

## 5. Surface meteorological data during oversnow traverses

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Meteorological observations were carried out during the oversnow traverses several times a day. We measured air pressure (Pa), air temperature (Ta), wind direction (WD) and wind speed (WS) with the instruments and observed visibility (V), weather (W), cloud amount in tenths (N) and individual cloud amount and genus (CL). 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 5-7, 5-8 and 5-9 show meteorological data observed during traverses 1-a and 1-c, 1-d, 2-a and 2-b, 3-a and 3-b, 4-a and 4-b, 5-a, 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), AZUMA *et al.* (1997) and FUJITA *et al.* (1998).

### References

- AZUMA, N., KAMEDA, T., NAKAYAMA, Y., TANAKA, Y., YOSHIMI, H., FURUKAWA, T. and AGETA, Y. (1997): Glaciological data collected by the 36th Japanese Antarctic Research Expedition during 1995-1996. JARE Data Rep., 223 (Glaciology 26), 83p.
- FUJITA, S., KAWADA, K. and FUJII, Y. (1998): Glaciological data collected by the 37th Japanese Antarctic Research Expedition during 1996-1997. JARE Data Rep., 234 (Glaciology 27), 46p.
- MOTOYAMA, H., ENOMOTO, H., MIYAHARA, M. and KOIKE, J. (1995a): Glaciological data collected by the 34th Japanese Antarctic Research Expedition in 1993. JARE Data Rep., 202 (Glaciology 21), 42p.
- SHIRAIWA, T., SAITO, T., SAITO, T., SHOJI, H., TAGUCHI, Y., ABE, T., YAMAMOTO, Y., INAGAWA, Y., YOKOYAMA, K. and WATANABE, O.

(1996): Glaciological data collected by the 35th Japanese Antarctic Research Expedition during 1994-1995. JARE Data Rep., 211 (Glaciology 25), 69p.

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

Item	Instruments	Accuracy
Air pressure	Aneroid gauge	$\pm 1\text{hPa}$
	Vibrating cylinder type (Traverses 4-a, 4-b and 5-b)	$\pm 0.2\text{hPa}$
Air temperature	Sling type glass thermometer	$\pm 0.5^\circ\text{C}$
Wind direction	Magnetic compass	$\pm 5^\circ$
Wind speed	Portable 3-cup anemometer	$\pm 0.5\text{m/s}$
Visibility	Visual observation	
Cloud amount	Visual observation	
Weather	Visual observation	
Individual cloud	Visual observation	

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

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LT: Local standard time at Syowa Station (UTC + 3 hours)

Pa: Air pressure (hPa)

Ta: Air temperature ( $^\circ\text{C}$ )

WD: Wind direction

WS: Wind speed (m/s)

V: Visibility (km)

W: Weather

○ Clear, ⊕ Fine, ⊕ Cloudy (upper level clouds were 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

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

Date	LT	Station	Pa	Ta	WD	WS	V	W	N	CL	
21 DEC.1996	6:05	S16		-7.8	E			20 ☉	8	8Ci	↗
21 DEC.1996	12:00	S16		-1.8	NE	6.0		20 ☉	10-	10-Ci	
21 DEC.1996	21:30	S16		-3.5	E	9.0		15 ☉	10-	10-As	
22 DEC.1996	6:46	S16	906	-4.5	E	7.0		20 ☉	10-	10-As	
22 DEC.1996	9:00	S16	938	-1.4	E	7.0		20 ☉	10-	10-As	
22 DEC.1996	12:00	S16	934	-0.2	E	6.0		20 ☉	10-	0+Sc;2Ac;4Cs;10-Ci	
22 DEC.1996	15:00	S16	936	-0.9	E	2.0		20 ☉	10-	1Sc;10-As	
22 DEC.1996	18:00	S16	936	-3.5	-	0.0		30 ☉	8	4Sc;1Ac;5Ci	
22 DEC.1996	21:00	S16	935	-5.2	E	5.0		30 ☉	2	2Sc;0+Ac;0+Ci	
23 DEC.1996	6:00	S16	930	-6.2	E	8.0		20 ☉	4	1Sc;0+Ac;4Ci	↗
23 DEC.1996	12:00	S16	926	-2.0	E	9.0		15 ☉	10-	2Sc;9Ac;10-Ci	↗
23 DEC.1996	18:00	S16	929	-3.3	E	7.0		20 ☉	8	1Sc;3Ac;;8Ci	
23 DEC.1996	21:00	S16		-5.2	E	9.5		30 ☉	6	2Sc;3Ac;3Ci	
24 DEC.1996	6:00	S16	927	-7.0	E	10.0		20 ☉	2	1Sc;1Ac;0+Ci	↗
24 DEC.1996	9:00	S16	927	-3.5	E	12.0		20 ☉	7	1Sc;7Ac;0+Ci	↗
24 DEC.1996	12:00	S16	934	-1.5	E	7.0		20 ☉	10-	0+Sc;10-Ac;XCi	
24 DEC.1996	16:00	S16	932	-1.5	E	6.0		30 ☉	2	0+Sc;2Ac;0+Ci	
24 DEC.1996	17:30	S16	934	-2.9	E	4.0		30 ☉	5	0+SC;2Ac;5Ci	
24 DEC.1996	20:50	S16	935	-6.5	E	4.0		30 ☉	2	1Sc;0+Ac;1Ci	
25 DEC.1996	6:00	S16	939	-4.5	E	6.0		10 ☉	10-	6Sc;0+Ac;2Cs;10-Ci	
25 DEC.1996	9:00	S16	941	-2.2	E	5.0		20 ☉	10-	0+Sc;3Ac;10-Ci	
25 DEC.1996	12:00	S16	943	-1.5	NE	3.0		10 ☉	10-	0+Cu;1Sc;10-Ac;XCi	
25 DEC.1996	15:00	S16	944	-2.0	NE	4.0		10 ☉	10	0+Sc;10As	
25 DEC.1996	18:00	S16	945	-4.0	-	0.0		7 ✖	10-	0+Sc;10-As	
25 DEC.1996	21:00	S16	945	-5.1	-	0.0		15 ☉	10-	0+Sc;10-Ac	
26 DEC.1996	6:00	S16	945	-5.0	E	5.0		10 ☉	10-	0+St;10-Sc	
26 DEC.1996	9:00	S16	944	-5.0	E	3.0		20 ☉	3	0+Cu;1Sc;3Ci	
26 DEC.1996	12:00	S16	943	-3.0	E	6.0		20 ☉	4	0+Cu;0+Ac;4Ci	
26 DEC.1996	15:00	S16	942	-0.9	-	0.0		30 ☉	2	0+Cu;0+Sc;2Ci	
26 DEC.1996	17:00	S16	939	-3.2	E	3.0		30 ☉	2	2Ci	
26 DEC.1996	20:40	S16	937	-4.9	E	8.0		30 ☉	1	1Ci	
27 DEC.1996	6:00	S16	934	-8.5	E	8.0		10 ☉	0+	0+Ci	
27 DEC.1996	9:00	S16	934	-4.7	E	7.0		30 ☉	0		
27 DEC.1996	12:00	S16	934	-3.0	E	8.0		20 ☉	0		
27 DEC.1996	15:00	S16	934	-2.2	E	8.0		20 ☉	0+	0+Ci	
27 DEC.1996	18:00	S16	935	-2.7	E	4.0		30 ☉	0+	0+Ac;0+Ci	
27 DEC.1996	20:30	S16	935	-5.9	E	5.0		30 ☉	0+	0+Ac;0+Ci	
28 DEC.1996	6:00	S16	936	-8.2	E	8.0		10 ☉	0		
28 DEC.1996	9:00	S16	936	-4.7	E	4.0		30 ☉	0		
28 DEC.1996	12:00	S16	937	-3.0	E	4.0		30 ☉	0+	0+Ci	
28 DEC.1996	15:00	S16	935	-0.8	-	0.0		30 ☉	0+	0+Ci	
28 DEC.1996	18:40	S16	935	-3.2	-	0.0		30 ☉	0+	0+Ci	
28 DEC.1996	21:30	S16	935	-7.0	E	4.0		30 ☉	0+	0+Ci	
29 DEC.1996	6:00	S16	937	-9.3	E	6.0		30 ☉	0+	0+Ci	
29 DEC.1996	21:00	H15	884	-10.6	SE	2.0		30 ☉	1	1Ci	
30 DEC.1996	9:00	H15	884	-8.0	E	6.0		30 ☉	1	1Ci	
30 DEC.1996	21:00	H152	844	-14.5	-	0.0		20 ☉	4	4Ci	
31 DEC.1996	9:10	H152	844	-10.5	E	8.0		20 ☉	0+	0+Ci	
31 DEC.1996	20:30	H260	811	-14.5	E	6.0		20 ☉	8	0+Sc;4Ac;8Ci	
1 DEC.1997	9:00	H260	806	-13.5	E	8.0		5 ☉	7	7Ci	↗

Date	LT	Station	Pa	Ta	WD	WS	V	W	N	CL	
1 DEC.1997	21:00	Z50	770	-19.0	NE	6.0	20	○	0+	0+Ac;0+C <sub>1</sub>	
2 DEC.1997	8:00	Z50	775	-13.0	E	8.0	3	◎	10-	10-Ac	‡
2 DEC.1997	23:00	Mizuho	761	-17.7	E	6.0	20	◎	10-	8Ac;10-C <sub>i</sub>	
3 DEC.1997	9:00	Mizuho	761	-16.2	E	6.0	20	⊕	2	2C <sub>1</sub>	
3 DEC.1997	21:00	Mizuho	764	-17.2	E	3.0	20	○	0+	0+C <sub>1</sub>	
4 DEC.1997	9:00	Mizuho	755	-19.0	E	8.0	20	○	1	1C <sub>1</sub>	
4 DEC.1997	21:00	MD50	736	-20.5	E	4.0	20	○	0		
5 DEC.1997	11:40	MD55 (712)	-18.0	E	8.0	5	○	0			‡
5 DEC.1997	21:00	MD88 (702)	-21.5	E	6.0	30	○	0			
6 DEC.1997	8:20	MD88 (701)	-22.5	E	7.0	20	○	0+	0+Ac		
6 DEC.1997	21:40	MD148 (689)	-22.7	SE	4.0	20	◎	9	9Ac		
7 DEC.1997	8:30	MD148 (690)	-24.5	SE	4.0	20	○	0+	0+Ac		
7 DEC.1997	20:00	MD213 (671)	-26.6	SE	8.0	10	○	0+	0+Ac		
8 DEC.1997	8:20	MD213 (671)	-26.2	SE	4.0	20	○	0+	0+C <sub>1</sub> ;0+Ac		
8 DEC.1997	20:30	MD280 (656)	-25.2	E	3.0	20	⊕	8	8Ac		
9 DEC.1997	8:00	MD280 (652)	-25.2	E	4.0	10	⊕	10-	0+Ac,1C <sub>s</sub> ;10-C <sub>1</sub>		
9 DEC.1997	22:00	MD364 (636)	-26.0	E	6.0	10	⊕	10-	8C <sub>s</sub> ;10-C <sub>1</sub>		
10 DEC.1997	10:50	MD364 (634)	-25.2	E	3.0	20	⊕	7	2C <sub>s</sub> ;7C <sub>i</sub>		
10 DEC.1997	20:10	MD364 (640)	-26.0	-	0.0	20	◎	10-	10-Ac		
11 DEC.1997	8:10	MD364 (636)	-25.7	E	3.0	10	⊕	9	1AC;9C <sub>1</sub>		
11 DEC.1997	21:00	MD428 (629)	-31.5	E	1.0	30	○	1	0+Ac;1C <sub>s</sub> ;0+C <sub>1</sub>		
12 DEC.1997	8:10	MD428 (627)	-28.5	E	3.0	20	⊕	6	2C <sub>s</sub> ;6C <sub>1</sub>		
12 DEC.1997	21:50	MD490 (627)	-30.5	-	0.0	10	◎	10-	10-Ac		
13 DEC.1997	8:10	MD490 (630)	-31.5	E	3.0	10	⊕	10-	4C <sub>s</sub> ;10-C <sub>i</sub>		
13 DEC.1997	21:00	MD561 (617)	-34.0	E	3.0	20	○	0+	0+C <sub>s</sub> ,0+C <sub>i</sub>		
14 DEC.1997	8:20	MD561	622	-33.0	E	4.0	10	○	0+	0+C <sub>1</sub>	
14 DEC.1997	20:20	MD631	611	-32.9	SE	3.0	20	○	0		
15 DEC.1997	8:00	MD631	607	-33.6	SE	4.0	20	○	1	0+Ac;1C <sub>1</sub>	
15 DEC.1997	20:20	MD702	604	-33.0	W	2.0	10	○	0+	0+Ac	
16 DEC.1997	8:20	MD702	604	-33.5	W	3.0	5	⊕	2	2C <sub>1</sub>	

Table 5-4. Meteorological data observed during the traverse 1-d.

Date	LT	Station	Pa	Ta	WD	WS	V	W	N	CL
25 JAN.1997	21:00	MD700	600	-34.0	-	0	20	○	1	0+Ac;1Cs;0+Ci
26 JAN.1997	8:40	MD700	608	-36.5	ESE	1	10	⊕	3	0+Cs;3Ci
26 JAN.1997	21:00	MD586	616	-34.5	-	0	20	○	1	0+Cs;1Ci
27 JAN.1997	8:30	MD586	611	-35.1	-	0	15	⊕	5	2Cs;5Ci
27 JAN.1997	21:20	MD500	618	-36.5	SE	1	10	⊕	10-	6Cs;10-Ci
28 JAN.1997	8:50	MD500	621	-35.5	ESE	3	10	⊕	10-	2Cs;10-Ci
28 JAN.1997	21:00	MD444	629	-34.2	SE	4	20	⊕	10-	10-Cs
29 JAN.1997	8:20	MD444	632	-34.1	ESE	3	10	⊕	10-	3Cs;10-Ci
29 JAN.1997	21:00	MD364	645	-30.0	E	2	10	⊕	10-	10-Cs
30 JAN.1997	8:50	MD364	646	-34.5	ESE	4	20	○	1	0+Cs;1Ci
30 JAN.1997	21:00	MD298	658	-31.0	E	5	20	⊕	10-	10-Ci
31 JAN.1997	9:00	MD298	657	-30.6	E	5	10	⊕	10-	2Cs;10-Ci
31 JAN.1997	21:00	MD200	687	-26.9	ESE	5	20	⊕	3	1Cs;3Ci
1 FEB.1997	8:40	MD200	693	-27.5	E	5	15	⊕	3	3Ci
1 FEB.1997	21:00	MD130	725	-20.5	ESE	4	5	×	10-	10-Ac
2 FEB.1997	8:10	MD130	724	-23.4	ESE	6	10	○	0+	0+Ci ↗
2 FEB.1997	22:00	Mizuho	750	-19.2	E	13	20	⊕	9	0+Ac;1Cs;9Ci ↗
3 FEB.1997	10:20	Mizuho	749	-16.5	E	11	0.05	✦	X	X ↗
3 FEB.1997	20:50	Mizuho	746	-20.2	E	9	15	⊕	6	1Ac;6Ci ↗
4 FEB.1997	9:20	Mizuho	751	-20.5	E	12	20	⊕	4	4Ci
4 FEB.1997	21:00	Mizuho	747	-21.1	E	7	20	○	0+	0+Ci
5 FEB.1997	9:20	Mizuho	746	-22.1	E	11	20	○	0	
5 FEB.1997	22:10	Mizuho	743	-22.9	ESE	13	20	○	0+	0+Ac ↗
6 FEB.1997	9:30	Mizuho	739	-20.9	ESE	15	0.05	✦	0	↗
6 FEB.1997	20:50	H276	781	-17.2	E	7	20	○	1	1Ac;0+Ci ↗
7 FEB.1997	8:50	H276	781	-20.2	E	8	10	○	0+	0+Ac ↗
7 FEB.1997	21:00	H21	862	-15.0	ESE	4	20	○	0	
8 FEB.1997	9:30	H21	853	-10.5	ENE	11	10	○	0	↗
8 FEB.1997	21:00	S16	909	-9.1	ENE	6	20	○	0+	0+Sc
9 FEB.1997	8:50	S16	912	-6.5	E	8	10	⊕	9	9Sc
10 FEB.1997	6:00	S16	921	-8.2	E	4	10	⊕	7	1Sc;7Ci

Table 5-5. Meteorological data observed during the traverse 2-a and 2-b.

Date	LT	Station	Pa	Ta	WD	WS	V	W	N	CL
15 SEP.1997	19:30	S29	870	-27.5	E	4		5	*	
16 SEP.1997	7:40	S29	873	-36.5	E	11		0.5	⊕↗	
16 SEP.1997	18:30	H80	838	-35.5	E	18		0.1	⊕↗	
17 SEP.1997	8:00	H80	833	-35.0	ENE	17		0.05	↗	
17 SEP.1997	18:15	H180	789	-38.7	E	14		0.5	⊕↗	
18 SEP.1997	8:10	H180	787	-37.5	E	10		5	⊕↗	
18 SEP.1997	19:30	S122	744	-44.6	E	9		0.5	↗	
19 SEP.1997	8:10	S122	755	-45.6	E	9		10	○	
19 SEP.1997	17:45	Z70	736	-43.5	E	5		15	○	
20 SEP.1997	8:20	Z70	751	-48.6	E	3		15	⊙	
20 SEP.1997	18:10	Mizuho	737	-40.5	E	7		10	⊙	
21 SEP.1997	8:10	Mizuho	743	-47.7	E	8		10	○	
21 SEP.1997	17:40	Mizuho	736	-44.5	E	6		15	⊕	
22 SEP.1997	9:00	Mizuho	730	-46.6	E	9		15	⊕	
22 SEP.1997	18:10	Z50	735	-44.0	E	9		20	○	
23 SEP.1997	8:10	Z50	740	-47.5	ENE	11		2	⊕↗	
23 SEP.1997	17:40	H260	771	-39.2	E	13		10	○	
24 SEP.1997	7:50	H260	774	-39.0	E	15		1	⊕↗	
24 SEP.1997	18:50	H96	825	-30.5	E	12		20	○	
25 SEP.1997	7:50	H96	836	-26.7	E	5		2	*	
25 SEP.1997	18:00	H15	868	-21.0	ENE	5		10	⊙	
26 SEP.1997	7:50	H15	870	-22.7	E	10		5	⊙↗	

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

Date	LT	Station	Pa	Ta	WD	WS	V	W	N	CL	
7 OCT.1997	1450	N15	944.7	-4.7	E	6	30	☉	10	3Sc, 7Ac, 10-Ci	+
7 OCT.1997	1800	S16	909.1	-9.3	ENE	8	30	☉	10-	1Sc, 7Ac, 9Cs, XCi	+
7 OCT.1997	2100	S16	909.1	-10.6	E	9	3	☉	10-	0+Sc, 9Ac, XCi	+
8 OCT.1997	605	S16	911.0	-10.5	E	8	30	☉	10-	9Sc, XAc	+
8 OCT.1997	900	S16	911.7	-10.0	E	9	10	☉	10-	0+Sc, 8Ac, 10-Ci	+
8 OCT.1997	1200	S19-3	906.4	-9.2	ENE	12	10	☉	8	6Sc, 6Ac, 4Ci	+
8 OCT.1997	1500	S27-3	873.9	-12.5	ENE	8	3	☉	9	8Sc, 4Ac	+
8 OCT.1997	1830	H62	850.7	-15.5	E	7	10	☉	9	9Sc, 4Ac	+
8 OCT.1997	2100	H62	851.3	-19.0	E	10	10	☉	10	4Sc, 7Ac, XCi	
9 OCT.1997	600	H62	851.6	-18.3	E	10	30	☉	9	9Ac	
9 OCT.1997	900	H62	851.3	-15.8	E	9	30	☉	9	7Sc, 9Ac	
9 OCT.1997	1205	H120	829.8	-15.3	E	13	30	☉	9	9Ac	
9 OCT.1997	1505	H164	817.1	-16.5	E	11	30	☉	10-	0+Sc, 10-Ac.	
9 OCT.1997	1800	H208	804.4	-19.6	E	14	30	☉	10-	0+Sc, 9Ac, XCi	
9 OCT.1997	2100	H208	805.3	-20.7	E	11	30	☉	10-	0+Sc, 9Ac, XAs	
10 OCT.1997	610	H208	807.0	-28.6	E	14	20	☉	10-	0+Ac, 10-Ci	+
10 OCT.1997	900	H208	807.2	-25.5	E	14	20	☉	10-	0+Ac, 10-Ci	+
10 OCT.1997	1200	H264	790.4	-25.0	E	13	30	☉	10-	10-Ci	
10 OCT.1997	1500	H296	779.6	-26.2	E	11	30	☉	9	0+Ac, 9Ci	
10 OCT.1997	1755	Z16	767.2	-31.0	E	14	30	☉	10-	0+Ac, 10-Ci	
10 OCT.1997	2100	H62	767.1	-34.5	E	14	30	☉	8	1Ac, 8Ci	
11 OCT.1997	600	Z16	764.5	-36.5	E	11	10	☉	1	1Ci	+
11 OCT.1997	900	Z16	763.7	-33.0	E	13	10	☉	2	2Ci	+
11 OCT.1997	1200	Z50	752.7	-30.5	E	13	20	☉	2	2Ci	
11 OCT.1997	1505	Z78	748.0	-28.5	E	9	30	☉	3	0+Ac, 3Ci	
11 OCT.1997	1835	MIZUHO	742.3	-31.5	E	13	20	☉	3	0+Ac, 3Ci	
11 OCT.1997	2100	MIZUHO	739.8	-33.2	E	14	20	☉	3	0+Ac, 3Ac	+
12 OCT.1997	600	MIZUHO	738.2	-33.8	E	15	2	☉	4	4Ci	+
12 OCT.1997	900	MIZUHO	738.3	-31.0	E	15	5	☉	4	0+Ac, 4Ci	+
12 OCT.1997	1220	MIZUHO	739.5	-27.2	E	13	30	☉	3	0+Ac, 4Ci	+
12 OCT.1997	1535	MIZUHO	738.8	-27.0	E	10	30	☉	3	3Ci	+
12 OCT.1997	1835	MIZUHO	737.8	-30.5	E	12	30	☉	3	0+Ac, 3Ci	+
12 OCT.1997	2100	MIZUHO	737.8	-33.5	E	11	30	☉	1	1Ci	
13 OCT.1997	555	MIZUHO	736.3	-36.3	E	11	30	☉	4	4Ci	
13 OCT.1997	900	MIZUHO	735.5	-33.0	E	12	30	☉	6	6Ci	
13 OCT.1997	1200	MD18	730.1	-30.7	E	11	20	☉	3	0+Ac, 3Ci	+
13 OCT.1997	1505	MD32	724.8	-30.7	E	11	20	☉	2	2Ci	+
13 OCT.1997	1805	MD52	720.4	-34.2	E	14	2	☉	2	2Ci	+
13 OCT.1997	2105	MD52	720.2	-36.5	ESE	14	2	☉	4	4Ci	+
14 OCT.1997	600	MD52	719.9	-39.5	E	13	3	☉	3	3Ci	+
14 OCT.1997	900	MD52	720.9	-36.5	E	13	5	☉	0+	0+Ac	+
14 OCT.1997	1210	MD62	719.2	-33.5	ESE	12	8	☉	0	---	+
14 OCT.1997	1500	MD70	716.6	-34.0	ESE	10	8	☉	0	---	+
14 OCT.1997	1810	MD80-82	714.2	-36.5	E	10	8	☉	0	---	+
14 OCT.1997	2105	MD86	712.5	-40.2	E	9	20	☉	0	---	+
15 OCT.1997	605	MD86	713.0	-42.5	ESE	12	0.8	☉	0	---	+
15 OCT.1997	900	MD88	712.5	-39.7	ESE	10	1	☉	0	---	+
15 OCT.1997	1205	MD106	707.8	-35.9	ESE	9	20	☉	0	---	+
15 OCT.1997	1505	MD116	704.3	-34.5	ESE	8	30	☉	0	---	+
15 OCT.1997	1810	MD130	699.6	-36.5	SE	7	30	☉	0	---	

Date	LT	Station	Pa	Ta	WD	WS	V	W	N	CL	
15 OCT.1997	2100	MD130	698.0	-41.5	SE	7	30	⊕	0	--	
16 OCT.1997	600	MD130	694.5	-47.0	SE	11	2	○	0	--	↕
16 OCT.1997	900	MD130	694.3	-43.5	ESE	9	10	○	0	--	↕
16 OCT.1997	1205	MD140	691.3	-40.0	ESE	8	20	○	0	--	↕
16 OCT.1997	1500	MD148	689.3	-39.5	ESE	8	30	○	0	--	
16 OCT.1997	1800	MD156	687.5	-42.2	ESE	8	20	○	0	--	↕
16 OCT.1997	2100	MD156	688.1	-45.6	ESE	8	20	○	0	--	↕
17 OCT.1997	600	MD156	689.0	-49.5	ESE	7	10	○	0	--	↕
17 OCT.1997	900	MD156	689.0	-45.8	ESE	8	10	○	0	--	↕
17 OCT.1997	1200	MD156	689.1	-42.0	ESE	8	10	○	0	--	↕
17 OCT.1997	1500	MD160	687.0	-40.6	ESE	7	20	○	0	--	↕
17 OCT.1997	1810	MD166	685.4	-42.6	ESE	6	30	○	0	--	
17 OCT.1997	2100	MD174	683.0	-46.0	ESE	8	20	○	0+	0+Ac	↕
18 OCT.1997	600	MD174	681.8	-46.5	ESE	8	0.3	↕	9	9↕	↕
18 OCT.1997	900	MD174	681.4	-42.4	ESE	11	0.3	↕	9	9↕	↕
18 OCT.1997	1210	MD192	675.0	-39.0	ESE	12	0.3	✖	9	9↕	↕
18 OCT.1997	1505	MD204	670.2	-38.5	ESE	9	0.8	↕	6	6↕, XAc	↕
18 OCT.1997	1805	MD226	664.5	-42.5	SE	9	10	○	0+	0+C <sub>i</sub>	↕
18 OCT.1997	2100	MD226	664.9	-46.0	SE	7	10	○	1	1C <sub>i</sub>	↕
19 OCT.1997	600	MD226	663.6	-49.0	SE	9	0.8	↕	0	--	↕
19 OCT.1997	900	MD228	663.4	-45.0	SE	10	0.3	↕	0	--	↕
19 OCT.1997	1200	MD248	653.6	-42.0	SE	10	2	○	0	--	↕
19 OCT.1997	1500	MD258	652.1	-41.2	SE	7	10	○	0	--	↕
19 OCT.1997	1805	MD280	647.0	-43.5	SE	7	10	○	0	--	↕
19 OCT.1997	2100	MD280	646.2	-47.7	SE	8	10	○	0	--	↕
20 OCT.1997	600	MD280	642.3	-52.5	ESE	9	0.3	↕	5	5↕	↕
20 OCT.1997	905	MD282	641.4	-49.7	ESE	10	0.3	↕	5	5↕	↕
20 OCT.1997	1205	MD300	634.5	-46.2	SE	8	0.8	↕	4	4↕	↕
20 OCT.1997	1500	MD306	633.7	-45.5	SE	7	10	○	0	--	
20 OCT.1997	1800	MD332	628.2	-47.9	SSE	7	10	○	0	--	↕
20 OCT.1997	2100	MD340	625.4	-52.5	SE	5	20	○	0	--	
21 OCT.1997	600	MD340	625.4	-53.5	SE	6	10	○	0	--	↔
21 OCT.1997	930	MD340	626.4	-49.5	ESE	5	10	○	0	--	↔
21 OCT.1997	1200	MD358	624.4	-46.7	SSE	7	10	○	0	--	↔
21 OCT.1997	1510	MD364	623.2	-46.1	SSE	5	20	○	0	--	
21 OCT.1997	1805	MD364	624.2	-48.8	SSE	4	30	○	0	--	
21 OCT.1997	2100	MD364	626.0	-52.5	SSE	4	20	○	0	--	
22 OCT.1997	605	MD364	628.8	-53.0	SE	4	20	○	0	--	
22 OCT.1997	900	MD364	629.8	-51.0	SE	5	20	○	0	--	
22 OCT.1997	1200	MD364	630.2	-46.5	SE	4	20	○	1	1C <sub>i</sub>	
22 OCT.1997	1500	MD376	629.0	-46.0	SSE	3	30	⊕	4	4C <sub>i</sub>	
22 OCT.1997	1805	MD400	623.2	-49.5	S	<3	30	⊕	7	0+Ac, 7C <sub>i</sub>	
22 OCT.1997	2100	MD404	623.0	-53.5	SE	<3	30	○	0+	0+C <sub>i</sub>	
23 OCT.1997	600	MD404	621.2	-57.0	SE	5	10	○	0	--	
23 OCT.1997	900	MD404	620.2	-54.0	SE	6	10	○	0	--	
23 OCT.1997	1200	MD426	616.3	-50.3	SE	4	10	○	0	--	↔
23 OCT.1997	1505	MD440	613.6	-49.5	SE	4	20	○	0	--	↔
23 OCT.1997	1800	MD464	610.9	-51.2	SE	4	20	○	0	--	↔
23 OCT.1997	2100	MD464	610.3	-54.0	SE	5	10	○	0	--	↔
24 OCT.1997	600	MD464	608.9	-56.0	SE	5	10	○	0	--	↕, ↔



Date	LT	Station	Pa	Ta	WD	WS	V	W	N	CL	
24 OCT.1997	900	MD466	608.7	-53.0	SE	6	10	○	0	—	↕
24 OCT.1997	1200	MD484	607.2	-51.0	SE	4	20	○	0	—	↕
24 OCT.1997	1500	MD498	606.3	-50.4	SE	4	20	○	0+	0+Ci	↕
24 OCT.1997	1800	MD522	604.9	-52.5	SE	4	30	○	0+	0+Ci	↕
24 OCT.1997	2100	MD528	604.3	-56.0	SE	3	39	○	0+	0+Ci	↕
25 OCT.1997	600	MD528	606.0	-56.0	SE	<3	30	○	0+	0+Ci	↕
25 OCT.1997	900	MD530	606.4	-53.0	SE	<3	30	○	1	1Ci	↕
25 OCT.1997	1300	MD550	603.9	-50.6	SE	<3	30	○	1	1Ci	↕
25 OCT.1997	1500	MD560	602.8	-50.5	SE	3	30	⊕	2	2Ci	↕
25 OCT.1997	1800	MD584	599.9	-53.0	SE	<3	30	⊕	4	4Ci	
25 OCT.1997	2100	MD590	598.0	-55.0	S	<3	20	⊕	9	9Ci	
26 OCT.1997	600	MD590	597.6	-56.0	S	3	30	⊕	8	8Ci	
26 OCT.1997	900	MD592	597.3	-55.0	SSE	3	30	○	1	1Ci	↕
26 OCT.1997	1200	MD616	596.1	-51.2	SSE	4	30	○	1	1Ci	↕
26 OCT.1997	1500	MD626	594.7	-50.0	S	3	30	○	1	1Ci	↕
26 OCT.1997	1800	MD652	593.1	-52.5	S	3	30	○	1	1Ci	
26 OCT.1997	2100	MD658	592.6	-56.5	S	<3	30	○	0+	0+Ci	
27 OCT.1997	600	MD658	591.6	-60.0	S	<3	30	○	0+	0+Ci	
27 OCT.1997	910	MD660	591.5	-55.0	S	3	30	○	0	—	↕
27 OCT.1997	1200	MD682	589.8	-51.5	S	<3	30	○	0+	0+Ci	↕
27 OCT.1997	1500	MD694	589.6	-51.5	S	<3	30	⊕	9	9Ci	↕
27 OCT.1997	1800	MD710	588.3	-55.0	S	<3	30	⊕	9	9Ci	↕
27 OCT.1997	2100	MD710	588.7	-62.0	S	<3	30	⊕	7	7Ci	↕
28 OCT.1997	600	MD710	588.7	-65.0	SSE	<3	30	⊕	2	2Ci	↕
28 OCT.1997	910	MD712	587.8	-59.0	S	<3	30	⊕	7	7Ci	↕
28 OCT.1997	1200	MD726	587.4	-55.5	S	<3	20	⊕	9	9Ci	↕
3 NOV.1997	2120	MD700	596.7	-53.0	S	8	1	○	0	—	↕
4 NOV.1997	600	MD700	600.3	-56.0	S	4	5	○	1	1Ci	↕
4 NOV.1997	900	MD700	601.5	-49.3	S	4	2	⊕	6	6Ci	↕
4 NOV.1997	1200	MD674	604.1	-44.5	SSE	5	3	⊕	10-	10-Ci	↕
4 NOV.1997	1455	MD662	606.4	-44.3	SSE	5	5	⊕	10-	10-Ci	↕
4 NOV.1997	1805	MD636	609.3	-45.5	SSE	4	10	⊕	9	9Ci	↕
4 NOV.1997	2100	MD620	612.4	-49.5	SSE	5	20	⊕	9	9Ci	↕
5 NOV.1997	600	MD620	617.3	-51.3	S	5	5	○	0	—	↕
5 NOV.1997	905	MD620	618.7	-45.5	S	3	20	○	0+	0+Ci	
5 NOV.1997	1200	MD596	620.3	-39.5	S	5	20	⊕	8	8Ci	
5 NOV.1997	1500	MD584	623.0	-38.0	S	6	10	○	1	1Ci	↕
5 NOV.1997	1800	MD556	627.2	-39.5	SSE	6	10	○	1	1Ci	↕、↕
5 NOV.1997	2100	MD540	630.0	-44.4	SSE	6	3	⊕	2	2Ci	↕、↕
6 NOV.1997	605	MD540	631.0	-48.5	S	5	5	⊕	10-	10-Ci	↕
6 NOV.1997	900	MD540	630.6	-42.5	SSE	7	3	⊕	7	7Ci	↕、↕
6 NOV.1997	1200	MD508	632.3	-39.4	SSE	10	0.8	↕	2	2Ci	↕
6 NOV.1997	1500	MD496	632.3	-38.5	SSE	12	0.8	↕	1	1Ci	↕
6 NOV.1997	1800	MD466	634.1	-38.6	SSE	10	2	○	0	—	↕
6 NOV.1997	2100	MD456	633.5	-41.5	SSE	10	2	○	0	—	↕
7 NOV.1997	600	MD456	629.0	-44.0	SSE	12	0.2	↕	10	10↕	↕
7 NOV.1997	900	MD456	628.2	-39.7	SSE	11	0.1	↕	10	10↕	↕
7 NOV.1997	1200	MD436	630.4	-38.0	SE	15	0.1	↕	10	10↕	↕
7 NOV.1997	1510	MD430	631.2	-37.0	SE	14	0.1	↕	10	10↕	↕
7 NOV.1997	1800	MD410	633.9	-38.7	SE	9	0.8	○	0	—	↕

Date	LT	Station	Pa	Ta	WD	WS	V	W	N	CL	
7 NOV.1997	2100	MD392	638.0	-43.0	SE	5	10	○	0+	0+C <sub>1</sub>	
8 NOV.1997	600	MD392	638.8	-45.5	SE	8	2	○	0	---	+
8 NOV.1997	900	MD392	639.2	-42.1	SE	9	0.8	+	0	---	+
8 NOV.1997	1200	MD364	644.6	-39.0	SE	9	0.8	+	9	9+	+
8 NOV.1997	1500	MD354	649.2	-37.1	SE	7	2	○	0	---	+
8 NOV.1997	1800	MD324	655.9	-37.5	SE	6	10	○	0+	0+C <sub>1</sub>	+
8 NOV.1997	2100	MD310	657.6	-41.5	SE	6	2	○	1	1C <sub>1</sub>	+
9 NOV.1997	620	MD310	655.5	-42.7	SE	8	2	○	0	---	+
9 NOV.1997	900	MD310	655.1	-38.4	SE	7	0.8	+	2	2C <sub>1</sub>	+
9 NOV.1997	1200	MD282	662.1	-34.3	SE	9	2	○	0	-	+
9 NOV.1997	1510	MD270	665.1	-32.5	ESE	7	6	⊕	4	4C <sub>1</sub>	+
9 NOV.1997	1800	MD246	668.8	-33.0	SE	5	20	⊕	6	6C <sub>1</sub>	
9 NOV.1997	2100	MD240	673.4	-36.5	SE	5	20	⊕	9	9C <sub>1</sub>	
10 NOV.1997	600	MD240	675.9	-39.0	SE	10	0.8	+	7	7C <sub>1</sub>	+
10 NOV.1997	900	MD240	677.2	-34.5	ESE	10	0.8	+	8	8C <sub>1</sub>	+
10 NOV.1997	1200	MD222	684.0	-32.8	ESE	10	0.8	+	8	8C <sub>1</sub>	+
10 NOV.1997	1500	MD210	689.3	-32.3	ESE	9	2	⊕	10-	10-C <sub>1</sub>	+
10 NOV.1997	1810	MD188	696.4	-33.0	ESE	7	20	○	0+	0+C <sub>1</sub>	+
10 NOV.1997	2100	MD180	699.4	-36.0	SE	8	20	○	0+	0+C <sub>1</sub>	+
11 NOV.1997	600	MD180	699.8	-40.5	SE	10	20	○	0+	0+C <sub>1</sub>	+
11 NOV.1997	900	MD180	699.8	-36.0	SE	9	20	○	0+	0+C <sub>1</sub>	+
11 NOV.1997	1200	MD160	708.3	-31.2	ESE	6	30	○	0	---	
11 NOV.1997	1500	MD150	712.3	-29.4	ESE	5	30	○	0	---	
11 NOV.1997	1800	MD126	719.7	-30.2	ESE	6	30	○	0+	0+C <sub>1</sub>	
11 NOV.1997	2100	MD120	722.6	-34.5	ESE	6	30	○	0	---	
12 NOV.1997	600	MD120	724.0	-37.5	ESE	7	30	○	0	---	
12 NOV.1997	900	MD120	724.0	-32.2	ESE	7	30	○	0	---	
12 NOV.1997	1200	MD100	730.9	-27.6	ESE	6	30	○	0	---	
12 NOV.1997	1500	MD88	734.1	-25.0	ESE	6	30	○	0	---	
12 NOV.1997	1805	MD76	738.5	-26.5	ESE	5	30	○	0+	0+C <sub>1</sub>	
12 NOV.1997	2105	MD60	741.5	-30.0	ESE	8	30	○	0	---	
13 NOV.1997	600	MD60	740.5	-33.4	ESE	10	10	○	0+	0+C <sub>1</sub>	+
13 NOV.1997	900	MD60	740.0	-29.0	ESE	11	10	○	0+	0+C <sub>1</sub>	+
13 NOV.1997	1200	MD50-52	746.8	-23.0	ESE	12	10	○	1	1C <sub>1</sub>	
13 NOV.1997	1500	MD24	750.4	-21.5	ESE	10	20	○	1	0+Ac, 1C <sub>1</sub>	
13 NOV.1997	1805	MIZUHO	758.0	-22.0	E	9	20	⊕	3	0+Ac, 3C <sub>1</sub>	
13 NOV.1997	2100	MIZUHO	758.1	-26.5	ESE	10	20	⊕	8	2Ac, 8C <sub>1</sub>	
14 NOV.1997	605	MIZUHO	759.9	-29.7	ESE	12	20	⊕	8	0+Ac, 8C <sub>1</sub>	
14 NOV.1997	900	MIZUHO	759.9	-25.3	ESE	12	20	⊕	7	1Ac, 7C <sub>1</sub>	
14 NOV.1997	1200	MIZUHO	760.1	-20.9	ESE	10	20	⊕	9	1Ac, 9C <sub>1</sub>	
14 NOV.1997	1500	MIZUHO	760.6	-19.5	ESE	9	20	⊕	8	8C <sub>1</sub>	
14 NOV.1997	1805	MIZUHO	760.6	-21.9	ESE	8	20	⊕	6	6C <sub>1</sub>	
14 NOV.1997	2105	MIZUHO	760.9	-26.0	ESE	9	30	⊕	2	2C <sub>1</sub>	
15 NOV.1997	600	MIZUHO	760.4	-30.2	ESE	14	10	○	0+	0+Ac	+
15 NOV.1997	900	MIZUHO	760.4	-25.3	ESE	15	8	○	0+	0+C <sub>1</sub>	+
15 NOV.1997	1200	MIZUHO	760.4	-21.5	ESE	13	8	○	0	---	+
15 NOV.1997	1500	Z92	765.0	-18.9	ESE	11	8	○	0+	0+C <sub>1</sub>	+
15 NOV.1997	1800	Z58	771.3	-19.7	E	11	10	○	1	1C <sub>1</sub>	+
15 NOV.1997	2100	Z38	772.4	-22.5	E	14	2	⊕	3	1Ac, 3C <sub>1</sub>	+
16 NOV.1997	600	Z38	764.0	-23.3	E	17	0.2	+	10-	9Ac, XC <sub>1</sub>	+

Date	LT	Station	Pa	Ta	WD	WS	V	W	N	CL	
16 NOV.1997	900	Z38	760.9	-18.4	ESE	18	0.2	†	10	10†	†
16 NOV.1997	1200	Z12	766.3	-16.0	E	19	0.2	†	10	10†	†
16 NOV.1997	1500	Z0	771.6	-15.0	ESE	18	0.1	*	10	10†	†
16 NOV.1997	1805	H264	784.4	-14.3	E	15	0.2	†	10	10†	†
16 NOV.1997	2100	H236	792.0	-16.5	E	14	0.8	*	10	10†	†
17 NOV.1997	600	H236	791.5	-20.8	E	12	0.8	†	8	3Ac, 7Ci	†
17 NOV.1997	900	H236	792.8	-18.7	E	9	2	⊖	7	7Ac	†
17 NOV.1997	1200	H168	814.5	-14.0	E	6	10	*	10-	10-Sc	*
17 NOV.1997	1500	H152	821.9	-13.0	NNE	4	10	*	10	10Sc	*
17 NOV.1997	1800	H112	837.0	-12.8	NNW	3	0.8	*	10	10Sc	*
17 NOV.1997	2100	H77	852.8	-13.9	N	<3	3	*	10	10Sc	*
18 NOV.1997	600	H77	859.8	-12.7	NNE	<3	2	*	10	10Sc	*
18 NOV.1997	900	H77	861.6	-10.1	C	---	10	*	9	9Sc	*
18 NOV.1997	1200	S27	896.1	-8.5	ESE	<3	30	⊖	3	0+St, 3Sc	
18 NOV.1997	1500	S21	923.0	-4.8	ESE	<3	30	○	1	0+Sc, 1Ac	
18 NOV.1997	1800	S16	937.2	-10.1	ESE	3	30	⊖	3	1Sc, 3Ac	
18 NOV.1997	2100	S16	936.1	-13.2	ESE	6	20	⊖	3	0+Sc, 3Ac	†
19 NOV.1997	600	S16	932.1	-16.2	ESE	9	20	○	0+	0+Ac	†
19 NOV.1997	915	S16	930.7	-11.0	ESE	6	30	○	0	---	
19 NOV.1997	1200	S16	929.7	-5.8	ESE	<3	30	○	0	---	

Table 5-7. Meteorological data observed during the traverses 4-a and 4-b.

Date	LT	Station	Pa	Ta	WD	WS	V	W	N	CL	
22 NOV.1997	14:30	DF95	622.3	-30.3	ESE	4.8	30	○	0		
22 NOV.1997	21:15	DF115	623.8	-36.8	E	5.0	30	○	0		
23 NOV.1997	8:20	DF115	622.5	-36.2	E	4.5	30	○	0+	0+Ci	
23 NOV.1997	14:30	DF135	622.7	-29.9	E	5.9	30	○	0		
23 NOV.1997	21:00	Dome Camp	620.5	-36.2	E	4.5	20	○	0		
24 NOV.1997	10:00	Dome Camp	619.0	-33.2	NE	6.0	30	○	0+	0+Ci	
24 NOV.1997	15:00	Dome Camp	618.1	-29.8	NE	5.7	30	○	0+	0+Ci	
24 NOV.1997	20:40	Dome Camp	617.7	-38.2	NE	-	30	○	0+	0+Ci	
25 NOV.1997	9:00	Dome Camp	618.0	-34.8	NE	-	30	⊕	9	XCi;XCs	
25 NOV.1997	14:40	Dome Camp	617.7	-29.2	NW	-	30	⊕	3	XCi	
25 NOV.1997	20:30	Dome Camp	617.8	-38.7	NW	-	5	⊕	10-	2Ci;8Cs	
26 NOV.1997	8:15	Dome Camp	618.0	-36.3	NW	2.8	5	⊕	7	6Ci;2Cs	
26 NOV.1997	15:00	DF30	615.4	-26.1	WSW	5.9	5	⊕	10-	10-Cs;7Ci	
26 NOV.1997	21:00	DF50	614.5	-36.0	NW	2.2	10	⊕	9	7Cs;5Ci	
27 NOV.1997	9:15	DF55	612.0	-32.5	NW	2.0	10	⊕	10-	10-Cs;7Ci	
27 NOV.1997	15:10	DF80	609.5	-27.0	N	-	10	⊕	9	7Ci;3Cs	
8 DEC.1997	13:30	S77°26',E41°29'	606.0	-28.4	NW	3.5	30	⊕	10-	8Cs;2Ci	↕
8 DEC.1997	20:50	S78°01',E41°10'	608.2	-33.9	NNW	3.0	30	⊕	10-	8Ci;2Cs	↕
9 DEC.1997	6:00	S78°01',E41°10'	608.9	-38.7	NNW	<3	30	⊕	5	3Ci;2Cs	↕
9 DEC.1997	13:00	S78°32',E40°47'	612.8	-29.2	NNW	5.0	20	⊕	10-	3Ci;7Cs	↕
9 DEC.1997	20:30	S79°02',E40°35'	615.1	-32.6	N	3.5	15	⊕	10-	2Ci;8Cs	↕
10 DEC.1997	6:00	S79°02',E40°35'	615.6	-35.4	N	4.5	15	⊕	10-	5Ci;5Cs	↕
10 DEC.1997	13:20	S79°12',E40°31'	615.3	-27.8	NNW	5.0	20	⊕	10-	2Ci;8Cs	↕, ↗
10 DEC.1997	20:35	S79°00',E42°30'	613.1	-33.0	NW	<3	30	○	0+	0+Ci	↕
11 DEC.1997	9:00	S79°00',E42°30'	612.7	-31.8	NNW	3.0	20	○	0+	0+Ci	
11 DEC.1997	16:15	S79°00',E42°30'	611.7	-26.0	N	4.0	20	⊕	10-	5Ci;5Cs	↕
11 DEC.1997	19:30	S79°00',E42°30'	610.7	-28.9	NNE	4.0	20	⊕	10-	8Cs;2Ci	↕
12 DEC.1997	7:00	S79°00',E42°30'	611.7	-32.2	NNE	5.5	5	⊕	10-	10-Cs	↕, ↗
12 DEC.1997	14:00	S79°00',E42°30'	609.6	-27.0	NNE	8.0	0.5	↗	10	10Cs	↕, ↗
12 DEC.1997	19:30	S79°00',E42°30'	609.0	-27.2	NNE	7.0	1	⊕	10-	8Cs;2Ci	↕, ↗
13 DEC.1997	6:45	S79°00',E42°30'	611.7	-32.5	N	4.0	10	○	0		↕
13 DEC.1997	13:45	S79°00',E42°30'	611.6	-27.3	N	5.5	10	○	0+	0+Ac	↗
13 DEC.1997	19:30	S79°00',E42°30'	612.1	-28.2	N	4.0	30	○	0+	0+Ac	↕
14 DEC.1997	6:45	S79°00',E42°30'	612.1	-33.2	N	3.5	20	⊕	9	5Ci;4Cs	↕
14 DEC.1997	13:40	S79°00',E42°30'	614.5	-26.9	NNE	6.5	5	⊕	10-	8Ci;2Cs	↕, ↗
14 DEC.1997	19:30	S79°00',E42°30'	614.6	-28.2	N	6.0	20	⊕	7	5Ci;2Cs	↗
15 DEC.1997	6:30	S79°00',E42°30'	617.2	-32.3	N	<3	30	⊕	5	4Ci;1Cs	
15 DEC.1997	13:40	S79°00',E42°30'	616.7	-26.1	NNW	5.0	30	⊕	3	3Ci	
15 DEC.1997	19:30	S79°00',E42°30'	616.9	-28.3	N	<3	30	○	0+	0+Ac;0+Ci	
16 DEC.1997	8:30	S79°00',E42°30'	618.8	-30.8	N	4.0	20	⊕	4	4Ci	↕
16 DEC.1997	13:40	S79°00',E42°30'	619.5	-27.3	NNE	5.5	10	⊕	4	3Cs;1Ci	↕, ↗
16 DEC.1997	19:30	S79°00',E42°30'	619.9	-28.2	NNE	4.5	20	⊕	3	3Cs;0+Ci	↕, ↗
17 DEC.1997	6:45	S79°00',E42°30'	622.2	-29.8	N	5.0	10	⊕	4	3Cs;1Ci	↕, ↗
17 DEC.1997	13:30	S79°00',E42°30'	622.3	-25.8	N	7.0	5	⊕	6	3Cs;3Ci	↕, ↗
17 DEC.1997	19:30	S79°00',E42°30'	622.4	-28.2	N	4.0	30	○	0+	0+Ac;0+Ci	
18 DEC.1997	6:00	S79°00',E42°30'	622.5	-32.4	N	3.0	30	○	0+	0+Ac	
18 DEC.1997	13:30	S78°31',E41°18'	622.5	-24.8	NE	7.0	5	⊕	10-	10-Cs	
18 DEC.1997	21:00	S78°00',E40°00'	615.0	-24.5	NE	8.5	0.1	↗	10	10As	↗
19 DEC.1997	6:50	S78°00',E40°00'	616.0	-24.6	NE	6.5	0.5	⊕	10	10Cs	↕, ↗
19 DEC.1997	13:30	S78°00',E40°00'	616.3	-20.8	NNE	8.0	0.5	⊕	10	9As;1Cs	↕, ↗
19 DEC.1997	19:30	S78°00',E40°00'	617.3	-22.0	N	3.5	20	⊕	10-	4Cs;3Cc;2Ci;3A	↕, ↗
20 DEC.1997	7:00	S78°00',E40°00'	619.2	-24.8	N	5.0	20	⊕	10-	5Cs;5Ci	
20 DEC.1997	13:00	S77°34',E35°44'	615.8	-21.5	NNE	5.5	20	⊕	9	6Cs;2Ci;1As	↗

Table 5-8. Meteorological data observed during the traverse 5-a.

Date	LT	Station	Pa	Ta	WD	WS	V	W	N	CL
17 JAN.1998	20:40	MD681		-34.6	SE	3.2	30	⊙	0+	0+Ci
18 JAN.1998	8:15	MD681		-37.2	SE	2.8	30	⊙	4	4Ci
18 JAN.1998	20:50	MD568		-34.5	SE	3.0	30	⊙	2	2Ci
19 JAN.1998	8:40	MD568		-35.2	SE	4.4	30	⊙	3	3Ci
19 JAN.1998	20:45	MD486		-35.3	SE	2>	30	⊙	0+	0+Ci
20 JAN.1998	8:20	MD486		-37.4	SE	3.3	30	⊙	6	6Ci
20 JAN.1998	14:00	MD444		-30.8	ESE	5.5	30	⊙	0+	0+Ci
21 JAN.1998	0:30	MD364		-38.9	SE	2.9	30	⊙	1	1Ci
21 JAN.1998	12:15	MD364		-31.3	E	3.6	30	⊙	0+	0+Ci
21 JAN.1998	21:10	MD364		-35.1	SE	2.3	30	⊙	0+	0+Ci
22 JAN.1998	11:00	MD364		-31.2	ESE	4.5	10	⊙	0	
22 JAN.1998	20:40	MD318		-32.2	ESE	3.0	30	⊙	0	
23 JAN.1998	8:40	MD318		-32.8	SE	4.4	30	⊙	0+	0+Ci
23 JAN.1998	20:40	MD248		-32.2	SE	2.0	30	⊙	0	
24 JAN.1998	8:30	MD248		-33.6	SE	5.0	30	⊙	0	
24 JAN.1998	21:20	MD173		-28.9	E	4.2	30	⊙	8	6Ci, 2Cs
25 JAN.1998	11:40	MD150	700	-22.6	E	5.5	30	⊙	4	4Ci, 1Cs
25 JAN.1998	15:20	MD150	700	-20.6	E	6.5	30	⊙	6	6Ci, 1Cs
25 JAN.1998	18:30	MD150	700	-21.0	E	5.8	30	⊙	10-	10-Cs, 7Ci
25 JAN.1998	20:30	MD150	700	-23.1	E	5.3	30	⊙	9	9Cs, 6Ci
26 JAN.1998	7:30	MD150		-23.2	E	7.5	0.5	⊙	10-	9Cs, 7Ci
26 JAN.1998	21:20	MD75		-20.5	E	8.5	10	⊙	8	8Ac
27 JAN.1998	9:30	MD74		-19.0	E	9.0	0.5	⊙	9	9Ac, 1As
27 JAN.1998	21:50	Mizuho	742	-20.3	E	8.5	5	⊙	6	2Ac, 5Ci
28 JAN.1998	8:20	Mizuho	744	-20.2	E	10.0	5	⊙	7	7Ci
28 JAN.1998	14:30	Mizuho		-15.5	E	8.5	5	⊙	9	9Cs, 6Ci
28 JAN.1998	21:25	Z76	752	-20.1	ENE	6.7	10	⊙	7	2As, 6Ci
29 JAN.1998	7:10	Z76	752	-22.2	E	10.2	5	⊙	9	7Cs, 9Ci
29 JAN.1998	14:05	Z3	773	-11.5	E	6.7	10	⊙	10-	10-Cs
29 JAN.1998	21:35	H167		-14.0	ENE	2>	10	⊙	10-	9Ac, 2Ci
30 JAN.1998	8:20	H167	823	-14.5	ENE	5.2	30	⊙	2	2Ci, 0+Ac
30 JAN.1998	14:20	H83	850	-7.5	N	2.8	30	⊙	3	3Ci, 0+Ac
30 JAN.1998	19:45	S30	872	-11.6	E	2.7	30	⊙	8	8Ci, 2Ac
31 JAN.1998	7:30	S30		-10.5	E	8.0	5	⊙	10-	
31 JAN.1998	8:00	S30		-9.3	E	7.0	5	⊙	10-	10-Cs, 5Ci, 4As
31 JAN.1998	8:40	S30		-8.3	ENE	8.0	5	⊙	7	5As, 6Ci
31 JAN.1998	9:15	S30					5	⊙	5	2As, 4Ci
31 JAN.1998	10:00	S30		-8.7	ENE	6.8	10	⊙	6	4Ac, 2Ci
31 JAN.1998	11:00	S30		-7.0	ENE	7.0	5	⊙	9	9Ac
31 JAN.1998	21:10	S30		-10.8	E	7.0	20	⊙	7	6Ac, 4Ci
1 FEB.1998	8:20	S30		-9.3	E	9.2	5	⊙	8	8Ac

Table 5-9. Meteorological data observed during the traverse 4-b.

Date	LT	Station	Pa	Ta	WD	WS	V	W	N	CL
24 JAN.1998	12:00	Dome Fuji	596.3	-34.5	S	3.0	20 ↔		2	2 Ci
24 JAN.1998	15:00	Dome Fuji	596.6	-32.5	E	3.0	30 ○		0+	0+Ci
24 JAN.1998	18:00	MD690	599.1	-32.5	E	2.0	30 ○		0+	0+Ci
24 JAN.1998	21:00	MD690	599.9	-40.0	ESE	3.0	30 ○		0+	0+Ci
25 JAN.1998	0:00	MD690	600.6	-41.0	ESE	2.0	30 ○		0+	0+Ci
25 JAN.1998	9:00	MD690	603.0	-38.0	-	0.0	20 ○		0+	0+Ci
25 JAN.1998	12:30	MD664	606.3		N	1.0	20 ○		0+	0+Ci
25 JAN.1998	14:30	MD650	607.9	-31.5	NW	2.0	20 ○		0+	0+Ci
25 JAN.1998	18:00	MD620	610.9	-34.0	ENE	1.0	20 ⊕		2	2 Ci
25 JAN.1998	21:00	MD620	611.7	-39.0	ESE	3.0	20 ⊕		8	8 Ci
26 JAN.1998	0:00	MD620	612.9	-42.0	ESE	3.5	20 ⊕		10-	10-Ci
26 JAN.1998	6:30	MD620	614.4	-41.0	ESE	3.0	20 ○		0+	0+Ci
26 JAN.1998	8:15	MD620	614.3	-35.0	ESE	3.0	20 ○		0+	0+Ci
26 JAN.1998	14:40	MD550	621.0	-23.0	ESE	5.5	20 ○		0+	0+Ci
26 JAN.1998	21:00	MD500	625.4	-36.5	SE	6.0	20 ○		0+	0+Ci
27 JAN.1998	0:00	MD500	625.6	-39.5	SE	5.5	20 ⊕		4	0+Ac 4 Ci
27 JAN.1998	6:30	MD500	626.8	-38.0	SE	6.0	30 ⊕		10-	10-Ci
27 JAN.1998	8:00	MD500	625.3	-32.0	SE	5.0	30 ⊕		10-	10-Ci
27 JAN.1998	14:15	MD430	632.3	-28.0	ESE	6.5	20 ⊕		10-	4 Ci 6 Cs
27 JAN.1998	19:30	MD364	642.7	-29.0	ESE	7.0	30 ○		0+	0+Ci
27 JAN.1998	21:00	MD364	642.8	-32.5	ESE	7.0	30 ○		0+	0+Ci
28 JAN.1998	0:00	MD364	643.2	-37.0	ESE	7.0	30 ○		0+	0+Ci
28 JAN.1998	7:00	MD364	644.8	-34.0	ESE	6.5	30 ○		0+	0+Ci
28 JAN.1998	10:00	MD364	644.1	-30.0	ESE	7.0	30 ○		0+	0+Ci
28 JAN.1998	12:00	MD364	645.2	-27.0	ESE	8.5	30 ⊕		2	2 Ci
28 JAN.1998	15:00	MD364	644.8	-26.5	ESE	7.0	30 ○		1	1 Ci
28 JAN.1998	18:00	MD364	644.5	-27.0	ESE	6.5	30 ○		1	1 Ci
28 JAN.1998	21:00	MD364	644.8	-30.0	ESE	6.5	30 ⊕		10-	10-Ci
29 JAN.1998	0:00	MD364	645.1	-35.0	ESE	6.5	30 ⊕		10-	10-Ci
29 JAN.1998	6:15	MD364	646.0	-36.0	ESE	6.0	30 ⊕		8	8 Ci
29 JAN.1998	9:20	MD364	644.3	-31.0	ESE	7.5	30 ⊕		10-	10-Ci
29 JAN.1998	11:40	MD364	644.3	-27.5	ESE	6.5	30 ⊕		10-	10-Ci
29 JAN.1998	17:00	MD294	659.2	-24.0	ESE	6.0	20 ⊕		2	2 Ci
29 JAN.1998	18:00	MD294	658.9	-25.5	ESE	6.0	20 ⊕		4	4 Ci
29 JAN.1998	21:00	MD294	659.1	-30.5	ESE	6.0	30 ○		0+	0+i
30 JAN.1998	0:00	MD294	659.5	-34.5	ESE	8.0	30 ⊕		2	0+Ci 2 Cs
30 JAN.1998	6:00	MD294	661.3	-33.5	ESE	7.5	20 ⊕		10-	10-Ci
30 JAN.1998	8:25	MD294	659.6	-30.0	ESE	9.5	20 ⊕		10-	6 Ci 4 Cs
30 JAN.1998	12:45	MD244	672.4	-21.0	ESE	9.0	10 ↗		10-	10-Cs
30 JAN.1998	15:55	MD214	682.4	-20.5	ESE	9.0	10 ↗		10-	2 As 10-Cs
30 JAN.1998	18:00	MD200	685.4	-22.0	ESE	9.5	20 ↗		10-	2 As 4 Ci 6 Cs
30 JAN.1998	21:00	MD200	686.0	-25.0	ESE	10.0	20 ↗		10-	10-Ac X Ci
31 JAN.1998	0:00	MD200	687.3	-29.0	ESE	10.0	20 ↗		8	1 Ac 8 Ci
31 JAN.1998	6:00	MD200	690.3	-30.0	ESE	10.0	10 ↗		10-	0+Ac 10-Ci
31 JAN.1998	8:25	MD200	688.2	-27.0	ESE	10.0	10 ↗		10-	0+Ac 10-Ci

Date	LT	Station	Pa	Ta	WD	WS	V	W	N	CL
31 JAN.1998	10:20	MD180	694.1	-21.0	ESE	12.0	20 ↗	8	0+Ac	2 Cc 6 Ci
31 JAN.1998	12:40	MD160	702.2	-22.0	ESE	10.0	20 ⊙	8	0+Ac	8 Ci
31 JAN.1998	15:30	MD140	708.3	-20.0	E	8.0	30 ⊙	6	0+Ac	6 Ci
31 JAN.1998	18:00	MD120	714.5	-20.0	E	8.0	30 ⊙	8	0+Ac	8 Ci
31 JAN.1998	21:00	MD120	715.5	-24.5	E	8.0	30 ○	0+	0+Ci	
1 FEB.1998	0:00	MD120	716.3	-29.0	E	8.0	30 ○	0+	0+Ci	
1 FEB.1998	6:30	MD120	718.2	-29.0	E	7.5	30 ○	0+	0+Ci	
1 FEB.1998	8:10	MD120	716.8	-26.0	E	6.5	30 ○	0+	0+Ci	
1 FEB.1998	12:10	MD80	727.7	-21.0	E	9.0	30 ○	0+	0+Ci	
1 FEB.1998	15:00	MD70	729.0	-20.0	E	7.5	30 ○	0+	0+Ac	0+Ci
1 FEB.1998	18:50	MD20	741.7	-19.5	E	4.0	30 ○	0+	0+Ci	
1 FEB.1998	21:00	Mizuho	747.2	-25.0	E	6.5	30 ○	0+	0+Ac	0+Ci
2 FEB.1998	0:00	Mizuho	746.9	-27.0	E	10.0	20 ⊙	10-	8 Ac	x Ci
2 FEB.1998	6:20	Mizuho	748.3	-20.0	E	8.0	20 ⊙	10-	10-Ac	
2 FEB.1998	9:20	Mizuho	745.9	-18.0	E	9.0	20 ⊙	9	9 Ac	
2 FEB.1998	12:00	Mizuho	745.1	-15.0	E	11.5	20 ⊙	10-	10-Ac	
2 FEB.1998	15:00	Mizuho	744.6	-14.5	E	12.5	20 ⊙	5	5 Ac	
2 FEB.1998	18:00	Mizuho	744.1	-15.5	E	11.0	20 ⊙	8	8 Ac	
2 FEB.1998	21:00	Mizuho	743.8	-20.0	E	9.0	20 ↗	8	8 Ac	
3 FEB.1998	0:00	Mizuho	744.0	-24.0	E	11.5	10 ↗	4	4 Ac	
3 FEB.1998	6:20	Mizuho	747.0	-27.0	E	15.0	0.1 ↗	1 10-	10-Ac	
3 FEB.1998	9:00	Mizuho	745.6	-25.0	E	13.0	0.1 ↗	1 2	2 Ac	
3 FEB.1998	12:00	Mizuho	742.6	-21.0	E	14.0	0.2 ↗	2 2	2 Ac	
3 FEB.1998	15:00	Mizuho	742.1	-19.5	E	14.0	0.5 ↗	5 0+	0+Ac	0+Ci
3 FEB.1998	18:00	Mizuho	741.6	-21.0	E	12.0	5 ↗	0+	0+Ac	0+Ci
3 FEB.1998	21:00	Mizuho	742.1	-24.5	E	11.0	10 ↗	0+	0+Ac	0+Ci
4 FEB.1998	0:00	Mizuho	742.1	-28.0	E	14.0	5 ↗	0+	0+Ac	
4 FEB.1998	6:00	Mizuho	745.6	-28.5	E	14.0	0.2 ↗	2 1	1 Ac	0+Ci
4 FEB.1998	8:30	Mizuho	743.9	-26.0	E	12.5	0.3 ↗	3 8	8 Ac	
4 FEB.1998	12:30	Z38	753.9	-17.0	ENE	12.0	0.5 ↗	5 10-	6 Ac	10-Ci
4 FEB.1998	15:45	Z2	768.6	-15.0	ENE	11.0	2 ↗	0 10-	10-Ac	
4 FEB.1998	18:00	H260	785.4	-14.0	ENE	9.0	10 ↗	8	2 Ac	6 Ci
4 FEB.1998	21:00	H260	784.7	-18.0	ENE	10.0	10 ↗	0+	0+Ac	0+Ci
5 FEB.1998	0:00	H260	783.4	-21.0	ENE	12.5	10 ↗	0+	0+Ac	0+Ci
5 FEB.1998	6:20	H260	782.0	-21.0	ENE	16.5	10 ↗	10-	10-Ac	
5 FEB.1998	8:45	H260	781.3	-17.0	ENE	14.0	10 ↗	10-	10-Ac	
5 FEB.1998	12:00	H172	891.3	-11.0	ENE	14.0	10 ↗	1	1 Ac	0+Ci
5 FEB.1998	17:30	H42	843.6	-8.5	ENE	11.5	10 ↗	0+	0+Ac	0+Ci
5 FEB.1998	21:00	H15	851.6	-12.5	ENE	12.0	10 ↗	0+	0+Ac	0+Ci
6 FEB.1998	0:00	H15	851.6	-14.5	ENE	12.0	20 ○	0+	0+Ac	0+Ci
6 FEB.1998	6:20	H15	849.9	-14.0	ENE	10.0	30 ○	1	1 Ac	
6 FEB.1998	8:15	H15	852.0	-12.0	ENE	9.5	20 ⊙	10-	10-Ac	
6 FEB.1998	12:00	S16	903.1	-4.0	ENE	10.0	20 ⊙	8	8 Ac	
6 FEB.1998	15:00	S16	906.0	-4.0	ENE	6.5	20 ⊙	10-	10-Ac	
6 FEB.1998	18:30	S16	908.0	-4.0	N	1.0	10 ✖	10-	10-St	X Ac

Date	LT	Station	Pa	Ta	WD	WS	V	W	N	CL
6 FEB.1998	21:00	S16	910.0	-4.0	-	0.0	20	✖	10-	10-St X Ac
7 FEB.1998	0:00	S16	910.0	-6.5	ENE	4.0	10	◎	10-	10-St
7 FEB.1998	6:00	S16	914.0	-6.5	ENE	4.5	20	◎	10	10 St
7 FEB.1998	12:00	S16	917.0	-2.0	ENE	3.5	20	✖	10	2 Cu 8 Sc
7 FEB.1998	15:45	S16	916.0	-3.5	N	4.0	20	◎	10-	8 Cu 2 Sc
7 FEB.1998	18:10	S16	917.0	-6.0	N	3.0	20	◎	10-	8 Cu 2 Sc
7 FEB.1998	21:00	S16	917.0	-8.0	NE	4.0	20	◎	10-	2 Sc 8 Ac
8 FEB.1998	0:00	S16	917.0	-8.0	E	5.0	20	◎	10-	2 Sc 8 Ac
8 FEB.1998	5:45	S16	917.0	-10.0	ESE	8.5	20	◎	9	9 Ac
8 FEB.1998	9:00	S16	917.0	-10.0	ESE	4.0	20	○	1	0+Sc 1 Ac