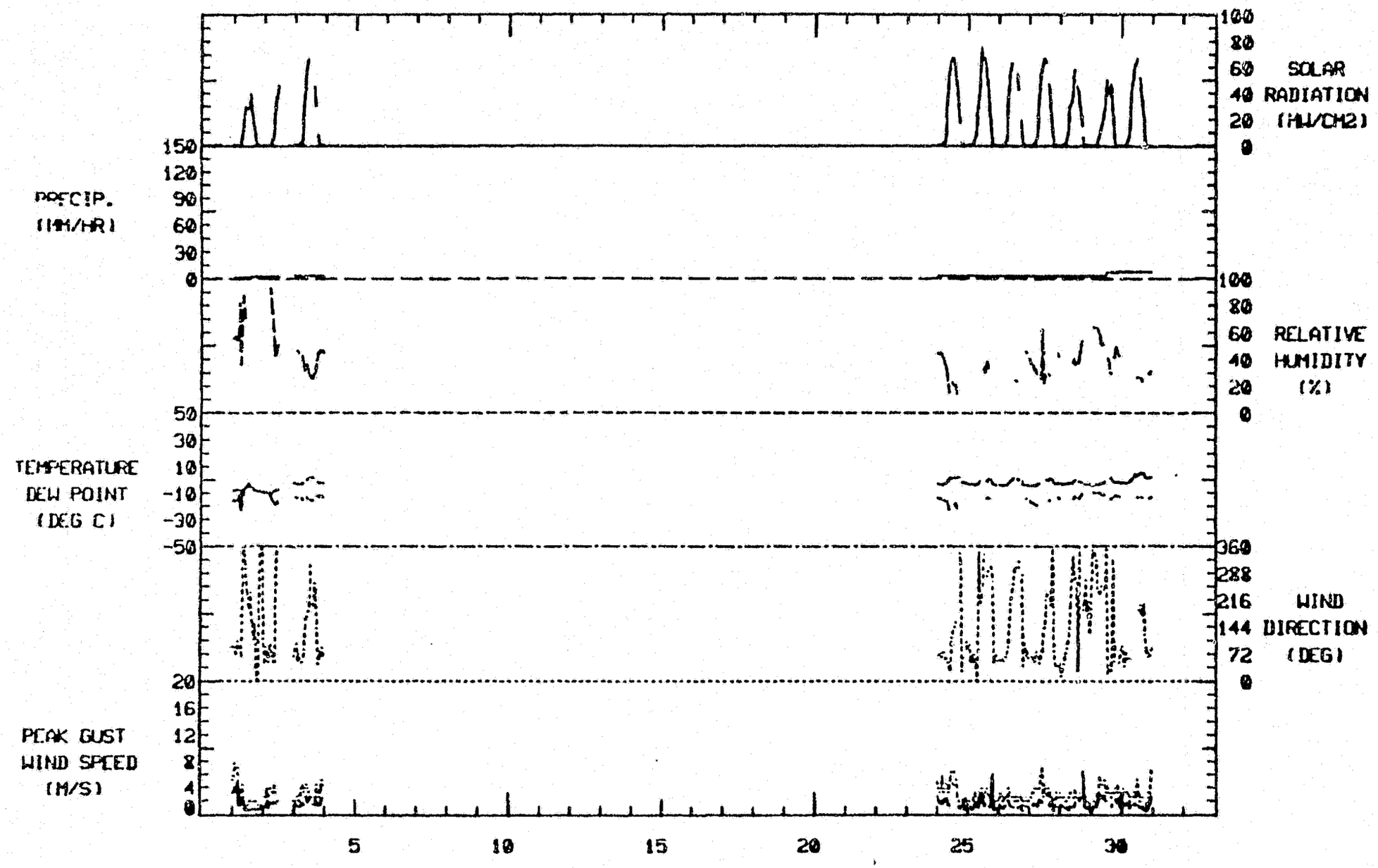
DAY	MAX. TEMP. DEG C	MIN. TEMP. DEG C	MEAN TEMP. DEG C	RES. WIND DIR. DEG	RES. WIND SPD. M/S	AVG. WIND SPD. M/S	MAX. GUST DIR. DEG	MAX. GUST SPD. M/S	P'VAL DIR.	MEAN RH %	MEAN DP DEG C	PRECIP MM	DAY'S SOLAR ENERGY WH/SQM	DAY
01	-.1	-9.7	-4.9	078	.8	1.4	087	7.6	E	63	-24.0	2.4	2755	01
02	-7.2	-10.8	-9.0	***	****	1.3	065	4.4	ENE	57	-15.9	.2	3780	02
03	*****	*****	*****	***	****	.9	058	1.9	ENE	**	*****	.8	240	03
04	*****	*****	*****	***	****	****	***	****	MSG	**	*****	****	***	04
05	*****	*****	*****	***	****	****	***	****	MSG	**	*****	****	***	05
06	*****	*****	*****	***	****	****	***	****	MSG	**	*****	****	***	06
07	*****	*****	*****	***	****	****	***	****	MSG	**	*****	****	***	07
08	*****	*****	*****	***	****	****	***	****	MSG	**	*****	****	***	08
09	*****	*****	*****	***	****	****	***	****	MSG	**	*****	****	***	09
10	*****	*****	*****	***	****	****	***	****	MSG	**	*****	****	***	10
11	*****	*****	*****	***	****	****	***	****	MSG	**	*****	****	***	11
12	*****	*****	*****	***	****	****	***	****	MSG	**	*****	****	***	12
13	*****	*****	*****	***	****	****	***	****	MSG	**	*****	****	***	13
14	*****	*****	*****	***	****	****	***	****	MSG	**	*****	****	***	14
15	*****	*****	*****	***	****	****	***	****	MSG	**	*****	****	***	15
16	*****	*****	*****	***	****	****	***	****	MSG	**	*****	****	***	16
17	*****	*****	*****	***	****	****	***	****	MSG	**	*****	****	***	17
18	*****	*****	*****	***	****	****	***	****	MSG	**	*****	****	***	18
19	*****	*****	*****	***	****	****	***	****	MSG	**	*****	****	***	19
20	*****	*****	*****	***	****	****	***	****	MSG	**	*****	****	***	20
21	*****	*****	*****	***	****	****	***	****	MSG	**	*****	****	***	21
22	4.0	-3.0	.5	***	****	****	***	****	MSG	**	*****	****	***	22
23	2.6	-3.9	-.7	101	.7	1.5	090	5.1	NE	38	-14.0	0.0	5471	23
24	2.6	-4.2	-.8	085	1.3	1.8	126	6.3	ENE	32	-16.9	0.0	6015	24
25	1.8	-4.3	-1.3	298	.4	1.4	234	3.8	ENE	38	-13.7	0.0	5750	25
26	1.3	-4.8	-1.8	052	.4	1.1	162	3.8	ENE	37	-15.5	0.0	5355	26
27	1.6	-4.5	-1.5	073	.8	1.5	078	7.0	NE	34	-17.2	0.0	5821	27
28	.1	-3.8	-1.9	201	.1	1.4	326	3.8	SSE	46	-13.5	0.0	4195	28
29	2.0	-3.8	-.9	325	.5	1.8	237	5.7	WSW	49	-12.1	4.6	3950	29
30	7.1	-3.2	2.0	097	.8	1.3	101	7.0	E	31	-13.8	.6	4911	30
MONTH	7.1	-10.8	-1.8	076	.5	1.4	087	7.6	ENE	42	-15.7	8.6	48243	

GUST VEL. AT MAX. GUST MINUS 2 INTERVALS	5.1
GUST VEL. AT MAX. GUST MINUS 1 INTERVAL	5.7
GUST VEL. AT MAX. GUST PLUS 1 INTERVAL	6.3
GUST VEL. AT MAX. GUST PLUS 2 INTERVALS	7.0

NOTE: RELATIVE HUMIDITY READINGS ARE UNRELIABLE WHEN WIND SPEED ARE <1.0 METERS PER SECOND. SUCH READINGS HAVE NOT BEEN INCLUDED IN THE DAILY OR MONTHLY MEAN FOR RELATIVE HUMIDITY AND DEW POINT.

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

R&M CONSULTANT, INC. SUSITNA HYDROELECTRIC PROJECT



DAY OF THE MONTH GLACIER WEATHER STATION

DATA START: 01 APRIL , 1981

R&M CONSULTANTS, INC.

SUSITNA HYDROELECTRIC PROJECT

WIND FREQUENCY SUMMARY FOR GLACIER WEATHER STATION
DATA TAKEN DURING APRIL , 1981

	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	GREATER THAN 20.0	TOTAL
N	1.39	2.78	0.00	0.00	0.00	0.00	0.00	4.18
NNE	1.39	4.64	0.00	0.00	0.00	0.00	0.00	6.03
NE	3.02	9.51	.23	0.00	0.00	0.00	0.00	12.76
ENE	6.26	12.06	.93	0.00	0.00	0.00	0.00	19.26
E	4.64	8.12	1.86	0.00	0.00	0.00	0.00	14.62
ESE	2.09	2.55	.46	0.00	0.00	0.00	0.00	5.10
SE	.46	.46	.93	0.00	0.00	0.00	0.00	1.86
SSE	2.09	1.39	.46	0.00	0.00	0.00	0.00	3.94
S	1.39	3.25	0.00	0.00	.23	0.00	0.00	4.87
SSW	1.16	2.32	.23	0.00	0.00	0.00	0.00	3.71
SW	1.16	2.55	.46	0.00	0.00	0.00	0.00	4.18
WSW	.93	3.02	.46	0.00	0.00	0.00	0.00	4.41
W	.46	2.32	0.00	0.00	.23	0.00	0.00	3.02
WNW	1.39	1.86	0.00	0.00	0.00	0.00	0.00	3.25
NW	1.62	2.09	0.00	0.00	0.00	0.00	0.00	3.71
NNW	1.86	3.25	0.00	0.00	0.00	0.00	0.00	5.10
CALM								0.00
TOTAL	31.32	62.18	6.03	0.00	.46	0.00	0.00	100.00

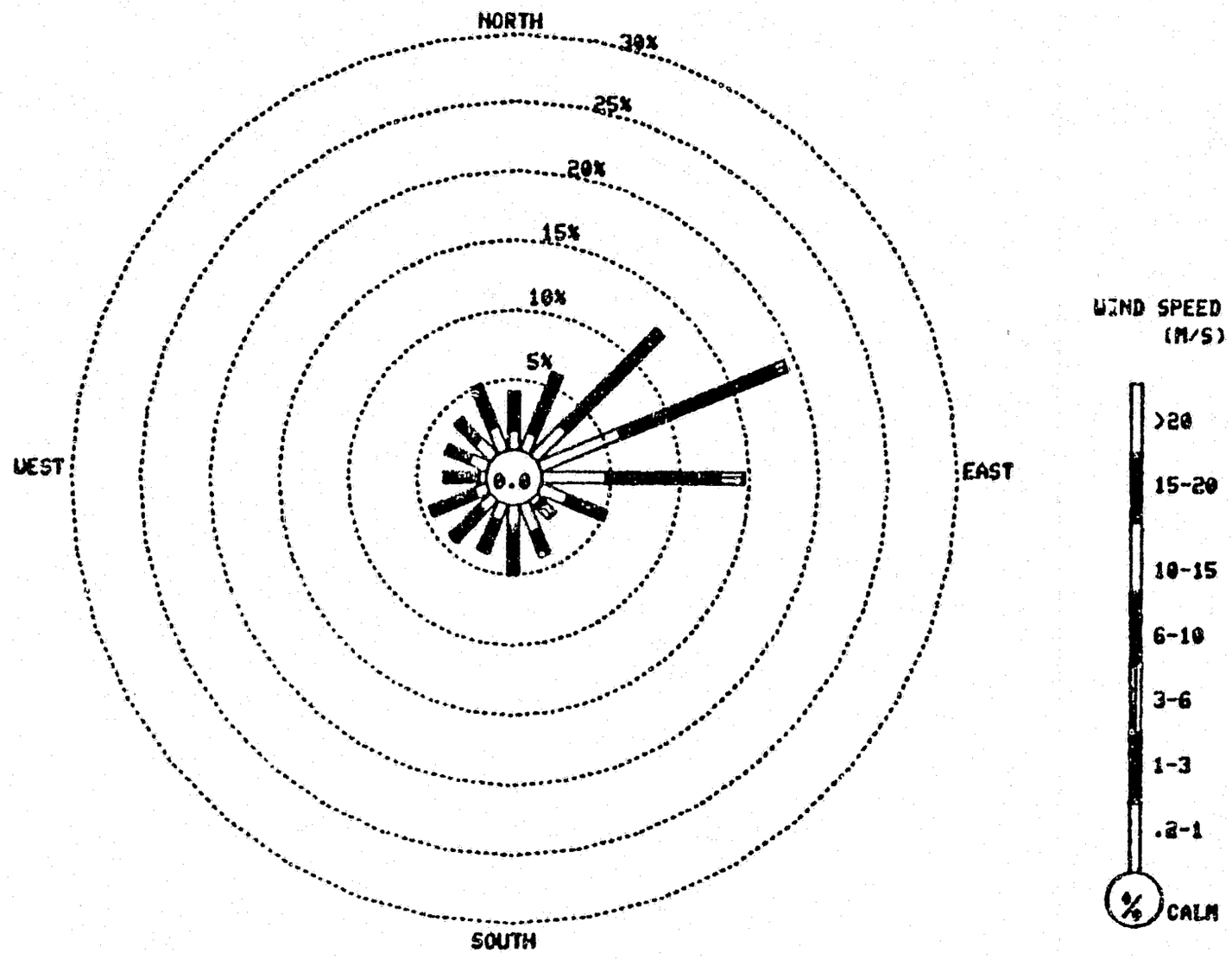
NOTE: ALL FREQUENCIES EXPRESSED IN PERCENT.

431 VALID WIND OBSERVATIONS USED TO DEVELOP FREQUENCY SUMMARY

SUSITNA HYDROELECTRIC PROJECT

GLACIER WEATHER STATION

APRIL, 1981



WIND ROSE PLOT

R&M CONSULTANTS, INC.

SUSITNA HYDROELECTRIC PROJECT

HOURLY PRECIPITATION SUMMARY FOR GLACIER WEATHER STATION
DATA TAKEN DURING MAY , 1981

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
01	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	01
02	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	02
03	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	03
04	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	04
05	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	05
06	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	06
07	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	****	****	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	07
08	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	08
09	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	09
10	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	10
11	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	11
12	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	12
13	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	13
14	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	14
15	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	15
16	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	16
17	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	17
18	0.0	0.0	0.0	0.0	0.0	0.0	.2	1.4	2.0	1.8	.8	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	18
19	0.0	0.0	0.0	0.0	0.0	0.0	.6	1.0	.4	0.0	0.0	0.0	0.0	.4	0.0	0.0	0.0	0.0	.2	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	.2	.2	.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	20
21	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	21
22	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	22
23	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	23
24	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	24
25	0.0	0.0	.2	0.0	0.0	.2	.4	.6	1.0	.8	.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	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	.2	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	.2	.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	.4	.8	2.2	.8	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	.2	0.0	.8	0.0	0.0	0.0	30
31	0.0	0.0	0.0	.2	.6	.8	1.8	1.0	3.6	1.0	1.0	1.4	1.6	1.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	31

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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	1.0	-14.0	32	089	3.0	092	5.1	001
0600	-.7	-12.8	40	035	.8	146	2.5	007
0900	1.4	-14.9	29	107	.7	118	3.8	057
1200	1.8	-14.5	29	292	.5	217	3.8	071
1500	3.1	-16.7	22	272	.8	241	3.8	053
1800	3.1	-13.8	28	124	2.6	135	7.0	017
2100	-1.5	-12.0	45	049	1.7	065	8.3	001
2400	-2.4	-12.8	45	039	1.9	069	8.3	001

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	-3.7	*****	47	032	1.2	036	3.8	001
0600	-4.2	*****	47	017	1.2	010	3.2	005
0900	-.9	-14.6	35	026	1.0	000	3.2	058
1200	.5	-14.4	32	317	.9	226	4.4	069
1500	.9	-13.3	34	234	1.5	223	3.8	053
1800	.9	-12.3	37	198	1.5	192	3.2	015
2100	-2.0	*****	54	066	.3	123	2.5	001
2400	-1.8	-10.2	53	066	.9	029	3.2	001

DAY 03

HOUR NDNG	TEMP. DEG C	DEW POINT DEG C	RH %	WIND DIR. DEG.	WIND SPD. M/S	GUST DIR. DEG.	MAX. GUST M/S	RAD MW
0300	-1.6	-10.5	51	071	1.1	112	3.2	001
0600	-.2	*****	43	106	1.3	097	3.8	012
0900	2.2	-11.8	35	175	.8	110	2.5	059
1200	2.3	-10.4	39	203	2.4	203	5.1	057
1500	1.2	-11.0	40	180	1.7	179	7.6	042
1800	1.6	-11.7	37	099	2.6	117	7.6	010
2100	-.1	-10.5	46	125	3.3	159	7.0	001
2400	-.7	-11.6	44	079	3.0	089	7.0	001

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	-12.2	43	088	6.0	079	11.4	001
0600	-.6	-12.1	42	094	5.9	081	12.7	015
0900	1.1	-13.9	32	114	4.1	100	8.9	053
1200	2.6	-13.0	31	229	1.9	213	5.1	072
1500	3.2	-12.9	30	293	.7	238	6.3	026
1800	.9	-10.4	43	165	2.6	137	7.0	008
2100	.2	-9.4	49	308	.7	256	5.7	001
2400	-.8	*****	52	040	.8	017	3.2	001

DAY 05

HOUR NDNG	TEMP. DEG C	DEW POINT DEG C	RH %	WIND DIR. DEG.	WIND SPD. M/S	GUST DIR. DEG.	MAX. GUST M/S	RAD MW
0300	-1.0	-10.7	48	059	1.2	048	3.2	001
0600	.3	*****	38	078	1.1	053	3.8	016
0900	2.0	-13.5	31	121	.5	055	2.5	053
1200	3.0	-13.0	30	285	.7	218	3.2	069
1500	5.0	-12.6	27	022	1.1	340	3.2	050
1800	2.0	-12.4	34	122	.8	150	3.8	012
2100	1.6	*****	41	061	1.2	031	3.2	001
2400	.8	*****	44	054	.8	058	1.9	001

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	.7	*****	44	070	.9	038	1.9	001
0600	1.5	-10.8	40	075	.8	101	2.5	015
0900	4.2	-12.0	30	100	.5	172	3.8	059
1200	6.2	-14.7	21	200	1.2	179	2.5	067
1500	7.5	-4.1	44	221	1.2	202	3.2	054
1800	7.4	-14.9	19	214	.8	194	3.2	016
2100	4.2	-13.3	27	087	.8	174	2.5	001
2400	4.5	-14.5	24	066	1.2	055	2.5	001

DAY 07

HOUR NDNG	TEMP. DEG C	DEW POINT DEG C	RH %	WIND DIR. DEG.	WIND SPD. M/S	GUST DIR. DEG.	MAX. GUST M/S	RAD MW
0300	4.5	-16.7	20	073	1.4	100	3.2	001
0600	6.0	-27.2	07	062	1.4	045	3.8	006
0900	8.5	*****	06	058	.9	050	3.2	058
1200	10.0	-27.8	05	071	.7	134	7.0	071
1500	11.1	-27.0	05	138	5.2	141	7.6	***
1800	*****	*****	**	115	2.3	116	5.7	***
2100	7.3	-14.3	20	075	2.0	080	4.4	001
2400	5.8	-15.0	21	069	2.3	073	5.1	001

DAY 08

HOUR NDNG	TEMP. DEG C	DEW POINT DEG C	RH %	WIND DIR. DEG.	WIND SPD. M/S	GUST DIR. DEG.	MAX. GUST M/S	RAD MW
0300	4.8	-15.3	22	065	1.5	049	3.8	001
0600	6.3	-14.6	21	062	1.3	052	3.8	006
0900	10.2	*****	05	046	.7	100	2.5	059
1200	10.8	-27.3	05	183	1.0	144	6.3	071
1500	10.5	-27.5	05	160	3.3	***	6.3	055
1800	10.3	-27.6	05	141	1.6	268	5.1	017
2100	.8	-19.2	21	060	.8	017	2.5	001
2400	5.6	-14.1	23	066	1.2	046	3.2	001

DAY 09

HOUR NDNG	TEMP. DEG C	DEW POINT DEG C	RH %	WIND DIR. DEG.	WIND SPD. M/S	GUST DIR. DEG.	MAX. GUST M/S	RAD MW
0300	5.8	*****	22	064	1.2	045	3.2	001
0600	5.9	-13.8	23	055	.7	310	4.4	011
0900	5.3	-12.8	26	002	.7	013	5.7	040
1200	6.8	-12.5	24	344	.9	247	5.1	045
1500	5.2	-12.0	28	261	.4	211	5.1	036
1800	5.1	*****	38	151	1.0	040	3.8	011
2100	3.4	*****	45	261	.3	166	2.5	001
2400	3.0	*****	45	012	1.1	349	3.2	001

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DAY 10

HOUR NDNG	TEMP. DEG C	DEW POINT DEG C	RH %	WIND DIR. DEG.	WIND SPD. M/S	GUST DIR. DEG.	MAX. GUST M/S	RAD MW
0300	1.4	-7.5	52	006	.6	055	3.8	001
0600	.6	-6.8	58	358	.9	349	3.2	008
0900	1.8	-5.9	57	051	.3	162	3.2	032
1200	3.4	-7.3	46	188	.6	153	3.8	040
1500	3.2	-6.1	51	266	.7	233	3.8	046
1800	3.4	-7.5	45	181	1.6	192	4.4	013
2100	1.1	-5.9	60	269	.5	281	3.2	001
2400	.8	*****	58	030	.7	018	2.5	001

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	.5	-7.4	56	014	1.0	007	3.2	001
0600	1.1	-7.3	54	128	.7	104	3.2	014
0900	1.9	-8.1	48	256	.5	237	5.1	039
1200	2.6	-11.5	35	317	.7	347	3.8	045
1500	5.4	-11.8	28	298	.2	086	4.4	088
1800	3.2	*****	37	219	1.3	202	[illegible].1	012
2100	2.6	-9.2	42	037	.8	068	[illegible].9	001
2400	2.5	*****	43	064	.8	032	2.5	001

DAY 12

HOUR NDNG	TEMP. DEG C	DEW POINT DEG C	RH %	WIND DIR. DEG.	WIND SPD. M/S	GUST DIR. DEG.	MAX. GUST M/S	RAD MW
0300	1.5	-10.2	42	064	1.1	049	2.5	002
0600	2.6	-11.5	35	078	1.2	076	3.2	005
0900	5.1	-13.0	26	110	2.2	125	7.0	061
1200	6.5	-12.8	24	136	5.2	137	7.6	073
1500	7.3	-4.9	42	139	4.5	133	7.6	057
1800	6.9	-13.0	23	102	2.5	100	7.0	020
2100	4.1	-12.1	30	079	2.6	106	5.7	001
2400	4.4	-12.7	28	063	2.1	072	5.1	001

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	-10.2	34	073	1.4	071	4.4	001
0600	3.9	-7.4	44	055	2.0	073	5.7	014
0900	5.3	-11.0	30	186	.7	210	3.8	038
1200	7.4	-11.0	26	279	1.0	217	3.2	082
1500	8.1	-9.9	27	183	1.1	181	5.1	057
1800	6.7	-10.2	29	084	.8	058	5.7	018
2100	3.7	-4.6	55	096	2.1	051	7.6	001
2400	3.8	-6.3	48	061	.9	107	3.8	001

DAY 14

HOUR NDNG	TEMP. DEG C	DEW POINT DEG C	RH %	WIND DIR. DEG.	WIND SPD. M/S	GUST DIR. DEG.	MAX. GUST M/S	RAD MW
0300	3.7	-6.7	47	071	1.6	077	3.2	002
0600	2.8	-6.7	50	084	1.2	058	3.8	016
0900	4.7	-6.9	43	125	3.0	145	5.1	040
1200	6.2	-9.0	33	149	3.3	138	5.7	069
1500	7.8	-9.7	28	146	4.4	142	7.6	057
1800	5.2	-7.8	39	123	1.5	013	6.3	008
2100	4.1	*****	50	098	1.0	124	5.1	001
2400	3.8	-5.8	50	057	.9	040	3.2	001

DAY 15

HOUR NDNG	TEMP. DEG C	DEW POINT DEG C	RH %	WIND DIR. DEG.	WIND SPD. M/S	GUST DIR. DEG.	MAX. GUST M/S	RAD MW
0300	3.3	*****	51	061	.9	054	2.5	001
0600	4.4	-7.5	42	058	.5	089	1.9	016
0900	6.8	-9.7	30	127	.8	120	4.4	068
1200	*****	*****	26	150	.8	161	6.3	***
1500	8.3	-10.7	25	138	2.9	151	7.0	054
1800	*****	*****	26	163	3.4	154	6.3	029
2100	4.5	*****	41	141	.6	134	3.8	001
2400	2.6	-5.4	56	028	.9	025	3.8	001

DAY 16

HOUR NDNG	TEMP. DEG C	DEW POINT DEG C	RH %	WIND DIR. DEG.	WIND SPD. M/S	GUST DIR. DEG.	MAX. GUST M/S	RAD MW
0300	2.8	-6.7	50	062	1.4	099	3.8	001
0600	4.6	-7.0	43	090	1.1	110	3.8	016
0900	5.8	*****	32	010	.5	037	3.2	081
1200	7.7	-9.4	29	221	1.3	268	3.8	064
1500	7.1	-10.3	28	170	3.2	165	5.7	034
1800	5.1	-6.9	42	273	.9	214	6.3	014
2100	4.0	*****	47	112	1.0	153	3.8	001
2400	2.6	-6.6	51	038	1.1	046	3.2	001

DAY 17

HOUR NDNG	TEMP. DEG C	DEW POINT DEG C	RH %	WIND DIR. DEG.	WIND SPD. M/S	GUST DIR. DEG.	MAX. GUST M/S	RAD MW
0300	2.4	*****	56	359	.5	283	3.2	001
0600	1.6	-6.3	56	327	.6	021	2.5	017
0900	2.9	-6.1	52	263	.7	279	2.5	057
1200	5.1	-7.2	41	212	1.7	245	4.4	054
1500	7.5	-8.7	31	213	1.1	211	3.8	059
1800	6.3	*****	31	193	1.6	180	5.1	014
2100	4.4	*****	44	112	.2	246	1.9	001
2400	1.8	-6.4	55	041	.5	251	3.2	001

DAY 18

HOUR NDNG	TEMP. DEG C	DEW POINT DEG C	RH %	WIND DIR. DEG.	WIND SPD. M/S	GUST DIR. DEG.	MAX. GUST M/S	RAD MW
0300	.6	*****	65	309	1.3	276	4.4	001
0600	1.4	*****	57	354	.3	342	1.9	007
0900	3.8	*****	42	102	.1	075	1.9	031
1200	1.7	-6.7	54	169	1.2	219	5.1	047
1500	4.6	-9.0	37	235	.5	066	4.4	050
1800	.8	-5.3	64	197	1.9	246	11.4	011
2100	.2	-6.5	61	024	.5	236	9.5	001
2400	1.9	-7.3	51	089	.6	240	5.1	001

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DAY 19

HOUR NDNG	TEMP. DEG C	DEW POINT DEG C	RH %	WIND DIR. DEG.	WIND SPD. M/S	GUST DIR. DEG.	MAX. GUST M/S	RAD MW
0300	2.3	-8.3	46	077	1.7	066	5.1	002
0600	2.2	-8.1	47	107	3.1	101	8.3	017
0900	3.4	-7.0	47	105	3.9	096	7.6	025
1200	3.1	-8.7	42	129	4.8	146	8.3	031
1500	4.9	-5.6	47	127	4.3	117	8.9	077
1800	3.4	-6.7	48	086	3.5	054	8.9	007
2100	2.5	-7.0	50	118	5.2	126	12.7	001
2400	1.3	-9.5	45	121	4.5	132	13.3	001

DAY 20

HOUR NDNG	TEMP. DEG C	DEW POINT DEG C	RH %	WIND DIR. DEG.	WIND SPD. M/S	GUST DIR. DEG.	MAX. GUST M/S	RAD MW
0300	2.6	-8.3	45	106	2.6	088	6.5	001
0600	1.5	-7.9	50	130	1.1	129	7.0	014
0900	.4	-9.2	49	246	1.6	232	5.1	022
1200	4.0	-11.0	33	160	1.0	151	9.5	044
1500	5.2	-14.4	23	131	5.4	136	10.2	080
1800	5.7	-12.0	27	140	6.2	153	12.1	016
2100	1.6	-11.7	37	163	5.4	151	14.0	001
2400	.6	-14.7	31	091	1.8	085	7.6	001

DAY 21

HOUR NDNG	TEMP. DEG C	DEW POINT DEG C	RH %	WIND DIR. DEG.	WIND SPD. M/S	GUST DIR. DEG.	MAX. GUST M/S	RAD MW
0300	-2.2	-10.1	55	018	.3	208	3.8	002
0600	-1.7	*****	36	031	.9	347	3.2	008
0900	.4	-18.0	24	093	.3	029	3.8	041
1200	.8	-17.2	25	272	.9	193	3.8	039
1500	3.4	-13.1	29	313	1.0	329	5.1	061
1800	4.7	-16.5	20	201	2.1	174	5.1	022
2100	1.2	*****	28	170	.7	139	3.2	001
2400	.6	-17.8	24	071	1.0	058	3.2	001

DAY 22

HOUR NDNG	TEMP. DEG C	DEW POINT DEG C	RH %	WIND DIR. DEG.	WIND SPD. M/S	GUST DIR. DEG.	MAX. GUST M/S	RAD MW
0300	1.0	-18.5	22	062	1.3	037	3.8	002
0600	1.5	-18.6	21	064	1.2	059	4.4	017
0900	4.9	-16.9	19	133	1.1	150	4.4	048
1200	5.1	-16.8	19	201	1.5	209	5.1	068
1500	4.5	-9.8	35	231	2.4	218	7.6	052
1800	4.1	-13.4	27	312	1.4	230	5.7	018
2100	1.8	-9.6	43	272	1.9	247	4.4	001
2400	.5	-6.7	59	270	2.0	258	4.4	001

DAY 23

HOUR NDNG	TEMP. DEG C	DEW POINT DEG C	RH %	WIND DIR. DEG.	WIND SPD. M/S	GUST DIR. DEG.	MAX. GUST M/S	RAD MW
0300	.1	*****	63	275	1.4	263	3.2	001
0600	.1	-8.0	55	161	.5	146	3.2	010
0900	2.6	-10.4	38	218	.9	204	3.2	068
1200	5.4	-9.4	34	189	2.3	167	6.3	080
1500	7.5	-10.0	28	162	3.7	152	7.0	060
1800	7.7	-10.7	26	145	4.2	152	6.5	022
2100	3.8	-11.2	33	065	.9	137	5.1	001
2400	3.7	-12.8	29	063	1.5	051	3.2	001

DAY 24

HOUR NDNG	TEMP. DEG C	DEW POINT DEG C	RH %	WIND DIR. DEG.	WIND SPD. M/S	GUST DIR. DEG.	MAX. GUST M/S	RAD MW
0300	3.5	-13.9	27	065	1.8	058	4.4	002
0600	4.3	*****	22	063	1.2	071	4.4	010
0900	6.8	-4.1	46	143	1.1	170	5.1	058
1200	9.1	-26.6	06	160	2.1	159	5.1	073
1500	10.0	-27.8	05	164	.9	155	5.7	075
1800	7.7	-27.6	06	177	1.8	193	5.1	010
2100	5.7	*****	30	124	2.7	147	5.7	002
2400	5.1	*****	36	051	1.1	058	2.5	001

DAY 25

HOUR NDNG	TEMP. DEG C	DEW POINT DEG C	RH %	WIND DIR. DEG.	WIND SPD. M/S	GUST DIR. DEG.	MAX. GUST M/S	RAD MW
0300	3.2	*****	52	047	.8	068	1.9	001
0600	2.2	-4.9	60	293	.5	338	1.9	004
0900	2.6	-6.1	53	336	1.1	012	3.2	015
1200	4.9	-5.9	46	328	.1	115	3.2	066
1500	6.8	-5.3	42	206	1.1	187	4.4	061
1800	7.7	-5.5	39	169	.6	252	5.1	019
2100	6.0	-7.0	39	019	1.2	047	4.4	002
2400	5.9	-6.5	41	061	2.6	070	7.0	001

DAY 26

HOUR NDNG	TEMP. DEG C	DEW POINT DEG C	RH %	WIND DIR. DEG.	WIND SPD. M/S	GUST DIR. DEG.	MAX. GUST M/S	RAD MW
0300	5.1	*****	41	054	1.1	049	3.2	002
0600	6.2	-6.9	39	055	.8	075	2.5	011
0900	8.4	-7.9	31	033	.1	202	2.5	060
1200	9.6	-6.4	32	113	2.2	111	8.3	069
1500	8.5	-6.6	34	101	4.3	106	8.9	034
1800	7.6	-6.3	37	073	1.3	085	5.1	012
2100	6.8	-6.0	40	028	1.4	007	3.2	001
2400	6.3	*****	44	073	.8	065	2.5	001

DAY 27

HOUR NDNG	TEMP. DEG C	DEW POINT DEG C	RH %	WIND DIR. DEG.	WIND SPD. M/S	GUST DIR. DEG.	MAX. GUST M/S	RAD MW
0300	6.7	*****	41	069	.8	105	2.5	001
0600	8.2	-5.8	37	094	.7	089	2.5	015
0900	8.6	-3.4	43	217	.7	173	3.8	035
1200	10.0	-2.8	41	200	1.5	177	4.4	043
1500	9.7	-2.7	42	206	1.4	215	3.2	026
1800	9.6	-2.8	42	195	1.4	193	3.8	013
2100	8.3	*****	36	051	.5	319	3.2	001
2400	6.0	*****	59	009	.5	334	1.9	001

R&M CONSULTANTS, INC.

SUSITNA HYDROELECTRIC PROJECT

THREE HOUR SUMMARY FOR GLACIER WEATHER STATION
DATA TAKEN DURING MAY , 1981

DAY 28

HOUR NDNG	TEMP. DEG C	DEW POINT DEG C	RH %	WIND DIR. DEG.	WIND SPD. M/S	GUST DIR. DEG.	MAX. GUST M/S	RAD MW
0300	4.4	-2.1	63	325	.2	330	3.2	001
0600	3.8	-3.1	61	258	.4	286	3.2	008
0900	4.1	-2.8	61	226	.7	183	2.5	020
1200	4.4	-4.2	54	226	.9	317	3.2	029
1500	2.9	-4.7	58	262	2.4	240	5.7	008
1800	2.9	-6.6	50	273	.3	316	3.8	017
2100	2.4	-5.4	57	089	.2	023	3.2	001
2400	3.0	*****	48	057	1.4	060	5.1	001

DAY 29

HOUR NDNG	TEMP. DEG C	DEW POINT DEG C	RH %	WIND DIR. DEG.	WIND SPD. M/S	GUST DIR. DEG.	MAX. GUST M/S	RAD MW
0300	4.4	-12.7	28	067	1.2	021	3.8	002
0600	5.7	-27.5	07	074	1.3	042	3.2	006
0900	10.2	-10.7	22	076	.5	039	2.5	063
1200	12.3	-8.9	22	093	2.1	178	5.1	075
1500	13.6	-10.4	18	195	2.3	205	5.1	059
1800	14.9	-26.7	04	178	.7	219	5.7	024
2100	12.5	-26.0	05	047	.7	067	5.7	001
2400	11.3	-26.9	05	075	1.1	061	3.8	000

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	11.1	-27.0	05	064	1.3	067	2.5	002
0600	7.0	-10.0	29	040	1.1	032	4.4	007
0900	9.8	-8.9	26	177	.9	181	3.8	062
1200	14.4	-27.0	04	192	2.3	167	5.1	076
1500	11.6	-26.7	05	165	1.8	066	10.2	020
1800	*****	*****	**	***	****	***	****	***
2100	7.4	-4.8	42	018	1.0	003	8.3	001
2400	7.0	-4.0	46	084	1.3	149	5.1	001

DAY 31

HOUR NDNG	TEMP. DEG C	DEW POINT DEG C	RH %	WIND DIR. DEG.	WIND SPD. M/S	GUST DIR. DEG.	MAX. GUST M/S	RAD MW
0300	4.8	*****	56	002	.9	038	4.4	001
0600	3.3	-4.5	57	277	2.2	261	6.3	002
0900	1.6	-6.1	57	274	1.1	260	6.3	010
1200	1.9	-7.0	52	159	1.5	175	3.2	010
1500	3.7	-7.0	46	161	1.0	141	5.1	031
1800	4.4	-7.8	41	164	1.3	160	3.8	015
2100	5.4	-7.9	38	093	.9	134	3.2	001
2400	5.3	-9.1	35	059	1.2	046	3.2	001

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	*****	*****	**	***	****	***	****	***

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 GLACIER WEATHER STATION
DATA TAKEN DURING MAY , 1981

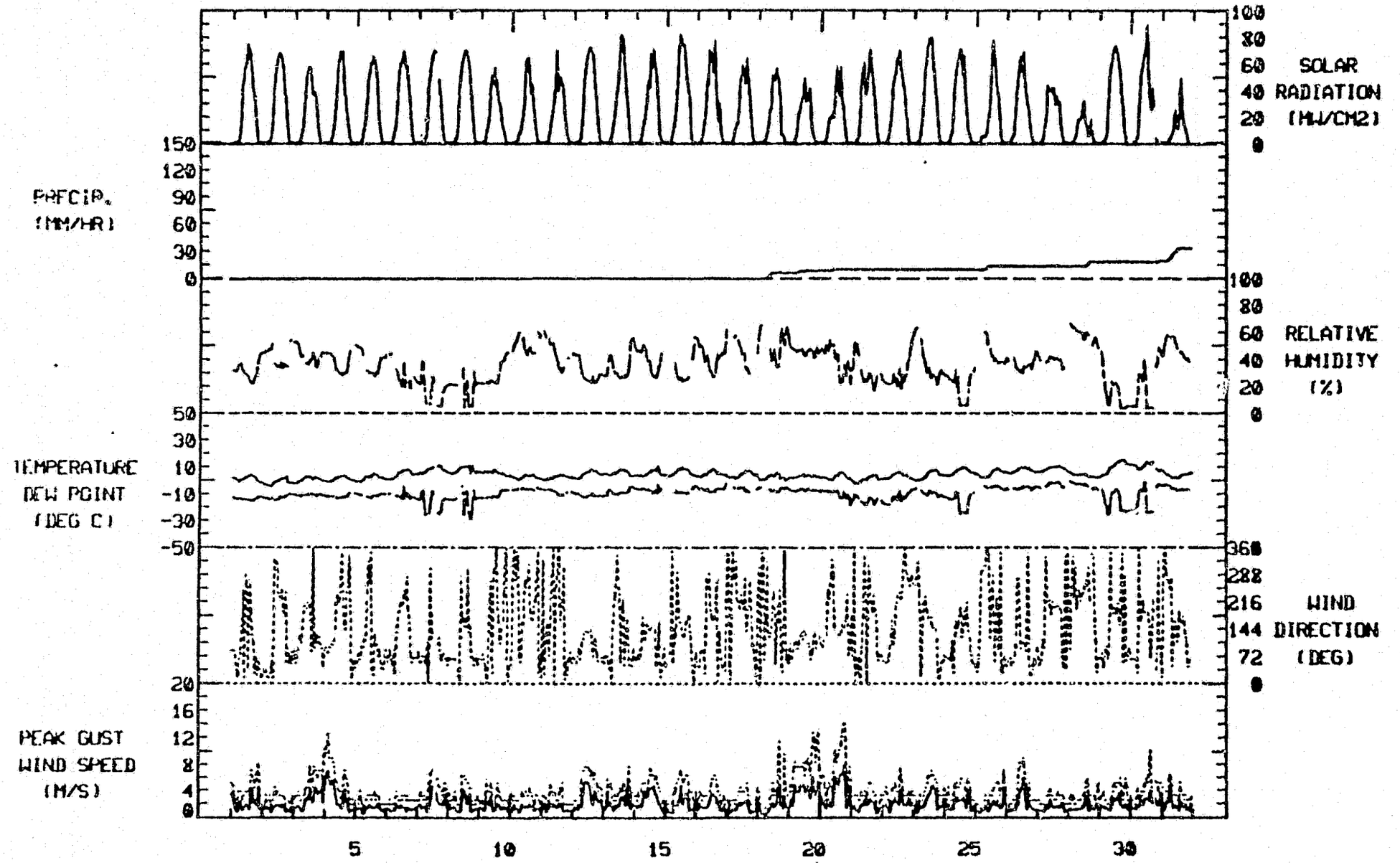
DAY	MAX. TEMP. DEG C	MIN. TEMP. DEG C	MEAN TEMP. DEG C	RES. WIND DIR. DEG	RES. WIND SPD. M/S	AVG. WIND SPD. M/S	MAX. GUST DIR. DEG	MAX. GUST SPD. M/S	P'VAL DIR.	MEAN RH %	MEAN DP DEG C	PRECIP MM	DAY'S SOLAR ENERGY WH/SQM	DAY
01	5.1	-2.2	1.5	076	1.0	2.0	065	8.3	NNE	32	-13.9	0.0	6395	01
02	5.1	-5.3	-.1	007	.2	1.3	226	4.4	NNE	41	-13.0	0.0	6258	02
03	2.8	-2.6	.1	124	1.4	2.5	179	7.6	ESE	42	-11.1	0.0	5045	03
04	4.3	-1.5	1.4	107	1.9	3.2	081	12.7	E	38	-12.0	0.0	5410	04
05	6.4	-1.1	2.7	063	.6	1.2	053	3.8	NE	37	-12.5	0.0	5863	05
06	9.0	.5	4.8	125	.4	1.2	172	3.8	ENE	28	-12.0	0.0	6423	06
07	11.9	5.9	8.9	083	1.5	2.1	141	7.6	ENE	18	-21.3	0.0	5656	07
08	12.1	4.7	8.4	105	.9	1.7	144	6.3	NE	18	-20.8	0.0	6403	08
09	8.6	3.1	5.9	030	.4	1.5	013	5.7	N	29	-12.8	0.0	4598	09
10	4.9	.3	2.6	267	.1	1.3	192	4.4	ENE	51	-6.7	0.0	4843	10
11	5.4	-.4	2.5	052	.2	1.4	237	5.1	NNE	44	-9.2	0.0	4957	11
12	8.4	.9	4.6	109	2.4	2.8	137	7.6	SE	29	-11.3	0.0	6924	12
13	9.1	3.1	6.1	087	.7	2.0	051	7.6	ENE	35	-8.8	0.0	6202	13
14	9.1	2.6	5.9	123	1.8	2.5	142	7.6	SE	40	-7.5	0.0	5933	14
15	10.0	2.9	6.4	134	.9	1.8	151	7.0	SSE	34	-8.3	0.0	6934	15
16	8.9	2.6	5.8	130	.5	1.9	214	6.3	NE	41	-7.8	0.0	6295	16
17	7.7	1.4	4.6	222	.5	1.3	180	5.1	SSW	45	-6.9	0.0	5468	17
18	6.4	.1	3.3	208	.2	1.6	246	11.4	N	51	-7.9	6.4	4475	18
19	5.0	1.3	3.2	213	3.7	4.0	132	13.3	ESE	46	-7.6	2.6	4115	19
20	6.1	-.2	3.0	140	2.7	3.6	151	14.0	SE	40	-11.1	1.0	4565	20
21	5.1	-2.5	1.3	219	.1	1.6	329	5.1	SSW	30	-15.4	0.0	6510	21
22	6.5	.4	3.4	250	.6	2.0	218	7.6	W	30	-13.8	0.0	6520	22
23	7.7	-.3	3.7	159	1.2	2.3	152	7.0	SSE	37	-10.4	0.0	7368	23
24	10.3	2.7	6.5	124	1.1	2.0	155	5.7	ENE	20	-20.0	0.0	6510	24
25	9.1	2.1	5.6	035	.4	1.5	070	7.0	NW	43	-5.9	3.8	4988	25
26	10.1	4.8	7.5	083	1.3	2.0	106	8.9	ESE	36	-6.7	.2	5813	26
27	11.1	5.9	8.5	179	.4	1.3	177	4.4	SSW	40	-3.5	0.0	4635	27
28	6.5	2.4	4.4	259	.4	1.4	240	5.7	S	58	-4.1	4.6	2463	28
29	15.4	2.3	8.9	135	.6	1.7	219	5.7	ENE	16	-18.7	0.0	7330	29
30	14.9	6.4	10.6	125	.7	2.1	066	10.2	ENE	21	-15.5	1.0	6707	30
31	7.7	1.1	4.4	183	.2	1.8	261	6.3	SSE	48	-7.1	14.4	2683	31
MONTH	15.4	-5.3	4.7	116	.7	2.0	151	14.0	ENE	36	-11.1	34.0	174283	

GUST VEL. AT MAX. GUST MINUS 2 INTERVALS 10.2
GUST VEL. AT MAX. GUST MINUS 1 INTERVAL 8.3
GUST VEL. AT MAX. GUST PLUS 1 INTERVAL 12.1
GUST VEL. AT MAX. GUST PLUS 2 INTERVALS 12.7

NOTE: RELATIVE HUMIDITY READINGS ARE UNRELIABLE WHEN WIND SPEED ARE <1.0 METERS PER SECOND. SUCH READINGS HAVE NOT BEEN INCLUDED IN THE DAILY OR MONTHLY MEAN FOR RELATIVE HUMIDITY AND DEW POINT.

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

R&M CONSULTANT, INC. SUSITNA HYDROELECTRIC PROJECT



DAY OF THE MONTH GLACIER WEATHER STATION

DATA START: 01 MAY , 1981

R&M CONSULTANTS, INC.

SUSITNA HYDROELECTRIC PROJECT

WIND FREQUENCY SUMMARY FOR GLACIER WEATHER STATION
DATA TAKEN DURING MAY , 1981

	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	GREATER THAN 20.0	TOTAL
N	.99	4.29	0.00	0.00	0.00	0.00	0.00	5.28
NNE	1.67	5.83	.34	0.00	0.00	0.00	0.00	7.84
NE	2.35	7.77	.27	.03	0.00	0.00	0.00	10.43
ENE	2.93	7.02	.92	.10	0.00	0.00	0.00	10.97
E	2.15	4.74	2.11	.44	0.00	0.00	0.00	9.44
ESE	1.43	3.24	2.73	.27	0.00	0.00	0.00	7.67
SE	.92	1.74	4.60	.44	0.00	0.00	0.00	7.70
SSE	.68	2.83	2.66	.34	0.00	0.00	0.00	6.51
S	.31	4.64	1.23	0.00	0.00	0.00	0.00	6.17
SSW	.44	5.76	.31	0.00	0.00	0.00	0.00	6.51
SW	.34	3.65	.48	.03	0.00	0.00	0.00	4.50
WSW	.41	2.18	.51	.03	0.00	0.00	0.00	3.14
W	.48	2.90	.31	0.00	0.00	0.00	0.00	3.68
WNW	.61	2.08	0.00	0.00	0.00	0.00	0.00	2.69
NW	1.12	2.08	0.00	0.00	0.00	0.00	0.00	3.20
NNW	1.36	2.76	.07	0.00	0.00	0.00	0.00	4.19
CALM								.07
TOTAL	18.20	63.50	16.53	1.70	0.00	0.00	0.00	100.00

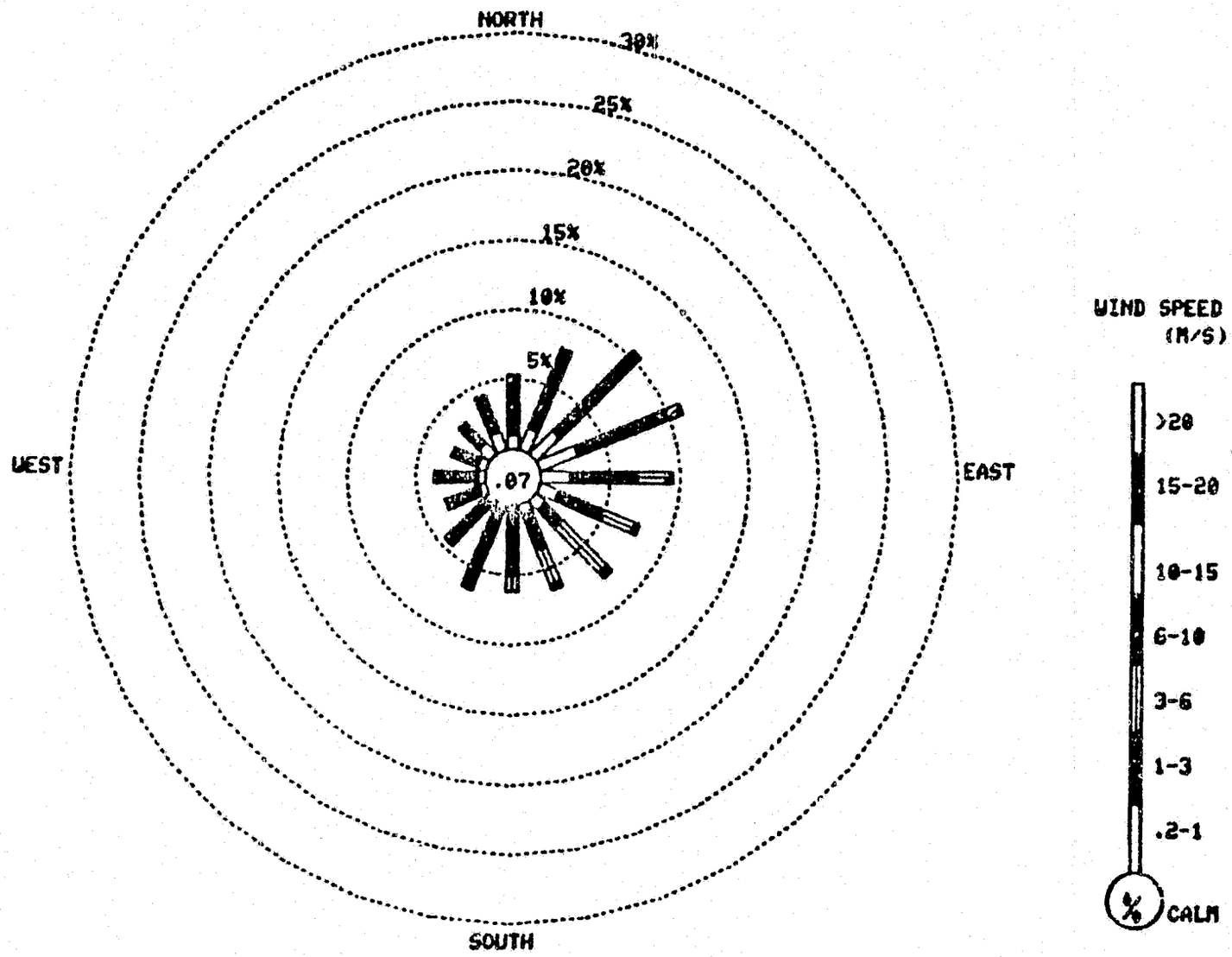
NOTE: ALL FREQUENCIES EXPRESSED IN PERCENT.

2934 VALID WIND OBSERVATIONS USED TO DEVELOP FREQUENCY SUMMARY

SUSITNA HYDROELECTRIC PROJECT

GLACIER WEATHER STATION

MAY, 1981



WIND ROSE PLOT

R&M CONSULTANTS, INC.

SUSITNA HYDROELECTRIC PROJECT

HOURLY PRECIPITATION SUMMARY FOR GLACIER WEATHER STATION
DATA TAKEN DURING JUNE , 1981

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
01	0.0	0.0	.6	.2	.2	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	01
02	0.0	0.0	0.0	0.0	0.0	0.0	0.0	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	2.0	1.2	.6	.2	02
03	.2	.2	.8	0.0	0.0	.8	1.6	.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	.2	0.0	0.0	0.0	0.0	.2	0.0	0.0	03
04	.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	.2	.2	0.0	0.0	04
05	0.0	0.0	0.0	0.0	0.0	.2	0.0	0.0	0.0	0.0	0.0	1.2	2.4	2.6	2.8	3.6	3.2	1.6	.6	0.0	0.0	0.0	0.0	0.0	05
06	0.0	0.0	0.0	0.0	0.0	0.0	.2	0.0	.4	1.2	1.4	1.4	1.0	.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	.8	06
07	.2	0.0	0.0	0.0	0.0	0.0	.2	2.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	07
08	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	08
09	0.0	0.0	0.0	0.0	0.0	0.0	0.0	.4	2.6	.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	09
10	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	10
11	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	11
12	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	12
13	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	13
14	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	14
15	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	15
16	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	16
17	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	17
18	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	.2	0.0	.2	0.0	18
19	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	19
20	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	20
21	0.0	.4	.2	.2	0.0	.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	21
22	.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	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	.6	2.0	0.0	0.0	.2	24
25	.2	0.0	0.0	0.0	.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	25
26	0.0	0.0	0.0	0.0	1.8	1.2	1.4	.4	.6	1.2	1.6	2.2	2.4	1.6	.2	.2	0.0	.2	.4	0.0	.2	.2	.6	1.0	26
27	.8	1.4	.6	.2	0.0	0.0	0.0	0.0	0.0	0.0	1.8	6.8	5.2	3.4	4.0	1.8	1.2	1.0	.6	.8	.2	.2	0.0	.2	27
28	0.0	0.0	0.0	0.0	0.0	.4	.8	1.8	2.4	3.0	2.8	4.4	2.8	2.4	1.6	1.4	.4	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	.4	0.0	.2	1.2	.2	.4	.6	0.0	.4	1.8	.6	0.0	0.0	0.0	29
30	0.0	0.0	0.0	0.0	0.0	0.0	.2	1.0	.8	1.4	.8	5.0	5.4	1.4	.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	30

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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	1.6	-8.6	47	251	.4	261	5.7	001
0600	1.4	*****	47	100	.6	135	3.8	012
0900	4.9	-8.7	37	303	.5	239	3.2	063
1200	7.8	-9.7	28	299	.9	245	3.8	077
1500	7.8	-11.7	24	163	2.2	149	5.7	035
1800	8.0	-13.1	21	141	3.2	156	5.1	020
2100	6.3	-12.0	26	128	1.6	142	3.8	002
2400	5.4	-11.8	28	047	.8	111	3.2	001

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	4.3	*****	32	066	.8	053	2.5	003
0600	2.2	-11.1	37	037	.5	251	4.4	022
0900	4.7	-11.6	30	292	1.1	347	3.2	053
1200	6.0	-11.3	28	224	1.4	186	4.4	044
1500	7.7	-11.2	25	152	.9	030	5.1	076
1800	2.6	-8.9	43	172	.6	187	5.1	003
2100	2.4	-7.9	47	081	.4	229	6.3	002
2400	2.3	-8.0	47	021	1.2	012	2.5	001

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	-8.5	51	074	.9	124	4.4	001
0600	1.8	-8.7	46	080	.8	166	2.5	012
0900	4.3	-8.3	40	278	.3	212	3.2	048
1200	6.7	-9.4	31	286	1.4	324	5.1	110
1500	5.2	-11.1	30	182	2.2	133	7.0	017
1800	3.3	-7.1	47	335	.3	170	7.0	016
2100	3.7	-7.9	43	070	.7	029	3.8	001
2400	2.8	-8.4	44	090	.7	154	4.4	001

DAY 04

HOUR NDNG	TEMP. DEG C	DEW POINT DEG C	RH %	WIND DIR. DEG.	WIND SPD. M/S	GUST DIR. DEG.	MAX. GUST M/S	RAD MW
0300	2.6	-8.3	45	073	1.4	022	4.4	002
0600	1.8	-8.4	47	047	.6	054	3.2	013
0900	5.1	-7.5	40	200	.4	184	3.8	072
1200	5.0	-12.2	28	231	.9	174	5.7	050
1500	7.6	-10.8	26	016	2.7	036	6.3	059
1800	2.3	-8.0	47	229	2.4	263	10.2	021
2100	.9	-6.8	57	257	3.9	245	9.5	001
2400	.3	*****	58	318	.8	286	3.8	000

DAY 05

HOUR NDNG	TEMP. DEG C	DEW POINT DEG C	RH %	WIND DIR. DEG.	WIND SPD. M/S	GUST DIR. DEG.	MAX. GUST M/S	RAD MW
0300	.2	*****	58	075	.0	128	1.3	001
0600	-.1	*****	50	323	.3	322	1.9	005
0900	1.9	*****	36	325	.7	334	2.5	025
1200	7.5	*****	28	311	.6	323	1.9	020
1500	3.5	-11.0	34	059	.2	145	2.5	040
1800	1.7	-13.0	33	122	.5	145	1.9	022
2100	.5	-9.9	46	062	.9	019	2.5	002
2400	-.8	-10.6	48	059	1.1	057	2.5	001

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	-11.0	42	058	1.4	051	4.4	003
0600	.5	-11.7	40	016	1.5	007	3.8	033
0900	6.1	-27.2	07	021	1.5	014	3.2	068
1200	6.9	-26.6	07	058	.9	029	2.5	080
1500	9.7	-26.1	06	106	1.2	059	3.8	059
1800	4.7	-11.6	30	145	1.0	221	5.1	008
2100	4.3	*****	33	071	.4	114	3.2	002
2400	1.1	-6.3	58	235	.7	246	5.1	001

DAY 07

HOUR NDNG	TEMP. DEG C	DEW POINT DEG C	RH %	WIND DIR. DEG.	WIND SPD. M/S	GUST DIR. DEG.	MAX. GUST M/S	RAD MW
0300	1.3	*****	57	025	.4	262	3.8	003
0600	1.6	*****	40	051	.9	037	2.5	023
0900	5.5	*****	21	068	.9	032	2.5	066
1200	7.2	-28.0	06	159	1.0	196	3.8	077
1500	8.9	-26.7	06	187	2.5	183	5.1	057
1800	8.1	-27.3	06	186	2.1	173	4.4	026
2100	5.3	-14.9	22	139	1.5	128	5.1	003
2400	5.4	-5.1	47	018	2.5	330	9.5	000

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	5.5	.4	70	043	5.2	028	13.3	003
0600	6.4	-26.9	07	025	6.5	001	12.7	012
0900	6.4	-26.9	07	014	5.2	349	12.7	035
1200	6.0	-13.2	24	305	2.5	320	12.1	051
1500	4.3	-7.3	43	129	2.8	130	6.3	030
1800	-.5	*****	54	255	4.1	250	7.6	006
2100	-.7	*****	54	294	.0	258	.6	001
2400	-.8	*****	53	144	0.0	124	0.0	001

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	*****	50	291	0.0	290	.6	002
0600	-.3	*****	53	320	.0	241	1.9	011
0900	.2	-13.6	35	262	1.0	253	3.8	047
1200	2.4	-15.3	26	219	2.2	215	5.1	048
1500	3.4	-17.0	21	233	2.4	239	4.4	029
1800	4.1	-27.3	08	211	1.6	177	3.8	009
2100	.9	-12.0	38	222	1.2	250	5.7	002
2400	.9	*****	35	044	.9	324	4.4	001

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DAY 10

HOUR NDNG	TEMP. DEG C	DEW POINT DEG C	RH %	WIND DIR. DEG.	WIND SPD. M/S	GUST DIR. DEG.	MAX. GUST M/S	RAD MW
0300	.1	*****	33	088	.7	131	1.9	003
0600	1.3	*****	24	069	.7	051	1.9	034
0900	4.7	-28.2	07	210	.9	204	3.2	064
1200	6.9	-26.6	07	196	1.9	184	4.4	078
1500	8.6	-26.9	06	166	3.1	167	5.1	063
1800	8.2	-27.2	06	174	2.0	172	5.1	027
2100	6.0	*****	07	034	1.6	022	4.4	002
2400	6.2	-27.1	07	057	1.0	052	3.8	000

DAY 11

HOUR NDNG	TEMP. DEG C	DEW POINT DEG C	RH %	WIND DIR. DEG.	WIND SPD. M/S	GUST DIR. DEG.	MAX. GUST M/S	RAD MW
0300	4.8	-28.1	07	071	1.1	087	2.5	002
0600	6.0	-27.2	07	066	1.1	019	3.8	034
0900	8.3	-27.2	06	045	1.0	096	6.3	064
1200	9.9	-27.9	05	132	3.3	097	6.3	061
1500	8.5	-27.0	06	232	2.4	224	8.9	063
1800	7.9	-27.4	06	146	2.0	115	7.0	008
2100	3.4	*****	45	076	1.8	072	8.9	002
2400	3.9	*****	39	017	.8	020	3.2	001

DAY 12

HOUR NDNG	TEMP. DEG C	DEW POINT DEG C	RH %	WIND DIR. DEG.	WIND SPD. M/S	GUST DIR. DEG.	MAX. GUST M/S	RAD MW
0300	4.1	*****	39	052	.6	352	1.9	003
0600	4.7	*****	32	062	.6	052	1.9	034
0900	7.1	-13.3	22	207	.8	200	3.2	078
1200	9.3	-26.4	06	208	2.0	208	5.1	091
1500	10.0	-27.8	05	184	2.3	160	5.7	074
1800	11.0	-27.1	05	188	1.9	153	5.7	027
2100	8.8	-26.8	06	136	.3	206	4.4	002
2400	8.9	-26.7	06	069	1.2	075	4.4	000

DAY 13

HOUR NDNG	TEMP. DEG C	DEW POINT DEG C	RH %	WIND DIR. DEG.	WIND SPD. M/S	GUST DIR. DEG.	MAX. GUST M/S	RAD MW
0300	8.2	-27.2	06	075	2.7	081	5.1	002
0600	8.8	-26.8	06	059	1.6	048	3.8	036
0900	11.7	-26.6	05	092	2.2	113	7.6	065
1200	12.9	-28.1	04	123	4.4	114	8.9	081
1500	14.1	-27.2	04	122	2.9	123	8.9	048
1800	11.5	-26.7	05	195	1.0	141	5.1	018
2100	9.9	-27.9	05	066	.6	046	8.3	002
2400	8.2	-27.2	06	075	1.4	101	4.4	000

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	7.9	-27.4	06	087	1.3	053	3.2	002
0600	6.2	*****	21	076	.7	097	2.5	033
0900	8.7	-13.8	19	228	1.0	237	2.5	064
1200	11.3	-26.9	05	192	2.2	158	5.1	063
1500	13.1	-27.9	04	164	2.3	141	5.7	067
1800	8.6	-26.9	06	173	1.6	154	5.1	010
2100	7.2	-9.8	29	293	.8	278	10.2	003
2400	7.1	-11.3	26	040	.8	034	3.2	001

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	7.1	-11.3	26	056	1.2	028	3.8	004
0600	8.2	-11.9	23	040	.9	091	3.2	013
0900	11.0	-27.1	05	314	.6	357	4.4	064
1200	11.9	-26.5	05	104	2.2	092	9.5	054
1500	11.1	-27.0	05	206	1.6	211	7.6	053
1800	10.4	-27.5	05	129	2.9	098	10.8	034
2100	9.1	*****	06	098	1.2	128	5.1	003
2400	7.5	-11.9	24	042	1.0	030	3.8	001

DAY 16

HOUR NDNG	TEMP. DEG C	DEW POINT DEG C	RH %	WIND DIR. DEG.	WIND SPD. M/S	GUST DIR. DEG.	MAX. GUST M/S	RAD MW
0300	5.9	*****	27	077	.8	091	2.5	004
0600	6.3	-14.6	21	068	1.2	019	3.2	034
0900	10.0	-27.8	05	145	1.2	150	4.4	064
1200	13.0	-28.0	04	143	4.6	145	7.0	080
1500	12.6	-28.3	04	103	1.7	026	7.0	068
1800	11.8	-26.5	05	195	1.3	128	5.7	027
2100	9.9	*****	05	216	.7	202	3.2	002
2400	9.6	-26.2	06	063	1.7	031	3.2	000

DAY 17

HOUR NDNG	TEMP. DEG C	DEW POINT DEG C	RH %	WIND DIR. DEG.	WIND SPD. M/S	GUST DIR. DEG.	MAX. GUST M/S	RAD MW
0300	9.2	-26.5	06	061	2.5	056	4.4	002
0600	9.4	-26.3	06	068	1.6	060	3.8	034
0900	12.4	-26.1	05	138	1.7	144	4.4	065
1200	13.6	-27.6	04	162	2.1	175	5.7	074
1500	15.2	-26.5	04	198	2.1	246	7.0	063
1800	12.9	-28.1	04	018	1.8	016	7.6	026
2100	11.0	-27.1	05	060	.3	025	4.4	003
2400	10.2	-27.7	05	071	1.1	113	2.5	000

DAY 18

HOUR NDNG	TEMP. DEG C	DEW POINT DEG C	RH %	WIND DIR. DEG.	WIND SPD. M/S	GUST DIR. DEG.	MAX. GUST M/S	RAD MW
0300	9.4	-26.3	06	054	2.0	027	7.6	003
0600	9.0	*****	06	089	1.0	067	3.2	011
0900	10.7	-27.3	05	020	1.2	026	4.4	021
1200	9.8	-28.0	05	140	1.8	157	7.6	019
1500	8.5	-27.0	06	139	2.9	164	7.6	044
1800	8.0	-12.6	22	087	1.3	122	6.3	016
2100	8.5	-16.0	16	319	1.2	333	9.5	002
2400	7.1	-17.2	16	343	2.4	340	5.7	001

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DAY 19

HOUR NDNG	TEMP. DEG C	DEW POINT DEG C	RH %	WIND DIR. DEG.	WIND SPD. M/S	GUST DIR. DEG.	MAX. GUST M/S	RAD MW
0300	6.3	-20.2	13	016	3.2	006	10.2	003
0600	6.4	-19.3	14	024	6.0	018	10.8	034
0900	7.4	-20.3	12	019	2.7	039	8.3	065
1200	9.8	-28.0	05	023	2.6	332	8.3	078
1500	10.3	-27.6	05	033	3.3	055	7.6	062
1800	11.0	-27.1	05	046	2.4	070	7.0	027
2100	8.8	-26.8	06	036	2.0	038	5.1	002
2400	6.7	*****	07	064	1.7	039	3.8	000

DAY 20

HOUR NDNG	TEMP. DEG C	DEW POINT DEG C	RH %	WIND DIR. DEG.	WIND SPD. M/S	GUST DIR. DEG.	MAX. GUST M/S	RAD MW
0300	6.6	-26.8	07	062	1.1	040	3.2	002
0600	7.7	*****	06	070	1.0	054	2.5	027
0900	10.6	-27.4	05	167	1.3	181	3.2	059
1200	12.6	-28.3	04	175	2.2	241	5.7	077
1500	12.8	-28.2	04	177	2.4	157	5.1	041
1800	10.7	-27.3	05	148	2.6	144	4.4	017
2100	8.5	-16.0	16	233	.3	241	3.8	002
2400	6.8	-12.0	25	038	.6	158	3.2	002

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	-6.5	44	347	.8	322	3.2	002
0600	4.3	-5.9	48	236	.4	193	1.9	008
0900	4.9	-7.4	41	247	.9	185	2.5	032
1200	7.8	-10.2	27	219	1.7	204	4.4	061
1500	6.7	-8.2	34	257	3.3	256	6.3	019
1800	8.3	-9.8	27	232	1.0	190	5.1	021
2100	5.3	-6.4	43	231	1.1	315	4.4	002
2400	4.4	-4.2	54	257	1.3	244	5.1	001

DAY 22

HOUR NDNG	TEMP. DEG C	DEW POINT DEG C	RH %	WIND DIR. DEG.	WIND SPD. M/S	GUST DIR. DEG.	MAX. GUST M/S	RAD MW
0300	3.9	*****	58	207	.5	321	1.9	001
0600	4.3	-3.8	56	206	.6	339	1.9	012
0900	6.5	-8.0	35	252	.6	169	3.8	073
1200	9.8	-14.2	17	178	2.5	160	5.7	032
1500	11.3	-13.7	16	000	2.2	331	8.3	072
1800	6.5	-14.0	19	198	2.1	244	8.3	029
2100	6.9	-13.5	22	198	1.3	179	5.1	003
2400	6.7	-14.2	21	009	1.4	315	6.3	001

DAY 23

HOUR NDNG	TEMP. DEG C	DEW POINT DEG C	RH %	WIND DIR. DEG.	WIND SPD. M/S	GUST DIR. DEG.	MAX. GUST M/S	RAD MW
0300	6.4	-11.9	26	026	1.9	013	7.6	003
0600	5.8	-11.5	28	060	2.4	035	5.1	015
0900	8.5	-14.0	19	112	2.5	136	6.3	065
1200	9.0	-15.6	16	159	2.9	114	6.3	077
1500	11.2	-20.6	09	163	3.5	175	5.7	062
1800	10.3	-21.2	09	155	2.7	139	7.0	029
2100	8.4	-22.7	09	042	1.4	006	7.6	002
2400	7.7	-22.1	10	053	1.1	096	3.2	001

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	5.3	-11.0	30	028	.7	353	3.2	003
0600	5.9	*****	24	046	.8	100	2.5	034
0900	8.5	-14.0	19	208	.6	195	3.8	080
1200	10.7	-14.2	16	214	1.7	205	4.4	094
1500	12.4	-14.5	14	223	2.0	210	5.1	072
1800	10.3	-16.1	14	215	1.3	237	4.4	016
2100	5.1	*****	39	001	1.7	019	7.0	002
2400	5.6	-8.8	35	050	1.2	128	3.8	001

DAY 25

HOUR NDNG	TEMP. DEG C	DEW POINT DEG C	RH %	WIND DIR. DEG.	WIND SPD. M/S	GUST DIR. DEG.	MAX. GUST M/S	RAD MW
0300	5.6	-8.4	36	065	.8	124	2.5	002
0600	3.7	-5.4	52	294	.9	285	2.5	005
0900	6.1	-7.0	39	175	1.1	160	4.4	030
1200	7.5	-9.1	30	215	1.7	214	3.8	043
1500	10.2	-12.5	19	151	1.9	140	6.3	054
1800	8.0	-9.6	28	299	.7	121	4.4	015
2100	7.5	-8.3	32	207	.3	234	2.5	003
2400	5.5	*****	52	308	.[illegible]	322	2.5	001

DAY 26

HOUR NDNG	TEMP. DEG C	DEW POINT DEG C	RH %	WIND DIR. DEG.	WIND SPD. M/S	GUST DIR. DEG.	MAX. GUST M/S	RAD MW
0300	5.4	*****	52	012	.5	310	2.5	001
0600	4.0	-3.4	59	234	1.6	228	7.6	001
0900	3.2	-5.1	55	230	2.7	217	7.0	007
1200	2.8	-7.8	46	022	2.4	027	4.4	005
1500	2.6	-6.9	50	283	.9	205	6.3	006
1800	2.7	-6.8	50	196	5.6	214	10.8	003
2100	2.1	-6.1	55	222	4.5	212	10.2	001
2400	1.1	-7.0	55	274	1.7	233	6.3	001

DAY 27

HOUR NDNG	TEMP. DEG C	DEW POINT DEG C	RH %	WIND DIR. DEG.	WIND SPD. M/S	GUST DIR. DEG.	MAX. GUST M/S	RAD MW
0300	.6	-8.5	51	025	1.7	014	4.4	001
0600	.1	-10.0	47	356	2.1	018	4.4	009
0900	1.7	-13.8	31	340	1.3	338	3.8	016
1200	1.6	-13.5	32	053	1.2	102	5.1	031
1500	6.8	-16.7	17	021	1.3	129	4.4	038
1800	2.6	*****	28	128	.2	061	1.9	010
2100	0.0	*****	44	089	.5	023	2.5	001
2400	-.1	-10.2	47	046	.5	009	1.9	001

R&M CONSULTANTS, INC.

SUSITNA HYDROELECTRIC PROJECT

THREE HOUR SUMMARY FOR GLACIER WEATHER STATION
DATA TAKEN DURING JUNE , 1981

	DAY 28									DAY 29									DAY 30								
HOUR NDNG	TEMP. DEG C	DEW POINT DEG C	RH %	WIND DIR. DEG.	WIND SPD. M/S	GUST DIR. DEG.	MAX. GUST M/S	RAD MW	HOUR NDNG	TEMP. DEG C	DEW POINT DEG C	RH %	WIND DIR. DEG.	WIND SPD. M/S	GUST DIR. DEG.	MAX. GUST M/S	RAD MW	HOUR NDNG	TEMP. DEG C	DEW POINT DEG C	RH %	WIND DIR. DEG.	WIND SPD. M/S	GUST DIR. DEG.	MAX. GUST M/S	RAD MW
0300	.1	-10.8	44	046	.9	046	1.9	002	0300	-.4	-13.8	36	100	1.3	127	4.4	004	0300	-1.0	*****	50	120	.3	205	9.5	001
0600	1.4	-13.7	32	020	.8	002	2.5	008	0600	.4	-15.3	30	051	1.3	066	3.2	022	0600	-.8	-12.9	40	255	.4	247	2.5	010
0900	6.8	*****	16	004	.5	006	2.5	025	0900	5.3	*****	11	030	1.0	024	2.5	053	0900	.7	-18.2	23	027	.4	042	4.4	019
1200	10.8	-27.3	05	013	1.4	353	3.8	087	1200	6.4	-17.0	17	007	.6	252	4.4	054	1200	3.4	-20.9	15	108	1.0	125	3.8	099
1500	3.6	*****	19	096	.2	128	3.2	047	1500	2.4	-17.9	21	115	.9	146	4.4	039	1500	4.7	-19.1	16	011	1.6	027	3.8	050
1800	3.3	-18.3	19	074	.6	021	3.2	026	1800	1.9	*****	32	042	.9	066	3.8	007	1800	-.9	-12.3	42	116	1.1	188	6.3	010
2100	.8	*****	34	095	.9	065	3.2	002	2100	.9	-11.0	41	033	1.2	068	3.8	002	2100	-.7	*****	40	244	.4	258	2.5	001
2400	.1	-13.7	35	036	1.2	039	3.2	001	2400	.9	-8.2	51	344	.8	235	4.4	001	2400	1.7	-15.0	28	095	.7	091	6.3	002

R&M CONSULTANTS, INC.

SUSITNA HYDROELECTRIC PROJECT

MONTHLY SUMMARY FOR GLACIER WEATHER STATION
DATA TAKEN DURING JUNE , 1981

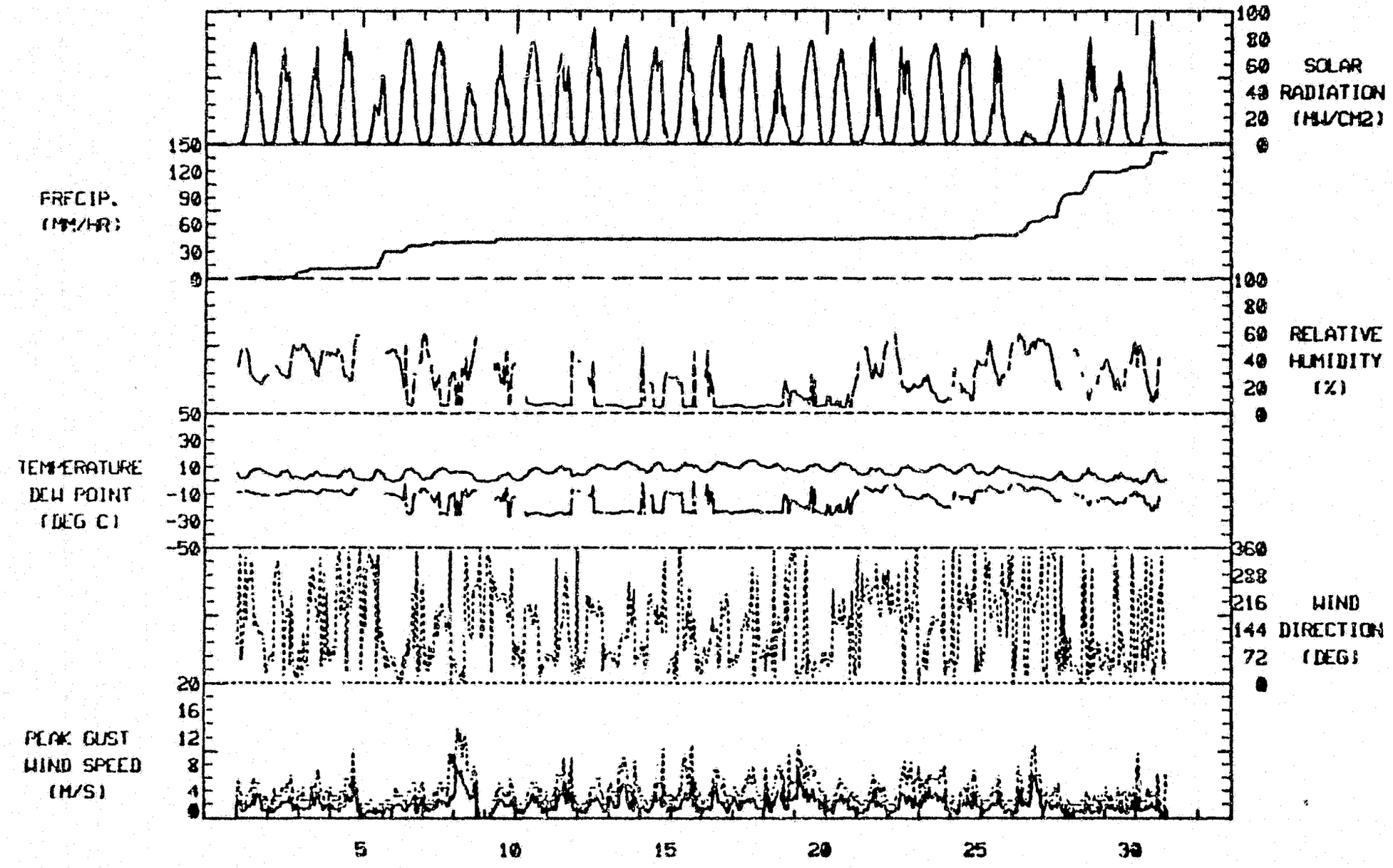
DAY	MAX. TEMP. DEG C	MIN. TEMP. DEG C	MEAN TEMP. DEG C	RES. WIND DIR. DEG	RES. WIND SPD. M/S	AVG. WIND SPD. M/S	MAX. GUST DIR. DEG	MAX. GUST SPD. M/S	P'VAL DIR.	MEAN RH %	MEAN DP DEG C	PRECIP MM	DAY'S SOLAR ENERGY WH/SQM	DAY
01	9.0	.9	4.9	143	.7	1.8	261	5.7	SE	32	-10.8	1.4	6448	01
02	8.3	.6	4.4	107	.0	1.6	229	6.3	NE	36	-10.0	5.2	5960	02
03	6.9	.1	3.5	129	.2	1.8	133	7.0	E	42	-8.7	4.2	4888	03
04	8.7	.3	4.5	277	.6	2.1	263	10.2	WSW	40	-8.9	.6	7070	04
05	11.9	-.8	5.6	032	.3	.7	334	2.5	NNW	43	-11.1	18.2	3840	05
06	9.7	-.9	4.4	059	.7	1.7	221	5.1	N	31	-17.2	7.2	7675	06
07	10.2	.1	5.2	133	.6	1.8	330	9.5	S	23	-20.4	2.8	7695	07
08	6.6	-.9	2.9	016	1.7	3.6	028	13.3	NNE	29	-14.8	0.0	3820	08
09	6.0	-1.1	2.5	228	.9	1.4	250	5.7	SW	31	-17.0	3.2	5405	09
10	9.0	-.1	4.4	150	.8	1.6	167	5.1	NNE	09	-27.2	0.0	7847	10
11	10.6	2.8	6.7	111	.9	2.2	224	8.9	ENE	12	-27.5	0.0	6203	11
12	12.1	3.4	7.8	174	.7	1.6	160	5.7	SSW	16	-24.7	0.0	7625	12
13	14.3	7.5	10.9	101	1.8	2.6	114	8.9	ENE	05	-27.2	0.0	7083	13
14	13.4	5.1	9.3	165	.7	1.9	278	10.2	ESE	16	-20.6	0.0	6925	14
15	13.6	6.6	10.1	102	.9	2.1	098	10.8	NNE	15	-20.5	0.0	7148	15
16	14.0	5.9	10.0	126	1.2	2.0	145	7.0	E	11	-25.2	0.0	7575	16
17	15.2	8.7	12.0	100	.8	2.0	016	7.6	ENE	05	-27.0	0.0	7850	17
18	12.7	7.0	9.9	072	.8	2.4	333	9.5	N	10	-22.1	.4	4483	18
19	12.1	6.0	9.1	029	2.9	3.3	018	10.8	NNE	11	-24.2	0.0	7918	19
20	12.8	6.6	9.7	150	1.0	1.8	241	5.7	SSE	09	-23.7	0.0	6625	20
21	9.4	4.2	6.8	248	1.2	1.7	256	6.3	WSW	37	-7.3	1.0	5548	21
22	11.3	3.8	7.6	209	.5	2.0	331	8.3	S	27	-11.6	.2	6510	22
23	11.9	5.8	8.9	116	1.4	2.7	013	7.6	SSE	16	-17.4	0.0	7928	23
24	12.7	4.7	8.7	241	.2	1.7	019	7.0	SSW	22	-13.1	2.8	6908	24
25	11.0	3.7	7.4	208	.4	1.5	140	6.3	NW	35	-8.6	.4	5205	25
26	5.6	1.1	3.4	229	1.6	2.9	214	10.8	SW	52	-6.2	17.4	820	26
27	7.4	-.4	3.5	020	.9	1.3	102	5.1	N	38	-12.1	30.2	3388	27
28	14.2	-.4	6.9	041	.7	1.1	353	3.8	N	27	-16.7	24.2	5600	28
29	7.8	-.9	3.5	049	.8	1.4	127	4.4	ENE	32	-13.9	5.8	4793	29
30	12.3	-2.5	4.9	076	.3	1.4	205	9.5	NE	27	-16.4	16.2	5408	30
MONTH	15.2	-2.5	6.6	102	.3	1.9	028	13.3	NNE	25	-17.1	141.4	182185	

GUST VEL. AT MAX. GUST MINUS 2 INTERVALS 11.4
GUST VEL. AT MAX. GUST MINUS 1 INTERVAL 10.2
GUST VEL. AT MAX. GUST PLUS 1 INTERVAL 10.8
GUST VEL. AT MAX. GUST PLUS 2 INTERVALS 10.2

NOTE: RELATIVE HUMIDITY READINGS ARE UNRELIABLE WHEN WIND SPEED ARE <1.0 METERS PER SECOND. SUCH READINGS HAVE NOT BEEN INCLUDED IN THE DAILY OR MONTHLY MEAN FOR RELATIVE HUMIDITY AND DEW POINT.

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

R&M CONSULTANT, INC. SUSITNA HYDROELECTRIC PROJECT



DAY OF THE MONTH GLACIER WEATHER STATION

DATA START: 01 JUNE , 1981

R&M CONSULTANTS, INC.

SUSITNA HYDROELECTRIC PROJECT

WIND FREQUENCY SUMMARY FOR GLACIER WEATHER STATION
DATA TAKEN DURING JUNE , 1981

	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	GREATER THAN 20.0	TOTAL
N	1.49	4.62	.63	.17	0.00	0.00	0.00	6.91
NNE	1.60	6.04	1.60	.69	0.00	0.00	0.00	9.93
NE	2.15	6.35	1.15	.14	0.00	0.00	0.00	9.79
ENE	2.15	4.90	.66	0.00	0.00	0.00	0.00	7.71
E	3.02	4.27	.66	.03	0.00	0.00	0.00	7.99
ESE	1.63	2.95	.97	.03	0.00	0.00	0.00	5.59
SE	1.01	2.99	2.29	.03	0.00	0.00	0.00	6.32
SSE	.73	3.68	2.88	0.00	0.00	0.00	0.00	7.29
S	.56	3.92	1.28	.10	0.00	0.00	0.00	5.87
SSW	.63	4.62	.73	.14	0.00	0.00	0.00	6.11
SW	.52	3.82	.80	.07	0.00	0.00	0.00	5.21
WSW	.87	3.13	1.25	.03	0.00	0.00	0.00	5.28
W	.52	1.91	.59	0.00	0.00	0.00	0.00	3.02
WNW	.52	1.42	.14	0.00	0.00	0.00	0.00	2.08
NW	1.11	2.29	.42	0.00	0.00	0.00	0.00	3.82
NNW	1.35	2.67	.59	.93	0.00	0.00	0.00	4.65
CALM								2.43
TOTAL	19.86	59.58	16.63	1.49	0.00	0.00	0.00	100.00

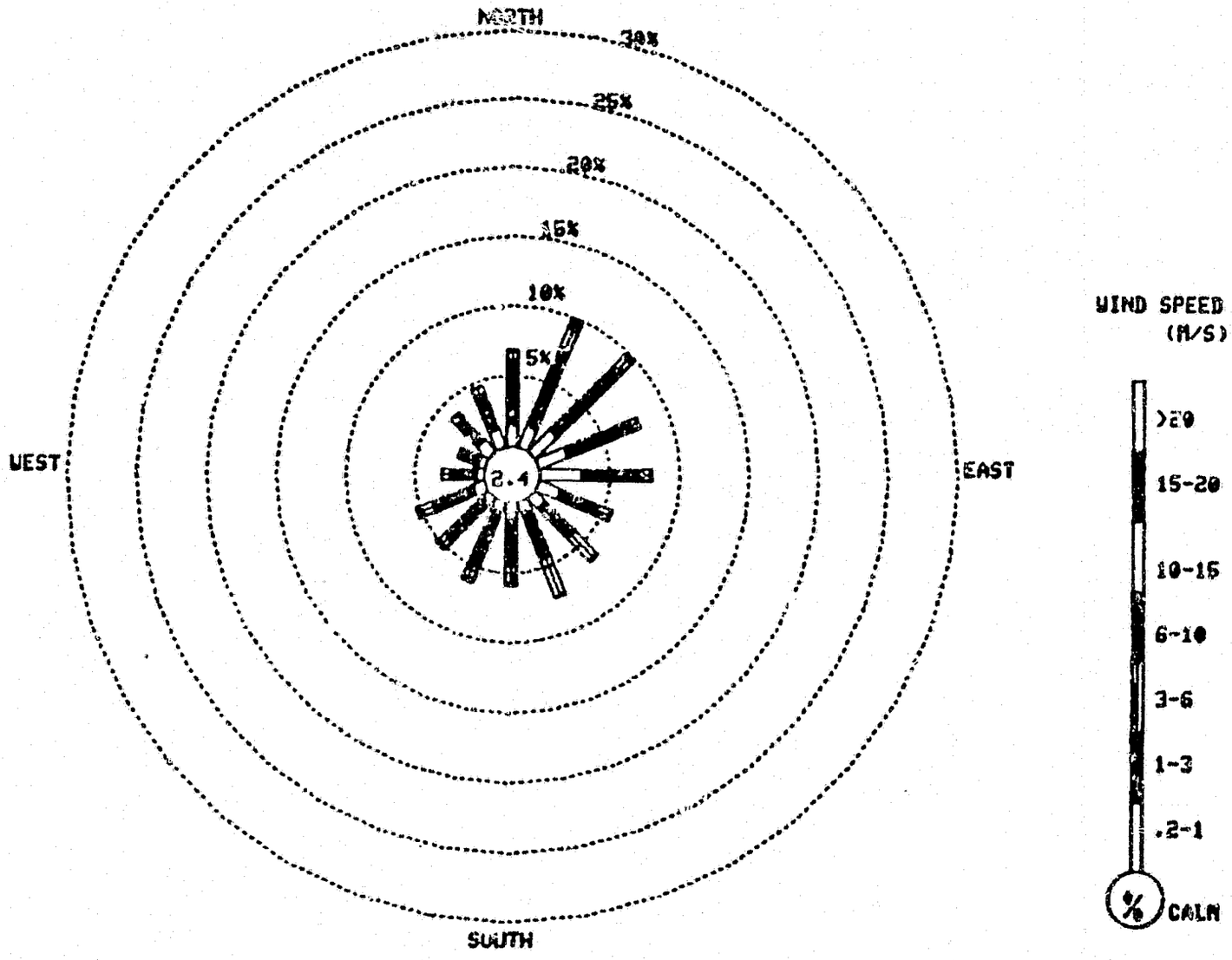
NOTE: ALL FREQUENCIES EXPRESSED IN PERCENT.

2880 VALID WIND OBSERVATIONS USED TO DEVELOP FREQUENCY SUMMARY

SUSITNA HYDROELECTRIC PROJECT

GLACIER WEATHER STATION

JUNE, 1981



WIND ROSE PLOT

R&M CONSULTANTS, INC.

SUSITNA HYDROELECTRIC PROJECT

HOURLY PRECIPITATION SUMMARY FOR GLACIER WEATHER STATION
DATA TAKEN DURING JULY , 1981

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
01	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.6	.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	01
02	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	02
03	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	****	****	****	****	****	****	****	****	****	****	****	****	****	03
04	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	04
05	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	05
06	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	06
07	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	07
08	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	08
09	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	09
10	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	10
11	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	11
12	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	12
13	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	13
14	****	****	****	****	****	****	****	****	****	****	****	****	***	****	****	****	****	****	****	****	****	****	****	****	14
15	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	15
16	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	16
17	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	17
18	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	18
19	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	19
20	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	20
21	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	21
22	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	22
23	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	23
24	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	24
25	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	25
26	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	26
27	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	27
28	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	28
29	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	29
30	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	30
31	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	31

R&M CONSULTANTS, INC.

SUSITNA HYDROELECTRIC PROJECT

THREE HOUR SUMMARY FOR GLACIER WEATHER STATION
DATA TAKEN DURING JULY , 1981

DAY 01

HOUR NDNG	TEMP. DEG C	DEW POINT DEG C	RH %	WIND DIR. DEG.	WIND SPD. M/S	GUST DIR. DEG.	MAX. GUST M/S	RAD MW
0300	.7	-14.3	32	104	2.6	128	6.3	003
0600	1.9	-18.8	20	081	2.1	105	6.3	027
0900	6.2	-27.1	07	082	2.0	089	5.7	067
1200	6.8	-26.6	07	074	1.3	070	3.8	085
1500	5.9	-27.3	07	029	1.2	012	3.8	049
1800	4.6	-28.3	07	105	2.4	129	5.1	029
2100	2.0	-17.6	22	060	1.3	104	5.1	003
2400	1.9	*****	25	099	3.0	106	5.1	002

DAY 02

HOUR NDNG	TEMP. DEG C	DEW POINT DEG C	RH %	WIND DIR. DEG.	WIND SPD. M/S	GUST DIR. DEG.	MAX. GUST M/S	RAD MW
0300	1.8	*****	22	121	.6	186	3.2	005
0600	2.6	-18.9	19	153	1.1	121	3.8	015
0900	5.1	-27.9	07	129	2.2	150	5.7	066
1200	3.5	-23.3	12	099	3.0	084	7.6	058
1500	4.6	-24.5	10	099	4.0	121	7.6	051
1800	4.4	-18.7	17	124	3.1	104	7.0	030
2100	2.8	-18.7	19	129	2.6	138	5.1	003
2400	2.8	-19.3	18	129	1.3	132	5.7	001

DAY 03

HOUR NDNG	TEMP. DEG C	DEW POINT DEG C	RH %	WIND DIR. DEG.	WIND SPD. M/S	GUST DIR. DEG.	MAX. GUST M/S	RAD MW
0300	2.3	-19.1	19	137	1.8	168	7.0	003
0600	2.2	-19.8	18	135	2.2	197	9.5	019
0900	3.6	-20.8	15	222	3.4	223	10.2	068
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 GLACIER WEATHER STATION
DATA TAKEN DURING JULY , 1981

DAY 10

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

DAY 11

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

DAY 12

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

DAY 13

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

DAY 14

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

DAY 15

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

DAY 16

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

DAY 17

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

DAY 18

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

R&M CONSULTANTS, INC.

SUSITNA HYDROELECTRIC PROJECT

THREE HOUR SUMMARY FOR GLACIER WEATHER STATION
DATA TAKEN DURING JULY , 1981

DAY 19

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

DAY 20

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

DAY 21

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

DAY 22

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

DAY 23

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

DAY 24

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

DAY 25

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

DAY 26

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

DAY 27

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

R&M CONSULTANTS, INC.

SUSITNA HYDROELECTRIC PROJECT

THREE HOUR SUMMARY FOR GLACIER WEATHER STATION
DATA TAKEN DURING JULY , 1981

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	*****	*****	**	***	****	***	****	***
1500	*****	*****	**	***	****	***	****	***
1800	*****	*****	**	***	****	***	****	***
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	*****	*****	**	***	****	***	****	***
0600	*****	*****	**	***	****	***	****	***
0900	*****	*****	**	***	****	***	****	***
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	*****	*****	**	***	****	***	****	***

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	*****	*****	**	***	****	***	****	***

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 GLACIER WEATHER STATION
DATA TAKEN DURING JULY , 1981

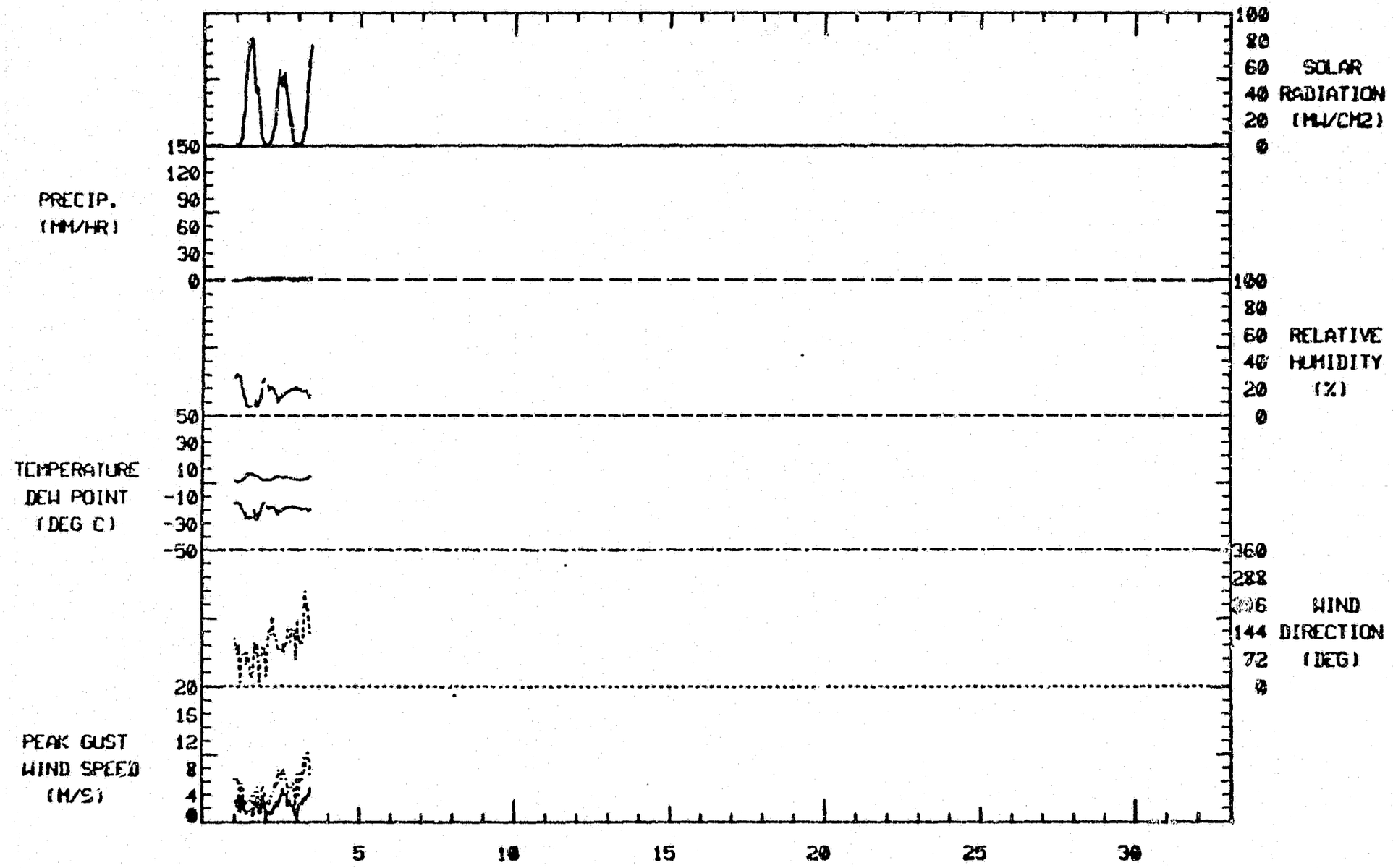
DAY	MAX. TEMP. DEG C	MIN. TEMP. DEG C	MEAN TEMP. DEG C	RES. WIND DIR. DEG	RES. WIND SPD. M/S	AVG. WIND SPD. M/S	MAX. GUST DIR. DEG	MAX. GUST SPD. M/S	P'VAL DIR.	MEAN RH %	MEAN DP DEG C	PRECIP MM	DAY'S SOLAR ENERGY WH/SQM	DAY
01	7.2	.2	3.7	086	1.9	2.2	128	6.3	E	17	-22.9	2.0	7753	01
02	5.3	1.6	3.5	117	2.1	2.5	084	7.6	ESE	17	-21.6	0.0	5790	02
03	*****	*****	*****	***	****	3.2	223	10.2	SE	17	-19.9	0.0	7094	03
04	*****	*****	*****	***	****	****	***	****	MSG	**	*****	****	***	04
05	*****	*****	*****	***	****	****	***	****	MSG	**	*****	****	***	05
06	*****	*****	*****	***	****	****	***	****	MSG	**	*****	****	***	06
07	*****	*****	*****	***	****	****	***	****	MSG	**	*****	****	***	07
08	*****	*****	*****	***	****	****	***	****	MSG	**	*****	****	***	08
09	*****	*****	*****	***	****	****	***	****	MSG	**	*****	****	***	09
10	*****	*****	*****	***	****	****	***	****	MSG	**	*****	****	***	10
11	*****	*****	*****	***	****	****	***	****	MSG	**	*****	****	***	11
12	*****	*****	*****	***	****	****	***	****	MSG	**	*****	****	***	12
13	*****	*****	*****	***	****	****	***	****	MSG	**	*****	****	***	13
14	*****	*****	*****	***	****	****	***	****	MSG	**	*****	****	***	14
15	*****	*****	*****	***	****	****	***	****	MSG	**	*****	****	***	15
16	*****	*****	*****	***	****	****	***	****	MSG	**	*****	****	***	16
17	*****	*****	*****	***	****	****	***	****	MSG	**	*****	****	***	17
18	*****	*****	*****	***	****	****	***	****	MSG	**	*****	****	***	18
19	*****	*****	*****	***	****	****	***	****	MSG	**	*****	****	***	19
20	*****	*****	*****	***	****	****	***	****	MSG	**	*****	****	***	20
21	*****	*****	*****	***	****	****	***	****	MSG	**	*****	****	***	21
22	*****	*****	*****	***	****	****	***	****	MSG	**	*****	****	***	22
23	*****	*****	*****	***	****	****	***	****	MSG	**	*****	****	***	23
24	*****	*****	*****	***	****	****	***	****	MSG	**	*****	****	***	24
25	*****	*****	*****	***	****	****	***	****	MSG	**	*****	****	***	25
26	*****	*****	*****	***	****	****	***	****	MSG	**	*****	****	***	26
27	*****	*****	*****	***	****	****	***	****	MSG	**	*****	****	***	27
28	*****	*****	*****	***	****	****	***	****	MSG	**	*****	****	***	28
29	*****	*****	*****	***	****	****	***	****	MSG	**	*****	****	***	29
30	*****	*****	*****	***	****	****	***	****	MSG	**	*****	****	***	30
31	*****	*****	*****	***	****	****	***	****	MSG	**	*****	****	***	31
MONTH	7.2	.2	3.6	103	1.9	2.6	223	10.2	ESE	17	-21.5	2.0	20636	

GUST VEL. AT MAX. GUST MINUS 2 INTERVALS 6.3
GUST VEL. AT MAX. GUST MINUS 1 INTERVAL 8.3
GUST VEL. AT MAX. GUST PLUS 1 INTERVAL 7.6
GUST VEL. AT MAX. GUST PLUS 2 INTERVALS 5.7

NOTE: RELATIVE HUMIDITY READINGS ARE UNRELIABLE WHEN WIND SPEED ARE <1.0 METERS PER SECOND. SUCH READINGS HAVE NOT BEEN INCLUDED IN THE DAILY OR MONTHLY MEAN FOR RELATIVE HUMIDITY AND DEW POINT.

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

R&M CONSULTANT, INC. SUSITNA HYDROELECTRIC PROJECT



DAY OF THE MONTH GLACIER WEATHER STATION

DATA START: 01 JULY , 1981

R&M CONSULTANTS, INC.

SUSITNA HYDROELECTRIC PROJECT

WIND FREQUENCY SUMMARY FOR GLACIER WEATHER STATION
DATA TAKEN DURING JULY , 1981

	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	GREATER THAN 20.0	TOTAL
N	1.28	2.55	0.00	0.00	0.00	0.00	0.00	3.83
NNE	.43	3.40	0.00	0.00	0.00	0.00	0.00	3.83
NE	1.28	4.26	0.00	0.00	0.00	0.00	0.00	5.53
ENE	.85	7.66	1.28	0.00	0.00	0.00	0.00	9.79
E	.85	7.23	8.94	0.00	0.00	0.00	0.00	17.02
ESE	.43	7.66	12.77	0.00	0.00	0.00	0.00	20.85
SE	.85	12.34	6.38	0.00	0.00	0.00	0.00	19.57
SSE	1.28	5.11	.85	0.00	0.00	0.00	0.00	7.23
S	0.00	2.13	.85	0.00	0.00	0.00	0.00	2.98
SSW	0.00	1.70	1.28	0.00	0.00	0.00	0.00	2.98
SW	0.00	.85	2.55	0.00	0.00	0.00	0.00	3.40
WSW	0.00	.85	0.00	0.00	0.00	0.00	0.00	.85
W	0.00	0.00	.43	0.00	0.00	0.00	0.00	.43
WNW	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
NW	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
NNW	1.28	.43	0.00	0.00	0.00	0.00	0.00	1.70
CALM								0.00
TOTAL	8.51	56.17	35.32	0.00	0.00	0.00	0.00	100.00

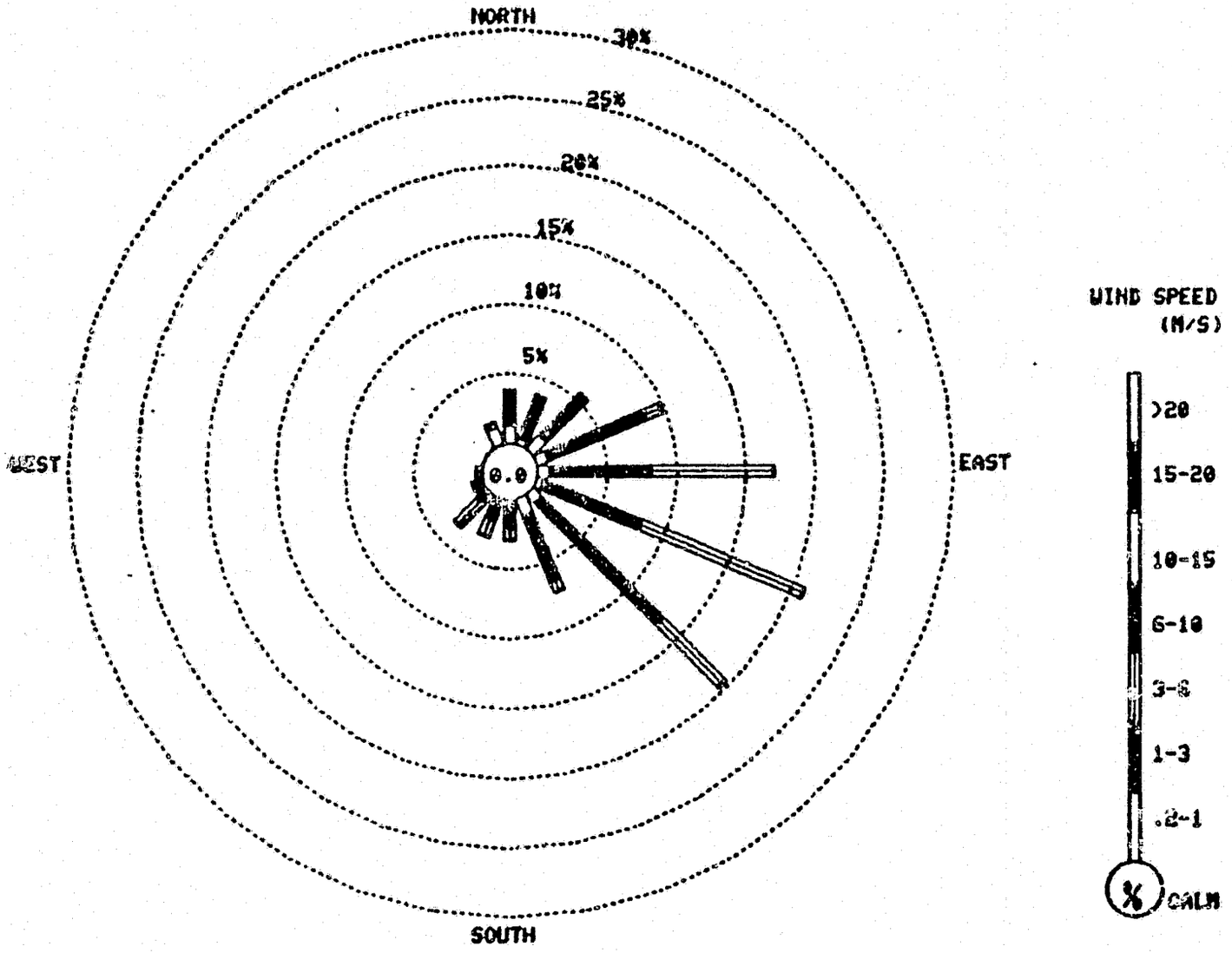
NOTE: ALL FREQUENCIES EXPRESSED IN PERCENT.

235 VALID WIND OBSERVATIONS USED TO DEVELOP FREQUENCY SUMMARY

SUSITNA HYDROELECTRIC PROJECT

GLACIER WEATHER STATION

JULY, 1981



WIND ROSE PLOT

R & M CONSULTANTS, INC.

SUSITNA HYDROELECTRIC PROJECT

HOURLY PRECIPITATION SUMMARY FOR GLACIER WEATHER STATION
DATA TAKEN DURING July, 1981

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	1.6	.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	1
2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2
3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3
4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	.8	1.0	4
5	1.2	1.2	.8	1.2	.8	1.0	.6	.6	.2	1.2	1.6	1.4	.8	.6	1.4	1.8	2.4	1.8	.8	.6	1.4	2.0	1.6	2.0	5
6	1.0	.8	1.0	.6	.2	.4	.2	.2	.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	6
7	0.0	0.0	.2	.4	.6	0.0	.6	.2	.4	.2	.8	0.0	0.0	.4	1.0	1.2	1.2	.6	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	.2	1.0	1.0	1.6	2.6	1.8	1.6	.4	.8	.2	1.0	.6	.8	2.4	2.2	2.4	1.6	1.4	8
9	.6	1.0	1.2	1.8	1.0	1.0	1.0	1.4	.8	.2	1.2	1.8	.4	.4	.2	2.8	1.6	.8	1.0	.6	1.0	1.8	2.2	1.8	9
10	1.4	1.0	1.0	.6	1.2	1.2	1.6	1.4	1.0	2.0	2.2	2.4	3.0	2.8	2.2	4.0	3.0	2.0	3.2	2.6	1.2	1.4	1.2	1.6	10
11	1.2	2.0	2.0	1.6	1.2	1.0	.2	0.0	0.0	.6	.8	.4	.4	1.0	3.2	3.4	1.2	1.4	.8	3.0	4.2	2.0	2.8	1.0	11
12	1.2	0.0	.4	0.0	0.0	.2	.8	.2	.4	.6	.2	0.0	0.0	0.0	.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	12
13	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	.2	0.0	.2	.2	.6	0.0	0.0	0.0	.2	0.0	.2	0.0	0.0	0.0	13
14	0.0	0.0	.2	0.0	0.0	.2	0.0	.6	1.6	1.2	.4	.2	.8	.8	1.0	.2	.4	.6	.4	.2	.2	.4	.6	.6	14
15	.2	.8	1.0	.6	.4	.4	0.0	.8	1.2	.8	.8	.4	0.0	0.0	0.0	0.0	0.0	1.2	2.6	1.6	1.4	1.2	.2	.2	15
16	0.0	.2	.2	0.0	.6	1.0	2.2	2.8	1.2	.2	0.0	0.0	0.0	1.0	2.2	.6	0.0	0.0	0.0	0.0	0.0	0.0	.2	.2	16
17	0.0	.4	0.0	0.0	0.0	3.0	3.6	.6	.6	.2	0.0	0.0	.2	1.6	.2	0.0	0.0	.2	.2	.6	.6	.2	.8	0.0	17
18	0.0	0.0	0.0	.4	.2	0.0	0.0	.2	0.0	.2	.2	.4	.2	0.0	.6	0.0	0.0	0.0	0.0	0.0	.2	.6	.8	.8	18
19	2.2	1.2	1.0	1.0	.2	1.8	1.0	0.6	0.0	.4	.4	.4	.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	.2	.6	1.0	19
20	.4	0.0	0.0	0.0	0.0	.4	.4	.2	0.0	.6	.6	.4	1.0	.8	1.6	.8	.4	.4	0.0	0.0	0.0	0.0	0.0	0.0	20
21	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	.2	0.0	1.2	21
22	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	.2	2.0	22
23	2.4	2.4	1.6	.2	.4	.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	.2	3.0	1.2	0.0	0.0	0.0	0.0	0.0	0.0	23
24	0.0	0.0	0.0	0.0	.4	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	.2	0.0	.6	.4	0.0	0.0	0.0	0.0	0.0	0.0	24
25	0.0	0.0	0.0	.2	.2	.6	0.0	.2	0.0	.2	0.0	0.0	.2	.2	.2	.2	1.8	1.4	1.6	1.0	1.4	2.6	1.6	1.4	25
26	.8	.6	1.4	.8	.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	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	.2	0.0	.8	.4	0.0	0.0	0.0	0.0	0.0	28
29	1.2	1.4	.2	.2	0.0	0.0	0.0	0.0	.4	.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	29
30	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	30
31	0.0	.6	.2	.6	.6	1.6	.2	.6	0.0	.2	.2	.8	.4	.8	1.0	1.6	1.6	1.8	1.8	1.6	1.4	.8	1.2	1.8	31

R & M CONSULTANTS, INC.

SUSITNA HYDROELECTRIC PROJECT

THREE HOUR SUMMARY FOR GLACIER WEATHER STATION
DATA TAKEN DURING July, 1981

DAY 01

HOUR NDNG	TEMP. DEG C	DEW POINT DEG C	RH %	WIND DIR. DEG.	WIND SPD. M/S	GUST DIR. DEG.	MAX. GUST M/S	RAD MW
0300	.7	-14.3	32	104	2.6	128	6.3	3
0600	1.9	-18.8	20	081	2.1	105	6.3	27
0900	6.2	-27.2	7	082	2.0	089	5.7	67
1200	6.8	-26.8	7	074	1.3	070	3.8	85
1500	5.9	-27.5	7	029	1.2	012	3.8	49
1800	4.6	-28.4	7	105	2.4	129	5.1	29
2100	2.0	-17.6	22	060	1.3	104	5.1	3
2400	1.9	*****	25	099	3.0	106	5.1	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	1.8	*****	22	121	.6	186	3.2	5
0600	2.6	-18.8	19	153	1.1	121	3.8	15
0900	5.1	-28.1	7	129	2.2	150	5.7	66
1200	3.5	-23.3	12	099	3.0	084	7.6	58
1500	4.6	-24.6	10	099	4.0	121	7.6	51
1800	4.4	-18.6	17	124	3.1	104	7.0	30
2100	2.8	-18.6	19	129	2.6	138	5.1	3
2400	2.8	-19.2	18	129	1.3	132	5.7	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	2.3	-19.0	19	137	1.8	168	7.0	3
0600	2.2	-19.7	18	135	2.2	197	9.5	19
0900	3.6	-20.7	15	222	3.4	223	10.2	68
1200	5.2	-20.2	14	144	4.6	148	7.6	83
1500	6.2	-19.4	14	149	4.6	156	7.0	60
1800	4.8	-20.5	14	142	3.6	149	5.7	21
2100	4.1	-18.8	17	118	2.5	134	4.4	3
2400	3.1	-21.1	15	073	1.0	110	3.2	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	2.5	*****	17	068	1.2	056	3.2	3
0600	2.8	*****	14	077	.9	056	3.2	7
0900	5.4	-22.9	11	119	.7	171	3.8	71
1200	6.0	-27.4	7	102	.1	185	3.8	46
1500	7.6	-27.8	6	208	1.0	188	4.4	55
1800	6.3	-23.3	10	210	.5	041	4.4	21
2100	3.4	-15.9	23	289	.8	311	4.4	2
2400	1.8	-11.5	37	030	1.4	052	3.8	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	1.3	-6.3	57	279	1.7	266	5.7	1
0600	1.0	-7.8	52	287	2.1	258	5.7	4
0900	.6	-8.7	50	272	2.8	251	6.3	16
1200	1.8	-12.5	34	344	1.3	341	3.2	34
1500	2.0	*****	34	278	.3	332	2.5	20
1800	1.8	-11.1	38	062	.5	031	3.2	10
2100	2.4	-10.3	39	014	1.0	035	3.2	1
2400	.7	*****	44	082	.9	035	3.8	1

DAY 06

HOUR NDNG	TEMP. DEG C	DEW POINT DEG C	RH %	WIND DIR. DEG.	WIND SPD. M/S	GUST DIR. DEG.	MAX. GUST M/S	RAD MW
0300	1.7	-10.3	41	036	.7	044	3.2	2
0600	2.2	-10.1	40	054	1.2	042	3.8	13
0900	2.8	-9.0	42	238	1.0	283	3.2	35
1200	5.5	-14.1	23	305	1.3	264	4.4	61
1500	8.1	-17.0	15	347	1.2	289	4.4	64
1800	7.8	-16.5	16	310	1.5	320	7.6	29
2100	5.1	*****	18	037	.7	013	3.2	3
2400	5.1	-14.9	22	066	.8	057	2.5	2

DAY 07

HOUR NDNG	TEMP. DEG C	DEW POINT DEG C	RH %	WIND DIR. DEG.	WIND SPD. M/S	GUST DIR. DEG.	MAX. GUST M/S	RAD MW
0300	3.0	-12.2	32	078	1.3	035	4.4	2
0600	3.8	-9.7	37	114	1.3	162	5.1	4
0900	3.6	-7.6	44	197	2.6	188	10.2	10
1200	3.4	-7.5	45	196	8.8	188	17.8	16
1500	2.0	-8.5	46	194	10.9	191	17.1	13
1800	.9	-9.8	45	151	.8	127	4.4	7
2100	.3	*****	47	289	1.4	300	3.2	2
2400	.4	*****	47	096	.2	144	3.2	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	.4	-12.1	39	021	.1	021	3.2	2
0600	.3	*****	42	068	.6	025	3.2	7
0900	1.1	*****	41	072	.5	150	2.5	10
1200	1.6	*****	41	255	.1	191	1.9	13
1500	3.4	-8.4	42	177	.8	160	2.5	8
1800	4.5	-8.7	38	095	1.3	076	4.4	2
2100	5.0	-8.3	38	073	1.2	113	3.8	1
2400	5.0	-6.6	43	176	2.0	173	5.7	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	4.7	-5.7	47	212	1.1	169	4.4	1
0600	4.5	-5.9	47	256	1.7	232	3.8	3
0900	4.1	-6.3	47	266	.2	168	2.5	6
1200	3.7	*****	45	152	1.1	131	3.8	7
1500	4.9	-8.7	37	172	.6	148	4.4	15
1800	4.5	-6.2	46	216	2.8	200	7.0	4
2100	4.7	-6.0	46	298	.6	276	3.2	1
2400	3.9	*****	47	211	.6	204	3.8	1

R & M CONSULTANTS, INC.

SUSITNA HYDROELECTRIC PROJECT

THREE HOUR SUMMARY FOR GLACIER WEATHER STATION
DATA TAKEN DURING July, 1981

DAY 10

HOUR NDNG	TEMP. DEG C	DEW POINT DEG C	RH %	WIND DIR. DEG.	WIND SPD. M/S	GUST DIR. DEG.	MAX. GUST M/S	RAD MW
0300	3.2	*****	38	057	1.2	040	3.2	2
0600	3.8	*****	36	036	.6	012	2 5	8
0900	4.0	-10.2	35	023	1.0	135	3.2	15
1200	4.5	*****	33	349	1.2	021	3.2	13
1500	4.3	-10.3	34	003	1.6	001	2.5	8
1800	5.5	-8.9	35	082	1.4	119	5.7	4
2100	4.2	*****	33	070	1.2	051	4.4	1
2400	4.4	-9.5	36	027	1.1	051	3.8	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	3.4	-11.5	33	043	1.5	057	2.5	2
0600	2.6	*****	38	010	.9	015	2.5	8
0900	3.8	-11.5	32	183	.8	156	2.5	24
1200	4.3	-10.7	33	011	1.2	020	3.8	10
1500	4.2	-11.6	31	023	2.6	010	5.7	13
1800	4.5	*****	33	050	1.6	036	5.1	11
2100	3.2	-9.9	38	046	1.9	030	5.7	1
2400	3.4	-11.9	32	078	1.6	060	5.1	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	2.8	-12.0	33	052	1.5	099	3.8	3
0600	2.6	-11.5	35	001	.8	005	3.8	7
0900	3.4	*****	34	265	.8	271	1.9	19
1200	4.8	-11.9	29	217	.9	178	2.5	36
1500	5.6	-10.8	30	209	.6	182	3.8	35
1800	7.1	-12.7	23	270	1.5	171	3.8	11
2100	6.8	-14.1	21	047	1.1	037	3.8	2
2400	5.5	-11.7	28	043	.7	345	3.8	2

DAY 13

HOUR NDNG	TEMP. DEG C	DEW POINT DEG C	RH %	WIND DIR. DEG.	WIND SPD. M/S	GUST DIR. DEG.	MAX. GUST M/S	RAD MW
0300	5.1	-12.0	28	051	.8	313	2.5	3
0600	4.8	-12.3	28	057	1.1	095	3.8	12
0900	6.1	-12.1	26	175	.5	033	3.2	20
1200	5.9	-11.4	28	111	.1	068	3.2	21
1500	6.0	-10.4	30	301	.4	006	3.2	23
1800	6.0	-11.3	28	178	.7	168	3.8	5
2100	5.1	-8.5	37	013	.7	296	4.4	1
2400	5.5	*****	30	064	.6	064	2.5	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	5.9	-11.4	28	047	1.5	013	3.2	2
0600	6.2	-10.7	29	065	.9	039	3.2	6
0900	6.3	*****	29	055	.2	315	3.8	15
1200	6.7	-12.5	24	105	1.6	122	5.1	18
1500	6.4	-9.6	31	025	.2	249	5.1	22
1800	5.4	*****	32	202	.9	181	3.2	6
2100	4.7	-10.4	33	117	.8	105	5.1	1
2400	5.1	*****	41	082	.8	050	3.2	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	5.1	*****	43	012	.3	202	1.9	1
0600	6.1	*****	33	069	.3	151	1.9	11
0900	6.8	-9.3	31	040	.9	127	3.8	27
1200	7.8	-10.2	27	208	.7	228	3.2	31
1500	8.1	-10.4	26	127	.3	118	3.8	34
1800	7.5	*****	29	024	1.1	133	3.8	4
2100	7.7	*****	31	350	.7	013	2.5	2
2400	6.7	*****	39	022	.5	047	1.9	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	6.7	*****	40	028	.8	014	2.5	1
0600	8.4	*****	33	036	.4	020	2.5	6
0900	8.3	*****	31	093	.7	084	2.5	24
1200	9.4	-8.8	27	181	.6	184	3.8	36
1500	7.6	-6.3	37	010	.4	165	3.8	14
1800	8.8	-9.3	27	024	.5	131	3.8	6
2100	8.9	*****	28	071	.9	039	3.2	2
2400	7.9	-7.1	34	040	1.0	327	3.2	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	7.7	*****	35	097	.5	081	2.5	2
0600	6.8	-7.0	37	056	.4	358	3.2	7
0900	7.3	-8.5	32	145	1.0	119	3.2	22
1200	9.2	-12.1	21	132	1.4	135	5.1	40
1500	9.0	-9.6	26	233	.3	186	3.8	38
1800	9.4	-13.1	19	100	.3	178	4.4	22
2100	7.8	-8.4	31	109	.4	347	3.2	2
2400	7.5	-10.4	27	036	1.0	016	3.2	2

DAY 18

HOUR NDNG	TEMP. DEG C	DEW POINT DEG C	RH %	WIND DIR. DEG.	WIND SPD. M/S	GUST DIR. DEG.	MAX. GUST M/S	RAD MW
0300	6.9	*****	28	068	.5	115	3.2	2
0600	7.5	-10.0	28	046	1.0	109	2.5	8
0900	6.3	-8.2	35	299	.4	066	2.5	18
1200	7.4	-8.8	31	260	.5	196	3.2	31
1500	8.9	-11.7	22	088	.4	121	3.8	36
1600	7.2	-12.6	23	292	.6	299	7.0	7
2100	5.5	-9.6	33	160	.9	198	7.6	2
2400	5.5	-10.4	31	103	.9	052	3.8	1

R & M CONSULTANTS, INC.

SUSITNA HYDROELECTRIC PROJECT

THREE HOUR SUMMARY FOR GLACIER WEATHER STATION
DATA TAKEN DURING July, 1981

DAY 19

HOUR NDNG	TEMP. DEG C	DEW POINT DEG C	RH %	WIND DIR. DEG.	WIND SPD. M/S	GUST DIR. DEG.	MAX. GUST M/S	RAD MW
0300	5.1	*****	31	060	.8	073	3.2	2
0600	4.9	-11.4	30	036	1.3	066	3.2	6
0900	5.5	-10.4	31	062	.8	029	3.2	16
1200	6.0	-10.8	29	172	1.5	164	3.2	29
1500	6.7	-10.7	28	269	.3	357	3.2	34
1800	6.6	-8.7	33	233	.5	284	2.5	14
2100	5.6	-8.4	36	158	1.1	157	3.2	1
2400	5.8	*****	42	135	.4	016	2.5	1

DAY 20

HOUR NDNG	TEMP. DEG C	DEW POINT DEG C	RH %	WIND DIR. DEG.	WIND SPD. M/S	GUST DIR. DEG.	MAX. GUST M/S	RAD MW
0300	5.5	-8.5	36	022	1.3	036	4.4	2
0600	5.2	*****	38	104	.4	129	2.5	7
0900	6.1	*****	35	220	.2	193	2.5	21
1200	7.3	-8.9	31	183	.7	159	3.2	23
1500	6.6	-9.5	31	252	.5	013	3.2	32
1800	6.0	*****	31	035	1.3	018	4.4	11
2100	6.0	-10.4	30	154	.7	169	2.5	2
2400	5.1	*****	36	162	.2	140	2.5	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	5.1	*****	38	107	.2	352	1.9	1
0600	5.1	-7.5	40	103	.4	145	1.9	7
0900	6.2	-7.6	37	206	.7	178	2.5	24
1200	8.5	-10.5	25	191	1.9	169	4.4	76
1500	9.4	-11.9	21	205	1.1	186	3.8	30
1800	9.7	*****	18	214	1.3	206	3.8	22
2100	8.1	*****	23	279	.3	287	2.5	2
2400	7.4	-9.2	30	106	.5	156	3.2	2

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	6.3	*****	33	061	.5	058	2.5	1
0600	5.7	-8.4	36	052	.3	128	1.9	10
0900	7.7	-9.8	28	172	.9	169	3.2	40
1200	8.2	-11.8	23	186	1.5	184	3.2	23
1500	8.8	-13.0	20	110	.3	028	4.4	36
1800	8.5	*****	22	190	1.1	156	3.8	7
2100	6.5	*****	31	307	.3	047	2.5	2
2400	6.0	*****	37	095	.4	136	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	6.0	-11.3	28	072	.6	023	3.2	2
0600	6.0	-9.6	32	056	.2	125	1.9	16
0900	7.3	-10.6	27	127	1.0	153	3.2	37
1200	9.3	-12.6	20	192	1.5	202	3.8	41
1500	9.3	*****	19	190	.9	154	3.8	18
1800	7.5	-10.0	28	246	.2	061	4.4	9
2100	7.6	-10.8	26	113	.7	129	3.2	2
2400	7.1	*****	24	094	.9	111	3.2	2

DAY 24

HOUR NDNG	TEMP. DEG C	DEW POINT DEG C	RH %	WIND DIR. DEG.	WIND SPD. M/S	GUST DIR. DEG.	MAX. GUST M/S	RAD MW
0300	6.9	*****	28	057	.7	027	2.5	2
0600	7.3	-10.6	27	080	.8	108	3.2	12
0900	8.3	-11.2	24	348	.6	021	3.2	17
1200	9.2	-12.1	21	026	1.0	127	4.4	18
1500	9.7	-11.1	22	062	1.0	045	5.1	17
1800	7.4	-10.5	27	130	1.5	111	5.7	8
2100	7.0	-10.0	29	343	.7	016	3.2	2
2400	6.0	*****	36	142	.3	156	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	6.4	-9.6	31	062	.6	109	3.2	2
0600	6.5	*****	29	075	.3	100	1.9	11
0900	7.3	-11.5	25	278	.7	271	2.5	26
1200	7.7	-10.2	27	194	.5	307	2.5	22
1500	7.6	-10.8	26	191	.3	161	2.5	21
1800	6.0	-8.1	36	312	.9	338	2.5	6
2100	5.5	-9.3	34	064	1.4	057	3.8	1
2400	4.1	-3.7	39	008	1.9	012	5.1	1

DAY 26

HOUR NDNG	TEMP. DEG C	DEW POINT DEG C	RH %	WIND DIR. DEG.	WIND SPD. M/S	GUST DIR. DEG.	MAX. GUST M/S	RAD MW
0300	3.8	-9.0	39	324	.1	283	1.9	1
0600	4.4	*****	35	101	.1	036	1.9	12
0900	4.7	-10.4	33	211	.7	268	1.9	29
1200	6.7	-10.2	29	178	1.8	169	3.8	41
1500	6.8	-10.1	29	235	.9	249	3.2	17
1800	7.1	*****	28	197	.9	167	2.5	7
2100	6.9	*****	30	156	.4	162	1.9	2
2400	6.3	-12.0	25	047	1.4	038	4.4	2

DAY 27

HOUR NDNG	TEMP. DEG C	DEW POINT DEG C	RH %	WIND DIR. DEG.	WIND SPD. M/S	GUST DIR. DEG.	MAX. GUST M/S	RAD MW
0300	6.3	*****	27	074	.7	114	1.9	2
0600	6.2	*****	27	035	1.0	004	2.5	6
0900	7.2	-11.6	25	208	.7	232	2.5	32
1200	9.2	-13.3	19	156	1.2	144	3.2	29
1500	9.4	-17.7	13	323	.7	347	4.4	23
1800	9.1	*****	16	188	1.0	173	2.5	6
2100	8.6	*****	17	351	.6	358	1.9	1
2400	7.3	-15.5	18	341	1.0	305	2.5	2

R & M CONSULTANTS, INC.

SUSITNA HYDROELECTRIC PROJECT

THREE HOUR SUMMARY FOR GLACIER WEATHER STATION
DATA TAKEN DURING July, 1981

DAY 28

HOUR NDNG	TEMP. DEG C	DEW POINT DEG C	RH %	WIND DIR. DEG.	WIND SPD. M/S	GUST DIR. DEG.	MAX. GUST M/S	RAD MW
0300	6.5	-11.7	26	062	.6	013	1.9	2
0600	6.8	*****	26	057	.9	023	2.5	10
0900	9.3	-13.9	18	105	.9	119	4.4	49
1200	8.7	*****	17	090	.7	138	5.1	18
1500	8.0	-14.9	18	111	.5	215	4.4	13
1800	5.4	-4.8	48	264	1.5	249	5.1	4
2100	4.9	-11.0	31	085	.3	031	3.2	1
2400	4.6	-6.1	46	268	.5	270	2.5	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	4.5	*****	41	082	.5	070	2.5	1
0600	4.5	-7.7	41	225	.3	223	2.5	6
0900	5.0	-10.1	33	047	.2	156	3.2	22
1200	7.1	-11.7	25	174	1.2	157	3.8	49
1500	7.4	-11.0	26	200	1.3	180	3.2	30
1800	6.6	*****	27	159	1.5	152	3.2	11
2100	6.5	*****	24	182	.4	149	2.5	2
2400	5.4	*****	28	097	.9	068	2.5	2

DAY 30

HOUR NDNG	TEMP. DEG C	DEW POINT DEG C	RH %	WIND DIR. DEG.	WIND SPD. M/S	GUST DIR. DEG.	MAX. GUST M/S	RAD MW
0300	5.4	-12.2	27	049	.8	042	2.5	2
0600	5.1	-12.5	27	068	.3	156	3.2	13
0900	5.0	-10.5	32	215	.6	132	3.2	21
1200	5.7	-10.3	31	223	.8	162	2.5	29
1500	7.0	-13.3	22	186	1.6	162	3.8	31
1800	7.7	-13.9	20	201	1.6	179	3.8	12
2100	6.8	*****	27	219	.4	217	2.5	2
2400	5.5	*****	32	330	.6	013	3.2	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	5.2	*****	31	046	.4	035	3.2	1
0600	4.3	-9.3	37	025	.6	312	3.2	7
0900	5.4	-8.3	37	196	.4	351	3.2	16
1200	6.0	-8.8	34	173	.3	138	3.2	12
1500	6.6	*****	30	018	.6	011	3.2	13
1800	6.3	-10.6	29	144	2.0	161	6.3	5
2100	6.0	-10.8	29	059	1.6	036	7.6	1
2400	4.6	-9.7	35	073	1.5	120	3.8	1

R & M CONSULTANTS, INC.

SUSITNA HYDROELECTRIC PROJECT

MONTHLY SUMMARY FOR GLACIER WEATHER STATION
DATA TAKEN DURING July, 1981

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	7.2	.2	3.7	086	1.9	2.2	128	6.3	E	16	-21.6	2.0	7753	1
2	5.3	1.6	3.5	117	2.1	2.5	084	7.6	ESE	18	-19.7	0.0	5790	2
3	6.7	1.5	4.1	147	2.5	3.2	223	10.2	SE	16	-20.3	0.0	7943	3
4	8.5	1.8	5.2	078	.2	1.5	188	4.4	NE	14	-21.5	1.8	6805	4
5	2.9	.2	1.6	302	.8	1.7	251	6.3	W	43	-9.8	29.0	2778	5
6	8.2	.7	4.5	351	.6	1.4	320	7.6	NNE	28	-14.1	4.8	6445	6
7	4.8	.3	2.6	190	2.8	3.8	188	17.8	SSW	42	-9.3	7.8	1723	7
8	5.1	-.3	2.4	121	.5	1.2	173	5.7	SSE	41	-8.9	23.6	1343	8
9	5.4	3.5	4.5	218	.9	1.5	200	7.0	WSW	45	-6.5	27.6	1260	9
10	6.6	2.6	4.6	036	1.0	1.5	119	5.7	N	35	-10.1	45.2	1798	10
11	4.9	2.6	3.8	041	1.2	1.8	010	5.7	NNE	34	-10.8	35.4	2155	11
12	7.1	2.4	4.8	083	.1	1.5	099	3.8	SSW	29	-11.9	4.2	3395	12
13	7.2	4.8	6.0	063	.3	1.5	296	4.4	SSE	29	-11.4	1.6	2873	13
14	6.9	4.6	5.3	087	.6	1.5	122	5.1	ESE	30	-10.7	10.6	2140	14
15	8.8	4.7	6.8	029	.4	1.1	127	3.8	N	32	-9.4	15.8	2888	15
16	9.5	6.7	8.1	053	.5	1.3	184	3.8	NNE	31	-7.9	12.6	2790	16
17	10.9	6.6	8.8	108	.5	1.3	135	5.1	E	28	-10.1	13.0	3550	17
18	9.5	4.9	7.2	082	.2	1.4	198	7.6	ESE	29	-10.3	4.8	2933	18
19	7.5	4.7	6.1	117	.3	1.4	073	3.2	SSE	32	-10.1	11.8	2973	19
20	7.3	5.1	6.2	079	.2	1.2	036	4.4	NNE	34	-9.0	8.0	2645	20
21	11.0	4.8	7.9	195	.7	1.2	169	4.4	SSW	29	-10.2	1.4	4455	21
22	9.5	5.5	7.5	164	.4	1.2	028	4.4	S	28	-10.5	2.4	3515	22
23	10.4	5.3	7.9	140	.5	1.3	061	4.4	SE	27	-11.0	11.8	3700	23
24	10.3	6.0	8.2	064	.5	1.3	111	5.7	NNE	26	-11.2	2.6	2555	24
25	8.5	3.9	6.2	016	.4	1.2	012	5.1	NNE	31	-9.9	15.0	2603	25
26	7.6	3.6	5.6	182	.4	1.1	038	4.4	S	32	-10.3	4.4	3088	26
27	10.3	5.5	7.9	054	.1	1.2	347	4.4	N	21	-13.7	0.0	3813	27
28	10.3	4.6	7.5	083	.2	1.4	138	5.1	ESE	28	-11.2	1.4	2710	28
29	8.1	4.0	6.1	161	.6	1.3	157	3.8	SSE	31	-10.8	4.0	3770	29
30	9.0	4.3	6.7	202	.4	1.2	162	3.8	SSW	27	-12.2	.2	4043	30
31	6.9	4.3	5.6	085	.6	1.5	036	7.6	NE	32	-10.0	21.4	1820	31
MONTH	11.0	-.3	5.7	119	.4	1.6	188	17.8	NNE	30	-11.8	324.2	108046	

GUST VEL. AT MAX. GUST MINUS 2 INTERVALS 16.5
GUST VEL. AT MAX. GUST MINUS 1 INTERVAL 17.1
GUST VEL. AT MAX. GUST PLUS 1 INTERVAL 16.5
GUST VEL. AT MAX. GUST PLUS 2 INTERVALS 15.2

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

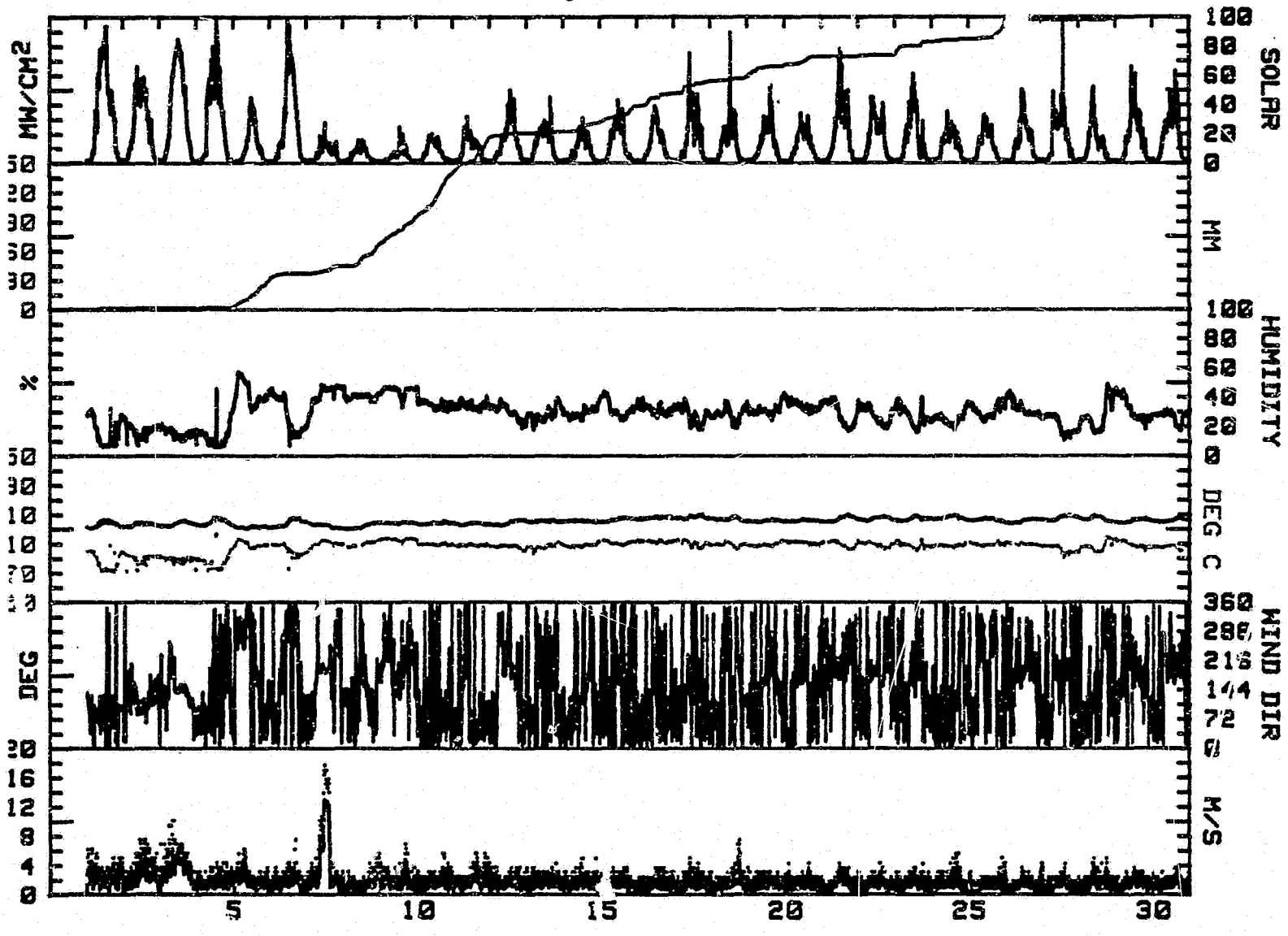
**** SEE NOTES AT THE BACK OF THIS REPORT ****

R&M CONSULTANTS, INC.

SUSITNA HYDROELECTRIC PROJECT

GLACIER WEATHER STATION

July, 1981



R & M CONSULTANTS, INC.

SUSITNA HYDROELECTRIC PROJECT

WIND FREQUENCY SUMMARY FOR GLACIER WEATHER STATION
DATA TAKEN DURING July, 1981

	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	1.38	6.22	.07	0.00	0.00	0.00	0.00	7.66
NNE	1.44	7.22	.37	0.00	0.00	0.00	0.00	9.04
NE	1.88	5.28	.30	0.00	0.00	0.00	0.00	7.46
ENE	1.71	3.97	.13	0.00	0.00	0.00	0.00	5.81
E	2.02	3.19	.71	0.00	0.00	0.00	0.00	5.91
ESE	2.22	5.01	1.14	0.00	0.00	0.00	0.00	8.37
SE	2.32	4.87	1.31	0.00	0.00	0.00	0.00	8.50
SSE	2.22	5.85	.77	0.00	0.00	0.00	0.00	8.84
S	1.48	5.91	.20	.07	.20	0.00	0.00	7.86
SSW	1.48	4.20	.34	.34	.27	0.00	0.00	6.62
SW	1.55	2.45	.20	0.00	0.00	0.00	0.00	4.20
WSW	1.11	1.78	.44	0.00	0.00	0.00	0.00	3.33
W	1.38	2.32	.17	0.00	0.00	0.00	0.00	3.86
WNW	1.11	2.02	0.00	0.00	0.00	0.00	0.00	3.13
NW	1.21	2.62	.03	0.00	0.00	0.00	0.00	3.86
NNW	1.58	3.23	0.00	0.00	0.00	0.00	0.00	4.81
CALM								.74
TOTAL	26.08	66.13	6.18	.40	.47	0.00	0.00	100.00

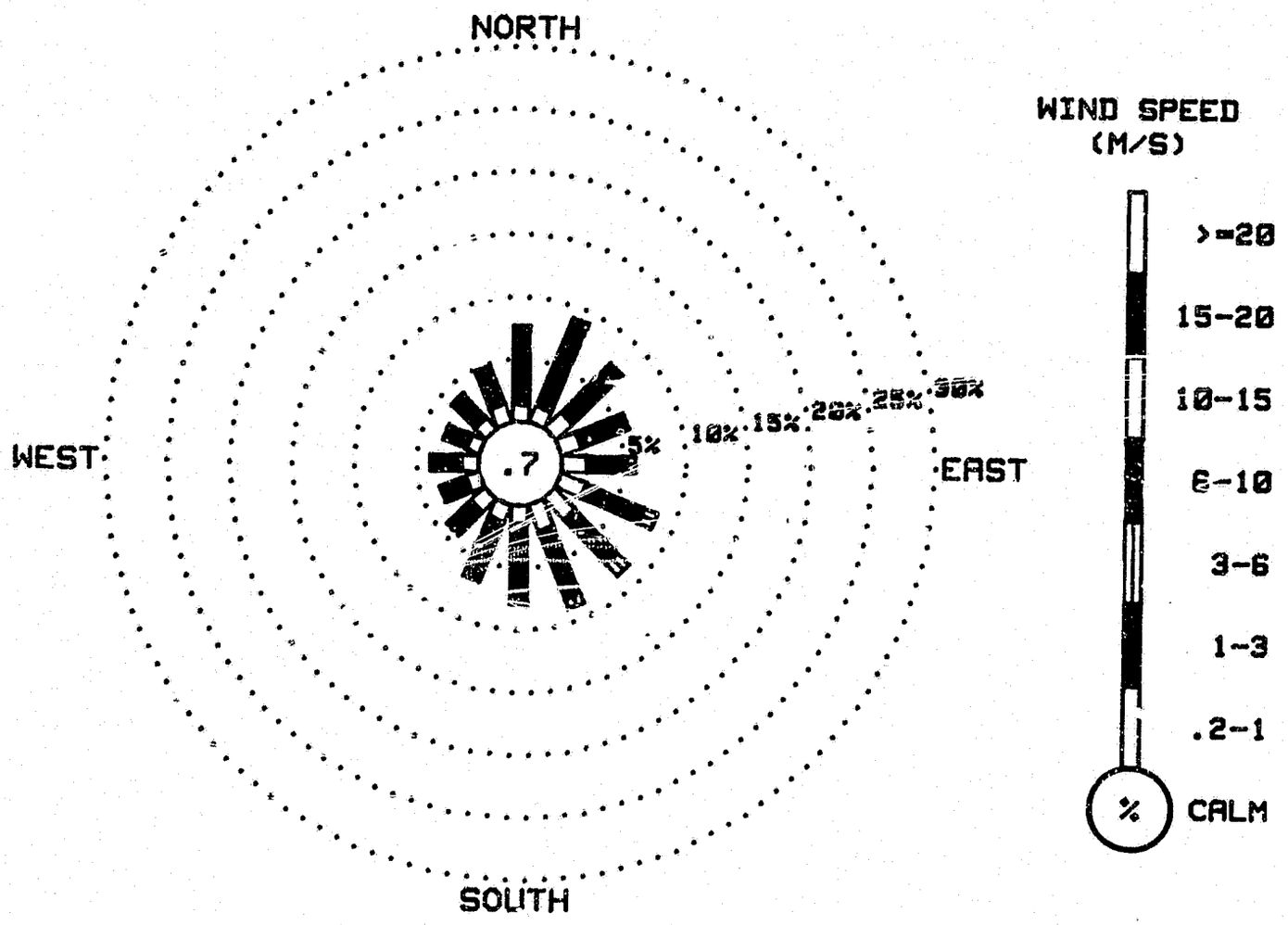
NOTE: ALL FREQUENCIES ARE EXPRESSED IN PERCENT
2976 VALID WIND OBSERVATIONS USED TO DEVELOP FREQUENCY SUMMARY

R&M CONSULTANTS, INC.

SUSITNA HYDROELECTRIC PROJECT

GLACIER WEATHER STATION

July, 1981



WIND ROSE PLOT

R & M CONSULTANTS, INC.

SUSITNA HYDROELECTRIC PROJECT

HOURLY PRECIPITATION SUMMARY FOR GLACIER WEATHER STATION
DATA TAKEN DURING August, 1981

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	2.4	2.2	2.0	1.0	.8	1.2	.8	.6	1.0	2.0	1.6	1.8	1.4	2.4	1.6	1.0	1.6	.4	.4	1.0	1.6	.4	1.4	1.2	1
2	.6	.2	0.0	0.0	0.0	0.0	.6	.2	.2	.2	.2	.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2
3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3
4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	****	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4
5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5
6	.2	.2	0.0	0.0	0.0	0.0	.2	0.0	.4	3.0	1.2	2.4	1.2	.4	0.0	.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	6
7	.6	1.0	1.0	1.4	1.0	2.0	2.6	1.0	.6	1.4	3.6	3.2	2.0	2.8	2.8	2.2	2.2	3.0	3.0	1.2	.4	0.0	0.0	.2	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	.2	.4	0.0	.2	.4	.8	1.0	1.4	0.0	.4	2.6	4.0	8
9	1.6	1.4	.6	1.6	.6	.4	.8	0.0	0.0	.2	.2	0.0	0.0	.8	2.8	3.2	1.0	.6	1.2	2.2	1.6	.2	1.6	2.6	9
10	1.2	.2	.4	.4	.2	.2	.6	.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	.8	1.0	1.0	.4	1.0	0.0	.4	3.0	.6	10
11	1.0	.2	.2	0.0	0.0	.2	.8	.6	0.0	0.0	0.0	.4	.2	0.0	1.8	1.0	1.8	0.0	.8	1.2	1.2	1.6	1.2	.6	11
12	.6	.6	.8	.4	1.2	.4	.8	1.4	1.6	.8	1.2	.8	1.4	2.0	2.4	1.4	1.2	1.0	.6	1.4	1.2	1.6	1.8	1.4	12
13	1.2	.8	.6	1.0	.2	.4	2.0	.8	.2	.6	.4	.8	0.0	0.0	0.0	1.0	.4	0.0	.4	.8	.6	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	.8	3.0	2.6	2.0	2.2	1.0	2.2	2.4	1.8	.6	.4	.2	14
15	.2	0.0	.2	0.0	0.0	0.0	.2	.4	.8	2.0	6.0	3.4	2.4	1.6	1.0	.6	.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	15
16	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	.2	0.0	0.0	0.0	0.0	0.0	.4	.8	.2	.2	0.0	0.0	0.0	0.0	0.0	16
17	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	.2	.2	.4	1.2	1.6	.8	.4	0.0	0.0	0.0	.2	0.0	0.0	0.0	17
18	0.0	0.0	.2	.2	.4	.2	.8	1.4	2.0	2.2	1.8	2.2	1.8	1.6	1.2	1.0	.4	0.0	.2	0.0	0.0	0.0	0.0	.6	18
19	0.0	.2	.4	.2	.2	.6	.2	0.0	0.0	0.0	.2	0.0	1.4	1.8	0.0	.2	1.4	1.0	2.4	4.6	.6	0.0	.2	.6	19
20	1.4	.8	.2	0.0	.4	.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	.2	0.0	1.0	1.4	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	1.6	.8	2.4	2.0	1.4	1.8	21
22	1.6	.2	.4	1.0	1.2	1.2	1.4	1.6	1.6	1.2	.4	.6	.2	.4	.2	.2	.2	0.0	0.0	.4	.2	0.0	.4	0.0	22
23	0.0	0.0	.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	23
24	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	24
25	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	25
26	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	26
27	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	27
28	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	28
29	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	29
30	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	.2	.8	1.0	.6	.4	.4	0.0	.2	0.0	30
31	.4	.2	0.0	0.0	0.0	.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	31

R & M CONSULTANTS, INC.

SUSITNA HYDROELECTRIC PROJECT

THREE HOUR SUMMARY FOR GLACIER WEATHER STATION
DATA TAKEN DURING August, 1981

DAY 01

HOUR NDNG	TEMP. DEG C	DEW POINT DEG C	RH %	WIND DIR. DEG.	WIND SPD. M/S	GUST DIR. DEG.	MAX. GUST M/S	RAD MW
0300	4.9	-9.1	36	087	1.0	045	5.1	1
0600	5.6	-7.7	38	067	1.1	034	3.8	3
0900	7.0	-9.5	30	103	1.1	149	5.1	8
1200	5.3	-8.0	38	097	.2	126	5.7	16
1500	7.3	-11.1	26	012	.3	048	4.4	12
1800	6.2	-11.1	28	067	1.5	049	5.1	4
2100	5.1	-11.2	30	026	1.8	007	3.8	1
2400	5.1	*****	29	032	1.3	104	4.4	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	4.8	*****	29	010	1.2	005	2.5	2
0600	4.9	*****	29	343	.3	316	2.5	6
0900	4.8	-11.5	30	170	.9	160	2.5	22
1200	5.2	-11.1	30	225	1.1	167	2.5	35
1500	7.6	-14.6	19	211	1.4	209	3.2	49
1800	6.8	-14.1	21	175	1.7	165	3.4	12
2100	5.7	*****	29	176	.5	236	2.5	2
2400	4.9	-12.2	28	087	1.1	115	5.7	2

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	5.4	*****	27	028	.3	295	3.2	2
0600	6.3	*****	20	051	1.1	041	4.4	11
0900	7.2	-17.8	15	338	.8	018	3.2	29
1200	8.6	-19.3	12	347	.5	122	7.6	53
1500	9.5	-18.6	12	148	4.0	140	7.6	51
1800	9.5	-26.4	6	123	1.0	077	7.6	18
2100	7.4	-24.9	8	065	2.5	084	8.9	0
2400	6.0	-27.4	7	048	2.0	084	8.9	0

DAY 04

HOUR NDNG	TEMP. DEG C	DEW POINT DEG C	RH %	WIND DIR. DEG.	WIND SPD. M/S	GUST DIR. DEG.	MAX. GUST M/S	RAD MW
0300	6.0	-27.4	7	056	1.6	079	5.7	0
0600	6.8	-26.8	7	075	1.7	040	5.1	4
0900	9.5	-26.4	6	076	.4	204	6.3	62
1200	11.4	-26.8	5	148	2.9	115	9.5	69
1500	11.1	-27.0	5	345	1.2	055	10.8	54
1800	11.5	-26.7	5	071	2.9	103	9.5	22
2100	8.6	-21.5	10	048	4.4	096	8.9	1
2400	7.7	*****	12	068	2.1	035	7.6	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	8.1	-19.7	12	057	1.6	084	5.1	1
0600	8.1	*****	10	009	1.1	064	3.2	10
0900	9.7	-18.5	12	174	1.3	142	5.1	34
1200	10.4	-19.0	11	141	3.0	145	8.9	39
1500	9.3	-18.8	12	127	4.5	119	13.3	19
1800	10.2	-21.5	9	084	2.8	091	8.9	7
2100	9.5	-20.8	10	086	2.8	092	8.9	0
2400	6.9	-15.8	18	109	3.5	150	8.3	1

DAY 06

HOUR NDNG	TEMP. DEG C	DEW POINT DEG C	RH %	WIND DIR. DEG.	WIND SPD. M/S	GUST DIR. DEG.	MAX. GUST M/S	RAD MW
0300	6.7	-14.2	21	087	1.9	113	5.7	1
0600	6.9	-14.6	20	177	1.6	141	8.3	4
0900	5.9	-14.8	21	126	4.4	130	14.0	6
1200	5.6	-12.5	26	084	2.2	121	10.2	10
1500	8.2	-15.5	17	062	2.0	099	6.3	12
1800	8.2	-15.5	17	088	2.2	098	7.0	7
2100	7.2	-16.3	17	081	3.3	085	7.0	1
2400	4.7	-10.4	33	120	1.7	092	5.1	1

DAY 07

HOUR NDNG	TEMP. DEG C	DEW POINT DEG C	RH %	WIND DIR. DEG.	WIND SPD. M/S	GUST DIR. DEG.	MAX. GUST M/S	RAD MW
0300	5.5	-11.7	28	055	1.3	094	5.7	2
0600	6.7	-12.5	24	050	1.6	077	6.3	3
0900	6.4	-11.4	27	061	2.1	089	6.3	9
1200	5.7	-10.7	30	074	1.9	082	5.7	8
1500	5.7	-10.3	31	349	1.2	002	3.8	8
1800	5.1	-9.6	34	064	1.7	062	5.1	2
2100	6.6	-11.2	27	033	1.8	031	5.7	2
2400	6.7	-9.4	31	048	.7	108	3.8	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	6.6	-9.5	31	220	.3	177	5.7	1
0600	8.3	-12.3	22	090	1.3	123	9.5	12
0900	8.5	-12.7	21	111	6.2	115	11.4	24
1200	7.9	-13.7	20	097	3.4	109	8.3	36
1500	6.6	-11.7	26	132	2.9	140	7.6	15
1800	6.0	-10.0	31	179	.7	109	4.4	6
2100	5.5	*****	31	072	.9	013	3.8	1
2400	2.1	-10.2	40	280	.5	259	5.1	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	3.3	-11.2	34	034	.9	074	3.2	2
0600	3.0	-10.8	36	047	1.2	109	3.2	3
0900	5.3	*****	30	103	.1	002	3.2	15
1200	6.2	-11.1	28	128	.8	129	4.4	22
1500	3.8	-9.0	39	156	1.5	149	8.9	10
1800	4.4	-11.8	30	050	1.5	029	5.1	4
2100	4.3	-12.3	29	046	1.7	053	5.7	1
2400	2.8	-11.7	34	035	.8	000	3.2	1

R & M CONSULTANTS, INC.

SUSITNA HYDROELECTRIC PROJECT

THREE HOUR SUMMARY FOR GLACIER WEATHER STATION
DATA TAKEN DURING August, 1981

DAY 10

HOUR NDNG	TEMP. DEG C	DEW POINT DEG C	RH %	WIND DIR. DEG.	WIND SPD. M/S	GUST DIR. DEG.	MAX. GUST M/S	RAD MW
0300	3.6	-11.0	34	044	1.2	038	3.8	1
0600	4.2	-11.6	31	039	1.2	018	3.2	6
0900	5.9	-11.4	28	049	1.0	026	3.8	31
1200	7.9	-14.4	19	147	3.1	147	5.7	41
1500	8.4	-15.3	17	140	3.5	125	6.3	26
1800	4.9	-11.8	29	115	1.5	128	12.1	4
2100	4.3	-12.3	29	048	1.2	024	5.1	1
2400	1.8	-8.7	46	254	.7	290	8.3	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	2.6	*****	34	023	1.0	008	2.5	1
0600	2.3	-10.4	39	005	1.0	022	3.2	7
0900	3.2	-9.9	38	353	1.1	287	3.8	20
1200	4.3	-12.7	28	132	1.3	146	3.8	30
1500	2.1	-10.5	39	143	1.8	133	10.2	8
1800	4.9	-12.7	27	156	.6	028	5.1	6
2100	3.5	-11.4	33	113	.8	143	5.1	1
2400	2.6	-11.8	34	015	.9	027	4.4	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	.9	*****	39	005	1.6	354	3.2	1
0600	1.4	-12.5	35	017	1.6	015	3.8	6
0900	1.9	-12.5	34	010	1.7	002	3.2	21
1200	2.4	-12.4	33	350	2.0	348	3.2	17
1500	2.5	-11.9	34	350	1.6	355	3.8	9
1800	4.2	-12.0	30	026	1.4	065	3.8	4
2100	2.6	-12.2	33	017	.8	098	3.8	2
2400	1.7	-12.3	35	015	1.7	015	3.2	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	1.7	-12.6	34	011	1.8	010	3.2	1
0600	.9	*****	39	006	1.0	009	2.5	6
0900	1.7	*****	34	342	.9	008	3.2	17
1200	2.8	-12.8	31	293	.8	242	2.5	30
1500	5.4	-15.2	21	218	.8	146	5.7	8
1800	2.6	-8.2	45	220	.7	248	10.2	3
2100	.3	*****	45	076	.4	184	7.0	1
2400	-.1	*****	44	106	.3	052	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	.1	*****	44	***	0.0	***	0.0	1
0600	.9	*****	32	122	.1	096	1.3	3
0900	2.1	-16.0	25	078	.9	033	3.8	23
1200	2.3	-16.8	23	019	1.2	023	4.4	31
1500	2.3	-14.9	27	023	1.1	007	3.8	20
1800	1.3	-12.6	35	044	1.0	162	5.7	6
2100	1.6	-12.7	34	118	4.7	131	10.2	1
2400	.4	-11.4	41	111	1.7	109	7.0	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	-.2	*****	44	111	.6	105	7.0	1
0600	.5	*****	42	***	0.0	281	.6	2
0900	2.2	-15.0	27	114	.6	172	2.5	6
1200	4.3	-19.0	18	092	2.0	070	8.3	30
1500	-.7	-15.5	32	252	1.4	273	5.1	19
1800	1.0	-15.6	28	025	1.1	087	5.1	12
2100	-1.9	*****	42	003	.5	037	2.5	1
2400	-2.3	*****	40	***	0.0	***	0.0	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	-2.5	*****	36	***	0.0	***	0.0	1
0600	-.2	*****	24	***	0.0	***	0.0	5
0900	1.4	-22.5	15	185	1.8	197	13.3	40
1200	-2.0	-17.8	29	215	1.5	162	11.4	29
1500	-1.5	-25.6	14	254	3.5	249	9.5	55
1800	.6	-28.8	9	081	.4	157	3.8	20
2100	-4.3	-23.4	21	066	1.5	057	4.4	1
2400	-3.6	-30.9	10	079	2.4	098	4.4	0

DAY 17

HOUR NDNG	TEMP. DEG C	DEW POINT DEG C	RH %	WIND DIR. DEG.	WIND SPD. M/S	GUST DIR. DEG.	MAX. GUST M/S	RAD MW
0300	-4.2	-30.4	11	061	2.2	052	5.7	0
0600	-2.1	-29.8	10	064	2.3	057	5.1	10
0900	3.4	-27.9	8	068	1.8	065	4.4	58
1200	2.3	-28.8	8	082	1.3	080	3.2	59
1500	3.7	-27.7	8	071	.8	132	3.2	33
1800	2.6	-28.5	8	064	1.5	080	4.4	10
2100	.2	-16.7	27	109	2.4	111	4.4	2
2400	.7	*****	29	028	1.2	017	2.5	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	1.1	-12.8	35	041	1.0	061	3.2	1
0600	2.4	-14.0	29	028	.9	016	2.5	9
0900	4.9	*****	13	062	.7	040	1.9	36
1200	8.9	*****	6	082	.7	126	2.5	55
1500	5.1	-28.1	7	068	.7	074	2.5	30
1800	4.4	*****	13	076	.7	081	1.3	11
2100	3.4	-16.4	22	062	1.1	090	2.5	2
2400	3.2	-15.0	25	055	1.0	030	3.2	2

R & M CONSULTANTS, INC.

SUSITNA HYDROELECTRIC PROJECT

THREE HOUR SUMMARY FOR GLACIER WEATHER STATION
DATA TAKEN DURING August, 1981

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	3.2	*****	28	042	1.0	042	2.5	1
0600	3.4	-14.0	27	033	1.1	031	2.5	13
0900	4.9	-17.5	18	044	1.0	037	2.5	30
1200	5.3	-20.1	14	036	1.1	034	2.5	37
1500	4.8	-16.9	19	055	1.9	078	4.4	16
1800	3.6	-14.2	26	049	1.8	081	4.4	7
2100	3.7	-12.8	29	054	1.7	076	8.3	1
2400	3.5	-14.8	25	085	1.9	085	7.6	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	3.3	-13.6	28	066	1.9	035	3.8	2
0600	4.3	-15.6	22	049	1.7	075	4.4	11
0900	7.8	*****	6	045	1.3	037	3.2	46
1200	5.9	-20.5	13	091	4.6	104	10.2	24
1500	7.9	-22.0	10	077	5.3	085	11.4	28
1800	8.5	-21.6	10	072	4.6	091	11.4	4
2100	6.0	-17.3	17	080	2.8	090	7.6	1
2400	4.1	-13.4	27	050	2.4	090	6.3	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	5.9	-22.5	11	080	3.5	080	6.3	1
0600	5.4	-22.9	11	099	3.2	092	5.7	4
0900	5.3	-20.1	14	035	2.7	011	7.6	19
1200	7.4	-22.4	10	147	2.0	144	8.3	40
1500	8.6	-21.5	10	136	4.8	136	15.2	45
1800	4.2	-11.6	31	140	5.4	210	15.2	3
2100	2.3	-10.4	39	195	1.8	190	9.5	1
2400	1.2	-12.4	36	036	1.9	057	5.1	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	.7	*****	41	039	.7	020	3.2	1
0600	1.1	-12.5	36	004	1.8	006	2.5	6
0900	2.2	-14.1	29	358	1.8	351	3.2	31
1200	2.9	*****	21	307	.8	332	1.9	38
1500	2.6	-13.8	29	304	.4	211	2.5	18
1800	2.9	*****	29	178	.6	031	1.9	10
2100	1.6	-12.4	35	359	.7	018	2.5	1
2400	1.6	*****	35	018	1.4	001	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	1.3	*****	34	035	.9	018	2.5	1
0600	1.9	*****	29	075	.7	069	2.5	8
0900	3.9	-15.4	23	306	.7	280	2.5	44
1200	4.6	-18.4	17	326	.7	252	3.2	31
1500	5.8	-17.4	17	183	.6	058	4.4	27
1800	5.7	*****	16	128	.5	171	3.8	7
2100	6.0	-19.6	14	061	1.1	084	4.4	1
2400	5.8	-19.7	14	071	1.3	072	3.8	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	5.3	*****	7	066	1.1	064	2.5	1
0600	5.1	-20.3	14	060	1.0	073	3.2	3
0900	7.1	-20.5	12	077	1.3	168	3.2	52
1200	8.7	-21.4	10	202	1.0	176	3.8	62
1500	10.4	-21.3	9	219	2.0	200	4.4	44
1800	10.5	*****	21	192	1.5	194	3.2	7
2100	8.6	*****	9	066	.9	077	3.2	1
2400	8.8	-21.3	10	063	.7	059	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	9.3	-20.9	10	055	.9	069	2.5	1
0600	9.2	-18.9	12	051	1.6	118	3.8	8
0900	11.4	*****	11	113	.7	119	2.5	26
1200	12.1	-16.6	12	182	1.4	179	3.2	26
1500	13.0	-16.9	11	208	1.3	199	3.8	25
1800	11.4	-14.4	15	220	1.2	225	3.2	4
2100	12.2	-12.9	16	075	1.1	056	3.2	1
2400	12.4	-14.4	14	063	1.5	051	3.2	1

DAY 26

HOUR NDNG	TEMP. DEG C	DEW POINT DEG C	RH %	WIND DIR. DEG.	WIND SPD. M/S	GUST DIR. DEG.	MAX. GUST M/S	RAD MW
0300	11.1	-17.4	12	064	1.5	048	3.8	1
0600	11.7	-15.0	14	062	1.5	047	4.4	3
0900	13.7	-17.6	10	068	.8	063	3.8	49
1200	15.0	-19.2	8	216	1.4	193	3.8	59
1500	16.8	-19.4	7	229	2.2	229	4.4	43
1800	17.0	*****	3	258	1.2	251	3.8	4
2100	14.9	-19.3	8	061	.9	044	3.2	1
2400	12.8	*****	10	083	1.0	084	2.5	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	11.1	-18.4	11	055	1.6	057	3.8	1
0600	10.6	*****	9	049	1.1	055	4.4	3
0900	13.2	*****	8	080	.6	080	2.5	45
1200	17.2	-19.1	7	155	3.1	145	5.7	61
1500	17.2	-20.8	6	236	1.3	136	6.3	50
1800	14.4	*****	8	003	1.0	021	3.8	6
2100	13.8	-20.1	8	082	1.0	049	3.2	1
2400	12.7	-22.4	7	075	1.5	071	3.2	1

R & M CONSULTANTS, INC.

SUSITNA HYDROELECTRIC PROJECT

THREE HOUR SUMMARY FOR GLACIER WEATHER STATION
DATA TAKEN DURING August, 1981

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	13.1	-22.1	7	053	1.2	071	3.2	0
0600	11.9	-20.2	9	081	1.0	126	3.2	4
0900	13.7	-20.2	8	051	.7	067	2.5	47
1200	14.5	-19.6	8	177	2.6	153	5.7	58
1500	12.7	-20.9	8	194	2.1	152	5.7	40
1800	12.9	-27.7	4	286	1.6	250	5.1	6
2100	10.7	-21.1	9	341	.4	241	1.9	0
2400	9.8	*****	5	044	.7	038	1.9	0

DAY 29

HOUR NDNG	TEMP. DEG C	DEW POINT DEG C	RH %	WIND DIR. DEG.	WIND SPD. M/S	GUST DIR. DEG.	MAX. GUST M/S	RAD MW
0300	9.2	-26.6	6	069	1.0	002	2.5	0
0600	8.5	*****	6	079	1.0	079	1.9	3
0900	10.0	-27.8	5	114	.4	115	2.5	47
1200	11.9	-26.4	5	194	2.1	197	4.4	57
1500	12.8	-27.8	4	184	2.4	167	5.1	39
1800	13.8	*****	4	221	1.4	232	3.8	6
2100	8.5	-21.6	10	048	.6	073	3.8	0
2400	6.4	-8.9	33	043	.6	323	3.8	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	6.2	*****	31	112	.2	006	2.5	1
0600	6.0	*****	28	097	.0	146	1.9	7
0900	7.7	-13.3	21	003	.6	020	3.2	35
1200	7.7	-13.3	21	154	.5	122	5.1	52
1500	8.4	-13.9	19	217	.5	155	3.8	15
1800	6.8	*****	28	060	.4	180	2.5	2
2100	5.2	-5.8	45	328	.4	284	3.2	1
2400	4.6	*****	48	264	1.0	300	2.5	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	4.3	-7.0	44	202	.8	218	3.2	1
0600	3.4	-27.9	8	264	1.2	284	9.5	3
0900	5.1	-28.1	7	304	4.9	315	12.1	47
1200	6.8	6.0	95	260	2.4	307	11.4	58
1500	7.7	-27.7	6	141	5.0	145	8.3	38
1800	7.3	-28.0	6	139	3.7	113	7.6	6
2100	4.3	-28.7	7	099	1.7	108	5.7	0
2400	3.8	-23.1	12	021	1.5	021	3.2	0

R & M CONSULTANTS, INC.

SUSITNA HYDROELECTRIC PROJECT

MONTHLY SUMMARY FOR GLACIER WEATHER STATION
DATA TAKEN DURING August, 1981

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	7.7	4.5	6.1	059	.9	1.5	126	5.7	NNE	32	-10.1	31.8	1388	1
2	8.4	4.3	6.4	179	.4	1.3	115	5.7	SSE	28	-12.1	2.4	3580	2
3	10.3	4.5	7.4	085	.9	2.3	084	8.9	NNE	16	-19.5	0.0	5690	3
4	12.8	5.2	9.0	069	1.7	2.9	055	10.8	NE	9	-25.1	0.0	6308	4
5	10.4	6.9	8.7	108	2.1	2.8	119	13.3	E	11	-20.1	0.0	3100	5
6	8.8	4.6	6.7	101	2.1	2.8	130	14.0	E	20	-14.8	9.4	1530	6
7	7.2	4.3	5.8	050	1.4	1.8	077	6.3	NNE	29	-11.1	39.2	960	7
8	9.2	2.0	5.6	112	1.7	2.8	115	11.4	ESE	29	-10.9	11.4	2425	8
9	7.7	2.0	4.9	066	.8	1.7	149	8.9	NNE	33	-11.2	25.2	1943	9
10	9.5	1.8	5.7	110	1.0	2.3	128	12.1	SSE	30	-11.9	11.6	3075	10
11	7.3	1.5	4.4	078	.5	1.7	133	10.2	NNE	34	-11.4	14.8	2625	11
12	4.5	.6	2.6	007	1.5	1.7	015	3.8	N	34	-12.0	28.0	1870	12
13	6.0	-.2	2.9	343	.3	1.5	248	10.2	N	38	-11.6	12.2	2470	13
14	3.2	-.7	1.3	088	1.0	1.6	131	10.2	ESE	33	-14.6	19.2	2258	14
15	4.8	-2.5	1.2	078	.3	1.0	070	8.3	ESE	35	-15.6	19.0	1745	15
16	4.0	-4.7	-.4	187	.4	2.0	197	13.3	ENE	23	-22.7	1.8	4075	16
17	14.3	-4.2	5.1	071	1.6	1.8	052	5.7	ENE	15	-25.5	5.8	5303	17
18	8.9	.5	4.7	058	.8	1.0	061	3.2	NE	18	-17.9	18.2	4548	18
19	6.3	1.7	4.0	053	1.4	1.7	076	8.3	NNE	23	-15.8	16.2	3150	19
20	8.5	2.6	5.6	072	3.0	3.3	085	11.4	E	17	-18.8	5.6	3240	20
21	8.6	.9	4.8	113	2.3	3.5	136	15.2	E	19	-18.7	10.0	2968	21
22	5.2	.5	2.9	000	.8	1.2	020	3.2	N	32	-12.9	14.6	2965	22
23	6.8	1.1	4.0	055	.4	1.3	058	4.4	ENE	21	-17.5	.2	3820	23
24	11.8	5.0	8.4	128	.4	1.4	200	4.4	ENE	11	-20.7	0.0	5050	24
25	14.1	8.1	11.1	109	.5	1.4	118	3.8	NE	12	-17.4	0.0	3478	25
26	17.7	11.1	14.4	112	.2	1.5	047	4.4	ENE	9	-18.1	0.0	4855	26
27	17.4	10.0	13.7	093	.7	1.7	136	6.3	ENE	9	-19.8	0.0	4795	27
28	15.5	9.4	12.5	158	.3	1.6	153	5.7	NE	8	-20.8	0.0	4788	28
29	14.6	6.4	10.5	161	.6	1.5	167	5.1	E	10	-24.0	0.0	4580	29
30	8.8	4.6	6.7	288	.1	1.2	122	5.1	N	29	-11.0	3.6	2578	30
31	8.5	2.5	5.5	182	.5	3.2	315	12.1	SE	19	-21.9	.8	4648	31
MONTH	17.7	-4.7	6.2	084	.8	1.9	136	15.2	ENE	22	-16.6	300.2	105803	

GUST VEL. AT MAX. GUST MINUS 2 INTERVALS 6.3
GUST VEL. AT MAX. GUST MINUS 1 INTERVAL 6.3
GUST VEL. AT MAX. GUST PLUS 1 INTERVAL 10.8
GUST VEL. AT MAX. GUST PLUS 2 INTERVALS 15.2

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

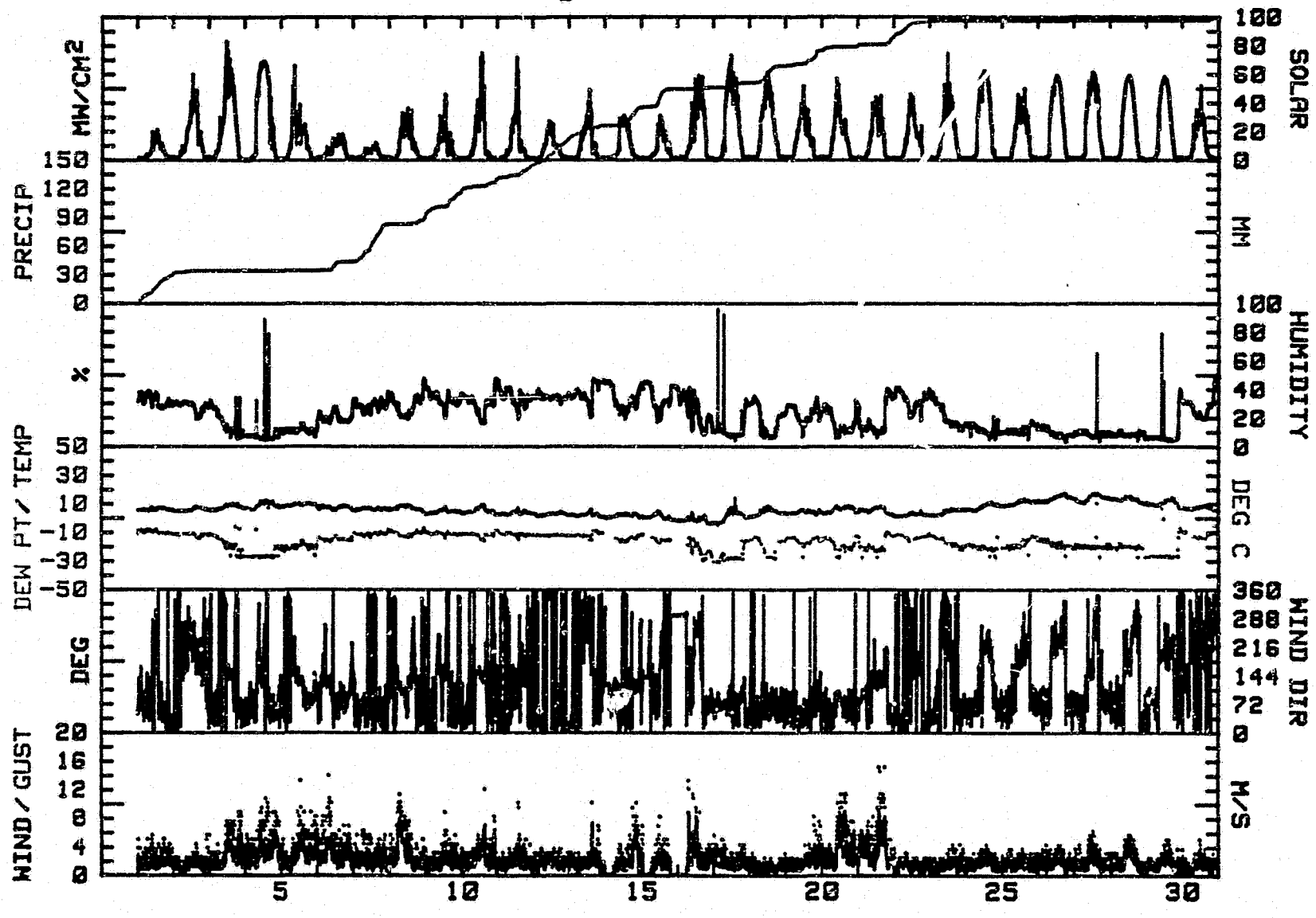
**** SEE NOTES AT THE BACK OF THIS REPORT ****

R&M CONSULTANTS, INC.

SUSITNA HYDROELECTRIC PROJECT

GLACIER WEATHER STATION

August, 1981



R & M CONSULTANTS, INC.

SUSITNA HYDROELECTRIC PROJECT

WIND FREQUENCY SUMMARY FOR GLACIER WEATHER STATION
DATA TAKEN DURING August, 1981

	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	1.31	7.12	.17	0.00	0.00	0.00	0.00	8.60
NNE	1.75	9.07	.60	.03	0.00	0.00	0.00	11.46
NE	2.86	7.22	.94	.03	0.00	0.00	0.00	11.06
ENE	2.39	8.53	1.21	.10	0.00	0.00	0.00	12.23
E	2.08	5.75	2.45	.30	0.00	0.00	0.00	10.58
ESE	1.38	3.56	2.25	.24	0.00	0.00	0.00	7.43
SE	.84	2.69	3.13	.44	0.00	0.00	0.00	7.09
SSE	.60	2.96	1.85	.03	0.00	0.00	0.00	5.44
S	.44	2.15	.24	.07	0.00	0.00	0.00	2.89
SSW	.54	2.86	.30	.10	0.00	0.00	0.00	3.80
SW	.40	2.86	.13	0.00	0.00	0.00	0.00	3.39
WSW	.57	1.68	.30	.13	0.00	0.00	0.00	2.69
W	.57	1.18	.30	0.00	0.00	0.00	0.00	2.05
WNW	.57	1.68	.20	.07	0.00	0.00	0.00	2.52
NW	.44	1.14	.20	.17	0.00	0.00	0.00	1.95
NNW	.77	2.62	.07	0.00	0.00	0.00	0.00	3.46
CALM								3.36
TOTAL	17.51	63.07	14.35	1.71	0.00	0.00	0.00	100.00

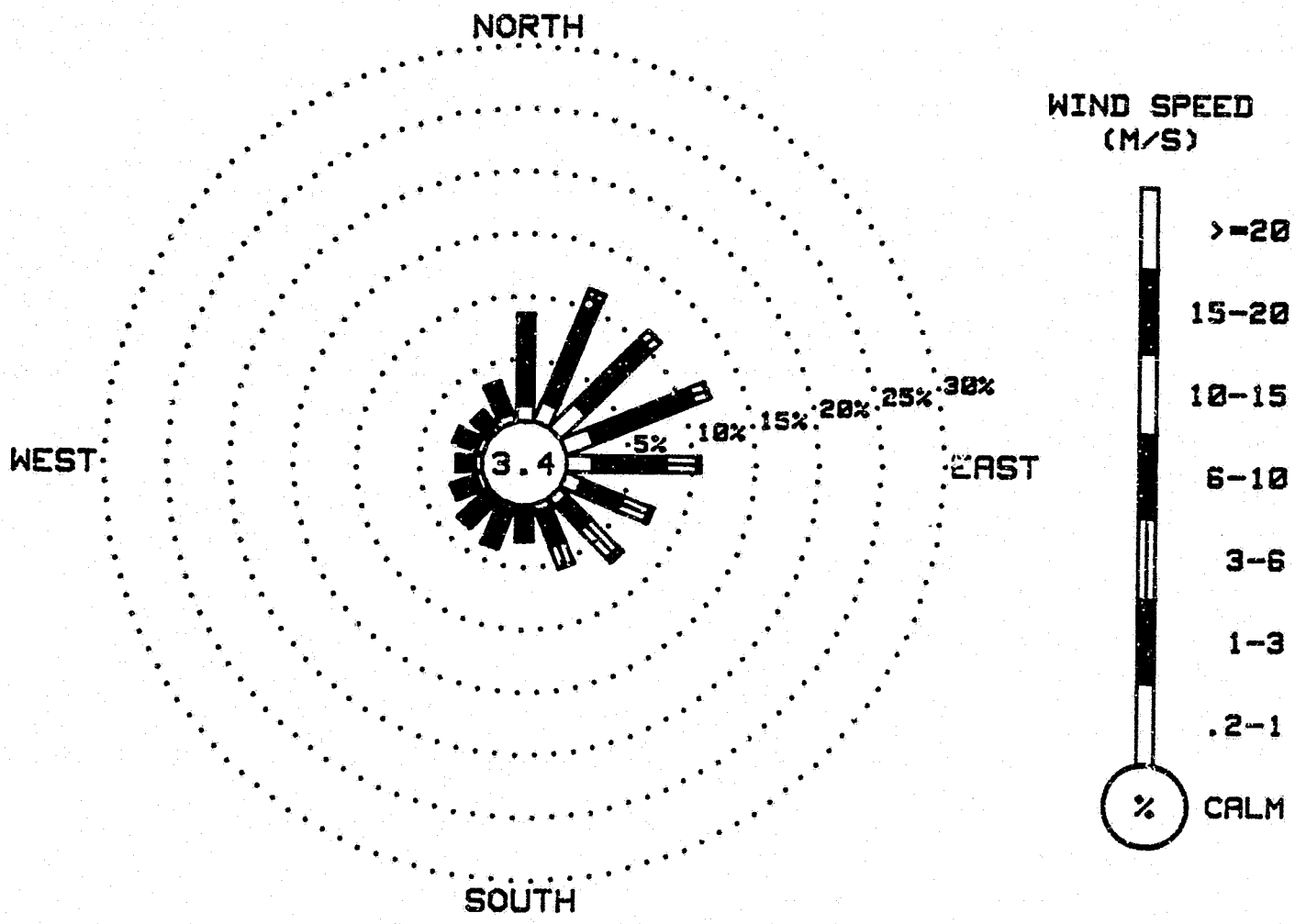
NOTE: ALL FREQUENCIES ARE EXPRESSED IN PERCENT
2976 VALID WIND OBSERVATIONS USED TO DEVELOP FREQUENCY SUMMARY

R&M CONSULTANTS, INC.

SUSITNA HYDROELECTRIC PROJECT

GLACIER WEATHER STATION

August, 1981



WIND ROSE PLOT

R & M CONSULTANTS, INC.

SUSITNA HYDROELECTRIC PROJECT

HOURLY PRECIPITATION SUMMARY FOR GLACIER WEATHER STATION
DATA TAKEN DURING September, 1981

PRECIPITATION VALUES ARE IN MILLIMETERS

HOUR ENDING

DATE	0100	0200	0300	0400	0500	0600	0700	0800	0900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	2400	DATE
1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1
2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2
3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3
4	0.0	.2	.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4
5	0.0	0.0	0.0	0.0	0.0	.4	.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	.2	0.0	1.0	.2	0.0	0.0	0.0	5
6	0.0	0.0	.2	.2	.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	.2	.2	0.0	.2	.2	0.0	0.0	0.0	0.0	.8	6
7	.4	.4	.2	0.0	0.0	0.0	0.0	.2	2.0	1.8	1.2	.8	1.0	.2	0.0	.2	1.0	.6	.2	.4	.2	.4	0.0	.6	7
8	.2	.2	.2	0.0	.2	0.0	0.0	.6	1.4	.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	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	.4	9
10	.2	.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	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	.2	.2	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	.2	0.0	5.4	3.4	.6	.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	12
13	.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	.2	.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	13
14	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	14
15	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.2	2.4	2.8	2.0	2.4	1.4	1.2	.4	.2	.2	0.0	0.0	0.0	15
16	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	.6	2.2	.8	.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	.2	0.0	0.0	0.0	16
17	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	17
18	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	.2	.2	0.0	0.0	18
19	0.0	0.0	.6	.6	.8	1.0	.2	1.0	1.8	1.6	1.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	.2	.2	0.0	0.0	0.0	19
20	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	.2	4.2	.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	20
21	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	.2	.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	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	.2	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	.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	26
27	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	27
28	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	28
29	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	29
30	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	30

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DAY 01

HOUR NDNG	TEMP. DEG C	DEW POINT DEG C	RH %	WIND DIR. DEG.	WIND SPD. M/S	GUST DIR. DEG.	MAX. GUST M/S	RAD MW
0300	2.8	*****	12	042	1.2	042	3.2	1
0600	2.5	*****	12	042	1.6	032	3.2	3
0900	4.9	-24.3	10	044	1.0	079	5.7	45
1200	8.5	2.8	67	151	2.1	124	5.7	57
1500	8.4	-27.2	6	168	2.7	171	5.7	33
1800	8.8	-26.9	6	181	1.8	155	4.4	6
2100	6.0	-27.4	7	094	.3	200	2.5	0
2400	5.5	-27.8	7	056	1.1	062	3.8	0

DAY 02

HOUR NDNG	TEMP. DEG C	DEW POINT DEG C	RH %	WIND DIR. DEG.	WIND SPD. M/S	GUST DIR. DEG.	MAX. GUST M/S	RAD MW
0300	4.4	-24.7	10	037	1.0	046	3.2	1
0600	3.3	*****	14	020	1.0	350	2.5	7
0900	4.5	-21.6	13	098	.2	131	2.5	27
1200	6.0	-20.4	13	280	1.0	301	4.4	24
1500	6.6	-21.9	11	217	1.7	217	3.8	19
1800	4.9	-12.7	27	292	1.4	234	4.4	2
2100	4.2	*****	29	017	.3	337	2.5	1
2400	4.0	-12.2	30	060	.5	128	2.5	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	3.2	*****	34	269	.5	222	2.5	1
0600	3.4	*****	32	043	.4	119	1.9	3
0900	4.1	*****	31	182	.9	184	2.5	18
1200	5.9	-16.7	18	223	.9	171	3.8	30
1500	5.3	-16.5	19	213	1.1	184	3.8	16
1800	5.3	-16.5	19	147	.3	141	3.8	3
2100	4.6	*****	20	036	.2	356	1.9	2
2400	5.1	*****	20	083	.6	107	1.9	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	3.7	-13.7	27	075	.8	135	4.4	2
0600	4.2	-17.4	19	068	.7	096	3.2	7
0900	3.7	-16.7	21	223	.4	110	4.4	27
1200	4.9	-16.2	20	218	1.2	266	2.5	29
1500	4.7	-17.7	18	231	1.0	210	2.5	19
1800	4.2	*****	20	211	.6	203	2.5	3
2100	3.4	*****	27	131	.1	126	1.3	1
2400	3.8	-15.0	24	078	.9	117	3.2	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	3.8	-15.5	23	061	1.1	105	3.2	2
0600	3.4	-15.4	24	052	.8	062	2.5	4
0900	5.1	-14.4	23	056	.9	046	3.8	12
1200	7.1	-17.9	15	058	.7	047	3.8	30
1500	6.5	-16.8	17	212	.9	170	3.8	31
1800	5.7	-16.2	19	117	.5	092	5.7	3
2100	4.0	-15.9	22	072	1.2	098	8.3	2
2400	3.8	-16.0	22	094	2.2	081	6.3	1

DAY 06

HOUR NDNG	TEMP. DEG C	DEW POINT DEG C	RH %	WIND DIR. DEG.	WIND SPD. M/S	GUST DIR. DEG.	MAX. GUST M/S	RAD MW
0300	4.0	-15.4	23	080	1.1	106	4.4	2
0600	4.6	-15.9	21	057	1.4	054	3.8	5
0900	6.2	-16.4	18	101	.4	128	2.5	36
1200	8.5	*****	12	120	.3	143	3.8	28
1500	5.6	-15.7	20	132	3.3	112	9.5	17
1800	4.2	-15.2	23	271	.5	063	5.1	2
2100	.9	-9.8	45	193	1.4	215	14.6	1
2400	2.2	-14.1	29	050	1.1	064	2.5	2

DAY 07

HOUR NDNG	TEMP. DEG C	DEW POINT DEG C	RH %	WIND DIR. DEG.	WIND SPD. M/S	GUST DIR. DEG.	MAX. GUST M/S	RAD MW
0300	2.6	-16.0	24	070	1.4	090	3.2	2
0600	1.8	-18.8	20	071	1.9	059	4.4	4
0900	3.4	-23.4	12	075	1.5	068	3.2	39
1200	4.1	-20.3	15	112	1.3	109	3.2	31
1500	3.2	*****	25	244	.6	120	2.5	15
1800	1.3	-12.6	35	331	1.1	009	3.2	2
2100	.8	*****	39	349	.6	345	1.3	1
2400	1.3	-11.6	38	001	.9	001	2.5	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	1.9	-14.4	29	054	1.0	021	2.5	2
0600	1.0	*****	38	011	.6	345	1.9	2
0900	2.4	-14.0	29	056	.5	170	2.5	26
1200	5.3	-17.2	18	184	2.2	183	4.4	54
1500	6.2	-19.4	14	176	2.4	161	5.1	33
1800	4.3	*****	13	208	1.6	186	4.4	2
2100	4.0	-20.4	15	078	2.3	080	6.3	1
2400	3.4	-19.4	17	057	1.6	065	5.1	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	2.9	*****	15	069	1.1	068	4.4	1
0600	3.8	-20.5	15	050	1.8	060	4.4	5
0900	5.3	-21.0	13	048	.2	121	3.2	39
1200	6.2	-15.2	20	254	.6	273	5.7	35
1500	5.7	-16.2	19	120	1.5	168	5.1	15
1800	4.3	-15.6	22	114	2.0	132	5.1	2
2100	2.7	-12.9	31	014	1.0	312	3.8	1
2400	2.3	*****	33	044	.9	021	3.2	2

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DAY 10

HOUR NDNG	TEMP. DEG C	DEW POINT DEG C	RH %	WIND DIR. DEG.	WIND SPD. M/S	GUST DIR. DEG.	MAX. GUST M/S	RAD MW
0300	3.7	-14.2	26	054	1.5	082	4.4	2
0600	2.6	-14.6	27	079	2.2	101	5.1	7
0900	2.8	-15.4	25	128	1.1	149	7.6	22
1200	4.1	-15.3	23	254	.8	229	3.8	43
1500	3.5	-15.3	24	220	1.6	254	3.8	17
1800	2.6	*****	29	210	1.1	177	3.2	3
2100	2.3	-14.1	29	020	.8	100	3.2	2
2400	1.4	-15.3	28	027	1.0	354	3.2	2

DAY 11

HOUR NDNG	TEMP. DEG C	DEW POINT DEG C	RH %	WIND DIR. DEG.	WIND SPD. M/S	GUST DIR. DEG.	MAX. GUST M/S	RAD MW
0300	1.1	-15.1	29	034	1.2	107	3.8	2
0600	.6	-15.5	29	048	.9	006	2.5	4
0900	2.4	-16.2	24	016	.5	047	2.5	19
1200	3.4	-16.4	22	220	1.1	180	2.5	23
1500	2.6	-13.8	29	158	1.5	136	3.8	10
1800	1.2	-13.8	32	087	.7	125	3.2	2
2100	.7	-12.8	36	021	.5	025	3.2	1
2400	-.1	-12.2	40	210	.2	268	5.7	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	-.2	*****	39	071	.9	021	3.8	1
0600	.2	-15.5	30	104	.6	055	3.2	2
0900	3.0	-17.8	20	074	1.1	110	2.5	10
1200	4.4	-20.[illegible]	14	109	2.0	108	6.3	35
1500	4.3	-18.[illegible]	18	121	3.0	113	7.0	13
1800	2.9	-15.3	2[illegible]	[illegible]	3.2	112	7.0	2
2100	3.0	-14.3	[illegible]	056	2.8	106	7.6	1
2400	1.8	-14.[illegible]	[illegible]	[illegible]76	1.3	130	5.7	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	2.2	-15.0	27	106	3.5	111	7.0	1
0600	1.9	-14.8	28	097	3.6	103	7.0	3
0900	.2	-16.3	28	150	.9	123	6.3	21
1200	1.5	-16.0	26	108	.1	005	3.2	27
1500	1.7	-16.8	24	011	.4	178	3.8	24
1800	2.0	-16.1	25	005	.8	005	3.2	2
2100	1.1	-15.1	29	100	1.7	102	4.4	1
2400	.9	-16.6	26	053	1.8	057	3.8	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	2.1	-16.5	24	055	1.4	046	2.5	1
0600	3.3	-15.4	24	071	1.9	060	6.3	3
0900	5.0	*****	21	050	1.7	073	5.7	32
1200	5.7	-16.2	19	328	.5	347	3.8	52
1500	4.7	-15.8	21	333	1.6	349	7.0	15
1800	3.4	-16.4	22	056	.7	245	7.0	2
2100	3.1	-14.2	27	083	2.2	075	5.7	1
2400	.3	*****	33	090	1.6	109	5.1	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	1.0	*****	33	107	.5	176	2.5	1
0600	.9	-13.3	34	031	.5	007	2.5	2
0900	1.4	*****	29	329	.3	008	2.5	5
1200	3.2	-17.1	21	012	1.0	042	6.3	17
1500	4.5	-17.2	19	121	.7	214	5.1	17
1800	2.7	-14.6	27	115	2.4	155	7.0	1
2100	.9	-14.5	31	142	1.0	157	7.6	1
2400	1.0	-14.4	31	095	.8	133	3.2	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	-.1	-14.6	33	082	1.0	039	3.8	2
0600	-.4	*****	37	083	.3	240	5.1	2
0900	3.2	*****	8	084	1.0	105	3.2	11
1200	4.1	*****	20	087	.3	154	2.5	30
1500	3.5	-17.4	20	111	2.8	128	8.9	20
1800	2.7	-15.5	25	096	4.1	113	7.0	1
2100	2.6	-14.6	27	095	4.4	105	8.9	1
2400	1.8	-15.3	27	083	4.2	087	9.5	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	1.5	-15.6	27	093	4.1	104	7.6	1
0600	.9	-15.7	28	088	2.9	110	7.6	4
0900	2.0	-18.1	21	063	1.9	045	4.4	30
1200	5.8	-17.4	17	130	2.3	141	5.1	48
1500	7.0	-16.4	17	070	1.3	133	6.3	25
1800	3.4	-17.5	20	062	1.0	037	7.6	2
2100	2.9	-16.8	22	066	3.1	091	10.8	1
2400	2.7	-15.5	25	055	1.6	065	11.4	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	3.4	-14.0	27	047	2.3	072	7.0	1
0600	2.7	-14.6	27	029	1.4	017	4.4	2
0900	2.9	-15.3	25	072	1.0	040	4.4	21
1200	3.4	-15.4	24	127	.8	132	4.4	40
1500	4.5	-16.0	21	190	.9	222	5.1	21
1800	2.6	*****	27	122	.9	138	5.1	2
2100	3.2	-13.7	28	040	1.4	033	4.4	1
2400	5.1	-13.4	25	061	1.1	005	3.2	1

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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	4.1	-12.9	28	059	1.2	088	6.3	1
0600	2.1	-13.8	30	011	1.6	085	4.4	2
0900	1.3	-13.7	32	041	1.4	040	5.1	4
1200	1.8	-14.5	29	086	2.2	103	6.3	21
1500	2.3	-14.5	28	027	.6	056	5.7	11
1800	1.7	-14.6	29	356	1.0	350	3.8	1
2100	.5	*****	35	063	.8	009	3.2	1
2400	-.4	*****	40	162	.4	115	1.9	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	-.4	*****	39	096	.1	246	1.3	1
0600	-.3	*****	34	098	.2	035	1.9	2
0900	.4	*****	29	281	.2	336	1.3	7
1200	1.2	-15.4	28	273	.5	229	1.9	26
1500	.9	*****	27	238	1.1	251	3.2	13
1800	.1	*****	31	217	.5	265	2.5	1
2100	.2	*****	30	052	1.3	032	3.8	1
2400	-1.1	-16.2	31	054	.8	076	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	-.9	-17.7	27	060	.8	076	2.5	1
0600	-1.2	*****	25	078	.5	070	1.9	4
0900	.7	*****	23	096	.2	011	1.9	21
1200	.2	-18.6	23	175	.6	093	3.8	24
1500	.1	-18.7	23	264	.7	160	3.8	14
1800	-1.2	-19.3	24	075	.4	197	3.8	2
2100	-1.9	*****	24	002	1.2	010	3.2	2
2400	-2.5	-20.4	24	018	1.2	032	3.2	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	-3.2	*****	24	344	.8	332	3.2	2
0600	-4.9	-19.9	30	017	.8	319	3.8	3
0900	-3.5	-19.9	27	345	1.2	284	3.2	22
1200	-1.4	-19.9	23	234	.8	203	3.8	54
1500	.4	-20.0	20	233	1.8	235	4.4	25
1800	-2.5	*****	24	211	.8	264	4.4	2
2100	-2.6	*****	23	068	1.2	050	3.2	1
2400	-2.0	*****	22	072	1.1	068	3.2	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	-2.2	-20.6	23	050	.9	037	2.5	1
0600	-4.6	-17.5	36	032	.6	301	3.2	2
0900	-2.1	-20.5	23	032	.4	082	3.8	22
1200	-1.5	*****	22	091	.6	119	3.2	13
1500	-1.6	-19.6	24	060	.4	005	2.5	7
1800	-3.0	*****	34	071	.9	056	3.2	
2100	-2.3	*****	36	016	1.0	013	3.2	1
2400	-2.3	-15.2	37	246	.7	224	4.4	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	-3.2	-16.6	35	037	.3	131	4.4	1
0600	-4.2	-17.9	34	327	1.1	346	5.7	2
0900	-4.0	-21.7	24	048	2.0	047	7.6	12
1200	-3.9	-22.6	22	020	1.8	058	8.3	35
1500	-5.0	-22.5	24	315	1.7	276	6.3	13
1800	-6.3	*****	29	009	1.2	085	4.4	2
2100	-6.8	-23.2	26	088	1.9	092	8.3	2
2400	-5.3	-24.2	21	108	2.1	088	8.9	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	-6.0	-24.3	22	165	1.4	219	6.3	1
0600	-5.3	-23.7	22	115	2.0	149	4.5	3
0900	-2.6	-23.1	19	124	2.2	111	5.1	34
1200	-3.0	-24.6	17	130	2.6	123	7.0	24
1500	-3.8	-25.3	17	131	2.1	134	5.1	19
1800	-6.2	-31.9	11	095	1.6	107	5.1	1
2100	-7.5	-27.2	19	059	1.1	073	3.2	1
2400	-7.1	-26.8	19	057	2.1	061	5.1	1

DAY 26

HOUR NDNG	TEMP. DEG C	DEW POINT DEG C	RH %	WIND DIR. DEG.	WIND SPD. M/S	GUST DIR. DEG.	MAX. GUST M/S	RAD MW
0300	-7.7	-27.3	19	063	2.2	055	4.4	1
0600	-8.3	-29.7	16	055	1.9	066	5.1	2
0900	-6.5	-27.5	17	056	1.8	058	3.8	31
1200	-5.1	-25.8	18	040	1.7	041	3.2	43
1500	-3.8	*****	17	028	1.0	061	2.5	20
1800	-8.9	-28.9	18	022	1.1	022	2.5	1
2100	-9.5	-29.4	18	053	1.4	053	3.2	1
2400	-8.3	-28.4	18	069	1.6	048	3.2	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	-9.0	-29.0	18	072	1.8	046	3.8	1
0600	-9.2	-30.4	16	064	1.4	039	3.2	2
0900	-8.2	-27.8	19	054	1.1	036	3.2	32
1200	-5.7	-28.2	15	152	.8	148	3.2	48
1500	-4.6	*****	15	166	.6	211	1.9	21
1800	-8.4	-29.7	16	064	.9	055	2.5	1
2100	-7.9	*****	16	044	1.5	045	3.8	1
2400	-7.5	-29.0	16	048	1.2	014	3.2	1

R & M CONSULTANTS, INC.

SUSITNA HYDROELECTRIC PROJECT

THREE HOUR SUMMARY FOR GLACIER WEATHER STATION
DATA TAKEN DURING September, 1981

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	-7.5	-27.7	18	033	1.1	025	3.2	1
0600	-7.6	-27.8	18	026	1.7	021	3.8	2
0900	-5.8	*****	17	067	1.3	039	3.8	26
1200	-5.4	-26.6	17	089	1.6	118	7.0	39
1500	-6.3	-27.4	17	032	2.2	096	5.7	19
1800	-9.5	-30.6	16	034	2.1	037	3.8	1
2100	-8.9	-30.8	15	030	1.5	063	4.4	1
2400	-7.0	-28.6	16	056	1.5	058	4.4	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	-8.2	-29.6	16	050	1.5	034	5.1	1
0600	-5.1	-26.4	17	044	2.1	046	5.1	2
0900	-4.9	*****	17	017	1.7	030	6.3	24
1200	-3.6	-25.8	16	089	.9	072	5.1	42
1500	1.8	-24.7	12	118	.8	013	3.8	15
1800	- 8	-21.6	19	096	1.4	085	4.4	1
2100	-8.0	-26.5	21	051	1.3	027	4.4	1
2400	-7.0	-26.8	19	065	2.2	095	8.3	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	-2.9	-22.8	20	076	1.5	106	3.8	1
0600	-1.9	-21.9	20	062	1.8	033	5.1	2
0900	-1.5	-21.6	20	056	1.3	042	5.1	28
1200	-1.6	-22.3	19	133	1.7	134	8.3	29
1500	1.5	-23.2	14	135	1.5	074	4.4	19
1800	-5.1	-24.1	21	049	.7	336	8.9	1
2100	-4.0	-24.3	19	138	1.3	244	10.8	1
2400	-4.6	-23.7	21	124	2.8	110	6.3	1

R & M CONSULTANTS, INC.

SUSITNA HYDROELECTRIC PROJECT

MONTHLY SUMMARY FOR GLACIER WEATHER STATION
DATA TAKEN DURING September, 1981

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	10.0	2.1	6.1	118	.8	1.7	079	5.7	NE	11	-24.8	0.0	4500	1
2	8.8	3.0	5.9	314	.3	1.3	301	4.4	N	17	-20.5	0.0	3018	2
3	7.2	3.0	5.1	194	.3	1.1	171	3.8	SSW	24	-14.7	0.0	2758	3
4	5.4	3.3	4.4	170	.2	1.2	135	4.4	ESE	21	-16.4	.4	2828	4
5	7.4	3.4	5.4	080	.8	1.5	098	8.3	E	20	-16.1	2.0	2428	5
6	8.5	.1	4.3	111	.7	1.8	215	14.6	ENE	25	-14.8	2.2	2805	6
7	5.6	.5	3.1	056	.7	1.3	059	4.4	ENE	25	-17.1	11.8	2823	7
8	6.8	-.1	3.4	127	.7	1.8	080	6.3	S	23	-17.3	3.0	3915	8
9	6.8	2.0	4.4	075	.8	1.7	273	5.7	NE	20	-17.3	.4	2985	9
10	5.4	1.4	3.4	092	.3	1.7	149	7.6	SW	26	-14.9	.4	2968	10
11	4.0	-.5	1.8	084	.3	1.3	268	5.7	N	29	-14.8	.4	2173	11
12	7.2	-.5	3.4	097	1.8	2.1	106	7.6	ESE	28	-15.5	9.8	2525	12
13	3.2	.2	1.7	092	1.4	2.2	111	7.0	E	27	-15.6	.6	2375	13
14	6.8	.3	3.6	056	1.2	1.9	349	7.0	NE	23	-16.0	0.0	3363	14
15	5.4	-.1	2.7	099	.6	1.5	157	7.6	N	29	-15.2	15.2	1418	15
16	4.1	-.8	1.7	093	2.3	2.6	087	9.5	E	26	-15.9	4.2	1925	16
17	7.0	.7	3.9	082	2.1	2.9	065	11.4	E	22	-16.8	0.0	3610	17
18	7.0	1.4	4.2	067	.9	1.9	072	7.0	NE	25	-15.0	.4	2740	18
19	5.3	-.4	2.5	049	.9	1.6	088	6.3	NNE	30	-14.0	9.4	1430	19
20	3.7	-1.1	1.3	012	.0	.8	032	3.8	NE	32	-15.7	5.2	1890	20
21	1.3	-2.6	-.7	033	.3	1.2	093	3.8	NNE	24	-18.8	.6	2063	21
22	1.0	-5.0	-2.0	330	.2	1.4	235	4.4	NNW	24	-20.6	0.0	2825	22
23	-.5	-4.7	-2.6	046	.5	1.2	224	4.4	N	29	-18.6	.2	1323	23
24	-2.5	-7.2	-4.9	038	.9	2.4	088	8.9	E	27	-21.3	0.0	1848	24
25	-.9	-7.7	-4.3	113	1.6	2.1	125	7.0	ESE	19	-25.3	0.0	2670	25
26	-1.7	-9.6	-5.7	051	1.5	1.6	066	5.1	NE	18	-27.8	.2	2975	26
27	-3.5	-9.6	-6.6	068	1.0	1.4	046	3.8	NE	17	-28.7	0.0	2883	27
28	-1.3	-9.6	-5.5	044	1.5	1.9	118	7.0	NNE	17	-28.4	0.0	2608	28
29	3.1	-8.9	-2.9	059	1.3	1.9	095	8.3	NE	17	-26.1	0.0	2425	29
30	1.6	-6.7	-2.6	103	1.3	2.3	244	10.8	SSE	19	-23.0	0.0	2768	30
MONTH	10.0	-9.6	1.1	079	.8	1.7	215	14.6	NE	23	-18.9	66.4	78858	

GUST VEL. AT MAX. GUST MINUS 2 INTERVALS	3.8
GUST VEL. AT MAX. GUST MINUS 1 INTERVAL	3.2
GUST VEL. AT MAX. GUST PLUS 1 INTERVAL	10.8
GUST VEL. AT MAX. GUST PLUS 2 INTERVALS	5.7

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

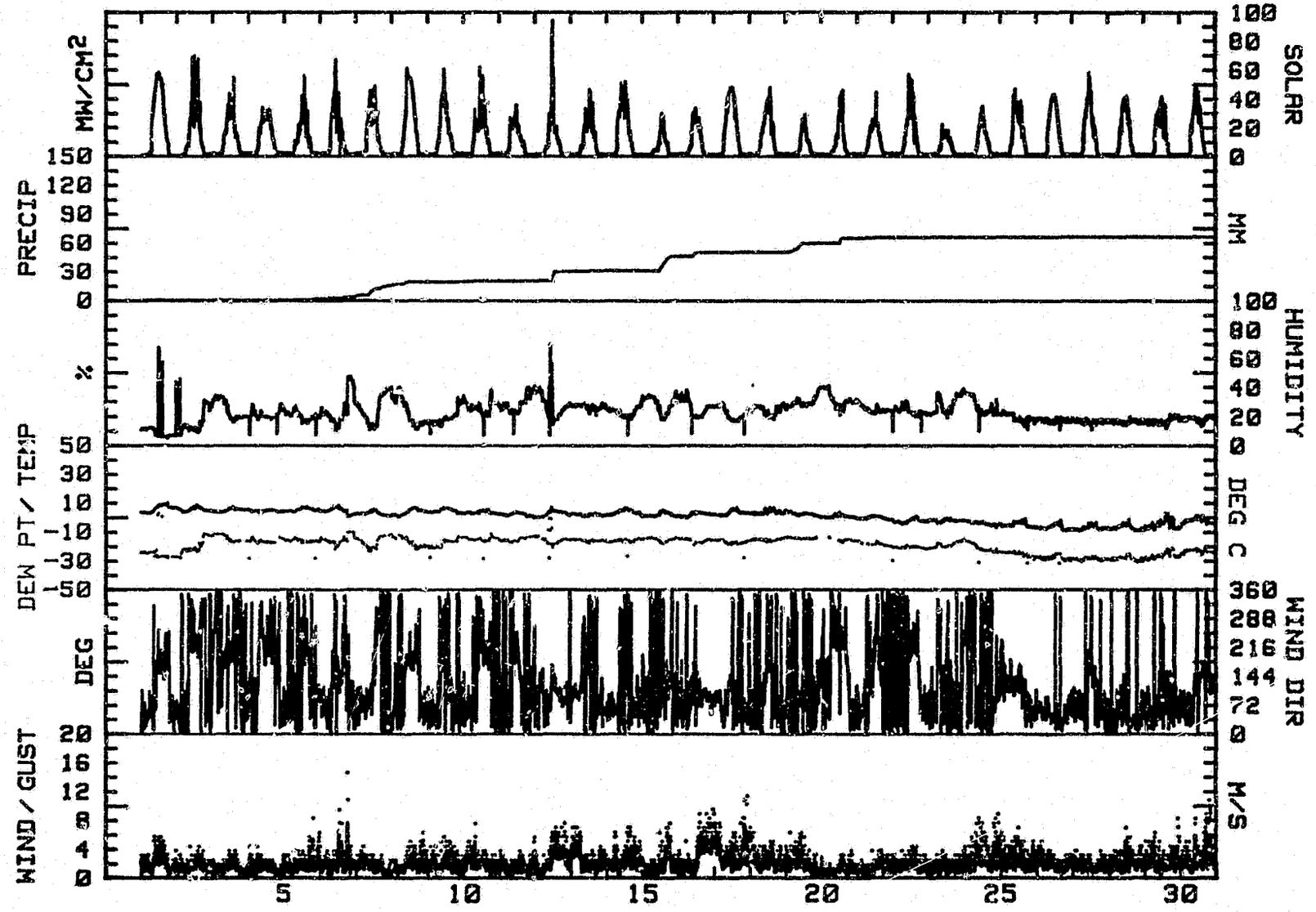
**** SEE NOTES AT THE BACK OF THIS REPORT ****

R&M CONSULTANTS, INC.

SUSITNA HYDROELECTRIC PROJECT

GLACIER WEATHER STATION

September, 1981



R & M CONSULTANTS, INC.

SUSITNA HYDROELECTRIC PROJECT

WIND FREQUENCY SUMMARY FOR GLACIER WEATHER STATION
DATA TAKEN DURING September, 1981

	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	2.22	5.76	.17	0.00	0.00	0.00	.03	8.19
NNE	2.08	7.57	.42	0.00	0.00	0.00	0.00	10.07
NE	2.71	9.76	.42	0.00	0.00	0.00	0.00	12.88
ENE	1.94	7.43	1.28	0.00	0.00	0.00	0.00	10.66
E	2.43	6.53	2.67	.07	0.00	0.00	0.00	11.70
ESE	2.01	5.80	2.67	.03	0.00	0.00	0.00	10.52
SE	1.18	3.26	1.67	0.00	0.00	0.00	0.00	6.11
SSE	1.28	2.26	.80	0.00	0.00	0.00	0.00	4.34
S	.83	3.06	.31	0.00	0.00	0.00	0.00	4.20
SSW	.69	2.85	.03	0.00	0.00	0.00	0.00	3.58
SW	.59	2.40	.24	.07	0.00	0.00	0.00	3.30
WSW	.49	1.74	.10	0.00	0.00	0.00	0.00	2.33
W	.59	1.67	.03	0.00	0.00	0.00	0.00	2.29
WNW	.69	1.32	0.00	0.00	0.00	0.00	0.00	2.01
NW	.76	1.77	.03	0.00	0.00	0.00	0.00	2.57
NNW	1.53	2.95	.17	0.00	0.00	0.00	0.00	4.65
CALM								.59
TOTAL	22.05	66.11	11.04	.17	0.00	0.00	.03	100.00

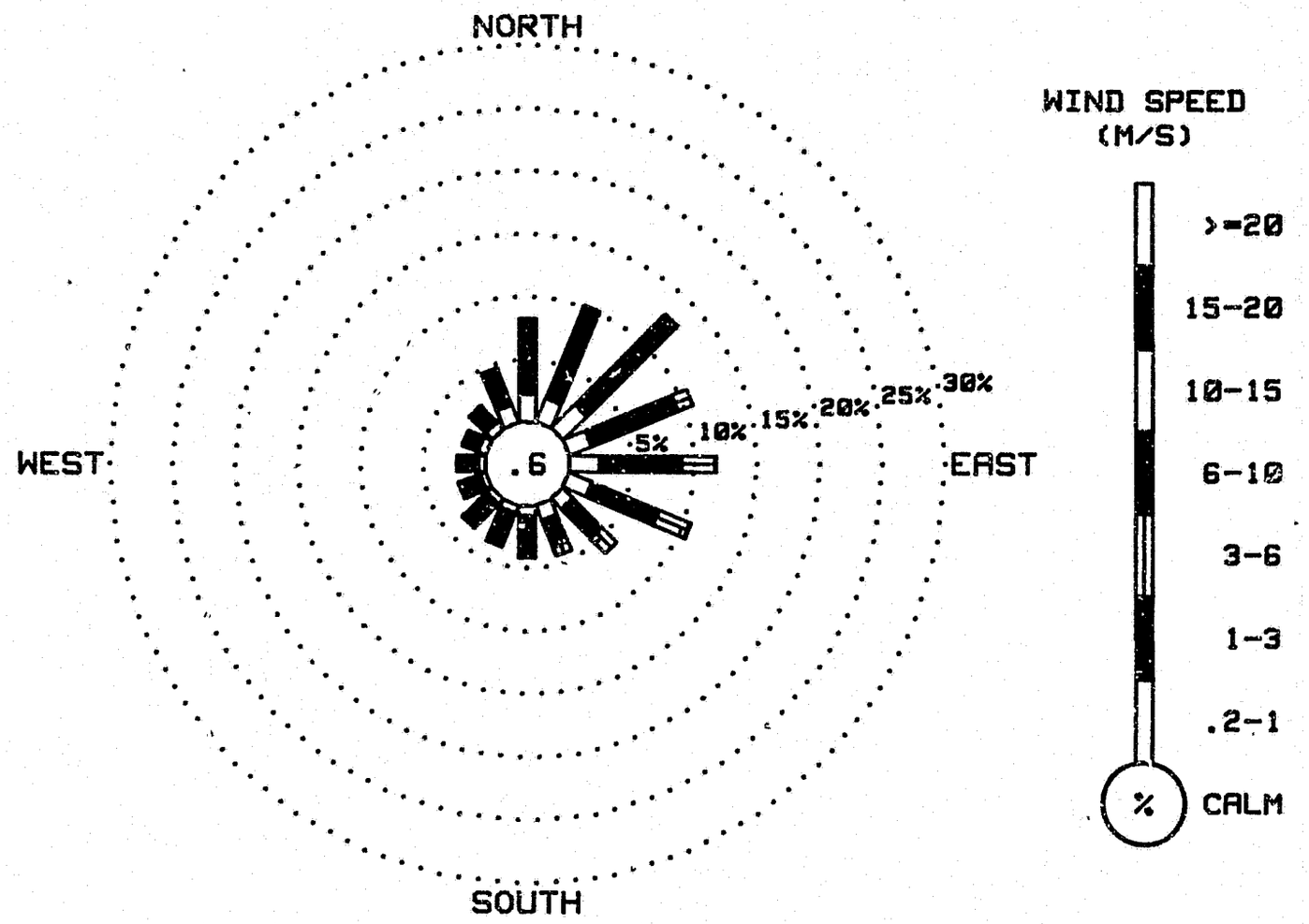
NOTE: ALL FREQUENCIES ARE EXPRESSED IN PERCENT
2880 VALID WIND OBSERVATIONS USED TO DEVELOP FREQUENCY SUMMARY

R&M CONSULTANTS, INC.

SUSITNA HYDROELECTRIC PROJECT

GLACIER WEATHER STATION

September, 1981



WIND ROSE PLOT

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R & M CONSULTANTS, INC.

CLIMATE DATA SUMMARIES
DOCUMENTATION

****

A. GRAPHICAL DATA PLOT

1. GRAPHICAL REPRESENTATION OF VALID RECORDED AND/OR COMPUTED DATA.

B. HOURLY PRECIPITATION SUMMARY TABLE

1. HOURLY PRECIPITATION VALUES ARE CALCULATED AS THE DIFFERENCE BETWEEN VALID CONSEQUTIVE HOURLY READINGS. WHEN EITHER OF THE HOURLY PRECIP-ITATION READINGS IS INVALID, NO VALUE IS REPORTED AND ZERO PRECIP-ITATION IS ASSUMED.
2. A NON-AUTOMATIC ROLL-OVER TO ZERO, AS WHEN THE TAPE IS CHANGED, MUST BE FLAGGED WITH A NEGATIVE ONE (-1) AS THE PRECIPITATION VALUE.

C. 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 VALI 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 ARITHMETICALLY MEANED FROM ALL VALID READINGS.
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) WHEN THE WIND SPEED IS LESS THAN 1 m/s, WHEN THE DEWPOINT CALCULATES TO A VALUE GREATER THAN THE RECORDED TEMPERATURE, WHEN OR THE DEWPOINT CALCULATES TO LESS THAN MINUS 47 DEGREES OR MORE THAN 27 DEGREES, THE DEWPOINT IS NOT USED.
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.

D. 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 1m/s, WHEN THE DEWPOINT IS CALCULATED TO A VALUE GREATER THAN THE RECORDED TEMPERATURE, OR WHEN THE DEWPOINT CALCULATES TO LESS THAN MINUS 47 DEGRESS 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 PRECEDING THREE-HOUR PERIOD.
7. THE GUST REPORTED IS THE MAXIMUM RECORDED DURING THE THREE-HOUR PERIOD.
8. THE RADIATION REPORTED IS THE SOLAR RADIATION INTENSITY RECORDED AT THE SPECIFIED TIME.

E. WIND FREQUENCY SUMMARY TABLE

1. REPORTED DATA ARE DETERMINED FROM ALL VALID READINGS.

F. WIND ROSE GRAPHICAL PLOT

1. PLOT IS A GRAPHICAL REPRESENTATION OF THE WIND FREQUENCY SUMMARY TABLE.

G. GENERAL NOTES

1. THE FIRST DAY OF EACH MONTH MUST HAVE THE PRECEDING DAY'S LAST READING, AT 2400 HOURS, INSERTED AS THE FIRST READING OF THE FIRST DAY OF THE MONTH, AT 0000 HOURS, PRIOR TO RUNNING THE SUMMARY. THIS PROVIDES AN INITIAL VALUE FOR PRECIPITATION SUMMARY TABLE.
2. FLAGGED DATA IS NOT USED. WHEN AN ENTIRE LINE IS FLAGGED, NO DATA IN THAT LINE IS USED.
3. BAD DATA CAN BE USER-FLAGGED AS BEING BAD DATA BY REPLACING THE RAW DATA WITH THE VALUE '999'.
4. MISSING DATA IS ASSUMED TO BE BAD DATA.
5. IF A DATA LINE IS SHIFTED OVER AT ANY POINT, THE ENTIRE LINE WILL BE TREATED AS BAD DATA.
6. THE FOLLOWING ARE THE VALID DATA RANGES; DATA OUTSIDE THESE RANGES ARE NOT USED:

TIME	:	0000 through 2400 - at specified time intervals.
TEMP	:	-50 through +35
WIND	:	0 through 99.9 and less than or equal to GUST
DIR	:	0 through 360
RH	:	0 through 99
PRCP	:	0 through 99.8 & greater than last PRCP except in the case of an automatic roll-over. The difference between PRCPs cannot exceed 30mm. A '-1' implies a manual re-start.
SOL	:	0 through 150
GUST	:	0 through 99.9
BATT	:	9 through 14.5

7. 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