

J A E R I - M  
86-050

東海研究所気象観測年報(1983年)

1986年3月

小畠 一一・藪田 肇<sup>\*</sup>・山口 武憲  
片桐 浩・国分 守信

日本原子力研究所  
Japan Atomic Energy Research Institute

東海研究所気象観測年報（1983年）

日本原子力研究所東海研究所保健物理部

小畠一<sup>+</sup>・ 藤田 肇<sup>\*</sup>・ 山口武憲

片桐 浩・国分守信

(1986年2月12日受理)

本報告は、東海研究所で行っている気象観測の結果について統計処理したものである。1983年1月から12月までの各月における風向、風速、気温、日射、放射収支および降水量についての統計結果を示す。

---

東海研究所：茨城県那珂郡東海村白方白根

+ むつ事業所 定係港建設部

\* 科学技術庁出向中

Report of Meteorological Observations at the Site  
of Tokai Research Establishment in 1983

Kazuichi OBATA<sup>+</sup>, Hajimu YABUTA\*, Takenori YAMAGUCHI  
Hiroshi KATAGIRI and Morinobu KOKUBU

Department of Health Physics,  
Tokai Research Establishment  
Japan Atomic Energy Research Institute  
Tokai-mura, Naka-gun, Ibaraki-ken

(Received February 12, 1986)

Results of meteorological observations such as wind speeds, wind directions, solar and net radiations, air temperatures at the site of Tokai Research Establishment in 1983 are summarized in the form of meteorological statistics in this report.

Hourly data (mean of 10 minutes of each hour) are used for the statistical calculation to obtain daily means of all observation items, monthly frequency distribution of wind speeds, atmospheric stabilities by wind directions and hourly means of wind speed in a month etc..

Keywords: Annual Report, Wind Direction, Wind Speed, Meteorological Observation, Meteorological Statistics, Atmospheric Stability, Tokai-Site

---

+ Mutsu Establishment

\* Science and Technology Agency of Japan

## 目 次

1. まえがき .....	1
2. 測 器 .....	1
3. データ整理方法および統計項目の定義 .....	2
4. 統計結果 .....	4
4.1 年間統計結果 .....	4
4.2 月間統計結果 .....	10

## Contents

1. Introduction .....	1
2. Measuring Instruments .....	1
3. Methods of Data Arrangement and Definition of Statistical Items .....	2
4. Results of Statistics .....	4
4.1 Results of Yearly Statistics .....	4
4.2 Results of Monthly Statistics .....	10

## 1. まえがき

東海研究所では構内の気象観測塔（地上 40 m），露場などにおいて気象観測を行っている。これらの観測結果は記録紙上に連続記録されるとともに，環境放射線監視装置により 10 分毎に収集され，磁気テープに記録される。本年報では，1983 年 1 月から 12 月までの各正時の観測値について統計処理したものをまとめた。

統計項目と統計結果は以下のとおりである。

(1) 年間統計項目

- a. 観測要素の月別欠測回数 (Table 4. 1 - 1)
- b. 年間風向出現頻度 (Table 4. 1 - 2, Fig. 4. 1 - 1)
- c. 月間平均（静穏，風速，日射，放射収支，気温，湿度）および総量（降水量）(Table 4. 1 - 3, Fig. 4. 1 - 2 ~ 5)
- d. 大気安定度年間出現頻度 (Table 4. 1 - 4, Fig. 4. 1 - 6)
- e. 極値 (Table 4. 1 - 5)

(2) 月間統計項目

- a. 日・月平均（気温，湿度，日射，放射収支，風速）および日・月総量（降水量）(Table 4. 2 - x A)  
\*注
- b. 月間風向出現頻度 (Table 4. 2 - x B)
- c. 時刻別平均および標準偏差（風速，気温，湿度，気温減率，大気安定度比，日射，放射収支 (Table 4. 2 - x C)
- d. 月間風向別大気安定度出現頻度 (Table 4. 2 - x D)
- e. 月間風速階級別風向出現頻度 (Table 4. 2 - x E)

## 2. 測 器

- |            |  |
|------------|--|
| (1) 風向・風速  | プロペラ型風向風速計                                 |
| (2) 気温・気温差 | 白金抵抗温度計                                    |
| (3) 日 射    | 差温熱電堆式日射計                                  |
| (4) 放射収支   | 通風式風防型示差放射計                                |
| (5) 降水量    | 転倒ます型雨量計                                   |
| (6) 湿 度    | Dewcel 露点計で得られた露点温度と 1.5 m 高の気温から計算により求めた。 |

---

注) x は月（1月～12月）に対応する。

## 1. まえがき

東海研究所では構内の気象観測塔（地上 40 m），露場などにおいて気象観測を行っている。これらの観測結果は記録紙上に連続記録されるとともに，環境放射線監視装置により 10 分毎に収集され，磁気テープに記録される。本年報では，1983 年 1 月から 12 月までの各正時の観測値について統計処理したものをまとめた。

統計項目と統計結果は以下のとおりである。

(1) 年間統計項目

- a. 観測要素の月別欠測回数 (Table 4. 1 - 1)
- b. 年間風向出現頻度 (Table 4. 1 - 2, Fig. 4. 1 - 1)
- c. 月間平均（静穏，風速，日射，放射収支，気温，湿度）および総量（降水量）(Table 4. 1 - 3, Fig. 4. 1 - 2 ~ 5)
- d. 大気安定度年間出現頻度 (Table 4. 1 - 4, Fig. 4. 1 - 6)
- e. 極値 (Table 4. 1 - 5)

(2) 月間統計項目

- a. 日・月平均（気温，湿度，日射，放射収支，風速）および日・月総量（降水量）(Table 4. 2 - x A)  
\*注
- b. 月間風向出現頻度 (Table 4. 2 - x B)
- c. 時刻別平均および標準偏差（風速，気温，湿度，気温減率，大気安定度比，日射，放射収支 (Table 4. 2 - x C)
- d. 月間風向別大気安定度出現頻度 (Table 4. 2 - x D)
- e. 月間風速階級別風向出現頻度 (Table 4. 2 - x E)

## 2. 測 器

- |            |  |
|------------|--|
| (1) 風向・風速  | プロペラ型風向風速計                                 |
| (2) 気温・気温差 | 白金抵抗温度計                                    |
| (3) 日 射    | 差温熱電堆式日射計                                  |
| (4) 放射収支   | 通風式風防型示差放射計                                |
| (5) 降水量    | 転倒ます型雨量計                                   |
| (6) 湿 度    | Dewcel 露点計で得られた露点温度と 1.5 m 高の気温から計算により求めた。 |

---

注) x は月（1月～12月）に対応する。

### 3. データ整理方法および統計項目の定義

#### (1) データ整理方法

環境放射線監視装置により自動収集された 10 分毎の観測データを Table 3.1 に示す方法で磁気テープに再編集し、統計処理に使用した。

#### (2) 統計項目の定義等

各統計項目の定義等を Table 3.2 および Table 3.3 に示す。

Table 3.1 Methods of data arrangements

Items	Units	Data arrangement methods
Wind Direction	16 directions	
Wind Speed	m/s	
Solar Radiation	kw/m <sup>2</sup>	
Net Radiation	"	
Air Temperature	°C	
Air Temperature Gradient	"	
Dew-point Temperature	"	
Precipitation	mm	One hour accumulated value before every hour

Table 3.2 Definitions of statistical items

Items	Definitions	Units
Calm	Wind Speed $\leq 0.4 \text{ m/s}$	—
Air Temperature	1.5 m above the ground	°C
Temperature Lapse Rate	Air Temp. (40m) - Air Temp. (1.5m) $\times 100$	°C/100m
Stability	See Table 3.3	—
Stability Ratio	Temperature Lapse Rate / [Wind Speed (10m)] <sup>2</sup>	°C/100m•(m/s) <sup>2</sup>
Solar Radiation	Jan. ~ Mar., Sep. ~ Dec. ---- 8 ~ 16 o'clock Apr., May, Jul., Aug. ---- 7 ~ 17 o'clock Jun. ----- 7 ~ 18 o'clock	kw/m <sup>2</sup>
Net Radiation	Jan. ~ Mar., Sep. ~ Dec. ---- 17 ~ 7 o'clock Apr., May, Jul., Aug. ---- 18 ~ 6 o'clock Jun. ----- 19 ~ 6 o'clock	kw/m <sup>2</sup>

Table 3.3 Classification of stability

Wind Speed (u) m/s	Solar Radiation (S) kw/m <sup>2</sup>				Net Radiation (N) kw/m <sup>2</sup>			
	S ≥ 0.60	0.60 > S ≥ 0.30	0.30 > S ≥ 0.15	0.15 > S	N ≥ 0	-0.020 > N ≥ -0.040	-0.040 > N	
u < 2	A	A-B	B	D	D	G	G	
2 ≤ u < 3	A-B	B	C	D	D	E	F	
3 ≤ u < 4	B	B-C	C	D	D	D	E	
4 ≤ u < 6	C	C-D	D	D	D	D	D	
6 ≤ u	C	D	D	D	D	D	D	

## 4. 統 計 結 果

### 4.1 年間統計結果

#### (1) 風向

風向は年間を通して北西及び北東風が卓越しており、出現頻度は 40 m 高でそれぞれ 14.2 %, 16.9 % である。

#### (2) 風速

各測高における年平均風速は 10 m 高が 1.7 m/s, 20 m 高が 2.4 m/s, 40 m 高が 3.5 m/s と平年なみである。また静穏は 10 m 高において 1 月から 3 月にかけ多く出現し、他の測高の傾向と異っている。

#### (3) 気温

気温は 6 月、7 月が平年に比べ若干低めであるが、年平均気温は 12.9 度と平年なみである。

#### (4) 降水量

年積算降水量は 1142.5 mm で平年なみである。

#### (5) その他

真冬日（日最高気温が 0 °C 未満の日）	0 日
冬日（日最低気温が " " )	82 日
真夏日（日最高気温が 30 °C 以上日の日）	13 日
夏日（ " 25 °C " )	44 日
日総降水量が 50 mm 以上の日	1 日
" 100 mm 以上の日	0 日
降水日数（0.5 mm 以上）	116 日

Table 4.1-1 Occurrence frequencies of lack in month

JAERI-Tokai 1983

Elements	Jan.	Feb.	Mar.	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Annual (%)
Wind Direction	10m	46	0	7	0	1	6	28	2	1	24	2	32
	20m	22	0	7	0	1	6	28	2	1	25	2	32
	40m	22	0	7	0	1	6	28	2	1	24	2	32
Wind Speed	10m	32	1	7	0	1	6	11	2	1	24	2	32
	20m	22	0	7	0	1	6	11	2	1	24	2	32
	40m	22	0	7	0	1	6	11	2	1	24	2	32
Solar Radiation	5m	7	7	0	1	3	5	2	1	24	2	32	119 (1.4)
Net Radiation	1.5m	15	0	0	0	3	19	0	0	11	2	14	64 (0.7)
Air Temperature	1.5m	22	0	7	0	1	7	24	2	2	24	3	32
Precipitation		19	0	6	0	0	2	16	0	0	21	1	29
Humidity	1.5m	22	1	8	28	13	9	26	2	3	25	4	32
													173 (2.0)

Table 4.1-2 Frequency distributions of wind direction

Observation height	Calm	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	NW	NNW	N
10m	16.8	5.6	15.7	8.4	4.1	2.4	2.3	2.2	4.2	1.8	2.3	2.9	3.7	7.2	12.4
20m	8.2	7.2	16.9	7.6	3.7	2.5	2.3	2.9	3.7	1.9	2.7	3.9	5.2	9.0	13.4
40m	2.1	6.0	16-9	9.1	4.1	2.6	2.8	4.5	3.0	2.1	3.5	3.4	4.1	7.4	14.2

Table 4.1-3 Monthly averages

JAERI-Tokai 1983

Elements	Units	Jan.	Feb.	Mar.	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Annual
Calm	10m	19.6	20.3	19.4	17.8	19.9	13.0	17.2	15.8	19.2	15.3	12.5	11.8	16.8
	%	4.8	4.8	7.3	9.9	13.9	12.0	15.6	9.2	8.6	5.4	3.6	2.9	8.2
Wind Speed	40m	1.0	1.3	1.6	3.3	2.8	2.8	3.5	3.6	2.2	1.2	1.0	1.1	2.1
	10m	1.3	1.6	1.8	1.8	2.1	2.1	1.9	2.0	1.7	1.3	1.6	1.3	1.7
Solar Radiation	20m	2.1	2.3	2.6	2.5	2.7	2.7	2.5	2.7	2.4	1.9	2.4	2.1	2.4
	40m	3.4	3.5	3.8	3.6	3.8	3.6	3.3	3.7	3.3	3.0	3.8	3.4	3.5
Net Radiation	5m	8.6	12.1	14.6	15.9	22.9	19.8	14.3	16.9	12.3	12.1	10.4	9.6	14.1
Air Temperature	1.5m	2.6	2.7	2.2	1.6	1.6	1.2	0.9	1.0	1.3	1.7	2.4	2.8	1.8
Precipitation	mm	3.0	3.0	6.4	12.8	16.2	17.3	20.5	24.4	21.3	15.5	9.9	4.0	12.9
Humidity	1.5m	19.0	48.5	124.0	138.0	91.5	173.5	168.5	51.5	168.5	95.5	54.5	9.5	1142.5
	%	61.1	60.8	68.5	79.6	77.0	81.8	86.0	84.1	79.8	71.7	69.0	58.5	73.2

Table 4.1-4 Frequency distribution of stability

Stability	A	A-B	B	B-C	C	C-D	D <sub>1</sub>	D <sub>2</sub>	E	F	G
Frequency (%)	2.8	10.8	10.3	1.6	4.4	1.1	10.1	22.7	2.4	2.1	31.6

Table 4.1-5 Extreme

JAERI-Tokai 1983

Elements		Jan.	Feb.	Mar.	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Annual
10m Wind Speed (m/s)	Max. (*)	14.3	11.2	13.0	11.3	13.0	9.8	10.0	11.4	16.1	8.6	10.9	9.2	16.1
	Date	18 12:25	18 0:10	13 16:30	27 13:05	7 11:30	11 17:00	12 8:50	15 6:50	29 1:25	11 15:20	12 15:15	26 15:15	29/Sep.
20m Wind Speed (m/s)	Max. (*)	12.8	14.7	15.6	13.7	16.8	10.2	11.6	13.5	18.4	10.0	17.0	13.4	18.4
	Date	18 12:35	9 14:35	13 16:40	27 13:50	7 10:15	15 20:00	15 20:35	15 8:10	28 22:05	11 11:05	17 15:25	26 7:00	28/Sep.
40m Wind Speed (m/s)	Max. (*)	16.8	16.5	15.0	15.2	18.2	11.5	12.3	13.8	18.3	11.1	19.0	13.8	19.0
	Date	30 18:45	17 22:00	14 11:10	27 13:50	7 11:00	11 20:10	11 0:40	15 6:55	28 19:45	27 12:00	17 16:25	26 7:00	17/Nov.
Maximum		15.0	13.3	16.0	26.5	26.8	27.6	31.5	34.6	31.5	26.4	20.8	15.5	34.6
Air Temperature (°C)	Date	29 13:50	6 14:30	23 11:30	27 15:10	6 12:00	1	28	7	6	1	17	3	7/Aug.
	Minimum	-7.6	07.6	03.5	3.6	7.0	9.3	13.7	19.0	14.6	1.8	-1.9	-5.0	-7.6
Daily mean (max)	Date	23 5:50	14 6:00	9 6:15	3 5:10	18 4:40	5 4:25	13 1:20	2 7:40	30 3:40	31 6:00	28 6:00	21 7:00	14/Fab.
	Date	8	15	23	27	30	9	31	7	6	5	10,11	1	7/Aug.
Daily mean (min)	Date	-1.5	-1.2	1.8	8.8	12.0	14.7	15.2	20.6	16.4	8.8	3.7	0.3	-1.5
	Date	23	13	5	5	26	5	8	2	28	31	27	25	23/Jan.
Hourly max.	Date	2.0	4.0	4.5	11.5	8.0	18.0	19.5	5.0	7.5	9.0	8.5	4.0	19.5
	Date	18 9	17 12	13 18	1 21	1 5	1 3	13 18	21 9	25 8	28 21	9 8	24 9	23 3
Precipitation (mm)	Daily max.	13.5	33.5	28.0	39.5	40.5	47.0	41.5	26.5	74.0	20.0	24.5	5.0	
	Monthly max.	18	17	13	1	16	21	5	17	28	19	24	23	28/Sep.
Monthly max.		173.5	Jun.											

(\*) Maximum instantaneous wind speed

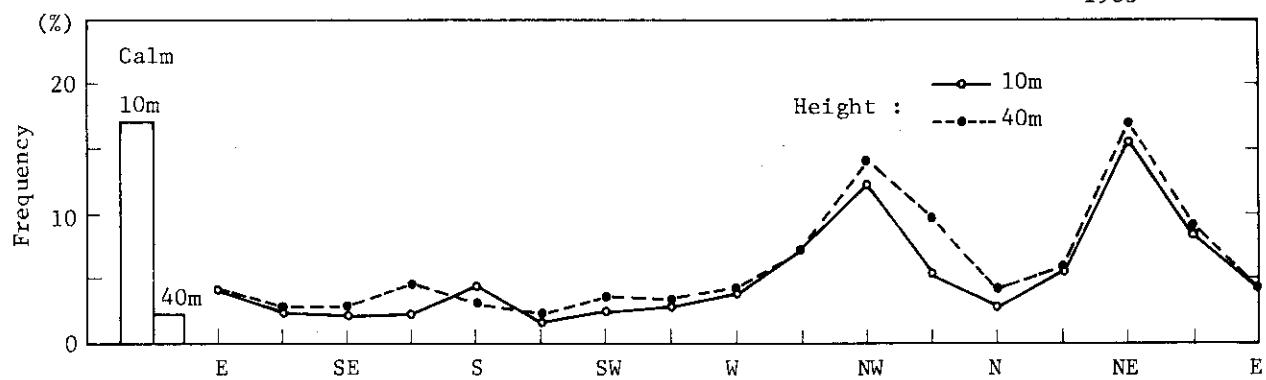
JAERI-Tokai  
1983

Fig. 4.1-1 Frequency distribution of wind direction

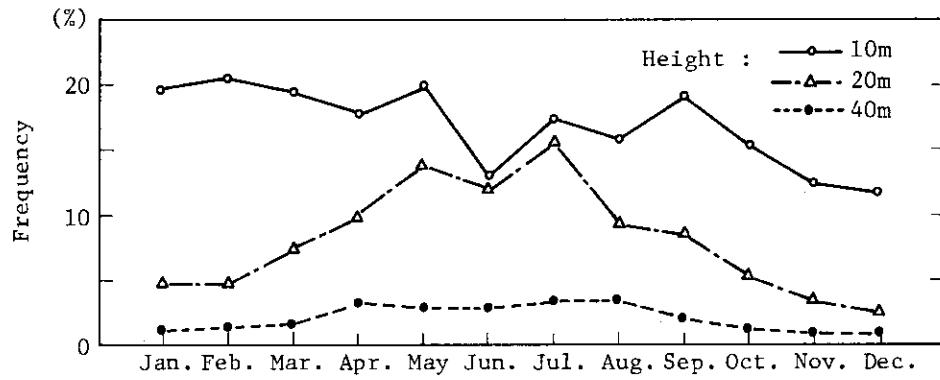


Fig. 4.1-2 Frequency distribution of calm

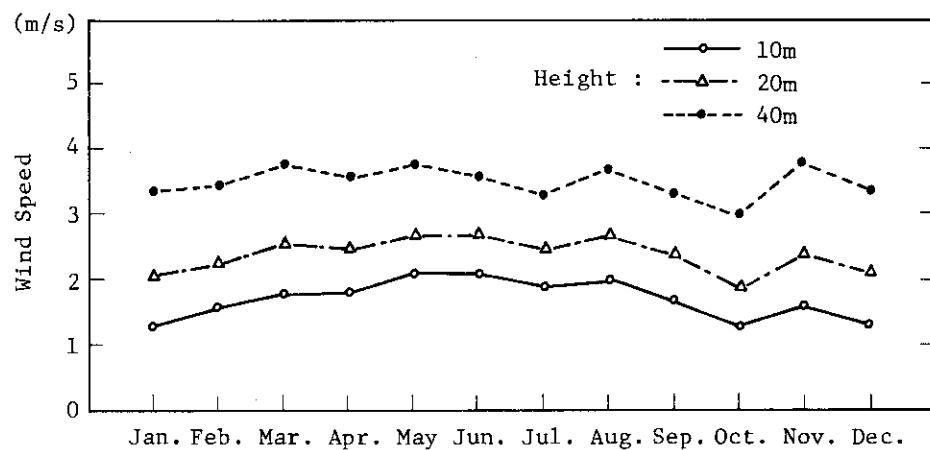


Fig. 4.1-3 Monthly mean wind speed

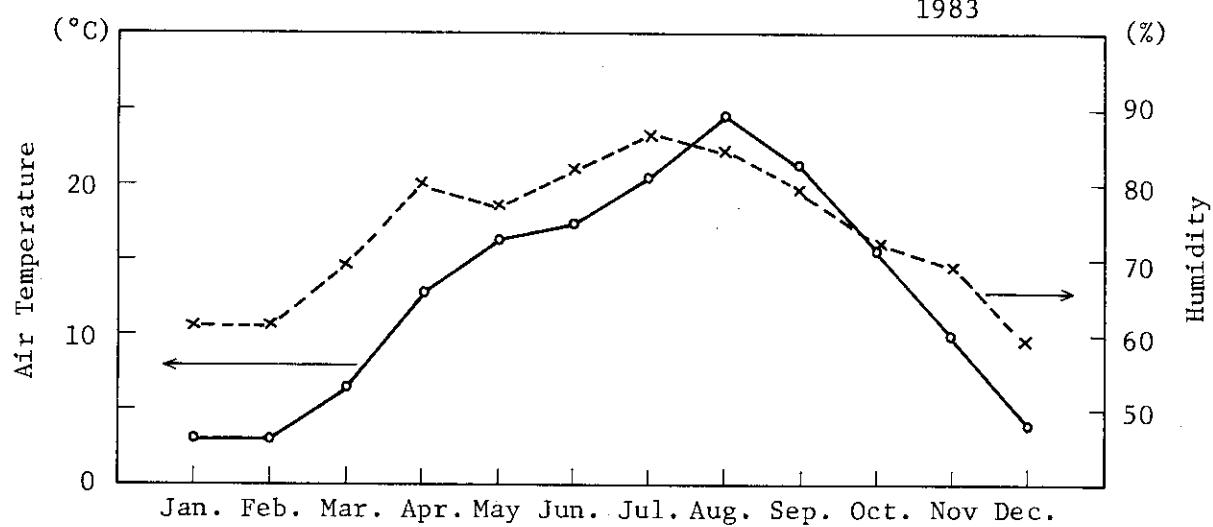
JAERI-Tokai  
1983

Fig. 4.1-4 Monthly mean of air temperature and humidity

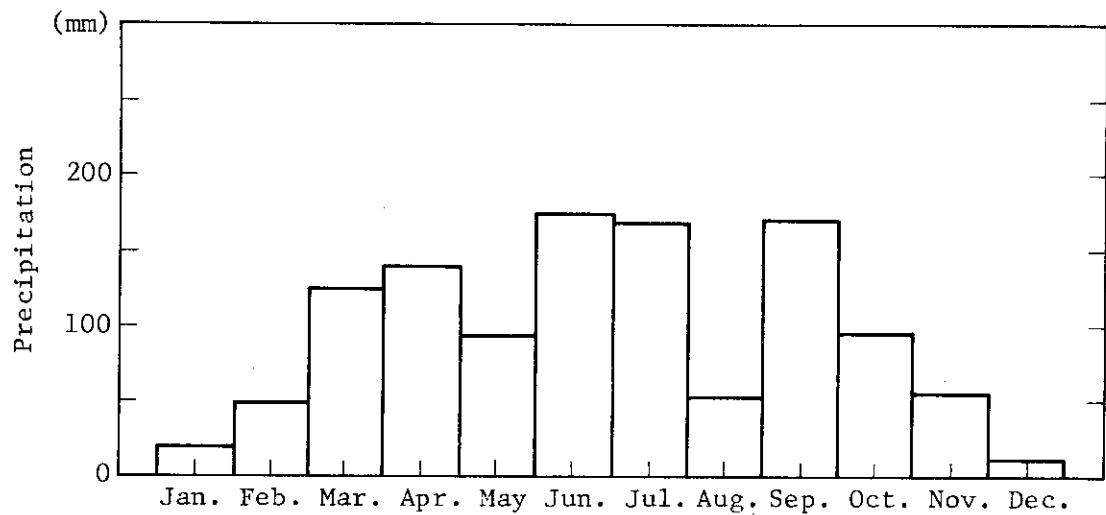


Fig. 5.1-5 Monthly precipitation

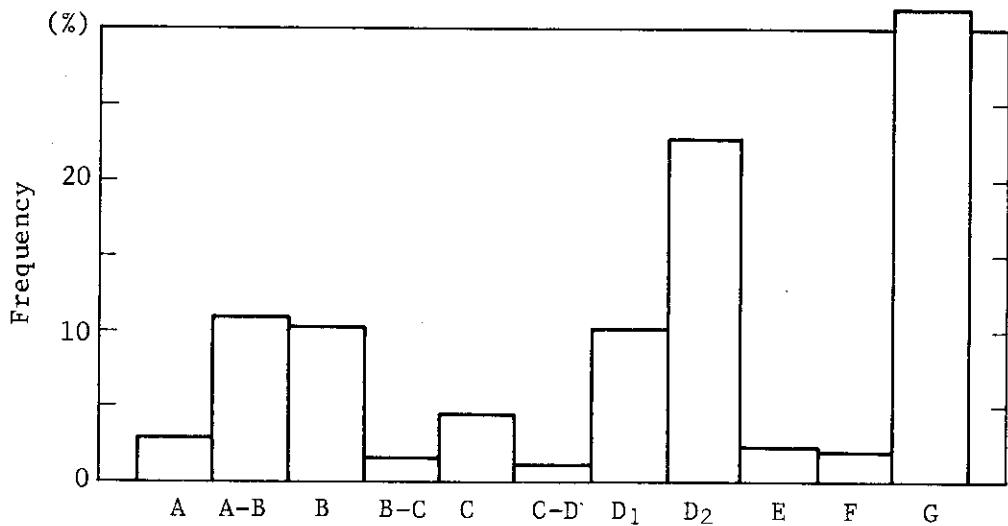


Fig. 4.1-6 Frequency distribution of stability

#### 4.2 月間統計結果

TABLE 4.2-1A DAILY AVERAGES

	DATE	AIR TEMP. C.DEG	HUMID-ITY PERCENT	PRECIP-ITAT. MM	SOLAR RAD. MJ/SQ(M)/DAY	NET RAD. MJ/SQ(M)/DAY	WIND SPD(100) M/S	WIND SPD(20) M/S	WIND SPD(40) M/S
1	2.0	51.8	0.0	0.0	7.9	3.2	1.1	1.6	3.2
2	1.4	57.5	0.0	9.2	3.0	1.3	1.7	3.4	
3	2.5	50.9	0.0	9.4	3.6	1.2	1.8	3.4	
4	1.4	60.5	0.0	10.0	2.9	0.8	1.5	2.5	
5	3.8	74.2	0.0	2.8	0.9	0.6	1.2	2.3	
6	7.5	70.8	0.5	3.3	1.3	3.5	4.5	6.0	
7	6.8	72.1	0.0	7.1	1.4	1.3	1.8	2.7	
8	7.9	80.5	1.0	1.5	0.7	1.5	2.4	3.8	
9	4.6	50.3	0.0	7.2	2.0	0.9	1.2	2.3	
10	0.5	52.8	0.0	7.5	3.7	1.4	2.2	3.8	
11	0.6	46.5	0.0	9.9	3.8	1.2	2.4	3.7	
12	1.5	58.1	0.0	9.8	3.1	0.8	1.7	2.6	
13	4.2	66.9	0.0	10.1	1.4	1.0	1.7	3.1	
14	2.0	46.9	0.0	9.8	3.7	0.8	1.9	3.3	
15	1.8	54.1	0.0	9.7	3.3	1.0	1.4	3.1	
16	1.6	55.6	0.0	11.2	0.8	1.4	2.7		
17	7.4	60.8	0.0	10.1	1.4	1.3	2.1	3.0	
18	3.8	84.7	13.5	0.9	0.7	3.6	4.6	6.1	
19	3.4	78.2	4.0	6.8	0.9	1.3	2.1		
20	2.0	67.7	0.0	8.9	2.8	1.7	2.3	4.1	
21	0.5	65.7	0.0	8.7	3.1	1.0	1.5	2.6	
22	-0.0	46.1	0.0	10.2	3.5	1.7	2.2	4.3	
23	-1.5	55.3	0.0	11.3	3.7	0.7	1.7		
24	2.3	52.5	0.0	10.8	3.3	1.3	2.4	3.6	
25	2.3	74.0	0.0	9.8	2.8	1.1	1.8		
26	4.0	58.1	0.0	11.2	2.8	1.2	2.0	3.4	
27	3.6	52.3	0.0	10.3	3.2	1.0	2.0	3.4	
28	4.1	62.4	0.0	11.2	2.9	0.8	1.6	2.9	
29	5.2	64.6	0.0	10.9	2.8	1.3	2.2	3.0	
30	5.1	76.5	0.0	7.8	1.5	2.5	3.5	5.0	
31	3.2	46.3	0.0	11.8	3.3	1.0	1.6	3.0	
MONTH	3.0	61.1	19.0	8.6	2.6	1.3	2.1	3.4	
LACK	22	22	19	7	15	32	22	22	

TABLE 4.2-1B DISTRIBUTION OF WIND DIRECTION FREQUENCIES (%)

	CALM	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	NNW	NW	NNW	W	WNW	NW	NNW	N
10M	19.6	7.3	5.6	2.1	0.9	0.4	2.0	1.3	1.6	1.4	1.7	2.1	8.3	15.7	19.3	7.0	3.6				
20M	4.8	6.1	6.6	2.2	1.1	1.0	1.9	2.6	1.9	1.5	2.1	3.3	8.6	19.3	22.4	10.0	4.4				
40M	1.0	6.6	7.6	2.4	1.5	0.8	2.8	2.4	1.9	1.5	1.9	3.9	6.0	14.7	24.1	14.5	6.4				

TABLE 4.2- 1C HOURLY AVERAGES AND STANDARD DEVIATIONS

	TIME(HR)	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
WIND SPD																									
H=																									
10M	MEAN	1.2	1.0	1.2	1.1	1.2	1.2	1.3	1.2	1.3	1.5	1.8	1.7	1.9	1.6	1.6	1.3	1.2	1.3	1.1	1.3	1.2	1.3	1.3	
	SIGM	0.9	0.7	0.6	1.0	1.1	1.1	0.9	1.1	1.2	1.4	1.4	1.4	1.3	1.2	1.4	1.4	1.3	1.3	1.0	0.8	0.9	1.1	0.9	
20M	MEAN	1.9	1.6	1.7	2.0	1.9	2.0	1.8	1.8	1.7	2.0	2.3	2.8	2.7	2.8	2.5	2.3	2.0	2.0	2.1	1.8	1.9	1.9	1.8	
	SIGM	1.0	0.9	0.8	1.2	1.3	1.4	1.1	1.3	1.5	1.7	1.6	1.5	1.6	1.3	1.2	1.5	1.7	1.6	1.3	1.0	1.1	1.2	1.1	
40M	MEAN	3.3	3.0	3.0	3.6	3.4	3.6	3.5	3.5	3.1	2.5	2.8	3.1	3.8	3.9	3.9	3.7	3.7	3.3	3.5	3.7	3.5	3.4	3.5	
	SIGM	1.1	1.0	0.9	1.2	1.5	1.6	1.1	1.5	1.8	2.1	2.2	2.0	2.4	1.9	1.7	1.9	2.1	1.6	1.5	1.2	1.5	1.2	1.2	
TEMPERATURE																									
MEAN	0.4	0.0	-0.2	-0.4	-0.6	-0.7	-0.8	0.5	2.8	5.2	6.6	7.3	7.5	7.8	7.4	7.0	5.5	4.3	3.7	2.8	2.2	1.7	1.3	0.9	
	SIGM	3.1	3.0	3.2	3.3	3.5	3.4	3.3	2.9	2.3	2.3	2.3	2.3	2.6	2.4	2.3	2.5	2.5	2.6	2.6	2.8	2.9	2.9	3.0	
HUMIDITY																									
LAPSE RATE	MEAN	69.4	71.0	72.3	72.2	72.6	71.8	72.3	69.0	61.9	51.0	46.6	46.2	45.9	46.0	45.7	48.7	55.0	58.2	60.4	64.2	65.2	66.6	67.3	
	SIGM	11.1	11.4	10.3	10.5	11.2	11.9	11.8	12.4	13.1	16.0	16.4	16.7	17.0	17.6	18.7	17.8	15.9	15.0	15.0	14.8	14.7	14.1	13.6	
STABIL. RATIO	MEAN	3.4	4.3	4.1	3.6	3.6	3.6	4.0	4.1	3.4	2.0	0.8	0.9	0.8	0.7	0.5	0.5	1.0	3.2	3.3	3.4	2.9	2.0	2.9	
	SIGM	3.6	4.4	5.0	4.3	3.6	3.6	4.0	4.1	3.4	2.0	0.8	0.9	0.8	0.7	0.5	0.5	1.0	3.1	4.4	4.3	4.9	3.5	4.0	
RADIATION	MEAN	1.6	1.6	1.9	1.1	0.9	1.7	2.0	0.3	-1.5	-1.2	-1.0	-1.1	-1.0	-0.9	-0.9	-0.6	-0.4	-0.2	0.4	1.1	1.5	1.6	0.4	
	SIGM	2.3	2.8	3.3	1.8	1.2	2.5	2.7	2.1	1.0	1.2	0.9	1.0	0.9	0.7	0.4	0.3	0.5	1.7	2.3	2.8	2.3	2.7	2.1	
RACTION	MEAN	0.2	0.2	0.2	0.2	0.2	0.2	0.4	0.8	1.2	1.5	1.4	1.3	1.1	1.0	0.7	0.7	0.1	0.2	0.2	0.2	0.2	0.2	0.2	
	SIGM	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.3	0.5	0.5	0.6	0.5	0.4	0.3	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	

TABLE 4.2- 1D FREQUENCY DISTRIBUTIONS OF STABILITY CATEGORY

CATEG	TOTAL	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	N	LACK
A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
A-B	75	0	0	1	2	9	2	4	3	6	10	17	9	4	2	2	2	2
B	87	1	7	1	1	3	6	5	2	1	3	2	7	21	20	2	1	4
B-C	3	0	2	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0
C	14	0	0	2	1	0	0	0	0	0	0	0	0	1	0	2	0	0
C-D	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
D1	85	8	10	4	3	1	3	3	1	2	3	1	2	3	9	16	11	5
D2	95	18	12	4	0	0	0	0	0	0	1	4	5	21	18	7	5	0
E	11	7	2	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0
F	15	5	0	1	2	1	0	0	0	0	0	0	0	0	6	2	1	0
G	327	16	7	2	1	0	0	0	0	0	0	0	0	0	43	33	21	15
LACK	32	1	0	0	0	0	0	0	0	0	1	3	1	1	1	0	0	24

TABLE 4.2- 1E FREQUENCY DISTRIBUTIONS OF WIND DIRECTION AND SPEED

	10M	CALM	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	NNW	NW	NNW	N	LACK	TOTL
10.0-	-0.4	136	7	2	1	1	2	12	5	4	2	5	4	26	39	48	11	10	3	139
	0.5-0.9		10	7	6	3	0	2	0	3	8	7	9	27	62	65	11	11	11	172
	1-0-1.9		11	8	5	2	0	0	0	0	0	1	2	7	17	9	2	7	7	269
	2-0-2.9		9	7	1	0	0	0	0	1	0	0	0	0	3	2	2	0	1	75
	3-0-3.9		10	7	1	0	0	0	0	0	0	0	0	0	0	0	2	0	0	25
	4-0-4.9		5	5	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	18
	5-0-5.9		6	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	10
	6-0-6.9		0	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4
	7-0-7.9		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	8-0-8.9		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	9-0-9.9		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10.0-	LACK	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	TOTL	136	52	40	15	6	3	14	9	11	10	12	15	58	109	134	49	25	46	744
	20M	35	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10.0-	-0.4	0.5-0.9	1-0-1.9	2-0-2.9	3-0-3.9	4-0-4.9	5-0-5.9	6-0-6.9	7-0-7.9	8-0-8.9	9-0-9.9	LACK	TOTL							
	0.5-0.9	12	8	8	8	5	6	4	3	3	3	0	0	0	0	0	0	0	0	35
	1-0-1.9		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	83
	2-0-2.9		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	274
	3-0-3.9		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	208
	4-0-4.9		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	63
	5-0-5.9		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	25
	6-0-6.9		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	14
	7-0-7.9		1	3	5	1	0	0	0	0	0	0	0	0	0	0	0	0	0	13
	8-0-8.9		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4
	9-0-9.9		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3
10.0-	LACK	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	TOTL	35	44	16	8	7	14	19	11	15	14	11	15	24	62	139	162	72	32	22
	40M	7	1	1	1	1	1	2	2	1	1	1	1	2	2	3	2	4	0	7
10.0-	-0.4	0.5-0.9	1-0-1.9	2-0-2.9	3-0-3.9	4-0-4.9	5-0-5.9	6-0-6.9	7-0-7.9	8-0-8.9	9-0-9.9	LACK	TOTL							
	0.5-0.9	6	15	6	6	6	14	7	3	3	3	0	0	0	0	3	2	4	0	16
	1-0-1.9		15	6	6	6	14	7	3	3	3	0	0	0	0	3	2	4	0	92
	2-0-2.9		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	197
	3-0-3.9		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	212
	4-0-4.9		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	100
	5-0-5.9		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	41
	6-0-6.9		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	21
	7-0-7.9		7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	21
	8-0-8.9		1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0
	9-0-9.9		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10.0-	LACK	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	TOTL	7	48	55	17	11	6	20	17	11	14	11	14	14	28	43	106	174	105	22

TABLE 4.2- 2A DAILY AVERAGES

DATE	AIR TEMP. C.DEG	HUMID- ITY PERCENT	PRECIP- ITAT. MM	SOLAR RAD. MJ/SQ (M)/DAY	NET RAD. MJ/SQ (M)	WIND SPD(10) M/S	WIND SPD(20) M/S	WIND SPD(40) M/S
1	4.1	63.3	0.0	6.7	0.9	1.3	1.9	3.0
2	4.4	88.1	5.0	1.1	0.5	1.8	2.6	3.7
3	4.8	60.4	1.5	8.8	2.6	1.4	2.1	3.5
4	1.7	59.3	0.0	12.5	3.4	1.0	1.6	2.7
5	3.2	59.8	0.0	12.1	3.4	1.2	2.1	3.2
6	4.1	69.1	0.0	11.2	2.9	1.5	2.3	3.5
7	4.0	60.5	2.0	10.3	1.8	1.5	2.3	3.8
8	2.1	62.2	0.0	12.5	3.0	1.0	1.5	2.5
9	1.9	56.6	0.0	12.7	3.4	1.2	2.2	3.7
10	2.8	58.7	0.0	11.8	1.9	1.7	2.7	3.9
11	1.9	56.8	0.0	13.2	3.6	1.3	2.3	3.5
12	0.7	60.0	0.0	13.1	3.6	1.8	2.9	4.0
13	-1.2	43.8	0.0	13.8	4.0	1.3	1.9	3.3
14	-0.5	50.6	0.0	13.9	3.1	1.3	2.0	2.7
15	5.6	49.8	0.0	11.9	2.3	1.9	2.9	4.1
16	4.7	57.9	0.0	12.7	2.4	1.8	2.8	4.0
17	4.4	85.5	33.5	1.3	1.4	5.6	7.3	9.3
18	4.5	88.5	2.0	5.4	1.3	1.8	2.5	3.6
19	3.4	58.8	0.0	16.4	2.9	1.3	2.0	3.0
20	1.7	46.3	0.0	17.5	3.1	1.3	1.8	2.7
21	2.6	38.2	0.0	17.6	4.1	2.2	2.8	3.9
22	2.6	49.0	0.0	18.5	3.2	1.1	1.6	2.5
23	4.9	57.1	0.0	15.0	2.5	1.0	1.5	2.3
24	3.0	84.3	4.5	1.6	0.8	2.6	3.2	4.0
25	3.1	69.8	0.0	15.0	2.8	0.6	1.2	2.2
26	2.4	51.0	0.0	19.3	3.8	1.0	1.8	3.0
27	2.9	55.5	0.0	16.9	3.5	0.9	1.6	2.3
28	4.3	61.4	0.0	19.6	3.5	1.1	1.9	2.7
MONTH	3.0	60.8	48.5	12.1	2.7	1.6	2.3	3.5
LACK	0	1	0	7	0	1	0	0

TABLE 4.2- 2B DISTRIBUTION OF WIND DIRECTION FREQUENCIES (%)

	CALM	NNE	NE	ENE	E	ESE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	N
10M	20.3	10.3	7.4	4.3	1.5	1.0	1.5	1.6	2.2	4.0	4.3	12.1	14.9	7.0	3.4	
20M	4.8	11.5	7.1	3.7	1.5	0.9	2.1	1.2	2.5	5.7	9.4	16.4	16.5	7.4	4.8	
40M	1.3	8.8	10.0	3.7	2.2	1.3	2.2	1.0	1.6	3.7	4.0	6.8	10.1	22.8	13.4	

TABLE 4.2- 2C HOURLY AVERAGES AND STANDARD DEVIATIONS

	TIME(HR)	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
WIND SPD																									
H=																									
10M MEAN	0.9	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	
SIGM	1.1	1.1	1.1	1.0	1.0	1.1	1.0	1.1	1.3	1.3	1.3	1.4	1.2	1.2	1.0	1.0	1.2	1.0	1.1	1.1	1.1	1.3	1.3	1.5	1.3
20M MEAN	1.6	1.7	1.7	1.7	1.8	1.8	1.8	1.7	1.7	1.7	1.7	1.7	1.7	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4
SIGM	1.4	1.3	1.4	1.2	1.3	1.2	1.4	1.2	1.4	1.6	1.6	1.6	1.7	1.7	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4
40M MEAN	2.9	3.1	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.9
SIGM	1.7	1.5	1.6	1.6	1.3	1.4	1.4	1.5	1.5	1.5	1.5	1.5	1.7	2.0	2.1	1.8	1.8	1.9	1.8	1.8	2.0	2.0	2.1	2.2	1.7
TEMPERATURE																									
MEAN	0.2	0.0	-0.2	-0.5	-2.3	-1.0	-1.1	0.8	3.3	5.2	6.4	7.0	7.5	7.5	7.3	6.8	5.9	4.8	4.2	3.6	2.6	2.0	1.2	0.7	
SIGM	2.7	2.7	2.8	3.0	3.0	9.0	3.1	2.9	2.2	1.4	1.6	2.0	2.4	2.4	2.3	2.4	2.5	2.1	2.0	2.1	2.2	2.2	2.7	2.6	2.6
HUMIDITY																									
LAPSE RATE																									
MEAN	69.0	70.8	70.7	73.0	75.5	76.3	69.7	60.6	51.4	48.4	45.6	43.9	44.3	45.6	49.8	54.5	57.6	57.3	58.4	62.9	64.3	66.5	68.0		
SIGM	13.6	12.6	12.8	11.4	10.9	10.9	10.4	13.1	17.8	21.3	22.0	21.7	21.6	21.1	20.3	18.9	17.1	16.9	15.6	15.8	15.8	14.6	14.6		
STABIL. RATIO																									
MEAN	2.8	3.4	3.9	2.9	3.5	3.8	3.2	-1.5	-3.4	-3.7	-3.7	-3.8	-3.6	-3.2	-2.6	-2.6	-1.9	-1.1	0.0	0.2	0.4	1.3	2.2	2.6	
SIGM	3.5	4.1	4.0	3.8	4.3	4.6	4.0	1.9	0.8	0.9	0.9	0.9	0.9	0.9	0.9	0.7	0.6	0.7	0.9	2.3	2.4	3.0	3.8	3.7	
RADIA- TION																									
MEAN	0.2	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.7	1.2	1.7	1.8	1.9	1.9	1.4	1.0	0.5	0.4	0.4	0.5	0.5	0.5	
SIGM	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.3	0.5	0.7	0.8	0.8	0.9	0.8	0.7	0.5	0.2	0.1	0.1	0.1	0.1	0.1	

TABLE 4.2- 2D FREQUENCY DISTRIBUTIONS OF STABILITY CATEGORY

CATEG	TOTAL	NNE	NE	E	ESE	SE	SSE	S	SSW	SW	WNW	NW	NNW	N	LACK
A	17	0	0	2	1	1	0	3	0	2	3	2	1	1	0
A-B	76	0	1	3	0	2	4	2	5	7	11	13	9	2	0
B	64	3	2	1	2	0	4	2	4	1	6	4	14	4	0
B-C	9	0	2	0	0	0	0	2	1	3	1	0	0	0	0
C	21	1	4	1	0	0	1	0	1	0	0	6	1	3	0
C-D	5	0	1	2	0	0	0	0	0	0	0	0	0	0	0
D1	53	22	10	4	0	2	0	1	2	0	0	1	0	1	0
D2	85	21	18	5	0	0	0	0	0	1	1	2	3	20	5
E	21	5	3	1	0	0	0	0	0	0	0	1	2	0	0
F	22	3	1	0	0	0	0	0	0	0	0	11	1	2	0
G	29	17	0	8	7	4	0	2	10	15	12	27	49	84	13
LACK	8	0	1	0	0	0	0	1	0	1	0	2	0	0	0

TABLE 4.2-2E FREQUENCY DISTRIBUTIONS OF WIND DIRECTION AND SPEED

100M		CALM		200M		400M	
NNE	NE	E	ESE	SSE	SSW	SW	WNW
0.5-0.9	-0.4	136	5	19	5	12	0
1.0-1.9	0.5-0.9	16	16	16	6	16	0
2.0-2.9	1.0-1.9	17	14	14	3	14	0
3.0-3.9	2.0-2.9	7	6	3	0	1	0
4.0-4.9	3.0-3.9	4	4	4	2	1	0
5.0-5.9	4.0-4.9	4	4	0	0	0	0
6.0-6.9	5.0-5.9	1	1	0	0	0	0
7.0-7.9	6.0-6.9	0	0	0	0	0	0
8.0-8.9	7.0-7.9	0	0	0	0	0	0
9.0-9.9	8.0-8.9	0	0	0	0	0	0
10.0-	9.0-9.9	0	0	0	0	0	0
	LACK	0	0	0	0	0	0
	TOTAL	136	69	50	29	29	0
100M		CALM		200M		400M	
NNE	NE	E	ESE	SSE	SSW	SW	WNW
0.5-0.9	-0.4	32	2	5	6	4	0
1.0-1.9	0.5-0.9	5	5	7	3	3	0
2.0-2.9	1.0-1.9	20	11	8	4	4	0
3.0-3.9	2.0-2.9	20	15	8	2	1	0
4.0-4.9	3.0-3.9	5	7	1	1	1	0
5.0-5.9	4.0-4.9	2	7	0	0	0	0
6.0-6.9	5.0-5.9	6	0	0	0	0	0
7.0-7.9	6.0-6.9	7	1	1	0	0	0
8.0-8.9	7.0-7.9	1	1	3	0	0	0
9.0-9.9	8.0-8.9	0	1	1	0	0	0
10.0-	9.0-9.9	0	0	0	0	0	0
	LACK	0	0	0	0	0	0
	TOTAL	32	77	48	25	10	0
100M		CALM		200M		400M	
NNE	NE	E	ESE	SSE	SSW	SW	WNW
0.5-0.9	-0.4	9	9	4	4	4	0
1.0-1.9	0.5-0.9	8	2	6	1	1	0
2.0-2.9	1.0-1.9	4	4	4	1	1	0
3.0-3.9	2.0-2.9	14	16	19	14	14	0
4.0-4.9	3.0-3.9	11	11	5	5	5	0
5.0-5.9	4.0-4.9	4	4	2	2	2	0
6.0-6.9	5.0-5.9	3	3	2	2	2	0
7.0-7.9	6.0-6.9	3	5	2	0	0	0
8.0-8.9	7.0-7.9	5	2	0	0	0	0
9.0-9.9	8.0-8.9	4	2	0	0	0	0
10.0-	9.0-9.9	0	0	0	0	0	0
	LACK	0	0	0	0	0	0
	TOTAL	9	59	67	25	15	0

TABLE 4.2- 3A DAILY AVERAGES

DATE	AIR TEMP.	HUMIDITY	PRECIP-ITAT.	SOLAR RAD.	NET RAD.	WIND			WIND		
						C. DEG	PERCENT	MM	MJ/SQ(M)/DAY	M/S	SPD(10) M/S
1	6.4	58.8	0.0	18.9	2.5	1.1	1.8				2.9
2	6.5	84.1	10.0	1.9	0.5	3.0					5.1
3	8.0	68.7	0.0	18.4	2.5	1.4					3.1
4	4.1	71.6	0.0	7.8	2.6	0.7					1.9
5	1.8	64.5	0.0	***	3.6	0.6					2.5
6	4.9	51.5	0.0	19.8	3.4	1.8					4.2
7	3.5	44.0	0.0	19.0	3.1	1.0					2.1
8	3.4	43.2	0.0	18.8	3.9	1.7					4.6
9	3.5	51.2	0.0	20.8	3.0	1.2					2.8
10	6.5	87.0	27.0	3.3	0.9	1.7					3.4
11	9.1	61.9	0.0	19.8	3.1	2.7					6.3
12	6.9	66.0	0.0	16.3	2.0	0.9					2.1
13	7.4	92.3	28.0	2.4	1.0	2.8					5.3
14	5.0	54.5	0.0	19.5	3.0	1.9					4.8
15	4.2	55.8	0.0	20.8	3.2	1.1					2.7
16	6.0	66.9	0.5	16.6	1.7	2.3					3.3
17	7.0	91.6	20.0	4.4	1.7	1.4					3.4
18	5.4	44.2	0.5	18.5	4.0	3.0					7.6
19	3.8	57.9	0.0	22.8	3.4	1.3					2.6
20	5.8	75.3	0.0	17.6	2.4	1.3					2.6
21	6.8	93.6	7.0	4.2	1.5	0.8					2.3
22	7.7	76.5	0.0	22.5	1.7	1.6					3.2
23	11.2	79.3	8.5	15.6	0.9	1.1					2.7
24	8.8	88.7	12.5	7.3	1.3	4.5					7.0
25	7.1	69.2	0.0	22.5	2.2	2.2					3.4
26	7.2	62.5	0.0	16.4	1.4	1.5					2.9
27	6.3	81.2	9.5	5.4	1.1	1.7					3.0
28	7.8	85.4	0.0	14.6	1.8	2.5					4.1
29	7.6	65.8	0.0	14.8	1.8	2.3					3.9
30	9.2	63.4	0.5	5.5	1.2	3.1					5.0
31	8.7	65.7	0.0	22.1	3.2	3.5					5.6
MONTH	6.4	68.5	124.0	14.6	2.2	1.8					3.8
LACK	7	8	6	7	0	7					7

TABLE 4.2- 3B DISTRIBUTION OF WIND DIRECTION FREQUENCIES (%)

	CALM	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	WSW	W	NNW
10M	19.4	6.8	20.8	7.2	3.0	3.4	1.5	1.8	2.4	0.4	2.4	4.6	3.9
20M	7.3	9.2	21.4	6.0	3.8	2.6	1.8	2.6	0.5	2.7	3.7	7.2	5.0
40M	1.6	8.5	22.4	7.3	3.1	3.9	1.5	3.8	1.2	0.7	3.0	6.5	6.9

TABLE 4.2-3C HOURLY AVERAGES AND STANDARD DEVIATIONS

TABLE 4.2- 3D FREQUENCY DISTRIBUTIONS OF STABILITY CATEGORY

TABLE 4.2- 3E FREQUENCY DISTRIBUTIONS OF WIND DIRECTION AND SPEED

	CALM	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	NNW	NW	NNW	N	LACK	TOTL
10M	-0.4	143	15	5	2	5	4	0	3	1	3	8	4	7	13	38	12	0	143
	0.5-0.9	19	14	17	7	11	8	4	3	1	1	6	7	5	12	29	13	8	130
	1.0-1.9	11	28	14	8	10	3	6	0	4	0	1	3	4	5	10	4	2	162
	2.0-2.9	4	60	17	2	0	0	0	1	1	1	1	1	2	1	3	8	5	119
	3.0-3.9	0	30	2	0	0	0	0	0	0	0	0	0	1	1	1	6	1	112
	4.0-4.9	1	11	1	0	0	0	0	0	0	0	0	0	0	0	0	1	2	48
	5.0-5.9	1	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	18
	6.0-6.9	0	0	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5
	7.0-7.9	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	8.0-8.9	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	9.0-9.9	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	10.0-	LACK	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	TOTL	143	50	153	53	22	25	11	13	18	3	18	17	17	34	94	37	7	744
20M	-0.4	54	6	8	2	7	9	3	5	5	5	6	5	7	15	14	44	22	54
	0.5-0.9	20	15	20	11	12	9	5	4	0	0	1	2	3	3	1	6	4	90
	1.0-1.9	16	38	10	2	4	0	0	0	1	0	0	0	0	0	0	0	4	185
	2.0-2.9	6	44	11	2	0	0	0	0	1	1	1	1	1	1	1	6	5	132
	3.0-3.9	3	22	3	0	0	0	0	0	1	1	1	1	1	1	1	5	1	102
	4.0-4.9	2	9	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	90
	5.0-5.9	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	46
	6.0-6.9	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	22
	7.0-7.9	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	12
	8.0-8.9	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3
	9.0-9.9	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
	10.0-	LACK	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	TOTL	54	68	158	44	28	44	19	13	19	13	19	13	20	24	27	53	107	48
40M	-0.4	12	1	2	1	6	4	6	5	4	0	1	1	1	1	1	5	1	5
	0.5-0.9	11	21	8	10	9	5	4	7	1	0	1	2	2	2	1	1	4	32
	1.0-1.9	21	14	20	10	12	3	3	0	0	0	1	1	1	1	1	5	12	113
	2.0-2.9	3	14	18	11	2	1	1	1	0	0	0	0	0	0	0	4	14	157
	3.0-3.9	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	142
	4.0-4.9	8	39	12	5	3	0	0	1	1	0	0	0	0	0	0	0	0	88
	5.0-5.9	1	42	11	2	3	0	0	0	0	0	0	0	0	0	0	0	0	75
	6.0-6.9	2	21	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	43
	7.0-7.9	2	12	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	32
	8.0-8.9	2	6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	21
	9.0-9.9	0	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	11
	10.0-	LACK	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	7
	TOTL	12	63	165	54	23	29	11	28	9	23	20	22	20	23	48	94	51	744

TABLE 4.2- 4A DAILY AVERAGES

DATE	AIR TEMP. C.DEG	HUMID- ITY PERCENT	PRECIP- ITAT. MM	SOLAR RAD. MJ/SQ(M)/DAY	NET RAD. MJ/SQ(M)/DAY	WIND		
						SPD(10) M/S	SPD(20) M/S	SPD(40) M/S
1	10.2	86.1	39.5	5.0	0.9	3.6	4.8	6.6
2	10.7	86.7	0.0	13.9	1.9	0.9	1.4	2.3
3	9.8	74.2	0.0	24.1	2.2	1.8	2.3	3.5
4	11.9	46.4	3.0	14.7	1.9	1.3	2.2	3.6
5	8.7	33.7	0.0	19.7	2.4	1.8	2.3	3.3
6	10.6	75.5	0.0	23.9	2.6	1.9	2.6	3.6
7	13.6	76.1	0.0	20.1	1.4	1.7	2.5	3.7
8	12.9	73.3	0.0	16.7	1.9	2.5	3.3	4.3
9	10.2	68.0	0.0	25.9	2.9	3.1	3.9	5.0
10	10.9	87.2	10.0	11.4	1.3	0.7	1.3	2.0
11	14.3	94.1	24.5	9.8	0.8	3.0	4.0	5.4
12	11.2	87.2	1.5	4.5	1.4	2.8	3.7	4.9
13	10.2	76.1	0.0	27.8	2.7	1.5	2.0	2.9
14	11.1	76.3	0.0	22.0	2.2	1.1	1.5	2.2
15	14.5	96.7	6.0	4.2	0.6	0.8	1.4	2.5
16	13.1	96.2	7.5	2.4	0.7	2.1	3.0	4.2
17	9.9	93.7	18.0	4.9	1.2	3.5	4.4	5.6
18	10.9	86.3	0.0	28.7	1.8	1.6	2.0	2.4
19	12.7	91.8	5.5	9.1	0.7	0.8	1.5	2.2
20	13.5	96.9	4.5	4.9	1.0	1.3	2.1	3.1
21	10.2	67.0	0.0	27.0	1.5	1.0	1.6	2.4
22	13.1	94.8	16.0	4.2	0.9	0.9	1.4	2.4
23	14.5	81.2	0.0	18.9	1.8	1.0	1.5	2.4
24	14.7	78.0	0.0	25.4	2.5	1.6	2.4	3.5
25	17.7	69.6	0.0	26.1	2.1	1.8	2.7	3.8
26	16.5	70.3	0.0	26.3	2.6	1.5	2.4	3.6
27	21.0	73.0	0.0	23.6	2.1	3.5	5.3	7.5
28	17.4	85.9	0.5	7.5	0.7	0.7	1.2	2.0
29	15.0	92.5	0.0	17.9	0.3	2.7	3.6	4.6
30	12.2	85.7	1.5	6.5	1.3	1.5	2.1	3.1
MONTH	12.8	79.6	138.0	15.9	1.6	1.8	2.5	3.6
LACK	0	28	0	0	0	0	0	0

TABLE 4.2- 4B DISTRIBUTION OF WIND DIRECTION FREQUENCIES (%)

CALM	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW			SW	WSW	W	WNW	NW	NNW	N
									10N	20N	30N							
17.8	3.6	17.6	10.0	5.1	1.5	4.0	2.5	7.1	2.1	3.3	3.6	8.2	7.8	0.8	1.0			
9.9	4.4	19.3	9.4	4.9	2.5	3.6	4.6	6.0	1.9	4.6	4.2	4.7	9.7	1.2	1.2			
3.3	4.2	19.0	11.0	4.3	2.8	3.9	6.8	5.8	2.8	6.4	3.7	4.2	8.5	8.1	3.5	1.8		

TABLE 4.2-4C HOURLY AVERAGES AND STANDARD DEVIATIONS

TABLE 4.2-4D FREQUENCY DISTRIBUTIONS OF STABILITY CATEGORY

JAERI - M 86 - 050

TABLE 4.2-4E FREQUENCY DISTRIBUTIONS OF WIND DIRECTION AND SPEED

TABLE 4.2- 5A DAILY AVERAGES

	DATE	AIR TEMP. C. DEG	HUMID- ITY PERCENT	PRECIP- ITAT. MM	SOLAR RAD. MJ/SQ (M) DAY	NET RAD. MJ/SQ (M) DAY	WIND SPD(10) M/S	WIND SPD(20) M/S	WIND SPD(40) M/S
	1	12.6	81.3	1.5	12.2	0.9	0.8	1.1	2.0
	2	14.4	86.7	2.0	18.7	0.9	1.3	1.7	2.5
	3	15.5	75.6	0.0	23.0	2.1	1.8	2.3	3.6
	4	16.8	77.4	0.0	26.0	2.2	1.7	2.5	3.7
	5	17.0	75.1	0.0	25.8	1.9	2.9	4.0	5.3
	6	13.7	79.4	1.5	19.2	1.4	3.7	4.8	6.1
	7	18.0	91.6	5.0	4.8	1.2	2.2	3.2	4.6
	8	14.7	83.3	0.0	23.1	1.7	1.6	2.3	3.5
	9	14.8	74.9	0.5	29.5	1.8	1.6	2.1	3.0
	10	14.0	70.3	0.0	28.5	2.4	1.4	1.8	2.7
	11	17.4	72.4	0.0	27.1	1.8	2.3	3.1	4.2
	12	18.2	81.0	0.5	21.7	1.3	2.1	2.8	3.7
	13	16.9	87.8	21.0	21.0	0.7	3.5	4.5	5.8
	14	19.3	67.7	0.0	22.6	2.1	1.1	1.6	3.2
	15	15.9	61.0	1.0	28.0	1.8	1.5	1.9	3.6
	16	13.9	89.2	40.5	4.4	0.9	4.8	5.7	6.9
	17	12.6	84.0	15.0	18.1	2.4	3.3	4.0	4.9
	18	13.8	66.4	0.0	29.2	2.6	1.6	2.2	3.5
	19	18.8	63.1	0.0	28.7	2.3	2.1	3.2	4.9
	20	18.3	78.6	0.0	28.2	1.8	0.9	1.2	2.0
	21	17.5	87.2	0.0	26.7	1.4	1.0	1.3	1.7
	22	19.8	79.3	0.0	27.1	1.6	1.4	2.0	2.8
	23	17.1	68.3	0.0	26.8	2.0	1.4	1.7	2.4
	24	14.7	73.5	0.0	24.9	2.2	3.6	4.5	5.7
	25	13.0	76.3	2.0	17.7	1.1	4.8	5.8	6.9
	26	12.0	70.9	0.0	28.8	1.7	4.2	5.3	6.4
	27	13.6	75.0	0.0	20.3	1.3	0.9	1.7	2.8
	28	18.8	70.0	0.0	27.5	1.8	1.7	2.1	3.3
	29	18.9	80.7	1.0	16.3	1.1	1.6	1.9	3.1
	30	20.9	77.4	0.0	32.4	1.1	1.6	1.9	2.9
	31	20.5	84.2	0.0	22.3	1.6	1.1	2.1	3.1
MONTH		16.2	77.0	91.5	22.9	1.6	2.1	2.7	3.8
LACK		1	13	0	1	0	1	1	1

TABLE 4.2- 5B DISTRIBUTION OF WIND DIRECTION FREQUENCIES (%)

	CALM	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	NNW	N
10M	19.9	3.2	17.4	11.0	5.7	2.2	1.5	2.7	9.3	4.6	3.6	3.0	6.2	1.1
20M	13.9	5.4	18.6	10.4	4.2	2.2	1.6	3.1	9.8	4.0	4.2	4.7	7.1	1.3
40M	2.8	2.0	17.1	13.7	5.1	3.2	2.3	7.9	7.1	4.6	6.1	3.5	3.1	5.1

TABLE 4.2- SC HOURLY AVERAGES AND STANDARD DEVIATIONS

	TIME(HR)	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	
WIND SPD	=																									
10M	MEAN	1.3	1.2	1.4	1.5	1.4	1.3	1.5	1.8	2.5	2.9	2.9	3.2	3.2	3.3	3.5	3.3	3.1	2.5	2.1	1.6	1.3	1.1	1.4	1.4	
10M	SIGM	1.9	1.7	2.0	1.7	1.5	1.4	1.9	1.5	1.4	1.4	1.4	1.3	1.3	1.7	1.4	1.4	1.6	1.8	1.8	1.8	1.6	1.8	1.8	1.7	
20M	MEAN	1.8	1.6	2.0	1.9	1.7	1.9	2.4	3.0	3.5	3.8	3.9	3.8	4.0	4.2	4.0	4.0	4.2	4.0	3.9	3.3	2.9	2.3	1.9	1.7	2.0
20M	SIGM	2.3	2.2	2.3	2.1	1.8	1.9	2.4	1.7	1.8	1.8	1.8	1.8	1.5	2.0	1.7	1.7	1.9	2.1	2.2	2.1	2.0	2.0	2.2	2.0	
40M	MEAN	2.9	2.8	3.2	3.3	3.0	2.9	2.7	3.0	3.7	4.3	4.8	5.0	5.0	5.1	5.4	5.1	5.0	4.4	4.1	3.4	3.1	3.0	3.3	3.2	
40M	SIGM	2.5	2.4	2.5	2.3	1.9	1.8	2.7	2.7	2.2	2.2	2.4	2.1	1.9	2.5	2.2	2.1	2.3	2.5	2.5	2.5	2.2	2.5	2.4	2.1	
TEMPRA-TURE	MEAN	13.9	13.7	13.6	13.3	13.2	14.3	16.1	17.6	18.1	18.5	18.7	18.7	18.6	18.6	18.5	17.9	17.2	16.8	16.4	15.9	15.5	15.1	15.0	14.7	
TEMPRA-TURE	SIGM	2.5	2.6	2.7	2.8	2.8	2.7	2.9	3.0	3.4	3.7	3.8	3.4	3.3	3.5	3.2	3.2	3.0	2.8	2.9	2.7	2.6	2.4	2.4	2.4	
HUMIDITY	MEAN	85.2	86.0	85.8	86.9	87.1	84.5	77.1	72.3	69.1	67.7	67.1	67.3	68.3	67.7	68.6	69.8	72.9	75.8	77.8	79.5	81.5	82.9	84.0		
HUMIDITY	SIGM	9.9	9.5	9.7	7.2	7.7	8.9	11.4	13.0	13.0	13.7	12.6	13.6	13.2	13.5	13.0	13.3	12.2	10.1	12.3	12.4	12.1	12.2	12.1	10.7	
APSE	RATE	MEAN	1.5	1.8	1.3	1.6	1.6	-0.5	-1.8	-2.4	-2.7	-2.8	-3.0	-3.0	-2.7	-2.5	-2.1	-1.6	-1.1	-0.6	0.0	0.7	0.8	0.8	1.1	
APSE	SIGM	2.7	2.7	2.3	2.8	2.9	1.1	0.8	0.7	0.9	1.1	1.0	1.0	1.1	0.7	0.7	0.5	0.6	0.8	0.9	1.3	2.1	2.2	2.2	2.5	
STABIL.	RATIO	MEAN	***	***	0.7	1.0	0.8	-0.0	-0.8	-1.0	-0.9	-0.7	-0.5	-0.5	-0.4	-0.4	-0.4	-0.4	-0.4	-0.3	-0.1	0.0	***	0.6	0.2	
STABIL.	RATIO	SIGM	***	***	1.8	1.3	1.4	0.2	1.2	1.0	0.8	0.4	0.3	0.4	0.4	0.5	0.6	0.5	0.6	0.5	0.2	0.9	***	1.3	0.8	
RADIA-TION	MEAN	0.1	0.1	0.1	0.1	0.1	0.0	1.1	1.7	2.1	2.7	3.0	2.9	2.6	1.9	1.3	0.7	0.1	0.2	0.1	0.1	0.1	0.1	0.1		
RADIA-TION	SIGM	0.1	0.1	0.1	0.1	0.1	0.0	0.5	0.7	0.9	1.0	1.1	1.0	0.9	0.8	0.5	0.3	0.1	0.1	0.1	0.1	0.1	0.1	0.1		

TABLE 4-2-5 FREQUENCY DISTRIBUTIONS OF STABILITY CATEGORY

## JAERI - M 86 - 050

TABLE 4.2- SE FREQUENCY DISTRIBUTIONS OF WIND DIRECTION AND SPEED

	CALM	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	NNW	NW	NNW	N	LACK	TOTL	
10M	-0.4	148	5	6	9	1	1	2	1	4	13	23	20	5	4	0	148	0	106	
	0.5-0.9		0	22	11	3	5	6	13	11	14	21	10	2	4	0	0	0	106	
	1.0-1.9		2	14	27	13	4	6	8	14	7	3	1	0	0	0	0	0	158	
	2.0-2.9		6	18	0	0	1	1	1	23	9	5	1	0	0	0	0	0	107	
	3.0-3.9		3	41	7	0	0	0	0	21	1	1	0	0	0	0	0	0	82	
	4.0-4.9		3	32	1	0	0	0	0	0	4	1	0	0	0	0	0	0	76	
	5.0-5.9		3	2	9	1	0	0	0	0	0	0	0	0	0	0	0	0	45	
	6.0-6.9		3	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	13	
	7.0-7.9		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	8	
	8.0-8.9		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	9.0-9.9		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	10.0-		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	LACK		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	
	TOTL	148	24	129	82	42	16	11	20	69	34	27	22	28	46	30	7	8	1	744
20M	-0.4	103	3	2	5	0	2	4	3	15	4	9	11	7	5	2	0	0	103	
	0.5-0.9		3	11	20	14	5	4	5	19	7	2	1	0	0	0	0	0	71	
	1.0-1.9		3	9	22	8	11	5	5	19	2	4	3	0	0	2	2	0	164	
	2.0-2.9		3	15	24	4	0	0	0	16	0	1	1	0	0	0	0	0	118	
	3.0-3.9		7	21	6	0	0	0	0	0	5	0	2	0	0	0	0	0	91	
	4.0-4.9		7	30	3	0	0	0	0	0	16	0	1	0	0	0	0	0	63	
	5.0-5.9		4	25	0	0	0	0	0	0	0	0	0	0	0	0	0	0	58	
	6.0-6.9		4	18	0	0	0	0	0	0	0	0	0	0	0	0	0	0	37	
	7.0-7.9		3	5	3	0	0	0	0	0	0	0	0	0	0	0	0	0	24	
	8.0-8.9		1	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	9	
	9.0-9.9		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5	
	10.0-		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	LACK		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	
	TOTL	103	40	138	77	31	16	12	23	73	30	31	35	31	31	10	1	1	744	
40M	-0.4	21	1	1	4	0	2	1	5	13	7	7	2	3	2	0	0	21	34	
	0.5-0.9		5	8	11	9	7	1	5	10	8	7	1	5	7	2	1	10	126	
	1.0-1.9		2	4	13	14	8	8	9	11	5	10	8	1	9	21	12	3	144	
	2.0-2.9		1	9	22	10	5	6	6	11	5	10	8	5	11	11	13	1	127	
	3.0-3.9		1	3	19	3	0	2	15	9	5	2	2	0	0	0	0	0	77	
	4.0-4.9		2	7	19	3	0	2	0	9	12	3	6	2	0	0	0	0	64	
	5.0-5.9		2	2	18	13	0	2	15	9	14	2	0	0	0	0	0	0	57	
	6.0-6.9		2	2	22	9	1	0	7	1	1	0	1	0	0	0	0	0	42	
	7.0-7.9		0	1	21	0	0	0	0	0	0	0	0	0	0	0	0	0	24	
	8.0-8.9		1	17	3	0	0	0	0	0	0	0	0	0	0	0	0	0	13	
	9.0-9.9		0	11	0	0	0	0	0	0	0	0	0	0	0	0	0	0	14	
	10.0-		0	9	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1	
	LACK		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	
	TOTL	21	15	127	102	38	24	17	59	53	34	26	23	55	38	23	10	1	744	

TABLE 4.2- 6A DAILY AVERAGES

DATE	AIR TEMP.	HUMIDITY	PRECIPITATION	RAD. ITAT.	NET RAD.	WIND SPD(10) M/S	WIND SPD(20) M/S	WIND SPD(40) M/S
1	19.8	77.1	0.0	15.9	1.5	0.9	1.0	2.0
2	17.1	67.5	0.0	33.6	1.7	2.2	2.7	3.6
3	15.6	73.8	0.0	12.2	0.6	3.5	4.4	5.1
4	15.4	76.3	0.0	35.7	2.0	3.8	4.9	6.1
5	14.7	74.5	0.0	36.5	2.5	2.0	2.3	2.9
6	16.7	78.5	7.0	25.9	1.2	1.3	1.5	2.2
7	17.4	82.7	1.0	30.3	1.4	1.8	2.1	2.8
8	18.9	78.4	0.0	20.5	1.4	1.0	1.4	2.3
9	20.9	77.6	0.0	23.3	1.2	1.6	2.1	3.2
10	18.7	75.3	4.0	27.7	1.5	2.1	2.6	3.4
11	16.0	78.0	0.0	23.6	1.3	4.2	5.3	6.4
12	14.9	81.5	4.5	13.7	0.7	1.7	2.2	2.9
13	17.3	92.4	21.0	6.7	1.1	1.8	2.4	3.9
14	19.3	73.3	0.0	35.6	1.7	1.4	1.8	2.8
15	19.8	74.7	0.0	30.4	1.9	2.2	2.5	3.8
16	15.5	88.4	0.0	6.2	0.8	3.1	4.0	4.9
17	18.0	85.3	0.5	6.4	0.9	3.2	4.1	5.1
18	15.3	89.7	31.5	4.6	0.7	3.5	4.6	5.5
19	16.5	86.4	0.0	26.3	1.2	1.4	1.8	2.2
20	17.0	91.2	21.0	5.1	0.5	1.0	1.4	2.1
21	18.2	88.8	47.0	15.2	1.4	1.8	2.4	3.5
22	16.3	84.9	0.0	23.8	1.3	2.5	3.3	4.3
23	15.9	86.1	0.0	5.8	0.5	0.8	1.2	1.7
24	17.9	92.3	36.0	5.3	0.6	1.4	2.0	3.0
25	19.7	77.5	0.0	28.2	1.1	1.5	1.4	2.5
26	15.6	84.9	0.0	8.1	0.6	3.7	4.8	6.1
27	15.5	85.7	0.0	10.7	0.5	3.4	4.3	5.1
28	16.9	88.0	0.0	24.0	1.5	2.7	3.3	3.9
29	18.2	85.4	0.0	26.8	1.6	1.1	1.2	1.9
30	20.3	78.8	0.0	22.8	1.1	1.7	2.1	3.3
MONTH	17.3	81.8	173.5	19.8	1.2	2.1	2.7	3.6
LACK	7	9	2	3	3	6	6	6

TABLE 4.2- 6B DISTRIBUTION OF WIND DIRECTION FREQUENCIES (%)

	CALM	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	NNW	NW	NNW	N
10M	4.1	29.0	16.8	7.1	3.9	3.4	3.2	5.0	2.8	1.8	2.0	1.7	2.1	2.1	2.1	1.0	
13.0	9.1	32.6	12.6	4.8	3.8	3.4	2.8	5.0	3.1	1.5	2.8	3.5	2.7	0.3	0.1	0.8	
20M	6.2	29.0	17.4	6.7	3.5	4.6	4.9	5.0	2.9	2.4	2.9	2.0	4.1	2.1	2.1	1.5	
40M																	

TABLE 4.2- 6C HOURLY AVERAGES AND STANDARD DEVIATIONS

TABLE 4.2- 6D FREQUENCY DISTRIBUTIONS OF STABILITY CATEGORY

JAERI - M 86 - 050

TABLE 4-2-6E FREQUENCY DISTRIBUTIONS OF WIND DIRECTION AND SPEED

TABLE 4.2-7A DAILY AVERAGES

DATE	AIR	HUMID-	PRECIP-	SOLAR	NET	WIND	WIND	WIND
	TEMP.	ITY	ITAT.	RAD.	RAD.	SPD(10)	SPD(20)	SPD(40)
	C. DEG	PERCENT	MM	MJ/SQ(M)/DAY	MJ/SQ(M)/DAY	M/S	M/S	M/S
1	20.2	83.8	3.0	10.1	1.1	1.1	1.5	2.7
2	17.4	89.3	0.0	11.3	0.6	3.2	4.1	5.0
3	16.6	93.8	23.5	7.3	0.4	3.6	4.6	5.5
4	19.3	90.8	0.0	26.8	0.5	2.7	3.4	4.2
5	18.6	89.5	41.5	3.0	0.6	2.7	3.5	4.7
6	19.5	83.8	2.5	20.2	0.7	2.0	2.5	3.5
7	15.9	81.0	0.0	11.8	0.6	3.1	4.0	5.2
8	15.3	90.1	3.0	5.8	0.4	3.5	4.5	5.5
9	18.4	87.5	7.5	10.3	0.5	1.8	2.2	2.9
10	17.6	84.8	0.0	17.1	0.6	3.0	3.7	4.5
11	16.9	81.6	0.0	10.3	1.4	3.7	4.7	5.5
12	16.4	75.6	0.0	19.5	1.5	4.5	5.8	6.9
13	16.7	80.8	1.0	21.2	1.5	1.4	1.6	2.5
14	19.6	84.8	0.0	25.8	1.6	1.4	1.7	2.6
15	22.7	90.2	1.5	6.6	0.8	1.0	1.5	2.5
16	25.8	84.8	2.5	8.5	0.7	1.9	3.0	4.3
17	20.5	88.0	0.5	4.9	0.5	1.5	2.1	2.9
18	19.7	91.0	9.5	15.1	1.4	1.3	1.6	2.1
19	22.7	81.8	0.0	26.8	1.7	1.5	1.6	2.8
20	21.1	89.8	6.5	7.1	0.5	0.9	1.2	1.9
21	22.0	92.2	6.0	7.3	0.5	0.6	0.7	1.7
22	18.3	88.5	1.5	9.5	***	1.0	1.3	2.3
23	22.0	85.0	0.0	16.9	1.1	1.1	1.4	2.0
24	24.6	79.6	0.0	11.6	1.1	0.8	0.8	1.9
25	23.3	84.5	20.5	17.3	1.0	1.3	1.6	2.4
26	21.5	90.5	4.0	15.3	1.0	1.2	1.6	2.2
27	24.9	85.5	17.5	18.1	0.6	1.4	2.1	3.0
28	26.0	78.4	9.5	23.1	1.8	1.4	2.0	2.8
29	22.5	84.5	6.5	23.7	1.3	1.9	2.4	3.0
30	25.1	85.5	0.5	18.7	0.7	1.2	1.7	2.3
31	26.7	86.8	0.0	12.9	1.1	0.9	1.4	2.1
MONTH	20.5	86.0	168.5	14.3	0.9	1.9	2.5	3.3
LACK	24	26	16	5	19	11	11	11

TABLE 4.2-7B DISTRIBUTION OF WIND DIRECTION FREQUENCIES (%)

	CALM	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	NNW	NW	NNW	N
10M	17.2	4.4	20.9	16.3	6.9	3.0	2.2	2.8	7.3	1.9	2.8	4.7	1.9	3.5	3.1	0.4	0.6
20M	15.6	6.2	26.2	13.2	4.9	2.5	2.5	2.5	6.8	2.6	2.6	5.8	3.2	3.1	1.0	0.6	0.7
40M	3.5	5.1	21.7	17.8	6.8	2.7	3.0	6.4	5.0	3.5	6.2	3.3	3.3	3.5	1.1	1.1	1.6

TABLE 4.2-7C HOURLY AVERAGES AND STANDARD DEVIATIONS

TIME(HR)	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	
WIND SPD																									
H=																									
10M	MEAN	1.2	1.2	1.2	1.2	1.3	1.8	2.0	2.1	2.5	2.7	2.6	2.5	2.4	2.2	2.1	2.0	1.9	1.8	1.5	1.7	1.4	1.4	1.4	
	SIGM	1.1	1.3	1.1	1.3	1.2	1.2	1.6	1.4	1.4	1.3	1.1	1.3	1.1	1.4	1.3	1.5	1.7	1.7	1.5	1.4	1.4	1.4	1.4	
20M	MEAN	1.7	1.6	1.5	1.7	1.6	1.8	2.3	2.6	2.7	2.6	3.1	3.1	3.3	3.2	3.1	3.0	2.8	2.7	2.8	2.6	2.6	2.1	2.2	2.2
	SIGM	1.5	1.6	1.5	1.7	1.6	1.6	2.0	1.8	1.8	1.7	1.5	1.6	1.3	1.6	1.6	1.8	1.9	2.2	2.0	1.9	1.8	1.9	1.9	1.9
40M	MEAN	2.5	2.5	2.6	2.7	2.8	2.7	3.1	3.2	3.4	3.2	3.3	3.8	3.9	4.0	4.1	3.9	3.9	3.8	3.6	3.7	3.5	3.0	3.3	3.2
	SIGM	1.7	1.8	1.6	1.7	1.6	1.6	2.2	2.2	2.0	1.8	1.6	1.8	1.6	1.9	1.9	2.0	2.2	2.5	2.2	2.1	2.1	1.8	1.9	2.0
TEMPERATURE	MEAN	19.6	19.4	19.4	19.3	19.3	19.6	20.1	20.7	21.5	20.6	20.8	22.0	22.0	21.8	21.6	21.0	20.5	20.2	20.2	20.1	20.0	20.0	20.0	
	SIGM	2.8	2.8	2.8	2.8	2.8	3.1	3.5	3.9	7.9	7.9	4.2	4.3	4.3	3.9	3.8	3.6	3.4	3.3	3.2	3.2	3.0	3.1	3.1	
HUMIDITY	MEAN	89.6	90.0	90.1	89.9	89.3	86.7	85.5	82.7	81.6	77.0	80.3	80.4	81.5	82.6	85.3	86.8	88.3	89.1	89.6	89.5	89.4	89.9	89.9	
	SIGM	4.0	4.2	4.1	4.9	4.5	4.2	6.0	5.7	7.5	7.7	16.6	8.2	8.1	8.4	7.7	7.1	6.3	5.4	4.9	4.4	4.1	4.8	4.2	3.4
LAPSE RATE	MEAN	-0.1	0.0	-0.0	0.3	-0.0	-0.9	-1.3	-1.9	-2.2	-2.2	-2.3	-2.5	-2.2	-2.2	-1.6	-1.4	-1.1	-0.4	-0.1	-0.1	0.3	0.0	-0.1	0.1
	SIGM	1.2	1.4	1.3	2.1	1.3	1.0	1.0	1.0	1.0	0.7	0.9	0.7	0.8	1.1	0.8	1.0	0.8	1.3	1.3	1.6	1.8	1.4	1.2	1.2
STABIL. RATIO	MEAN	-0.1	-0.0	0.0	-0.2	-0.2	-0.4	-0.4	-0.6	-0.9	-0.9	-0.5	-0.6	-0.5	-0.5	-0.6	-0.4	-0.4	-0.3	0.0	0.0	-0.3	-0.1	-0.1	0.1
	SIGM	0.5	0.5	0.7	0.8	0.2	0.3	0.6	0.8	1.0	0.9	0.5	0.6	0.4	0.5	0.7	0.4	0.4	0.4	0.7	0.5	1.1	0.4	0.3	0.6
RADIATION	MEAN	0.1	0.1	0.1	0.1	0.0	0.0	0.7	1.0	1.5	1.7	1.8	1.7	1.6	1.3	0.9	0.5	0.0	0.1	0.1	0.1	0.1	0.1	0.1	0.1
	SIGM	0.0	0.0	0.0	0.0	0.0	0.0	0.5	0.6	0.9	1.0	1.1	1.0	1.0	0.8	0.5	0.4	0.0	0.1	0.0	0.1	0.1	0.1	0.1	0.0

TABLE 4.2-7D FREQUENCY DISTRIBUTIONS OF STABILITY CATEGORY

## JAERI - M 86 - 050

TABLE 4.2-7E FREQUENCY DISTRIBUTIONS OF WIND DIRECTION AND SPEED

	CALM	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	N	LACK	TOTL
10M	-0.4	117	4	2	10	12	5	9	6	1	5	9	4	12	9	3	2	9	126
	0.5-0.9	11	12	30	25	14	9	2	16	6	10	13	10	15	0	0	0	3	101
	1.0-1.9	8	27	37	11	3	2	2	6	6	9	0	0	3	0	0	0	2	192
	2.0-2.9	8	57	27	2	0	0	0	13	0	0	3	0	0	0	0	0	1	130
	3.0-3.9	1	38	13	0	0	0	0	2	1	0	0	0	0	0	0	0	2	112
	4.0-4.9	0	12	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	55
	5.0-5.9	0	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	13
	6.0-6.9	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4
	7.0-7.9	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	8.0-8.9	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	9.0-9.9	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	10.0-	LACK	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	TOTL	117	32	152	118	50	22	16	20	14	20	34	14	25	22	3	4	28	744
20M	-0.4	107	2	3	17	23	11	9	4	4	4	14	10	7	6	1	5	7	114
	0.5-0.9	4	11	37	24	1	0	0	0	1	5	6	6	3	7	1	3	3	66
	1.0-1.9	11	55	7	0	0	0	0	0	0	0	0	0	0	0	1	3	150	
	2.0-2.9	3	45	2	0	0	0	0	0	0	0	0	0	0	0	0	1	1	132
	3.0-3.9	10	38	1	0	0	0	0	0	0	0	0	0	0	0	0	2	2	110
	4.0-4.9	11	55	7	0	0	0	0	0	0	0	0	0	0	0	0	1	1	85
	5.0-5.9	3	45	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	51
	6.0-6.9	3	12	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	16
	7.0-7.9	1	7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	8
	8.0-8.9	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1
	9.0-9.9	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	10.0-	LACK	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	TOTL	107	45	190	95	35	18	18	49	19	19	42	23	22	7	4	5	28	744
40M	-0.4	26	1	0	7	10	6	4	3	1	3	7	8	7	2	2	2	26	
	0.5-0.9	3	13	14	7	6	14	6	4	4	10	12	6	8	2	2	2	38	
	1.0-1.9	4	12	18	19	7	6	6	6	6	8	12	7	8	3	3	3	134	
	2.0-2.9	4	10	17	34	7	2	3	10	6	6	8	2	4	1	1	1	156	
	3.0-3.9	8	33	22	1	0	0	1	7	9	4	4	1	0	1	0	1	0	117
	4.0-4.9	8	39	16	0	1	0	1	6	7	7	0	0	1	1	0	2	93	
	5.0-5.9	9	39	18	0	0	0	0	2	2	2	0	0	0	0	0	0	88	
	6.0-6.9	2	11	4	0	0	0	0	0	0	0	0	0	0	0	0	0	1	54
	7.0-7.9	0	8	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	15
	8.0-8.9	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	8
	9.0-9.9	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3
	10.0-	LACK	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
	TOTL	26	37	157	128	48	19	21	46	36	46	23	23	25	23	23	23	39	744

TABLE 4.2- 8A DAILY AVERAGES

DATE	AIR TEMP. C.DEG	HUMID- ITY PERCENT	PRECIP- MM	ITAT. MJ/SQ(M)/DAY	NET RAD. MJ/SQ(M)/DAY	SOLAR RAD. MJ/SQ(M)/DAY	WIND		
							SPD(10) M/S	SPD(20) M/S	SPD(40) M/S
1	21.7	91.0	6.5	8.1	0.8	3.0	4.0	5.3	
2	20.6	86.6	0.0	21.7	1.0	3.1	3.9	4.9	
3	23.6	82.1	0.0	24.8	1.3	1.3	1.9	2.8	
4	23.2	85.5	0.0	22.2	0.7	1.4	1.9	2.4	
5	26.2	87.3	0.0	23.8	1.0	1.4	1.9	2.6	
6	26.9	84.7	0.0	23.4	1.7	1.6	2.3	3.3	
7	28.9	79.2	0.0	22.6	1.5	1.3	2.2	3.1	
8	26.3	83.6	0.0	24.6	2.0	1.1	1.5	2.6	
9	23.9	87.9	0.0	20.0	1.2	1.9	2.4	3.1	
10	23.4	89.6	0.5	18.7	0.7	2.2	2.8	3.8	
11	24.8	86.2	0.0	23.8	1.3	1.0	1.2	1.8	
12	25.5	84.1	0.0	18.9	1.5	1.3	1.9	2.9	
13	25.8	85.9	0.0	26.5	2.1	1.3	1.5	2.0	
14	24.6	88.5	0.0	18.8	1.0	3.6	4.6	5.9	
15	23.7	92.8	7.0	6.9	0.5	4.4	5.8	7.6	
16	24.3	94.4	5.5	11.6	0.5	1.9	2.9	4.4	
17	24.4	93.2	26.5	3.6	0.5	2.5	3.6	6.0	
18	26.0	89.4	4.5	6.9	0.6	1.6	2.7	3.9	
19	28.0	70.4	0.0	18.3	1.1	1.1	2.4	3.7	
20	25.0	76.2	0.0	22.6	1.1	3.4	4.5	6.0	
21	22.1	82.5	0.0	11.6	0.9	1.7	2.3	2.9	
22	23.1	80.9	0.0	7.9	1.2	0.5	0.8	1.2	
23	23.1	76.1	0.0	15.2	1.1	2.0	2.6	3.6	
24	21.9	78.3	0.0	8.3	0.5	2.9	3.7	4.6	
25	23.7	83.7	0.0	14.2	0.9	0.8	1.3	2.0	
26	22.8	83.2	0.0	15.8	0.8	3.9	5.0	6.4	
27	22.3	85.2	0.0	14.3	0.5	3.2	4.1	5.2	
28	22.5	80.9	0.0	8.5	0.6	1.5	2.0	2.5	
29	26.3	81.0	0.0	17.6	1.0	1.0	1.8	2.5	
30	27.1	75.6	0.0	22.1	1.2	1.2	1.6	2.6	
31	25.4	82.0	1.0	19.8	1.4	1.2	1.6	2.5	
MONTH	24.4	84.1	51.5	16.9	1.0	2.0	2.7	3.7	
LACK	2	2	0	2	0	2	2	2	

TABLE 4.2- 8B DISTRIBUTION OF WIND DIRECTION FREQUENCIES (%)

10M	CALM	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	N
10M	15.8	1.6	27.5	11.6	5.7	2.8	2.2	3.6	8.4	1.6	2.0	3.5	4.0	3.5	2.7	0.5	
20M	9.2	2.3	29.6	11.5	5.1	2.3	2.6	6.1	5.8	1.6	2.2	5.0	4.3	4.6	2.4	1.1	
40M	3.6	1.3	28.7	13.5	5.0	1.8	3.2	8.5	3.4	2.2	2.4	4.3	5.0	5.8	4.2	1.8	

TABLE 4.2- 8C HOURLY AVERAGES AND STANDARD DEVIATIONS

	TIME(HR)	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	
	WIND SPD	H=																								
10M	MEAN	1.2	1.1	1.3	1.5	1.6	1.6	1.8	1.9	2.2	2.4	2.5	2.6	2.9	2.9	2.8	2.9	2.6	2.3	1.7	1.6	1.5	1.4	1.4	1.4	
	SIGM	1.3	1.4	1.5	1.5	1.6	1.6	1.7	1.4	1.5	1.4	1.3	1.2	1.3	1.2	1.3	1.2	1.4	1.3	1.2	1.4	1.5	1.4	1.4	1.3	
20M	MEAN	1.8	1.7	1.9	2.1	2.4	2.3	2.5	2.7	2.8	3.1	3.2	3.3	3.7	3.8	3.6	3.7	3.4	3.1	2.5	2.3	2.3	2.0	2.0	1.9	
	SIGM	1.7	1.6	1.8	1.8	2.0	2.0	2.1	1.8	1.9	1.8	1.6	1.5	1.6	1.6	1.5	1.6	1.8	1.8	1.6	1.6	1.5	1.6	1.7	1.6	
40M	MEAN	2.8	2.7	2.9	3.3	3.4	3.4	3.5	3.6	3.7	3.8	4.0	4.1	4.7	4.8	4.7	4.7	4.5	4.2	3.8	3.4	3.4	3.1	3.1	2.9	
	SIGM	2.1	1.9	2.1	2.3	2.5	2.4	2.6	2.3	2.5	2.3	2.0	1.9	2.1	2.0	2.1	2.0	2.2	2.1	2.0	1.8	1.9	2.1	1.9	2.1	
TEMPERATURE	MEAN	23.6	23.3	23.1	23.1	23.1	23.1	23.8	24.5	25.2	25.7	25.9	26.0	26.1	26.0	25.8	25.5	24.7	24.3	24.2	24.1	24.0	23.8	23.7	23.5	
	SIGM	1.6	1.6	1.5	1.7	1.6	1.7	2.1	2.5	2.7	3.1	2.9	2.9	3.0	3.0	3.4	3.1	2.7	2.5	2.2	2.2	2.1	2.0	1.8	1.8	1.7
HUMIDITY	MEAN	88.5	89.6	89.7	89.4	89.0	88.5	86.7	84.3	80.2	78.7	78.2	76.5	75.7	77.2	78.2	79.5	82.8	85.0	85.5	85.9	86.2	87.3	87.6	88.1	
	SIGM	6.1	5.5	5.5	5.8	6.3	6.4	7.4	7.3	8.9	9.2	8.9	16.3	12.7	9.8	9.3	7.7	6.4	6.2	7.4	6.2	6.0	4.8	6.0	5.9	
LAPSE RATE	MEAN	-0.0	0.2	0.3	0.1	-0.2	-0.9	-1.3	-1.8	-2.3	-2.4	-2.5	-2.8	-2.8	-2.6	-2.4	-2.4	-2.1	-1.6	-1.0	-0.4	-0.0	0.2	0.2	0.3	
	SIGM	1.3	1.6	1.5	1.4	1.0	0.7	0.5	0.7	0.8	0.7	0.7	0.9	1.0	0.9	0.8	0.7	0.6	0.9	1.5	1.9	1.9	1.5	1.7	1.7	
STABIL.	MEAN	-0.0	-0.3	-0.1	0.1	-0.1	-0.4	-0.5	-0.8	-0.7	-0.7	-0.6	-0.6	-0.5	-0.4	-0.4	-0.3	-0.3	-0.3	-0.0	-0.2	-0.3	-0.1	-0.2	-0.1	
	SIGM	0.4	0.6	0.4	0.9	0.5	0.4	0.4	0.9	0.6	0.6	0.5	0.5	0.4	0.3	0.4	0.2	0.3	0.3	0.6	0.5	0.5	0.3	0.3	0.8	
RADIA-	MEAN	0.1	0.1	0.1	0.1	0.0	0.0	0.6	1.0	1.7	2.1	2.1	2.2	2.2	1.9	1.5	1.1	0.5	0.1	0.1	0.1	0.1	0.1	0.1	0.1	
	SIGM	0.0	0.0	0.0	0.0	0.0	0.0	0.4	0.5	0.5	0.7	0.9	0.9	1.0	1.0	0.8	0.5	0.3	0.0	0.1	0.1	0.1	0.0	0.0	0.0	

TABLE 4.2-80 FREQUENCY DISTRIBUTIONS OF STABILITY CATEGORY

## JAERI - M 86 - 050

TABLE 4.2- 8E FREQUENCY DISTRIBUTIONS OF WIND DIRECTION AND SPEED

	CALM	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	NNW	NW	NNW	N	LACK	TOTL
10M	-0.4	117	2	6	7	8	5	7	4	3	5	5	12	12	17	5	3	0	117
	0.5-0.9		25	27	18	12	5	9	11	21	1	1	10	11	13	12	1	0	113
	1.0-1.9		8	27	14	4	3	9	21	1	3	4	0	2	0	3	0	0	183
	2.0-2.9		2	48	27	0	1	5	18	1	1	1	0	0	0	1	0	0	141
	3.0-3.9		0	64	14	2	0	0	0	0	0	0	0	0	0	0	0	0	107
	4.0-4.9		0	41	4	0	0	0	0	0	0	0	0	0	0	0	0	0	54
	5.0-5.9		0	13	5	0	0	0	0	0	0	0	0	0	0	0	0	0	18
	6.0-6.9		0	15	2	0	0	0	0	0	0	0	0	0	0	0	0	0	7
	7.0-7.9		0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2
	8.0-8.9		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	9.0-9.9		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	10.0-		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	LACK		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	TOTL	117	12	204	86	42	21	16	27	62	12	15	26	22	30	26	20	4	744
20M	-0.4	68																	
	0.5-0.9		1	6	7	15	13	7	5	10	2	5	12	12	17	11	3	0	68
	1.0-1.9		5	18	32	16	5	2	8	14	11	2	3	6	5	19	9	0	65
	2.0-2.9		7	44	16	16	4	2	0	12	17	1	4	0	3	8	5	0	174
	3.0-3.9		0	48	11	0	0	0	1	1	1	1	0	0	0	1	0	0	157
	4.0-4.9		0	40	4	0	0	0	0	2	2	0	0	0	0	0	0	0	99
	5.0-5.9		0	21	0	0	0	0	0	0	0	0	0	0	0	0	0	0	85
	6.0-6.9		0	7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	56
	7.0-7.9		0	10	0	0	0	0	0	0	0	0	0	0	0	0	0	0	21
	8.0-8.9		0	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5
	9.0-9.9		0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2
	10.0-		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	LACK		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2
	TOTL	68	17	220	85	38	17	19	45	43	12	16	37	32	34	33	18	8	744
40M	-0.4	27																	
	0.5-0.9		0	1	2	11	12	4	7	6	3	5	2	1	0	3	2	4	27
	1.0-1.9		1	10	21	26	7	3	5	11	3	4	3	2	1	11	7	4	22
	2.0-2.9		3	3	28	21	12	3	4	16	7	2	4	6	6	8	13	6	125
	3.0-3.9		3	3	32	17	3	2	1	9	1	0	2	5	2	1	13	4	153
	4.0-4.9		3	3	40	13	1	0	1	7	5	2	1	0	0	0	1	0	133
	5.0-5.9		0	37	6	0	0	0	0	0	0	0	0	0	0	0	0	0	84
	6.0-6.9		0	22	1	0	0	0	0	0	0	0	0	0	0	0	0	0	75
	7.0-7.9		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	60
	8.0-8.9		0	9	1	0	0	0	0	0	0	0	0	0	0	0	0	0	30
	9.0-9.9		6	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	16
	10.0-		0	8	1	0	0	0	0	0	0	0	0	0	0	0	0	0	8
	LACK		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	9
	TOTL	27	10	213	100	37	13	24	63	25	16	18	32	40	37	43	31	2	744

TABLE 4.2- 9A DAILY AVERAGES

DATE	AIR TEMP. C. DEG	HUMID- ITY PERCENT	PRECIP- ITAT. MM	NET RAD. MJ/SQ(M)/DAY	SOLAR RAD. MJ/SQ(M)/DAY	WIND		
						SPD(10) M/S	SPD(20) M/S	SPD(40) M/S
1	23.6	88.7	2.0	7.0	2.0	0.7	1.1	1.9
2	23.8	84.5	0.0	21.4	1.5	1.8	2.4	3.3
3	24.7	87.4	0.0	20.4	1.1	1.3	1.8	2.2
4	25.2	84.2	0.0	19.8	1.5	1.0	1.2	1.7
5	26.1	83.1	0.0	20.1	1.5	1.0	1.4	2.1
6	26.9	81.9	0.0	19.5	1.4	1.6	2.3	3.4
7	25.1	82.8	6.5	18.5	1.5	1.7	2.4	3.1
8	22.2	88.0	10.5	5.1	1.2	1.2	1.8	2.7
9	21.5	72.8	0.0	18.6	1.8	2.8	3.9	5.1
10	21.8	81.1	0.0	12.0	1.1	0.9	1.3	1.8
11	22.7	83.6	0.0	7.6	0.8	1.7	2.4	3.1
12	23.5	89.3	0.5	8.0	0.8	0.7	1.1	1.5
13	23.6	77.6	0.0	21.5	2.3	1.2	1.7	2.7
14	21.9	70.5	0.0	14.3	1.4	1.1	1.6	2.5
15	20.5	76.1	10.0	3.6	0.8	2.2	3.0	4.3
16	18.9	78.0	10.5	4.7	1.1	3.0	4.0	5.5
17	20.0	71.5	0.0	20.8	1.6	3.0	3.9	5.3
18	20.1	69.2	0.0	10.7	1.1	2.3	3.2	4.1
19	19.5	77.1	0.0	8.6	1.2	1.0	1.5	2.3
20	20.3	84.0	0.0	8.4	1.0	0.6	1.2	2.0
21	20.5	86.8	1.5	8.6	0.6	1.2	1.7	2.3
22	21.3	77.3	17.5	9.0	1.2	2.5	3.4	4.7
23	19.6	76.8	0.0	17.3	2.2	1.5	2.3	3.2
24	18.3	89.5	18.0	3.0	0.9	1.1	1.7	2.6
25	20.6	88.0	0.0	6.7	1.3	0.8	1.6	2.3
26	20.2	75.0	0.0	12.8	1.2	2.0	2.7	4.1
27	17.0	84.5	15.5	5.7	1.0	1.2	1.8	2.7
28	16.4	74.3	74.0	2.1	0.8	4.2	5.4	7.3
29	17.5	54.4	2.0	20.7	1.5	4.2	5.6	7.2
30	16.7	76.7	0.0	13.6	1.6	1.0	1.4	2.5
MONTH	21.3	79.8	168.5	12.3	1.3	1.7	2.4	3.3
LACK	2	3	0	1	0	1	1	1

TABLE 4.2- 9B DISTRIBUTION OF WIND DIRECTION FREQUENCIES (%)

	CALM	NNE	NE	ENE	E	ESE	SSE	S	SSW	SW	WSW	NNW	NW	WNW	W	WW	W	NNW	NW	WNW	W	WW	W	NNW	N
10M	19.2	7.0	17.1	12.9	6.1	3.6	3.1	2.5	3.2	0.6	1.3	1.8	1.1	3.6	1.1	3.6	1.1	3.6	10.6	3.1	3.3	3.1	3.9		
20M	8.6	9.6	17.5	11.8	5.8	5.1	2.2	3.1	3.1	1.0	2.1	2.4	2.9	6.8	10.7	3.1	4.2	6.4	10.8	6.5	2.2	6.4	10.8		
40M	2.2	9.6	18.8	12.0	6.5	4.6	3.2	4.9	1.8	1.9	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8		

TABLE 4.2- 9C      HOURLY AVERAGES AND STANDARD DEVIATIONS

TABLE 4-2-9D FREQUENCY DISTRIBUTIONS OF STABILITY CATEGORY

TABLE 4-2- 9E FREQUENCY DISTRIBUTIONS OF WIND DIRECTION AND SPEED

	CALM	NNE	NE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	NNW	N	NACK	TOTL
10M	-0.4	138	9	2	4	8	1	7	2	3	2	6	17	45	13	0
	0.5-0.9														18	0
	1.0-1.9	17	19	28	16	9	5	10	2	3	5	2	9	31	6	0
	2.0-2.9	10	40	29	8	9	5	9	0	1	0	0	0	0	0	197
	3.0-3.9	10	22	14	2	0	1	2	3	0	0	0	0	0	0	116
	4.0-4.9	1	22	14	0	0	0	1	0	0	0	0	0	0	0	54
	5.0-5.9	0	10	2	0	0	0	1	0	0	0	0	0	0	0	38
	6.0-6.9	1	2	1	0	0	0	0	0	0	0	0	0	0	0	13
	7.0-7.9	2	1	0	0	0	0	0	0	0	0	0	0	0	0	4
	8.0-8.9	0	4	0	0	0	0	0	0	0	0	0	0	0	0	4
	9.0-9.9	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1
	10.0-	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
LACK		0	0	0	0	0	0	0	0	0	0	0	0	0	1	1
TOTL	138	50	123	93	44	26	18	23	4	9	13	8	26	76	24	720
20M	-0.4	62														62
	0.5-0.9														0	0
	1.0-1.9	17	7	15	12	5	4	1	5	3	11	10	27	56	9	88
	2.0-2.9	16	20	22	18	15	5	3	3	0	3	14	8	1	2	220
	3.0-3.9	12	39	17	4	4	3	3	3	0	0	0	0	0	0	149
	4.0-4.9	13	14	10	1	0	2	1	1	0	0	0	0	0	0	86
	5.0-5.9	2	16	13	1	0	0	0	0	0	0	0	0	0	0	42
	6.0-6.9	1	14	4	0	0	0	0	0	0	0	0	0	0	0	34
	7.0-7.9	0	6	1	0	0	0	0	0	0	0	0	0	0	0	19
	8.0-8.9	1	2	0	0	0	0	0	0	0	0	0	0	0	0	7
	9.0-9.9	2	2	0	0	0	0	0	0	0	0	0	0	0	0	3
	10.0-	0	5	0	0	0	0	0	0	0	0	0	0	0	0	4
LACK		0	0	0	0	0	0	0	0	0	0	0	0	0	0	5
TOTL	62	69	126	85	42	37	16	22	7	15	17	21	49	77	22	301
40M	-0.4	16														16
	0.5-0.9														0	0
	1.0-1.9	13	6	7	8	7	4	3	8	5	4	8	15	22	1	25
	2.0-2.9	15	18	16	18	17	6	10	2	5	4	8	5	22	15	145
	3.0-3.9	11	22	16	13	3	6	13	1	0	1	2	2	8	16	209
	4.0-4.9	8	28	16	3	0	3	3	2	0	1	0	0	0	4	130
	5.0-5.9	8	10	9	1	2	0	0	0	0	0	0	0	0	0	72
	6.0-6.9	7	17	8	2	0	0	0	0	0	0	0	0	0	0	33
	7.0-7.9	1	10	9	1	0	0	0	0	0	0	0	0	0	0	38
	8.0-8.9	0	7	5	0	0	0	0	0	0	0	0	0	0	0	21
	9.0-9.9	0	6	0	0	0	0	0	0	0	0	0	0	0	0	12
	10.0-	0	3	8	1	0	0	0	0	0	0	0	0	0	0	6
LACK		0	0	0	0	0	0	0	0	0	0	0	0	0	0	12
TOTL	16	69	135	86	47	33	23	35	13	14	20	16	46	78	47	720

TABLE 4.2-10A DAILY AVERAGES

DATE	AIR TEMP. C.DEG	HUMID-ITY PERCENT	PRECIP- MM	SOLAR RAD. MJ/SQ(M)/DAY	NET RAD. MJ/SQ(M)	WIND SPD(10) M/S	WIND SPD(20) M/S	WIND SPD(40) M/S
1	19.4	77.8	0.0	18.6	2.0	1.2	1.9	2.8
2	17.9	76.8	0.0	12.5	1.6	0.8	1.2	1.8
3	19.0	74.7	0.0	15.7	1.4	1.6	2.3	3.0
4	20.2	80.3	0.0	12.3	1.0	1.5	2.1	2.8
5	20.7	78.7	11.5	12.0	1.5	1.3	1.7	2.9
6	17.5	61.2	0.0	17.2	1.3	1.1	1.7	2.8
7	16.6	67.4	0.0	18.4	2.5	1.2	1.7	2.7
8	16.3	68.9	0.5	8.2	1.1	2.0	2.9	3.9
9	19.8	91.5	18.0	5.4	0.6	1.0	1.6	2.7
10	20.1	78.1	0.0	12.0	0.9	0.8	1.3	2.2
11	18.1	79.1	7.5	***	1.6	1.6	2.4	3.9
12	15.3	64.0	0.0	17.4	2.7	1.6	2.3	3.5
13	16.7	79.9	0.0	6.5	0.8	1.1	1.6	2.7
14	17.5	66.0	0.0	9.1	1.8	0.9	1.5	2.5
15	15.1	69.2	0.5	***	2.0	1.1	1.7	2.9
16	16.2	87.1	8.5	5.3	1.6	1.0	1.5	2.4
17	16.6	80.9	0.0	12.9	1.9	1.1	1.8	2.7
18	14.9	56.5	0.0	13.7	1.9	2.3	3.2	4.4
19	12.9	78.5	20.0	3.9	0.9	1.0	1.5	2.5
20	16.4	74.6	10.5	15.9	1.6	1.9	2.7	3.7
21	14.0	73.8	7.5	2.6	0.8	2.5	3.4	4.5
22	16.0	82.0	0.0	14.5	1.3	1.2	1.7	2.6
23	14.2	68.2	1.5	8.1	1.1	1.3	1.9	2.9
24	11.3	62.7	0.0	16.5	2.4	1.1	1.7	2.6
25	10.4	56.8	0.0	16.3	3.4	1.5	2.3	3.8
26	11.5	65.5	0.0	11.0	1.8	1.2	1.8	2.7
27	14.1	72.8	9.5	12.3	2.0	1.1	1.7	3.3
28	11.6	71.9	0.0	15.0	2.5	1.0	1.5	2.9
29	13.7	63.7	0.0	15.1	2.7	1.4	1.9	3.2
30	9.0	49.0	0.0	15.9	3.1	1.0	1.4	2.8
31	8.8	66.5	0.0	13.4	2.5	0.9	1.3	2.5
MONTH	15.5	71.7	95.5	12.1	1.7	1.3	1.9	3.0
LACK	24	25	21	13	11	24	24	24

TABLE 4.2-10B DISTRIBUTION OF WIND DIRECTION FREQUENCIES (%)

	CALM	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	NNW	NW	WNW	W	NNW	N
10M	15.3	8.3	11.0	5.0	4.3	2.9	3.3	3.2	1.8	1.8	1.0	1.8	3.3	5.3	1.8	3.3	15.6	4.6	
20M	5.4	9.7	10.2	5.6	4.5	3.1	3.6	3.1	1.4	1.4	2.9	4.9	7.8	17.5	12.2	5.6	17.5	7.2	
40M	1.2	8.7	12.4	5.7	4.4	3.2	3.6	4.2	1.4	1.5	2.1	3.1	7.4	15.1	2.1	3.1	17.5	7.2	

TABLE 4-2-10C HOURLY AVERAGES AND STANDARD DEVIATIONS

	TIME(HR)	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	
WIND SPD																										
H=																										
10M	MEAN	0.8	1.0	0.9	1.0	1.1	1.2	1.2	1.4	1.7	2.0	1.9	2.0	1.9	1.8	1.5	1.3	1.1	1.0	0.9	1.1	1.1	1.2	1.0	1.0	
	SIGM	0.6	0.8	0.7	0.8	0.7	0.6	0.8	0.8	1.1	0.8	0.8	0.7	0.8	0.8	0.9	1.0	0.9	0.9	0.6	0.8	0.7	0.8	0.6	0.6	
20M	MEAN	1.4	1.6	1.7	1.6	1.8	1.8	1.6	1.8	2.2	2.5	2.6	2.4	2.4	2.4	2.2	2.0	1.8	1.6	1.5	1.7	1.8	1.9	1.9	1.5	
	SIGM	0.8	1.1	1.0	1.1	0.9	0.9	1.0	1.0	1.1	1.3	1.1	0.9	1.0	0.8	1.0	1.0	1.2	1.2	1.2	0.9	1.1	1.0	1.0	0.8	
40M	MEAN	2.9	2.6	3.0	2.8	3.0	3.1	3.1	3.0	2.5	2.5	2.7	3.1	3.2	3.3	3.3	3.1	3.1	3.0	2.8	2.7	3.2	3.1	3.3	2.8	2.8
	SIGM	1.1	1.2	1.1	1.5	1.2	1.1	1.1	1.1	1.3	1.6	1.4	1.3	1.5	1.4	1.5	1.6	1.6	1.6	1.5	1.2	1.3	1.2	1.4	1.2	
TEMPERATURE																										
MEAN	13.6	13.4	13.2	13.1	13.0	13.0	13.6	15.1	16.9	17.9	18.7	19.0	18.9	18.8	17.3	17.7	16.7	16.0	15.5	14.9	14.6	14.3	13.8	13.5		
	SIGM	4.1	4.4	4.5	4.5	4.4	4.6	4.6	4.4	3.7	3.2	3.2	3.2	3.1	3.2	3.1	3.0	5.6	3.0	3.5	3.5	3.7	3.7	3.8	4.1	4.2
HUMIDITY																										
MEAN	80.5	80.4	80.9	80.7	80.5	80.1	78.4	74.3	67.6	61.9	58.1	56.8	57.1	59.2	61.7	65.0	69.5	71.2	73.0	75.4	75.3	75.8	77.3	78.8		
	SIGM	13.3	13.4	12.6	11.5	13.3	13.2	12.1	13.5	13.4	14.0	12.7	13.0	13.9	15.2	15.5	15.4	13.1	13.3	12.1	12.1	13.1	13.1	12.0	12.2	
LAPSE RATE																										
MEAN	1.7	1.7	1.3	1.6	1.9	1.7	0.9	-1.2	-1.9	1.0	0.8	0.8	0.8	-2.0	-2.4	-2.4	-2.4	-1.7	-0.8	0.6	1.7	1.8	1.9	1.8	1.9	
	SIGM	3.0	2.5	2.4	2.5	2.7	2.9	1.9	1.0	0.8	0.8	0.7	0.7	0.9	0.6	0.6	0.5	1.0	2.4	2.8	2.9	2.8	3.2	3.2	3.1	
STABIL. RATIO																										
MEAN	0.9	0.4	0.8	0.8	0.8	0.8	0.8	0.7	-0.7	-1.0	-0.8	-0.7	-0.7	-0.7	-0.7	-0.7	-0.7	-0.4	-0.1	0.4	0.4	0.5	0.3	0.7	0.6	
	SIGM	2.2	1.2	1.1	1.1	1.1	1.1	1.1	0.7	0.6	0.6	0.5	0.5	0.4	0.4	0.4	0.5	0.4	0.9	1.2	1.9	1.1	0.8	1.4	1.8	
RADIATION																										
MEAN	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	
	SIGM	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	

38 1

TABLE 4-2-10D FREQUENCY DISTRIBUTIONS OF STABILITY CATEGORY

CATEG	TOTL	NNE	NE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	N	LACK
A	23	0	3	3	4	0	2	4	0	1	1	2	1	1	1	0	0
A-B	94	2	2	3	8	11	6	9	4	1	0	2	5	7	11	15	8
B	70	2	12	11	5	4	12	7	0	1	0	1	2	4	7	0	0
B-C	7	0	3	1	0	0	0	0	0	0	0	0	0	0	0	1	0
C	13	1	7	2	0	0	0	0	2	1	0	0	0	0	0	0	0
C-D	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
D1	59	9	13	2	8	3	3	3	1	0	0	0	0	0	0	0	0
D2	192	21	25	8	4	1	2	0	1	1	3	6	6	16	41	42	15
E	7	1	3	2	0	0	0	0	0	0	0	0	0	1	0	0	0
F	15	4	3	1	0	0	0	0	0	0	0	0	0	2	3	2	0
G	240	24	11	6	3	2	1	0	0	0	0	0	0	10	22	73	42
LACK	24	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

24

TABLE 4.2-10E FREQUENCY DISTRIBUTIONS OF WIND DIRECTION AND SPEED

	CALM	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	N	LACK	TOTL
10M	-0.4	110	12	6	3	7	5	2	3	5	6	5	2	15	21	55	44	12	0 110
	0.5-0.9		31	19	17	18	10	14	15	15	15	15	15	21	50	27	13	0 196	
	1.0-1.9		26	13	6	6	6	8	5	2	1	0	1	2	6	12	6	0 264	
	2.0-2.9		25	3	0	0	0	0	0	0	0	0	0	0	0	1	0	1 109	
	3.0-3.9		4	0	3	0	0	0	0	0	0	0	0	0	0	0	1	0 37	
	4.0-4.9		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1 4	
	5.0-5.9		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0 0	
	6.0-6.9		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0 0	
	7.0-7.9		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0 0	
	8.0-8.9		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0 0	
	9.0-9.9		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0 0	
	10.0-	LACK	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0 0	
	TOTL	110	60	79	36	31	21	24	23	13	13	13	13	24	38	112	83	33	24 744
20M	-0.4	39	4	1	2	2	15	8	12	10	1	1	1	1	5	14	19	6	0 39
	0.5-0.9		16	11	9	11	16	11	11	11	12	8	3	5	5	14	20	31	0 110
	1.0-1.9		25	20	17	26	11	11	11	11	11	1	3	5	4	2	18	71	0 265
	2.0-2.9		3	0	3.9	8	13	2	0	0	0	0	0	0	0	0	0	1 185	
	3.0-3.9		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0 90	
	4.0-4.9		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0 28	
	5.0-5.9		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0 2	
	6.0-6.9		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0 1	
	7.0-7.9		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0 0	
	8.0-8.9		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0 0	
	9.0-9.9		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0 0	
	10.0-	LACK	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0 0	
	TOTL	39	70	40	32	22	26	22	26	22	10	9	10	21	35	56	126	88	40 25 744
40M	-0.4	9	3	1	2	1	0	0	1	6	3	1	1	1	1	3	1	2	0 9
	0.5-0.9		6	4	11	8	10	13	14	2	4	2	2	6	4	14	8	20	0 23
	1.0-1.9		16	13	9	6	3	3	4	2	1	4	1	1	3	15	17	43	0 133
	2.0-2.9		3	16	21	9	6	5	2	1	5	0	0	0	0	0	0	15	0 230
	3.0-3.9		16	16	26	12	5	1	0	0	0	0	0	0	0	0	0	0	0 153
	4.0-4.9		16	18	5	1	0	0	0	0	0	0	0	0	0	0	0	0	0 112
	5.0-5.9		5	1	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0 45
	6.0-6.9		1	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0 12
	7.0-7.9		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0 0
	8.0-8.9		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0 0
	9.0-9.9		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0 0
	10.0-	LACK	9	63	89	41	32	23	26	30	10	9	15	22	53	109	126	52	0 24 744

TABLE 4.2-11A DAILY AVERAGES

DATE	AIR TEMP.	HUMIDITY	PRECIPITATION	SOLAR RAD.	NET RAD.	WIND SPD(10)	WIND SPD(20)	WIND SPD(40)
	C.DEG	PERCENT	MM	MJ/SQ(M)/DAY	MJ/S	M/S	M/S	M/S
1	11.8	68.4	0.0	14.5	2.4	1.9	2.7	4.1
2	12.6	72.7	0.0	13.9	2.0	1.1	1.5	2.7
3	12.9	75.4	0.0	10.9	2.1	0.9	1.3	2.4
4	13.1	74.5	0.5	6.7	1.7	1.3	2.0	3.2
5	14.1	70.8	0.0	10.3	1.4	2.6	3.5	4.6
6	12.5	82.0	19.5	1.7	0.9	4.5	5.8	7.4
7	12.2	73.8	1.5	7.7	1.9	3.3	4.5	6.1
8	11.3	76.5	0.0	13.9	2.5	1.0	1.6	2.8
9	12.6	71.0	0.0	10.1	1.8	3.5	4.6	6.3
10	14.4	83.7	7.5	4.9	1.6	3.2	4.3	5.5
11	14.3	80.3	0.0	12.1	2.0	1.2	1.9	2.9
12	11.8	77.9	0.0	8.0	2.4	1.0	1.6	2.9
13	8.9	64.6	0.0	11.1	3.1	1.4	2.2	3.8
14	8.7	65.0	0.0	13.4	3.2	1.2	2.0	3.2
15	8.8	72.4	0.0	4.8	1.9	1.3	1.8	3.2
16	12.1	76.4	0.0	12.9	2.2	0.9	1.4	2.2
17	12.8	66.8	0.0	10.3	2.9	2.1	3.4	4.9
18	9.8	44.8	0.0	13.2	3.5	2.1	4.0	6.1
19	9.7	50.7	0.0	13.1	3.3	1.5	2.7	4.3
20	7.8	75.8	0.0	9.4	2.8	0.7	1.2	2.7
21	8.8	70.2	0.0	11.6	2.5	1.2	1.8	3.4
22	6.8	51.5	0.0	13.0	3.4	1.8	2.4	4.9
23	5.5	57.3	0.0	12.6	2.4	1.2	1.8	3.1
24	10.1	83.3	24.5	5.9	1.7	1.3	2.0	3.5
25	8.1	64.3	0.0	11.8	2.2	1.1	1.7	3.2
26	6.4	65.3	1.0	8.8	2.4	1.3	1.8	3.2
27	3.7	51.5	0.0	12.7	3.4	1.0	2.0	3.4
28	4.2	57.0	0.0	12.4	3.5	1.1	1.6	2.8
29	4.7	69.0	0.0	10.2	2.9	1.0	1.5	2.7
30	7.7	79.3	0.0	9.2	2.1	0.9	1.7	2.5
MONTH	9.9	69.0	54.5	10.4	2.4	1.6	2.4	3.8
LACK	3	4	1	0	2	2	2	2

TABLE 4.2-11B DISTRIBUTION OF WIND DIRECTION FREQUENCIES (%)

CALM	NNE	NE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	N	
10M	6.0	11.7	3.1	2.9	2.5	0.6	1.0	0.7	2.4	3.3	4.9	7.7	24.4	10.3	3.9	
20M	5.6	8.1	10.4	3.3	2.9	1.8	0.8	0.7	2.4	4.3	6.1	8.9	27.9	10.9	3.9	
40M	1.0	6.5	13.0	3.9	3.2	2.8	2.4	1.1	1.3	2.6	4.7	4.6	6.1	23.3	17.8	5.3

TABLE 4.2-11C HOURLY AVERAGES AND STANDARD DEVIATIONS

	TIME(HR)	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
	WIND SPD																								
H=																									
10M	MEAN	1.2	1.2	1.3	1.3	1.5	1.3	1.6	1.7	2.1	2.1	2.3	2.4	2.2	2.1	1.8	1.5	1.4	1.2	1.2	1.3				
10M	SIGM	1.0	1.1	1.2	1.2	1.1	1.0	1.2	1.3	1.4	1.2	1.1	1.3	1.2	1.5	1.3	1.6	1.5	1.4	1.4	1.2	1.1	1.1		
20M	MEAN	1.9	2.0	2.2	2.1	2.0	2.4	2.1	2.2	2.3	2.7	2.9	3.1	3.2	3.0	3.0	2.8	2.6	2.4	2.1	1.8	1.7	1.5	1.4	2.0
20M	SIGM	1.2	1.4	1.4	1.4	1.4	1.5	1.5	1.7	1.8	1.6	1.5	1.7	1.6	1.7	1.9	2.1	1.9	2.2	2.1	1.8	1.7	1.5	1.4	1.4
40M	MEAN	3.6	3.7	3.9	3.7	3.9	4.3	3.6	3.5	3.2	3.7	3.8	3.9	4.0	4.1	4.1	4.4	4.3	3.9	4.1	3.7	3.3	3.4	3.6	3.6
40M	SIGM	1.3	1.7	1.7	1.5	1.6	1.8	1.8	1.9	2.2	2.1	2.0	2.2	2.3	2.4	2.2	2.6	2.3	2.7	2.4	2.1	2.0	1.7	1.5	1.5
TEMPERATURE	MEAN	7.2	6.8	6.4	6.4	6.4	6.4	6.4	6.8	8.7	11.0	12.7	13.6	14.2	14.6	14.2	13.0	11.7	10.9	10.3	9.7	8.9	8.3	7.8	7.5
TEMPERATURE	SIGM	4.0	4.0	4.1	4.0	4.1	4.1	4.3	4.3	4.0	3.3	2.9	2.8	2.8	2.8	2.9	2.9	2.8	3.1	3.3	3.3	3.6	3.8	3.8	4.1
HUMIDITY	MEAN	7.2	6.8	6.4	6.4	6.4	6.4	6.4	6.8	8.7	11.0	12.7	13.6	14.2	14.6	14.2	13.0	11.7	10.9	10.3	9.7	8.9	8.3	7.8	7.5
HUMIDITY	SIGM	4.0	4.0	4.1	4.0	4.1	4.1	4.3	4.3	4.0	3.3	2.9	2.8	2.8	2.8	2.9	2.9	2.8	3.1	3.3	3.3	3.6	3.8	3.8	4.1

TABLE 4-2-11D FREQUENCY DISTRIBUTIONS OF STABILITY CATEGORY

TABLE 4.2-11E FREQUENCY DISTRIBUTIONS OF WIND DIRECTION AND SPEED

10M	CALM	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	NNW	NW	NNW	N	LACK	TOTL
	0.5-0.9	90	4	1	3	2	3	1	0	2	5	8	9	19	68	41	14	0	90
0.5-0.9	0.5-0.9	13	4	4	16	11	9	4	2	3	5	8	18	29	95	24	10	0	177
1.0-1.9	1.0-1.9	7	8	11	3	2	8	0	3	0	3	4	7	12	7	1	0	0	255
2.0-2.9	2.0-2.9	11	32	4	0	0	0	0	0	2	7	4	0	0	2	3	0	0	79
3.0-3.9	3.0-3.9	6	15	0	0	0	0	0	0	4	0	0	0	0	0	0	2	0	65
4.0-4.9	4.0-4.9	2	21	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	25
5.0-5.9	5.0-5.9	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	24
6.0-6.9	6.0-6.9	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3
7.0-7.9	7.0-7.9	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8.0-8.9	8.0-8.9	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9.0-9.9	9.0-9.9	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10.0-	LACK	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	TOTL	90	43	84	22	21	16	18	4	5	17	24	35	55	175	74	28	2	720
20M	-0.4	26	2	3	4	10	6	12	4	3	5	7	16	25	40	15	4	0	26
0.5-0.9	0.5-0.9	8	12	6	7	9	2	0	0	0	3	2	3	7	2	1	0	0	75
1.0-1.9	1.0-1.9	11	22	5	0	0	0	0	0	0	3	1	1	0	0	3	0	0	174
2.0-2.9	2.0-2.9	9	14	0	0	0	0	0	0	0	4	1	1	0	0	0	2	0	51
3.0-3.9	3.0-3.9	7	11	2	5	0	0	0	0	0	3	1	1	0	0	0	2	0	54
4.0-4.9	4.0-4.9	11	22	5	0	0	0	0	0	0	3	1	1	0	0	0	2	0	31
5.0-5.9	5.0-5.9	9	14	0	0	0	0	0	0	0	4	1	1	0	0	0	2	0	28
6.0-6.9	6.0-6.9	8	11	0	0	0	0	0	0	0	2	0	0	0	0	0	0	0	12
7.0-7.9	7.0-7.9	1	1	9	0	0	0	0	0	0	1	0	0	0	0	0	0	0	3
8.0-8.9	8.0-8.9	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9.0-9.9	9.0-9.9	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10.0-	LACK	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	TOTL	26	58	75	24	23	21	13	6	5	17	31	44	64	200	78	28	2	720
40M	-0.4	7	2	2	2	4	5	5	9	1	3	7	9	4	6	3	2	1	7
0.5-0.9	0.5-0.9	5	14	7	6	4	8	2	1	3	2	0	0	1	1	3	1	0	17
1.0-1.9	1.0-1.9	9	16	1	3	0	0	0	0	1	2	0	0	0	1	1	0	0	73
2.0-2.9	2.0-2.9	6	8	4	8	7	1	1	0	0	0	0	0	0	0	0	1	0	184
3.0-3.9	3.0-3.9	4	8	4	8	7	1	0	0	0	0	0	0	0	0	0	0	0	176
4.0-4.9	4.0-4.9	6	20	7	4	1	0	0	0	0	0	0	0	0	0	0	1	0	100
5.0-5.9	5.0-5.9	8	16	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	59
6.0-6.9	6.0-6.9	8	13	0	0	0	0	0	0	0	2	0	0	0	0	0	2	0	38
7.0-7.9	7.0-7.9	1	11	0	0	0	0	0	0	0	2	0	0	0	0	0	0	0	21
8.0-8.9	8.0-8.9	4	11	0	0	0	0	0	0	0	1	0	0	0	0	0	1	0	25
9.0-9.9	9.0-9.9	2	7	0	0	0	0	0	0	0	1	2	1	1	0	0	1	0	14
10.0-	LACK	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4
	TOTL	7	47	93	28	23	20	17	8	9	19	34	44	167	128	38	2	720	

TABLE 4.2-12A DAILY AVERAGES

DATE	AIR TEMP. C.DEG	HUMID- ITY PERCENT	PRECIP- MM	ITAT. MJ/SQ(M)/DAY	NET RAD. MJ/SQ(M)	SOLAR RAD. MJ/SQ(M)	WIND		
							SPD(10) M/S	SPD(20) M/S	SPD(40) M/S
1	7.1	55.1	0.5	11.9	3.2	1.4	2.4	3.8	
2	6.5	66.3	0.0	10.8	2.9	1.3	2.1	3.4	
3	7.1	56.5	0.0	10.2	3.5	2.1	2.9	5.1	
4	4.2	52.8	0.0	11.8	3.3	0.9	1.7	2.8	
5	5.5	63.1	0.0	10.1	1.7	1.8	3.4		
6	4.9	54.5	0.0	11.5	3.1	1.1	1.7	2.9	
7	3.8	70.7	0.0	11.6	3.0	1.0	1.7	2.6	
8	5.7	61.9	0.0	7.5	1.9	1.0	1.6	3.0	
9	4.7	70.3	0.0	11.3	2.6	0.9	1.4	2.3	
10	6.4	75.8	0.0	10.4	2.5	1.0	1.7	2.7	
11	6.7	82.8	0.0	2.3	1.6	1.0	1.9	2.9	
12	5.8	48.6	0.0	12.0	3.2	1.1	2.0	3.5	
13	4.2	63.6	0.0	11.0	2.8	1.2	2.2	3.1	
14	5.7	58.7	0.0	8.4	2.8	1.4	2.2	4.2	
15	4.2	53.5	0.0	8.7	2.6	1.3	1.9	3.0	
16	3.7	49.3	0.0	10.4	3.2	1.2	1.8	3.4	
17	1.6	59.9	0.0	***	2.5	2.1	2.9	4.2	
18	1.3	48.4	0.0	11.5	3.0	1.4	2.1	3.7	
19	1.3	54.1	0.0	11.6	3.2	0.8	1.5	2.6	
20	1.6	48.3	0.0	11.2	3.6	1.5	2.3	4.0	
21	1.5	51.2	0.0	11.2	3.4	1.1	2.0	3.0	
22	5.0	62.9	0.0	7.5	1.3	1.3	2.4	3.6	
23	7.1	64.3	5.0	4.3	2.5	2.2	3.2	5.2	
24	1.9	59.5	1.5	6.4	2.1	0.7	1.1	2.0	
25	0.3	72.3	0.0	***	3.0	1.2	2.2	3.3	
26	1.3	43.3	0.0	11.6	4.0	2.6	3.9	5.8	
27	0.7	46.8	0.0	11.4	3.5	0.9	1.6	2.9	
28	2.2	57.0	0.0	10.5	2.3	1.5	2.1	3.4	
29	3.1	57.7	2.5	10.0	2.5	0.8	1.3	2.5	
30	3.1	56.2	0.0	5.4	1.9	1.3	3.1		
31	4.2	56.0	0.0	7.3	2.4	1.8	2.6	3.9	
MONTH	4.0	58.5	9.5	9.6	2.8	1.3	2.1	3.4	
LACK	32	32	29	18	14	32	32		

TABLE 4.2-12B DISTRIBUTION OF WIND DIRECTION FREQUENCIES (%)

	CALM	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	SW	NNW	NW	NNW	N
10M	11.8	4.5	2.5	1.0	0.4	1.1	0.8	1.1	2.0	1.5	2.2	2.8	5.6	13.6	30.5	4.9
20M	2.9	4.9	2.5	1.3	0.4	1.4	0.6	2.1	1.3	2.9	3.5	6.5	15.3	33.3	14.3	5.3
40M	1.1	4.2	3.2	1.1	0.4	1.4	0.8	1.4	2.2	1.1	3.2	4.5	11.0	30.9	21.6	8.1

TABLE 4.2-12C HOURLY AVERAGES AND STANDARD DEVIATIONS

	TIME(HR)		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
<b>WIND SPD</b>																										
H=	10M	MEAN	1.3	1.1	1.1	1.1	0.9	0.9	1.1	1.1	1.3	1.6	1.8	1.8	1.9	1.9	1.5	1.2	1.4	1.4	1.1	1.2	1.3	1.1	1.1	
		SIGM	0.8	0.5	0.5	0.6	0.5	0.4	0.9	0.8	1.1	1.0	0.9	0.8	0.9	1.0	1.3	1.2	1.2	1.2	1.0	0.8	0.8	0.6	0.6	
20M	MEAN	2.1	2.0	2.0	2.0	1.9	1.9	1.7	1.7	1.7	1.3	1.5	1.4	1.2	1.1	1.1	1.1	1.9	2.2	1.9	2.3	2.2	1.8	2.0	1.8	1.9
		SIGM	0.8	0.7	0.6	0.8	0.7	0.7	0.7	1.2	1.3	1.5	1.4	1.2	1.1	1.0	1.1	1.5	1.4	1.4	1.2	1.1	0.9	0.8	0.8	
40M	MEAN	3.6	3.4	3.4	3.7	3.4	3.4	3.1	3.5	2.9	2.5	2.6	3.1	3.3	3.5	3.8	3.8	3.5	3.4	3.9	3.5	3.2	3.4	3.7	3.4	3.6
		SIGM	1.5	1.2	1.0	1.2	1.0	1.0	2.2	1.4	1.6	1.8	1.9	1.8	1.7	1.7	2.0	2.3	1.9	1.8	1.8	1.5	1.7	1.3	0.9	
<b>TEMPERATURE</b>																										
MEAN	1.4	1.0	0.6	0.4	0.2	-0.0	-0.2	1.5	4.2	6.7	8.2	9.2	9.7	9.7	9.3	8.0	6.2	5.3	4.1	3.1	2.6	2.2	1.8	1.4	1.4	
		SIGM	2.8	2.7	2.5	2.6	2.6	2.6	2.5	2.4	2.5	2.8	2.8	2.6	2.4	2.3	2.3	2.1	2.4	2.1	2.3	2.3	2.5	2.5	2.6	2.5
<b>HUMIDITY</b>																										
MEAN	68.0	69.1	70.7	69.8	70.0	69.9	71.2	67.8	59.9	50.9	43.7	41.6	41.6	40.4	41.2	45.6	51.0	53.1	55.9	60.6	63.0	63.4	64.9	66.0		
		SIGM	14.0	13.4	12.2	11.9	10.9	11.0	10.0	11.7	11.2	12.5	13.8	13.0	13.4	13.4	14.0	14.3	14.9	15.2	14.9	13.2	12.9	13.5	14.1	
<b>LAPSE RATE</b>																										
MEAN	4.2	4.6	5.2	4.7	5.7	5.8	6.4	6.4	6.5	6.5	-1.1	-2.0	-2.0	-2.2	-2.4	-2.1	-1.7	-0.7	0.7	3.7	3.7	4.2	4.9	4.5	3.8	
		SIGM	4.0	4.1	4.3	4.5	4.5	4.5	4.5	4.6	4.6	1.7	2.3	1.5	0.7	0.7	0.6	0.5	1.4	3.7	4.2	4.5	4.8	4.4	4.1	4.0
<b>STABIL. RATIO</b>																										
MEAN	1.0	2.0	3.5	2.9	3.5	2.9	3.0	3.3	3.0	3.3	0.1	-1.1	-1.0	-1.0	-0.9	-0.7	-0.4	-0.3	0.2	1.4	0.4	1.1	2.3	1.6	1.5	
		SIGM	1.3	2.1	4.1	3.2	3.3	3.0	3.3	3.0	3.0	1.0	1.1	0.8	0.7	0.7	0.5	0.3	0.2	0.4	2.5	1.0	1.8	3.2	2.6	4.1
<b>RADIATION</b>																										
MEAN	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.2	0.2	0.1	0.2	0.1	0.2	0.1	0.2	0.1	0.2	0.2	0.2	0.2	0.2	0.2	
		SIGM	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	

TABLE 4.2-12D FREQUENCY DISTRIBUTIONS OF STABILITY CATEGORY

CATEG	TOTAL	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	NNW	NW	NNW	N	LACK
A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
A-B	83	2	1	1	5	3	4	1	1	3	5	9	17	16	10	4	0	
B	90	6	5	3	0	1	3	3	2	3	1	5	11	19	12	9	0	
B-C	6	0	1	0	0	0	0	0	0	0	0	0	0	3	2	0	0	
C	18	3	1	0	0	0	0	1	1	0	0	0	0	0	4	1	0	
C-D	4	0	0	0	0	0	0	0	0	0	0	0	1	1	3	0	0	
D1	60	4	3	2	2	0	0	2	4	4	3	2	2	14	10	4	0	
D2	68	4	6	2	1	2	0	0	0	1	1	0	4	10	20	13	4	
E	14	4	1	0	0	0	0	0	0	0	0	0	0	5	4	0	0	
F	29	3	0	0	0	0	0	0	0	0	0	0	0	20	6	0	0	
G	340	11	2	0	1	0	0	0	0	0	0	0	0	61	135	48	23	0
LACK	32	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	

TABLE 4.2-12E FREQUENCY DISTRIBUTIONS OF WIND DIRECTION AND SPEED

		CALM	NNE	NE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	NNW	N	LACK	TOTL
10M	-0.4	84	3	2	1	2	4	4	0	2	6	3	7	11	20	35	84
	0.5-0.9	13	1	3	4	1	4	5	2	5	7	7	2	1	14	0	214
	1.0-1.9	9	8	4	0	0	0	0	0	0	0	0	0	0	13	0	271
	2.0-2.9	6	4	0	0	0	0	0	0	0	0	0	0	0	7	1	106
	3.0-3.9	1	3	0	0	0	0	0	0	0	0	0	0	0	1	0	22
	4.0-4.9	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	13
	5.0-5.9	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2
	6.0-6.9	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	7.0-7.9	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	8.0-8.9	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	9.0-9.9	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	10.0-	LACK	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	TOTL	84	32	18	1	3	8	8	14	11	16	20	40	97	217	35	744
20M	-0.4	21	1	1	1	0	2	9	4	0	3	10	5	11	18	30	21
	0.5-0.9	8	8	11	3	2	3	2	2	0	3	5	3	0	123	49	68
	1.0-1.9	11	11	14	0	0	0	0	0	0	0	0	0	0	0	20	289
	2.0-2.9	8	8	13	0	0	0	0	0	0	0	0	0	0	0	9	213
	3.0-3.9	5	5	2	0	0	0	0	0	0	0	0	0	0	0	2	83
	4.0-4.9	2	2	3	0	0	0	0	0	0	0	0	0	0	0	0	22
	5.0-5.9	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	8
	6.0-6.9	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5
	7.0-7.9	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2
	8.0-8.9	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	9.0-9.9	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	10.0-	LACK	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
	TOTL	21	35	18	1	3	10	4	15	9	10	21	25	46	109	237	32
40M	-0.4	8	1	1	1	0	2	2	5	2	2	2	7	12	11	19	4
	0.5-0.9	3	1	1	1	1	3	7	1	1	3	7	5	9	26	51	1
	1.0-1.9	4	4	4	0	0	0	0	0	0	0	0	0	0	0	18	19
	2.0-2.9	0	0	0	0	0	0	0	0	0	0	0	0	0	0	32	89
	3.0-3.9	9	9	7	1	1	0	0	0	0	0	0	0	0	0	53	20
	4.0-4.9	6	6	2	0	1	0	0	1	0	2	2	1	0	0	7	180
	5.0-5.9	7	7	2	0	0	0	0	0	0	0	0	0	0	0	50	11
	6.0-6.9	4	4	0	0	0	0	0	0	0	0	0	0	0	0	12	207
	7.0-7.9	2	2	0	0	0	0	0	0	0	0	0	0	0	0	39	5
	8.0-8.9	0	0	0	0	0	0	0	0	0	0	0	0	0	0	12	114
	9.0-9.9	0	0	0	0	0	0	0	0	0	0	0	0	0	0	7	47
	10.0-	LACK	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
	TOTL	8	30	23	1	6	10	4	16	11	16	24	32	8	78	220	154