

GLACIOLOGICAL RESEARCH PROGRAM  
IN EAST QUEEN MAUD LAND, EAST ANTARCTICA

PART 6  
ADVANCE CAMP, 1985

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## I. Introduction

The Advance Camp (AC, 74°12'S, 34°59'E, 3198 m a.s.l.) was established, as part of the East Queen Maud Land Glaciological Project (EQGP; Higashi, 1981), at IM252 where the traverse route IM from Mizuho Station terminates and the routes ID, IY and IR begin (Fujii *et al.*, 1986; Ageta *et al.*, 1987).

The inland traverse party of the 25th Japanese Antarctic Research Expedition (JARE-25) reached the place on 14 November 1984. After extending the route ID to 75°S, they finally left AC on 26 November, leaving behind an automatic weather station, a small hut (1.8 x 1.8 m<sup>2</sup>) and a considerable amount of fuel and food (Fujii *et al.*, 1986).

The inland traverse party of the 26th Japanese Antarctic Research Expedition (JARE-26) reached AC on 7 February 1985, and built a base house (3.6 x 7.2 m<sup>2</sup>). Glaciological and meteorological observations were carried out at AC until the end of February. The party left AC on 1 March 1985, for wintering at Mizuho and Syowa Stations. The members of the party were Y. Ageta (leader, glaciologist), J. Yoshida (mechanic), J. Fujii (radio operator), K. Kamiyama (glaciologist) and T. Kikuchi (meteorologist).

The traverse party re-arrived at AC on 14 October 1985. The members were F. Okuhira (glaciologist), T. Nomura (mechanic), T. Murai (medical doctor) and the above five. A canvas hut was built for boring and the ice core drilling was carried out to a depth of 200 m.

On 9 November, five members left AC for the traverse over Dome Fuji (Valkyrjedomen) and the remaining three (T. Kikuchi, J. Yoshida and T. Murai) continued observations until the return of the traverse party on 25 December. Then, the party was divided in two; one left AC for Syowa Station on 3 January and the other for Asuka Camp on 8 January 1986.

Glaciological and meteorological data obtained during the oversnow traverses are compiled in a separate volume (Ageta *et*

al., 1987). This report gives glaciological and meteorological data obtained at AC; the surface and the upper atmosphere meteorological data, the net radiative heat flux, and the net accumulation of snow. Other glaciological data related to the 200-m boring will be published in Antarctic Record in the near future.

The authors would like to thank the traverse members listed above for their assistance throughout the observations. Thanks are also due to all the members of JARE-26 led by Prof. Sadao Kawaguchi of the National Institute of Polar Research and Prof. Hiroshi Fukunishi of Tohoku University, who extended generous supports in the field work.

#### References

- Ageta, Y., Kikuchi, T., Kamiyama, K. and Okuhira, F. (1987) : Glaciological research program in East Queen Maud Land, East Antarctica, Part 5, 1985. JARE Data Rep., 125 (Glaciol. 14), 71p.
- Fujii, Y., Kawada, K., Yoshida, M. and Matsumoto, S. (1986) : Glaciological research program in East Queen Maud Land, East Antarctica, Part 4, 1984. JARE Data Rep., 116 (Glaciol. 13), 70p.
- Higashi, A. (1981) : Nankyoku Higashi-kuinmôdo Rando seppyô keikaku ni tsuite (Glaciological research project in the east Queen Maud Land, Antarctica). Seppyô (J. Jpn. Soc. Snow Ice), 43, 129-130.

## II. Surface Meteorological Data during the Stay at AC

The observations were made during the stay at the Advance Camp in February and from October to December 1985. The items and the instruments of the observations were essentially the same as those during the oversnow traverse (Ageta et al., 1987) except in the period from October to December when improvements were made to obtain continuous record.

### 1) Atmospheric pressure at the station level (Pst)

An aneroid barometer was used to measure the atmospheric pressure. The barometer was calibrated at Syowa Station in September 1985, by using a vacuum chamber and a mercury barometer, and it was found that the instrument was rather crude giving an accuracy of about  $\pm 2$  mb. Later in October, a recording aneroid barometer was introduced which had a precision mechanism. The recorder would have an accuracy of about  $\pm 0.2$  mb if the calibration was made with a standard barometer. Unfortunately, it was impossible to carry out such a precise calibration and the readings of the recorder were calibrated with the crude barometer. Therefore, the values in the table should be treated carefully.

### 2) Air temperature (Ta)

Alcohol thermometers giving an accuracy of  $\pm 0.2$  °C were used to measure the air temperature. In February, a platinum resistance thermometer for a long-term weather recorder was used for supplementary observations. Later in October, the output of the platinum thermometer was connected to a chart recorder. The platinum sensor was placed at a height of 1.5 m above the snow surface and shaded in a stainless housing. No artificial ventilation was given, but continuous strong winds gave an adequate natural ventilation. The output of the platinum thermometer was calibrated with the alcohol thermometers during the observation.

### 3) Wind speed and direction (WS and WD)

A portable propeller anemometer and a magnetic compass were used to measure the wind speed and direction, respectively. In

February, a three-cup anemometer and a wind vane were used for the supplement; the wind sensors were installed on a 5-m pole for the long-term recorder. A three-component sonic anemometer at a height of 2.5 m above the snow surface was also used during the period from October to December. The outputs of the sonic anemometer were sampled every 4 s and stored in compact cassette tapes with a digital recorder. The tapes were played back later to calculate 10-min vector mean wind speeds and directions every 3 h. No calibration was carried out for the sensors. The accuracy of the wind speed measurement is estimated to be  $\pm 0.2 \text{ m s}^{-1}$ .

#### 4) Visibility, clouds and weather phenomena

The visibility, the amount of cloud and the weather were observed visually. Note that there were only a few objects for the visibility observation. Most of the values in the tables were given by experience.

The data are listed in Tables II-1 and II-2, for the first stay in February and the second from October to December 1985, respectively. Notations in the tables are as follows:

- LT : Local standard time at Syowa Station (69°00'S, 39°35'E  
: GMT+3h)
- Pst : Atmospheric pressure (mb) at the station level (3200 m  
a.s.l.)
- Ta : Air temperature (°C)
- WD : Wind direction
- WS : Wind speed ( $\text{m s}^{-1}$ )
- V : Visibility (km)
- N : Amount of cloud (in tenth)
- W : Weather and phenomena
  - clear
  - ⊙ fine
  - ☉ cloudy
  - ⊕ cloudy (upper cloud is predominant)
  - \* snow
  - \*+ snowstorm
  - + blowing snow

✦ drifting snow

✧ halo

#### Reference

Ageta, Y., Kikuchi, T., Kamiyama, K. and Okuhira, F. (1987) :  
Surface meteorological data during oversnow traverses. JARE  
Data Rep., 125 (Glaciol. 14), 30-44.

Table II-1. Surface meteorological data during 7 - 27 February 1985.

Date	LT	Pst	Ta	WD	WS	V	N	W	
FEB. 7	21	659.4	-39.5	SSW	1.4	30.	1	○	1Cs
FEB. 8	09	659.4	-41.0	SSE	3.0	30.	1	○	1Cs
FEB. 8	15	657.5	-33.9	ESE	3.3	30.	2	○	2Cs
FEB. 8	21	657.4	-40.2	SE	2.7	10.	0+	○	0+Cs
FEB. 9	09	655.3	-38.3	ESE	6.0	5.0	0	○	
FEB. 9	15	656.1	-31.9	E	8.4	5.0	1	○	1Cs
FEB. 9	21	654.6	-35.6	E	9.0	1.0	0	⊕ ○	
FEB.10	09	656.3	-33.3	E	12.0	.30	X	⊕	
FEB.10	12	656.5	-29.0	ENE	11.1	.30	X	⊕	
FEB.10	15	656.5	-27.5	ENE	11.9	.10	10	⊕ ⊕	10As
FEB.10	18	656.5	-28.2	ENE	8.3	.20	10	⊕ ⊕	10As
FEB.10	21	656.9	-27.7	ENE	6.4		10	*	10As
FEB.10	24	657.7	-28.2	ENE	6.5	1.0	10	*	10As
FEB.11	03	658.2	-28.9	ENE	6.9	.50	10	*	10As
FEB.11	09	659.5	-25.2	NE	8.0	.30	10	*	10As
FEB.11	15	659.5	-22.3	NNE	7.1	.30	10	**+	10As
FEB.11	21	659.5	-26.7	NE	5.7	.30	10	**+	10As
FEB.12	09	658.5	-24.0	NNE	2.6	1.0	10	*	10As
FEB.12	15	656.5	-24.7	NE	4.5	3.0	5	* ⊕	10Cs
FEB.12	18	654.5	-28.2	ENE	2.6	3.0	10	* ⊕	10Cs
FEB.13	15	653.5	-23.0	ENE	7.8	1.0	10	**+ ⊕	10As
FEB.13	18	652.7	-24.1	ENE	5.6	1.0	10	**+ ⊕	10As
FEB.13	21	652.5	-24.2	ENE	6.4	1.0	10	**+	10St
FEB.14	09	654.0	-28.2	ENE	7.0	2.0	10	**+	10As
FEB.14	15	654.2	-26.6	ENE	5.2	30.	7	⊕	7Cs
FEB.14	18	653.0	-30.2	ESE	2.3	30.	1	○	1Cs
FEB.14	24	653.3	-40.0	ESE	4.8	30.	0	○	
FEB.15	09	654.9		SE	5.5	30.	1	○	1Cs
FEB.15	15	654.5	-29.6	ESE	5.1	30.	1	○	1Cs
FEB.15	21	655.2	-35.9	ESE	5.6	30.	1	○	1Cs
FEB.15	24	656.5	-35.0	ESE	5.3	30.	2	○	2Cs
FEB.16	09	656.5	-31.8	E	4.5	3.0	10	*	10As
FEB.16	12	656.0	-27.9	ENE	4.5	3.0	10	*	10As
FEB.16	15	655.8	-24.2	ENE	2.7	3.0	9	*	9Cs
FEB.16	18	656.0	-30.8	E	1.5	5.0	10	*	10Cs
FEB.16	21	656.0	-36.0	ESE	1.9	10.	3	⊕	3Cs
FEB.16	24	656.0	-41.0	ESE	3.3	10.	10	*	10Cs
FEB.17	09	654.5	-36.3	ESE	6.0	10.	10	**+	10Cs
FEB.17	12	655.0	-34.0	ESE	6.7	10.	10	⊕ ⊕	10Cs
FEB.17	15	655.0	-32.0	E	6.4	10.	0	⊕ ○	
FEB.17	18	655.7	-35.0	SE	5.0	30.	0	○	
FEB.17	24	658.2	-45.0	ESE	4.0	10.	0+	○	0+Cs
FEB.18	09	658.8	-41.0	SE	5.4	10.	0+	○	0+Cs
FEB.18	12	659.3	-36.0	ESE	4.8	10.	0+	○	0+Cs
FEB.18	18	659.7	-37.0	ESE	3.2	10.	0+	○	0+Cs
FEB.18	21	659.5	-41.3	ESE	3.4	10.	0+	○	0+Cs
FEB.18	24	660.0	-45.3	ESE	4.3	10.	5	⊕	5Cs
FEB.19	03	660.0	-46.0	ESE	5.2	10.	8	⊕	8As
FEB.19	06	659.4	-43.0	ESE	5.0	30.	0+	*	0+Cs

Date	LT	Pst	Ta	WD	WS	V	N	W	
FEB.19	09	659.3	-38.1	ESE	5.8	30.	8	⊖	8Cs
FEB.19	12	659.6	-32.8	E	5.1	10.	10-	⊖	10-Cs
FEB.19	15	658.7	-31.6	E	6.2	30.	10	*	10Cs
FEB.19	18	657.9	-32.0	E	5.8	5.0	10	*	10As
FEB.19	21	657.2	-36.5	E	6.3	5.0	10-	⊖	10-Cs
FEB.19	24	656.1	-36.6	E	7.3	2.0	10	*	10As
FEB.20	03		-33.5				10	*	10As
FEB.20	09	656.8	-29.6	NE	7.2	2.0	10	*+	10St
FEB.20	12	657.9	-27.0	NE	6.8		10	*+	10Cs
FEB.20	15	658.4							
FEB.20	18	659.8	-32.0	E	2.3		10	*	10Cs
FEB.20	21	660.8	-38.3	E	2.4	30.	0+	⊖	0+Cs
FEB.20	24					30.	5	⊖	5Ac
FEB.21	03	661.7	-43.2	SE	3.6	30.	9	⊖	9As
FEB.21	06	662.0	-40.0	ESE	5.2	30.	4	⊖	4Cs
FEB.21	09	662.5	-36.5	ESE	4.3	10.	10	*	10Cs
FEB.21	12	663.3	-33.1	SE	6.3	10.	10	⊖	10Cs
FEB.21	15		-31.0	ESE	5.6		10		
FEB.21	18		-32.2	ESE	5.5				
FEB.22	15	652.8	-29.0	SE	5.4		10	*	
FEB.23	15	650.2	-36.0	ESE	6.6		10	⊖	10Cs
FEB.23	18		-36.1	E	5.3				
FEB.24	12		-20.7	N	0.9				
FEB.24	15		-26.9	ENE	2.0				
FEB.24	18		-33.8	ENE	2.4				
FEB.24	21		-40.4	ESE	2.3				
FEB.24	24		-46.4	SE	4.2				
FEB.25	03		-49.8	SE	6.5				
FEB.25	06		-51.5	ESE	7.5				
FEB.25	09		-49.3	ESE	8.7				
FEB.25	12		-43.5	ESE	9.4				
FEB.25	15		-40.3	ESE	9.7		0	+ ⊖	
FEB.25	18		-40.9	ESE	9.1				
FEB.25	21		-44.2	ESE	10.3				
FEB.25	24		-47.2	ESE	9.4				
FEB.26	03		-47.0	ESE	9.3				
FEB.26	06		-48.9	ESE	9.4				
FEB.26	09		-45.7	ESE	9.9				
FEB.26	12		-41.6	ESE	8.2				
FEB.26	15		-39.1	ESE	8.7				
FEB.26	18		-40.2	ESE	7.9				
FEB.26	21		-45.6	ESE	7.4				
FEB.26	24		-48.3	SE	8.5				
FEB.27	03		-49.9	SE	8.5				
FEB.27	06		-50.5	SE	8.6				
FEB.27	09		-48.4	SE	10.0				
FEB.27	12		-42.7	ESE	8.3				



Table II-2. Surface meteorological data during 15 October, 1985 - 3 January, 1986.

Date	LT	Pst	Ta	WD	WS	V	N	W	
OCT.15	09	640.0	-45.0	ESE	5.2	10.	10	☉	10Cs
OCT.15	12	639.2	-40.0	ENE	5.3	20.	10-	☉	10-Ci
OCT.15	15	640.0	-39.0	ENE	4.9	20.	10-	☉	10-Ci
OCT.15	18	639.8	-43.4	E	2.1	30.	9	☉	1Ac 8Ci
OCT.16	09	641.0	-49.0	SE	5.0	30.	1	○	1Cs
OCT.16	12	642.0	-46.0	SE	3.9	30.	1	○	1Cs
OCT.16	15	642.0	-45.0	SE	3.4	30.	2	○	2Cs
OCT.16	18	641.2	-50.0	SSE	2.7	30.	2	○	2Cs
OCT.16	21	641.5	-53.0	SE	2.6	30.	2	○	2Cs
OCT.17	09	645.8	-51.8	SE	4.5	30.	1	○	1Cs
OCT.17	12	646.0	-46.9	SE	4.6	30.	1	○	1Cs
OCT.17	15	646.0	-46.5	SE	3.9	30.	1	○	1Cs
OCT.17	18	646.0	-48.5	SE	4.6	30.	1	○	1Cs
OCT.17	21	646.5	-52.7	SE	5.3	30.	0+	○	0+Cs
OCT.18	09	648.3	-52.9	SE	5.7	30.	0	○	
OCT.18	12	647.4	-48.4	SE	8.3	5.0	0	⊕ ○	
OCT.18	15	646.6	-46.5	SE	8.5	2.0	0	⊕ ○	
OCT.18	18	646.8	-48.6	SE	7.7	2.0	0	⊕ ○	
OCT.18	21	646.0	-52.8	SE	8.0	2.0	0	⊕ ○	
OCT.19	09	644.0	-51.0	ESE	8.3	1.0	0	⊕ ○	
OCT.19	12	643.3	-46.8	ESE	9.9	.50	0	⊕ ○	
OCT.19	15	642.0	-45.0	ESE	9.4	.50	0	⊕ ○	
OCT.19	18	642.0	-47.7	ESE	7.2	1.0	0	⊕ ○	
OCT.20	09	641.5	-50.8	ESE	7.7	1.0	0	⊕ ○	
OCT.20	15	641.8	-46.1	SE	9.0	1.0	0	⊕ ○	
OCT.20	18	641.6	-49.0	SE	8.4	1.0	0	⊕ ○	
OCT.20	21	641.7	-53.5	SE	8.1	1.0	0	⊕ ○	
OCT.20	24			SE	6.3				
OCT.21	03			ESE	9.1				
OCT.21	06			SE	10.9				
OCT.21	09	642.0	-51.8	ESE	8.7	.50	0	⊕ ○	
OCT.21	12			ESE	9.5				
OCT.21	15	643.0	-45.0	ESE	9.3	.30	0	⊕ ○	
OCT.21	18			ESE					
OCT.21	21	644.3	-50.0	E	6.6	.50	0	⊕ ○	
OCT.21	24			E	7.6				
OCT.22	03			ESE	7.1				
OCT.22	09	648.0	-46.8	ESE	12.0	.20	0	⊕ ○	
OCT.22	15	648.7	-39.0	E	11.3	.20	10	⊕ ☉	10Cs
OCT.22	21	650.0	-41.9	ESE	11.7	.20	10	⊕ ☉	10Cs
OCT.23	09	653.0	-39.0	ESE	13.3	.10	10	⊕ ☉	10Cs
OCT.23	15	653.9	-36.0	ESE	14.5	.10	X	⊕	
OCT.23	21	654.0	-43.4	ESE	13.8	.10	X	⊕	
OCT.24	09	651.6	-45.7	SE	12.5	.10	0	⊕ ○	
OCT.24	15	650.2	-41.0	ESE	14.0	.10	0	⊕ ○	
OCT.24	21	650.0				.10	5	⊕ ☉	5Cs
OCT.25	09	647.5	-41.2	ESE	12.5	.10	X	⊕	
OCT.25	15	644.3	-39.0	ESE	14.8	.10	X	⊕	
OCT.25	21	643.0	-42.2	ESE	14.8	.10	X	⊕	

Date	LT	Pst	Ta	WD	WS	V	N	W
OCT.26	09	644.0	-40.2	ESE	13.9	.10	X	+
OCT.26	15	644.0	-37.3	ESE	13.6	.20	0	+ ○
OCT.26	21	644.0	-43.0	ESE	14.3	.20	0	+ ○
OCT.27	09	644.7	-42.0	ESE	13.2	.10	X	+
OCT.27	15	647.8	-37.1	E	13.3	.10	X	+
OCT.27	21	651.8	-41.0	E	11.9	.30	10	+ ⊕ 2Ac 8Cs
OCT.28	09	656.0	-38.1	ESE	11.0	.30	3	+ ⊕ 3Cs
OCT.28	12	656.5						
OCT.28	15	655.2	-34.0	ESE	9.6	.50	3	+ ⊕ 3Cs
OCT.28	18	655.3						
OCT.28	21	655.0	-40.2	ESE	10.9	.50	10	+ ⊕ 10Cs
OCT.28	24	654.4						
OCT.29	03	654.7						
OCT.29	06	654.7						
OCT.29	09	654.3	-41.2	ESE	9.9	1.0	0	+ ○
OCT.29	12	653.9						
OCT.29	15	653.6	-36.0	SE	7.7	2.0	0+	+ ○ 0+Cs
OCT.29	18	652.7						
OCT.29	21	651.4	-42.0	ESE	9.2	2.0	0+	+ ○ 0+Cs
OCT.29	24	650.7		SE	6.4			
OCT.30	03	649.2		ESE	8.4			
OCT.30	06	648.7		ESE	10.4			
OCT.30	09	648.1	-42.2	ESE	7.7	3.0	1	+ ○ 1Cs
OCT.30	12	648.4						
OCT.30	15	648.7	-38.0	E	11.1	.50	4	+ ⊕ 4Cs
OCT.30	18	649.3						
OCT.30	21	649.8	-42.5					
OCT.30	24	650.2	-44.7	E	6.0			
OCT.31	03	650.7	-46.3	ESE	9.7			
OCT.31	06	651.3	-45.5	E	7.6			
OCT.31	09	651.4	-42.0	ESE	5.4	3.0	1	+ ○ 1Cs
OCT.31	12	651.4	-37.7					
OCT.31	15	651.2	-35.0	ESE	6.0	20.	0+	○ 0+Cs
OCT.31	18	651.4	-37.4					
OCT.31	21	650.7	-42.5	ESE	6.4	30.	0	○
OCT.31	24	650.2	-46.6	SE	7.2			
NOV. 1	03	650.1	-48.5	ESE	4.6			
NOV. 1	06	649.1	-47.9	SE	6.1			
NOV. 1	09	648.8	-44.2	SE	6.5	3.0	0	+ ○
NOV. 1	12	648.7	-39.8					
NOV. 1	15	647.7	-37.7	SE	6.5	20.	0	○
NOV. 1	18	648.3	-39.6					
NOV. 1	21	647.2	-43.1	ESE	6.3	10.	0	+ ○
NOV. 1	24	647.4	-47.0					
NOV. 2	03	647.1	-49.0	ESE	6.5			
NOV. 2	06	646.4	-49.0	ESE	8.4			
NOV. 2	09	646.1	-45.0	ESE	7.5	3.0	0	+ ○
NOV. 2	12	646.4	-40.4					
NOV. 2	15	646.7	-38.6	ESE	8.4	3.0	0	+ ○
NOV. 2	18	646.7	-38.5					
NOV. 2	21	646.7	-42.3	E	6.7	20.	2	○ 0+Ac 2Cs

Date	LT	Pst	Ta	WD	WS	V	N	W	
NOV. 2	24	647.4	-45.0	E	7.8				
NOV. 3	03	647.9	-46.3	ESE	8.2				
NOV. 3	06	648.1	-45.4	ESE	8.7				
NOV. 3	09	647.7	-41.4	ESE	8.6	1.0	0	+	○
NOV. 3	12	648.1	-37.1						
NOV. 3	15	647.9	-35.9	ESE	7.0	2.0	0	+	○
NOV. 3	18	647.7	-37.3						
NOV. 3	21	647.6	-42.0	ESE	6.4	20.	0+	○	0+Cs
NOV. 3	24	647.1	-45.4	ESE	6.3				
NOV. 4	03	646.6	-47.5	SE	6.9				
NOV. 4	06	646.1	-46.5	SE	7.2				
NOV. 4	09	645.6	-41.4	ESE	7.7	3.0	0+	+	○ 0+Cs
NOV. 4	12	645.2	-37.1						
NOV. 4	15	645.2	-35.2	E	7.5	5.0	2	+	○ 2Ci
NOV. 4	18	645.2	-36.3						
NOV. 4	21	646.1	-41.3	E	3.9	20.	8	⊖	0+Ac 8Ci
NOV. 4	24	646.7	-44.7	E	6.3				
NOV. 5	03	647.7	-46.0	ESE	8.2				
NOV. 5	06	648.6	-45.0	ESE	6.3				
NOV. 5	09	649.2	-41.9	ESE	7.0	3.0	8	⊖	8Cs
NOV. 5	12	648.9	-37.9						
NOV. 5	15	650.2	-35.5	ESE	6.1	30.	4	⊖	4Cs
NOV. 5	18	651.2	-36.6						
NOV. 5	21	651.9	-41.7	ESE	5.0	30.	8	⊖	8Cs
NOV. 5	24	652.7	-45.2	SE	5.9				
NOV. 6	03	652.6	-47.6	SE	7.0				
NOV. 6	06	652.1	-46.5	SE	8.5				
NOV. 6	09	651.7	-41.9	SE	8.7	3.0	8	+	⊖ 8Ci
NOV. 6	12	651.4	-37.7						
NOV. 6	15	650.1	-35.5	ESE	9.1	3.0	2	+	○ 2Ci
NOV. 6	18	648.9	-35.2						
NOV. 6	21	648.3	-38.2	ESE	8.7	3.0	0+	+	○ 0+Ci
NOV. 6	24	647.7	-42.1	ESE	8.2				
NOV. 7	03	646.4	-44.2	ESE	9.2				
NOV. 7	06	645.0	-43.6	ESE	11.0				
NOV. 7	09	643.5	-40.8	ESE	9.5	2.0	0+	+	○ 0+Ci
NOV. 7	12	643.4	-36.9						
NOV. 7	15	643.4	-34.8	E	6.4	2.0	0+	+	○ 0+Ci
NOV. 7	18	643.2	-35.0						
NOV. 7	21	643.2	-39.7	ESE	4.0	20.	2	○	2Cs
NOV. 7	24	643.0	-43.0	ESE	4.3				
NOV. 8	03	643.0	-46.3						
NOV. 8	06	643.2	-43.4	ESE	5.1				
NOV. 8	09	643.3	-39.3	ESE	4.4	20.	4	⊖	4Cs
NOV. 8	12	643.9	-35.2						
NOV. 8	15	644.2	-32.5	ENE	2.5	20.	1	○	1Cs
NOV. 8	18	644.2	-30.6	NE	1.3				
NOV. 8	21	644.3	-39.5	ENE	0.6	30.	0+	○	0+Ci
NOV. 8	24	645.4	-43.1	ENE	1.7				
NOV. 9	03	646.4	-47.1						
NOV. 9	06	647.4							

Date	LT	Pst	Ta	WD	WS	V	N	W	
NOV. 9	09	646.7	-38.7	E	2.5	20.	0+	↔	0+Cs
NOV. 9	12	647.8	-34.4	NE	3.1				
NOV. 9	15	647.7	-33.6	ENE	3.8	20.	6	⊕	6Ci 1Cs
NOV. 9	18	647.8	-34.7	ENE	3.9				
NOV. 9	21	647.7	-37.7	E	1.8	20.	10-	*	5As 3Cc 2Cs
NOV. 9	24	647.9	-40.6	E	3.2				
NOV.10	03	648.3	-43.1	E	4.5				
NOV.10	06	647.9	-41.4	E	5.0				
NOV.10	09	647.7	-39.4	E	4.8	20.	10	⊕	10Cs
NOV.10	12	647.3	-32.0	ENE	5.9				
NOV.10	15	646.4	-31.2	E	5.6	10.	10-	*	3Cs 4Ci 3Cc
NOV.10	18	645.9	-31.7	E	4.3				
NOV.10	21	644.2	-36.0	E	5.9	10.	7	*	2Ac 5Ci
NOV.10	24	643.8	-39.0	E	6.3				
NOV.11	03	642.7	-34.4	E	7.2	.50	10	+ ⊗	10As
NOV.11	06	640.8	-32.1	E	9.8				
NOV.11	09	639.3	-29.3	E	12.3	.10	10	+ ⊗	10As
NOV.11	12	638.9	-27.1	ENE	12.2				
NOV.11	15	638.9	-25.5	ENE	10.1	.20	10	+ ⊗	10As
NOV.11	18	639.2	-25.6	E	8.8				
NOV.11	21	639.7	-28.9	ENE	4.5	5.0	10-	⊗	7As 3Ci
NOV.11	24	641.4	-34.4	E	6.2				
NOV.12	03	642.2	-34.7	E	6.2	5.0	10	**+	10As
NOV.12	06	643.3	-34.4	E	7.6				
NOV.12	09	644.2	-31.7	ENE	8.1	1.0	10	**+	10Cs
NOV.12	12	644.2	-29.2	ENE	7.5				
NOV.12	15	644.9	-28.7	NE	7.0	2.0	10	**+	10Cs
NOV.12	18	645.2	-30.0	ENE	5.9				
NOV.12	21	645.2	-33.6	E	6.1	5.0	10	**+	10Cs
NOV.12	24	645.6	-38.2	E	6.7				
NOV.13	03	646.0	-40.4	E	7.2	2.0	2	**+	2Ci
NOV.13	06	645.6	-38.7	ESE	8.9				
NOV.13	09	645.4	-35.0	ESE	9.3	1.0	10	**+	10Cs
NOV.13	12	644.7	-32.0	E	10.0				
NOV.13	15	643.8	-30.6	E	10.0	.50	10	**+	10Cs
NOV.13	18	643.3	-31.2	ESE	9.6				
NOV.13	21	643.8	-32.8	E	10.3	.20	10	**+	10Cs
NOV.13	24	644.2	-34.2	E	10.0				
NOV.14	03	644.9	-35.8	E	10.5	.30	10	+ ⊗	3As 7Ci
NOV.14	06	646.2	-35.0	E	8.0				
NOV.14	09	646.4	-32.2	E	9.7	.50	10	+ ⊕	10Cs
NOV.14	12	646.6	-29.1	E	8.4				
NOV.14	15	647.1	-27.8	ENE	7.5	1.0	10	+ ⊕	10Cs
NOV.14	18	647.6	-28.4	ENE	6.7				
NOV.14	21	647.6	-31.6	E	3.4	5.0	10	+ ⊕	10Cs
NOV.14	24	647.9	-36.5	ESE	3.1				
NOV.15	03	648.1	-38.3	E	3.7	10.	10	⊕	10Cs
NOV.15	06	647.7	-37.2	E	4.5				
NOV.15	09	646.6	-33.3	E	4.1	20.	10	⊕	10Cs
NOV.15	12	645.6	-29.3	ESE	3.1				
NOV.15	15	645.2	-27.4	E	1.9	20.	8	*	8Ci

Date	LT	Pst	Ta	WD	WS	V	N	W	
NOV.15	18	645.0	-23.6	SSE	0.9				
NOV.15	21	644.3	-36.0	SSE	2.2	30.	1	○	1Ci
NOV.15	24	644.2	-41.4	SSE	3.3				
NOV.16	03	643.9	-43.1	SE	3.5	30.	1	○	1Ci
NOV.16	06	644.3	-42.1	SE	4.0				
NOV.16	09	644.4	-38.2	SE	4.4	30.	0+	○	0+Ci
NOV.16	12	643.7	-33.6	SE	5.0				
NOV.16	15	642.7	-31.1	ESE	4.8	30.	0+	○	0+Ci
NOV.16	18	642.7	-31.8						
NOV.16	21	642.3	-37.7			30.	0+	○	0+Cs
NOV.16	24	641.4	-42.0						
NOV.17	03	640.9	-43.9			30.	0+	⊕	0+Cs
NOV.17	06	640.5	-42.7						
NOV.17	09	640.2	-37.9			20.	0	⊕	
NOV.17	12	638.9	-34.1						
NOV.17	15	638.8	-32.1	E	6.9	20.	0+	⊕	0+Cs
NOV.17	18	638.9	-33.3						
NOV.17	21	638.7	-37.2			20.	0+	⊕	0+Cs
NOV.17	24	638.9	-40.6						
NOV.18	03	639.9	-42.0			5.0	4	⊕	4Ci
NOV.18	06	640.4	-39.3						
NOV.18	09	641.4	-32.9			1.0	10	⊕	10Cs
NOV.18	12	642.0	-29.5						
NOV.18	15	643.3	-27.5	NNE	6.0	5.0	10-	⊕	10-Ci
NOV.18	18	644.7	-27.8	NNE	2.8				
NOV.18	21	645.7	-33.3	ENE	1.9	10.	2	⊕	2Ci
NOV.18	24	646.7	-36.7	ENE	3.5				
NOV.19	03	647.6	-40.3	E	4.0	10.	6	⊕	1Ac 5Cc
NOV.19	06	647.7	-38.8	E	4.8				
NOV.19	09	648.1	-34.2	E	5.5	5.0	10	⊕	10Cs
NOV.19	12	647.1	-30.6	E	6.0				
NOV.19	15	646.6	-28.4	E	5.8	10.	10	⊕	10Cs
NOV.19	18	646.1	-29.9	ESE	5.9				
NOV.19	21	644.9	-33.9	ESE	6.4	20.	10	⊕	10Cs
NOV.19	24	643.9	-36.1	E	7.9				
NOV.20	03	643.7	-36.9	ESE	8.3	2.0	10	⊕	10As
NOV.20	06	643.0	-35.4	E	10.4				
NOV.20	09	642.4	-32.6	E	10.9	.50	10	⊕	10As
NOV.20	12	642.0	-30.6	E	10.5				
NOV.20	15	641.9	-29.3	E	9.6	.50	10	⊕	10As
NOV.20	18	642.3	-29.8	E	8.3				
NOV.20	21	642.7	-32.3	E	7.6	2.0	10	⊕	10As
NOV.20	24	643.8	-35.7	ESE	7.3				
NOV.21	03	644.9	-37.4	ESE	6.7	10.	10	⊕	10Cs
NOV.21	06	645.7	-36.4	ESE	8.0				
NOV.21	09	646.7	-32.8	E	7.7	10.	10	⊕	10Cs
NOV.21	12	646.7	-29.8	E	7.4				
NOV.21	15	646.9	-28.4	E	7.2	20.	10	⊕	10Cs
NOV.21	18	647.7	-29.0	E	4.8				
NOV.21	21	648.3	-33.6	ESE	6.3	30.	10	⊕	10Cs
NOV.21	24	649.3	-36.6	E	6.7				

Date	LT	Pst	Ta	WD	WS	V	N	W	
NOV.22	03	650.8	-38.2	E	5.7	30.	10	⊕	10Cs
NOV.22	06	651.4	-37.3	E	6.2				
NOV.22	09	651.7	-33.4	E	5.8	20.	10	⊕	10Cs
NOV.22	12	651.3	-29.7	E	5.3				
NOV.22	15	651.4	-27.9	ENE	4.1	30.	10-	⊕	10-Cc
NOV.22	18	652.4	-27.1	E	1.9				
NOV.22	21	652.2	-32.8	SE	2.3	30.	1	*	1Ac
NOV.22	24	653.2	-38.5	ESE	3.1				
NOV.23	03	654.1	-41.4	SE	3.6	30.	0+	○	0+Ac
NOV.23	06	654.3	-39.3	SE	3.6				
NOV.23	09	653.9	-33.1	ESE	3.3	30.	0+	○	0+Ci
NOV.23	12	653.2	-29.0	ESE	3.3				
NOV.23	15	653.3	-26.3	E	2.7	30.	0+	○	0+Ci
NOV.23	18	653.2	-26.5	E	1.7				
NOV.23	21	652.7	-33.9	SE	2.6	30.	3	⊕	3Ci
NOV.23	24	652.8	-39.2	ESE	3.6				
NOV.24	03	652.7	-40.4	ESE	4.6	30.	7	⊕	7Cs
NOV.24	06	651.9	-37.7	ESE	4.9				
NOV.24	09	650.9	-32.6	ESE	5.1				
NOV.24	12	650.2	-29.0	E	4.6				
NOV.24	15	649.6	-27.2	ENE	4.5	30.	9	⊕	9Cs
NOV.24	18	648.6	-27.9	E	3.5				
NOV.24	21	648.7	-32.5	E	3.6	30.	10	⊕	10Cs
NOV.24	24	648.7	-37.1	ESE	3.5				
NOV.25	03	648.8	-38.7	ESE	5.0	30.	4	⊕	4Cs
NOV.25	06	648.9	-36.5	E	6.2				
NOV.25	09	648.9	-32.5	E	6.1	30.	6	⊕	6Cs
NOV.25	12	648.9	-28.7	E	6.0				
NOV.25	15	649.4	-27.3	ENE	5.6	30.	10-	*	10-Cs
NOV.25	18	649.2	-27.9	ENE	4.9				
NOV.25	21	649.6	-30.9	E	3.4	20.	4	*	4Ci
NOV.25	24	649.9	-36.9	ESE	3.8				
NOV.26	03	650.7	-36.6	ESE	3.8	20.	10	⊕	10As
NOV.26	06	651.4	-34.8	ESE	3.7				
NOV.26	09	651.3	-31.7	E	4.4	30.	1	*	1Ci
NOV.26	12	651.4	-27.6	E	3.7				
NOV.26	15	651.4	-25.8	NE	3.0	30.	3	⊕	3Ac
NOV.26	18	651.2	-26.3	NE	2.5				
NOV.26	21	651.3	-30.1	E	1.4	30.	10-	*	10-Ac
NOV.26	24	651.4	-31.8	ESE	1.5				
NOV.27	03	651.2	-35.0	ESE	2.1	30.	10	*	10Ac
NOV.27	06	651.7	-36.3	ESE	3.3				
NOV.27	09	649.2	-31.7	E	4.3	30.	10-	⊕	10-Cc
NOV.27	12	648.4	-29.0	E	4.9				
NOV.27	15	647.1	-27.5	ESE	5.2	30.	0+	○	0+Ci
NOV.27	18	647.7	-28.5	E	5.4				
NOV.27	21	647.7	-32.3	ESE	4.9	30.	2	○	2Ci
NOV.27	24	647.1	-36.3	ESE	5.9				
NOV.28	03	648.9	-37.7	ESE	6.0	20.	3	⊕	3Cs
NOV.28	06	649.3	-36.6	ESE	7.5				
NOV.28	09	649.9	-32.8	E	8.5	10.	0+	⊕ ○	0+Cs

Date	LT	Pst	Ta	WD	WS	V	N	W
NOV.28	12	650.1	-29.5	E	7.9			
NOV.28	15	650.6	-27.5	ENE	6.9	10.	10-	+ ① 5Cc 5Cs
NOV.28	18	651.4	-27.7	ENE	6.7			
NOV.28	21	651.9	-30.1	E	4.3	10.	10	**+ 10Cs
NOV.28	24	652.7	-34.4	E	4.5			
NOV.29	03	653.7	-34.4	E	5.5	10.	10	**+ 10Cs
NOV.29	06	654.1	-34.4	E	5.0			
NOV.29	09	653.9	-29.7	ENE	5.1	10.	10	* 10Cs
NOV.29	12	653.9	-26.5	ENE	3.9			
NOV.29	15	653.8	-23.9	NE	1.9	20.	10	* 10Cs
NOV.29	18	654.2	-23.5	NE	0.9			
NOV.29	21	654.2	-29.3	ESE	1.8	30.	1	○ 10Cs
NOV.29	24	654.4	-35.5	ESE	3.8			
NOV.30	03	654.7	-37.6	ESE	4.3	30.	1	○ 1Cs
NOV.30	06	654.3	-36.6	ESE	5.0			
NOV.30	09	653.8	-32.0	E	6.0	5.0	10	* 10As
NOV.30	12	652.2	-26.3	NE	3.9			
NOV.30	15	651.4	-25.8	ENE	4.4	30.	8	* 8Ac
NOV.30	18	651.3	-26.7	ENE	4.1			
NOV.30	21	650.7	-27.9	ENE	4.5	20.	10	* 10As
NOV.30	24	650.1	-29.2	ENE	4.1			
DEC. 1	03	650.1	-33.0	ESE	5.2	10.	10	* 10As
DEC. 1	06	650.2	-32.3	E	7.2			
DEC. 1	09	650.6	-29.9	E	7.3	10.	2	* 2Ac
DEC. 1	12	650.2	-27.5	ENE	7.6			
DEC. 1	15	650.3	-26.7	NE	6.9	10.	3	* 3Cc
DEC. 1	18	651.6	-27.1	NE	5.0			
DEC. 1	21	651.8	-30.4	E	2.8	20.	7	① 7Cc
DEC. 1	24	653.2	-36.0	E	4.3			
DEC. 2	03	654.2	-37.6	E	5.2	30.	5	① 5Cc
DEC. 2	06	654.2	-35.6	E	5.9			
DEC. 2	09	654.9	-31.0	E	6.5	30.	4	① 4Cs
DEC. 2	12	655.8	-27.9	ENE	7.4			
DEC. 2	15	656.5	-26.3	NE	5.8	30.	10-	① 10-Cs
DEC. 2	18	657.0	-26.9	ENE	5.0			
DEC. 2	21	656.5	-30.3	E	3.4	30.	10-	① 10-Cs
DEC. 2	24	656.2	-34.2	E	3.9			
DEC. 3	03	656.0	-36.4	E	4.9			
DEC. 3	06	655.2	-34.7	E	6.0			
DEC. 3	09	653.9	-30.9	ENE	6.9	20.	10	② 10As
DEC. 3	12	651.8	-27.9	ENE	6.9			
DEC. 3	15	650.6	-26.9	NE	6.9	5.0	10	* 10As
DEC. 3	18	650.2	-27.1	NE	6.9			
DEC. 3	21	648.9	-28.5	ENE	5.6	10.	10	* 10Cs
DEC. 3	24	649.3	-32.7	E	6.3			
DEC. 4	03	650.3	-33.3	ENE	9.1	2.0	10	**+ 10As
DEC. 4	06	651.1	-33.9	E	9.5			
DEC. 4	09	651.7	-31.7	E	10.9	.50	10	**+ 10Ac
DEC. 4	12	651.7	-28.6	ENE	11.9			
DEC. 4	15	652.2	-27.3	ENE	10.2	.50	10	**+ 10Cs
DEC. 4	18	653.1	-27.5	ENE	9.8			

Date	LT	Pst	Ta	WD	WS	V	N	W
DEC. 4	21	653.7	-29.0	E	6.4	3.0	10-	† ⊕ 10-Cc
DEC. 4	24	655.1	-33.1	E	6.3			
DEC. 5	03	656.1	-34.4	E	6.9	20.	7	† ⊕ 1Ac 7Cs
DEC. 5	06	656.8	-33.3	E	8.6			
DEC. 5	09	657.5	-30.3	E	10.3	.50	7	*† 7Cs
DEC. 5	12	657.5	-28.5	E	10.7			
DEC. 5	15	658.1	-27.4	ENE	10.2	.30	10	† ⊕ 10Cs
DEC. 5	18	657.8	-27.7					
DEC. 5	21	657.8	-28.5			5.0	10	† ⊙ 10Ac
DEC. 5	24	658.2	-32.2	ESE	7.3			
DEC. 6	03	658.8	-33.9	ESE	7.7	5.0	10	† ⊕ 2Ac 8Cs
DEC. 6	06	659.0	-32.5	E	7.8			
DEC. 6	09	658.7	-30.2	E	10.2	2.0	2	† ○ 2Ac
DEC. 6	12	656.7	-27.6	E	10.9			
DEC. 6	15	655.2	-26.3	E	10.3	.50	10	† ⊕ 10Cs
DEC. 6	18	654.3	-26.7	E	8.4			
DEC. 6	21	653.9	-28.6	ESE	6.5	10.	2	† ○ 2Ci
DEC. 6	24	653.4	-32.3	ESE	7.5			
DEC. 7	03	652.7	-33.9	ESE	8.2	10.	1	† ○ 1Ci
DEC. 7	06	651.8	-32.8	ESE	9.6			
DEC. 7	09	651.2	-29.5	ESE	9.5	2.0	2	† ○ 1Ci
DEC. 7	12	650.6	-27.0	E	11.0			
DEC. 7	15	650.2	-26.2	E	11.7	.50	10	† ⊙ 5Ac 5Cs
DEC. 7	18	649.2	-26.3	E	10.2			
DEC. 7	21	650.2	-28.5	ESE	7.3	5.0	4	† ⊕ 4Cc
DEC. 7	24	650.2	-30.6	E	7.9			
DEC. 8	03	650.8	-31.7	E	8.6	5.0	10	† ⊙ 10As
DEC. 8	06	651.4	-31.3	E	9.4			
DEC. 8	09	652.2	-28.5	E	9.7	2.0	10-	*† 10-Cs
DEC. 8	12	651.8	-25.6	ENE	8.4			
DEC. 8	15	652.1	-24.9	ENE	7.4	5.0	10-	*† 10-Cs
DEC. 8	18	652.6	-25.2	E	6.4			
DEC. 8	21	653.1	-27.5	E	4.6	5.0	10	* ⊕ 10As
DEC. 8	24	653.8	-30.6	E	5.7			
DEC. 9	03	654.6	-33.0	E	5.8	10.	10	⊙ 10As
DEC. 9	06	655.4	-32.2					
DEC. 9	09	656.0	-28.9	E	6.3	20.	2	○ 2Cs
DEC. 9	12	655.7	-26.0	ENE	7.6			
DEC. 9	15	656.1	-25.3	E	7.4	20.	1	*† 1Cs
DEC. 9	18	655.7	-25.8	E	7.6			
DEC. 9	21	655.4	-29.0	E	8.1	20.	0+	† ○ 0+Cs
DEC. 9	24	655.6	-31.6	E	10.0			
DEC.10	03	655.8	-31.7	E	11.7	2.0	10	*† 10As
DEC.10	06	656.5	-30.1	E	11.5			
DEC.10	09	656.5	-27.8	E	12.4	.50	10	*† 10As
DEC.10	12	655.3	-26.0	E	12.8			
DEC.10	15	655.2	-25.0	E	12.3	.50	10	*† 10Cs
DEC.10	18	655.4	-25.8	E	11.4			
DEC.10	21	656.5	-28.2	E	10.2	2.0	9	† ⊕ 9Ci
DEC.10	24	657.0	-31.3	E	10.6			
DEC.11	03	656.8	-32.3	E	10.3	1.0	8	† ⊕ 6Cc 2Cs



Date	LT	Pst	Ta	WD	WS	V	N	W
DEC.11	06	658.5	-31.0	E	11.2			
DEC.11	09	659.0	-28.7	E	11.0	2.0	4	⊕ ⊙ 4Cc
DEC.11	12	659.0	-25.4	E	10.5			
DEC.11	15	659.6	-24.6	E	10.4	2.0	2	⊕ ⊙ 2Cc
DEC.11	18	661.3	-25.0	E	8.6			
DEC.11	21	662.1	-27.3	E	7.2	30.	2	⊕ ⊙ 2Cc
DEC.11	24	663.6	-31.4	ESE	6.1			
DEC.12	03	664.2	-33.3	ESE	6.7	30.	1	⊕ ⊙ 1Cs
DEC.12	06	664.2	-32.3	ESE	6.3			
DEC.12	09	663.5	-29.2	ESE	6.5	30.	1	⊙ 1Cs
DEC.12	12	662.5	-24.9	ESE	6.4			
DEC.12	15	661.5	-23.2	SE	6.2	30.	0+	⊙ 0+Cc
DEC.12	18	660.3	-23.4	SE	6.3			
DEC.12	21	659.5	-26.2	SE	5.9	30.	0+	⊙ 0+Ci
DEC.12	24	659.3	-30.0	ESE	5.9			
DEC.13	03	659.1	-29.0	SE	7.2	30.	0	⊙
DEC.13	06	658.6	-28.5	SE	9.1			
DEC.13	09	657.7	-27.7	ESE	8.4	30.	0	*
DEC.13	12	656.5	-25.2	ESE	9.0			
DEC.13	15	655.3	-23.9	ESE	7.9	30.	0	⊕ ⊙
DEC.13	18	655.2	-24.2	SE	7.8			
DEC.13	21	655.2	-26.9	SE	4.1	30.	0	⊙
DEC.13	24	655.2	-31.1	SE	5.5			
DEC.14	03	656.1	-33.3	ESE	6.0	30.	0	⊙
DEC.14	06	656.6	-33.3	SE	6.7			
DEC.14	09	656.7	-30.1	ESE	6.3	30.	0	⊙
DEC.14	12	656.7	-26.5	ESE	7.5			
DEC.14	15	657.6	-25.8	ESE	7.1	30.	0	⊙
DEC.14	18	658.6	-25.8	ESE	6.9			
DEC.14	21	658.7	-28.1	SE	4.2	30.	0	⊙
DEC.14	24	660.0	-32.0	SE	5.7			
DEC.15	03	660.8	-34.4	ESE	6.0	30.	0	⊙
DEC.15	06	661.5	-33.8	ESE	7.7			
DEC.15	09	661.6	-29.8	ESE	7.3	30.	0	⊙
DEC.15	12	661.0	-26.9	E	8.8			
DEC.15	15	660.5	-26.2	E	7.2	30.	7	⊕ 7Ac
DEC.15	18	660.7	-27.0	E	7.6			
DEC.15	21	660.2	-29.3	ESE	5.1	30.	0+	⊙ 0+Ac
DEC.15	24	660.2	-32.5	ESE	5.2			
DEC.16	03	660.8	-33.9	E	6.7	30.	5	⊕ 2Ac 3Cc
DEC.16	06	661.2	-32.7	ESE	7.6			
DEC.16	09	661.5	-29.6	ESE	7.5	30.	1	⊙ 1Ac
DEC.16	12	659.8	-27.3	ESE	7.4			
DEC.16	15	658.7	-26.2	ESE	8.5	5.0	1	⊕ ⊙ 1Ac
DEC.16	18	657.7	-26.4	ESE	9.4			
DEC.16	21	656.5	-28.3	ESE	8.5	5.0	1	⊕ ⊙ 1Ac
DEC.16	24	655.1	-31.0	ESE	9.1			
DEC.17	03	654.1	-32.5	ESE	11.0	1.0	0	⊕ ⊙
DEC.17	06	652.9	-31.8	ESE	11.7			
DEC.17	09	650.9	-29.0	ESE	12.6	.50	0+	⊕ ⊙ 0+Cc
DEC.17	12	648.1	-25.6	ESE	12.2			

Date	LT	Pst	Ta	WD	WS	V	N	W	
DEC.17	15	646.7	-23.8	ESE	12.7	.20	10	*+⊕	10As
DEC.17	18	646.3	-24.2	E	12.5				
DEC.17	21	646.4	-24.8	E	11.1	.20	10	*+	10As
DEC.17	24	647.4	-25.4	E	11.5				
DEC.18	03	649.3	-27.3	E	10.7	.30	9	+⊙	3Ac 6Cc
DEC.18	06	651.4	-26.0	E	10.6				
DEC.18	09	652.9	-24.7	ENE	12.4	.10	10	*+	10As
DEC.18	12	655.2	-22.5	ENE	13.5				
DEC.18	15	656.5	-22.0	ENE	10.9	.10	10	*+	10As
DEC.18	18	657.6	-21.9	ENE	8.8				
DEC.18	21	658.7	-23.6	E	7.8	2.0	10-	+⊕	10-Cs
DEC.18	24	660.2	-26.0	E	6.7				
DEC.19	03	662.0	-26.3	E	5.4	2.0	10	*	3As 3Ac 3Cs 1Ci
DEC.19	06	664.0	-24.7	ENE	7.5				
DEC.19	09	665.6	-23.0	NE	10.0	.50	10	*	10As
DEC.19	12	666.5	-22.3	ENE	8.0				
DEC.19	15	666.5	-21.7	NE	9.5	.30	10	*+	10As
DEC.19	18	665.7	-23.3	ENE	8.7				
DEC.19	21	664.7	-24.3	E	5.0	5.0	10	*	10Cs
DEC.19	24	664.3	-25.2	ENE	6.1				
DEC.20	03	664.0	-25.3	E	7.0	2.0	10	⊙	10As
DEC.20	06	663.7	-24.9	E	9.8				
DEC.20	09	662.7	-24.1	E	9.5	3.0	9	*	9Ac
DEC.20	12	661.3	-23.7	E	9.3				
DEC.20	15	660.2	-23.8	E	10.7	3.0	10-	+⊕	5Cc 5Cs
DEC.20	18	658.7	-23.8	E	8.5				
DEC.20	21	657.7	-25.5	ESE	7.2	30.	0+	+⊙	0+Cs
DEC.20	24	657.7	-28.5	ESE	8.1				
DEC.21	03	657.1	-30.8	ESE	9.1	10.	0	+⊙	
DEC.21	06	656.2	-30.1	ESE	9.3				
DEC.21	09	655.6	-27.3	ESE	9.7	2.0	0	+⊙	
DEC.21	12	654.2	-24.8	ESE	10.7				
DEC.21	15	653.8	-23.6	E	9.8	2.0	0+	+⊙	0+Cs
DEC.21	18	653.4	-23.7	E	9.1				
DEC.21	21	654.2	-25.7	E	6.4	5.0	3	+⊕	3Cc
DEC.21	24	654.8	-29.0	ESE	6.7				
DEC.22	03	656.0	-31.2	ESE	7.1	10.	10-	⊙	10-Ac
DEC.22	06	656.7	-30.6	ESE	7.8				
DEC.22	09	657.7	-28.0	E	8.9	5.0	2	*+	2Cs
DEC.22	12	656.8	-26.3	E	6.7				
DEC.22	15	656.5	-24.8	ESE	8.4	20.	0+	+⊙	0+Cc
DEC.22	18	656.5	-25.0	ESE	8.8				
DEC.22	21	655.6	-26.6	ESE	6.6	30.	0+	+⊙	0+Cs
DEC.22	24	655.4	-29.8	ESE	5.7				
DEC.23	03	656.3	-31.7	ESE	6.8	30.	1	+⊙	1Ac
DEC.23	06	656.7	-31.3	ESE	6.9				
DEC.23	09	656.5	-28.7	ESE	7.9	30.	2	+⊙	2Cc
DEC.23	12	655.4	-26.9	ESE	8.0				
DEC.23	15	655.1	-25.9	ESE	8.8	10.	0+	+⊙	0+Cc
DEC.23	18	654.6	-26.1	ESE	8.3				
DEC.23	21	653.9	-27.5	ESE	4.9	30.	0	⊙	

Date	LT	Pst	Ta	WD	WS	V	N	W	
DEC.23	24	653.9	-30.8	ESE	5.8				
DEC.24	03	653.9	-33.3	ESE	6.0	30.	3	⊙	3Ac
DEC.24	06	653.8	-32.8	SE	7.2				
DEC.24	09	653.3	-29.0	ESE	6.7	30.	0	○	
DEC.24	12	651.7	-26.9	E	7.3				
DEC.24	15	650.6	-25.9	E	7.5	30.	0	○	
DEC.24	18	649.3	-25.5	E	7.8				
DEC.24	21	649.2	-27.4	ESE	4.8	30.	1	○	1Cs
DEC.24	24	649.7	-30.3	ESE	5.1				
DEC.25	03	650.4	-32.0	E	6.9	30.	9	⊙	5Ac 4Ci
DEC.25	06	651.3	-30.6	E	7.8				
DEC.25	09	652.3	-27.7	ENE	9.4	.50	10	※+	10As
DEC.25	12	652.7	-26.0	ENE	8.4				
DEC.25	15	652.9	-24.0	ENE	6.8	2.0	10-	+ ⊙	10-Cs
DEC.25	18	653.8	-23.6	ENE	5.0				
DEC.25	21	654.2	-25.2	E	2.4	30.	10-	⊙	10-Cs
DEC.25	24	654.9	-30.3	ESE	2.9				
DEC.26	03	655.2	-30.4	E	2.9				
DEC.26	06	655.8	-29.6	ENE	4.2				
DEC.26	09	656.5	-26.0	NE	5.2	5.0	10	※	10Cs
DEC.26	12	656.5	-23.2	NNE	3.2				
DEC.26	15	656.8	-22.3	N	3.5	5.0	10	※	10Ac
DEC.26	18	656.5	-18.7	NW	1.8				
DEC.26	21	656.5	-24.2	S	1.4	30.	8	⊙	8Cs
DEC.26	24	656.7	-32.7	SE	3.5				
DEC.27	03	656.7	-34.0	SE	3.3				
DEC.27	06	656.5	-32.7	SE	3.2				
DEC.27	09	656.5	-29.3	SE	5.3	20.	0+	○	0+Cs
DEC.27	12	656.7	-25.8	ESE	6.2				
DEC.27	15	656.8	-23.6	ESE	6.1	20.	0+	○	0+Cs
DEC.27	18	657.2	-24.2	ESE	5.9				
DEC.27	21	657.5	-26.9			30.	0	○	
DEC.27	24	657.7	-30.2	SE	6.4				
DEC.28	03	658.5	-32.5	ESE	6.0				
DEC.28	06	659.2	-31.6	ESE	7.1				
DEC.28	09	659.3	-27.9	ESE	8.0	10.	0	+ ○	
DEC.28	12	660.0	-25.0	E	8.1				
DEC.28	15	660.2	-23.7	E	6.8	20.	1	○	1Cs
DEC.28	18	660.3	-23.9	ENE	4.9				
DEC.28	21	660.6	-25.5	E	3.7	30.	9	⊙	9Ci
DEC.28	24	660.5	-30.1	ESE	4.2				
DEC.29	03	660.5	-30.8	ESE	5.8				
DEC.29	06	660.2	-29.5	ESE	6.1				
DEC.29	09	660.2	-25.4	E	5.9	5.0	10	※+	10Cs
DEC.29	12	659.8	-22.8	ENE	5.9				
DEC.29	15	659.0	-21.0	NE	2.8	10.	10	※	10-Ac
DEC.29	18	659.0	-17.7	NNE	1.6				
DEC.29	21	659.6	-24.7	SSE	1.7	30.	2	○	2Cs
DEC.29	24	660.2	-31.0	SSE	2.5				
DEC.30	03	661.6	-32.8	SE	3.9				
DEC.30	06	663.5	-31.7	SE	4.7				

Date	LT	Pst	Ta	WD	WS	V	N	W	
DEC.30	09	665.1	-27.7	SE	6.1	20.	0+	○	0+Cs
DEC.30	12	666.5	-23.2	SE	5.8				
DEC.30	15	668.0	-21.5	SE	5.2	30.	2	○	2Cs
DEC.30	18	669.0	-21.6	SSE	3.7				
DEC.30	21	670.2	-25.6	SSE	3.5	30.	10-	⊕	5Cc 5Cs
DEC.30	24	670.6	-27.5	SSE	3.7				
DEC.31	03	670.5	-27.1	SE	5.8				
DEC.31	06		-26.9						
DEC.31	09	670.2	-24.9	SE	6.8	30.	5	⊕	5Cs
DEC.31	15	669.8	-17.3	SE	6.7	30.	2	○	2Cs
DEC.31	21	669.8	-20.5	ESE	5.3	30.	7	⊕	7Cs
JAN. 1	09	668.2	-22.2	SE	8.5	20.	0	⊕ ○	
JAN. 1	15	666.0	-18.0	SE	9.3	10.	0	⊕ ○	
JAN. 2	09	659.0	-27.0	ESE	14.0	.20	10	⊕ ⊕	10Cs
JAN. 2	15	656.0	-23.0	E	13.3	.10	X	⊕	
JAN. 2	21	657.6	-24.8	E	10.2	.30	10-	⊕ ⊕	2Ac 5Cc 3Cs
JAN. 3	09	659.8	-24.8	E	9.6	1.0	7	⊕ ⊕	7Cs

### III. Surface Meteorological Data by a Long-term Weather Recorder during the Unmanned Period

A long-term weather recorder (Makino Instruments Co., Ltd.) was installed during the first stay at the Advance Camp in February 1985. A schematic view of the installation of the recorder is illustrated in Fig. III-1.

The sensors of the recorder were a three-cup anemometer and a wind vane potentiometer, both of which were installed on the top of a 5-m pole, and two platinum resistance thermometers, one housed in a stainless shielding with a natural ventilation at a height of 1.5 m above the snow surface and another buried in the snow at a depth of 2 cm.

The recorder itself consisted of complementary metal oxide semiconductor (CMOS) integrated circuits (IC). CMOS memories of 16 kB were used as recording media and a CMOS central processing unit (CPU) was used as a controller. The power of CPU was turned on every 3 h by a timer run by a crystal oscillator of 32.768 kHz. The CPU then measured wind speed and direction 300 times in 10 min (every 2 s) and computed the average wind speed, the maximum wind speed, the most frequent wind direction and the number of occurrence of the direction. Next, the air and the snow temperature was measured and the whole data including the data

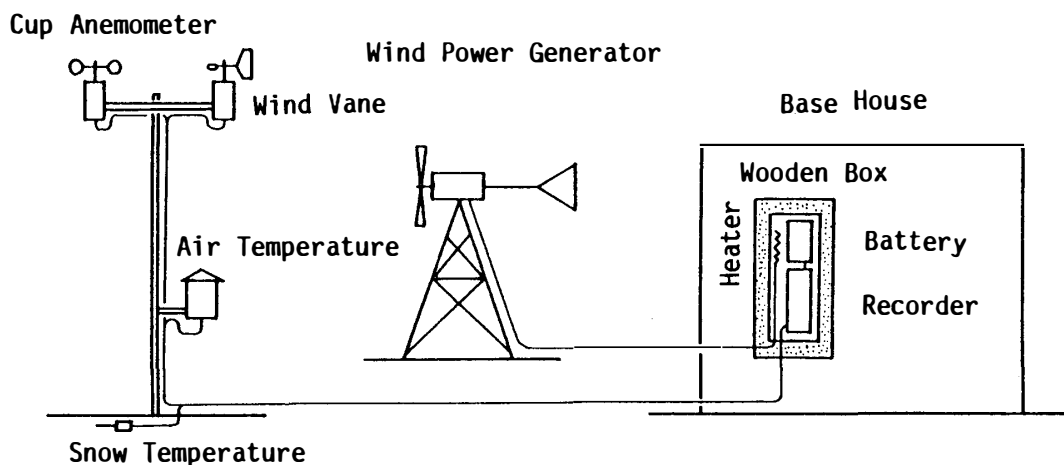


Fig. III-1. Schematic view of the long-term weather recorder.

number (number of times turned on) were compressed in 8 bytes and stored in the CMOS memory. Finally, the CPU turned off its power to save the battery. Only a small current was needed to maintain the memory and the timer.

The power of the recorder was supplied with four sets of lithium batteries: a 5 volts (V), 22 ampere-hours (AH) for the CPU and the memories, a 5 V, 1.5 AH for the digital measurement and a 6 V and a -6 V, 1.5 AH each, for the analog circuits.

The recorder and the batteries were stored in a wooden box with a thermal insulator of 10 cm thick foam polystyrene and placed in the base house. Although the ICs could operate in an environmental temperature of -55 °C, electric heaters powered by a wind power generator were applied to keep the system temperature above -30 °C.

An auxiliary recording medium, a volume of paper punch tape, was prepared but not used due to an accident on a battery for the puncher.

The memory had a capacity of storing 2040 sets of data, or 255 days x 8 times a day; the capacity was sufficient for the intended unmanned period, 8 months maximum.

At the time of the second visit to AC in October, the wind power generator was found broken. The data recorded on the CMOS memories were transferred to a hand-held computer (EPSON HC-40) with an RS-232-C adapter which was connected to the recorder's serial output for a voltage level conversion. A spare power of 5 V was needed because the voltage of the battery for the CPU (and for the serial output) had fallen to 3 V, which was insufficient for the adapter to recognize the output signal.

Although the power had fallen and the temperature of the recorder might have been lower than -60 °C due to the failure of the wind power generator, the memory was filled with data almost just as much as for the absent period.

A closer study on the collected data revealed that there were some false data:

(1) A set of data which should be numbered 224 were completely missing and the subsequent data were numbered one less than what

should be. This was recognized by plotting the diurnal variation of the air temperature. The amount of recorded data agrees with the length of recording period if the missing data are considered. The missing data set is indicated by asterisks in the table.

(2) The sets of data which should be numbered from 1278 to 1405 were numbered incorrectly and the wind and temperature recorded in this period varied randomly. The period of false data corresponds to 1 kB of memory which is just the same as the capacity of one memory IC. It seems that some errors occurred in extremely low temperature though the memories passed tests in normal temperature. The falsely numbered data sets are indicated by parentheses.

(3) In some cases, especially after the end of June, the maximum wind speed became extremely larger than the average wind speed. It is likely that the measuring circuit has sometimes failed to detect contact of the reed switch in the anemometer in extremely low temperature; the result would be to yield smaller average wind speed. The wind speed data whose maximum to mean ratio exceeds 1.4 may well be omitted and are indicated by parentheses.

(4) The minimum temperatures measurable by the recorder were  $-62.7$  and  $-62.6$  °C for the air and snow temperature, respectively. The data which pointed these values are indicated by parentheses.

The data are listed in Table III. Notations in the table are as follows:

- LT : Local standard time at Syowa Station (GMT+3h)
- n : Data number
- WD : Most frequent wind direction
- nD : Number of occurrence of the most frequent wind direction divided by 2
- WS : Average wind speed ( $\text{m s}^{-1}$ )
- WSp : Maximum wind speed ( $\text{m s}^{-1}$ )
- Ta : Air temperature (°C)
- Ts : Snow temperature (°C)

Table III. Surface meteorological data by a long-term weather recorder during the period 27 February-16 October 1985.

Date	LT	n	WD	nD	WS	WSp	Ta	Ts
FEB. 27	15	0	ESE	147	7.3	8.9	-40.0	-40.9
	18	1	ESE	148	7.8	9.4	-40.9	-41.8
	21	2	ESE	148	7.1	8.3	-45.0	-45.4
	24	3	ESE	147	7.2	8.6	-48.4	-48.3
FEB. 28	3	4	ESE	139	7.0	8.0	-50.6	-50.2
	6	5	ESE	144	7.1	8.4	-50.6	-50.9
	9	6	ESE	148	7.4	8.5	-47.2	-48.1
	12	7	ESE	146	6.9	8.8	-42.5	-43.5
	15	8	ESE	147	6.8	8.2	-40.3	-41.4
	18	9	ESE	128	6.3	7.1	-42.4	-43.2
	21	10	ESE	76	6.8	8.2	-47.7	-47.5
	24	11	SE	92	7.0	7.9	-51.2	-50.3
MAR. 1	3	12	SE	120	7.3	8.8	-53.0	-52.1
	6	13	SE	120	8.8	10.1	-53.1	-52.5
	9	14	SE	142	8.3	10.1	-49.8	-50.1
	12	15	SE	145	9.8	12.0	-45.9	-45.7
	15	16	SE	133	9.3	11.3	-43.3	-43.3
	18	17	SE	129	8.4	10.3	-43.5	-44.6
	21	18	SE	145	8.9	11.2	-46.9	-47.5
	24	19	SE	135	9.7	11.6	-49.7	-49.7
MAR. 2	3	20	SE	84	9.0	11.3	-51.0	-50.7
	6	21	SE	131	10.0	12.0	-51.7	-50.0
	9	22	SE	143	9.9	12.2	-48.4	-48.4
	12	23	SE	139	9.8	12.1	-43.2	-43.4
	15	24	SE	147	8.2	10.8	-40.0	-41.1
	18	25	SE	148	8.0	9.9	-40.9	-42.7
	21	26	SE	145	7.8	9.4	-45.1	-46.3
	24	27	SE	113	9.1	11.1	-47.4	-48.1
MAR. 3	3	28	SE	145	9.0	10.9	-48.2	-48.7
	6	29	SE	108	9.3	11.4	-48.4	-49.1
	9	30	ESE	113	10.5	12.4	-44.3	-46.8
	12	31	ESE	126	9.3	11.2	-39.4	-45.9
	15	32	ESE	121	9.4	11.1	-37.1	-44.6
	18	33	ESE	126	9.8	11.8	-38.4	-43.6
	21	34	ESE	109	9.1	10.4	-42.2	-43.1
	24	35	SE	100	8.9	10.9	-45.3	-43.2
MAR. 4	3	36	SE	75	9.6	11.6	-44.9	-43.8
	6	37	ESE	129	11.1	13.3	-43.6	-44.4
	9	38	SE	95	11.0	12.8	-41.0	-42.2
	12	39	ESE	87	10.8	12.8	-36.8	-37.8
	15	40	SE	87	10.7	12.9	-33.7	-35.6
	18	41	SE	92	11.3	13.9	-34.6	-37.2
	21	42	SE	125	11.1	13.0	-37.8	-40.0
	24	43	SE	132	11.4	13.7	-39.4	-41.3
MAR. 5	3	44	SE	103	11.4	13.6	-40.8	-41.9
	6	45	SE	130	13.3	16.6	-42.7	-43.3
	9	46	SE	115	14.6	17.7	-42.2	-42.0
	12	47	ESE	148	14.8	18.3	-38.8	-38.2
	15	48	ESE	148	14.2	17.5	-34.8	-38.6



Date	LT	n	WD	nD	WS	WSp	Ta	Ts
MAR. 5	18	49	ESE	134	13.7	17.0	-35.3	-36.2
	21	50	ESE	129	12.1	14.3	-36.8	-38.5
	24	51	ESE	113	12.9	15.7	-37.4	-38.4
MAR. 6	3	52	E	91	13.1	16.5	-39.0	-39.7
	6	53	E	106	12.0	15.4	-38.1	-38.9
	9	54	E	147	12.3	15.3	-36.7	-38.9
	12	55	E	143	12.8	16.4	-34.6	-38.8
	15	56	E	148	12.5	15.9	-33.4	-36.8
	18	57	E	146	11.7	15.0	-34.0	-35.5
	21	58	E	145	11.9	13.8	-37.0	-38.0
	24	59	E	147	11.9	14.2	-37.9	-38.0
MAR. 7	3	60	E	147	12.2	14.6	-37.3	-37.7
	6	61	E	142	10.7	13.4	-36.6	-37.7
	9	62	E	136	10.9	13.5	-36.7	-37.2
	12	63	E	130	10.2	12.1	-34.3	-34.6
	15	64	ENE	99	10.0	12.0	-32.5	-33.4
	18	65	E	136	8.1	9.3	-34.5	-36.6
	21	66	E	136	8.7	10.3	-37.9	-39.7
	24	67	E	149	9.1	10.8	-39.5	-40.9
MAR. 8	3	68	E	146	8.9	11.1	-39.9	-41.3
	6	69	E	122	8.4	9.9	-41.8	-43.5
	9	70	E	142	8.9	10.7	-40.0	-40.9
	12	71	E	147	9.6	11.9	-36.2	-36.9
	15	72	E	149	9.2	10.7	-34.8	-36.5
	18	73	E	144	8.5	9.9	-36.6	-38.8
	21	74	E	123	7.8	9.1	-40.5	-43.0
	24	75	E	91	9.0	10.6	-42.7	-44.1
MAR. 9	3	76	ESE	99	8.7	10.0	-43.1	-44.7
	6	77	ESE	95	9.7	11.5	-44.4	-45.4
	9	78	E	82	10.1	12.0	-42.2	-43.6
	12	79	E	121	10.2	12.6	-37.5	-38.2
	15	80	E	143	9.2	11.5	-35.2	-39.5
	18	81	E	133	9.1	11.1	-36.5	-39.3
	21	82	E	136	9.7	12.5	-39.6	-39.3
	24	83	E	123	9.7	12.3	-39.9	-39.8
MAR. 10	3	84	E	134	8.4	10.1	-40.8	-40.2
	6	85	E	133	8.0	9.4	-39.4	-40.3
	9	86	E	117	7.8	9.1	-37.3	-40.2
	12	87	E	147	8.3	10.6	-34.7	-39.8
	15	88	E	133	7.9	9.5	-33.1	-38.9
	18	89	ESE	87	7.0	8.1	-33.4	-37.9
	21	90	ESE	97	6.8	7.9	-37.5	-37.9
	24	91	ESE	143	6.8	8.1	-38.8	-38.3
MAR. 11	3	92	ESE	147	7.2	8.4	-41.0	-38.7
	6	93	ESE	141	7.4	8.8	-43.6	-39.7
	9	94	ESE	148	8.2	9.9	-41.7	-40.8
	12	95	ESE	137	7.5	9.0	-38.0	-40.4
	15	96	ESE	148	7.6	9.1	-35.8	-39.2
	18	97	ESE	129	7.4	8.7	-38.3	-38.8
	21	98	ESE	148	7.0	8.1	-41.3	-39.6
	24	99	ESE	146	7.0	8.2	-43.5	-40.8

Date	LT	n	WD	nD	WS	WSp	Ta	Ts
MAR.12	3	100	ESE	135	6.6	7.8	-45.6	-41.7
	6	101	SE	97	7.8	9.1	-47.6	-42.7
	9	102	ESE	75	6.2	7.2	-46.0	-43.4
	12	103	ESE	97	5.9	6.7	-41.9	-42.9
	15	104	ESE	140	5.5	6.3	-39.5	-41.8
	18	105	ESE	107	5.6	6.5	-41.8	-41.3
	21	106	SE	113	5.5	6.5	-45.7	-42.2
	24	107	SE	141	6.5	7.6	-48.0	-43.4
MAR.13	3	108	SE	123	6.6	8.1	-50.1	-44.7
	6	109	SE	78	7.5	9.4	-51.9	-45.8
	9	110	SE	144	9.0	11.5	-51.1	-46.6
	12	111	SE	147	8.7	11.1	-46.5	-46.1
	15	112	SE	121	9.1	10.8	-44.1	-44.9
	18	113	SSE	139	8.8	12.2	-44.5	-44.4
	21	114	SSE	143	9.7	13.1	-47.7	-44.9
	24	115	SSE	142	9.8	12.4	-49.5	-45.7
MAR.14	3	116	SSE	133	11.0	14.7	-49.7	-46.2
	6	117	SE	110	13.2	17.5	-49.3	-46.4
	9	118	SE	145	16.6	23.1	-49.6	-46.3
	12	119	SE	76	17.1	20.6	-46.5	-46.1
	15	120	ESE	149	14.8	18.5	-45.0	-45.7
	18	121	ESE	149	12.6	15.1	-45.9	-45.4
	21	122	ESE	148	12.2	15.6	-47.3	-45.6
	24	123	ESE	149	12.2	14.7	-47.9	-46.0
MAR.15	3	124	ESE	147	12.2	14.9	-47.1	-46.1
	6	125	ESE	147	12.2	14.3	-47.9	-46.2
	9	126	ESE	137	12.4	15.2	-49.1	-46.6
	12	127	ESE	148	12.8	15.8	-46.9	-46.3
	15	128	ESE	146	13.2	16.9	-43.2	-44.8
	18	129	ESE	143	13.3	15.6	-43.5	-44.2
	21	130	ESE	145	13.2	16.5	-44.8	-45.0
	24	131	ESE	142	12.2	14.5	-45.7	-45.6
MAR.16	3	132	ESE	145	11.5	13.6	-46.1	-46.1
	6	133	ESE	104	12.1	14.7	-46.0	-46.5
	9	134	ESE	143	10.8	13.0	-45.3	-46.3
	12	135	ESE	148	11.0	12.9	-42.4	-43.7
	15	136	ESE	147	10.3	12.3	-41.5	-43.1
	18	137	ESE	149	9.7	11.9	-42.8	-44.3
	21	138	ESE	149	9.7	11.2	-45.8	-46.4
	24	139	ESE	148	9.2	10.5	-47.0	-47.6
MAR.17	3	140	ESE	146	8.1	9.4	-47.9	-48.6
	6	141	ESE	149	8.0	9.4	-48.3	-49.4
	9	142	ESE	149	8.2	9.7	-46.5	-48.8
	12	143	ESE	144	6.4	7.4	-43.1	-46.1
	15	144	ESE	143	6.8	8.3	-40.9	-44.4
	18	145	ESE	148	6.3	7.5	-43.3	-45.6
	21	146	ESE	149	6.6	7.5	-47.5	-48.4
	24	147	ESE	122	6.0	7.0	-50.0	-50.1
MAR.18	3	148	SE	122	5.9	6.6	-51.5	-51.3
	6	149	SE	131	5.7	6.6	-52.5	-52.3
	9	150	SE	117	6.2	7.2	-50.5	-51.7

Date	LT	n	WD	nD	WS	WSp	Ta	Ts
MAR. 18	12	151	ESE	83	5.9	6.7	-46.3	-48.6
	15	152	SE	139	4.6	5.6	-43.7	-46.6
	18	153	SE	116	7.5	8.8	-45.5	-47.1
	21	154	SE	143	7.9	9.1	-48.4	-49.0
	24	155	SE	81	6.6	7.9	-49.3	-49.8
MAR. 19	3	156	SE	84	7.5	8.7	-49.4	-50.2
	6	157	ESE	101	6.1	7.0	-50.1	-50.7
	9	158	SE	125	4.8	5.6	-48.5	-50.1
	12	159	SE	134	4.5	5.2	-44.0	-47.0
	15	160	SE	86	6.2	7.5	-40.7	-44.5
	18	161	SE	128	4.8	5.4	-42.3	-45.2
	21	162	SE	148	4.3	4.9	-45.8	-47.2
	24	163	SE	123	4.8	5.6	-45.7	-48.1
MAR. 20	3	164	SE	142	4.9	5.6	-45.1	-48.0
	6	165	SSE	84	5.8	6.6	-44.9	-47.5
	9	166	SE	110	4.6	5.4	-42.4	-46.2
	12	167	SE	148	4.3	5.0	-39.1	-43.2
	15	168	SE	149	3.5	4.0	-37.8	-42.1
	18	169	SE	90	3.3	3.6	-41.2	-43.4
	21	170	SE	150	3.6	4.0	-44.7	-45.5
	24	171	SE	150	3.0	3.4	-43.4	-45.8
MAR. 21	3	172	SE	133	4.1	4.4	-45.0	-46.2
	6	173	ESE	146	4.3	5.1	-44.0	-46.2
	9	174	ESE	149	5.2	5.9	-41.5	-44.6
	12	175	ESE	141	4.1	4.8	-36.9	-41.4
	15	176	E	130	5.1	5.7	-34.4	-38.8
	18	177	E	131	4.9	5.9	-33.3	-37.6
	21	178	ENE	135	6.3	8.6	-31.8	-36.2
	24	179	ENE	142	6.7	8.3	-31.4	-35.3
MAR. 22	3	180	ENE	144	6.7	8.2	-30.7	-34.5
	6	181	ENE	108	5.1	6.8	-30.1	-34.0
	9	182	ENE	133	4.1	5.1	-30.7	-34.2
	12	183	ENE	118	3.5	4.3	-30.9	-34.7
	15	184	E	149	3.4	4.1	-30.4	-34.1
	18	185	E	144	4.5	5.1	-33.0	-35.6
	21	186	ESE	144	5.0	5.7	-35.2	-36.8
	24	187	ESE	147	5.2	6.4	-33.6	-36.5
MAR. 23	3	188	E	148	6.7	8.1	-34.9	-36.9
	6	189	ESE	129	5.1	6.0	-36.9	-38.9
	9	190	E	101	6.9	8.0	-33.4	-36.2
	12	191	E	93	6.3	7.2	-32.4	-35.7
	15	192	E	148	6.2	7.2	-31.2	-34.4
	18	193	E	98	6.8	7.9	-32.9	-35.4
	21	194	E	113	7.3	8.4	-34.1	-36.1
	24	195	ESE	97	7.6	9.0	-33.7	-36.0
MAR. 24	3	196	E	108	7.7	9.1	-36.8	-38.5
	6	197	E	144	8.1	10.1	-36.9	-38.4
	9	198	E	147	7.9	9.4	-37.1	-39.3
	12	199	ENE	75	8.2	9.8	-35.5	-38.3
	15	200	ENE	142	6.9	8.2	-33.3	-38.0
	18	201	ENE	141	6.3	8.2	-33.7	-37.9

Date	LT	n	WD	nD	WS	WSp	Ta	Ts
MAR.24	21	202	E	142	4.1	4.9	-36.1	-37.9
	24	203	E	137	5.5	6.3	-40.1	-38.4
MAR.25	3	204	E	142	5.6	6.5	-41.7	-39.2
	6	205	E	117	5.7	6.6	-42.8	-39.7
	9	206	ESE	149	4.9	5.9	-44.4	-40.3
	12	207	ESE	147	4.9	5.6	-42.2	-40.7
	15	208	ESE	146	5.5	6.1	-41.8	-40.7
	18	209	ESE	149	5.2	5.8	-45.0	-40.9
	21	210	SE	89	5.5	6.1	-48.5	-41.5
	24	211	SE	140	4.1	5.1	-50.1	-42.3
MAR.26	3	212	SE	117	3.5	4.8	-50.8	-43.0
	6	213	ESE	91	6.6	7.6	-51.0	-43.5
	9	214	ESE	85	6.9	8.0	-50.2	-43.9
	12	215	ESE	137	7.2	8.4	-47.6	-44.2
	15	216	ESE	141	7.6	9.2	-45.7	-43.8
	18	217	ESE	131	8.1	9.5	-47.6	-43.7
	21	218	ESE	121	8.8	10.2	-50.3	-44.3
	24	219	ESE	121	8.7	10.6	-51.3	-45.1
MAR.27	3	220	ESE	87	8.9	11.3	-51.7	-45.7
	6	221	SE	120	9.8	11.6	-52.8	-46.2
	9	222	SE	113	8.6	12.0	-52.9	-47.1
	12	223	SE	110	8.5	10.0	-50.5	-47.3
	15	****						
	18	224	SE	132	( 0.0)	( 0.0)	-48.9	-46.7
	21	225	SE	122	( 0.0)	( 0.0)	-51.8	-47.5
	24	226	ESE	92	( 0.0)	( 0.0)	-52.8	-48.4
MAR.28	3	227	ESE	105	8.5	9.9	-53.3	-49.1
	6	228	ESE	126	9.0	11.2	-53.1	-49.5
	9	229	ESE	112	8.1	9.7	-52.4	-49.4
	12	230	ESE	118	8.8	10.1	-49.7	-49.0
	15	231	ESE	130	8.2	9.9	-47.4	-48.4
	18	232	ESE	132	7.7	9.0	-48.6	-48.0
	21	233	ESE	124	7.0	8.5	-50.2	-47.7
	24	234	ESE	137	7.1	8.3	-51.1	-48.1
MAR.29	3	235	SE	82	6.9	8.2	-52.1	-48.4
	6	236	ESE	99	7.0	8.0	-51.6	-48.8
	9	237	ESE	136	5.4	6.5	-51.4	-48.9
	12	238	SE	99	6.8	7.7	-48.3	-48.7
	15	239	SE	94	6.7	7.8	-46.2	-47.7
	18	240	SE	115	8.0	9.2	-48.1	-47.3
	21	241	SE	94	8.4	10.2	-50.2	-47.7
	24	242	SE	145	8.3	9.8	-51.0	-48.1
MAR.30	3	243	SE	146	6.9	8.0	-52.2	-48.2
	6	244	SE	147	6.3	7.2	-53.6	-48.4
	9	245	SE	147	7.2	8.4	-52.5	-48.7
	12	246	SE	138	6.2	7.3	-49.7	-48.7
	15	247	SE	129	6.5	7.7	-48.0	-48.6
	18	248	SE	147	7.1	8.3	-49.9	-48.4
	21	249	ESE	103	8.8	9.9	-52.4	-48.3
	24	250	SE	132	8.2	9.8	-53.8	-48.9
MAR.31	3	251	SE	123	9.1	10.6	-53.8	-49.4

Date	LT	n	WD	nD	WS	WSp	Ta	Ts
MAR. 31	6	252	SE	130	9.8	11.4	-54.1	-49.6
	9	253	SE	86	9.9	11.2	-53.4	-50.2
	12	254	ESE	118	8.1	9.5	-51.2	-49.9
	15	255	SE	89	8.6	10.7	-50.1	-49.5
	18	256	ESE	77	9.7	11.5	-51.9	-49.4
	21	257	ESE	97	9.3	11.0	-53.8	-49.2
	24	258	ESE	127	10.0	11.3	-54.9	-49.2
APR. 1	3	259	ESE	78	8.9	10.5	-55.5	-50.1
	6	260	ESE	136	9.2	10.6	-55.1	-52.4
	9	261	ESE	145	9.6	11.1	-54.2	-53.8
	12	262	ESE	150	8.7	9.8	-51.9	-52.6
	15	263	ESE	147	8.8	11.0	-50.0	-51.2
	18	264	ESE	104	9.5	11.3	-50.4	-51.7
	21	265	ESE	117	9.7	12.6	-50.9	-52.0
APR. 2	24	266	ESE	77	8.9	10.8	-50.9	-52.3
	3	267	ESE	87	8.8	11.4	-50.6	-52.3
	6	268	E	148	8.5	10.0	-49.5	-51.7
	9	269	E	144	9.4	13.0	-46.5	-50.7
	12	270	ENE	77	8.8	10.3	-44.4	-50.0
	15	271	ENE	136	9.4	11.5	-41.6	-46.1
	18	272	ENE	140	8.9	11.0	-41.4	-44.5
APR. 3	21	273	ENE	141	8.2	10.2	-40.2	-43.4
	24	274	ENE	144	8.4	10.4	-41.1	-43.8
	3	275	ENE	110	7.9	9.5	-41.7	-44.5
	6	276	ENE	118	6.9	8.0	-40.7	-43.6
	9	277	ENE	118	6.9	7.9	-40.5	-43.4
	12	278	ENE	93	7.0	8.0	-39.5	-42.7
	15	279	ENE	143	6.9	8.6	-37.2	-40.7
APR. 4	18	280	ENE	146	5.6	6.4	-36.1	-39.6
	21	281	ENE	141	6.0	7.3	-36.9	-39.8
	24	282	ENE	146	5.7	7.2	-38.2	-41.1
	3	283	ENE	148	5.8	6.8	-39.6	-41.8
	6	284	ENE	83	5.8	6.7	-38.8	-41.6
	9	285	ENE	134	6.9	8.2	-37.5	-40.6
	12	286	ENE	136	6.5	7.8	-37.3	-39.7
APR. 5	15	287	ENE	148	6.0	7.2	-37.2	-39.5
	18	288	E	105	5.2	6.0	-39.8	-41.6
	21	289	ENE	122	5.8	6.5	-40.8	-42.3
	24	290	E	150	5.9	6.8	-44.5	-45.2
	3	291	E	147	6.7	7.8	-46.5	-47.0
	6	292	E	148	6.6	7.7	-46.6	-48.5
	9	293	E	147	9.1	11.8	-44.6	-47.1
APR. 6	12	294	E	147	8.3	9.6	-39.1	-46.1
	15	295	ENE	103	8.6	11.2	-36.9	-41.2
	18	296	ENE	110	8.1	10.9	-35.0	-39.3
	21	297	ENE	144	8.5	10.5	-34.1	-38.1
	24	298	ENE	145	9.1	11.4	-33.3	-37.2
	3	299	ENE	147	10.5	12.9	-32.2	-35.7
	6	300	ENE	137	9.7	13.1	-31.6	-35.0
APR. 6	9	301	ENE	143	7.9	9.7	-31.2	-34.6
	12	302	NE	83	9.6	12.8	-30.4	-34.3

Date	LT	n	WD	nD	WS	WSp	Ta	Ts
APR. 6	15	303	ENE	146	8.0	9.9	-29.7	-33.2
	18	304	ENE	146	9.7	11.6	-31.0	-33.1
	21	305	ENE	117	10.8	13.3	-32.6	-34.4
	24	306	ENE	81	11.6	14.8	-35.3	-35.9
APR. 7	3	307	E	109	10.4	12.2	-38.0	-38.5
	6	308	ESE	127	10.8	12.7	-37.4	-38.2
	9	309	ESE	135	11.0	13.1	-40.1	-40.5
	12	310	ESE	121	11.4	13.7	-38.8	-39.7
	15	311	ESE	121	10.1	11.7	-37.9	-39.2
	18	312	E	129	11.1	13.1	-37.7	-38.9
	21	313	E	75	10.4	12.2	-38.4	-39.3
	24	314	ESE	147	8.3	9.9	-40.4	-40.7
APR. 8	3	315	ESE	109	8.1	9.7	-41.4	-42.3
	6	316	ESE	106	8.2	10.4	-43.6	-44.4
	9	317	E	132	8.0	9.3	-43.5	-45.2
	12	318	E	84	7.4	8.8	-42.7	-45.2
	15	319	ESE	93	6.4	7.3	-42.4	-44.5
	18	320	ESE	108	6.3	7.6	-41.0	-43.3
	21	321	ESE	97	6.1	7.1	-40.4	-42.5
	24	322	ESE	148	5.0	5.9	-45.0	-45.7
APR. 9	3	323	SE	150	5.6	6.3	-46.7	-47.2
	6	324	SE	150	5.6	6.3	-49.2	-48.9
	9	325	ESE	124	6.2	7.1	-49.4	-49.6
	12	326	SE	93	7.6	8.7	-46.9	-48.3
	15	327	ESE	98	8.0	9.3	-45.3	-47.3
	18	328	ESE	116	10.4	12.4	-45.1	-47.2
	21	329	ESE	113	10.7	12.4	-44.8	-46.7
	24	330	ESE	144	11.4	13.4	-45.7	-47.2
APR. 10	3	331	ESE	148	10.7	13.0	-44.5	-46.9
	6	332	ESE	146	12.3	14.8	-44.8	-46.4
	9	333	ESE	147	12.2	14.7	-44.8	-46.3
	12	334	ESE	148	13.2	16.1	-43.6	-45.5
	15	335	ESE	148	12.4	14.8	-43.9	-45.4
	18	336	ESE	145	11.7	13.9	-45.5	-46.6
	21	337	ESE	149	12.2	14.5	-45.6	-47.1
	24	338	ESE	139	12.5	14.6	-46.2	-47.5
APR. 11	3	339	ESE	125	11.6	13.4	-47.2	-48.4
	6	340	ESE	95	10.9	13.9	-48.3	-49.2
	9	341	ESE	148	14.2	17.4	-50.6	-50.0
	12	342	ESE	146	13.1	16.0	-49.9	-49.7
	15	343	ESE	143	13.4	16.5	-49.3	-49.3
	18	344	ESE	134	12.9	15.2	-49.9	-49.9
	21	345	E	90	12.8	15.2	-49.1	-49.9
	24	346	E	110	12.5	15.0	-48.3	-49.8
APR. 12	3	347	E	86	11.5	13.8	-49.1	-50.1
	6	348	E	146	11.7	14.0	-48.0	-49.4
	9	349	E	143	10.6	12.9	-47.4	-48.7
	12	350	E	148	9.6	11.7	-45.1	-48.3
	15	351	E	146	7.8	9.4	-44.6	-46.8
	18	352	E	149	6.3	7.4	-45.7	-46.8
	21	353	E	144	6.8	8.5	-47.2	-47.9

Date	LT	n	WD	nD	WS	WSp	Ta	Ts
APR.12	24	354	E	143	6.7	8.2	-46.8	-47.6
APR.13	3	355	E	134	6.9	8.3	-44.9	-47.4
	6	356	E	145	5.9	6.9	-43.3	-47.1
	9	357	E	147	5.0	5.9	-43.8	-46.8
	12	358	ESE	149	3.9	4.9	-43.1	-46.5
	15	359	SE	122	4.2	4.8	-43.9	-46.2
	18	360	SE	150	3.9	4.3	-50.2	-46.3
	21	361	SE	150	4.0	4.5	-49.6	-47.1
	24	362	SE	150	4.2	4.7	-50.5	-47.5
APR.14	3	363	SE	150	4.8	5.3	-51.1	-48.1
	6	364	SE	150	3.9	4.3	-51.5	-48.5
	9	365	SE	150	4.6	5.7	-53.9	-48.9
	12	366	SE	150	4.1	4.7	-54.3	-49.4
	15	367	SE	150	5.9	7.4	-54.2	-49.8
	18	368	SSE	111	7.9	9.2	-56.5	-50.3
	21	369	SE	98	9.4	11.6	-57.7	-51.1
	24	370	SE	143	9.2	11.2	-58.8	-52.4
APR.15	3	371	SE	148	8.9	11.4	-58.4	-53.3
	6	372	SE	149	10.7	13.7	-59.0	-54.2
	9	373	SE	140	11.9	14.2	-59.8	-56.6
	12	374	SE	125	11.1	14.0	-59.3	-56.5
	15	375	SE	104	12.1	14.1	-58.7	-56.9
	18	376	SE	88	11.0	12.9	-59.0	-55.8
	21	377	SE	116	10.4	12.2	-59.9	-58.6
	24	378	ESE	77	9.6	11.3	-60.2	-59.5
APR.16	3	379	SE	105	10.4	11.9	-60.6	-59.4
	6	380	ESE	125	8.8	10.5	-61.1	-58.5
	9	381	SE	94	9.4	10.8	-62.0	-58.8
	12	382	ESE	101	9.6	11.4	-61.2	-60.1
	15	383	ESE	137	10.0	11.9	-60.5	-58.7
	18	384	ESE	133	10.2	12.6	-61.2	-58.0
	21	385	ESE	140	10.2	11.5	-61.4	-57.6
	24	386	ESE	149	9.8	11.4	-61.0	-57.2
APR.17	3	387	ESE	148	9.7	11.4	-58.0	-57.0
	6	388	ESE	148	8.3	9.9	-57.5	-56.5
	9	389	ESE	149	8.3	9.6	-58.7	-58.0
	12	390	ESE	146	7.7	9.4	-56.9	-57.1
	15	391	ESE	147	7.6	8.9	-57.0	-56.4
	18	392	ESE	130	7.9	9.0	-58.7	-56.8
	21	393	ESE	94	7.8	8.7	-59.2	-57.8
	24	394	ESE	142	8.9	10.5	-57.1	-57.8
APR.18	3	395	ESE	145	9.6	12.0	-52.9	-56.3
	6	396	ESE	143	11.2	13.4	-52.4	-55.7
	9	397	ESE	148	11.1	13.8	-51.2	-54.6
	12	398	ESE	148	11.2	12.8	-48.4	-53.0
	15	399	ESE	138	10.4	12.2	-50.7	-52.9
	18	400	ESE	136	10.9	12.9	-52.2	-53.8
	21	401	ESE	144	10.3	11.9	-52.3	-54.0
	24	402	ESE	109	10.4	12.4	-52.3	-54.1
APR.19	3	403	SE	118	11.0	12.8	-52.5	-54.2
	6	404	SE	134	11.4	13.5	-52.5	-53.7

Date	LT	n	WD	nD	WS	WSp	Ta	Ts
APR. 19	9	405	SE	128	11.2	13.5	-52.1	-53.5
	12	406	SE	142	10.9	12.8	-50.9	-53.0
	15	407	SE	147	11.1	13.1	-49.5	-52.2
	18	408	SE	129	12.0	14.7	-50.0	-52.0
	21	409	SE	126	13.5	15.7	-49.7	-51.9
	24	410	SE	79	12.0	14.4	-49.6	-51.8
APR. 20	3	411	SE	136	12.0	14.4	-49.1	-51.7
	6	412	SE	139	12.7	14.8	-47.5	-51.5
	9	413	SE	149	12.2	14.3	-47.9	-51.4
	12	414	SE	149	11.7	14.3	-46.8	-51.3
	15	415	SE	145	13.3	15.7	-46.2	-51.2
	18	416	SE	146	13.7	16.7	-45.5	-51.1
	21	417	SE	139	14.1	17.0	-45.2	-51.0
	24	418	SE	130	14.0	17.9	-45.1	-48.7
APR. 21	3	419	SE	106	14.0	17.3	-46.7	-48.6
	6	420	SE	128	13.5	16.2	-47.2	-48.9
	9	421	SE	123	13.2	15.8	-47.0	-49.1
	12	422	SE	77	12.6	14.8	-47.7	-49.2
	15	423	ESE	101	11.8	13.9	-47.9	-49.5
	18	424	ESE	76	11.7	14.3	-48.5	-50.3
	21	425	ESE	80	11.2	13.4	-50.5	-51.4
	24	426	ESE	118	12.4	15.0	-51.0	-52.0
APR. 22	3	427	ESE	138	12.4	16.0	-51.9	-52.5
	6	428	ESE	149	12.5	15.3	-51.7	-52.7
	9	429	ESE	149	11.5	13.6	-52.5	-53.2
	12	430	ESE	149	12.1	14.4	-51.5	-52.8
	15	431	ESE	140	11.6	14.8	-50.3	-52.2
	18	432	ESE	145	11.4	13.3	-50.1	-52.1
	21	433	ESE	149	11.1	13.4	-51.4	-52.5
	24	434	ESE	149	11.3	13.2	-51.4	-53.0
APR. 23	3	435	ESE	148	10.6	13.8	-50.7	-53.0
	6	436	ESE	141	10.4	12.5	-48.4	-52.1
	9	437	E	116	10.0	12.4	-43.9	-49.5
	12	438	E	132	12.1	15.2	-43.6	-48.0
	15	439	ESE	130	11.3	13.2	-44.0	-47.6
	18	440	ESE	146	11.2	14.5	-45.0	-48.2
	21	441	ESE	147	10.8	13.8	-46.6	-49.0
	24	442	ESE	147	11.9	14.6	-46.8	-49.4
APR. 24	3	443	ESE	145	11.4	13.9	-47.5	-49.8
	6	444	ESE	138	12.7	15.2	-48.5	-50.4
	9	445	ESE	128	12.4	15.0	-49.5	-50.9
	12	446	ESE	137	11.3	13.4	-50.5	-51.7
	15	447	ESE	149	11.7	14.6	-52.2	-52.5
	18	448	ESE	150	11.1	14.3	-53.5	-53.7
	21	449	ESE	140	11.4	13.2	-52.8	-53.7
	24	450	ESE	103	10.8	12.9	-52.8	-53.9
APR. 25	3	451	ESE	79	10.1	12.5	-52.1	-53.7
	6	452	ESE	77	9.9	11.8	-50.7	-53.2
	9	453	E	101	10.1	12.3	-50.5	-53.2
	12	454	E	146	9.8	11.6	-49.0	-52.3
	15	455	E	143	8.4	9.9	-47.9	-51.8



Date	LT	n	WD	nD	WS	WSp	Ta	Ts
APR. 25	18	456	E	144	9.0	10.3	-46.5	-50.5
	21	457	E	115	8.3	10.0	-43.6	-48.0
	24	458	E	125	8.0	9.6	-40.9	-45.6
APR. 26	3	459	E	104	8.1	9.6	-38.5	-43.7
	6	460	ENE	128	8.2	10.0	-38.1	-42.6
	9	461	E	101	8.3	9.7	-35.8	-41.0
	12	462	ENE	142	9.4	10.9	-33.8	-38.5
	15	463	E	108	10.3	12.9	-34.5	-38.0
	18	464	E	134	8.1	9.3	-37.3	-39.4
	21	465	E	148	7.9	9.3	-38.9	-41.0
	24	466	E	141	7.6	8.7	-39.7	-42.0
APR. 27	3	467	E	147	8.4	10.0	-40.0	-42.4
	6	468	ESE	136	7.3	8.7	-41.4	-43.9
	9	469	ESE	143	8.4	9.8	-41.7	-44.4
	12	470	ESE	144	8.8	10.6	-42.1	-44.2
	15	471	E	100	8.5	10.0	-42.8	-45.0
	18	472	ESE	76	9.6	11.4	-41.9	-44.1
	21	473	ESE	143	9.0	10.9	-42.5	-44.2
	24	474	ESE	147	8.3	10.0	-44.6	-45.6
APR. 28	3	475	ESE	147	8.9	10.5	-44.5	-46.1
	6	476	ESE	142	7.8	9.1	-45.0	-47.1
	9	477	ESE	147	8.0	9.4	-43.9	-46.5
	12	478	ESE	128	8.5	10.2	-44.8	-47.6
	15	479	ESE	91	9.6	11.4	-44.8	-47.7
	18	480	E	127	8.4	9.6	-45.7	-48.5
	21	481	E	146	8.4	10.4	-43.4	-47.3
	24	482	E	147	7.3	8.7	-43.0	-46.6
APR. 29	3	483	ENE	150	7.0	7.9	-42.4	-46.2
	6	484	ENE	150	5.6	6.3	-41.7	-45.1
	9	485	ENE	150	4.3	5.2	-42.4	-45.5
	12	486	ENE	150	4.3	5.2	-44.6	-48.3
	15	487	ENE	150	3.6	3.9	-45.7	-48.1
	18	488	ENE	150	3.8	4.2	-49.6	-50.2
	21	489	ENE	150	4.4	5.2	-50.2	-51.7
	24	490	ENE	150	6.1	7.7	-51.9	-52.3
APR. 30	3	491	ENE	150	6.6	8.2	-52.3	-53.1
	6	492	SE	83	7.8	10.9	-53.5	-53.8
	9	493	SE	77	8.5	10.7	-53.1	-53.8
	12	494	ESE	145	8.5	11.1	-51.9	-53.4
	15	495	ESE	144	8.2	10.4	-53.4	-52.9
	18	496	ESE	134	8.3	9.6	-52.8	-53.2
	21	497	ESE	142	9.1	10.4	-51.9	-53.6
	24	498	ESE	142	10.2	12.1	-50.9	-53.2
MAY 1	3	499	ESE	149	10.3	12.3	-50.3	-52.9
	6	500	ESE	148	9.1	10.6	-50.2	-52.8
	9	501	ESE	145	8.7	10.3	-49.6	-52.3
	12	502	ESE	147	8.6	10.7	-47.7	-51.9
	15	503	ESE	148	8.0	9.4	-48.1	-51.5
	18	504	ESE	124	7.4	8.6	-50.0	-52.3
	21	505	ESE	122	7.5	8.8	-51.5	-53.4
	24	506	SE	77	7.3	8.7	-51.9	-54.0

Date	LT	n	WD	nD	WS	WSp	Ta	Ts	
MAY	2	3	507	SE	130	7.4	8.3	-53.4	-54.7
		6	508	SE	147	6.3	7.1	-55.6	-55.7
	3	9	509	ESE	139	9.3	11.3	-56.4	-56.5
		12	510	ESE	149	8.9	10.8	-54.6	-56.3
		15	511	ESE	145	10.0	11.8	-54.3	-56.0
		18	512	ESE	128	10.1	11.5	-55.0	-56.0
		21	513	ESE	149	8.7	10.2	-56.2	-56.8
		24	514	ESE	145	9.2	10.5	-57.2	-57.4
MAY	3	3	515	ESE	143	8.9	10.4	-57.7	-58.2
		6	516	ESE	94	7.7	9.2	-57.4	-58.6
	4	9	517	ESE	140	8.3	9.8	-56.6	-58.3
		12	518	ESE	117	8.2	9.6	-56.0	-58.1
		15	519	ESE	132	8.8	10.5	-56.4	-58.1
		18	520	ESE	80	9.8	11.8	-55.7	-57.9
		21	521	ESE	80	11.0	13.1	-55.4	-57.2
		24	522	SE	109	11.6	13.8	-54.3	-56.5
MAY	4	3	523	SE	145	11.2	13.5	-54.5	-56.0
		6	524	SE	131	12.6	14.6	-54.0	-56.0
	5	9	525	SE	107	11.3	13.8	-54.6	-56.3
		12	526	SE	92	11.6	14.1	-55.6	-55.9
		15	527	SE	81	11.5	13.8	-56.5	-55.6
		18	528	ESE	79	11.8	14.0	-57.6	-55.5
		21	529	ESE	102	11.3	13.6	-58.5	-57.9
		24	530	ESE	84	10.8	12.5	-59.0	-57.7
MAY	5	3	531	ESE	104	10.2	12.1	-58.8	-57.2
		6	532	ESE	90	9.8	11.8	-57.5	-56.8
	6	9	533	ESE	98	10.5	13.2	-57.1	-56.6
		12	534	ESE	133	10.0	11.9	-56.9	-57.9
		15	535	ESE	135	9.8	11.6	-56.3	-57.3
		18	536	ESE	133	9.0	11.3	-56.2	-57.7
		21	537	ESE	141	8.8	10.2	-56.2	-57.1
		24	538	ESE	144	8.3	10.0	-55.4	-56.6
MAY	6	3	539	ESE	144	8.9	10.4	-55.2	-57.0
		6	540	ESE	149	8.4	9.6	-55.1	-57.2
	7	9	541	ESE	148	8.1	9.7	-54.4	-56.4
		12	542	ESE	146	8.5	9.7	-54.0	-56.6
		15	543	ESE	149	7.5	9.0	-52.5	-55.6
		18	544	ESE	112	8.1	9.7	-51.4	-55.0
		21	545	ESE	121	7.0	8.6	-51.9	-54.7
		24	546	ESE	97	7.8	9.2	-51.9	-55.1
MAY	7	3	547	ESE	121	7.1	8.6	-52.8	-55.3
		6	548	ESE	126	7.8	9.0	-53.2	-55.8
	8	9	549	ESE	147	6.5	8.5	-54.1	-56.1
		12	550	ESE	146	6.5	7.5	-54.1	-56.8
		15	551	ESE	149	6.6	7.7	-54.4	-56.5
		18	552	ESE	148	6.8	7.6	-55.2	-56.6
		21	553	ESE	146	6.7	7.9	-56.3	-57.1
		24	554	ESE	120	7.6	8.7	-57.4	-58.0
MAY	8	3	555	ESE	135	7.3	8.8	-57.9	-58.6
		6	556	ESE	118	7.8	9.1	-57.4	-58.3
		9	557	ESE	95	8.1	9.4	-57.4	-58.7

Date	LT	n	WD	nD	WS	WSp	Ta	Ts
MAY 8	12	558	ESE	98	8.5	10.1	-57.1	-58.7
	15	559	ESE	143	7.6	8.8	-57.0	-58.8
	18	560	ESE	94	8.3	10.0	-57.4	-58.8
	21	561	ESE	127	8.7	10.0	-57.6	-59.3
	24	562	ESE	108	8.6	10.2	-58.1	-59.5
MAY 9	3	563	ESE	120	8.2	9.8	-58.0	-59.8
	6	564	ESE	127	8.5	10.3	-57.9	-58.9
	9	565	ESE	104	8.5	10.1	-58.0	-59.3
	12	566	ESE	144	8.2	9.6	-58.0	-59.7
	15	567	ESE	145	8.1	9.3	-58.1	-59.7
	18	568	ESE	142	8.0	9.6	-58.8	-59.8
	21	569	ESE	138	7.6	9.7	-59.1	-60.4
	24	570	ESE	143	6.9	9.5	-59.6	-59.8
MAY 10	3	571	ESE	146	6.4	8.6	-60.1	-61.2
	6	572	ESE	142	5.4	8.1	-60.6	-60.9
	9	573	ESE	148	( 5.7	9.0)	-60.3	-61.5
	12	574	ESE	142	( 5.2	8.0)	-59.8	-61.5
	15	575	ESE	147	( 5.2	8.7)	-59.3	-61.3
	18	576	ESE	144	( 5.4	9.6)	-59.2	-60.8
	21	577	ESE	147	( 5.3	9.6)	-58.0	-60.6
	24	578	ESE	147	( 5.9	10.9)	-57.1	-59.8
MAY 11	3	579	ESE	149	( 6.9	11.6)	-55.8	-59.0
	6	580	ESE	143	10.1	12.3	-56.1	-58.4
	9	581	ESE	149	9.5	11.2	-56.3	-58.2
	12	582	ESE	148	9.5	11.3	-56.8	-58.6
	15	583	ESE	147	8.4	9.8	-56.8	-58.3
	18	584	ESE	147	8.3	9.9	-57.5	-58.4
	21	585	ESE	147	8.4	10.0	-58.1	-59.1
	24	586	ESE	150	8.6	9.8	-58.9	-58.7
MAY 12	3	587	ESE	149	6.9	8.5	-59.5	-59.4
	6	588	ESE	141	7.1	8.3	-59.5	-59.0
	9	589	ESE	133	6.3	8.3	-59.2	-58.8
	12	590	ESE	149	5.0	5.8	-60.6	-59.0
	15	591	ESE	130	5.0	5.8	-62.2	-59.8
	18	592	ESE	83	5.4	6.2	(-62.7)	-60.3
	21	593	SE	91	6.1	6.9	(-62.7)	-60.8
	24	594	ESE	95	6.8	8.1	-61.8	-60.8
MAY 13	3	595	ESE	146	7.2	8.5	-59.4	-60.6
	6	596	ESE	142	8.5	10.5	-53.3	-59.1
	9	597	ESE	85	9.7	11.7	-48.5	-54.3
	12	598	E	145	11.5	14.8	-43.6	-51.4
	15	599	ENE	139	9.5	12.8	-42.3	-51.1
	18	600	ENE	142	10.1	12.6	-41.8	-47.0
	21	601	ENE	144	9.0	10.8	-41.3	-46.1
	24	602	ENE	135	8.9	11.3	-41.9	-46.1
MAY 14	3	603	ENE	118	9.0	11.7	-42.8	-46.1
	6	604	E	89	8.3	10.1	-45.9	-48.5
	9	605	E	135	9.0	10.3	-46.6	-49.7
	12	606	E	119	7.9	9.3	-44.2	-47.5
	15	607	E	149	7.7	9.0	-43.4	-46.6
	18	608	E	128	6.2	7.1	-44.4	-47.1

Date	LT	n	WD	nD	WS	WSp	Ta	Ts
MAY 14	21	609	E	139	8.5	10.1	-45.1	-47.7
	24	610	E	98	9.2	11.2	-45.0	-48.1
MAY 15	3	611	E	111	10.4	12.6	-46.2	-48.4
	6	612	E	119	9.7	11.3	-47.5	-48.7
	9	613	E	112	9.4	11.4	-46.8	-49.0
	12	614	E	137	8.7	10.1	-47.4	-49.1
	15	615	E	143	8.3	9.9	-49.6	-49.4
	18	616	ESE	90	7.9	9.2	-51.7	-49.6
	21	617	ESE	148	6.8	8.4	-54.2	-50.2
	24	618	ESE	111	7.1	8.1	-55.8	-51.3
MAY 16	3	619	SE	92	7.3	8.2	-57.0	-52.9
	6	620	ESE	99	7.2	8.9	-57.3	-54.3
	9	621	SE	98	8.2	9.6	-57.2	-55.2
	12	622	ESE	83	8.6	10.0	-56.7	-55.9
	15	623	SE	82	8.3	9.8	-56.0	-56.0
	18	624	ESE	107	8.2	9.6	-56.4	-56.3
	21	625	ESE	96	8.3	10.0	-56.7	-56.6
	24	626	ESE	92	8.8	10.2	-56.5	-56.7
MAY 17	3	627	ESE	107	8.8	10.4	-55.5	-56.2
	6	628	SE	104	9.4	10.9	-55.8	-56.2
	9	629	SE	109	9.9	11.7	-56.5	-55.9
	12	630	SE	125	9.5	11.3	-56.5	-55.9
	15	631	ESE	108	9.9	12.2	-56.2	-56.8
	18	632	ESE	81	10.2	13.0	-55.4	-56.7
	21	633	ESE	106	10.2	13.4	-54.4	-56.3
	24	634	SE	138	9.5	10.6	-55.2	-56.1
MAY 18	3	635	SE	80	9.1	10.8	-55.1	-55.9
	6	636	SE	109	9.0	10.5	-55.8	-55.8
	9	637	SE	147	8.4	9.5	-56.9	-55.9
	12	638	SE	100	7.2	8.4	-58.5	-55.8
	15	639	SE	77	8.5	9.8	-58.9	-55.7
	18	640	ESE	109	10.6	12.6	-60.4	-56.2
	21	641	ESE	145	11.8	14.4	-58.8	-56.8
	24	642	ESE	139	12.4	14.6	-57.6	-56.8
MAY 19	3	643	ESE	131	14.6	17.1	-59.6	-56.7
	6	644	ESE	142	14.6	17.3	-59.6	-56.6
	9	645	ESE	145	14.0	17.1	-58.9	-56.6
	12	646	ESE	147	14.1	17.3	-57.6	-56.6
	15	647	ESE	146	14.0	17.7	-56.5	-56.5
	18	648	ESE	149	13.4	16.2	-56.6	-56.3
	21	649	ESE	149	13.6	17.1	-55.2	-56.1
	24	650	ESE	148	13.5	16.5	-55.5	-56.0
MAY 20	3	651	ESE	145	13.3	15.8	-56.5	-55.8
	6	652	ESE	146	13.5	16.5	-56.7	-55.7
	9	653	ESE	147	13.6	16.1	-56.9	-55.7
	12	654	ESE	143	13.7	16.5	-55.5	-55.8
	15	655	ESE	141	14.2	16.9	-54.1	-55.6
	18	656	ESE	124	14.4	17.5	-53.2	-55.1
	21	657	ESE	124	13.8	16.5	-53.9	-54.7
	24	658	ESE	115	13.0	15.8	-54.2	-55.1
MAY 21	3	659	ESE	101	13.0	16.0	-53.3	-54.9

Date	LT	n	WD	nD	WS	WSp	Ta	Ts
MAY 21	6	660	ESE	130	12.4	14.7	-52.1	-54.5
	9	661	ESE	147	11.6	14.1	-53.6	-55.0
	12	662	ESE	147	10.6	13.2	-54.2	-55.7
	15	663	ESE	148	10.2	12.0	-55.2	-56.6
	18	664	ESE	137	12.0	14.4	-57.6	-57.9
	21	665	ESE	109	11.7	13.5	-58.9	-59.0
	24	666	ESE	144	11.9	14.3	-56.7	-58.3
MAY 22	3	667	ESE	108	10.6	12.7	-55.9	-57.6
	6	668	ESE	110	12.0	15.0	-55.5	-57.5
	9	669	ESE	97	11.6	13.9	-55.1	-57.1
	12	670	ESE	120	11.6	13.9	-56.0	-56.9
	15	671	ESE	139	10.5	12.7	-55.6	-57.6
	18	672	SE	128	12.7	15.0	-55.7	-57.0
	21	673	SE	100	13.3	15.7	-55.2	-57.2
MAY 23	24	674	SE	126	12.9	15.8	-53.5	-56.6
	3	675	SE	80	13.0	16.0	-52.6	-55.9
	6	676	SE	82	11.6	14.3	-52.9	-55.7
	9	677	SE	147	12.5	14.6	-53.2	-55.7
	12	678	SE	144	13.0	15.4	-53.0	-55.6
	15	679	SE	144	11.8	14.0	-54.2	-55.3
	18	680	SE	148	11.7	13.9	-55.1	-55.3
MAY 24	21	681	SE	149	12.0	14.1	-54.2	-55.2
	24	682	SE	147	11.0	13.2	-54.3	-55.3
	3	683	SE	144	11.4	13.9	-54.0	-56.2
	6	684	SE	146	11.5	13.8	-53.9	-56.2
	9	685	SE	145	12.2	15.2	-53.3	-55.7
	12	686	SE	129	14.0	16.6	-54.3	-55.8
	15	687	ESE	88	12.6	15.2	-54.7	-56.3
MAY 25	18	688	ESE	76	12.8	14.9	-55.2	-56.7
	21	689	ESE	99	13.0	16.1	-54.6	-56.6
	24	690	ESE	126	13.0	15.9	-54.3	-56.4
	3	691	ESE	123	13.2	15.8	-53.9	-56.2
	6	692	ESE	148	12.7	15.4	-54.7	-56.4
	9	693	ESE	148	12.2	14.4	-55.1	-57.0
	12	694	ESE	149	11.3	13.7	-55.9	-57.7
MAY 26	15	695	ESE	148	10.8	12.6	-55.7	-58.1
	18	696	ESE	148	11.0	13.0	-56.5	-57.4
	21	697	ESE	150	11.1	13.1	-57.4	-58.9
	24	698	ESE	142	10.5	12.3	-57.7	-59.5
	3	699	ESE	141	10.8	12.6	-57.8	-59.7
	6	700	ESE	128	11.1	13.1	-58.5	-59.9
	9	701	ESE	87	9.7	12.3	-59.2	-60.4
MAY 27	12	702	ESE	126	10.6	13.4	-58.1	-60.0
	15	703	E	115	10.1	12.0	-55.0	-58.2
	18	704	E	147	9.6	11.2	-51.9	-55.7
	21	705	E	145	9.6	11.2	-48.2	-52.9
	24	706	E	147	11.2	13.5	-46.4	-50.8
	3	707	E	145	11.8	14.1	-44.8	-48.9
	6	708	E	126	11.2	14.0	-45.2	-48.6
MAY 27	9	709	ENE	109	10.7	12.8	-44.9	-48.3
	12	710	ENE	111	9.9	12.1	-45.5	-48.7

Date	LT	n	WD	nD	WS	WSp	Ta	Ts
MAY 27	15	711	ENE	133	7.1	8.7	-46.4	-49.3
	18	712	E	145	5.2	5.9	-50.4	-52.7
	21	713	E	146	5.3	6.1	-51.2	-53.4
	24	714	E	150	4.5	5.6	-53.4	-55.1
MAY 28	3	715	E	150	3.9	4.7	-53.8	-55.2
	6	716	E	150	3.5	3.9	-55.6	-56.2
	9	717	E	150	3.7	4.2	-56.8	-57.3
	12	718	E	150	4.1	4.4	-57.4	-58.4
	15	719	E	150	4.6	5.2	-56.2	-58.2
	18	720	E	150	5.9	7.1	-55.4	-58.6
	21	721	E	150	5.7	6.8	-57.9	-59.3
	24	722	E	150	5.8	6.6	-58.7	-60.0
MAY 29	3	723	E	150	7.4	9.1	-57.9	-59.7
	6	724	E	150	7.1	8.4	-58.4	-60.1
	9	725	E	150	7.6	9.0	-58.8	-60.2
	12	726	E	150	7.5	8.6	-58.0	-60.2
	15	727	E	150	6.4	8.0	-58.0	-60.3
	18	728	E	150	6.8	8.0	-58.4	-60.4
	21	729	E	150	6.4	7.8	-58.1	-60.1
	24	730	E	150	6.3	8.1	-56.0	-59.3
MAY 30	3	731	E	150	6.2	8.3	-55.6	-58.9
	6	732	E	150	6.6	9.5	-55.1	-58.3
	9	733	SSE	131	6.7	9.9	-56.1	-58.4
	12	734	SSE	122	( 7.3	12.0)	-55.9	-58.5
	15	735	SSE	121	( 5.2	10.6)	-56.7	-59.0
	18	736	SE	148	10.2	12.0	-55.7	-58.6
	21	737	SE	142	11.7	14.5	-55.1	-58.0
	24	738	SE	119	10.7	13.6	-55.1	-57.7
MAY 31	3	739	SE	127	12.2	14.8	-54.8	-57.4
	6	740	SE	148	( 0.0)	( 0.0)	-54.1	-56.7
	9	741	SE	142	( 0.0)	( 0.0)	-53.7	-56.4
	12	742	SE	142	15.3	18.3	-54.4	-56.0
	15	743	SE	112	14.7	17.7	-55.4	-56.3
	18	744	ESE	89	15.1	18.2	-55.0	-56.3
	21	745	ESE	126	15.1	19.0	-54.0	-55.9
	24	746	ESE	130	14.0	17.7	-53.2	-55.0
JUNE 1	3	747	ESE	139	13.4	16.7	-50.7	-54.1
	6	748	ESE	146	13.5	16.6	-50.6	-53.4
	9	749	ESE	137	13.0	15.8	-50.5	-53.6
	12	750	ESE	129	11.6	14.0	-51.3	-53.6
	15	751	ESE	148	13.0	15.5	-52.7	-53.7
	18	752	ESE	149	12.3	14.2	-52.9	-54.3
	21	753	ESE	148	11.7	14.5	-52.8	-54.6
	24	754	ESE	120	11.8	14.5	-49.7	-54.1
JUNE 2	3	755	E	82	10.8	13.2	-49.7	-53.1
	6	756	E	112	9.7	11.3	-50.1	-52.9
	9	757	E	96	8.1	9.9	-49.0	-52.7
	12	758	ENE	150	8.3	9.9	-50.3	-53.9
	15	759	ENE	150	8.6	9.9	-52.3	-55.0
	18	760	ENE	150	7.9	9.2	-54.4	-56.8
	21	761	ENE	150	6.8	8.0	-55.8	-57.8

Date	LT	n	WD	nD	WS	WSp	Ta	Ts
JUNE 2	24	762	ENE	150	5.5	6.6	-53.6	-56.9
JUNE 3	3	763	ENE	150	4.6	5.4	-53.1	-56.6
	6	764	ENE	150	5.1	6.5	-50.1	-54.2
	9	765	ENE	150	5.5	6.5	-48.5	-52.5
	12	766	ENE	150	5.6	6.9	-46.9	-51.0
	15	767	ENE	150	6.1	7.0	-49.4	-53.1
	18	768	ENE	150	6.4	7.2	-50.9	-53.7
	21	769	ENE	150	7.2	8.6	-50.6	-53.6
	24	770	ENE	150	9.3	11.0	-48.9	-52.4
JUNE 4	3	771	ENE	150	9.8	11.9	-47.9	-51.3
	6	772	ENE	150	10.6	12.6	-47.8	-50.8
	9	773	ENE	150	10.9	13.3	-48.6	-50.8
	12	774	ENE	150	11.9	14.2	-48.1	-50.4
	15	775	ENE	150	12.5	14.4	-47.3	-49.9
	18	776	ESE	134	13.5	17.5	-47.0	-49.4
	21	777	ESE	136	14.2	16.9	-48.1	-49.9
	24	778	ESE	130	13.5	17.2	-48.9	-50.6
JUNE 5	3	779	ESE	146	12.6	15.9	-50.0	-51.5
	6	780	ESE	148	12.9	16.1	-50.0	-52.2
	9	781	ESE	149	13.5	16.3	-51.1	-52.4
	12	782	ESE	148	12.1	14.4	-50.5	-52.6
	15	783	ESE	145	12.2	14.5	-50.6	-52.8
	18	784	ESE	144	12.3	15.0	-51.1	-52.8
	21	785	ESE	140	12.1	14.6	-51.5	-53.4
	24	786	ESE	115	12.1	14.5	-51.5	-53.7
JUNE 6	3	787	ESE	143	11.6	13.7	-51.5	-53.3
	6	788	ESE	88	10.2	13.1	-51.3	-53.3
	9	789	E	138	11.5	13.8	-50.9	-53.3
	12	790	E	147	10.9	13.9	-49.3	-52.1
	15	791	E	147	12.3	14.8	-48.3	-51.1
	18	792	E	136	11.5	13.9	-49.8	-52.1
	21	793	E	138	10.7	12.8	-48.8	-51.8
	24	794	ESE	106	9.7	12.1	-50.3	-52.4
JUNE 7	3	795	ESE	145	10.3	12.6	-51.9	-53.6
	6	796	ESE	149	10.8	13.0	-54.0	-54.9
	9	797	ESE	146	11.9	14.5	-54.4	-55.3
	12	798	E	89	11.6	14.2	-53.3	-54.8
	15	799	E	141	9.9	11.6	-52.3	-54.8
	18	800	E	147	7.4	9.6	-49.7	-53.7
	21	801	E	144	10.3	12.2	-47.7	-52.9
	24	802	E	131	9.3	10.9	-48.9	-52.4
JUNE 8	3	803	ESE	107	11.2	13.6	-48.2	-52.2
	6	804	ESE	101	12.5	15.3	-47.0	-50.8
	9	805	ESE	148	12.9	15.7	-48.2	-50.9
	12	806	ESE	148	13.0	16.4	-47.8	-50.9
	15	807	ESE	149	14.0	17.3	-45.9	-49.4
	18	808	ESE	114	15.0	18.4	-44.8	-49.0
	21	809	E	139	14.6	18.2	-43.5	-49.0
	24	810	E	147	14.7	17.7	-41.5	-48.8
JUNE 9	3	811	E	134	13.0	16.8	-42.2	-48.8
	6	812	E	120	12.2	15.1	-41.1	-48.7

Date	LT	n	WD	nD	WS	WSp	Ta	Ts
JUNE 9	9	813	E	146	11.2	14.0	-41.2	-48.7
	12	814	E	97	12.8	16.5	-39.1	-48.5
	15	815	E	145	12.1	14.7	-39.5	-47.6
	18	816	E	143	10.6	12.5	-39.5	-47.0
	21	817	E	80	12.2	14.6	-42.9	-46.8
	24	818	ESE	115	11.6	14.3	-44.3	-47.0
JUNE10	3	819	ESE	79	10.8	14.0	-43.3	-47.0
	6	820	E	144	11.7	14.7	-41.7	-45.8
	9	821	E	121	11.0	13.0	-43.8	-46.2
	12	822	E	89	9.0	11.0	-43.5	-46.6
	15	823	E	137	( 9.1	14.1)	-42.7	-46.9
	18	824	ESE	116	8.3	9.9	-42.6	-47.0
	21	825	ESE	148	8.3	9.8	-43.9	-47.0
24	826	ESE	144	8.3	9.8	-44.1	-47.1	
JUNE11	3	827	ESE	149	9.0	10.2	-46.4	-47.1
	6	828	ESE	148	8.1	9.6	-47.5	-47.2
	9	829	ESE	147	7.7	8.9	-47.4	-47.4
	12	830	ESE	136	7.1	9.2	-46.8	-47.9
	15	831	ESE	100	8.1	9.5	-45.2	-48.2
	18	832	E	137	7.0	9.5	-46.8	-48.2
	21	833	E	147	7.1	8.8	-48.6	-48.4
24	834	E	134	8.3	10.1	-49.3	-48.9	
JUNE12	3	835	ESE	113	8.2	9.4	-48.8	-49.4
	6	836	E	100	8.3	10.1	-45.7	-49.7
	9	837	E	127	7.4	9.2	-43.7	-49.5
	12	838	E	122	6.7	7.6	-45.1	-48.9
	15	839	E	118	9.1	10.6	-44.9	-49.0
	18	840	E	74	8.5	11.2	-45.2	-48.9
	21	841	ENE	105	7.4	9.2	-44.3	-49.1
24	842	NE	139	7.1	8.8	-46.0	-49.0	
JUNE13	3	843	NE	150	6.1	7.3	-48.2	-48.9
	6	844	NE	150	5.7	6.9	-49.6	-49.2
	9	845	NE	150	5.3	7.1	-49.5	-49.7
	12	846	NE	150	5.0	6.4	-51.5	-50.2
	15	847	NE	150	5.3	6.3	-54.1	-50.7
	18	848	NE	150	5.7	6.7	-56.4	-51.3
	21	849	NE	150	5.7	7.3	-57.3	-52.1
24	850	NE	150	7.1	8.7	-58.4	-52.8	
JUNE14	3	851	SE	131	9.5	13.0	-57.1	-53.4
	6	852	SE	116	9.7	12.4	-54.0	-53.8
	9	853	SE	138	9.6	12.6	-53.1	-53.7
	12	854	SE	148	10.2	12.7	-52.9	-53.7
	15	855	SE	143	9.2	11.9	-53.2	-54.1
	18	856	SE	147	9.2	11.2	-53.6	-54.4
	21	857	SE	144	9.2	11.6	-54.8	-55.1
24	858	SE	139	10.3	13.1	-54.5	-55.3	
JUNE15	3	859	SE	137	10.6	14.0	-54.0	-55.2
	6	860	ESE	78	10.0	13.3	-53.6	-55.0
	9	861	SE	94	10.2	12.7	-53.4	-55.0
	12	862	SE	132	10.0	12.8	-54.6	-55.5
	15	863	SE	113	8.2	10.7	-54.8	-56.2



Date	LT	n	WD	nD	WS	WSp	Ta	Ts
JUNE15	18	864	SE	145	10.3	13.4	-54.6	-56.3
	21	865	SE	104	9.8	13.2	-53.6	-55.6
	24	866	ESE	85	10.9	14.9	-53.3	-55.2
JUNE16	3	867	SE	94	10.8	14.6	-54.2	-55.6
	6	868	SE	123	8.9	12.1	-55.2	-56.1
	9	869	SE	108	9.6	13.4	-56.2	-56.9
	12	870	SE	115	9.7	14.1	-56.8	-57.3
	15	871	SE	144	9.5	13.6	-57.9	-58.2
	18	872	SE	99	9.3	13.4	-58.1	-58.9
	21	873	ESE	123	( 8.9	13.4)	-58.0	-59.0
	24	874	ESE	135	( 8.6	14.4)	-58.0	-59.0
JUNE17	3	875	ESE	147	( 8.6	14.6)	-58.2	-59.3
	6	876	ESE	138	( 7.3	13.4)	-58.7	-59.6
	9	877	ESE	142	( 7.3	12.9)	-59.1	-59.9
	12	878	ESE	149	( 7.0	12.7)	-59.1	-60.1
	15	879	ESE	147	( 6.5	11.5)	-58.4	-59.6
	18	880	E	150	( 5.0	9.9)	-57.4	-58.8
	21	881	E	150	( 4.8	9.7)	-56.4	-58.4
	24	882	E	150	( 4.6	9.3)	-56.6	-58.4
JUNE18	3	883	E	150	( 3.6	8.2)	-57.5	-58.5
	6	884	E	150	( 3.2	7.8)	-57.9	-58.8
	9	885	E	150	( 2.7	6.2)	-58.3	-59.0
	12	886	E	150	( 2.6	6.4)	-58.9	-59.3
	15	887	E	150	( 2.9	6.5)	-58.7	-59.5
	18	888	E	150	( 2.3	5.1)	-58.9	-59.6
	21	889	E	150	( 2.7	5.8)	-61.0	-59.9
	24	890	E	150	( 2.5	5.8)	-62.2	-60.4
JUNE19	3	891	E	150	( 2.2	5.5)	(-62.7)	-61.0
	6	892	E	150	( 2.8	6.9)	(-62.7)	-61.5
	9	893	E	150	( 3.2	7.8)	(-62.7)	-62.2
	12	894	E	150	( 3.6	9.2)	(-62.7)	(-62.6)
	15	895	E	150	( 3.7	10.1)	-62.2	(-62.6)
	18	896	E	150	( 3.7	10.8)	-60.5	-62.3
	21	897	E	150	( 4.2	11.0)	-59.7	-61.7
	24	898	ESE	146	( 4.1	11.3)	-58.8	-61.1
JUNE20	3	899	ESE	148	( 4.3	12.9)	-57.3	-59.9
	6	900	ESE	149	( 4.1	12.8)	-56.2	-59.4
	9	901	ESE	150	( 4.6	12.8)	-55.4	-58.5
	12	902	ESE	145	( 4.8	14.0)	-54.7	-57.7
	15	903	ESE	147	( 4.7	12.8)	-54.7	-57.4
	18	904	ESE	145	( 4.9	13.6)	-53.8	-57.1
	21	905	ESE	134	( 5.2	13.3)	-53.9	-56.9
	24	906	ESE	147	( 4.6	12.0)	-53.2	-56.7
JUNE21	3	907	ESE	123	( 5.0	12.3)	-52.1	-56.0
	6	908	ESE	108	( 5.2	12.4)	-51.0	-55.2
	9	909	E	104	( 5.4	14.4)	-49.9	-54.2
	12	910	E	144	( 6.6	14.3)	-49.2	-52.9
	15	911	E	147	( 6.2	13.2)	-48.2	-52.1
	18	912	E	140	( 6.4	13.4)	-48.5	-52.0
	21	913	E	142	( 7.2	12.2)	-47.6	-51.8
	24	914	E	101	( 8.3	12.8)	-47.5	-51.1

Date	LT	n	WD	nD	WS	WSp	Ta	Ts
JUNE22	3	915	E	120	( 7.9	12.5)	-46.6	-50.6
	6	916	ESE	101	( 7.8	13.4)	-43.3	-48.5
	9	917	E	128	( 9.1	16.5)	-41.3	-48.9
	12	918	ENE	80	( 8.6	17.2)	-37.1	-49.0
	15	919	ENE	123	( 8.6	17.1)	-36.7	-49.1
	18	920	ENE	130	( 8.0	16.3)	-35.2	-49.1
	21	921	ENE	142	( 7.3	14.5)	-34.4	-49.0
	24	922	ENE	117	( 6.2	11.9)	-33.5	-48.5
JUNE23	3	923	ENE	139	( 7.4	14.8)	-32.3	-47.6
	6	924	ENE	143	( 5.3	8.7)	-32.2	-46.8
	9	925	NE	150	( 4.5	8.5)	-31.2	-46.0
	12	926	NE	150	( 5.8	9.4)	-30.3	-45.3
	15	927	NE	150	( 5.4	8.7)	-30.7	-44.6
	18	928	NE	150	5.9	8.1	-31.0	-43.9
	21	929	NE	150	4.0	5.2	-35.2	-43.6
	24	930	NE	150	4.5	5.6	-33.4	-43.6
JUNE24	3	931	NE	150	5.0	6.4	-32.8	-43.4
	6	932	NE	150	6.0	7.1	-33.8	-43.1
	9	933	NE	150	7.4	9.0	-34.2	-42.9
	12	934	NE	150	7.9	9.9	-32.3	-42.8
	15	935	NE	150	8.8	11.2	-31.6	-42.5
	18	936	ESE	150	10.1	13.2	-33.0	-42.1
	21	937	ESE	150	10.7	14.4	-33.4	-41.9
	24	938	ESE	150	10.7	13.4	-33.8	-41.7
JUNE25	3	939	ESE	150	10.7	14.8	-34.3	-41.5
	6	940	ESE	150	10.8	15.4	-35.1	-41.5
	9	941	ESE	150	10.8	14.8	-37.6	-41.5
	12	942	ESE	150	10.8	14.3	-39.8	-41.7
	15	943	ESE	150	10.9	14.4	-41.9	-42.1
	18	944	ESE	150	9.1	12.2	-43.5	-42.8
	21	945	ESE	150	8.8	11.8	-45.1	-43.5
	24	946	ESE	150	9.4	12.2	-47.0	-44.3
JUNE26	3	947	ESE	150	8.0	10.1	-48.3	-45.1
	6	948	ESE	150	7.7	9.7	-49.4	-46.0
	9	949	ESE	150	7.2	9.0	-48.5	-46.8
	12	950	ESE	150	8.0	10.4	-48.0	-47.4
	15	951	ESE	150	7.7	9.4	-47.7	-47.9
	18	952	ESE	150	7.9	9.9	-47.4	-48.2
	21	953	ESE	150	7.4	9.1	-45.0	-48.4
	24	954	ESE	150	6.4	7.9	-41.6	-48.1
JUNE27	3	955	ESE	150	6.4	8.2	-43.6	-47.5
	6	956	ESE	150	6.3	8.5	-42.1	-47.3
	9	957	ESE	150	6.3	8.3	-42.3	-47.0
	12	958	ESE	150	6.6	8.7	-42.2	-46.7
	15	959	ESE	150	6.2	7.8	-43.5	-46.5
	18	960	ESE	150	6.3	8.1	-44.5	-46.5
	21	961	ESE	150	6.5	9.1	-43.5	-46.7
	24	962	ESE	150	6.7	8.8	-44.8	-46.9
JUNE28	3	963	ESE	150	6.4	8.3	-45.2	-47.2
	6	964	ESE	150	6.8	9.2	-44.6	-47.4
	9	965	ESE	150	6.5	9.4	-45.9	-47.4

Date	LT	n	WD	nD	WS	WSp	Ta	Ts
JUNE28	12	966	ESE	150	6.4	8.6	-45.7	-47.5
	15	967	ESE	150	5.4	7.3	-45.7	-47.7
	18	968	ESE	150	6.5	9.6	-47.0	-47.7
	21	969	ESE	150	6.1	8.5	-47.8	-48.0
	24	970	ESE	150	( 5.6	8.6)	-50.7	-48.3
JUNE29	3	971	ESE	150	( 5.7	9.2)	-50.2	-48.9
	6	972	ESE	150	6.5	9.3	-52.1	-49.3
	9	973	ESE	150	( 6.4	9.7)	-52.2	-49.8
	12	974	ESE	150	( 6.8	10.5)	-51.8	-50.2
	15	975	ESE	150	7.4	10.8	-52.5	-50.5
	18	976	ESE	150	( 6.6	10.2)	-51.4	-50.7
	21	977	ESE	150	( 6.0	9.7)	-50.6	-50.9
JUNE30	24	978	ESE	150	5.7	8.3	-50.0	-50.9
	3	979	ESE	150	5.2	7.3	-49.8	-51.0
	6	980	ESE	150	4.8	7.2	-51.1	-51.0
	9	981	ESE	150	5.1	6.8	-51.4	-51.3
	12	982	ESE	150	5.0	6.8	-53.4	-51.7
	15	983	ESE	150	4.4	6.2	-53.9	-52.1
	18	984	ESE	150	4.4	5.9	-57.1	-52.5
JULY 1	21	985	ESE	150	4.6	5.8	-57.8	-53.0
	24	986	ESE	150	4.0	5.3	-57.4	-53.6
	3	987	ESE	150	5.1	6.9	-52.1	-53.9
	6	988	ESE	150	4.3	5.9	-47.1	-53.5
	9	989	ESE	150	4.7	6.9	-43.3	-52.5
	12	990	ESE	150	4.0	5.5	-43.1	-51.3
	15	991	ESE	150	3.4	4.4	-43.5	-50.4
	18	992	ESE	150	3.1	4.3	-46.6	-49.9
JULY 2	21	993	ESE	150	3.4	4.7	-45.2	-49.8
	24	994	ESE	150	4.2	5.7	-46.4	-49.6
	3	995	ESE	150	4.4	6.2	-50.9	-49.6
	6	996	ESE	150	4.3	6.3	-50.1	-50.2
	9	997	ESE	150	( 5.2	7.9)	-46.9	-50.4
	12	998	ESE	150	( 6.2	10.7)	-43.5	-50.1
	15	999	ESE	150	( 6.1	9.6)	-41.7	-49.5
	18	1000	ESE	150	( 6.3	11.0)	-42.5	-48.8
JULY 3	21	1001	ESE	150	( 6.1	12.0)	-42.1	-48.3
	24	1002	ESE	150	( 6.6	14.6)	-40.5	-47.7
	3	1003	E	146	( 7.3	15.9)	-41.4	-47.2
	6	1004	E	141	( 8.1	18.8)	-40.6	-46.9
	9	1005	E	143	( 7.6	18.6)	-41.1	-46.6
	12	1006	E	146	( 7.0	19.6)	-40.4	-46.2
	15	1007	E	141	( 7.2	16.5)	-41.0	-45.9
	18	1008	E	144	( 6.8	15.7)	-41.7	-45.7
JULY 4	21	1009	E	139	( 6.8	15.0)	-43.6	-45.6
	24	1010	ESE	150	( 5.6	11.6)	-45.0	-45.9
	3	1011	E	143	( 6.3	12.0)	-44.7	-46.3
	6	1012	E	138	( 6.0	12.3)	-45.6	-46.5
	9	1013	ESE	150	( 5.3	9.5)	-48.2	-46.9
	12	1014	ESE	150	( 6.0	11.4)	-49.8	-47.6
	15	1015	ESE	150	( 5.6	10.2)	-50.4	-48.4
	18	1016	ESE	150	( 5.1	9.1)	-51.3	-49.0

Date	LT	n	WD	nD	WS	WSp	Ta	Ts
JULY 4	21	1017	ESE	150	( 5.4	9.1)	-52.1	-49.6
	24	1018	ESE	150	( 4.8	9.1)	-53.1	-50.1
JULY 5	3	1019	ESE	150	( 5.3	9.9)	-52.9	-50.4
	6	1020	ESE	149	( 5.9	10.5)	-53.2	-50.7
	9	1021	ESE	150	( 5.0	9.4)	-53.0	-51.1
	12	1022	ESE	150	( 5.6	10.2)	-54.6	-51.4
	15	1023	ESE	150	( 5.0	9.5)	-56.0	-51.5
	18	1024	ESE	150	( 5.1	8.9)	-57.5	-51.9
	21	1025	ESE	150	( 5.9	10.6)	-56.6	-52.6
JULY 6	24	1026	ESE	150	( 5.9	11.1)	-57.2	-53.1
	3	1027	ESE	150	( 5.4	9.6)	-58.0	-53.6
	6	1028	ESE	150	( 5.7	10.1)	-58.5	-54.0
	9	1029	ESE	150	( 5.2	9.7)	-59.5	-54.5
	12	1030	ESE	150	( 6.0	10.4)	-59.7	-54.9
	15	1031	ESE	150	( 6.5	13.0)	-59.2	-55.2
	18	1032	SE	150	( 7.1	13.4)	-57.9	-55.5
JULY 7	21	1033	SE	150	( 7.1	14.0)	-57.3	-55.5
	24	1034	SE	150	( 7.7	14.3)	-57.1	-55.5
	3	1035	SE	147	( 8.1	15.2)	-56.6	-55.3
	6	1036	SE	76	( 7.0	15.3)	-57.8	-55.3
	9	1037	ESE	80	( 7.9	15.3)	-58.0	-55.3
	12	1038	SE	80	( 7.2	14.3)	-56.1	-55.5
	15	1039	ESE	99	( 6.5	13.8)	-54.4	-55.5
JULY 8	18	1040	ESE	129	( 6.7	14.3)	-54.8	-55.2
	21	1041	ESE	145	( 6.3	13.8)	-55.2	-55.0
	24	1042	ESE	144	( 6.5	13.0)	-55.6	-54.9
	3	1043	ESE	143	( 6.3	13.1)	-56.4	-54.7
	6	1044	ESE	149	( 6.4	11.6)	-57.6	-54.6
	9	1045	ESE	148	( 5.9	10.7)	-58.2	-54.8
	12	1046	ESE	148	( 4.9	9.5)	-59.3	-55.1
JULY 9	15	1047	ESE	148	( 4.2	8.4)	-59.3	-55.6
	18	1048	E	150	( 3.6	7.2)	-60.3	-56.0
	21	1049	E	150	( 3.0	6.5)	-61.5	-56.4
	24	1050	E	150	( 4.1	7.7)	-62.0	-56.9
	3	1051	E	150	( 3.2	6.9)	-60.2	-57.3
	6	1052	E	150	( 2.3	5.5)	-56.4	-57.5
	9	1053	E	150	( 2.9	7.2)	-47.8	-57.0
JULY 10	12	1054	E	150	( 2.3	5.8)	-47.3	-55.9
	15	1055	E	150	( 2.6	5.3)	-53.2	-55.0
	18	1056	E	150	( 2.4	5.0)	-55.4	-55.1
	21	1057	E	150	( 2.7	5.6)	-55.9	-55.3
	24	1058	E	150	( 3.4	6.3)	-57.8	-55.6
	3	1059	E	150	( 3.8	7.2)	-54.8	-55.8
	6	1060	E	150	( 3.9	8.4)	-51.0	-55.7
JULY 11	9	1061	E	150	( 5.1	9.3)	-48.6	-55.0
	12	1062	E	150	( 5.4	11.4)	-47.7	-54.3
	15	1063	E	150	( 4.4	7.8)	-47.4	-53.6
	18	1064	E	150	( 4.9	9.3)	-48.0	-53.1
	21	1065	E	150	( 4.4	8.5)	-43.3	-52.8
	24	1066	E	150	( 4.9	10.1)	-43.9	-52.3
	3	1067	E	150	( 4.9	11.1)	-42.8	-51.7

Date	LT	n	WD	nD	WS	WSp	Ta	Ts
JULY11	6	1068	E	81	( 5.4	12.1)	-41.2	-51.0
	9	1069	ENE	127	( 5.4	11.6)	-40.2	-50.3
	12	1070	NE	95	( 4.5	10.6)	-39.1	-49.6
	15	1071	NE	81	( 4.5	10.7)	-38.4	-48.9
	18	1072	NNE	150	( 3.9	8.8)	-40.3	-48.3
	21	1073	NNE	150	( 4.2	9.2)	-40.9	-48.1
	24	1074	NNE	150	( 3.6	7.9)	-41.5	-47.9
JULY12	3	1075	E	150	( 3.4	6.8)	-42.1	-47.9
	6	1076	E	150	( 4.0	7.0)	-42.5	-47.9
	9	1077	E	150	( 3.6	6.2)	-43.5	-48.0
	12	1078	E	150	( 3.4	6.2)	-43.1	-48.2
	15	1079	E	150	( 3.0	5.7)	-44.5	-48.3
	18	1080	E	150	( 3.2	6.5)	-47.2	-48.5
	21	1081	E	150	( 2.8	5.8)	-49.0	-49.0
JULY13	24	1082	E	150	( 2.8	4.9)	-52.2	-49.5
	3	1083	E	150	( 2.7	4.7)	-53.5	-50.1
	6	1084	E	150	( 3.1	5.2)	-52.9	-50.7
	9	1085	E	150	( 3.5	6.9)	-50.7	-51.1
	12	1086	E	150	( 3.7	8.2)	-53.4	-51.3
	15	1087	E	150	( 4.7	9.8)	-54.1	-51.7
	18	1088	E	150	( 4.1	9.9)	-55.5	-52.1
JULY14	21	1089	E	150	( 3.6	7.9)	-57.6	-52.5
	24	1090	E	150	( 4.3	8.3)	-58.7	-53.2
	3	1091	E	150	( 3.6	8.0)	-59.8	-53.9
	6	1092	E	150	( 3.7	8.6)	-61.2	-54.6
	9	1093	E	150	( 4.0	7.7)	-61.8	-55.3
	12	1094	E	150	( 3.5	6.9)	(-62.7)	-56.0
	15	1095	E	150	( 3.5	7.0)	(-62.7)	-56.5
JULY15	18	1096	E	150	( 4.8	9.9)	(-62.7)	-56.9
	21	1097	E	150	( 4.6	9.5)	(-62.7)	-57.2
	24	1098	E	150	( 4.4	9.3)	(-62.7)	-57.3
	3	1099	E	150	( 4.6	9.7)	(-62.7)	-57.2
	6	1100	E	150	( 4.3	9.7)	(-62.7)	-57.2
	9	1101	E	150	( 4.3	9.0)	-62.1	-57.4
	12	1102	E	150	( 4.4	9.8)	-61.3	-57.8
JULY16	15	1103	E	150	( 4.3	10.2)	-59.8	-58.0
	18	1104	E	150	( 4.0	10.3)	-60.2	-58.0
	21	1105	E	150	( 3.9	10.2)	-59.8	-58.0
	24	1106	E	150	( 4.0	10.5)	-60.3	-58.0
	3	1107	E	150	( 3.9	11.4)	-62.0	-58.1
	6	1108	E	150	( 3.7	10.6)	(-62.7)	-58.3
	9	1109	ESE	150	( 4.7	12.6)	(-62.7)	-58.8
JULY17	12	1110	ESE	150	( 4.1	13.2)	(-62.7)	-59.3
	15	1111	ESE	150	( 4.7	14.8)	(-62.7)	-59.4
	18	1112	ESE	150	( 4.8	14.1)	(-62.7)	-59.3
	21	1113	ESE	148	( 4.6	15.0)	(-62.7)	-59.1
	24	1114	ESE	150	( 4.0	13.6)	-61.0	-59.0
	3	1115	ESE	146	( 4.3	13.1)	-61.4	-58.9
	6	1116	ESE	148	( 5.1	14.0)	-61.1	-58.7
JULY17	9	1117	ESE	149	( 4.3	14.0)	-61.5	-58.7
	12	1118	ESE	147	( 4.3	15.4)	-59.6	-58.8

Date	LT	n	WD	nD	WS	WSp	Ta	Ts
JULY17	15	1119	ESE	110	( 3.4	14.5)	-56.4	-58.6
	18	1120	E	80	( 3.9	15.0)	-53.2	-58.0
	21	1121	E	145	( 4.3	13.0)	-50.9	-57.1
	24	1122	E	147	( 3.7	12.2)	-50.8	-56.2
JULY18	3	1123	E	126	( 3.8	11.0)	-50.8	-55.7
	6	1124	E	132	( 3.3	10.1)	-51.4	-55.2
	9	1125	ESE	150	( 3.3	10.0)	-50.8	-55.0
	12	1126	ESE	146	( 4.4	12.0)	-52.3	-54.8
	15	1127	ESE	150	( 4.2	10.3)	-54.3	-54.7
	18	1128	ESE	145	( 4.1	9.6)	-52.5	-54.9
	21	1129	ESE	146	( 4.6	10.8)	-55.6	-54.9
	24	1130	SE	150	( 5.1	11.1)	-57.5	-55.2
JULY19	3	1131	SE	150	( 4.9	11.5)	-59.0	-55.8
	6	1132	SE	150	( 4.8	11.9)	-60.3	-56.2
	9	1133	SE	150	( 4.2	9.7)	-61.0	-56.4
	12	1134	SE	150	( 5.5	12.4)	-60.5	-56.4
	15	1135	SE	150	( 5.1	10.8)	-59.7	-56.9
	18	1136	SE	150	( 4.9	11.5)	-58.1	-57.2
	21	1137	SE	101	( 5.9	14.2)	-60.2	-57.3
	24	1138	SE	136	( 5.4	13.6)	-61.2	-57.3
JULY20	3	1139	SE	122	( 5.1	14.7)	-61.7	-57.3
	6	1140	ESE	92	( 5.0	15.2)	-60.6	-57.3
	9	1141	SE	143	( 4.5	11.8)	-59.9	-57.4
	12	1142	SE	135	( 3.9	10.7)	-60.5	-57.4
	15	1143	SE	150	( 2.9	8.9)	-62.0	-57.4
	18	1144	SE	125	( 4.3	11.2)	-62.4	-57.4
	21	1145	SE	149	( 3.6	9.6)	(-62.7)	-57.4
	24	1146	SE	150	( 3.9	9.7)	(-62.7)	-57.5
JULY21	3	1147	ESE	76	( 3.0	9.2)	(-62.7)	-57.7
	6	1148	SE	92	( 3.3	9.2)	(-62.7)	-58.1
	9	1149	SE	150	( 3.2	8.9)	(-62.7)	-58.7
	12	1150	SE	150	( 2.6	8.2)	(-62.7)	-59.3
	15	1151	SE	150	( 2.7	7.4)	(-62.7)	-59.7
	18	1152	SE	150	( 2.6	8.0)	(-62.7)	-60.0
	21	1153	SE	150	( 3.0	8.5)	(-62.7)	-60.2
	24	1154	SE	150	( 2.5	7.6)	-62.3	-60.2
JULY22	3	1155	SE	150	( 3.2	9.4)	-61.4	-60.3
	6	1156	SE	150	( 2.4	9.0)	-60.3	-60.2
	9	1157	SE	150	( 2.9	10.2)	-59.2	-60.0
	12	1158	SE	150	( 2.9	9.4)	-59.3	-59.8
	15	1159	SE	150	( 2.7	8.1)	-59.6	-59.6
	18	1160	SE	150	( 3.0	9.8)	-59.9	-59.5
	21	1161	SE	150	( 3.5	11.1)	-59.9	-59.3
	24	1162	SE	130	( 3.5	11.4)	-59.7	-59.3
JULY23	3	1163	SE	150	( 2.8	9.6)	-59.7	-59.3
	6	1164	SE	142	( 2.7	10.0)	-59.5	-59.1
	9	1165	SE	146	( 3.0	9.9)	-60.3	-59.0
	12	1166	SE	149	( 3.2	8.8)	-60.5	-59.0
	15	1167	SE	96	( 3.1	9.6)	-60.6	-59.0
	18	1168	SE	124	( 3.0	9.1)	-61.1	-59.1
	21	1169	SE	147	( 3.0	9.4)	-61.7	-59.4

Date	LT	n	WD	nD	WS	WSp	Ta	Ts
JULY23	24	1170	SE	119	( 2.6	7.6)	-61.5	-59.6
JULY24	3	1171	ESE	144	( 2.9	8.1)	-59.9	-59.7
	6	1172	ESE	145	( 2.5	8.5)	-58.4	-59.8
	9	1173	ESE	148	( 2.6	7.3)	-56.6	-59.7
	12	1174	ESE	147	( 2.6	8.5)	-52.7	-59.1
	15	1175	ESE	78	( 3.2	9.5)	-47.5	-58.4
	18	1176	E	85	( 3.1	10.2)	-45.0	-57.8
	21	1177	E	139	( 3.4	11.7)	-41.8	-57.3
	24	1178	E	144	( 3.5	12.6)	-39.6	-56.8
JULY25	3	1179	E	128	( 4.5	13.7)	-39.4	-55.3
	6	1180	ESE	92	( 4.9	15.6)	-39.7	-53.5
	9	1181	E	103	( 5.3	17.3)	-38.6	-52.2
	12	1182	ESE	89	( 5.7	16.7)	-39.7	-51.0
	15	1183	E	126	( 5.0	12.5)	-40.7	-50.3
	18	1184	ESE	105	( 5.1	13.7)	-44.6	-50.0
	21	1185	ESE	125	( 4.0	10.6)	-47.9	-50.2
	24	1186	ESE	148	( 4.6	9.2)	-51.8	-50.8
JULY26	3	1187	SE	150	( 4.6	9.0)	-53.2	-51.9
	6	1188	SE	150	( 4.2	8.6)	-52.9	-52.7
	9	1189	ESE	146	( 5.4	12.3)	-52.8	-53.2
	12	1190	ESE	143	( 5.5	13.5)	-49.2	-53.5
	15	1191	ESE	108	( 6.1	15.8)	-47.5	-53.3
	18	1192	ESE	99	( 5.1	16.5)	-45.7	-52.9
	21	1193	ESE	112	( 5.0	16.8)	-44.9	-52.3
	24	1194	ESE	80	( 5.8	20.0)	-43.2	-51.7
JULY27	3	1195	E	79	( 5.0	16.3)	-43.9	-51.0
	6	1196	E	120	( 4.6	13.8)	-43.3	-50.5
	9	1197	ESE	103	( 3.5	9.5)	-43.2	-50.2
	12	1198	ESE	79	( 4.2	11.9)	-45.3	-50.1
	15	1199	E	87	( 4.0	11.8)	-45.7	-50.0
	18	1200	E	87	( 4.2	12.3)	-46.8	-50.1
	21	1201	E	100	( 3.9	11.6)	-47.7	-50.3
	24	1202	ESE	137	( 4.2	10.8)	-49.0	-50.6
JULY28	3	1203	ESE	138	( 4.1	11.5)	-49.8	-51.0
	6	1204	ESE	125	( 3.7	10.5)	-50.1	-51.4
	9	1205	ESE	107	( 3.9	12.4)	-49.0	-51.7
	12	1206	ESE	121	( 3.4	11.5)	-49.6	-51.9
	15	1207	ESE	125	( 3.7	9.9)	-49.8	-52.0
	18	1208	ESE	99	( 3.9	12.9)	-50.8	-52.1
	21	1209	E	76	( 4.1	12.8)	-50.1	-52.2
	24	1210	ESE	114	( 3.5	11.7)	-50.8	-52.3
JULY29	3	1211	ESE	144	( 3.3	10.4)	-51.4	-52.6
	6	1212	ESE	140	( 3.1	9.2)	-52.5	-52.9
	9	1213	ESE	144	( 3.8	10.2)	-52.4	-53.3
	12	1214	E	94	( 3.7	11.0)	-51.7	-53.5
	15	1215	E	114	( 3.1	9.9)	-51.6	-53.6
	18	1216	E	93	( 3.4	9.2)	-52.1	-53.7
	21	1217	E	147	( 3.0	9.0)	-52.1	-53.7
	24	1218	E	147	( 2.8	9.2)	-51.3	-53.8
JULY30	3	1219	E	144	( 3.4	8.6)	-49.7	-53.8
	6	1220	ENE	150	( 2.7	7.8)	-44.5	-53.6

Date	LT	n	WD	nD	WS	WSp	Ta	Ts
JULY 30	9	1221	ENE	150	( 2.8	8.1)	-43.3	-53.4
	12	1222	ENE	150	( 2.9	9.0)	-40.7	-53.1
	15	1223	ENE	142	( 3.4	10.8)	-38.0	-52.8
	18	1224	ENE	139	( 3.7	12.9)	-36.6	-52.3
	21	1225	ENE	130	( 4.0	14.1)	-35.0	-51.7
	24	1226	NE	82	( 3.7	13.7)	-33.3	-50.7
JULY 31	3	1227	NE	135	( 3.9	15.0)	-31.9	-49.5
	6	1228	NNE	150	( 2.9	11.0)	-32.4	-48.2
	9	1229	NNE	150	( 3.4	10.9)	-33.8	-47.0
	12	1230	NNE	150	( 2.9	9.1)	-33.3	-46.3
	15	1231	NNE	131	( 3.6	10.8)	-31.5	-45.7
	18	1232	ENE	142	( 3.8	12.3)	-31.7	-45.0
	21	1233	ENE	126	( 4.4	11.4)	-31.8	-44.3
	24	1234	ENE	145	( 3.1	6.2)	-33.1	-43.7
AUG. 1	3	1235	E	150	( 3.1	5.7)	-34.0	-43.4
	6	1236	E	150	( 3.1	5.2)	-35.8	-43.3
	9	1237	E	150	( 3.9	7.0)	-34.0	-43.4
	12	1238	E	150	( 3.9	7.0)	-34.4	-43.3
	15	1239	E	150	( 4.9	8.9)	-34.6	-43.2
	18	1240	E	150	( 4.6	7.5)	-35.0	-43.1
	21	1241	E	150	( 5.3	9.7)	-36.8	-42.9
	24	1242	ESE	150	( 5.5	9.9)	-39.9	-43.0
AUG. 2	3	1243	SE	150	( 6.4	12.9)	-43.9	-43.3
	6	1244	SE	120	( 6.2	12.4)	-48.1	-43.9
	9	1245	SE	138	( 6.9	15.5)	-49.2	-45.0
	12	1246	SE	149	( 6.8	15.8)	-47.7	-45.8
	15	1247	SE	150	( 5.8	15.8)	-45.8	-46.4
	18	1248	SE	144	( 6.8	16.7)	-43.8	-46.7
	21	1249	SE	143	( 6.1	18.5)	-43.6	-46.6
	24	1250	SE	147	( 6.2	18.1)	-42.1	-46.5
AUG. 3	3	1251	SE	148	( 6.1	18.0)	-41.3	-46.4
	6	1252	SE	146	( 5.6	17.0)	-41.2	-46.1
	9	1253	SE	92	( 4.4	13.4)	-42.4	-45.9
	12	1254	SSE	150	( 4.1	9.2)	-42.7	-46.0
	15	1255	SSE	97	( 4.6	13.9)	-44.3	-46.1
	18	1256	SE	139	( 4.4	12.7)	-46.7	-46.4
	21	1257	SE	138	( 4.9	14.3)	-47.1	-46.8
	24	1258	SE	132	( 4.5	13.8)	-47.4	-47.3
AUG. 4	3	1259	SE	144	( 5.3	17.7)	-47.5	-47.6
	6	1260	SE	146	( 5.0	18.4)	-47.0	-47.9
	9	1261	SE	144	( 6.3	19.2)	-47.5	-47.9
	12	1262	SE	97	( 5.4	20.0)	-47.4	-47.9
	15	1263	ESE	83	( 4.7	19.3)	-47.4	-48.0
	18	1264	ESE	116	( 5.2	20.7)	-48.3	-48.1
	21	1265	ESE	101	( 5.3	18.7)	-48.0	-48.3
	24	1266	ESE	127	( 4.9	16.9)	-48.4	-48.3
AUG. 5	3	1267	ESE	100	( 4.6	17.7)	-48.4	-48.4
	6	1268	ESE	95	( 5.1	16.9)	-48.6	-48.5
	9	1269	SE	125	( 4.6	15.8)	-50.7	-48.6
	12	1270	SE	95	( 4.7	17.5)	-50.1	-48.6
	15	1271	SE	101	( 4.6	15.9)	-50.5	-48.7



Date	LT	n	WD	nD	WS	WSp	Ta	Ts
AUG. 5	18	1272	ESE	90	( 5.7	17.7)	-50.3	-48.8
	21	1273	ESE	93	( 5.4	16.7)	-49.9	-49.0
	24	1274	ESE	118	( 6.5	18.3)	-49.8	-49.3
AUG. 6	3	1275	ESE	116	( 4.4	16.7)	-49.4	-49.4
	6	1276	ESE	136	( 5.3	16.8)	-48.9	-49.4
	9	1277	ESE	122	( 4.5	17.5)	-47.4	-49.5
	12	( 250	ESE	142	3.3	12.9	-46.5	-49.5)
	15	( 250	ESE	46	3.4	13.5	-48.8	-49.4)
	18	( 0	SE	139	4.5	13.8	-48.0	-49.4)
	21	( 0	SE	133	4.7	12.8	-47.9	-49.3)
	24	( 2	ESE	12	5.3	18.7	-47.1	-49.2)
AUG. 7	3	( 2	ESE	142	3.9	13.8	-49.4	-49.1)
	6	( 0	ESE	42	4.8	13.0	-49.2	-49.0)
	9	( 0	ESE	37	3.2	13.7	-49.4	-49.0)
	12	( 2	ESE	32	4.7	13.6	-49.4	-49.0)
	15	( 2	SE	42	4.1	13.4	-59.0	-49.1)
	18	( 8	ESE	1	4.4	14.2	-59.0	-49.1)
	21	( 8	SE	37	4.4	14.1	-58.8	-49.3)
	24	( 10	ESE	15	4.2	13.2	-56.6	-49.5)
AUG. 8	3	( 10	SE	13	4.2	6.1	-59.2	-57.9)
	6	( 8	SE	35	4.3	13.1	-58.0	-56.4)
	9	( 8	SE	44	4.0	6.1	-59.2	-58.2)
	12	( 10	SE	14	4.3	13.3	-61.2	-58.3)
	15	( 10	SE	36	4.2	4.1	-62.2	-58.4)
	18	( 16	SSE	134	3.3	3.2	-62.4	-58.5)
	21	( 16	SE	128	4.7	4.6	-58.2	-58.6)
	24	( 18	SE	131	3.9	4.4	-59.2	-58.8)
AUG. 9	3	( 18	SE	139	4.1	4.0	-58.7	-58.9)
	6	( 16	SE	8	4.7	4.6	-61.3	-58.9)
	9	( 16	ESE	36	4.6	14.1	-62.0	-59.0)
	12	( 18	ESE	33	4.5	13.2	-61.3	-59.1)
	15	( 18	ESE	37	4.7	13.3	-62.7	-59.3)
	18	( 24	ESE	135	3.3	5.9	-62.7	-59.4)
	21	( 24	ESE	129	3.4	12.9	-62.6	-58.0)
	24	( 26	ESE	131	3.7	13.1	-61.8	-58.7)
AUG. 10	3	( 26	ESE	133	4.7	4.7	-61.3	-61.4)
	6	( 24	ESE	129	4.6	3.4	-61.8	-62.3)
	9	( 24	ESE	133	3.2	3.2	-61.2	-61.3)
	12	( 26	E	134	4.7	4.2	-61.5	-61.7)
	15	( 26	E	134	4.6	4.2	-62.5	-62.1)
	18	( 32	E	134	4.1	4.0	-62.7	-62.5)
	21	( 32	E	134	3.2	3.4	-62.7	-58.0)
	24	( 34	E	134	3.2	4.3	-59.4	-58.2)
AUG. 11	3	( 34	ESE	131	3.2	13.5	-59.0	-58.3)
	6	( 32	ESE	131	4.6	14.2	-62.1	-58.0)
	9	( 32	ESE	131	3.3	13.1	-61.8	-62.5)
	12	( 34	ESE	132	4.4	14.3	-61.1	-62.2)
	15	( 34	ESE	130	4.5	13.9	-62.3	-61.9)
	18	( 40	ESE	129	4.6	12.8	-61.3	-61.6)
	21	( 40	ESE	132	4.6	13.8	-61.4	-61.6)
	24	( 42	ESE	134	4.6	12.8	-61.7	-61.5)

Date	LT	n	WD	nD	WS	WSp	Ta	Ts
AUG.12	3 (	42	ESE	133	3.5	14.2	-62.4	-61.6)
	6 (	40	ESE	132	3.9	12.9	-61.1	-61.6)
	9 (	40	ESE	140	3.8	13.4	-61.5	-61.5)
	12 (	42	ESE	35	3.8	12.9	-57.8	-61.3)
	15 (	42	ESE	43	3.4	14.2	-48.9	-62.4)
	18 (	48	ESE	44	4.6	14.7	-49.5	-61.8)
	21 (	48	ESE	43	3.2	12.8	-49.0	-61.3)
	24 (	50	ESE	15	4.3	12.9	-56.7	-59.5)
AUG.13	3 (	50	ESE	129	3.9	13.9	-59.1	-61.1)
	6 (	48	ESE	41	4.6	13.6	-49.4	-59.5)
	9 (	48	E	128	3.8	16.7	-46.0	-59.0)
	12 (	50	E	130	3.7	16.8	-49.4	-58.2)
	15 (	50	E	141	3.4	14.2	-45.3	-59.0)
	18 (	56	E	137	3.5	15.1	-49.3	-56.8)
	21 (	56	E	136	4.4	12.8	-45.6	-58.0)
	24 (	58	ESE	0	4.2	5.0	-46.4	-56.2)
AUG.14	3 (	58	ESE	140	4.1	4.7	-49.3	-57.9)
	6 (	56	ESE	130	3.6	4.1	-59.0	-56.6)
	9 (	56	ESE	7	3.8	4.0	-61.4	-58.4)
	12 (	58	SE	13	4.5	13.3	-62.4	-58.5)
	15 (	58	SE	45	4.0	13.7	-62.1	-58.6)
	18 (	64	SE	130	4.3	12.9	-62.1	-58.7)
	21 (	64	SE	130	4.1	13.0	-61.2	-59.1)
	24 (	66	SE	130	4.3	14.0	-62.1	-58.3)
AUG.15	3 (	66	SE	131	4.3	4.1	-58.3	-59.1)
	6 (	64	SE	141	4.3	12.9	-58.5	-61.6)
	9 (	64	SE	135	4.1	4.5	-59.3	-62.2)
	12 (	66	SE	13	3.9	4.3	-58.2	-62.5)
	15 (	66	ESE	128	3.8	3.7	-58.3	-62.6)
	18 (	72	ESE	143	3.4	4.6	-62.1	-61.1)
	21 (	72	ESE	132	4.6	13.5	-62.0	-61.7)
	24 (	74	ESE	133	4.3	4.7	-61.3	-62.3)
AUG.16	3 (	74	ESE	130	4.3	14.2	-62.2	-62.5)
	6 (	72	ESE	135	4.7	13.7	-61.7	-62.6)
	9 (	72	ESE	6	4.5	12.8	-58.8	-57.8)
	12 (	74	E	43	4.0	12.9	-57.9	-58.0)
	15 (	74	ESE	43	4.5	13.0	-58.5	-57.8)
	18 (	80	ESE	132	3.9	4.2	-61.1	-57.8)
	21 (	80	ESE	130	4.1	3.3	-61.5	-58.3)
	24 (	82	ESE	129	3.5	13.8	-62.7	-58.9)
AUG.17	3 (	82	ESE	133	4.3	13.6	-62.7	-59.0)
	6 (	80	ESE	130	3.5	13.6	-62.7	-59.1)
	9 (	80	SE	2	3.3	14.0	-62.5	-59.1)
	12 (	82	SE	138	4.5	13.1	-61.6	-59.1)
	15 (	82	ESE	131	4.6	13.2	-62.4	-57.9)
	18 (	88	ESE	133	4.5	13.6	-58.2	-58.1)
	21 (	88	ESE	4	3.6	4.2	-58.2	-58.0)
	24 (	90	ESE	134	4.4	4.7	-61.4	-57.8)
AUG.18	3 (	90	E	43	4.1	4.2	-58.8	-59.4)
	6 (	88	E	139	4.1	3.6	-58.7	-59.1)
	9 (	88	E	131	3.6	3.5	-58.5	-58.9)

Date	LT	n	WD	nD	WS	WSp	Ta	Ts
AUG.18	12	( 90	ENE	134	3.3	1.4	-49.2	-58.8)
	15	( 90	ENE	134	4.1	4.3	-49.0	-58.6)
	18	( 96	ENE	134	3.2	4.2	-49.0	-58.4)
	21	( 96	E	44	3.9	3.6	-48.9	-58.2)
	24	( 98	E	142	3.2	3.6	-58.0	-58.0)
AUG.19	3	( 98	E	2	3.7	3.4	-59.4	-57.8)
	6	( 96	ESE	133	3.7	3.4	-61.2	-62.5)
	9	( 96	ESE	132	3.4	0.9	-62.4	-62.4)
	12	( 98	SE	134	3.6	4.0	-61.3	-62.2)
	15	( 98	SE	134	3.6	0.8	-62.1	-62.2)
	18	( 104	ESE	131	4.1	3.5	-62.0	-62.1)
	21	( 104	ESE	130	4.0	4.2	-58.0	-62.1)
	24	( 106	ESE	129	3.6	1.3	-57.9	-62.0)
AUG.20	3	( 106	ESE	143	3.6	3.2	-59.4	-61.8)
	6	( 104	SE	134	1.4	0.9	-59.0	-61.6)
	9	( 104	SE	134	1.5	0.9	-58.7	-61.4)
	12	( 106	E	5	3.7	3.4	-48.5	-61.2)
	15	( 106	E	34	3.3	2.7	-48.9	-62.6)
	18	( 112	E	9	1.1	1.5	-48.2	-62.3)
	21	( 112	E	47	1.5	1.3	-48.6	-62.1)
	24	( 114	E	6	1.2	0.4	-48.2	-61.9)
AUG.21	3	( 114	ESE	36	0.7	1.3	-49.4	-61.8)
	6	( 112	ESE	46	1.3	0.8	-49.1	-61.8)
	9	( 112	E	45	0.8	0.0	-49.1	-61.7)
	12	( 114	SE	134	0.9	4.7	-59.4	-61.7)
	15	( 114	SE	134	0.6	4.1	-59.4	-61.6)
	18	( 120	SE	134	0.9	0.2	-59.3	-61.6)
	21	( 120	SE	134	1.5	0.3	-59.1	-61.6)
	24	( 122	ESE	143	3.7	3.5	-61.4	-61.7)
AUG.22	3	( 122	ESE	140	3.8	13.5	-58.1	-61.8)
	6	( 120	ESE	11	4.3	12.8	-61.7	-61.8)
	9	( 120	SE	142	3.2	14.0	-61.2	-62.1)
	12	1406	SE	143	( 4.6	17.7)	-52.2	-54.1
	15	1407	SE	129	( 4.4	18.2)	-50.0	-53.9
	18	1408	SE	129	( 5.4	18.2)	-49.8	-53.5
	21	1409	SE	119	( 4.3	17.6)	-50.9	-53.1
	24	1410	SE	124	( 4.5	17.3)	-51.8	-53.0
AUG.23	3	1411	ESE	83	( 5.3	17.7)	-53.6	-53.1
	6	1412	ESE	111	( 4.6	18.0)	-55.0	-53.4
	9	1413	ESE	132	( 5.0	16.9)	-55.1	-53.7
	12	1414	ESE	146	( 4.7	17.6)	-55.4	-54.0
	15	1415	ESE	149	( 4.8	17.7)	-56.0	-54.2
	18	1416	ESE	149	( 4.8	16.1)	-56.8	-54.5
	21	1417	ESE	149	( 4.8	17.0)	-58.1	-54.9
	24	1418	ESE	146	( 4.6	16.8)	-58.0	-55.2
AUG.24	3	1419	ESE	138	( 4.8	16.0)	-57.2	-55.6
	6	1420	ESE	86	( 4.9	14.8)	-55.9	-55.8
	9	1421	ESE	146	( 4.0	14.3)	-55.0	-55.8
	12	1422	ESE	145	( 4.3	14.9)	-52.4	-55.5
	15	1423	ESE	76	( 4.2	16.3)	-47.7	-55.0
	18	1424	ESE	123	( 4.2	16.2)	-45.9	-54.0

Date	LT	n	WD	nD	WS	WS <sub>p</sub>	Ta	Ts
AUG. 24	21	1425	ESE	147	( 4.7	17.9)	-49.1	-53.1
	24	1426	ESE	145	( 4.6	17.9)	-50.8	-52.8
AUG. 25	3	1427	ESE	138	( 4.9	17.9)	-51.5	-52.8
	6	1428	ESE	86	( 3.7	14.7)	-51.0	-52.9
	9	1429	ESE	100	( 4.1	15.6)	-51.0	-52.9
	12	1430	E	74	( 3.8	13.8)	-50.3	-53.0
	15	1431	ESE	75	( 3.3	11.6)	-49.5	-52.9
	18	1432	E	81	( 3.9	12.6)	-50.5	-52.7
	21	1433	E	87	( 3.5	11.7)	-52.5	-52.9
	24	1434	ESE	125	( 3.3	11.8)	-53.1	-53.3
AUG. 26	3	1435	ESE	110	( 3.3	11.3)	-53.4	-53.6
	6	1436	ESE	147	( 3.5	12.5)	-54.7	-53.8
	9	1437	SE	76	( 3.1	10.7)	-55.0	-54.0
	12	1438	ESE	146	( 3.1	11.1)	-53.5	-54.4
	15	1439	ESE	138	( 3.3	10.9)	-53.5	-54.5
	18	1440	ESE	131	( 3.1	11.1)	-54.1	-54.5
	21	1441	ESE	145	( 3.3	11.9)	-53.7	-54.6
	24	1442	ESE	145	( 3.1	11.2)	-53.8	-54.7
AUG. 27	3	1443	ESE	140	( 3.3	10.1)	-53.2	-54.8
	6	1444	SE	150	( 2.8	10.2)	-53.1	-54.8
	9	1445	SE	150	( 3.5	10.7)	-53.7	-54.7
	12	1446	SE	150	( 2.6	8.1)	-52.2	-54.7
	15	1447	SE	150	( 2.6	9.5)	-52.4	-54.6
	18	1448	SE	150	( 3.3	10.7)	-54.8	-54.6
	21	1449	SE	150	( 3.2	11.7)	-56.2	-54.9
	24	1450	SE	150	( 3.1	11.6)	-56.2	-55.3
AUG. 28	3	1451	ESE	132	( 3.8	12.2)	-55.4	-55.7
	6	1452	ESE	137	( 4.0	12.8)	-54.5	-55.7
	9	1453	ESE	141	( 3.3	13.1)	-52.6	-55.6
	12	1454	ESE	140	( 4.0	13.3)	-51.2	-55.1
	15	1455	ESE	127	( 4.0	12.0)	-52.3	-54.6
	18	1456	ESE	141	( 4.0	12.7)	-54.0	-54.5
	21	1457	ESE	137	( 3.6	12.2)	-54.6	-54.7
	24	1458	ESE	139	( 3.7	11.4)	-54.6	-54.9
AUG. 29	3	1459	ESE	139	( 3.2	11.6)	-54.8	-55.2
	6	1460	ESE	127	( 3.3	11.1)	-53.9	-55.3
	9	1461	ESE	120	( 3.1	11.7)	-53.3	-55.2
	12	1462	ESE	93	( 3.0	11.2)	-50.5	-55.0
	15	1463	E	91	( 3.8	12.6)	-48.6	-54.7
	18	1464	E	86	( 2.9	11.2)	-48.8	-54.6
	21	1465	E	124	( 3.0	11.6)	-48.8	-54.4
	24	1466	E	109	( 3.2	11.9)	-47.4	-53.9
AUG. 30	3	1467	E	109	( 3.1	11.0)	-47.8	-53.3
	6	1468	E	109	( 2.9	10.5)	-49.1	-53.0
	9	1469	E	130	( 3.1	10.9)	-46.4	-52.8
	12	1470	E	126	( 3.1	10.5)	-43.2	-52.2
	15	1471	E	124	( 3.4	11.7)	-43.6	-51.2
	18	1472	E	106	( 3.6	11.1)	-45.9	-50.6
	21	1473	ESE	103	( 3.8	12.2)	-48.8	-50.7
	24	1474	ESE	70	( 3.5	13.3)	-50.7	-51.1
AUG. 31	3	1475	ESE	83	( 3.3	13.5)	-51.0	-51.5

Date	LT	n	WD	nD	WS	WSp	Ta	Ts
AUG. 31	6	1476	ESE	90	( 4.1	14.2)	-50.5	-51.9
	9	1477	ESE	117	( 4.4	14.0)	-50.3	-52.1
	12	1478	ESE	126	( 4.0	13.9)	-49.4	-52.1
	15	1479	ESE	121	( 3.4	14.5)	-49.2	-51.9
	18	1480	ESE	69	( 3.9	13.0)	-50.2	-51.9
	21	1481	ESE	66	( 3.8	13.7)	-49.9	-51.9
	24	1482	ESE	111	( 3.1	11.4)	-49.6	-51.9
SEP. 1	3	1483	ESE	133	( 3.3	11.0)	-50.9	-52.0
	6	1484	ESE	124	( 2.9	10.9)	-51.8	-52.2
	9	1485	ESE	113	( 3.1	11.2)	-51.8	-52.5
	12	1486	ESE	118	( 3.4	11.1)	-51.5	-52.7
	15	1487	ESE	81	( 3.6	11.7)	-49.7	-52.7
	18	1488	ESE	96	( 2.7	10.5)	-49.1	-52.5
	21	1489	ESE	71	( 3.0	11.2)	-49.8	-52.4
SEP. 2	24	1490	E	80	( 3.7	10.8)	-50.2	-52.4
	3	1491	E	137	( 3.5	10.4)	-49.9	-52.4
	6	1492	E	102	( 2.8	11.2)	-51.4	-52.4
	9	1493	E	103	( 3.3	9.9)	-52.7	-52.6
	12	1494	E	70	( 2.5	7.7)	-52.2	-52.9
	15	1495	E	106	( 2.2	7.3)	-51.8	-53.1
	18	1496	E	70	( 2.8	8.7)	-53.3	-53.4
SEP. 3	21	1497	ESE	76	( 2.4	8.6)	-53.5	-53.6
	24	1498	ESE	150	( 1.7	6.5)	-56.4	-54.0
	3	1499	SE	150	( 2.0	6.6)	-57.0	-54.6
	6	1500	SE	150	( 2.4	7.0)	-58.9	-54.9
	9	1501	SE	150	( 1.9	5.5)	-59.8	-55.2
	12	1502	SE	150	( 2.0	5.7)	-57.5	-55.5
	15	1503	SE	150	( 1.8	5.2)	-53.5	-55.5
SEP. 4	18	1504	SE	150	( 1.7	4.4)	-51.9	-55.1
	21	1505	SE	150	( 1.6	4.1)	-52.2	-54.6
	24	1506	SE	150	( 1.5	3.4)	-55.2	-54.4
	3	1507	SE	150	( 1.3	3.2)	-55.9	-54.5
	6	1508	SE	150	( 1.8	5.2)	-55.4	-54.8
	9	1509	SE	150	( 1.8	5.0)	-56.5	-55.0
	12	1510	SE	150	( 2.2	6.8)	-52.7	-55.2
SEP. 5	15	1511	SE	150	( 1.8	5.2)	-52.6	-54.9
	18	1512	SE	150	( 2.3	7.3)	-53.9	-54.7
	21	1513	SE	150	( 2.5	7.9)	-54.7	-54.8
	24	1514	SE	150	( 2.5	8.1)	-55.6	-55.0
	3	1515	SE	150	( 2.1	6.4)	-57.1	-55.1
	6	1516	SE	150	( 2.7	8.1)	-57.8	-55.2
	9	1517	SE	150	( 2.6	8.3)	-57.3	-55.5
SEP. 6	12	1518	SE	150	( 3.3	11.2)	-54.9	-55.6
	15	1519	SE	112	( 4.0	13.7)	-53.7	-55.6
	18	1520	SE	89	( 3.9	13.2)	-54.6	-55.5
	21	1521	ESE	95	( 3.7	14.5)	-53.9	-55.3
	24	1522	ESE	148	( 3.7	14.2)	-53.5	-55.2
	3	1523	ESE	146	( 4.2	15.2)	-53.2	-55.1
	6	1524	ESE	149	( 3.8	15.0)	-51.8	-55.0
SEP. 6	9	1525	ESE	121	( 4.6	16.4)	-50.7	-54.8
	12	1526	ESE	67	( 4.7	15.2)	-49.3	-54.7

Date	LT	n	WD	nD	WS	WSp	Ta	Ts
SEP. 6	15	1527	E	86	( 3.8	15.7)	-48.3	-54.4
	18	1528	E	102	( 3.8	13.8)	-48.8	-53.8
	21	1529	E	111	( 4.0	13.9)	-48.6	-53.4
	24	1530	E	135	( 3.7	15.5)	-45.6	-53.1
SEP. 7	3	1531	E	138	( 4.4	14.5)	-44.8	-52.4
	6	1532	E	136	( 4.1	15.3)	-44.2	-51.8
	9	1533	E	138	( 4.2	13.1)	-44.3	-51.4
	12	1534	E	92	( 3.7	12.9)	-43.1	-51.2
	15	1535	E	91	( 3.6	13.2)	-43.7	-51.1
	18	1536	E	104	( 3.5	12.0)	-44.9	-50.9
	21	1537	E	79	( 3.0	10.9)	-44.4	-50.6
	24	1538	E	70	( 2.8	9.8)	-43.9	-50.2
SEP. 8	3	1539	E	117	( 3.3	10.8)	-45.0	-50.0
	6	1540	E	96	( 3.0	11.1)	-46.4	-49.9
	9	1541	E	92	( 3.2	11.9)	-47.3	-49.8
	12	1542	E	75	( 3.6	12.8)	-48.2	-49.9
	15	1543	ESE	97	( 3.9	14.4)	-49.4	-50.0
	18	1544	E	116	( 3.6	13.6)	-49.5	-50.2
	21	1545	ESE	139	( 3.8	13.9)	-51.7	-50.5
	24	1546	ESE	136	( 4.0	12.8)	-52.9	-50.8
SEP. 9	3	1547	SE	120	( 3.2	12.8)	-53.9	-51.0
	6	1548	SE	150	( 3.5	11.6)	-53.3	-51.2
	9	1549	SE	126	( 4.4	16.1)	-53.9	-51.3
	12	1550	ESE	121	( 4.5	18.2)	-49.4	-51.5
	15	1551	ESE	90	( 4.8	19.5)	-48.1	-51.8
	18	1552	ESE	143	( 5.5	19.8)	-48.8	-51.9
	21	1553	ESE	143	( 4.6	20.8)	-48.0	-52.0
	24	1554	ESE	132	( 5.3	20.1)	-47.7	-52.0
SEP. 10	3	1555	ESE	137	( 5.5	19.2)	-47.7	-52.0
	6	1556	ESE	127	( 5.2	18.7)	-48.1	-52.0
	9	1557	ESE	133	( 4.9	17.3)	-51.0	-51.9
	12	1558	ESE	130	( 4.3	14.7)	-50.7	-51.8
	15	1559	ESE	127	( 4.2	17.5)	-52.7	-51.7
	18	1560	ESE	77	( 3.9	19.6)	-52.6	-51.7
	21	1561	ESE	86	( 4.2	16.0)	-52.6	-51.8
	24	1562	E	81	( 4.5	15.8)	-53.6	-51.9
SEP. 11	3	1563	ESE	91	( 4.7	15.5)	-53.7	-51.9
	6	1564	ESE	128	( 4.7	19.2)	-54.2	-52.1
	9	1565	ESE	114	( 4.9	16.6)	-54.1	-52.3
	12	1566	E	105	( 4.2	15.7)	-52.5	-52.4
	15	1567	E	142	( 4.4	17.4)	-51.0	-52.5
	18	1568	E	141	( 4.4	18.0)	-51.2	-52.4
	21	1569	E	144	( 4.8	17.2)	-50.5	-52.5
	24	1570	E	145	( 4.0	17.2)	-49.2	-52.4
SEP. 12	3	1571	E	146	( 5.7	17.5)	-47.5	-52.0
	6	1572	E	142	( 4.2	18.2)	-45.5	-51.4
	9	1573	ENE	118	( 5.0	18.0)	-42.8	-50.8
	12	1574	ENE	145	( 4.7	18.1)	-41.6	-50.4
	15	1575	ENE	139	( 4.5	16.7)	-40.1	-50.0
	18	1576	ENE	99	( 5.0	18.2)	-38.5	-49.7
21	1577	ENE	127	( 3.8	16.8)	-38.1	-48.8	

Date	LT	n	WD	nD	WS	WSp	Ta	Ts
SEP.12	24	1578	ENE	118	( 4.2	16.0)	-37.0	-47.6
SEP.13	3	1579	ENE	97	( 4.3	15.9)	-36.0	-46.6
	6	1580	NE	105	( 4.0	13.3)	-35.2	-45.8
	9	1581	NE	107	( 3.8	13.5)	-34.7	-45.1
	12	1582	NNE	79	( 4.0	13.7)	-34.3	-44.4
	15	1583	NNE	141	( 3.5	12.3)	-34.2	-43.8
	18	1584	NNE	150	( 3.7	11.3)	-35.1	-43.4
	21	1585	NNE	150	( 3.2	8.6)	-37.1	-43.3
	24	1586	NNE	150	( 4.0	10.6)	-38.4	-43.4
SEP.14	3	1587	NNE	150	( 3.7	10.0)	-41.2	-43.7
	6	1588	NNE	150	( 4.2	11.1)	-44.0	-44.3
	9	1589	NNE	150	( 4.2	11.3)	-43.4	-45.1
	12	1590	E	127	( 4.2	12.4)	-42.6	-45.6
	15	1591	E	128	( 4.4	11.2)	-41.6	-45.7
	18	1592	E	148	( 4.4	10.8)	-43.7	-45.8
	21	1593	E	145	( 4.9	11.5)	-42.9	-46.0
	24	1594	E	129	( 4.5	11.2)	-45.0	-46.1
SEP.15	3	1595	E	116	( 3.8	11.0)	-45.1	-46.4
	6	1596	ESE	105	( 4.4	11.7)	-46.9	-46.8
	9	1597	E	123	( 4.6	13.5)	-48.2	-47.3
	12	1598	E	92	( 4.3	12.0)	-44.3	-47.6
	15	1599	E	146	( 4.2	12.3)	-40.6	-47.3
	18	1600	E	135	( 4.2	12.0)	-40.8	-46.6
	21	1601	E	119	( 3.2	8.4)	-41.1	-46.3
	24	1602	ENE	96	( 4.0	10.3)	-38.6	-46.1
SEP.16	3	1603	ENE	114	( 3.5	9.3)	-40.0	-45.8
	6	1604	ENE	113	( 2.9	7.4)	-40.7	-45.6
	9	1605	ENE	105	( 3.4	8.2)	-42.1	-45.8
	12	1606	ENE	119	( 2.8	7.0)	-40.0	-46.0
	15	1607	E	96	( 2.9	7.1)	-40.9	-45.8
	18	1608	E	137	( 3.2	7.4)	-45.0	-45.8
	21	1609	E	141	( 3.0	7.9)	-47.0	-46.4
	24	1610	E	144	( 3.8	9.0)	-47.4	-47.2
SEP.17	3	1611	ESE	86	( 3.0	9.1)	-48.3	-48.0
	6	1612	ESE	132	( 3.6	9.0)	-49.7	-48.5
	9	1613	ESE	130	( 3.5	11.0)	-48.2	-49.0
	12	1614	SE	150	( 3.5	10.0)	-46.1	-49.1
	15	1615	SE	150	( 3.3	8.5)	-46.1	-48.9
	18	1616	ESE	145	( 3.4	9.4)	-47.6	-48.9
	21	1617	ESE	145	( 3.4	8.5)	-50.2	-49.1
	24	1618	ESE	139	( 3.1	8.9)	-51.4	-49.6
SEP.18	3	1619	ESE	139	( 3.5	9.0)	-52.9	-50.2
	6	1620	ESE	107	( 3.4	9.3)	-53.4	-50.8
	9	1621	SE	150	( 3.6	9.6)	-53.4	-51.3
	12	1622	ESE	141	( 3.9	10.7)	-50.5	-51.5
	15	1623	ESE	136	( 3.1	9.4)	-50.0	-51.3
	18	1624	ESE	145	( 3.2	9.8)	-51.8	-51.1
	21	1625	ESE	141	( 3.0	9.7)	-53.6	-51.5
	24	1626	ESE	134	( 3.2	9.5)	-54.1	-52.1
SEP.19	3	1627	ESE	130	( 3.0	9.2)	-54.9	-52.5
	6	1628	ESE	145	( 2.6	8.2)	-55.0	-53.0

Date	LT	n	WD	nD	WS	WSp	Ta	Ts
SEP.19	9	1629	ESE	113	( 2.9	7.9)	-53.4	-53.4
	12	1630	ESE	128	( 2.9	7.4)	-50.1	-53.3
	15	1631	ESE	82	( 2.6	6.6)	-50.1	-52.8
	18	1632	ESE	130	( 2.9	7.5)	-53.8	-52.6
	21	1633	SE	122	( 3.2	8.1)	-56.2	-53.0
	24	1634	ESE	77	( 3.0	7.6)	-55.7	-53.6
SEP.20	3	1635	ESE	138	( 3.0	8.5)	-56.1	-54.0
	6	1636	ESE	95	( 3.5	11.0)	-56.3	-54.3
	9	1637	ESE	126	( 3.3	9.6)	-56.0	-54.5
	12	1638	SE	87	( 3.2	8.9)	-52.4	-54.6
	15	1639	SE	150	( 2.8	8.4)	-51.6	-54.4
	18	1640	SE	150	( 2.6	6.9)	-54.0	-54.2
	21	1641	SE	150	( 2.6	7.9)	-56.5	-54.1
	24	1642	SE	150	( 2.8	8.2)	-57.6	-54.2
SEP.21	3	1643	SE	150	( 2.9	8.1)	-58.0	-54.8
	6	1644	SE	150	( 2.8	8.1)	-58.7	-55.3
	9	1645	SE	150	( 3.1	9.5)	-58.1	-55.8
	12	1646	SE	150	( 3.1	10.4)	-55.8	-55.8
	15	1647	SE	150	( 3.5	11.4)	-53.3	-55.3
	18	1648	SE	150	( 3.5	10.6)	-55.0	-55.0
	21	1649	SE	150	( 3.4	10.6)	-57.0	-55.2
	24	1650	SE	149	( 3.2	10.7)	-59.4	-55.7
SEP.22	3	1651	SSE	129	( 3.4	10.8)	-61.2	-56.3
	6	1652	SE	146	( 4.2	12.7)	(-62.7)	-57.0
	9	1653	ESE	124	( 4.0	13.7)	(-62.7)	-57.6
	12	1654	ESE	147	( 4.0	13.2)	-60.4	-57.8
	15	1655	ESE	148	( 3.8	12.6)	-59.4	-57.6
	18	1656	ESE	133	( 4.1	12.9)	-61.2	-57.5
	21	1657	ESE	87	( 4.0	12.4)	-62.4	-57.9
	24	1658	ESE	136	( 4.8	14.0)	-62.3	-58.1
SEP.23	3	1659	ESE	129	( 4.0	13.4)	-61.8	-58.0
	6	1660	E	76	( 4.6	13.4)	-61.2	-58.1
	9	1661	ESE	85	( 3.6	11.8)	-59.1	-58.4
	12	1662	E	146	( 3.8	12.4)	-53.0	-58.0
	15	1663	E	134	( 4.1	11.1)	-49.7	-57.1
	18	1664	E	126	( 3.4	10.8)	-49.6	-55.9
	21	1665	ENE	76	( 3.5	10.3)	-48.9	(-62.6)
	24	1666	E	77	( 3.8	10.0)	-48.1	-54.4
SEP.24	3	1667	E	140	( 3.6	10.3)	-49.1	-53.9
	6	1668	E	146	( 3.8	11.0)	-48.5	-53.6
	9	1669	E	132	( 3.5	9.4)	-49.0	-53.3
	12	1670	E	133	( 3.1	10.1)	-46.9	-53.1
	15	1671	ESE	79	( 3.1	9.0)	-47.1	-52.9
	18	1672	ESE	111	( 3.1	9.3)	-49.5	-52.7
	21	1673	ESE	141	( 3.3	8.6)	-54.0	-53.0
	24	1674	ESE	133	( 3.6	9.2)	-55.1	-53.7
SEP.25	3	1675	ESE	128	( 3.4	9.1)	-57.2	-54.4
	6	1676	ESE	146	( 3.5	9.9)	-58.4	-55.0
	9	1677	SE	80	( 3.4	9.0)	-57.4	-55.5
	12	1678	ESE	135	( 3.3	9.9)	-53.4	-55.6
	15	1679	ESE	137	( 3.5	9.7)	-52.3	-55.1



Date	LT	n	WD	nD	WS	WSp	Ta	Ts
SEP. 25	18	1680	ESE	140	( 3.5	10.4)	-54.1	-54.8
	21	1681	ESE	132	( 3.8	11.1)	-55.8	-55.0
	24	1682	ESE	101	( 3.9	11.2)	-58.0	-55.6
SEP. 26	3	1683	ESE	120	( 3.5	9.5)	-58.5	-56.2
	6	1684	ESE	104	( 3.6	10.0)	-59.5	-56.5
	9	1685	SE	77	( 3.6	9.9)	-57.3	-56.6
	12	1686	ESE	103	( 3.8	9.4)	-53.8	-56.3
	15	1687	SE	107	( 3.6	9.0)	-52.6	-55.7
	18	1688	ESE	128	( 4.0	10.5)	-55.9	-55.2
	21	1689	ESE	124	( 4.6	10.6)	-59.6	-55.1
	24	1690	ESE	143	( 4.1	10.9)	-60.8	-55.3
SEP. 27	3	1691	ESE	141	( 3.8	9.3)	-61.7	-55.7
	6	1692	ESE	146	( 3.5	9.3)	-60.9	-56.7
	9	1693	ESE	144	( 3.9	9.6)	-58.4	-57.3
	12	1694	ESE	96	( 3.5	9.1)	(-62.7)	(-62.6)
	15	1695	E	109	( 3.3	8.0)	(-62.7)	(-62.6)
	18	1696	E	116	( 3.3	8.1)	(-62.7)	(-62.6)
	21	1697	E	110	( 3.2	7.7)	(-62.7)	(-62.6)
	24	1698	E	126	( 3.7	9.1)	(-62.7)	(-62.6)
SEP. 28	3	1699	E	137	( 3.4	8.5)	(-62.7)	(-62.6)
	6	1700	E	120	( 3.2	7.6)	(-62.7)	(-62.6)
	9	1701	E	81	( 3.1	6.3)	(-62.7)	(-62.6)
	12	1702	ESE	101	( 2.5	5.6)	(-62.7)	(-62.6)
	15	1703	ESE	150	( 2.1	4.5)	(-62.7)	(-62.6)
	18	1704	ESE	150	( 2.6	5.5)	(-62.7)	(-62.6)
	21	1705	SE	150	( 2.6	5.5)	-57.9	(-62.6)
	24	1706	SE	150	( 2.3	4.6)	-55.6	-55.8
SEP. 29	3	1707	SE	150	( 2.4	4.9)	-56.5	(-62.6)
	6	1708	SE	150	( 2.2	4.3)	-56.6	(-62.6)
	9	1709	SE	150	( 1.8	3.4)	(-62.7)	(-62.6)
	12	1710	SE	150	( 1.4	2.5)	(-62.7)	(-62.6)
	15	1711	SE	150	( 1.1	2.0)	(-62.7)	(-62.6)
	18	1712	SE	150	( 1.1	2.1)	-48.6	-53.9
	21	1713	SE	150	( 1.0	2.1)	-50.5	-53.5
	24	1714	SE	150	( 2.1	5.2)	-52.1	-53.6
SEP. 30	3	1715	SE	150	( 2.8	7.2)	-50.9	-53.9
	6	1716	SE	150	( 3.1	8.1)	-51.3	-54.0
	9	1717	SE	150	( 3.4	8.6)	-50.4	-54.1
	12	1718	SE	149	( 3.9	9.4)	-47.2	-53.9
	15	1719	SSE	150	( 3.1	9.5)	-47.4	-53.7
	18	1720	SE	143	( 4.4	11.1)	-49.1	-53.4
	21	1721	SE	142	( 4.6	12.1)	-51.1	-53.3
	24	1722	SE	143	( 6.3	15.5)	-51.4	-53.3
OCT. 1	3	1723	SE	112	( 5.9	17.9)	-51.3	-53.3
	6	1724	ESE	120	( 6.5	18.4)	-52.5	-53.2
	9	1725	ESE	146	( 6.8	18.8)	-50.0	-53.2
	12	1726	ESE	135	( 7.1	21.1)	-49.2	-53.1
	15	1727	ESE	72	( 7.3	18.6)	-46.3	-52.8
	18	1728	E	143	( 7.2	19.4)	-43.3	-51.9
	21	1729	ENE	83	( 7.9	21.8)	-40.3	-50.7
24	1730	E	98	( 7.3	19.4)	-41.9	-49.7	

Date	LT	n	WD	nD	WS	WSp	Ta	Ts
OCT. 2	3	1731	ENE	75	( 6.9	17.7)	-41.9	-49.1
	6	1732	ENE	88	( 6.5	16.5)	-41.9	-48.6
	9	1733	ENE	111	( 6.7	17.0)	-40.6	-48.2
	12	1734	E	94	( 5.1	12.8)	-39.1	-47.4
	15	1735	ESE	150	( 4.9	12.2)	-39.3	-46.8
	18	1736	ESE	131	( 4.7	11.2)	-43.7	-46.6
	21	1737	ESE	150	( 5.0	12.0)	-47.2	-46.9
	24	1738	ESE	149	( 5.1	11.5)	-46.4	-47.7
OCT. 3	3	1739	ESE	144	( 5.3	12.6)	-47.2	-48.4
	6	1740	ESE	126	( 5.1	12.4)	-47.0	-48.8
	9	1741	ESE	124	( 6.0	13.5)	-45.2	-49.1
	12	1742	ESE	111	( 4.8	11.9)	-43.3	-48.8
	15	1743	ESE	111	( 5.4	13.6)	-42.7	-48.3
	18	1744	E	78	( 5.2	12.8)	-45.0	-47.9
	21	1745	E	113	( 4.5	11.7)	-47.2	-48.3
24	1746	E	74	( 5.0	11.5)	-48.3	-48.9	
OCT. 4	3	1747	E	93	( 4.4	10.7)	-47.3	-49.4
	6	1748	E	95	( 4.2	9.8)	-48.4	-49.5
	9	1749	E	123	( 5.0	11.6)	-44.5	-49.5
	12	1750	E	98	( 4.1	11.9)	-40.8	-48.9
	15	1751	E	134	( 4.4	10.9)	-39.1	-48.1
	18	1752	E	108	( 4.0	10.5)	-41.1	-47.2
	21	1753	E	122	( 4.2	10.7)	-43.6	-47.0
24	1754	E	127	( 4.3	10.4)	-44.7	-47.4	
OCT. 5	3	1755	E	116	( 4.2	11.2)	-45.8	-47.6
	6	1756	E	139	( 3.8	9.9)	-47.6	-48.1
	9	1757	ENE	81	( 4.4	9.9)	-45.3	-48.6
	12	1758	ENE	105	( 3.3	8.5)	-40.1	-48.8
	15	1759	ENE	97	( 3.3	8.4)	-38.6	-48.5
	18	1760	ENE	84	( 3.3	7.6)	-40.9	-47.9
	21	1761	E	119	( 3.8	8.4)	-45.2	-47.6
24	1762	E	130	( 3.6	8.8)	-47.3	-48.0	
OCT. 6	3	1763	E	135	( 4.0	10.0)	-47.9	-48.5
	6	1764	E	115	( 3.6	9.0)	-48.1	-49.1
	9	1765	E	83	( 4.2	9.8)	-44.9	-49.4
	12	1766	ENE	73	( 3.8	8.9)	-41.3	-49.0
	15	1767	E	106	( 3.5	8.6)	-41.2	-48.3
	18	1768	ENE	65	( 3.8	8.7)	-43.9	-47.7
	21	1769	E	125	( 3.7	8.4)	-48.4	-48.2
24	1770	E	111	( 3.7	8.6)	-50.2	-49.1	
OCT. 7	3	1771	E	117	( 3.5	8.0)	-50.6	-50.0
	6	1772	E	114	( 3.7	9.1)	-50.2	-50.6
	9	1773	E	98	( 3.2	7.5)	-46.8	-50.9
	12	1774	E	92	( 3.5	8.6)	-42.9	-50.4
	15	1775	E	85	( 3.6	8.8)	-42.3	-49.6
	18	1776	E	74	( 3.2	7.6)	-45.1	-49.0
	21	1777	ESE	132	( 3.7	8.4)	-49.8	-49.3
24	1778	ESE	143	( 3.2	8.3)	-53.2	-50.2	
OCT. 8	3	1779	ESE	143	( 3.7	8.4)	-54.0	-51.1
	6	1780	ESE	136	( 3.2	8.1)	-54.2	-52.0
	9	1781	ESE	110	( 3.3	7.7)	-50.9	-52.4

Date	LT	n	WD	nD	WS	WSp	Ta	Ts
OCT. 8	12	1782	ESE	126	( 3.6	8.3)	-46.6	-51.9
	15	1783	ESE	101	( 3.4	8.4)	-45.9	-50.8
	18	1784	ESE	106	( 3.6	8.5)	-49.1	-50.3
	21	1785	ESE	139	( 3.5	8.2)	-53.2	-50.7
	24	1786	ESE	129	( 3.4	8.2)	-54.8	-51.7
OCT. 9	3	1787	ESE	137	( 3.6	8.6)	-56.1	-52.5
	6	1788	ESE	137	( 3.5	8.3)	-55.9	-53.2
	9	1789	ESE	77	( 3.8	9.1)	-52.2	-53.5
	12	1790	ESE	54	( 3.8	8.2)	(-62.7)	(-62.6)
	15	1791	E	50	( 3.2	7.7)	(-62.7)	(-62.6)
	18	1792	ESE	53	( 2.9	7.2)	(-62.7)	(-62.6)
	21	1793	ESE	97	( 3.7	8.2)	(-62.7)	(-62.6)
	24	1794	ESE	128	( 3.6	7.8)	-55.5	-52.3
OCT.10	3	1795	ESE	109	( 3.8	8.2)	-56.2	(-62.6)
	6	1796	ESE	96	( 3.8	8.5)	(-62.7)	(-62.6)
	9	1797	ESE	78	( 3.8	9.5)	(-62.7)	(-62.6)
	12	1798	E	111	( 3.5	8.8)	(-62.7)	(-62.6)
	15	1799	E	82	( 3.8	8.8)	(-62.7)	(-62.6)
	18	1800	E	100	( 3.5	8.5)	(-62.7)	(-62.6)
	21	1801	E	82	( 3.9	8.9)	(-62.7)	(-62.6)
	24	1802	ESE	114	( 3.7	8.4)	(-62.7)	(-62.6)
OCT.11	3	1803	ESE	122	( 3.7	9.0)	(-62.7)	(-62.6)
	6	1804	ESE	91	( 3.6	9.5)	(-62.7)	(-62.6)
	9	1805	E	81	( 4.5	9.7)	(-62.7)	(-62.6)
	12	1806	E	90	( 4.4	10.5)	(-62.7)	(-62.6)
	15	1807	E	47	( 3.9	9.6)	(-62.7)	(-62.6)
	18	1808	E	76	( 3.8	9.1)	(-62.7)	(-62.6)
	21	1809	ESE	73	( 4.0	9.5)	(-62.7)	(-62.6)
	24	1810	ESE	110	( 4.2	10.2)	(-62.7)	(-62.6)
OCT.12	3	1811	ESE	136	( 4.5	10.3)	(-62.7)	(-62.6)
	6	1812	ESE	131	( 4.6	10.9)	(-62.7)	(-62.6)
	9	1813	ESE	119	( 4.5	10.9)	(-62.7)	(-62.6)
	12	1814	ESE	93	( 3.9	11.1)	(-62.7)	(-62.6)
	15	1815	E	60	( 4.9	11.3)	(-62.7)	(-62.6)
	18	1816	E	71	( 4.4	10.6)	(-62.7)	(-62.6)
	21	1817	E	53	( 4.6	10.1)	(-62.7)	(-62.6)
	24	1818	ESE	71	( 4.0	9.8)	(-62.7)	(-62.6)
OCT.13	3	1819	ESE	98	( 3.8	9.2)	(-62.7)	(-62.6)
	6	1820	ESE	84	( 3.9	8.4)	(-62.7)	(-62.6)
	9	1821	ESE	130	( 2.8	6.7)	(-62.7)	(-62.6)
	12	1822	ESE	110	( 3.4	7.6)	(-62.7)	(-62.6)
	15	1823	ESE	114	( 2.8	6.5)	(-62.7)	(-62.6)
	18	1824	ESE	105	( 2.9	6.4)	(-62.7)	(-62.6)
	21	1825	ESE	85	( 3.0	6.9)	(-62.7)	(-62.6)
	24	1826	SE	97	( 2.2	5.3)	(-62.7)	(-62.6)
OCT.14	3	1827	ESE	145	( 3.7	7.7)	(-62.7)	(-62.6)
	6	1828	SE	75	( 3.1	6.9)	(-62.7)	(-62.6)
	9	1829	ESE	139	( 3.2	7.8)	(-62.7)	(-62.6)
	12	1830	ESE	124	( 3.0	7.3)	(-62.7)	(-62.6)
	15	1831	ESE	116	( 2.8	6.1)	(-62.7)	(-62.6)
	18	1832	ESE	61	( 2.9	6.7)	(-62.7)	(-62.6)

Date	LT	n	WD	nD	WS	WSp	Ta	Ts
OCT.14	21	1833	ESE	90	( 3.0	6.6)	(-62.7)	(-62.6)
	24	1834	ESE	100	( 2.9	6.3)	(-62.7)	(-62.6)
OCT.15	3	1835	E	88	( 2.9	7.2)	(-62.7)	(-62.6)
	6	1836	E	145	( 2.3	5.5)	(-62.7)	(-62.6)
	9	1837	E	140	( 2.4	5.7)	(-62.7)	(-62.6)
	12	1838	ENE	127	( 2.4	6.6)	(-62.7)	(-62.6)
	15	1839	ENE	147	4.4	5.1	-38.9	-50.2
	18	1840	E	144	3.2	3.6	-43.4	-49.3
	21	1841	E	137	3.9	4.3	-49.7	-49.6
	24	1842	SE	114	( 0.0)	( 0.0)	-58.3	-52.3
OCT.16	3	1843	SE	143	( 0.0)	( 0.0)	-46.8	-53.3
	6	1844	SE	147	( 0.0)	( 0.0)	-44.6	-52.1
	9	1845	SE	148	4.4	5.3	-46.7	-53.4
	12	1846	SE	144	3.6	4.2	-48.0	-52.3

#### IV. Temperature and Humidity of the Upper Atmosphere

Upper air soundings were made by using low-level radiosondes. Two types of sondes were used; JNL-78-TPH (400 MHz, Nippon Kankyou Kiki Co.) sondes measured the temperature, the humidity and the pressure, and JWA-75-TWS (1680 MHz, Meisei Electric Co.) sondes measured the temperature and the pressure. The height was calculated from the pressure and the temperature for both the types.

The data obtained by JNL-78-TPH are listed in Table IV-1. Thirty soundings were made, but one of them was not analyzed because of considerable noise in the record. In some cases, the temperature values obtained at the surface (H=0) by the sondes were considerably different from those from the conventional surface observations. In such cases, all the temperature data from the soundings were shifted by subtracting (or adding) the difference at the surface.

Thirty soundings by JWA-75-TWS sondes were made, but one of them was not successful due to the improper tuning of the receiver. The temperature values from the sonde of this type at the surface agreed with those of the surface observations. Thus, no corrections were applied to the data. The data are listed in Table IV-2.

Notations and abbreviations in the tables are as follows:

- LT : Local standard time at Syowa Station (GMT+3h)
- Pst : Atmospheric pressure (mb) at the station level
- H : Height above the surface (m)
- Ta : Air temperature (°C)
- HR : Relative humidity (%)

Table IV-1. Temperature and humidity of the upper atmosphere in 1985.

Date:02/19 Time: 1430 LT Pst: 658.7 mb				Date:02/20 Time: 0300 LT Pst: 668.6 mb			
H(m)	Ta(°C)	H(m)	HR(%)	H(m)	Ta(°C)	H(m)	HR(%)
0	-29.6	0	58	0	-33.5	0	93
65	-29.2	65	57	181	-28.0	155	100
100	-26.6	200	82	428	-26.0	1809	100
200	-25.6	500	83	1085	-28.6	2791	98
500	-25.1	1000	77	2791	-41.0		
1300	-28.6	2000	68				
1800	-29.8						
2000	-31.6						

Date:02/20 Time: 1520 LT Pst: 658.4 mb				Date:02/21 Time: 1500 LT Pst: 657.4 mb			
H(m)	Ta(°C)	H(m)	HR(%)	H(m)	Ta(°C)	H(m)	HR(%)
0	-25.5	0	70	0	-31.0	0	41
175	-26.0	123	69	55	-30.6	45	46
419	-25.2	387	89	86	-27.6	112	72
888	-24.4	666	93	238	-25.6	181	76
2375	-31.0	1464	77	1109	-27.9	649	38
		2061	84	1503	-29.8	1504	35
		2375	77	1636	-27.8	1676	65
				1966	-29.0	1966	51

Date:02/22 Time: 1545 LT Pst: 652.8 mb				Date:02/24 Time: 1500 LT Pst: 646 mb			
H(m)	Ta(°C)	H(m)	HR(%)	H(m)	Ta(°C)	H(m)	HR(%)
0	-29.0	0	69	0	-26.9	0	40
151	-27.2	66	67	461	-27.6	209	79
335	-27.2	184	75	793	-29.1	1005	75
477	-28.2	482	70	1025	-29.1	2195	71
609	-27.6	992	62	2195	-36.2		
695	-28.5	1634	69				
854	-28.5	1666	75				
1725	-35.0	1725	75				

Date:02/26 Time: 1630 LT  
Pst: 624.2 mb

H(m)	Ta(°C)	H(m)	HR(%)
0	-39.7	0	88
160	-33.2	571	48
220	-34.0	710	49
570	-31.2	1055	40
685	-31.8	2307	41
750	-30.9		
1115	-30.0		
2307	-34.3		

Date:11/12 Time: 1331 LT  
Pst: 644.9 mb

H(m)	Ta(°C)	H(m)	HR(%)
0	-29.0	0	67
342	-30.1	71	63
453	-31.0	249	61
680	-31.0	698	63
1415	-32.8	1601	55
1511	-32.6		
1601	-33.3		

Date:11/13 Time: 1357 LT  
Pst: 643.8 mb

H(m)	Ta(°C)	H(m)	HR(%)
0	-32.0	0	69
105	-33.4	115	70
210	-32.1	495	56
485	-33.4	604	62
580	-32.8	733	62
779	-32.8	776	59
980	-34.4	963	66
1048	-33.9	1790	61
1356	-36.0		
1790	-38.4		

Date:11/14 Time: 1539 LT  
Pst: 647.1 mb

H(m)	Ta(°C)	H(m)	HR(%)
0	-27.8	0	86
320	-33.2	115	70
418	-31.7	300	70
550	-31.7	460	86
810	-32.6	995	88
1370	-35.3	2030	84
2020	-38.0	2419	76
2419	-39.9		

Date:11/15 Time: 1400 LT  
Pst: 645.2 mb

H(m)	Ta(°C)	H(m)	HR(%)
0	-27.4	0	30
142	-30.0	75	28
300	-28.6	156	32
555	-28.9	298	54
856	-30.0	428	60
1415	-32.8	687	60
1978	-35.8	1431	52
		1774	52
		1978	54

Date:11/16 Time: 1338 LT  
Pst: 642.7 mb

H(m)	Ta(°C)	H(m)	HR(%)
0	-31.1	0	81
61	-31.1	72	63
96	-30.2	218	50
236	-29.4	230	46
1304	-34.3	388	40
2414	-43.1	504	30
		2010	32
		2352	37
		2414	37

Date:11/17 Time: 1548 LT  
Pst: 638.8 mb

H(m)	Ta(°C)	H(m)	HR(%)
0	-32.1	0	71
167	-33.0	47	66
288	-32.0	707	35
734	-32.0	841	33
2193	-38.4	2193	41

Date:11/18 Time: 1333 LT  
Pst: 643.3 mb

H(m)	Ta(°C)	H(m)	HR(%)
0	-27.5	0	68
319	-29.4	46	66
593	-30.5	854	89
753	-30.5	1014	89
811	-29.9	1330	80
1000	-29.9	2311	70
1376	-31.2	2576	71
2576	-38.7		

Date:11/19 Time: 1333 LT  
Pst: 646.6 mb

H(m)	Ta(°C)	H(m)	HR(%)
0	-29.0	0	66
75	-29.2	101	65
421	-28.7	201	76
460	-29.2	352	72
579	-29.2	553	70
1072	-31.6	757	58
1146	-31.3	1243	71
1817	-33.9	1409	39
		1817	23

Date:11/20 Time: 1536 LT  
Pst: 641.9 mb

H(m)	Ta(°C)	H(m)	HR(%)
0	-28.4	0	60
249	-30.3	326	61
413	-28.8	553	37
690	-29.2	1055	29
1226	-31.4	1224	29
1413	-31.6	1345	33
1562	-32.6	1520	55
1819	-33.2	1819	59

Date:11/21 Time: 1355 LT  
Pst: 646.9 mb

H(m)	Ta(°C)	H(m)	HR(%)
0	-28.4	0	44
138	-29.5	124	42
254	-28.0	251	23
772	-28.7	1155	23
1198	-30.9	1418	17
1678	-31.9	2084	17
2018	-33.5	2629	27
2629	-37.4		

Date:11/23 Time: 1252 LT  
Pst: 653.2 mb

H(m)	Ta(°C)	H(m)	HR(%)
0	-29.0	0	39
76	-30.8	47	32
168	-30.3	158	32
520	-30.8	240	56
853	-30.4	476	38
1490	-32.8	670	40
1785	-34.4	885	24
		1289	33
		1785	35



Date:11/26 Time: 1240 LT Pst: 651.4 mb				Date:11/29 Time: 1229 LT Pst: 653.9 mb			
H(m)	Ta(°C)	H(m)	HR(%)	H(m)	Ta(°C)	H(m)	HR(%)
0	-27.5	0	51	0	-27.2	0	39
140	-29.6	47	47	213	-29.1	129	45
451	-29.6	382	85	302	-28.5	287	69
525	-28.9	599	89	621	-30.4	1119	72
714	-29.7	1297	71	766	-30.3	1686	58
1481	-34.0	1762	65	836	-30.6	2223	61
1640	-34.8	1939	70	938	-30.6		
1933	-37.3	2365	62	1074	-31.1		
2019	-36.9			1180	-31.0		
2365	-39.4			1414	-31.6		
				1456	-31.3		
				2223	-36.7		

Date:11/30 Time: 1233 LT Pst: 652.2 mb				Date:12/01 Time: 1242 LT Pst: 650.2 mb			
H(m)	Ta(°C)	H(m)	HR(%)	H(m)	Ta(°C)	H(m)	HR(%)
0	-26.0	0	48	0	-27.5	0	67
448	-29.3	35	47	280	-29.9	105	60
632	-27.8	579	83	390	-29.1	366	70
1686	-32.2	818	75	604	-29.8	482	66
2424	-36.4	946	76	2615	-38.8	536	75
		1360	52	2765	-39.9	978	87
		2110	51	3414	-43.5	1405	77
		2424	42			1591	78
						2034	50
						2211	36
						2779	40
						3414	39

Date:12/02 Time: 1245 LT Pst: 655.8 mb				Date:12/03 Time: 1244 LT Pst: 651.8 mb			
H(m)	Ta(°C)	H(m)	HR(%)	H(m)	Ta(°C)	H(m)	HR(%)
0	-27.5	0	48	0	-27.5	0	46
243	-30.1	285	52	338	-30.1	138	46
380	-29.0	590	28	593	-29.3	568	61
980	-30.0	950	28	828	-31.2	1428	62
1190	-31.1	1040	31	1093	-31.2	2432	59
1480	-31.1	1130	28	1487	-34.1	2570	60
2495	-34.6	1230	28	3243	-38.9	3243	60
		1360	40				
		2495	18				

Date:12/04 Time: 1252 LT  
Pst: 651.7 mb

H(m)	Ta(°C)	H(m)	HR(%)
0	-28.6	0	84
75	-30.5	88	74
272	-32.5	179	76
543	-30.8	310	74
669	-31.5	479	39
811	-31.6	650	31
1049	-32.6	1466	31
1394	-35.1	2076	47
1555	-35.6		
1978	-39.0		
2076	-39.4		

Date:12/05 Time: 1244 LT  
Pst: 657.5 mb

H(m)	Ta(°C)	H(m)	HR(%)
0	-28.5	0	82
84	-31.1	63	71
547	-34.0	242	71
627	-31.6	661	85
874	-31.5	895	58
1142	-33.2	1181	56
1202	-32.8	1347	44
1643	-35.4	2007	28
2067	-36.6	2204	30
2581	-39.2	2444	45

Date:12/06 Time: 1244 LT  
Pst: 656.7 mb

H(m)	Ta(°C)	H(m)	HR(%)
0	-27.6	0	74
259	-30.0	45	67
349	-30.4	437	68
413	-30.2	772	29
506	-28.5	1517	23
677	-28.5	1763	35
1491	-32.7	2602	21
1905	-35.7	2655	22
2655	-37.9		

Date:12/07 Time: 1245 LT  
Pst: 650.6 mb

H(m)	Ta(°C)	H(m)	HR(%)
0	-27.0	0	78
218	-28.5	60	69
277	-27.9	506	60
349	-28.1	788	48
506	-28.1	1644	48
632	-28.9	2145	54
802	-29.0	2439	52
1666	-33.4	2683	57
2276	-35.9		
2717	-38.6		

Date:12/08 Time: 1246 LT  
Pst: 651.8 mb

H(m)	Ta(°C)	H(m)	HR(%)
0	-25.8	0	65
180	-28.1	60	63
346	-28.7	275	73
489	-27.8	885	74
738	-27.8	1135	77
1017	-29.8	1501	67
1475	-31.3	2017	64
2566	-36.9	2566	64

Table IV-2. Temperature of the upper atmosphere in 1985.

Date:11/22		Date:11/24		Date:11/25		Date:11/27	
Time: 1335 LT		Time: 1312 LT		Time: 1300 LT		Time: 1312 LT	
Pst: 651.4 mb		Pst: 650.2 mb		Pst: 648.9 mb		Pst: 648.4 mb	
H(m)	Ta(°C)	H(m)	Ta(°C)	H(m)	Ta(°C)	H(m)	Ta(°C)
0	-28.9	0	-29.1	0	-28.5	0	-29.6
310	-31.6	188	-30.7	90	-29.6	60	-30.6
345	-30.8	300	-29.7	150	-30.9	200	-31.8
470	-31.3	407	-29.7	180	-30.0	250	-31.6
480	-30.8	550	-30.6	800	-31.5	480	-32.4
700	-32.4	820	-32.1	1200	-33.7	500	-31.4
910	-32.2	1340	-34.0	1480	-35.9	750	-31.8
1060	-33.2	1510	-34.0	1520	-35.6	2080	-39.5
1340	-33.7	1840	-36.0	1760	-37.6		
2000	-38.1						

Date:11/28		Date:12/09		Date:12/10		Date:12/11	
Time: 1248 LT		Time: 1256 LT		Time: 1246 LT		Time: 1238 LT	
Pst: 650.1 mb		Pst: 655.7 mb		Pst: 655.3 mb		Pst: 659.0 mb	
H(m)	Ta(°C)	H(m)	Ta(°C)	H(m)	Ta(°C)	H(m)	Ta(°C)
0	-28.1	0	-24.7	0	-25.5	0	-25.3
210	-30.2	327	-28.3	200	-27.6	260	-27.9
260	-28.8	397	-27.4	320	-28.1	272	-27.8
600	-29.0	452	-27.3	460	-26.5	312	-28.1
1380	-34.4	687	-28.0			484	-26.4
1495	-34.6	763	-28.8				
1890	-36.8	804	-28.8				
		980	-29.7				
		1272	-31.1				
		1549	-33.1				

Date:12/11		Date:12/12		Date:12/13		Date:12/14	
Time: 1550 LT		Time: 1242 LT		Time: 1239 LT		Time: 1236 LT	
Pst: 659.6 mb		Pst: 662.5 mb		Pst: 656.5 mb		Pst: 656.7 mb	
H(m)	Ta(°C)	H(m)	Ta(°C)	H(m)	Ta(°C)	H(m)	Ta(°C)
0	-24.5	0	-25.1	0	-25.3	0	-27.2
325	-27.7	175	-26.5	312	-28.4	133	-28.5
365	-26.8	200	-25.4	336	-27.3	395	-30.7
555	-26.6	290	-25.4	414	-26.6	400	-30.3
625	-26.0	1300	-29.1	490	-26.6	1009	-31.3
1100	-28.3	1400	-29.0	642	-27.4	1560	-34.8
1180	-28.5	1660	-30.6	1481	-32.2	2513	-41.9
1885	-32.9	1680	-30.8	1794	-33.6	2825	-43.6
1955	-32.7	2540	-36.1	2379	-37.2		
2250	-34.4	2850	-38.5	2673	-39.6		

Date:12/15		Date:12/16		Date:12/17		Date:12/18	
Time: 1308 LT		Time: 1235 LT		Time: 1245 LT		Time: 1251 LT	
Pst: 661.0 mb		Pst: 659.8 mb		Pst: 648.1 mb		Pst: 655.2 mb	
H(m)	Ta(°C)	H(m)	Ta(°C)	H(m)	Ta(°C)	H(m)	Ta(°C)
0	-27.2	0	-27.6	0	-24.4	0	-22.2
567	-34.1	327	-31.1	236	-26.5	440	-26.2
594	-33.8	422	-30.7	315	-25.5	999	-31.5
997	-36.4	782	-32.8	410	-23.5	1425	-33.2
1031	-36.3	874	-33.6	920	-26.4	1755	-36.4
1121	-36.7	924	-32.6	1174	-28.4	2073	-39.0
1156	-36.3	1097	-32.3	1279	-28.9	2125	-39.0
1295	-36.2	1179	-33.0	2012	-35.2	2211	-39.5
1384	-36.9	1238	-32.9	2212	-36.5		
1548	-37.1	1891	-37.8	2843	-40.3		
1730	-37.9	2191	-39.9				
2261	-41.2	2799	-43.7				
2835	-44.6						
Date:12/19		Date:12/20		Date:12/20		Date:12/21	
Time: 1242 LT		Time: 0319 LT		Time: 1523 LT		Time: 0411 LT	
Pst: 666.5 mb		Pst: 664.0 mb		Pst: 656.5 mb		Pst: 657.1 mb	
H(m)	Ta(°C)	H(m)	Ta(°C)	H(m)	Ta(°C)	H(m)	Ta(°C)
0	-22.8	0	-24.0	0	-24.1	0	-30.7
447	-27.0	370	-26.4	428	-27.8	55	-29.8
605	-27.4	470	-26.6	505	-26.9	95	-25.6
620	-27.2	1210	-33.4	705	-27.4	250	-25.7
1210	-32.1	1250	-31.8	845	-27.4	510	-27.1
1465	-32.7	1559	-33.8	1780	-34.6	880	-29.7
2262	-39.3	1865	-36.3	2269	-38.5	1040	-31.1
		2249	-38.9	2590	-41.0	1210	-31.8
		2735	-41.7	2896	-41.7	1392	-33.2
		2815	-41.5			1455	-33.2
		3000	-42.3			1955	-36.9
						2365	-38.8
						2785	-41.6
Date:12/21		Date:12/22		Date:12/22		Date:12/23	
Time: 1607 LT		Time: 0329 LT		Time: 1525 LT		Time: 0328 LT	
Pst: 653.8 mb		Pst: 656.0 mb		Pst: 656.5 mb		Pst: 656.3 mb	
H(m)	Ta(°C)	H(m)	Ta(°C)	H(m)	Ta(°C)	H(m)	Ta(°C)
0	-23.2	0	-31.7	0	-24.7	0	-31.4
390	-27.1	50	-29.6	110	-26.6	35	-28.8
412	-26.2	70	-29.1	310	-28.2	85	-28.0
470	-26.2	120	-29.1	330	-27.5	275	-29.7
630	-26.7	400	-30.9	385	-27.2	431	-30.4
885	-28.5	440	-28.5	1170	-30.5	557	-29.5
1310	-31.7	600	-28.5	1740	-33.4	799	-29.7
1345	-31.7	1000	-30.0	2164	-36.0	1290	-32.7
1540	-33.5	1500	-33.0	2773	-40.3	1354	-32.7
1720	-33.7	1820	-35.4			1725	-34.7
2045	-36.3	1900	-35.4			1794	-34.7
2115	-36.3	2160	-37.4			2380	-38.0
2490	-39.0	2570	-40.0			2734	-40.5

Date:12/23		Date:12/24		Date:12/24		Date:12/25	
Time: 1526 LT		Time: 0330 LT		Time: 1522 LT		Time: 0325 LT	
Pst: 655.1 mb		Pst: 653.9 mb		Pst: 650.6 mb		Pst: 650.4 mb	
H(m)	Ta(°C)	H(m)	Ta(°C)	H(m)	Ta(°C)	H(m)	Ta(°C)
0	-25.8	0	-33.0	0	-26.3	0	-31.2
242	-28.7	60	-30.2	350	-30.0	64	-30.3
475	-30.9	120	-29.1	400	-28.3	81	-28.9
500	-29.1	538	-32.1	780	-29.6	179	-27.5
626	-29.1	657	-30.7	1360	-32.6	264	-28.0
1050	-31.2	717	-30.6	2018	-36.8	469	-28.0
1160	-31.2	919	-31.2			922	-30.2
1345	-32.3	1210	-32.9			1680	-35.3
1550	-34.0	1560	-34.6			2014	-36.6
1640	-34.0	1657	-34.5			2665	-41.4
2716	-40.7	2393	-39.0			2695	-40.9
						2760	-41.4

Date:12/25  
 Time: 1526 LT  
 Pst: 652.9 mb

H(m)	Ta(°C)
0	-24.7
375	-28.3
484	-27.3
787	-28.7
1458	-33.3
1723	-33.9
2005	-35.8
2070	-35.9
2500	-38.6
2813	-41.1

## V. Wind Velocity of the Upper Atmosphere

Wind velocity of the upper atmosphere was measured by tracking a radiosonde or a pilot balloon (20 g) with a digital recording theodolite. Radiosonde trackings were made only twice while 198 pilot balloons were successfully tracked.

The data obtained by tracking radiosondes are listed in Table V-1. The height of the sonde was calculated from the temperature and the pressure data sent by the sonde. The azimuth and elevation angles were sampled every 10 s.

The wind data by pilot balloons are listed in Table V-2. The ascent speed of the balloon was set at  $200 \text{ m min}^{-1}$  by adjusting the net buoyant force of the balloon at 0.63 N and the angles were sampled every 30 s. Although the balloons were sometimes traced up to 3000 m, only the data within 2000 m above the surface are listed because the height above it may have considerable error.

Notations in the tables are as follows:

LT : Local standard time at Syowa Station (GMT+3h)

H : Height above the surface (m)

WS : Wind speed ( $\text{m s}^{-1}$ )

WD : Wind direction (degrees clockwise from the true north)

Table V-1. Wind velocity of the upper atmosphere measured by tracking a radiosonde with a theodolite in 1985.

Date: 02/19 Time: 15 LT			Date: 02/20 Time: 15 LT		
H (m)	WS (m/s)	WD (°)	H (m)	WS (m/s)	WD (°)
18	5.8	70	35	7.8	40
53	6.1	60	95	8.4	30
88	6.5	40	145	8.8	22
123	6.6	31	195	10.2	20
158	8.7	36	245	9.2	12
193	5.8	24	295	10.0	352
225	2.9	15	340	6.3	332
255	3.5	20	380	6.3	310
285	3.9	15	420	3.9	319
319	5.2	22	460	3.9	324
358	4.6	25	500	4.9	332
396	4.5	10	540	4.6	341
433	4.7	359	578	5.5	333
468	4.3	354	613	6.7	323
503	5.0	6	648	8.0	320
538	4.2	352	683	8.9	306
573	4.0	1	718	8.1	302
608	4.5	15	753	7.8	297
644	5.0	18	790	7.6	299
680	4.9	23	828	6.8	290
717	5.4	29	865	8.8	285
753	2.9	20	905	7.8	294
788	3.9	15	943	8.3	286
823	5.8	2	980	8.5	291
859	6.3	359	1018	8.7	293
895	5.8	347	1055	9.0	292
932	6.0	338	1093	7.9	295
967	5.7	338	1130	9.1	303
1000	4.4	340	1170	9.6	298
1034	4.6	332	1208	8.5	307
1064	3.6	331	1243	6.5	301
1093	4.1	325	1283	10.5	305
1121	3.7	297	1323	8.2	308
1149	4.6	313	1360	9.1	310
1178	4.1	318	1398	7.5	311
1206	4.0	314	1433	8.7	306
1237	3.5	321	1470	8.6	311
1270	4.5	344	1510	8.7	314
1304	3.5	0	1548	9.1	320
			1585	10.1	320
			1623	8.4	324
			1660	10.5	320
			1698	9.9	320
			1738	12.0	323
			1778	10.5	327
			1815	10.3	328
			1853	12.3	324
			1890	12.1	324
			1928	11.4	325
			1963	13.6	330
			2000	14.9	327

Table V-2. Wind velocity of the upper atmosphere measured by pilot balloons in 1985.

Date Time:	02/17 15LT		02/18 24LT		02/19 03LT		02/19 06LT	
H(m)	WS(m/s)	WD(°)	WS(m/s)	WD(°)	WS(m/s)	WD(°)	WS(m/s)	WD(°)
50	7.3	106	7.6	77	10.9	70	9.9	68
150	9.2	86	6.5	68	10.0	56	8.6	46
250	7.9	85	6.4	75	8.8	59	4.6	17
350	7.3	91	4.3	62	9.0	59	2.9	17
450	9.6	93			6.7	81	3.3	14
550	6.5	94					3.5	15
650	4.7	103					4.2	348
750	3.0	128					4.7	332
850	2.9	155					4.7	309
950	2.7	180					5.0	308
1050	3.7	184					5.4	297
1150	4.3	193					6.8	301
1250	5.7	206					6.6	294
1350	4.7	205					6.5	287
1450	5.4	219					6.4	283
1550	7.1	233					6.6	282
1650	6.9	231					7.5	288
1750	8.2	234					7.2	281
1850	7.3	233					8.6	276
1950							8.0	280

Date Time:	02/19 12LT		02/19 18LT		02/19 21LT		02/20 12LT	
H(m)	WS(m/s)	WD(°)	WS(m/s)	WD(°)	WS(m/s)	WD(°)	WS(m/s)	WD(°)
50	9.5	65	11.0	64	10.1	75	9.9	39
150	8.5	35	13.6	40	12.1	48	12.4	31
250	5.1	33	10.6	31	9.0	40	13.3	8
350	5.6	40	9.0	16	6.0	48	10.7	347
450	5.7	26	8.9	17	5.1	61	8.4	321
550	5.5	14	8.3	21	6.9	63	7.1	321
650	5.9	2	6.4	30	9.4	55	5.8	335
750	5.5	354	6.2	28	9.2	50	8.1	341
850	6.3	344	7.3	26	6.6	42	10.1	326
950	6.5	337	5.7	22	5.9	39	9.7	312
1050	5.8	342	4.9	20	5.1	27	9.7	312
1150	5.2	335	3.3	352	5.4	20	9.6	321
1250	5.2	334	3.4	339	5.5	17	9.5	322
1350	4.5	340	3.0	326	5.6	10	10.5	327
1450	5.2	341	2.9	341	5.5	12	11.9	334
1550	5.9	326	3.9	336	5.9	2	11.7	335
1650	5.7	320	5.6	327	8.3	358	14.1	328
1750	6.5	313	5.7	306	8.7	351	12.0	331
1850	6.9	314	7.1	313	8.8	338	13.4	332
1950	6.9	312	7.1	321	7.5	326	14.1	330



Date Time:	02/20 18LT		02/20 21LT		02/21 00LT		02/21 03LT	
H(m)	WS(m/s)	WD(°)	WS(m/s)	WD(°)	WS(m/s)	WD(°)	WS(m/s)	WD(°)
50	7.1	36	6.4	38	4.7	70	8.4	116
150	7.7	17	4.1	9	2.4	82	7.7	110
250	5.4	347	1.2	25	3.7	97	5.1	99
350	3.2	330	2.0	338	1.2	70		
450	4.1	336	3.3	268	2.0	194		
550	5.7	308	3.9	269	2.6	224		
650	5.4	278	4.0	268	2.5	247		
750	6.0	273	4.0	263	3.5	234		
850	6.3	271	3.5	269	4.0	252		
950	6.6	271	3.7	269	3.9	266		
1050	6.6	279	4.0	272	4.3	286		
1150	6.4	285	4.4	272	5.1	293		
1250	7.0	293	4.8	277	4.9	301		
1350	7.2	294	4.9	279	4.6	289		
1450	7.9	296	5.6	287	4.8	274		
1550	7.2	300	6.0	290	6.0	268		
1650	8.7	308	7.4	296	6.6	265		
1750	10.5	312	8.3	297	5.7	266		
1850	10.7	312	9.2	294	5.7	281		
1950	11.1	310	9.2	284	6.8	288		

Date Time:	02/21 06LT		02/21 09LT		02/21 12LT		02/21 15LT	
H(m)	WS(m/s)	WD(°)	WS(m/s)	WD(°)	WS(m/s)	WD(°)	WS(m/s)	WD(°)
50	12.6	104	11.3	94	12.0	99	9.6	103
150	9.7	96	12.1	97	11.5	76	13.1	77
250	7.7	118	10.4	90	8.2	74	9.9	65
350	6.9	108	7.5	91	6.9	80	7.3	70
450	5.5	111	7.2	86	6.1	89	7.1	70
550	4.8	115	5.4	93	5.7	95	7.3	65
650	3.7	118	4.3	99	5.1	101	5.4	69
750	2.5	130	3.0	120	3.9	121	5.4	77
850	1.5	182	1.3	94	2.0	124	5.4	88
950	1.4	197	0.9	87	1.0	108	4.8	98
1050	1.3	184	0.8	163	0.7	117	4.1	78
1150	1.0	265	2.1	178	1.5	122	3.0	37
1250	2.6	248	3.3	200	1.5	96	3.3	356
1350	3.5	260	3.9	208	1.6	38	3.1	331
1450	5.9	261	3.5	208	1.4	56	2.7	344
1550	6.1	263	3.7	210	0.8	15	2.2	322
1650	6.4	257	3.5	207	1.9	321	1.2	275
1750	7.0	257	3.2	221	2.0	318	0.4	248
1850	7.3	256	3.5	269	3.7	291	3.0	248
1950	7.4	266	4.8	263	7.5	276	7.9	255

Date Time:	02/21 18LT		02/21 21LT		02/23 15LT		02/25 15LT	
H(m)	WS(m/s)	WD(°)	WS(m/s)	WD(°)	WS(m/s)	WD(°)	WS(m/s)	WD(°)
50	11.2	98	11.9	88	10.5	83	15.3	113
150	12.9	68	12.5	68	12.8	62	23.6	98
250	7.9	61	8.7	72	10.8	33	25.6	91
350	7.1	69	7.4	61	6.0	2	21.6	88
450	5.9	62	6.1	60	4.3	16	19.3	84
550	4.3	56	5.3	79	5.1	28	18.2	88
650	5.2	72	5.8	88	7.6	1	20.6	83
750	5.1	82	6.3	81	7.2	339		
850	4.9	69	4.9	66	6.2	349		
950	4.6	62	2.9	57	8.5	330		
1050	2.4	60	1.8	73	9.9	310		
1150	1.5	330	0.5	59	10.0	304		
1250	1.2	302	1.1	10	10.0	311		
1350	1.4	322	1.8	360	11.3	318		
1450	1.4	313	2.8	335	12.8	314		
1550	2.0	349	2.2	341	13.0	315		
1650	1.8	319	2.1	320	13.4	307		
1750	3.0	244	2.5	322	15.9	303		
1850	4.5	243	3.0	319	16.3	304		
1950	6.6	264	6.0	304	15.9	307		

Date Time:	11/10 09LT		11/10 15LT		11/10 21LT		11/11 03LT	
H(m)	WS(m/s)	WD(°)	WS(m/s)	WD(°)	WS(m/s)	WD(°)	WS(m/s)	WD(°)
50	9.4	66	8.2	71	12.4	72	12.8	72
150	11.0	32	9.3	67	13.6	49	15.3	61
250	9.5	10	9.3	61	10.9	39	18.0	59
350	7.2	6	8.7	49	9.4	33	21.6	55
450	7.2	27	7.0	59	10.4	27	17.8	17
550	8.3	37	7.2	66	10.7	24	14.7	355
650	8.5	27	7.6	76	11.6	27	14.1	352
750	7.9	13	8.6	77	12.3	24	12.3	359
850	7.0	356	7.5	74	13.2	23	7.9	359
950	7.7	12	7.7	67	13.9	19	9.6	17
1050	6.6	5	8.1	59			9.7	26
1150	6.3	354	8.6	58			10.3	23
1250	6.6	359	9.3	54			12.7	12
1350	5.5	356	9.4	54				
1450	6.1	360	9.3	44				
1550	6.8	6	10.0	46				
1650	6.2	2	9.1	37				
1750	6.7	2	9.9	26				
1850	5.2	348	9.8	25				
1950	6.4	5	9.9	21				

Date Time:	11/11 15LT		11/11 21LT		11/12 03LT		11/12 09LT	
H(m)	WS(m/s)	WD(°)	WS(m/s)	WD(°)	WS(m/s)	WD(°)	WS(m/s)	WD(°)
50	13.4	63	11.0	43	12.1	76	11.3	65
150	15.6	56	13.8	33	15.9	52	14.6	53
250			13.8	28	14.9	33	19.0	43
350			14.8	26	16.8	24	19.6	33
450			14.9	25	17.3	22	16.4	29
550			14.2	26	16.5	24	16.8	34
650			14.4	27	17.5	29		
750			13.8	26	16.3	27		
850			12.8	29	16.5	30		
950			13.7	32				
1050			13.7	31				
1150			13.7	33				
1250			13.8	37				
1350			12.7	47				
1450			13.7	39				
1550			13.7	38				
1650			13.6	32				
1750								
1850								
1950								

Date Time:	11/12 15LT		11/12 21LT		11/13 03LT		11/13 09LT	
H(m)	WS(m/s)	WD(°)	WS(m/s)	WD(°)	WS(m/s)	WD(°)	WS(m/s)	WD(°)
50	11.0	55	11.6	73	6.0	76	14.1	94
150	11.7	48	16.7	55	5.8	55	21.9	77
250	14.4	46	16.6	44	6.2	60	21.4	72
350	13.4	45	16.5	41	6.1	63	20.0	67
450	13.1	44	16.1	36	6.4	63	18.3	66
550	13.0	33	15.5	35	6.4	58	16.7	68
650	14.6	26	14.7	32	7.0	60	17.4	66
750	15.7	26	13.4	30	6.3	59	15.5	70
850	15.4	24	11.9	30	5.3	61	14.9	72
950	15.9	22	10.4	25	5.4	60	14.5	63
1050	15.3	19	8.3	35	5.5	60	14.3	55
1150			4.3	40	5.5	52	11.5	65
1250			7.0	44	7.0	55	10.9	66
1350			5.6	55	6.1	52	12.2	68
1450			4.7	75	5.3	53	6.0	70
1550			6.1	65	4.7	39	9.3	64
1650			6.5	78	5.2	47	10.8	65
1750			7.7	66	6.0	45	9.1	46
1850			8.8	69	5.5	45	6.4	47
1950			10.5	59	4.5	43	9.9	54

Date Time: 11/13 15LT		11/13 21LT		11/14 09LT		11/14 15LT	
H(m)	WS(m/s) WD(°)	WS(m/s) WD(°)	WS(m/s) WD(°)	WS(m/s) WD(°)	WS(m/s) WD(°)	WS(m/s) WD(°)	WS(m/s) WD(°)
50	16.0 94	13.9 89	12.6 78	10.0 64			
150	19.0 87	19.4 77	16.8 61	11.3 64			
250	21.5 77	23.8 63	16.3 38	13.2 58			
350	23.0 74	21.2 53	13.0 22	12.6 37			
450	21.1 71	19.0 49	11.2 24	12.1 21			
550	19.0 68	17.1 50	11.2 21	10.4 18			
650	17.2 65	11.8 42	11.9 24	9.2 21			
750	13.3 66	10.7 37	10.2 22	8.7 10			
850	11.0 59	14.1 49		7.6 359			
950	12.8 66	15.1 47		7.0 355			
1050	10.7 60			6.0 357			
1150	10.1 56			5.2 1			
1250	9.2 59			5.5 355			
1350	5.7 41			7.7 354			
1450	7.3 37			5.3 354			
1550	8.6 37			6.8 12			
1650	9.3 43			6.0 12			
1750	8.0 30			6.5 16			
1850	6.9 37			5.8 7			
1950	8.7 32			6.2 14			

Date Time: 11/14 21LT		11/15 03LT		11/15 09LT		11/15 15LT	
H(m)	WS(m/s) WD(°)	WS(m/s) WD(°)	WS(m/s) WD(°)	WS(m/s) WD(°)	WS(m/s) WD(°)	WS(m/s) WD(°)	WS(m/s) WD(°)
50	8.4 59	8.8 93	6.7 74	4.8 93			
150	11.6 45	12.6 6	4.0 84	5.1 87			
250	12.8 31	4.4 338	6.7 98	2.8 78			
350	9.4 8	1.3 294	5.2 80	1.9 137			
450	6.5 349	2.1 142	1.4 134	2.8 122			
550	5.2 332	3.0 109	3.0 183	3.2 125			
650	4.5 329	2.6 34	4.1 180	1.4 114			
750	3.4 326	3.6 22	3.4 175	0.5 9			
850	2.9 318	2.0 346	3.7 163	1.3 273			
950	1.6 329	1.7 305	3.6 164	2.2 264			
1050	2.5 348	1.4 266	3.0 170	2.8 258			
1150	3.9 358	1.5 250	3.0 160	3.1 251			
1250	5.6 354	1.0 263	2.2 155	3.4 248			
1350	6.0 12	1.5 217	1.9 172	3.5 246			
1450	7.4 8	2.5 208	1.3 203	3.7 243			
1550	6.7 7	3.1 216	1.7 251	3.5 251			
1650	7.7 1	3.0 205	1.9 249	3.9 250			
1750	6.9 343	2.6 203	2.0 248	3.0 248			
1850	8.1 337	2.0 215	3.2 247	2.6 249			
1950	7.2 333	1.8 222	2.6 245	4.2 249			

Date Time:	11/15 21LT		11/16 03LT		11/16 09LT		11/16 15LT	
H(m)	WS(m/s)	WD(°)	WS(m/s)	WD(°)	WS(m/s)	WD(°)	WS(m/s)	WD(°)
50	3.7	115	8.6	114	7.6	134	5.8	113
150	1.7	118	6.2	130	8.7	142	8.4	108
250	2.0	127	5.3	141	7.9	144	6.9	120
350	1.6	107	5.8	144	7.5	149	6.1	126
450	3.4	240	5.7	171	7.3	156	5.2	137
550	6.0	221	5.8	168	6.9	163	5.9	148
650	6.3	201	4.3	201	6.5	169	5.7	158
750	5.6	203	5.2	195	6.7	177	5.0	169
850	4.9	206	4.9	201	5.7	179	4.8	174
950	4.9	212	5.3	219	6.8	178		
1050	4.0	223	5.3	216	7.2	183		
1150	4.8	235	6.3	213	6.9	188		
1250	5.0	240	6.5	220	7.5	188		
1350	5.0	240	7.1	207	8.0	191		
1450	4.5	236	8.8	201	8.1	194		
1550	4.3	237	8.0	211	8.7	202		
1650	4.2	240	8.2	210	8.0	202		
1750	4.9	244	8.2	212	8.6	204		
1850	5.9	244	8.1	215	8.4	203		
1950	5.9	246	7.9	204	8.7	207		

Date Time:	11/16 21LT		11/17 03LT		11/17 09LT		11/17 15LT	
H(m)	WS(m/s)	WD(°)	WS(m/s)	WD(°)	WS(m/s)	WD(°)	WS(m/s)	WD(°)
50	10.8	111	4.3	94	12.8	101	6.7	97
150	9.6	103	4.1	90	14.5	90	9.9	85
250	7.8	106	3.6	84	12.4	91	11.1	76
350	7.8	109	3.6	81	10.6	99	8.8	80
450	6.3	116	3.0	74	10.0	98	7.6	84
550	5.2	123	2.8	85	9.2	95	8.0	91
650	3.7	134	3.0	87	7.0	99	7.2	94
750	3.3	137	1.8	89	6.3	103	6.2	99
850	3.0	149	2.2	86	5.7	110	5.7	95
950	2.3	171	2.2	58	6.5	101	5.3	95
1050	2.6	176	1.3	126	6.2	107	4.9	87
1150	3.0	174	1.5	92	4.7	112	3.4	88
1250	3.0	179	0.3	98	4.2	109	3.5	93
1350	2.8	165	0.8	86	3.3	109	2.0	97
1450	2.4	200	0.2	86	2.9	103	2.8	116
1550	2.3	213	0.4	266	1.5	92	3.0	96
1650	2.9	211	1.2	325	0.9	58	1.6	102
1750	3.8	237	1.1	255	0.6	188	1.4	104
1850	3.4	240	0.8	225	1.1	269	0.4	90
1950	4.4	252	1.4	256	0.7	211	0.6	107

Date Time:	11/17 21LT	11/18 03LT	11/18 09LT	11/18 15LT
H(m)	WS(m/s) WD(°)	WS(m/s) WD(°)	WS(m/s) WD(°)	WS(m/s) WD(°)
50	13.0 93	14.6 84	13.6 79	9.3 18
150	16.8 73	18.1 60	18.9 65	11.0 14
250	15.2 71	16.4 54	19.6 45	11.3 12
350	11.2 71	15.2 52	17.4 37	11.1 9
450	10.3 73	16.6 51	15.3 35	11.1 3
550	9.8 77	6.9 54	14.0 39	8.8 352
650	8.4 78	10.7 48	12.2 41	8.1 351
750	8.9 85	11.3 55	12.5 36	8.8 353
850	6.4 79	3.4 54	11.4 25	9.6 332
950	6.4 77	7.4 59	8.7 19	10.9 321
1050	6.5 72	11.0 54		9.7 319
1150	5.3 77	3.8 54		8.7 333
1250	4.9 79	7.5 55		10.7 343
1350	5.9 84	4.1 28		11.0 339
1450	3.4 77	10.3 52		12.9 339
1550	3.1 82	3.2 25		13.9 331
1650	4.2 74	5.3 43		12.5 328
1750	1.8 85	11.0 38		11.5 330
1850	2.3 77	4.8 35		13.0 327
1950	1.4 77	6.3 48		14.2 332

Date Time:	11/18 21LT	11/19 03LT	11/19 15LT	11/19 21LT
H(m)	WS(m/s) WD(°)	WS(m/s) WD(°)	WS(m/s) WD(°)	WS(m/s) WD(°)
50	7.3 18	7.0 52	7.2 77	12.6 89
150	8.8 0	5.2 39	7.3 66	18.6 70
250	8.4 351	3.6 19	8.3 54	13.9 62
350	7.5 343	3.9 28	8.6 65	10.9 52
450	6.6 342	3.4 35	7.2 69	9.9 60
550	7.1 350	2.2 22	4.8 59	9.7 68
650	7.6 335	2.4 2	4.0 41	8.9 67
750	6.6 328	3.7 4	4.8 38	9.4 67
850	7.0 330	3.8 353	4.7 54	7.9 51
950	7.4 331	4.8 330	3.6 77	7.7 59
1050	8.0 324	7.7 338	3.3 77	6.9 45
1150	8.3 319	9.2 341	2.5 59	5.1 40
1250	7.8 318	7.6 339	2.8 9	7.3 46
1350	7.4 314	3.7 343	2.5 350	5.3 50
1450	7.0 320	3.9 356	2.7 22	6.4 53
1550	7.2 328	4.3 341	4.6 17	5.3 56
1650	6.2 324	4.1 321	5.7 16	10.1 46
1750	5.6 304	4.3 314	5.8 13	10.0 49
1850	5.1 310	5.7 321	5.9 15	8.4 43
1950	4.6 299	5.5 318	6.3 7	7.9 31

Date Time:	11/20 03LT		11/20 09LT		11/20 15LT		11/20 21LT	
H(m)	WS(m/s)	WD(°)	WS(m/s)	WD(°)	WS(m/s)	WD(°)	WS(m/s)	WD(°)
50	12.3	82	13.3	82	17.1	78	13.2	84
150	17.5	62	17.4	65	18.8	76	18.3	74
250	16.4	56	15.1	57	16.5	72	17.1	60
350	15.9	53	16.8	56	17.2	62	14.8	56
450	16.0	55	16.2	55	18.1	53	12.6	56
550	12.5	53	14.8	56	12.6	45	13.0	54
650	13.2	59	12.8	60	12.7	52	11.6	52
750	12.8	60	13.1	62	11.6	61	11.8	50
850	11.4	55	11.6	60	13.1	58	13.0	53
950	11.0	49	10.2	48	13.1	46	12.8	51
1050	11.5	57	10.7	49	12.6	46	11.4	52
1150	11.2	57	10.1	55	10.6	51	11.3	45
1250	10.8	55	7.6	39	11.4	53	9.6	48
1350	8.1	45	9.1	54	9.8	46	10.4	52
1450	11.0	33	8.7	56	12.4	47	10.1	52
1550	11.0	28			10.7	44	11.4	45
1650	10.2	33			8.9	37	6.8	47
1750	9.4	44			8.1	51	9.3	47
1850	9.0	48			9.4	54	9.0	50
1950	10.4	46			11.0	47	10.2	53

Date Time:	11/21 03LT		11/21 09LT		11/21 15LT		11/21 21LT	
H(m)	WS(m/s)	WD(°)	WS(m/s)	WD(°)	WS(m/s)	WD(°)	WS(m/s)	WD(°)
50	11.9	91	11.3	95	9.6	86	11.9	91
150	16.5	63	14.4	69	10.7	81	14.1	71
250	15.2	57	13.0	68	13.4	66	12.7	57
350	12.7	53	11.3	71	11.7	62	10.3	54
450	13.3	56	9.1	71	9.8	66	10.5	58
550	12.4	57	7.7	73	8.4	58	8.2	58
650	12.0	58	6.9	72	9.3	59	6.9	62
750	10.2	60	7.0	72	7.9	61	5.2	68
850	9.7	51	7.4	71	7.5	62	5.4	68
950	9.2	49	7.0	75	7.6	62	5.0	78
1050	8.9	43	7.7	72	7.8	61	5.5	80
1150	6.4	50	6.3	72	7.5	66	5.5	72
1250	5.0	52	6.5	74	6.0	68	4.6	63
1350	5.5	47	7.5	74	7.0	64	6.4	60
1450	5.9	50	6.0	71	7.4	64	6.2	57
1550	4.3	27	6.5	71	6.6	60	5.4	59
1650	7.0	52	7.1	63	6.4	60	5.8	57
1750	4.9	49	6.9	62	6.2	57	3.8	55
1850	7.4	56	6.0	62	6.3	45	5.7	46
1950	6.2	59	5.1	56	4.3	53	4.7	52

Date Time:	11/22 03LT		11/22 09LT		11/22 15LT		11/22 21LT	
H(m)	WS(m/s)	WD(°)	WS(m/s)	WD(°)	WS(m/s)	WD(°)	WS(m/s)	WD(°)
50	10.4	74	8.0	83	5.0	59	4.2	89
150	11.2	45	8.5	51	4.4	70	3.2	72
250	8.5	46	8.1	51	5.4	69	2.6	77
350	8.3	40	7.7	41	5.4	67	2.3	84
450	6.9	35	4.1	40	5.3	69	2.9	89
550	7.2	40	2.8	50	5.6	83	1.2	71
650	6.7	43	2.5	49	5.5	93	0.8	128
750	5.6	31	3.1	48	5.3	69	0.8	62
850	5.2	40	3.2	50	5.0	67	0.7	225
950	3.8	46	2.9	51	5.0	67	1.3	235
1050	4.1	53	3.0	46	4.4	49	1.7	207
1150	3.7	55	3.1	49	4.4	34	3.2	199
1250	5.6	57	3.8	56	4.2	10	3.5	182
1350	5.8	52	5.0	50	3.2	350	2.7	165
1450	4.4	45	4.9	48	2.6	311	1.7	127
1550	5.4	28	4.7	41	2.4	291	0.8	33
1650	3.2	37	4.4	41	2.5	264	2.0	301
1750	4.4	34	5.1	26	3.7	233	4.2	287
1850	3.3	35	5.3	18	3.6	223	5.0	279
1950	5.2	25	4.1	9			4.8	263

Date Time:	11/23 03LT		11/23 09LT		11/23 15LT		11/23 21LT	
H(m)	WS(m/s)	WD(°)	WS(m/s)	WD(°)	WS(m/s)	WD(°)	WS(m/s)	WD(°)
50	2.8	95	5.3	98	2.4	90	4.3	101
150	2.3	115	4.5	90	2.9	91	3.7	96
250	2.8	116	2.7	91	3.0	78	3.8	96
350	3.1	112	2.3	120	2.0	94	2.9	116
450	3.5	109	3.0	123	1.7	68	2.7	126
550	2.6	116	2.6	138	0.4	325	0.9	156
650	3.2	134	2.7	159	1.1	184	1.2	205
750	3.4	138	1.4	161	0.9	229	2.0	235
850	2.7	156	2.2	217	2.1	237	2.6	235
950	2.1	151	3.4	209	2.6	244	3.5	236
1050	1.0	212	3.4	218	2.6	243	3.4	237
1150	2.8	222	5.0	215	3.5	241	3.9	244
1250	2.7	224	5.0	211	4.6	249	4.7	245
1350	2.8	224	5.8	213	5.3	248	5.6	240
1450	3.5	226	5.6	222	5.8	253	5.9	240
1550	4.0	224	6.2	220	6.2	252	5.9	239
1650	3.9	234	6.3	221	6.8	259	6.5	245
1750	4.1	234	6.1	224	8.1	262	6.8	241
1850	4.6	241	5.9	230	8.4	260	6.8	237
1950	5.2	241	7.1	228	8.2	265	7.2	245



Date Time:	11/24 03LT		11/24 09LT		11/24 15LT		11/24 21LT	
H(m)	WS(m/s)	WD(°)	WS(m/s)	WD(°)	WS(m/s)	WD(°)	WS(m/s)	WD(°)
50	7.7	81	7.9	80	7.0	71	8.2	73
150	6.6	79	7.7	63	7.0	66	8.6	59
250	5.8	73	6.0	77	5.8	52	7.0	51
350	3.3	66	6.0	78	5.6	37	4.4	53
450	3.3	85	4.7	61	4.4	24	3.8	57
550	1.9	77	3.5	60	4.1	37	3.2	71
650	1.0	89	2.6	41	3.6	38	4.0	71
750	0.5	101	1.8	34	3.2	31	3.3	58
850	0.4	17	1.2	35	3.3	16	3.0	37
950	2.1	283	1.0	330	2.7	3	2.4	22
1050	2.1	278	2.1	311	2.2	351	2.2	1
1150	2.8	270	2.6	292	2.0	342	1.8	350
1250	2.8	279	3.1	279	3.2	331	1.6	354
1350	3.4	280	2.5	278	2.9	304	1.1	323
1450	4.1	284	3.7	282	3.2	305	1.9	335
1550	5.1	275	4.4	276	3.6	300	2.2	297
1650	5.4	271	5.4	275	4.4	290	2.8	287
1750	5.6	268	5.8	270	5.4	289	2.2	286
1850	6.2	268	7.0	263	5.3	291	3.0	286
1950	6.4	262	6.7	257	5.5	287	3.4	276

Date Time:	11/25 03LT		11/25 09LT		11/25 15LT		11/25 21LT	
H(m)	WS(m/s)	WD(°)	WS(m/s)	WD(°)	WS(m/s)	WD(°)	WS(m/s)	WD(°)
50	9.6	69	8.6	76	6.2	65	7.2	63
150	8.2	51	9.5	53	8.6	66	7.9	46
250	7.0	58	8.5	49	8.0	69	8.3	42
350	6.2	59	7.1	55	6.8	47	6.0	25
450	5.4	59	6.7	67	6.4	52	3.0	16
550	4.8	60	5.5	55	5.8	34	1.4	47
650	4.5	72	5.4	54	5.0	22	3.3	49
750	5.4	60	5.2	67	4.3	28	3.3	2
850	5.0	49	5.6	59	4.3	32	2.3	352
950	4.6	33	4.8	54	3.8	41	2.4	356
1050	3.0	29	4.2	51	4.3	26	3.2	331
1150	2.6	44	4.1	38	3.9	13	2.5	306
1250	2.3	44	3.1	7	3.0	338	2.1	296
1350	1.9	29	2.7	14	3.8	326	1.7	316
1450	1.6	11	2.9	18	2.9	313	2.6	333
1550	1.8	16	2.8	11	2.1	319	3.0	337
1650	2.1	20	1.8	5	2.8	336	3.3	330
1750	1.5	21	1.9	343	2.1	325	4.0	311
1850	2.4	356	1.8	0	1.6	323	3.8	295
1950	2.6	328	1.5	345	3.1	350	3.1	277

Date Time:	11/26 03LT		11/26 09LT		11/26 15LT		11/26 21LT	
H(m)	WS(m/s)	WD(°)	WS(m/s)	WD(°)	WS(m/s)	WD(°)	WS(m/s)	WD(°)
50	4.3	65	5.4	70	4.8	59	1.8	30
150	2.4	38	5.6	65	4.3	56	2.0	4
250	3.5	25	4.8	64	3.7	57	1.1	359
350	3.3	57	4.4	69	2.6	37	1.4	3
450	3.5	95	6.5	60	3.2	12	1.5	7
550	4.6	60	4.7	26	1.2	8	2.2	290
650	3.3	40	2.4	2	1.3	356	2.3	258
750	0.9	64	0.5	313	1.8	310	2.7	254
850	0.5	60	1.1	278	2.6	314	3.1	257
950	1.9	15	1.3	229	2.8	286	3.0	255
1050	1.5	329	1.7	244	2.6	288	4.0	260
1150	2.2	289	1.2	270	2.8	285	4.6	253
1250	2.3	301	1.3	255	2.8	266	3.7	246
1350	2.9	301	1.3	266	2.2	246	3.1	252
1450	3.4	298	1.7	269	2.5	283	3.5	267
1550	3.2	284	3.0	277	4.3	288	4.2	256
1650	2.5	266	4.1	259	4.5	269	4.8	256
1750	1.8	257	3.7	236	4.5	259	4.3	259
1850	1.0	298	3.3	221	4.2	253	4.6	250
1950	1.6	299	2.1	235	4.1	252	4.7	248

Date Time:	11/27 03LT		11/27 09LT		11/27 15LT		11/27 21LT	
H(m)	WS(m/s)	WD(°)	WS(m/s)	WD(°)	WS(m/s)	WD(°)	WS(m/s)	WD(°)
50	4.1	60	6.7	80	6.5	86	10.3	96
150	3.9	61	6.8	82	6.9	87	12.1	83
250	2.9	64	6.4	80	6.1	86	11.0	80
350	2.8	65	4.9	68	6.4	76	10.6	79
450	2.9	64	3.4	50	5.6	82	9.0	80
550	1.8	94	2.3	12	5.1	76	7.6	87
650	0.2	6	0.7	53	4.1	73	7.8	95
750	1.6	309	1.4	100	3.5	79	7.2	92
850	2.6	304	0.7	67	3.3	87	6.6	86
950	3.0	267	1.0	168	2.9	77	5.8	89
1050	1.7	249	0.7	121	3.0	85	5.3	86
1150	1.5	284	0.9	122	3.6	86	6.9	81
1250	3.1	279	0.6	129	3.2	91	5.7	78
1350	3.8	267	0.9	199	2.8	91	5.9	82
1450	3.4	251	1.5	158	3.6	94	6.2	82
1550	3.1	246	1.3	179	2.9	86	6.6	80
1650	3.2	245	1.0	179	2.5	86	5.9	78
1750	3.6	254	2.0	208	2.9	89	6.3	85
1850	3.5	262	1.9	207	3.6	86	6.2	85
1950	3.7	255	1.4	223	2.7	84	6.1	82

Date Time:	11/28 03LT		11/28 09LT		11/28 15LT		11/28 21LT	
H(m)	WS(m/s)	WD(°)	WS(m/s)	WD(°)	WS(m/s)	WD(°)	WS(m/s)	WD(°)
50	11.4	87	12.3	85	9.6	76	9.0	70
150	12.6	70	13.2	64	9.3	70	12.3	57
250	11.7	69	11.5	59	11.3	64	11.9	45
350	8.3	69	10.9	60	11.6	53	10.4	35
450	7.5	84	11.1	58	10.8	41	8.2	27
550	8.1	76	9.5	58	9.8	45	6.3	31
650	7.5	77	9.8	60	8.3	44	4.9	44
750	7.9	82	7.8	63	6.7	38	5.6	45
850	7.6	86	8.4	66	7.3	43	6.1	26
950	7.7	79	8.6	68	6.5	37	5.3	23
1050	7.4	78	8.9	64	5.9	43	5.1	28
1150	7.7	80	8.0	63	5.5	44	5.4	18
1250	7.6	79	8.4	63	6.9	37	6.1	359
1350	8.0	73	7.5	62	5.4	46	5.3	349
1450	7.9	78	8.0	64	6.3	52	5.5	335
1550	8.6	76	8.7	61	7.3	45	6.0	336
1650	7.8	76	7.7	58	6.8	36	6.7	341
1750	7.7	77	8.4	64	6.3	25	6.2	324
1850	8.5	72	9.3	62	6.5	33	5.4	313
1950	7.7	66	8.3	57	7.6	21	4.7	331

Date Time:	11/29 03LT		11/29 09LT		11/29 15LT		11/29 21LT	
H(m)	WS(m/s)	WD(°)	WS(m/s)	WD(°)	WS(m/s)	WD(°)	WS(m/s)	WD(°)
50	9.6	57	6.2	63	3.5	37	2.1	71
150	7.0	25	5.7	39	3.8	27	2.5	54
250	3.5	15	3.7	27	3.7	31	3.3	46
350	3.9	36	4.2	30	2.0	37	3.8	45
450	4.1	34	4.8	26	1.8	36	3.6	42
550	4.6	32	4.7	22	2.8	26	2.5	57
650	4.6	34	4.6	24	2.7	357	2.4	84
750	3.6	31	3.3	4	1.9	352	2.1	62
850	4.7	27	3.4	2	0.5	4	2.5	1
950	5.6	22	4.5	10	0.2	1	1.7	342
1050	6.3	24	4.8	347	0.3	83	2.1	355
1150	6.7	11	4.5	319	1.2	12	1.5	330
1250	7.0	349	4.1	319	2.4	351	1.4	302
1350	5.1	343	3.1	320	3.3	339	0.8	239
1450	4.0	344	3.6	327	3.5	326	0.5	138
1550	5.1	359	3.4	330	3.4	312	1.0	352
1650	7.1	357	4.4	336	2.6	305	3.3	315
1750	7.6	345	4.7	320	2.6	296	3.5	299
1850	7.3	338	4.4	313	2.8	298	3.3	283
1950	8.0	326	3.7	318	3.2	301	1.9	282

Date Time:	11/30 03LT		11/30 09LT		11/30 15LT		11/30 21LT	
H(m)	WS(m/s)	WD(°)	WS(m/s)	WD(°)	WS(m/s)	WD(°)	WS(m/s)	WD(°)
50	6.9	81	7.8	82	8.5	64	5.8	58
150	6.3	78	8.3	65	8.1	68	8.4	47
250	5.6	86	7.1	71	8.9	67	10.6	43
350	5.0	76	4.6	66	8.7	67	9.1	42
450	4.1	77	3.4	72	7.3	71	9.8	44
550	4.1	70	4.0	76	6.6	68	9.8	45
650	3.8	50	4.5	59	8.3	67	10.3	44
750	3.0	73	3.0	38	7.5	60	10.7	45
850	4.0	79	2.8	65	7.0	55	9.3	45
950	3.9	56	3.2	47	5.6	36		
1050	1.3	26	2.4	17	4.8	41		
1150	1.9	40	1.5	11	4.2	52		
1250	2.5	22	2.2	42	4.0	31		
1350	2.4	322	1.9	15	4.2	26		
1450	2.4	305	1.4	335	3.7	10		
1550	0.9	316	1.7	338	3.7	10		
1650	2.6	332	1.2	293	4.1	353		
1750	2.9	319	0.7	284	6.0	351		
1850	3.1	312	1.7	327	5.2	336		
1950	3.8	318	2.3	324	4.4	328		

Date Time:	12/01 03LT		12/01 09LT		12/01 15LT		12/01 21LT	
H(m)	WS(m/s)	WD(°)	WS(m/s)	WD(°)	WS(m/s)	WD(°)	WS(m/s)	WD(°)
50	7.9	76	9.1	79	8.8	55	7.7	61
150	7.8	52	11.4	56	9.3	52	11.5	52
250	8.8	44	10.7	43	8.5	48	12.0	45
350	8.1	44	9.3	46	10.3	42	11.2	40
450	9.4	46	9.1	39	9.4	25	9.3	32
550			7.9	39	9.3	24	5.5	25
650			6.9	58	9.6	19	2.8	31
750			6.0	53	9.1	19	3.4	59
850			4.4	55	8.4	12	3.3	50
950			4.6	55	7.8	15	3.6	63
1050			5.4	46	6.1	13	5.0	57
1150			5.9	28	6.4	29	5.0	47
1250			6.1	26	5.6	30	4.8	37
1350			7.0	34	5.9	34	5.4	34
1450			6.7	24	6.9	22	3.6	16
1550			6.3	33	6.6	5	1.8	349
1650			6.2	30	6.1	357	0.8	347
1750			6.7	27	5.8	337	0.6	105
1850			7.8	31	4.4	326	2.0	62
1950			7.3	13	3.2	352	3.7	12

Date Time:	12/02 03LT		12/02 09LT		12/02 15LT		12/02 21LT	
H(m)	WS(m/s)	WD(°)	WS(m/s)	WD(°)	WS(m/s)	WD(°)	WS(m/s)	WD(°)
50	10.0	64	9.4	68	7.9	55	7.8	69
150	12.5	40	13.9	48	8.9	53	10.0	55
250	9.9	33	11.7	36	7.7	47	10.1	45
350	7.0	22	9.8	41	7.3	30	6.7	35
450	6.1	21	9.4	36	9.2	13	6.6	37
550	5.6	33	6.0	23	10.0	11	6.1	18
650	5.0	42	5.4	21	8.9	7	6.3	17
750	6.3	39	3.6	40	7.3	8	4.6	16
850	7.7	29	5.2	17	6.4	12	5.0	20
950	6.0	21	4.7	4	6.3	4	5.8	6
1050	4.9	29	3.8	10	6.0	355	4.8	4
1150	5.4	20	4.2	26	5.4	17	5.3	14
1250	5.4	11	5.8	30	6.8	15	7.7	11
1350	5.1	353	5.3	10	8.1	360	8.1	345
1450	4.3	350	4.8	2	7.8	355	7.5	313
1550	3.5	357	5.5	12	5.8	340	6.9	305
1650	3.3	16	6.5	345	4.8	340	6.2	297
1750	4.0	12	5.2	334	3.2	324	5.5	304
1850	5.7	342	4.2	330	2.3	319	5.3	314
1950	3.9	320	4.5	338	1.9	345	6.1	323

Date Time:	12/03 03LT		12/03 09LT		12/03 15LT		12/03 21LT	
H(m)	WS(m/s)	WD(°)	WS(m/s)	WD(°)	WS(m/s)	WD(°)	WS(m/s)	WD(°)
50	9.7	57	9.1	68	9.1	52	8.4	67
150	11.6	27	11.1	49	8.5	48	12.1	59
250	9.6	13	10.5	28	8.7	44	13.7	53
350	9.2	12	8.1	18	8.4	30	13.4	47
450	8.1	10	5.7	3	7.5	22	12.6	38
550	7.3	4	3.8	11	5.9	15	11.7	38
650	7.5	357	3.8	29	5.1	16	10.5	33
750	7.4	354	5.3	24	4.5	25	9.1	28
850	5.2	349	5.7	25	5.9	33	9.3	41
950	4.7	1	7.5	27	6.9	32	9.6	46
1050	7.0	0	8.4	25	9.0	30	10.1	45
1150	6.3	4	8.1	3	9.9	15	10.9	37
1250	7.4	8	6.8	344	8.8	356	9.4	29
1350	8.7	354			6.8	344	8.8	18
1450	7.0	329			5.7	343	6.3	20
1550	7.4	315			4.6	354	6.6	26
1650	6.1	307			5.1	2	8.0	40
1750	5.8	318			6.3	6	8.8	36
1850	4.2	313			7.5	3	8.9	28
1950	4.3	331			8.4	357	7.8	22

Date Time:	12/04 03LT	12/04 09LT	12/04 15LT	12/04 21LT
H(m)	WS(m/s) WD(°)	WS(m/s) WD(°)	WS(m/s) WD(°)	WS(m/s) WD(°)
50	10.9 69	13.3 81	10.3 61	10.3 67
150	17.1 53	16.2 71	12.6 59	16.3 59
250	17.7 43	22.0 62	12.9 58	17.6 54
350	16.6 46	19.5 54	15.4 44	20.0 51
450	14.9 42	19.6 51	13.9 34	19.0 48
550	13.9 42	18.2 49	13.2 34	15.3 38
650	12.6 42	18.4 45	13.2 32	15.1 31
750	13.0 38	17.1 41	13.5 25	11.5 25
850	9.6 37	16.9 38	14.3 24	10.4 25
950	10.8 41	14.9 35	14.3 25	12.5 35
1050	10.4 36	12.3 39	13.3 25	12.0 38
1150	7.7 37	11.6 40	12.0 27	12.9 39
1250	10.5 40	12.7 41	12.9 33	12.7 42
1350	11.5 35	12.2 43	12.9 35	12.6 34
1450	10.5 24		14.3 33	12.7 28
1550	8.8 22		14.6 29	12.3 31
1650	9.6 26		13.3 25	12.2 30
1750	10.5 37		13.4 22	11.8 39
1850	10.4 38		13.1 28	12.9 37
1950	11.8 36		13.1 32	12.1 34

Date Time:	12/05 03LT	12/05 09LT	12/05 15LT	12/05 21LT
H(m)	WS(m/s) WD(°)	WS(m/s) WD(°)	WS(m/s) WD(°)	WS(m/s) WD(°)
50	12.9 72	10.4 73	11.3 75	9.4 70
150	19.8 59	14.3 70	10.6 72	14.7 67
250	20.1 56	17.2 58	14.3 70	16.4 64
350	18.3 53	18.2 57	14.4 69	17.0 60
450	17.0 49	15.1 54	14.0 66	16.8 57
550	13.6 35	15.1 52	15.3 63	16.4 53
650	12.6 30	13.4 51		14.4 49
750	10.7 24	11.2 48		14.1 49
850	9.4 25	10.3 55		12.7 53
950	7.4 23	11.7 55		
1050	9.4 34	12.5 55		
1150	10.1 31	11.1 57		
1250	10.6 43	10.8 54		
1350	11.5 46	10.5 53		
1450	12.7 44	10.2 64		
1550	12.7 44	12.7 62		
1650	16.0 54	12.7 57		
1750	14.6 42	14.4 52		
1850	14.9 38	14.6 50		
1950	15.0 44	11.1 50		

Date Time:	12/06 03LT		12/06 09LT		12/06 15LT		12/06 21LT	
H(m)	WS(m/s)	WD(°)	WS(m/s)	WD(°)	WS(m/s)	WD(°)	WS(m/s)	WD(°)
50	13.1	95	12.9	90	14.8	77	11.3	90
150	17.0	70	16.3	82	17.1	76	17.2	82
250	18.7	63	18.7	71	17.2	75	19.1	78
350	17.3	60	21.3	71	15.3	71	18.2	75
450	17.1	59	21.5	70	16.3	65	14.3	75
550	18.1	60	16.1	67	15.0	56	11.3	70
650	14.6	58	14.3	68	9.1	52	10.9	76
750	12.9	65	12.4	63	7.6	61	11.8	80
850	12.2	65	13.9	69	9.3	65	12.2	79
950	12.9	65	13.5	65	8.6	66	11.9	74
1050	13.8	65	14.6	63	9.0	74	11.5	73
1150	15.0	64	12.8	59	9.6	81	12.4	71
1250	15.3	54	12.2	63	8.0	65	12.2	71
1350	15.3	53	11.8	64	9.7	65	10.6	73
1450	14.1	42	9.9	53	10.7	62	8.9	72
1550	11.8	42	11.1	58	10.5	65	10.0	76
1650	14.6	31	5.3	50	10.4	64	11.2	76
1750	14.1	31	6.4	68	10.2	66	11.0	74
1850	10.0	21			10.1	63	10.9	72
1950	9.8	17			8.5	65	10.8	69

Date Time:	12/07 03LT		12/07 09LT		12/07 15LT		12/07 21LT	
H(m)	WS(m/s)	WD(°)	WS(m/s)	WD(°)	WS(m/s)	WD(°)	WS(m/s)	WD(°)
50	13.4	93	13.5	99	12.9	97	12.8	88
150	20.2	73	16.4	90	16.2	94	18.1	81
250	19.7	68	20.5	81	16.0	90	19.9	74
350	19.7	68	19.9	82	18.7	89	19.8	66
450	17.3	65	19.2	81			17.1	61
550	15.8	72	16.9	77			13.0	59
650	15.2	72	16.5	82			13.8	59
750	13.4	68	14.9	79			14.2	57
850	11.4	71	15.7	81			13.6	57
950	12.0	77	14.0	76			12.3	49
1050	10.0	75	13.5	76			11.8	45
1150	10.7	74	12.9	79			11.0	48
1250	10.2	74	14.3	78			8.9	49
1350	9.7	77	12.1	78			8.3	49
1450	10.9	75	9.8	77			9.1	56
1550	8.9	73	9.3	79			8.7	57
1650	10.2	79	10.9	76			8.3	59
1750	8.1	73	10.5	78			9.5	62
1850	7.8	70	10.2	84			9.3	67
1950	11.0	75	9.8	83			9.1	70

Date Time:	12/08 03LT	12/08 09LT	12/08 15LT	12/08 21LT
H(m)	WS(m/s) WD(°)	WS(m/s) WD(°)	WS(m/s) WD(°)	WS(m/s) WD(°)
50	13.6 80	11.6 81	11.2 61	8.0 68
150	18.8 61	13.7 69	13.7 62	12.5 64
250	17.2 47	12.5 64	12.7 65	11.0 53
350	13.4 44	12.2 67	11.8 64	9.6 43
450	10.5 54	11.6 68	10.7 57	8.4 41
550	10.5 65	10.9 60	11.4 38	7.9 34
650	13.0 61	12.1 48	12.1 29	6.4 15
750	12.9 51	12.4 39	8.6 16	5.3 4
850	12.1 42	11.8 33	6.0 2	3.3 7
950	9.5 48	10.5 23	4.2 360	2.9 28
1050	9.9 54	8.2 20	2.6 23	4.2 59
1150	8.5 53	7.0 25	2.6 65	5.5 55
1250	8.0 51	6.5 46	6.0 66	6.7 52
1350	9.8 48	4.6 43	5.5 59	8.0 54
1450		4.9 46	6.2 48	8.2 52
1550		6.6 30	6.1 41	8.0 36
1650		6.9 39	6.8 28	7.5 21
1750		6.7 38	6.5 32	6.3 20
1850		6.3 44	7.7 33	6.0 23
1950		8.0 45	7.3 24	5.2 9

Date Time:	12/09 03LT	12/09 09LT	12/09 15LT	12/09 21LT
H(m)	WS(m/s) WD(°)	WS(m/s) WD(°)	WS(m/s) WD(°)	WS(m/s) WD(°)
50	10.3 70	8.7 85	10.8 73	12.6 88
150	12.7 49	11.1 64	10.9 78	17.8 80
250	9.6 45	11.0 58	12.1 71	19.1 70
350	7.9 40	8.1 63	11.0 66	17.7 69
450	6.5 44	7.5 61	8.8 68	16.8 69
550	6.1 48	7.1 64	8.5 65	14.9 69
650	6.0 50	7.2 62	9.1 63	15.4 71
750	5.4 50	7.0 55	8.8 61	14.1 66
850	5.3 53	6.6 55	9.1 58	13.6 64
950	6.2 55	5.9 53	8.4 52	11.8 66
1050	5.7 58	6.8 52	7.0 50	11.2 67
1150	5.7 53	5.7 50	7.8 49	12.1 67
1250	6.4 53	6.2 39	7.5 51	11.7 66
1350	6.1 33	4.9 38	7.4 46	11.4 62
1450	5.5 19	4.6 40	7.1 45	9.5 59
1550	6.2 4	4.2 45	8.0 38	10.8 57
1650	5.5 7	4.3 63	7.5 42	10.5 55
1750	4.0 4	5.2 55	8.1 29	10.1 56
1850	4.5 352	6.2 49	7.0 27	6.2 56
1950	2.4 341		7.4 31	7.4 64



Date Time:	12/10 03LT		12/10 09LT		12/10 21LT		12/11 09LT	
H(m)	WS(m/s)	WD(°)	WS(m/s)	WD(°)	WS(m/s)	WD(°)	WS(m/s)	WD(°)
50	17.1	85	13.1	87	12.1	89	13.3	92
150	19.5	71	19.2	79	18.5	83	20.2	83
250	23.1	65	21.6	68	21.5	76	20.1	69
350	23.4	63	22.5	66	20.6	66	18.7	67
450	23.1	62	21.0	65	18.6	60	19.0	66
550	21.1	62	19.4	64	18.3	61	18.1	68
650	19.7	56	25.4	63	17.2	59	15.6	73
750	19.0	62	24.1	57	16.5	65	15.0	72
850	20.6	64	17.1	52	14.7	66	11.7	72
950	23.2	54			15.8	62	12.3	69
1050	20.9	69			13.7	66	11.6	73
1150	11.0	246			11.4	68	12.6	74
1250	8.7	247			12.6	70	12.2	73
1350	8.4	67			10.3	68	13.5	73
1450	6.0	64			6.0	72		
1550	2.0	53			9.6	86		
1650	10.4	64			8.9	77		
1750	10.1	62			8.4	78		
1850					10.0	78		
1950					9.6	73		

Date Time:	12/11 15LT		12/11 21LT		12/12 03LT		12/12 09LT	
H(m)	WS(m/s)	WD(°)	WS(m/s)	WD(°)	WS(m/s)	WD(°)	WS(m/s)	WD(°)
50	16.0	82	10.0	86	13.0	85	9.8	102
150	21.5	81	12.1	82	12.8	62	11.9	89
250	11.7	79	14.9	74	10.9	67	10.8	88
350	18.8	85	13.6	65	11.1	70	9.3	87
450	6.9	66	12.1	59	9.2	74	9.8	90
550	9.7	66	9.0	50	9.2	80	9.9	90
650	18.0	73	6.3	42	8.7	83	10.2	85
750	14.8	66	3.3	40	9.2	83	9.8	84
850	11.3	53	1.9	75	7.1	76	10.2	80
950	16.1	55	2.2	102	7.7	77	8.4	82
1050	10.7	43	2.7	116	6.2	80	8.1	87
1150	6.8	54	5.0	116	7.3	93	9.1	85
1250	6.2	30	5.6	105	7.0	96	7.6	84
1350	5.5	56	4.8	94	7.7	103	6.6	87
1450	9.6	64	5.2	88	6.9	91	7.1	85
1550	8.3	81	4.5	87	6.6	84	7.6	87
1650	8.5	92	5.7	83	5.6	83	5.1	96
1750	6.3	79	6.6	78	5.4	78	5.7	101
1850	8.7	84	6.6	76	2.9	75	4.5	88
1950	8.4	80	6.1	69	4.1	80	5.1	88

Date Time:	12/12 15LT		12/12 21LT		12/13 03LT		12/13 09LT	
H(m)	WS(m/s)	WD(°)	WS(m/s)	WD(°)	WS(m/s)	WD(°)	WS(m/s)	WD(°)
50	9.2	121	11.3	130	13.7	120	11.1	113
150	9.1	121	16.2	119	18.0	105	16.2	102
250	9.4	117	14.5	106	16.7	102	18.4	99
350	10.3	112	13.1	109	14.9	106	16.2	98
450	9.8	110	12.1	112	14.4	112	13.5	105
550	8.6	111	10.4	111	12.5	116	13.7	111
650	8.3	112	10.9	115	11.7	118	13.3	112
750	8.8	109	8.5	118	10.5	129	12.7	109
850	9.6	111	9.9	120	11.2	121	12.4	112
950	8.3	107	11.1	122	9.6	118	12.2	117
1050	8.1	108	9.2	121	8.3	127	12.9	116
1150	7.9	106	10.8	128	9.8	129	11.7	123
1250	8.4	105	11.5	126	9.3	125	12.5	122
1350	9.5	112	10.4	124	8.0	133	12.9	131
1450	10.4	112	9.3	129	9.9	133	10.9	129
1550	9.0	112	8.9	121	9.6	133	12.7	136
1650	8.2	106	10.0	110	7.5	148	12.9	142
1750	7.3	109	8.5	114	8.8	128	11.7	131
1850	8.0	112	8.4	126	8.6	132	13.3	131
1950	7.9	107	8.4	134	7.3	138	13.2	129

Date Time:	12/13 15LT		12/13 21LT		12/14 03LT		12/14 09LT	
H(m)	WS(m/s)	WD(°)	WS(m/s)	WD(°)	WS(m/s)	WD(°)	WS(m/s)	WD(°)
50	10.6	123	9.9	119	11.2	111	9.1	116
150	11.7	121	13.8	114	12.8	93	13.2	108
250	9.1	116	14.4	112	12.2	95	13.8	108
350	11.8	114	13.8	111	12.9	95	14.1	108
450	14.1	109	14.4	110	13.0	97	13.4	108
550	13.2	112	14.5	109	12.9	101	12.7	110
650	13.5	108	13.6	105	12.0	109	13.3	110
750	13.9	112	11.9	107	11.2	112	13.6	112
850	13.7	115	12.4	109	10.8	111	12.9	114
950	14.1	116	10.4	115	10.8	119	13.1	121
1050	13.6	120	11.0	121	12.4	121	13.1	121
1150	13.8	120	12.9	121	11.1	117	12.1	126
1250	12.8	122	11.9	128	10.9	123	13.0	124
1350	14.0	120	12.8	124	12.3	121	11.8	128
1450	13.1	129	11.7	130	11.2	129	12.8	123
1550	12.9	123	12.8	128	12.0	124	13.0	128
1650	12.9	124	11.4	131	10.8	127	13.1	131
1750	12.9	127	12.8	131	10.4	123	11.2	125
1850	13.3	135	12.8	131	9.7	140	12.8	127
1950	11.3	133	13.0	136	10.3	131	13.0	132

Date Time:	12/14 15LT		12/14 21LT		12/15 03LT		12/15 09LT	
H(m)	WS(m/s)	WD(°)	WS(m/s)	WD(°)	WS(m/s)	WD(°)	WS(m/s)	WD(°)
50	8.4	103	9.0	116	11.7	105	10.4	109
150	10.9	107	13.3	108	12.0	94	15.1	92
250	11.6	112	13.4	109	11.8	94	15.3	90
350	11.8	113	13.8	108	11.8	96	14.8	89
450	12.3	112	14.1	109	12.2	96	15.4	89
550	11.4	107	14.4	110	11.9	98	15.5	89
650	11.0	109	13.0	109	12.4	99	15.1	89
750	11.6	109	12.3	115	13.3	103	14.4	90
850	10.5	110	12.2	119	13.0	108	14.4	92
950	11.8	116	11.9	112	13.0	102	13.3	93
1050	11.2	117	12.7	113	13.3	106	13.1	93
1150	11.3	120	12.7	114	13.7	112	12.9	93
1250	11.2	121	11.6	117	13.8	113	14.1	93
1350	11.3	122	13.0	126	14.2	117	12.6	95
1450	11.2	122	12.8	122	14.2	114	14.5	108
1550	13.6	124	13.0	128	16.1	119	14.3	106
1650	12.9	129	14.5	128	14.8	117	13.1	116
1750	12.9	127	14.6	127	15.2	122	14.1	106
1850	14.9	134	15.2	134	13.4	120	14.5	112
1950	13.5	133	15.3	133	16.1	130	12.4	115

Date Time:	12/15 15LT		12/15 21LT		12/16 03LT		12/16 09LT	
H(m)	WS(m/s)	WD(°)	WS(m/s)	WD(°)	WS(m/s)	WD(°)	WS(m/s)	WD(°)
50	9.3	93	10.3	87	11.1	86	10.3	101
150	11.3	90	14.7	84	12.3	62	12.9	85
250	12.0	87	15.7	82	12.2	59	12.5	83
350	11.4	89	14.4	82	10.5	60	11.3	78
450	10.6	88	13.8	83	11.0	62	9.5	77
550	8.9	86	14.4	83	10.8	64	8.0	76
650	10.6	85	14.6	83	10.2	62	8.0	82
750	13.2	88	16.7	81	10.5	61	7.0	87
850	9.7	91	13.3	82	8.0	66	7.4	84
950	10.1	87	13.2	88	7.5	66	7.5	89
1050	10.0	84	11.7	86	5.8	55	7.7	83
1150			12.6	82	6.7	54	5.7	86
1250			11.1	85	5.9	42	6.5	81
1350			10.8	89	7.2	57	5.0	84
1450			10.4	88	7.7	62	5.9	88
1550			10.1	88	7.5	60	5.1	94
1650			11.4	86	8.2	57	6.4	104
1750			11.2	82	8.2	52	8.8	95
1850			11.1	80	8.4	43	8.8	84
1950			11.0	75	8.9	50	8.2	76

Date Time:	12/16 15LT		12/16 21LT		12/17 03LT		12/17 09LT	
H(m)	WS(m/s)	WD(°)	WS(m/s)	WD(°)	WS(m/s)	WD(°)	WS(m/s)	WD(°)
50	12.0	99	11.7	104	14.7	104	17.1	109
150	8.9	109	18.1	100	23.5	88	22.3	101
250	8.2	104	19.4	96	21.6	82	33.2	91
350	9.2	104	20.4	88	21.6	81	27.3	83
450	11.8	102	17.7	82	19.3	78	22.4	76
550	12.2	97	17.6	81	18.7	81	22.8	77
650	10.9	95	15.2	83	16.9	81	21.9	79
750	11.0	93	14.6	86	16.2	83	19.2	75
850	10.6	94	14.0	88	15.5	82	15.7	78
950	9.9	98	12.1	90	11.4	84	17.0	80
1050	9.9	89	12.9	90	14.1	84	19.0	77
1150	9.0	89	11.0	88	13.6	86	18.4	80
1250	9.5	91	10.4	86	13.1	84	18.0	82
1350	9.4	94	13.2	88	12.6	86	14.5	80
1450	9.2	97	11.2	89	12.2	88	17.1	82
1550	8.2	97	12.7	89	14.0	88	16.7	82
1650	9.1	90	12.5	91	13.7	85	16.3	81
1750	9.0	87	12.3	87	13.5	87	12.3	86
1850	9.1	82	10.0	92	13.2	87	15.5	84
1950	7.8	83	11.9	87	10.5	94	15.2	84

Date Time:	12/17 15LT		12/17 21LT		12/18 03LT		12/18 09LT	
H(m)	WS(m/s)	WD(°)	WS(m/s)	WD(°)	WS(m/s)	WD(°)	WS(m/s)	WD(°)
50	13.9	109	14.9	84	16.0	79	13.2	68
150	14.8	106	20.4	79	23.1	72		
250	18.0	103	23.3	77	24.0	60		
350	21.1	93	37.7	74	23.4	53		
450	23.7	81	32.5	69	30.8	56		
550	24.3	79	37.4	65	30.6	54		
650	25.1	79	31.0	60	41.7	52		
750	21.8	78	32.1	57	39.8	55		
850	22.2	78	21.5	55	49.3	54		
950	20.2	82	35.9	65	35.9	51		
1050	22.6	83	38.1	67	37.0	53		
1150	20.4	84	13.6	65	31.7	54		
1250	20.4	89			12.0	50		
1350	23.5	90			11.4	74		
1450	20.6	88			10.3	40		
1550					41.1	49		
1650								
1750								
1850								
1950								

Date Time:	12/18 15LT		12/18 21LT		12/19 03LT		12/19 09LT	
H(m)	WS(m/s)	WD(°)	WS(m/s)	WD(°)	WS(m/s)	WD(°)	WS(m/s)	WD(°)
50	17.8	59	12.4	76	10.6	66	11.7	43
150	13.6	55	17.2	72	14.7	46	13.7	41
250	21.6	58	18.8	66	15.7	32	15.3	40
350	24.3	58	18.6	61	15.7	30	15.8	33
450	23.5	58	20.1	56	15.7	28	16.6	19
550	17.6	56	18.6	53	15.7	28	15.8	16
650	18.3	57	17.8	51	15.2	30		
750			16.6	48	15.5	26		
850			17.6	49				
950			15.9	49				
1050			17.3	51				
1150			15.4	48				
1250			17.0	52				
1350			14.9	50				
1450			16.9	53				
1550			14.5	50				
1650			14.2	49				
1750			14.0	48				
1850			13.0	45				
1950			14.2	49				

Date Time:	12/19 15LT		12/19 21LT		12/20 03LT		12/20 09LT	
H(m)	WS(m/s)	WD(°)	WS(m/s)	WD(°)	WS(m/s)	WD(°)	WS(m/s)	WD(°)
50	9.6	50	9.4	72	10.8	76	14.1	76
150	12.3	46	12.8	67	14.3	66	15.5	73
250	13.7	44	14.6	64	16.4	61	19.3	66
350			15.2	62	18.1	56	17.7	59
450			15.4	64	16.4	49	16.7	58
550			14.7	64	18.3	50	15.8	58
650			15.2	61			16.5	58
750			16.5	62			15.2	60
850			15.2	61			13.7	62
950			16.7	58			10.6	57
1050			14.9	50			12.6	60
1150			16.1	53				
1250			13.2	55				
1350			11.4	66				
1450			12.8	71				
1550			14.3	70				
1650			12.4	68				
1750			12.3	73				
1850			14.0	67				
1950			11.9	68				

Date Time:	12/20 15LT		12/20 21LT		12/21 03LT		12/21 09LT	
H(m)	WS(m/s)	WD(°)	WS(m/s)	WD(°)	WS(m/s)	WD(°)	WS(m/s)	WD(°)
50	16.1	94	11.9	99	14.7	98	12.5	107
150	22.1	92	16.4	94	19.4	81	16.0	98
250	21.6	89	19.7	89	18.4	81	18.9	89
350	20.8	90	20.3	83	18.1	79	18.2	85
450	15.1	84	18.9	78	16.8	76	17.2	83
550	18.2	79	15.8	73	16.4	76	18.4	82
650	15.7	69	14.0	74	15.1	74	16.9	80
750	13.8	62	14.2	79	12.1	79	16.8	80
850	13.7	68	13.7	84	13.3	83	14.1	82
950	14.4	68	14.6	88	13.7	89	15.1	79
1050	12.5	62	15.8	86	12.8	84	14.7	84
1150	13.3	67	15.8	88	15.5	87	12.8	87
1250	13.2	60	15.9	90	12.1	84	14.1	86
1350	14.2	67	14.0	90	11.7	82	13.8	88
1450	12.2	60	13.8	92	13.1	82	11.6	86
1550	9.5	63	13.8	98	14.8	87	11.3	90
1650	11.0	69	13.7	102	12.8	86	15.3	97
1750	10.8	63	11.0	99	14.7	83	12.9	91
1850	12.8	60	15.4	101	10.3	77	14.9	91
1950	10.5	55	13.2	107	9.9	85	14.9	89

Date Time:	12/21 15LT		12/21 21LT		12/22 03LT		12/22 04LT	
H(m)	WS(m/s)	WD(°)	WS(m/s)	WD(°)	WS(m/s)	WD(°)	WS(m/s)	WD(°)
50	10.6	89	12.6	91	13.3	84	11.3	95
150	14.0	87	16.1	83	17.2	72	17.8	74
250	16.5	91	18.5	79	16.8	71	18.6	71
350	15.9	85	17.1	70	16.4	66	17.5	69
450	13.9	77	14.9	66	13.9	65	16.3	65
550	12.5	73	12.0	67	13.9	66	15.4	65
650	13.2	75	12.5	72	12.7	61	13.2	66
750	12.5	65	12.9	70	10.4	55	11.6	61
850	14.2	62	10.5	68	12.3	63	10.7	67
950	12.2	57	10.8	76			7.9	70
1050	11.6	59	10.3	77			9.3	72
1150	11.7	52	9.9	73			5.5	79
1250	10.0	52	9.5	69			8.5	88
1350	9.2	57	9.1	66			8.0	86
1450	6.3	57	10.1	63			10.1	90
1550	9.7	57	7.9	45			9.4	79
1650	7.9	65	8.3	55			10.5	75
1750	8.9	70	7.8	58			9.0	80
1850	10.0	68	4.6	66			8.8	81
1950	8.4	70	7.1	83			8.5	77

Date Time:	12/22 09LT		12/22 15LT		12/22 21LT		12/23 03LT	
H(m)	WS(m/s)	WD(°)	WS(m/s)	WD(°)	WS(m/s)	WD(°)	WS(m/s)	WD(°)
50	9.6	82	12.7	99	12.0	107	11.0	100
150	9.1	81	14.6	99	15.2	99	17.1	77
250	10.8	78	13.7	99	16.6	95	16.0	73
350	12.7	69	11.7	100	16.7	88	15.5	73
450	9.0	69	10.9	103	13.0	81	15.4	71
550	5.5	82	10.1	96	11.3	83	13.4	72
650	6.7	86	9.4	99	11.8	87	10.6	81
750	7.1	82	11.3	104	12.0	92	11.5	85
850	7.6	81	10.4	100	11.7	95	11.3	93
950	7.8	81	9.4	97	12.3	92	11.6	91
1050	8.1	79	9.0	100	11.1	97	9.3	94
1150	8.0	78	9.5	98	10.8	99	10.7	90
1250	9.0	81	10.2	94	11.6	97	9.8	102
1350	8.5	79	8.4	85	10.2	93	6.8	98
1450	8.5	79	7.8	96	7.4	100	9.8	97
1550	7.8	84	7.6	92	8.5	107	9.7	102
1650	7.1	87	7.4	86	9.5	109	8.3	107
1750	7.6	79	8.1	91	7.8	105	8.7	118
1850	7.5	79	9.0	93	7.4	104	11.2	117
1950	7.5	75	9.0	86	8.9	113	8.7	107

Date Time:	12/23 09LT		12/23 15LT		12/23 21LT		12/24 03LT	
H(m)	WS(m/s)	WD(°)	WS(m/s)	WD(°)	WS(m/s)	WD(°)	WS(m/s)	WD(°)
50	9.4	104	9.6	100	9.9	95	11.9	97
150	11.3	97	9.4	105	13.5	93	13.8	76
250	13.0	84	8.7	103	14.2	92	12.3	73
350	13.6	86	11.0	106	15.1	92	10.5	72
450	13.3	91	12.0	103	15.7	90	10.0	72
550	13.5	93	11.7	93	15.6	90	9.4	74
650	13.0	102	11.3	97	14.8	92	9.7	78
750	12.4	97	11.5	99	11.5	95	9.9	76
850	10.9	98	13.0	101	12.8	94	7.3	79
950	10.6	100	12.3	97	11.7	97	8.1	89
1050	10.4	103	10.3	100	9.3	102	7.2	94
1150	11.0	103	11.9	108	8.8	106	8.7	90
1250	10.8	103	11.1	103	10.6	105	8.0	98
1350	9.6	98	10.1	104	10.4	108	7.4	85
1450	8.3	105	10.1	113	10.0	107	7.1	83
1550	10.3	107	10.0	112	10.1	116	7.7	82
1650	10.0	99	10.8	101	9.8	116	6.0	94
1750	8.6	98	7.3	110	9.4	114	6.0	104
1850	9.7	98	8.2	108	10.4	109	7.2	94
1950	8.3	95	8.1	111	10.2	106	5.2	93

Date Time:	12/24 09LT		12/24 15LT		12/24 21LT		12/25 03LT	
H(m)	WS(m/s)	WD(°)	WS(m/s)	WD(°)	WS(m/s)	WD(°)	WS(m/s)	WD(°)
50	9.5	113	11.0	99	9.7	88	10.3	77
150	12.3	98	11.8	97	13.5	80	13.9	51
250	12.3	92	10.5	96	14.1	74	12.5	49
350	12.5	92	10.6	95	14.3	70	12.7	51
450	12.8	91	8.1	86	13.2	61	12.5	58
550	10.4	90	5.3	72	11.4	62	11.7	55
650	8.6	85	5.4	69	8.4	70	10.4	55
750	8.4	91	6.5	77	9.5	64	9.4	57
850	6.8	90	7.0	88	8.4	63	7.6	59
950	7.3	95	6.7	94	8.5	78	9.1	62
1050	7.5	98	7.7	92	8.1	78	8.7	61
1150	7.2	94	8.1	88	9.2	77	8.4	54
1250	6.9	87	8.2	84	8.9	75	8.3	44
1350	7.2	90	8.1	87	9.6	66	8.8	45
1450	5.0	77	8.2	82	8.7	59	7.8	40
1550	5.3	80	7.6	77	8.0	48	7.4	44
1650	3.5	88	7.2	84	7.3	56	7.9	52
1750	5.4	92	6.9	80	8.0	60	6.8	57
1850	5.1	89	7.2	85	7.1	48	6.7	65
1950	4.9	92	6.4	85	7.7	53	7.4	52

Date Time:	12/25 09LT		12/25 15LT	
H(m)	WS(m/s)	WD(°)	WS(m/s)	WD(°)
50	9.0	71	11.0	61
150	11.8	63	11.4	63
250	14.8	55	12.1	62
350	15.3	51	10.0	59
450	13.8	46	8.3	40
550			5.3	26
650			4.6	35
750			5.8	37
850			6.7	27
950			6.6	28
1050			5.3	18
1150			6.7	26
1250			5.5	26
1350			6.0	34
1450			8.1	25
1550			8.6	15
1650			8.6	15
1750			9.0	20
1850			9.0	21
1950			9.3	18



## VI. Net Radiative Heat Flux

Net radiative heat flux was measured by a net radiation meter (EKO, CN-11) placed at a height of 0.5 m above the snow surface. The output of the radiation meter was recorded by a chart recorder. One hour averages were read by eye from the recorded chart and listed in Table VI. Notations in the table are as follows:

LT : Local standard time at Syowa Station (GMT+3h)

Qn : Net radiative heat flux ( $\text{W m}^{-2}$ )

Table VI. Net radiative heat flux data during 12 November - 30 December 1985.

Date:11/12 Time(LT)	11/13	11/14	11/15	11/16	11/17	11/18	11/19	11/20	11/21
	Qn (W m <sup>-2</sup> )								
0- 1	-56	-7	-35	-63	-77	-77	-56	-70	-42
1- 2	-42	-14	-35	-63	-77	-84	-98	-70	-42
2- 3	-49	-7	-35	-63	-77	-77	-63	-63	-42
3- 4	-70	-21	-28	-70	-77	-70	-105	-56	-49
4- 5	-70	-7	-21	-84	-84	-63	-84	-14	-49
5- 6	-42	-14	-28	-77	-70	-42	-77	-7	-42
6- 7	-35	0	-21	-70	-56	-21	-77	-7	-42
7- 8	-21	21	-14	-42	-28	14	-49	0	-28
8- 9	0	21	0	-14	0	35	-14	0	-14
9-10	28	42	35	35	42	56	28	21	21
10-11	56	70	70	70	84	84	56	42	42
11-12	84	91	98	98	112	98	70	56	70
12-13	98	91	112	112	126	119	91	70	91
13-14	105	105	119	126	140	126	98	77	98
14-15	119	140	133	140	140	126	98	84	119
15-16	112	112	126	140	140	126	91	84	112
16-17	98	91	98	126	112	91	70	70	91
17-18	84	56	77	98	84	70	49	49	70
18-19	49	49	56	70	56	42	28	28	21
19-20	35	42	21	28	21	0	7	7	-7
20-21	-14	21	28	-14	-14	-42	-14	-14	-21
21-22	-7	21	-14	-42	-35	-42	-49	-28	-28
22-23	-21	28	-28	-63	-63	-70	-70	-35	-28
23-24	-56	-14	-35	-63	-70	-70	-21	-70	-42

Date:11/22 Time(LT)	11/23	11/24	11/25	11/26	11/27	11/28	11/29	11/30	12/ 1	
	Qn (W m <sup>-2</sup> )									
0- 1	-35	-91	-98	-84	-77	-14	-91	-56	-105	-14
1- 2	-42	-91	-98	-84	-35	-21	-98	-42	-105	-14
2- 3	-49	-105	-105	-91	-14	-35	-105	-28	-112	-21
3- 4	-49	-105	-105	-98	-14	-42	-105	-28	-112	-14
4- 5	-49	-105	-98	-98	-56	-70	-98	-28	-105	-21
5- 6	-49	-84	-77	-77	-14	-84	-84	-28	-98	0
6- 7	-35	-77	-70	-63	-21	-84	-70	-28	-77	7
7- 8	-21	-49	-28	-35	-42	-49	-49	-14	-42	0
8- 9	0	-14	7	0	-7	-21	-21	0	0	-7
9-10	28	28	42	35	35	28	21	28	42	35
10-11	49	63	70	70	70	63	63	56	63	70
11-12	77	91	98	91	98	98	98	91	91	105
12-13	98	112	112	112	112	119	112	112	91	119
13-14	112	119	119	126	126	126	126	98	119	133
14-15	119	119	133	133	133	140	140	133	133	140
15-16	112	119	112	126	119	140	133	126	126	126
16-17	91	91	84	98	98	112	105	112	91	105
17-18	56	63	70	70	77	84	84	77	70	70
18-19	35	35	35	42	35	49	56	42	35	28
19-20	7	0	0	14	7	21	21	14	7	-14
20-21	-21	-28	-21	-14	-14	-14	-14	-21	-7	-35
21-22	-56	-63	-49	-42	-28	-42	-35	-56	-7	-56
22-23	-84	-84	-63	-84	-14	-70	-42	-84	0	-77
23-24	-98	-98	-84	-84	-14	-91	-56	-91	-7	-98

Date:	12/ 2	12/ 3	12/ 4	12/ 5	12/ 6	12/ 7	12/ 8	12/ 9	12/10	12/11
Time(LT)	Qn (W m <sup>-2</sup> )									
0- 1	-105	-84	-56	-91	-91	-105	-63	-35	-98	-84
1- 2	-105	-84	-49	-98	-91	-112	-56	-63	-98	-84
2- 3	-105	-84	-49	-98	-70	-112	-49	-70	-84	-98
3- 4	-105	-84	-35	-84	-63	-105	-42	-56	-35	-98
4- 5	-91	-70	-35	-84	-56	-84	-21	-28	-14	-70
5- 6	-70	-49	-28	-84	-56	-70	-35	-42	0	-56
6- 7	-49	-42	-21	-56	-56	-42	-21	-35	0	-42
7- 8	-14	-21	0	-21	-21	-14	7	7	14	-14
8- 9	7	7	7	0	0	28	35	7	14	14
9-10	42	42	28	28	28	70	63	42	42	28
10-11	77	70	56	63	49	105	84	84	70	28
11-12	105	84	84	98	84	133	105	105	84	84
12-13	112	98	105	112	112	133	119	119	98	126
13-14	133	119	126	126	133	133	126	126	112	140
14-15	140	119	133	133	140	126	126	140	126	126
15-16	126	112	119	112	133	112	98	126	112	126
16-17	98	84	112	105	112	77	77	98	98	112
17-18	63	56	77	63	84	35	49	56	70	70
18-19	21	42	49	28	56	14	21	28	42	28
19-20	-14	7	14	14	28	-14	0	7	14	0
20-21	-28	-7	-14	7	-14	-35	-28	-28	-21	-21
21-22	-49	-28	-35	-21	-28	-49	-21	-42	-42	-42
22-23	-70	-42	-70	-35	-63	-56	-28	-70	-56	-70
23-24	-84	-42	-84	-49	-91	-56	-28	-84	-70	-84

Date:	12/12	12/13	12/14	12/15	12/16	12/17	12/18	12/19	12/20	12/21
Time(LT)	Qn (W m <sup>-2</sup> )									
0- 1	-98	-84	-98	-77	-84	-70	0	-28	-14	-98
1- 2	-98	-98	-112	-112	-98	-91	0	-42	0	-112
2- 3	-112	-98	-112	-112	-98	-91	-14	-42	-14	0
3- 4	-98	-98	-112	-112	-70	-91	-28	-42	-56	0
4- 5	-84	-84	-84	-84	-56	-84	-42	-28	0	-98
5- 6	-70	-56	-70	-63	-56	-70	-42	-14	0	-84
6- 7	-28	-28	-70	-28	-28	-42	-28	-7	0	-70
7- 8	-14	-14	-14	-14	-14	-28	0	7	0	-28
8- 9	14	14	14	-14	14	14	28	28	14	0
9-10	28	70	42	42	42	28	42	28	56	28
10-11	70	70	70	70	70	56	70	56	56	56
11-12	84	84	91	98	98	84	84	70	84	56
12-13	112	112	112	112	112	112	98	84	98	84
13-14	112	112	112	112	119	98	98	84	112	84
14-15	112	126	126	126	119	84	112	105	112	98
15-16	112	126	126	126	126	84	126	112	105	112
16-17	98	98	105	98	126	70	112	98	98	105
17-18	70	56	84	84	112	70	56	56	70	84
18-19	28	28	28	56	84	49	42	28	42	28
19-20	0	14	7	28	42	35	28	-14	7	14
20-21	-21	-14	-21	-14	28	28	7	-14	-14	-14
21-22	-42	-70	-35	-49	-14	14	-7	-28	-42	-28
22-23	-63	-63	-70	-56	-28	7	-35	-28	-56	-56
23-24	-70	-84	-77	-70	-42	0	-42	-28	-84	-70

Date:	12/22	12/23	12/24	12/25	12/26	12/27	12/28	12/29	12/30
Time(LT)	Qn (W m <sup>-2</sup> )								
0- 1	-84	-77	-84	-70	-42	-84	-84	-70	-70
1- 2	-98	-84	-84	-84	-49	-84	-84	-84	-84
2- 3	-98	-84	-84	-84	-28	-84	-84	-56	-84
3- 4	-98	-84	-84	-84	-14	-84	-77	-42	-84
4- 5	-84	-70	-70	-70	-14	-56	-56	-28	-70
5- 6	-56	-56	-56	-56	-14	-42	-42	-14	-56
6- 7	-28	-28	-28	-14	-14	-28	-28	-7	-28
7- 8	-14	-14	-14	-7	0	0	0	7	-14
8- 9	0	7	14	14	21	14	14	14	14
9-10	14	28	28	42	28	28	35	42	28
10-11	56	56	56	56	77	63	56	56	56
11-12	70	70	70	84	91	84	84	84	84
12-13	98	112	112	112	98	105	112	98	98
13-14	112	112	112	126	112	105	112	112	98
14-15	112	112	112	126	112	112	112	112	112
15-16	126	126	126	126	98	112	112	84	112
16-17	119	112	126	98	70	98	98	70	84
17-18	84	84	98	63	56	56	56	56	42
18-19	42	56	56	42	49	21	28	98	14
19-20	14	14	35	14	-7	0	28	70	-14
20-21	-14	0	7	-14	-14	-28	-28	28	
21-22	-28	-28	-28	-42	-42	-42	-28	-28	
22-23	-42	-28	-42	-56	-56	-56	-42	-56	
23-24	-70	-56	-56	-56	-70	-70	-56	-56	

## VII. Net Accumulation of Snow with a 100-stake Row

The measurements of net accumulation at the Advance Camp by the stake method were made using a 100-stake row which was set on 16 November by JARE-25. Direction of this stake row is perpendicular to the prevailing wind direction, and the distance between stakes is 5 m.

Condition of snow surface around each stake was observed and classified as follows:

E: Erosional surface consisting of sastrugi, erosional pit or smooth surface.

D: Depositional surface consisting of barchan or dune.

G: Glazed surface consisting of ice crust.

Surface condition which is indicated with 2 letters (e.g., DE) means the mixed or intermediate one of those 2 conditions.

Results are shown in Table VII. Since the number of days during the observed period from 16 November 1984 to 8 November, 1985 (357 days) is the nearest to one year, the results of that period are shown in the last column of this table.

Table VII. Net accumulation with a 100-stake row in 1984-1986.

(cm in depth)											
No.	Nov.16 (89days)	Feb.13 (13)	Feb.26 (233)	Oct.17 (22)	Nov.8 (59)	Jan.6	Nov.16 '84 -Nov. 8 '85 (357)				
1	3.5	G	30.0	D	-6.5	E	0.0	E	8.0	E	27.0
2	2.0	G	-1.0	E	28.0	E	-1.5	E	-7.5	E	27.5
3	19.0	DE	2.0	E	4.5	E	-2.5	E	0.0	E	23.0
4	0.0	DE	-3.0	DE	6.5	E	-1.5	E	3.5	E	2.0
5	9.0	DE	-2.0	DE	21.0	E	-18.0	E	-4.0	E	10.0
6	14.0	DE	1.0	E	5.0	E	0.0	E	-1.5	E	20.0
7	17.5	DE	-1.0	DE	10.0	E	-0.5	E	-0.5	E	26.0
8	11.0	DE	-0.5	E	8.0	E	-5.0	E	1.5	E	13.5
9	13.5	DE	-4.5	E	13.0	E	-13.0	E	-2.0	E	9.0
10	18.5	E	0.5	E	0.0	E	0.0	E	-1.0	E	19.0
11	14.0	D	8.5	E	-3.0	E	0.0	E	-1.5	E	19.5
12	17.0	E	0.5	E	-0.5	E	-0.5	E	1.5	E	16.5
13	11.5	D	-1.0	E	0.5	E	0.0	E	-2.0	E	11.0
14	-11.0	D	-3.5	E	-2.5	E	2.0	E	-2.0	E	-15.0
15	6.0	DE	-6.5	EG	0.0	E	0.0	G	-0.5	E	-0.5
16	-1.0	EG	0.0	EG	0.0	E	-1.0	G	1.0	E	-2.0
17	14.0	D	0.5	DE	0.5	E	-0.5	E	-1.5	E	14.5
18	8.0	DE	0.5	E	-4.0	E	0.0	E	-1.5	E	4.5
19	13.0	DE	-1.0	E	-3.0	E	0.0	E	-1.5	E	9.0
20	4.5	DE	0.5	E	-2.0	E	1.0	E	-3.5	E	4.0
21	-2.5	G	0.5	G	0.0	E	-0.5	G	-2.0	E	-2.5
22	-3.5	E	0.5	E	0.0	E	0.0	E	-2.0	E	-3.0
23	14.0	D	0.0	E	2.0	E	0.0	E	-1.0	E	16.0
24	23.0	DE	-2.0	E	7.0	E	0.0	E	3.0	E	28.0
25	12.5	D	14.5	DE	12.0	E	-11.5	E	2.5	E	27.5
26	9.5	D	-1.5	E	0.5	E	0.0	E	-0.5	E	8.5
27	13.0	E	3.0	E	4.0	E	-1.0	E	-1.0	E	19.0
28	16.0	D	-3.0	E	13.0	E	0.0	E	3.0	E	26.0
29	8.5	DE	-1.0	DE	28.5	DE	-12.0	E	23.0	E	24.0
30	0.5	DE	21.0	D	-22.5	G	-0.5	G	15.0	DE	-1.5
31	11.5	DE	2.5	E	-12.0	E	0.0	E	-1.5	E	2.0
32	8.0	D	9.5	E	-7.5	DE	-7.5	G	-1.5	EG	2.5
33	4.5	E	5.0	E	-5.5	G	0.0	E	-1.0	E	4.0
34	-2.0	DE	18.0	D	-19.0	G	0.0	E	-2.0	E	-3.0
35	0.0	E	0.0	E	3.0	G	0.0	E	-1.0	E	3.0

(cm in depth)

No.	Nov.16 (89days)	Feb.13 (13)	Feb.26 (233)	Oct.17 (22)	Nov.8 (59)	Jan.6	Nov.16 '84 -Nov. 8 '85 (357)
36	-1.0 E	0.0 E	12.0 E	0.0 E	-1.0 E	11.0	
37	21.5 DE	-0.5 E	5.0 E	0.0 E	4.0 E	26.0	
38	18.0 D	-2.0 E	19.0 E	-2.0 E	8.0 E	33.0	
39	6.5 D	-1.5 E	0.0 E	0.0 E	6.0 E	5.0	
40	53.0 DE	3.0 E	-3.5 E	-0.5 E	2.0 E	52.0	
41	30.0 D	1.5 DE	-3.5 E	0.0 E	-1.5 E	28.0	
42	23.0 D	-2.5 E	-1.0 E	0.0 E	2.0 D	19.5	
43	21.0 E	0.5 E	6.5 E	0.0 E	4.0 E	28.0	
44	8.0 E	20.0 DE	-7.0 E	-4.0 E	-2.5 E	17.0	
45	1.0 DE	0.0 E	25.0 E	0.0 E	-3.0 E	26.0	
46	6.5 D	-1.0 D	15.5 E	-0.5 E	-1.5 E	20.5	
47	5.5 D	-0.5 D	8.5 E	-3.5 E	-3.5 E	10.0	
48	1.0 D	-1.0 E	-1.0 G	0.0 G	-0.5 G	-1.0	
49	5.0 D	-1.5 E	21.0 E	-21.5 E	3.0 E	3.0	
50	7.0 D	-1.5 E	10.5 DE	-10.5 E	16.5 DE	5.5	
51	6.0 DE	-0.5 E	-1.5 E	-0.5 G	-0.5 E	3.5	
52	8.0 DE	0.0 E	-1.0 E	0.5 E	-1.5 E	7.5	
53	0.0 E	0.0 E	0.0 E	0.0 E	-2.0 E	0.0	
54	9.0 D	-5.0 E	8.0 E	-2.0 E	7.0 E	10.0	
55	-3.0 EG	0.5 EG	-0.5 E	0.0 E	-1.0 E	-3.0	
56	1.0 D	-2.0 EG	-1.0 E	0.0 E	-2.0 E	-2.0	
57	-1.0 EG	15.0 E	-15.0 G	3.0 E	-2.0 E	2.0	
58	-1.0 EG	0.0 EG	0.0 E	0.0 G	-2.0 E	-1.0	
59	0.0 E	0.5 E	16.5 DE	-17.0 E	-2.0 E	0.0	
60	3.5 D	-0.5 E	5.0 DE	-5.0 E	10.5 E	3.0	
61	2.0 E	0.0 E	0.0 E	0.0 E	-2.0 E	2.0	
62	-2.0 EG	0.0 EG	0.0 E	0.0 G	-1.0 E	-2.0	
63	14.0 D	2.5 D	18.0 E	0.5 E	-2.0 E	35.0	
64	0.5 D	1.5 E	25.0 E	0.0 E	-1.5 E	27.0	
65	5.0 D	-1.5 E	0.0 E	0.0 E	-1.5 E	3.5	
66	-2.0 E	0.0 EG	0.0 E	0.5 E	-2.5 E	-1.5	
67	10.0 D	-2.0 D	-0.5 E	-0.5 E	0.0 E	7.0	
68	2.5 E	0.5 E	42.0 E	0.0 E	-2.0 E	45.0	
69	2.5 D	0.0 E	0.5 E	3.5 E	12.5 E	6.5	
70	0.0 DG	-0.5 G	-0.5 G	20.0 E	-2.5 E	19.0	

(cm in depth)

No.	Nov.16 (89days)	Feb.13 (13)	Feb.26 (233)	Oct.17 (22)	Nov.8 (59)	Jan.6	Nov.16 '84 -Nov. 8 '85 (357)				
71	-1.0	DG	1.0	G	3.5	DE	-5.5	E	-0.5	E	-2.0
72	4.5	D	7.5	D	-12.0	E	1.0	E	-1.0	E	1.0
73	1.5	D	-2.0	E	0.0	G	0.0	G	-1.5	E	-0.5
74	-2.0	EG	0.5	EG	-0.5	G	-0.5	G	-1.5	E	-2.5
75	11.5	DE	0.5	E	-1.0	E	0.0	E	-2.5	E	11.0
76	3.0	D	-4.0	E	0.0	E	0.0	E	-2.0	E	-1.0
77	6.0	DE	20.0	D	-16.0	E	0.0	E	-2.5	E	10.0
78	17.0	E	0.0	E	0.0	E	0.0	E	-1.0	E	17.0
79	12.5	E	0.0	E	0.0	E	0.0	E	-1.5	E	12.5
80	-1.0	E	1.0	E	-0.5	E	0.0	E	-1.5	E	-0.5
81	-1.0	D	-3.0	E	11.5	E	-8.5	E	-0.5	E	-1.0
82	5.5	DE	-2.5	E	25.5	E	-2.5	E	1.5	E	26.0
83	5.0	D	-2.0	E	2.0	E	-2.0	E	-1.0	E	3.0
84	-2.0	DE	1.0	E	2.0	E	-1.0	E	-3.0	E	0.0
85	-2.0	EG	0.5	EG	0.0	E	-1.0	E	-2.0	E	-2.5
86	-1.0	E	0.5	E	-0.5	E	0.0	E	1.0	E	-1.0
87	7.5	DE	-0.5	E	-1.0	E	0.5	E	-1.5	E	6.5
88	16.0	DE	0.0	E	0.0	E	0.0	E	-1.0	E	16.0
89	9.5	DE	-4.5	E	10.0	E	0.0	E	3.0	E	15.0
90	5.0	DE	-1.5	E	23.5	DE	-13.0	E	-0.5	E	14.0
91	3.0	D	3.0	E	13.5	E	2.0	E	1.0	E	21.5
92	11.0	E	6.5	E	15.0	E	0.5	E	2.5	E	33.0
93	11.0	E	0.0	E	21.0	E	0.0	E	-3.0	E	32.0
94	1.0	E	0.0	E	23.0	E	1.0	E	11.0	E	25.0
95	0.5	D	-1.5	E	31.0	E	-1.0	E	4.5	E	29.0
96	-1.0	D	-1.0	E	23.0	DE	8.0	E	-3.5	E	29.0
97	13.0	D	0.5	E	17.5	E	-4.0	E	0.0	E	27.0
98	15.0	D	-4.0	E	24.0	E	1.0	E	-1.0	E	36.0
99	-1.5	DE	-0.5	E	14.5	E	-0.5	E	0.0	E	12.0
100	1.0	DE	0.0	E	14.0	E	-1.5	E	-1.5	E	13.5
mean	7.1		1.2		5.2		-1.4		0.4		12.1