

THE UNITED MEXICAN STATES

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THE STUDY ON AIR POLLUTION CONTROL PLAN
IN THE FEDERAL DISTRICT

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PLAN IN THE FEDERAL DISTRICT

FINAL REPORT

APPENDICES

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October 1988

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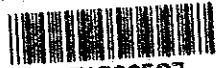
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THE UNITED MEXICAN STATES

**THE STUDY ON AIR POLLUTION CONTROL PLAN
IN THE FEDERAL DISTRICT**

FINAL REPORT

APPENDICES

October 1988

JAPAN INTERNATIONAL COOPERATION AGENCY

国際協力事業団

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PART 1 METEOROLOGICAL OBSERVATION

1.1 Items and Methods of Observation

(1) Surface Meteorology

Surface meteorological observation was made as follows:

Items: Horizontal wind direction and speed, and standard deviations of wind direction and wind speed

Period: Four times from September, 1987 to May, 1988.
Period as shown in Table 1.1

Location: Centro No. 5 to the north of the center of Mexico City,
as shown in Figure 1.1

Method: As shown in Table 1.2

Table 1.1 Surface Meteorological Observation Period

Period	
Summer	12 days from Sept. 8 - 19, 1987
Autumn	15 days from Nov. 19 - Dec. 3, 1987
Winter	8 days from Feb. 17 - 24, 1988
Spring	8 days from May 20 - 27, 1988

Since measurement was made by a Mexican counterpart for the period other than above, the data obtained were used for analysis of wind direction and speed.

Table 1.2 Items and Method of Surface Meteorological Observation

Item	Equipment	Altitude	Reading method
Wind Direction and speed	SA200 type 2-component ultra-	15 m above ground (2265 m above sea level)	Average for 10 min before every hour
Turbulence	sonic wind vane and anemometer		1-hour average of data obtained every 10 min

Note: Turbulence means standard deviation of horizontal wind direction and speed.

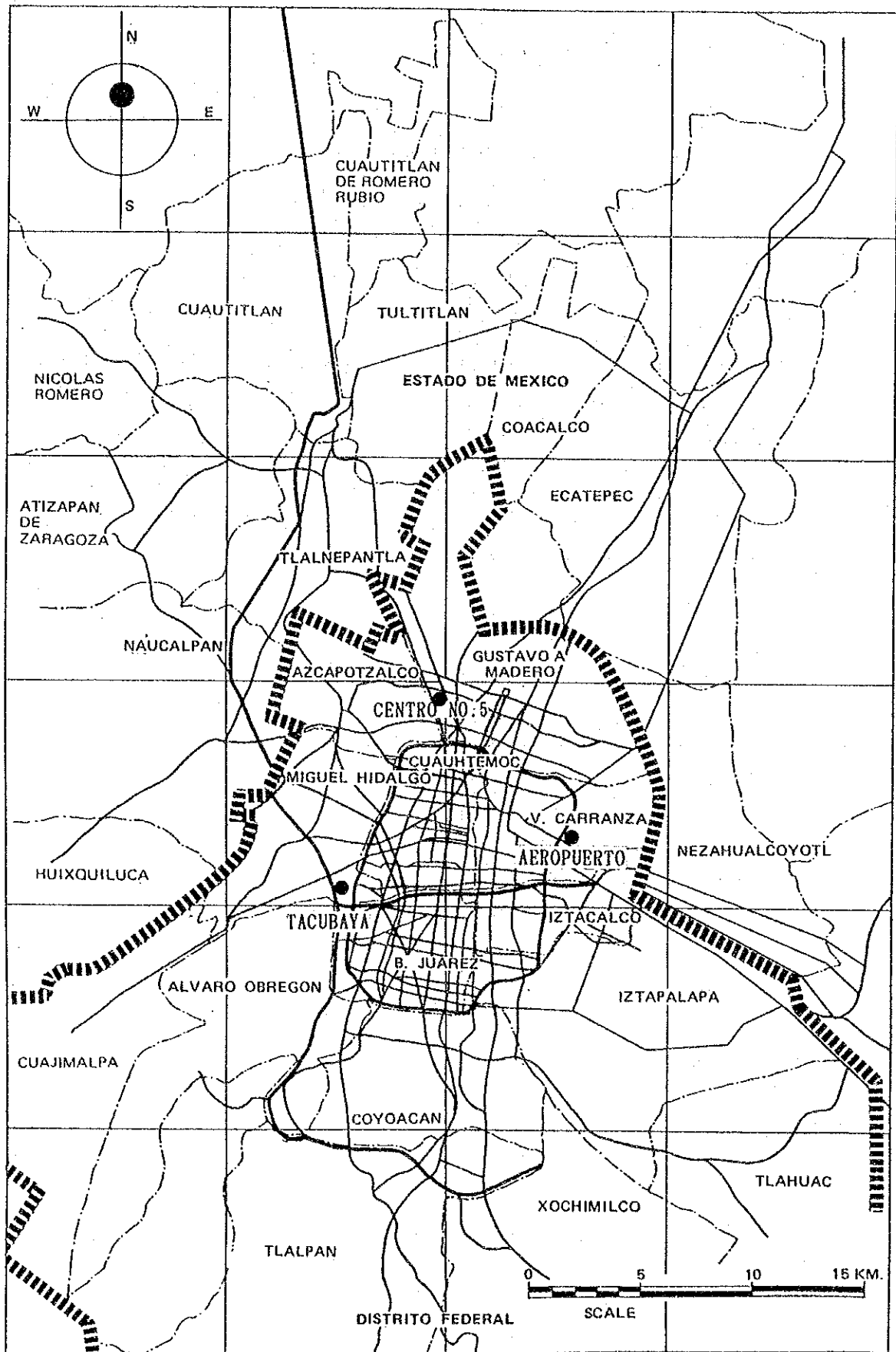


Figure 1.1 Meteorological Observation Site

(2) Upper Meteorology

Upper meteorological observation was made as follows:

Item: Upper wind direction and speed, and air temperature

Period: Four times from Sept., 1987 to May, 1988
Period as shown in Table 1.3

Location: Same location as for the surface meteorological observation

Method: As shown in table 1.4

Table 1.3 Upper Meteorological Observation Period

Period	
Summer	5 days and nights from Sept. 10 to 19, 1987
Autumn	14 days and nights from Nov. 19 to Dec. 3, 1987
Winter	7 days and nights from Feb. 17 to 24, 1988
Spring	7 days and nights from May 20 to 27, 1988

Table 1.4 Items and Method of Upper Meteorological Observation

Item	Equipment	Time	Altitude	Remarks
Wind direction and speed air temperature	Captive Sonde Type: CBS-T-14 Balloon: 22 m ³ Gas: Helium	Eight times a day, at 3:00 6:00, 9:00 12:00, 15:00, 18:00, 21:00, and 24:00	Up to 500 m above ground, in 50 m steps	Additional measurement was made at 7:30 and 10:30 for two to three days when
Air temperature	Low sonde Type: JWA-76T Ballon: 200 gr rubber balloon Gas: Helium Rise speed: 200 m m/min	One a day at 13:00 Other stormy weather	Up to 1500 m above ground, in 50 m steps	the remark- able ground inversion layer appeared.

Apart from upper meteorological observation, surface air temperature and humidity measurements were made with an Assmann ventilated psychrometer; surface pressure measurement with an Aneroid barometer, and weather, cloud amount and form visually.

(3) Collection of local data

Collection of data on surface and upper meteorologies at Tacubaya station and Aeropuerto was made as follows:

1 Surface meteorology

Table 1.5 List of Surface Meteorological Data Collection

Item	Point	Period
Wind direction and speed	TACUBAYA station	Jan., 1986 - Dec., 1987
Air temperature and humidity	AEROPUERTO	Jan. to Dec., 1986
cloud amount and form	TACUBAYA station	Jan., 1986 to Feb., 1988
Insolation	AEROPUERTO	Jan. to Dec., 1987

2 Upper meteorology

Table 1.6 List of Upper Meteorological Data

Item	Point	Period
Wind direction and speed	AEROPUERTO	Jan., 1986 to Dec., 1987
Air temperature	AEROPUERTO	Jan., 1986 to Dec., 1987

Table 1.7 List of 10-year Meteorological Statistical Value Collection

Item	Point	Period
Wind direction and speed	Tacubaya station	1976 - 1985
Max. and min. air temperature		
Mean humidity		
Amount of precipitation		
Sunshine duration and cloud amount	AEROPUERTO	1976 - 1986
Mean wind speed in the most frequent wind direction		

Note: • Collected data of each item include averages by year and month.

1.2 Surface Meteorology

1.2.1 Surface Meteorology Other Than Wind

Results of the surface meteorological observation other than wind are shown in the following Tables.

Surface Meteorological Observation Data
 Observation point: CENTRO No-5
 September 12, 1987

Time	Atmospheric pressure (mb)	Dry-bulb temperature (°C)	Wet-bulb temperature (°C)	Humidity (%)	Weather	Cloud amount/type
03						
06						
09						
12						
15	782.0	26.4	14.8	31	☉	7:7Cu
18	781.1	24.3	14.3	37	☉	10:4Cu, 1Cb, 10CS
21	784.4	20.2	14.0	55	☉	5:5Ac, XCb
24	785.3	17.4	13.8	70	☉	8:8Ac

September 13, 1987

Time	Atmospheric pressure (mb)	Dry-bulb temperature (°C)	Wet-bulb temperature (°C)	Humidity (%)	Weather	Cloud amount/type
03	784.8	17.2	14.0	73	☉	10:10Ac
06	784.7	15.9	13.0	75	☉	8:8Ac
10	785.9	21.9	15.0	51	☉	3:3Cu
12	785.3	27.2	15.0	30	☉	6:6Cu
15	782.8	25.4	14.0	31	☉	5:2Cu, 8Sc
18	783.0	21.1	15.0	55	☉	9:8Ns, XCu
21	785.6	19.0	13.5	57	☉	0:0Cu
24	786.5	16.9	13.2	69	☉	7:7Ac

Surface Meteorological Observation Data
 Observation point: CENTRO No-5
 September 14, 1987

Time	Atmospheric pressure (mb)	Dry-bulb temperature (°C)	Wet-bulb temperature (°C)	Humidity (%)	Weather	Cloud amount/type
03	785.7	16.2	13.1	73	☉	3:2Ac
06	786.1	14.7	12.2	77	☉	2:2Ac
09	786.8	17.6	13.2	64	☉	3:3Cu
12	784.8	24.4	14.3	36	☉	3:3Cu
15	782.6	26.0	14.8	33	☉	5:5Cu
18	782.9	21.6	15.0	53	☉	6:2Cu, 4Ns
21	784.5	19.2	15.2	68	☉	8:8Ac
24	785.7	17.2	13.6	70	☉	9:9Ac

September 17, 1987

Time	Atmospheric pressure (mb)	Dry-bulb temperature (°C)	Wet-bulb temperature (°C)	Humidity (%)	Weather	Cloud amount/type
03	782.1	17.2	13.5	69	☉	7:7Ac
06	783.3	15.2	13.3	83	☉	8:2Ac, 8Cs
09	784.8	17.2	13.8	71	☉	6:6Sc
12	783.5	22.6	14.8	47	☉	3:3Cu
15	781.1	25.0	13.8	31	☉	5:5Cu
18	780.5	24.8	14.9	38	☉	10:10Cu
21	782.9	19.9	15.0	62	☉	4:4Cu
24	783.5	18.9	14.6	66	☉	10:10Sc

Surface Meteorological Observation Data
 Observation point: CENTRO No-5
 September 18, 1987

Time	Atmospheric pressure (mb)	Dry-bulb temperature (°C)	Wet-bulb temperature (°C)	Humidity (%)	Weather	Cloud amount/type
03	782.7	17.5	14.6	76	☉	10;10Sc
06	783.0	17.2	14.0	73	☉	9;9Sc
09	785.0	18.0	14.5	71	☉	10;4Cu,3Sc,XAsNs
12	783.4	21.9	15.0	51	☉	5;5Cu
15	780.9	26.2	14.4	30	☉	3;3Cu
18	780.8	21.6	14.8	52	☉	10;4Cb,XSc
21	783.3	19.8	14.9	62	☉	9;9Ac
24	784.1	18.6	14.4	66	☉	10;10Ac

September 19, 1987

Time	Atmospheric pressure (mb)	Dry-bulb temperature (°C)	Wet-bulb temperature (°C)	Humidity (%)	Weather	Cloud amount/type
03	783.6	16.3	13.4	75	☉	1;1Ac
06	783.7	16.2	13.4	76	☉	10;4Cu,2Sc,10Ac
09	785.2	17.3	14.0	72	☉	8;8Cu
12	783.4	22.4	14.6	46	☉	5;5Cu
15						
18						
21						
24						

Surface Meteorological Observation Data
 Observation point: CENTRO No-5
 November 19, 1987

Time	Atmospheric pressure (mb)	Dry-bulb temperature (°C)	Wet-bulb temperature (°C)	Humidity (%)	Weather	Cloud amount/type
1						
2						
3						
4						
5						
6						
7						
8						
9						
10						
11						
12						
13						
14						
15						
16						
17						
18						
19						
20						
21						
22						
23						
24	789.6	12.0	9.0	71	☉	9:2Cu,7Ac

Surface Meteorological Observation Data
 Observation point: CENTRO No-5
 November 20, 1987

Time	Atmospheric pressure (mb)	Dry-bulb temperature (°C)	Wet-bulb temperature (°C)	Humidity (%)	Weather	Cloud amount/type
1	789.2	12.0	9.0	71	☉	10:3Cu,10Ac
2	788.7	11.7	8.6	69	☉	7:3Cu,5Ac
3	788.7	11.8	8.6	69	☉	10:2Cu,10Ac
4	788.9	11.1	8.4	73	☉	10:8Cu,2Ac
5	789.1	10.9	8.3	74	☉	8:6Cu,2Ac
6	789.3	10.7	8.2	74	☉	9:4Cu,9Ac
7	789.5	10.2	8.2	79	☉	1:1Ac,0°Ci
8	790.1	11.7	8.6	66	☉	0:0Cu,0Ac
9	790.4	13.0	9.4	66	☉	1:1Cu
10	790.2	14.0	9.6	60	☉	3:3Cu
11	789.5	15.2	10.0	55	☉	2:2Cu
12	788.4	18.9	11.4	44	☉	0:
13	787.3	19.4	11.8	44	☉	0:
14	786.0	20.2	11.8	40	☉	4:1Cu,3Ac
15	785.5	21.0	12.3	39	☉	7:2Cu,5Ac
16	785.3	19.9	11.8	41	☉	10:3Sc,XAc
17	785.3	19.6	11.8	43	☉	10:5Ac,XAs
18	785.8	18.8	11.9	48	☉	10:5Sc,XAc,XAs
19	786.1	17.0	11.4	55	☉	8:8Ac
20	786.8	16.3	11.0	56	☉	10:10Ac
21	787.4	15.3	9.8	53	☉	9:9Ac
22	787.6	14.0	9.8	62	☉	3:3Ac
23	787.6	12.7	9.5	69	☉	1:1Ac
24	787.4	11.8	9.2	74	☉	3:3Ac

Surface Meteorological Observation Data
 Observation point: CENTRO No-5
 November 21, 1987

Time	Atmospheric pressure (mb)	Dry-bulb temperature (°C)	Wet-bulb temperature (°C)	Humidity (%)	Weather	Cloud amount/type
1	787.1	10.8	8.4	75	○	0;
2	786.9	9.7	7.9	81	○	0;
3	786.6	9.5	7.8	82	○	0;
4	786.4	9.0	7.6	85	○	0;
5	786.6	8.9	7.4	83	○	0;
6	786.6	7.6	6.8	91	○	0'; 0'Cu
7	787.1	7.8	6.9	90	○	0'; 0'Cu
8	787.1	8.8	6.9	79	○	0;
9	787.3	11.0	8.3	73	⊙	3; 3Cs
10	787.2	13.6	9.4	62	⊙	2; 2Cs
11	786.5	15.4	10.8	60	○	0'; 0'Cu
12	785.2	19.4	11.8	44	○	0'; 0'Cu
13	784.0	21.5	12.2	37	○	1; 1Cu, 0'Ac
14	782.5	22.5	11.5	29	⊙	3; 1Cu, 2Ac
15	782.0	22.3	11.1	28	⊙	5; 3Cu, 2Ac
16	782.0	20.9	10.8	31	⊙	9; 8Sc, XAc
17	782.5	18.4	11.0	44	⊙	10; 8Sc, XAc
18	782.2	18.4	10.8	43	⊙	10; 10Sc
19	782.7	17.6	11.2	50	⊙	10; 10Sc
20	783.9	17.4	10.9	49	⊙	8; 8Sc, XAc
21	784.1	16.4	10.3	50	⊙	8; 4Sc, XAc
22	784.3	16.0	10.5	54	⊙	10; 10Sc
23	784.3	15.3	10.3	57	⊙	6; 6Sc
24	783.9	14.7	10.0	60	⊙	5; 5Sc

Surface Meteorological Observation Data
 Observation point: CENTRO No-5
 November 22, 1987

Time	Atmospheric pressure (mb)	Dry-bulb temperature (°C)	Wet-bulb temperature (°C)	Humidity (%)	Weather	Cloud amount/type
1	783.6	13.4	9.6	65	⊙	3; 2Sc, 1Cu
2	783.4	12.8	9.3	67	⊙	6; 6Sc, XCu
3	783.3	13.1	9.5	66	⊙	3; 2Sc, 1Cu
4	783.7	11.7	8.8	71	○	1; 1Cu
5	783.7	11.6	8.6	70	⊙	2; 2Cu
6	784.2	11.4	8.7	73	⊙	2; 2Cu
7	784.7	11.1	8.4	73	⊙	5; 2Cu, 3Ac, 3Ci
8	785.2	13.5	9.5	63	⊙	5; 2Ac, 3Cs
9	785.4	14.8	10.4	61	○	1; 1Cs
10	785.4	17.0	11.0	52	○	1; 0'Cu, 1Cs
11	784.8	19.4	12.0	45	⊙	2; 1Cu, 1Cs
12	783.7	20.6	11.7	38	⊙	4; 1Cu, 4Cs
13	782.5	21.3	11.0	31	⊙	5; 2Cu, 3Ci
14	781.3	23.4	12.8	32	⊙	3; 3Cu
15	780.8	22.9	11.7	29	⊙	2; 2Cu
16	780.5	23.0	11.4	27	⊙	2; 2Cu
17	780.5	22.5	10.9	26	⊙	2; 2Cu
18	780.8	20.6	10.8	33	⊙	2; 2Cu
19	781.2	19.8	10.3	33	⊙	4; 4Sc
20	782.4	19.4	10.3	35	⊙	6; 6Sc
21	783.1	17.6	10.6	45	○	1; 1Sc
22	783.3	16.2	9.7	47	○	1; 1Sc
23	783.4	14.7	9.8	57	○	0'; 0'Sc
24	783.6	13.9	9.3	59	○	0'; 0'Sc

Surface Meteorological Observation Data
 Observation point: CENTRO No-5
 November 23, 1987

Time	Atmospheric pressure (mb)	Dry-bulb temperature (°C)	Wet-bulb temperature (°C)	Humidity (%)	Weather	Cloud amount/type
1	783.3	13.4	8.8	58	○	0; 0Sc
2	783.3	12.0	8.1	63	○	1; 1Sc
3	782.9	11.2	7.3	62	○	0;
4	783.2	11.2	6.7	56	○	0;
5	783.3	9.3	5.9	64	○	0;
6	783.5	9.0	6.0	68	○	0;
7	784.2	9.2	5.8	64	⊕	2; 2As
8	784.8	11.8	6.9	53	○	1; 1As
9	785.2	14.9	9.4	53	○	0; 0As
10	785.2	17.2	10.4	46	○	0;
11	784.9	20.0	11.4	39	○	0;
12	784.3	21.0	10.8	31	○	0; 0Cu
13	783.2	22.8	11.4	27	○	0; 0Cu
14	782.1	23.6	12.0	28	○	0; 0Cu
15	781.5	23.2	11.1	24	○	1; 1Cu
16	781.2	23.2	10.8	23	⊕	2; 2Cu
17	781.5	22.6	10.6	24	⊕	3; 3Cu
18	782.0	21.2	11.0	31	⊕	6; 6Cu
19	783.3	18.7	10.6	40	⊕	5; 5Sc
20	783.6	18.0	10.6	43	⊕	5; 5Sc
21	783.8	18.1	10.0	39	⊕	2; 2Sc
22	784.6	17.0	9.9	44	⊕	4; 4Sc
23	784.4	15.9	9.3	46	○	0; 0Sc
24	784.2	14.6	8.9	51	○	0;

Surface Meteorological Observation Data
 Observation point: CENTRO No-5
 November 24, 1987

Time	Atmospheric pressure (mb)	Dry-bulb temperature (°C)	Wet-bulb temperature (°C)	Humidity (%)	Weather	Cloud amount/type
1	784.2	13.1	8.2	55	○	0;
2	784.1	12.1	8.0	61	○	0;
3	784.1	11.5	8.0	66	○	0;
4	784.2	11.8	8.1	64	○	0;
5	784.3	10.5	7.1	66	○	0;
6	784.5	9.3	6.9	74	○	0;
7	785.0	9.8	6.8	69	○	0; 0Sc
8	785.8	12.2	7.5	56	○	0;
9	786.0	14.0	8.6	52	○	0;
10	786.0	17.2	10.2	45	○	0;
11	785.3	19.2	10.8	49	○	0;
12	784.1	20.8	10.1	28	⊕	7; 0Cu, 7Cs
13	783.0	21.3	9.5	23	⊕	5; 0Cu, 5Cs
14	781.9	22.4	10.5	24	⊕	7; 2Cu, 7Cs
15	781.4	22.2	10.0	22	⊕	5; 5Cu, XCs
16	781.0	21.9	10.2	24	⊕	8; 8Cu, XCs
17	781.4	21.6	10.2	25	⊕	3; 9Sc
18	781.6	20.1	10.8	35	⊕	10; 8Sc, XAs
19	782.1	19.4	10.6	37	⊕	9; 9Sc
20	783.0	19.0	10.6	38	⊕	8; 8Sc
21	783.8	17.8	10.0	40	⊕	9; 9Sc
22	783.9	17.1	9.6	41	⊕	8; 8Sc
23	784.1	16.5	8.0	34	⊕	3; 3Sc
24	784.2	15.4	7.4	35	⊕	2; 2Sc

Surface Meteorological Observation
 Observation point: CENTRO No-5
 November 25, 1987

Time	Atmospheric pressure (mb)	Dry-bulb temperature (°C)	Wet-bulb temperature (°C)	Humidity (%)	Weather	Cloud amount/type
1	783.7	13.8	7.6	46	○	0;
2	783.4	13.2	7.1	46	○	0;
3	783.2	12.7	7.0	48	☉	10; 10Sc
4	783.3	11.8	6.9	54	☉	4:4Sc
5	783.1	10.6	6.9	63	○	0;
6	783.4	10.8	6.8	60	☉	3:3Ac
7	783.6	10.4	6.4	60	☉	3:3Ac
8	784.2	12.6	7.5	53	☉	2:2Ac
9	784.8	14.5	8.6	49	○	1:1Ac
10	784.6	17.7	9.5	38	○	0;
11	784.1	18.8	9.6	33	☉	2:2Cs
12	783.1	20.0	9.8	29	☉	3:3Cs
13	782.1	21.5	10.1	25	☉	3:XCu, 3Cs
14	781.1	22.0	10.6	26	☉	10; 1Cu, 10Cs
15	780.3	21.8	10.2	25	☉	7:1Cu, 7Cs
16	780.1	22.1	10.4	25	☉	7:2Cu, 7Cs
17	780.2	21.4	9.9	25	☉	7:3Cu, 7Cs
18	780.6	20.5	9.4	25	☉	7:3Cu, 1Ac, XCs
19	781.5	18.6	10.4	39	☉	6:6Ac
20	782.3	17.8	10.6	44	☉	4:4Ac
21	782.9	16.7	10.2	48	○	0;
22	782.9	15.8	9.0	44	○	0;
23	782.8	14.6	8.1	45	○	0;
24	782.7	14.0	7.8	46	○	0;

Surface Meteorological Observation
 Observation point: CENTRO No-5
 November 26, 1987

Time	Atmospheric pressure (mb)	Dry-bulb temperature (°C)	Wet-bulb temperature (°C)	Humidity (%)	Weather	Cloud amount/type
1	782.6	12.0	7.3	56	○	0; 0Sc
2	782.5	12.1	7.4	56	○	0;
3	782.3	12.4	7.4	54	○	0;
4	782.1	11.2	7.1	60	○	0;
5	782.2	10.4	6.9	65	○	0;
6	782.5	9.5	6.6	69	○	0;
7	782.8	10.2	6.8	65	○	1; 0Cu, 1Ac
8	783.6	12.0	7.6	58	○	0;
9	783.8	14.2	8.8	53	○	0;
10	783.5	16.7	9.6	44	○	0;
11	783.0	19.6	10.9	37	○	0;
12	781.8	21.2	11.5	34	○	0;
13	780.6	21.8	11.5	32	○	0;
14	779.6	23.0	12.2	31	○	1; 1Cu
15	778.8	22.8	12.0	30	☉	7:7Cu
16	778.6	22.4	11.6	30	☉	10; 10Sc
17	779.0	20.8	12.0	39	☉	10; 10Sc
18	780.0	19.6	12.7	49	☉	10; 10Ns
19	780.5	19.5	12.4	47	☉	9; 7Sc, XCu
20	781.2	18.1	12.0	52	☉	7:7Ac
21	782.0	18.2	12.8	57	☉	8:8Ac
22	782.2	17.4	11.5	53	☉	9:9Ac
23	782.2	17.2	11.4	53	☉	7:7Ac
24	782.0	16.6	11.5	58	☉	10; 10Ac

Surface Meteorological Observation Data
 Observation point: CENTRO No-5
 November 27, 1987

Time	Atmospheric pressure (mb)	Dry-bulb temperature (°C)	Wet-bulb temperature (°C)	Humidity (%)	Weather	Cloud amount/type
1	781.6	16.8	11.3	55	☉	4:9AC
2	781.2	15.2	11.0	53	☉	3:1Cu,2AC
3	780.9	15.0	10.7	52	☉	10:2Cu,10AC
4	781.1	15.2	10.7	61	☉	10:2Sc,10AC
5	781.2	13.1	10.0	71	☉	2:2AC
6	781.5	13.6	9.9	66	☉	3:3AC
7	781.7	12.6	9.9	74	☉	3:3AC
8	782.4	15.5	10.8	60	☉	10:10AC
9	782.7	15.8	11.5	57	☉	10:10AC
10	782.8	19.0	11.8	46	☉	7:2Sc,5AC
11	782.2	20.3	12.8	46	☉	6:1Sc,6AC
12	781.5	20.2	12.3	43	☉	8:5Sc,XAC
13	780.2	22.0	12.9	39	☉	9:2Cu,9CS
14	779.5	21.3	12.3	38	☉	10:10Sc
15	779.3	19.8	13.5	53	●	9:8Ns,XAS
16	779.3	20.8	12.2	40	●	10:8Ns,XAS
17	779.9	20.0	11.8	41	☉	9:7Ns,XAS,XAC
18	780.4	18.4	12.2	52	☉	9:5AC,4AS
19	781.0	18.0	12.4	56	☉	8:8AC
20	781.6	17.4	12.2	58	☉	9:9AC
21	782.0	17.4	12.2	58	☉	8:8AC
22	782.0	15.8	11.8	66	☉	5:2AC,3AS
23	782.2	15.5	11.4	64	☉	9:3AC,6AS
24	781.5	14.8	11.6	71	☉	8:8AC

Surface Meteorological Observation Data
 Observation point: CENTRO No-5
 November 28, 1987

Time	Atmospheric pressure (mb)	Dry-bulb temperature (°C)	Wet-bulb temperature (°C)	Humidity (%)	Weather	Cloud amount/type
1	781.0	13.7	11.2	77	☉	3:3AC
2	781.0	14.2	11.1	72	☉	10:10AC
3	781.1	14.8	11.4	70	☉	8:8AC
4	781.4	12.7	10.5	79	☉	3:3AC
5	782.0	11.8	10.0	82	☉	4:4AC
6	782.1	13.0	10.4	75	☉	7:3AC,4CI
7	782.6	12.7	10.2	76	☉	7:7AC
8	783.0	13.3	10.6	75	☉	10:2Sc,10AS
9	783.5	15.4	10.6	59	☉	8:2AC,8CS
10	783.4	18.8	13.0	55	☉	8:0AC,8CS
11	782.7	19.7	13.8	55	☉	2:0Cu,2Sc
12	781.7	20.7	12.6	43	☉	9:9Cu,XCb
13	781.0	21.2	12.5	40	☉	10:10Cu
14	780.1	23.2	13.3	36	☉	9:3Cu,4Sc,XCb
15	779.7	23.9	12.8	31	☉	7:5Cu,2Sc
16	779.5	22.5	12.8	36	☉	7:XCu,6Sc,XCb
17	780.0	21.9	13.0	40	☉	8:4Cu,6Sc,XCb
18	780.4	20.6	12.7	44	☉	7:7Sc,0AC
19	781.1	19.5	12.4	47	☉	9:9Sc
20	781.7	17.5	12.8	62	☉	5:5AC
21	782.3	17.2	12.5	61	☉	6:6AC
22	782.8	16.6	12.2	63	☉	4:4AC
23	783.0	15.8	11.8	66	☉	1:1AC
24	782.9	15.5	11.8	68	☉	4:4AC

Surface Meteorological Observation Data
 Observation point: CENTRO No-5
 November 29, 1987

Time	Atmospheric pressure (mb)	Dry-bulb temperature (°C)	Wet-bulb temperature (°C)	Humidity (%)	Weather	Cloud amount/type
1	782.5	14.6	12.5	81	☉	1;1Ac
2	782.4	14.2	11.4	74	☉	0;
3	782.3	13.0	11.0	81	☉	0; 0'Ac
4	782.3	12.8	10.9	82	☉	0; 0'Ac
5	782.1	11.4	10.8	94	☉	1;1Ac
6	782.5	13.5	11.3	79	☉	10; 7Sc, XAS
7	782.8	13.8	11.5	78	☉	9; 9Sc
8	783.1	15.0	11.8	71	☉	8; 1Cu, 5Sc, XCI
9	783.2	16.2	12.2	66	☉	5; 3Sc, 1Ac, XCI
10	783.2	19.4	12.8	50	☉	6; 2Cu, 1Sc, 2Ac, XCI
11	782.8	20.2	12.4	44	☉	7; 2Cu, 2Sc, 4Ac, XCI
12	782.2	20.9	12.2	39	☉	7; XCu, 4Sc, XCI
13	781.2	21.1	12.4	40	☉	10; 8Sc, XCI
14	780.8	20.5	12.0	40	☉	10; 8Ns, xCu
15	780.6	20.8	12.6	42	☉	10; 9Ns, xCu
16	780.9	20.2	12.0	41	☉	10; 9Ns, XCu
17	781.2	20.4	12.0	40	☉	8; 0'Cu, 3Sc, 5Ac, XCI
18	781.5	18.9	11.2	43	☉	8; 0'Cu, 3Sc, 7Ac
19	782.3	18.2	10.2	40	☉	6; 1Sc, 6Ac
20	782.8	17.7	10.9	47	☉	8; 8Ac
21	783.0	16.8	10.7	51	☉	3; 3Ac
22	783.1	16.4	10.4	51	☉	6; 6Ac
23	783.1	14.8	9.9	57	☉	1; 1Ac
24	783.0	14.0	9.6	61	☉	2; 2Ac

Surface Meteorological Observation Data
 Observation point: CENTRO No-5
 November 30, 1987

Time	Atmospheric pressure (mb)	Dry-bulb temperature (°C)	Wet-bulb temperature (°C)	Humidity (%)	Weather	Cloud amount/type
1	782.6	13.6	10.0	67	☉	5; 1Ac, 5Sc
2	782.4	13.4	9.4	63	☉	1; 1Ac
3	782.1	12.2	9.2	71	☉	0;
4	782.0	11.2	8.6	74	☉	1; 1Ac
5	781.5	12.2	8.6	66	☉	5; 1Ac, 5Sc
6	781.8	12.0	8.8	69	☉	6; 2Ac, 5Sc
7	782.1	12.1	8.7	67	☉	4; 2Ac, 2CI
8	782.5	12.2	9.0	69	☉	4; 2Ac, 2CI
9	783.5	15.5	10.1	54	☉	3; 3Ac, 1CI
10	783.2	17.5	10.3	43	☉	8; 3Ac, XCS
11	782.4	20.8	11.2	34	☉	8; 2Sc, 0'Ac, XCS
12	781.7	23.2	12.4	31	☉	8; 0'Cu, 2Sc, 1Ac, XCS
13	780.4	24.2	13.2	31	☉	6; 4Sc, 2CI, XCS
14	779.6	24.2	12.7	29	☉	6; 0'Cu, 5Sc, XCI
15	779.1	23.7	12.9	32	☉	3; 1Cu, 3Sc, 0'Ac
16	779.1	22.5	12.6	35	☉	7; 1Cu, 4Sc, 2Ac, XCI
17	779.2	21.2	11.9	36	☉	8; 1Cu, 1Sc, 1Ac, XCI
18	779.4	20.7	11.8	38	☉	7; 1Sc, 3Ac, XCI
19	780.3	18.9	11.3	43	☉	7; 2Ac, 7CI
20	780.8	17.9	10.9	46	☉	6; 6Ac
21	781.2	17.0	10.8	50	☉	8; 8Ac
22	781.6	16.4	10.6	52	☉	8; 8Ac
23	781.6	15.8	10.4	55	☉	3; 3Ac
24	781.6	13.9	9.8	63	☉	0; 0'Ac

Surface Meteorological Observation Data
 Observation point: CENTRO No-5
 December 1, 1987

Time	Atmospheric pressure (mb)	Dry-bulb temperature (°C)	Wet-bulb temperature (°C)	Humidity (%)	Weather	Cloud amount/type
1	781.5	13.7	9.8	64	☉	0; 0 Ac
2	781.4	13.0	9.6	68	☉	2; 2Ac
3	781.3	11.6	8.8	72	☉	0; 0 Ac
4	781.3	11.9	9.0	72	☉	10; 10Ac
5	781.3	12.6	9.4	69	☉	10; 10Ac
6	781.9	12.8	9.8	71	☉	10; 10Ac
7	782.0	12.6	9.8	73	☉	10; 10Ac
8	782.9	13.5	10.2	69	☉	9; 9Ac
9	783.4	14.7	10.7	65	☉	10; 2Sc, 7Ac, XAs
10	783.2	16.4	11.6	60	☉	9; 1Sc, 8Ac, XAs
11	783.0	18.4	12.5	54	☉	10; 1Sc, 8Ac, XAc
12	782.2	17.9	11.6	51	☉	10; 1Sc, 8Ac
13	781.2	19.5	12.0	45	☉	10; XCu, 2Sc, 6Ac, XCs
14	780.1	20.5	12.2	41	☉	9; 2Cu, 7Sc, 0 Ac
15	780.0	21.4	11.4	38	☉	10; XCu, 6Sc, XAc
16	779.7	20.7	11.3	35	☉	8; 2Cu, 5Sc, XAc
17	780.3	20.6	12.2	41	☉	7; 2Sc, 7Ac
18	780.7	19.6	11.6	42	☉	8; 8Ac
19	781.6	18.4	11.0	44	☉	6; 3Sc, XAc
20	782.2	17.7	11.1	48	☉	9; 1Sc, 4Ac, 4As
21	782.6	16.4	11.1	56	☉	3; 3Ac
22	783.0	15.8	10.8	58	☉	3; 3Ac
23	783.1	14.4	10.8	68	☉	6; 6Ac
24	783.3	13.0	10.3	74	☉	10; 10Cs

Surface Meteorological Observation Data
 Observation point: CENTRO No-5
 December 2, 1987

Time	Atmospheric pressure (mb)	Dry-bulb temperature (°C)	Wet-bulb temperature (°C)	Humidity (%)	Weather	Cloud amount/type
1	783.4	12.4	9.1	68	☉	0;
2	783.0	11.3	8.6	73	☉	7; 7Cs
3	782.8	10.7	8.2	74	☉	7; 7Cs
4	783.0	10.3	8.0	76	☉	5; 5Cs
5	783.3	9.2	7.6	83	☉	4; 4Cs
6	783.8	9.6	7.4	77	☉	10; 10Cs
7	784.2	9.0	7.2	80	☉	8; 1Cc, 8Cs
8	784.8	11.2	8.4	72	☉	5; 5Ci
9	785.4	14.0	9.4	59	☉	3; 3Ci
10	785.4	16.8	9.8	44	☉	4; 0 Sc, 3Ac, 1Ci
11	785.0	19.0	9.8	33	☉	7; 2Ac, 7Cs
12	784.5	21.4	10.0	25	☉	8; 8Ac
13	783.1	23.0	9.8	19	☉	5; 3Ac
14	782.4	23.3	9.8	18	☉	2; 2Ac
15	782.2	23.7	10.1	18	☉	2; 2Ac
16	781.9	22.8	10.1	21	☉	0; 0 Ac
17	782.1	21.8	9.5	21	☉	6; 4Ac, XCc
18	782.4	21.3	8.8	19	☉	6; 1Ac, 2Cc, 4Ci
19	783.9	19.5	11.4	41	☉	0;
20	785.0	17.0	11.2	53	☉	0; 0 Ci
21	785.7	16.6	11.2	56	☉	4; 4Cs
22	786.2	15.6	8.8	44	☉	3; 3Cs
23	786.5	14.6	8.3	46	☉	0;
24	786.5	13.2	7.8	51	☉	0;

Surface Meteorological Observation Data
 Observation point: CENTRO No-5
 December 3, 1987

Time	Atmospheric pressure (mb)	Dry-bulb temperature (°C)	Wet-bulb temperature (°C)	Humidity (%)	Weather	Cloud amount/type
1	786.9	11.5	7.0	57	○	0;
2	786.8	11.6	7.3	58	○	0;
3	786.6	10.6	6.6	60	○	0;
4	786.6	9.2	6.3	69	○	0;
5	787.0	10.1	6.4	62	○	0;
6	787.5	8.6	6.0	72	○	0;
7	787.6	8.4	6.4	78	○	0;
8	788.0	10.2	7.2	69	○	0;
9	788.6	13.1	8.5	58	○	0;
10	788.5	16.8	10.2	47	○	0;
11	788.2	18.5	10.0	37	○	0;
12	787.1	20.2	9.4	26	○	0;
13	785.5	22.1	10.0	23	○	0;
14	785.0	22.4	10.1	22	○	0;
15	784.6	22.3	9.4	19	○	0;
16	784.3	22.3	9.5	19	○	0;
17	784.4	21.7	8.4	16	○	0;
18	784.8	20.2	7.9	18	○	0;
19	785.0	18.6	7.7	23	○	0;
20	786.2	17.3	7.6	27	○	0;
21	787.1	15.4	7.0	32	○	0;
22						
23						
24						

Surface Meteorological Observation Data
 Observation point: CENTRO No-5
 February 17, 1988

Time	Atmospheric pressure (mb)	Dry-bulb temperature (°C)	Wet-bulb temperature (°C)	Humidity (%)	Weather	Cloud amount/type
1						
2						
3						
4						
5						
6						
7						
8						
9						
10						
11						
12						
13						
14						
15						
16						
17						
18						
19						
20						
21						
22						
23						
24	782.3	15.3	9.4	50	○	0;

Surface Meteorological Observation Data
 Observation point: CENTRO No-5
 February 18, 1988

Time	Atmospheric pressure (mb)	Dry-bulb temperature (°C)	Wet-bulb temperature (°C)	Humidity (%)	Weather	Cloud amount/type
1	781.6	14.5	8.0	52	○	0;
2	781.6	13.7	8.9	57	○	0;
3	781.1	12.6	8.6	62	○	0;
4	780.9	12.1	8.0	61	○	0;
5	780.9	10.9	8.1	72	○	0;
6	780.8	11.1	8.5	74	○	0;
7	780.7	10.0	7.4	73	○	0; 0'Ac
8	780.8	12.7	9.0	65	○	0;
9	781.2	16.3	9.6	46	○	0;
10	781.0	18.9	9.8	30	○	0;
11	780.8	22.9	10.0	20	○	0;
12	780.0	26.0	11.1	16	○	0;
13	779.1	26.0	10.9	16	○	0;
14	777.8	27.4	11.2	14	○	0; 0'Cu
15	776.9	27.4	10.8	12	○	0;
16	776.5	26.9	10.6	12	○	0; 0'Cu
17	776.5	26.4	10.3	12	☉	2; 2Ci
18	777.0	25.0	9.5	12	○	0;
19	778.3	22.8	8.6	14	○	0;
20	779.2	21.3	8.4	17	○	0;
21	780.2	20.2	8.2	20	○	0;
22	780.2	16.5	7.2	29	○	0;
23	780.2	15.6	7.4	34	○	0;
24	780.2	14.7	7.0	36	○	0;

Surface Meteorological Observation Data
 Observation point: CENTRO No-5
 February 19, 1988

Time	Atmospheric pressure (mb)	Dry-bulb temperature (°C)	Wet-bulb temperature (°C)	Humidity (%)	Weather	Cloud amount/type
1	780.2	13.4	6.3	38	○	0;
2	780.0	12.4	5.8	40	○	0;
3	779.6	12.6	6.7	46	○	0; 0'Ac
4	779.6	11.4	6.5	53	○	0;
5	779.6	9.7	5.3	55	○	0;
6	779.8	8.6	4.4	55	○	0;
7	780.4	9.2	4.6	52	○	0;
8	780.9	12.0	6.8	51	○	0;
9	781.2	15.7	7.3	33	○	0;
10	780.9	19.2	10.5	37	○	0;
11	780.4	21.8	11.0	29	○	0;
12	779.5	24.9	10.2	15	○	0;
13	778.0	26.7	12.2	19	○	0;
14	777.0	28.2	10.5	9	○	0; 0'Cu
15	775.7	28.5	11.1	11	○	0; 0'Ac
16	775.1	27.9	10.8	11	○	2; 2Ac
17	775.3	25.7	9.7	12	○	6; 6Ac
18	775.9	25.1	10.4	16	○	5; 5Ac
19	777.0	22.8	10.2	21	○	4; 4Ac
20	777.9	21.4	9.7	24	○	4; 4Ac
21	778.4	20.8	12.9	44	○	4; 4Ac
22	779.2	19.7	8.4	23	○	2; 2Ac
23	778.9	18.2	9.4	35	○	1; 1Ac
24	778.8	16.6	8.2	34	○	0;

Surface Meteorological Observation Data
 Observation point: CENTRO No-5
 February 20, 1988

Time	Atmospheric pressure (mb)	Dry-bulb temperature (°C)	Wet-bulb temperature (°C)	Humidity (%)	Weather	Cloud amount/type
1	778.3	15.5	7.6	36	○	0; 0'Ac
2	778.2	15.3	6.4	29	○	1; 1Ac
3	778.1	15.2	6.3	29	○	3; 3Ac
4	777.8	14.2	6.1	32	○	9; 9Ac
5	778.2	13.8	7.5	45	○	8; 8Ac
6	778.3	14.0	7.3	42	○	9; 9Ac
7	779.1	12.8	6.8	46	○	9; 9Ac, xCi
8	779.7	15.0	7.5	38	○	10; 8Ac, 2Ci, xCs
9	779.7	17.9	8.1	28	○	8; 7Ac, 2As, xCs
10	779.6	19.6	10.2	33	○	9; 0'Ac, 2Cs, 2Cc, 5Ci
11	779.4	21.2	9.1	21	○	7; 5Cc, xCs
12	778.4	24.2	10.6	19	○	5; 2Ac, 5Cs
13	777.1	25.0	11.2	20	○	7; 0'Cu, 1Ac, 7Cs
14	776.4	25.1	11.2	19	○	4; 0'Cu, 1Ac, 3Cs
15	775.9	25.4	10.3	15	○	8; 0'Cu, 4Ac, xCs
16	776.0	24.5	10.1	16	○	8; 8Ac
17	776.2	24.6	10.6	18	○	8; 0'Cu, 25c, 3Ac, xCs
18	776.8	22.4	11.4	29	○	9; 3Ac, xCs
19	777.6	21.6	10.2	25	○	9; 5Ac, xCs
20	778.4	20.4	10.2	30	○	7; 3Ac, 4Cs
21	779.5	20.0	9.8	29	○	5; 1Ac, 5Cs
22	780.0	18.4	7.1	20	○	6; 4Ac, 2Cs
23	781.3	8.4	4.6	59	○	4; 3Ac, 1Cs
24	782.7	5.5	3.4	74	○	2; 2Ac

Surface Meteorological Observation Data
 Observation point: CENTRO No-5
 February 21, 1988

Time	Atmospheric pressure (mb)	Dry-bulb temperature (°C)	Wet-bulb temperature (°C)	Humidity (%)	Weather	Cloud amount/type
1	784.7	4.6	2.8	77	☉	2:1Cu, 1Ac
2	785.1	4.9	2.8	74	☉	10:2Scx, 10Ac
3	785.0	4.8	2.8	75	☉	10:10Ac
4	784.9	5.1	2.8	71	☉	10:10Ac
5	785.3	5.0	2.7	71	☉	10:10Ac
6	786.2	5.3	2.7	68	☉	10:10Ac
7	786.5	5.2	2.8	70	☉	10:10Ac, xAS
8	786.7	5.4	2.8	68	☉	10:3Sc, 5Ac, xAS
9	787.0	7.0	3.6	61	☉	6:1Cu, 1Ac, 5Cs
10	787.2	9.0	4.6	54	☉	10:3AS, xCS
11	786.8	10.2	5.2	50	☉	7:2Ac, 5AS, xCS
12	785.8	12.0	5.5	40	☉	7:2Ac, 6CS
13	784.6	14.4	6.8	36	☉	5:1Ac, 5CS
14	783.1	16.8	7.1	27	☉	4:2Ac, 3CS
15	782.2	17.6	7.3	24	☉	7:5Sc, xCS
16	781.5	17.8	7.4	24	☉	5:1Cu, 3Sc, xCS
17	781.0	18.7	8.0	24	☉	5:1Ac, 5CS
18	781.3	17.2	7.1	25	☉	3:1Ac, 3Ci
19	781.6	15.8	6.1	24	☉	1:1Ac
20	782.5	13.1	5.4	33	☉	0;
21	783.3	12.0	4.9	36	☉	0;
22	783.9	10.9	4.9	43	☉	0;
23	783.7	10.1	4.6	46	☉	0;
24	783.7	9.4	4.3	48	☉	0;

Surface Meteorological Observation Data
 Observation point: CENTRO No-5
 February 22, 1988

Time	Atmospheric pressure (mb)	Dry-bulb temperature (°C)	Wet-bulb temperature (°C)	Humidity (%)	Weather	Cloud amount/type
1	783.3	8.5	3.9	51	☉	0;
2	783.0	7.6	4.2	62	☉	0;
3	782.6	6.8	3.3	60	☉	0;
4	782.4	7.5	3.6	57	☉	6:6Ac
5	782.6	7.4	3.5	57	☉	4:4Ac
6	783.1	7.4	3.5	57	☉	10:10Ac
7	783.6	7.6	3.8	58	☉	8:7Ac, 1AS
8	784.2	9.0	4.6	54	☉	7:5Ac, 2AS
9	784.4	11.0	5.3	45	☉	8:8Ac, xCS
10	784.5	14.0	7.2	41	☉	6:3Ac, 5Ci
11	784.0	18.0	9.4	36	☉	1:1Ci
12	783.0	21.1	10.5	29	☉	0;
13	781.7	22.0	10.0	23	☉	0;
14	780.5	22.8	10.0	20	☉	0; 0; Cu, 0; Ci
15	779.4	25.3	12.6	25	☉	2:2Cu
16	778.1	24.8	11.0	19	☉	1:1Cu
17	779.3	23.9	11.4	24	☉	1:1Cu
18	780.0	21.4	10.7	29	☉	0; 0; Cu
19	780.7	19.4	11.0	39	☉	0; 0; Cu
20	782.3	17.6	10.4	44	☉	0;
21	783.1	16.8	9.4	42	☉	5:5Ac
22	783.8	15.8	9.1	45	☉	4:4Ac
23	784.1	15.6	9.6	50	☉	2:2Ac
24	784.0	14.5	9.2	54	☉	0;

Surface Meteorological Observation Data
 Observation point: CENTRO No-5
 February 23, 1988

Time	Atmospheric pressure (mb)	Dry-bulb temperature (°C)	Wet-bulb temperature (°C)	Humidity (%)	Weather	Cloud amount/type
1	783.6	13.0	8.4	58	☉	8;8Ac
2	783.0	12.5	8.4	61	☉	7;7Ac
3	782.8	11.9	8.2	64	☉	10;10Ac
4	782.6	10.3	7.6	72	☉	3;3Ac
5	783.4	10.4	7.1	66	☉	0;
6	783.5	9.2	6.3	69	☉	0;
7	784.2	8.6	5.3	64	☉	0;0Ac
8	784.5	11.8	6.9	53	☉	0;
9	785.0	14.0	7.6	44	☉	0;
10	784.9	16.8	10.6	50	☉	0;
11	784.6	18.7	10.4	38	☉	5;5Cs
12	783.5	21.6	11.4	32	☉	3;3Cs
13	782.4	21.7	9.4	21	☉	5;5Cs
14	781.1	24.8	11.0	19	☉	5;5Cs
15	780.3	24.8	10.8	18	☉	8;8Cs
16	779.5	25.2	11.3	19	☉	5;5Cs
17	780.0	25.0	10.2	15	☉	4;1Cu,3Cs
18	780.8	23.8	10.0	17	☉	7;7Sc,xCu
19	781.6	22.4	9.8	21	☉	9;2Sc,8Cs
20	782.8	20.0	10.6	34	☉	4;4Cs
21	783.9	18.6	10.2	38	☉	3;3Cs
22	784.9	15.8	9.4	47	☉	0;
23	784.9	14.6	9.0	52	☉	0;
24	785.4	13.2	7.6	50	☉	0;

Surface Meteorological Observation Data
 Observation point: CENTRO No-5
 February 24, 1988

Time	Atmospheric pressure (mb)	Dry-bulb temperature (°C)	Wet-bulb temperature (°C)	Humidity (%)	Weather	Cloud amount/type
1	785.3	13.0	7.5	50	☉	4;4Cs
2	785.2	12.8	7.6	52	☉	4;4Cs
3	785.0	12.6	6.6	45	☉	3;3Cs
4	785.0	11.8	6.3	48	☉	5;5Cs
5	785.1	10.6	6.1	55	☉	5;5Cs
6	785.2	10.1	5.7	56	☉	5;5Cs
7	785.6	9.7	5.9	61	☉	7;7Cs
8	786.3	11.3	6.6	55	☉	1;1Cs
9	786.4	13.6	7.7	48	☉	0;
10	786.6	15.8	9.2	46	☉	0;
11	786.0	18.6	10.6	40	☉	0;
12	785.0	20.8	11.0	33	☉	0;
13	783.6	22.7	11.4	28	☉	5;5Cs
14	782.4	24.2	10.2	17	☉	5;1Cu,5Cs
15	780.8	24.8	11.8	23	☉	10;1Cu,10Cs
16	780.4	25.6	12.2	22	☉	10;2Cu,10Cs
17	780.4	24.7	12.2	25	☉	10;3Cu,10Cs
18	782.0	20.6	11.7	38	☉	7;1Cu,1Ac,5Cs
19	783.3	17.6	10.8	47	☉	8;3Ac,5Cs
20	784.2	15.6	10.0	53	☉	7;7Sc
21	785.1	15.0	9.6	54	☉	5;1Ac,4Cs
22						
23						
24						

Surface Meteorological Observation Data
 Observation point: CENTRO NO-5
 May 20, 1988

Time	Atmospheric pressure (mb)	Dry-bulb temperature (°C)	Wet-bulb temperature (°C)	Humidity (%)	Weather	Cloud amount/type
1						
2						
3						
4						
5						
6						
7						
8						
9						
10						
11						
12						
13						
14						
15						
16						
17						
18						
19						
20						
21						
22						
23						
24	782.1	17.2	8.3	32	☉	9:9Ac

Surface Meteorological Observation Data
 Observation point: CENTRO NO-5
 May 21, 1988

Time	Atmospheric pressure (mb)	Dry-bulb temperature (°C)	Wet-bulb temperature (°C)	Humidity (%)	Weather	Cloud amount/type
1	781.8	17.1	8.4	33	☉	7:7Ac
2	781.7	16.4	8.6	38	☉	8:8Ac
3	781.6	16.2	8.6	39	☉	4:4Ac
4	781.7	16.4	9.4	44	☉	4:4Ac
5	781.9	14.7	7.6	40	☉	2:2Ac
6	782.2	13.9	7.3	43	☉	0;
7	782.7	15.4	8.6	44	☉	0;
8	782.9	17.5	8.4	32	☉	0;
9	783.2	19.8	9.4	28	☉	0;
10	782.9	22.5	14.4	45	☉	0;
11	782.4	24.0	12.7	30	☉	0;
12	781.5	26.2	12.8	23	☉	0;
13	781.6	27.8	12.8	19	☉	3:3Cu
14	779.8	27.6	11.9	16	☉	4:4Cu
15	779.0	27.2	13.5	23	☉	6:6Cu
16	778.6	27.2	13.6	24	☉	7:2Cu, 55c
17	778.7	26.0	11.6	19	☉	10:10Sc
18	780.1	23.8	12.9	31	☉	10:10Sc
19	780.4	23.8	11.4	24	☉	8:8Ac
20	781.3	24.0	12.8	30	☉	8:8Ac
21	782.1	23.8	13.2	33	☉	10:10Ac
22	782.9	22.0	12.9	38	☉	10:10Ac
23	783.2	21.2	12.6	40	☉	10:10Ac
24	783.0	21.0	13.2	45	☉	10:10Ac

Surface Meteorological Observation Data
 Observation point: CENTRO NO-5
 May 22, 1988

Time	Atmospheric pressure (mb)	Dry-bulb temperature (°C)	Wet-bulb temperature (°C)	Humidity (%)	Weather	Cloud amount/type
1	782.7	20.2	12.3	43	⊙	3;3Ac
2	782.3	18.8	11.8	47	⊙	8;8Ac
3	782.2	17.9	11.0	47	⊙	9;9Ac
4	782.2	17.4	10.4	45	⊙	10;10Ac
5	782.7	17.9	10.8	45	⊙	10;10Ac
6	783.2	17.2	11.2	52	⊙	9;3As,6Ac
7	783.7	17.8	12.0	54	⊙	7;2As,5Ac
8	784.0	18.7	12.3	51	⊙	1;1Ac
9	784.0	19.8	13.1	50	⊙	5;5As
10	783.9	21.0	15.0	56	⊙	6;6As
11	783.5	23.6	14.0	38	⊙	5;5As
12	782.6	24.5	14.8	38	⊙	6;3Cu,3As
13	781.9	24.3	14.1	36	⊙	10;7Cu,xAs
14	781.1	26.3	15.1	33	⊙	10;5Cu,5As
15	780.4	25.1	13.5	30	⊙	10;5Ca,5As
16	780.1	26.6	15.2	33	⊙	10;5Cu,5As
17	780.1	24.4	15.4	42	⊙	9;3Sc,xAs
18	782.8	17.4	14.3	74	●	10;5Cb,xAs
19	783.4	15.2	13.8	87	●	10;5Cb,xAs
20	783.6	15.6	13.3	79	⊙	10;7Sc,xAs
21	784.4	15.8	13.4	79	●	10;10Ns
22	784.6	16.2	14.3	83	⊙	10;5Ac,xAs
23	784.8	16.4	13.8	77	⊙	8;6Ac,xAs
24	784.7	15.3	13.4	83	⊙	4;3Ac,xAs

Surface Meteorological Observation Data
 Observation point: CENTRO NO-5
 May 23, 1988

Time	Atmospheric pressure (mb)	Dry-bulb temperature (°C)	Wet-bulb temperature (°C)	Humidity (%)	Weather	Cloud amount/type
1	784.5	15.4	13.5	83	⊙	4;3Ac,1As
2	784.3	14.8	13.2	85	⊙	6;1Ac,6Cs
3	784.0	14.2	12.3	82	⊙	6;8Cs
4	784.0	13.7	11.9	83	⊙	8;8Cs
5	783.8	14.0	12.2	83	⊙	7;7Cs
6	783.7	13.2	11.5	84	⊙	8;8Cs
7	784.3	14.4	12.4	81	⊙	1;1Cs
8	784.6	16.5	13.6	75	⊙	0;
9	785.0	18.4	13.6	82	⊙	0;
10	784.8	20.2	14.3	56	⊙	0;
11	784.5	22.0	15.8	56	⊙	0;
12	783.9	23.5	15.2	45	⊙	2;2Cu
13	782.7	25.4	16.3	43	⊙	3;1Cu,2Ac
14	782.0	26.6	16.3	38	⊙	4;3Cu,1Ac
15	781.1	25.4	14.7	35	⊙	5;5Cu
16	780.4	26.4	15.2	33	⊙	4;4Cu
17	779.9	26.5	14.0	28	⊙	3;1Cu,2Ac
18	780.4	25.8	13.4	27	⊙	8;8Ac
19	780.7	25.4	15.2	37	⊙	10;10Ac
20	781.8	22.3	13.8	42	⊙	7;7Ac
21	782.7	21.4	14.2	49	⊙	7;2Cu,1Sc,xAc
22	783.6	18.6	14.0	63	⊙	9;9Ac
23	783.4	18.6	13.2	58	⊙	8;8Ac
24	783.2	18.6	12.9	56	⊙	10;10Ac

Surface Meteorological Observation Data
 Observation point: CENTRO NO-5
 May 24, 1988

Time	Atmospheric pressure (mb)	Dry-bulb temperature (°C)	Wet-bulb temperature (°C)	Humidity (%)	Weather	Cloud amount/type
1	783.1	18.1	12.3	62	☉	9:9Ac
2	782.7	17.4	12.4	59	☉	10:10Ac
3	782.3	16.8	12.0	60	☉	3:3Ac
4	782.6	15.4	11.6	67	☉	7:1Sc,6Ac
5	782.4	15.1	11.1	65	☉	2:2Ac
6	782.6	14.8	11.0	66	☉	7:0Ac,7Cs
7	783.3	15.8	11.4	62	☉	0:
8	784.4	18.1	12.5	56	☉	0:
9	784.3	20.2	13.5	51	☉	0:
10	784.0	22.4	13.3	39	☉	0:
11	783.5	23.8	15.0	42	☉	0:
12	783.0	25.6	14.8	34	☉	2:2Cu
13	782.1	26.3	16.1	38	☉	3:3Cu
14	781.3	26.9	13.8	25	☉	4:4Cu
15	780.3	28.6	17.5	36	☉	3:3Cu
16	779.5	27.4	18.6	46	☉	4:4Cu
17	779.1	28.0	18.2	42	☉	5:5Cu
18	779.5	26.2	17.3	45	☉	7:3Cu,4Sc
19	780.4	24.5	13.4	31	☉	7:3Cu,4Sc
20	781.4	22.0	13.0	39	☉	8:2Cu,4Sc,xAc
21	782.7	20.9	13.1	45	☉	9:2Sc,9Ac
22	783.6	19.8	12.8	48	☉	10:10Ac
23	784.1	19.0	12.8	53	☉	8:8Ac
24	783.8	18.8	12.0	48	☉	6:0Sc,6Ac

Surface Meteorological Observation Data
 Observation point: CENTRO NO-5
 May 25, 1988

Time	Atmospheric pressure (mb)	Dry-bulb temperature (°C)	Wet-bulb temperature (°C)	Humidity (%)	Weather	Cloud amount/type
1	783.2	18.5	12.3	52	☉	8:8Ac
2	782.9	18.6	12.4	52	☉	9:3Sc,xAc
3	782.7	18.4	13.5	61	☉	10:6Sc,xAc
4	783.1	18.4	13.6	62	☉	9:6Sc,xAc
5	783.2	16.6	13.5	73	☉	4:3Sc,xAc
6	783.8	15.9	13.7	80	☉	4:4Ac
7	784.1	15.9	13.8	81	☉	0:
8	784.4	17.6	15.0	78	☉	0:
9	784.4	19.5	15.8	71	☉	0:
10	784.1	21.2	16.6	66	☉	0:
11	783.5	23.6	18.0	61	☉	0:
12	782.6	25.4	17.3	48	☉	6:1Cu,5As
13	781.9	27.4	17.7	42	☉	5:3Cu,3As
14	780.8	28.0	14.6	26	☉	6:1Cu,5As
15	780.2	28.8	17.3	35	☉	7:3Cu,5As
16	779.7	28.6	17.3	36	☉	7:3Cu,4As
17	780.2	25.2	18.6	56	☉	7:5Sc,2Cu
18	780.0	24.4	13.6	33	☉	7:2Cb,5Sc
19	781.3	22.6	13.9	42	☉	8:6Sc,xAs
20	783.9	16.9	13.4	70	☉	10:10Cb
21	784.6	14.5	13.4	90	☉	10:10Cb
22	785.3	16.1	13.4	76	☉	10:0Cu,5Sc,xAc
23	785.2	16.0	13.0	74	☉	10:5Sc,xAc
24	784.7	16.4	13.0	71	☉	8:3Sc,5Ac

Surface Meteorological Observation Data
 Observation point: CENTRG NO-5
 May 26, 1988

Time	Atmospheric pressure (mb)	Dry-bulb temperature (°C)	Wet-bulb temperature (°C)	Humidity (%)	Weather	Cloud amount/type
1	784.3	16.4	13.2	72	☉	6:3Sc,3Ac
2	784.4	15.2	12.8	78	☉	8:1Sc,8Ac
3	784.2	15.3	12.7	77	☉	9:2Sc,xAc
4	784.5	15.0	12.6	78	☉	6:0'Sc,6Ac
5	784.6	14.4	12.3	81	☉	7:7Ac
6	785.0	13.8	11.6	79	☉	5:4Ac,2Cs
7	785.1	14.9	12.0	74	☉	0;
8	784.9	16.9	13.2	69	☉	0;
9	784.6	18.2	13.4	62	☉	0;
10	784.8	19.9	13.4	52	☉	0;
11	784.1	21.9	13.8	44	☉	0;
12	783.4	23.2	14.5	42	☉	4:4Cu
13	782.4	25.1	14.6	35	☉	4:4Cu
14	781.2	26.6	14.4	29	☉	6:6Cu
15	780.9	23.9	12.6	29	☉	9:7Cb,xAs
16	779.8	26.8	13.2	23	☉	8:5Cb,3Sc
17	780.4	21.0	12.7	42	☉	10:7Cb,2Sc,1Cu
18	780.3	21.4	13.6	45	☉	5:4Sc,1Cb
19	781.7	20.6	13.4	48	☉	8:5Sc,xCb
20	783.0	18.1	12.2	54	☉	10:2Sc,8Cb
21	784.5	16.2	14.2	82	☉	10:10Cb
22	784.7	15.9	14.0	83	☉	10:10Cu
23	785.2	15.7	14.1	86	☉	10:10Cb
24	785.5	14.6	13.6	91	☉	10:10Cu

Surface Meteorological Observation Data
 Observation point: CENTRG NO-5
 May 27, 1988

Time	Atmospheric pressure (mb)	Dry-bulb temperature (°C)	Wet-bulb temperature (°C)	Humidity (%)	Weather	Cloud amount/type
1	785.7	13.6	13.0	94	☉	10:10Cb
2	784.6	13.4	11.2	79	☉	10:0'St,4Cu,xNs
3	784.1	12.9	11.6	87	☉	10:0'St,6Cu,xAc
4	783.7	13.1	11.5	85	☉	8:5Cu,xAc
5	783.7	12.8	11.9	91	☉	3:1Cu,0'Sc,2Ac
6	783.9	13.0	11.9	89	☉	6:1Cu,0'Sc,6Ac
7	784.2	13.6	12.4	88	☉	2:0'Cu,2Sc
8	784.3	14.3	12.4	82	☉	1:0'Cu,0'Sc,1Ac
9	784.3	17.6	14.1	71	☉	0:0'Cu
10	784.1	19.0	13.7	59	☉	0;
11	783.8	20.8	14.1	51	☉	1:1Cu
12	783.0	22.3	14.6	47	☉	1:1Cu
13	782.0	23.8	14.6	40	☉	5:5Cu
14	781.0	23.8	14.0	37	☉	10:3Sc,7Cu
15	780.8	19.2	14.6	64	☉	10:8Cb,2Sc
16	781.6	17.2	14.0	73	☉	10:10Cb
17	781.7	16.5	14.0	78	☉	9:xCb,4Sc
18	782.4	15.8	13.4	79	☉	10:xCb,4Sc
19	783.3	14.4	13.0	87	☉	10:8Sc,xCb
20	783.9	14.7	13.5	89	☉	10:5Sc,xCb
21	783.4	14.8	13.5	88	☉	10:5Sc,xCb
22						
23						
24						

1.2.2 Surface Wind Observation Data

Wind direction and wind speed observed are shown in the following Tables.

Surface Wind Observation Data (Wind Direction)
 Period: September, 8-19, 1987

Day	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
MFV01	NW	NW	NW	NW	NW	NW	NW	NW	NW	NW	NW	NW	NW	NW	NW	NW	NW	NW	NW	NW	NW	NW	NW	NW
N	5	7	4	5	4	4	4	3	4	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3
MFV02	NW	NW	NW	NW	NW	NW	NW	NW	NW	NW	NW	NW	NW	NW	NW	NW	NW	NW	NW	NW	NW	NW	NW	NW
N	5	2	2	3	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
N0	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	11	10	11	10	11	11	11	11	11
The Number of Times of Observed 277 (99.3%)																								
The Number of Times of Not-observed 2 (0.7%) (Note) MFWD: Most Frequent Wind Direction																								

Surface Wind Observation Data (Wind Speed)
 Period: September, 8-19, 1987

Day	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
MVS	34	39	31	35	33	39	34	42	27	27	34	42	37	33	47	54	60	42	35	25	18	24	26	28
VD	NW	NW	NW	NW	NW	NW	NW	NW	NW	NW	NW	NW	NW	NW	NW	NW	NW	NW	NW	NW	NW	NW	NW	NW
TO	12	14	17	14	14	13	17	17	9	18	9	8	8	8	8	8	8	16	14	15	16	9	14	11
N0	22	21	18	21	19	19	15	17	17	13	17	15	17	16	20	26	32	39	34	30	24	23	26	28
N1	12	12	12	12	12	12	12	12	12	12	12	12	12	12	11	10	11	10	11	11	11	11	11	11
The Number of Times of Observed 277 (99.3%)																								
The Number of Times of Not-observed 2 (0.7%)																								

(Unit: 0.1m/s)

MFWD: Most Frequent Wind Direction
 N : Number
 ND : The Number of Days
 NT : The Number of Times

MVS: Maximum Wind Speed
 VD : Wind Direction
 TO : Time of Occurrence
 N0 : The Number of Days
 N1 : The Number of Times

Surface Wind Observation Data
(Standard Deviation of The Wind Speed)

Period: September, 8-19, 1987

Time Day	(Unit: 0.1m/s)																															
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	MAX TO	MIN TO	AVE NT					
8	6	4	5	5	3	3	3	5	8	10	11	13	14	17	16	18	16	17	12	10	9	8	6	7	18	16	3	7	10	24		
9	6	6	4	4	3	3	4	7	8	12	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14		
10	9	6	6	6	6	6	4	4	7	6	9	9	13	10	10	13	12	12	8	9	8	6	7	9	13	16	4	8	8	23		
11	7	5	6	4	4	5	3	5	6	7	11	11	12	12	12	14	14	14	12	8	7	9	8	8	14	18	4	6	8	23		
12	8	7	6	6	4	5	3	5	6	8	8	8	10	11	10	12	13	13	11	9	7	7	7	13	20	4	7	9	23	2		
13	8	7	5	7	6	9	5	6	8	9	10	11	14	15	16	8	12	11	7	6	8	7	8	16	18	4	10	9	24	1		
14	8	9	6	6	6	2	5	8	7	6	8	10	11	9	10	11	9	14	12	9	10	10	8	14	19	2	7	8	24	1		
15	8	6	6	4	3	5	5	4	6	6	8	8	8	9	10	13	8	6	5	5	5	5	5	6	13	18	3	7	7	24	1	
16	5	4	3	3	3	3	4	4	6	7	9	9	10	14	10	12	11	12	6	7	5	8	8	8	14	15	3	7	7	24	1	
17	7	7	6	6	5	6	8	9	8	5	6	7	10	10	8	8	10	8	8	7	6	5	6	8	14	15	3	7	7	24	1	
18	6	6	5	4	5	5	5	6	7	10	9	9	10	9	10	9	12	12	10	8	7	5	5	7	14	15	5	10	7	24	1	
19	5	4	4	3	4	3	6	6	8	9	10	10	11	13																		
MAX	9	7	7	8	9	8	9	8	10	12	14	14	17	16	18	16	17	14	13	11	10	10	10	18								
Day	10	14	12	13	12	13	17	17	8	9	9	9	8	8	8	8	8	17	12	13	14	14	9									
MIN	5	4	3	3	3	2	4	4	4	4	6	8	8	8	8	7	8	8	6	5	5	5	6									
Day	19	16	16	16	14	16	16	13	17	15	15	17	17	15	17	17	15	16	15	16	15	18	17									
AVE	7	6	5	5	5	4	5	6	7	8	10	11	11	11	12	12	13	12	9	8	7	7	8									
NO	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	8								

The Number of Times of Observed 276 (98.9 %)

The Number of Times of Not-Observed 3 (1.1 %)

(Note) MAX: Maximum Standard Deviation of Wind Direction
MIN: Minimum Standard Deviation of Wind Direction
AVE: Average Standard Deviation of Wind Direction
NO: Time of Occurrence
NT: The Number of Days
MT: The Number of Times

Surface Wind Observation Data
(Standard Deviation of The Wind Direction)

Period: September, 8-19, 1987

Time Day	(Unit: Iddeg)																														
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	MAX TO	MIN TO	AVE NT				
8	14	23	18	18	21	11	17	41	20	46#	56#	55#	42	59#	39	24	23	22	20	21	22	23	24	17	59	14	11	6	28	24	
9	15	24	20	14	30	14	30	25	35	63#	54	45#	66#	68#	63#	40	18	19	22	22	23	25	18	18	68	14	12	6	32	24	
10	18	16	14	16	15	23	16	51#	46#	83#	82#	109#	70#	62	50#	72#	21	31	20	17	46	18	18	109	12	14	3	40	23	1	
11	18	16	22	17	33	15	23	30	85#	58#	60#	58#	34	40#	54#	38	27	26	26	20	21	20	24	16	85	9	15	6	33	23	
12	15	17	16	15	18	13	29	56	123#	48#	48#	47#	77#	64#	119#	45	30	25	19	28	19	17	26	17	123	9	13	6	38	23	
13	33	26	62#	22	17	16	14	17	51	61#	89#	60#	81#	85#	55#	27	26	97#	61#	18	22	23	26	16	97	18	14	7	42	24	
14	16	17	17	15	19	25	41#	84#	50	62#	70	59#	58#	43#	36	58#	30	51#	15	42	18	17	20	64	8	15	20	36	24		
15	17	24	24	43#	79	25	30	102#	43	52#	85	45	53	57#	73#	52	54#	19	18	18	23	30	18	20	102	8	17	1	42	24	
16	20	18	25	32	22	25	25	23	56#	53#	51	57#	60#	64#	62#	28	94	20	19	10	18	21	23	21	94	17	18	21	56	24	
17	18	16	15	17	18	17	17	80	37	41	64#	75#	58#	51#	42#	86	24	27	20	18	20	18	20	88	23	15	3	37	24		
18	18	48	18	43	30	24	20	24	22	18	24	40#	44#	58#	125#	68#	65#	22	19	18	17	20	20	21	112	15	17	21	34	24	
19	18	20	17	21	34	36	37#	34	38	57#	55#	74#	47#	60#											74	13	17	4	38	15	
MAX	33	48	62	43	79	34	41	102	123	83	89	109	81	85	119	72	94	97	61	30	42	46	68	21	123						
Day	13	18	13	18	15	19	14	15	12	10	13	10	13	10	16	13	10	16	13	13	16	14	10	17	18						
MIN	14	16	14	14	15	11	14	17	18	34	40	34	40	36	24	23	18	15	15	17	17	17	18								
Day	8	17	10	9	10	8	15	17	17	18	18	11	11	14	8	8	9	14	14	18	12	14	13								
AVE	18	22	23	22	27	20	25	42	49	55	60	56	60	60	65	43	37	25	22	23	24	27	19								
NO	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	8							

The Number of Times of Observed 276 (98.9 %)

The Number of Times of Not-Observed 3 (1.1 %)

(Note) MAX: Maximum Standard Deviation of Wind Speed
MIN: Minimum Standard Deviation of Wind Speed
AVE: Average Standard Deviation of Wind Speed
NO: Time of Occurrence
NT: The Number of Days
MT: The Number of Times

Surface Wind Observation Data (Wind Direction)
 Period: November, 19-December, 3, 1987

Day	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
19	WNW	NW	NW	WSW	NW	WNW	NW	NW	NW	WNW	WSW	NNE	N	NW	N	NNE	N	NW	NW	NW	NW	NW	NW	NW
20	NW	NW	NW	NW	NW	NW	NW	NW	NW	NW	NW	NW	NW	NW	NW	NW	NW	NW	NW	NW	NW	NW	NW	NW
21	NW	NW	NW	NW	NW	NW	NW	NW	NW	NW	NW	NW	NW	NW	NW	NW	NW	NW	NW	NW	NW	NW	NW	NW
22	NW	NW	NW	NW	NW	NW	NW	NW	NW	NW	NW	NW	NW	NW	NW	NW	NW	NW	NW	NW	NW	NW	NW	NW
23	NW	NW	NW	NW	NW	NW	NW	NW	NW	NW	NW	NW	NW	NW	NW	NW	NW	NW	NW	NW	NW	NW	NW	NW
24	NW	NW	NW	NW	NW	NW	NW	NW	NW	NW	NW	NW	NW	NW	NW	NW	NW	NW	NW	NW	NW	NW	NW	NW
25	NW	NW	NW	NW	NW	NW	NW	NW	NW	NW	NW	NW	NW	NW	NW	NW	NW	NW	NW	NW	NW	NW	NW	NW
26	NW	NW	NW	NW	NW	NW	NW	NW	NW	NW	NW	NW	NW	NW	NW	NW	NW	NW	NW	NW	NW	NW	NW	NW
27	NW	NW	NW	NW	NW	NW	NW	NW	NW	NW	NW	NW	NW	NW	NW	NW	NW	NW	NW	NW	NW	NW	NW	NW
28	NW	NW	NW	NW	NW	NW	NW	NW	NW	NW	NW	NW	NW	NW	NW	NW	NW	NW	NW	NW	NW	NW	NW	NW
29	NW	NW	NW	NW	NW	NW	NW	NW	NW	NW	NW	NW	NW	NW	NW	NW	NW	NW	NW	NW	NW	NW	NW	NW
30	NW	NW	NW	NW	NW	NW	NW	NW	NW	NW	NW	NW	NW	NW	NW	NW	NW	NW	NW	NW	NW	NW	NW	NW
1	NW	NW	NW	NW	NW	NW	NW	NW	NW	NW	NW	NW	NW	NW	NW	NW	NW	NW	NW	NW	NW	NW	NW	NW
2	NW	NW	NW	NW	NW	NW	NW	NW	NW	NW	NW	NW	NW	NW	NW	NW	NW	NW	NW	NW	NW	NW	NW	NW
3	NW	NW	NW	NW	NW	NW	NW	NW	NW	NW	NW	NW	NW	NW	NW	NW	NW	NW	NW	NW	NW	NW	NW	NW
MFWD1	---	NW	NW	NW	NW	NW	NW	NW	NW	NW	NW	NW	NW	NW	NW	NW	NW	NW	NW	NW	NW	NW	NW	NW
MFWD2	---	NW	NW	NW	NW	NW	NW	NW	NW	NW	NW	NW	NW	NW	NW	NW	NW	NW	NW	NW	NW	NW	NW	NW
N	4	2	3	5	2	2	5	2	5	2	5	2	5	2	5	2	5	2	5	2	5	2	5	2
NO	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15

The Number of Times of Observed 359 (99.7 %)
 The Number of Times of Not-observed (Note) 1 (0.3 %)
 MFWD: Most Frequent Wind Direction
 N: The Number of Days
 NO: The Number of Times

風速 観測表

Surface Wind Observation Data (Wind Speed)
 Period: November, 19-December, 3, 1987

Day	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24						
19	37	26	8	9	34	36	34	34	24	16	12	14	33	42	37	37	29	66	40	39	32	31	46	NW	19	29	24			
20	18	27	16	22	37	22	12	13	16	13	8	0	12	18	20	34	31	55	21	27	24	41	39	33	41	NW	22	22	24	
21	28	3	10	8	8	0	13	5	8	10	10	7	5	41	4	13	31	20	80	11	7	8	41	SSW	16	12	24			
22	7	1	7	19	6	8	4	2	8	8	13	5	1	13	19	25	22	15	0	27	27	24	20	27	NW	22	12	24		
23	1	8	4	10	6	6	9	2	5	20	11	17	21	22	18	14	35	28	34	19	2	17	12	35	SE	18	14	24		
24	9	4	6	9	8	4	9	1	7	3	18	16	18	22	9	2	22	30	35	27	15	10	7	13	SE	19	13	24		
25	20	19	7	4	10	6	3	6	6	14	13	21	12	14	22	10	14	16	18	23	11	12	18	8	23	ENE	20	13	24	
26	8	3	9	5	10	0	4	1	0	17	20	20	7	17	1	4	41	19	31	19	23	12	14	6	41	ENE	17	12	24	
27	2	10	7	3	11	3	10	0	11	11	5	14	16	16	22	26	31	20	6	18	10	22	22	31	SE	18	13	24		
28	7	25	15	6	8	11	**	2	1	13	15	8	6	11	22	24	35	46	40	12	28	18	12	29	46	WSW	18	17	23	
29	16	14	13	19	6	7	5	9	7	15	13	12	20	29	29	40	34	41	35	6	10	41	SW	21	21	24				
30	17	11	4	10	10	11	0	7	7	15	19	30	23	48	34	37	47	59	29	15	21	10	5	48	NW	14	19	24		
1	7	4	0	13	6	7	13	12	12	15	18	11	10	1	36	31	39	42	34	32	16	11	11	42	SV	18	16	24		
2	10	7	3	8	9	8	2	2	19	17	16	9	15	13	18	29	16	15	21	15	14	16	13	29	ENE	17	13	24		
3	6	17	7	6	11	6	8	6	7	10	18	16	16	11	3	18	23	18	17	11	12	22	31	26	31	NW	23	14	24	
MVS	37	26	22	37	34	36	34	34	24	20	30	23	48	42	41	47	46	46	40	41	41	39	33	48						
VD	NW	NW	NW	NW	NW	NW	NW	NW	NW	NW	NW	NW	NW	NW	NW	NW	NW	NW	NW	NW	NW	NW	NW	NW	NW	NW	NW	NW	NW	
TO	19	19	19	20	20	19	19	19	19	19	26	30	30	30	30	19	21	30	28	19	19	29	20	20	20	20	20	20	20	20
NO	13	12	9	9	12	9	8	8	9	13	15	13	13	13	13	13	13	13	13	13	13	13	13	13	13	13	13	13	13	13
MS	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15

The Number of Times of Observed 359 (99.7 %)
 The Number of Times of Not-observed (Note) 1 (0.3 %)
 MVS: Maximum Wind Speed
 VD: Wind Direction
 TO: Time of Occurrence
 NO: The Number of Days
 MS: The Number of Times

Surface Wind Observation Data
(Standard Deviation of The Wind Speed)

Period: November, 19-December, 3, 1987

Day	(Unit: 0.1m/s)																								
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	
19	9	8	7	4	3	4	8	10	10	9	8	10	11	12	13	14	10	11	12	12	9	9	9	8	
20	7	5	5	6	9	8	4	5	6	8	8	8	8	9	11	8	10	10	10	8	9	13	9	8	
21	8	4	3	3	3	3	2	4	5	5	7	7	8	7	11	9	8	6	8	6	4	7	2	2	
22	2	2	2	2	2	2	2	2	4	3	4	5	9	10	9	8	6	6	8	6	7	8	2	2	
23	2	2	2	2	2	2	2	2	4	6	9	8	9	9	7	10	6	7	7	6	6	5	5	5	
24	2	2	2	2	2	2	2	2	4	7	8	9	13	6	5	6	11	6	7	7	4	4	4	4	
25	2	2	2	2	2	2	2	2	2	4	7	9	9	8	7	8	5	5	5	5	3	3	4	4	
26	2	2	2	2	2	2	2	2	2	4	6	7	7	8	6	5	8	8	5	5	3	3	2	2	
27	1	2	2	2	2	2	2	2	2	4	6	6	6	8	9	7	7	10	8	6	6	3	3	3	
28	2	2	2	2	2	2	2	2	2	4	7	9	6	5	8	7	10	10	6	6	3	3	3	3	
29	2	2	2	2	2	2	2	2	2	4	5	7	8	9	7	8	9	9	6	6	4	4	4	4	
30	2	2	2	2	2	2	2	2	2	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	
1	2	2	2	2	2	2	2	2	2	3	3	4	6	7	5	7	11	8	10	10	8	6	4	2	2
2	2	2	2	2	2	2	2	2	2	3	3	4	7	7	6	9	8	7	5	6	5	4	3	3	
3	2	2	2	2	2	2	2	2	2	2	4	7	10	7	5	6	6	6	5	5	4	4	3	9	
MAX	9	8	7	6	9	8	10	10	9	9	10	12	14	14	14	12	11	12	12	9	9	13	9	14	
Day	19	19	19	20	20	19	19	19	19	30	30	30	30	30	30	19	30	19	19	29	20	20	20	(30-15)	
MIN	1	1	1	1	1	1	1	1	1	1	3	4	6	5	5	5	5	5	5	5	5	5	2	2	
Day	27	27	1	3	29	3	3	26	30	3	27	1	28	3	27	25	3	3	22	27	2	26	1	(3-8)	
AVE	4	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	6	
MD	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	359	

MAX: Maximum Standard Deviation of Wind Speed
MIN: Minimum Standard Deviation of Wind Speed
AVE: Average Standard Deviation of Wind Speed
MD: Maximum Standard Deviation of Wind Speed
NT: The Number of Days
(Unit: Ideg)

Surface Wind Observation Data
(Standard Deviation of The Wind Direction)

Period: November, 19-December, 3, 1987

Day	(Unit: 0.3 %)																							
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
19	18	17	15	22	30	39	17	18	17	19	38	53	58	39	22	23	22	22	19	18	20	15	17	18
20	16	16	19	21	19	17	21	106	41	67	85	104	80	91	20	19	17	22	30	18	21	17	17	100
21	15	25	46	25	45	22	42	38	47	68	104	62	68	57	39	68	47	27	55	36	35	16	42	44
22	35	81	101	47	16	43	31	90	49	68	59	121	78	73	47	51	34	53	22	46	38	18	17	22
23	16	23	31	25	22	32	32	38	47	108	58	39	62	57	97	20	35	36	18	30	19	24	35	57
24	18	30	43	22	34	72	15	102	35	54	57	23	41	60	66	43	36	54	55	41	33	33	23	29
25	20	18	27	34	91	51	35	75	82	33	47	36	46	51	31	50	76	33	30	25	16	86	14	27
26	41	88	52	28	40	86	48	29	73	58	24	71	80	60	58	47	48	28	18	17	11	15	20	86
27	32	82	40	31	89	49	59	35	91	46	39	42	48	47	38	41	42	35	19	29	39	22	47	23
28	37	32	16	33	47	70	75	66	34	39	65	53	56	29	25	19	17	13	20	21	18	25	28	91
29	19	32	12	11	9	20	44	59	66	26	28	48	50	60	22	23	19	18	15	16	12	14	81	66
30	18	35	58	11	17	41	66	85	82	25	70	103	31	22	19	20	20	17	18	20	52	18	30	23
1	23	61	66	53	107	31	17	19	34	36	29	38	31	95	57	26	17	14	15	16	25	70	27	31
2	66	42	51	107	70	34	78	27	20	31	64	45	63	97	48	53	19	23	17	21	1	9	16	107
3	24	19	16	28	42	28	83	22	44	59	32	87	45	82	78	108	23	15	21	7	4	18	14	108
MAX	86	88	101	113	107	86	83	102	106	108	70	121	104	97	97	108	76	54	55	71	52	93	81	66
Day	2	26	22	20	1	26	1	24	20	23	20	2	23	23	22	2	23	23	24	22	2	23	23	22
MIN	15	16	12	11	9	17	15	18	17	19	24	20	31	22	10	17	14	13	11	11	13	14	15	15
Day	21	29	29	29	29	20	22	19	19	19	26	24	1	30	30	1	1	28	1	28	26	2	5	(29-5)
AVE	29	39	38	41	45	44	42	48	47	46	47	46	47	46	47	46	47	46	47	46	47	46	47	46
MD	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	41

MAX: Maximum Standard Deviation of Wind Direction
MIN: Minimum Standard Deviation of Wind Direction
AVE: Average Standard Deviation of Wind Direction
MD: Maximum Standard Deviation of Wind Direction
NT: The Number of Days
(Unit: Ideg)

Note: The mark # indicates mean values which contain the value over 60°

Surface Wind Observation Data (Wind Direction)

Period; February, 18-24, 1988

Time	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	
Day																									
18	NW	CLM	N	ESE	NNE	ENE	NW	CLM	ENE	E	E	ENE	SSE	WSW	WSW	SW	SW	SW	SW	WSW	NW	E	S	WSW	WSW
19	W	SSE	W	NW	WSW	NW	NNE	NW	SE	E	ESE	SSE	SW	WSW	SW	SSW	SSW	WSW	WSW	WSW	WSW	SW	S	SSE	WSW
20	ESE	SE	E	SE	SSW	W	ESE	ESE	ESE	SW	SW	SW	S	WSW	SW	SSW	SSW	S	SSW	SSW	SW	SW	NW	NW	SSW
21	NW	NW	NW	NW	NW	NW	NW	NW	NW	NW	NW	NW	NW	NW	NW	NW	NW	NW	NW	NW	NW	NW	NW	NW	NW
22	E	ESE	SE	WSW	NW	NW	NW	NW	ESE	SE	ESE	NW	SSW	WSW	WSW	W	W	WSW	W	WSW	W	WSW	WSW	WSW	WSW
23	CLM	E	SE	NE	W	W	WSW	N	N	NE	ESE	ESE	E	E	ESE	ESE	NNE	NNE	N	NE	NNE	NW	NW	NW	NW
24	NW	NW	NW	NW	ESE	SE	ESE	WSW	ENE	WSW	ENE	N	N	NW	NW	NW	NW	NW	NW	NW	NW	NW	NW	NW	NW
MFVD1	NW	NW	NW	NW	---	W	NW	NW	ENE	E	ESE	ENE	NW	WSW	WSW	SW	SSW	NNW	NNW	NW	WSW	NW	NW	NW	NW
N	2	2	2	3	2	3	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	3	3	29
MFVD2	NW	SSE	SE	WSW	---	NNW	ESE	N	N	NW	NNW	N	N	NNW	NW	WSW	WSW	NW	WSW	WSW	NW	SW	S	WSW	WSW
N	1	1	2	1	1	1	1	1	1	1	1	2	2	1	1	1	1	1	2	2	1	2	2	2	22
ND	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	168

The Number of Times of Observed 168 (100.0 %)
 The Number of Times of Not-observed 0 (0.0 %)
 (Note)
 MFVD: Most Frequent Wind Direction
 N : Number
 ND : The Number of Days
 NT : The Number of Times

Surface Wind Observation Data (Wind Speed)

Period; February, 18-24, 1988

Time	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24		
Day																										
18	2	0	5	3	2	3	2	0	4	24	16	2	16	50	59	60	60	41	34	14	8	8	9	60	SW 18	
19	2	3	9	7	9	5	5	4	10	15	15	20	67	48	41	45	37	48	41	27	24	33	30	18	67	SW 15
20	19	18	21	10	13	4	9	13	5	19	41	43	40	13	50	57	32	31	30	33	49	30	63	62	63	NW 23
21	56	42	34	35	36	25	23	5	12	6	17	5	11	16	19	8	14	23	32	47	36	40	25	8	56	NW 1
22	2	20	7	3	13	4	9	3	5	13	15	21	4	23	46	51	46	58	60	30	34	27	34	19	60	WSW 19
23	0	10	4	3	7	4	1	8	7	8	22	12	13	13	22	25	13	31	25	34	25	28	38	28	38	NW 23
24	30	27	19	14	23	8	2	10	2	7	5	11	9	15	17	21	45	56	56	48	27	48	38	52	56	NNW 19
MUS	56	42	34	35	36	25	23	12	24	41	43	67	50	59	60	60	60	48	49	48	63	62	67			
VD	NW	NW	NW	NW	NW	NW	NW	NW	ESE	WSW	E	SW	SW	WSW	WSW	SW	SW	WSW	NW	SW	NW	NW	NW	NW	SW	
TO	21	21	21	21	21	21	20	21	18	20	20	19	18	18	20	18	18	22	24	20	24	20	20	20	20	(19-13)
ND	16	17	14	11	15	8	7	6	6	13	19	16	23	25	36	37	35	44	41	36	30	31	34	25	23	
	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	168	

The Number of Times of Observed 168 (100.0 %)
 The Number of Times of Not-observed 0 (0.0 %)
 (Note)
 MUS: Maximum Wind Speed
 VD : Wind Direction
 TO : Time of Occurrence
 ND : The Number of Days
 NT : The Number of Times

Surface Wind Observation Data
 (Standard Deviation of The Wind Speed)
 Period; February, 18-24, 1988

Time	(Unit: 0.1m/s)																																
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	MAX	TO	MIN	TO	AVE	NT			
Day																																	
18	3	3	2	3	2	2	2	2	5	7	10	13	14	16	16	14	14	11	8	5	3	2	3	16	16	2	23	7	24	7	24		
19	3	3	2	2	2	1	2	2	6	7	9	13	15	15	16	13	14	11	8	6	5	9	5	15	15	1	7	7	24	7	24		
20	3	5	3	3	4	3	4	4	9	13	14	14	14	16	17	16	13	12	10	7	8	15	19	19	24	3	7	10	24	7	24		
21	19	13	10	8	9	8	5	3	5	7	9	7	9	8	8	5	9	9	12	10	12	8	4	19	1	3	9	9	24	7	24		
22	1	2	2	1	2	2	2	2	5	7	9	12	14	15	13	12	13	13	11	9	7	8	5	15	15	1	4	7	24	7	24		
23	2	1	2	2	1	1	3	4	6	7	9	8	8	8	8	8	10	9	8	6	10	11	11	24	1	8	6	24	7	24			
24	9	6	5	3	2	2	0	1	2	4	5	5	7	7	9	7	11	13	14	13	8	12	11	11	14	19	0	7	7	24			
MAX	19	13	10	8	9	9	8	5	4	9	13	14	14	15	16	17	16	14	14	13	10	12	15	19	19								
Day	21	21	21	21	21	21	21	20	20	20	20	20	19	20	20	19	24	24	21	24	20	20	20	20	(21-1)								
MIN	1	2	1	1	2	2	0	1	2	4	5	5	7	7	8	7	5	8	9	8	5	3	2	3									
Day	22	23	23	22	24	24	24	24	24	24	24	24	24	24	24	23	24	21	23	21	19	18	18	18	(24-7)								
AVE	6	5	4	3	3	3	2	3	5	7	9	11	12	12	12	12	11	12	11	10	8	8	9	8	7								
ND	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7								

The Number of Times of Not-observed
 168 (100.0 %)
 The Number of Times of Observed
 0 (0.0 %) (Note)
 MAX: Maximum Standard Deviation of Wind Direction
 MIN: Minimum Standard Deviation of Wind Direction
 AVE: Average Standard Deviation of Wind Direction
 TO : Time of Occurrence
 ND : The Number of Days
 NT : The Number of Times

Surface Wind Observation Data
 (Standard Deviation of The Wind Direction)
 Period; February, 18-24, 1988

Time	(Unit: Ides)																															
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	MAX	TO	MIN	TO	AVE	NT		
Day																																
18	82#	77#	73	20	91	34	45#	64#	85#	45#	34	58#	88#	34	28	31	28	27	25	26	34	85#	88#	72#	91	5	25	19	56	24		
19	94#	87	69#	51	50	47	32	46	52#	37	43	42	71#	31	36	35	29	30	26	27	32	37	32	38	94	1	26	19	45	24		
20	38	41	38	48	47	45#	61	99#	80#	90#	37	34	47#	55#	40#	29	36	32	33	31	31	26	51	30	99	8	26	22	46	24		
21	29	27	28	27	29	29	35	99#	47#	52#	82#	95#	89#	120#	74#	89#	68#	29	29	31	30	28	34	180	15	27	4	51	24	7	24	
22	99#	28	31	67	44	37	38	47#	50#	71#	36	43#	80#	64#	47#	34	33	27	26	29	32	28	29	29	99	1	26	19	44	24		
23	87#	75#	69#	62	65	33	34	58#	38	59#	43	49#	64#	58#	48#	41	52	33	31	30	31	54	31	30	87	1	30	24	49	24		
24	30	31	28	26	26	29	37	31	87#	98#	93#	105#	67#	70	68#	85#	32	30	28	28	34	33	27	30	105	12	26	4	50	24		
MAX	99	87	73	80	91	47	61	99	99	98	93	105	95	89	120	83	89	65	35	31	34	85	88	72	120							
Day	22	19	18	18	19	20	20	21	24	24	24	21	21	21	21	24	21	21	20	20	24	18	18	18	(21-15)							
MIN	29	27	28	26	29	29	31	38	37	34	34	47	31	28	29	28	27	25	26	26	21	26	27	29	25							
Day	21	21	24	24	21	24	21	24	23	19	18	20	19	18	20	18	22	18	22	18	23	20	24	22								
AVE	66	52	48	52	59	36	39	54	70	64	48	59	73	57	55	47	43	35	29	29	32	42	41	38	49							
ND	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7							

The Number of Times of Not-observed
 168 (100.0 %)
 The Number of Times of Observed
 0 (0.0 %) (Note)
 MAX: Maximum Standard Deviation of Wind Speed
 MIN: Minimum Standard Deviation of Wind Speed
 AVE: Average Standard Deviation of Wind Speed
 TO : Time of Occurrence
 ND : The Number of Days
 NT : The Number of Times

Surface Wind Observation Data (Wind Direction)
 Period; May, 20-28, 1988

Time Day	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	MF	HF	WD1	N	WD2	N	HT						
20	W	N	NNE	ESE	NNE	WSW	NE	E	E	ENE	W	E	ESE	ESE	-SW	S	SE	E	ESE	NW	SW	W	NW	NW	ESE	4	E	4	24								
21	SSW	NNE	WSW	NW	WSW	W	NNE	W	E	NW	E	SE	N	S	S	S	E	S	W	ESE	NE	ESE	WSW	W	4	S	4	24									
22	W	W	WSW	W	NNE	NW	NW	NW	NW	NW	SE	E	ESE	NW	NW	NW	WSW	NW	S	S	ESE	E	E	ENE	5	NW	3	24									
23	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***							
24	WSW	SSW	ENE	W	ENE	NW	ESE	N	ENE	NE	NW	NE	E	ENE	ENE	E	ESE	SSW	S	SW	WSW	ENE	4	ENE	4	ENE	3	16									
25	W	NW	ENE	NW	NW	NW	WSW	W	E	ESE	ENE	N	NNE	NNE	NNE	ENE	E	WSW	ESE	NW	SSE	SW	WSW	5	NW	3	24										
26	N	NNE	WSW	NW	WSW	NW	S	E	ENE	E	W	NE	NW	NNE	WSW	SW	ENE	ENE	NW	WSW	SW	SW	6	SW	3	24											
27	W	NW	NW	S	S	NE	NNE	E	ENE	SSE	ENE	E	ESE	NNE	SSE	SW	SSE	S	NW	N	ENE	ENE	4	S	3	24											
28	NE	ENE	ESE	NE	W	N	WSW	E	ESE	ESE	NE	N	NW	NW	SW	SW	ENE	SW	SSE	ENE	NW	SW	---	---	---	---	---	---	---								
MPW01	W	NNE	WSW	NW	NNE	WSW	WSW	WNW	E	ENE	ENE	E	ESE	NW	N	S	NW	E	S	ENE	ESE	WSW	---	WSW	E												
N	3	2	3	2	2	2	3	3	2	5	2	3	2	2	2	2	2	2	2	2	3	2	3	23													
MPW02	N	N	ENE	W	NW	N	NW	E	NW	ESE	NW	NNE	NNE	WSW	ENE	E	NW	SW	ENE	---	SW	ENE	---	SW	ENE												
N	1	1	2	2	1	1	2	1	2	1	2	2	2	1	2	1	2	2	1	2	2	2	3	21													
ND	8	8	8	8	8	8	8	9	9	9	9	9	9	9	9	8	9	9	9	9	9	9	9	9	9												

The Number of Times of Observed 208 (96.3 %)
 The Number of Times of Not-observed 8 (3.7 %)
 (Note) MPWD: Most Frequent Wind Direction
 N : Number
 ND : The Number of Days
 NT : The Number of Times

Surface Wind Observation Data (Wind Speed)
 Period; May, 20-28, 1988

Time Day	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	MWD	VD	TO	NT						
20	11	5	8	11	6	8	4	15	15	14	3	19	24	8	24	36	38	41	25	6	31	19	17	7	41	E	18	16	24					
21	7	4	9	15	7	2	10	11	14	7	10	12	18	11	28	21	33	42	17	11	21	50	15	15	50	NE	22	16	24					
22	16	16	10	2	4	22	26	32	30	16	1	11	27	22	16	25	47	64	13	22	5	1	12	8	64	WSW	18	19	24					
23	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***				
24	11	5	7	4	16	4	5	9	11	16	20	13	23	17	23	8	30	59	39	51	55	20	42	22	59	ENE	18	20	24					
25	13	11	8	22	21	25	31	4	13	20	11	18	43	23	25	32	52	61	43	57	17	17	13	18	61	ENE	18	25	24					
26	19	18	19	27	18	9	20	10	5	15	10	20	20	10	55	29	44	44	50	31	30	14	22	16	55	NW	15	23	24					
27	39	24	17	12	3	9	9	11	17	18	13	16	20	19	31	38	35	11	23	8	2	11	10	3	38	SW	16	17	24					
28	6	3	7	3	5	3	4	12	7	6	15	28	24	32	22	28	36	19	15	32	62	29	14	2	62	SW	21	17	24					
MVS	38	24	19	27	21	25	31	32	30	20	21	28	43	32	55	38	52	64	50	57	62	50	42	22	64									
VD	NW	NW	WSW	NW	NW	NW	NW	NW	NW	ENE	ENE	N	NW	SW	NE	WSW	ENE	WSW	SW	NE	SW	WSW	WSW	WSW										
TO	27	27	26	26	25	25	25	22	22	25	23	28	25	28	26	27	25	22	26	25	28	21	24	24	(22-18)									
ND	15	11	11	12	10	10	14	12	14	13	12	17	23	18	26	26	39	40	27	28	26	22	18	11										
	8	8	8	8	8	8	8	9	9	9	9	9	9	9	9	9	8	9	9	9	9	9	9	9										

The Number of Times of Observed 208 (96.3 %)
 The Number of Times of Not-observed 8 (3.7 %)
 (Note) MVS: Maximum Wind Speed
 VD : Wind Direction
 TO : Time of Occurrence
 ND : The Number of Days
 NT : The Number of Times

Surface Wind Observation Data
(Standard Deviation of The Wind Speed)

Period: May, 20-28, 1988

Time Day	(Unit: 0.1m/s)																														
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	MAX	TO	MIN	TO	AVE	NT	
20																															
21																															
22																															
23																															
24																															
25																															
26																															
27																															
28																															
MAX																															
Day																															
MIN																															
Day																															
AVE																															
ND																															

The Number of Times of Observed
208 (96.3 %)
(Note)

The Number of Times of Not-Observed
8 (3.7 %)
(Note)

MAX : Maximum Standard Deviation of Wind Direction
MIN : Minimum Standard Deviation of Wind Direction
AVE : Average Standard Deviation of Wind Direction
TO : Time of Occurrence
ND : The Number of Days
NT : The Number of Times

Surface Wind Observation Data
(Standard Deviation of The Wind Direction)

Period: May, 20-28, 1988

Time Day	(Unit: Ideg)																														
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	MAX	TO	MIN	TO	AVE	NT	
20																															
21																															
22																															
23																															
24																															
25																															
26																															
27																															
28																															
MAX																															
Day																															
MIN																															
Day																															
AVE																															
ND																															

The Number of Times of Observed
208 (96.3 %)
(Note)

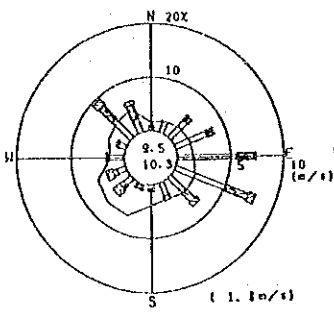
The Number of Times of Not-Observed
8 (3.7 %)
(Note)

MAX : Maximum Standard Deviation of Wind Speed
MIN : Minimum Standard Deviation of Wind Speed
AVE : Average Standard Deviation of Wind Speed
TO : Time of Occurrence
ND : The Number of Days
NT : The Number of Times

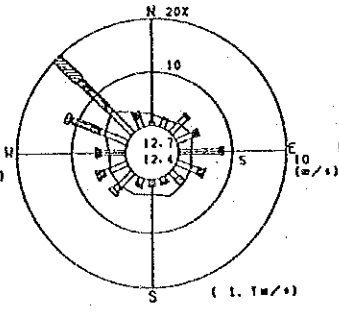
1.2.3 Surface Wind Rose

Wind roses for surface wind are shown in the following Figures.

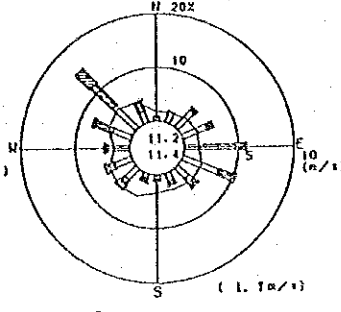
CENTRO No 5



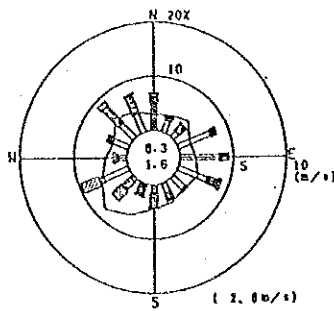
January, 1988
(daytime)



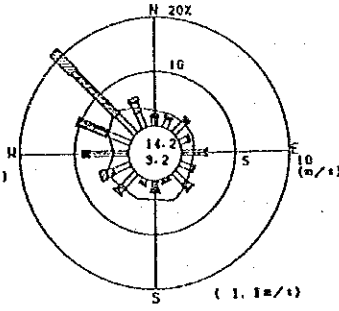
January, 1988
(nighttime)



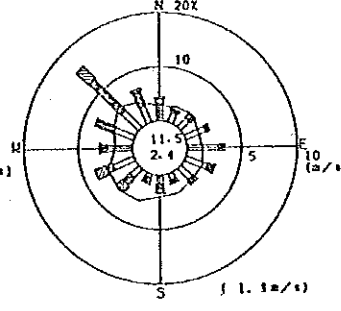
January, 1988
(whole day)



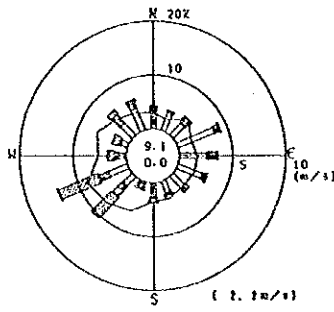
February, 1988
(daytime)



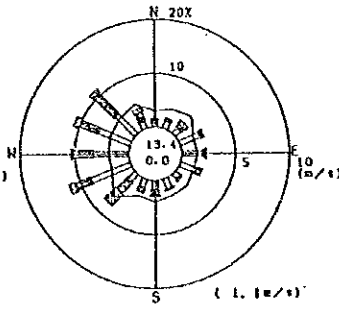
February, 1988
(nighttime)



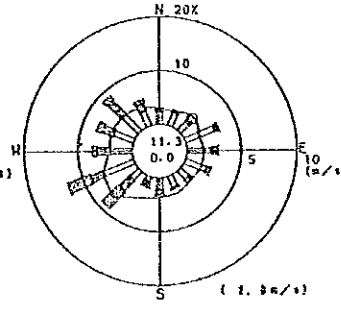
February, 1988
(whole day)



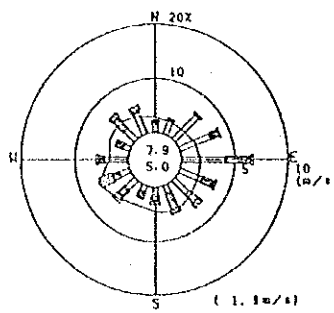
March, 1988
(daytime)



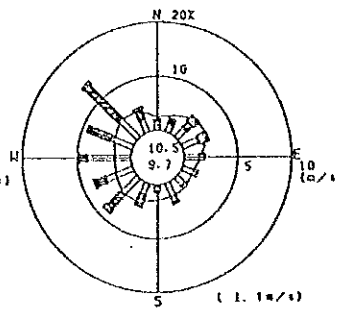
March, 1988
(nighttime)



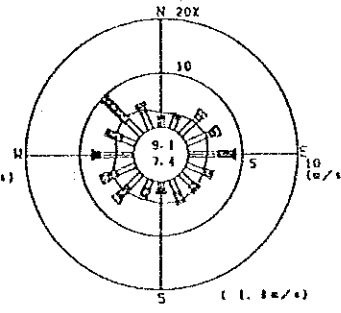
March, 1988
(whole day)



April, 1988
(daytime)



April, 1988
(nighttime)

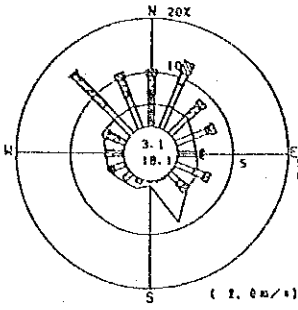


April, 1988
(whole day)

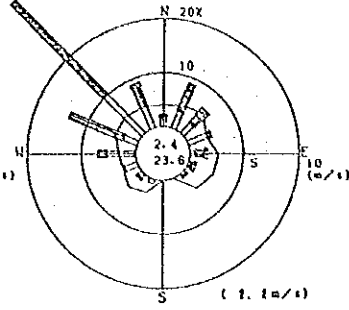
LEGEND

	0.5 M/S - frequency (%)
	2.0 M/S - frequency (%)
	4.0 M/S - frequency (%)
	8.0 M/S - frequency (%)
	Mean wind speed (M/S)
Upper figure in circle : calm ratio (%)	
Lower figure in circle : data deficiency rate (%)	
() mean wind speed (M/S)	

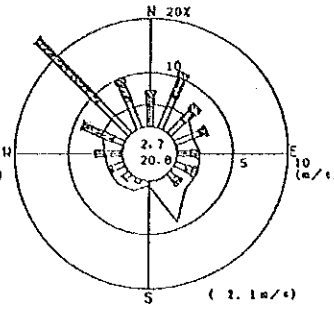
CENTRO No 5



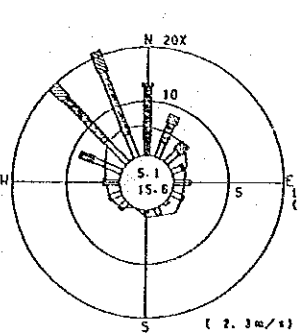
September, 1987
(daytime)



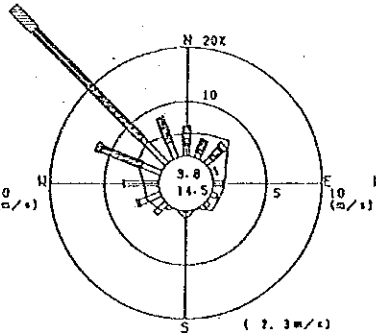
September, 1987
(nighttime)



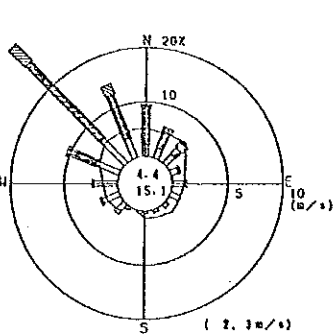
September, 1987
(whole day)



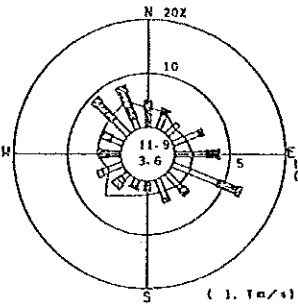
October, 1987
(daytime)



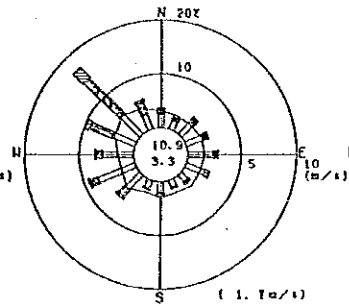
October, 1987
(nighttime)



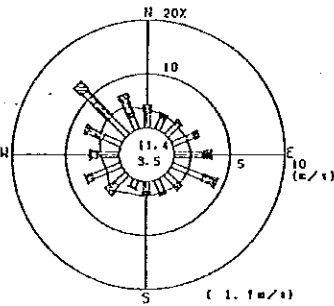
October, 1987
(whole day)



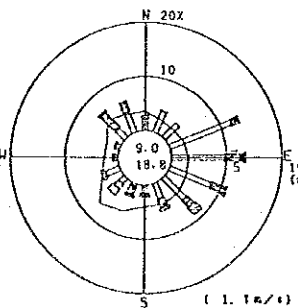
November, 1987
(daytime)



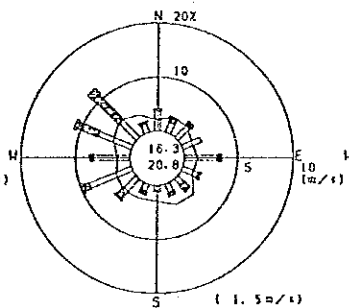
November, 1987
(nighttime)



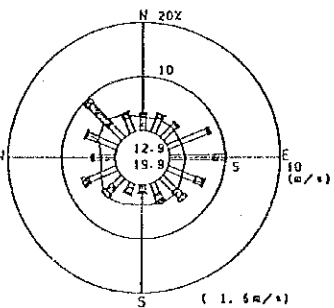
November, 1987
(whole day)



December, 1987
(daytime)



December, 1987
(nighttime)



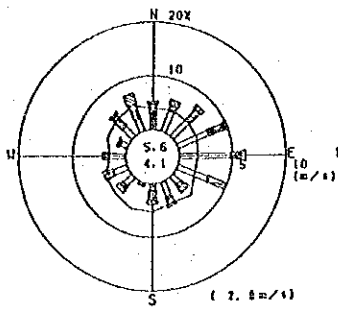
December, 1987
(whole day)

LEGEND

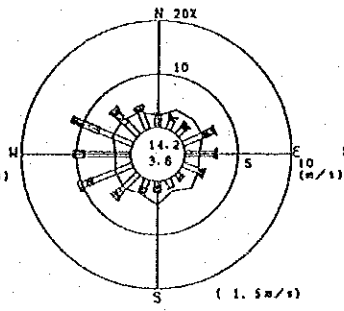
	0.5 M/S - frequency (%)
	2.0 M/S - frequency (%)
	4.0 M/S - frequency (%)
	8.0 M/S - frequency (%)
	Mean wind speed (M/S)

Upper figure in circle : calm ratio (%)
Lower figure in circle : data deficiency ratio (%)
() mean wind speed (M/S)

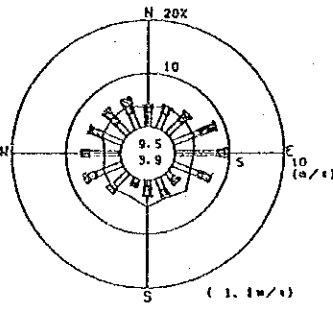
CENTRO No 5



May, 1988
(daytime)



May, 1988
(nighttime)



May, 1988
(whole day)

LEGEND

	0.5 M/S - frequency (%)
	2.0 M/S - frequency (%)
	4.0 M/S - frequency (%)
	8.0 M/S - frequency (%)
	Mean wind speed (M/S)
Upper figure in circle : calm ratio (%)	
Lower figure in circle : data deficiency rate (%)	
() mean wind speed (M/S)	

1.3 Upper-Layer Meteorology

1.3.1 Observation Activity

Activities in the upper-layer observation are shown in the following Tables.

Table 1.3.1 (1) Upper Meteorological Observation Result (summer)

Hour										
Month, day		• • 3	• • 6	• • 9	• • 12	• • 15	• • 18	• • 21	• • 24	
9	10	—	—	—	—	—	—	○	—	—
	11	—	—	—	—	—	—	—	—	—
	12	—	—	—	—	△	○	○	×	○
	13	○	○	△	○	△	○	×	△	○
	14	○	○	△	—	△	○	○	×	○
	15	—	—	—	—	—	—	—	—	—
	16	—	—	—	—	—	—	—	—	—
	17	○	○	○	○	△	○	○	○	○
	18	○	○	○	○	△	○	×	○	○
	19	○	○	○	○	—	—	—	—	—

Note: ○ : Captive sonde used △ : Low sonde used
 × : Measurement loss (measurement altitude 100 m or less)
 — : No measurement schedule

Measurement not made at 9:00 of 13 and 9:00 and 12:00 of 14 because of flight training and on 15 and 16 because of Mexico independence day.

Table 1.3.1 (2) Upper Meteorological Observation Frequency (Summer)

Hour										
altitude m		• • 3	• • 6	• • 9	• • 12	• • 15	• • 18	• • 21	• • 24	All day
Surface		5	5	5	4	5	4	4	5	37
50		5	5	5	4	5	3	4	5	36
100		5	5	5	4	5	3	4	5	36
150		5	5	5	4	5	3	3	5	35
200		5	5	5	4	4	1	3	5	32
250		5	5	5	4	4	1	3	4	31
300		5	5	5	4	4	1	3	4	31
350		4	5	5	4	4	1	3	4	30
400		5	5	5	4	4	1	3	4	31
450		5	5	5	4	4	1	3	4	31
500		5	5	5	4	4	1	3	4	31

Note: Statistical period Sept. 10 - 19, 1987
 Observation frequency with the captive sonde rising

Table 1.3.2 (1) Upper Meteorological Observation Result (Autumn)

Hour	Month, day	3	6	9	12	15	18	21	24
11	19	--	--	--	--	--	--	--	○
	20	○	○	○	○	△	○	×	○
	21	○	○	○	△	○	○	○	○
	22	○	○	○	○	△	○	○	○
	23	○	○	○	○	△	○	×	○
	24	○	○	○	○	△	○	○	○
	25	○	○	○	○	△	○	○	○
	26	○	○	○	○	△	○	×	○
	27	○	○	○	○	△	×	×	○
	28	○	○	○	○	△	×	×	○
	29	○	○	○	○	△	×	×	○
	30	○	○	△	○	△	×	×	○
12	1	○	○	○	○	△	○	×	○
	2	○	○	○	○	△	○	○	○
	3	○	○	○	○	△	○	○	--

Note: ○ : Captive sonde used △ : Low sonde used
 × : Measurement loss (measurement altitude 100 m or less)
 -- : No measurement schedule

Table 1.3.2 (2) Upper Meteorological Observation Result (Autumn)

Hour altitude m	3	6	9	12	15	18	21	24	All day
Surface	14	14 3	14 3	14	13	12	13	14	114
50	14	14 3	14 3	14	13	11	13	14	113
100	14	14 3	14 3	14	12	8	13	14	109
150	14	14 3	14 3	14	12	6	13	14	107
200	14	14 3	14 3	13	11	5	13	14	104
250	14	14 3	14 3	13	10	4	13	14	102
300	14	13 3	14 3	13	10	4	13	14	101
350	14	13 3	14 3	13	9	4	12	14	99
400	14	13 3	14 3	13	8	4	12	14	98
450	14	13 3	14 3	13	8	3	12	13	96
500	14	13 3	14 3	13	8	3	12	13	96

Note: Statistical period: Nov. 19 to Dec. 3, 1987
 Observation frequency with the captive sonde rising

Table 1.3.3 (1) Upper Meteorological Observation Result (Winter)

Hour Month, day	· · 3	· · 6	· · 9	· · 12	· · 15	· · 18	· · 21	· · 24
2 17	-	-	-	-	-	-	-	○
18	○	○	○	○	△	×	○	○
19	○	○	○	○	△	×	○	○
20	○	○	○	○	△	×	○	×
21	×	○	○	○	△	○	×	○
22	○	○	○	○	△	×	×	○
23	○	○	○	○	△	×	○	×
24	○	○	○	○	△	○	○	-

Note: ○: Captive sonde used △: Low sonde used
 ×: Measurement loss (measurement altitude 100 m or less)
 -: No measurement schedule

Table 1 3.3 (2) Upper Meteorological Observation Frequency (Winter)

Hour altitude m	· · 3	· · 6	· · 9	· · 12	· · 15	· · 18	· · 21	· · 24	All day
Surface	7	7	2	7	2	7	7	7	60
50	6	6	2	7	2	6	3	4	47
100	6	7	2	7	2	6	3	1	44
150	6	7	2	7	2	6	3	1	44
200	6	7	2	7	2	6	3	1	44
250	6	7	2	7	2	6	3	1	43
300	6	7	2	7	2	6	3	1	42
350	6	7	2	7	2	5	3	0	40
400	6	7	2	7	2	4	3	0	39
450	6	7	2	7	2	4	3	0	39
500	6	7	2	7	2	4	3	0	39

Note: Statistical period: Feb. 17 to 24, 1988
 Observation frequency with the captive sonde rising

Table 1 3.4 (1) Upper Meteorological Observation Frequency (Spring)

Hour Month, day	· · 3	· · 6	· · 9	· · 12	· · 15	· · 18	· · 21	· · 24
5 20	-	-	-	-	-	-	-	○
21	○	○	○	○	○	△	○	○
22	○	○	○	○	○	△	○	○
23	○	○	○	○	○	△	○	○
24	○	○	○	○	○	△	○	○
25	○	×	○	○	○	△	×	○
26	○	○	○	○	○	△	○	×
27	○	○	○	○	○	△	×	-

Note: ○ : Captive sonde used △ : Low sonde used
 × : Measurement loss (measurement altitude 100 m or less)
 - : No measurement schedule

Table 1 3.4 (2) Upper Meteorological Observation Frequency (Spring)

Hour altitude m	· · 3	· · 6	· · 9	· · 12	· · 15	· · 18	· · 21	· · 24	All day
Surface	6	6	2	7	2	7	7	7	58
50	7	6	3	7	2	7	5	1	45
100	7	6	3	7	2	7	5	1	45
150	7	6	3	7	2	7	4	1	44
200	7	6	3	7	2	7	3	0	42
250	7	6	3	7	2	7	2	0	41
300	7	6	3	7	2	7	2	0	41
350	7	6	3	7	2	7	1	0	40
400	7	6	3	7	2	7	1	0	39
450	7	6	3	7	2	7	1	0	39
500	7	6	3	7	2	6	1	0	38

Note: Statistical period: May 20 to 27, 1988
 Observation frequency with the captive sonde rising

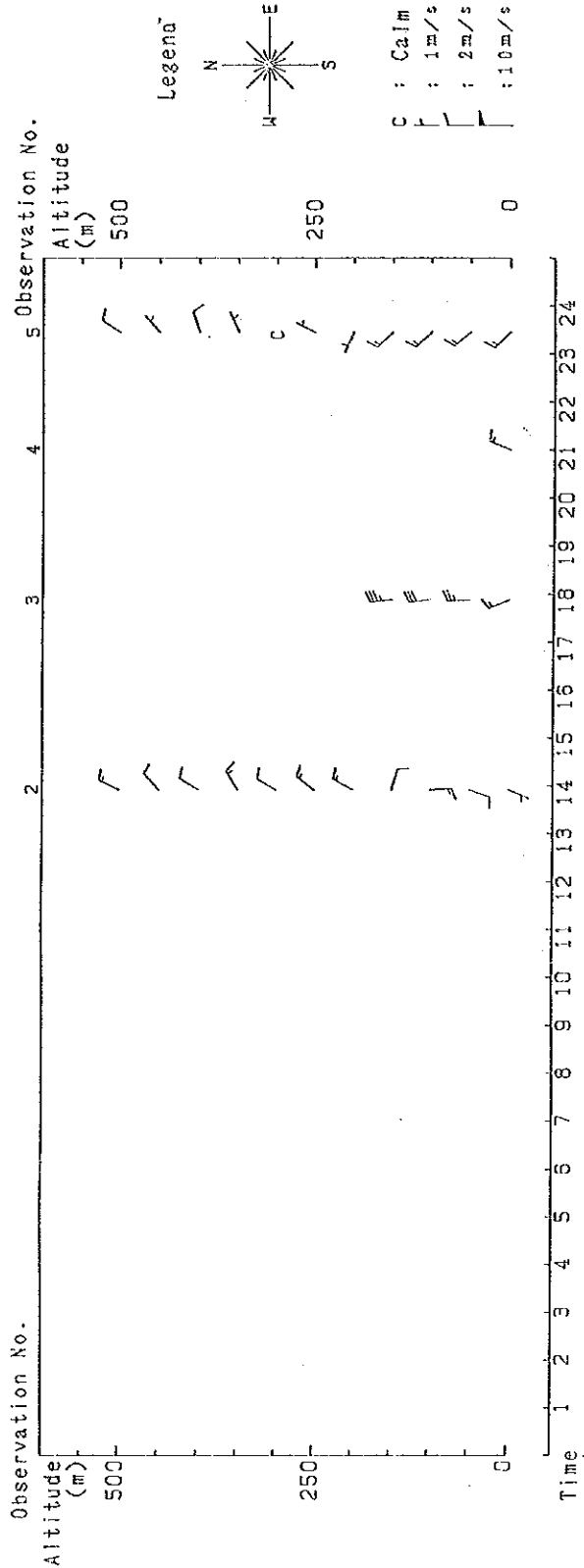
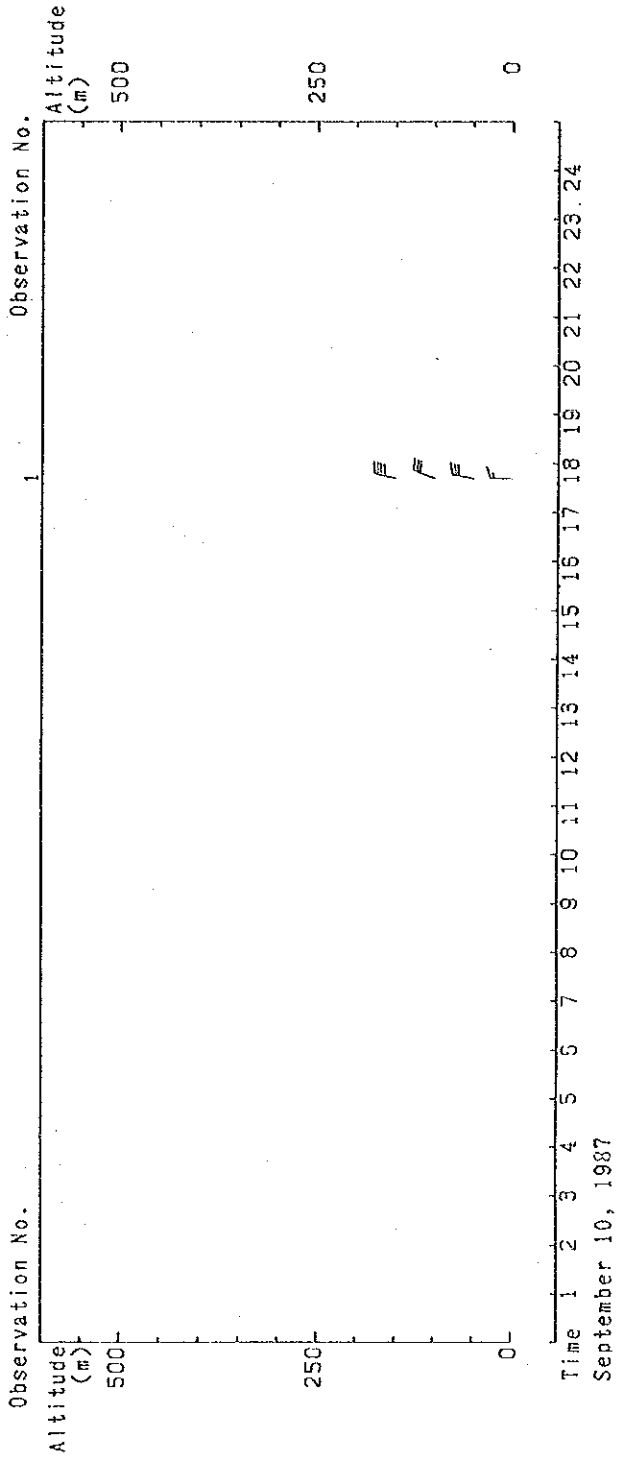
Table 1.3.5 Upper Meteorological Observation Frequency (Year)

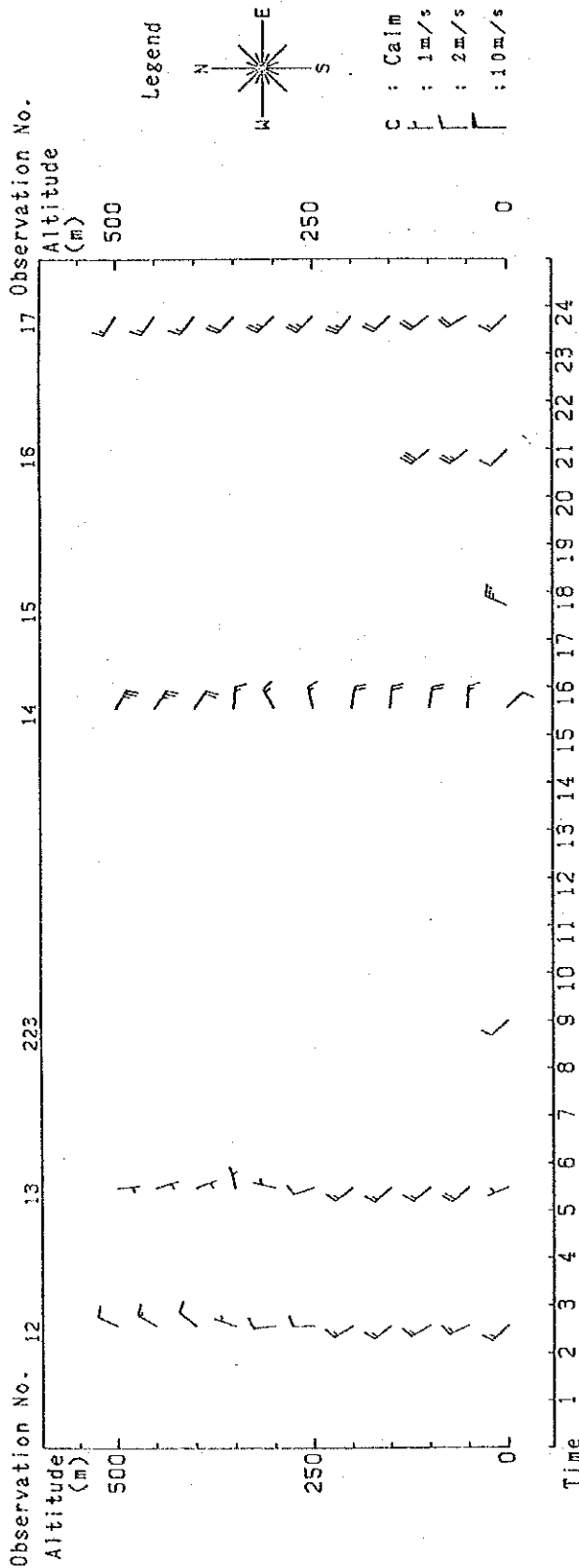
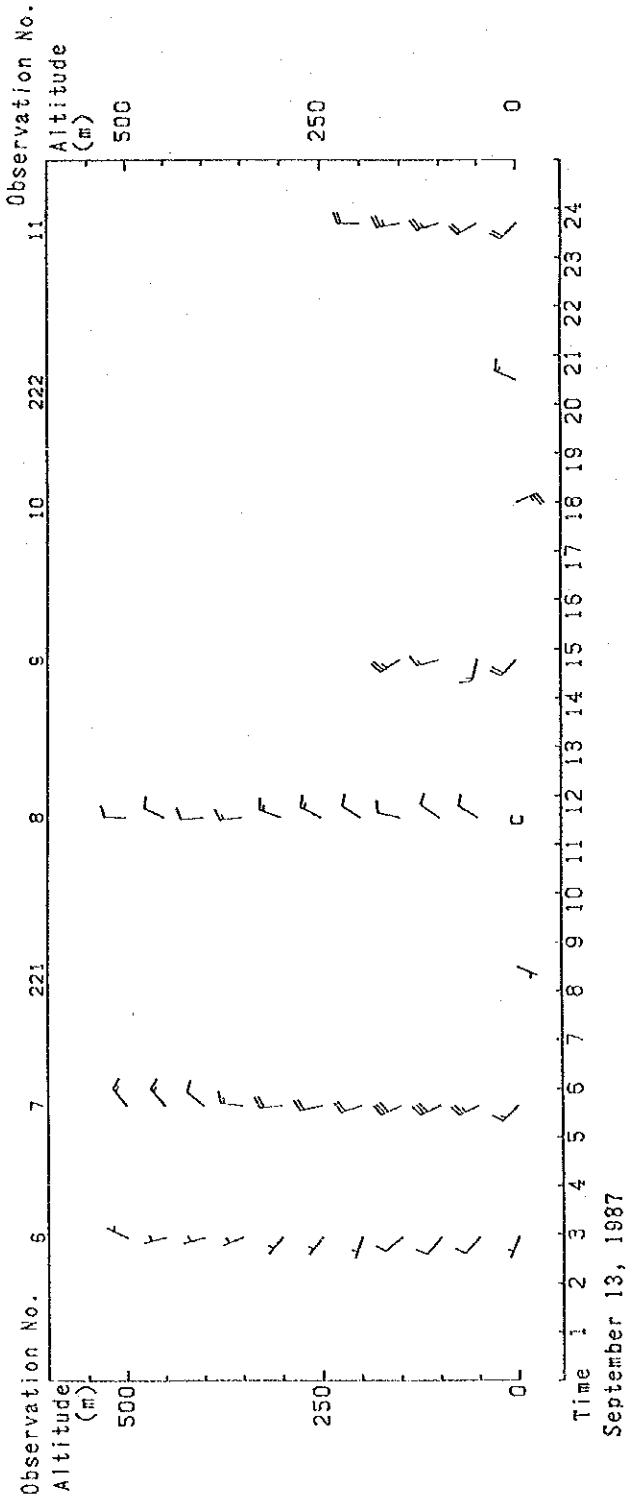
Hour altitude	· · 3	· · 6	· · 9	· · 12	· · 15	· · 18	· · 21	· · 24	All day		
Surface	32	32	7	33	7	32	32	34	33	33	276
50	32	30	8	31	7	31	25	19	23	30	236
100	32	32	8	31	7	31	25	13	22	30	231
150	32	32	8	31	7	31	24	11	21	30	227
200	32	32	8	31	7	30	21	7	21	30	217
250	32	32	8	31	7	30	19	6	20	29	214
300	32	31	8	31	7	30	19	6	19	29	212
350	31	31	8	31	7	29	17	5	18	29	206
400	31	31	8	31	7	28	16	5	17	29	203
450	32	31	8	31	7	28	16	4	17	28	202
500	31	31	8	31	7	27	16	4	17	28	200

Note: Statistical period: Sep. 10, 1987 to May 27, 1988
 Observation frequency with the captive sonde rising

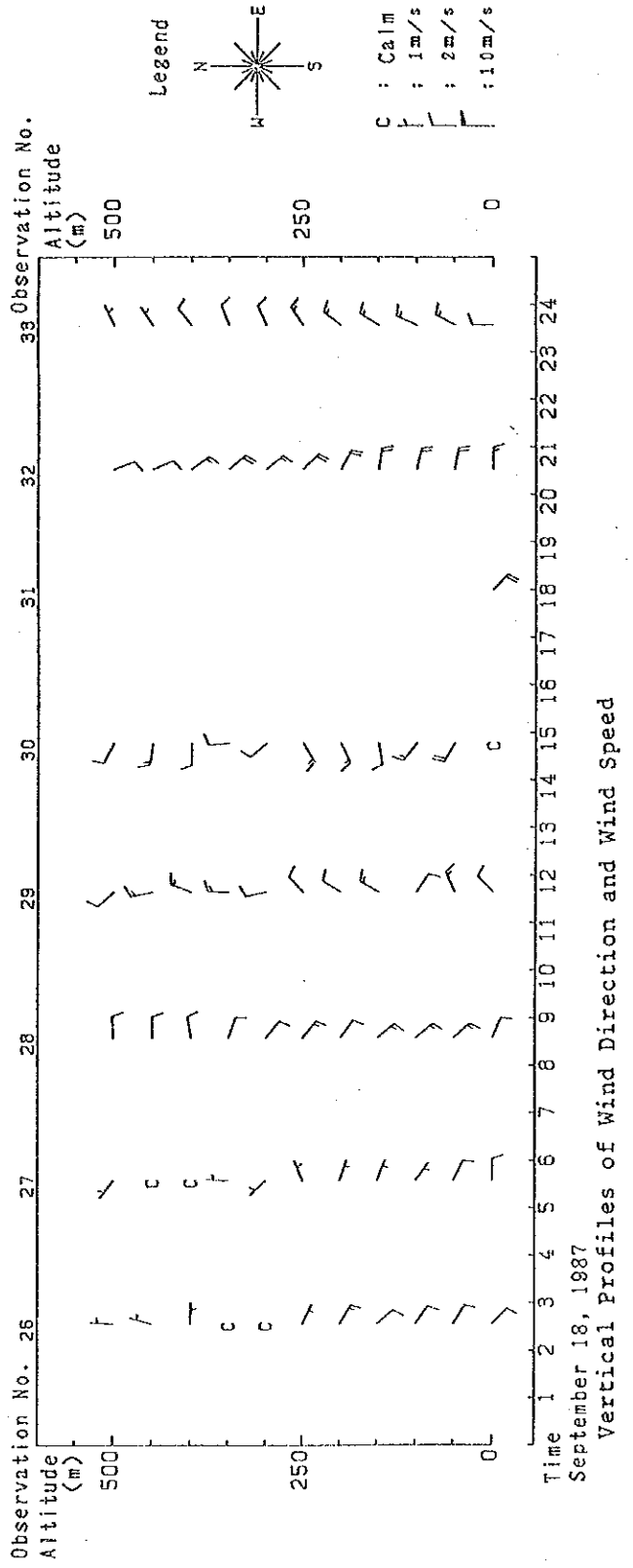
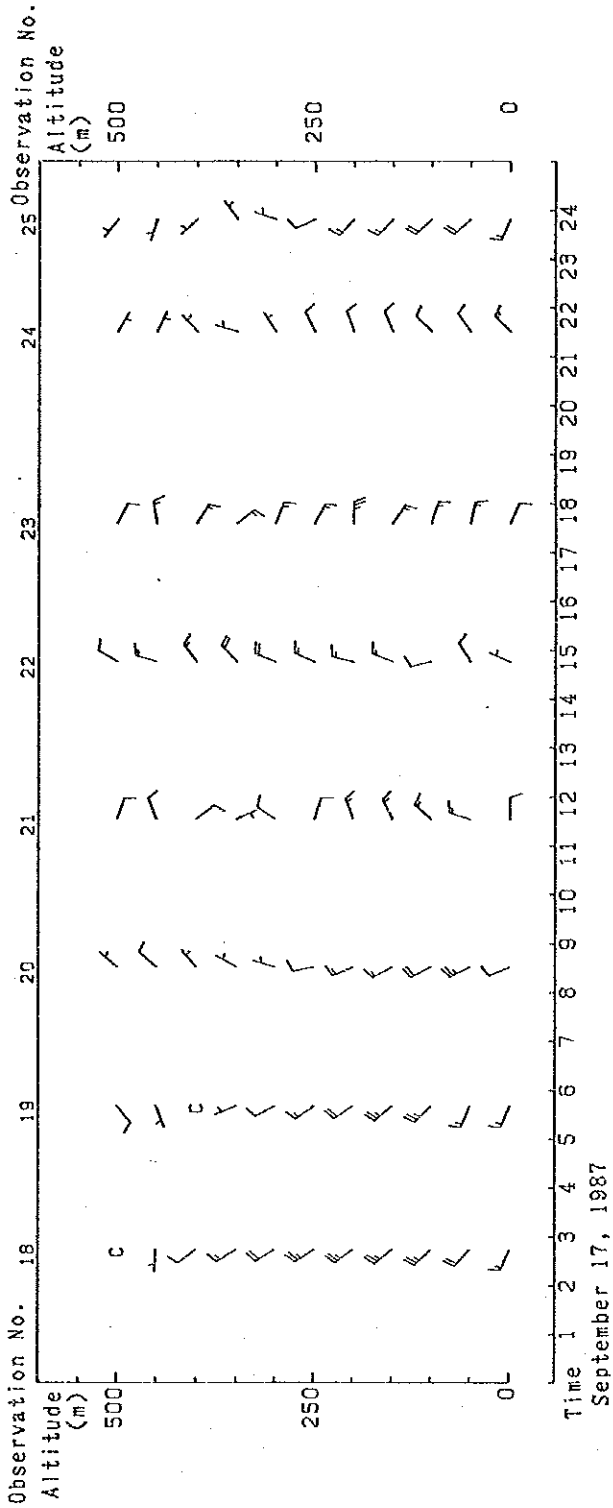
1.3.2 Vertical Profiles of Wind Direction and Wind Speed

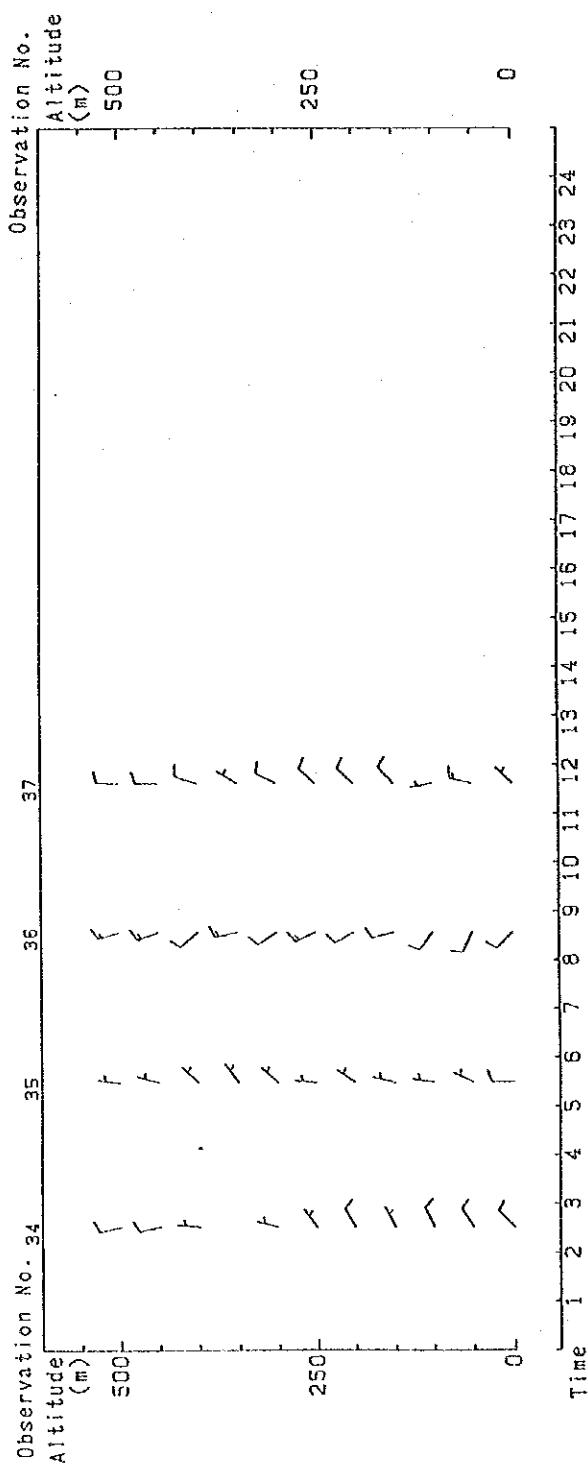
Vertical profiles of wind direction and wind speed are shown in the following Tables.





Vertical Profiles of Wind Direction and Wind Speed

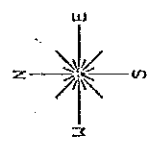




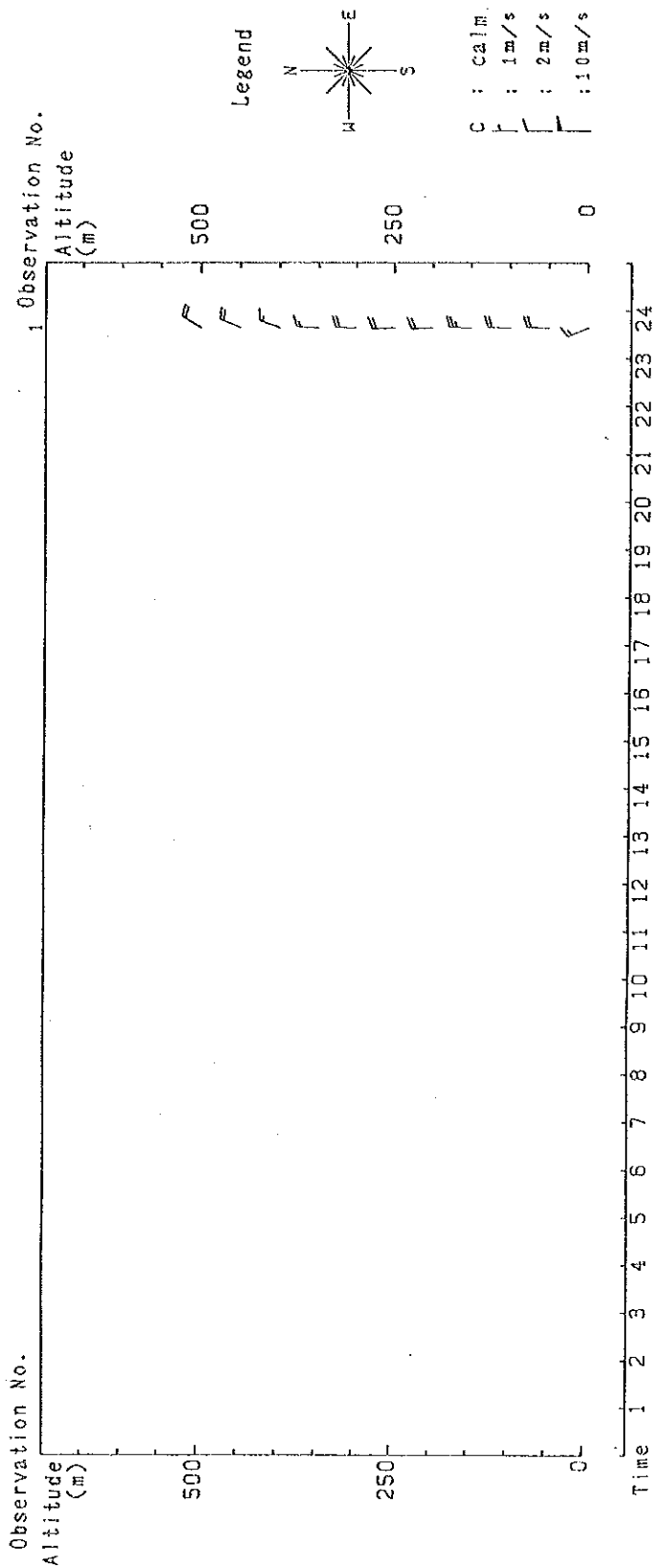
September 19, 1987

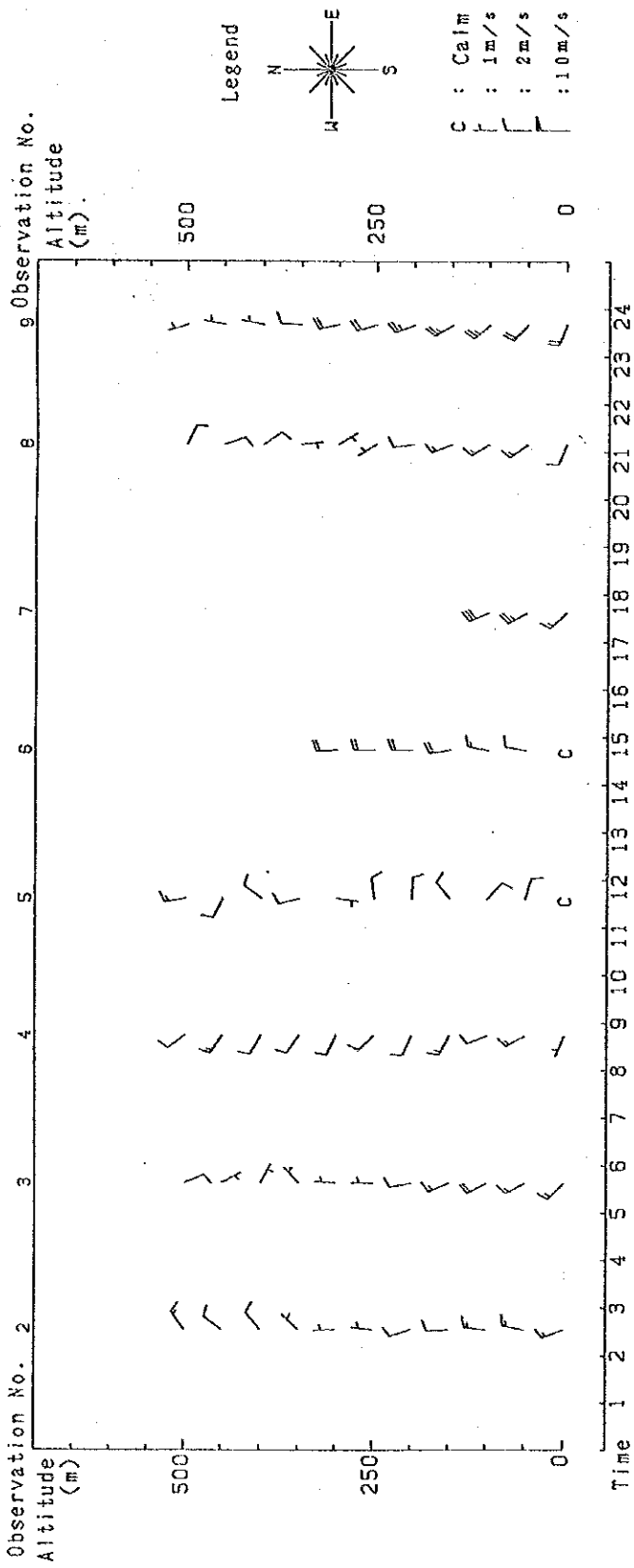
Vertical Profiles of Wind Direction and Wind Speed

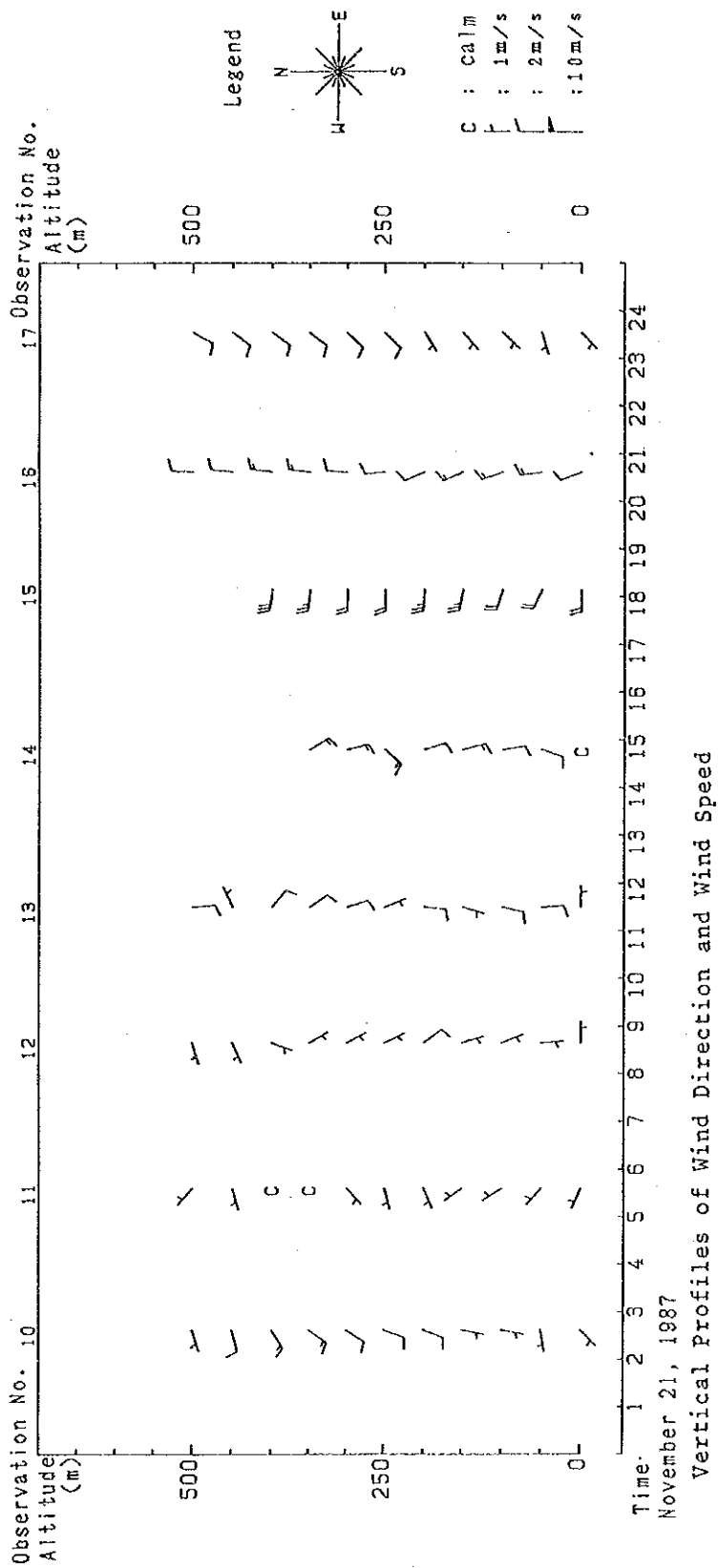
Legend

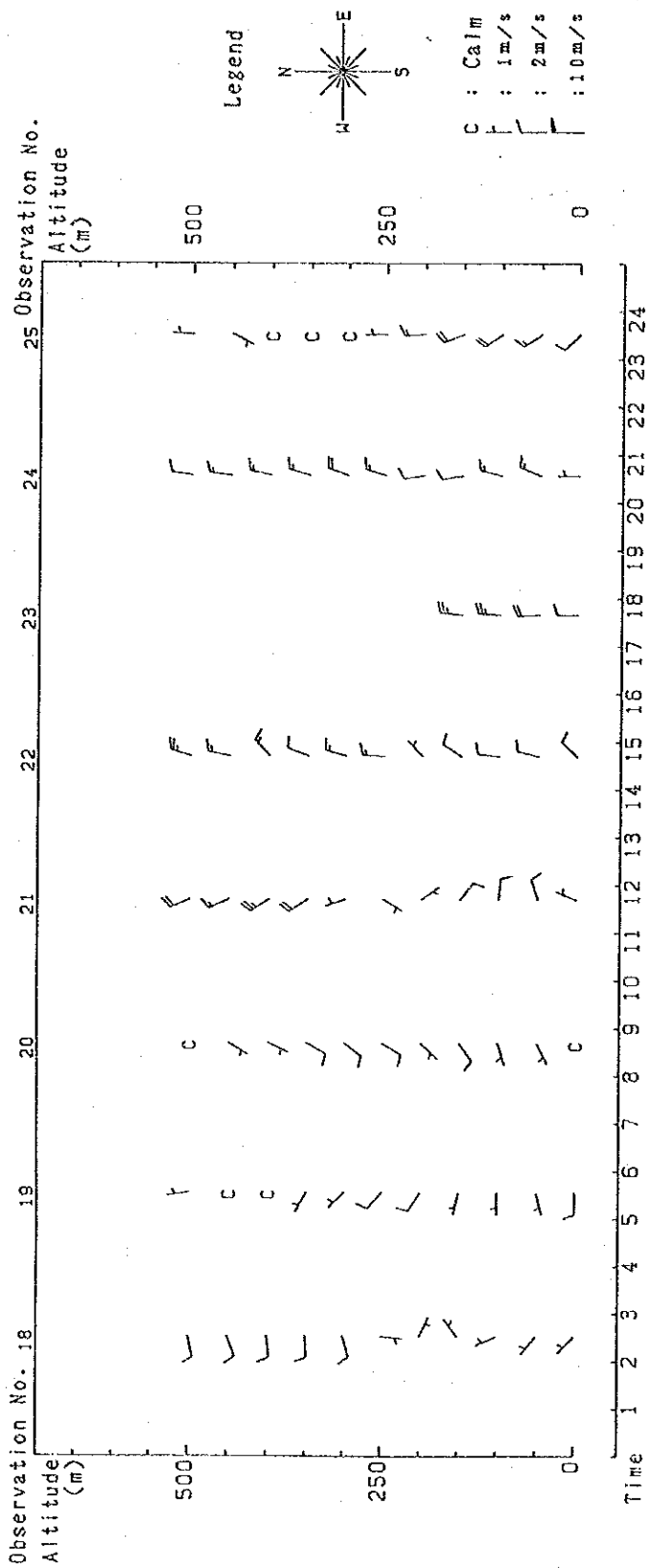


- C : Calm
- F : 1m/s
- F : 2m/s
- F : 10m/s

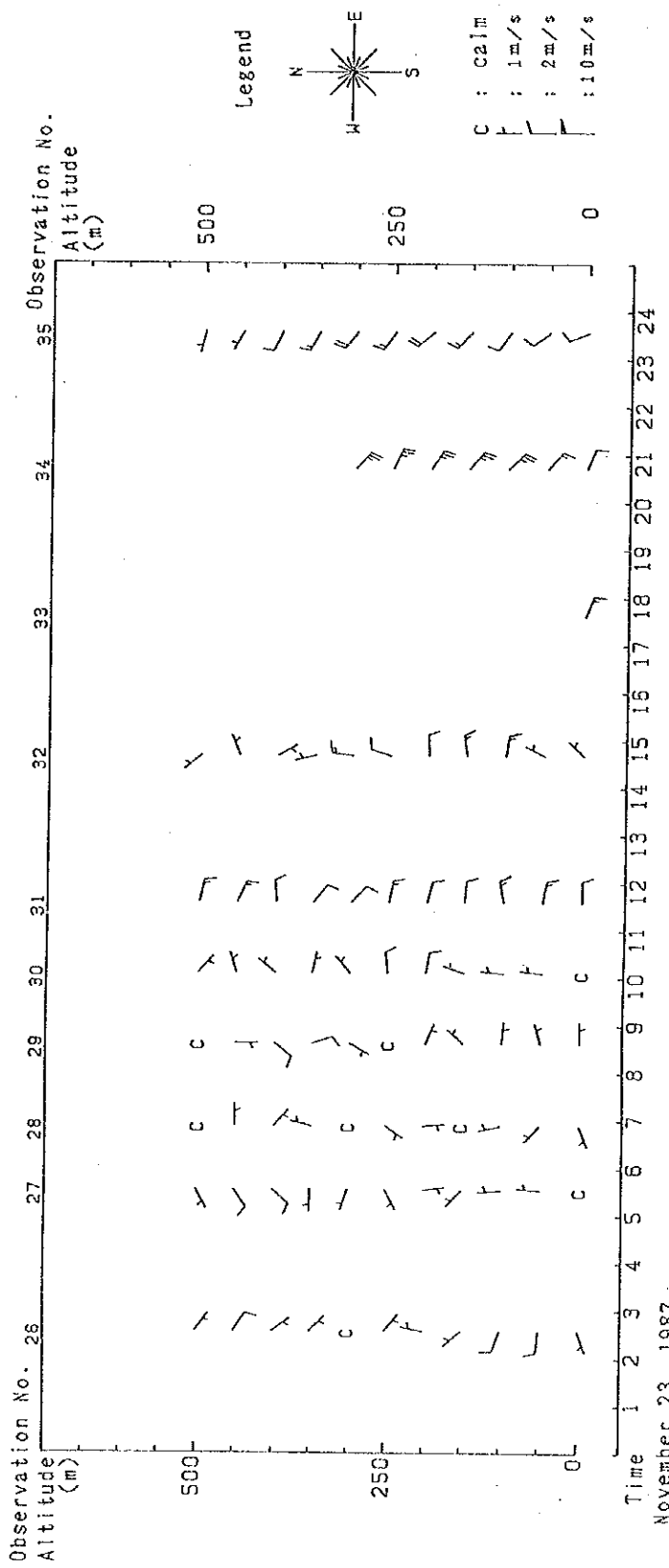






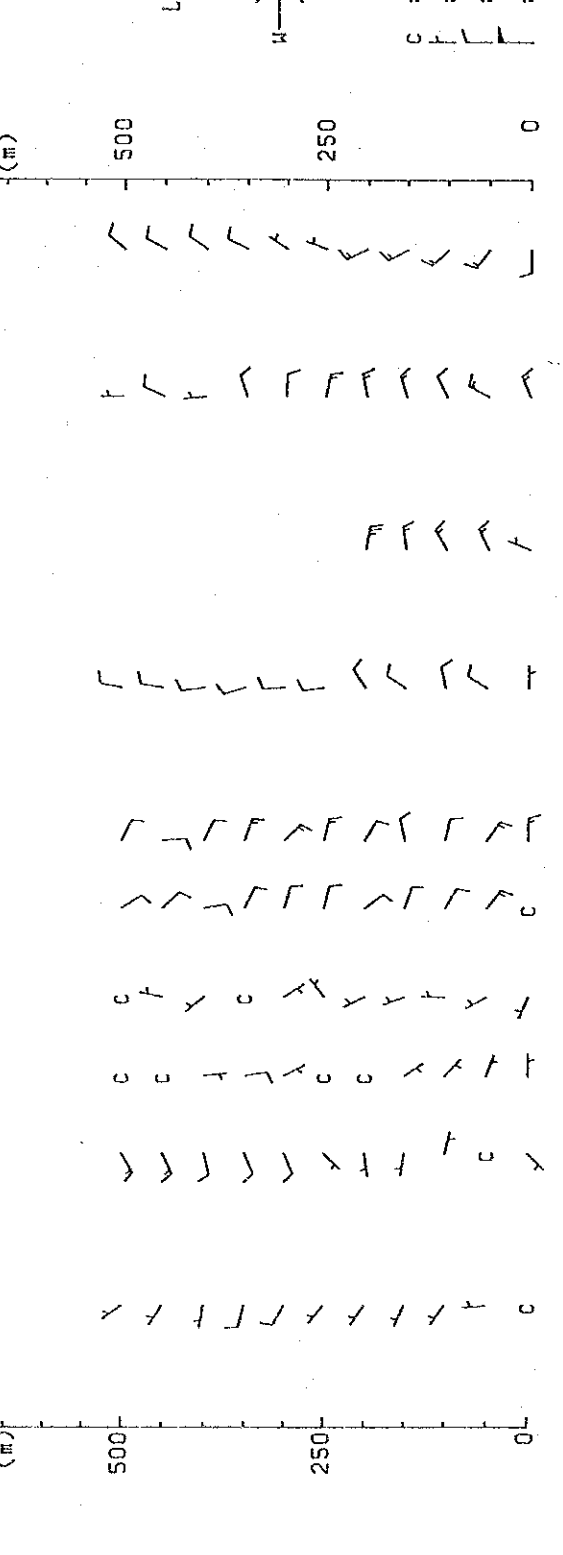


November 22, 1987
 Vertical profiles of Wind Direction and Wind Speed



Observation No. 36

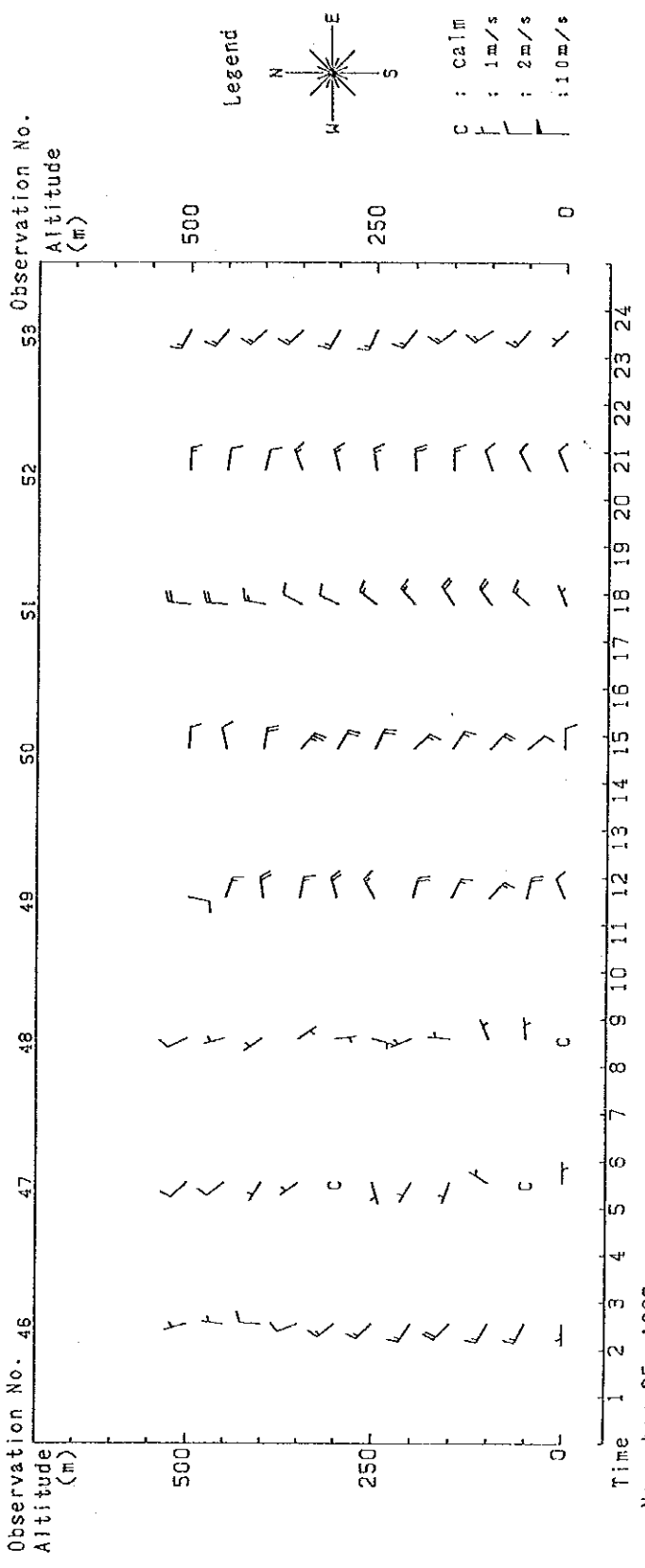
Altitude (m)



Time 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24

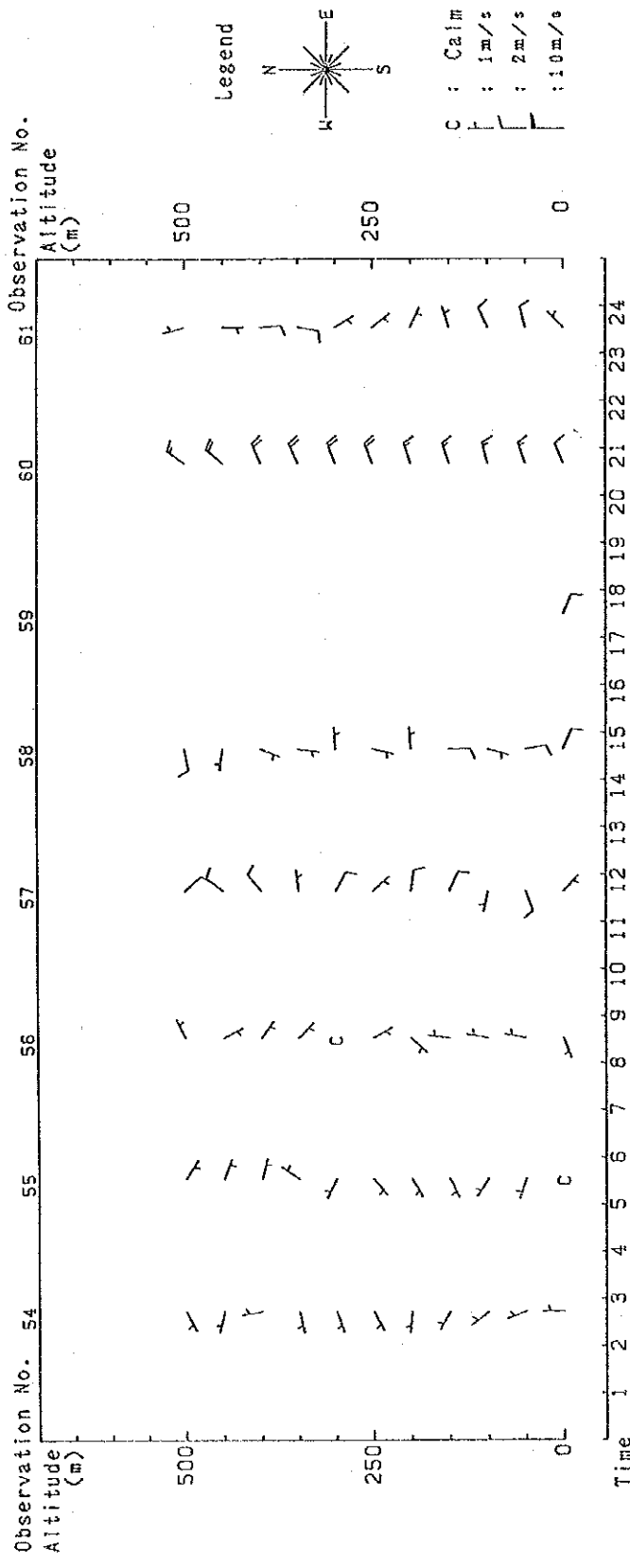
November 24, 1987

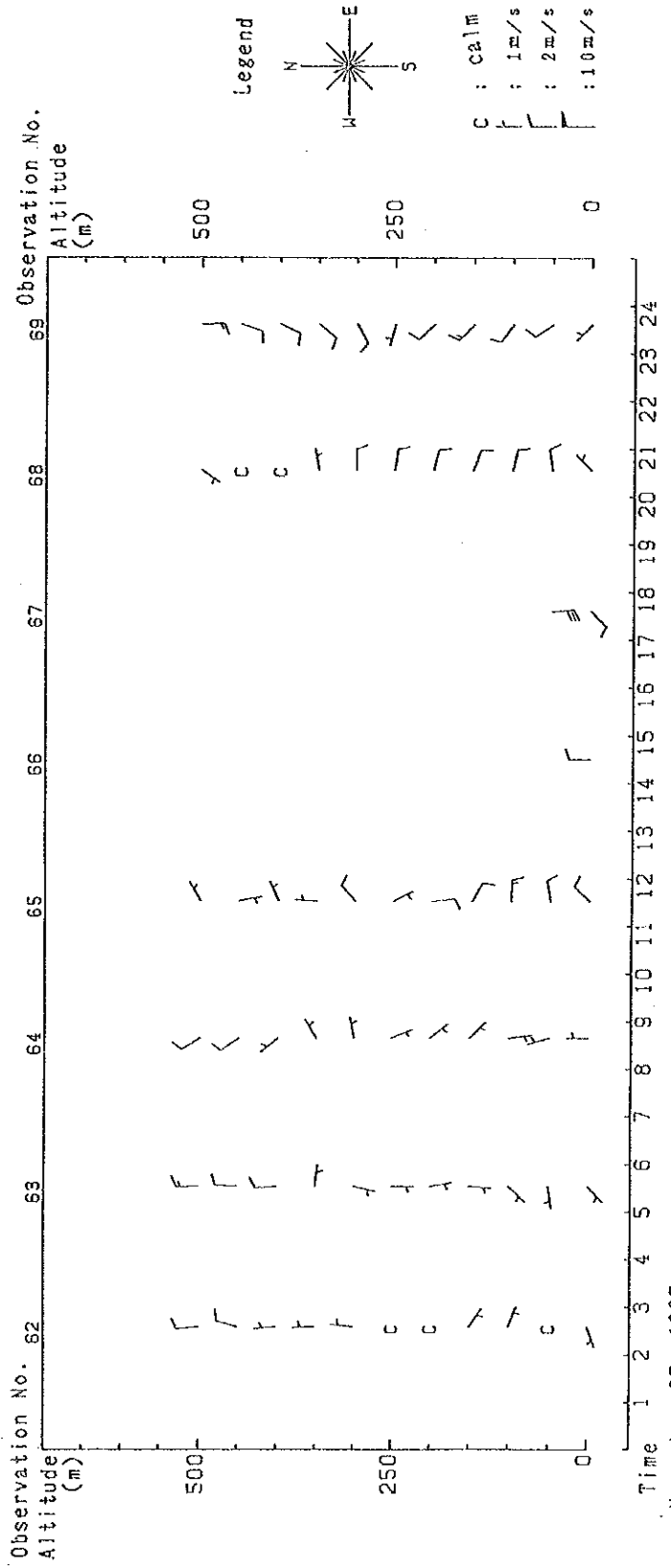
Vertical Profiles of Wind Direction and Wind Speed

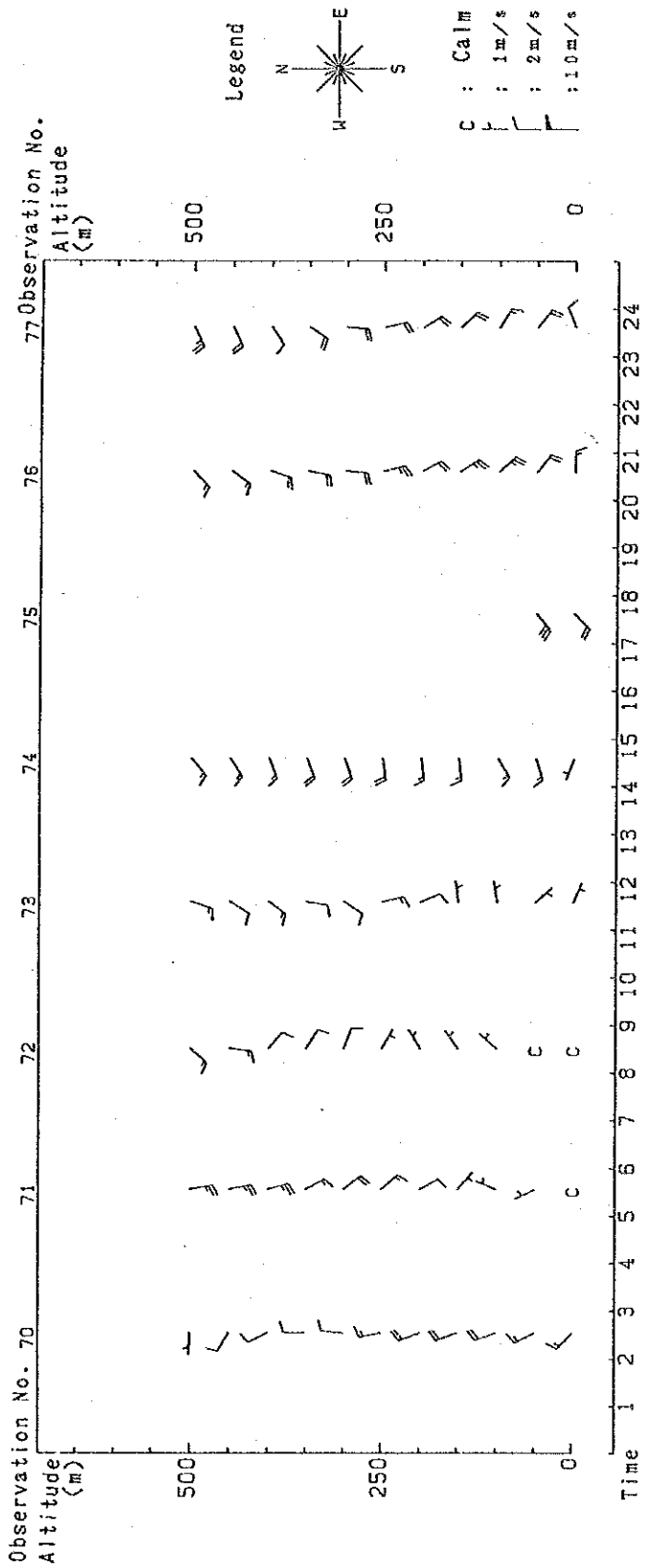


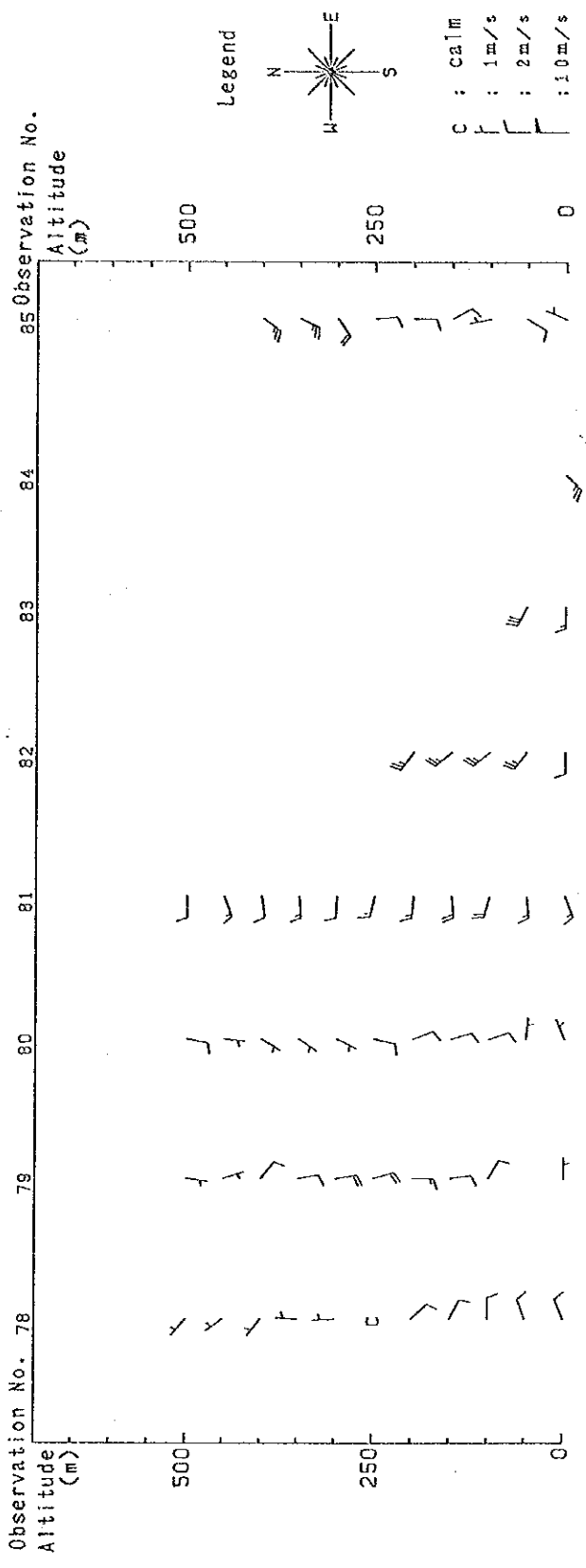
Vertical Profiles of Wind Direction and Wind Speed

November 25, 1987



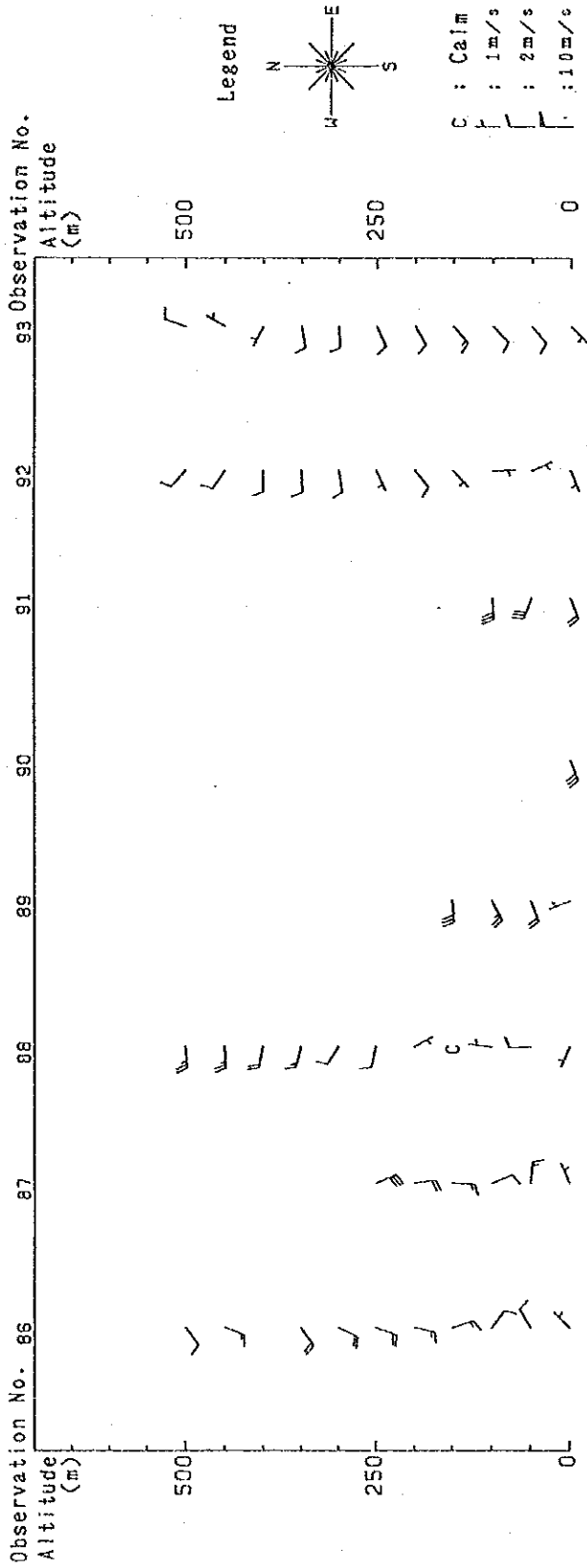


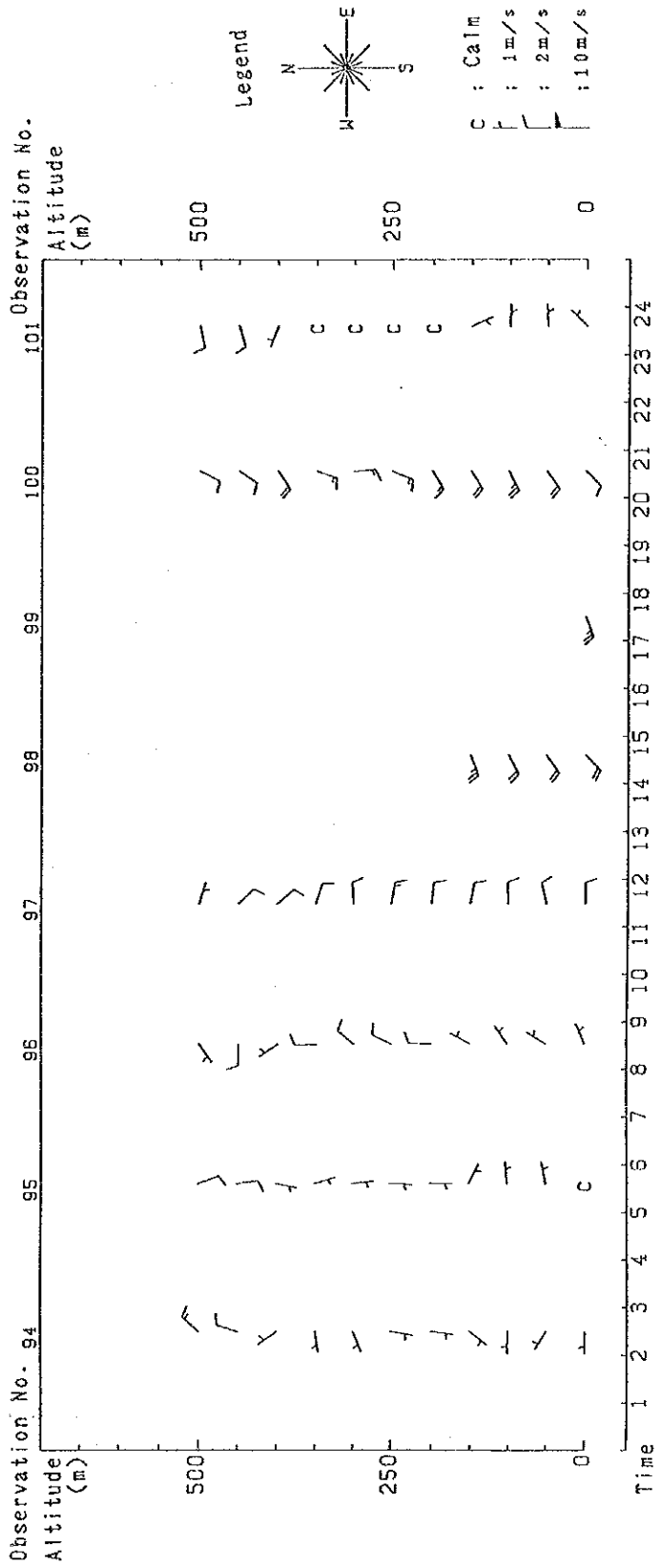


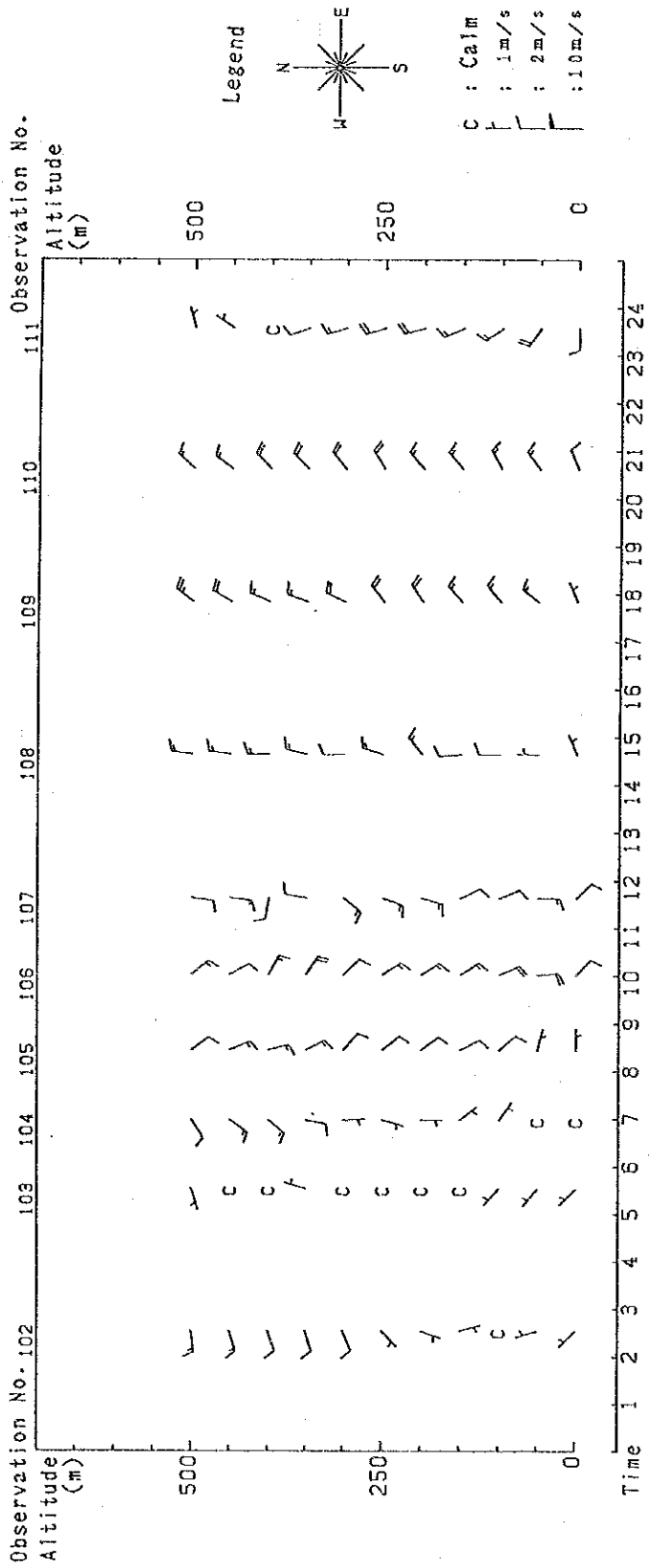


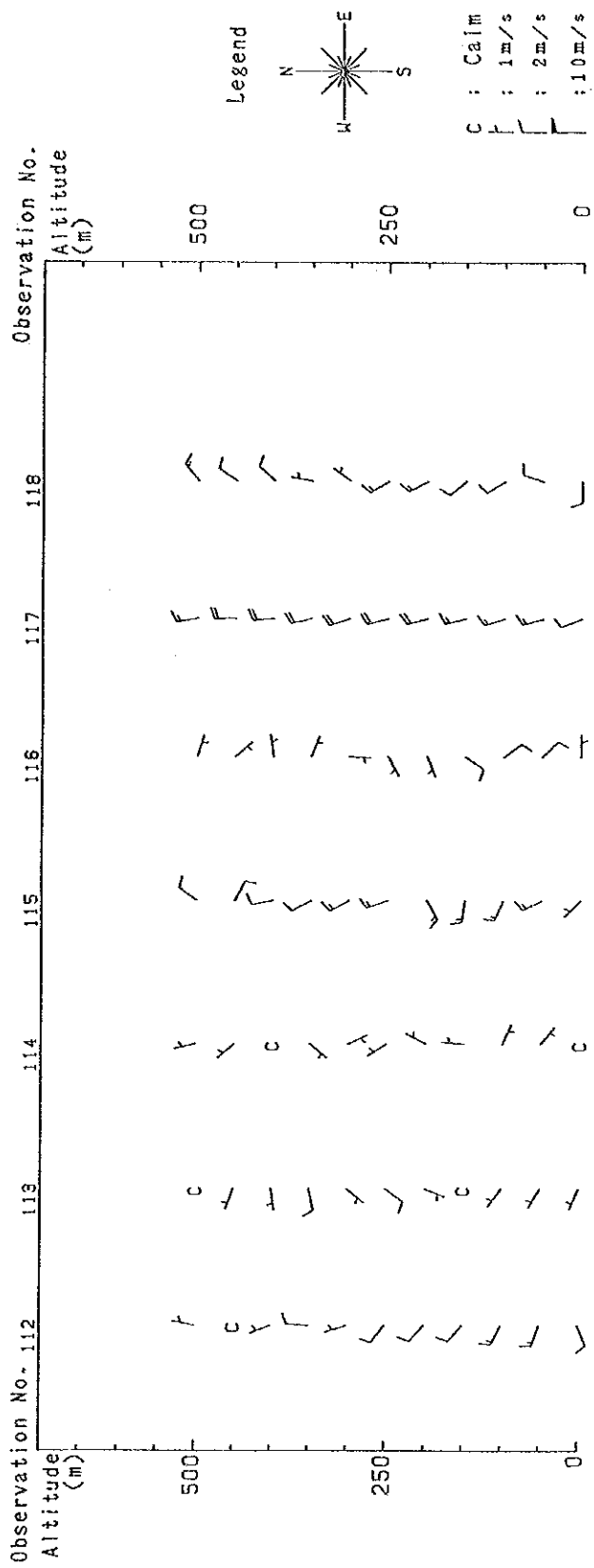
Time 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24
 November 29, 1987.

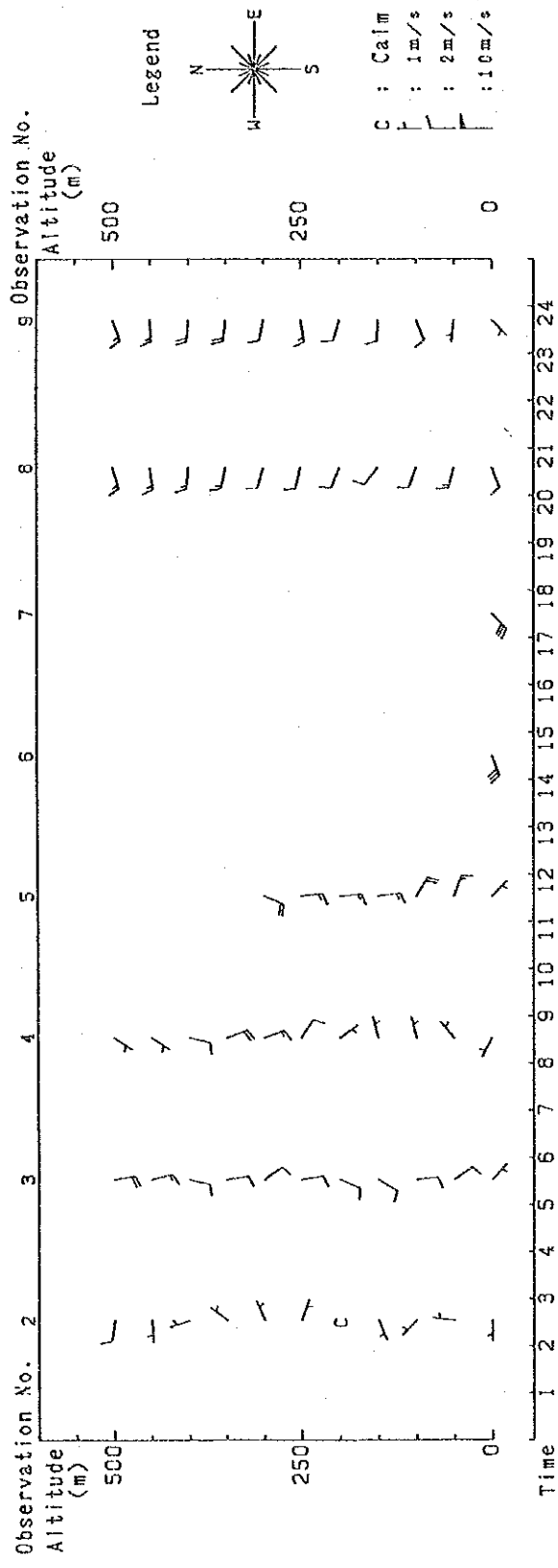
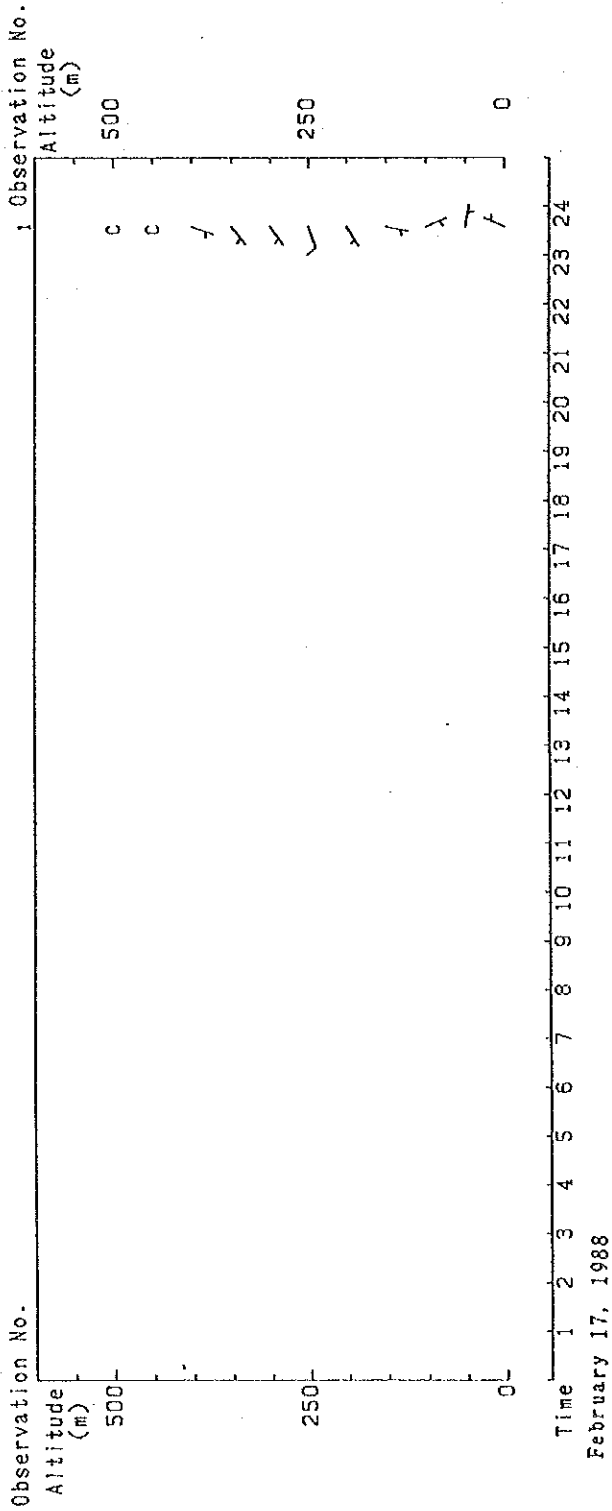
Vertical Profiles of Wind Direction and Wind Speed



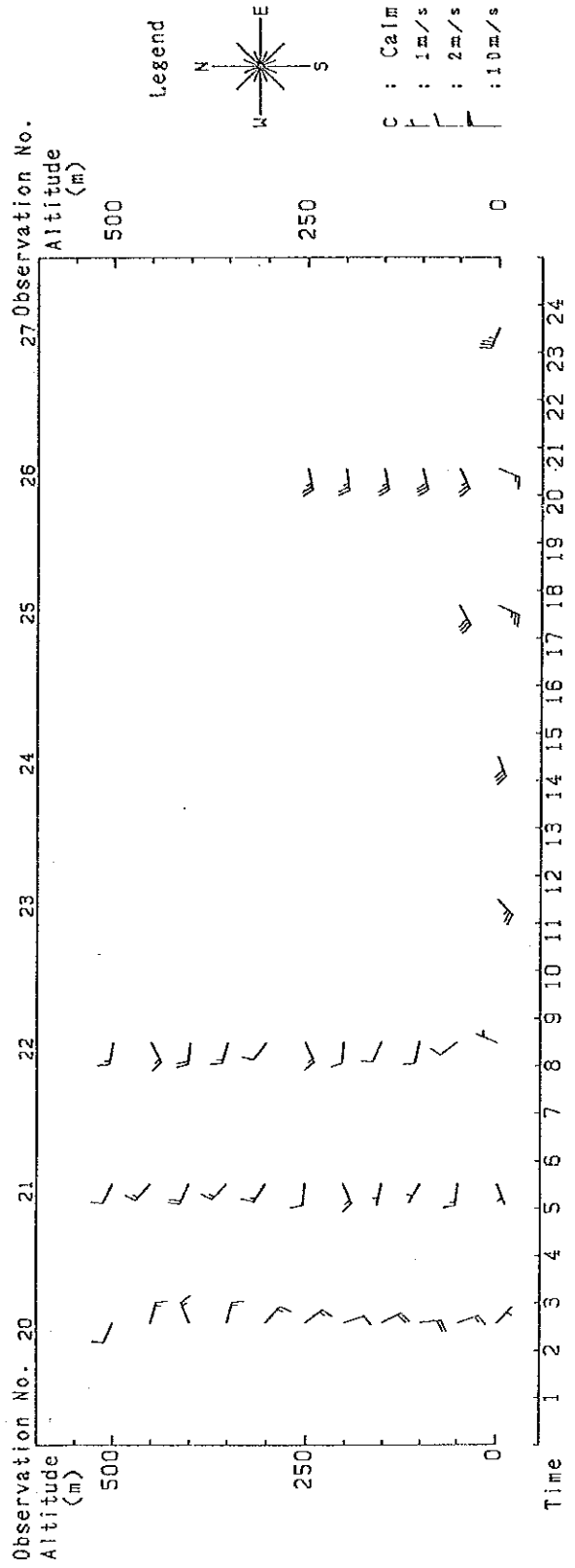
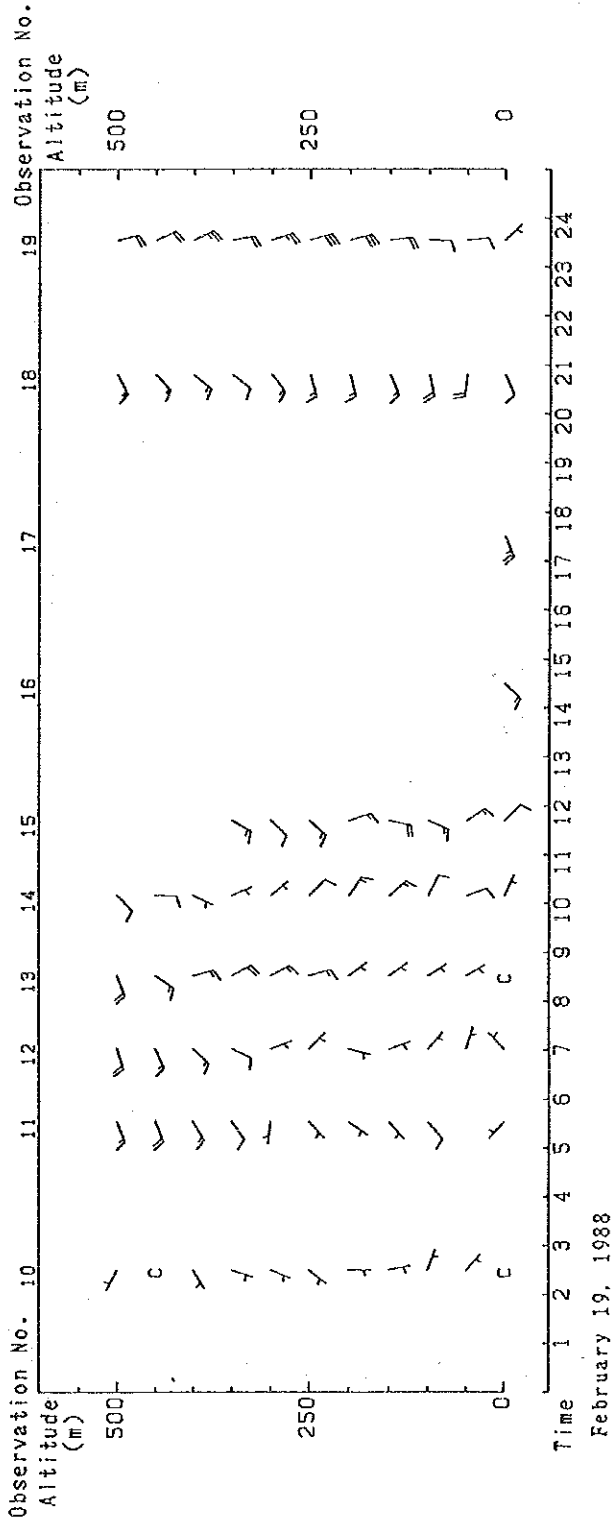




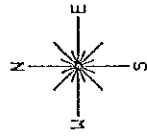




Vertical Profiles of Wind Direction and Wind Speed

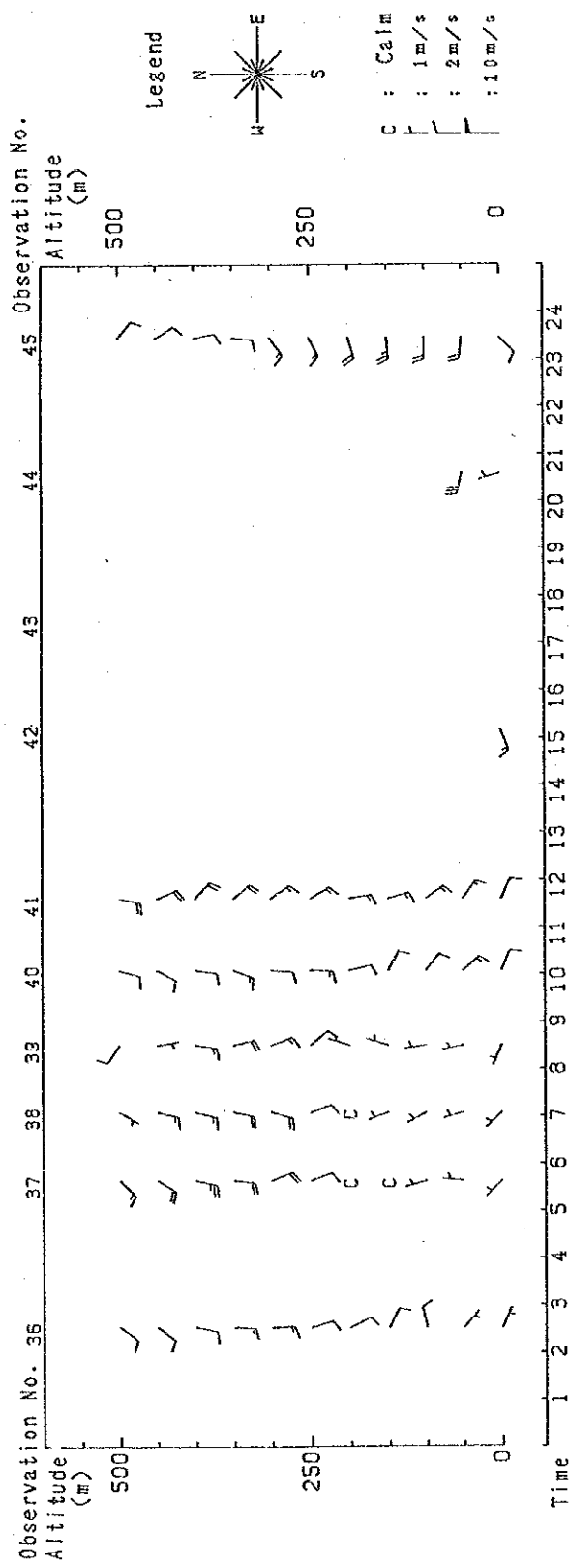
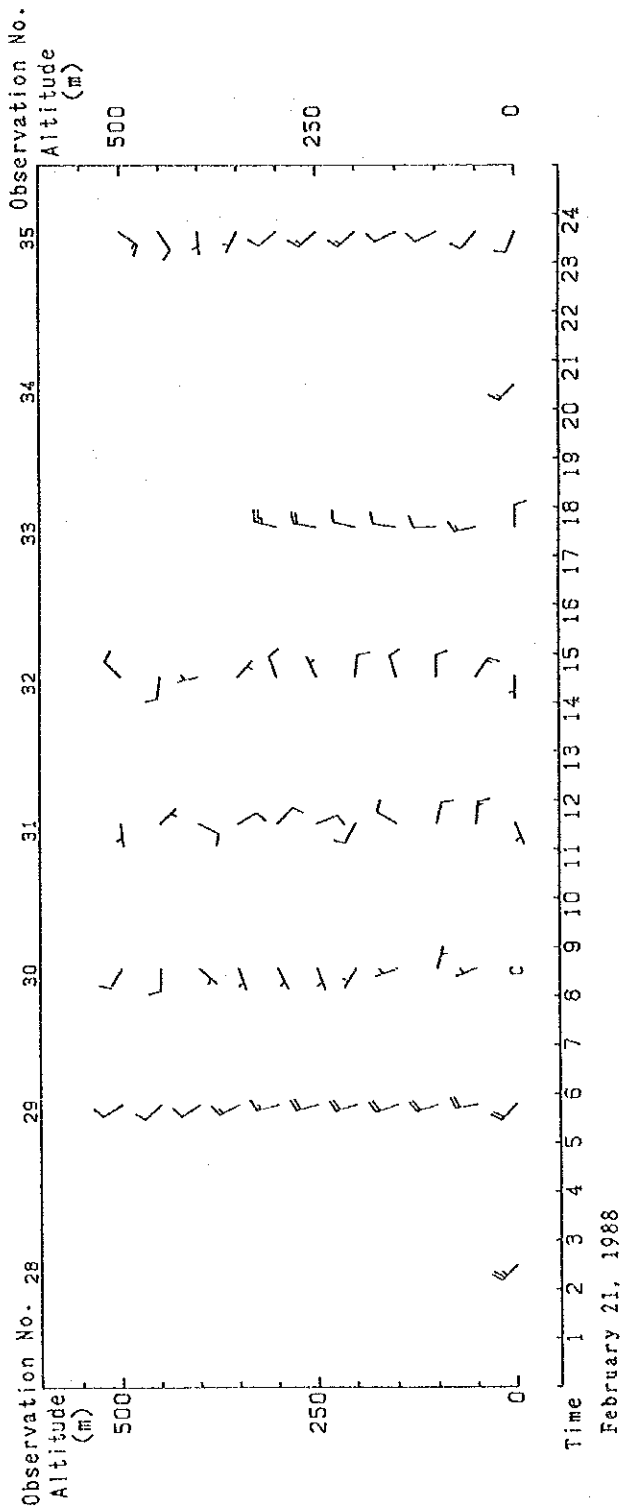


Legend

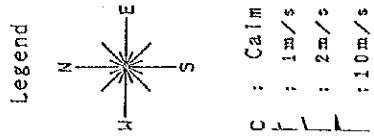
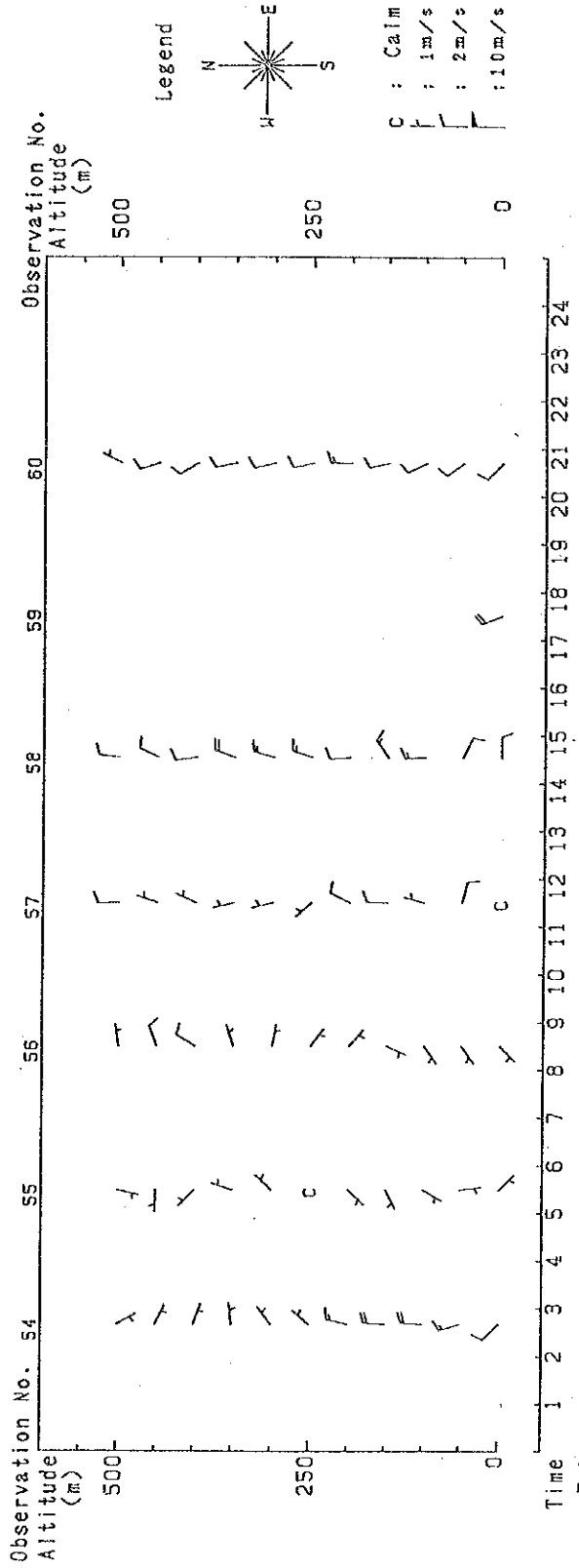
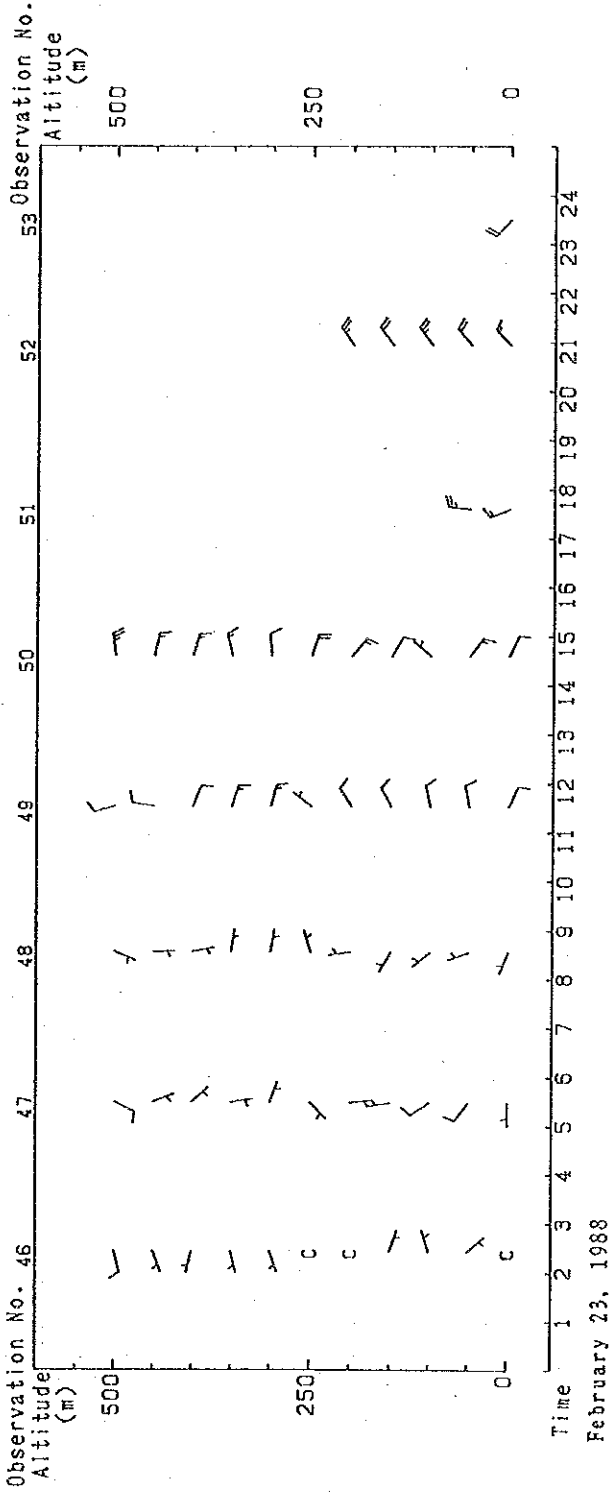


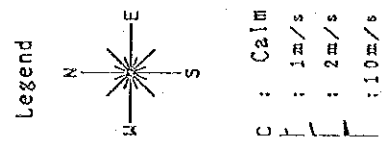
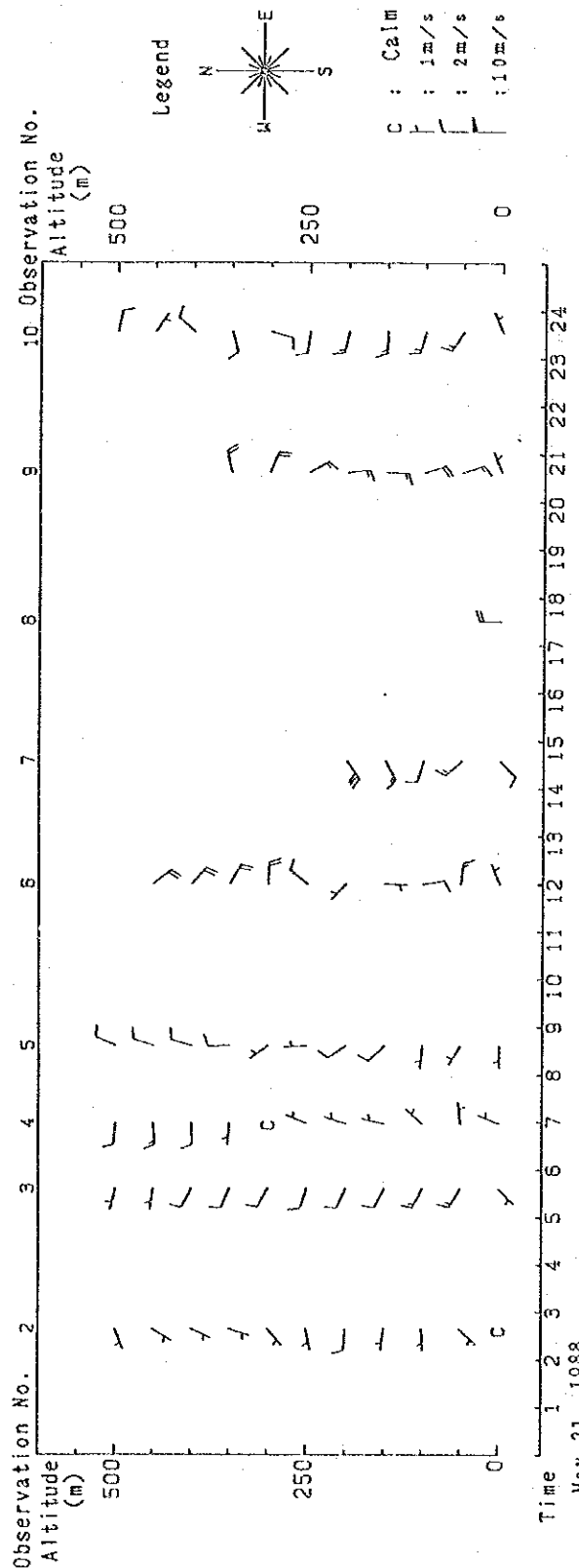
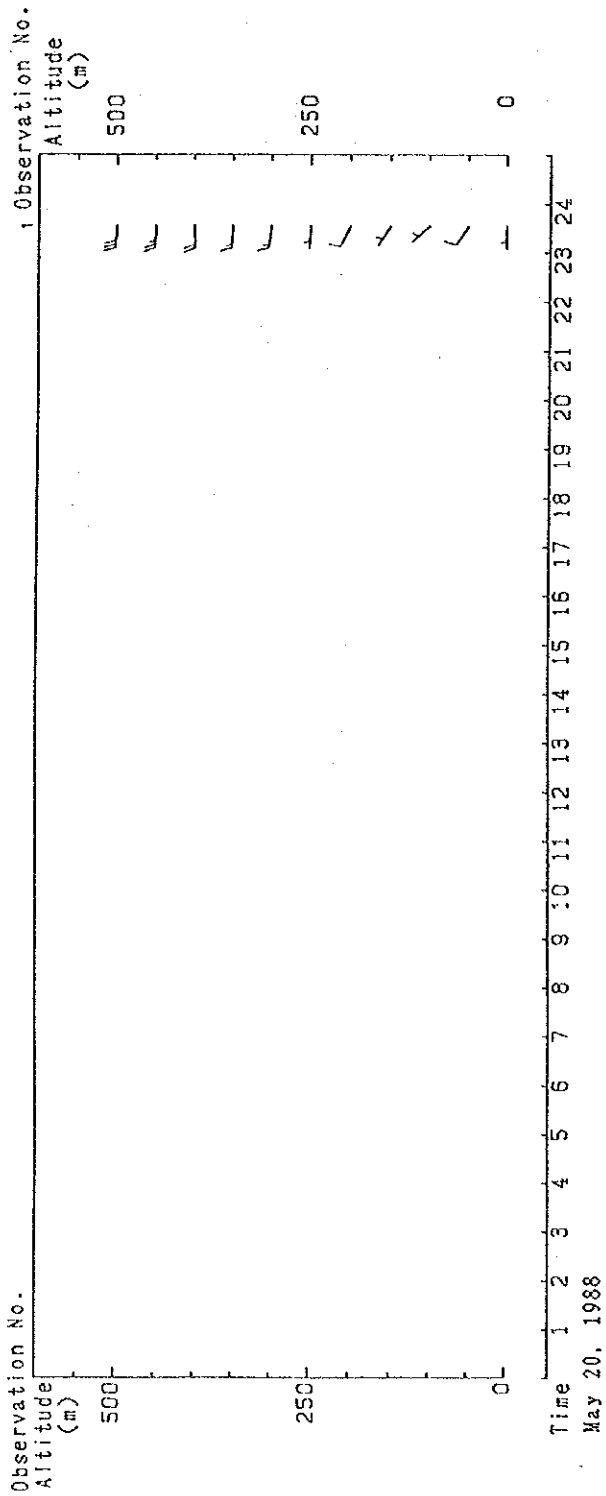
C : Calm
 | : 1m/s
 | : 2m/s
 | : 10m/s

Vertical Profiles of Wind Direction and Wind Speed

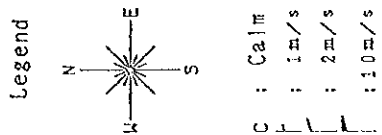
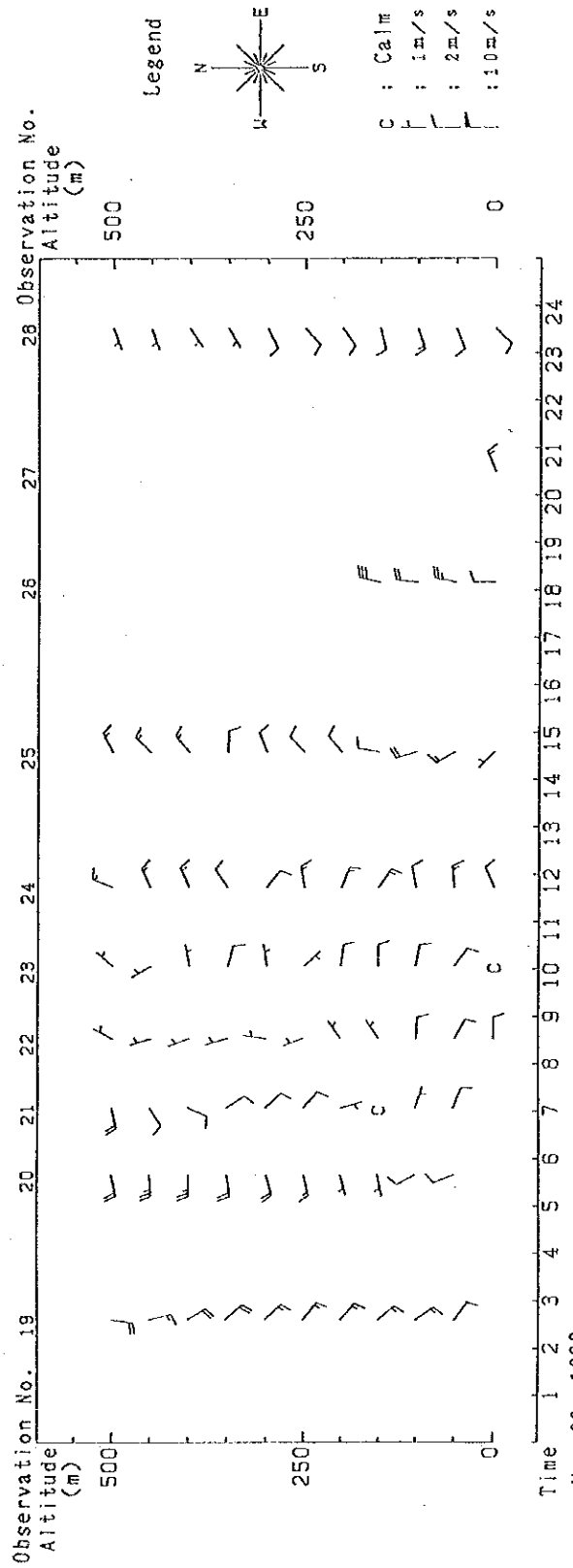
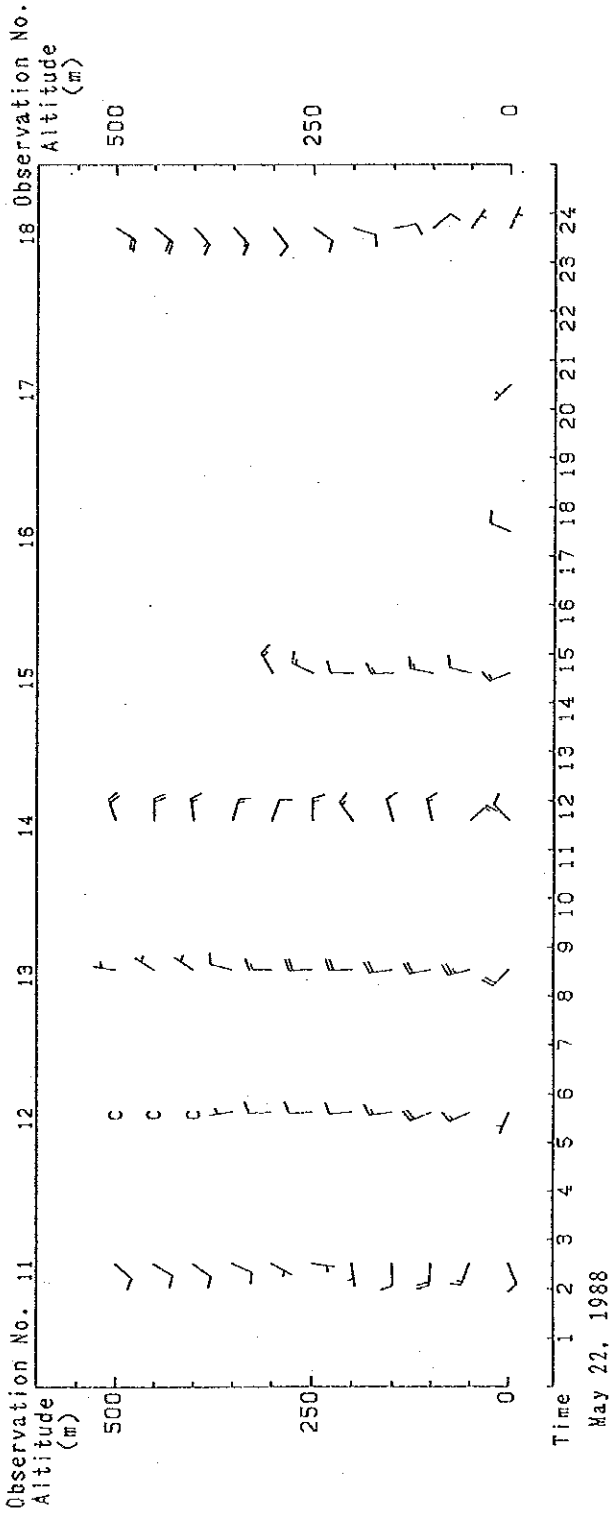


Vertical Profiles of Wind Direction and Wind Speed

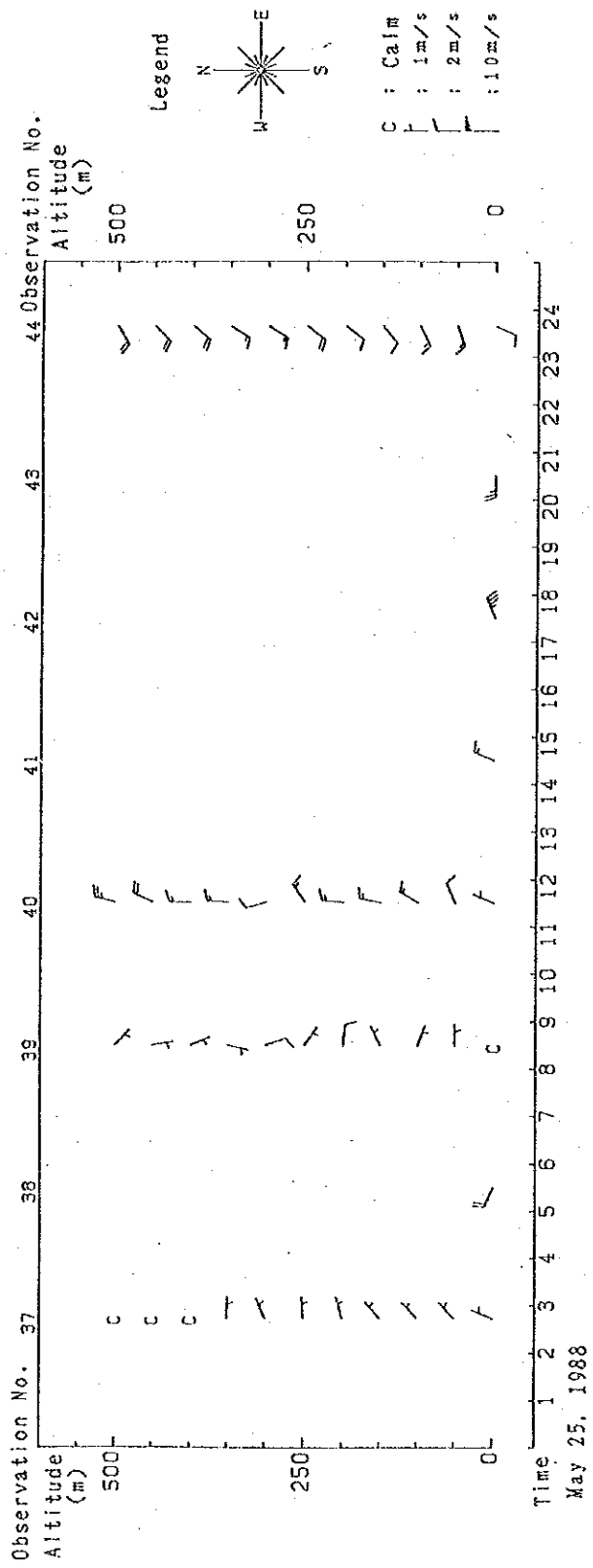
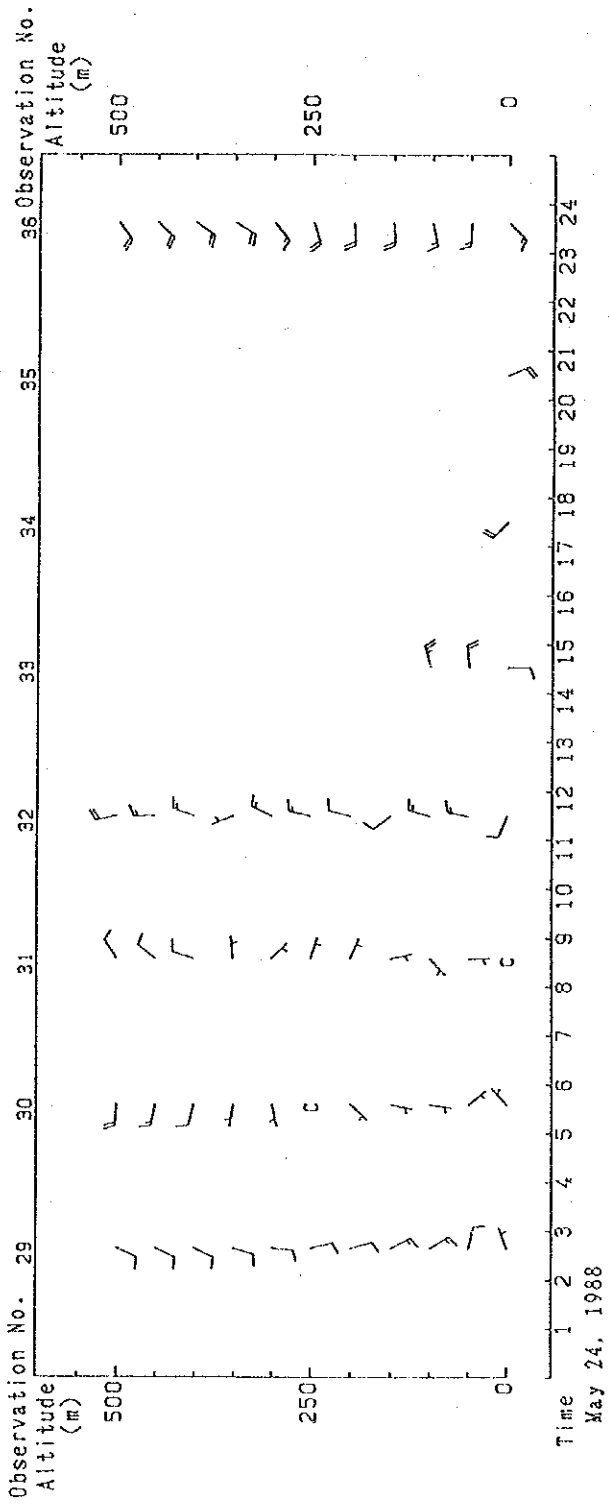




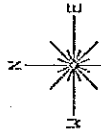
Vertical Profiles of Wind Direction and Wind Speed



Vertical Profiles of Wind Direction and Wind Speed

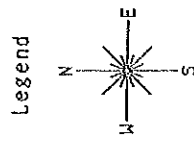
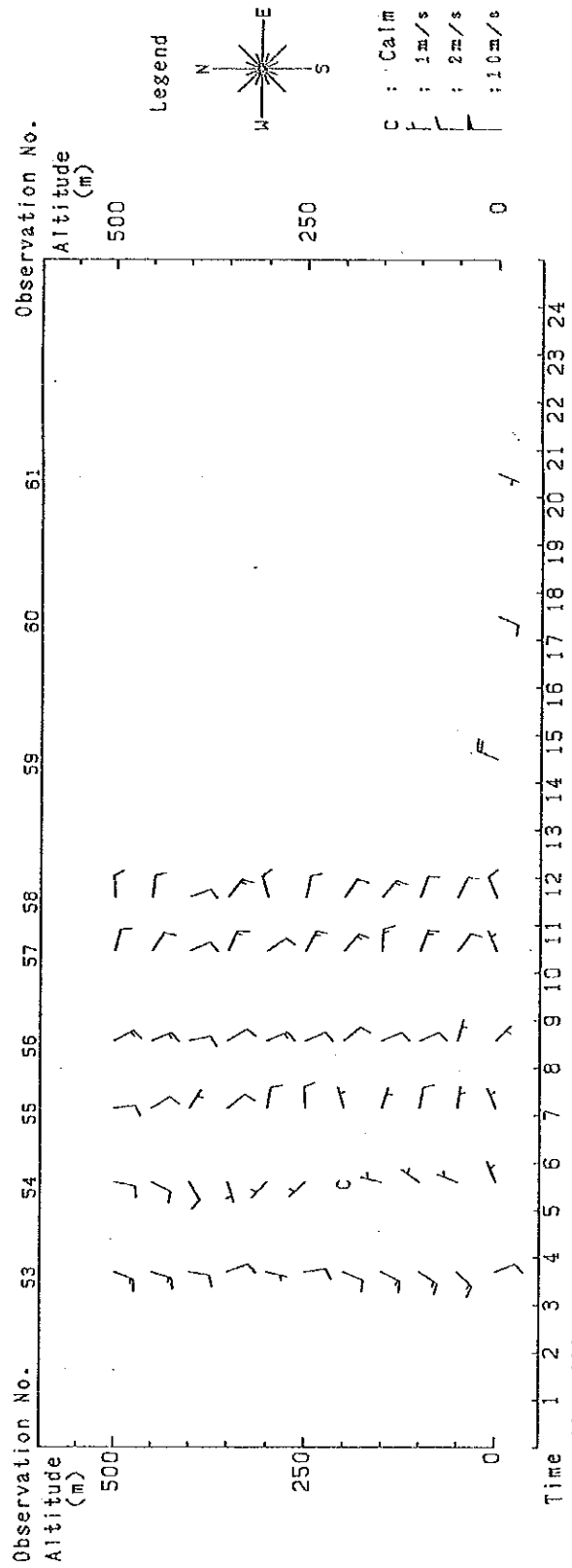
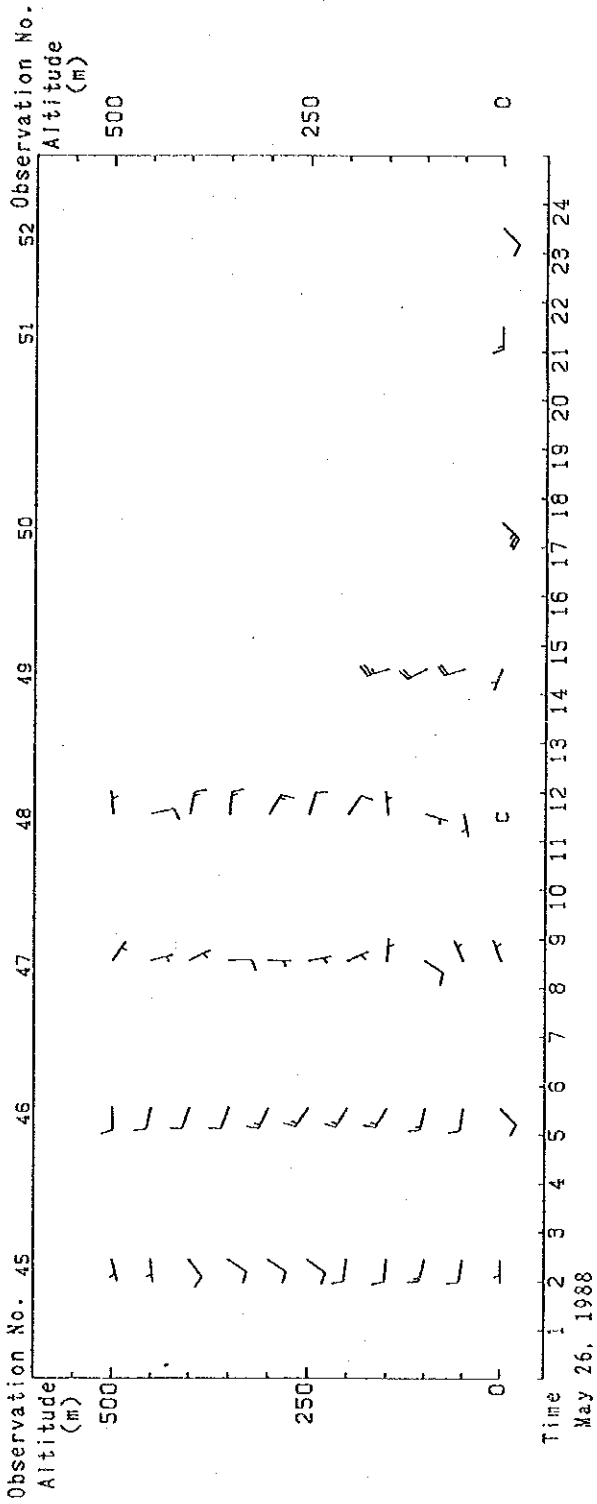


Legend



- C : Calm
- F : 1m/s
- : 2m/s
- : 10m/s

Vertical Profiles of Wind Direction and Wind Speed

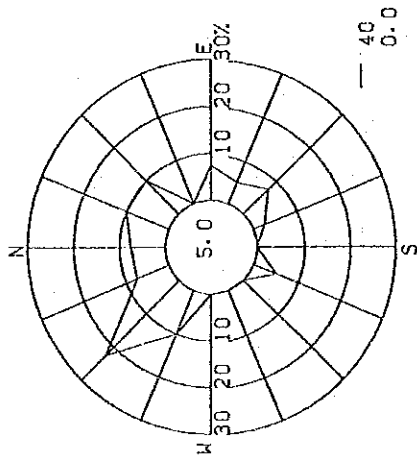


C : Calm
 F : 1m/s
 F : 2m/s
 F : 10m/s

Vertical Profiles of Wind Direction and Wind Speed

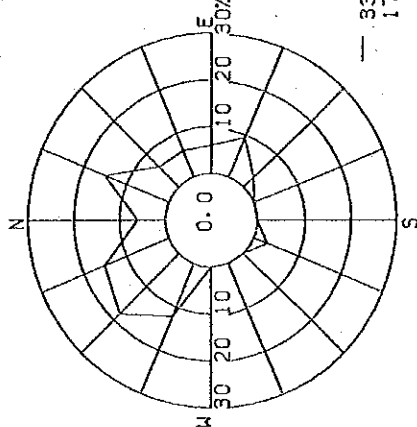
1.3.3 Wind Rose by Various Heights

Wind roses by various heights are shown in the following Figures.



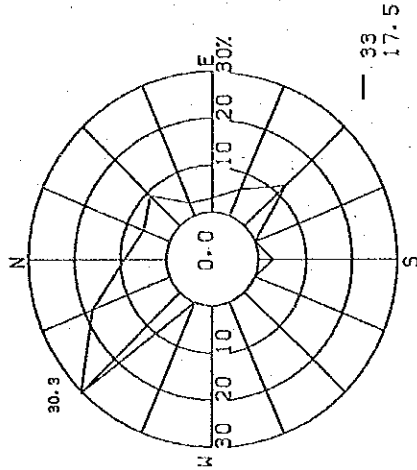
Surface(whole day)

— 40
0.0



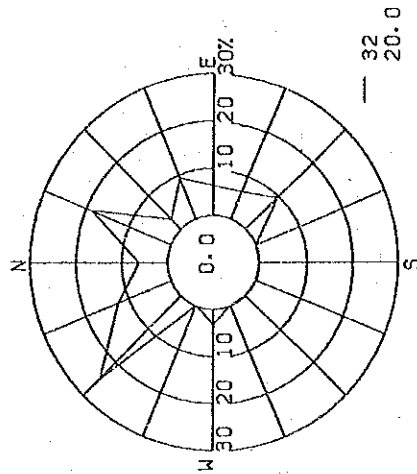
50m(whole day)

— 33
17.5



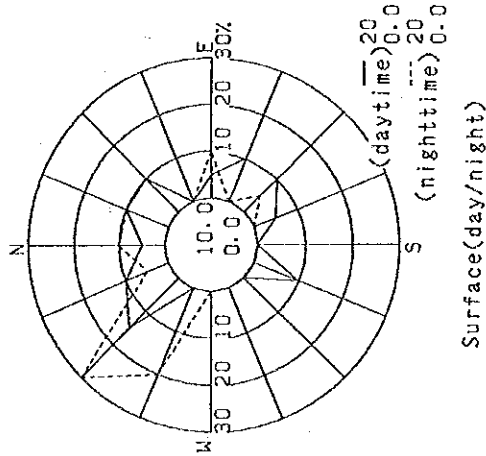
100m(whole day)

— 30
17.5



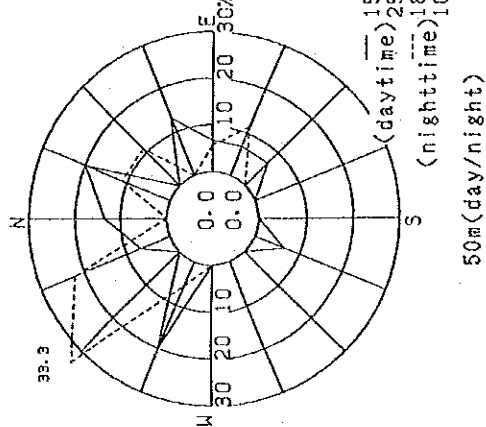
150m(whole day)

— 32
20.0



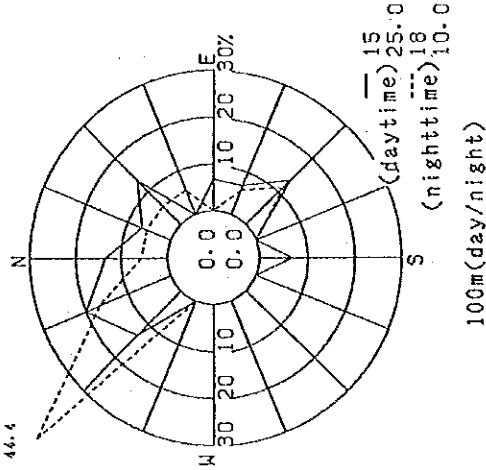
Surface(day/night)

(daytime) 20
(nighttime) 0.0



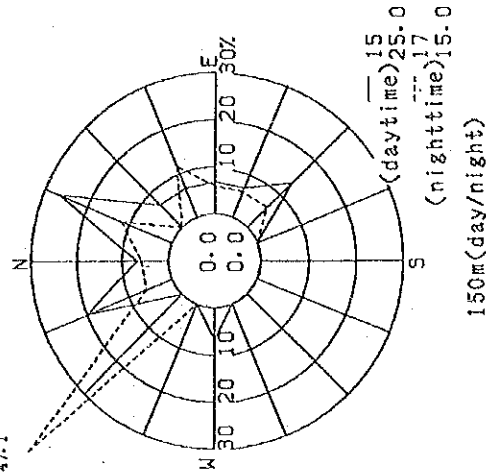
50m(day/night)

(daytime) 15
(nighttime) 18



100m(day/night)

(daytime) 25.0
(nighttime) 10.0



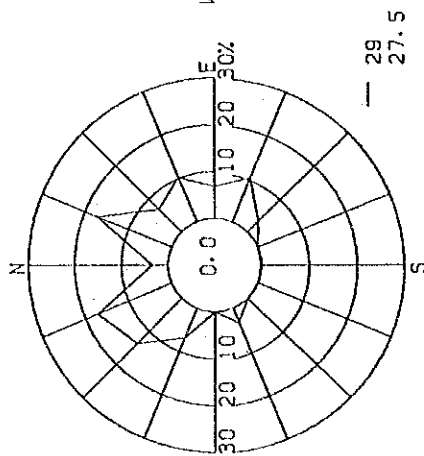
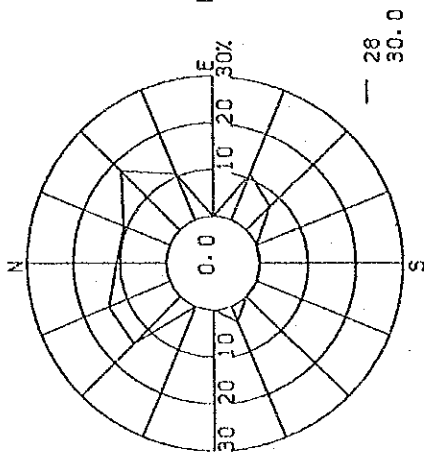
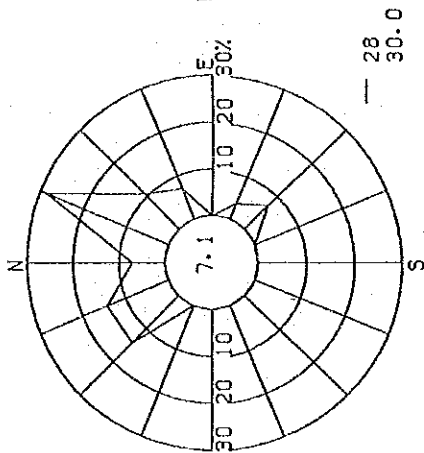
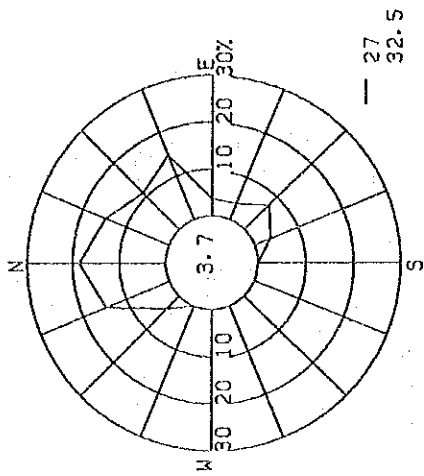
150m(day/night)

(daytime) 15
(nighttime) 17

* Figures in circle denote calm factor(%); figures down right indicate observation frequency and non-observation ratio(%)
* Day/night time zone : daytime=7:00 to 18:00 ; nighttime=19:00 to 6:00

Period; September,10-19,1987 (Summer)

Wind Rose at Various Heights



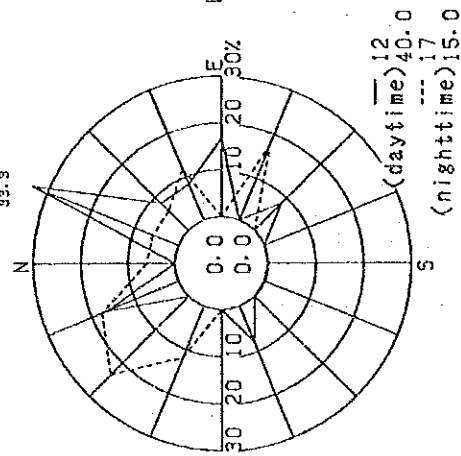
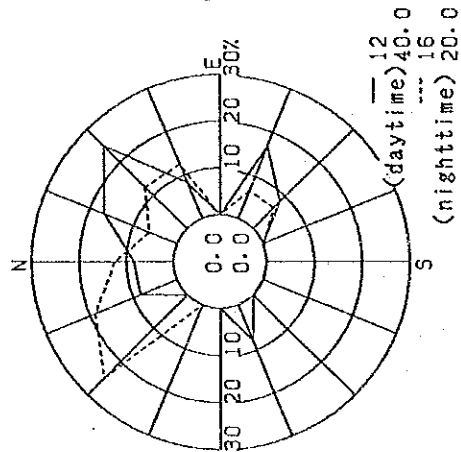
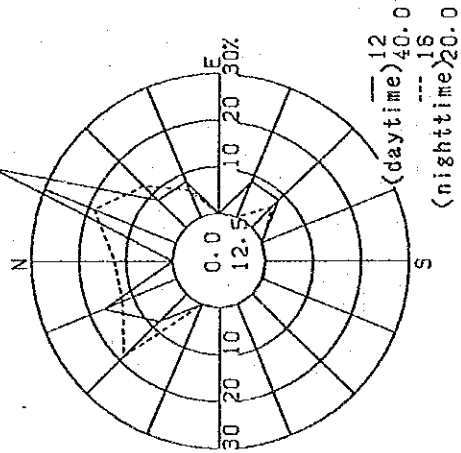
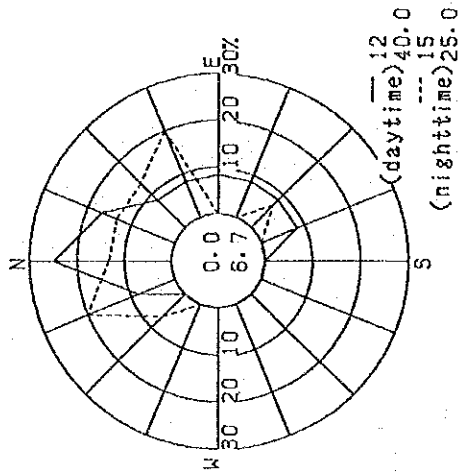
350m(whole day)

300m(whole day)

250m(whole day)

200m(whole day)

41.7



350m(day/night)

300m(day/night)

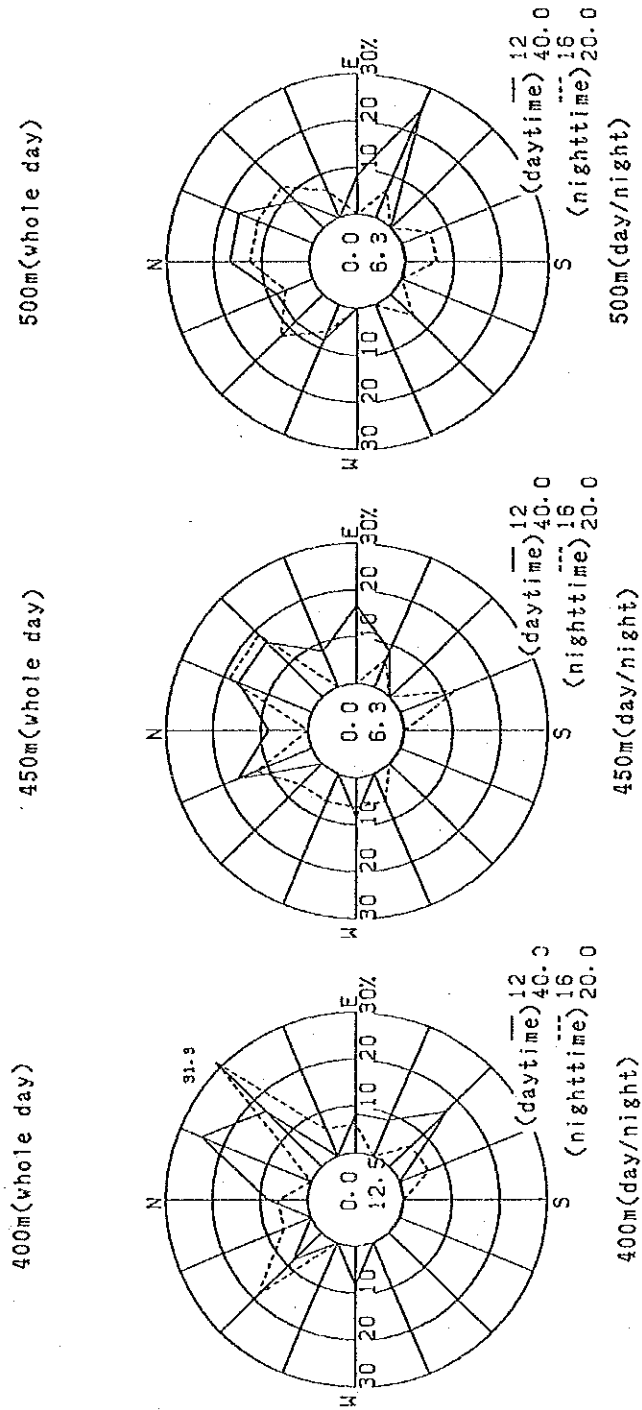
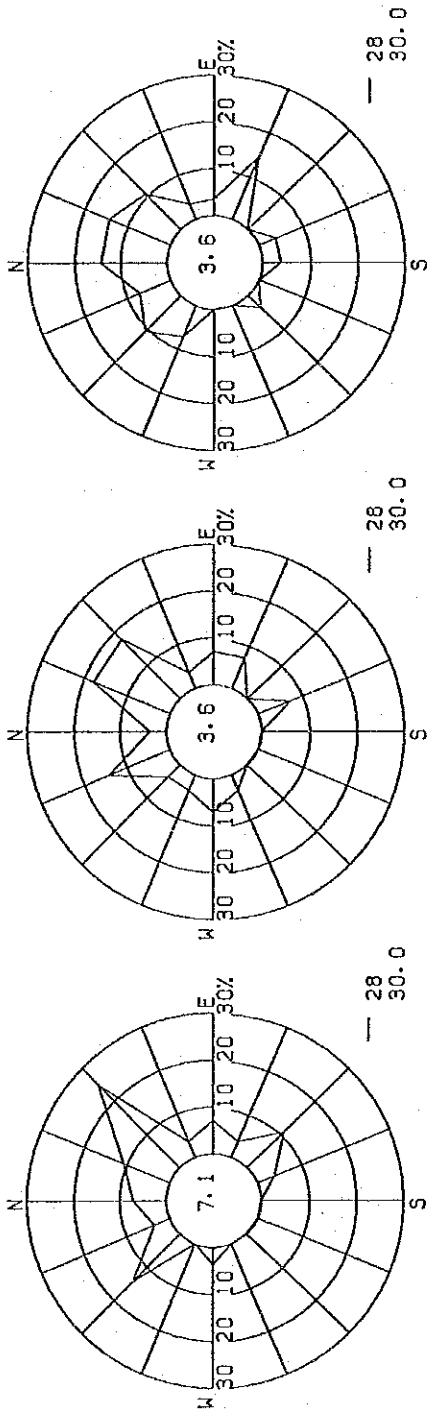
250m(day/night)

200m(day/night)

* Figures in circle denote calm factor(%); figures down right indicate observation frequency and non-observation ratio(%).

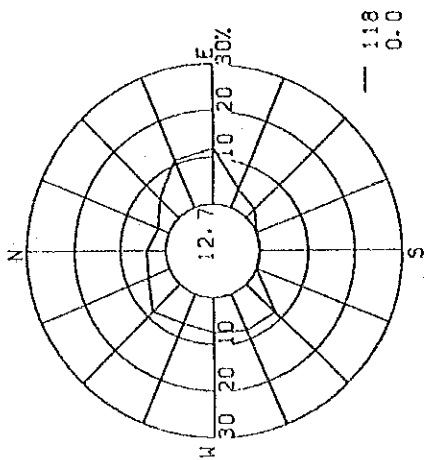
* Day/night time zone : daytime=7:00 to 18:00 ; nighttime=19:00 to 6:00

Period; September,10-19,1987 (Summer)



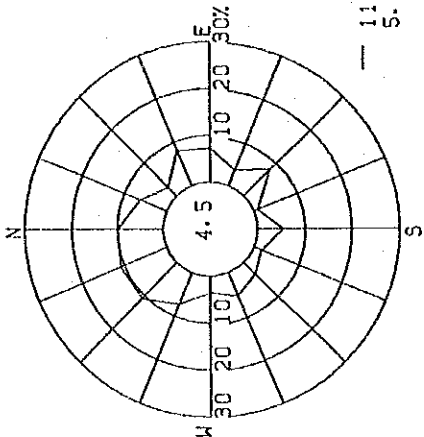
* Figures in circle denote calm factor(%); figures down right indicate observation frequency and non-observation ratio(%)
 * Day/night time zone : daytime=7:00 to 18:00 ; nighttime=19:00 to 6:00
 Period; September,10-19,1987 (Summer)

Wind Rose at Various Heights



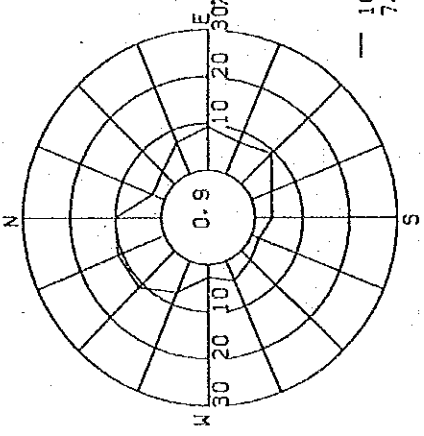
— 118
0.0

Surface(whole day)



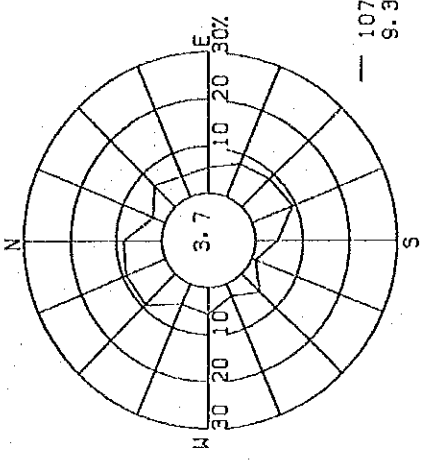
— 111
5.9

50m(whole day)



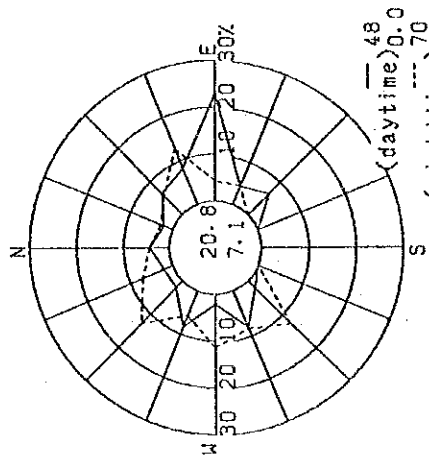
— 109
7.6

100m(whole day)



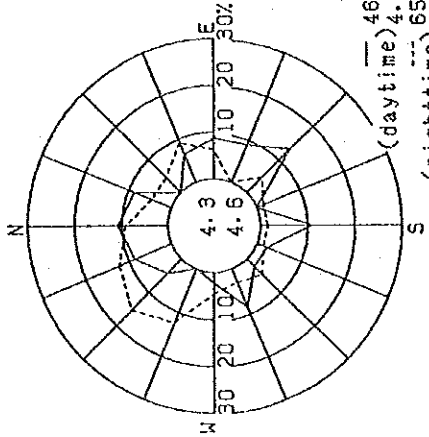
— 107
9.3

150m(whole day)



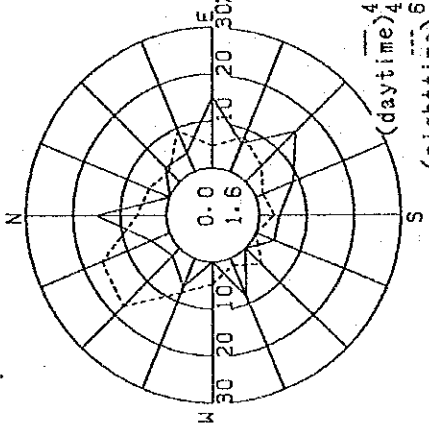
— 48
(daytime) 0.0
--- 70
(nighttime) 0.0

Surface(day/night)



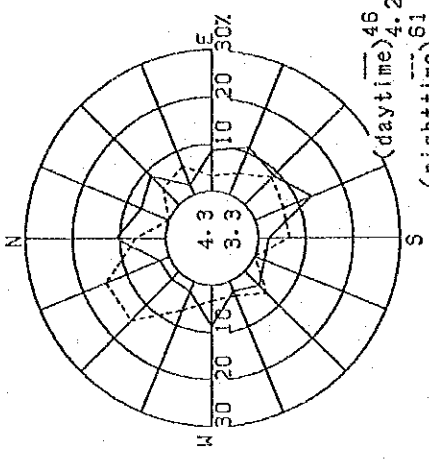
— 46
(daytime) 4.2
--- 65
(nighttime) 7.1

50m(day/night)



— 46
(daytime) 4.2
--- 63
(nighttime) 10.0

100m(day/night)



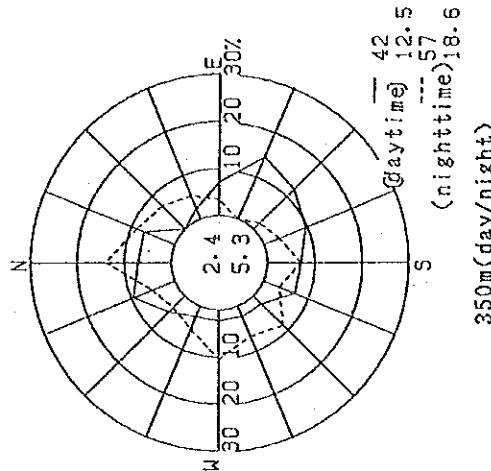
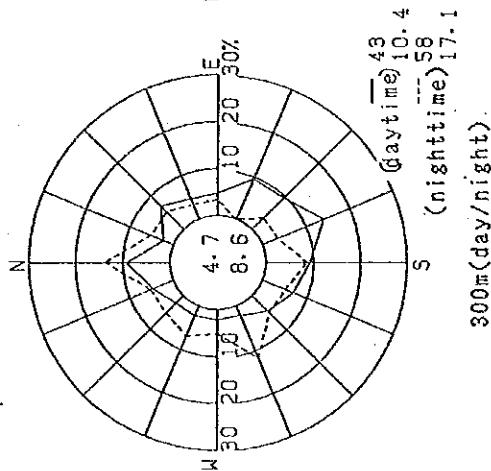
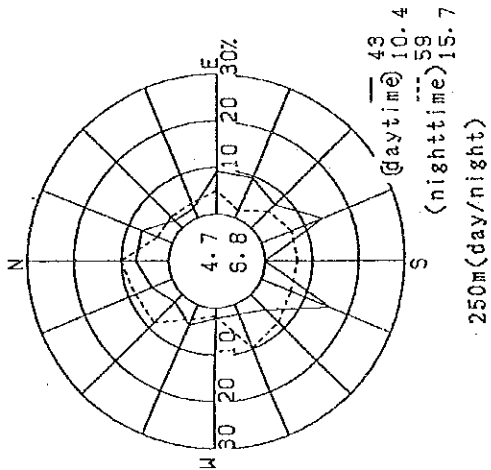
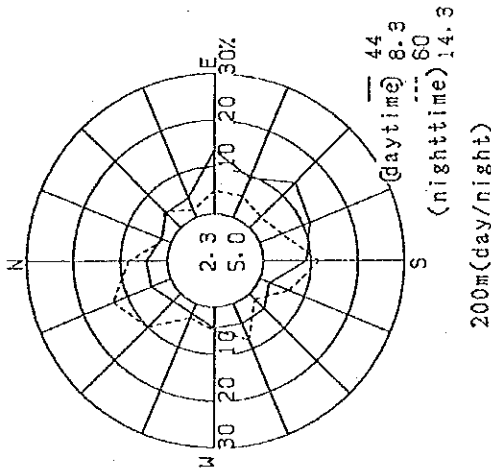
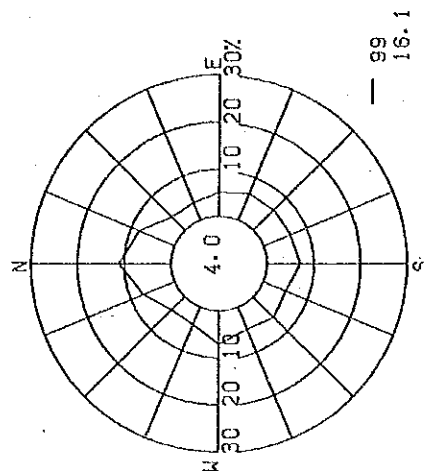
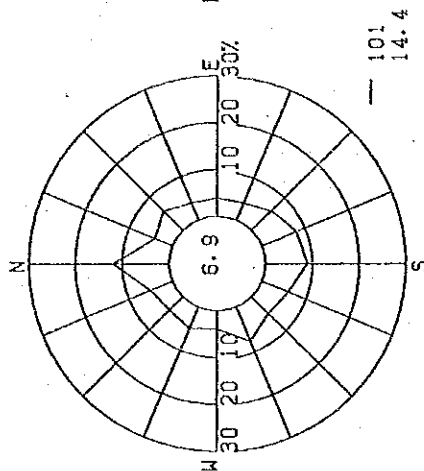
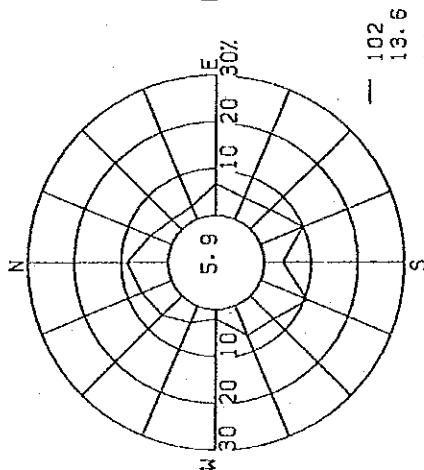
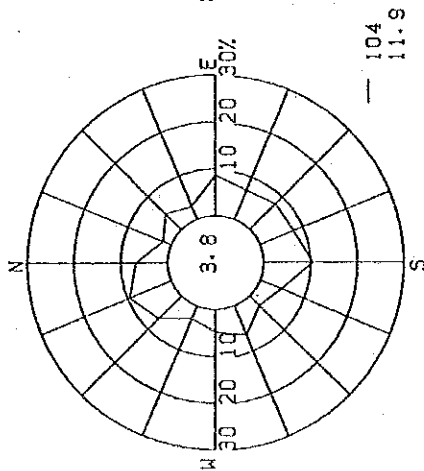
— 46
(daytime) 4.2
--- 61
(nighttime) 12.9

150m(day/night)

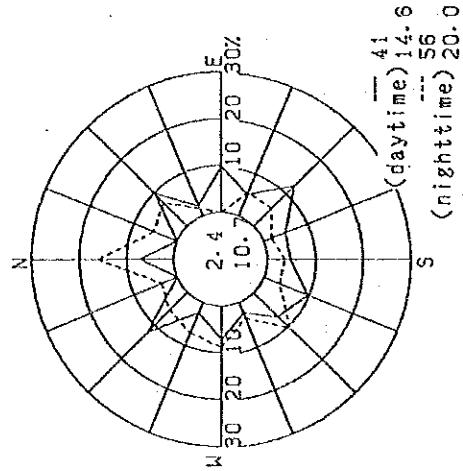
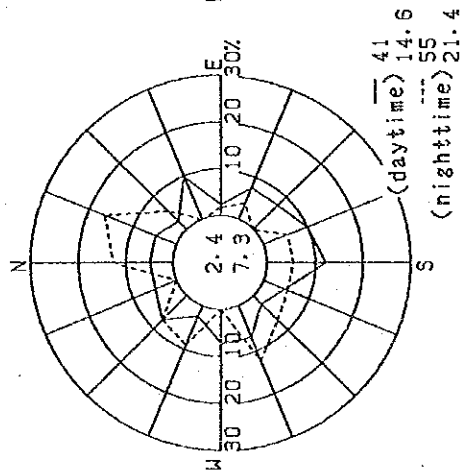
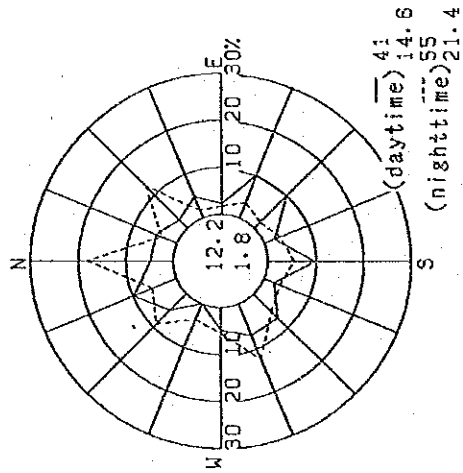
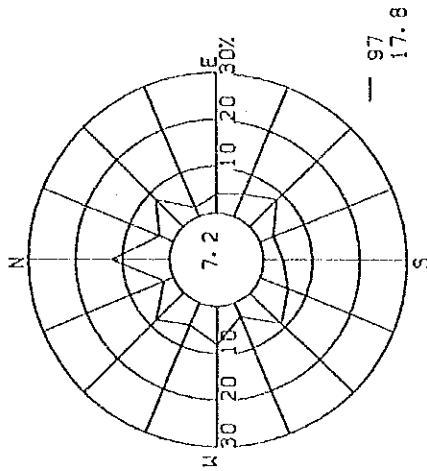
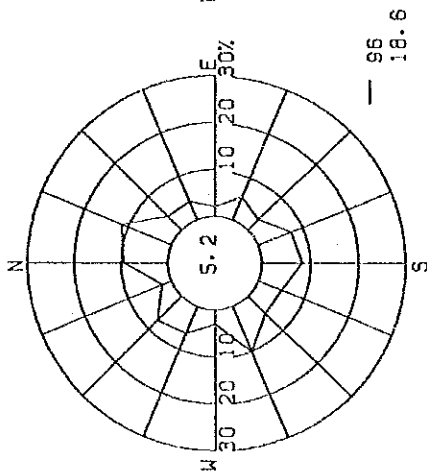
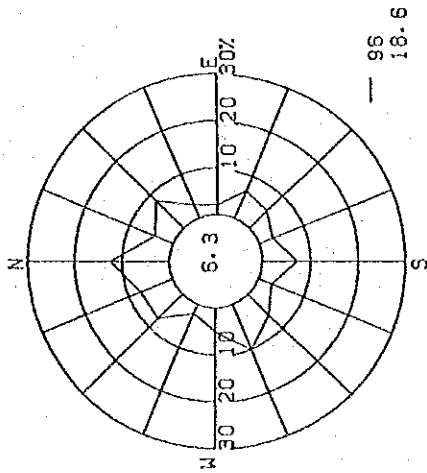
* Figures in circle denote calm factor(%); figures down right indicate observation frequency and non-observation ratio(%)
* Day/night time zone : daytime=7:00 to 17:00 ; nighttime=18:00 to 6:00

Period; November, 19-December, 3, 1987 (Autumn)

Wind Rose at Various Heights

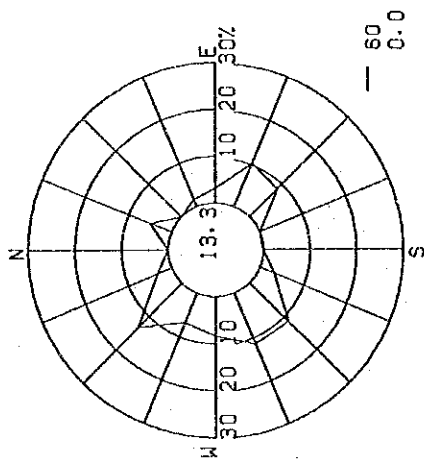


* Figures in circle denote calm factor(%); figures down right indicate observation frequency and non-observation ratio(%)
 * Day/night time zone : daytime=7:00 to 17:00 ; nighttime=18:00 to 6:00
 Period; November, 19-December, 3, 1987 (Autumn)



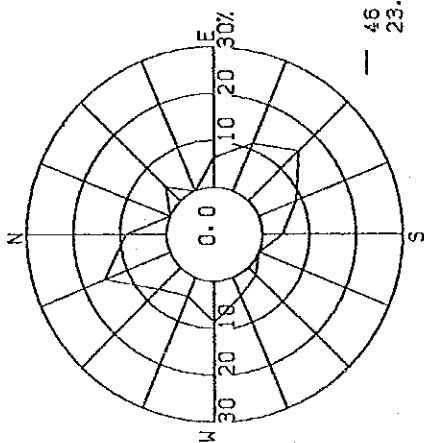
* Figures in circle denote calm factor(%); figures down right indicate observation frequency and non-observation ratio(%)
 * Day/night time zone : daytime=7:00 to 17:00 ; nighttime=18:00 to 6:00
 Period; November, 19-December, 3, 1987 (Autumn)

Wind Rose at Various Heights



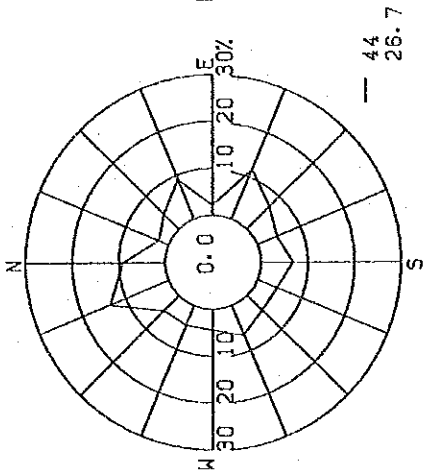
— 60
0.0

Surface(whole day)



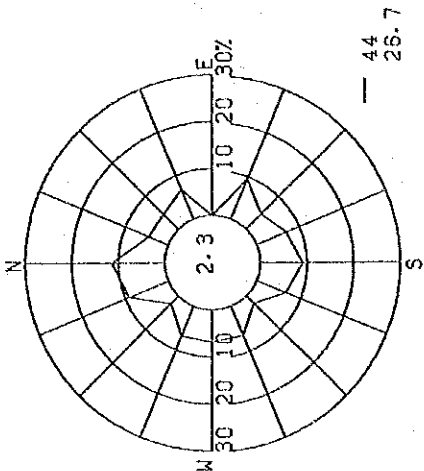
— 46
23.3

50m(whole day)



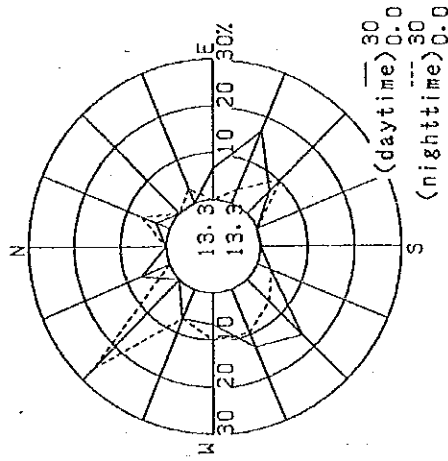
— 44
26.7

100m(whole day)



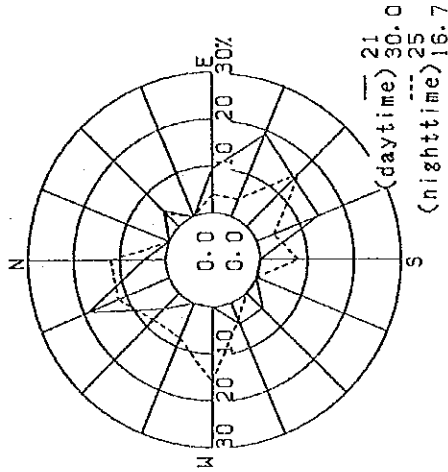
— 44
26.7

150m(whole day)



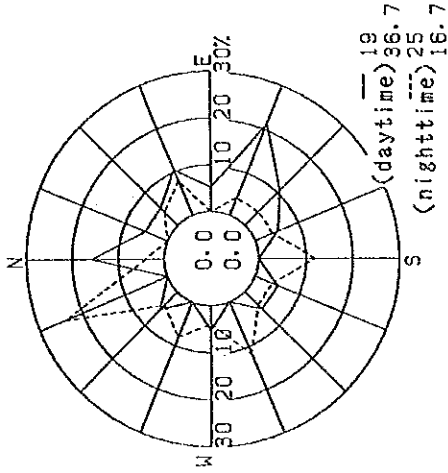
— 30
(daytime) 0.0
— 30
(nighttime) 0.0

Surface(day/night)



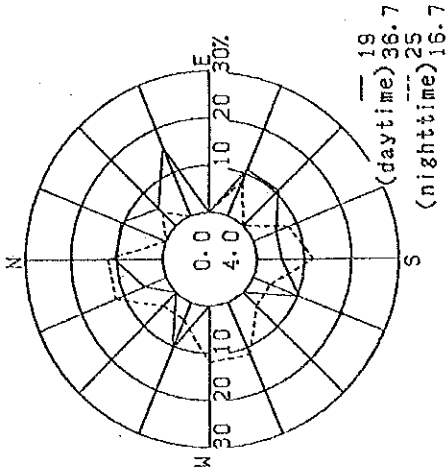
— 21
(daytime) 30.0
— 25
(nighttime) 16.7

50m(day/night)



— 19
(daytime) 36.7
— 25
(nighttime) 16.7

100m(day/night)



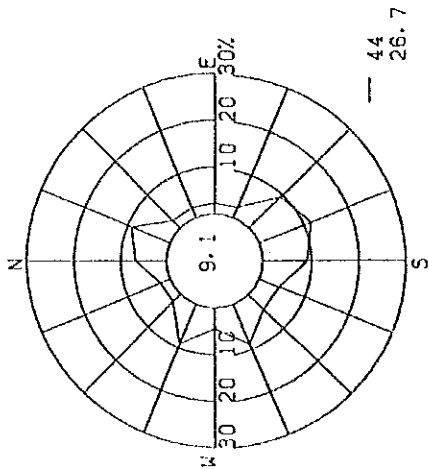
— 19
(daytime) 36.7
— 25
(nighttime) 16.7

150m(day/night)

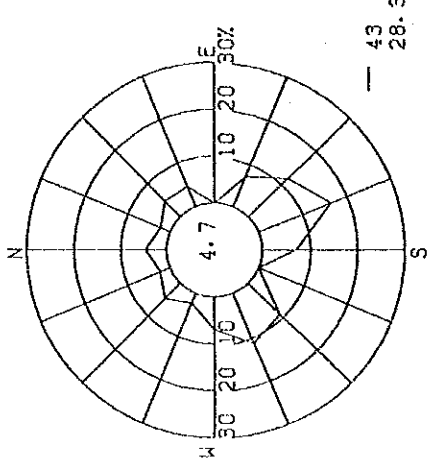
* Figures in circle denote calm factor(%); figures down right indicate observation frequency and non-observation ratio(%)

* Day/night time zone : daytime=8:00 to 18:00 ; nighttime=19:00 to 7:00
Period; February, 17-24, 1988 (Winter)

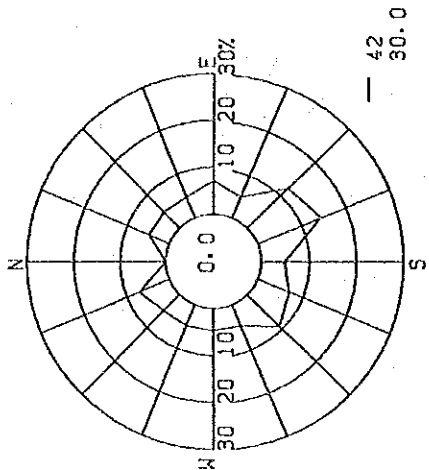
Wind Rose at Various Heights



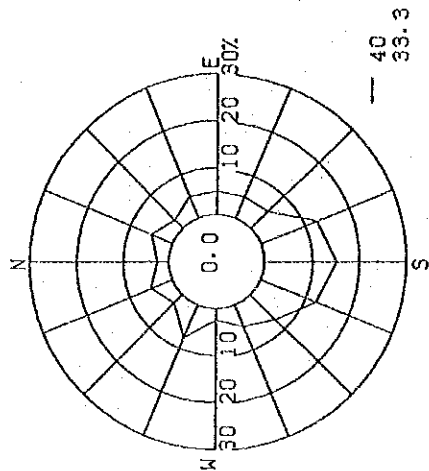
200m(whole day)



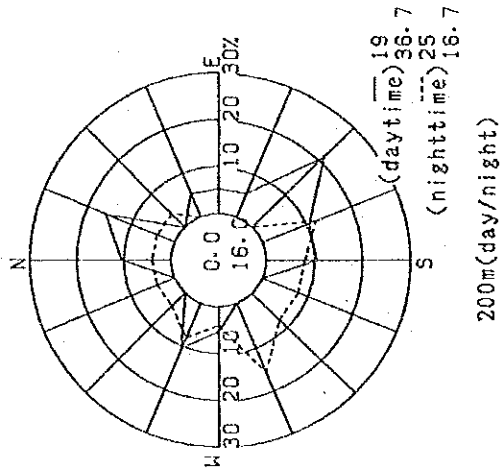
250m(whole day)



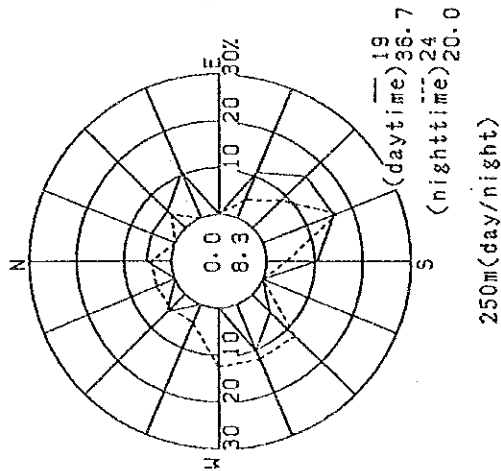
300m(whole day)



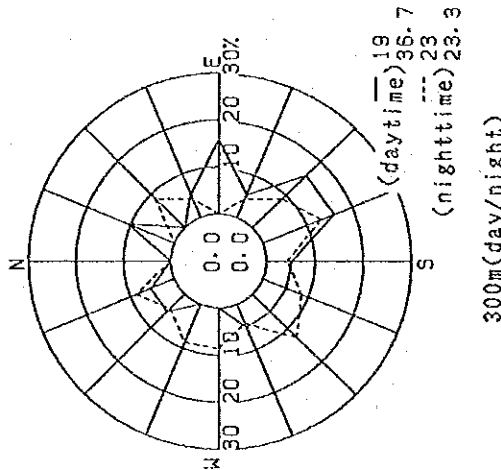
350m(whole day)



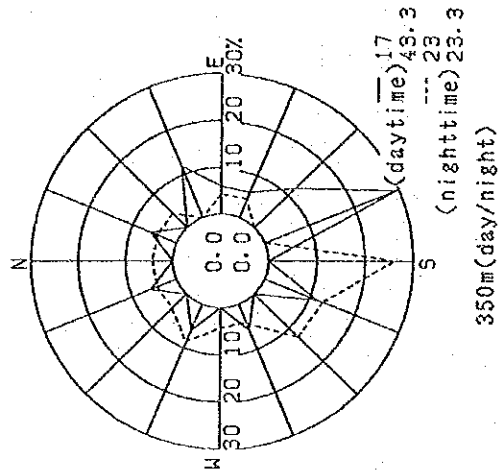
200m(day/night)



250m(day/night)



300m(day/night)



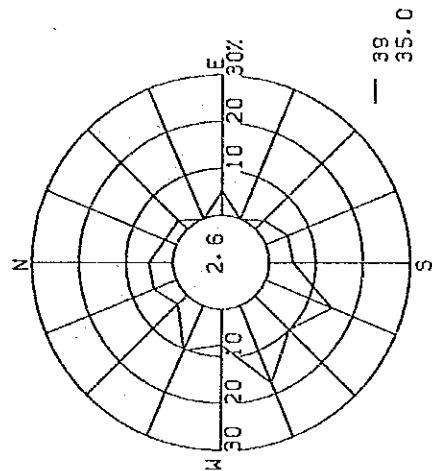
350m(day/night)

* Figures in circle denote calm factor(%); figures down right indicate observation frequency and non-observation ratio(%)

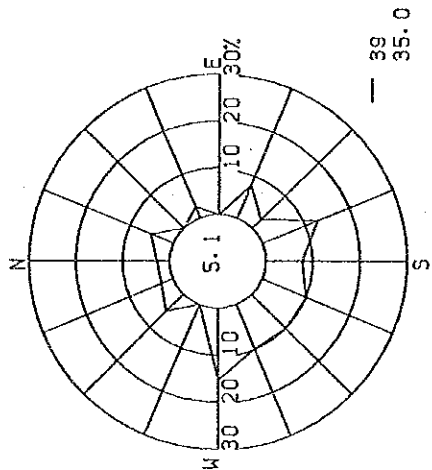
* Day/night time zone : daytime=8:00 to 18:00 ; nighttime=19:00 to 7:00

Period; February, 17-24, 1988 (Winter)

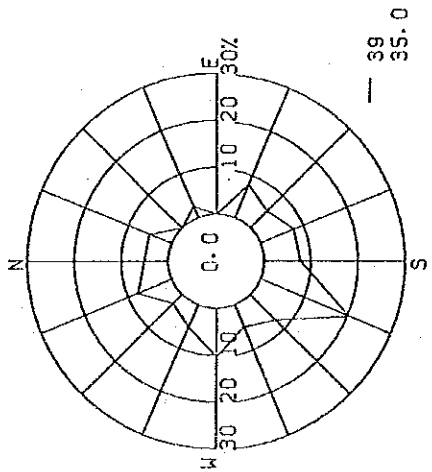
Wind Rose at Various Heights



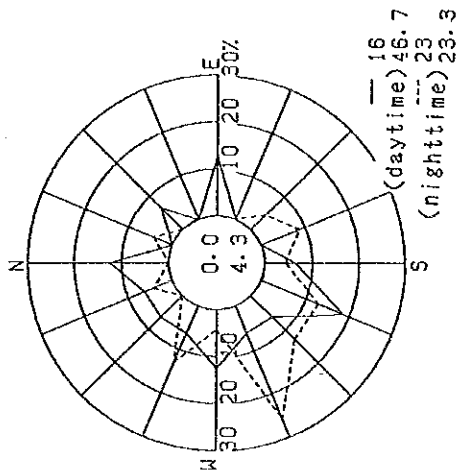
500m(whole day)



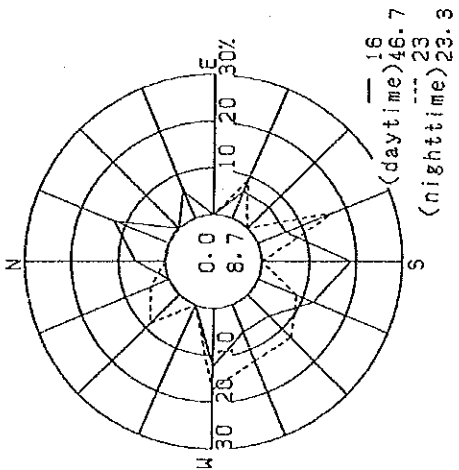
450m(whole day)



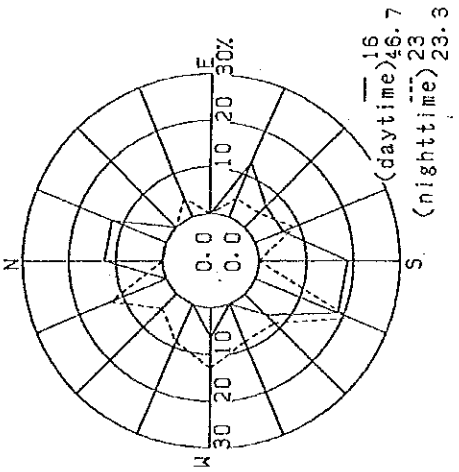
400m(whole day)



500m(day/night)



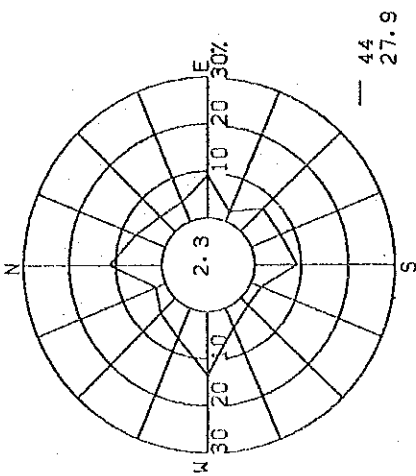
450m(day/night)



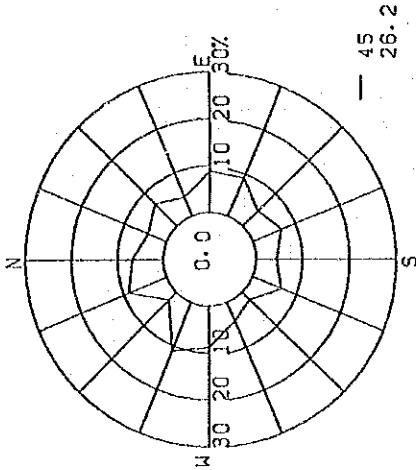
400m(day/night)

* Figures in circle denote calm factor(%); figures down right indicate observation frequency and non-observation ratio(%)
 * Day/night time zone : daytime=8:00 to 18:00 ; nighttime=19:00 to 7:00
 Period; February, 17-24, 1988 (Winter)

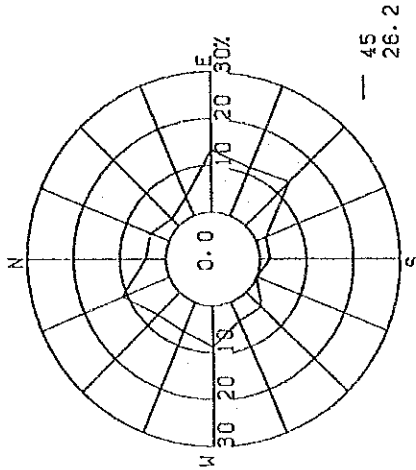
Wind Rose at Various Heights



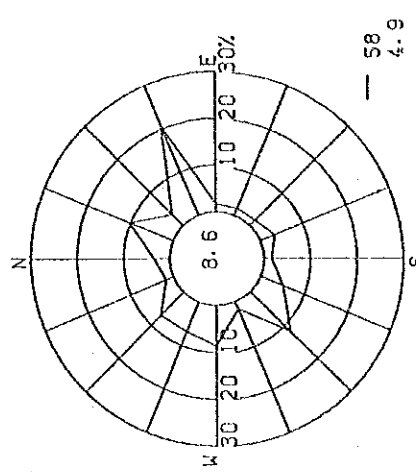
150m(whole day)



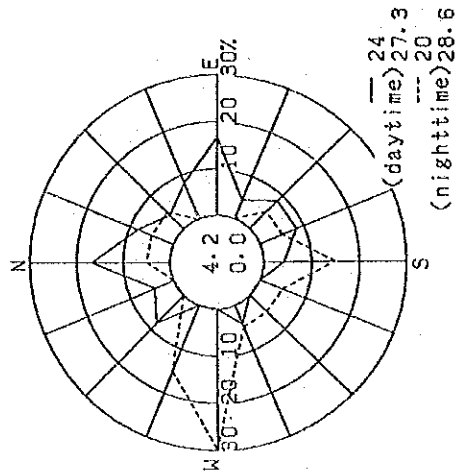
100m(whole day)



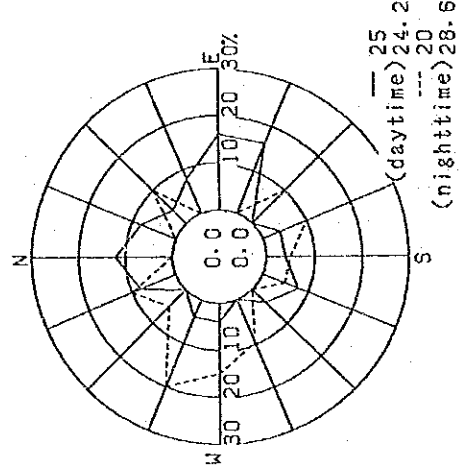
50m(whole day)



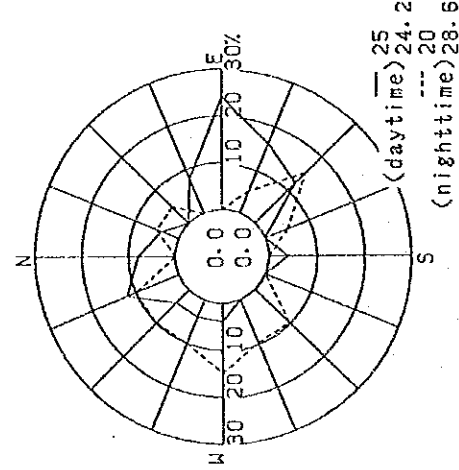
Surface(whole day)



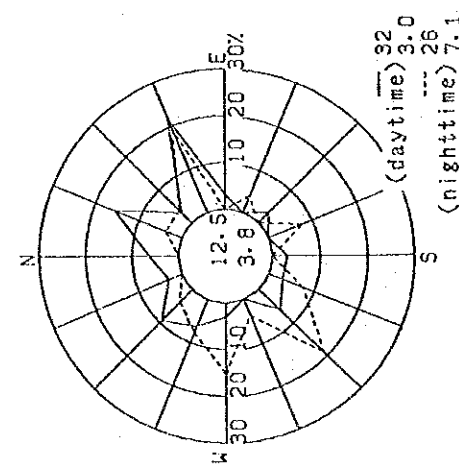
150m(day/night)



100m(day/night)



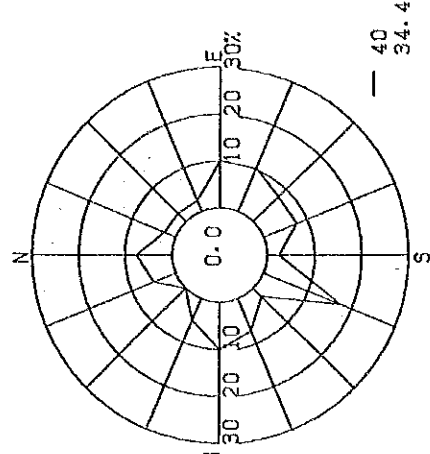
50m(day/night)



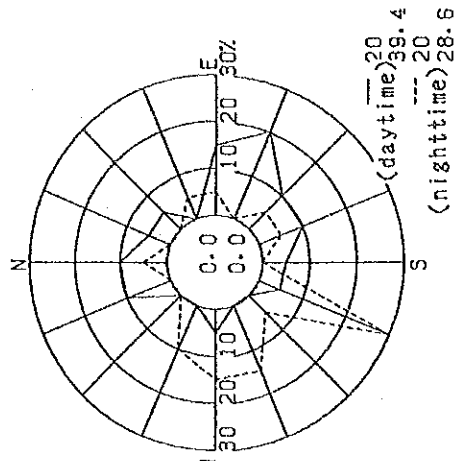
Surface(day/night)

* Figures in circle denote calm factor(%); figures down right indicate observation frequency and non-observation ratio(%)
 # Day/night time zone : daytime=7:00 to 19:00 ; nighttime=20:00 to 6:00
 Period; May, 20-27, 1988(Spring)

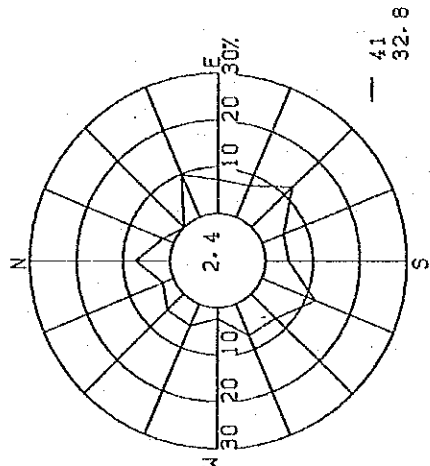
Wind Rose at Various Heights



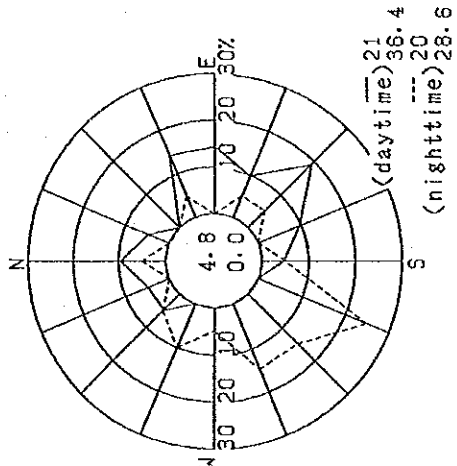
350m(whole day)



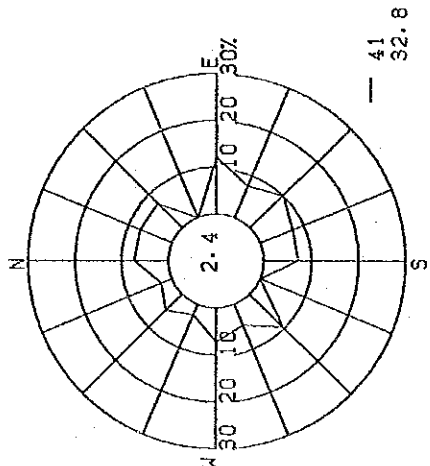
350m(day/night)



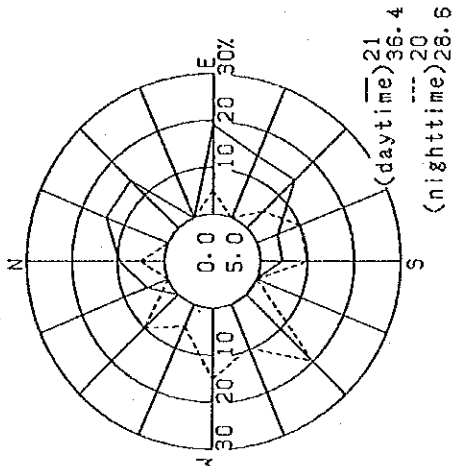
300m(whole day)



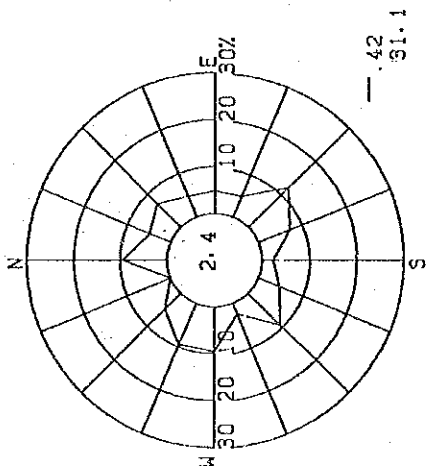
300m(day/night)



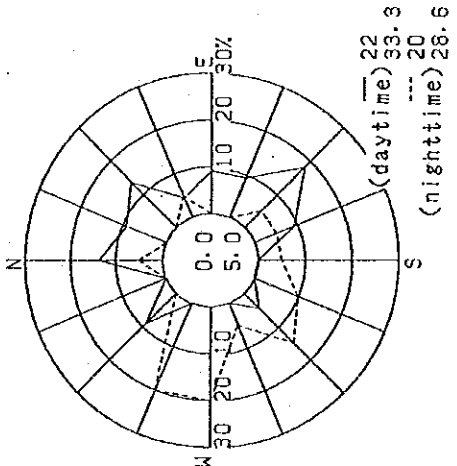
250m(whole day)



250m(day/night)



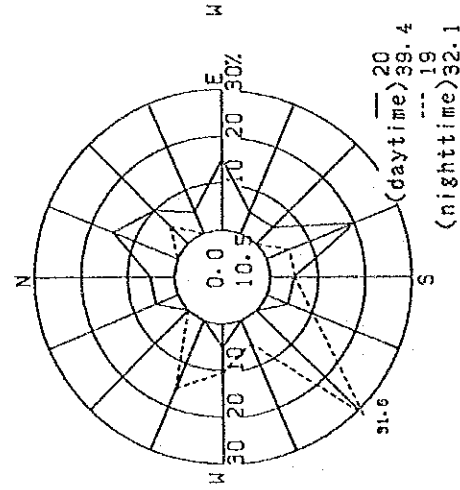
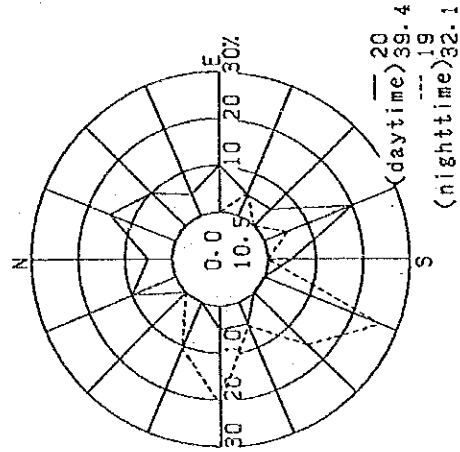
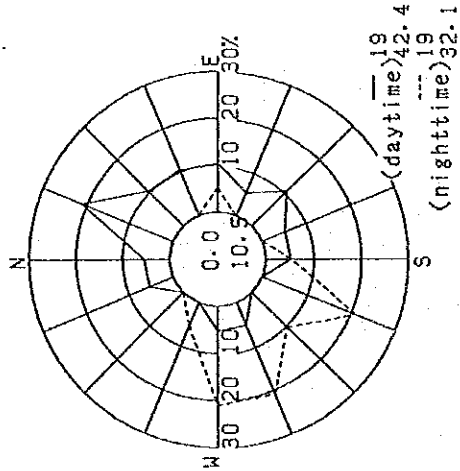
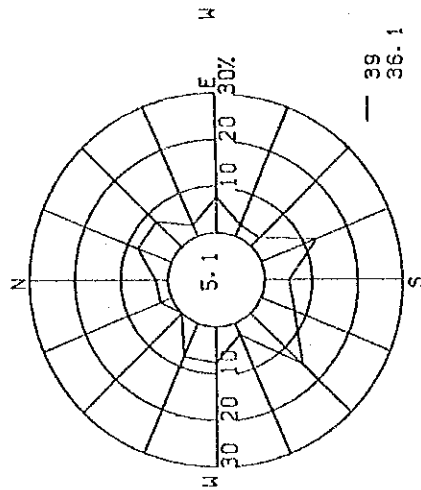
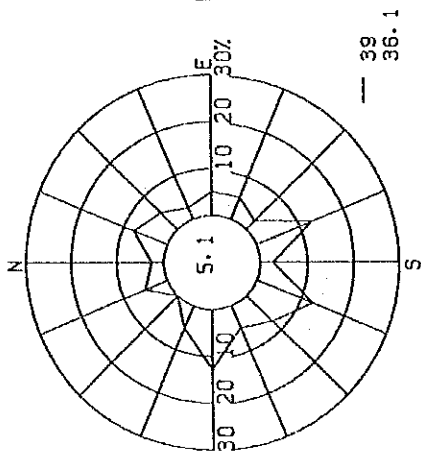
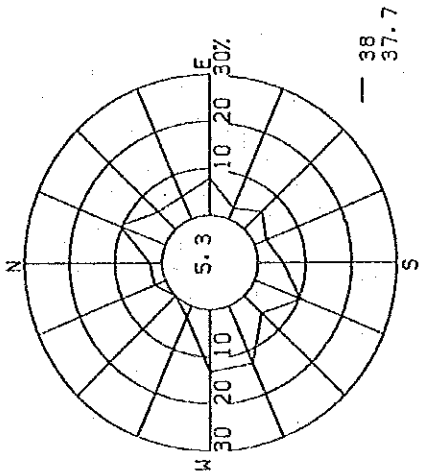
200m(whole day)



200m(day/night)

Figures in circle denote calm factor(%); figures down right indicate observation frequency and non-observation ratio(%)
 # Day/night time zone : daytime=7:00 to 19:00 ; nighttime=20:00 to 6:00
 Period; May, 20-27, 1988(Spring)

Wind Rose at Various Heights

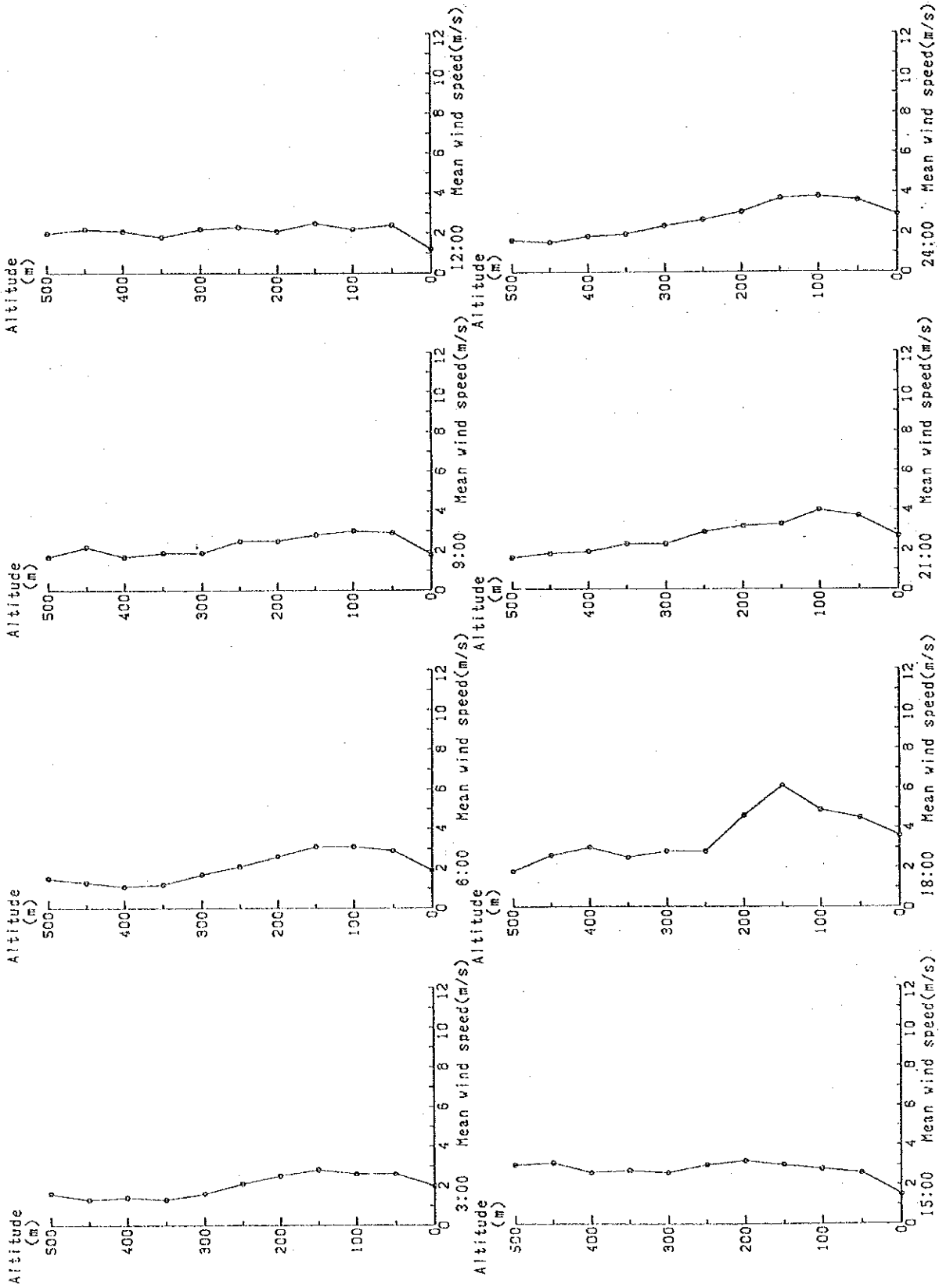


* Figures in circle denote calm factor(%); figures down right indicate observation frequency and non-observation ratio(%)
 * Day/night time zone : daytime=7:00 to 19:00 ; nighttime=20:00 to 6:00
 Period; May, 20-27, 1988(Spring)

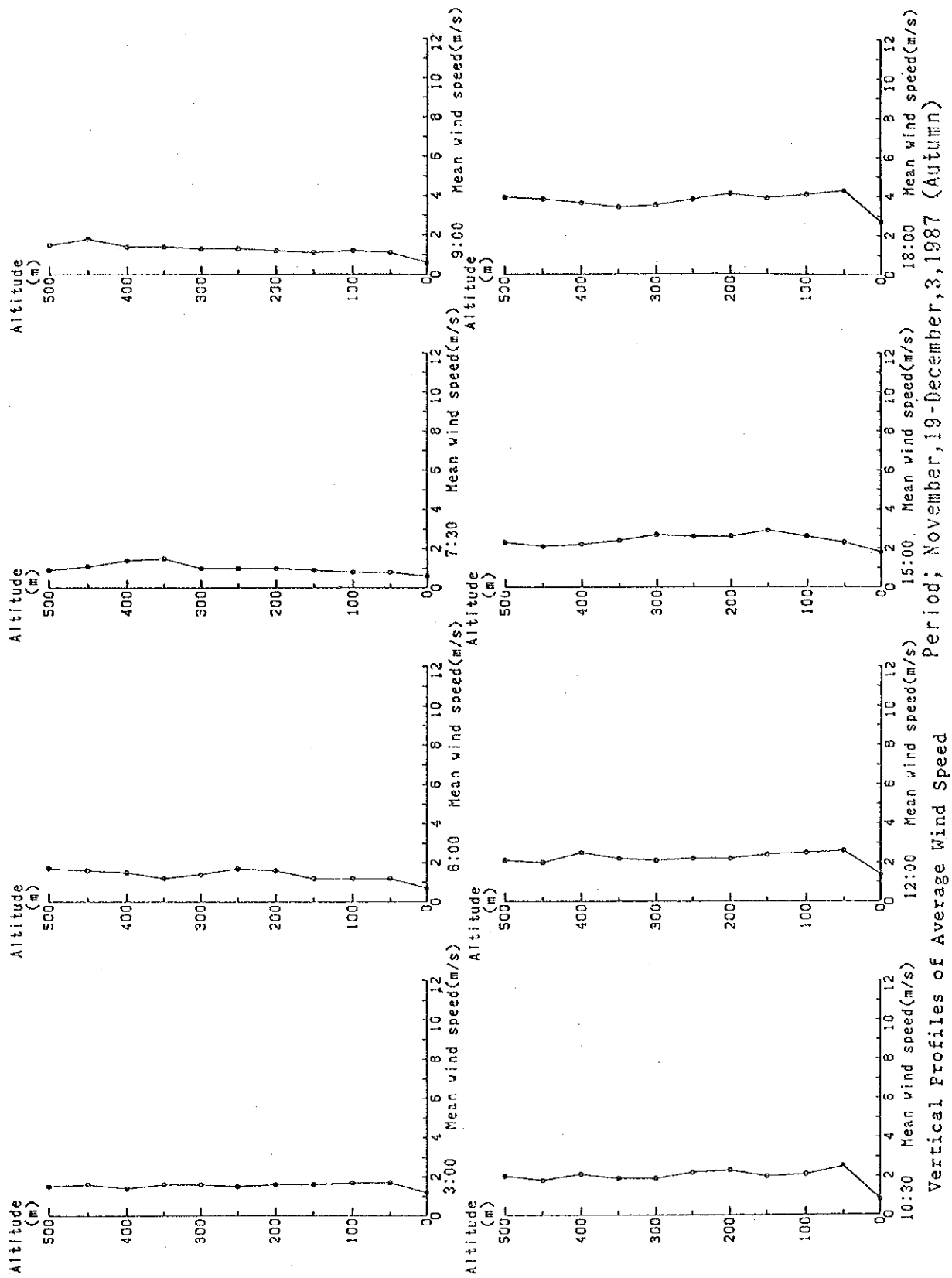
Wind Rose at Various Heights

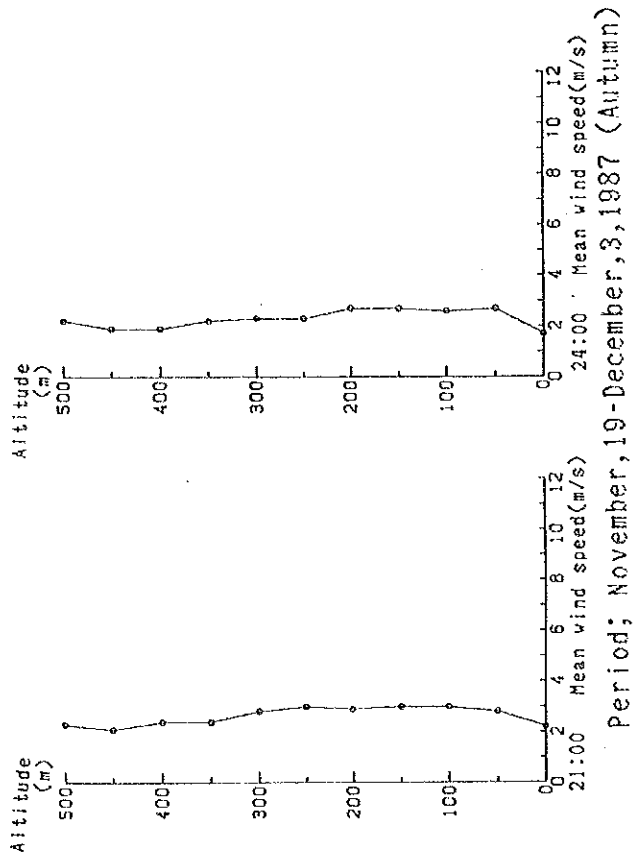
1.3.4 Vertical Profiles of Average Wind Speed

Vertical profiles of average wind speed are shown in the following Figures.

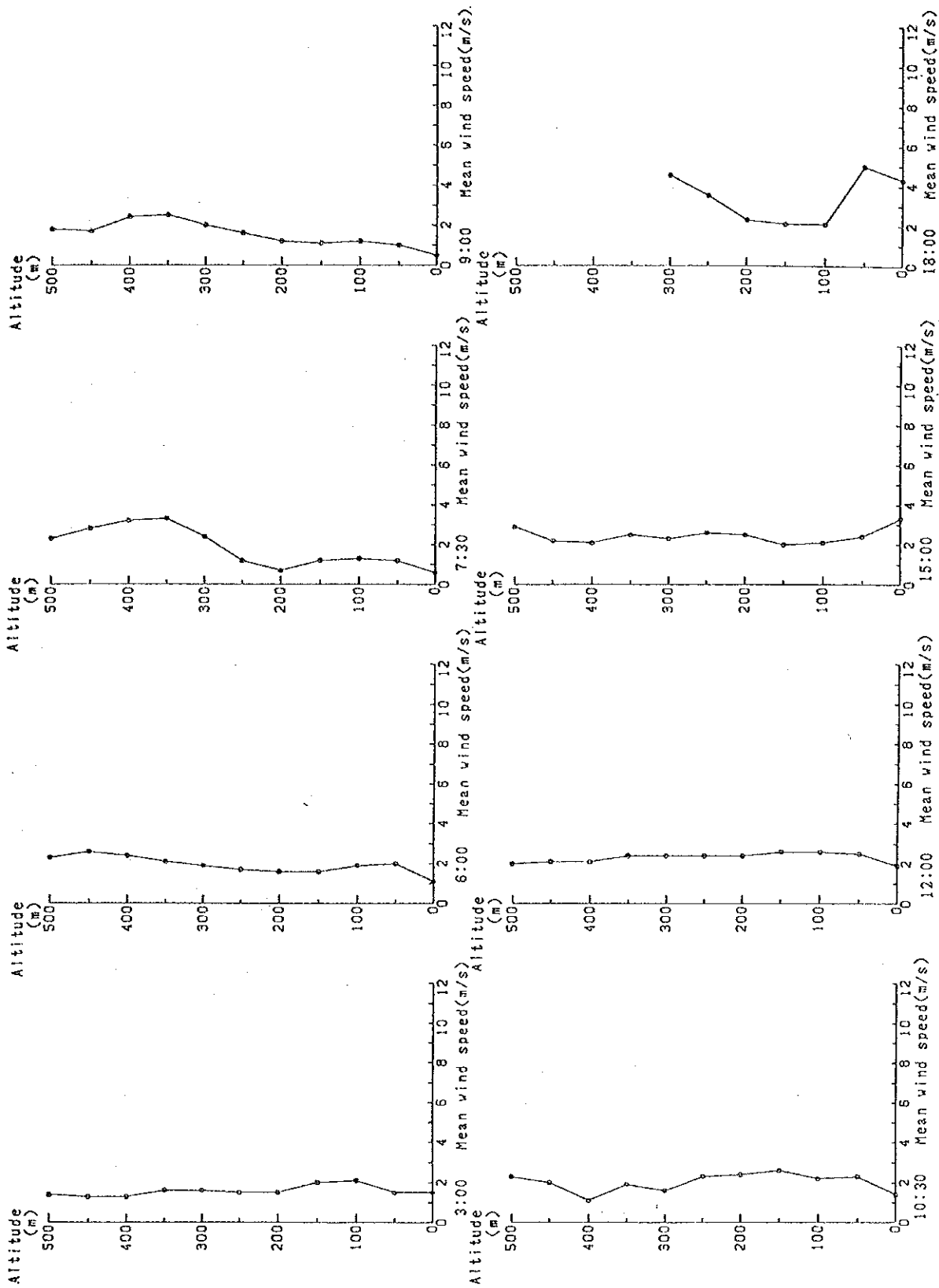


Vertical Profiles of Average Wind Speed
 Period; September, 10-19, 1987 (Summer)

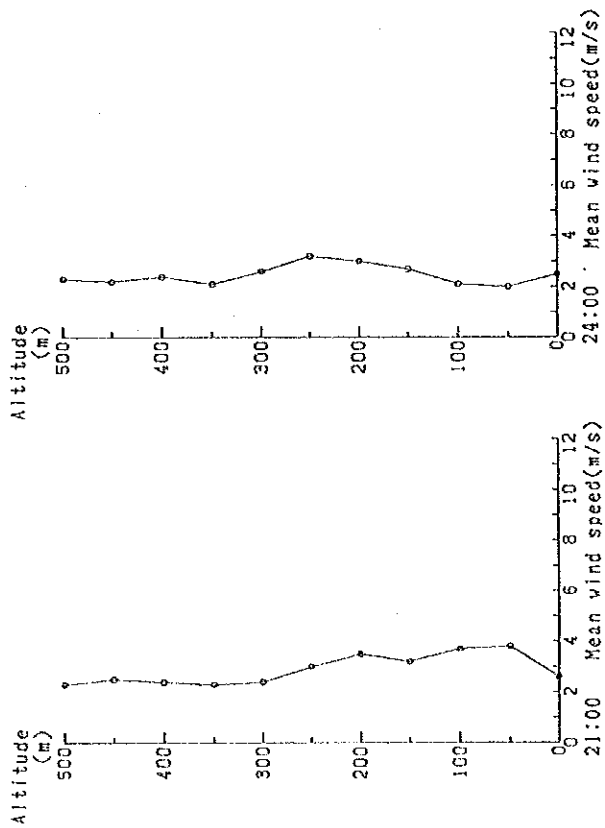




Vertical Profiles of Average Wind Speed

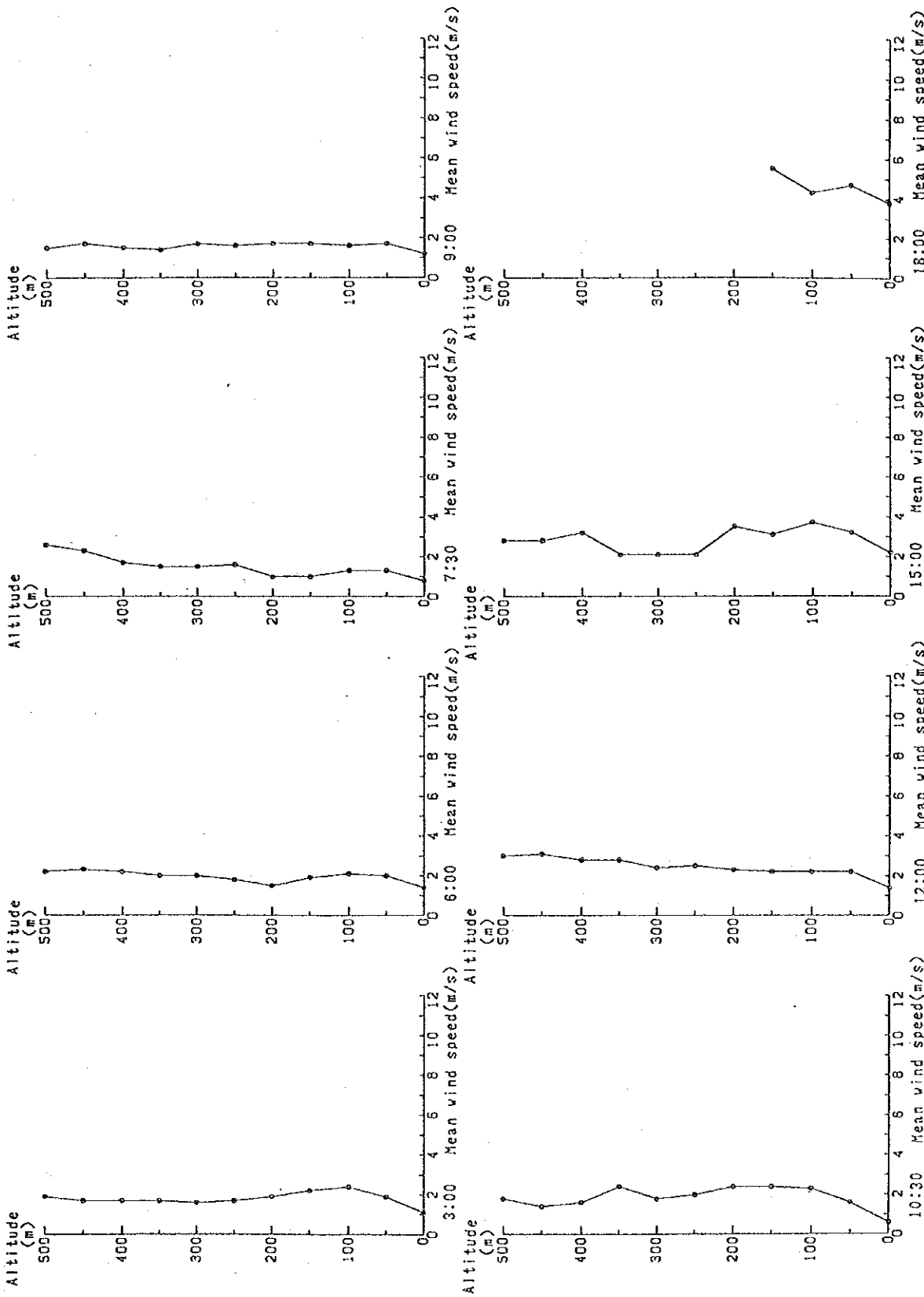


Vertical Profiles of Average Wind Speed Period; February, 17-24, 1988 (Winter)

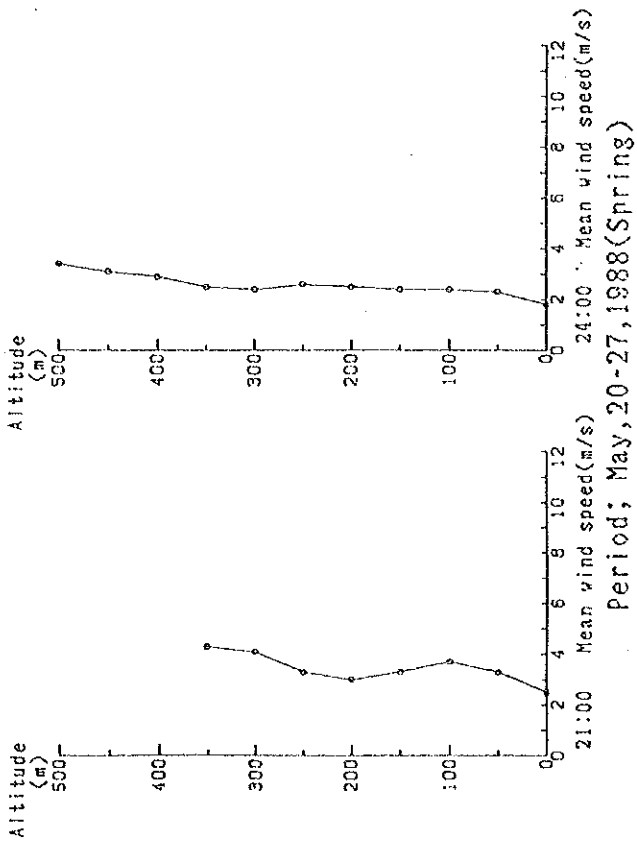


Period; February, 17-24, 1988 (Winter)

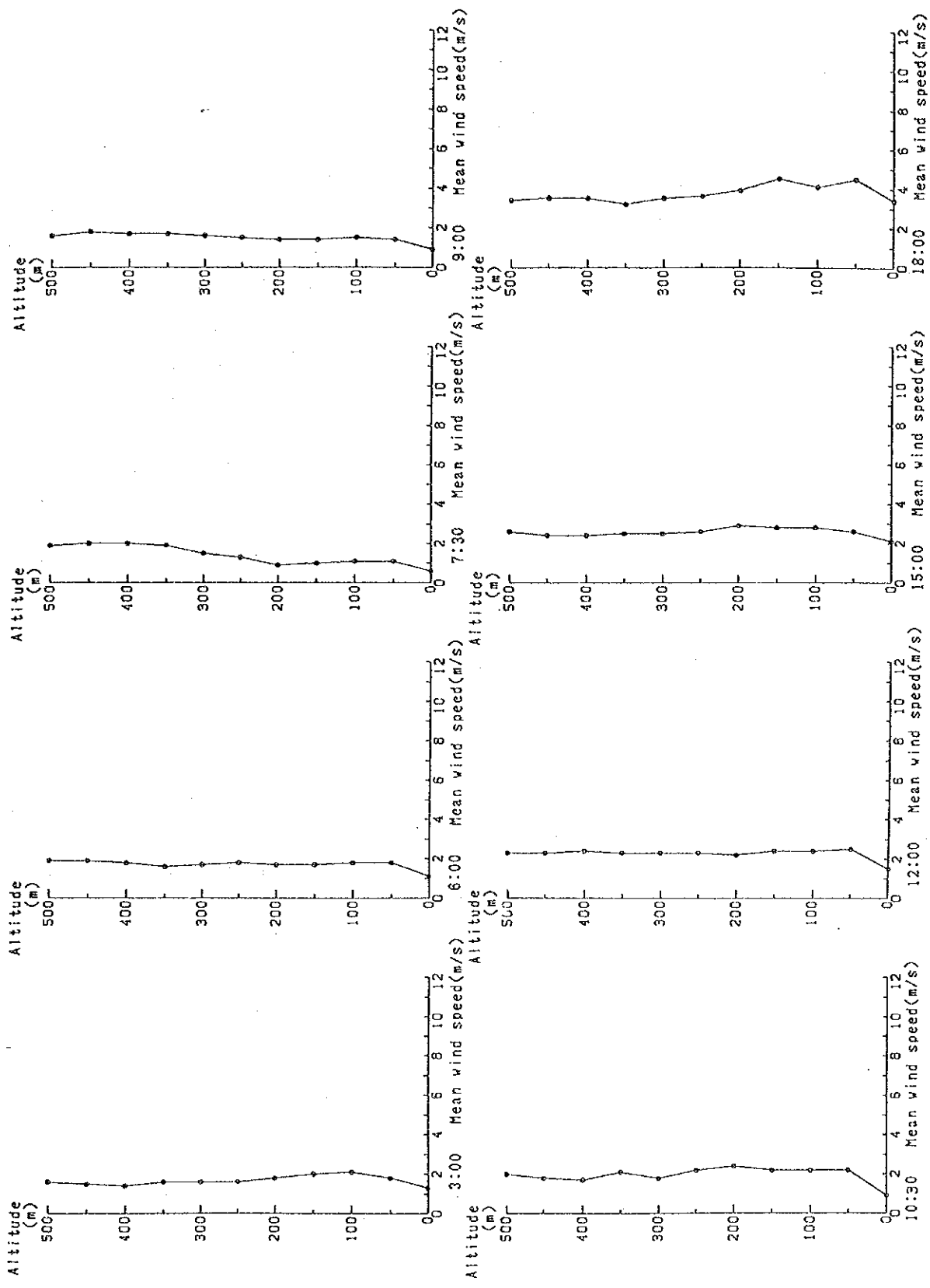
Vertical Profiles of Average Wind Speed



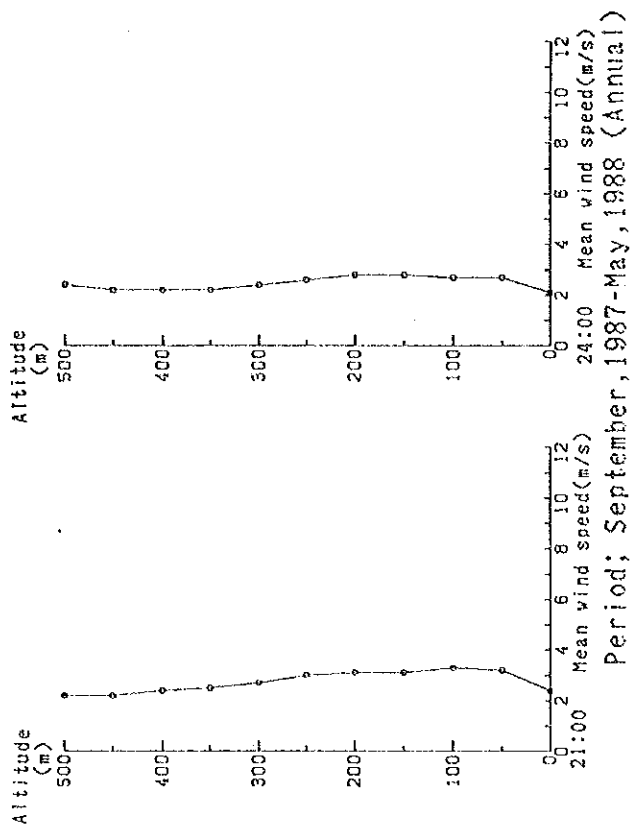
Vertical Profiles of Average Wind Speed
 Period; May, 20-27, 1988 (Spring)



Vertical Profiles of Average Wind Speed



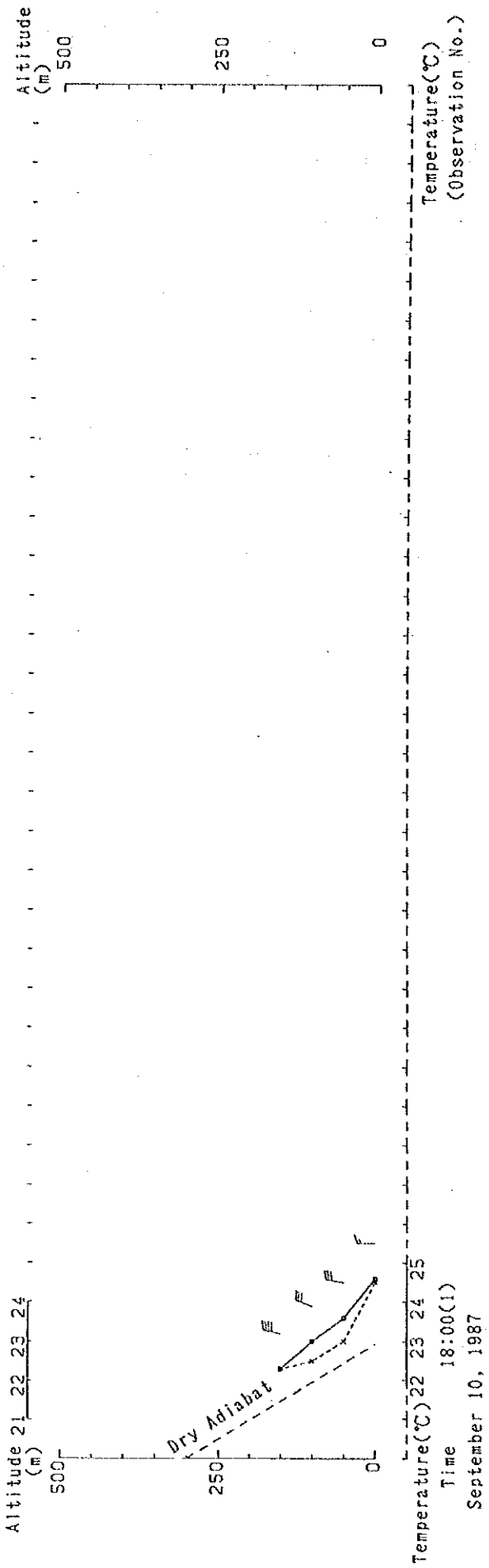
Vertical Profiles of Average Wind Speed Period; September, 1987-May, 1988 (Annual)



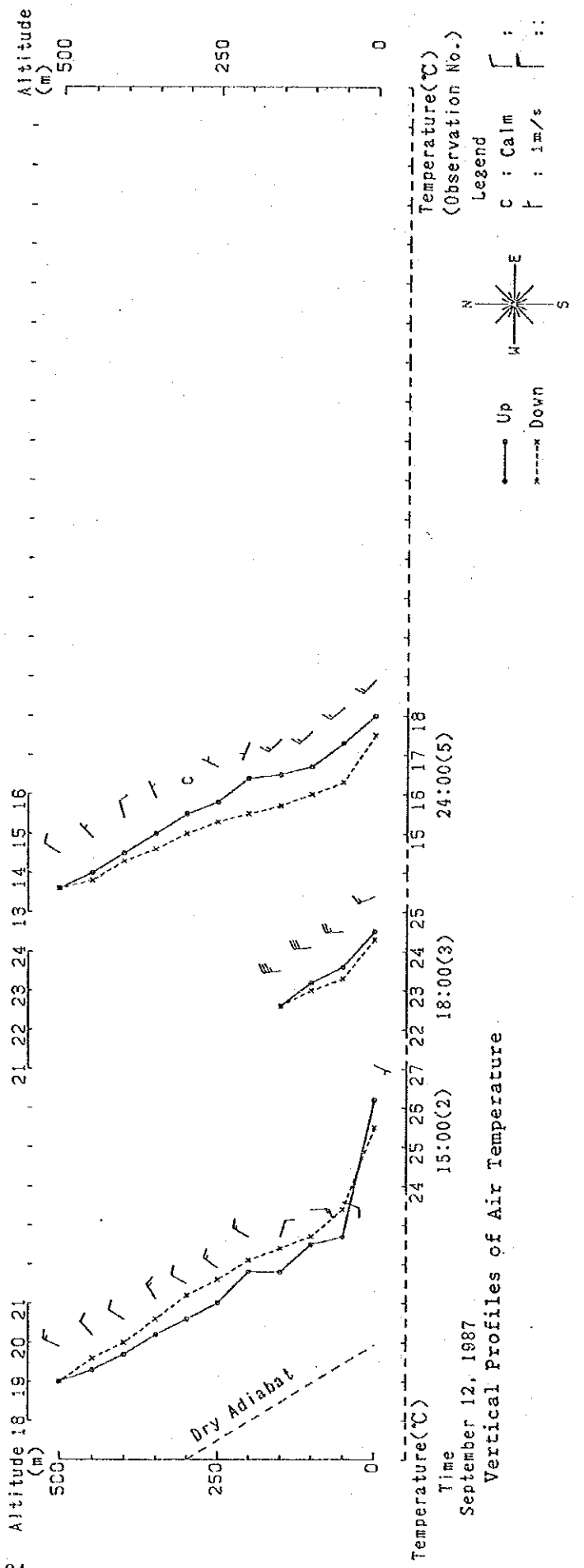
Vertical Profiles of Average Wind Speed

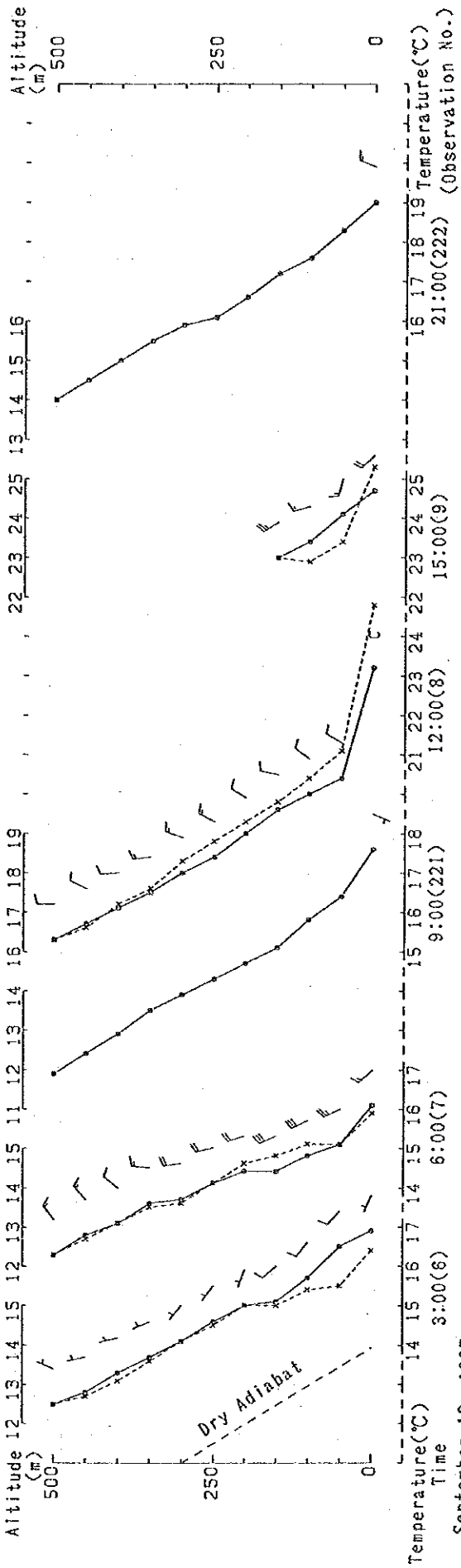
1.3.5 Vertical Profiles of Air Temperature

Vertical profiles of air temperature observed by the captive sonde are shown in the following Figures.



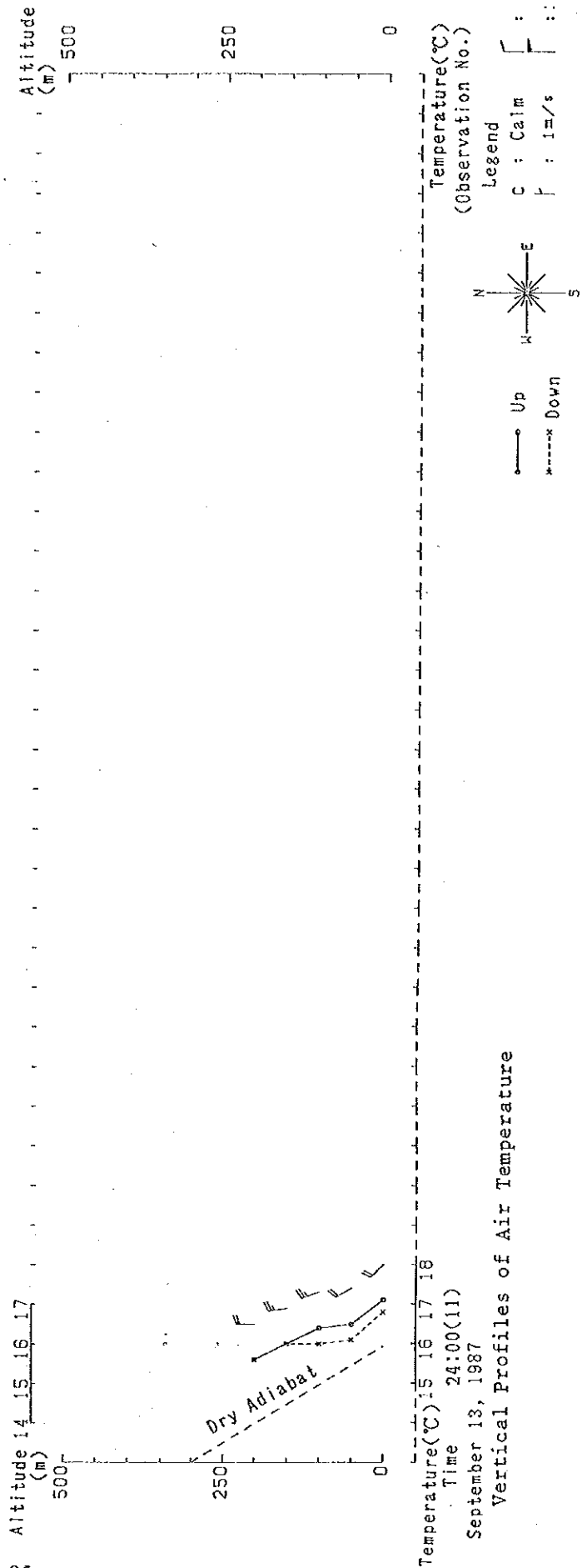
AP-94





September 13, 1987

AP-95

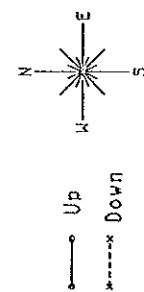


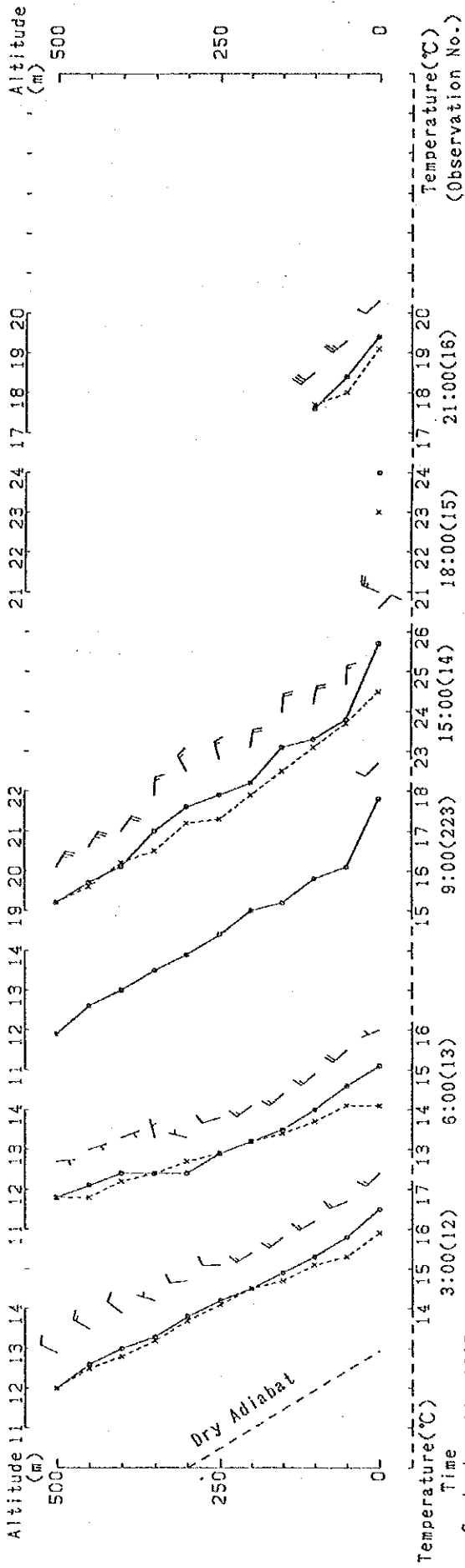
September 13, 1987

Vertical Profiles of Air Temperature

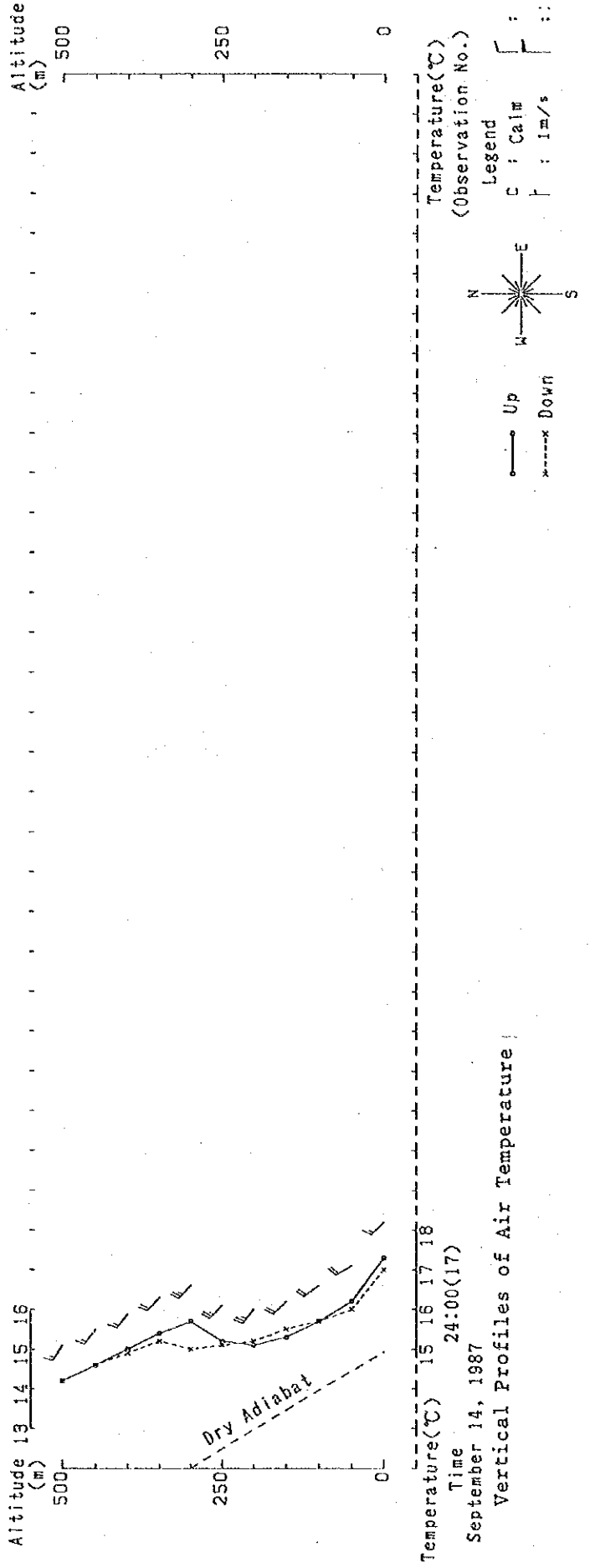
Temperature(°C)
(Observation No.)

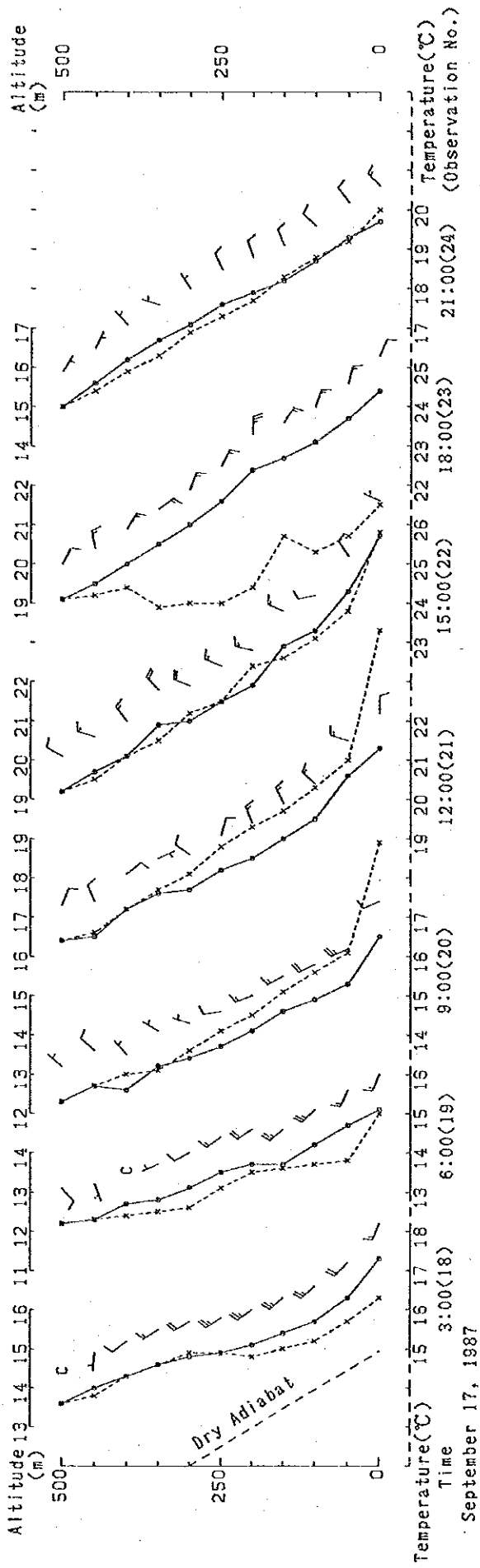
Legend
 ○ : Calm
 | : 1m/s



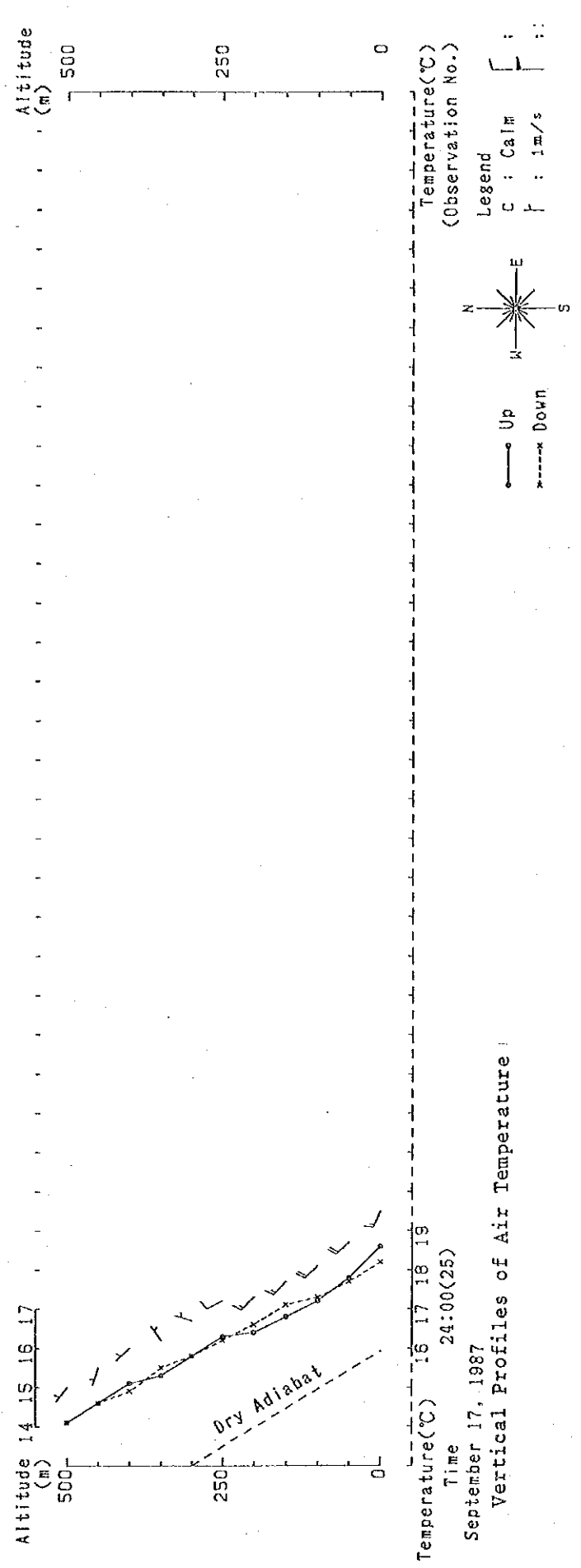


AP-96

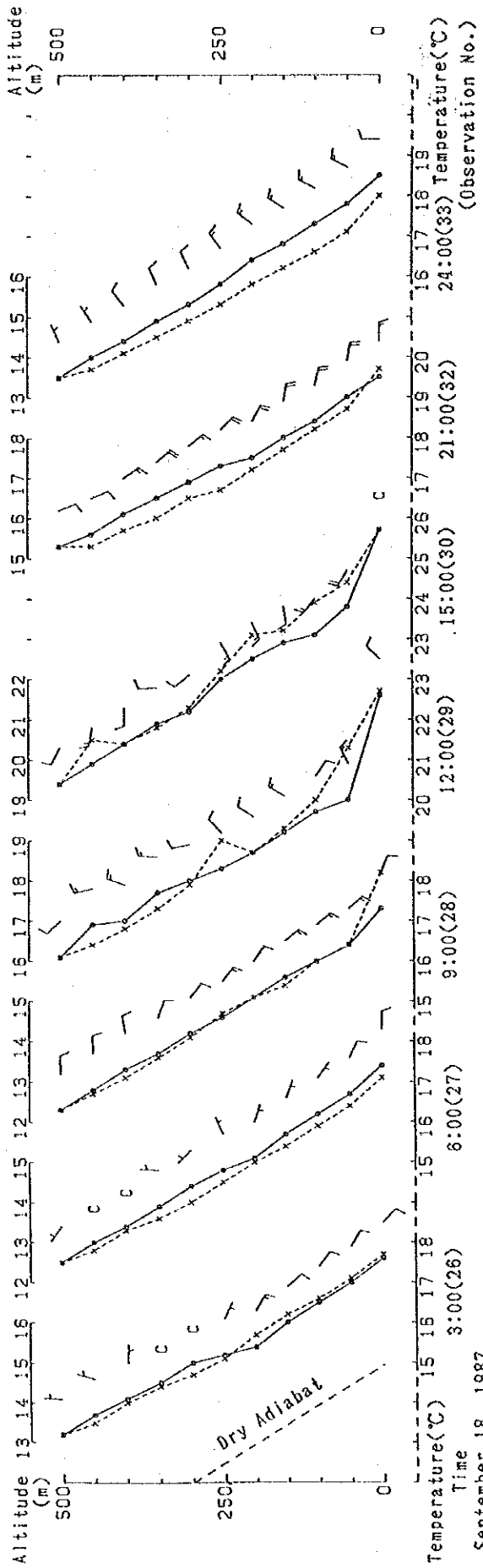




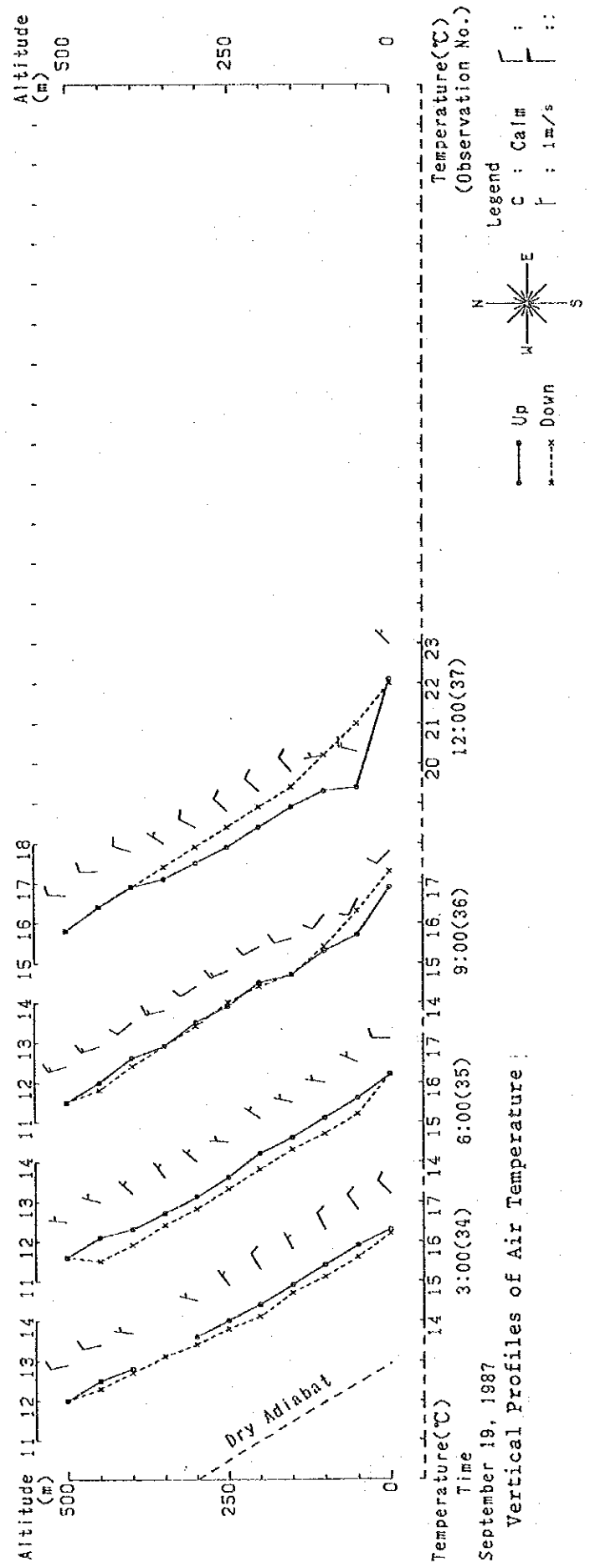
AP-97



Vertical Profiles of Air Temperature



AP-98





AP-99

Altitude (m) 7 8 9 10

Altitude (m) 500 250 0

Temperature (°C) 10 11 12 13

Temperature (°C) 500 250 0

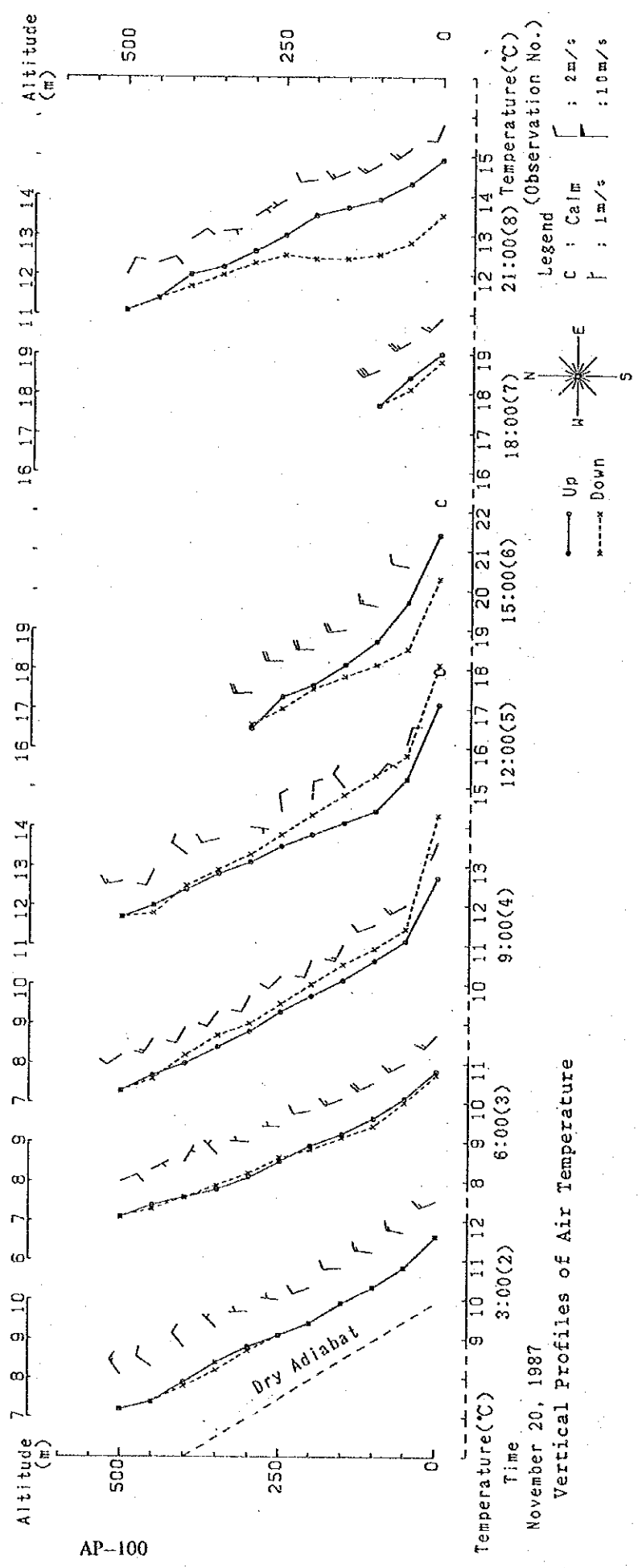
Temperature (°C) 10 11 12 13

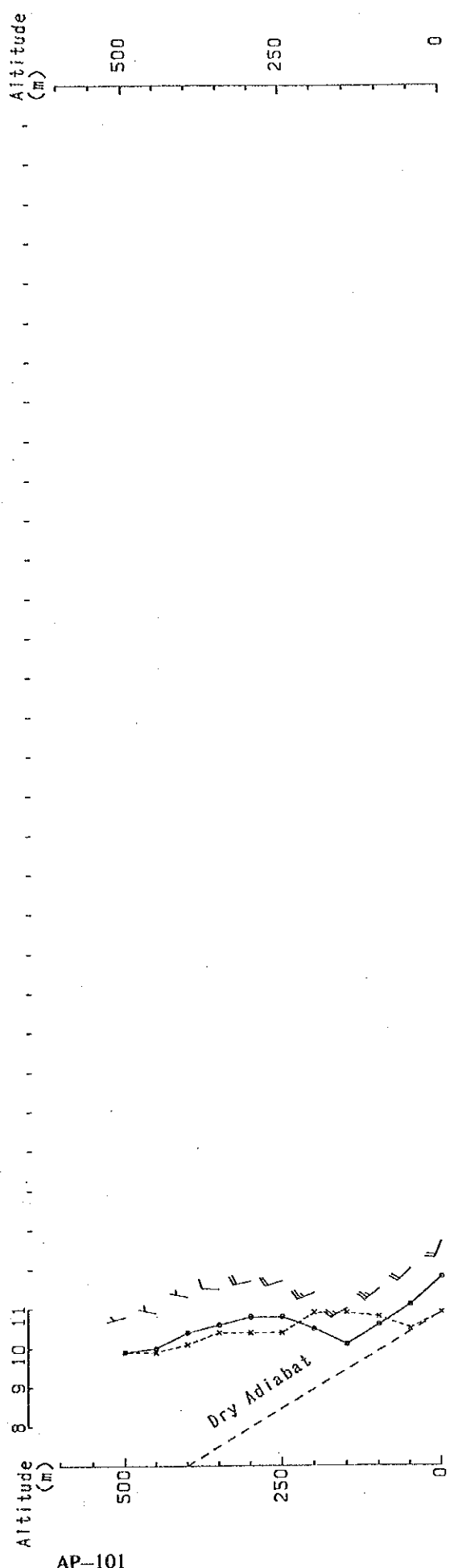
Time November 19, 1987 24:00(1)

Vertical Profiles of Air Temperature

Legend
 Up : Solid line
 Down : Dashed line
 C : Calm
 F : 1m/s
 F : 10m/s

Compass Rose: N, S, E, W





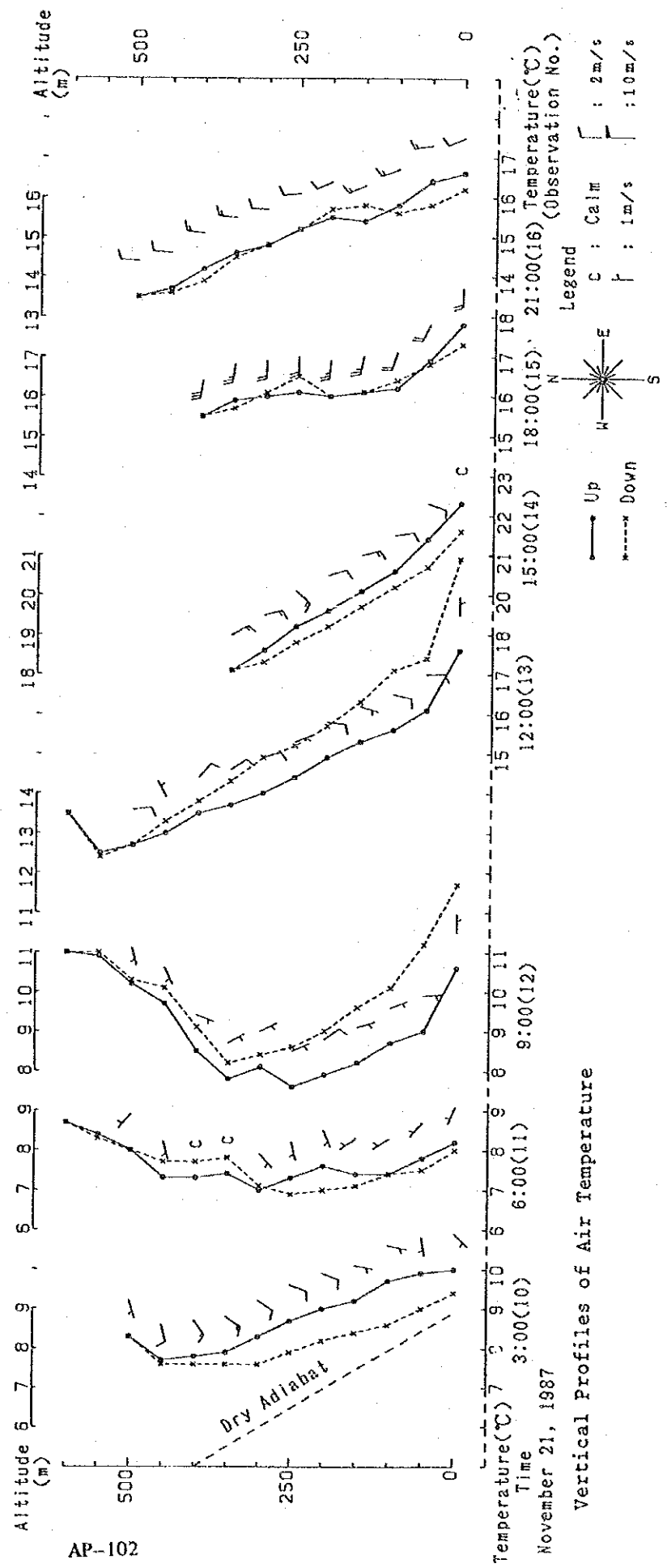
AP-101

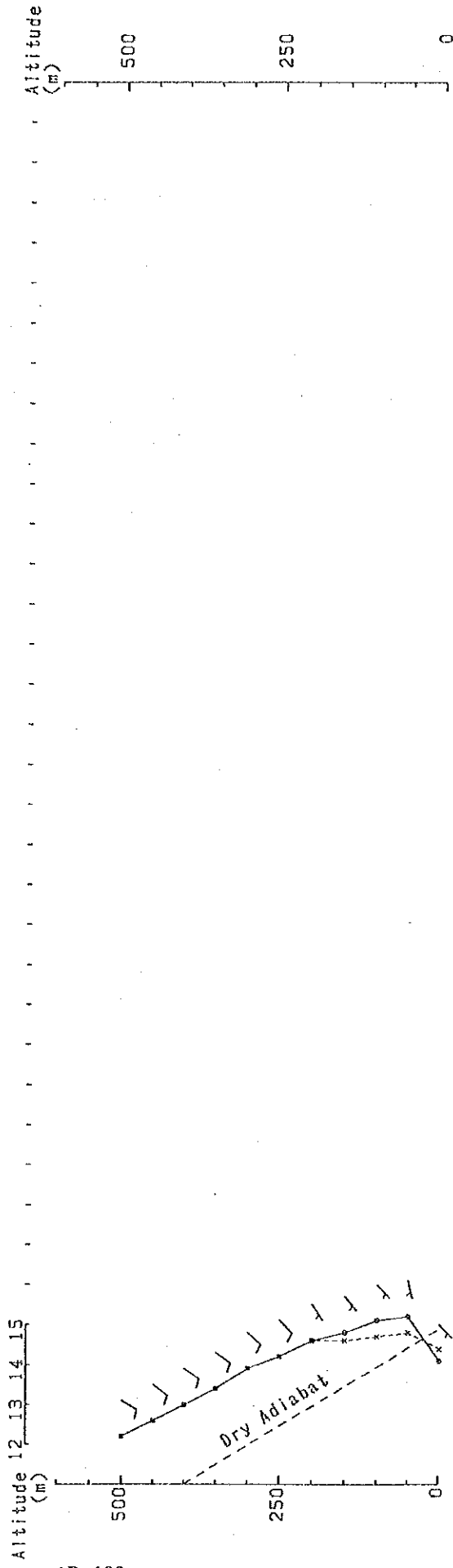
Temperature (C) 8 9 10 11 12
 Time 24:00(9)
 November 20, 1987

Vertical Profiles of Air Temperature

Legend

- Up
- - - x - - - Down
- Compass rose: N, E, S, W
- C : Calm
- | : 1m/s
- | : 2m/s
- | : 10m/s





AP-103

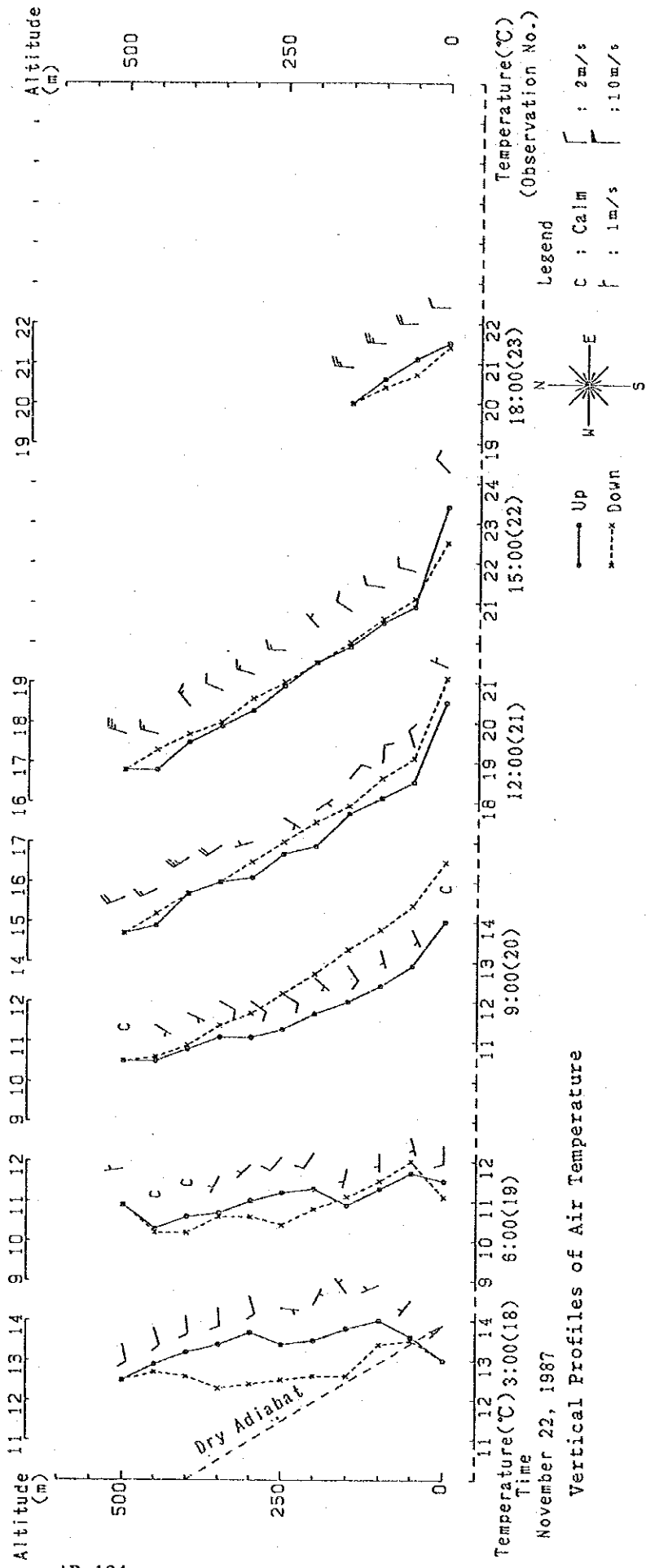
Temperature (C) 13 14 15 16
 Time 24:00(17)
 November 21, 1987

Vertical Profiles of Air Temperature

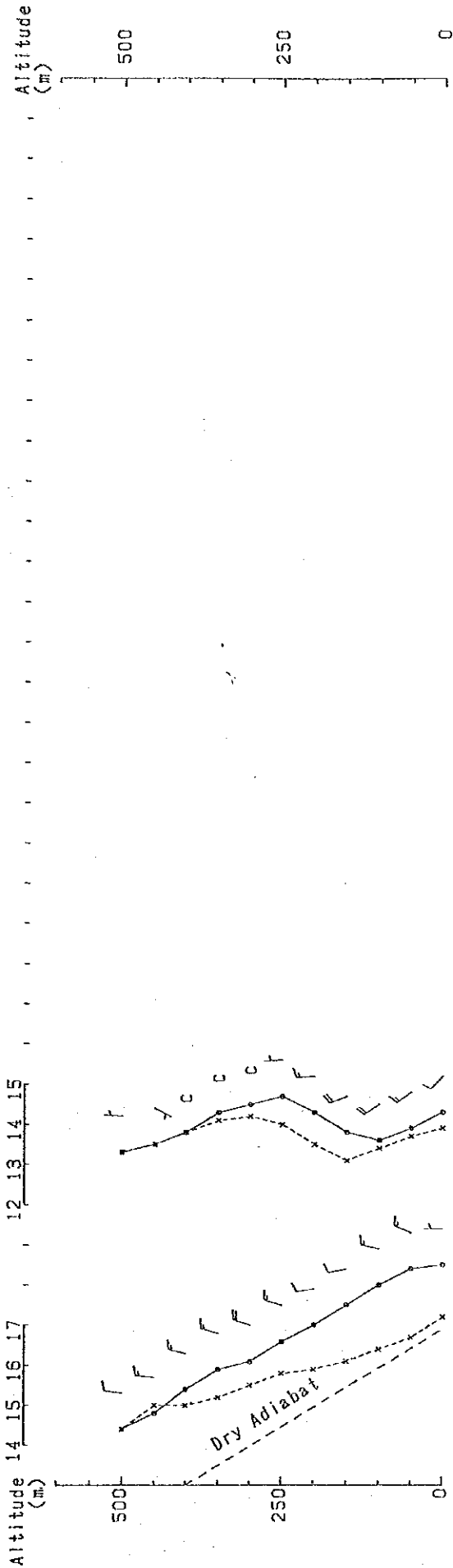
Temperature (C)
 (Observation No.)

Legend

Up C : Calm
 Down F : 1m/s
 E : 2m/s
 S : 10m/s



AP-104



AP-105

Temperature(°C) 16 17 18 19 12 13 14 15
 Time 21:00(24) 24:00(25)
 November 22, 1987

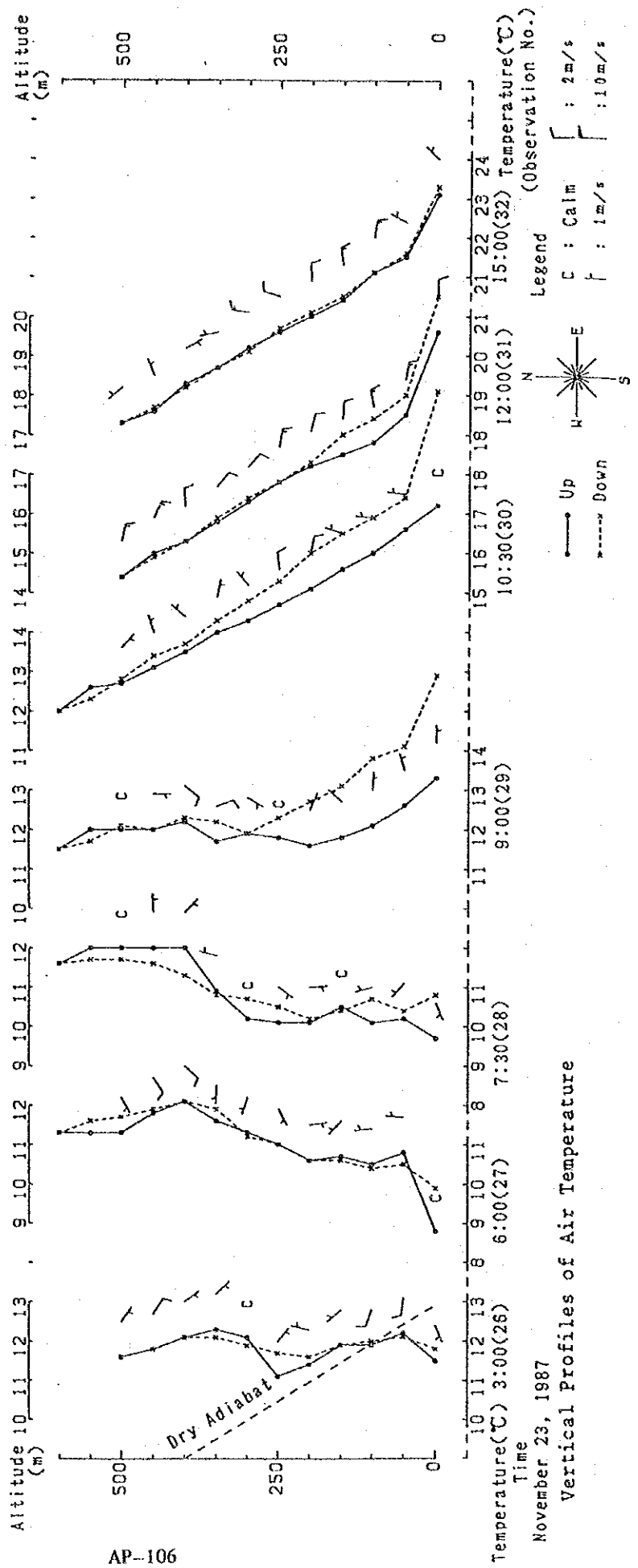
Vertical Profiles of Air Temperature

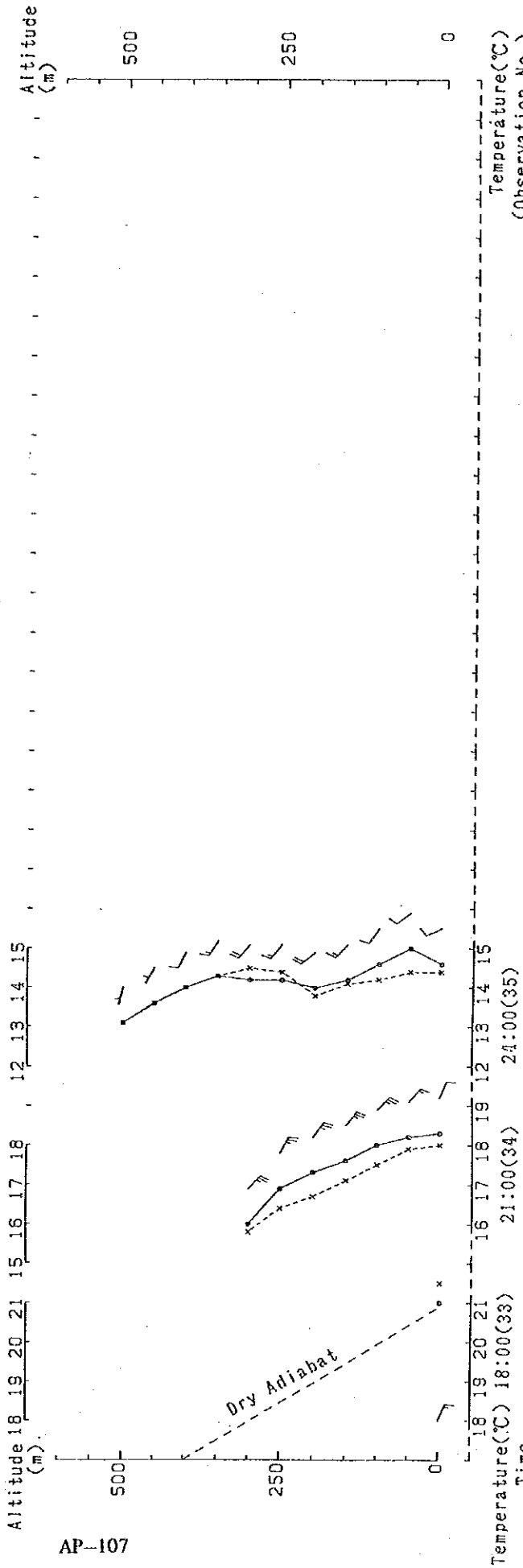
Temperature(°C)
(Observation No.)

Legend

C : Calm : 2m/s
 F : 1m/s : 10m/s

Up
 Down

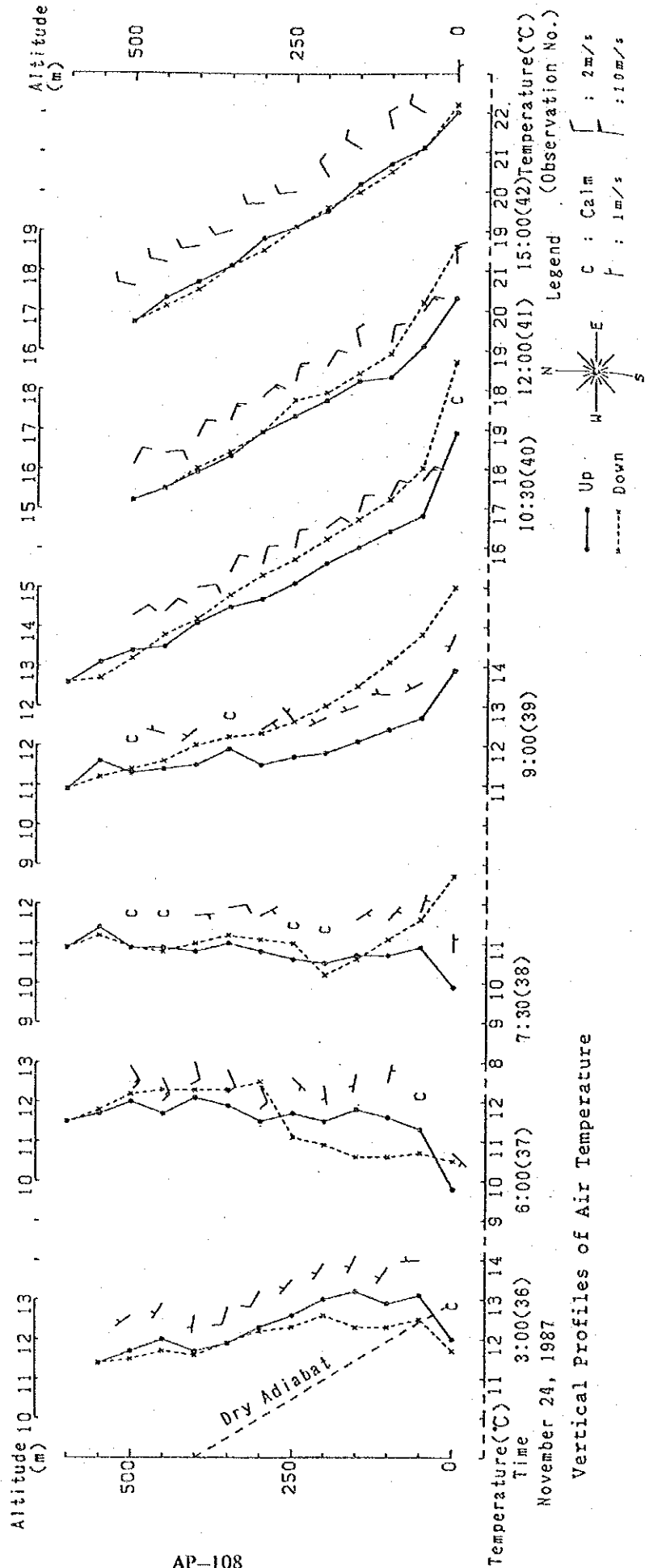


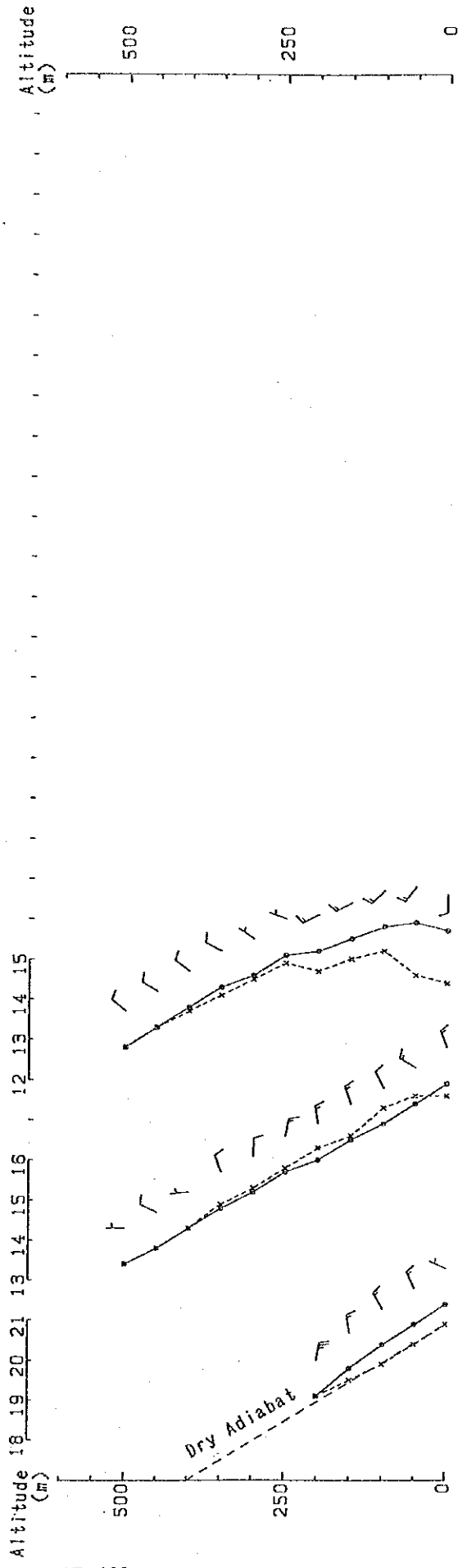


AP-107

November 23, 1987

Vertical Profiles of Air Temperature





AP-109

Temperature(°C) 19 20 21 22 15 16 17 18 13 14 15 16
 Time 18:00(43) 21:00(44) 24:00(45)
 November 24, 1987

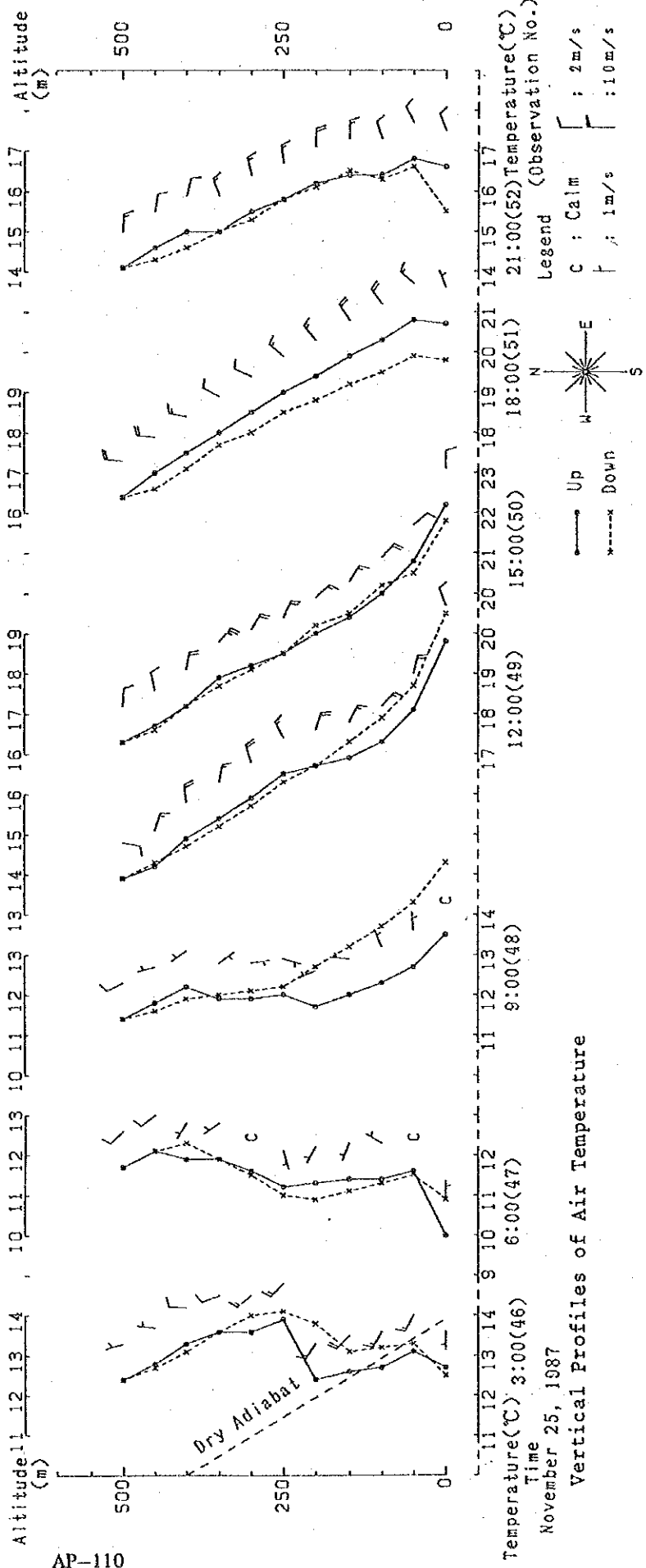
Vertical Profiles of Air Temperature

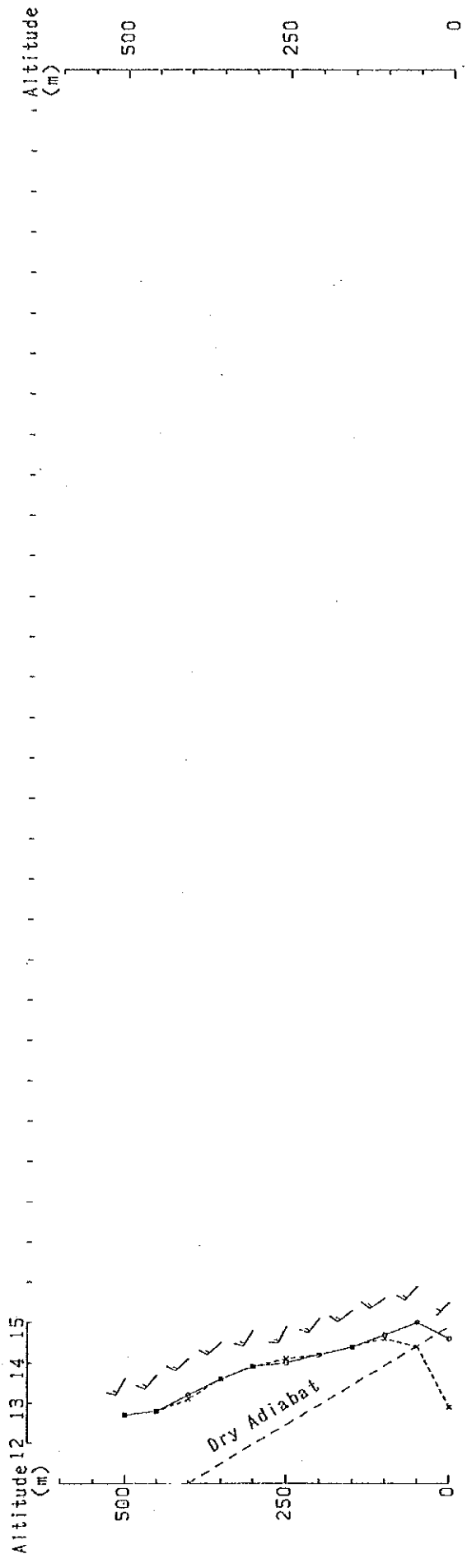
Temperature(°C)
 (Observation No.)

Legend

Up Down

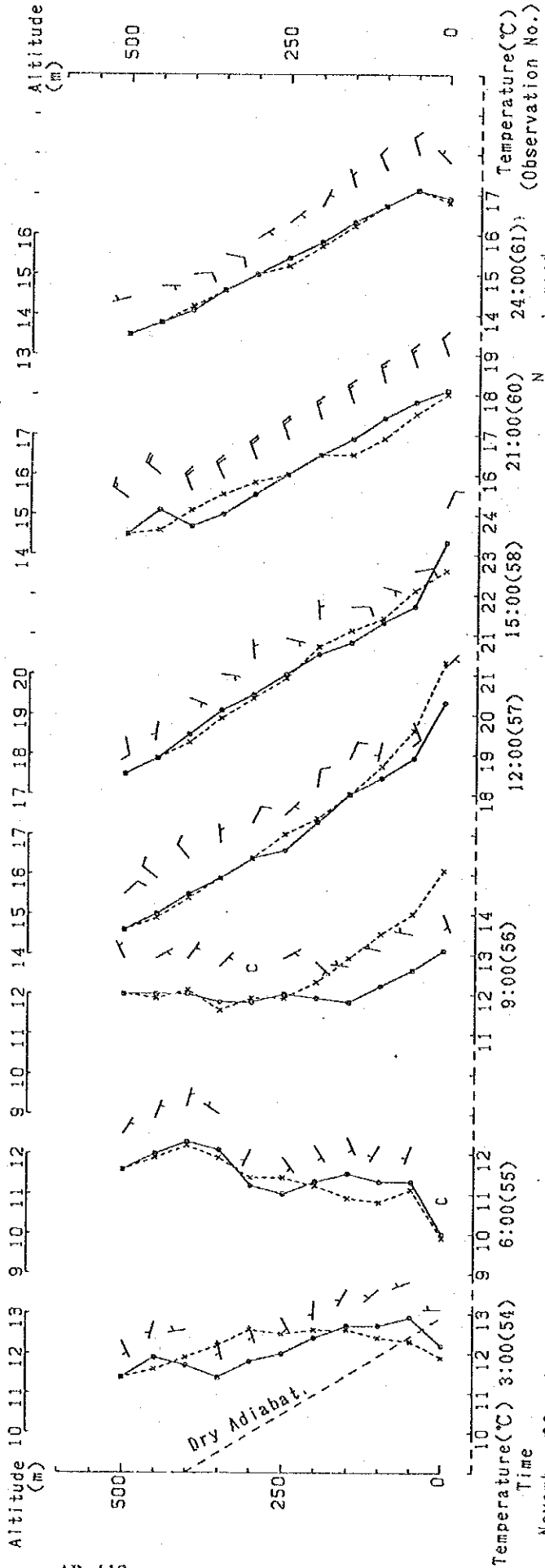
C : Calm : 2m/s
 F : 1m/s : 10m/s





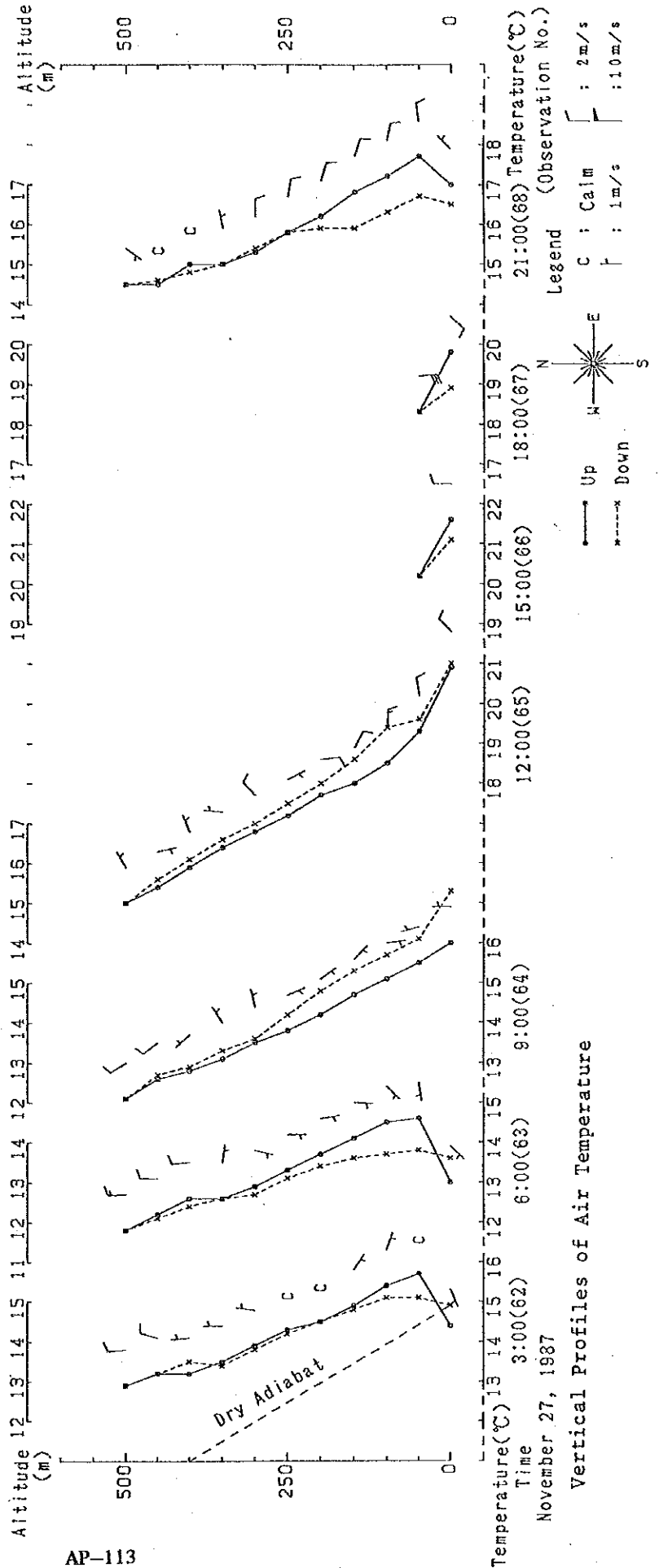
Temperature(°C) 24:00(53)
 Time
 November 25, 1987

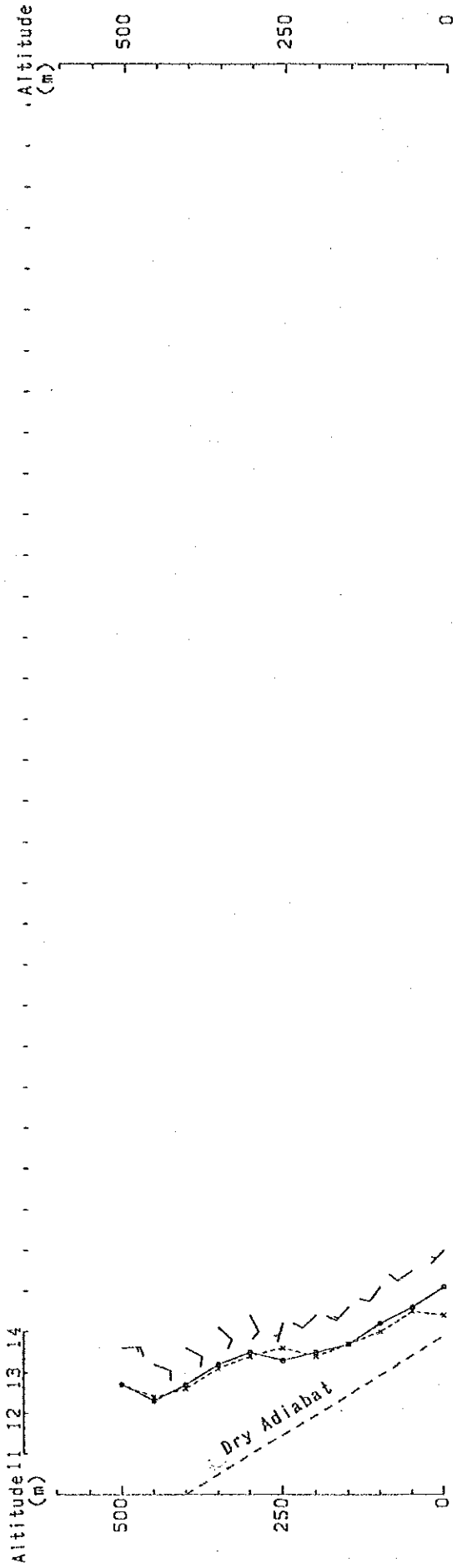
Vertical Profiles of Air Temperature



November 26, 1987

Vertical Profiles of Air Temperature



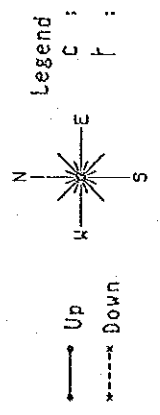


AP-114

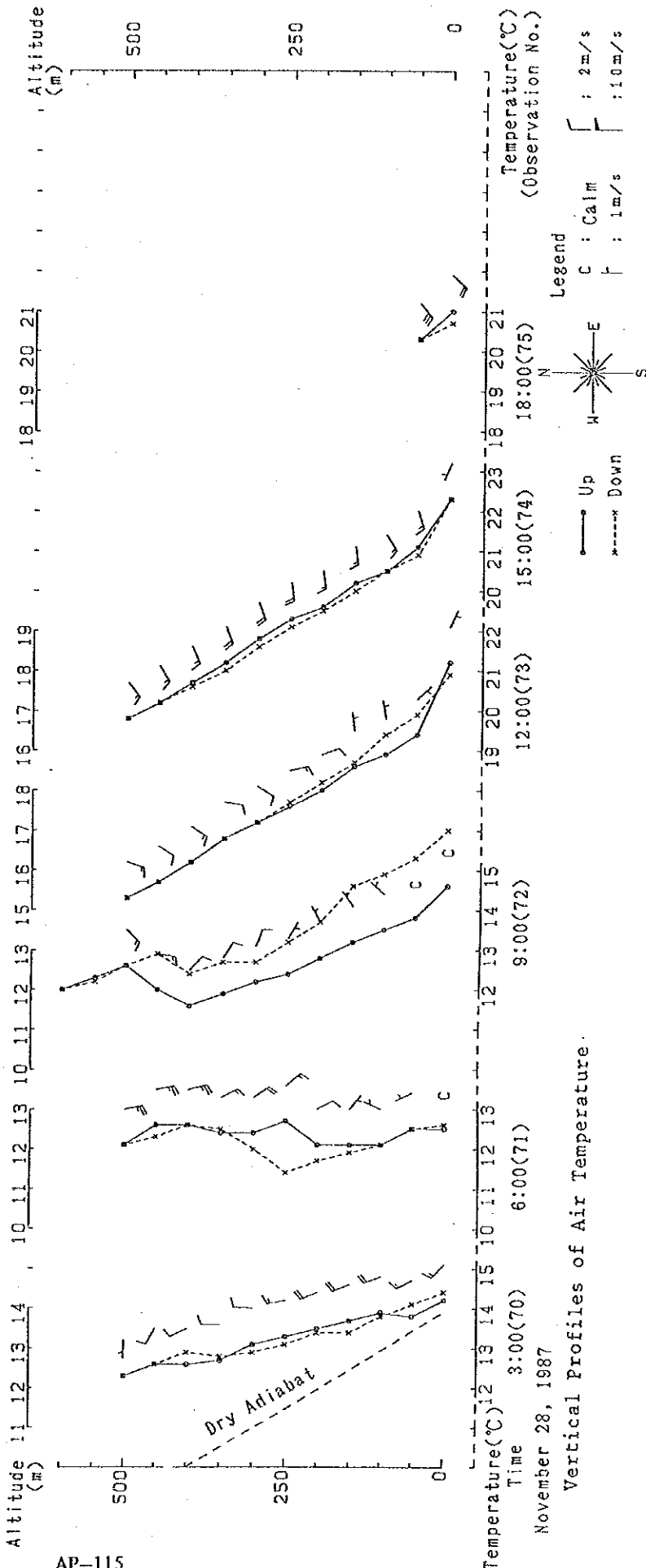
Temperature(°C) 13 14 15 16
 Time 24:00(69)
 November 27, 1987

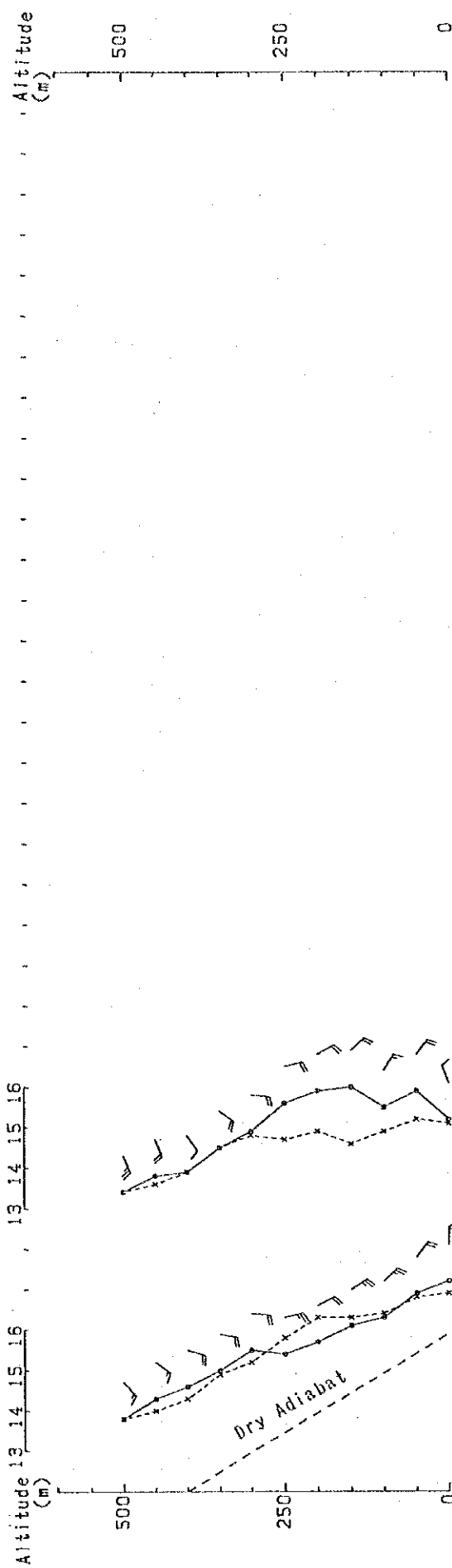
Vertical Profiles of Air Temperature

Temperature(°C)
 (Observation No.)



Legend
 C : Calm
 F : 1m/s
 F : 2m/s
 F : 10m/s





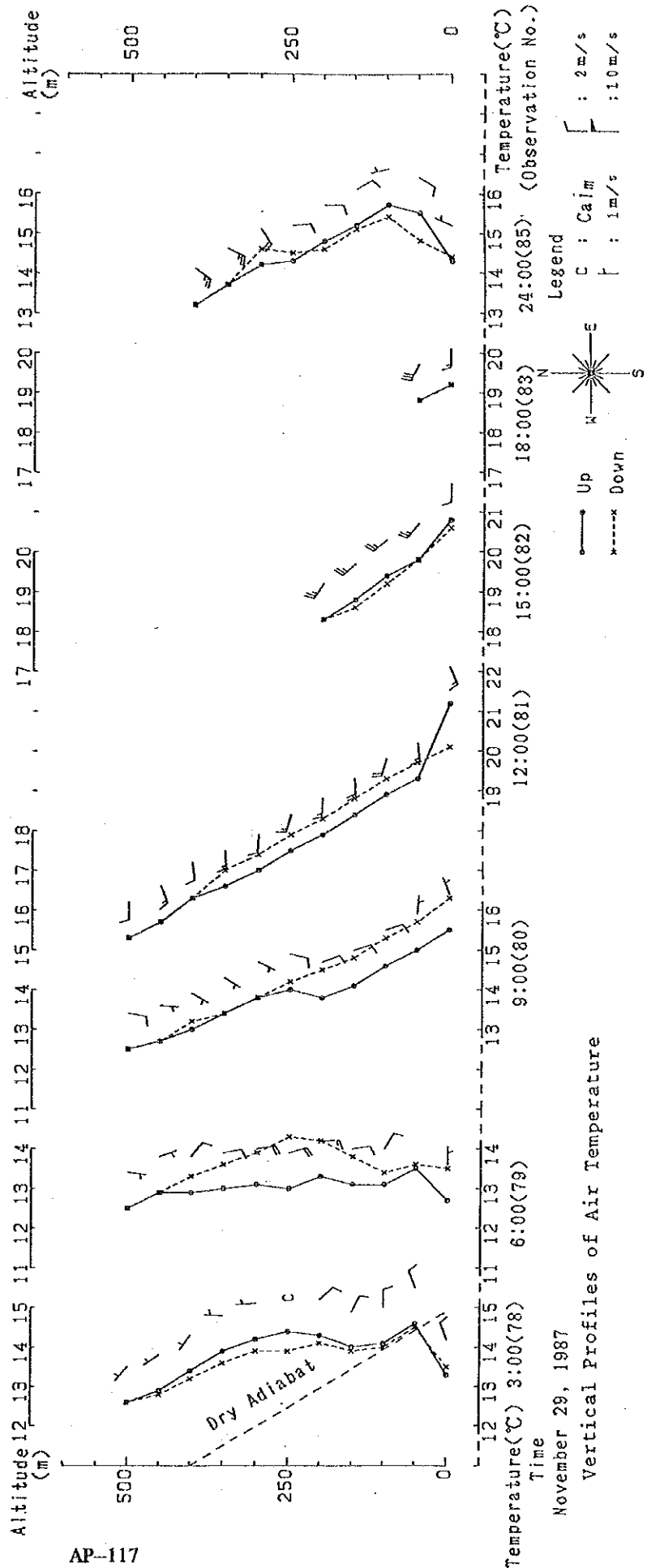
AP-116

Temperature (C) 15 16 17 18 13 14 15 16

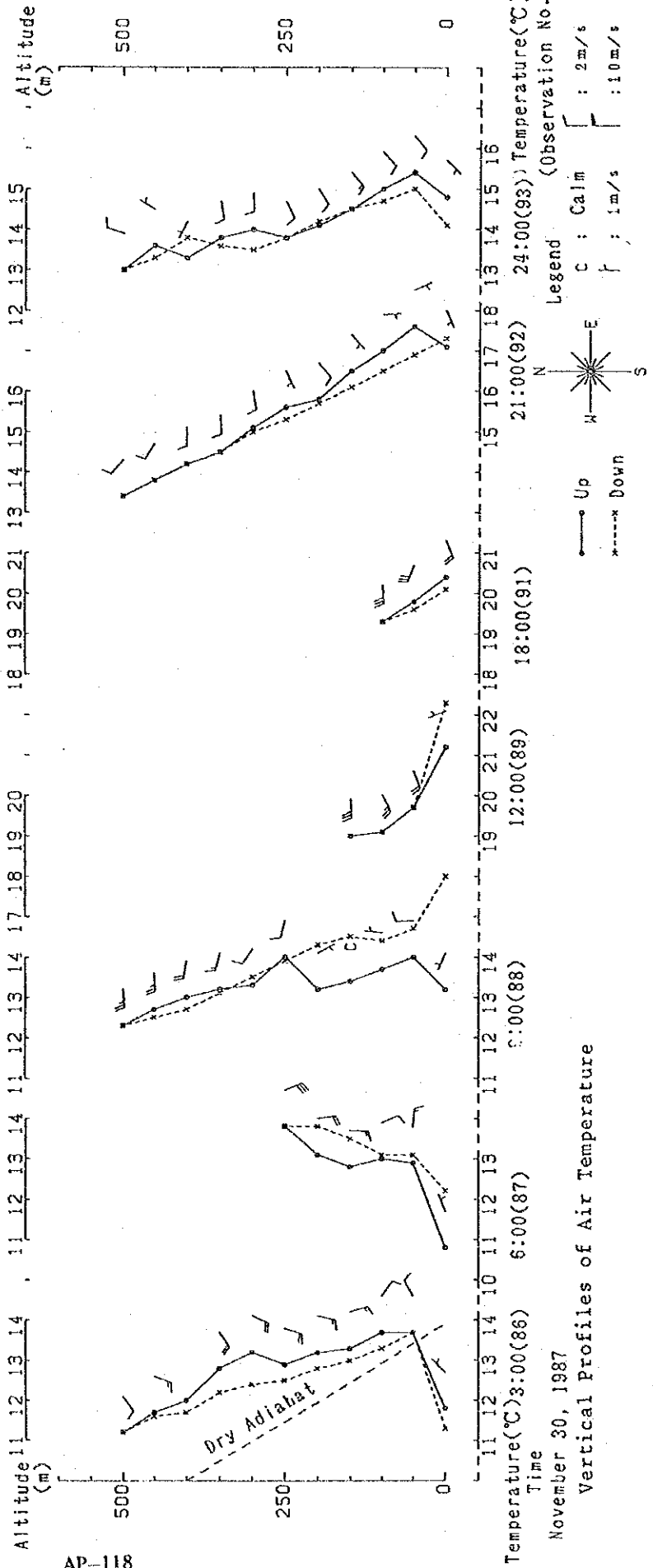
Time 21:00(76) 24:00(77)

November 28, 1987

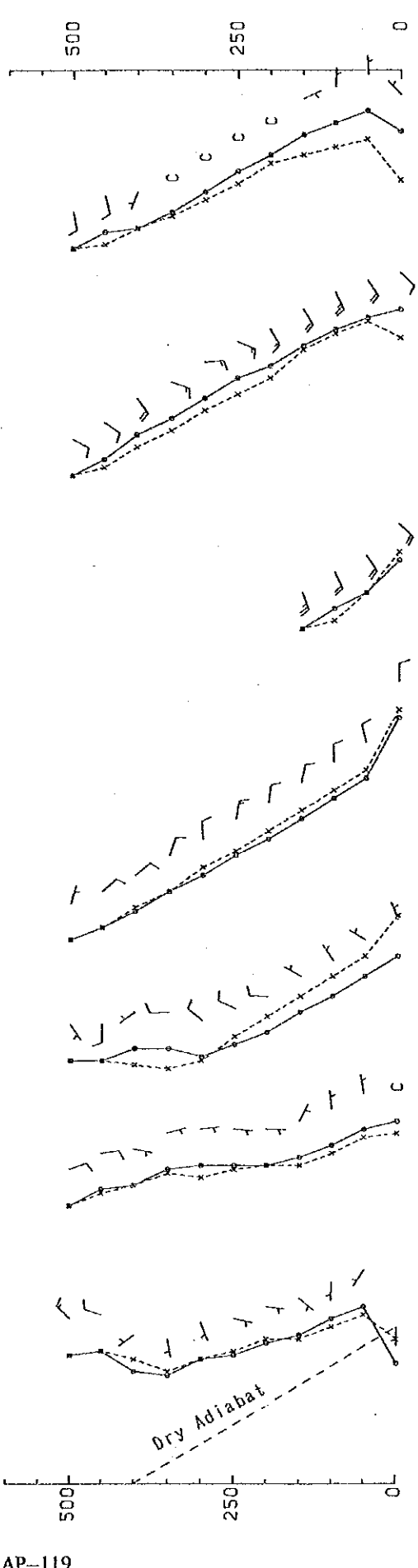
Vertical Profiles of Air Temperature



AP-117



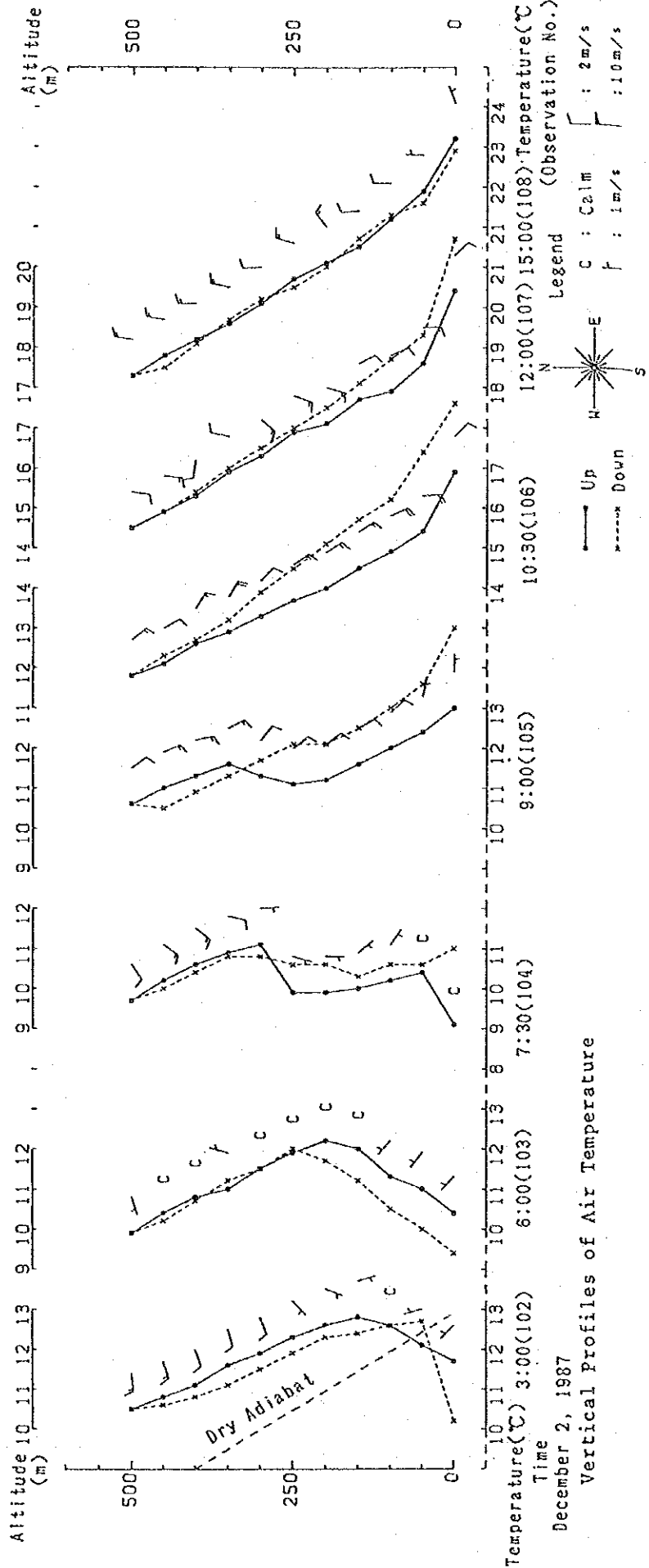
Altitude (m) 10 11 12 13 9 10 11 12 10 11 12 13 12 13 14 15 18 19 20 21 12 13 14 15 15 16 17 18 12 13 14 15

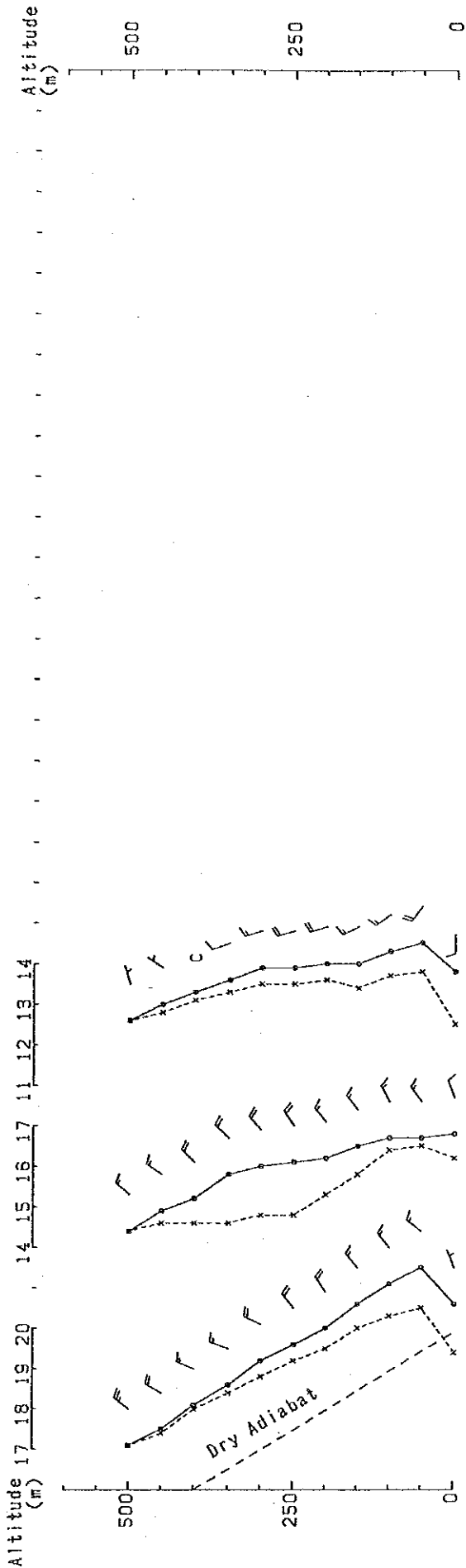


AP-119

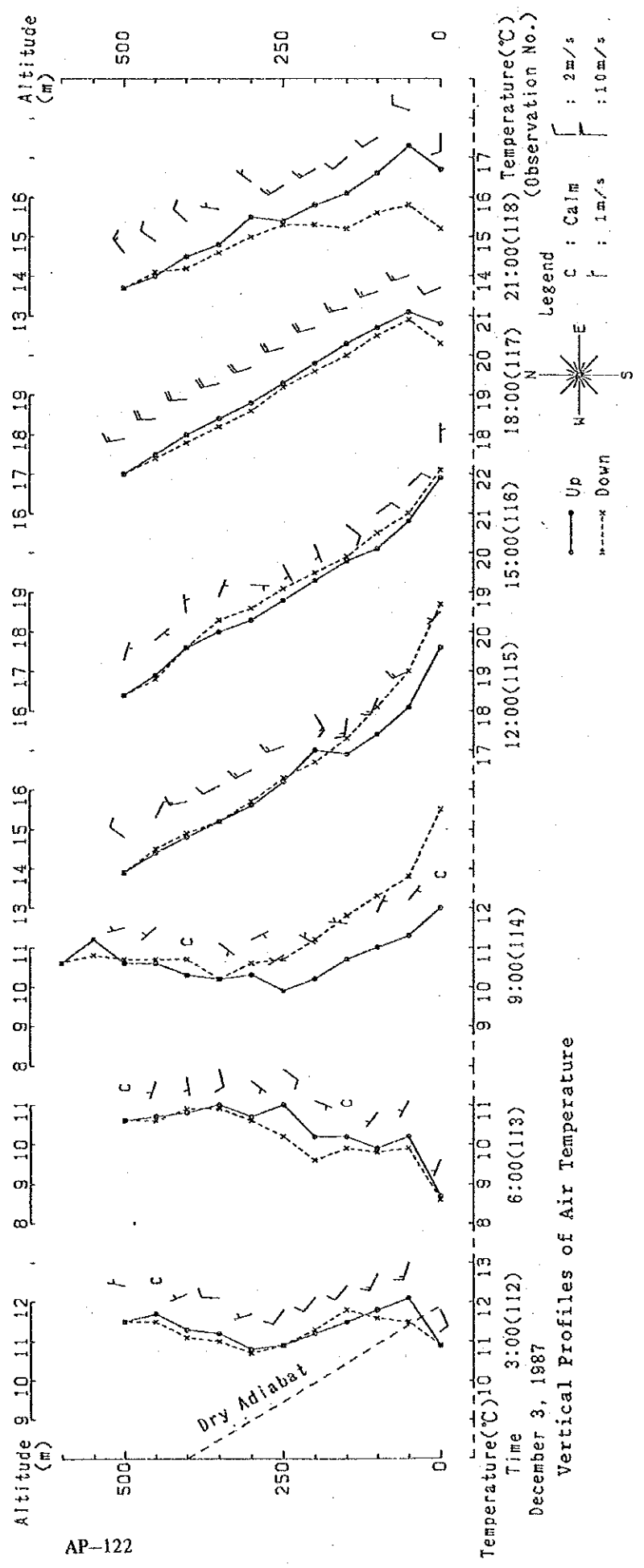
Temperature(°C) 11 12 13 14 10 11 12 13 12 13 14 15 15 16 17 18 12 13 14 15
 Time 3:00(94) 6:00(95) 9:00(96) 12:00(97) 15:00(98) 21:00(100) 24:00(101)
 December 1, 1987

Vertical Profiles of Air Temperature
 Legend (Observation No.)
 Up Down
 C : Calm
 1m/s 2m/s 10m/s





AP-122



Vertical Profiles of Air Temperature

December 3, 1987

Temperature(°C) 10 11 12 13 14 15 16 17 18 19

Time 3:00(112) 6:00(113) 9:00(114) 12:00(115) 15:00(116) 18:00(117) 21:00(118) 21:00(119)

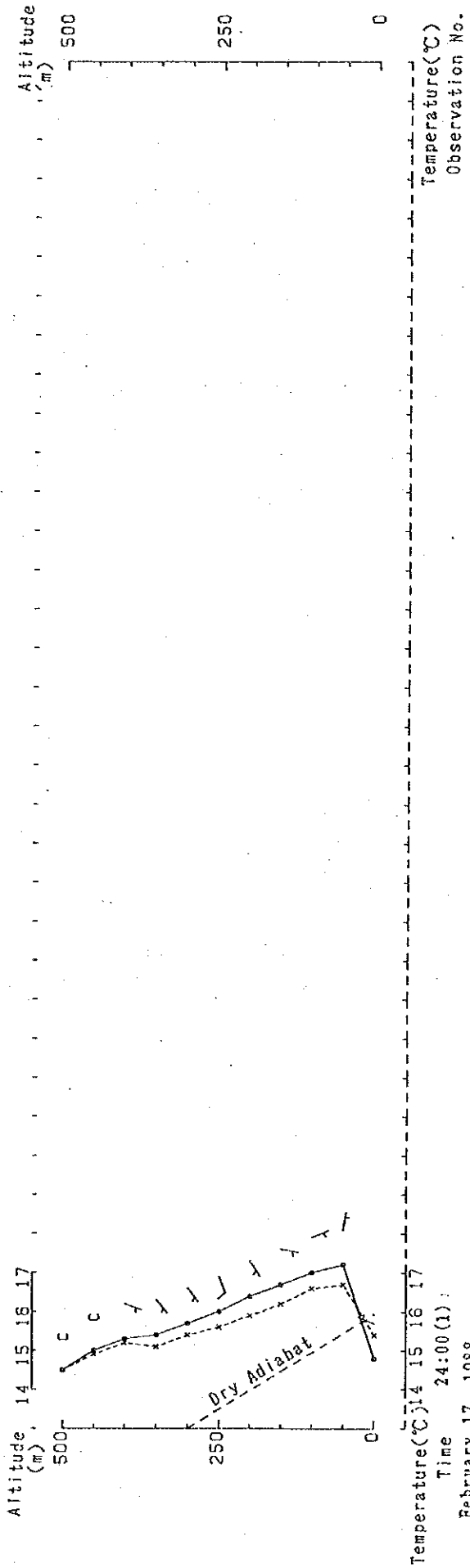
Temperature(°C) (Observation No.)

Altitude (m) 500 250 0

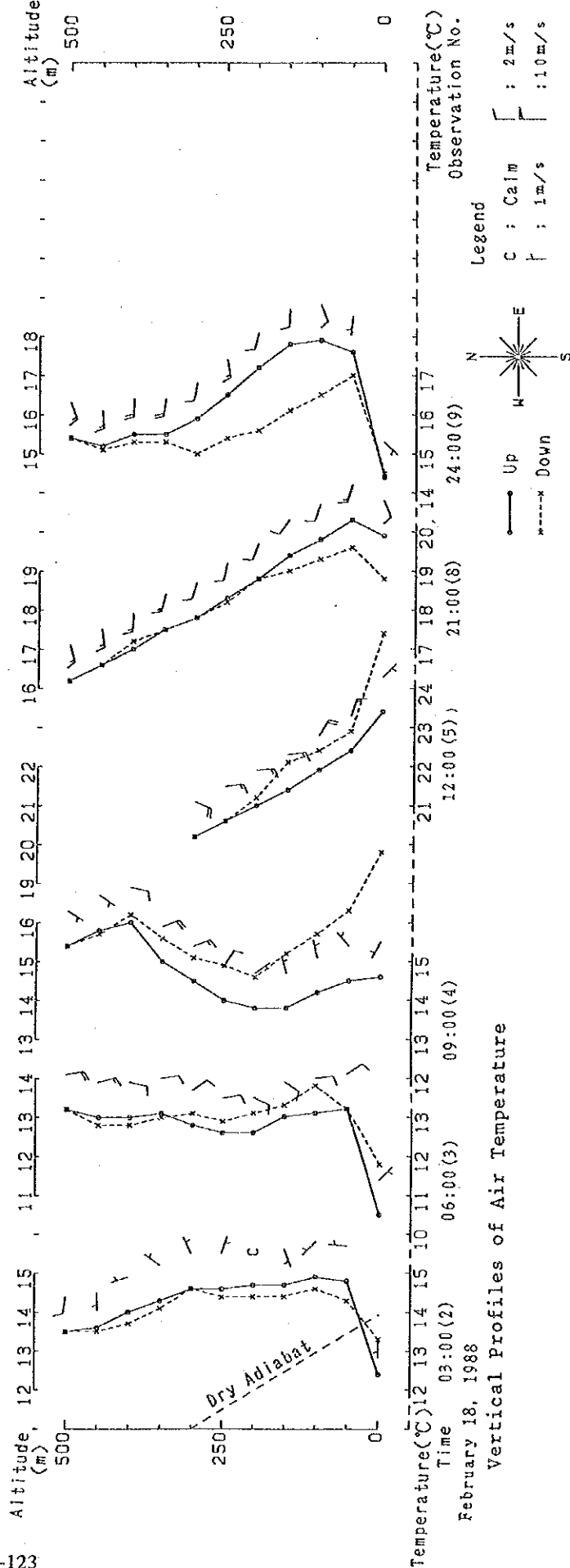
Altitude (m) 500 250 0

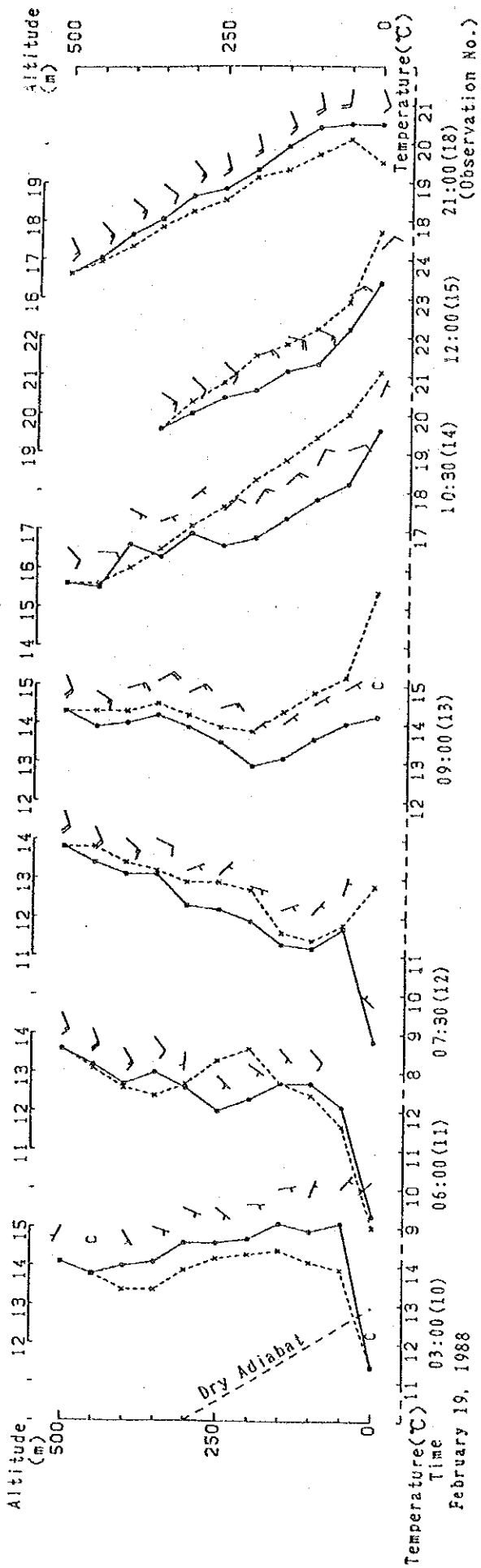
Legend

○ Up : 2m/s
 × Down : 10m/s
 | C : Calm
 Legend
 N E S W
 : 1m/s

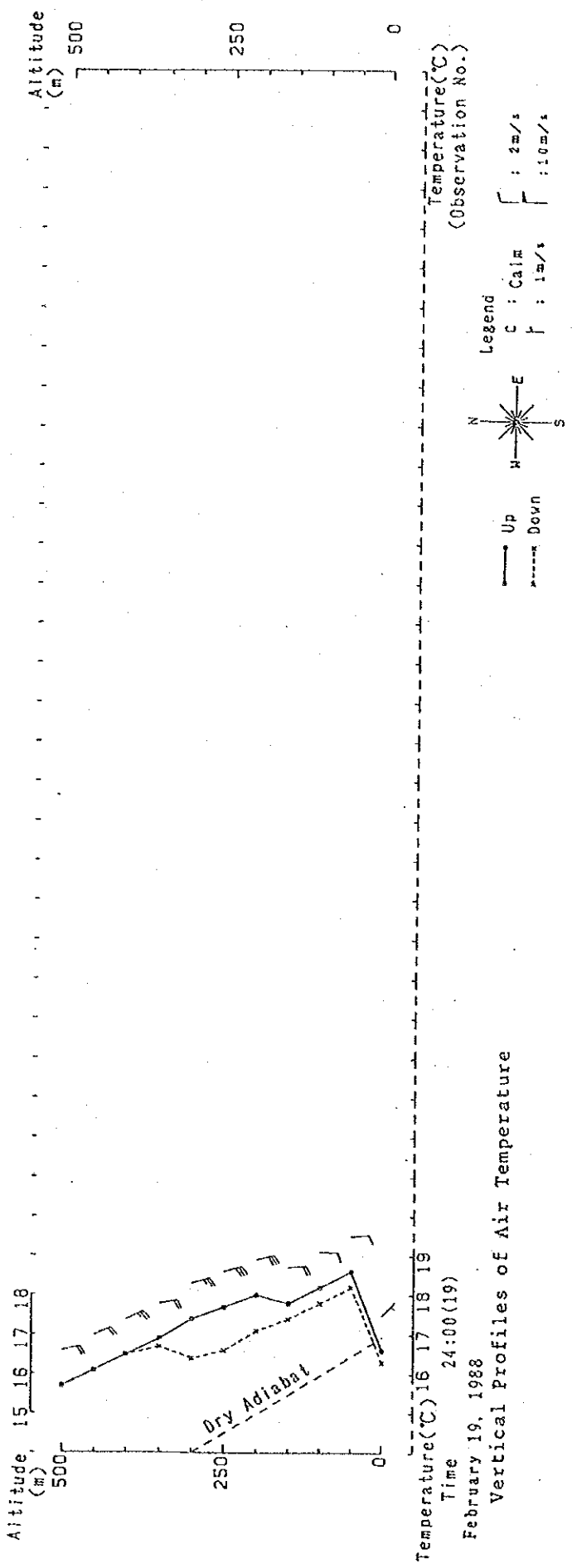


AP-123

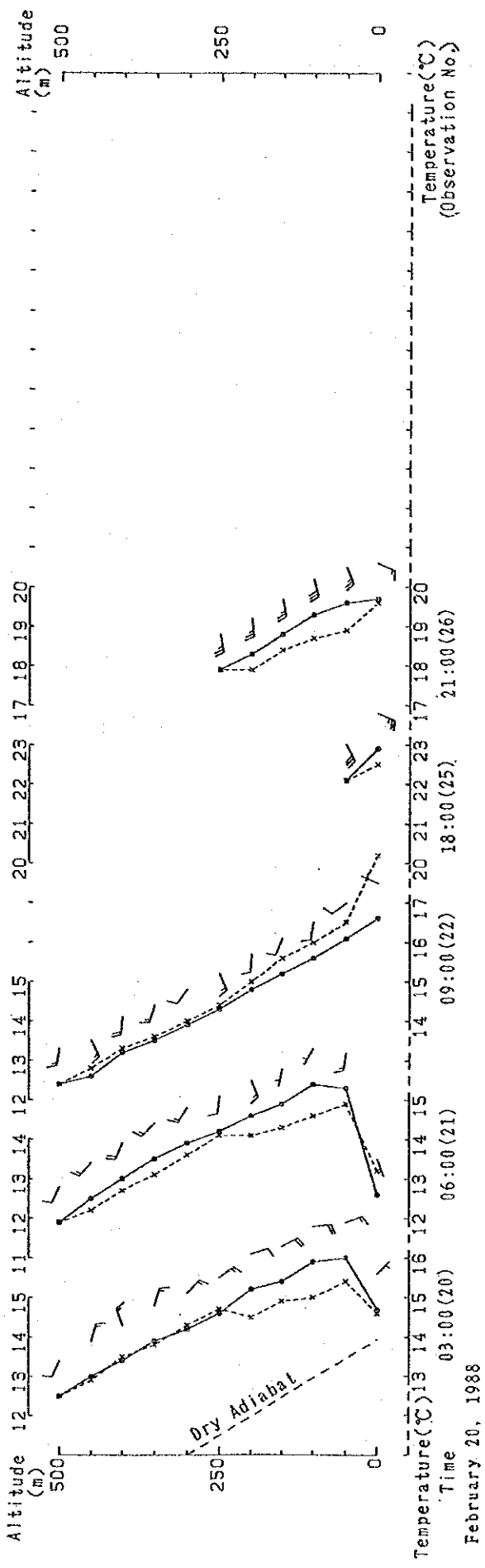




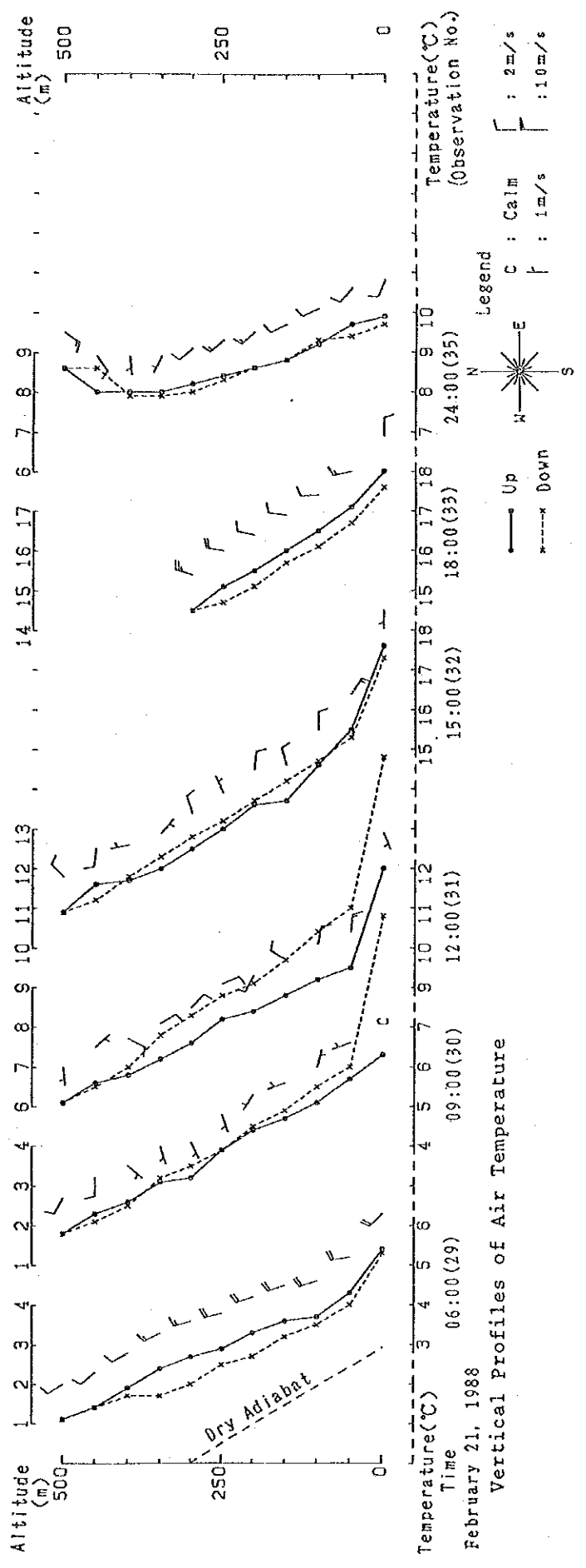
AP-124

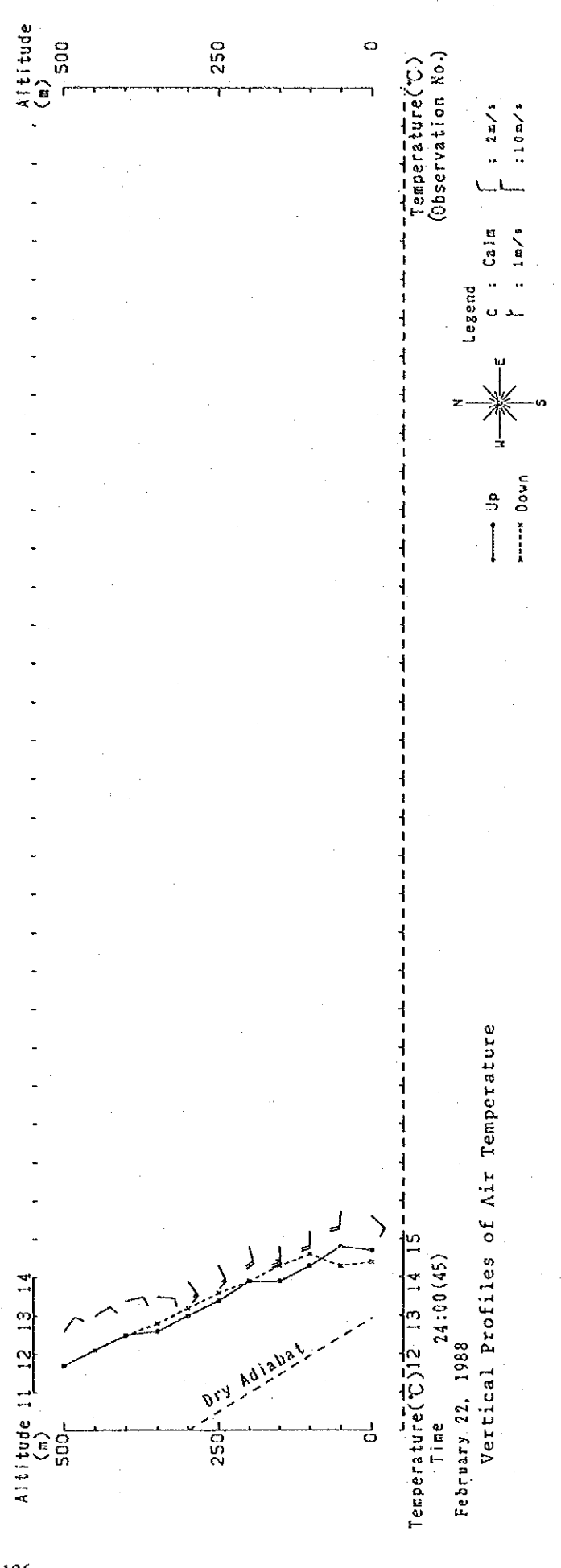
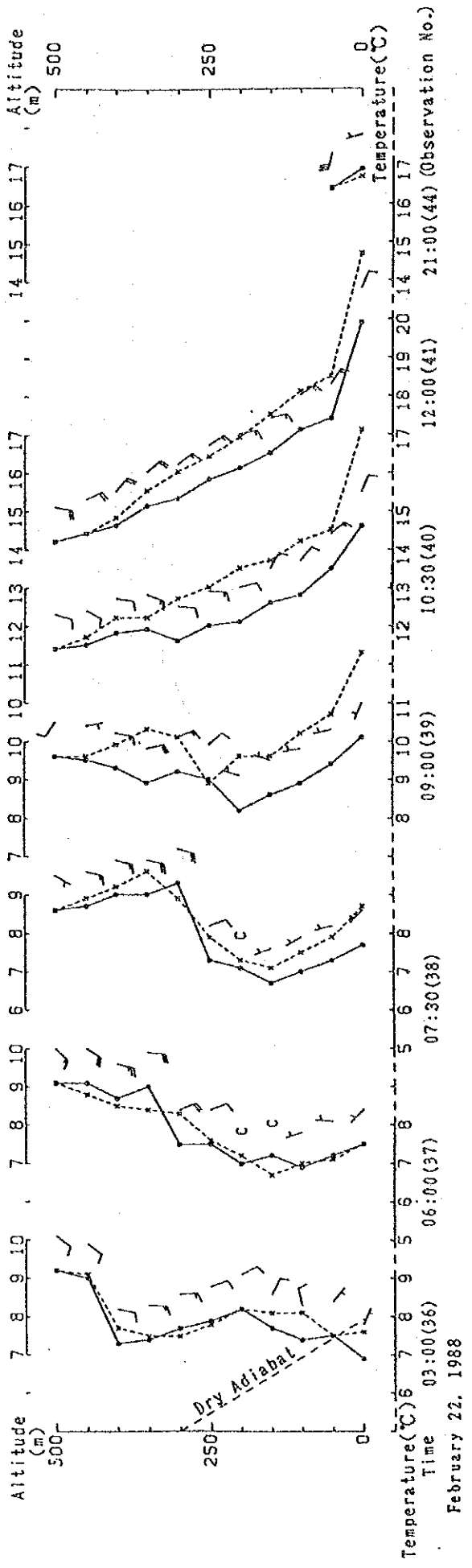


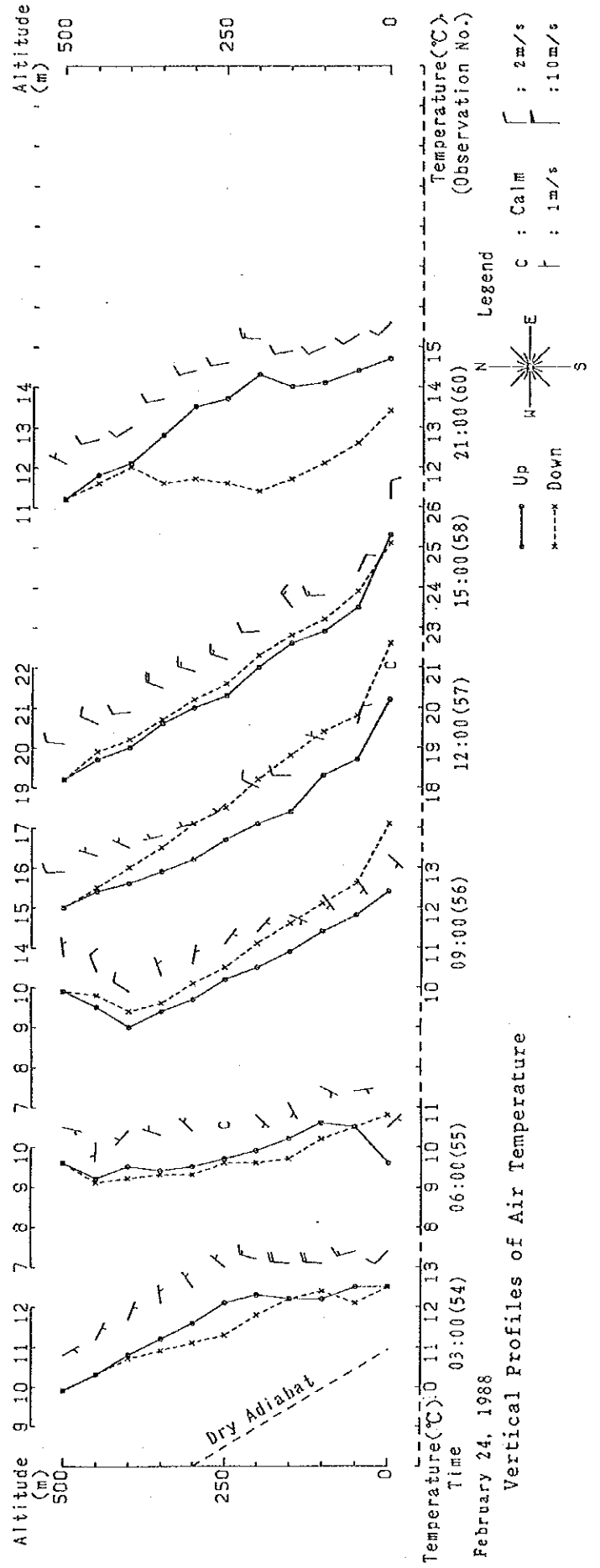
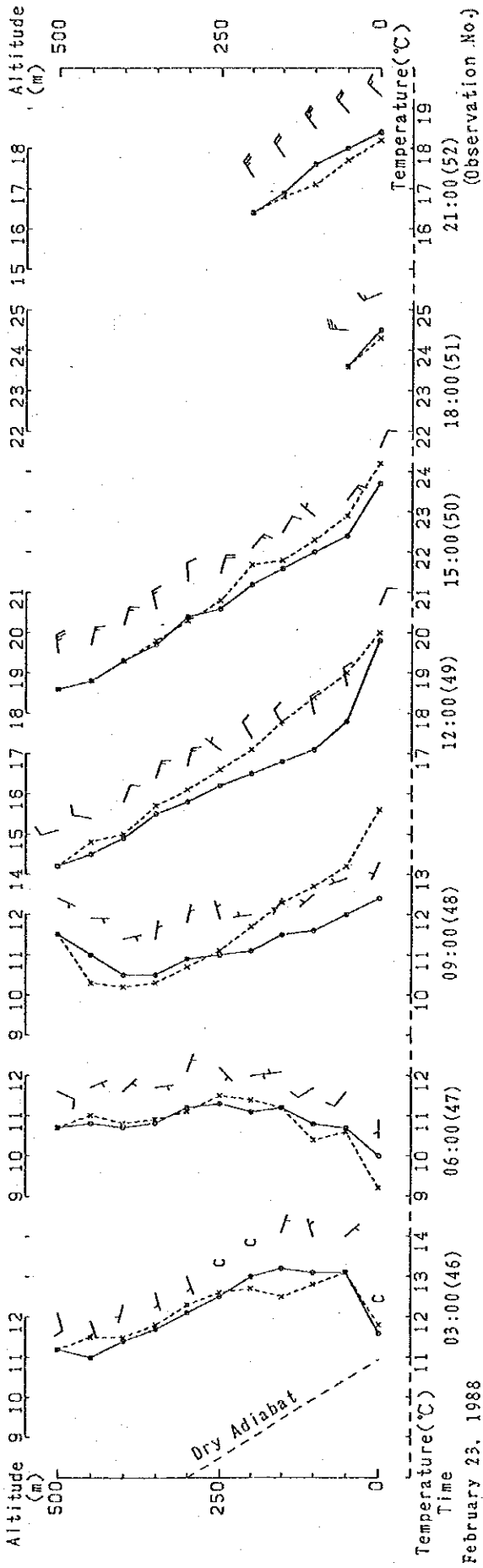
Vertical Profiles of Air Temperature

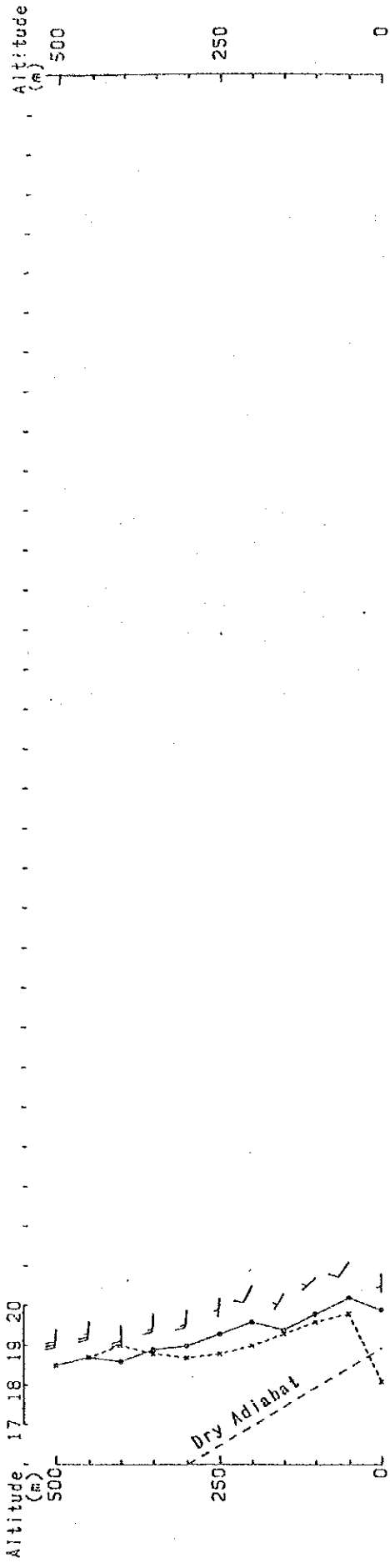


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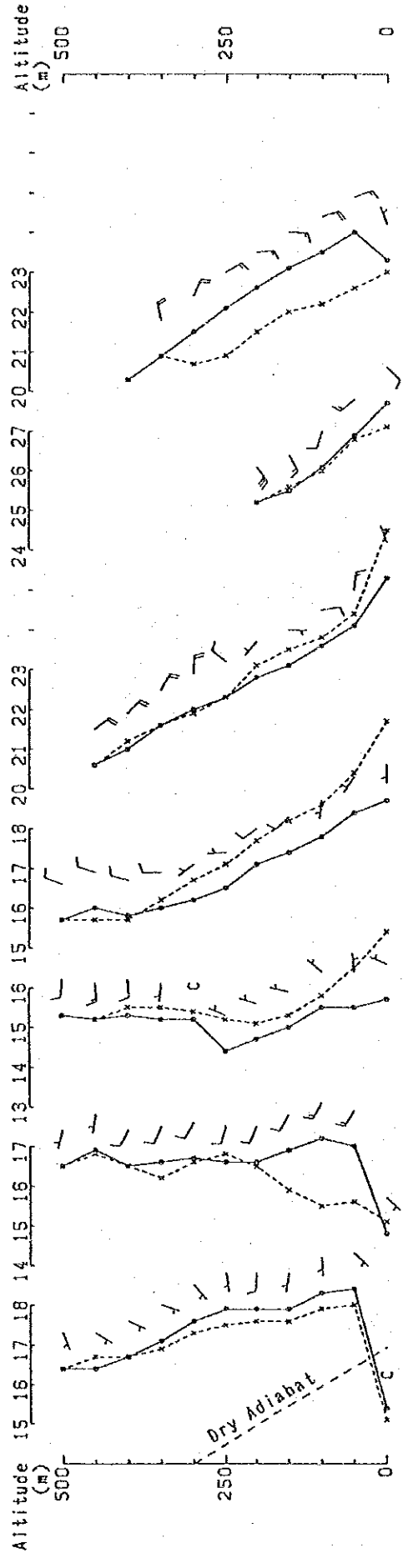






Temperature (°C) 18 19 20 21
 Time 24:00(1)
 May 20, 1988

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Temperature (°C) 15 16 17 18 19 20 21 22 23 24
 Time 03:00(2) 06:00(3) 07:30(4) 09:00(5) 12:00(6) 15:00(7) 21:00(9)

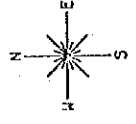
Vertical Profiles of Air Temperature

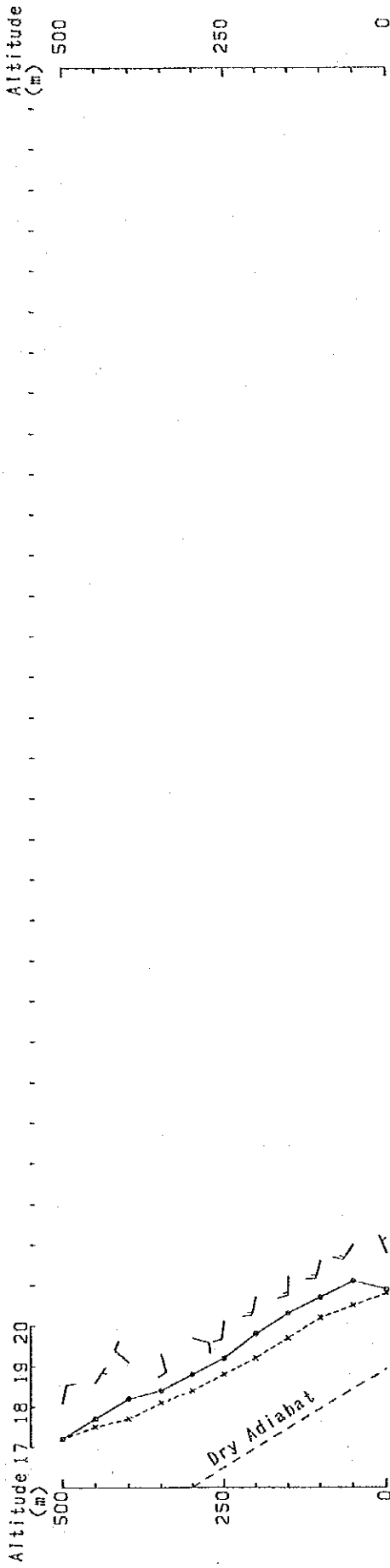
Legend

Up Down

C : Calm

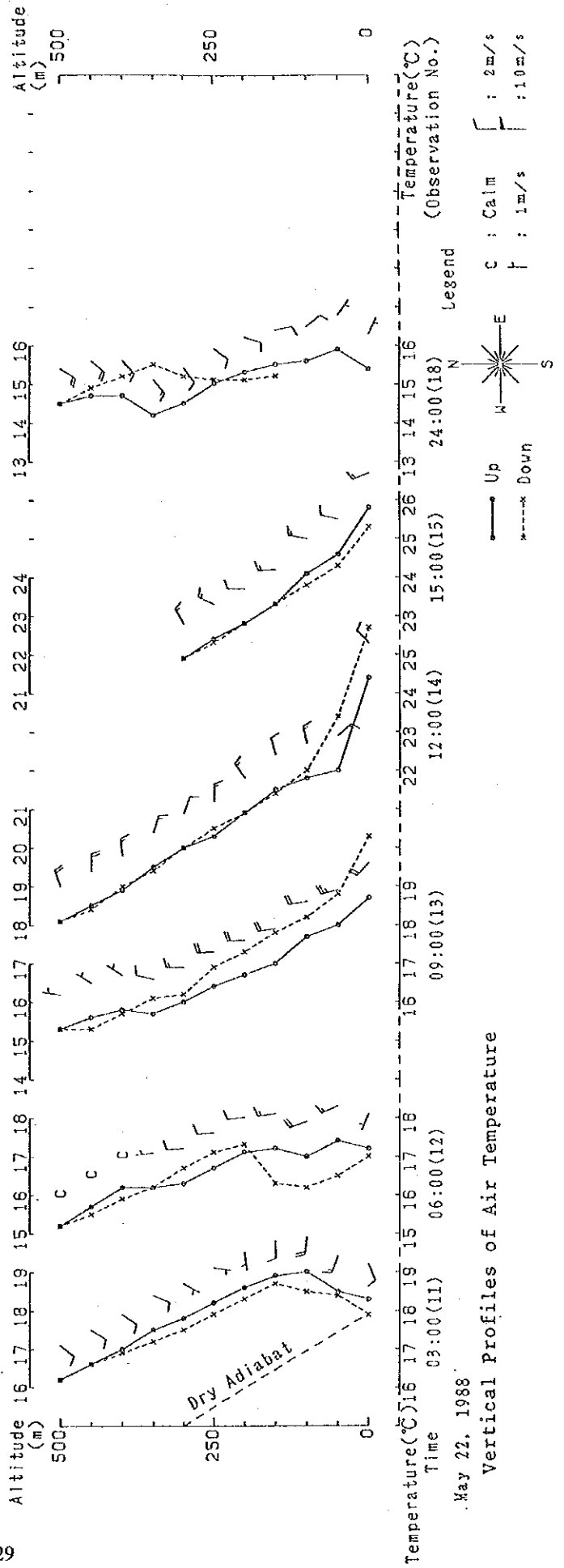
1m/s 2m/s 10m/s





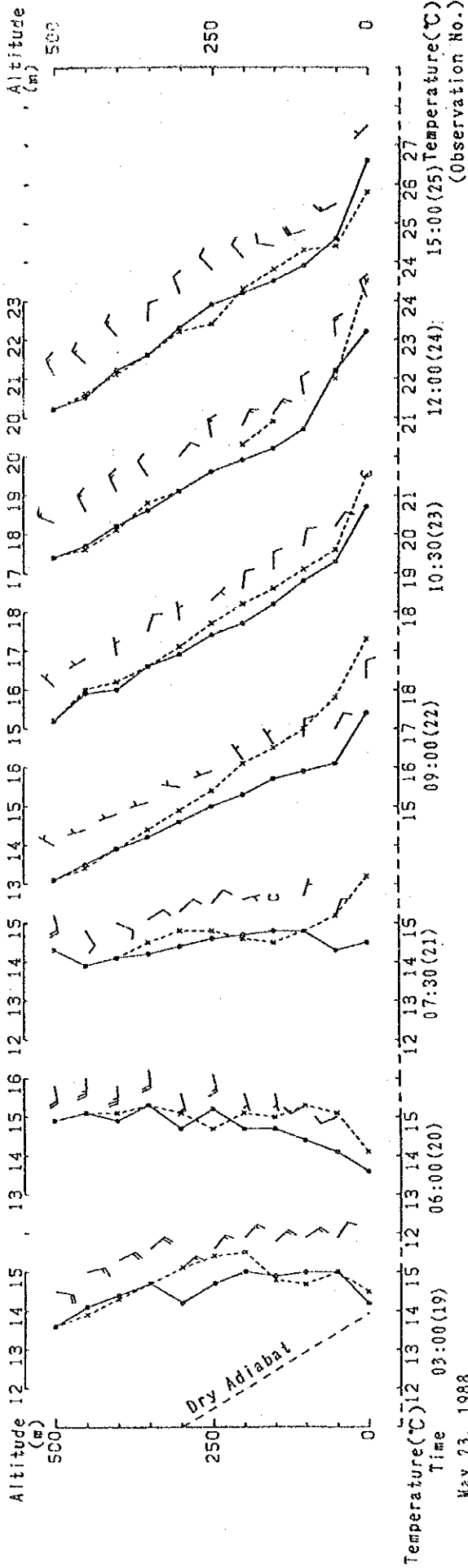
Temperature (°C) 18 19 20 21
Time 24:00 (10)
May 21, 1988

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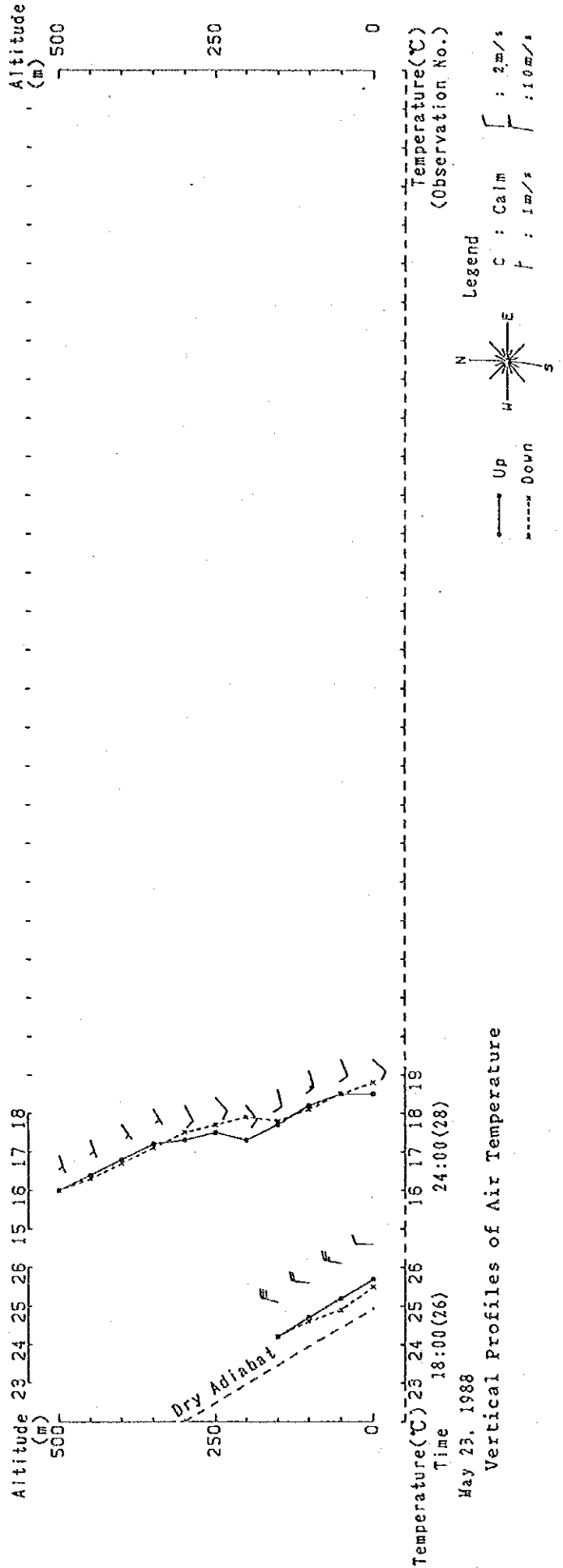


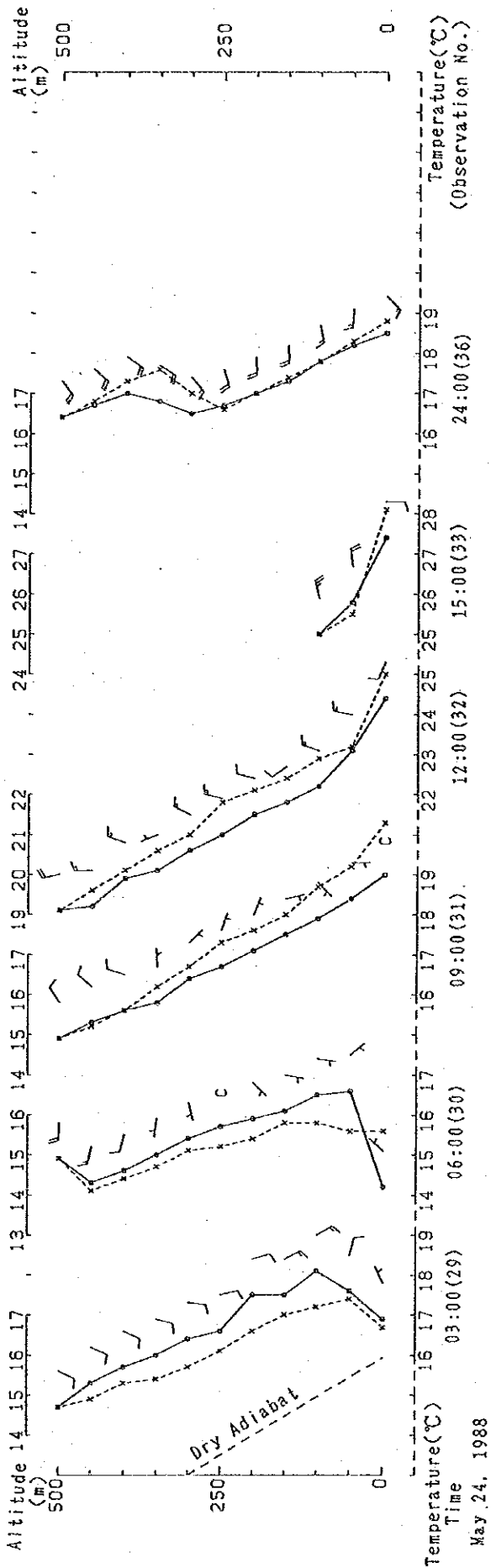
Temperature (°C) 16 17 18 19 20 21
Time 03:00 (11) 06:00 (12)
May 22, 1988

Vertical Profiles of Air Temperature



AP-130





AP-131

