

GLACIOLOGICAL RESEARCH PROGRAM
IN EAST QUEEN MAUD LAND, EAST ANTARCTICA

PART 4, 1984

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I. Introduction

The 25th Japanese Antarctic Research Expedition 1983-1985 (JARE-25) extended the field work of the East Queen Maud Land Glaciological Project (abbreviated to EQGP). The details of the project were described by Higashi (1981) and Associate Committee on Glaciological Research Program in East Queen Maud Land (1982a, b), which was initiated by JARE-23 (Nishio, 1984). The major activities in 1984 involved an ice core drilling of an intermediate depth at Mizuho Station, and an oversnow traverse into the inland area in the 1984-85 field season (Fujii et al., 1985)

The traverse was planned to reach around 77°S and 35°E, the second highest dome of the Antarctic ice sheet, but was suppressed at 75°S and 35°E by the leader of JARE-25 because Syowa Station urgently needed the medical doctor of the traverse party for medical treatment of a wounded person there. Several other trips were also made in 1984, inclusive of the ones commissioned to support and supply Mizuho Station. Oversnow traverses by JARE-25 are shown in Fig. A (see the end of this volume), and listed in Table I-1, where the inland traverse is conventionally divided into several sections. Among the data obtained during these traverses, the following data are compiled in this report : Position, elevation and ice thickness of stations ; net accumulation of snow measured by the stake method ; surface meteorological data during the oversnow traverses. The other data such as surface flow velocity, surface strain rate and surface slope of the ice sheet, will be presented in different papers.

The ice core drilling attained a depth of 700.6 m at Mizuho Station, and in situ observations were made intensively on the core samples. Those activities will be reported separately, hence not included here. Surface meteorological data at Mizuho Station was published as JARE Data Reports, No.107 (Meteorology 18) by Yoshida et al. (1985). Present report includes following data at Mizuho Station ; the net accumulation of snow and the temperature profiles in a surface snow layer.

The authors would like to thank Professor Akira Higashi of International Christian University, the supervisor of the present project and Dr. Kou Kusunoki, the emeritus professor of the National Institute of Polar Research, for their valuable advice. Thanks are also due to all members of the wintering party of JARE-25 led by Professor Takeo Hirasawa, who extended generous supports in the field work.

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Table I-1. Oversnow traverses carried out by JARE-25, 1983-1985.

Period	Traverse route	Distance (km)	Postition and elevation	Ice thickness	Surface meteorological data	Net accumulation
27 Dec. 1983 - 2 Jan. 1984	S16-Mizuho	260	_____	_____	Table III-1	Table IV-1 (Route S-H-Z)
8 Aug. 1984 -25 Aug. 1984	Syowa-Mizuho -Syowa	520	_____	_____	Table III-2	_____
4 Oct. 1984 -19 Oct. 1984	Syowa-Mizuho-G1	80	Table II-1 (Route IM)	Table II-5	Table III-3	Table IV-2 (Route IM)
20 Oct. 1984 -20 Nov. 1984	G1-Advance Camp (A.C.)	420		Table II-5	Table III-3	_____
3 Nov. 1984 -14 Nov. 1984	Y2-G7-SS150	220	Table II-4 (Route ES)	Table II-5	Table III-4	Table IV-3 (Route SS)
21 Nov. 1984 -25 Nov. 1984	A.C.-Y5-A.C.	170	Table II-2 (Route ID)	Table II-5	Table III-3	_____
26 Nov. 1984 -15 Dec. 1984	A.C.-Yamato Mts.	320	Table II-3 (Route IY)	Table II-5	Table III-3	_____
16 Dec. 1984 -22 Dec. 1984	Yamato Mts.-Mizuho	360	_____	_____	Table III-3	Table IV-4 (Route YM)
25 Dec. 1984 -27 Jan. 1985	Mizuho-G15 -Mizuho-S16	430	_____	_____	Table III-3	Table IV-5 (Route NY)

II. Position, Elevation and Ice Thickness of Stations

1. Position along new routes

Observers : Kunio KAWADA and Yoshiyuki FUJII

Four routes were newly established in 1984 by JARE-25 (see Fig. A). Route IM was extended from G1 grid station to 74°12'S and 34°59'E, where the Advance Camp was established in November 1984. Route ES runs along a flow line of the Shirase Glacier from J2 to J4 and connects G7 grid station. Route ID extends from the Advance Camp toward the second highest dome of the Antarctica. Route IY connects the Advance Camp with the southern end of a triangulation network called Route K.

In all the new routes, the marker stakes were installed every 1 km, because the short distance between stakes was thought to be helpful for the next visit conducted by JARE-26 in 1985. Every other marker stake was numbered from the beginning to the end of the routes. These numbered stakes were to be used for snow accumulation measurements. The stakes between the numbered stakes were called with prime, for example, a stake between IM 10 and IM 11 was called IM 10'. The place of an individual stake is to be called station.

Navigational data, the azimuth and the distance between neighbouring stations, were obtained with a magnetic hand compass and an odometer of a vehicle, respectively. By operating a doppler satellite positioning system (JMR 4A), the positions of stations were determined from place to place along the routes. The JMR data, which were calculated on the WGS-72 earth ellipsoid with broadcasted ephemerides, were interpolated by the help of the navigational data using a standard spherical trigonometry. The positions of the stations were thus obtained on the new routes as shown in Tables II-1 for Route IM, II-2 for Route ID, II-3 for Route IY and II-4 for Route ES. For positioning with JMR, the number of pass was 10 to 50 at most stations, and the error would be 10 to 30 m (Shibuya et al., 1982), which approximately

corresponds to $\pm 1''$ in latitude and $\pm 3''$ in longitude. The overall error for the position of a station is considered to be at most $\pm 10''$ ($\pm 30''$) in latitude (longitude) for the new routes when the errors in the navigational data were taken into account.

2. Elevation along new routes

Observers : Kunio KAWADA, Yoshiyuki FUJII and
Tatsuo HARA

The measurements with barometric altimeters (American Paulin Altimeter MM1 and Thomen 3B4) were made every 2 km along the new routes (IM, ID, IY and ES. See Table I-1). On Routes ID and IY, the measurements were made with two altimeters, but only with one on Routes IM and ES where two detached parties moved separately.

The observations with JMR also gave the data on elevation. These data are much more precise than those by barometric altimeter, thus are considered as basic data for elevation. They were obtained, however, only sporadically along the routes, and hence the JMR data were interpolated by the use of barometric data for stations between the JMR stations. The final results on elevation are tabulated in Table II-1 for Route IM, II-2 for Route ID, II-3 for Route IY and II-4 for Route ES. The errors in determining elevations by JMR would be about ± 10 m for the pass number of 10 to 50 (Shibuya et al., 1982).

3. Ice thickness along new routes

Observers : Minoru YOSHIDA and Kazunobu
YAMASHITA

The ice thickness was measured using a radio echo sounder equipped on an oversnow vehicle. The instrument was a NIPR type consisting of a 179 MHz transmitter and a receiver with an oscilloscope as an indicator. Their specifications were given by Wada et al., (1980). A pair of 6-element Yagi antennas (8 dB) was

used, each for transmitting and for receiving. The antennas were set up on snow surface facing each other at distance about 4 m.

The measurements were not made on the running vehicle but made at nightstop stations. A reflective wave displayed on an oscilloscope, showing a time-intensity curve (A scope), was photographed at each station. The echo time was measured on the photographs, and converted into ice thickness using the wave velocity of $169 \text{ m } \mu\text{s}^{-1}$ (Robin et al., 1969). When the multiple echo was observed, the longest echo time was used for the ice thickness calculations. The results are shown in Tables II-5.

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Table II-1. Position and elevation of stations along Route IM.

*JMR station								
Station		Latitude			Longitude			Elevation
		(S)			(E)			(m)
Mizuho St.*		70°	42′	03″	44°	17′	36″	2247
IM	1	70	43	06	44	16	40	2251
IM	2	70	44	13	44	16	28	2266
IM	3	70	45	14	44	15	22	2265
IM	4	70	46	20	44	14	25	2252
IM	5	70	47	24	44	13	33	2269
IM	6	70	48	27	44	12	40	2284
IM	7	70	49	30	44	11	44	2235
IM	8	70	50	33	44	10	41	2237
IM	9	70	51	37	44	09	52	2250
IM	10	70	52	42	44	08	54	2252
IM	11*	70	53	45	44	07	48	2298
IM	12	70	54	49	44	07	06	2302
IM	13	70	55	51	44	06	09	2306
IM	14	70	56	55	44	05	19	2292
IM	15	70	57	58	44	04	26	2303
IM	16	70	59	03	44	03	32	2313
IM	17	71	00	04	44	02	25	2319
IM	18	71	01	09	44	01	31	2325
IM	19	71	02	13	44	00	44	2325
IM	20	71	03	17	43	59	54	2316
IM	21	71	04	18	43	58	40	2325
IM	22	71	05	23	43	58	00	2334
IM	23	71	06	28	43	57	19	2341
IM	24	71	07	31	43	56	19	2347
IM	25	71	08	35	43	55	32	2353

*JMR station

Station		Latitude			Longitude			Elevation
		(S)			(E)			(m)
IM	26	71°	09′	31″	43°	53′	40″	2357
IM	27	71	10	32	43	52	26	2363
IM	28	71	11	37	43	51	49	2361
IM	29	71	12	40	43	50	55	2365
IM	30	71	13	44	43	50	00	2366
IM	31	71	14	47	43	48	59	2370
IM	32*	71	15	52	43	48	18	2381
IM	33	71	16	56	43	47	21	2386
IM	34	71	18	00	43	46	34	2389
IM	35	71	19	05	43	45	42	2403
IM	36	71	20	09	43	44	40	2403
IM	37	71	21	11	43	43	36	2417
IM	38	71	22	16	43	42	52	2420
IM	39	71	23	20	43	41	53	2420
IM	40(G1)*	71	24	24	43	40	55	2416
IM	41	71	25	15	43	39	16	2416
IM	42	71	26	07	43	37	38	2417
IM	43	71	27	02	43	36	08	2418
IM	44	71	27	56	43	34	27	2419
IM	45	71	28	52	43	32	52	2420
IM	46*	71	29	40	43	30	56	2421
IM	47	71	30	34	43	29	10	2423
IM	48	71	31	31	43	28	28	2426
IM	49	71	32	20	43	26	43	2429
IM	50	71	33	12	43	24	34	2431
IM	51	71	34	06	43	22	39	2434
IM	52	71	34	53	43	20	42	2437

•JMR station

Station	Latitude (S)			Longitude (E)			Elevation (m)
IM 53	71°	35'	51"	43°	19'	20"	2440
IM 54	71	36	36	43	17	03	2442
IM 55	71	37	23	43	14	57	2445
IM 56	71	38	19	43	13	03	2448
IM 57	71	39	14	43	11	09	2451
IM 58*	71	40	04	43	09	08	2453
IM 59	71	40	54	43	07	26	2471
IM 60	71	41	49	43	06	03	2490
IM 61	71	42	42	43	04	39	2482
IM 62	71	43	33	43	03	17	2483
IM 63	71	44	21	43	01	20	2484
IM 64	71	45	10	42	59	12	2485
IM 65*	71	45	59	42	57	18	2491
IM 66	71	46	51	42	55	27	2476
IM 67	71	47	39	42	53	32	2481
IM 68	71	48	31	42	51	31	2485
IM 69	71	49	26	42	49	40	2495
IM 70	71	50	19	42	47	49	2503
IM 71	71	51	14	42	45	54	2512
IM 72	71	52	06	42	43	32	2519
IM 73	71	52	54	42	41	30	2527
IM 74	71	53	46	42	39	22	2533
IM 75	71	54	40	42	37	15	2533
IM 76	71	55	32	42	35	05	2531
IM 77	71	56	27	42	32	23	2527
IM 78	71	57	23	42	29	44	2525
IM 79	71	58	19	42	27	09	2527

				*JMR station
Station		Latitude	Longitude	Elevation
		(S)	(E)	(m)
IM 80(1)*		71° 59' 07"	42° 24' 05"	2552
IM 81		72 00 02	42 22 05	2557
IM 82		72 01 04	42 20 27	2562
IM 83		72 02 03	42 18 23	2573
IM 84		72 03 03	42 16 13	2582
IM 85		72 04 00	42 14 20	2573
IM 86		72 04 58	42 12 23	2587
IM 87		72 05 54	42 10 39	2612
IM 88		72 06 48	42 08 45	2619
IM 89		72 07 40	42 06 54	2608
IM 90		72 08 34	42 04 56	2610
IM 91		72 09 26	42 02 53	2619
IM 92		72 10 18	42 00 52	2632
IM 93		72 11 12	41 58 55	2642
IM 94		72 12 04	41 56 54	2649
IM 95*		72 13 00	41 54 48	2655
IM 96		72 13 58	41 52 45	2657
IM 97		72 14 54	41 50 57	2662
IM 98		72 15 51	41 49 16	2671
IM 99		72 16 41	41 47 04	2677
IM 100		72 17 35	41 45 03	2680
IM 101		72 18 33	41 43 06	2680
IM 102		72 19 28	41 40 56	2681
IM 103		72 20 18	41 38 43	2685
IM 104		72 21 12	41 36 42	2699
IM 105*		72 22 01	41 34 14	2708
IM 106		72 22 51	41 32 16	2711

				*JMR station
Station	Latitude			Elevation
	(S)			(m)
IM 107	72°	23'	38"	2715
IM 108	72	24	29	2720
IM 109	72	25	21	2727
IM 110	72	26	14	2736
IM 111	72	27	09	2743
IM 112	72	28	02	2749
IM 113	72	28	55	2756
IM 114	72	29	48	2763
IM 115	72	30	44	2772
IM 116	72	31	39	2776
IM 117	72	32	33	2781
IM 118(♂ 2)*	72	33	27	2791
IM 119	72	34	20	2799
IM 120	72	35	14	2802
IM 121	72	36	08	2811
IM 122	72	37	01	2825
IM 123	72	37	53	2828
IM 124	72	38	49	2837
IM 125	72	39	41	2843
IM 126	72	40	38	2840
IM 127	72	41	33	2854
IM 128	72	42	23	2871
IM 129	72	43	16	2873
IM 130	72	44	12	2877
IM 131	72	45	06	2880
IM 132*	72	45	59	2886
IM 133	72	46	50	2890

				*JMR station
Station	Latitude			Elevation
	(S)			(m)
IM 134	72°	47'	42"	2898
IM 135	72	48	29	2907
IM 136	72	49	23	2914
IM 137	72	50	12	2916
IM 138	72	50	59	2919
IM 139	72	51	47	2923
IM 140	72	52	36	2927
IM 141	72	53	24	2928
IM 142	72	54	13	2932
IM 143*	72	54	58	2934
IM 144	72	55	48	2934
IM 145	72	56	38	2938
IM 146	72	57	31	2940
IM 147	72	58	20	2948
IM 148	72	59	07	2963
IM 149	72	59	56	2963
IM 150	73	00	45	2967
IM 151	73	01	34	2977
IM 152	73	02	25	2983
IM 153	73	03	12	2989
IM 154*	73	03	57	2995
IM 155	73	04	55	2998
IM 156	73	05	48	3002
IM 157(G6)*	73	06	40	3006
IM 158	73	07	31	3011
IM 159	73	08	25	3012
IM 160	73	09	12	3023

*JMR station			
Station	Latitude (S)	Longitude (E)	Elevation (m)
IM 161	73° 10' 00"	39° 35' 19"	3037
IM 162	73 10 50	39 32 54	3048
IM 163	73 11 38	39 30 21	3055
IM 164	73 12 24	39 27 45	3053
IM 165	73 13 13	39 25 09	3058
IM 166	73 14 03	39 22 26	3058
IM 167	73 14 49	39 19 52	3060
IM 168	73 15 37	39 17 20	3064
IM 169	73 16 22	39 14 33	3065
IM 170	73 17 10	39 11 55	3066
IM 171	73 17 56	39 09 20	3068
IM 172	73 18 43	39 06 32	3084
IM 173	73 19 33	39 04 09	3090
IM 174*	73 20 23	39 01 49	3098
IM 175	73 21 09	38 58 47	3110
IM 176	73 21 55	38 56 16	3113
IM 177	73 22 42	38 53 34	3118
IM 178	73 23 27	38 50 50	3122
IM 179	73 24 14	38 47 59	3128
IM 180	73 25 01	38 45 20	3129
IM 181	73 25 46	38 42 31	3132
IM 182	73 26 31	38 39 43	3130
IM 183	73 27 18	38 37 03	3134
IM 184	73 28 03	38 34 18	3140
IM 185	73 28 48	38 31 30	3142
IM 186	73 29 34	38 28 47	3145
IM 187	73 30 20	38 26 01	3149

Station	Latitude			Longitude			*JMR station Elevation
	(S)			(E)			(m)
IM 188*	73°	31'	05"	38°	23'	15"	3154
IM 189	73	31	52	38	20	10	3160
IM 190	73	32	40	38	17	14	3164
IM 191	73	33	26	38	14	18	3165
IM 192	73	34	13	38	11	17	3167
IM 193	73	34	56	38	08	24	3170
IM 194	73	35	41	38	05	24	3171
IM 195	73	36	26	38	02	36	3172
IM 196	73	37	14	37	59	35	3173
IM 197	73	38	04	37	56	28	3176
IM 198(SS150)	73	38	40	37	53	53	3178
IM 199	73	39	21	37	50	51	3178
IM 200	73	40	10	37	48	05	3177
IM 201	73	41	00	37	45	15	3178
IM 202	73	41	40	37	42	04	3176
IM 203	73	42	15	37	38	45	3181
IM 204	73	42	52	37	35	28	3185
IM 205*	73	43	31	37	32	21	3187
IM 206	73	44	12	37	29	19	3189
IM 207	73	44	52	37	26	20	3189
IM 208	73	45	30	37	23	19	3190
IM 209	73	46	09	37	20	16	3191
IM 210	73	46	48	37	17	13	3190
IM 211	73	47	26	37	14	01	3190
IM 212	73	48	03	37	10	55	3188
IM 213	73	48	43	37	07	55	3189
IM 214	73	49	22	37	04	51	3190

*JMR station

Station	Latitude (S)	Longitude (E)	Elevation (m)
IM 215*	73° 50' 01"	37° 01' 48"	3191
IM 216	73 50 39	36 58 31	3193
IM 217	73 51 17	36 55 21	3195
IM 218	73 51 54	36 52 07	3195
IM 219	73 52 31	36 48 51	3194
IM 220	73 53 06	36 45 36	3195
IM 221	73 53 43	36 42 21	3196
IM 222	73 54 19	36 39 06	3197
IM 223	73 54 55	36 35 56	3196
IM 224	73 55 32	36 32 43	3194
IM 225	73 56 09	36 29 28	3195
IM 226	73 56 45	36 26 12	3197
IM 227	73 57 24	36 22 54	3197
IM 228	73 57 59	36 19 36	3196
IM 229	73 58 37	36 16 16	3195
IM 230	73 59 15	36 13 00	3195
IM 231	73 59 52	36 09 42	3195
IM 232*	74 00 28	36 06 24	3198
IM 233	74 01 03	36 03 00	3199
IM 234	74 01 38	35 59 40	3198
IM 235	74 02 14	35 56 22	3198
IM 236	74 02 48	35 53 00	3199
IM 237	74 03 22	35 49 37	3198
IM 238	74 03 56	35 46 17	3197
IM 239	74 04 31	35 42 56	3198
IM 240	74 05 10	35 39 45	3200
IM 241	74 05 43	35 36 17	3200

				*JMR station
Station	Latitude			Elevation
	(S)			(m)
IM 242	74°	06'	15"	3200
IM 243	74	06	50	3198
IM 244	74	07	25	3196
IM 245	74	08	00	3197
IM 246	74	08	35	3197
IM 247	74	09	09	3197
IM 248	74	09	43	3196
IM 249	74	10	17	3195
IM 250	74	10	52	3195
IM 251	74	11	27	3195
IM 252(A.C.)*	74	12	02	3193

A.C. means Advance Camp

Table II-2. Position and elevation of stations along Route ID.

*JMR station								
Station		Latitude			Longitude			Elevation
		(S)			(E)			(m)
Advance Camp		74°	12′	02″	34°	59′	08″	3193
ID	1	74	13	12	34	59	08	3204
ID	2	74	14	22	34	58	56	3212
ID	3	74	15	31	34	58	40	3213
ID	4	74	16	40	34	58	32	3214
ID	5	74	17	47	34	58	12	3218
ID	6	74	18	54	34	58	00	3226
ID	7	74	20	02	34	57	48	3230
ID	8	74	21	12	34	57	31	3233
ID	9	74	22	20	34	57	19	3240
ID	10	74	23	27	34	57	16	3247
ID	11	74	24	35	34	57	04	3251
ID	12	74	25	43	34	56	48	3254
ID	13	74	26	50	34	56	32	3261
ID	14	74	27	57	34	56	16	3265
ID	15	74	29	05	34	56	08	3269
ID	16*	74	30	12	34	55	56	3277
ID	17	74	31	19	34	55	54	3301
ID	18	74	32	26	34	56	04	3313
ID	19	74	33	34	34	56	10	3320
ID	20	74	34	41	34	56	16	3319
ID	21	74	35	48	34	56	22	3329
ID	22	74	36	54	34	56	28	3343
ID	23	74	38	02	34	56	38	3354
ID	24	74	39	10	34	56	49	3350
ID	25	74	40	18	34	56	55	3357
ID	26	74	41	25	34	57	01	3350

								*JMR station
Station		Latitude			Longitude			Elevation
		(S)			(E)			(m)
ID	27	74°	42′	33″	34°	57′	07″	3338
ID	28	74	43	40	34	57	13	3329
ID	29	74	44	47	34	57	23	3333
ID	30	74	45	55	34	57	29	3336
ID	31	74	47	02	34	57	31	3340
ID	32	74	48	09	34	57	37	3345
ID	33	74	49	16	34	57	39	3350
ID	34*	74	50	23	34	57	49	3371
ID	35	74	51	28	34	58	11	3409
ID	36	74	52	32	34	58	27	3428
ID	37	74	53	35	34	58	43	3425
ID	38	74	54	37	34	59	00	3422
ID	39	74	55	42	34	59	25	3425
ID	40	74	56	47	34	59	50	3422
ID	41	74	57	50	35	00	15	3409
ID	42	74	58	55	35	00	36	3400
ID	43(5)*	74	59	59	35	00	57	3396

Table II-3. Position and elevation of stations along Route IV.

		*JMR station		
Station		Latitude	Longitude	Elevation
		(S)	(E)	(m)
Advance Camp		74° 12' 02"	34° 59' 08"	3193
IY	1	74 10 58	34 59 22	3178
IY	2	74 09 53	34 59 37	3175
IY	3	74 08 45	34 59 47	3168
IY	4	74 07 39	35 00 06	3159
IY	5	74 06 33	35 00 25	3154
IY	6	74 05 26	35 00 40	3156
IY	7	74 04 20	35 00 55	3156
IY	8	74 03 14	35 01 09	3139
IY	9	74 02 09	35 01 24	3131
IY	10*	74 01 03	35 01 39	3129
IY	11	73 59 56	35 01 46	3105
IY	12	73 58 49	35 01 54	3112
IY	13	73 57 42	35 02 01	3110
IY	14	73 56 36	35 02 09	3105
IY	15	73 55 29	35 02 17	3112
IY	16	73 54 24	35 02 24	3117
IY	17	73 53 18	35 02 40	3098
IY	18	73 52 11	35 02 47	3096
IY	19	73 51 04	35 02 59	3110
IY	20	73 49 57	35 03 06	3113
IY	21	73 48 51	35 03 18	3113
IY	22	73 47 44	35 03 38	3062
IY	23	73 46 38	35 03 45	3079
IY	24	73 45 31	35 03 57	3078
IY	25	73 44 24	35 04 01	3071
IY	26	73 43 18	35 04 13	3071

*JMR station

Station		Latitude			Longitude			Elevation
		(S)			(E)			(m)
IY	27	73°	42′	12″	35°	04′	16″	3061
IY	28*	73	41	05	35	04	24	3033
IY	29	73	39	55	35	04	31	3009
IY	30	73	38	49	35	04	37	2988
IY	31	73	37	42	35	04	48	2983
IY	32	73	36	34	35	04	54	2985
IY	33	73	35	27	35	05	05	2972
IY	34	73	34	21	35	05	12	2975
IY	35	73	33	12	35	05	18	2971
IY	36	73	32	06	35	05	25	2961
IY	37	73	31	01	35	05	31	2948
IY	38	73	29	55	35	05	38	2953
IY	39	73	28	49	35	05	44	2953
IY	40	73	27	43	35	05	51	2952
IY	41	73	26	36	35	05	57	2955
IY	42*	73	25	30	35	06	08	2950
IY	43	73	24	25	35	06	11	2924
IY	44	73	23	21	35	06	15	2903
IY	45	73	22	17	35	06	19	2903
IY	46	73	21	13	35	06	22	2904
IY	47	73	20	09	35	06	26	2897
IY	48	73	19	06	35	06	33	2889
IY	49	73	18	03	35	06	36	2881
IY	50	73	16	59	35	06	40	2876
IY	51	73	15	55	35	06	43	2871
IY	52	73	14	51	35	06	47	2868
IY	53	73	13	48	35	06	50	2862

*JMR station

Station		Latitude			Longitude			Elevation
		(S)			(E)			(m)
IY	54	73°	12′	45″	35°	06′	58″	2849
IY	55	73	11	41	35	07	02	2840
IY	56	73	10	38	35	07	08	2833
IY	57	73	09	35	35	07	12	2831
IY	58	73	08	31	35	07	12	2820
IY	59	73	07	28	35	07	15	2814
IY	60	73	06	23	35	07	22	2808
IY	61	73	05	20	35	07	30	2806
IY	62	73	04	16	35	07	33	2802
IY	63	73	03	12	35	07	36	2796
IY	64	73	02	08	35	07	40	2786
IY	65*	73	01	04	35	07	43	2780
IY	66	72	59	59	35	07	53	2773
IY	67	72	58	55	35	08	02	2765
IY	68	72	57	50	35	08	16	2746
IY	69	72	56	45	35	08	22	2733
IY	70	72	55	43	35	08	35	2728
IY	71	72	54	40	35	08	48	2721
IY	72	72	53	36	35	08	57	2719
IY	73	72	52	31	35	09	07	2706
IY	74	72	51	27	35	09	16	2700
IY	75	72	50	23	35	09	25	2692
IY	76	72	49	17	35	09	39	2693
IY	77	72	48	12	35	09	10	2692
IY	78	72	47	23	35	06	55	2645
IY	79	72	46	18	35	06	27	2639
IY	80*	72	45	15	35	05	18	2598

				*JMR station
Station		Latitude	Longitude	Elevation
		(S)	(E)	(m)
IY	81	72° 44' 13"	35° 04' 37"	2596
IY	82	72 43 12	35 04 55	2583
IY	83	72 42 10	35 05 24	2563
IY	84	72 41 11	35 06 31	2569
IY	85	72 40 09	35 07 08	2577
IY	86	72 39 07	35 07 33	2571
IY	87	72 38 04	35 08 06	2558
IY	88	72 37 01	35 08 42	2555
IY	89	72 35 59	35 09 08	2551
IY	90	72 34 57	35 08 13	2530
IY	91	72 33 54	35 07 27	2494
IY	92	72 32 51	35 07 56	2480
IY	93	72 31 53	35 09 06	2468
IY	94	72 30 55	35 10 19	2456
IY	95	72 29 57	35 11 29	2468
IY	95' (K34)			

Table II-4. Position and elevation of stations along Route ES.

				*JMR station
Station		Latitude	Longitude	Elevation
		(S)	(E)	(m)
γ 2(IM118)*		72° 33' 27"	41° 09' 04"	2791
ES	1	72 34 29	41 09 01	2801
ES	2	72 35 33	41 08 58	2811
ES	3	72 36 35	41 08 55	2810
ES	4	72 37 43	41 08 51	2818
ES	5	72 38 53	41 08 48	2835
ES	6	72 39 55	41 08 45	2850
ES	7	72 41 06	41 08 42	2854
ES	8	72 42 01	41 08 29	2866
ES	9	72 43 06	41 08 26	2876
ES	10*	72 44 07	41 08 34	2888
ES	11	72 45 08	41 08 39	2893
ES	12	72 46 12	41 08 44	2902
ES	13	72 47 10	41 08 53	2902
ES	14	72 48 12	41 09 34	2899
ES	15	72 49 10	41 09 54	2910
ES	16	72 50 17	41 10 12	2929
ES	17	72 51 19	41 09 25	2931
ES	18	72 52 23	41 09 39	2929
ES	19	72 53 24	41 09 44	2938
ES	20	72 54 24	41 09 30	2937
ES	21	72 55 31	41 09 52	2947
ES	22	72 56 38	41 09 58	2954
ES	23	72 57 45	41 10 04	2974
ES	24	72 58 43	41 10 09	2972
ES	25	72 59 56	41 10 20	2983
ES	26	73 01 03	41 10 17	2995

*JMR station

Station		Latitude			Longitude			Elevation
		(S)			(E)			(m)
ES	27	73°	02′	07″	41°	10′	06″	3006
ES	28	73	03	07	41	10	03	3013
ES	29	73	04	11	41	09	57	3019
ES	30(γ3)*	73	05	09	41	10	09	3029
ES	31	73	06	14	41	10	06	3029
ES	32	73	07	22	41	09	51	3042
ES	33	73	08	24	41	10	04	3047
ES	34	73	09	36	41	10	01	3047
ES	35	73	10	38	41	09	58	3036
ES	36	73	11	40	41	09	56	3071
ES	37	73	12	45	41	09	49	3080
ES	38	73	13	50	41	09	47	3093
ES	39	73	14	49	41	09	37	3086
ES	40	73	15	51	41	09	30	3089
ES	41	73	16	59	41	09	28	3100
ES	42	73	18	00	41	10	04	3114
ES	43	73	18	59	41	10	02	3127
ES	44	73	20	01	41	09	59	3116
ES	45	73	21	03	41	09	57	3117
ES	46	73	22	02	41	09	55	3124
ES	47	73	23	01	41	09	52	3129
ES	48	73	24	03	41	09	50	3136
ES	49	73	25	02	41	09	47	3135
ES	50*	73	26	04	41	09	29	3153
ES	51	73	27	06	41	09	31	3168
ES	52	73	28	05	41	09	16	3180
ES	53	73	29	06	41	09	39	3177

				*JMR station
Station	Latitude			Elevation
	(S)			(m)
ES 54	73°	30'	05"	3180
ES 55	73	31	04	3184
ES 56	73	32	02	3203
ES 57	73	33	04	3205
ES 58	73	34	03	3216
ES 59	73	35	02	3216
ES 60 (84)*	73	36	07	3221
ES 61	73	36	11	3222
ES 62	73	36	29	3225
ES 63	73	36	36	3229
ES 64	73	36	44	3223
ES 65*	73	36	50	3226
ES 66	73	36	54	3226
ES 67	73	36	58	3227
ES 68	73	36	51	3227
ES 69	73	37	03	3229
ES 70	73	37	28	3227
ES 71	73	37	27	3230
ES 72	73	37	30	3233
ES 73	73	37	43	3233
ES 74	73	37	50	3235
ES 75	73	37	58	3235
ES 76	73	38	05	3232
ES 77	73	38	14	3227
ES 78	73	38	22	3232
ES 79	73	38	29	3234
ES 80	73	38	38	3230
ES 80' (G7, SS125)	73	39	09	3235

Table II-5. Ice thickness of stations.

Station	Latitude (S)	Longitude (E)	Elevation (m)	Ice thickness (m)
Mizuho St.	70° 42'	44° 18'	2247	2028
IM 11	70 54	44 08	2298	2084
IM 20'	71 03	44 00	2316	2141
IM 32	71 16	43 48	2381	2141
IM 40(G1)	71 24	43 41	2416	2197
IM 46	71 30	43 31	2421	2253
IM 58	71 40	43 09	2453	2028
IM 65	71 46	42 57	2491	2282
IM 80(♂ 1)	71 59	42 24	2552	1704
IM 95	72 13	41 55	2655	1915
IM 105	72 22	41 34	2708	2169
IM 118(♂ 2)	72 33	41 09	2791	2310
IM 132	72 46	40 41	2886	2225
IM 143	72 55	40 18	2934	2422
IM 157(G6)	73 07	39 46	3006	2479
IM 174	73 20	39 02	3098	2507
IM 188	73 31	38 23	3154	2253
IM 205	73 44	37 32	3187	2197
IM 215	73 50	37 02	3191	1915
IM 232	74 00	36 06	3198	2338
A.C. (IM 252)	74 12	34 59	3193	2141
ID 16	74 30	34 56	3277	2366
ID 25	74 40	34 57	3357	2028
ID 34	74 50	34 58	3371	2479
ID 43(♂ 5)	75 00	35 01	3396	2648
IY 10	74 01	35 02	3129	2084
IY 28	73 41	35 04	3033	1521
IY 42	73 26	35 06	2950	1859
IY 65	73 01	35 08	2780	2084
IY 80	72 45	35 05	2598	958
K 28-26	72 24	35 18	2413	1296
G 15	71 18	46 16	2584	1890

III. Surface Meteorological Data During Oversnow Traverses

Observers : Minoru YOSHIDA, Yoshiyuki FUJII
and Kazunobu YAMASHITA

The observations were made during oversnow traverses listed in Table I-1. Continuous records of air and room temperatures and wind speed were obtained with a digital recorder (Procos IIV, Chino Co. Ltd.) from 09 LT to 24 LT during the inland traverse.

The air and wind sensors were installed on the roof of an oversnow vehicle. The data of wind speed are not corrected for the speed ($3-10 \text{ km h}^{-1} = 1-3 \text{ m s}^{-1}$) of the oversnow vehicle.

The item, instrument, and accuracy of the observations are given below.

Item	Instrument	Accuracy
Air temperature	Alcohol thermometer or thermocouple	$\pm 0.2^\circ\text{C}$ $\pm 0.5^\circ\text{C}$
Wind speed	Vane anemometer or 3-cup anemometer	$\pm 0.2 \text{ m s}^{-1}$ $\pm 3 \text{ m s}^{-1}$
Wind direction	Magnetic compass	$\pm 5^\circ$
Visibility	Visual observation	_____
Cloud	Visual observation	_____
Weather	Visual observation	_____

The meteorological data are shown in Tables III-1, III-2, III-3 and III-4, corresponding to each traverse. Notations in the tables are as follows:

LT : Local standard time at Syowa Station ($69^\circ 00'S$, $39^\circ 35'E$: GMT+3h)

$T(T_{\text{air}})$: Air temperature ($^\circ\text{C}$)

T_{in} : Room temperature in a oversnow vehicle ($^\circ\text{C}$)

v : Wind speed (m s^{-1})
d : Wind direction
V : Visibility (km)
N : Amount of cloud (in tenth)
W : Present weather

○ Clear
① Fine
⊙ Cloudy
⊕ Cloudy (upper cloud are predominant)
✖ Snow
✎ Snowstorm
✎ Blowing snow
✎ Drifting snow

Position and elevation of stations are given in Tables II-1, II-2, II-3 and II-4 for Routes IM, ID, IY and ES, respectively. For Route S-H-Z, refer to Naruse and Yokoyama (1975), and for Routes YM and SS, to Nishio et al. (1986).

References

- Naruse, R. and Yokoyama, K. (1975) : Position, elevation and ice thickness of stations. JARE Data Rep., 28 (Glaciol. 3), 7-47.
- Nishio, F., Ohmae, H. and Ishikawa, M. (1986) : Position, elevation and ice thickness of stations. JARE Data Rep., 110 (Glaciol. 12), 5-37.

Table III-1. Surface meteorological data along Route S-H-Z during
27 December 1983 - 2 January 1984.

Date	L T	Station	T	V	d	N	W
1983 Dec. 27	2100	S 16	-9.0	3.9	---	0+	○
28	0900	S 20	-4.0	9.0	ENE	0+	○
29	1500	H 68	-6.3	2.0	NE	4	○
30	1500	H 175	-8.0	5.8	NE	0+	○
31	1500	H 256	-10.0	4.9	N	9	⊙
1984 Jan. 1	1500	Z 16	-11.5	6.7	NE	10	×
2	1500	Z 76	-13.5	4.3	ENE	10	⊙

Table III-2. Surface meteorological data along Route between Syowa
and Mizuho Stations in August 1984.

Date	L T	Station	T	V	d	N	W
1984 Aug. 8	1500	S 24	-21.2	6	E		
9	1300	H 90	-27.3	6	E		
10	1300	H 203	-39.2	4	E		
11	1200	H 305	-41.5	1	NE		
12	1500	Z 31	-45.3	6	E		
13	1400	Z 42	-36.4	10	E		
14	1400	Z 65	-38.9	13	E		
15	0800	Z 71	-42.2	13	E		
19	1800	Z 98	-43.6	14	SE	10	✕-↗
20	1500	Z 88	-41.8	12	--	10	↗
21	1500	Z 46	-42.8	10	--	0	↗
22	1900	H 240	-29.0	11	SE	6	⊙
23	1800	H 86	-26.8	11	--	3	○
24	1800	S 16	-19.6	11	--	10	↗
25	0700	S 16	-15.2	16	--	9	↗

Table III-3. Surface meteorological data along Route Syowa St. - Mizuho St. - A.C. - 5 - A.C. - Yamato Mts. - Mizuho St. - G15 - Mizuho St. - S16 during October 1984 - January 1985.

Date	L T	St. No.	V (m/s)	d	T (air) (°C)	T (in) (°C)	N	C _L C _M C _H	W	V (km)
1984 .										
Oct. 4	09	Syowa								
	12		7.6		-10.6					
	15	S 30	6.4	E	-16.2		0+	0 0 0	○	10.0
	18	S 30	4.3		-28.0					
5	09	S 30	10.2		-28.0					
	12	H 120	0.9		-23.0					
	15	H 147	0.4	E	-24.1		10	0 2 X	✱	1.0
	18	H 180	0.8		-27.6					
6	09	H 180	4.2		-36.3					
	12	H 236	10.3	E	-33.1					
	15		13.3	E	-34.5		1	0 0 8	➔	10.0
	18	Z 8	10.9		-40.1					
7	09	Z 8	9.2		-31.3					
	12		12.4		-32.7					
	15		7.7	E	-31.2				➔	
	18	Z 80	5.2		-37.4					
	21	Z 80	4.8		-37.9					
8	09	Z 80	3.2		-33.7					
	12		3.3		-32.0					
	15	Mizuho	6.7	E	-33.5		1	0 0 1	○	20.0
9	15	Mizuho	9.8	E	-32.1		2	0 3 2	○	10.0
10	15	Mizuho	6.5	ENE	-28.6		10	0 0 7	✱	0.8
11	15	Mizuho	5.2	ENE	-31.1		10	0 3 7	✱	5.0
12	15		3.0	E	-35.0		0	0 0 0	➔	0.8
	18		4.0		-36.6	33.4				
	21	YM 11	10.8		-40.8	-3.4				
13	09	YM 11	9.6		-38.8	-27.5				
	12		8.1		-36.8	23.1				
	15		8.0		-37.3	17.7	0	0 0 0	➔	0.4
	18	IM 20'	14.4		-42.3	23.3				
14	15	IM 28							➔	0.5

Date	L T	St. No.	V (m/s)	d	T (air) (°C)	T (in) (°C)	N	C _L C _M C _H	W	V (km)
1984										
Oct. 15	09	IM 32			-45.7	-28.9				
	12	IM 32	16.9		-41.0	-25.9				
	15	IM 32	5.0	E	-38.2	7.8	X	X X X	↔	0.1
	18	IM 32	11.4		-41.0	7.4				
	21	IM 32	12.1		-44.7	3.1				
	24	IM 32	13.0		-47.1	-4.8				
16	09	IM 32	11.7		-42.7	-18.9				
	12		10.0		-37.7	23.3				
	15		10.7	E	-37.8	27.7	0	0 0 0	↔	0.8
	18	IM 40	8.5		-41.3	22.7				
	21	(G 1)	13.0		-45.2	-13.0				
	24	(G 1)	10.3		-46.7	-14.5				
17	09	IM 40	13.2		-43.2	-5.1				
	12	IM 40	4.8		-38.8	1.8				
	15	IM 40	9.3	E	-38.4	0.5	0	0 0 0	↔	2.0
	18	IM 40	7.6		-41.7	1.5				
	21	IM 40	9.0		-44.0	-12.9				
	24	IM 40	9.9		-46.6	-28.5				
18	09	IM 40	9.9		-44.5	-11.3				
	12	IM 40	7.2		-39.7	16.7				
	15	IM 40	5.0	E	-38.8	24.3	0	0 0 0	↔	10.0
	18	IM 40	6.4		-41.7	20.9				
	21	IM 40	8.2		-45.0	-10.0				
	24	IM 40	8.7		-48.0	-5.7				
19	09	IM 40	9.4		-44.0	-14.2				
	12	IM 40	6.2		-40.1	17.9				
	15	IM 40	5.3	ESE	-38.5	3.3	1	0 0 7	↔	5.0
	18	IM 40	5.0		-41.5	17.5				
	21	IM 40	5.8		-45.0	-5.0				
20	09	IM 40	9.4		-40.0	-1.6				
	18	IM 46	13.0	ESE	-32.6	5.0	10	0 2 X	↔	1.0
	24	IM 46	14.0		-31.2	9.3				
21	09	IM 46	10.5		-28.3	-9.1				
	12	IM 46	13.6		-27.9	13.7				
	15	IM 46	11.2	E	-27.6	-8.8	10	0 2 X	↔	0.1
	18	IM 46	10.6		-29.0	-1.0				
	21	IM 46	11.4		-33.6	-15.0				
	24	IM 46	12.2		-35.9	-1.0				

Date	L T	St. No.	V (m/s)	d	T (air) (°C)	T (in) (°C)	N	C _L C _M C _H	W	V (km)
1984										
Oct. 22	09	IM 46	12.6		-36.3	-3.1				
	12		16.0		-33.6	25.4				
	15	IM 51	13.7	ESE	-32.9	27.1	0	0 0 0	↔	2.0
	18		5.0		-34.6	23.9				
	21	IM 58	14.0		-39.7	0.4				
	24	IM 58	15.8		-41.9	-3.6				
23	09	IM 58	14.8		-40.4	-21.8				
	12	IM 58	13.0		-38.0	11.6				
	15	IM 58	12.0	ESE	-36.6	-11.0	0	0 0 0	↔	0.2
	18	IM 59'	7.0		-37.8	18.6				
	21	IM 60	14.6		-42.0	-15.0				
24	12	IM 60	14.7		-36.2	-2.6				
	15	IM 62	11.2	ESE	-34.8	13.9	4	0 0 2	↔	0.8
	18	IM 64	10.0		-38.0	12.2				
	21	IM 65	12.6		-42.8	0.4				
	24	IM 65	18.3		-44.4	-5.6				
25	09	IM 65	17.7		-41.1	-19.9				
	12	IM 65	15.9		-38.5	7.0				
	15	IM 65	16.9	ESE	-37.9	-9.9	0	0 0 0	↔	0.1
	18	IM 65	14.8		-39.5	8.4				
	21	IM 65	15.3		-41.6	13.6				
26	09	IM 65	13.2		-39.0	-7.0				
	12		7.6		-35.3	9.8				
	15	IM 73	1.4	ESE	-36.1	12.6	0	0 0 0	↔	3.0
	18		6.2		-37.3	21.1				
	21		13.1		-43.0	7.9				
	24	IM 80	13.3		-45.9	-7.9				
27	12	(81)								
	12	IM 80	15.5		-38.2	-5.7				
	15	IM 80	14.0	ESE	-39.2		1	0 0 8	↔	2.0
	18	IM 80	12.4		-40.1	5.6				
	21	IM 80	13.6		-44.5	-4.5				
	24	IM 80	13.6		-46.7	3.5				
28	09	IM 80	14.4		-41.4	-21.3				
	12	IM 80	14.1		-39.1	2.5				
	15	IM 80	14.3	ESE	-37.8	-15.4	1	0 0 8	↔	1.0
	18	IM 80	12.6		-38.5	-23.3				
	21	IM 80	14.2		-42.3	-7.3				
	24	IM 80	14.9		-45.3	1.4				

Date	L T	St. No.	V (m/s)	d	T (air) (°C)	T (in) (°C)	N	C _L C _H C _H	W	V (km)
1984										
Oct. 29	09	IM 80	13.0		-38.8	-13.2				
	12	IM 80	12.0		-36.5	8.4				
	15	IM 80	10.4	ESE	-34.9	13.7	0+	0 0 8	↗	10.0
	18	IM 80	7.7		-36.2	-9.7				
	21	IM 80	8.1		-40.5	-10.6				
30	15	IM 85	7.4	ESE	-33.4	14.9	4	0 0 4	○	20.0
	18		4.9		-32.5	28.6				
	21	IM 95	7.6		-39.3	21.7				
	24	IM 95	10.6		-42.6	14.3				
31	09	IM 95	10.8		-37.0	-15.4				
	12	IM 96	7.4		-33.9	15.8	4	0 0 6	↗	0.8
	15	IM 100	5.2	ESE	-33.5	24.9	1	0 0 2	⊙	5.0
	18		3.4		-33.9	9.2				
	21	IM 105	4.0		-42.2	-5.0				
	24	IM 105	7.0		-45.1	-20.6				
Nov. 1	09	IM 105	8.8		-38.5	-22.4				
	12		4.9		-33.8	11.6				
	15	IM 111'	7.4	ESE	-32.4	22.3	10	0 0 7	↗	5.0
	18		3.9		-34.4	31.0				
	21	IM 118	8.0		-40.5	-3.2				
	24	(γ 2)	9.3		-42.2	-22.1				
2	09	IM 118	11.6		-33.4	-17.4				
	12	IM 118	13.3		-31.3	8.1				
	15	IM 118	11.5	ESE	-30.6	13.1	10	0 1 7	↗	0.2
	18	IM 118	12.2		-31.5	5.0				
	24	IM 118	9.2		-35.3	9.7				
3	09	IM 118	10.4		-32.1	-18.1				
	12	IM 118	13.4		-30.9	15.8				
	15	IM 118	7.6	ESE	-29.7	0.5	10	0 2 X	↗	0.2
	18	IM 118	7.4		-30.5	-4.3				
	21	IM 118	7.8		-33.6	-14.4				
4	09	IM 118	7.5		-33.3	-10.5				
	12		4.2		-27.8	19.8				
	15	IM 125	7.0	ESE	-29.0	22.7	2	0 0 8	↗	5.0
	18		3.8		-32.4	30.7				
	21	IM 132	5.2		-37.8	11.4				
	24	IM 132	6.2		-39.6	9.4				

Date	L T	St. No.	V (m/s)	d	T (air) (°C)	T (in) (°C)	N	C _L C _H C _H	W	V (km)
1984										
Nov. 5	09	IM 132	10.0		-32.6	-13.6				
	12		9.7		-28.9	23.0				
	15	IM 137	12.8	E	-28.1	4.8	10	0 1 7	×↗	0.5
	18		11.9		-28.3	23.7				
	21	IM 143	9.2		-31.8	14.5				
	24	IM 143	9.5		-31.6	1.2				
6	09	IM 143	9.0	E	-28.1	-15.4	10	0 1 7	×↗	0.5
	12	IM 143	8.2	E	-27.6	13.2	10	0 1 7	×↗	0.5
	15	IM 147	10.8	E	-27.7	22.2	10	0 1 7	×↗	0.5
	18		7.0		-29.1	26.7				
	21	IM 154	9.8		-31.5	4.0				
	24	IM 154	8.2		-33.7	-10.5				
7	09	IM 154	8.2		-31.5	-15.3				
	12		4.8		-27.5	21.6				
	15	IM 157	9.2	ESE	-29.2	-1.1	1	0 0 2	○	10.0
	18	(G 6)	7.2		-31.6	-8.2				
	21	IM 157	9.8		-35.5	-1.8				
8	12	IM 157	8.7		-30.9	-9.5				
	15	IM 157	7.9	ESE	-30.4	-3.9	1	0 0 2	○	10.0
	18	IM 157	6.0		-32.1	3.4				
	21	IM 157	6.0		-37.0	-9.8				
9	09	IM 157	9.6		-33.8	-21.6				
	12		8.8		-27.2	18.1				
	15	IM 164	5.5	ESE	-29.0	25.0	1	0 0 2	○	10.0
	18		6.8		-31.7	30.6				
	21	IM 174	5.8		-37.1	16.8				
	24	IM 174	7.1		-40.9	-10.9				
10	09	IM 174	8.5		-35.5	-17.0				
	12		7.1		-29.7	18.1				
	15	IM 180	2.6	ESE	-29.1	21.4	0	0 0 0	○	10.0
	18		4.7		-33.3	31.6				
	21	IM 188	6.5		-38.8	13.2				
	24	IM 188	5.0		-43.0	-5.5				

Date	L T	St. No.	V (m/s)	d	T (air) (°C)	T (in) (°C)	N	C _L C _M C _H	W	V (km)
1984										
Nov. 11	09	IM 188	9.5		-36.4	-17.5				
	12		7.4		-32.7	17.6				
	15	IM 195	5.3	ESE	-30.5	26.2	0	0 0 0	↔	10.0
	18		9.6		-33.2	26.8				
	21	IM 205	10.0		-38.4	-2.8				
	24	IM 205	10.2		-41.5	-2.1	0+	0 0 4	↔	10.0
12	09	IM 205	15.2		-36.8	-18.1				
	12		9.0		-32.7	9.6				
	15	IM 208	14.6	ESE	-32.7	12.3	0	0 0 0	↔	0.5
	18		12.0		-33.4	26.7				
	21	IM 215	10.9		-36.9	-1.3				
13	09	IM 215	10.0		-35.0	-19.5				
	12		6.2		-31.0	14.2				
	15	IM 222	7.6	E	-31.8	25.3	0	0 0 0	↔	20.0
	18		4.8		-29.7	31.7				
	21	IM 232	6.2		-37.7	18.2				
	24	IM 232	6.1		-41.1	-9.0				
14	09	IM 232	7.2		-35.0	-17.8				
	12		11.2		-31.7	20.5				
	15	IM 239	6.3	ESE	-30.1	16.3	0+	0 0 2	↔	20.0
	18		5.8		-31.3	31.6				
	21		7.8		-36.0	30.1				
	24	IM 252 (A.C.)	10.8		-40.3	7.5				
15	12	A.C.	10.2		-31.3	-17.1				
	15	A.C.	12.0	E	-29.7	-10.2	1	0 0 2	↔	5.0
	18	A.C.	9.6		-31.5	16.1				
	21	A.C.	8.8		-35.4	18.2				
16	09	A.C.	11.8		-33.1	-17.5				
	12	A.C.								
	15	A.C.	9.5	E	-30.2		10	0 1 7	↔	1.0
17	09	A.C.	8.0		-33.9	-16.2				
	12	A.C.	4.9		-29.8	1.2				
	15	A.C.	5.6	E	-29.1	-10.3	4	0 0 2	↔	5.0
	18	A.C.	7.0		-30.6	-9.0				
	21	A.C.	8.5		-34.5	-13.7				

Date	L T	St. No.	V (m/s)	d	T (air) (°C)	T (in) (°C)	N	C _L C _M C _H	W	V (km)
1984										
Nov. 18	09	A.C.	8.4		-32.4	-19.0				
	12	A.C.	7.6		-30.1	9.4				
	15	A.C.	2.5	E	-27.3	22.1	4	0 0 2	↕→	5.0
	18	A.C.	4.4		-30.8	20.0				
	21	A.C.	7.0		-34.8	18.3				
	24	A.C.	6.7		-39.1	8.9				
19	09	A.C.	8.3		-34.3	-15.9				
	12	A.C.	9.9		-32.5	2.9				
	15	A.C.	10.3	E	-31.5	16.9	4	0 0 2	↕→	1.0
	18	A.C.	7.6		-32.7	11.2				
	21	A.C.	8.3		-36.0	-1.6				
20	15	A.C.	6.9	ESE	-30.4	-1.8	1	0 0 2	↕→	10.0
	18	A.C.	9.4		-31.7	-0.5				
	21	A.C.	6.3		-35.0	-8.0				
	24	A.C.	7.3		-33.6	7.0				
21	12		9.9		-31.2	8.4				
	15	ID 6	2.9	ESE	-30.3	25.6	3	0 0 8	↕→	0.8
	18		10.9		-31.3	24.4				
	21	ID 16	10.4		-34.4	8.8				
	24	ID 16	12.3		-37.0	5.1				
22	09	ID 16	14.4		-31.5	-16.8				
	12		7.4		-28.1	15.2				
	15	ID 22'	10.0	NE	-29.4	18.9	10	0 4 2	✕↕→	1.0
	18		1.2		-27.5	33.8				
	21	ID 34	4.7		-34.6	8.7				
	24	ID 34	3.3		-36.7	-8.6				
23	12		2.6		-25.7	17.7				
	15	ID 43	3.0	E	-29.3	28.4	10	0 0 6	●	10.0
	18	(Y 5)	1.5		-29.6	6.8				
	21	ID 43	2.6		-36.2	1.4				
	24	ID 43	1.5		-39.6	-10.4				
24	03	ID 43	2.8		-40.4	-12.2				
	09	ID 43	5.2		-33.5	-10.9				
	12	ID 43	5.4		-31.2	10.5				
	15	ID 43	5.0	ESE	-29.8	8.0	0+	0 0 1	○	30.0
	18		2.1		-29.8	34.7				
	21	ID 25	4.8		-34.4	32.3				
	24	ID 25	5.0		-38.6	0.3				

Date	L T	St. No.	V (m/s)	d	T (air) (°C)	T (in) (°C)	N	C _L C _H C _H	W	V (km)
1984										
Nov. 25	09	ID 25	4.8		-34.1	-11.3				
	12		6.5		-28.9	24.4				
	15	ID 12'	10.4	ESE	-27.6	24.2	0+	0 0 1	○	20.0
	18		4.8		-27.9	33.8				
	21	A.C.	6.5	ESE	-32.8	12.4	0+	0 0 8	○	20.0
	24	A.C.	7.9	ESE	-36.1	-4.1	0+	0 0 8	○	20.0
26	09	A.C.	7.6		-31.1	-9.7				
	12	A.C.	5.6		-27.6	1.3				
	15	A.C.	3.4	ESE	-25.9	-2.2	3	0 0 5	⊕	10.0
	18		6.5		-27.1	26.5				
	21	IY 10	7.8		-30.1	8.1	10	0 1 6	↔	10.0
	24	IY 10	7.5		-31.4	10.0				
27	09	IY 10	6.6		-28.9	-9.5				
	12		4.3		-23.6	23.3				
	15	IY 18'	7.9	ESE	-24.8	29.0	0	0 0 0	○	20.0
	18		12.9		-27.2	23.3				
	21	IY 28	13.0		-30.3	-8.1	0	0 0 0	↔	10.0
	24	IY 28	14.3		-32.3	-11.6				
28	09	IY 28	18.7		-28.2	-16.9				
	12	IY 28	14.3		-25.8	8.0				
	15	IY 30	10.4	E	-23.7	26.5	10	0 0 7	↔	2.0
	18		11.2		-24.6	22.8				
	21	IY 42	5.1		-27.5	26.6				
	24	IY 42	5.8		-30.2	-1.2				
29	03	IY 42	3.7		-31.2	-9.6				
	09	IY 42	5.8		-26.7	-7.2				
	12		7.2		-24.2	4.3				
	15	IY 52	5.2	E	-20.6	13.3	0+	0 0 2	○	20.0
	18		4.0		-22.6	27.9				
	21	IY 65	3.2		-24.5	32.1				
	24	IY 65	7.8		-30.4	0.7	0+	0 0 2	○	20.0
30	09	IY 65	13.3		-26.2	-4.3				
	12		10.7		-22.1	17.1				
	15	IY 75	9.1	E	-21.7	24.5	0+	0 0 2	○	20.0
	18		8.8		-20.8	9.9				
	21	IY 80	9.3		-22.5	15.9				
	24	IY 80	10.8		-25.6	-4.6				

Date	L T	St. No.	V (m/s)	d	T (air) (°C)	T (in) (°C)	N	C _L C _M C _H	W	V (km)
1984										
Dec. 1	09	IY 80	9.8		-22.0	-0.8				
	12		11.7		-20.3	18.7				
	15		5.7	E	-17.0	26.7	0+	0 0 2	↕→	30.0
	18		7.5		-18.5	16.9				
	21	K 26'	11.7		-19.7	20.0				
	24	K 26'	11.3		-23.5	2.4				
2	09	K 26'	16.9		-22.1	-8.1				
	12		15.9		-20.1	17.5				
	15	IY 105'	16.5	E	-19.3	24.0	0+	0 0 2	↕→	3.0
	18		20.4		-17.9	29.4				
	21	Kurakake	12.2		-18.6	22.5				
	24	kurakake	14.7	E	-20.8	-1.5	0+	0 0 2	↕→	10.0
3	09	kurakake	12.6		-19.6	-9.0				
	12		22.8		-17.4	-0.9				
	15	icehill	14.3	E	-14.6	16.9	0	0 0 0	○	20.0
	18		9.3		-13.2	34.7				
	21		18.1		-14.5	33.2				
	24		7.2	E	-16.6	5.5	0+	0 0 2	↕→	20.0
4	15	Air port	11.4	E	-12.5		1	0 0 2	○	20.0
	18	Air port	9.3		-14.3	7.9				
	21	Air port	11.2		-16.1	13.5				
	24	Air port	11.7		-19.3	7.9				
5	03	Air port	10.2		-21.2	5.3				
	06	Air port	10.7		-16.2	-1.3				
	09	Air port	9.7		-16.5	-0.2				
	12	Air port	11.2		-15.9	5.0				
	15	Air port	11.0	E	-16.3		1	0 3 0	○	30.0
	24	Air port	6.2		-16.5	-8.1				
6	03	Air port	5.6		-15.7	-5.3				
	06	Air port	6.0		-16.0	-8.1				
	09	Air port	6.2		-16.9	-9.2				
	18	Air port	4.4	E	-17.0	-9.1	1	0 3 0	○	30.0
	21	Air port	5.3		-17.5	-9.9				
	24	Air port	9.7		-19.4	-13.4				

Date	L T	St. No.	V (m/s)	d	T (air) (°C)	T (in) (°C)	N	C _L C _M C _H	W	V (km)
1984										
Dec. 7	03	Air port	11.6		-20.3	-16.2				
	06	Air port	13.4		-19.6	-16.2				
	09	Air port	16.5		-17.1	-15.2				
	12	Air port	14.5		-16.0	-5.5				
	15	Air port	25.7	E	-15.5	13.0	2	0 2 X	✕↗	1.0
	18	Air port	24.0		-15.0	16.9				
	21	Air port	13.7		-15.8	3.2				
	24	Air port	16.7		-16.2	-5.7				
8	03	Air port	11.6		-15.8	-8.6				
	06	Air port	14.6		-15.7	-9.0				
	09	Air port	11.0		-15.0	-7.7				
	12	Air port	10.2		-13.9	-5.1				
	15	Air port	7.0	ENE	-12.5	-5.2	10	0 2 X	✕↗	0.2
	18	Air port	10.8		-13.4	21.0				
	21	Air port	12.9		-15.0	25.3				
	24	Air port	16.2		-17.8	13.7				
9	03	Air port	15.8		-18.1	-1.7				
	06	Air port	15.3		-16.0	-4.5				
	09	Air port	23.2		-14.4	-4.0				
	12	Air port	17.4		-12.4	-4.5				
	15	Air port	14.9	E	-11.3	-3.7	2	0 3 1	↗	1.0
	18	Air port	17.7		-12.2	-7.1				
	21	Air port	20.8			14.3				
	24	Air port	22.7			17.9				
10	03	Air port	20.7			-2.0				
	06	Air port	22.2			-8.0				
	09	Air port	21.9			-9.1				
	12	Air port	20.7		-13.0	-6.3				
	15	Air port	18.8	E	-11.7	-6.2	2	0 0 1	○	20.0
	18	Air port	17.3		-9.3	-7.5				
	21	Air port	19.0		-14.2	-8.3				
	24	Air port	22.9		-17.3	4.0				
11	03	Air port	17.5		-18.3	-6.4				
	06	Air port	20.1		-17.8	-8.8				
	09	Air port	20.4		-15.4	-7.0				
	12	Air port	21.0		-13.1	-7.0				
	15	Air port	19.3	E	-12.4	-7.2	8	0 0 1	●	20.0
	18	Air port	23.2		-12.7	-7.1				
	21	Air port	21.6		-14.6	-8.7				
	24	Air port	21.2		-17.4	14.7				

Date	L T	St. No.	V (m/s)	d	T (air) (°C)	T (in) (°C)	N	C _L C _M C _H	W	V (km)
1984										
Dec. 12	03	Air port	22.4		-19.3	-4.6				
	06	Air port	19.0		-18.8	-8.9				
	09	Air port	22.7		-17.2	-8.5				
	12	Air port	23.2		-15.7	14.8				
	15	Air port	20.8	E	-12.7	14.0	6	0 0 1	⊙	20.0
	18	Air port								
	21	Air port	22.1		-13.8	0.8				
	24	Air port	22.8		-15.7	-0.5				
13	03	Air port	21.5		-16.5	-5.9				
	06	Air port	20.0		-15.9	-6.9				
	09	Air port	18.9		-12.7	-2.9				
	12	Air port	20.2		-11.0	6.9				
	15	Air port	20.4	E	-10.1	12.1	2	0 3 1	○	30.0
	18		20.1		-10.3	13.6				
	21	Mt. Nokogiri	21.4		-11.3	22.8				
	24		23.0		-13.4	10.1				
14	03		20.4		-13.6	-0.8				
	06		18.4		-14.1	-4.1				
	09		24.6		-12.9	-1.9				
	12		21.3		-11.6	15.7				
	15	JARE 4 Nunatak	18.8	E	-10.1	12.6	10	0 7 2	●	20.0
	18		20.0		-9.6	22.8				
	21		14.2		-10.3	21.4				
	24		11.3		-11.1	3.4				
15	03		10.0		-12.9	-0.8				
	06		16.0		-11.9	-0.9				
	09		15.2		-11.1	-0.5				
	12		22.6		-10.1	23.5				
	15	Sankaku- iwa	11.4	ENE	-7.9	19.8	8	0 0 2	⊙	30.0
	18		8.2		-8.9	14.1				
	20		9.5		-10.8	11.6				
	24		8.7		-12.5	0.9				

Date	L T	St. No.	V (m/s)	d	T (air) (°C)	T (in) (°C)	N	C _L C _M C _H	W	V (km)
1984										
Dec. 16	03		11.7		-12.9	-2.3				
	06		15.9		-11.9	-1.7				
	09		13.2		-10.1	1.4				
	12		22.4		-9.8	29.3				
	15	YM 173'	14.9	ESE	-10.9	28.6	6	0 8 0	⊙	30.0
	18		12.4		-12.6	31.3				
	21		7.5		-13.2	9.7				
	24		8.7		-14.5	-1.2				
17	03		11.7		-15.8	-6.7				
	06		13.1		-16.1	-4.9				
	09		10.9		-14.6	-2.0				
	12		15.5		-12.8	29.7				
	15	YM 147	12.8	ESE	-10.5	16.8	2	0 0 2	⊙	30.0
	18		9.7		-10.2	17.3				
	21		7.6		-12.7	10.0				
	24		8.8		-15.2	-0.9				
18	03		9.3		-17.1	-7.6				
	06		12.1		-16.1	-9.7				
	09		14.3		-13.6	-7.9				
	12		10.6		-10.8	17.5				
	15	YM 119'	11.6	ESE	-9.9	33.1	0+	0 0 1	○	30.0
	18		13.4		-10.5	37.9				
	21		7.1		-13.3	13.8				
	24		6.4		-16.9	3.7				
19	03		9.6		-17.8	-0.6				
	06		8.3		-16.1	-2.1				
	09		7.4		-12.5	-0.6				
	12		9.4		-9.3	28.3				
	15	YM 88	8.8	ESE	-8.5	21.2	0	0 0 0	○	30.0
	18		8.6		-8.9	25.8				
	21		6.0		-12.1	14.0				
	24		6.0		-15.5	3.6				
20	03		6.0		-16.4	-1.5				
	06		6.1		-15.2	-1.9				
	09		6.1		-12.8	0.8				
	12		7.3		-10.6	33.9				
	15	YM 55	7.7	ENE	-10.9	22.4	2	0 0 2	⊙	30.0
	18		6.0		-11.0	23.2				
	21		2.0		-15.0	9.0				
	24		1.9		-18.9	2.0				

Date	L T	St. No.	V (m/s)	d	T (air) (°C)	T (in) (°C)	N	C _L C _M C _H	W	V (km)
1984										
Dec. 21	03		2.3		-17.0	-2.1				
	06		5.2		-16.4	-3.0				
	09		5.5		-14.8	3.8				
	12		11.3		-13.5	17.1				
	15	YM 20'	5.7	ENE	-11.9	17.3	6	0 0 2	⊙	30.0
	18		3.5		-13.0	19.6				
	21		3.6		-17.0	-8.3				
	24		6.8		-20.7	-6.0				
22	03		7.3		-21.9	-9.3				
	06		8.7		-20.4	-7.1				
	09		9.5		-17.5	-3.4				
	12		8.7		-15.2	9.7				
	15	Mizuho	7.6		-14.8	10.3				
	18		4.6		-14.7	6.6				
	21		3.5		-18.7	0.5				
	24		6.0		-22.3	-7.4				
25	09	Mizuho	14.6		-16.9	1.3				
	12		17.2		-16.6	28.4				
	15		15.0		-17.3	32.9	0+	0 0 2	○	20.0
	18		10.7		-18.3	39.2				
	21	G 15	4.0		-22.3	13.2				
	24	G 15	4.5		-26.1	5.4				
26	03	G 15	5.8		-26.5	-4.8				
	06	G 15	5.2		-24.4	-5.2				
	09	G 15	4.8		-21.0	-4.3				
	12	G 15	8.7		-18.7	4.3				
	15	G 15	4.9		-17.6	11.5	10	0 2 X	✱	2.0
	18	G 15	7.0		-18.0	8.0				
	21	G 15	6.9		-19.1	-1.3				
	24	G 15	7.0		-19.7	-5.0				
27	03	G 15	7.2		-20.0	-8.3				
	06	G 15	11.5		-19.4	-9.0				
	09	G 15	11.5		-18.1	-4.3				
	12	G 15	12.7		-16.2	8.4				
	15	G 15	11.3		-15.3	6.7				
	18		5.6		-15.8	34.5				
	21		3.5		-16.0	34.0				
	24	Mizuho	5.5		-18.7	20.1				

Date	L T	St. No.	V (m/s)	d	T (air) (°C)	T (in) (°C)	N	C _L C _M C _H	W	V (km)
1985										
Jan. 3	09	Mizuho	10.4		-18.4	-7.8				
	12		9.5		-16.2	27.7				
	15		8.6		-14.5	35.4			↕	
	18		6.6		-16.0	40.4				
	21	H 260	3.1		-18.0	40.3				
	24		6.3		-20.5	7.9				
4	09	H 260	7.7		-16.0	0.8				
	12		7.5		-11.5	26.0				
	15		9.5		-9.8	32.9			●	
	18		7.3		-9.5	35.2				
	21	S 16	4.2		-7.4	41.1				
	24	S 16	7.6		-7.4	21.5				
5	09	S 16								
	12	S 16	6.5		-1.9	7.7				
	15	S 16	4.4		-2.4	15.4			○	
	18	S 16	3.5		-2.9	8.3				
	21	S 16	1.7		-5.2	8.6				
6	09	S 16	9.2		-3.7	8.3				
	12	S 16	2.1		0.0	17.5				
	15	S 16	0.7		1.5	20.6			○	

Table III-4. Surface meteorological data along Route between
Mizuho St. - J2 - J4 - G7 - SS150 - Advance Camp
during October - November 1984.

Date	LT	Station	T	v	d	V	N	W
Oct. 25	1530	IM 25	-37.0	11.5	ESE	0.1	0	
26	0900	G 1	-40.3	13.7	ESE	0.5	0	
27	1500	G 1	-38.7	7.8	ESE	1.0	0	
28	1530	G 1	-37.2	10.7	ESE	0.6	0	
29	1430	IM 44	-33.8	5.2	ESE	8.0	0	
30	1500	IM 73	-33.0	6.0	ESE	6.0	9	
31	1040	IM 100	-33.5	4.0	ESE	0.3	10	
1	1500	IM 111	-32.9	4.0	ESE			
2	1500	2	-30.6	12.0	ESE	0.2	10	
3	1500	2	-29.7	8.0	ESE	0.2	10	
4	1500	ES 12	-31.2	6.7	ESE	4.0	2	
5	1500	3	-28.7	9.8	ESE	0.8	10	
6	1500	3	-27.0	8.0	E	0.3	10	
7	1500	ES 37	-30.0	7.8	ESE	2.2	0	
8	1510	4	-33.2	6.0	SE	10.0	8	
9	1500	4	-32.3	7.7	SE	1.0	0	
10	1500	ES 67	-33.2	6.8	SE	20.0	0	
11	1500	G 7	-33.9	6.7	SE	3.0	0	
12	1500	G 7	-31.8	9.3	ESE	0.6	0	
13	1500	G 7	-32.4	6.7	SE	20.0	0	
14	1500	SS 140	-31.3	8.0	ESE	15.0	0	
15	1430	IM 210	-30.8	8.5	ESE	1.5	7	
16	1435	IM 234	-30.3	6.7	E	1.0	10	

IV. Net Accumulation of Snow along Traverse Routes in Mizuho Plateau

Observers : Yoshiyuki FUJII and Kunio KAWADA

Net accumulation of snow was measured by the stake method along several traverse routes of JARE-25 in 1983-1985 as listed in Table I-1, and shown in Fig. A attached to the end of this report.

Condition of snow surface around each stake was observed and classified as follows on the basis of the classification by Fujii (1979).

- G : Glazed surface consisting of multilayered ice crust.
- D : Depositional surface consisting of barchan or dune
- E : Erosional surface consisting of sastrugi, erosional pit or smooth surface.
- GR : Granular snow.
- DH : Depth hoar appeared after disappearance of ice crust of glazed surface.
- I : Bare ice.

1. Route S-H-Z

The stake height of the route was measured in December 1983 and in January 1985 with a help of JARE-26. The height differences gave approximately the annual net accumulation along the route, and the results are tabulated in Table IV-1. The positions of the stations are given by Naruse and Yokoyama (1975).

2. Routes IM and SS

Route IM from Mizuho Station to G1 grid station and Route SS were established by JARE-23 in 1982, and used by JARE-25 again in 1984 for approaching 74°12'S and 34°59'E from Mizuho Station to establish Advance Camp. The Route IM was extended beyond G1 to 74°12'S and 34°59'E during the period from October to November 1984. Net accumulation along Routes IM and SS is shown in Tables IV-2 and IV-3 respectively. The positions and elevation of the stations are shown in Nishio et al. (1986).

3. Route YM

Route YM was established by JARE-23 in 1982, and used again by JARE-24 in 1983 and JARE-25 in 1984. Net accumulation during the period from October 1983 or January 1984 to December 1984 is shown in Table IV-4. The positions of the stations are given by Nishio et al. (1986).

4. Route NY

The latest traverse was carried out by JARE-24 in January 1984 before a traverse by JARE-25 in December 1984. The net accumulation during the period was obtained and is given in Table IV-5. The positions of the stations are given by Nakawo et al. (1984).

5. 36 and 101-stake farms along Route S-H-Z

Observers : JARE-22 Kazuhide SATOW

JARE-25 Yoshiyuki FUJII, Kunio

KAWADA and Minoru YOSHIDA

JARE-26 Yutaka AGETA, Koukichi

KAMIYAMA

Five 36-stake farms (100 x 100 m in area) are used for the study on areal variation of snow accumulation along Route S-H-Z from S16 to Mizuho Station ; that is, at S16, H68, H180, S122 and Z40. The stakes of these farms are numbered as shown in Fig. 1. The latest measurements were carried out by JARE-22 in 1982 before the measurements by JARE-25 in December 1983 and January 1984. The measurements were done again in January 1985 with a help of JARE-26. The results are tabulated in Tables IV-6 for S16, H68, and H180, IV-7 for S122 and Z40.

The 100-stake farm at S122 was measured in January 1984 after six years' absence since January 1978. The stakes are arranged and numbered as shown in Fig. 2. The results are given in Table IV-8.

References

- Fujii, Y. (1979) : Net accumulation of snow by stake method in 1977. JARE Data Rep., 48 (Glaciol. 6), 3-33.
- Nakawo, M., Narita, H. and Isobe, T. (1984) : Position, elevation and ice thickness of stations. JARE Data Rep., 96 (Glaciol. 11), 4-38.
- Naruse, R. and Yokoyama, K. (1975) : Position, elevation and ice thickness of stations. JARE Data Rep., 28 (Glaciol. 3), 7-47.
- Nishio, F., Ohmae, H. and Ishikawa, M. (1986) : Position, elevation and ice thickness of stations. JARE Data Rep., 110 (Glaciol. 12), 5-37.

Table IV-1. Net accumulation along Route S-H-Z.

(cm in depth)					
Station No.	Dec. 1983 -Jan. 1985 (382~384days)	Surface condition (Jan.1985)	Station No.	Dec. 1983 -Jan. 1985 (382~384days)	Surface condition (Jan.1985)
S 16	12.0	GR	H 96	39.0	E
17	25.5	GR	100	27.0	E
18	13.0	GR	104	34.0	E
19	----	GR	108	30.0	D E
20	93.0	GR	112	25.0	E
21	28.0	GR	116	30.0	E
22	----	D	120	36.0	E
23	55.0	D	124	16.5	E
24	59.0	D	128	35.5	E
25	30.5	D	132	20.5	E
26	52.5	E	136	23.0	E
27	59.0	E	140	24.5	E
28	44.0	E	144	30.0	E
29	69.0	E	148	33.5	E
30	58.0	E	152	40.0	E
H 3	69.0	E	156	9.0	E
9	64.0	E	160	26.0	D E
15	60.0	E	164	40.0	D E
21	33.0	E	168	39.0	D E
27	84.0	E	172	26.0	D E
35	69.0	D	176	----	D E
42	45.0	E	180	41.0	D E
48	40.0	E	184	32.0	D E
54	28.0	E	188	26.0	D E
60	32.0	E	192	58.0	D E
64	37.0	E	196	31.0	E
68	28.0	E	200	33.0	E
72	69.0	D E	204	37.0	E
76	23.5	D E	208	33.5	D E
80	22.0	D E	212	9.0	D E
84	20.0	D E	216	40.0	D E
88	23.0	E	220	13.0	D E
92	35.0	D E	224	37.5	D E

			(cm in depth)		
Station No.	Dec.'83/Jan.'84 -Jan. 1985 (382~384days)	Surface condition (Jan.1985)	Station No.	Jan. 1984 -Jan. 1985 (382~384days)	Surface condition (Jan.1985)
H 228	30.0	D E	Z 26	16.5	E
232	39.0	D E	28	-7.0	DH
236	28.0	D E	30	29.5	E
240	19.5	E	32	6.5	D
244	28.0	D E	34	-24.0	E
248	43.0	E	36	45.0	E
252	28.5	D E	38	6.0	E
256	35.0	D E	40	17.0	DH
260	12.0	E	42	20.0	E
264	32.0	E	46	7.0	DH
268	45.0	D E	50	-1.0	E
272	39.0	E	54	5.5	DH
276	19.0	D E	58	22.5	G
280	50.0	D E	62	12.0	DH
284	83.0	E	66	31.0	E
288	25.0	E	70	75.0	E
293	63.0	E	72	12.0	D
297	43.0	E	74	26.0	E
301	-10.0	E	76	37.0	E
S 122	-5.5	G	78	51.0	DH
Z 2	23.0	E	80	-5.5	DH
4	32.0	E	82	42.0	E
6	10.0	E	84	13.0	E
8	42.0	E	86	46.0	E
10	----	E	88	-13.0	E
12	32.0	E	90	17.0	E
14	48.0	E	92	-9.0	G
16	25.0	E	94	25.0	E
18	1.0	E	96	-2.5	G
20	12.0	E	98	8.0	D E
22	35.0	E	100	29.0	E
24	35.5	E	102	24.0	G

Table IV-2. Net accumulation along Route IM.

(cm in depth)			
Station		Mar.1982	
No.		-Oct.1984	
		(947~950days)	
IM	1	41.0	34
	2	24.0	35
	3	16.0	36
	4	41.5	37
	5	59.0	38
	6	23.0	39
	7	24.5	40
	8	73.5	
	9	32.0	
	10	18.0	
	11	37.0	
	12	73.5	
	13	74.5	
	14	78.0	
	15	23.0	
	16	-7.5	
	17	13.0	
	18	7.0	
	19	24.5	
	20	20.5	
	21	56.0	
	22	82.0	
	23	104.5	
	24	100.5	
	25	61.0	
	26	88.5	
	27	48.5	
	28	18.5	
	29	40.0	
	30	17.0	
	31	11.0	
	32	11.0	
	33	13.5	

Table IV-3. Net accumulation along Route SS.

Station No.	(cm in depth)	
	Dec.1982 -Nov.1984 (709~710days)	Surface condition (Nov.1984)
SS 125(G7)	27.0	E
126	-3.5	G
127	-10.5	G
128	0.5	G
129	4.0	G
130	21.0	E
131	-6.0	G
132	-5.0	G
133	-5.5	G
134	-8.0	G
135	3.5	G
136	-4.0	G
137	2.0	E
138	11.0	G
139	-3.0	G
140	1.0	G
141	31.5	E
142	11.0	E
143	17.5	E
144	5.0	E
145	-9.5	G
146	4.0	E
147	57.5	E
148	34.0	E
149	----	E
150(IM198)	7.5	G

Table IV-4. Net accumulation along Route YM from October 1983/
January 1984 to December 1984.

(cm in depth)							
Station No.	Net acc.	Period (days)	Surface condition (Dec.1984)	Station No.	Net acc.	Period (days)	Surface condition (Dec.1984)
YM 1	1.0	443	E	34	6.0	441	E
2	-8.0	443	E	35	28.0	441	D
3	16.0	443	E	36	-3.0	441	E
4	31.5	443	E	37	52.0	441	E
5		348	E	38	69.0	441	E
6		443	E	39	105.5	348	E
7	-9.0	443	E	40	46.5	348	D
8	13.0	443	E	41	37.5	440	D
9	19.0	348	E	42	17.0	440	E
10	4.5	442	E	43	29.0	440	E
11	28.5	442	E	44	24.5	440	E
12	26.5	442	E	45	-3.0	440	DH
13	51.5	442	E	46	-6.0	440	DH
14	44.5	347	E	47	-9.0	440	E
15	9.5	442	E	48	-7.0	440	E
16	-11.0	442	E	49	30.5	440	E
17	-4.0	442	E	50	91.0	348	E
18	127.0	442	E	51	66.0	440	E
19	36.0	442	E	52	134.0	440	D
20	13.0	442	E	53	55.0	440	E
21	41.0	442	E	54	17.0	440	D
22	55.0	441	E	55	121.0	440	E
23	92.5	348	E	56	41.0	440	D
24	-14.0	348	D	57	71.0	440	E
25	77.5	441	E	58	13.0	440	D
26	-58.5	348	D	59	28.0	440	E
27	45.0	441	D	60	32.0	440	E
28	-4.0	441	D	61	73.0	440	E
29	-6.0	441	E	62	84.0	440	D
30	123.5	441	E	63	50.0	440	E
31	-5.5	441	E	64	41.0	440	E
32	40.0	441	D	65	82.0	440	E
33	0.0	441	E	66	54.5	439	D

(cm in depth)							
Station No.	Net acc.	Period (days)	Surface condition (Dec.1984)	Station No.	Net acc.	Period (days)	Surface condition (Dec.1984)
YM 67	2.5	349	D	YM 100	51.0	436	D
68	92.0	439	E	101	31.5	436	E
69	143.0	349	E	102	4.0	436	E
70	87.5	439	E	103	-21.0	425	E
71	148.0	439	E	104	-7.0	425	E
72	70.5	439	E	105	59.0	424	E
73	102.0	438	E	106	87.0	424	E
74	113.5	438	E	107	-5.5	424	D
75	82.5	438	E	108	-4.0	424	D
76	92.5	438	E	109	-8.5	424	D
77		437	E	110	1.5	424	D
78	6.0	437		111	23.0	424	G
79	91.5	437	D	112	17.5	424	E
80	83.0	437	E	113	18.0	424	D
81	128.0	437	E	114	86.0	424	E
82	38.5	437	D	115	1.0	424	E
83	47.0		E	116	36.0	424	E
84		436		117	66.5	423	E
85	21.0	436	D	118	47.0	423	D
86	14.0	436	E	119	47.5	423	E
87	42.0	436	E	120	45.0	423	D
88	67.0	436	D	121	60.0	423	D
89	46.0	436	D	122	21.5	423	E
90	86.0	436	E	123	25.0	423	E
91	48.0	347	D	124	79.0	423	E
92	-27.0	436	E	125	63.5	423	D
93	104.0	436	E	126	54.5	423	E
94		436	D	127	65.5	423	E
95	15.5	436	D	128	101.0	423	E
96	79.0	436	D	129	12.0	423	E
97	93.0	436		130	23.0	423	E
98	44.0	436	D	131	37.0	423	D
99	166.0	436	E	132	134.0	423	D

(cm in depth)							
Station No.	Net acc.	Period (days)	Surface condition (Dec.1984)	Station No.	Net acc.	Period (days)	Surface condition (Dec.1984)
YM 133	171.0	423	E	YM 166		416	
134	172.0	422	D	167	-1.5	416	E
135	110.0	422	E	168	-4.0	416	E
136	16.0	422	D	169	3.5	416	E
137	66.0	422	E	170	-15.0	416	I
138	15.0	422	E	171	-10.0	416	I
139	77.0	422	D	172	-11.0	416	I
140	8.5	422	E	173	4.5	416	I
141	31.0	422	E	174	-20.0	416	E
142	2.5	422	E	175	11.0	416	
143	68.0	422	E	176	3.0	416	D
144	120.0	421	D	177	-13.5	416	I
145	43.5	421	G	178	-14.0	416	I
146	29.0	421	E	179	-13.5	416	I
147	101.0	421	D				
148	59.0	421	E				
149	30.0	421	E				
150	25.5	421	E				
151	-6.0	421	E				
152	11.0	421	E				
153	22.0	421	D				
154	49.0	421	E				
155	59.0	421	E				
156	32.0	421	G				
157	14.0	421	E				
158	64.5	421	E				
159	-4.5	417	D				
160	-5.0	417	E				
161	-11.0	417	E				
162	24.0	417	D				
163	49.5	417	D				
164	14.5	417	E				
165		416					

Table IV-5. Net accumulation along Route NY.

(cm in depth)					
Station No.	Jan. 1984 -Dec. 1984 (346~347days)	Surface condition (Dec.1984)	Station No.	Jan. 1984 -Dec. 1984 (346~347days)	Surface condition (Dec.1984)
NY 2	38.6	E	NY 68	24.9	E
4	32.4	E	70	4.8	E
6	21.2	E	72	12.0	E
8	25.5	E	74	49.6	E
10	62.7	E	76	27.0	D
12	65.2	D	78	29.0	D
14	11.1	D	80	48.5	E
16	-0.5	E	82	36.8	E
18	19.5	E	84	4.5	E
20	11.8	E	86	22.5	E
22	39.8	E	88	27.0	E
24	9.5	E	90	19.5	E
26	49.9	D	92	3.5	E
28	6.7	D	94	2.5	E
30	48.7	E	96	10.5	E
32	26.3	E	98	23.5	E
34	83.6	D	100	36.3	E
36	29.4	D			
38	41.3	E			
40	80.0	D			
42	82.6	D			
44	-6.8	D			
46	11.6	D			
48	13.6	E			
50	21.8	E			
52	-4.4	E			
54	-3.4	G			
56	35.3	D			
58	-4.1	E			
60	25.6	E			
62	13.6	D			
64	44.5	D			
66	24.2	D			

Table IV-6. Net accumulation with 36-stake farms at S16, H68 and H180 in 1982-1985.

No.	(cm in depth)			
	S 16	H 68		H180
	' 83, Dec. 27	' 82, Jan. 16	' 83, Dec. 29	' 83, Dec. 30
	- ' 85, Jan. 14 (385days)	- ' 83, Dec. 29 (712days)	- ' 85, Jan. 15 (384days)	- ' 85, Jan. 15 (383days)
I-1	-6.0		16.0 E	44.0 E
2	2.0		12.5 E	36.5 E
3	-15.0	38.9	19.5 E	37.0 E
4	14.0 D	38.0	24.5 E	35.0 E
5	-5.5	40.5	29.0 E	32.0 E
6	-14.0	35.5	8.0 E	24.5 E
II-1	8.0 D	63.4	22.0 D	40.5 E
2	4.0	55.1	24.0 E	29.5 E
3	2.5	29.0	23.0 E	16.5 E
4	-7.0	30.2	18.0 E	37.5 E
5	7.0	33.0	16.0 E	40.0 E
6	-15.5	29.7	18.0 E	37.0 E
III-1	8.5		10.5 D	28.5 E
2	3.5	39.1	14.5 E	38.0 E
3	4.5	19.6	35.0 E	31.5 E
4	5.0	30.5	26.0 E	38.0 E
5	5.0	34.2	24.0 E	43.5 E
6	-5.5	32.8	25.5 E	34.5 E
IV-1	-6.0	42.2	22.5 E	39.0 E
2	1.0	37.1	21.0 D	42.5 E
3	8.5	36.3	16.5 E	43.5 E
4	-2.0	31.8	19.0 E	43.5 E
5	8.0		15.0 D	41.0 E
6	25.5	51.7	8.0 E	46.0 E
V-1	9.5		1.0 E	25.0 E
2	4.0	42.9	20.0 E	47.5 E
3	-6.0	40.3	18.5 E	32.5 E
4	11.0	53.6	7.0 E	33.5 E
5	8.5	51.9	13.0 D	37.5 E
6	16.5	62.6	5.0 E	36.5 E
VI-1	22.0		14.5 E	28.0 E
2	14.0	46.6	10.5 E	28.0 E
3	5.0	50.6	4.5 E	35.0 E
4	18.0	59.0	8.5 D	30.5 E
5	17.0	62.3	5.5 E	43.0 E
6	16.5	70.0	14.0 E	45.0 E
mean	4.62	42.94	16.38	36.15

Table IV-7. Net accumulation with 36-stake farms at S122 and at Z40 in 1982-1985.

(cm in depth)					
No.	S122		Z 40		
	'82, Jan. 17	'84, Jan. 1	'82, Jan. 18	'84, Jan. 2	
	- '84, Jan. 1 (714days)	- '85, Jan. 16 (382days)	- '84, Jan. 2 (714days)	- '85, Jan. 17 (382days)	
I-1	30.2	-5.0 E	11.3	-1.0 E	
2	55.6	-3.5 E	10.1	15.0 E	
3	53.1	-8.5 E	28.4	-1.0 DH	
4	32.3	15.0 E	3.9	14.5 E	
5	14.2	48.0 E	8.1	7.5 E	
6	40.9	33.5 E	12.2	17.0 DH	
II-1	13.5	19.5 E	11.5	22.0 E	
2	6.7	-5.0 E	3.2	2.5 DH	
3	38.6	10.0 E	-7.3	16.5 E	
4	42.7	-4.0 E	-6.5	20.0 DH	
5	70.7	-16.0 E	-9.6	44.0 E	
6	49.9	-8.5 E	19.7	11.5 E	
III-1	10.1	51.5 E	4.9	-1.5 G	
2	20.8	19.0 E	4.6	4.0 DH	
3	-6.8	19.0 E	9.1	17.5 DH	
4	21.4	0.0 E	4.0	30.0 E	
5	2.8	14.0 E	19.5	16.0 DH	
6	12.9	11.0 E	11.6	25.0 E	
IV-1	26.9	3.5 E	-8.2	-5.0 DH	
2	12.5	12.5 E	-3.5	32.5 DH	
3	5.5	28.5 E	12.6	16.5 E	
4	-1.0	18.0 E	2.7	0.0 DH	
5	7.4	44.0 E	-1.8	46.0 E	
6	20.6	16.5 E	1.5	44.0 DH	
V-1	31.9	26.0 E	13.9	-4.0 DH	
2	23.1	12.0 E	17.7	-9.0 DH	
3	21.5	13.0 E	5.0	24.0 E	
4	26.8	17.5 E	-0.9	18.5 DH	
5	40.9	29.0 E	-1.0	0.0 DH	
6	39.6	23.0 E	-3.4	35.0 DH	
VI-1	3.0	0.5 E	1.1	-9.0 DH	
2	25.9	13.0 E	11.1	-5.0 DH	
3	23.3	30.0 E	7.9	-10.0 DH	
4	42.0	31.5 E	30.4	-5.0 G	
5	58.4	18.0 E	15.8	-7.0 E	
6	37.9	11.5 E	8.1	3.0 DH	
mean	26.55	14.94	6.88	11.80	

Table IV-8. Net accumulation with a 100-stake farm at S122 in
1978-1984. (cm in depth)

'78, Feb. 4 - '84, Jan. 1			'78, Feb. 4 - '84, Jan. 1		
No.	(2158days)		No.	(2158days)	
101	77.6	D	126	34.8	D
102	73.0	D	127	37.0	D
103	79.2	G	128	33.5	D
104	77.0	D	129	38.0	G
105	77.8	D	130	37.9	G
106	73.9	D	131	47.0	G
107	73.1	D	132	50.3	G
108	70.6	D	133	45.0	G
109	70.0	D	134		
110	71.7	D	135	57.4	D
111	63.5	D	136	55.5	D
112	63.5	D	137	61.6	D
113	50.8	D	138		
114	58.4	G	139	67.5	G
115	59.0	D	140	70.0	G
116	50.5	D	141	72.7	D
117	51.5	D	142	79.0	G
118	39.6	D	143	75.9	D
119	42.3	D	144	78.0	D
120	49.5	D	145		D
121	46.0	G	146	74.7	G
122	44.4	D	147	73.9	G
123	35.0	D	148	73.5	D
124	26.5	D	149	75.5	D
125	27.0	D	150	73.2	D

			(cm in depth)		
'78, Feb. 4 - '84, Jan. 1			'78, Feb. 4 - '84, Jan. 1		
No.	(2158days)		No.	(2158days)	
151	79.1	D	176	68.2	G
152		D	177		G
153	69.7	D	178	79.1	G
154		G	179	83.2	G
155	55.9	D	180	-9.4	G
156	70.3	D	181	-16.1	G
157	56.1	D	182	79.9	D
158		D	183	84.3	D
159		G	184	93.2	D
160	56.8	D	185		D
161	60.5	D	186	91.3	D
162	62.5	D	187	81.3	G
163	70.0	D	188	80.6	G
164		G	189	70.7	G
165	72.3	D	190	71.9	D
166	75.2	D	191	83.4	D
167	66.2	D	192	67.2	D
168	56.0	G	193	72.7	D
169	49.3	G	194	80.6	D
170	46.5	G	195	80.8	D
171		G	196	72.4	D
172		G	197	75.8	G
173	50.9	D	198	63.0	D
174	55.2	G	199	62.1	D
175		D	200	52.0	G
			mean	61.89	

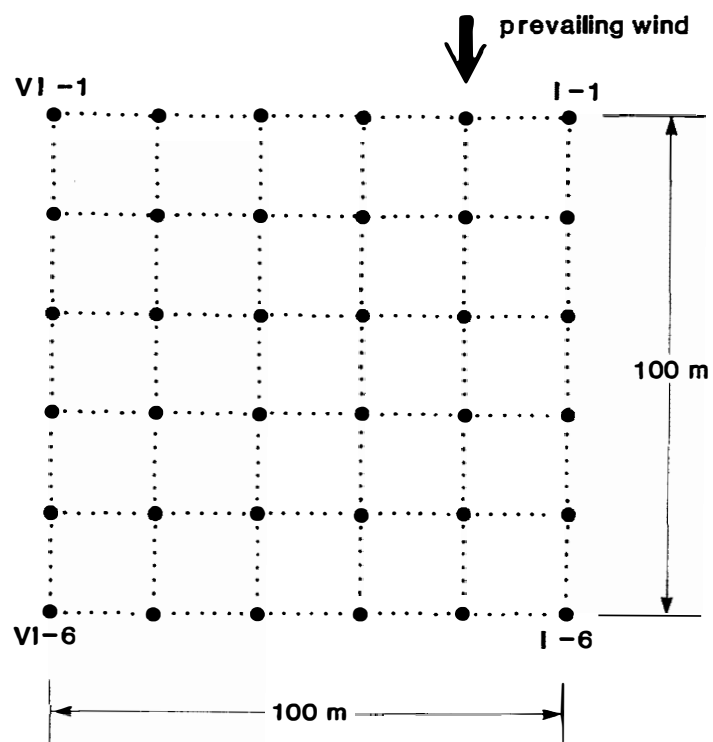


Fig. 1. 36-stake farm at S16, H68, H180, S122 and Z40.

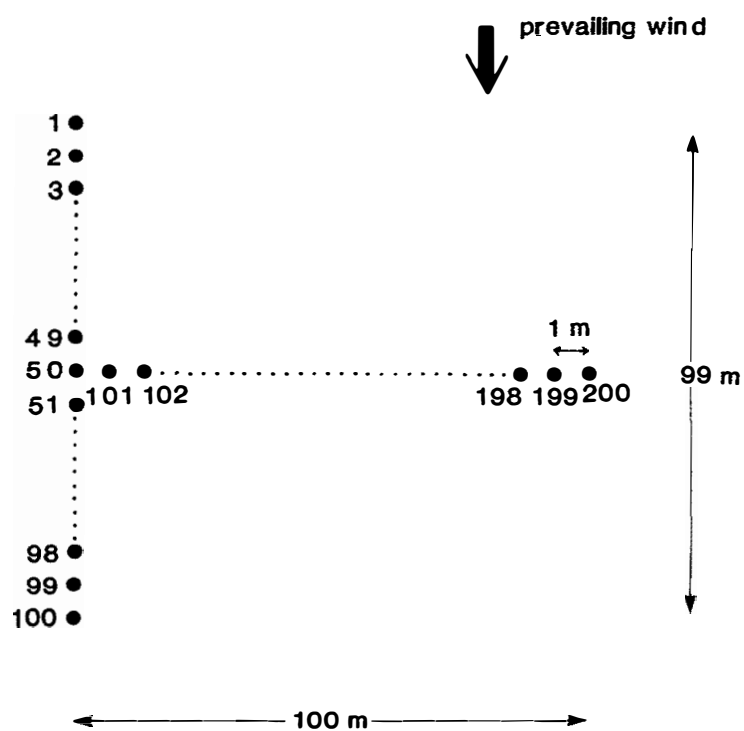


Fig. 2. 200-stake farm at S122.

V. Net Accumulation of snow at Mizuho Station

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The measurements were made once a month using a 36-stake farm and a 101-stake row. The former was installed in 1972, in which 36 bamboo stakes in a square of 100 m sides were arranged in a rectangular lattice with spacings of 20 m. The farm was adopted for the accumulation measurements in 1984 as well. The results of the measurements are given in Table V-1, in which the stake number is the same as in the previous reports (Fig. 3; Yamada et al., 1975 ; Takahashi, 1984).

Another stake farm of 201 stakes with 1 m spacing was prepared in 1973, which basically consisted of two rows of stakes, one perpendicular and the other parallel to the direction of the prevailing wind. They crossed each other, forming an X shape. This stake farm also had been adopted for the accumulation measurements at Mizuho Station. It was brought to an attention, however, that the stakes aligned parallel to the wind direction could generate a vigorous turbulence, since the spacing of the stakes was as short as 1 m. Therefore, it was determined to discontinue the measurements on the stakes of the parallel row to the wind direction, and the row of 101 stakes, which was aligned perpendicular to the wind direction, was left for further measurements of snow accumulation. The results of the measurements are given in Table V-2, in which the stake number is the same as in the previous reports (Fig. 4; Takahashi, 1984 ; Nakawo et al., 1984).

References

- Nakawo, M., Narita, H. and Isobe, T. (1984) : Net accumulation of snow at Mizuho Station. JARE Data Rep., 96 (Glaciol. 11), 66-78.
- Takahashi, S. (1984) : Net accumulation of snow by stake method in 1982. JARE Data Rep., 94 (Glaciol. 10), 15-61.
- Yamada, T., Narita, H., Okuhira, F., Fukutani, H., Fujisawa, I. and Shiratsuchi, T. (1975) : Net accumulation of snow by stake measurement in Sôya Coast-Mizuho Plateau in 1971-1973. JARE Data Rep., 27 (Glaciol. 2), 10-67.

Table V-1. Net accumulation with a 36-stake farm at Mizuho Station in 1984.

(cm in depth)

	Dec.30	Jan.31	Feb.29	Mar.31	Apr.30	May 31	June30	July30	Aug.31	Sep.30	Oct.31	Nov.30	Dec.31	Total
No.	(32days)	(29)	(31)	(30)	(31)	(30)	(30)	(32)	(30)	(31)	(30)	(31)		
I-1	-4.5	E -1.5	E 0.1	E 0.4	G 0.2	E -0.6	E -0.2	G 0.4	G -0.2	G -0.1	-0.7	E -2.2	G	-8.9
2	-1.9	E -0.8	E 30.1	E 0.1	E 3.2	E -2.6	G -0.4	E 0.3	E -0.2	E -0.2	-0.3	E -2.5	E	24.8
3	-2.1	E 0.0	D 24.8	D -11.3	E -0.1	E -0.3	E 0.0	E 0.4	E -0.3	E -0.1	-1.0	E -2.3	E	7.7
4	-1.5	E -0.8	E -0.1	E 0.0	E -9.6	G 9.8	G 0.1	G 0.0	G -0.2	G -0.1	-0.6	E -1.5	G	-4.5
5	-2.7	E -1.4	E -0.3	E 7.4	E -3.8	D -0.3	E 0.0	E 0.7	D 5.6	E -0.1	-0.6	E -1.4	E	3.1
6	-1.8	E -2.1	E 0.1	E 20.8	E -20.9	G 0.1	G 0.0	E 5.1	E -4.8	G -0.1	-0.5	E -1.7	E	-5.8
II-1	2.8	E -1.4	E -0.4	E 0.6	E -0.1	E 0.3	E -0.2	G 0.1	E -0.1	G 0.1	-0.7	E -2.2	G	-1.2
2	-3.5	E 2.3	D 8.2	E -4.5	E -1.0	E 0.9	E 0.0	E 0.1	E 0.1	E -0.1	-0.5	E -6.5	E	-4.5
3	-1.7	E -1.3	E -0.7	E 0.0	G 0.1	E 0.9	G -0.1	G 0.5	G -0.1	G 0.0	-0.3	E -2.6	G	-5.3
4	-1.5	E -0.8	E 5.0	E -5.2	G 0.7	E -0.4	G -0.6	G 5.7	G 0.2	G -0.1	-0.5	E -1.9	E	0.6
5	-5.2	E 3.7	D 1.9	D -0.5	E 0.5	E 0.0	G 0.1	E 0.1	E 0.2	E -0.2	-0.6	E -2.7	E	-2.7
6	-1.4	E -0.8	E 38.6	D -28.9	E -0.1	E -0.8	G 0.0	E 1.2	E -0.9	E 0.0	-0.6	E -2.3	E	4.0
III-1	-2.7	E -1.8	E 13.4	D -4.6	E 0.1	E 0.2	E 0.2	E 0.0	E 0.4	E -0.1	-0.8	E -3.0	E	1.3
2	2.5	E -1.4	E 8.7	E -0.8	E 0.9	E -0.9	E -0.1	E 0.4	E -0.2	E 0.0	-0.8	E -6.2	E	2.1
3	-1.7	E -0.9	E -0.5	E 0.7	E 0.0	E 0.4	E 0.3	E 0.8	D -0.8	E 0.1	-0.8	D -2.2	E	-4.6
4	-1.7	E -0.6	D 0.8	E -1.6	G 0.3	G 0.4	G -0.2	G 0.6	G 0.1	G 0.1	-0.8	E -2.2	G	-4.8
5	-1.0	E -1.1	E 0.1	E 0.3	E -0.3	E 0.3	G -0.1	E 0.6	E -0.4	E 0.1	-0.6	E -1.6	E	-3.7
6	-0.7	E -1.2	E -0.6	E 0.0	G -0.2	G 0.6	G 0.0	G 0.3	E 0.1	G 0.2	-0.9	E -0.6	E	-3.0
IV-1	-1.2	E -1.5	E -0.1	E 0.4	E 0.0	E 1.0	G -0.2	G -0.6	G 0.9	E -0.1	-0.4	E -3.6	G	-5.4
2	-1.7	E -1.3	E -0.5	G 0.7	E 9.9	G -9.8	G 0.3	G 0.0	G 0.2	G 0.0	-0.3	E -1.6	E	-4.1
3	-2.3	E -0.2	E -1.6	E 0.7	G 0.2	E -0.5	G 0.0	G 0.8	E -0.5	G 0.0	-1.0	E -3.3	E	-7.7
4	-2.0	E -0.8	E 0.8	E -1.3	G 0.5	G 0.1	G -0.1	G 0.1	E 0.1	G 0.2	-0.4	E -1.9	E	-4.7
5	-3.0	E -7.7	E 5.4	E 0.1	E 0.8	E -0.1	G -0.4	G -0.1	E 0.2	G 0.2	-0.9	E -2.1	E	-7.6
6	-1.5	E -0.7	E 4.1	E 0.0	E -0.7	E 1.1	E -0.4	E 2.3	D -2.0	E 2.2	-2.6	E -5.8	E	-4.0
V-1	-1.2	E -1.3	E -0.8	E 0.2	E 0.2	E 1.0	G -0.7	E 0.5	G -0.2	G -0.2	0.0	E -2.0	E	-4.5
2	-1.6	E 6.3	D 20.6	D -27.6	E 1.2	G -1.3	G 0.0	G 0.0	G 0.2	G 0.2	-0.5	E -1.6	G	-4.1
3	6.0	E 0.2	D -1.8	E -0.1	G 0.6	E -0.3	E -0.1	E 0.3	E 0.2	E -0.2	-0.8	E -6.6	E	-2.6
4	-2.8	E -1.3	E 0.3	E 0.1	G 1.2	G -0.6	G -0.2	G 0.0	E 0.3	G -0.1	-0.7	E -2.5	E	-6.3
5	-1.4	E -0.8	E 30.2	D -30.8	G 0.1	E 1.3	G 0.2	E 0.2	E 0.1	E -0.1	-0.8	E -2.2	E	-4.0
6	-2.1	E -0.4	E 20.3	E -13.2	E -0.5	D 0.7	E 2.2	D -0.8	D -1.0	E 0.1	-0.2	E -2.0	E	3.1
VI-1	-4.4	E 0.2	D 1.7	E 0.5	E 0.0	E 0.0	E -0.2	E 0.6	E -0.2	E -0.1	35.0	D -16.4	D	16.7
2	-3.1	E -0.2	E -0.5	G 0.2	E 0.3	G -0.4	G -0.1	G 0.2	G 0.5	G -0.2	-0.3	E -1.8	G	-5.4
3	-1.6	E -1.2	E 8.5	E -5.4	E 0.2	D -0.3	E 0.1	E 0.0	E 0.1	E -0.1	-1.2	E -4.0	E	-4.9
4	-2.0	E -3.2	E 27.2	D -9.9	E -0.1	G 1.1	G -0.5	E 0.4	E 0.2	E -0.2	10.8	E -7.1	E	16.7
5	-1.4	E -0.3	D 13.7	E 18.5	E -4.4	D 1.5	E 0.0	E -1.1	E 1.5	E -0.2	-1.4	E -2.4	E	24.0
6	-1.8	E -1.8	E 16.1	E 0.0	E 0.4	D 0.1	G 0.2	E 7.7	D -7.7	E 0.0	12.2	D -5.2	E	20.2
mean	-1.68	-0.78	7.6	-2.6	-0.6	0.07	0.0	0.8	-0.2	0.0	1.0	-3.3		

Table V-2. Net accumulation with a 101-stake farm at Mizuho Station in 1983-1984.

(cm in depth)

	Dec.30	Jan.31	Feb.29	Mar.31	Apr.30	May 31	July 2	July 31	Aug.31	Sep.30	Oct.31	Nov.30	Dec.31	
No.	(32)	(29)	(31)	(30)	(31)	(32)	(29)	(32)	(29)	(31)	(30)	(31)	Total	
102	-0.2 E	-0.8 E	33.6 D	-4.8 E	-1.7 E	1.3 E	0.0 E	0.0 E	0.2 E	-0.2 E	-0.7 E	-2.3 E	24.4	
103	-2.6 E	7.0 D	23.9 D	-2.4 E	0.0 E	-0.4 E	0.0 E	0.2 E	0.2 E	-0.2 E	-0.2 E	-2.6 E	22.9	
104	-2.2 E	-1.3 E	30.2 E	-3.4 E	0.0 E	-0.5 E	0.0 E	1.4 E	-1.4 E	-0.1 E	-0.3 E	-4.7 E	17.7	
105	-1.7 E	-1.0 E	24.6 E	-5.4 E	0.0 E	0.0 E	0.8 E	2.7 D	-2.6 E	0.0 E	-0.6 E	-2.9 E	13.9	
106	-2.7 E	-1.0 E	21.6 E	-5.4 E	0.6 E	2.2 E	-2.4 E	0.3 E	-0.2 E	0.0 E	-0.8 E	-2.8 E	9.4	
107	-2.2 D	0.5 E	22.3 D	-9.8 E	0.3 E	-0.1 E	0.2 E	0.6 E	-0.5 E	-0.1 E	-1.4 E	-6.3 E	3.5	
108	-2.3 E	-0.1 E	29.7 E	-13.5 E	-0.1 E	0.5 E	0.9 E	0.2 E	-1.2 E	0.0 E	-0.7 E	-3.0 E	10.4	
109	-2.8 E	1.0 E	15.6 E	-6.6 E	3.2 E	0.1 E	-3.1 E	0.2 E	0.0 E	-0.6 E	1.2 E	-4.1 E	4.1	
110	-7.7 E	5.8 D	25.7 E	7.0 D	-16.7 E	5.1 E	1.3 E	0.0 E	-0.1 E	0.0 E	-1.7 E	-4.5 E	14.2	
111	-3.1 E	-1.2 E	28.4 E	0.6 D	-7.2 E	-0.3 E	1.0 E	0.0 E	0.0 E	-0.1 E	-0.5 E	-3.5 E	14.1	
112	-3.6 E	0.1 E	28.1 D	-3.5 D	-1.3 E	0.5 E	1.8 E	-0.1 E	-0.5 E	0.6 E	-1.2 E	-2.4 D	18.5	
113	-2.2 E	1.0 E	38.0 E	-6.5 E	-0.3 E	0.3 E	0.2 E	0.2 E	0.0 E	-0.2 E	-3.1 E	-3.1 E	24.3	
114	-3.0 E	-2.1 E	37.8 E	-8.4 E	-0.3 E	-0.4 E	1.8 E	-0.2 E	-0.2 E	-0.1 E	-0.8 E	-3.7 E	20.4	
115	-4.9 E	-0.4 E	32.3 E	-5.3 E	0.0 E	0.1 E	-0.9 E	0.4 E	-0.1 E	-0.2 E	-0.9 E	-2.5 D	17.6	
116	-4.9 E	-1.9 E	31.7 E	6.6 E	0.0 E	0.0 E	-0.5 E	0.0 D	0.4 E	1.8 E	-2.4 E	-2.1 E	28.7	
117	-3.1 E	0.3 E	46.0 E	-23.9 E	15.1 E	-0.1 E	-0.5 E	1.5 D	-1.3 E	-0.3 E	-0.9 E	-4.0 E	28.8	
118	-2.8 E	-0.3 E	34.3 E	-7.1 E	0.2 E	-0.2 E	0.5 E	0.0 D	-0.3 E	-0.1 E	6.5 E	-3.1 E	27.6	
119	-4.7 E	0.0 D	36.5 E	3.0 E	-11.0 E	0.2 E	0.8 E	0.0 D	0.0 E	-0.6 E	0.9 E	-3.8 D	21.3	
120	-2.7 E	0.4 E	24.6 E	20.2 E	-12.0 E	-0.5 E	0.6 E	1.7 E	-0.6 E	0.7 E	-1.5 E	-2.4 E	28.5	
121	-3.3 E	-0.6 E	20.6 E	27.5 E	-0.6 E	0.6 E	0.1 E	0.2 E	-0.1 E	-0.3 E	-0.3 E	-7.9 E	35.9	
122	-3.6 E	-0.5 E	20.6 E	20.7 D	-1.0 E	0.0 E	0.5 E	-0.1 E	0.1 E	0.9 E	-1.4 E	-1.5 E	34.7	
123	-1.6 E	-1.6 E	27.8 D	18.8 D	-10.6 E	-0.2 E	1.8 E	0.2 E	1.6 E	-1.8 E	2.5 E	-3.7 E	33.2	
124	-3.2 E	0.2 E	17.4 D	33.1 D	-15.3 E	1.5 E	-0.2 E	0.0 E	0.0 E	0.0 E	1.5 E	-2.7 E	32.3	
125	-3.2 E	2.4 D	14.8 E	36.0 D	0.0 E	1.6 E	-0.4 E	0.3 E	-0.2 E	-0.1 E	-1.2 E	-3.1 E	46.9	
126	-2.3 E	2.9 D	25.0 E	23.5 E	0.0 E	-0.5 E	-0.2 E	2.0 E	-0.3 E	0.1 D	-1.5 E	-0.2 D	48.5	
127	-1.9 E	6.9 D	25.2 E	1.0 D	11.3 E	-1.3 E	0.1 E	0.3 E	-0.1 E	-0.2 E	1.2 E	-4.8 D	37.7	
128	-2.2 E	3.3 D	30.4 E	10.1 E	-0.3 E	-0.2 E	-0.1 E	0.1 E	-0.3 E	-0.1 E	-1.7 E	-3.9 D	35.1	
129	-2.4 D	7.5 D	26.2 E	-6.5 E	7.6 E	0.7 E	0.2 E	0.5 D	0.3 E	-0.2 E	-0.6 E	-3.7 E	29.6	
130	-2.1 E	0.0 D	32.3 E	-1.5 E	2.5 E	-0.1 E	-0.3 E	6.6 D	-6.2 E	-0.1 E	-1.0 E	-2.4 D	27.7	
131	-2.2 E	-1.0 E	33.2 E	-8.0 E	-0.7 E	9.5 E	0.0 D	8.5 D	-8.3 E	-0.2 E	-0.8 E	-4.6 D	25.4	
132	-4.2 E	0.1 E	38.6 E	-2.9 E	1.7 E	-1.6 E	2.9 D	1.3 D	-3.7 E	-0.1 E	3.9 E	-8.8 D	27.2	
133	-4.9 E	0.6 E	40.9 E	-12.4 E	5.2 E	-0.8 E	0.3 E	0.0 E	0.1 E	-0.3 E	-0.6 E	-2.8 E	25.3	
134	-2.2 E	1.0 D	43.8 D	-15.5 E	-0.4 E	2.3 E	-0.5 E	0.3 E	-0.2 E	0.0 E	-1.4 E	-5.6 D	21.6	
135	-4.2 E	0.3 E	30.8 E	-6.6 E	0.5 E	-0.4 E	0.1 E	0.1 E	0.0 E	-0.2 E	-1.4 E	-5.8 D	13.2	

(cm in depth)														Total
No.	Dec.30 (32)	Jan.31 (29)	Feb.29 (31)	Mar.31 (30)	Apr.30 (31)	May 31 (32)	Jul.2 (29)	Jul.31 (32)	Aug.31 (29)	Sep.30 (31)	Oct.31 (30)	Nov.30 (31)	Dec.31 (31)	Total
136	-1.7 E	0.3 E	18.6 E	-3.4 E	3.0 E	-1.5 E	0.2 E	0.2 E	0.3 E	-1.1 E	-1.3 E	-2.5 D	11.1	
137	1.5 D	0.0 E	19.7 E	1.0 E	-1.0 E	1.0 E	0.0 E	0.0 E	0.2 E	0.1 E	-0.7 E	-5.2 D	16.6	
138	-5.7 E	5.0 E	19.2 E	9.3 D	-16.2 E	-0.1 E	0.1 E	2.7 D	-2.6 E	-0.2 E	-0.9 E	-7.7 E	2.9	
139	-1.5 E	0.1 E	11.6 D	11.1 D	-16.0 E	0.3 E	-1.5 E	3.5 D	-3.3 E	-0.5 E	-0.6 E	-4.6 E	-1.4	
140	-2.6 E	-1.2 E	18.4 D	-1.2 D	-17.8 G	0.4 E	0.3 G	5.1 D	-5.1 G	1.7 E	1.6 E	-4.9 E	-5.3	
141	-2.0 D	-1.1 E	2.7 D	-23.3 D	21.4 E	-1.1 E	0.0 E	2.5 D	-2.3 E	-0.1 E	-0.5 E	-3.6 E	-7.4	
142	-1.9 E	-1.0 E	0.4 E	-0.6 G	0.1 G	0.7 E	-0.3 G	0.3 G	0.1 G	-0.1 E	-0.5 E	-1.7 E	-4.5	
143	4.6 D	-2.8 E	1.7 D	-1.7 G	1.8 E	-1.4 E	-1.3 G	1.2 E	0.1 E	-0.1 E	-1.1 E	2.7 E	3.7	
144	-3.1 E	-2.9 E	0.5 E	-0.3 G	0.0 G	0.0 E	0.0 G	0.3 E	0.0 E	-0.1 E	-0.7 E	-1.9 E	-8.2	
145	-3.5 E	0.1 E	-0.7 G	0.0 G	0.0 G	0.0 G	0.2 G	0.3 G	0.0 G	-0.1 E	-0.2 E	-1.4 E	-5.3	
146	-2.6 E	0.2 E	2.0 E	-2.1 G	0.9 E	0.5 E	-1.2 E	0.1 G	0.2 E	-0.3 E	0.1 E	-2.7 E	-4.9	
147	-3.4 E	-0.9 E	2.8 E	0.1 E	-0.3 E	1.5 E	0.8 E	0.1 E	0.0 E	0.0 E	-0.2 E	-1.8 E	-1.3	
148	-3.0 D	-0.3 E	0.1 E	0.5 E	-0.2 E	-0.2 E	0.2 E	1.9 E	0.2 E	-0.2 E	-0.2 E	-2.5 E	-3.7	
149	-0.1 E	-4.0 E	12.9 E	-6.3 E	0.1 E	-0.1 E	0.0 E	1.9 D	-1.9 E	-0.1 E	-0.6 E	-1.6 E	0.2	
150	-4.3 E	-2.3 E	23.5 E	-6.2 E	2.6 E	0.6 E	-2.5 E	0.6 E	-0.2 E	0.4 D	-0.3 E	-2.6 E	9.3	
151	-2.9 E	11.5 D	-3.7 E	0.0 E	-0.3 E	4.6 E	0.2 E	-0.1 E	-0.2 E	-0.2 E	0.1 E	-4.6 E	4.4	
51	-2.2 D	3.0 D	2.0 E	-0.5 E	0.1 E	-0.2 E	0.0 E	-0.1 E	0.2 E	-0.1 E	-0.2 E	-3.5 E	-1.5	
152	-2.9 E	-1.0 E	0.2 E	-0.2 G	4.0 E	-4.2 G	0.1 G	0.0 G	0.2 G	-0.2 G	-0.6	-1.8 E	-6.4	
153	-2.3 E	0.3 E	0.1 E	-0.4 G	0.4 G	0.0 G	-0.3 G	0.1 G	-0.2 G	0.1 G	-0.3	-2.0 E	-4.5	
154	-2.8 E	-0.6 E	0.3 E	-0.5 G	0.4 G	-0.4 G	-5.0 G	4.9 G	0.3 G	-0.1 G	-0.4	-2.1 E	-6.0	
155	-3.0 E	-0.1 E	-0.3 E	-0.3 G	0.0 G	-0.7 G	0.8 G	0.6 G	-0.3 G	-0.1 G	-0.1	-2.9 E	-6.4	
156	-3.3 E	-1.4 E	0.1 E	0.1 G	-0.1 G	-0.1 G	0.7 G	-0.1 G	0.1 G	0.0 G	-0.3	-1.9 E	-6.2	
157	-2.6 E	-0.2 E	-0.4 E	-0.2 G	0.2 G	0.0 G	0.5 G	-0.3 G	0.6 G	-0.2 G	-0.7	-2.2 E	-5.5	
158	-2.9 E	-0.1 E	-0.3 G	-0.3 G	0.6 G	-0.1 G	-0.1 G	-0.2 G	0.3 G	-0.2 G	-0.6	-1.6 E	-5.5	
159	-3.3 E	-0.3 E	-0.3 G	0.1 G	0.4 G	-0.6 G	0.7 G	-0.1 G	0.1 G	-0.1 G	0.0	-1.6 E	-5.0	
160	-2.8 E	-0.2 E	-0.2 G	0.0 G	0.3 G	0.1 G	-0.3 G	0.0 G	0.2 G	0.0 G	-0.4	-1.3 E	-4.6	
161	-2.9 D	-0.5 E	-0.1 E	-0.7 G	1.1 G	0.4 G	-1.0 E	0.0 G	0.0 E	-0.1 E	-1.0 E	-2.3 E	-7.1	
162	6.0 E	-0.5 E	1.2 E	-0.7 G	0.6 G	-0.1 G	0.5 E	0.0 E	0.1 E	-0.2 E	-0.3 E	-1.9 E	4.7	
163	-3.6 E	-0.6 E	0.1 E	-0.6 G	0.8 E	-0.3 G	0.0 G	0.1 E	-0.1 E	-0.2 E	-0.2 E	-2.1 E	-6.7	
164	-3.6 E	-0.5 E	0.7 G	8.5 E	0.0 E	0.3 E	0.1 E	0.2 E	-0.2 E	-0.3 E	-4.8 E	-6.0 E	-5.6	
165	-4.9 E	-0.1 E	-1.0 G	0.7 G	-1.3 G	1.0 E	0.8 E	-0.2 G	0.2 E	-0.1 E	-0.4 E	-1.4 E	-6.7	
166	-2.6 E	0.5 E	-0.1 G	6.8 E	-1.0 E	0.0 E	1.2 E	0.0 E	-2.6 E	-0.9 E	-2.0 E	-3.1 E	-3.8	
167	-4.2 E	-0.3 E	-0.5 G	0.3 E	-0.2 E	0.2 E	-0.1 G	0.1 E	0.1 E	0.3 E	-1.4 E	-3.4 E	-9.1	
168	-7.8 E	-2.4 E	0.8 G	-0.7 G	0.5 E	0.2 E	-0.9 G	0.2 E	0.1 E	-0.1 E	-0.8	-2.2 E	-13.1	

(cm in depth)															
Dec.30	Jan.31	Feb.29	Mar.31	Apr.30	May 31	Jul.2	Jul.31	Aug.31	Sep.30	Oct.31	Nov.30	Dec.31	Total		
No.	(32)	(29)	(31)	(30)	(31)	(32)	(29)	(32)	(29)	(31)	(30)	(31)			
169	-3.1 E	-0.8 E	4.3 E	1.2 D	-5.1 E	0.1 E	-0.1 G	0.2 E	0.0 G	-0.1	-0.2	-2.1 E	-5.7		
170	-4.4 E	-1.3 E	6.9 E	21.2 D	-25.7 E	0.0 E	-0.7 E	0.1 E	0.0 E	0.0 E	-0.9	-3.0 E	-7.8		
171	-2.6 E	-0.7 E	4.5 E	28.8 D	-33.9 E	1.1 G	-0.4 E	0.4 E	-0.2 E	-0.1 E	-0.2	-1.9 E	-5.2		
172	-1.6 E	0.8 E	2.1 E	20.2 D	-21.8 E	-0.1 E	-0.3 E	-0.6 E	0.9 E	-0.2 E	-1.0	-4.5 E	-6.1		
173	-2.5 E	-0.2 E	5.4 E	9.3 D	-15.0 G	0.2 G	0.0 G	0.0 G	0.3 G	-0.1 E	-0.3	-1.6 E	-4.5		
174	-2.8 E	0.0 E	4.6 G	-5.1 G	0.1 G	0.1 G	0.2 G	-0.1 G	0.3 G	-0.1 G	0.0 G	-2.0 E	-4.8		
175	-2.6 E	0.3 E	-0.4 G	3.1 E	-2.8 G	-0.4 G	0.0 G	0.0 G	0.2 G	0.0 G	-0.2 G	-1.8 E	-4.6		
176	-1.1 E	0.0 E	0.8 E	0.3 E	-0.1 E	0.0 G	0.3 E	-0.1 E	0.2 E	-0.1 E	-1.0	-0.9 E	-1.7		
177	-8.1 E	-1.1 E	-0.2 E	3.8 E	-4.6 E	0.1 E	0.0 E	-0.1 E	-0.3 E	-0.1 E	-1.0	-2.7 E	-14.3		
178	-1.9 E	-0.2 E	13.3 D	-12.6 G	0.3 G	-0.4 G	0.2 G	0.5 G	-0.3 G	0.2 G	-0.9	-1.2 E	-3.0		
179	-2.6 E	0.1 E	17.8 D	-12.5 E	2.4 D	-2.7 E	0.4 E	0.3 E	0.0 E	0.0 E	-0.6 E	-2.2 E	0.4		
180	-4.4 E	-0.7 D	23.7 D	-8.5 E	6.8 E	-0.3 E	0.1 E	0.0 E	0.1 E	-0.2 E	-0.8	-2.8 E	13.0		
181	-2.6 D	0.0 E	27.9 E	-18.8 E	0.4 E	-0.3 E	-0.1 E	0.0 E	0.1 E	0.1 E	-0.5 E	-3.1 D	3.1		
182	-1.8 E	0.3 E	41.9 E	-16.7 E	1.2 E	-1.0 E	0.2 E	0.3 E	-0.3 E	0.0 E	-0.6 E	-2.9 E	20.6		
183	-2.5 E	1.3 E	46.3 D	-29.8 E	0.3 E	3.0 E	0.0 E	4.4 D	-4.1 E	-0.2 E	-0.7 E	-2.7 E	15.3		
184	-2.0 E	-0.6 E	43.4 D	-12.5 E	-0.4 E	0.4 E	0.2 E	-0.2 D	0.4 E	-0.1 E	-2.7 E	-7.7 D	18.2		
185	-2.3 D	0.3 E	47.8 D	-24.1 E	1.1 E	-0.8 E	0.1 E	-0.2 E	0.4 E	-0.1 E	-1.1 E	-1.5 D	19.6		
186	-2.9 E	2.0 D	19.4 E	2.7 E	-2.8 E	-0.2 E	0.2 E	0.3 E	0.2 E	0.3 D	-1.1	-1.6 E	16.5		
187	-2.8 E	-0.1 E	31.2 E	9.6 E	-9.7 E	0.6 E	-0.1 E	-0.2 E	0.5 E	-0.1 E	-1.0	-2.5 E	25.4		
188	-2.4 E	-0.7 E	29.2 E	4.3 E	-4.2 E	-2.2 E	0.6 E	-0.2 E	0.3 E	-0.5 E	-0.2	-3.1 E	20.9		
189	-2.7 E	-0.3 D	11.5 E	20.7 E	-19.6 E	-0.1 E	0.1 E	0.4 D	-0.1 E	0.1 E	-0.6	-3.1 E	6.3		
190	-4.3 E	-1.0 E	17.6 E	8.6 E	-8.7 E	-0.5 E	0.2 E	-2.2 E	1.7 E	-0.4 E	2.9	-3.5 E	10.4		
191	-2.7 E	0.2 E	10.1 E	43.7 D	-44.4 E	0.1 E	0.3 E	0.0 E	0.1 E	-0.2 E	-0.6	-1.6 E	5.0		
192	-2.9 D	-0.7 E	0.3 E	32.4 D	-32.2 G	-0.6 E	0.4 E	0.1 E	0.2 E	0.0 E	-0.7	-1.8 D	-5.5		
193	-3.5 E	-1.6 E	5.8 E	31.0 D	-31.8 E	-1.7 E	0.3 E	-0.1 E	0.3 E	-0.4 E	-0.7	-1.0 E	-3.4		
194	-4.8 E	-1.8 E	12.4 E	-6.4 E	-0.2 E	0.8 E	0.1 E	0.4 E	-0.2 E	0.1 E	-0.7	-1.8 E	-2.1		
195	-4.6 E	0.3 D	6.6 E	-1.1 E	1.0 E	-1.0 E	0.4 E	-0.3 E	0.2 E	-0.1 E	-0.4	-1.8 E	-0.8		
196	-3.1 E	-1.3 E	13.1 E	2.9 E	-10.0 E	0.1 E	0.1 E	0.3 E	0.1 E	-0.2 E	-0.4	-3.2 D	-1.6		
197	-2.8 E	-1.4 E	14.1 E	-3.5 E	-0.2 E	0.2 E	0.0 E	0.1 E	0.1 E	-0.1 E	-1.1	-3.8 E	1.6		
198	-2.4 E	4.4 E	-0.5 E	-4.7 E	0.2 G	-0.5 E	0.4 E	-0.1 E	0.3 E	0.0 E	-0.6	-2.0 E	-5.5		
199	-3.4 E	1.8 D	7.7 E	-6.9 E	1.9 E	-1.9 E	0.1 E	0.2 E	0.3 E	0.1 E	-1.7	-2.5 E	-4.3		
200	-2.5 E	-0.7 E	5.7 E	-2.6 E	0.1 E	1.6 E	-0.2 E	0.0 E	0.0 E	0.0 E	-0.3	-5.9 E	-4.8		
201	-2.5 E	0.2 E	0.0 E	5.0 E	-4.9 E	-0.1 E	0.1 E	-0.1 E	0.2 E	0.0 E	-0.7	-2.4 E	-5.2		
mean	-2.8	0.2	15.8	1.2	-3.1	0.1	0.0	0.6	-0.4	-0.1	-0.5	-3.0	8.1		

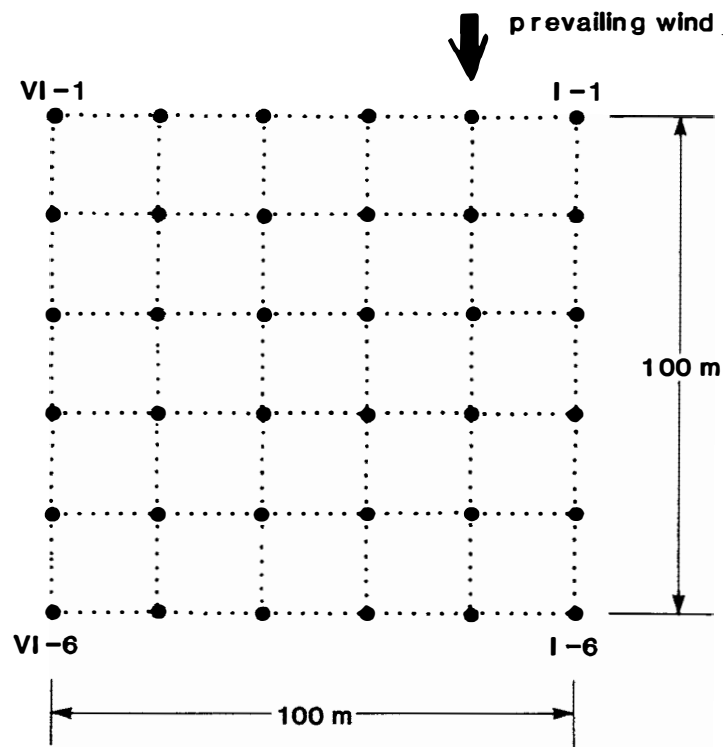


Fig. 3. 36-stake farm at Mizuho Station.

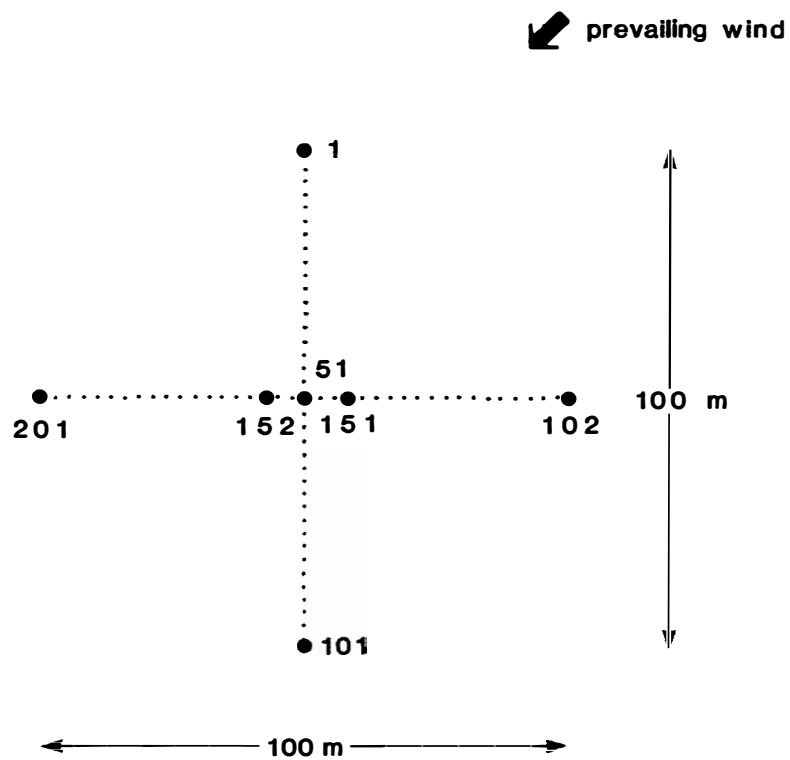


Fig. 4. 201-stake farm at Mizuho Station.

VI. Temperature Profiles in Surface Snow Layer at Mizuho Station

Observers : Yoshiyuki FUJII, Kunio KAWADA,
Minoru YOSHIDA, Yuzuru INAGAWA,
Yasuhiro YAMAGAMI and Seiichi
ASHIDA

The measurements were made using platinum resistance thermometers placed in metal pipes, which were installed in 1980 by Wada et al. (1981) at several depths in a surface snow layer. A spot reading of the resistance for each thermometer was made twice a month with a standard digital voltmeter as was described by Nakawo et al. (1984). The resistance was converted into temperature using a normal formula. The results are tabulated in Table VI-1.

The change in the levels of the thermometers was monitored during the observation period in 1984 by measuring the accumulation/ablation of snow at the place below which the thermometers were located. In early October, 30 cm of snow accumulated on the surface, resulting in lowering of the thermometer levels by the same amount.

References

- Nakawo, M., Narita, H. and Isobe, T. (1984) : Temperature profiles in surface snow layer at Mizuho Station. JARE Data Rep., 96 (Glaciol. 11), 79-80.
- Wada, M., Yamanouchi, T., Mae, S., Kawaguchi, S. and Kusunoki, K. (1981) : POLEX-South data, Part 2, Micrometeorological data at Mizuho Station, Antarctica in 1979. JARE Data Rep., 62 (Meteorol. 9), 321p.

Table VI-1. Temperature profile at Mizuho Station.

	(°C)				
Depth in m	0.9	1.4	3.4	5.4	10.4
1984					
19 Jan.	-25.1	-26.6	-31.6	-33.6	-33.6
1 Feb.	-24.1	-25.6	-30.6	-33.1	-33.3
15 Feb.	-24.6	-25.6	-30.3	-33.1	-33.8
1 Mar.	-27.8	-27.3	-29.6	-32.8	-33.6
15 Mar.	-29.3	-28.6	-29.6	-32.6	-33.6
1 Apr.	-30.6	-30.1	-29.8	-32.1	-33.3
16 Apr.	-33.1	-32.1	-30.6	-32.3	-33.6
1 May.	-36.0	-34.3	-31.8	-33.1	-34.1
15 May.	-36.0	-35.1	-32.1	-32.8	-33.6
31 May.	-34.8	-34.6	-32.6	-32.8	-33.6
19 June.	-35.3	-34.6	-32.6	-33.1	-33.3
2 July.	-37.8	-36.5	-32.8	-33.1	-33.3
17 July.	-39.8	-38.0	-34.1	-33.4	-33.4
1 Aug.	-39.5	-38.3	-34.3	-33.3	-33.3
17 Aug.	-40.3	-39.0	-35.3	-34.1	-33.6
31 Aug.	-39.8	-39.0	-35.8	-34.1	-33.6
15 Sep.	-39.5	-38.8	-36.0	-34.6	-33.6
30 Sep.	-38.3	-37.8	-36.0	-34.6	-33.3
	1.2	1.7	3.7	5.7	10.7
15 Oct.	-38.0	-37.5	-35.8	-34.6	-33.3
31 Oct.	-38.0	-37.5	-35.8	-34.8	-33.6
15 Nov.	-36.0	-36.3	-35.4	-34.3	-33.1
30 Nov.	-33.6	-34.3	-34.8	-34.6	-33.3
15 Dec.	-31.6	-32.8	-35.0	-34.8	-33.6
31 Dec.	-28.8	-30.3	-33.8	-34.3	-33.6