Glaciological Data Collected by the 37th Japanese Antarctic Research Expedition during 1996-1997

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1. Outline of Field Observations during 1996-1997

A five-year glaciological program, the deep ice coring project at Dome Fuji, Antarctica, was started in 1992. Dome Fuji is a station located at the second highest dome in East Antarctica (77°19'01"S, 39°42'12"E, 3810m). In 1991 and 1992, the 32nd and 33rd Japanese Antarctic Research Expeditions (JARE-32 and JARE-33) extended new routes from Mizuho Station to Dome Fuji about 1000 km inland from Syowa Station (FUJII, 1992; KAMIYAMA *et al.*, 1994). In 1993-94, three oversnow traverse were carried out by JARE-34 (MOTOYAMA *et al.*, 1995a). Shallow ice coring of 112 m deep and casing of the borehole at Dome Fuji were carried out from December 1993 to January 1994 by JARE-34 (MOTOYAMA *et al.*, 1995b). In 1994-95, four oversnow traverses were performed by JARE-35 (SHIRAIWA *et al.*, 1996). JARE-35 constructed the buildings of Dome Fuji Station in the 1994-95 season (SHOJI *et al.*, 1996). In 1995 - 1996 JARE-36 first carried out the wintering for deep ice coring at Dome Fuji Station. Glaciological and meteorological observations were also carried out during that period both at the station and along the 1000 km long traverse route between Syowa Station and Dome Fuji Station (AZUMA *et al.*, 1997).

In 1996-1997 JARE-37 carried out the second wintering for deep ice coring at Dome Fuji Station. The observations started by JARE-36 were basically continued. In addition, a few kinds of observations were newly started. Oversnow traverses carried out in this period were listed in Table 1-1. Table 1-2 shows the glaciological and meteorological observations conducted in the oversnow traverses. The participants and their assignments in the JARE-37 program are listed in Table 1-3. Glaciological observations at Dome Fuji Station are summarized in Table 1-4.

We would like to express our sincere thanks to all members of JARE-37 who extended generous and long term support in the field work.

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Table 1-1. Oversnow traverses carried out by JARE-37 from December 1995 to February 1997.

Traverse No.	Period from	Period to	Traverse Route from	Traverse Route through	Traverse Route to	Distance (km)	Participants	Oversnow Vehicle
1-a	25 Dec 1995	14 Jan 1996	S16		Dome F	1000	14	SM50(3), SM100(3)
-b	26 Jan. 1996	5 Feb. 1997	Dome F		S16	1000	5	SM50(2), SM100(1)
2-a	18 Nov. 1996	20 Nov. 1996	Dome F	D1 and D2	Dome F	90	3	SM100(2)
-b	23 Nov. 1996	26 Nov. 1996	Dome F	D3 and D4	Dome F	90	3	SM100(2)
-c	29 Nov. 1996	30 Nov 1996	Dome F	D5 and D6	Dome F	90	3	SM100(2)
-d	4 Dec. 1996	6 Dec. 1996	Dome F	130 km East	Dome F	270	3	SM100(2)
-e	16 Dec. 1996	19 Dec. 1996	Dome F	150 km SSE	Dome F	310	3	SM100(2)
-f	22 Jan. 1996		Dome F	Fuji Divide	Dome F	110	2	SM100(1)
3-a	10 Oct. 1996	2 Nov. 1996	Syowa		Dome F	1032	5	SM100(5)
-b	8 Nov. 1996	27 Nov. 1996	Dome F		Syowa	1032	5	SM100(4)
4-a	30 Dec. 1996	2 Jan. 1997	Dome F		Mizuho	730	3	SM100(1)
-b	2 Jan. 1997	6 Jan. 1997	Mizuho		Dome F	730	5	SM100(3)
5-a	8 Jan. 1997	20 Jan. 1997	Dome F		S16	1000	5	SM50(1), SM100(1)
5-b	25 Jan. 1997	8 Feb. 1997	Dome F		S16	1000	8	SM50(3), SM100(3)

SM50 and SM100 are types of oversnow vehicles. The number of each vehicle is shown in parentheses.

Traverses 4-b and 5-b were joint travel with JARE-38.

For location of each site, see Figs. 1and 2. For location of the sites D1-D6, see Table 3-3.

Table 1-2. Glaciological and meteorological observations during the oversnow traverses.

Item	Interval	Traverse No.	Main observers
Snow accumulation along routes *	2 km	1	Kameda, Nakamura and Fujita
Stake farm and stake row		1 and 3	Fujita, Kameda and Narita
Snow sampling		1-a and 5-b	Fujii and Li
Pit observation of deposited snow		2-e and 5-b	Fujii, Li and Fujita
Surface snow density	25 km	1	Fujita and Kameda
Set-up and maintenance of AWS		1 and 5-b	Kameda, Fujita and Nakajima
Meteorological observations		1, 3 and 5-b	Nakamura, Narita, Ikegaya and Nakajima
Radar sounding of the ice sheet		2,4 and 5-b	Fujita and Fujii

AWS: abbreviation of Automatic Weather Station

Dr. Kameda is a member of JARE-36. Dr. Li is an exchange scientist in JARE-38.

Mr. Nakajima is a member of JARE-38.

* Data were published in Azuma et al. (1997)

Table 1-3. Participants of the oversnow traverses and their assignments in the JARE-37 program.

Name	Assignments	Traverse No.
Yoshiyuki FUJII*	Leader, Glaciology	1-a, 2-f, 4-a,b, 5-b
Shigehito YONEYAMA*	Deputy leader, Medical doctor	1-a, 2-b, d, 4-a,b, 5-b
Hiroyuki IKEGAYA*	Meteorology, Radio Communication	1-a, 2-c, d, f, 5-b
Yasunao NAGATA*	Mechanic	1-a, 2-a, e, 5-a
Kenji TANIGUCHI*	Mechanic	1-a, 2-a, c, 4-a,b, 5-a
Masaaki MIYAKE*	Cook	1-a, 2-b, 5-a
Kunio SHINBORI*	Glaciology (ice coring)	1-a, 2-e, 5-a
Kazuo KATAGIRI*	Glaciology (ice coring)	1-a, 5-a
Shuji FUJITA*	Glaciology	1-a, 2-a~e, 5-b
Masamichi NAKAMURA**	Meteorology	1-a, b
Naoto FURUKI **	Mechanic	1-a, b, 3-a, b
Akiyoshi TAKAHASHI ***	Glaciology (ice coring)	1-a, b
Tomohiko INABA ***	Observer	1-a, b
Norio IKEYA**	Logistics	3-a, b
Akihiro NODA*	Logistics	3-a, b
Akihito KAWANA**	Upper atmosphere	3-a, b
Osamu NARITA**	Meteorology	3-a, b

*: Overwintering party at Dome Fuji Station in 1996

**: Overwintering party at Syowa Station in 1996

***: Summer party

Table 1-4. Glaciological observations carried out at Dome Fuji Station in 1996-1997.

Item	Interval	Main observers
Snow accumulation measurement (36-stake farm)	15 days	Fujita
Surface snow density	seasonal	Fujita
Snow sampling	monthly	Fujii
Air and aerosol sampling	monthly	Fujii
Pit observation of deposited snow	seasonally	Fujii and Fujita
Snow temperature	10 minutes	Fujita
Sublimation from surface snow	seasonally	Fujita
Radar sounding of the ice sheet at the coring site	Jun. 1996 - Jan. 1997	Fujita

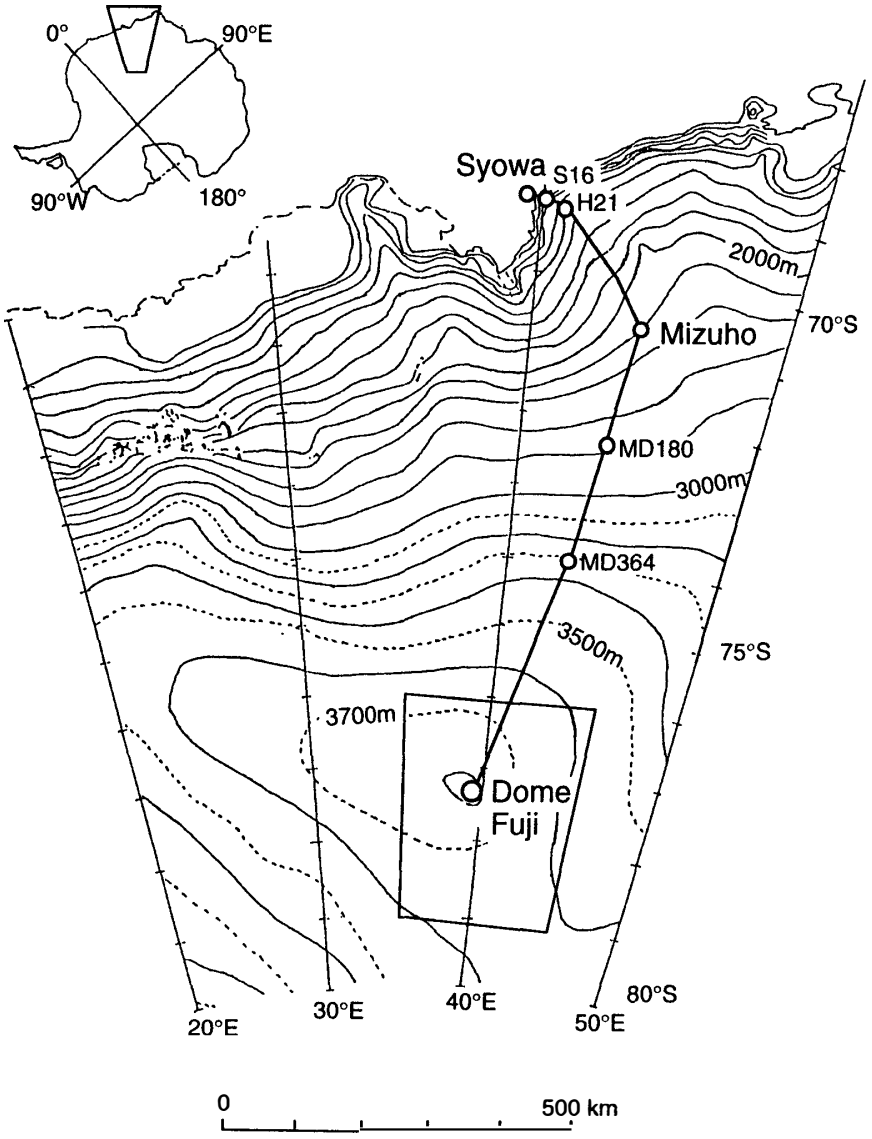

Fig. 1. Location map of the traverse route.

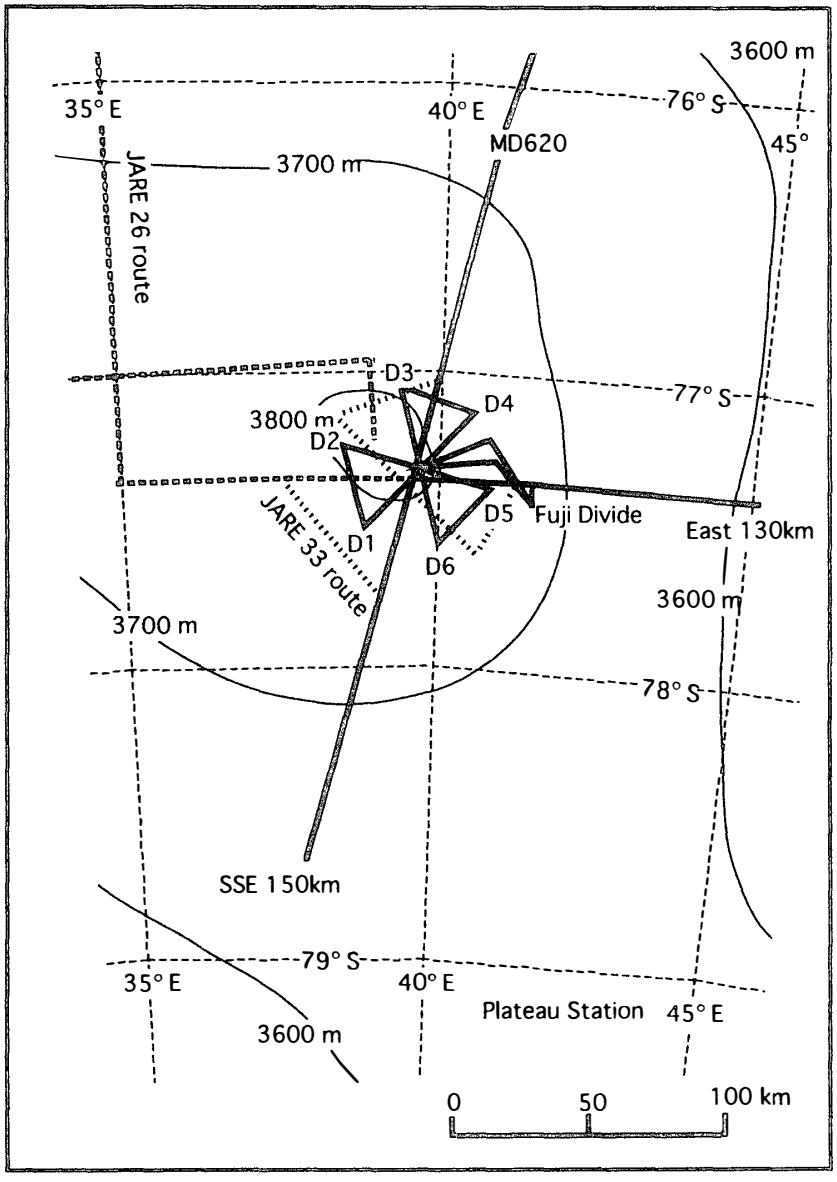

Fig. 2. Location map of the traverse routes around Dome Fuji Station.

2. Net Accumulation of Snow at Dome Fuji Station

Observer: Shuji FUJITA

Net accumulation of snow was measured by the stake method. 36-stake farm at Dome Fuji Station was established at some 300 m from Dome Fuji Station at 25 January 1995 by JARE-36 (AZUMA *et al.*, 1997). JARE-36 conducted the measurement in 1995 and JARE-37 continued it in 1996. The distance between stakes is 20m. This stake-farm is located north-east from the station (see Figure 5 in AZUMA *et al.* 1997). This direction corresponds to the prevailing wind direction at Dome Fuji. Heights of 36 stakes were measured twice each month. The results are shown in Table 2. The last column of the table gives approximately the annual net accumulation of snow, and the last row gives averages and s.d. (standard deviations) of net accumulation of snow for each period. Minimum readings were 1 cm in a period between January 1996 and 15 September 1996, and 0.5 cm in a period after 15 September 1996.

Reference

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Table 2. Net accumulation of snow at Dome Fuji Station from 30 January 1996 to 20 January 1997.

(cm in depth)

Stake No.	30 Jan.1996 - 15 Feb. 16 (days)	15 Feb. 2 Mar. 15	2 Mar. 17 Mar. 15	17 Mar. 2 Apr. 16	2 Apr. 16 Apr. 14
Ⅰ-1	0	0	0	0	1
-2	0	0	0	7	-2
-3	-2	0	0	1	4
-4	0	0	0	6	-6
-5	-1	2	7	-1	-1
-6	-1	0	0	0	0
Ⅱ-1	-5	7	-4	4	0
-2	7	8	0	-2	0
-3	0	0	0	2	0
-4	2	1	0	-1	0
-5	-2	0	1	-1	0
-6	0	-1	1	0	0
Ⅲ-1	-1	0	1	0	-1
-2	7	1	1	0	0
-3	0	0	1	0	3
-4	-1	0	0	1	-1
-5	0	0	0	0	0
-6	-1	3	-1	0	0
Ⅳ-1	0	1	1	-1	0
-2	-1	0	0	0	0
-3	0	0	0	1	0
-4	0	0	0	0	0
-5	2	0	1	1	-2
-6	0	-1	1	0	0
Ⅴ-1	0	0	2	-2	1
-2	0	0	0	1	-2
-3	1	-1	1	1	0
-4	-1	1	0	-1	0
-5	0	0	0	0	-1
-6	-2	2	1	-2	5
Ⅵ-1	0	0	1	-2	1
-2	0	-1	1	2	-7
-3	2	1	0	0	0
-4	-2	1	0	-1	0
-5	0	0	1	2	-2
-6	0	0	0	0	0
average	0.0	0.7	0.5	0.4	-0.3
s. d.	2.1	1.9	1.4	1.9	2.1

(cm in depth)

Stake No.	16 Apr. 30 Apr. 14	30 Apr. 16 May 16	16 May 1 Jun. 16	1 Jun. 16 Jun. 15	16 Jun. 30 Jun. 14
Ⅰ-1	0	3	-3	0	0
-2	-4	1	1	1	-2
-3	-5	0	0	1	-1
-4	0	0	2	-2	0
-5	-1	-1	0	0	1
-6	0	17	-1	0	-13
Ⅱ-1	-1	-1	-2	1	3
-2	0	3	-1	1	-2
-3	1	1	3	-2	-1
-4	1	3	-1	0	1
-5	8	-2	0	-2	4
-6	0	1	1	-1	0
Ⅲ-1	0	0	1	0	-1
-2	6	-1	0	0	2
-3	-4	1	0	-1	1
-4	0	0	0	-1	1
-5	-1	1	0	0	0
-6	-2	12	-7	-1	-2
Ⅳ-1	17	-1	2	-4	2
-2	7	-4	0	1	-1
-3	6	-3	0	0	0
-4	0	0	0	0	-1
-5	16	-8	2	0	0
-6	1	-1	1	-1	0
Ⅴ-1	1	-2	2	0	-1
-2	0	0	1	-1	3
-3	-1	0	6	-5	0
-4	-1	1	-7	7	3
-5	-3	2	1	-1	0
-6	-1	-4	1	4	-2
Ⅵ-1	2	-1	6	-1	1
-2	5	1	-1	1	0
-3	0	0	0	1	0
-4	0	0	1	-1	2
-5	-2	0	1	-1	1
-6	0	0	1	-1	2
average	1.3	0.5	0.3	-0.2	0.0
s. d.	4.7	4.0	2.5	1.9	2.7

(cm in depth)

Stake No.	30 Jun. 15 Jul.	15 Jul. 2 Aug.	2 Aug. 18 Aug.	18 Aug. 1 Sep.	1 Sep. 15 Sep.
	15	18	16	14	14
Ⅰ-1	3	-2	-1	-1	0
-2	0	3	1	-1	1
-3	0	8	-1	-1	1
-4	0	0	-1	1	2
-5	0	1	1	-2	1
-6	3	0	0	1	-1
Ⅱ-1	-2	0	0	0	1
-2	10	-8	0	1	-1
-3	3	-7	0	1	0
-4	-1	0	0	0	0
-5	1	0	0	0	1
-6	0	1	0	-1	2
Ⅲ-1	0	10	-2	0	0
-2	2	-5	2	-1	5
-3	-1	18	0	-2	0
-4	0	10	0	-1	0
-5	1	-2	2	2	-2
-6	3	0	2	-2	1
Ⅳ-1	0	0	0	-2	1
-2	0	9	1	-1	0
-3	0	-1	0	-1	1
-4	1	4	0	-1	0
-5	0	-2	-1	3	3
-6	0	0	1	-1	0
Ⅴ-1	1	2	0	0	6
-2	-2	5	0	-2	0
-3	0	-2	1	1	1
-4	-3	15	-2	0	0
-5	1	1	0	0	-1
-6	1	-2	-1	0	-1
Ⅵ-1	-2	1	0	0	2
-2	-1	-1	1	0	0
-3	-1	2	0	1	0
-4	-1	0	0	10	-9
-5	0	0	0	0	0
-6	2	7	1	-2	0
average	0.5	1.8	0.1	0.0	0.4
s. d.	2.2	5.4	0.9	2.1	2.2

(cm in depth)

Stake No.	15 Sep. 30 Sep. 15	30 Sep. 15 Oct. 15	15 Oct. 1 Nov. 17	1 Nov. 16 Nov. 15	16 Nov. 3 Dec. 17
Ⅰ-1	0.5	1.5	-1.0	0.5	0.0
-2	0.5	0.0	0.5	1.0	8.5
-3	0.0	-0.5	0.5	1.0	6.0
-4	1.0	0.5	0.0	0.0	2.0
-5	0.0	-0.5	1.0	-1.0	4.0
-6	0.0	1.0	1.0	-2.0	0.0
Ⅱ-1	0.0	0.5	-0.5	0.0	2.0
-2	1.0	-0.5	-0.5	1.0	-0.5
-3	-0.5	1.0	-0.5	2.0	1.5
-4	-0.5	1.0	0.0	0.5	2.0
-5	0.5	1.0	2.0	2.0	-2.0
-6	-1.0	4.5	-1.5	-1.5	0.5
Ⅲ-1	0.5	-0.5	0.0	-0.5	0.0
-2	0.0	0.0	0.0	0.0	0.0
-3	0.5	0.0	0.0	-0.5	-0.5
-4	-0.5	0.0	0.0	0.5	-0.5
-5	1.0	4.5	0.5	-3.5	6.5
-6	-0.5	1.0	-0.5	2.0	0.0
Ⅳ-1	1.0	-0.5	1.0	-1.0	-0.5
-2	0.0	0.0	0.0	0.0	-0.5
-3	0.5	-0.5	-0.5	3.5	1.0
-4	0.5	-0.5	0.0	0.5	2.5
-5	1.5	1.0	0.5	0.0	-0.5
-6	0.5	2.5	-0.5	-0.5	1.0
Ⅴ-1	-0.5	0.5	-0.5	3.0	-2.0
-2	0.5	1.0	-0.5	3.5	-2.0
-3	-1.0	1.0	0.0	0.5	0.0
-4	2.0	0.5	-0.5	0.0	0.5
-5	0.5	2.5	-2.0	0.0	2.0
-6	1.5	0.5	0.0	0.5	6.5
Ⅵ-1	0.0	0.5	-0.5	0.0	0.0
-2	0.0	2.5	-1.5	2.0	1.0
-3	-0.5	1.5	1.0	0.0	1.5
-4	-0.5	3.5	-0.5	-1.0	0.0
-5	0.0	1.0	-1.0	2.5	-1.0
-6	0.0	0.0	0.0	0.0	-0.5
average	0.2	0.9	-0.1	0.4	1.1
s. d.	0.7	1.3	0.8	1.5	2.4

(cm in depth)

Stake No.	3 Dec. 15 Dec. 12	15 Dec. 1996 3 Jan.1997 19	3 Jan.1997 20 Jan. 17	30 Jan. 1996 -20 Jan. 1997 355
Ⅰ-1	-0.5	3.0	0.0	4.0
-2	-0.5	0.5	0 5	17.0
-3	0.0	-1.0	-0.5	10.5
-4	-0.5	1.5	0.5	7.0
-5	-1.5	1.5	0.5	10.0
-6	0.0	2.5	1.5	9.0
Ⅱ-1	-2.0	0.0	1.5	2.5
-2	0.0	0.0	-0.5	16.0
-3	-1.5	4.0	-1.0	6.0
-4	-0.5	0.5	1.0	9.0
-5	0.0	0.5	1.5	13.5
-6	0.0	1.5	1.5	7.0
Ⅲ-1	0.0	1.5	0.5	8.5
-2	-1.0	0.0	0.5	18.5
-3	-0.5	-0.5	0.5	15.0
-4	-0.5	0.0	0.5	7.5
-5	-0.5	-0.5	0.5	9.5
-6	-2.0	2.0	0.5	7.5
Ⅳ-1	0.0	-1.0	-0.5	14.5
-2	0.0	-0.5	-0.5	9.5
-3	-1.5	-0.5	0.5	5.5
-4	-2.0	1.5	1.0	6.5
-5	-0.5	1.0	2.0	20.0
-6	0.0	0.0	1.5	4.5
Ⅴ-1	0.0	-1.0	0.0	9.5
-2	0.0	4.0	0.0	9.5
-3	-0.5	1.0	2.0	6.0
-4	-1.0	-0.5	0.5	13.5
-5	0.0	1.0	0.5	3.5
-6	-0.5	-1.0	-0.5	6.0
Ⅵ-1	0.0	-0.5	1.0	8.5
-2	0.0	-0.5	0.5	4.0
-3	0.5	4.5	-0.5	14.0
-4	-0.5	2.5	1.5	5.0
-5	-1.0	3.5	1.0	5 0
-6	0.0	0.0	0.5	10.0
average	-0.5	0.8	0.6	9.5
s. d.	0.7	1.5	0.8	4.3

3. Surface Snow Density around Dome Fuji Station

Observer: Shuji FUJITA

Surface snow density was measured at Dome Fuji Station and at 6 sites 30 km away from the station during traverses 2-a, 2-b and 2-c. A cylindrical type snow sampler (type B in AZUMA *et al.*: diameter 50 mm x length 200 mm) was used vertically in all the measurements. The weight of snow in the sampler was measured using an electronic balance (Shimadzu EL-600, minimum reading 0.1g). Errors of volume measurements are of the order of ± 0.5 cm^3, and that of weight is ± 0.1g. Total error of the snow density measurements is thus on the order of 3 kg/m^3.

Table 3-1 shows surface snow densities at Dome Fuji Station. Table 3-2 shows the data at 6 sites D1~D6, each of which are 30 km away from the station. Location of each site is listed in the Table 3-3 and Fig. 2. In the Tables 3-1 and 3-2, results of single measurement, average values and standard deviations are listed.

Reference

AZUMA, N., KAMEDA, T., NAKAYAMA, Y., TANAKA, Y., YOSHIMI, H., FURUKAWA, T. and AGETA, Y. (1997): 3. Surface snow density along the traverse route from S16 to Dome Fuji Station. JARE Data Rep., **223** (Glaciology 26), 49-66.

Table 3-1. Surface snow density at Dome Fuji Station in 1996.

date	15 Feb.	27 May	1 Sep.	Dome F total
density	322	311	307	
(kg/m^3)	290	297	301	
	307	305	329	
	309	297	323	
	305	302	310	
	307	302	306	
	309	309	316	
	341	326	289	
	341	314	313	
	326	255	313	
	321			
average	316	302	311	308
s.d.	15	18	10	12

Table 3-2. Surface snow density at six sites 30 km away from Dome Fuji Station.

site	D1	D2	D3	D4	D5	D6
date	'19 Nov.	19 Nov.	24 Nov.	25 Nov.	29 Nov.	30 Nov.
density	297	349	306	283	310	317
(kg/m^3)	267	305	314	273	291	282
	259	306	307	277	301	310
	270	354	295	307	307	286
	260	337	312	287	280	291
average	270	330	307	285	298	297
s.d.	14	21	7	12	11	14

Table 3-3. Location of the six sites.

site	Lat.(S)	Long.(E)
D1	77°31.0'	38°47.5'
D2	77°15.2'	38°29.6'
D3	77°04.0'	39°21.8'
D4	77°08.1'	40°31.9'
D5	77°23.6'	40°52.2'
D6	77°35.2'	40°00.0'

4. Snow Temperature Data at Dome Fuji Station

Snow temperatures at Dome Fuji Station were measured at depths of 0.01, 0.1, 0.2, 0.5, 1, 2, 5 and 10 m using platinum 100 ohm resistance sensors (3 wires type) with data logger (Datamark LS-3000PtV, Hakusan Co.). The JARE-36 started the measurements in 1995 (AZUMA *et al.*, 1997) and handed over to JARE-37 in January 1996. The distance between the Station and measurement sites of snow temperatures are about 50m (see Fig. 5 in AZUMA *et al.*, 1997). Snow sometimes accumulated on sensors, thus sensor depths were changed. We did not try to keep initial sensor-depths. Instead, changes of surface level was measured with a snow stake. This procedure is different from the JARE-36 observation. Data at 10-minute interval data were recorded during the JARE-37 operations (January 1996 to January 1997). Maximum resolution of snow temperatures was 0.1 ℃. The data logger was set in the room of Dome Fuji Station where air temperature was about 20 ℃.

Table 4-1 shows the changes in snow surface level. Table 4-2 shows the snow temperature data at Dome Fuji Station at 12 hour intervals.

Reference

AZUMA, N., KAMEDA, T., NAKAYAMA, Y., TANAKA, Y., YOSHIMI, H., FURUKAWA, T. and AGETA, Y. (1997): 4. Snow temperature data at Dome Fuji Station. JARE Data Rep., **223** (Glaciology 26), 49-66.

Table 4-1. Changes in snow surface level at the site of snow temperature measurement, Dome Fuji Station.

date	accumulation (cm)	date	accumulation (cm)
Jan. 30, 1996	0	Aug. 2	4
Feb. 15	0	Aug. 18	5
Mar. 2	0	Sep. 1	5
Mar. 17	0	Sep. 15	5
Apr. 2	0	Sep. 30	8
Apr. 16	-0.5	Oct. 15	7.5
Apr. 30	0	Nov. 1	8
May 16	0	Nov. 16	8
June 1	-1	Dec. 3	6.5
June 16	0	Dec. 15	9.5
June 30	1	Jan. 3, 1997	11.5
July 15	0.5	Jan. 20	11.5

Surface level on 15th January 1996 was an initial one.

Table 4-2. Snow temperature at Dome Fuji Station from 26 January 1996 to 4 January 1997.

Date	LT	0.01m (℃)	0.1m (℃)	0.2m (℃)	0.5m (℃)	1.0m (℃)	2.0m (℃)	5m (℃)	10m (℃)
Jan. 26	00:00	-42.5	-38.1	-39.0	-42.0	-44.5	-51.0	-57.9	-57.6
26	12:00	-34.2	-39.3	-39.6	-42.1	-44.5	-51.0	-57.8	-57.6
27	00:00	-42.9	-38.3	-39.0	-42.2	-44.5	-51.0	-57.8	-57.6
27	12:00	-35.3	-39.9	-39.9	-42.2	-44.6	-50.9	-57.8	-57.6
28	00:00	-40.9	-38.4	-39.3	-42.3	-44.6	-50.8	-57.8	-57.6
28	12:00	-34.6	-39.4	-39.7	-42.3	-44.6	-50.8	-57.8	-57.6
29	00:00	-34.4	-37.5	-38.9	-42.4	-44.6	-50.8	-57.8	-57.6
29	12:00	-29.2	-37.3	-38.5	-42.4	-44.7	-50.8	-57.8	-57.6
30	00:00	-27.6	-35.0	-37.4	-42.4	-44.7	-50.7	-57.8	-57.6
30	12:00	-26.4	-33.9	-36.2	-42.2	-44.7	-50.7	-57.8	-57.6
31	00:00	-28.4	-32.8	-35.2	-42.0	-44.7	-50.6	-57.7	-57.6
31	12:00	-24.5	-32.5	-34.8	-41.7	-44.6	-50.6	-57.7	-57.6
Feb. 1	00:00	-26.3	-31.1	-33.8	-41.4	-44.6	-50.6	-57.7	-57.6
1	12:00	-25.0	-31.2	-33.4	-41.1	-44.5	-50.5	-57.7	-57.6
2	00:00	-26.7	-30.3	-32.7	-40.7	-44.3	-50.5	-57.6	-57.6
2	12:00	-23.7	-30.4	-32.6	-40.4	-44.3	-50.5	-57.6	-57.6
3	00:00	-28.3	-29.5	-31.9	-40.1	-44.1	-50.4	-57.6	-57.6
3	12:00	-23.4	-30.3	-32.0	-39.7	-43.9	-50.4	-57.6	-57.6
4	00:00	-25.6	-29.3	-31.5	-39.5	-43.7	-50.3	-57.6	-57.6
4	12:00	-23.2	-29.0	-31.2	-39.3	-43.6	-50.3	-57.5	-57.6
5	00:00	-30.8	-28.9	-30.9	-39.0	-43.5	-50.3	-57.5	-57.6
5	12:00	-29.6	-30.9	-31.7	-38.8	-43.3	-50.3	-57.5	-57.6
6	00:00	-34.4	-31.4	-32.3	-38.6	-43.1	-50.3	-57.5	-57.6
6	12:00	-32.4	-33.2	-33.4	-38.5	-42.9	-50.2	-57.4	-57.6
7	00:00	-36.5	-33.4	-33.9	-38.6	-42.9	-50.1	-57.4	-57.6
7	12:00	-34.7	-35.3	-35.0	-38.7	-42.7	-50.1	-57.4	-57.6
8	00:00	-38.1	-35.1	-35.4	-38.9	-42.6	-50.0	-57.3	-57.6
8	12:00	-36.6	-36.8	-36.5	-39.0	-42.6	-50.0	-57.3	-57.6
9	00:00	-40.9	-36.7	-36.8	-39.2	-42.5	-49.9	-57.3	-57.6
9	12:00	-38.1	-38.5	-37.9	-39.5	-42.5	-49.8	-57.3	-57.6
10	00:00	-42.1	-38.1	-38.1	-39.7	-42.5	-49.8	-57.3	-57.6
10	12:00	-39.6	-39.9	-39.2	-40.0	-42.6	-49.7	-57.3	-57.6
11	00:00	-43.6	-39.4	-39.3	-40.3	-42.6	-49.6	-57.2	-57.6
11	12:00	-41.3	-41.3	-40.4	-40.6	-42.7	-49.6	-57.2	-57.6
12	00:00	-44.6	-40.6	-40.5	-40.8	-42.8	-49.6	-57.2	-57.6
12	12:00	-41.7	-42.2	-41.4	-41.2	-42.9	-49.6	-57.2	-57.6
13	00:00	-45.1	-41.4	-41.4	-41.4	-42.9	-49.5	-57.1	-57.6
13	12:00	-42.9	-43.0	-42.1	-41.7	-43.1	-49.4	-57.1	-57.6
14	00:00	-45.8	-42.4	-42.1	-42.0	-43.2	-49.4	-57.1	-57.6
14	12:00	-42.8	-43.6	-42.9	-42.2	-43.3	-49.4	-57.1	-57.6

Date	LT	0.01m (℃)	0.1m (℃)	0.2m (℃)	0.5m (℃)	1.0m (℃)	2.0m (℃)	5m (℃)	10m (℃)
15	00:00	-40.4	-42.1	-42.5	-42.4	-43.5	-49.3	-57.1	-57.6
15	12:00	-41.4	-42.1	-42.1	-42.7	-43.6	-49.3	-57.0	-57.6
16	00:00	-42.3	-41.5	-41.9	-42.8	-43.7	-49.2	-57.0	-57.7
16	12:00	-43.1	-42.6	-42.2	-42.9	-43.8	-49.2	-57.0	-57.6
17	00:00	-44.8	-42.3	-42.4	-42.9	-43.9	-49.2	-57.0	-57.7
17	12:00	-45.6	-43.9	-43.1	-43.0	-44.0	-49.2	-57.0	-57.7
18	00:00	-45.3	-43.6	-43.5	-43.2	-44.1	-49.1	-57.0	-57.7
18	12:00	-43.4	-44.3	-43.9	-43.4	-44.3	-49.1	-57.0	-57.7
19	00:00	-42.1	-43.0	-43.5	-43.6	-44.3	-49.1	-57.0	-57.7
19	12:00	-42.9	-43.6	-43.4	-43.7	-44.4	-49.1	-56.9	-57.6
20	00:00	-45.1	-43.0	-43.3	-43.8	-44.5	-49.1	-56.9	-57.6
20	12:00	-46.4	-44.6	-43.9	-43.9	-44.6	-49.1	-56.9	-57.6
21	00:00	-47.6	-44.6	-44.3	-44.0	-44.7	-49.1	-56.9	-57.6
21	12:00	-47.3	-46.1	-45.1	-44.2	-44.8	-49.1	-56.9	-57.6
22	00:00	-47.8	-45.5	-45.2	-44.3	-44.9	-49.0	-56.8	-57.6
22	12:00	-48.9	-46.8	-45.8	-44.6	-45.0	-49.0	-56.8	-57.6
23	00:00	-50.2	-46.7	-46.2	-44.8	-45.1	-49.0	-56.8	-57.6
23	12:00	-50.4	-48.2	-47.0	-45.1	-45.2	-49.0	-56.8	-57.6
24	00:00	-51.5	-47.9	-47.3	-45.3	-45.3	-49.1	-56.7	-57.6
24	12:00	-52.0	-49.5	-48.1	-45.6	-45.4	-49.1	-56.7	-57.6
25	00:00	-52.8	-49.1	-48.4	-45.8	-45.6	-49.1	-56.7	-57.6
25	12:00	-52.5	-50.5	-49.1	-46.1	-45.8	-49.1	-56.7	-57.6
26	00:00	-53.4	-49.9	-49.2	-46.5	-45.8	-49.1	-56.7	-57.7
26	12:00	-52.5	-51.1	-49.8	-46.7	-46.0	-49.1	-56.6	-57.6
27	00:00	-53.4	-50.3	-49.7	-47.0	-46.3	-49.1	-56.6	-57.6
27	12:00	-53.4	-51.5	-50.3	-47.3	-46.4	-49.1	-56.6	-57.7
28	00:00	-53.6	-51.0	-50.3	-47.5	-46.6	-49.1	-56.6	-57.6
28	12:00	-54.0	-52.0	-50.8	-47.8	-46.7	-49.2	-56.5	-57.6
29	00:00	-54.0	-51.4	-50.8	-48.0	-46.9	-49.2	-56.5	-57.7
29	12:00	-52.4	-51.9	-51.1	-48.2	-47.1	-49.2	-56.5	-57.7
Mar. 1	00:00	-53.6	-51.1	-50.8	-48.4	-47.3	-49.3	-56.5	-57.6
1	12:00	-53.4	-52.1	-51.2	-48.6	-47.4	-49.3	-56.4	-57.7
2	00:00	-52.7	-51.4	-51.1	-48.7	-47.6	-49.3	-56.4	-57.6
2	12:00	-51.6	-51.6	-51.1	-48.8	-47.7	-49.4	-56.4	-57.6
3	00:00	-53.1	-50.8	-50.7	-48.9	-47.9	-49.4	-56.4	-57.6
3	12:00	-53.2	-52.0	-51.1	-49.0	-48.0	-49.4	-56.4	-57.6
4	00:00	-54.3	-51.5	-51.1	-49.1	-48.1	-49.5	-56.3	-57.6
4	12:00	-52.0	-52.3	-51.5	-49.3	-48.2	-49.5	-56.3	-57.6
5	00:00	-53.2	-51.1	-51.1	-49.4	-48.4	-49.6	-56.3	-57.6
5	12:00	-52.5	-52.1	-51.4	-49.5	-48.5	-49.6	-56.3	-57.6

Date	LT	0.01m (℃)	0.1m (℃)	0.2m (℃)	0.5m (℃)	1.0m (℃)	2.0m (℃)	5m (℃)	10m (℃)
6	00:00	-53.2	-51.5	-51.2	-49.6	-48.6	-49.6	-56.3	-57.6
6	12:00	-52.8	-52.1	-51.5	-49.6	-48.8	-49.6	-56.3	-57.7
7	00:00	-54.0	-51.8	-51.4	-49.7	-48.8	-49.7	-56.3	-57.7
7	12:00	-54.0	-52.7	-51.8	-49.8	-48.9	-49.7	-56.3	-57.6
8	00:00	-54.8	-52.4	-51.9	-49.9	-49.0	-49.8	-56.3	-57.6
8	12:00	-55.5	-53.3	-52.4	-50.1	-49.1	-49.8	-56.2	-57.6
9	00:00	-55.1	-53.2	-52.5	-50.2	-49.2	-49.9	-56.2	-57.6
9	12:00	-54.5	-53.7	-52.8	-50.3	-49.3	-49.9	-56.2	-57.6
10	00:00	-55.6	-53.3	-52.7	-50.5	-49.4	-50.0	-56.2	-57.6
10	12:00	-56.8	-54.2	-53.2	-50.6	-49.5	-50.0	-56.2	-57.6
11	00:00	-59.3	-54.5	-53.5	-50.8	-49.6	-50.1	-56.1	-57.6
11	12:00	-60.0	-56.3	-54.6	-51.0	-49.7	-50.1	-56.1	-57.6
12	00:00	-59.5	-56.2	-55.0	-51.2	-49.8	-50.2	-56.1	-57.6
12	12:00	-59.6	-57.0	-55.5	-51.5	-50.0	-50.2	-56.1	-57.6
13	00:00	-60.3	-56.8	-55.7	-51.8	-50.1	-50.3	-56.0	-57.6
13	12:00	-59.2	-57.6	-56.3	-52.0	-50.3	-50.3	-56.0	-57.6
14	00:00	-58.8	-56.9	-56.1	-52.3	-50.4	-50.3	-56.0	-57.6
14	12:00	-58.0	-57.0	-56.2	-52.5	-50.6	-50.3	-56.0	-57.6
15	00:00	-58.8	-56.6	-56.0	-52.6	-50.8	-50.4	-56.0	-57.6
15	12:00	-58.7	-57.1	-56.2	-52.8	-50.9	-50.4	-55.9	-57.6
16	00:00	-60.2	-57.0	-56.2	-52.9	-51.1	-50.5	-55.9	-57.6
16	12:00	-61.3	-58.1	-56.8	-53.1	-51.2	-50.6	-55.9	-57.6
17	00:00	-62.6	-58.4	-57.2	-53.3	-51.3	-50.6	-55.9	-57.6
17	12:00	-63.2	-59.6	-58.0	-53.4	-51.5	-50.7	-55.9	-57.6
18	00:00	-62.7	-59.6	-58.3	-53.7	-51.6	-50.8	-55.8	-57.6
18	12:00	-61.3	-59.9	-58.6	-54.0	-51.8	-50.8	-55.8	-57.6
19	00:00	-59.3	-59.1	-58.4	-54.2	-51.9	-50.9	-55.8	-57.6
19	12:00	-58.5	-58.5	-57.9	-54.4	-52.1	-51.0	-55.8	-57.6
20	00:00	-58.2	-57.7	-57.4	-54.6	-52.3	-51.0	-55.8	-57.6
20	12:00	-57.9	-57.7	-57.2	-54.6	-52.4	-51.1	-55.8	-57.6
21	00:00	-58.9	-57.4	-57.0	-54.6	-52.5	-51.1	-55.8	-57.6
21	12:00	-60.4	-58.0	-57.2	-54.6	-52.6	-51.1	-55.7	-57.6
22	00:00	-61.5	-58.4	-57.5	-54.6	-52.7	-51.2	-55.7	-57.6
22	12:00	-61.7	-59.3	-58.1	-54.7	-52.8	-51.3	-55.7	-57.6
23	00:00	-63.3	-59.3	-58.3	-54.8	-52.9	-51.3	-55.7	-57.6
23	12:00	-64.0	-60.7	-59.2	-55.0	-53.0	-51.4	-55.7	-57.6
24	00:00	-61.5	-60.3	-59.3	-55.2	-53.2	-51.5	-55.7	-57.6
24	12:00	-60.7	-60.0	-59.3	-55.5	-53.3	-51.6	-55.6	-57.6
25	00:00	-61.0	-59.4	-58.9	-55.6	-53.3	-51.6	-55.6	-57.6
25	12:00	-62.3	-60.0	-59.1	-55.7	-53.5	-51.7	-55.6	-57.6

Date	LT	0.01m (℃)	0.1m (℃)	0.2m (℃)	0.5m (℃)	1.0m (℃)	2.0m (℃)	5m (℃)	10m (℃)
26	00:00	-63.4	-60.3	-59.3	-55.8	-53.6	-51.8	-55.6	-57.6
26	12:00	-63.4	-61.1	-59.9	-55.9	-53.8	-51.8	-55.6	-57.6
27	00:00	-64.1	-61.1	-60.0	-56.1	-53.9	-51.8	-55.6	-57.6
27	12:00	-63.5	-61.6	-60.5	-56.3	-54.0	-51.9	-55.6	-57.6
28	00:00	-62.5	-61.2	-60.4	-56.4	-54.1	-52.0	-55.6	-57.6
28	12:00	-61.4	-61.1	-60.3	-56.6	-54.2	-52.0	-55.5	-57.6
29	00:00	-61.3	-60.4	-60.0	-56.7	-54.4	-52.1	-55.5	-57.6
29	12:00	-62.3	-60.5	-59.8	-56.8	-54.5	-52.2	-55.5	-57.6
30	00:00	-62.4	-60.6	-60.0	-56.9	-54.6	-52.3	-55.5	-57.6
30	12:00	-64.7	-61.3	-60.3	-56.9	-54.7	-52.3	-55.5	-57.6
31	00:00	-61.5	-61.4	-60.6	-57.0	-54.8	-52.4	-55.5	-57.6
31	12:00	-59.6	-60.3	-60.1	-57.1	-54.9	-52.5	-55.5	-57.6
Apr. 1	00:00	-59.9	-59.6	-59.5	-57.1	-55.0	-52.5	-55.5	-57.6
1	12:00	-60.3	-59.7	-59.3	-57.1	-55.1	-52.5	-55.5	-57.6
2	00:00	-61.2	-59.7	-59.3	-57.1	-55.2	-52.6	-55.5	-57.6
2	12:00	-61.3	-60.0	-59.4	-57.0	-55.2	-52.7	-55.5	-57.6
3	00:00	-60.6	-59.7	-59.3	-57.1	-55.3	-52.8	-55.5	-57.6
3	12:00	-61.6	-59.8	-59.3	-57.1	-55.4	-52.8	-55.5	-57.5
4	00:00	-61.6	-60.2	-59.5	-57.1	-55.4	-52.9	-55.5	-57.6
4	12:00	-57.5	-59.6	-59.4	-57.1	-55.5	-53.0	-55.5	-57.6
5	00:00	-59.3	-58.5	-58.6	-57.2	-55.5	-53.0	-55.5	-57.6
5	12:00	-61.7	-59.3	-58.8	-57.1	-55.5	-53.1	-55.5	-57.5
6	00:00	-61.9	-60.0	-59.3	-57.1	-55.5	-53.2	-55.5	-57.5
6	12:00	-63.1	-60.5	-59.6	-57.1	-55.5	-53.3	-55.5	-57.5
7	00:00	-63.8	-61.1	-60.1	-57.2	-55.6	-53.3	-55.5	-57.5
7	12:00	-63.2	-61.4	-60.5	-57.4	-55.6	-53.3	-55.5	-57.5
8	00:00	-63.3	-61.4	-60.6	-57.5	-55.7	-53.3	-55.4	-57.5
8	12:00	-64.9	-61.9	-60.9	-57.7	-55.8	-53.4	-55.5	-57.5
9	00:00	-67.2	-62.8	-61.5	-57.8	-55.9	-53.5	-55.4	-57.5
9	12:00	-68.6	-64.0	-62.3	-58.0	-56.0	-53.5	-55.4	-57.5
10	00:00	-69.8	-64.9	-63.2	-58.3	-56.1	-53.6	-55.4	-57.5
10	12:00	-66.9	-65.5	-64.0	-58.5	-56.2	-53.6	-55.4	-57.5
11	00:00	-65.1	-64.7	-63.7	-58.9	-56.3	-53.7	-55.4	-57.5
11	12:00	-65.9	-64.0	-63.3	-59.2	-56.4	-53.7	-55.4	-57.5
12	00:00	-66.7	-64.2	-63.3	-59.3	-56.6	-53.8	-55.4	-57.5
12	12:00	-65.8	-64.1	-63.3	-59.4	-56.8	-53.9	-55.4	-57.5
13	00:00	-67.5	-64.3	-63.3	-59.5	-56.9	-53.9	-55.4	-57.5
13	12:00	-66.1	-64.6	-63.6	-59.6	-57.0	-54.0	-55.4	-57.5
14	00:00	-64.0	-64.0	-63.4	-59.7	-57.1	-54.0	-55.4	-57.5
14	12:00	-66.1	-63.9	-63.1	-59.8	-57.2	-54.0	-55.4	-57.5

Date	LT	0.01m (℃)	0.1m (℃)	0.2m (℃)	0.5m (℃)	1.0m (℃)	2.0m (℃)	5m (℃)	10m (℃)
15	00:00	-67.5	-64.2	-63.3	-59.9	-57.4	-54.1	-55.4	-57.5
15	12:00	-67.2	-64.9	-63.8	-60.0	-57.5	-54.2	-55.4	-57.5
16	00:00	-66.1	-64.8	-64.0	-60.0	-57.6	-54.2	-55.3	-57.5
16	12:00	-65.8	-64.6	-63.9	-60.1	-57.7	-54.3	-55.4	-57.5
17	00:00	-60.8	-63.3	-63.3	-60.3	-57.8	-54.4	-55.4	-57.5
17	12:00	-58.2	-61.9	-62.2	-60.3	-57.8	-54.4	-55.4	-57.5
18	00:00	-58.5	-60.2	-60.9	-60.2	-57.9	-54.5	-55.4	-57.5
18	12:00	-60.2	-60.2	-60.5	-60.0	-58.0	-54.6	-55.4	-57.5
19	00:00	-60.6	-60.5	-60.5	-59.7	-58.0	-54.6	-55.4	-57.5
19	12:00	-61.8	-60.7	-60.6	-59.5	-58.0	-54.7	-55.4	-57.5
20	00:00	-59.8	-60.7	-60.6	-59.4	-58.0	-54.8	-55.4	-57.5
20	12:00	-60.8	-60.5	-60.4	-59.3	-58.0	-54.8	-55.3	-57.5
21	00:00	-60.0	-60.4	-60.3	-59.3	-58.0	-54.8	-55.4	-57.5
21	12:00	-57.1	-59.9	-60.0	-59.3	-57.9	-54.9	-55.4	-57.5
22	00:00	-56.8	-58.5	-59.2	-59.2	-57.9	-55.0	-55.3	-57.4
22	12:00	-59.5	-58.6	-58.8	-59.0	-57.9	-55.0	-55.4	-57.4
23	00:00	-61.1	-59.3	-59.1	-58.8	-57.8	-55.1	-55.3	-57.4
23	12:00	-62.5	-60.1	-59.5	-58.7	-57.8	-55.1	-55.3	-57.4
24	00:00	-62.0	-60.6	-60.0	-58.6	-57.8	-55.2	-55.4	-57.4
24	12:00	-60.8	-60.5	-60.2	-58.7	-57.8	-55.2	-55.4	-57.4
25	00:00	-60.0	-60.1	-60.0	-58.7	-57.7	-55.3	-55.3	-57.4
25	12:00	-61.9	-60.3	-60.0	-58.8	-57.7	-55.3	-55.4	-57.4
26	00:00	-64.0	-61.1	-60.3	-58.8	-57.7	-55.4	-55.4	-57.4
26	12:00	-65.4	-61.9	-61.0	-58.8	-57.7	-55.4	-55.4	-57.4
27	00:00	-66.6	-62.7	-61.6	-59.0	-57.8	-55.4	-55.3	-57.4
27	12:00	-67.1	-63.6	-62.4	-59.2	-57.8	-55.5	-55.4	-57.4
28	00:00	-66.9	-64.0	-62.8	-59.3	-57.8	-55.5	-55.4	-57.4
28	12:00	-66.5	-64.1	-63.2	-59.6	-57.8	-55.5	-55.4	-57.4
29	00:00	-65.5	-64.1	-63.3	-59.8	-57.9	-55.5	-55.4	-57.4
29	12:00	-65.8	-64.0	-63.2	-60.0	-58.0	-55.5	-55.4	-57.4
30	00:00	-67.5	-64.3	-63.3	-60.1	-58.1	-55.6	-55.4	-57.4
30	12:00	-68.3	-64.9	-63.8	-60.3	-58.2	-55.6	-55.4	-57.4
May 1	00:00	-70.4	-65.8	-64.4	-60.4	-58.3	-55.6	-55.4	-57.4
1	12:00	-69.6	-66.6	-65.1	-60.6	-58.4	-55.7	-55.4	-57.4
2	00:00	-69.1	-66.5	-65.3	-60.9	-58.5	-55.7	-55.4	-57.4
2	12:00	-68.9	-66.4	-65.4	-61.1	-58.6	-55.7	-55.4	-57.4
3	00:00	-71.0	-66.8	-65.5	-61.3	-58.8	-55.8	-55.4	-57.4
3	12:00	-72.5	-67.8	-66.2	-61.5	-58.9	-55.8	-55.4	-57.4
4	00:00	-73.5	-68.7	-66.9	-61.7	-59.0	-55.9	-55.4	-57.4
4	12:00	-74.1	-69.4	-67.6	-62.0	-59.2	-55.9	-55.4	-57.4

Date	LT	0.01m (℃)	0.1m (℃)	0.2m (℃)	0.5m (℃)	1.0m (℃)	2.0m (℃)	5m (℃)	10m (℃)
5	00:00	-72.6	-69.8	-68.2	-62.3	-59.3	-56.0	-55.4	-57.3
5	12:00	-71.7	-69.4	-68.2	-62.6	-59.5	-56.0	-55.4	-57.3
6	00:00	-70.3	-69.0	-68.0	-62.9	-59.7	-56.1	-55.4	-57.3
6	12:00	-69.7	-68.3	-67.5	-63.1	-59.8	-56.1	-55.4	-57.3
7	00:00	-72.3	-68.6	-67.5	-63.2	-60.0	-56.2	-55.4	-57.3
7	12:00	-72.7	-69.2	-67.9	-63.3	-60.1	-56.2	-55.4	-57.3
8	00:00	-73.0	-69.6	-68.2	-63.3	-60.3	-56.3	-55.5	-57.3
8	12:00	-75.0	-70.3	-68.7	-63.5	-60.4	-56.3	-55.4	-57.3
9	00:00	-74.1	-70.9	-69.3	-63.8	-60.6	-56.3	-55.4	-57.3
9	12:00	-74.6	-71.0	-69.6	-64.0	-60.6	-56.4	-55.5	-57.3
10	00:00	-71.4	-71.0	-69.7	-64.2	-60.8	-56.5	-55.5	-57.3
10	12:00	-65.9	-69.1	-68.9	-64.5	-61.0	-56.5	-55.5	-57.3
11	00:00	-64.3	-66.9	-67.4	-64.5	-61.2	-56.6	-55.5	-57.3
11	12:00	-66.2	-66.5	-66.5	-64.3	-61.3	-56.7	-55.5	-57.3
12	00:00	-66.3	-66.1	-66.1	-64.1	-61.3	-56.8	-55.5	-57.3
12	12:00	-68.3	-66.3	-66.0	-64.0	-61.4	-56.8	-55.5	-57.3
13	00:00	-71.1	-67.4	-66.4	-63.8	-61.4	-56.9	-55.5	-57.3
13	12:00	-71.7	-68.3	-67.1	-63.8	-61.4	-57.0	-55.5	-57.3
14	00:00	-71.7	-68.8	-67.6	-63.9	-61.5	-57.0	-55.5	-57.3
14	12:00	-73.1	-69.4	-68.1	-64.0	-61.5	-57.1	-55.5	-57.3
15	00:00	-72.8	-70.0	-68.6	-64.1	-61.6	-57.1	-55.5	-57.3
15	12:00	-69.7	-69.6	-68.7	-64.3	-61.6	-57.2	-55.5	-57.3
16	00:00	-70.8	-68.9	-68.2	-64.5	-61.7	-57.3	-55.5	-57.3
16	12:00	-71.9	-69.2	-68.2	-64.6	-61.8	-57.3	-55.5	-57.3
17	00:00	-73.4	-69.8	-68.6	-64.7	-61.9	-57.4	-55.5	-57.3
17	12:00	-69.8	-69.8	-68.9	-64.7	-61.9	-57.5	-55.5	-57.3
18	00:00	-65.1	-68.0	-68.0	-64.8	-62.0	-57.5	-55.5	-57.3
18	12:00	-67.9	-67.0	-67.0	-64.8	-62.1	-57.6	-55.5	-57.3
19	00:00	-69.9	-67.5	-67.0	-64.7	-62.2	-57.7	-55.5	-57.2
19	12:00	-71.2	-68.2	-67.4	-64.6	-62.2	-57.7	-55.5	-57.3
20	00:00	-72.2	-68.9	-67.9	-64.6	-62.3	-57.8	-55.5	-57.3
20	12:00	-73.8	-69.7	-68.4	-64.7	-62.3	-57.8	-55.5	-57.2
21	00:00	-74.6	-70.5	-69.1	-64.8	-62.3	-57.8	-55.5	-57.2
21	12:00	-75.2	-71.2	-69.7	-65.0	-62.4	-57.9	-55.5	-57.2
22	00:00	-74.7	-71.6	-70.1	-65.2	-62.5	-58.0	-55.5	-57.2
22	12:00	-75.7	-71.8	-70.3	-65.4	-62.6	-58.0	-55.6	-57.2
23	00:00	-74.4	-72.1	-70.8	-65.7	-62.6	-58.1	-55.6	-57.2
23	12:00	-73.0	-71.5	-70.5	-65.9	-62.7	-58.2	-55.6	-57.2
24	00:00	-72.2	-71.0	-70.3	-66.0	-62.9	-58.2	-55.6	-57.2
24	12:00	-72.2	-70.8	-70.0	-66.1	-63.0	-58.3	-55.6	-57.2

Date	LT	0.01m (℃)	0.1m (℃)	0.2m (℃)	0.5m (℃)	1.0m (℃)	2.0m (℃)	5m (℃)	10m (℃)
25	00:00	-71.7	-70.5	-69.8	-66.2	-63.1	-58.3	-55.6	-57.2
25	12:00	-71.7	-70.3	-69.7	-66.2	-63.2	-58.4	-55.6	-57.2
26	00:00	-71.7	-70.3	-69.6	-66.2	-63.3	-58.5	-55.6	-57.2
26	12:00	-72.9	-70.4	-69.7	-66.2	-63.3	-58.5	-55.6	-57.2
27	00:00	-72.3	-70.6	-69.7	-66.2	-63.4	-58.5	-55.6	-57.2
27	12:00	-73.4	-70.6	-69.8	-66.2	-63.4	-58.6	-55.7	-57.2
28	00:00	-67.6	-70.5	-69.9	-66.2	-63.5	-58.6	-55.7	-57.2
28	12:00	-65.5	-68.5	-68.8	-66.3	-63.6	-58.7	-55.7	-57.2
29	00:00	-66.5	-67.3	-67.6	-66.2	-63.6	-58.8	-55.7	-57.2
29	12:00	-68.4	-67.3	-67.2	-66.0	-63.7	-58.8	-55.7	-57.2
30	00:00	-70.0	-67.9	-67.4	-65.8	-63.7	-58.9	-55.7	-57.2
30	12:00	-71.1	-68.3	-67.7	-65.7	-63.7	-59.0	-55.7	-57.2
31	00:00	-72.3	-69.2	-68.2	-65.6	-63.7	-59.0	-55.7	-57.2
31	12:00	-72.7	-69.7	-68.8	-65.6	-63.6	-59.1	-55.8	-57.2
June 1	00:00	-72.4	-70.0	-69.0	-65.7	-63.6	-59.1	-55.8	-57.2
1	12:00	-73.2	-70.3	-69.4	-65.9	-63.6	-59.2	-55.8	-57.2
2	00:00	-74.4	-70.9	-69.7	-66.0	-63.7	-59.2	-55.8	-57.2
2	12:00	-74.4	-71.4	-70.2	-66.2	-63.7	-59.3	-55.8	-57.2
3	00:00	-73.2	-71.3	-70.3	-66.3	-63.8	-59.3	-55.8	-57.2
3	12:00	-74.0	-71.3	-70.3	-66.4	-63.9	-59.3	-55.8	-57.1
4	00:00	-73.7	-71.7	-70.6	-66.6	-63.9	-59.4	-55.8	-57.1
4	12:00	-64.1	-69.9	-70.0	-66.7	-64.0	-59.4	-55.9	-57.2
5	00:00	-62.7	-67.0	-68.0	-66.7	-64.0	-59.5	-55.9	-57.1
5	12:00	-65.4	-66.2	-66.8	-66.4	-64.1	-59.5	-55.9	-57.2
6	00:00	-66.5	-66.6	-66.7	-66.2	-64.1	-59.6	-55.9	-57.2
6	12:00	-68.6	-66.7	-66.6	-65.9	-64.1	-59.6	-55.9	-57.1
7	00:00	-67.7	-67.3	-66.9	-65.7	-64.1	-59.7	-55.9	-57.2
7	12:00	-63.6	-66.2	-66.6	-65.6	-64.0	-59.7	-55.9	-57.1
8	00:00	-65.4	-65.8	-66.0	-65.4	-64.0	-59.8	-56.0	-57.1
8	12:00	-67.7	-65.9	-65.8	-65.3	-64.0	-59.8	-56.0	-57.1
9	00:00	-68.8	-66.6	-66.2	-65.2	-63.9	-59.9	-56.0	-57.1
9	12:00	-69.1	-67.2	-66.7	-65.1	-63.8	-59.9	-56.0	-57.1
10	00:00	-70.3	-67.7	-67.0	-65.1	-63.8	-60.0	-56.0	-57.1
10	12:00	-69.9	-68.3	-67.5	-65.2	-63.7	-60.0	-56.0	-57.1
11	00:00	-70.3	-68.3	-67.6	-65.3	-63.7	-60.0	-56.0	-57.1
11	12:00	-72.3	-68.9	-68.0	-65.4	-63.7	-60.0	-56.1	-57.1
12	00:00	-72.3	-69.5	-68.5	-65.4	-63.7	-60.0	-56.1	-57.1
12	12:00	-68.0	-69.3	-68.7	-65.5	-63.7	-60.0	-56.1	-57.1
13	00:00	-65.7	-67.2	-67.5	-65.7	-63.8	-60.1	-56.1	-57.1
13	12:00	-67.7	-67.1	-67.0	-65.6	-63.8	-60.1	-56.1	-57.1

Date	LT	0.01m (℃)	0.1m (℃)	0.2m (℃)	0.5m (℃)	1.0m (℃)	2.0m (℃)	5m (℃)	10m (℃)
14	00:00	-68.7	-67.5	-67.1	-65.5	-63.9	-60.1	-56.1	-57.1
14	12:00	-68.7	-67.6	-67.2	-65.4	-63.9	-60.1	-56.1	-57.1
15	00:00	-68.5	-67.6	-67.3	-65.4	-63.9	-60.2	-56.2	-57.1
15	12:00	-68.6	-67.6	-67.3	-65.4	-63.9	-60.2	-56.2	-57.1
16	00:00	-68.2	-67.5	-67.2	-65.4	-63.9	-60.2	-56.2	-57.1
16	12:00	-69.0	-67.5	-67.2	-65.4	-63.9	-60.2	-56.2	-57.1
17	00:00	-70.0	-68.0	-67.4	-65.4	-63.9	-60.3	-56.2	-57.1
17	12:00	-70.1	-68.2	-67.6	-65.4	-63.9	-60.3	-56.2	-57.1
18	00:00	-69.0	-68.3	-67.7	-65.4	-63.9	-60.3	-56.3	-57.1
18	12:00	-68.5	-68.1	-67.6	-65.5	-63.9	-60.4	-56.3	-57.1
19	00:00	-67.5	-67.7	-67.5	-65.5	-63.9	-60.4	-56.3	-57.1
19	12:00	-69.7	-67.7	-67.3	-65.5	-63.9	-60.4	-56.3	-57.1
20	00:00	-70.3	-68.3	-67.6	-65.5	-64.0	-60.4	-56.3	-57.1
20	12:00	-68.5	-68.3	-67.8	-65.5	-64.0	-60.5	-56.3	-57.1
21	00:00	-66.3	-67.5	-67.5	-65.6	-64.0	-60.5	-56.3	-57.1
21	12:00	-66.2	-66.8	-66.9	-65.6	-64.0	-60.5	-56.3	-57.1
22	00:00	-67.2	-66.6	-66.6	-65.5	-64.0	-60.5	-56.3	-57.1
22	12:00	-67.9	-66.8	-66.6	-65.4	-64.0	-60.5	-56.3	-57.1
23	00:00	-68.7	-67.1	-66.8	-65.4	-64.0	-60.6	-56.3	-57.1
23	12:00	-71.5	-68.0	-67.2	-65.4	-64.0	-60.6	-56.3	-57.1
24	00:00	-69.5	-68.5	-67.7	-65.4	-64.0	-60.6	-56.3	-57.1
24	12:00	-68.9	-68.0	-67.6	-65.4	-64.0	-60.6	-56.4	-57.1
25	00:00	-65.8	-67.4	-67.4	-65.5	-64.0	-60.6	-56.4	-57.0
25	12:00	-65.4	-66.6	-66.7	-65.5	-64.0	-60.6	-56.4	-57.1
26	00:00	-64.4	-65.9	-66.2	-65.4	-64.0	-60.6	-56.4	-57.0
26	12:00	-64.1	-65.3	-65.6	-65.3	-64.0	-60.6	-56.4	-57.1
27	00:00	-66.1	-65.3	-65.4	-65.2	-64.0	-60.7	-56.5	-57.0
27	12:00	-67.8	-65.9	-65.6	-65.0	-64.0	-60.7	-56.4	-57.0
28	00:00	-69.7	-66.8	-66.2	-64.9	-63.9	-60.7	-56.5	-57.1
28	12:00	-70.4	-67.6	-66.8	-64.9	-63.9	-60.7	-56.5	-57.0
29	00:00	-71.5	-68.3	-67.4	-65.0	-63.8	-60.7	-56.5	-57.0
29	12:00	-72.1	-69.0	-68.0	-65.2	-63.8	-60.8	-56.5	-57.0
30	00:00	-70.4	-69.5	-68.5	-65.4	-63.8	-60.8	-56.5	-57.0
30	12:00	-65.4	-68.0	-68.0	-65.5	-63.9	-60.8	-56.6	-57.0
July 1	00:00	-64.4	-66.5	-66.9	-65.6	-63.9	-60.8	-56.6	-57.0
1	12:00	-63.3	-65.5	-66.1	-65.5	-64.0	-60.8	-56.6	-57.0
2	00:00	-63.0	-64.7	-65.3	-65.4	-64.0	-60.9	-56.6	-57.1
2	12:00	-65.7	-64.8	-64.9	-65.1	-64.0	-60.9	-56.6	-57.0
3	00:00	-67.0	-65.5	-65.3	-64.9	-64.0	-60.9	-56.6	-57.0
3	12:00	-67.0	-66.1	-65.6	-64.8	-63.9	-60.9	-56.7	-57.0

Date	LT	0.01m (℃)	0.1m (℃)	0.2m (℃)	0.5m (℃)	1.0m (℃)	2.0m (℃)	5m (℃)	10m (℃)
4	00:00	-67.6	-66.2	-65.9	-64.8	-63.9	-60.9	-56.7	-57.0
4	12:00	-68.1	-66.6	-66.2	-64.7	-63.8	-60.9	-56.7	-57.0
5	00:00	-67.5	-66.8	-66.3	-64.8	-63.8	-60.9	-56.7	-57.0
5	12:00	-66.6	-66.8	-66.4	-64.8	-63.8	-61.0	-56.7	-57.0
6	00:00	-61.2	-65.4	-65.8	-64.9	-63.8	-61.0	-56.7	-57.0
6	12:00	-57.9	-63.3	-64.4	-64.8	-63.8	-61.0	-56.7	-57.0
7	00:00	-57.2	-61.7	-63.0	-64.7	-63.8	-61.0	-56.8	-57.0
7	12:00	-59.9	-61.2	-62.1	-64.3	-63.7	-61.0	-56.8	-57.0
8	00:00	-62.9	-61.9	-62.2	-64.0	-63.6	-61.0	-56.8	-57.0
8	12:00	-62.9	-62.7	-62.7	-63.7	-63.5	-61.0	-56.8	-57.0
9	00:00	-61.1	-62.7	-62.9	-63.6	-63.4	-61.1	-56.8	-57.0
9	12:00	-64.1	-62.5	-62.7	-63.4	-63.3	-61.1	-56.8	-57.0
10	00:00	-66.8	-63.8	-63.3	-63.4	-63.3	-61.1	-56.9	-57.0
10	12:00	-69.0	-65.0	-64.2	-63.3	-63.1	-61.1	-56.9	-57.0
11	00:00	-70.6	-66.2	-65.1	-63.4	-63.1	-61.1	-56.9	-57.0
11	12:00	-72.0	-67.5	-66.2	-63.6	-63.0	-61.1	-56.9	-57.0
12	00:00	-70.8	-68.1	-66.8	-63.8	-63.0	-61.1	-56.9	-57.0
12	12:00	-69.6	-68.0	-67.2	-64.0	-63.0	-61.0	-56.9	-57.0
13	00:00	-72.3	-68.3	-67.4	-64.3	-63.1	-61.1	-57.0	-57.0
13	12:00	-71.6	-69.1	-68.0	-64.5	-63.1	-61.1	-56.9	-57.0
14	00:00	-69.8	-68.8	-68.0	-64.7	-63.2	-61.0	-57.0	-57.0
14	12:00	-69.3	-68.4	-67.8	-64.9	-63.3	-61.0	-57.0	-57.0
15	00:00	-70.2	-68.4	-67.8	-65.0	-63.3	-61.1	-57.0	-57.0
15	12:00	-70.8	-68.6	-67.9	-65.1	-63.4	-61.0	-57.0	-57.0
16	00:00	-71.0	-69.0	-68.2	-65.3	-63.6	-61.1	-57.0	-57.1
16	12:00	-69.7	-68.9	-68.2	-65.4	-63.6	-61.0	-57.0	-57.0
17	00:00	-69.9	-68.6	-68.1	-65.4	-63.6	-61.0	-57.0	-57.0
17	12:00	-70.4	-68.8	-68.2	-65.4	-63.7	-61.1	-57.0	-57.0
18	00:00	-68.9	-68.6	-68.2	-65.5	-63.8	-61.1	-57.0	-57.0
18	12:00	-63.9	-67.5	-67.6	-65.6	-63.9	-61.1	-57.0	-57.0
19	00:00	-58.5	-65.3	-66.2	-65.6	-64.0	-61.1	-57.0	-57.0
19	12:00	-59.0	-63.1	-64.5	-65.4	-64.0	-61.1	-57.1	-57.0
20	00:00	-60.2	-62.6	-63.5	-65.1	-64.0	-61.1	-57.1	-57.0
20	12:00	-58.8	-61.5	-62.8	-64.7	-64.0	-61.2	-57.1	-57.0
21	00:00	-60.3	-61.7	-62.4	-64.4	-63.9	-61.2	-57.1	-57.0
21	12:00	-59.6	-61.4	-62.2	-64.0	-63.8	-61.2	-57.1	-57.0
22	00:00	-57.9	-61.0	-61.9	-63.8	-63.7	-61.2	-57.1	-57.0
22	12:00	-57.8	-60.0	-61.2	-63.5	-63.5	-61.2	-57.1	-57.0
23	00:00	-58.5	-60.2	-60.9	-63.3	-63.4	-61.2	-57.1	-57.0
23	12:00	-60.6	-60.5	-61.0	-63.1	-63.3	-61.3	-57.2	-57.0

Date	LT	0.01m (℃)	0.1m (℃)	0.2m (℃)	0.5m (℃)	1.0m (℃)	2.0m (℃)	5m (℃)	10m (℃)
24	00:00	-60.6	-60.7	-61.1	-62.8	-63.1	-61.3	-57.2	-57.0
24	12:00	-61.1	-61.0	-61.3	-62.7	-63.0	-61.3	-57.2	-57.0
25	00:00	-62.1	-61.3	-61.4	-62.6	-62.8	-61.3	-57.2	-57.0
25	12:00	-62.7	-61.9	-61.9	-62.5	-62.7	-61.3	-57.2	-57.0
26	00:00	-63.2	-62.3	-62.1	-62.5	-62.6	-61.3	-57.2	-57.0
26	12:00	-64.0	-62.7	-62.5	-62.5	-62.6	-61.3	-57.2	-57.0
27	00:00	-62.9	-62.8	-62.6	-62.6	-62.5	-61.3	-57.3	-57.0
27	12:00	-65.5	-63.2	-62.9	-62.6	-62.5	-61.2	-57.2	-57.0
28	00:00	-68.7	-64.5	-63.6	-62.6	-62.4	-61.2	-57.3	-57.0
28	12:00	-69.2	-65.8	-64.7	-62.7	-62.4	-61.2	-57.3	-57.0
29	00:00	-60.3	-64.8	-64.8	-62.9	-62.4	-61.2	-57.3	-57.0
29	12:00	-57.5	-62.4	-63.3	-63.1	-62.4	-61.2	-57.3	-57.0
30	00:00	-56.4	-60.6	-61.9	-63.1	-62.5	-61.2	-57.3	-57.0
30	12:00	-59.3	-60.0	-61.0	-62.8	-62.5	-61.2	-57.3	-57.0
31	00:00	-63.3	-61.0	-61.2	-62.6	-62.5	-61.1	-57.4	-57.0
31	12:00	-65.6	-62.5	-61.9	-62.4	-62.4	-61.1	-57.4	-57.0
Aug. 1	00:00	-65.8	-63.4	-62.8	-62.3	-62.3	-61.1	-57.4	-57.0
1	12:00	-65.0	-64.0	-63.4	-62.4	-62.2	-61.1	-57.4	-57.0
2	00:00	-65.8	-64.1	-63.6	-62.5	-62.2	-61.1	-57.4	-57.0
2	12:00	-68.2	-64.9	-64.1	-62.6	-62.2	-61.1	-57.4	-57.0
3	00:00	-68.5	-65.8	-64.8	-62.8	-62.2	-61.1	-57.4	-57.0
3	12:00	-66.3	-65.8	-65.2	-63.0	-62.2	-61.1	-57.4	-57.0
4	00:00	-65.7	-65.4	-65.0	-63.2	-62.2	-61.0	-57.5	-57.0
4	12:00	-65.0	-65.2	-64.9	-63.3	-62.3	-61.0	-57.5	-57.0
5	00:00	-65.8	-65.0	-64.7	-63.3	-62.4	-61.0	-57.5	-57.0
5	12:00	-64.7	-64.8	-64.7	-63.4	-62.4	-61.0	-57.5	-57.0
6	00:00	-65.5	-64.7	-64.5	-63.4	-62.5	-61.0	-57.5	-57.0
6	12:00	-66.4	-65.0	-64.7	-63.4	-62.5	-61.0	-57.5	-57.0
7	00:00	-69.2	-65.8	-65.1	-63.4	-62.6	-61.0	-57.5	-57.0
7	12:00	-69.7	-66.8	-65.9	-63.5	-62.6	-61.0	-57.5	-57.0
8	00:00	-69.0	-67.2	-66.3	-63.7	-62.6	-61.0	-57.6	-57.0
8	12:00	-67.5	-66.8	-66.3	-63.9	-62.6	-61.0	-57.6	-57.0
9	00:00	-68.5	-66.8	-66.3	-64.0	-62.7	-61.0	-57.6	-57.0
9	12:00	-68.9	-67.0	-66.4	-64.1	-62.7	-61.0	-57.6	-57.0
10	00:00	-69.0	-67.5	-66.8	-64.2	-62.8	-61.0	-57.6	-57.0
10	12:00	-69.4	-67.7	-67.0	-64.3	-62.9	-61.0	-57.6	-57.0
11	00:00	-67.9	-67.5	-67.0	-64.5	-63.0	-61.0	-57.6	-57.0
11	12:00	-66.3	-66.9	-66.8	-64.6	-63.1	-61.0	-57.6	-57.0
12	00:00	-66.7	-66.5	-66.3	-64.7	-63.1	-61.0	-57.6	-57.0
12	12:00	-67.5	-66.5	-66.2	-64.7	-63.2	-61.0	-57.7	-57.0

Date	LT	0.01m (℃)	0.1m (℃)	0.2m (℃)	0.5m (℃)	1.0m (℃)	2.0m (℃)	5m (℃)	10m (℃)
13	00:00	-69.0	-67.0	-66.4	-64.7	-63.3	-61.0	-57.7	-57.0
13	12:00	-68.5	-67.4	-66.8	-64.7	-63.3	-61.1	-57.7	-57.0
14	00:00	-68.6	-67.3	-66.8	-64.7	-63.3	-61.1	-57.7	-57.0
14	12:00	-66.6	-67.1	-66.8	-64.7	-63.3	-61.1	-57.7	-57.0
15	00:00	-65.3	-66.2	-66.3	-64.8	-63.4	-61.1	-57.7	-57.0
15	12:00	-65.8	-65.8	-65.9	-64.8	-63.4	-61.1	-57.7	-57.0
16	00:00	-65.5	-65.7	-65.7	-64.7	-63.5	-61.1	-57.7	-57.0
16	12:00	-65.3	-65.5	-65.5	-64.7	-63.5	-61.2	-57.7	-57.0
17	00:00	-66.5	-65.5	-65.4	-64.7	-63.5	-61.2	-57.7	-57.0
17	12:00	-66.8	-65.9	-65.6	-64.6	-63.5	-61.2	-57.8	-57.0
18	00:00	-67.4	-66.2	-65.8	-64.6	-63.5	-61.2	-57.8	-57.0
18	12:00	-69.7	-66.8	-66.2	-64.6	-63.5	-61.2	-57.8	-57.0
19	00:00	-71.1	-67.9	-66.9	-64.6	-63.5	-61.3	-57.8	-57.0
19	12:00	-69.5	-68.2	-67.4	-64.7	-63.5	-61.3	-57.8	-57.0
20	00:00	-71.2	-68.4	-67.6	-64.9	-63.5	-61.3	-57.8	-57.0
20	12:00	-70.0	-68.9	-68.0	-65.1	-63.6	-61.3	-57.8	-57.0
21	00:00	-68.4	-68.2	-67.8	-65.2	-63.6	-61.3	-57.8	-57.0
21	12:00	-68.5	-68.0	-67.6	-65.4	-63.7	-61.3	-57.8	-57.0
22	00:00	-67.5	-67.6	-67.4	-65.4	-63.8	-61.3	-57.8	-57.0
22	12:00	-67.3	-67.3	-67.1	-65.4	-63.9	-61.3	-57.8	-57.0
23	00:00	-67.8	-67.2	-66.9	-65.4	-63.9	-61.3	-57.8	-57.0
23	12:00	-68.5	-67.4	-67.0	-65.4	-64.0	-61.3	-57.8	-57.0
24	00:00	-64.4	-66.8	-66.8	-65.4	-64.0	-61.3	-57.8	-57.0
24	12:00	-60.3	-64.9	-65.8	-65.4	-64.0	-61.4	-57.8	-57.0
25	00:00	-57.0	-62.6	-64.1	-65.2	-64.0	-61.4	-57.8	-57.0
25	12:00	-58.1	-61.2	-62.6	-64.9	-64.0	-61.4	-57.8	-57.0
26	00:00	-59.6	-61.3	-62.1	-64.5	-64.0	-61.4	-57.8	-57.0
26	12:00	-60.6	-61.4	-62.0	-64.1	-63.9	-61.5	-57.8	-57.0
27	00:00	-55.9	-60.9	-61.9	-63.9	-63.8	-61.5	-57.8	-57.0
27	12:00	-54.5	-59.3	-60.7	-63.6	-63.6	-61.5	-57.8	-57.0
28	00:00	-57.2	-58.8	-60.0	-63.3	-63.5	-61.5	-57.8	-57.0
28	12:00	-59.5	-59.3	-60.0	-62.9	-63.3	-61.5	-57.9	-57.0
29	00:00	-60.2	-59.9	-60.3	-62.6	-63.2	-61.5	-57.9	-57.0
29	12:00	-60.0	-60.3	-60.6	-62.5	-63.1	-61.6	-57.9	-57.0
30	00:00	-59.3	-60.1	-60.6	-62.3	-62.9	-61.6	-57.9	-57.0
30	12:00	-59.5	-60.2	-60.6	-62.2	-62.7	-61.5	-57.9	-57.0
31	00:00	-60.5	-60.4	-60.6	-62.1	-62.6	-61.6	-57.9	-57.0
31	12:00	-61.4	-60.8	-60.9	-62.0	-62.6	-61.5	-57.9	-57.0
Sep. 1	00:00	-61.5	-61.1	-61.2	-62.0	-62.5	-61.5	-57.9	-57.0
1	12:00	-62.3	-61.5	-61.4	-61.9	-62.4	-61.5	-57.9	-57.0

Date	LT	0.01m (℃)	0.1m (℃)	0.2m (℃)	0.5m (℃)	1.0m (℃)	2.0m (℃)	5m (℃)	10m (℃)
2	00:00	-62.2	-61.7	-61.7	-62.0	-62.3	-61.5	-57.9	-57.0
2	12:00	-61.3	-61.8	-61.8	-62.0	-62.2	-61.5	-57.9	-57.0
3	00:00	-60.4	-61.3	-61.6	-62.0	-62.2	-61.5	-58.0	-57.0
3	12:00	-60.4	-61.1	-61.3	-62.0	-62.1	-61.4	-58.0	-57.0
4	00:00	-60.8	-60.9	-61.2	-62.0	-62.1	-61.4	-58.0	-57.0
4	12:00	-61.3	-61.3	-61.3	-61.9	-62.0	-61.4	-58.0	-57.0
5	00:00	-62.5	-61.4	-61.4	-61.9	-62.0	-61.3	-58.0	-57.0
5	12:00	-63.2	-62.0	-61.9	-61.9	-61.9	-61.3	-58.0	-57.0
6	00:00	-64.0	-62.5	-62.2	-61.9	-61.9	-61.3	-58.0	-57.0
6	12:00	-65.4	-63.3	-62.6	-61.9	-61.9	-61.3	-58.0	-57.0
7	00:00	-66.9	-64.0	-63.3	-62.0	-61.9	-61.3	-58.0	-57.0
7	12:00	-67.8	-65.0	-64.0	-62.2	-61.9	-61.3	-58.0	-57.0
8	00:00	-68.2	-65.5	-64.7	-62.5	-61.9	-61.3	-58.0	-57.0
8	12:00	-66.8	-65.8	-65.1	-62.6	-61.9	-61.3	-58.1	-57.0
9	00:00	-59.3	-64.6	-64.7	-62.9	-62.0	-61.3	-58.1	-57.0
9	12:00	-55.5	-61.6	-62.9	-63.0	-62.1	-61.3	-58.1	-57.0
10	00:00	-57.0	-60.0	-61.3	-62.9	-62.2	-61.3	-58.1	-57.0
10	12:00	-57.6	-59.9	-60.7	-62.6	-62.2	-61.3	-58.1	-57.0
11	00:00	-56.9	-59.3	-60.2	-62.4	-62.2	-61.3	-58.1	-57.0
11	12:00	-58.0	-59.2	-59.9	-62.0	-62.1	-61.2	-58.1	-57.0
12	00:00	-59.7	-59.4	-59.9	-61.9	-62.0	-61.2	-58.1	-57.0
12	12:00	-55.7	-59.1	-59.9	-61.6	-61.9	-61.2	-58.1	-57.0
13	00:00	-57.2	-58.2	-59.1	-61.5	-61.9	-61.2	-58.1	-57.0
13	12:00	-58.5	-58.8	-59.2	-61.3	-61.8	-61.2	-58.2	-57.0
14	00:00	-59.3	-59.0	-59.3	-61.1	-61.7	-61.2	-58.1	-57.0
14	12:00	-60.1	-59.8	-59.8	-61.0	-61.6	-61.2	-58.2	-57.0
15	00:00	-59.5	-59.7	-59.9	-61.0	-61.5	-61.2	-58.2	-57.0
15	12:00	-60.0	-60.0	-60.0	-60.9	-61.4	-61.2	-58.2	-57.0
16	00:00	-59.9	-59.9	-60.0	-60.9	-61.3	-61.1	-58.2	-57.0
16	12:00	-60.3	-60.1	-60.2	-60.9	-61.3	-61.1	-58.2	-57.0
17	00:00	-61.1	-60.2	-60.3	-60.9	-61.3	-61.1	-58.2	-57.0
17	12:00	-62.6	-61.1	-60.7	-60.9	-61.2	-61.1	-58.2	-57.0
18	00:00	-63.5	-61.6	-61.2	-61.0	-61.2	-61.1	-58.2	-57.0
18	12:00	-63.6	-62.2	-61.8	-61.1	-61.2	-61.0	-58.2	-57.0
19	00:00	-63.3	-62.3	-61.9	-61.2	-61.2	-61.0	-58.2	-57.0
19	12:00	-62.8	-62.7	-62.3	-61.3	-61.2	-61.0	-58.2	-57.0
20	00:00	-59.6	-61.5	-61.9	-61.4	-61.2	-61.0	-58.2	-57.0
20	12:00	-59.5	-60.8	-61.3	-61.5	-61.2	-60.9	-58.2	-57.0
21	00:00	-58.5	-60.4	-60.8	-61.4	-61.3	-60.9	-58.3	-57.1
21	12:00	-59.9	-60.0	-60.4	-61.3	-61.3	-60.9	-58.3	-57.0

Date	LT	0.01m (℃)	0.1m (℃)	0.2m (℃)	0.5m (℃)	1.0m (℃)	2.0m (℃)	5m (℃)	10m (℃)
22	00:00	-60.6	-60.3	-60.5	-61.3	-61.3	-60.9	-58.2	-57.1
22	12:00	-60.9	-60.6	-60.6	-61.2	-61.2	-60.9	-58.3	-57.1
23	00:00	-61.5	-60.8	-60.8	-61.2	-61.2	-60.8	-58.3	-57.1
23	12:00	-63.1	-61.5	-61.2	-61.1	-61.2	-60.8	-58.3	-57.1
24	00:00	-64.1	-62.0	-61.6	-61.2	-61.1	-60.8	-58.3	-57.1
24	12:00	-66.2	-63.2	-62.4	-61.3	-61.1	-60.8	-58.3	-57.1
25	00:00	-66.0	-63.7	-63.0	-61.3	-61.1	-60.8	-58.3	-57.1
25	12:00	-66.2	-64.4	-63.6	-61.6	-61.1	-60.7	-58.3	-57.1
26	00:00	-65.2	-64.3	-63.8	-61.8	-61.2	-60.7	-58.3	-57.1
26	12:00	-65.7	-64.4	-63.9	-61.9	-61.3	-60.7	-58.3	-57.1
27	00:00	-65.9	-64.4	-64.0	-62.1	-61.3	-60.7	-58.3	-57.1
27	12:00	-66.4	-64.9	-64.3	-62.3	-61.3	-60.7	-58.3	-57.1
28	00:00	-65.6	-64.7	-64.3	-62.4	-61.4	-60.7	-58.3	-57.1
28	12:00	-65.4	-64.9	-64.4	-62.6	-61.5	-60.7	-58.3	-57.1
29	00:00	-63.1	-64.1	-64.1	-62.6	-61.6	-60.7	-58.4	-57.1
29	12:00	-60.9	-63.3	-63.5	-62.7	-61.7	-60.7	-58.4	-57.1
30	00:00	-59.4	-61.9	-62.6	-62.6	-61.7	-60.7	-58.4	-57.1
30	12:00	-60.0	-61.3	-61.9	-62.6	-61.8	-60.7	-58.4	-57.1
31	00:00	-59.0	-60.7	-61.4	-62.4	-61.8	-60.7	-58.4	-57.1
31	12:00	-59.2	-60.5	-61.0	-62.2	-61.8	-60.7	-58.4	-57.1
Oct. 1	00:00	-59.3	-60.1	-60.6	-61.9	-61.8	-60.7	-58.4	-57.1
1	12:00	-60.0	-60.4	-60.6	-61.8	-61.7	-60.7	-58.4	-57.1
2	00:00	-60.6	-60.3	-60.6	-61.7	-61.6	-60.7	-58.4	-57.1
2	12:00	-62.2	-61.2	-61.0	-61.5	-61.6	-60.7	-58.4	-57.1
3	00:00	-61.6	-61.3	-61.3	-61.5	-61.5	-60.7	-58.4	-57.1
3	12:00	-61.5	-61.6	-61.4	-61.5	-61.5	-60.7	-58.4	-57.1
4	00:00	-60.7	-61.1	-61.3	-61.5	-61.4	-60.7	-58.4	-57.1
4	12:00	-61.3	-61.3	-61.3	-61.5	-61.4	-60.7	-58.4	-57.1
5	00:00	-60.0	-60.7	-61.1	-61.5	-61.4	-60.7	-58.4	-57.1
5	12:00	-62.3	-61.2	-61.1	-61.4	-61.3	-60.7	-58.4	-57.1
6	00:00	-62.1	-61.4	-61.3	-61.4	-61.3	-60.7	-58.4	-57.1
6	12:00	-63.3	-62.0	-61.7	-61.4	-61.3	-60.7	-58.4	-57.1
7	00:00	-62.9	-62.0	-61.9	-61.5	-61.3	-60.7	-58.4	-57.1
7	12:00	-65.0	-62.9	-62.3	-61.5	-61.3	-60.7	-58.4	-57.1
8	00:00	-63.1	-62.8	-62.6	-61.6	-61.3	-60.7	-58.4	-57.1
8	12:00	-63.1	-62.9	-62.6	-61.8	-61.3	-60.7	-58.4	-57.1
9	00:00	-62.0	-62.4	-62.5	-61.8	-61.3	-60.7	-58.4	-57.1
9	12:00	-63.2	-62.6	-62.4	-61.9	-61.3	-60.7	-58.5	-57.1
10	00:00	-61.9	-62.2	-62.3	-61.9	-61.3	-60.6	-58.5	-57.1
10	12:00	-63.3	-62.5	-62.3	-61.9	-61.4	-60.6	-58.5	-57.1

Date	LT	0.01m (℃)	0.1m (℃)	0.2m (℃)	0.5m (℃)	1.0m (℃)	2.0m (℃)	5m (℃)	10m (℃)
11	00:00	-62.1	-62.2	-62.3	-61.9	-61.4	-60.6	-58.5	-57.1
11	12:00	-62.6	-62.5	-62.3	-61.9	-61.4	-60.7	-58.5	-57.2
12	00:00	-61.3	-61.9	-62.1	-61.9	-61.4	-60.6	-58.5	-57.1
12	12:00	-61.8	-61.9	-61.9	-61.9	-61.4	-60.6	-58.5	-57.1
13	00:00	-60.7	-61.4	-61.8	-61.9	-61.4	-60.6	-58.5	-57.1
13	12:00	-62.2	-61.7	-61.7	-61.8	-61.4	-60.6	-58.5	-57.1
14	00:00	-61.9	-61.6	-61.7	-61.8	-61.4	-60.6	-58.5	-57.1
14	12:00	-63.5	-62.2	-61.9	-61.8	-61.4	-60.6	-58.5	-57.1
15	00:00	-62.3	-62.1	-62.1	-61.8	-61.4	-60.6	-58.5	-57.1
15	12:00	-63.1	-62.5	-62.2	-61.8	-61.4	-60.6	-58.5	-57.2
16	00:00	-61.7	-62.0	-62.1	-61.8	-61.4	-60.6	-58.5	-57.1
16	12:00	-62.6	-62.2	-62.1	-61.9	-61.4	-60.6	-58.5	-57.2
17	00:00	-61.1	-61.9	-61.9	-61.9	-61.4	-60.6	-58.5	-57.2
17	12:00	-61.3	-61.7	-61.8	-61.8	-61.4	-60.6	-58.5	-57.2
18	00:00	-60.2	-61.2	-61.5	-61.8	-61.4	-60.6	-58.5	-57.2
18	12:00	-60.8	-61.2	-61.3	-61.7	-61.4	-60.6	-58.5	-57.2
19	00:00	-60.6	-60.8	-61.2	-61.7	-61.4	-60.6	-58.5	-57.2
19	12:00	-62.3	-61.4	-61.3	-61.6	-61.4	-60.6	-58.5	-57.2
20	00:00	-61.7	-61.3	-61.4	-61.5	-61.3	-60.6	-58.5	-57.2
20	12:00	-63.0	-62.0	-61.7	-61.5	-61.3	-60.6	-58.5	-57.2
21	00:00	-60.6	-61.6	-61.7	-61.5	-61.3	-60.6	-58.5	-57.2
21	12:00	-61.3	-61.5	-61.5	-61.5	-61.3	-60.6	-58.5	-57.2
22	00:00	-60.4	-61.0	-61.3	-61.5	-61.3	-60.6	-58.5	-57.2
22	12:00	-62.1	-61.4	-61.3	-61.5	-61.3	-60.6	-58.5	-57.2
23	00:00	-61.3	-61.3	-61.3	-61.5	-61.3	-60.6	-58.5	-57.2
23	12:00	-62.6	-61.8	-61.5	-61.4	-61.3	-60.6	-58.5	-57.2
24	00:00	-61.3	-61.5	-61.6	-61.5	-61.3	-60.6	-58.5	-57.2
24	12:00	-63.0	-62.0	-61.8	-61.5	-61.3	-60.6	-58.5	-57.2
25	00:00	-61.7	-61.8	-61.8	-61.5	-61.3	-60.6	-58.5	-57.2
25	12:00	-63.3	-62.4	-62.0	-61.6	-61.3	-60.6	-58.5	-57.2
26	00:00	-61.1	-61.9	-61.9	-61.6	-61.3	-60.6	-58.5	-57.2
26	12:00	-61.1	-61.7	-61.8	-61.6	-61.3	-60.6	-58.5	-57.2
27	00:00	-59.8	-60.9	-61.3	-61.6	-61.3	-60.6	-58.5	-57.2
27	12:00	-61.3	-61.2	-61.3	-61.6	-61.3	-60.6	-58.5	-57.3
28	00:00	-59.7	-60.7	-61.1	-61.5	-61.3	-60.6	-58.5	-57.3
28	12:00	-60.6	-60.8	-60.9	-61.4	-61.3	-60.6	-58.5	-57.2
29	00:00	-59.4	-60.3	-60.7	-61.3	-61.2	-60.6	-58.5	-57.2
29	12:00	-60.3	-60.6	-60.7	-61.3	-61.2	-60.6	-58.5	-57.2
30	00:00	-58.0	-60.0	-60.5	-61.3	-61.2	-60.6	-58.5	-57.2
30	12:00	-58.6	-59.7	-60.1	-61.2	-61.2	-60.6	-58.5	-57.2

Date	LT	0.01m (℃)	0.1m (℃)	0.2m (℃)	0.5m (℃)	1.0m (℃)	2.0m (℃)	5m (℃)	10m (℃)
Nov. 1	00:00	-57.5	-59.1	-59.8	-61.1	-61.1	-60.6	-58.5	-57.2
1	12:00	-58.6	-59.3	-59.6	-60.9	-61.1	-60.6	-58.5	-57.2
2	00:00	-55.6	-58.5	-59.3	-60.8	-61.0	-60.6	-58.5	-57.2
2	12:00	-54.4	-57.8	-58.6	-60.6	-61.0	-60.6	-58.5	-57.2
3	00:00	-52.5	-56.3	-57.8	-60.5	-60.9	-60.6	-58.5	-57.2
3	12:00	-53.8	-56.0	-57.0	-60.2	-60.8	-60.6	-58.5	-57.2
4	00:00	-52.5	-55.5	-56.6	-60.0	-60.7	-60.6	-58.5	-57.2
4	12:00	-53.7	-55.5	-56.3	-59.7	-60.6	-60.6	-58.5	-57.2
5	00:00	-52.1	-54.8	-56.0	-59.4	-60.5	-60.6	-58.5	-57.2
5	12:00	-53.3	-54.9	-55.8	-59.2	-60.4	-60.6	-58.5	-57.2
6	00:00	-52.2	-54.5	-55.5	-59.0	-60.2	-60.6	-58.5	-57.2
6	12:00	-53.9	-54.8	-55.5	-58.7	-60.0	-60.5	-58.5	-57.2
7	00:00	-52.1	-54.4	-55.4	-58.5	-60.0	-60.5	-58.5	-57.2
7	12:00	-53.3	-54.5	-55.3	-58.4	-59.8	-60.5	-58.5	-57.2
8	00:00	-51.6	-54.0	-55.1	-58.3	-59.7	-60.5	-58.5	-57.2
8	12:00	-53.1	-54.2	-54.9	-58.1	-59.5	-60.4	-58.5	-57.2
9	00:00	-51.8	-53.9	-54.8	-57.9	-59.4	-60.4	-58.5	-57.3
9	12:00	-53.0	-54.0	-54.8	-57.8	-59.3	-60.4	-58.6	-57.3
10	00:00	-51.2	-53.6	-54.6	-57.7	-59.2	-60.4	-58.5	-57.3
10	12:00	-52.3	-53.7	-54.4	-57.6	-59.1	-60.3	-58.6	-57.3
11	00:00	-50.6	-53.2	-54.1	-57.4	-59.0	-60.3	-58.6	-57.3
11	12:00	-51.8	-53.3	-54.0	-57.3	-58.9	-60.2	-58.6	-57.3
12	00:00	-49.9	-52.6	-53.8	-57.1	-58.7	-60.2	-58.6	-57.3
12	12:00	-50.7	-52.6	-53.5	-57.0	-58.6	-60.1	-58.6	-57.3
13	00:00	-48.9	-51.9	-53.2	-56.9	-58.5	-60.1	-58.6	-57.3
13	12:00	-49.8	-51.9	-52.9	-56.7	-58.4	-60.0	-58.5	-57.3
14	00:00	-47.3	-51.2	-52.5	-56.5	-58.3	-60.0	-58.6	-57.3
14	12:00	-47.7	-50.7	-52.0	-56.3	-58.2	-60.0	-58.6	-57.3
15	00:00	-46.9	-50.1	-51.5	-56.1	-58.0	-60.0	-58.6	-57.3
15	12:00	-47.8	-50.2	-51.2	-55.8	-57.9	-60.0	-58.5	-57.3
16	00:00	-46.5	-49.6	-51.0	-55.6	-57.8	-59.9	-58.6	-57.3
16	12:00	-47.9	-49.9	-50.9	-55.4	-57.7	-59.9	-58.6	-57.3
17	00:00	-45.9	-49.3	-50.6	-55.2	-57.5	-59.8	-58.6	-57.3
17	12:00	-45.8	-49.1	-50.3	-55.0	-57.3	-59.7	-58.6	-57.3
18	00:00	-44.4	-48.2	-49.8	-54.8	-57.2	-59.7	-58.6	-57.3
18	12:00	-45.9	-48.3	-49.6	-54.7	-57.0	-59.6	-58.6	-57.3
19	00:00	-44.6	-47.8	-49.3	-54.4	-56.9	-59.6	-58.6	-57.3
19	12:00	-46.4	-48.1	-49.2	-54.2	-56.8	-59.5	-58.6	-57.3
20	00:00	-45.0	-47.8	-49.1	-54.0	-56.6	-59.5	-58.6	-57.3
20	12:00	-46.5	-48.1	-49.1	-53.9	-56.4	-59.4	-58.6	-57.3

Date	LT	0.01m (℃)	0.1m (℃)	0.2m (℃)	0.5m (℃)	1.0m (℃)	2.0m (℃)	5m (℃)	10m (℃)
21	00:00	-44.8	-47.7	-49.0	-53.7	-56.3	-59.3	-58.6	-57.3
21	12:00	-46.3	-48.1	-48.9	-53.6	-56.2	-59.3	-58.6	-57.3
22	00:00	-44.8	-47.6	-48.8	-53.4	-56.0	-59.3	-58.6	-57.3
22	12:00	-46.5	-48.0	-48.8	-53.3	-55.9	-59.2	-58.6	-57.3
23	00:00	-44.8	-47.5	-48.8	-53.3	-55.8	-59.2	-58.6	-57.3
23	12:00	-46.7	-48.0	-48.8	-53.1	-55.6	-59.1	-58.6	-57.3
24	00:00	-44.7	-47.5	-48.7	-53.0	-55.5	-59.0	-58.6	-57.3
24	12:00	-45.7	-47.7	-48.6	-52.9	-55.4	-58.9	-58.6	-57.3
25	00:00	-43.6	-47.0	-48.3	-52.8	-55.3	-58.9	-58.6	-57.3
25	12:00	-44.8	-47.0	-48.1	-52.6	-55.2	-58.8	-58.6	-57.3
26	00:00	-42.9	-46.4	-47.8	-52.5	-55.1	-58.7	-58.6	-57.3
26	12:00	-44.3	-46.5	-47.6	-52.4	-55.0	-58.7	-58.6	-57.3
27	00:00	-42.7	-45.9	-47.3	-52.2	-54.8	-58.6	-58.6	-57.3
27	12:00	-44.8	-46.3	-47.3	-52.1	-54.8	-58.5	-58.6	-57.3
28	00:00	-43.2	-45.9	-47.3	-51.9	-54.7	-58.5	-58.6	-57.3
28	12:00	-44.6	-46.4	-47.3	-51.8	-54.5	-58.5	-58.6	-57.3
29	00:00	-42.3	-45.8	-47.1	-51.7	-54.4	-58.4	-58.6	-57.3
29	12:00	-43.0	-45.7	-46.8	-51.6	-54.3	-58.3	-58.6	-57.3
30	00:00	-41.8	-45.0	-46.5	-51.5	-54.1	-58.3	-58.6	-57.3
30	12:00	-43.6	-45.3	-46.4	-51.3	-54.0	-58.2	-58.6	-57.3
Dec. 1	00:00	-42.0	-45.0	-46.3	-51.1	-54.0	-58.1	-58.6	-57.3
1	12:00	-43.0	-45.1	-46.1	-51.1	-53.9	-58.1	-58.6	-57.3
2	00:00	-41.0	-44.5	-45.9	-50.9	-53.7	-58.0	-58.6	-57.3
2	12:00	-41.4	-44.4	-45.7	-50.8	-53.6	-57.9	-58.6	-57.4
3	00:00	-39.7	-43.7	-45.3	-50.6	-53.5	-57.8	-58.6	-57.3
3	12:00	-40.5	-43.6	-45.0	-50.4	-53.4	-57.8	-58.6	-57.3
4	00:00	-39.4	-42.9	-44.6	-50.3	-53.3	-57.8	-58.6	-57.3
4	12:00	-40.6	-43.1	-44.3	-50.1	-53.2	-57.7	-58.6	-57.4
5	00:00	-38.3	-42.6	-44.2	-49.8	-53.0	-57.6	-58.6	-57.3
5	12:00	-39.1	-42.3	-43.8	-49.6	-52.9	-57.6	-58.6	-57.3
6	00:00	-38.4	-41.9	-43.5	-49.5	-52.7	-57.5	-58.5	-57.3
6	12:00	-40.0	-42.1	-43.4	-49.3	-52.5	-57.4	-58.6	-57.4
7	00:00	-39.1	-42.0	-43.4	-49.1	-52.5	-57.3	-58.5	-57.3
7	12:00	-40.8	-42.5	-43.5	-48.9	-52.3	-57.2	-58.5	-57.4
8	00:00	-38.6	-42.1	-43.5	-48.8	-52.2	-57.2	-58.5	-57.4
8	12:00	-39.7	-42.1	-43.3	-48.8	-52.0	-57.1	-58.5	-57.3
9	00:00	-38.7	-41.8	-43.2	-48.6	-51.9	-57.0	-58.5	-57.4
9	12:00	-40.1	-42.0	-43.1	-48.5	-51.8	-57.0	-58.5	-57.4
10	00:00	-38.7	-41.8	-43.1	-48.4	-51.7	-56.9	-58.5	-57.4
10	12:00	-40.0	-41.9	-43.0	-48.3	-51.6	-56.9	-58.5	-57.4

Date	LT	0.01m (℃)	0.1m (℃)	0.2m (℃)	0.5m (℃)	1.0m (℃)	2.0m (℃)	5m (℃)	10m (℃)
11	00:00	-38.4	-41.7	-43.0	-48.1	-51.5	-56.8	-58.5	-57.4
11	12:00	-39.9	-41.8	-42.9	-48.1	-51.3	-56.7	-58.5	-57.4
12	00:00	-38.2	-41.5	-42.9	-48.0	-51.2	-56.6	-58.5	-57.4
12	12:00	-39.5	-41.5	-42.7	-48.0	-51.1	-56.5	-58.5	-57.4
13	00:00	-38.2	-41.4	-42.7	-47.8	-51.1	-56.5	-58.5	-57.4
13	12:00	-39.6	-41.4	-42.6	-47.8	-51.0	-56.4	-58.5	-57.4
14	00:00	-38.2	-41.3	-42.5	-47.6	-50.9	-56.3	-58.5	-57.4
14	12:00	-39.3	-41.3	-42.4	-47.5	-50.8	-56.3	-58.5	-57.4
15	00:00	-38.0	-41.1	-42.3	-47.4	-50.6	-56.2	-58.5	-57.4
15	12:00	-39.0	-41.1	-42.2	-47.3	-50.5	-56.2	-58.5	-57.4
16	00:00	-37.2	-40.8	-42.1	-47.3	-50.4	-56.1	-58.5	-57.4
16	12:00	-36.3	-40.3	-41.8	-47.2	-50.3	-56.0	-58.5	-57.4
17	00:00	-34.7	-39.5	-41.3	-47.0	-50.3	-55.9	-58.5	-57.4
17	12:00	-36.0	-39.2	-40.8	-46.9	-50.2	-55.8	-58.5	-57.4
18	00:00	-35.3	-38.9	-40.6	-46.7	-50.1	-55.7	-58.5	-57.4
18	12:00	-36.8	-39.0	-40.5	-46.5	-50.0	-55.7	-58.5	-57.4
19	00:00	-36.0	-38.9	-40.5	-46.4	-49.8	-55.6	-58.5	-57.4
19	12:00	-37.5	-39.3	-40.5	-46.2	-49.7	-55.5	-58.5	-57.4
20	00:00	-35.9	-39.1	-40.5	-46.0	-49.6	-55.5	-58.5	-57.4
20	12:00	-36.5	-39.1	-40.4	-46.0	-49.5	-55.5	-58.5	-57.4
21	00:00	-35.4	-38.8	-40.2	-45.8	-49.4	-55.4	-58.5	-57.4
21	12:00	-37.1	-38.9	-40.1	-45.8	-49.3	-55.3	-58.5	-57.4
22	00:00	-36.2	-38.9	-40.1	-45.7	-49.2	-55.2	-58.5	-57.4
22	12:00	-37.4	-39.1	-40.2	-45.6	-49.0	-55.1	-58.5	-57.4
23	00:00	-35.9	-38.9	-40.2	-45.4	-48.9	-55.1	-58.4	-57.4
23	12:00	-36.8	-38.9	-40.1	-45.4	-48.8	-55.0	-58.4	-57.4
24	00:00	-35.4	-38.7	-40.0	-45.3	-48.8	-54.9	-58.4	-57.4
24	12:00	-36.4	-38.7	-39.8	-45.2	-48.7	-54.8	-58.4	-57.4
25	00:00	-35.1	-38.4	-39.7	-45.1	-48.6	-54.8	-58.4	-57.4
25	12:00	-35.2	-38.2	-39.6	-45.1	-48.5	-54.8	-58.4	-57.4
26	00:00	-33.4	-37.7	-39.3	-45.0	-48.4	-54.7	-58.4	-57.4
26	12:00	-33.4	-37.4	-38.9	-44.8	-48.2	-54.6	-58.4	-57.4
27	00:00	-32.5	-36.7	-38.4	-44.6	-48.1	-54.5	-58.3	-57.4
27	12:00	-33.1	-36.5	-38.1	-44.5	-48.1	-54.4	-58.4	-57.4
28	00:00	-32.4	-36.2	-37.8	-44.3	-48.0	-54.3	-58.3	-57.4
28	12:00	-34.1	-36.3	-37.7	-44.1	-47.8	-54.3	-58.3	-57.4
29	00:00	-33.0	-36.3	-37.7	-43.9	-47.7	-54.2	-58.3	-57.4
29	12:00	-34.2	-36.4	-37.6	-43.8	-47.6	-54.1	-58.3	-57.5
30	00:00	-33.5	-36.3	-37.6	-43.6	-47.4	-54.0	-58.3	-57.5
30	12:00	-35.3	-36.7	-37.7	-43.6	-47.3	-54.0	-58.3	-57.5

Date	LT	0.01m (℃)	0.1m (℃)	0.2m (℃)	0.5m (℃)	1.0m (℃)	2.0m (℃)	5m (℃)	10m (℃)
31	00:00	-34.1	-36.7	-37.9	-43.5	-47.3	-53.9	-58.3	-57.4
31	12:00	-35.0	-36.8	-37.9	-43.4	-47.1	-53.9	-58.2	-57.4
Jan. 1	00:00	-34.2	-36.7	-38.0	-43.4	-47.0	-53.8	-58.2	-57.5
1	12:00	-35.3	-37.0	-38.0	-43.3	-46.9	-53.7	-58.2	-57.5
2	00:00	-34.2	-36.8	-38.1	-43.3	-46.8	-53.6	-58.2	-57.4
2	12:00	-35.6	-37.1	-38.0	-43.2	-46.7	-53.5	-58.2	-57.5
3	00:00	-34.6	-37.0	-38.1	-43.2	-46.6	-53.4	-58.2	-57.5
3	12:00	-36.2	-37.4	-38.1	-43.2	-46.6	-53.4	-58.2	-57.5
4	00:00	-34.6	-37.3	-38.3	-43.1	-46.6	-53.3	-58.2	-57.5
4	12:00	-35.8	-37.4	-38.2	-43.1	-46.5	-53.3	-58.1	-57.5

5. Surface Meteorological Data during Oversnow Traverses

Observers: Masamichi NAKAMURA and Hiroyuki IKEGAYA

Meteorological observations were carried out during the oversnow traverses at least at 0900, 1200, 1500 and 2100 LT by members of the meteorological section of JARE-37. We measured air temperature (Ta), wind direction (WD) and wind speed (WS) with the instruments listed in Table 1 and observed visibility (V), weather (W), cloud amount in tenths (N) and individual cloud amount and genus (CL) at the above local time. The instruments and accuracy of the measurements are given in Table 5-1. The notation used in this section is shown in Table 5-2.

Tables 5-3, 5-4, 5-5, 5-6 and 5-7 show meteorological data observed during Traverses 1-a, 1-b, 3-a, 3-b, and 5-b respectively. The meteorological data during traverses between S16 and Dome Fuji have been published in MOTOYAMA *et al.* (1995), SHIRAIWA *et al.* (1996) and AZUMA *et al.* (1997).

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Table 5-1. Instruments and accuracy of meteorological observations.

Item	Instruments	Accuracy
Air pressure	Aneroid gauge	± 1hPa
Air temperature	Sling type glass thermometer	± 0.5℃
Wind direction	Magnetic compass	± 5°
Wind speed	Portable 3-cup anemometer	± 0.5m/s
Visibility	Visual observation	
Cloud amount	Visual observation	
Weather	Visual observation	
Individual cloud	Visual observation	

Table 5-2. Notations used in tables in this section.

LT : Local standard time at Syowa Station (UTC + 3 hours)
Pa : Air pressure (hPa)
Ta : Air temperature (℃)
WD : Wind direction in 16 directions
WS : Wind speed (m/s)
V : Visibility (km)
W : Weather
○ Clear, ⏀ Fine, ⏁ Cloudy(upper cloud are predominant),
◎ Cloudy, ✕ Snow, ⸗ Drifting snow, ⸗ Blowing snow,
⸗ Snow storm, ↔ Diamond dust, ☰ Fog, ☱ Low fog,
⇄ Ice fog
N : Cloud amount in tenths
CL : Individual cloud amount and genus

Table 5-3. Meteorological data observed during traverse 1-a.

Date	LT	Station	hPa	Ta	WD	WS	V	W	N	CL
95/12/17	21:00	S16	918	-9.1	E	4	30	○	0+	0+Cu
95/12/18	09:00	S16	919	-4.4	E	4.5	30	○	0+	0+Cu
95/12/18	12:00	S16	920	-1.4	NE	4	30	○	0+	0+Cu
95/12/18	15:00	S16	921	-0.2	—	0	30	○	0+	0+Cu
95/12/18	21:00	S16	924	-8.1	NE	(2)	30	○	0+	0+Ci
95/12/19	09:00	S16	931	-4.0	E	5	30	○	0+	0+Ci
95/12/19	12:00	S16	932	-0.2	NE	4	30	○	0+	0+Ci
95/12/19	15:00	S16	932	-0.3	SW	(2)	30	○	0+	0+Ci
95/12/19	21:00	S16	934	-7.1	E	4	30	○	0+	0+Ci
95/12/20	09:00	S16	941	-3.8	E	4	30	○	0+	0+Ci
95/12/20	12:00	S16	941	-0.1	E	(2)	30	○	0+	0+Ci
95/12/20	15:00	S16	939	-0.3	S	3	30	○	1	1Ci
95/12/20	21:00	S16	935	-6.0	S	3	30	○	1	1Ci
95/12/21	09:00	S16	934	-3.2	E	4	30	◑	3	3Ci
95/12/21	12:00	S16	932	-0.8	NE	4	30	◑	3	3Ci
95/12/21	15:00	S16	932	-0.4	NE	6	30	◑	7	7Ci
95/12/21	21:00	S16	931	-5.2	NE	5	30	◑	9	8Ac 6Ci
95/12/22	09:00	S16	922	-6.0	NE	8	0.2	⛆	10	10St
95/12/22	12:00	S16	920	-3.2	NE	9	0.1	⛆	10	
95/12/22	15:00	S16	918	-5.3	NE	9	0.1	⛆	10	
95/12/22	21:00	S16	920	-6.9	E	6	20	◎	9	9Ac ×Ci
95/12/23	09:00	S16	934	-3.4	E	6	30	○	0+	0+Ci
95/12/23	12:00	S16	936	-1.0	NE	4	30	○	1	1Ci
95/12/23	15:00	S16	937	-1.0	NE	(3)	30	◑	5	5Ci
95/12/23	21:00	S16	938	-7.8	NE	(3)	30	○	0+	0+Ci
95/12/24	09:00	S16	941	-4.3	E	4	30	○	1	1Ci
95/12/24	12:00	S16	939	-1.6	E	4	30	◑	2	2Ci
95/12/24	15:00	S16	938	0.0	—	0	20	◎	9	0+Ac 9Ci
95/12/24	21:00	S16	934	-5.1	NE	5	30	◑	10-	10-Ci
95/12/25	06:50	S16	925	-5.3	NE	9	0.2	⛆	10	10St
95/12/25	08:30	S16	927	-4.6	NE	7	0.2	⛆	10	
95/12/25	09:00	S16	928	-5.0	NE	9	0.1	⛆	10	
95/12/25	10:00	S16	930	-3.8	NE	8	0.2	⛆	10	
95/12/25	11:00	S16	931	-3.1	NE	12	0.05	⛆	10	

Date	LT	Station	hPa	Ta	WD	WS	V	W	N	CL
95/12/25	12:00	S16	931	-2.3	NE	6	5	◎	10-	6St 7Ac
95/12/25	13:00	S16	932	-2.0	NE	6	5	◎	10	10Cu
95/12/25	14:00	S16	931	-2.4	NE	5	2	◎	10	4Cu 6St
95/12/25	15:00	S16	933	-3.0	NE	6	5	◎	10	4Cu 6St
95/12/25	21:00	S25-5	900	-8.0	E	7	2	◎	10	10Sc
95/12/26	09:00	S25-5	896	-5.8	E	5	5	✕	10	10Sc
95/12/26	12:00	H1	881	-4.6	NE	3	20	◎	10-	3Ac 6As 9Ci
95/12/26	15:00	H46	862	-4.7	SSW	(3)	30	◎	10-	3Sc 10-Cs
95/12/26	21:00	H110	838	-13.4	—	0	30	⊕	7	0+Sc 2Ac 7Ci
95/12/27	09:00	H110	839	-12.1	NE	5	30	⊕	6	6Ac
95/12/27	12:00	H152	825	-9.3	N	4	30	◎	10-	10-Ac
95/12/27	15:00	H180	815	-10.4	N	4	5	✕	10	10Sc
95/12/27	21:00	H230	804	-14.5	NW	(3)	10	✕	10-	10-Sc
95/12/28	09:00	H230	807	-13.0	NE	4	2	✕	10	10Sc
95/12/28	12:00	H261	795	-10.7	NE	3	20	✕	10-	6Sc 10-Ac
95/12/28	15:00	H285	785	-11.8	NE	5	10	◎	10-	10-Ac
95/12/28	21:00	Z24	768	-15.0	E	4	2	◎	10	10As
95/12/29	09:00	Z24	773	-11.8	NE	7	2	⊹	10-	1Sc 10-AC
95/12/29	09:30							◍	10-	10-Ci
95/12/29	12:00	Z40	764	-10.4	NE	7	5	◍	10-	10-Ci
95/12/29	15:00	Z67	761	-10.8	NE	5	30	◍	10-	0+Ac 3Ci 7Cs
95/12/29	21:00	Mizuho	752	-17.1	E	3	2	✕	10-	4Ac 10-Ci
95/12/30	09:00	Mizuho	753	-12.0	—	0	10	↔	10-	1Ac 8Ci 10-Cs
95/12/30	12:00	Mizuho	753	-11.0	N	(3)	2	↔	10-	1Ac 3Ci 10-Cs
95/12/30	15:00	Mizuho	753	-11.3	E	(3)	30	⊕	7	3Ac 7Ci 1Cc
95/12/30	21:00	Mizuho	753	-17.0	SE	(3)	10	◎	9	8Ac 9Ci
95/12/31	09:00	Mizuho	751	-17.2	SE	7	30	⊹	0	—
95/12/31	12:00	MD4	750	-13.9	SE	6	30	⊹	0	—
95/12/31	15:00	MD16	746	-13.3	E	7	30	⊹	0	—
95/12/31	21:00	MD40	740	-18.9	E	5	30	○	0+	0+Ci
96/01/01	09:00	MD40	739	-19.0	E	10	20	⊹	0+	0+Ci
96/01/01	12:00	MD56	734	-17.5	E	9	20	⊹	1	1Ci
96/01/01	15:00	MD70	729	-15.7	E	8	20	⊹	1	1Ci
96/01/01	21:00	MD100	721	-21.7	E	5	20	⊕	3	3Ci

Date	LT	Station	hPa	Ta	WD	WS	V	W	N	CL
96/01/02	09:00	MD100	722	-17.0	E	5	5	⤫	10-	10-Ac
96/01/02	12:00	MD116	717	-16.7	E	8	1	⤫	10	10Ac
96/01/02	15:00	MD132	712	-17.1	E	6	5	◎	10-	10-Ac
96/01/02	21:00	MD158	703	-20.9	ESE	7	5	◍	10-	5Ac 10-Ci
96/01/03	09:00	MD158	706	-18.8	E	5	0.8	⤫	10	3Ac 10Cs
96/01/03	12:00	MD174	700	-18.0	E	7	5	⤫	10-	1Ac 10-Ci 7Cs
96/01/03	15:00	MD184	696	-17.3	E	6	5	⤫	10-	1Ac 4Ci 6Cs
96/01/03	21:00	MD220	684	-23.2	E	(3)	10	↔	10-	2Ac 9Ci
96/01/04	09:00	MD220	690	-20.7	E	3	10	↔	10-	3Ci 7Cs
96/01/04	12:00	MD240	683	-19.6	E	4	20	◍	9	9Ci
96/01/04	15:00	MD243	684	-20.0	ESE	4	30	◍	7	0+Ac 7Ci
96/01/04	21:00	MD244	682	-25.6	ESE	<3	30	○	1	1Ac 0+Ci
96/01/05	09:00	MD248	681	-24.1	SSE	<3	30	○	0+	0+Ci
96/01/05	12:00	MD270	676	-21.7	—	0	30	○	0+	0+Ci
96/01/05	15:00	MD284	671	-21.3	SSW	<3	30	○	0+	0+Ci
96/01/05	21:00	MD314	663	-28.2	SE	<3	30	○	0+	0+Ci
96/01/06	09:00	MD318	666	-26.8	ENE	4	10	◎	10-	10-Ac
96/01/06	12:00	MD324	664	-24.0	ESE	<3	5	⤫	10-	10-Ac
96/01/06	15:00	MD336	660	-25.4	ESE	3	20	○	1	1Ac
96/01/06	21:00	MD364	654	-30.5	SSE	(1)	30	○	0+	0+Ac
96/01/07	07:00	MD364		-30.5						
96/01/07	09:00	MD364	655	-29.5	SSE	4	30	○	0	—
96/01/07	12:00	MD370	656	-26.3	SE	3	30	○	0	—
96/01/07	15:00	MD386	651	-25.5	SE	3	30	○	0	—
96/01/07	21:00	MD426	644	-32.0	SSW	(1)	30	○	0+	0+Ci
96/01/08	07:00	MD426		-33.0						
96/01/08	09:00	MD426	648	-29.9	SSE	4	30	○	0+	0+Ci
96/01/08	12:00	MD444	642	-26.9	SSE	5	20	↔	0+	0+Ci
96/01/08	15:00	MD454	643	-26.2	SSE	5	20	↔	0+	0+Ci
96/01/08	21:00	MD492	637	-31.3	SSE	3	30	○	0+	0+Ci
96/01/09	07:00	MD492		-33.0						
96/01/09	09:00	MD492	639	-30.7	SE	3	30	○	0+	0+Ci
96/01/09	12:00	MD516	635	-28.0	SE	4	10	↔	0+	0+Ci
96/01/09	15:00	MD534	633	-27.4	SSE	4	20	○	0	—

Date	LT	Station	hPa	Ta	WD	WS	V	W	N	CL
96/01/09	21:00	MD564	630	-34.0	SE	3	30	○	0+	0+Ci
96/01/10	07:20	MD564		-35.6						
96/01/10	09:00	MD564	633	-31.9	SE	(2)	30	○	0+	0+Ac 0+Ci
96/01/10	12:00	MD586	630	-29.4	SE	3	30	↔	0+	0+Ac 0+Ci
96/01/10	15:00	MD600	628	-29.2	SSE	3	30	⇿	4	4Ac 0+Ci
96/01/10	21:00	MD634	626	-35.3	S	(2)	30	○	0+	0+Ci
96/01/11	07:20	MD634		-36.5						
96/01/11	09:00	MD634	626	-34.0	SE	(2)	30	○	1	0+Ac 1Ci
96/01/11	12:00	MD656	620	-31.0	SE	(2)	30	○	1	0+Ac 1Ci
96/01/11	15:00	MD670	621	-30.0	SSE	(1)	30	○	0+	0+Ac 0+Ci
96/01/11	21:00	MD704	618	-35.0	SSE	(1)	20	↔	7	5Ac 4Ci
96/01/12	07:15	MD704		-36.7						
96/01/12	09:00	MD704	619	-33.7	SSE	(2)	20	⦶	7	7Ac 2Ci
96/01/12	12:00	MD727	616	-31.7	SE	(2)	30	○	0+	0+Ac 0+Ci

Table 5-4. Meteorological data observed during traverse 1-b.

Date	LT	Station	hPa	Ta	WD	WS	V	W	N	CL
96/01/26	12:00	MD724	621	-32.3	NNE	3.5	5	↔	7	7Ci
96/01/26	15:00	MD696	622	-31.0	NNW	4	2	✕	9	9Ac ×Ci
96/01/26	21:00	MD648	627	-41.3	NNE	(1)	30	○	0+	0+Ac 0+Ci
96/01/27	09:00	MD648	634	-36.2	ENE	(1)	30	○	0+	0+Ac 0+Ci
96/01/27	12:00	MD606	637	-32.6	NNE	3	10	↔	7	7Ac 1Ci
96/01/27	15:00	MD584	643	-29.0	ENE	3	20	↔	7	2Ac 6Ci
96/01/27	21:00	MD532	651	-36.8	ESE	4	20	↔	3	1Ac 2Ci
96/01/28	09:00	MD532	656	-31.1	ESE	6	2	◎	10	10Ac
96/01/28	12:00	MD500	655	-26.0	ESE	9	1	✕	10	10Ac
96/01/28	15:00	MD470	657	-24.6	ESE	9	0.4	↓	10	10Ac
96/01/28	21:00	MD420	666	-26.4	E	9	0.2	✕	10	10Ac
96/01/29	09:00	MD420	671	-23.0	E	11	0.1	✕	10	10Ac
96/01/29	12:00	MD420	672	-19.7	E	11	0.05	✕	10	10Ac
96/01/29	15:00	MD420	669	-18.8	E	12	0.05	✕	10	10Ac
96/01/29	21:00	MD420	671	-21.7	E	9	0.2	✕	10	10Ac
96/01/30	09:00	MD420	672	-20.6	ENE	7	1	✕	10	10Ac
96/01/30	12:00	MD380	675	-18.3	ENE	8	1	✕	10	10Ac
96/01/30	15:00	MD364	677	-18.0	ENE	8	2	◎	10-	10-Ac
96/01/30	21:00	MD310	687	-22.2	E	6	20	◑	7	7Ac 0+Ci
96/01/31	09:00	MD310	690	-20.6	E	3.5	30	◑	6	0+Ac 6Ci
96/01/31	12:00	MD274	699	-17.1	E	9	30	◑	8	8Ci
96/01/31	15:00	MD254	702	-15.6	E	6.5	30	◑	7	7Ci
96/01/31	21:00	MD200	722	-20.0	ESE	7	20	◑	5	5Ci
96/02/01	09:00	MD194	731	-17.3	E	8	10	◍	10-	10-Cs
96/02/01	12:00	MD162	736	-13.3	ESE	7	30	◑	2	0+Ac 2Ci
96/02/01	15:00	MD144	740	-12.1	ESE	7	30	◑	4	0+Ac 4Ci
96/02/01	21:00	MD90	750	-16.9	ESE	8	30	◑	7	1Ac 2Ci 7Cs
96/02/02	09:00	MD84	759	-14.1	ESE	9	30	○	1	1Ci
96/02/02	12:00	MD48	762	-10.2	ESE	8	30	○	1	0+Ac 1Ci
96/02/02	15:00	MD20	769	-8.8	ESE	10	30	○	0+	0+Ci
96/02/02	21:00	Mizuho	771	-13.2	ESE	11	30	○	0+	0+Ci
96/02/03	06:00	Mizuho	769	-18.0	ESE	12	2	↓	0+	0+Ci
96/02/03	09:00	Mizuho	767	-14.8	ESE	13	5	↓	0+	0+Ci
96/02/03	12:00	Mizuho	763	-13.0	ESE	12	2	↓	0	

Date	LT	Station	hPa	Ta	WD	WS	V	W	N	CL
96/02/03	15:00	Z90	771	-12.4	ESE	13	0.5	⊹	0	
96/02/03	21:00	Z15	789	-17.8	E	13	0.8	⊹	0	
96/02/04	09:00	Z12'	790	-16.8	E	8	2	⊹	0+	0+Ac
96/02/04	12:00	H260	812	-11.7	E	8	5	◎	7	7Ac
96/02/04	15:00	H202	827	-9.3	E	8	5	◎	10	0+Sc 10Ac
96/02/04	21:00	H90	863	-10.6	E	7	1	◍	9	4Ac 8Ci
96/02/05	09:00	H78	867	-7.8	ENE	10	0.5	⊹	10	10-Cs
96/02/05	12:00	S28	894	-5.1	ENE	14	0.2	⊹	10	10-Cs
96/02/05	15:00	S20	924	-4.1	ENE	13	0.05	⊹	10	
96/02/05	21:00	S17	935	-4.9	ENE	14	0.1	⊹	10	
96/02/06	06:00	S16	941	-4.9	ENE	12	0.4	⊹	10	
96/02/06	08:00	S16	941	-4.5	ENE	10	0.3	⊹	10	
96/02/06	09:00	S16	939	-4.1	ENE	11	0.3	⊹	10	
96/02/06	10:00	S16	940	-3.3	ENE	12	0.4	⊹	10	
96/02/06	12:00	S16	939	-2.7	ENE	11	1	⊹	10	10St
96/02/06	14:00	S16	938	-2.7	ENE	11	1	⊹	10	10St
96/02/06	15:00	S16	939	-2.5	ENE	11	1	⊹	10	10St
96/02/06	21:00	S16	939	-5.1	ENE	10	0.8	⊹	10	
96/02/07	06:00	S16	940	-6.3	ENE	12	0.4	⊹	10	
96/02/07	08:00	S16	941	-5.0	ENE	12	0.4	⊹	10	
96/02/07	09:00	S16	941	-4.4	ENE	10	0.4	⊹	10	
96/02/07	10:00	S16	942	-3.9	ENE	10	0.4	⊹	10	
96/02/07	12:00	S16	940	-2.8	ENE	9	1	⊹	10	10Ac
96/02/07	14:00	S16	940	-2.7	ENE	9	2	⊹	10	0+Cu 10Ac
96/02/07	15:00	S16	940	-3.1	ENE	7	2	⊹	10	0+Cu 10Ac
96/02/07	16:00	S16	939	-3.2	ENE	7	5	⊹	10	
96/02/07	21:00	S16	939	-5.6	ENE	5	10	◎	10	
96/02/08	06:00	S16	939	-6.7	ENE	5	20	✕	10	
96/02/08	07:00	S16	939	-6.1	ENE	5	20	✕	10	10St
96/02/08	08:00	S16	939	-5.2	ENE	4	20	✕	10	10-St ×Ac
96/02/08	09:00	S16	938	-4.2	ENE	3	20	✕	10	10-St ×Ac
96/02/08	11:00	S16	939	-3.2	ENE	3	20	◎	10-	10-Ac

Table 5-5. Meteorological data observed during traverse 3-a.

Date	LT	Station	hPa	Ta	WD	WS	V	W	N	CL
96/10/11	09:00	S 16	907	-15.2	E	9	10	◎	10-	10-Sc
96/10/13	09:00	S 16	922	-16.4	E	4	10	◎	10	10-St
96/10/13	15:00	H 37	860	-18.0	ENE	3	4	◎	10	10St
96/10/13	21:00	H 72	847	-21.2	E	4	7	◎	10-	10-Sc
96/10/14	09:00	H 72	846	-25.0	E	6	30	○	0+	0+Sc
96/10/14	15:00	H180	791	-22.5	ENE	2	20	◎	10-	10-Sc
96/10/14	21:00	H224	800	-28.2	-	0	2	◎	10	10St
96/10/15	09:00	H224	804	-31.0	ESE	4	15	◎	10-	0+Sc;9As
96/10/15	15:00	Z 18	767	-30.5	-	0	30	○	0+	0+Ac;0+Ci
96/10/15	21:00	Z 68	751	-40.5	ENE	4	30	○	0+	0+Ac;0+Ci
96/10/16	09:00	Z 68	746	-33.5	E	15	0.03	⊹	10	X
96/10/17	09:00	MIZUHO	739	-32.5	E	10	0.4	⊹	9	9Sc;XAc
96/10/17	21:00	MD 22	729	-31.5	ENE	5	10	◎	10-	10-As
96/10/18	09:00	MD 22	728	-36.1	ESE	8	0.05	⊹	7	7Ci
96/10/18	15:00	MD 52	714	-32.0	E	12	2	○	1	1Ci
96/10/18	21:00	MD 72	700	-38.5	ESE	15	0.1	⊹	10-	10-AC
96/10/19	09:00	MD 72	699	-35.3	ESE	10	0.1	⊹	7	0+Ac;7Ci
96/10/19	15:00	MD104	688	-35.2	E	11	0.3	⊹	0	-
96/10/19	21:00	MD122	678	-43.2	E	9	0.5	⊹	0+	0+Ci
96/10/20	15:00	MD122	680	-32.5	E	8	0.1	⊹	9	0+Ac;9As
96/10/21	09:00	MD122	688	-38.0	E	10	1	◐	3	3Ci
96/10/21	15:00	MD152	678	-32.9	ESE	5	2	◐	10-	10-Ci
96/10/21	21:00	MD172	674	-34.2	ESE	4	20	◐	6	1Ac;5Ci
96/10/22	09:00	MD172	676	-42.6	ESE	4	30	○	1	0+Ac;1Ci
96/10/22	15:00	MD216	661	-36.2	ESE	2	7	◐	10-	10-Ci
96/10/22	21:00	MD230	652	-40.3	ESE	4	10	◐	10-	3Ac;10-Ci
96/10/23	09:00	MD230	650	-43.5	ESE	7	0.5	⊹	2	0+Ac;2Ci
96/10/23	15:00	MD266	635	-40.5	ESE	6	20	◐	4	4Ci
96/10/23	21:00	MD284	633	-48.0	ESE	10	20	◐	4	0+Ac;4Ci
96/10/24	09:00	MD284	631	-47.5	SE	7	1	◐	2	2Ci
96/10/24	15:00	MD326	624	-43.2	SE	5	20	○	0+	0+Ci
96/10/24	21:00	MD340	624	(-54.0)	ESE	4	30	○	0+	0+Ci
96/10/25	09:00	MD340	620	(-54.0)	SE	5	20	○	0+	0+Ci
96/10/25	21:00	MD364	628	(-56.0)	SE	5	20	○	0+	0+Ci

Date	LT	Station	hPa	Ta	WD	WS	V	W	N	CL
96/10/26	15:00	MD364	630	(-36.0)	SE	5	20	⊕	10-	10-Ci
96/10/27	09:00	MD364	633	(-43.0)	ESE	4	15	⊕	10-	8Cs2Ci
96/10/27	15:00	MD406	627	(-39.7)	ESE	4	20	⊕	4	4Ci
96/10/27	21:00	MD410	625	(-49.7)	ESE	4	15	⊕	10-	10-Ci
96/10/28	09:00	MD410	626	(-40.3)	ESE	4	1	◎	10	10As
96/10/28	15:00	MD436	625	(-36.5)	ESE	5	5	◎	10	10As
96/10/28	21:00	MD436	624	(-42.5)	ESE	5	15	⊕	7	2Ac;5Ci
96/10/29	09:00	MD436	627	(-46.0)	SSE	7	7	⊕	9	9Ci
96/10/29	15:00	MD490	621	(-43.1)	ESE	5	1	⊕	10-	10-Ci
96/10/29	21:00	MD510	612	(-50.9)	ESE	5	20	⊕	8	8Ci
96/10/30	09:00	MD510	621	(-45.7)	SE	6	10	○	0+	0+Ci
96/10/30	15:00	MD564	616	(-44.2)	SE	8	0.8	⊹	0	-
96/10/30	21:00	MD582	611	(-50.4)	SE	5	10	⊕	2	2Ci
96/10/31	09:00	MD582	609	(-46.1)	SE	7	2	⊕	9	9Ci
96/10/31	15:00	MD612	606	(-44.3)	SE	4	15	○	1	1Ci
96/10/31	21:00	MD652	607	(-52.6)	SE	3	20	⊕	2	0+Ac;2Ci
96/11/ 1	09:00	MD652	602	(-41.7)	ESE	3	10	⊕	10-	10-Ci
96/11/ 1	15:00	MD682	600	(-37.4)	ENE	5	1	✕	10-	4As;10-Ci
96/11/ 1	21:00	MD712	600	(-36.2)	ENE	4	15	⊕	10-	10-Ci
96/11/ 2	09:00	MD712	599	(-36.6)	NNE	2	10	✕	10-	0+As;4Cs;6Ci

Table 5-6. Meteorological data observed during traverse 3-b.

Date	LT	Station	hPa	Ta	WD	WS	V	W	N	CL
96/11/ 8	15:00	MD714	602	(-31.5)	ESE	7	15	⊕	3	3Ci
96/11/ 8	21:00	MD694	603	(-48.3)	ESE	6	20	⊕	6	6Ci
96/11/ 9	09:00	MD694	603	(-45.2)	ENE	3	20	⊕	4	4Ci
96/11/ 9	15:00	MD694	602	(-38.5)	ENE	6	20	⊕	7	7Ci
96/11/ 9	21:00	MD694	605	(-49.7)	WNW	3	30	⊕	2	2Ci
96/11/10	09:00	MD694	606	(-30.1)	-	0	15	⊕	10-	10-Ci
96/11/10	15:00	MD666	610	(-23.0)	-	0	30	⊕	2	2Ci
96/11/10	21:00	MD626	611	(-44.3)	E	3	30	○	0+	0+Ci
96/11/11	09:00	MD626	610	(-33.3)	E	0	30	○	0	-
96/11/11	15:00	MD576	620	(-25.9)	SE	4	30	⊕	9	9Ci
96/11/11	21:00	MD550	623	(-40.9)	SE	4	30	⊕	7	7Ci
96/11/12	09:00	MD550	625	(-35.7)	SE	6	30	○	1	1Ci
96/11/12	15:00	MD490	636	(-25.3)	ESE	6	20	○	1	1Ci
96/11/12	21:00	MD466	639	(-37.6)	ESE	6	10	○	0+	0+Ci
96/11/13	09:00	MD466	639	(-32.0)	ESE	7	0.7	⊹	0+	0+Ci
96/11/13	15:00	MD404	645	(-20.4)	ESE	7	0.9	⊹	1	1Ci
96/11/13	21:00	MD384	647	(-35.6)	ESE	7	20	○	0	-
96/11/14	09:00	MD384	643	(-32.7)	ESE	8	0.08	≡	10-	10-As
96/11/14	15:00	MD364	646	(-32.4)	E	10	0.01	⊹	0	-
96/11/14	21:00	MD364	651	(-35.6)	E	7	0.03	⊹	10-	4As;5Cs;2Ci
96/11/15	09:00	MD364	651	(-31.2)	ESE	6	2	⊕	10-	4As;5Cs;2Ci
96/11/15	15:00	MD344	656	(-25.1)	ESE	5	10	⊕	6	0+Ac;6Ci
96/11/15	21:00	MD310	668	(-31.5)	ESE	5	15	⊕	10-	10-Ci
96/11/16	09:00	MD310	666	(-26.7)	ESE	7	2	⊕	6	6Ci
96/11/16	15:00	MD272	675	(-21.9)	ESE	9	0.6	⊹	6	1Ac;5Ci
96/11/16	21:00	MD230	682	(-30.6)	ESE	6	20	○	0	-
96/11/17	09:00	MD230	676	(-27.8)	ESE	10	0.8	⊹	0	-
96/11/17	15:00	MD190	687	(-19.5)	ESE	9	0.6	⊹	0+	0+Ci
96/11/17	21:00	MD150	703	(-29.7)	ESE	5	20	⊕	6	1Ac;5Ci
96/11/18	09:00	MD150	703	(-29.8)	E	7	20	○	1	0+Ac;1Ci
96/11/18	15:00	MD110	717	(-22.7)	E	3	20	⊕	2	2Ac;0+Ci
96/11/18	21:00	MD 60	733	(-32.7)	E	3	30	○	1	1Ac;0+Ci
96/11/19	09:00	MD 60	736	(-24.8)	E	6	30	○	0+	0+Ac
96/11/19	15:00	MD 22	744	(-15.3)	E	7	30	○	0+	0+Ac

Date	LT	Station	hPa	Ta	WD	WS	V	W	N	CL
96/11/19	21:00	MIZUHO	745	(-29.3)	E	10	0.7	☩	2	2Ci
96/11/20	09:00	MIZUHO	746	(-23.7)	E	12	0.5	☩	7	0+Ac;7Ci
96/11/20	15:00	MIZUHO	748	(-17.6)	E	6	2	⦶	8	3Ac;5Ci
96/11/20	21:00	MIZUHO	748	(-23.0)	E	4	20	⦶	3	2Ac;1Ci
96/11/21	09:00	MIZUHO	748	(-24.3)	E	8	10	○	1	0+Ac;1Ci
96/11/21	15:00	Z 40	760	(-14.7)	E	8	30	⦶	2	2Ci
96/11/21	21:00	Z 16	771	(-23.3)	E	5	30	○	0+	0+Ac
96/11/22	09:00	Z 16	769	(-20.8)	E	9	0.7	☩	1	1Ac;0+Ci
96/11/22	15:00	H250	792	(-13.6)	NE	8	15	⦶	9	0+Sc;2Ac;7Ci
96/11/22	21:00	H168	817	(-14.0)	ENE	13	0.1	☩	10	X
96/11/23	09:00	H168	820	(-13.2)	NE	15	0.02	✳	10	X
96/11/23	15:00	H168	821	(-12.4)	NE	14	0.01	✳	10	X
96/11/23	21:00	H168	820	(-13.2)	NE	13	0.03	✳	10	X
96/11/24	09:00	H168	821	(-11.2)	NE	12	0.03	✳	10	X
96/11/24	15:00	H168	821	(- 8.9)	NE	10	0.06	☩	10	X
96/11/24	21:00	H168	823	(-12.7)	NE	9	10	◎	10-	3Sc;7Ac;XCi
96/11/25	09:00	H168	820	(-13.2)	ENE	7	20	⦶	2	0+Sc;2Ac
96/11/25	15:00	H 80	845	(- 6.3)	ENE	5	10	✳	10-	7Sc;10-Ac

Table 5-7. Meteorological data observed during traverse 5-b.

Date	LT	Station	hPa	Ta	WD	WS	V	W	N	CL
97/01/25	21:00	MD700	600	-34.0	—	0	20	○	1	0+Ac 1Cs 0+Ci
97/01/26	08:40	MD700	608	-36.5	ENE	1	10	○	3	0+Cs 3Ci
97/01/26	21:00	MD586	616	-34.5	—	0	20	○	1	0+Cs 1Ci
97/01/27	08:30	MD586	611	-35.1	—	0	15	◑	5	2Cs 5Ci
97/01/27	21:20	MD550	618	-36.5	SE	1	10	◍	10-	6Cs 10-Ci
97/01/28	08:50	MD550	621	-35.5	ESE	3	10	◍	10-	2Cs 10-Ci
97/01/28	21:00	MD444	629	-34.2	SE	4	20	◍	10-	10-Cs
97/01/29	08:20	MD444	632	-34.1	ESE	3	10	◍	10-	3Cs 10-Ci
97/01/29	21:00	MD364	645	-30.0	E	2	10	◍	10-	10-Cs
97/01/30	08:50	MD364	646	-34.5	ESE	4	20	○	1	0+Cs 1Ci
97/01/30	21:00	MD298	658	-31.0	E	5	20	◍	10-	10-Ci
97/01/31	09:00	MD298	657	-30.6	E	5	10	◍	10-	2Cs 10-Ci
97/01/31	21:00	MD200	687	-26.9	ESE	5	20	◑	3	1Cs 3Ci
97/02/01	08:40	MD200	693	-27.5	E	5	15	◑	3	3Ci
97/02/01	21:30	MD130	725	-20.5	ESE	4	5	✕	10-	10-Ac
97/02/02	08:10	MD130	724	-23.4	ESE	6	10	⚶	0+	0+Ci
97/02/02	22:00	Mizuho	750	-19.2	E	13	20	⚶	9	0+Ac 1Cs 9Ci
97/02/03	10:20	Mizuho	749	-16.5	E	11	0.05	⚶		
97/02/03	20:50	Mizuho	746	-20.2	E	9	15	⚶	6	1Ac 6Ci
97/02/04	09:20	Mizuho	751	-20.5	E	12	20	◑	4	4Ci
97/02/04	21:00	Mizuho	747	-21.1	E	7	20	○	0+	0+Ci
97/02/05	09:20	Mizuho	746	-22.1	E	11	20	○	0	—
97/02/05	22:10	Mizuho	743	-22.9	ESE	13	20	⚶	0+	0+Ac
97/02/06	09:30	Mizuho	739	-20.9	ESE	15	0.05	⚶	0	—
97/02/06	20:50	H276	781	-17.2	E	7	20	⚶	1	1Ac 0+Ci
97/02/07	08:50	H276	781	-20.2	E	8	10	⚶	0+	0+Ac
97/02/07	21:00	H21	862	-15.0	ESE	4	20	○	0	—
97/02/08	09:30	H21	853	-10.5	ENE	11	10	⚶	0	—
97/02/08	21:00	S16	909	-9.1	ENE	6	20	○	0+	0+Sc
97/02/09	08:50	S16	912	-6.5	E	8	10	◍	9	9Cs
97/02/10	06:00	S16	921	-8.2	E	4	10	◑	7	1Sc 7Ci