

I. NET ACCUMULATION OF SNOW BY STAKE MEASUREMENTS IN SÔYA COAST-MIZUHO PLATEAU IN 1971-1973

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1. Introduction

The term "net accumulation of snow" used in this report is defined by the thickness of snow which was newly deposited onto or removed from the previous snow surface. JARE-12 (1971-1972) and JARE-13 (1972-1973) carried out their measurements of snow accumulation in Sôya Coast-Mizuho Plateau area, shown in Fig.A (folded map). Surface snow density in this area was almost ranged between 0.35 and 0.50g/cm³ (Endo and Fujiwara, 1973; Yamada, 1975; Naruse, 1975; Watanabe, 1975). Two kinds of stake measurement method were adopted; i.e. a "single-stake" method and a "stake-farm method.

Single-stake method: A number of stations, with one snow stake set up for each, were located at regular intervals (of several hundred meters-several kilometers) along an oversnow traverse route.

Stake-farm method: A number of snow stakes were set up in a regular configuration (e.g. rectangular lattice, cross shape and others) in a limited area.

The buried or exposed length of a stake by accumulation or erosion of snow was calculated from the difference of heights of the stake above the snow surface between two successive measurements: the height of a stake was always measured on its right-hand side, facing to the leeward of the prevailing wind with the accuracy of the centimeter, regardless of the microscopic feature of the snow surface, e.g. sastrugi and others. Old stakes set up by the previous expeditions were also measured, as long as the situation permitted.

Distribution of the stakes and the frequency of measurements were as follows:

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A. Single-stakes	Frequency of measurement	
Location	Feb.1971 - Jan.1972 (by JARE-12)	Feb.1972 - Jan.1973 (by JARE-13)
1. From S16 to Mizuho Camp along the routes S, H and Z	2 - 4 times	3 times
2. From S16 to S122 along the route S	1	1
3. From Mizuho Camp to S169 along the route X	1	—
4. From Mukai Rocks to S16	1	—

B. Stake-farm	Frequency of measurement	
Location	Feb.1971 - Jan.1972 (by JARE-12)	Feb.1972 - Jan.1973 (by JARE-13)
1. 12-stake farm and 9-stake line at Syowa Station	12 times	33 - 38 times
2. 36-stake farm at Mizuho Camp at S16, S30, H68, H180 } S122 and Z40 }	16 2 - 4	8 2 - 3
3. 81-stake farm at Mizuho Camp	established	1
4. 200-stake farm at Mizuho Camp S16 and S122	— —	6 3

2. Measurements

2.1 Net accumulation of snow by single-stake method

A stake at each station was denominated by its station number.

2.1.1. Along the traverse route from S16 to Mizuho Camp via routes S, H and Z

(a) From S16 to S30: Original stations of route S (S16, S17, S30) had been located at an interval of about 2km. To them JARE -12 in 1971 added three stations between S16 and S17, 5 stations between S17 and S18, and 6 stations between 2 adjacent original stations from S18 to S30 at regular intervals of about 300m; they resulted in the order of the stations along the route to be:

(S16) – S16-1 – S16-2 – S16-3 – (S17) – S17-1 – S17-2 – S17-5 – (S18) – S18-1 – S18-2 – S18-6 – (S19) – S19-1 S29-6 – (S30), where the station numbers in brackets indicate the original ones laid out in 1967 (JARE-8).

(b) From S30 to H306 (=S122) via route H: Each station was located at a interval of 300m for S30 – H61, and 500 m for H61 - H306 (= S122), in 1971 (JARE-12).

(c) From Z0(=S122) to Mizuho Camp via route Z: Each station was located at an interval of 1km for Z0(=S122) – Z43 and Z70 – Z104, and 0.5km for Z43 – Z70, in 1970(JARE-11) (Shimizu *et al.*, 1972).

The result of the measurement is given in Tables 1a, 1b and 1c.

2.1.2. Along the traverse route from S16 to S122 via route S:

Each station was located at an interval of about 2km in 1967 (JARE-8). The result of the measurement is given in Table 2.

2.1.3. Along the traverse route from Mizuho Camp to S169 via route X:

Each station was located at an interval of about 2km in 1970 (JARE-11). The result of the measurement is given in Table 3.

2.1.4. Along the route from Mukai Rocks to S16:

Six stations, M1, M2, M6, were set up in 1971 (JARE-12) between Mukai Rocks and S16, as shown in Fig.1. As it was an active surface ablation zone of the ice sheet, a number of stakes set up in drill-holes of 2m in depth bored vertically at the ice sheet surface had fallen during summer. (Regarding the falling down of the stakes, the following process was presumed from observations: intensive radiation in summer heated considerably the stake (bamboo pole); the opening of the drill hole was melted and widened in a funnel shape by the warmed stake; the buoyancy of melt water filling up the drill hole caused the bamboo stake to be lifted up to an unstable position, and finally to fall down together with by wind action.)

To avoid such a trouble, a new method was designed for setting up a stake by use of a foam-styrene tube (a thermal insulator of a water pipe) of 1m in length and 5cm/2.5cm in outer/inner diameter. A vertical hole, 80 cm in

depth and 10 cm in diameter, was bored at the surface of the ice sheet by a SIPRE-type hand auger. The foam-styrene tube was placed vertically in it; the gap between the tube and the wall of the hole was packed tightly with crushed ice/snow; the upper part, about 20cm long, of the foam-styrene tube was exposed upright above the surface of the ice sheet. This work was done in August 1971. In January 1972, about 5 months after the setting, it was found that 5 tubes were in a measurable condition, while another one was found missing. The root of the tube has been fixed tightly in the hole with solid ice; the exposed part of the tube above the ice sheet surface had been bent along the surface; the exposed part of the tube was carefully returned to an upright position by a hand, and the height was measured. (It may be recommended that a rigid shaft be put in the bore of the tube so as to keep it standing straight.) The result of the measurement is given in Table 4.

At stations M4 and M5, the following was observed: When the snow stakes were set up on August 27, 1971, a snow surface at the end of the last summer was clearly identified inside the snow cover, at the levels of 27cm and 54cm below the present snow surface, respectively; the snow surface in question appeared as an iced one, caused by the soaking of meltwater by the end of the last summer and by subsequent refreezing. No iced layer is formed in the snow cover by ordinary snow accumulation after the end of summer. When the snow stakes were remeasured on January 26, 1972, water-soaked snow remained on the iced surface, which was accumulated after the end of the last summer; it had the thicknesses of 2cm and 47cm at M4 and M5. This fact indicates that the accumulation of snow is still positive by 2cm and 45cm in thickness at M4 and M5, respectively, after the end of the last summer. It is necessary to continue such an observation at least until the end of the summer in point, for the discussion of the annual accumulation of snow.

2.2. Net accumulation of snow by stake-farm method

2.2.1. Syowa Station

A snow accumulation area of Syowa Station was selected on the sea ice in the northeast of the station to avoid the topographical effect of East Ongul Island on the accumulation of snow. The accumulation area was composed of 2 parts as shown in Fig.2: a 12-stake farm consisting of stakes No.1, 2... and 12, in a rectangular lattice; a 9-stake line consisting of 9 stakes A, B, H and I on a straight line across Ongul Strait. The result of the measurement is given in Tables 5a, 5b and 5c.

2.2.2. 36-stake farm (6 x 6 stakes in a rectangular lattice with a lattice spacing of 20m, and with a side in parallel approximately to the direction of the prevailing wind, as shown in Fig.3; located at S16, S30, H68, H180, S122, Z40 and Mizuho Camp).

The snow stakes were denominated by the following rules (see Fig.3):

The columns of stakes in perpendicular to the prevailing wind were designated by Roman numerals I, II, III ... and VI, from right to left, in order, facing to the prevailing wind; the rows of stakes along the prevailing wind by Arabic numerals 1, 2, 3 and 6, from the windward to the leeward of the prevailing wind, in order. Each stake was defined by a combination of Roman and Arabic numeral, e.g. "III-4". The result of the measurement is given in Table 6.

2.2.3. 81-stake farm (9 x 9 stakes in a rectangular lattice with a lattice spacing of 500m, at Mizuho Camp)

The denomination of each snow stake of the farm was made by the similar rule to the 36-stake farm, I - IX for columns and 1 - 9 for rows, although the orientation of the 81-stake farm was slightly oblique to the direction of the prevailing wind, as shown in Fig.B (folded map). The result of the measurement is given in Table 7.

2.2.4. 200-stake farm (the basic configuration was 2 straight lines perpendicularly intersecting each other in the cross, T, or L shapes, with 100-stakes aligned on each line at an interval of 1m, the one line being approximately parallel to the direction of the prevailing wind and the other perpendicular to it, as shown in Figs. 4a, 4b and 4c; located at S16, S122 and Mizuho Camp).

The result of the measurement is given in Table 8.

References

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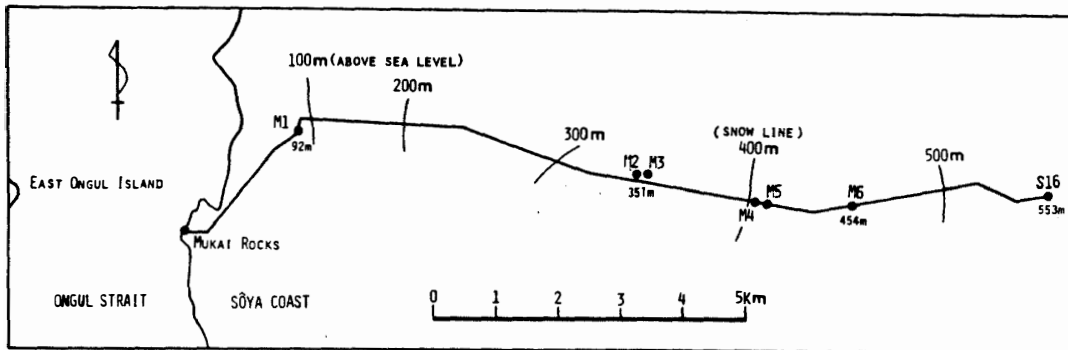


Fig.1. Sites of plastic snow-stakes (M1 to M6) in Sôya Coast in 1971 - 1972.

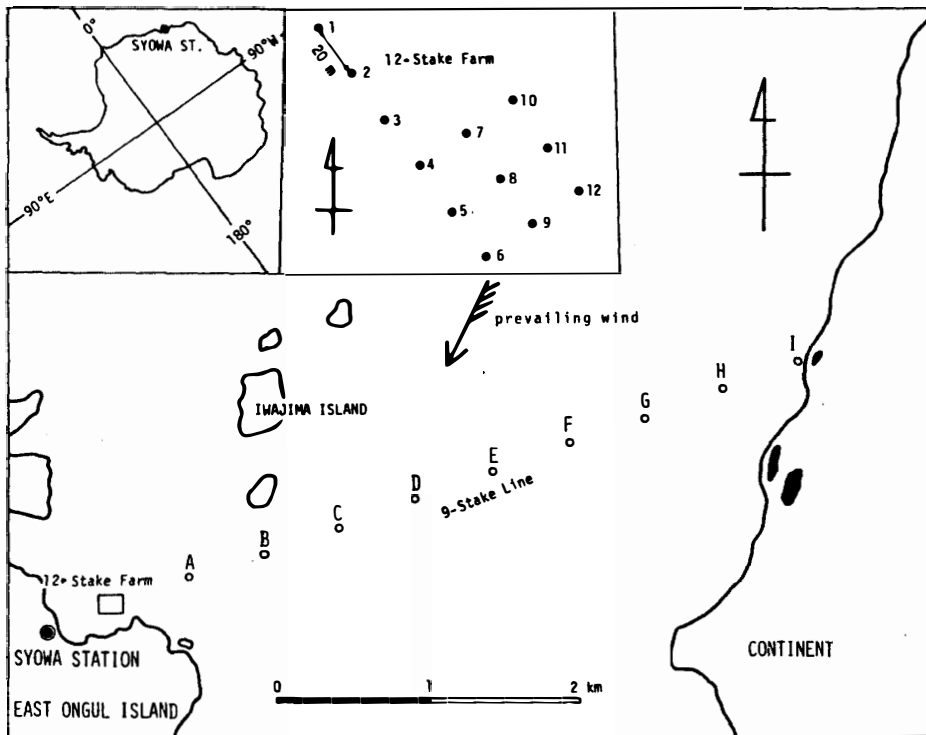


Fig.2. 12-stake farm (1 to 12) and 9-stake line (A to I) in Syowa Station area in 1971 - 1973.

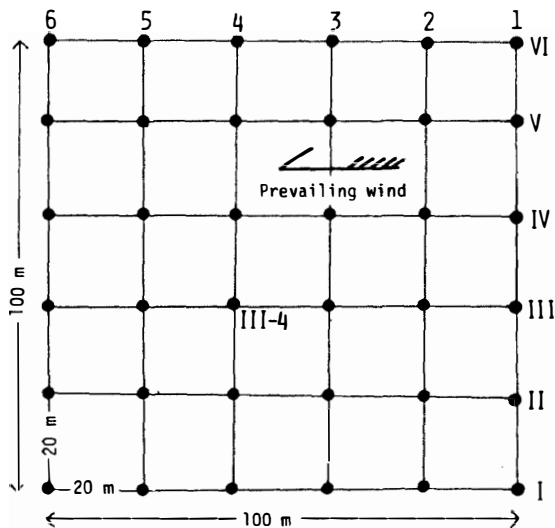


Fig.3. 36-stake farm (at S16, S30, H68, H180, S122, Z40 and Mizuho Camp).

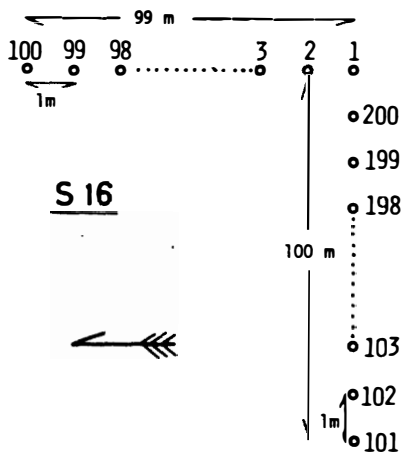


Fig. 4a

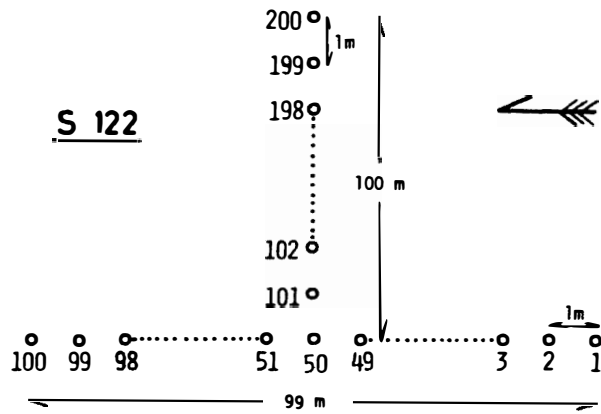


Fig. 4b

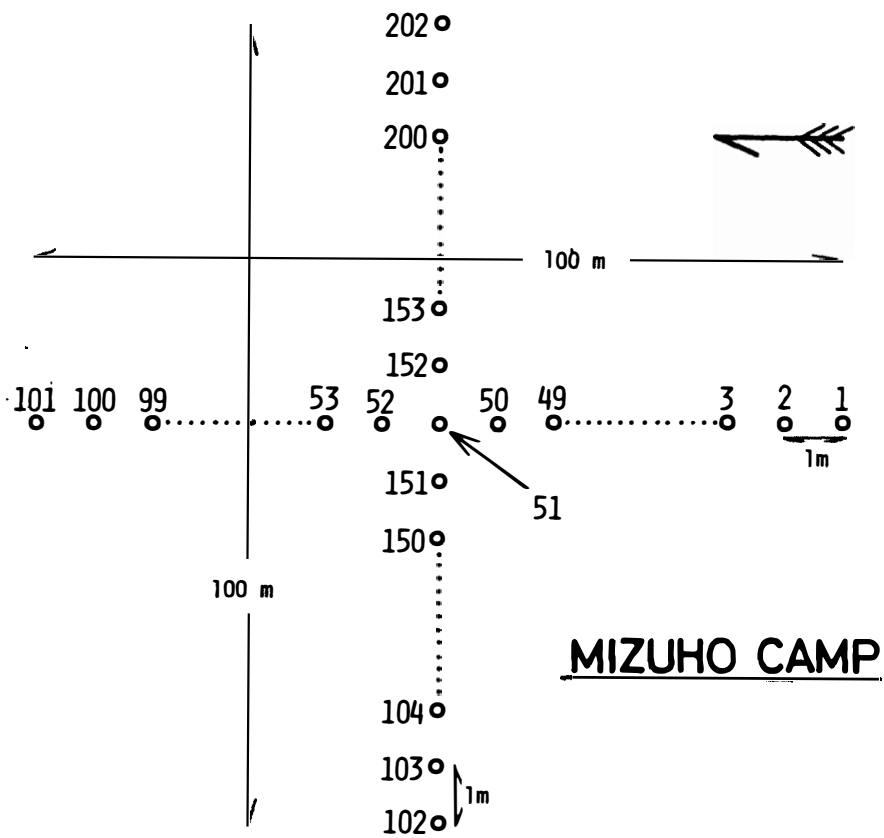


Fig. 4c

Fig. 4. 200-stake farms (at S16, S122 and Mizuho Camp).

Table 1a. Net accumulation of snow (cm) along route S (S16-S30) by single stakes: April 1971 - January 1973. (Numeral in () indicates the number of days through which the measurement was made.) *At S-30, net accumulation of snow of 22cm (153 days) during April - September 1971, and of 17 cm (123 days) during September 1971 - January 1972, were obtained.

Period Station No.	Apr. 1971-Jan. 1972 (267-279 days)	Jan. 1972-Jan. 1973 (365-368 days)	Period Station No.	Apr. 1971-Jan. 1972 (267-279 days)	Jan. 1972-Jan. 1973 (365-368 days)
S-16-2	-1(277)		S-24	31	94
-3	25		-1	-6	
S-17	35, 39	13	-2	-10	63
-1	17		-3	59	
-2	22	-15	-4	54	8
-3	11		-5	67	
-4	8	27	-6	-3	
-5	14		S-25		39
S-18	14, 13	79	-1	-1, -4	
-1	81(277)		-2	17	86
-2	60(276)	-117	-3	26	
-3	72		-4	43	86
-4	49	43	-5	14(267)	
-5	17		S-26		79
-6	22		-2		65
S-19	18, 10	59	-4		42
-1	35		S-27	18, 15(276)	47
-2	45	53	-1	16	
-3	50		-2	43	
-4	70	-153	-3	22	
-5	92		-4	12	
-6	83		-5	-3	
S-20	63, 56	44	-6	5	
-1	61		S-28	19, 18	
-2	95	6	-1	21	
-3	57		-2	32	
-4	52	77	-3	30	
-5	21		-4	50	
-6	8		-5	37(276)	
S-21	-9(276)	40	-6	12(276)	
-2		58	S-29	1, -1	57
-4		25	-1	31	
S-22		109	-2	4	
-2		36	-3	6	
-4		67	-4	11	
-6		81	-5	22	
S-23		81	-6	31	
-1	40(267)		S-30	39(276*)	54
-2	20	91			
-3	13				
-4	13	48			
-5	0				
-6	35				

Table 1b. Net accumulation of snow (cm) along route H (H1-H306) by single stakes:
April 1971 - January 1973.

Period Station No.	Apr. - Sep. 1971 (152 days)	Sep. 1971 - Jan. 1972 (117-125 days)	Jan. - Apr. 1972 (88 - 91 days)	Apr. - Aug. 1972 (125 - 127 days)	Aug. 1972 - Jan. 1973 (151-155 days)
H-1				38(127)	
3				83(282)	
4		40(491)			
5		30(362)			
6			66(646)		
8		58(491)			
9			80(646)		
10		44(489)			
11	31(274)				
12					18(155)
14		50(491)			
15		51(364)		49(282)	
16		76(489)			
18			89(646)		
20			28(88)	10(127)	
21			60(646)		
23		49(364)			
24		64(491)			20(155)
25	50(274)				
27	4(152)		85(494)		
28		72(491)			
30	40(274)		28(89)	-62(281)	
32		87(491)			33(155)
33		42(363)			
35		34(363)		50(281)	
36		88(491)			
38			103(646)		
40	39(274)		12(89)	4(126)	
42			64(646)		
44		35(491)			
45		46(363)		-2(281)	
48		61(491)			10(155)
50	18(274)		12(89)		
51		30(363)		43(281)	
52		68(491)			
54			53(646)		
55		32(363)			
59			22(89)		
60				22(126)	21(155)
63		27(488)			
64			16(216)		12
66					-58
68		8(488)			3

Period Station No.	Apr. - Sep. 1971 (152 days)	Sep. 1971 - Jan. 1972 (117-125 days)	Jan. - Apr. 1972 (88 - 91 days)	Apr. - Aug. 1972 (125 - 127 days)	Aug. 1972 - Jan. 1973 (151-155 days)
H-70				26(126)	-104
72				34 ↓	62 ↓
74				20(126)	16(155)

Period Station No.	June-Sep. 1971 (112-115 days)	Sep. 1971 - Jan. 1972 (117-125 days)	Jan. - Apr. 1972 (88-91 days)	Apr. - Aug. 1972 (125-127 days)	Aug. 1972 - Jan. 1973 (151-155 days)
H-76				5(126)	15(155)
78				21 ↑	8 ↑
79		-2(125)			
80				21	14
82				0	22
84				16	0
85			18 (89)		
86				10	20
88				16	18
90			19 (89)		
91		11(325)			
92		35 ↑		9	28
93		17 ↓			
94		21(325)		14	25
95	4 (236)		17 (89)	20	
96		29(325)		32	12
97		20 ↑			
98		3 ↓		10	16
99		31(325)			
100	12(115)	-2(121)	-7 (89)	22	22
101		30(325)		6	
102		20 ↑		17	-4
103		28 ↓			
104		16(325)		18	10
105	9 (236)		11 (89)	26	
106		16(325)		14	6
107		16 ↑			
108		21 ↓		51	-42
109		26(325)			
110	21(236)		5 (89)	33	10
111		24(325)			
112		23 ↑		24	11
113		7 ↓			
114		14(325)		21	21
115	6(236)		18 (89)		
116		14(325)		27	21

Period Station No.	June - Sep. 1971 (112-115 days)	Sep. 1971 - Jan. 1972 (117-125 days)	Jan. - Apr. 1972 (88 - 91 days)	Apr. - Aug. 1972 (125 - 127 days)	Aug. 1972 - Jan. 1973 (151-155 days)
H-117		42 ↑			
118		34 ↓		18	22
119		26(325)			
120	26(115)	-13(121)	5 (89)	30	1
121	15(236)		13 (89)		
122		30(325)		4	11
123		14(325)			
124	18(236)		18 (89)	5	11
125		21(325)			
126		28(325)		16(126)	-78
127		22(326)			
128		20 ↑		15(125)	17(155)
129		26(326)			
130	10(236)		2 (90)	18	0(154)
131		10(326)			
132	17(115)	-8(121)	0 (90)	25	18
133		14(326)			
134		52 ↑		4	18
135		18 ↓			
136		31		16	14
137		19(326)			
138		20(325)		8	13
139		21(325)			
140	5(235)		8 (89)	21	19
141		8(324)			
142		18 ↑		11	18
143		25(324)			
144	14(233)		2 (89)	19	3
145		1(322)			
146		15(322)		18	9
147	18(113)	17(209)			
148		13(322)		15	18
149		17(322)			
150	9(233)		3 (89)	3(125)	26(154)
151		27(322)			
152		16 ↑		5(125)	6(154)
153		-16 ↓			
154		-5(322)		5	10
155	-5(233)		-6 (89)		
156		-6(322)		12(125)	11(154)
157		-17(322)			
158		-16(447)			20(153)
159		-7(323)			
160	13(233)		-1 (89)	8(126)	5 ↑

Period Station No.	June - Sep. 1971 (112-115 days)	Sep. 1971 - Jan. 1972 (117-125 days)	Jan. - Apr. 1972 (88 - 91 days)	Apr. - Aug. 1972 (125 - 127 days)	Aug. 1972 - Jan. 1973 (151-155 days)
H-161		18(323)			
162		32 ↑		10	13
163		18 ↓			
164		30(323)		10	13
165	22(233)		13(89)		
166		36(323)		7	13
167		32 ↑			
168		23 ↓		14	8
169		7(323)			
170	-6(233)		16(89)	0	15
171		11(323)			
172		16 ↓		12	10
173		16(323)			
174	0(113)		8(210)	30	2
175	5(233)		6(89)		
176		7(322)		13	16
177		16 ↑			
178		38 ↓		-4	10
179		7(322)			↓
180	16(114)	-1(119)	17(89)	10	8(153)
181		16(322)			
182		22 ↑		25	8(152)
183		14 ↓			↑
184		14(322)		24	-5
185	9(233)		12(89)		
186		13(322)		12	11
187		6(322)			
188	22(233)		1(89)	11	7
189		13(322)			
190	5(233)		0(89)	16	12
191	-1(114)		16(210)		
192		32(322)		14	13
193		36 ↑			
194		23(322)		22	18
195	15(233)		10(89)		
196		36(322)		24	11
197		33 ↑			
198		15 ↓		20	14
199		21(322)			
200	3(233)		9(89)	12	7
201		13(322)			
202		13 ↑		3	-41
203		27(322)			
204	16(233)		2(89)	17	15
205		1(322)			

Period Station No.	June - Sep. 1971 (112-115 days)	Sep. 1971 - Jan. 1972 (117-125 days)	Jan. - Apr. 1972 (88 - 91 days)	Apr. - Aug. 1972 (125 - 127 days)	Aug. 1972 - Jan. 1973 (151-155 days)
H-206		12 ↓		14	-50
207		27 ↓			
208		-9(322)		29	-50
209	4(233)		2(89)		
210		31(322)		4	10
211		8(322)			
212	7(114)	15(210)		23	10
213		-24(322)			
214	13(233)		18(89)	8	18
215		26(322)			
216		27 ↑		10	2
217		19 ↑			
218		5 ↓		25(126)	7
219		9(322)			
220	-3(233)		13(89)	15(125)	6
221		8(322)			
222		16 ↑		15	-62
223		12 ↓			
224		-5(322)		14(125)	-35(152)
225	20(114)	-10(119)	4(90)		

Period Station No.	June - Sep. 1971 (112-115 days)	Sep. 1971 - Jan. 1972 (117-125 days)	Jan. - Apr. 1972 (88 - 91 days)	Apr. - Aug. 1972 (122 - 125 days)	Aug. 1972 - Jan. 1973 (151-155 days)
H-226	22(114)	1(209)		67(125)	-35(152)
227	6(114)	11(209)			
228		21(323)		6	19
229		2(323)			
230	102(233)		4(90)	50	
231		33(323)			
232		13 ↑		-10	10
233		17 ↓			
234		18(323)		2	13
235	12(114)	-5(119)	11(90)		
236		26(323)		27	1
237		14 ↑			
238		9 ↓		11	21
239		5(323)			
240	10(233)		12(90)	25	11
241		30(323)			
242		21 ↑		23	23
243		4 ↓			
244		-2(323)		3	2
245	6(232)		10(90)		
246		15(323)		16	
247		8 ↑			
248		23 ↓			

Period Station No.	June - Sep. 1971 (112-115 days)	Sep. 1971 - Jan. 1972 (117-125 days)	Jan. - Apr. 1972 (88 - 91 days)	Apr. - Aug. 1972 (122-125 days)	Aug. 1972 - Jan. 1973 (151-155 days)
H-249		12(323)			
250	3(232)		11(90)	24	5
251		14(323)			
252		13		32	-2
254		24(323)		12	-53
255	-6(232)		1(90)		
256		19(323)		22	12
257		25			
258		36		35	-4
259		7(323)			
260	17(232)		2(90)	3	17
261		2(323)			
262		20		60	
263		25			
264		23(323)		29	
265	0(232)		2(90)		
266		14(323)		35	
267		34			
268		26		8	0
269		33(323)			
270	0(113)	19(119)	20(90)	33	2
271		37(323)			
272		35		12	19
273		21			
274		6		7	4
275		24			
276		16		33(125)	6
277		24			
278		51(323)			
279		15(232)	8(90)		
280	3(112)	27(210)		14(126)	34(152)
281		43(323)			
282		64		23(125)	3(151)
283		0			
284		32		4	
285		3(323)			
286	-5(230)		6(91)	-7	
287	-9		17		
288	-6		1	1	-4
289	8(230)		13		
290	0(113)	-3(117)	18	44	27
291	-6(230)		2		
292	12(230)		7	7	
293	-7		6		

Period Station No.	June - Sep. 1971 (112-115 days)	Sep. 1971 - Jan. 1972 (117-125 days)	Jan. - Apr. 1972 (88 - 91 days)	Apr. - Aug. 1972 (122- 125 days)	Aug. 1972 - Jan. 1973 (151-155 days)
H-294	5	↓	4	14	
295	5	↓	-10		
296	7	↓	0	0	4
297	4	↓	44		
298	11(230)	↓	5	20	16
299			20		
300			19	3	3
301			3		
302			-16	8	-6
303			36		
304			8	4	17
305			4(91)	↓	↓
306				0(125)	29(151)

Table 1c. Net accumulation of snow (cm) along route Z(Z1-Z103)
by single stakes: November 1970 - January 1973.

Period Station No.	Nov. 1970 - June 1971 (212-225 days)	June 1971 - Jan. 1972 (206-222 days)	Jan. - Apr. 1972 (92 - 94 days)	Apr. - Aug. 1972 (122 - 124 days)	Aug. 1972 - Jan. 1973 (150-151 days)
Z-1		-3(222)	-2(92)	0(124)	2(151)
-1			2		
2		-6	8	16	11
-1			4		
3		-4	-1	2	15
-1			-2		
4		1	9	1	-3
-1		-10	-6		
5	-2(212)	-10	1	8	-2
-1			-2		
6		20	-1	0	-3
-1			-2		
7		-5	2	3	-1
-1			6		
8		-5	-2	11	15
-1			14		
9		-3	2	23	38
-1			10		
10	-4(212)	10	-13	22	16
-1			-2		
11		80	-45	1	6
-1			8		
12		30	-18	5	22
-1			37		
13		34	1	21	6
-1			-1		
14		33	87	7	36
-1			17		
15	10(213)	29	2	10	19
-1			5		
16		62	64(92)	10(124)	72
-1			0(93)		
17		13	-1	4(123)	
-1			-5		
18		-2	0	1	33
-1			-1		
19		16(222)	-1	6	-7
-1			9		
20	2(213)	29(221)	-9	20(123)	-4
-1			8(93)		
21	6(213)	32(221)	30(216)		5(151)
-1			7(93)		

Period Station No.	Nov. 1970 - June 1971 (212-225 days)	June 1971 - Jan. 1972 (206-222 days)	Jan. - Apr. 1972 (92 - 94 days)	Apr. - Aug. 1972 (122 - 124 days)	Aug. 1972 - Jan. 1973 (150-151 days)
Z-22		22(221)	23	8(123)	-79(151)
-1		↑	27	↑	↑
23		6	5	0	4
-1		↑	1	↑	↑
24		↑	-4	32	3
-1		↑	5	↑	↑
25		14	4	10	-1
-1		↑	1	↑	↑
26	0(213)	-2	-1	3	19
-1		↑	17	↑	↑
27		-3	12	0	14
-1		↑	-2	↑	↑
28		-6	16	10	7
-1		↑	0	↑	↑
29		-8	-2	0	9
-1		↑	2	↓	↓
30		-6	15	13(123)	-9(151)
-1		↑	-8	↑	↑
31	-4(213)	-2	-2	-4(274)	
-1		↑	0	21(124)	13(150)
32		-52	17	-6	↑
-1		↑	23	↑	↑
33		-8	4	22	45
-1		↑	4	↑	↑
34		8	-1	0	16
-1		↑	11	↓	↓
35		8	-4	-2(124)	-2(150)
-1		↑	7	↑	↑
36		-4	8	19(274)	
-1		↑	35	10(124)	14(150)
37		0	9	18	↑
-1		↑	-34	↑	↑
38		-8	3	0	-3
-1		↑	1	0	↑
39		-5(221)	1	0	-3
-1		↑	22	↑	↑
40	-10(212)	2(220)	-9(93)	28	2(150)
-1		↑	-1(92)	↑	↑
41		16(220)	-5	16(120)	-3(151)
-1		↑	20(92)	↑	↑
42		-17(220)	14(92)	19(124)	-1(151)
-1		↑	-1	↑	↑
43		3(220)	14	-6	-5
-1		↑	-1	↑	↑
44		7(219)	-1	0	-3

Period Station No.	Nov. 1970 - June 1971 (212-225 days)	June 1971 - Jan. 1972 (206-222 days)	Jan. - Apr. 1972 (92 - 94 days)	Apr. - Aug. 1972 (122 - 124 days)	Aug. 1972 - Jan. 1973 (150-151 days)
Z-45	44(213)	-13	-4	8	
46		-3	1	23	4
47		11	-6(92)	6(124)	
48		17	-17(216)		-5
49		3	-56(216)		
50		10	-2(93)	-1(123)	14
51				1	
52		-25	29	0	10
53		42	-19	14	
54		-6	5	3	-2
55	9(213)	-1	-2	1	
56		-3	6	18	1
57		-3	-2	18	
58		-8	-2	0	-2
59		-7	-12	0	
60		-9	0	38	-9
61		31	-2(93)	1(123)	
62		-2	6(216)		3
63		-5	-6(93)	12(123)	
64		0	7	24	34
65		4	21	2	
66		-4	44	1	-4
67		-8	-7	0	
68		11	-5	22	8
69		-4	6	20	
70				14	8
71		0(104)*		1	-84
72				-1	-1
-1			-1		
73		18	0(93)	21(123)	-13
-1			7(94)		
74		7	4	13(122)	6
-1			4		
75		-6	-3	34	4
-1			14		
76		11(219)	3	2(122)	8(151)
-1			8(94)		
77		-4(219)	15(94)	55(122)	-6(151)
-1			6		
78		-5	-2	59	-4
-1			11		
79		2	-1	1	8
-1			-2		
80	30(213)	-4(219)	-11	11	2
-1			12		

Period Station No.	Nov. 1970 - June 1971 (212-225 days)	June 1971 - Jan. 1972 (206-222 days)	Jan. - Apr. 1972 (92 - 94 days)	Apr. - Aug. 1972 (122 - 124 days)	Aug. 1972 - Jan. 1973 (150-151 days)
Z-81		-1(218)	2	33	14
-1		↑	-5	↓	↓
82		7	1	16	10
-1		↑	1	↓	↓
83		-3	7	34	-9
-1		↑	64	↓	↓
84		4	19	45(122)	-2(151)
-1		↑	13		
85	5(213)	10	16	← 32(273) →	
-1		↑	29		
86		-4	26	32(123)	12(150)
-1		↑	8	↑	↑
87		-17	1	1	6
-1		↑	25	↑	↑
88		4	-1	4	8
-1		↑	-1	↑	↑
89		-1	17	0	0
-1		↑	-4	↑	↑
90	16(213)	28(218)	2	8	4
-1		↑	5	↑	↑
91		-5(206)	-1	43	2
-1		↑	0	↑	↑
92		-4	16	-9	6
-1		↑	-6	↑	↑
93		-2	-2	30	26
-1		↑	4	↑	↑
94		-56	-29	8	4
-1		↑	-12	↑	↑
95	4(225)	18	-2	61	-5
-1		↑	-1	↑	↑
96		-3	79	-59	24
-1		↑	7	↑	↑
97		-4(206)	-1(94)	1(123)	4(150)
-1		↑	-18(94)	↑	↑
98		4(206)	-1	1(123)	19(150)
-1		↑	13	↑	↑
99		13	-3	3	-24(150)
-1		↑	25	↓	↓
100	24(225)	4	-3	-1(123)	
-1		↑	6	← 51(273) →	
101		-3(206)	-1	-1(123)	
-1		↑	-3(94)	↑	
102				4	50(150)
103				-2(123)	

Table 2. Net accumulation of snow (cm) along route S (S16-S70-S122) by single stakes: January 1971 - January 1973.

Station No.	Period Jan. 1971 - Jan. 1972 (367 - 368 days)	Jan. 1972 - Jan. 1973 (365 - 368 days)
S16	6(323)	—
17	39(367)	—
18	38	—
19	21	—
20	16	—
21	12	—
22	42	—
23	55	—
24	61	—
25	13	—
26	57	—
27	1	—
28	64	—
29	45	—
30	53	—
31		109(365)
32	55	66
33	60	43
34	58	76
35	42	75
36	24	68
37	44	57.5
38	51	54
39	51	56
40	50	64
41	31	56
42	39	71
43	54	74
44	47	36
45	62	70
46	13(367)	68
47	67(368)	61
48	44	48
49	69(368)	54

Period Station No.	Jan. 1971 - Jan. 1972 (367 - 368 days)	Jan. 1972 - Jan. 1973 (365 - 368 days)
S 50	60(367)	82(365)
51	64(367)	76(366)
52	68 ↑	73 ↑
53	38	64
54	52	50
55	67	61
56	57	72
57	81	92
58	63	51
59	54	53
60	157	46
61	85	66
62	62	56
63	83	69
64	82	64
65	67	34
66	50	46
67	37 ↓	50 ↓
68	45(367)	55(366)
70	18(368)	—
71	54 ↑	68(367)
72	58	50 ↑
73	28	35
74	45	56
75	56	66
76	33	42
77	59	51
78	45	56
79	56	30 ↓
80	26	55(367)
81	42	54(368)
82	43	55 ↑
83	27	51
84	11	17
85	34	30
86	53	35
87	31 ↓	34 ↓
88	24(368)	27(368)
89	49(368)	18(368)
90	11(367)	34 ↑

Period Station No.	Jan. 1971 - Jan. 1972 (367 - 368 days)	Jan. 1972 - Jan. 1973 (365 - 368 days)
S. 91	35	-32
92	47	53
93	35	42
94	23	35
95	21(367)	38
97	38(368)	26
98	21	38
99	16	38
100	-1	78
101	29	52
102	3	16
103	34	35
104	25	43
105	29	35
106	24	35
108	1	36
109	4	39
110	27	22
111	18	10
112	32	-7
113	22	13
114	17	-15
115	16	-36
116	15	-4
117	3	-13
118	9	10
119	45	-8
120	6	55
121	22	1(368)
122	10(368)	-

Table 3. Net accumulation of snow (cm) along route X(X1-X20) by single stakes: January 1971 - December 1971.

Stake	Period	Jan. - Dec. 1971 (343 days)	Stake	Period	Jan. - Dec. 1971 (343 days)
X - 1		—	X - 11		40
2		13	12		34
3		2	13		17
4		—	14		41
5		45	15		15
6		30	16		2
7		7	17		37
8		—	18		20
9		30	19		30
10		67	20(S126)		25
Mean: X-1 - 10		28	Mean: X-11 - 20		26

Table 4. Accumulation and ablation at the surface of the coastal ice sheet in Sôya Coast: August 22, 1971 - January 26, 1972.

Station		Accumulation and ablation of the ice sheet surface (cm) (+ : accumulation; - : ablation)			
No.	Elevation above sea level (m)	from	to	(cm)	A*
M1	92	Aug. 17, 1971	Jan. 26, 1972	-35 (ice)	—
M2	351	Aug. 22	Jan. 26	-16 (ice)	—
M3	351	Aug. 22	Jan. 26	-12 (ice)	—
M4	404	Aug. 27	Jan. 26	-25(snow)	+2
M5	454	Aug. 27	Jan. 26	- 7(snow)	+47

(ice), (snow): surface condition of the ice sheet on both Aug. 1971, and Jan. 1972.

A* : Net accumulation of snow from the end of the last summer to January 26, 1972.

Table 5a. Net accumulation of snow (cm) in Syowa Station area by 12-stake farm: March 20 - September 14, 1971. Value in (), 1st line dated March 20, 1971, indicates the thickness of the snow cover on the sea ice.

Stake No. Date	1	2	3	4	5	6	7	8	9	10	11	12
1971 Mar. 20 (12 days)	(9) -6	(27) 6	(12) 29	(19) 1	(8) 8	(24) 6	(16) 18	(18) 0	(16) 3	(16) 11	(9) 13	(8) 9
Apr. 1 (35 days)	-3	-1	-6	17	18	16	-7	9	14	9	4	19
May 6 (9 days)	2	-2	2	0	1	1	2	2	1	-1	1	-1
15 (21 days)	9	6	-4	5	1	13	3	26	22	6	6	7
June 5 (11 days)	-9	-2	-3	-2	-7	-10	-3	-4	-24	-4	-5	-4
16 (7 days)	-1	-2	-4	0	0	1	-1	-1	8	0	0	-2
23 (20 days)	0	0	0	6	0	8	10	-2	7	0	7	1
July 13 (6 days)	-1	0	6	0	1	0	0	0	0	-1	-1	0
19 (23 days)	7	3	-4	1	40	4	25	0	14	1	20	-1
Aug.11 (13 days)	4	0	1	8	0	36	-1	2	27	10	-1	26
24 (21 days)	8	55	49	40	37	38	29	57	38	40	46	49
Sep.14												

Table 5b. Net accumulation of snow (cm) in Syowa Station area by 12-stake farm: March 3, 1972 - January 2, 1973.

Stake Date	4	5	6	7	8	9	10	11	12
1972									
Mar. 3 (3 days)	-3.0	-2.5	-1.5	-1.0	0.5	-1.0	-2.0	-1.5	0.0
6 (7 days)	2.0	7.5	14.0	4.0	4.5	3.0	3.5	2.5	1.0
13 (20 days)	12.0	1.0	-8.0	-0.8	0.0	10.0	2.5	-6.0	-18.0
Apr. 2 (8 days)	-13.8	-11.0	-8.8	2.5	-2.0	-2.3	6.5	3.2	15.0
10 (8 days)	-0.8	18.8	7.4	-0.5	0.1	-0.5	0.0	0.0	-0.9
18 (7 days)	0.6	-11.3	-7.6	-0.5	-1.1	0.5	-0.5	0.0	-0.1
25 (8 days)	0.0	-0.1	0.0	0.5	0.0	-0.7	0.0	-2.0	0.0
May 3 (5 days)	26.2	-2.6	-9.0	6.0	17.0	10.4	-0.4	-0.3	-0.5
8 (8 days)	-26.7	1.7	9.0	-6.5	-17.0	-9.9	0.4	0.3	-0.5
16 (7 days)	0.0	4.5	11.0	0.0	-0.5	2.0	0.0	0.0	3.0
23 (7 days)	-0.1	0.3	2.5	0.3	1.9	0.7	-0.3	-0.2	0.0
30 (7 days)	0.1	0.2	0.0	-0.8	-0.2	2.5	0.3	0.2	-0.2
June 6 (7 days)	0.0	-1.0	-1.0	4.2	6.4	-4.8	-0.1	0.0	-2.0
13 (13 days)	0.0	2.5	-4.3	-1.4	10.0	-0.4	0.0	3.9	-0.2
26 (7 days)	-0.3	-2.8	-7.5	0.4	-0.8	-0.2	-0.4	-1.4	1.9
July 3 (7 days)	0.2	0.8	2.9	-0.1	0.0	-0.3	0.2	-0.4	-0.1

Stake Date	4	5	6	7	8	9	10	11	12
July 10 (8 days)	0.1	-10.9	-3.9	-0.7	-2.0	-0.2	-0.5	-2.5	-0.3
18 (6 days)	0.5	1.9	2.3	0.3	-0.3	-0.8	-0.2	0.4	-0.6
24 (8 days)	-0.8	2.0	2.0	-0.5	1.3	2.1	0.0	1.1	0.5
Aug. 1 (6 days)	0.6	1.4	1.6	0.4	0.2	-1.7	0.1	-1.7	10.1
7 (7 days)	4.2	4.1	7.9	3.4	3.0	3.6	3.9	3.6	-0.6
14 (7 days)	-4.6	5.8	31.3	5.9	5.0	-3.6	-3.8	7.7	7.3
21 (7 days)	-0.2	-0.3	-0.7	-0.1	-0.4	-0.1	-0.2	-0.2	-0.3
28 (9 days)	0.1	2.2	-0.5	24.9	7.3	22.7	4.2	15.6	31.8
Sep. 6 (8 days)	31.2	16.8	31.4	16.3	9.6	11.5	35.8	29.9	21.2
14 (4 days)	-0.4	10.0	-4.5	10.0	0.5	-0.2	0.0	-0.2	-0.5
18 (7 days)	11.9	32.5	0.5	2.5	43.0	9.2	-2.0	25.7	0.0
25 (7 days)	-0.3	-2.3	-2.2	-12.2	-5.0	-0.8	2.0	-2.2	-1.0
Oct. 2 (7 days)	-0.5	-0.7	-1.8	9.3	-1.0	-0.8	0.3	-0.9	-0.7
9 (7 days)	-0.1	-0.3	0.0	-0.1	-0.3	-0.1	-0.2	-0.4	-0.2
16 (7 days)	-1.4	0.2	-1.3	3.4	-1.0	8.7	-0.1	-1.3	8.9
23 (7 days)	-0.2	-1.9	-0.2	-2.7	-0.7	-3.2	0.1	-0.7	-0.2
30 (15 days)	-3.2	-4.5	-2.8	-2.7	-3.5	-1.8	-0.4	-3.5	-2.5
Nov. 14 (8 days)	-0.2	-0.7	-0.3	2.5	-0.9	-0.7	-1.2	-1.0	-1.0

Stake Date	4	5	6	7	8	9	10	11	12
Nov. 22 (12 days)	-1.3	-1.3	-1.3	-3.1	-1.8	-1.6	-0.8	-2.0	-2.5
Dec. 4 (7 days)	-0.3	0.5	0.8	-0.6	-0.3	-0.2	-0.6	-0.7	0.0
11 (14 days)	-4.4	-2.5	-5.0	-5.2	-6.3	-6.3	-6.4	-6.6	-6.4
25 (8 days)	-3.8	-6.8	-5.0	-5.4	-4.0	-7.5	-5.0	-4.2	-4.7
1973 Jan. 2									

Table 5c. Net accumulation of snow (cm) in Syowa Station area by
9-stake line: April 2, 1972 - January 2, 1973.

Stake Date	A	B	C	D	E	F	G	H	I
1972									
Apr. 2									
(8 days)	5.0	-4.0	0.0	-2.0	-0.7	-1.0	-	-	-
10									
(8 days)	21.2	4.7	21.0	2.4	-11.0	-0.6	-	-	-
18									
(7 days)	-4.2	-5.2	-1.0	-1.9	-0.8	-0.4	-	-	-
25									
(8 days)	13.5	20.0	1.0	0.5	4.0	13.0	-	-	-
May 3									
(5 days)	-29.1	7.3	7.3	-7.4	-1.1	-23.4	-	-	-
8									
(8 days)	26.6	6.2	-8.9	6.4	17.6	14.4	-	-	-
16									
(7 days)	1.0	5.0	-0.8	3.5	1.8	-0.3	-	-	-
23									
(7 days)	1.2	0.0	0.0	2.9	-2.3	2.9	8.5	-0.2	1.2
30									
(7 days)	-0.1	-0.2	0.0	-0.4	0.5	-0.7	-0.3	0.3	0.0
June 6									
(7 days)	0.3	5.7	0.3	-0.2	1.1	-1.4	-0.2	-0.3	0.0
13									
(13 days)	30.5	-2.0	-2.1	-0.5	-1.6	-0.5	-0.3	-0.2	-0.5
26									
(7 days)	-2.9	0.0	-0.1	-5.6	4.5	-0.5	-0.5	-0.2	-0.3
July 3									
(7 days)	-0.4	-0.5	-0.4	-0.4	-0.7	-0.3	-0.3	-0.8	-0.4
10									
(14 days)	1.4	-0.5	-0.9	1.9	-2.3	-0.7	-1.4	-0.3	-0.8
24									
(14 days)	-4.1	-0.5	-0.8	0.8	-0.2	-0.4	0.4	-0.1	-0.5
Aug. 7									
(7 days)	4.1	4.0	2.8	3.7	3.4	3.9	3.6	4.1	3.5
14									
(7 days)	-4.1	-3.9	-3.0	-3.7	-3.4	-4.5	-4.0	-4.7	7.5

Stake Date	A	B	C	D	E	F	G	H	I
Aug. 21 (7 days) 28	0.0	-0.4	-0.1	0.0	-0.6	0.4	-0.4	1.2	-0.7
(9 days) Sep. 6	7.0	-0.3	16.4	10.7	4.0	-0.4	9.6	-1.3	-3.5
(8 days) 14	6.1	30.6	-2.3	0.5	-2.2	0.0	-9.7	0.3	-0.3
(4 days) 18	0.0	-0.1	-0.1	-1.2	-0.3	-0.1	0.0	-0.2	-0.2
(7 days) 25	6.0	13.1	15.6	-3.3	2.8	0.1	0.0	0.2	34.2
(7 days) Oct. 2	5.5	-3.3	-2.5	0.2	13.0	-0.5	0.0	-0.2	-4.5
(7 days) 9	8.9	6.6	-1.0	-7.9	-13.6	-0.4	-0.4	-0.7	-1.2
(7 days) 16	-0.1	-0.1	-0.1	-0.2	-0.1	-0.1	-0.4	-0.1	-0.1
(7 days) 23	-0.6	-3.2	-	-	-	-	-	-	-
(7 days) 30	0.2	8.2	-3.9	15.9	0.7	0.0	-0.5	0.0	-4.4
(14 days) Nov. 14	-1.9	-8.2	-3.5	-17.8	-6.5	-1.9	-1.7	-	-2.7
(8 days) 22	0.0	6.2	-0.4	-0.2	-1.1	-1.1	-1.0	-	0.6
(12 days) Dec. 4	-1.7	-6.0	-1.8	-	-1.7	-	-	-	-3.0
(7 days) 11	-0.3	0.8	0.2	-	-	-	-	-	-0.4
(14 days) 25	-6.0	-6.4	-	-	-	-	-	-	-6.6
(8 days) 1973 Jan. 2	-8.0	-4.6	-	-	-	-	-	-	-

Table 6. Net accumulation of snow (cm) at S16, S30, H68, H180, S122, Z40 and Mizuho Camp by 36-stake farm: September 1971 - January 1973.

Period Stake	Sep.21-Oct.20, 1971 (29 days)	Oct.20,1971- Jan.25,1972 (97 days)	Jan.25-June 2, 1972 (129 days)	June 2,1972- Jan.29,1973 (241 days)
S 16 I - 1	-9	-	-	4
2	2	-12	24	-3
3	-1	-	-	-
4	-1	-10	1	-6
5	-1	-9	6	-12
6	-1	-10	9	-8
II - 1	-3	-	-	-5
2	-2	-10	-2	3
3	-1	-9	-1	-2
4	-1	-15	14	16
5	-1	-9	14	16
6	-1	-	-	10
III - 1	-2	-10	3	-9
2	-2	-10	2	-6
3	-1	-9	-1	-7
4	-1	-8	-5	15
5	-5	-	-	33
6	-1	-9	63	16
IV - 1	-3	-13	8	5
2	-1	-4	4	-6
3	-8	0	8	-7
4	-4	-12	31	0
5	-2	-5	18	6
6	-1	-2	-	-
V - 1	-3	-	-	-9
2	-3	-10	14	-6
3	-5	2	28	-27
4	-3	8	18	-3
5	-2	-8	2	17
6	-1	18	-2	13
VI - 1	0	5	3	1
2	-1	-4	67	-64
3	-14	0	41	4
4	-2	-7	25	31
5	-1	-11	23	-1
6	-1	-13	14	1

Stake \ Period	Sep.23-Oct.6, 1971 (13 days)	Oct.6-19, 1971 (13 days)	Oct.19,1971- Jan.24,1972 (97 days)	Jan.24-Apr.20, 1972 (87 days)	Apr.20-Aug.24, 1972 (126 days)	Aug.24,1972- Jan.27,1973 (156 days)
S 30 I - 1	0	-3	25	25	20.5	22.5
2	-2	-9	16	31	22	20
3	-1	-2	3	39	40	3
4	-8	-7	12	38	29	20
5	-1	-2	15	17	44	16
6	-1	38	-41	59	32.5	20.5
II - 1	0	0	7	30	21.5	42.5
2	-9	-8	9	36	30	-2
3	-5	4	-3	42	24	16
4	-2	16	6	27	32	8
5	-3	10	-3	31	34.5	30.5
6	-3	13	-13	31	35	36
III - 1	-4	8	-11	45	40	23
2	0	11	-3	25	31	35
3	-1	1	-1	32	40	18
4	-1	10	6	22	29.5	38.5
5	-1	1	8	44	17	31
6	-1	4	-2	39	28	45
IV - 1	-1	3	13	36	16.5	31.5
2	-1	13	-11	37	7	60
3	-1	7	4	19	32	25
4	-1	-3	14	37	15	24
5	-1	16	-10	53	14	36
6	-4	5	17	28	30	23
V - 1	-2	8	6	21	32.5	28.5
2	-3	5	-11	21	40	46
3	-1	-4	14	29	29	28
4	-1	-4	22	47	11	24
5	-1	-3	27	19	33.5	13.5
6	-2	6	-16	40	45	36
VI - 1	-1	1	8	37	18	40
2	-6	-5	14	27	30	38
3	-1	-5	23	28	29.5	27.5
4	-5	3	4	36	32	31
5	-4	-1	20	20	37	18
6	1	-9	7	37	34	-

Period Stake	July 22-Sep. 24, 1971 (64 days)	Sep. 24-Oct. 6, 1971 (12 days)	Oct. 6-18, 1971 (12 days)	Oct. 18, 1971 - Jan. 23, 1972 (97 days)	Jan. 23-Aug. 25, 1972 (215 days)	Aug. 25, 1972 - Jan. 27, 1973 (155 days)
H 68 I - 1	3	-3	3	-10	26	5
2	1	-2	2	-9	13.5	12
3	-5	-1	1	-1	29	4.5
4	3	-4	2	-8	23.5	0
5	6	-3	2	-4	18	-7
6	2	-3	2	-7	24	-6
II - 1	1	-2	2	±0	14.5	7
2	-	-1	1	-11	28	-6.5
3	-	-3	8	-8	39.5	3
4	-	-3	2	-8	53.5	-8.5
5	-	-2	2	-6	35	6
6	0	-1	1	-6	21.5	11.5
III - 1	0	-2	2	-6	15	12.5
2	-	-1	1	-9	9.5	7.5
3	-	-4	2	-12	11.5	43
4	-	-1	2	-7	15.5	27.5
5	-	-2	2	-4	15	10
6	2	-1	0	-7	19.5	11.5
IV - 1	1	-2	2	-1	16	-
2	-	-3	1	8	11	19
3	-	-1	1	-7	19.5	10.5
4	-	-7	1	-1	23	5
5	-	-1	1	-5	36	-5
6	1	-1	6	-12	14	7.5
V - 1	8	-2	2	-8	43	-1
2	-	-2	1	-5	30.5	-2.5
3	-	-1	1	-7	30.5	-7.5
4	-	-5	1	5	7.5	12
5	-	-4	3	1	10	15.5
6	4	-3	0	1	16	17
VI - 1	3	-1	2	-8	18	-1.5
2	0	-1	1	-8	13.5	-4.5
3	1	-2	1	-8	18.5	10.5
4	0	-2	2	-5	18	-1.5
5	16	2	2	-18	22	4
6	-6	-4	1	-4	21	-5

Period Stake	Sep. 25-Oct. 7, 1971 (12 days)	Oct. 7-18, 1971 (11 days)	Oct. 18, 1971- Jan. 22, 1972 (96 days)	Jan. 22-Aug. 26, 1972 (217 days)	Aug. 26, 1972- Jan. 25, 1973 (152 days)
H180 I - 1	1	10	-8	13.5	14.5
2	0	-13	-5	35.5	13
3	-2	-15	0	35	7
4	0	-8	1	37.5	15.5
5	2	8	-4	23.5	20.5
6	0	-17	-1	42	14
II - 1	1	-11	1	37.5	1.5
2	1	3	-4	37.5	2
3	0	-4	-1	37	2.5
4	1	-9	0	21.5	5.5
5	1	11	-1	31.5	7
6	0	-1	-14	43	5
III - 1	0	1	-4	23.5	12.5
2	0	2	3	18	10.5
3	-1	2	-5	24	7
4	-1	-1	2	32.5	5.5
5	-4	8	-2	20.5	11.5
6	-2	11	-1	6	6
IV - 1	1	15	-3	13	9
2	0	6	-3	25	3.5
3	0	7	4	10.5	11.5
4	-1	-4	-5	11	8.5
5	0	-5	5	18	15
6	0	3	1	26	-7
V - 1	0	-3	-8	29.5	8.5
2	-1	-1	-5	0.5	12.5
3	0	10	-4	14	18
4	0	8	-4	13.5	18
5	1	-5	4	9.5	20.5
6	-1	-1	1	29	4
VI - 1	-2	14	-1	23.5	-2
2	-1	7	1	-2.5	19.5
3	0	2	2	31	-24
4	-1	-6	-1	5.5	28
5	-3	15	5	6.5	-6.5
6	0	-8	-1	17.5	24.5

Period Stake	July 19-Sep. 26, 1971 (69 days)	Sep. 26-Oct. 8, 1971 (12 days)	Oct. 8-18, 1971 (10 days)	Oct. 18, 1971 - Jan. 21, 1972 (95 days)	Jan. 21-Aug. 27, 1972 (219 days)	Aug. 27, 1972 - Jan. 24, 1973 (150 days)
S 122 I - 1	0	0	0	54	-1	-3
2	37	-1	0	10	-3	-3
3	4	4	0	10	-2	-4
4	13	-3	1	-5	13	7
5	2	0	0	-4	27	-4
6	1	-1	0	-3	14	-2
II - 1	2	0	15	-10	-2	-1
2	0	0	-1	0	-1	14
3	5	0	0	-2	0	0
4	4	-1	1	-9	8	14
5	2	-1	0	-5	8	8
6	1	-1	1	-8	4	12
III - 1	1	10	0	-9	49	-6
2	0	-1	3	29	17	3
3	2	-2	1	7	19	6
4	1	-1	1	-4	27	15
5	23	-1	0	-13	13	13
6	13	-1	1	-4	9	53
IV - 1	15	-1	0	4	0	-4
2	4	0	0	13	-1	-1
3	0	0	0	-3	9	8
4	15	-1	1	-5	9	11
5	16	0	2	-15	34	9
6	10	-2	0	2	35	-7
V - 1	4	-1	1	-3	26	0
2	1	-2	2	-13	-5	11
3	8	-1	1	6	2	6
4	4	-1	11	2	-1	13
5	27	-2	2	-13	0	16
6	4	-1	1	-6	12	7
VI - 1	1	-1	0	7	23	8
2	1	-1	1	15	27	19
3	28	-4	-1	-13	20	-2
4	0	0	0	-4	35	-5
5	0	0	0	6	18	5
6	0	0	0	3	20	30

Stake \ Period	Sep. 27-Oct. 9, 1971 (12 days)	Oct. 9-17, 1971 (8 days)	Oct. 17, 1971-Jan. 20, 1972 (95 days)	Jan. 20-Apr. 25, 1972 (96 days)	Apr. 25-Aug. 28, 1972 (125 days)	Aug. 28, 1972-Jan. 24, 1973 (149 days)
Z 40 I - 1	0	0	-6	-3	34	-1
2	0	-1	2	-11	20	21
3	1	-1	-9	-3	1	27
4	0	0	-7	22	0	-3
5	-1	1	2	3	0	27
6	-1	0	-2	1	0	-8
II - 1	1	-1	-4	22	-4	-5
2	1	-1	-5	21	-13	18
3	0	0	-5	0	9	2
4	0	0	-3	-1	1	-8
5	-1	1	-9	1	13	2
6	0	0	-4	-1	68	0
III - 1	0	0	-14	1	25	29
2	1	-1	-3	6	53	-6
3	-1	1	-7	9	7	16
4	0	1	-5	17	30	2
5	-2	2	-4	6	17	11
6	-1	0	-5	-3	15	2
IV - 1	1	-1	-7	30	-22	-6
2	-2	1	4	8	-11	2
3	-1	2	7	-9	5	10
4	3	-2	8	6	0	-2
5	0	0	8	-1	0	8
6	2	0	-2	10	6	8
V - 1	1	-1	-3	16	10	-2
2	0	0	-2	-9	25	-7
3	0	0	-3	-3	0	-4
4	1	0	-8	0	3	10
5	1	-1	-4	-1	6	18
6	0	-1	-4	-2	1	-4
VI - 1	1	-1	-5	0	3	26
2	-1	1	-3	10	-6	38
3	-2	2	-7	0	0	55
4	-1	1	-5	-1	9	21
5	0	-1	-3	2	21	3
6	-1	-1	8	1	1	13

Stake	Period		Oct. 12-15, 1971 (3 days)	Oct. 15-21, 1971 (5 days)	Oct. 20-27, 1971 (7 days)	Oct. 27-Nov. 3, 1971 (7 days)	Nov. 3-8, 1971 (5 days)	Nov. 8-10, 1971 (2 days)
	Sep. 28-Oct. 6, 1971 (8 days)	Oct. 6-12, 1971 (6 days)						
Mizuho								
Camp I -								
1	0	0	0	0	1	2	-2	-1
2	0	6	-6	0	1	0	0	0
3	-1	0	0	0	0	0	16	-4
4	-1	5	-4	0	0	13	6	-3
5	0	0	0	0	1	0	1	21
6	0	0	0	0	1	0	-1	-3
II -								
1	0	1	-1	0	1	0	0	0
2	0	0	0	0	1	0	0	0
3	0	0	0	0	0	0	7	-7
4	0	1	-1	0	1	0	0	0
5	0	0	0	0	1	0	0	0
6	0	1	-1	0	1	0	0	0
III -								
1	0	3	-3	0	1	0	0	-1
2	0	3	-3	0	1	0	0	0
3	-1	2	-2	0	1	0	0	4
4	0	0	0	0	0	0	0	-2
5	4	-4	0	0	1	7	-1	-6
6	-1	0	-1	0	1	22	1	-9
IV -								
1	0	0	0	0	1	0	0	0
2	0	0	0	0	0	6	-6	0
3	0	0	0	0	0	0	0	0
4	0	0	0	0	0	43	-2	-6
5	-1	1	-1	0	1	3	14	-5
6	0	6	-5	0	0	0	0	0
V -								
1	0	1	-1	0	1	0	0	-1
2	0	1	-1	0	1	0	0	0
3	0	1	-1	0	1	0	0	-1
4	-2	0	0	0	1	0	18	-19
5	1	0	0	0	0	0	0	0
6	0	0	0	0	1	0	-1	0
VI -								
1	0	0	0	0	1	0	0	0
2	-1	1	-1	0	1	3	-2	1
3	0	0	0	0	1	10	-11	1
4	0	0	0	0	1	0	0	0
5	3	0	-3	0	3	0	-1	-1
6	0	1	-1	0	1	8	-8	0

Stake	Period	Nov. 10-17, 1971	Nov. 17-24, 1971	Nov. 24-Dec. 1, 1971	Dec. 1-8, 1971	Dec. 8-15, 1971	Dec. 15-25, 1971	Dec. 29-31, 1971	Dec. 30, 1971- Jan. 17, 1972
		(7 days)	(7 days)	(7 days)	(7 days)	(7 days)	(14 days)	(1 day)	(18 days)
Mizuho Camp	I - 1	1	-1	-2	0	3	-5	-1	0
	2	-1	1	0	1	0	-2	0	2
	3	1	0	-4	1	0	-6	0	0
	4	4	0	-1	1	-1	-1	0	0
	5	0	-4	-3	1	0	-4	0	0
	6	3	0	0	0	0	-4	3	-3
II -	1	0	10	-1	1	0	-6	0	0
	2	-1	0	0	1	0	-4	0	1
	3	0	0	-1	1	0	-2	0	0
	4	0	-1	0	-1	2	-4	1	0
	5	0	0	-1	1	0	-3	0	0
	6	-1	1	-1	1	-1	-5	0	-1
III -	1	0	0	0	1	-1	-4	0	-1
	2	0	0	0	-1	1	-2	0	0
	3	0	4	-4	1	0	-3	-1	2
	4	0	0	1	1	-1	1	0	6
	5	-1	0	0	4	-3	-3	-1	2
	6	-3	-4	-3	3	-4	1	-1	12
IV -	1	0	0	0	0	0	-4	1	0
	2	0	0	0	1	0	4	0	5
	3	0	0	-1	2	-2	-3	1	1
	4	-4	-12	-5	1	-1	0	0	0
	5	12	-1	0	0	0	-3	0	0
	6	0	8	-7	2	-1	-3	0	-1
V -	1	1	-1	0	2	-1	-2	0	-1
	2	-1	0	0	5	-4	-3	0	0
	3	0	1	-1	0	1	-4	1	-2
	4	0	0	-1	1	-1	-3	-1	0
	5	0	0	0	0	0	-5	0	0
	6	0	0	0	1	-1	-2	0	-1
VI -	1	-1	0	0	0	-1	-4	0	0
	2	0	0	0	1	-2	-2	0	1
	3	-1	1	-1	0	0	-5	0	0
	4	0	-1	1	0	0	-3	0	0
	5	-1	0	-1	1	-1	-3	0	-7
	6	0	0	6	0	2	-1	0	-1

Period Stake	Jan. 17-June 6, 1972 (141 days)	June 6-July 22, 1972 (46 days)	July 22-Aug. 20, 1972 (29 days)	Aug. 20-Sep. 14, 1972 (25 days)	Sep. 14-Oct. 9, 1972 (25 days)	Oct. 9-Nov. 7, 1972 (29 days)	Nov. 7-Dec. 8, 1972 (31 days)	Dec. 8, 1972- Jan. 4, 1973 (27 days)
	Mizuho Camp							
I - 1	0	3.5	-4.5	0.5	-0.5	0	-1	12
2	-1	12.5	-6.5	-5	0	0	18	7
3	-2.5	1.5	14.5	-0.5	-0.5	—	-1	7
4	-1	0	0	-0.5	-0.5	-1	0	-2
5	-0.5	-0.5	1	0.5	0	3.5	-1	2
6	-2	1	0	0.5	-0.5	0	4	-2
II - 1	7	-1	0	0	0	0	-1	29
2	5	-0.5	23.5	-2	1	9	-1	6
3	-1	0	0	-1	7	10	-3	-4
4	1	-4	0	0	0	-1	0	-2
5	0	1	1	-1	0	0	-2	4
6	0	-0.5	0.5	4.5	0	-0.5	2	21
III - 1	1	0	0	0	0	0	-1	-1
2	-1	-2	0.5	-0.5	0	0	-1	5
3	-1	6	-5	-0.5	-0.5	4	-3	2
4	4	0.5	5.5	-1	0.5	-0.5	0	8
5	-1	6.5	3.5	5	1	-2	0	18
6	5	0	0	17.5	-0.5	0	0	-2
IV - 1	5.5	2.5	0	0	0	0	-1	0
2	2	0	-0.5	0	0.5	0	-1	-1
3	-1	3	-2.5	-0.5	-0.5	0.5	17	6
4	-3.5	24.5	-13	-1.5	-0.5	1	8	-1
5	-2	0	0	0.5	-0.5	0	-1	17
6	2	-19.5	20.5	4.5	-3.5	0	0	-2
V - 1	0	2.5	-2.5	0	1	-1	-1	-1
2	7	-6	0	-1	0	-1	0	-1
3	-1	-1.5	0	0	-0.5	0	-1	0
4	1	0	1	10	1	-1	0	-2
5	2	-1	0	0.5	0	-0.5	-2	1
6	6.5	-0.5	0	0	0	0	-1	-9
VI - 1	-2	-1	1	-1.5	-0.5	1	0	20
2	-2	0	0	-0.5	0.5	0	-1	2
3	0	-0.5	-0.5	8	-2	0	-2	5
4	19	-20	0	-0.5	0.5	0	-1	9
5	17	0.5	-0.5	0.5	-0.5	1	-2	-1
6	21	-2.5	1	0	8.5	3	-3	2

Table 7. Net accumulation of snow (cm) at Mizuho Camp by 81-stake farm: January 1972 - January 1973.

Period Stake	Jan.1972- Jan.1973 (365 days)	Period Stake	Jan.1972- Jan.1973 (365 days)	Period Stake	Jan.1972- Jan.1973 (365 days)
1 I	10	4 I	1	7 I	31
II	1	II	0	II	6
III	10	III	12	III	21
IV	4	IV	-3	IV	33
V	1.5	V	-21	V	1
VI	-7	VI	-24	VI	-4
VII	19	VII	-3	VII	7
VIII	31.5	VIII	-3	VIII	35
IX	19.5	IX	3	IX	10
2 I	-10	5 I	9	8 I	-10
II	0	II	20	II	54.5
III	5	III	19.5	III	23
IV	1	IV	-	IV	26
V	7	V	-	V	11
VI	-7	VI	25.5	VI	8
VII	44	VII	32.5	VII	14
VIII	2	VIII	14	VIII	-4
IX	3	IX	-	IX	1
3 I	-10	6 I	8.5	9 I	24
II	-7	II	22.5	II	85
III	-4.5	III	25	III	60
IV	-9	IV	36	IV	17
V	-11	V	-6	V	25
VI	-19	VI	21	VI	9
VII	-24	VII	5	VII	25
VIII	19	VIII	20	VIII	19
IX	7	IX	25	IX	-1

Table 8. Net accumulation of snow (cm) at S16, S122 and Mizuho Camp by 200-stake farm in April 1972 - January 1973.

Period	Apr.12 - Aug.24, 1972 (135 days)	Aug.24 - Oct.23, 1972 (60 days)	Oct.23, 1972 Jan.27, 1973 (95 days)
S 16 1	-2.5	12.5	-6
2	-4.5	← 11.5 →	
3	3	22	-18
4	6.5	← -0.5 →	
5	3	18.6	-12.6
6	7	12.1	-12.1
7	5	15.2	-15.2
8	-	-	-
9	5.5	23.5	-13
10	15	13.5	-15.5
11	9	20	-12
12	12	24	-15
13	-	-	-
14	18.5	29.3	-21.8
15	20	24	-15
16	23	-1	-15
17	7	26.9	-9.9
18	17	15.5	-14.5
19	12	34.7	-16.7
20	26.5	26	-17.5
21	33.5	2	-13.5
22	18	31.5	-10.5
23	31	21.5	-10.5
24	28.5	← 15.5 →	
25	-	-	-
26	33	← -3 →	
27	22	-	-
28	30	-	-
29	11	21.2	-13.2
30	24	-	-
31	27	19	-13
32	23.5	-	-
33	24	-	-
34	19	-	-
35	20	-	-

Period Stake	Apr.12- Aug.24,1972 (135 days)	Aug.24- Oct.23,1972 (60 days)	Oct.23,1972- Jan.27,1973 (95 days)
S 16 36	23	-	-
37	23.5	26.1	-11.6
38	20	-	-
39	15	25.4	-9.8
40	22	-	-
41	-	-	-
42	21	18.5	-11.5
43	11	← 27 →	
44	19	← 23 →	
45	-	-	-
46	20	← 21 →	
47	20	33.2	-13.2
48	20	31.5	-12.5
49	23.5	39	-24.5
50	20.5	-	-
51	17	44.8	-21.8
52	19	45.1	-21.5
53	22.5	-	-
54	23.5	34.5	-13
55	-	-	-
56	24.5	43	1
57	28.5	37.7	-11.9
58	25	44.5	-13.5
59	29	39.8	-13.8
60	27	40.4	-13.4
61	28.5	-	-
62	33	56.5	-
63	33.5	42.7	-16.2
64	27	56.9	-40.9
65	13	42	-12
66	16	← 26 →	
67	22	43.8	-14.8
68	21	49.2	-
69	18.5	37.8	-9.3
70	26.5	34.3	-10.8

Period Stake	Apr. 12- Aug. 24, 1972 (135 days)	Aug. 24- Oct. 23, 1972 (60 days)	Oct. 23, 1972- Jan. 27, 1973 (95 days)
S 16 71	30	33.5	-64
72	35	32	-13
73	25.5	32.5	-11.8
74	31	← 21 →	
75	40	22.8	-11.8
76	43	—	—
77	45	17.5	-11.5
78	40.5	21.5	-10
79	33	27	-11
80	26.5	27.5	-11
81	32	27	-13
82	23.5	32.5	-12.5
83	22.5	31.5	-12
84	21	31.2	-11.2
85	21	33.5	-10.5
86	19.3	34.9	-13.2
87	17.7	32.8	-10.5
88	—	—	—
89	16	34.3	-11.3
90	19.7	33.3	-9
91	20.8	← 19.2 →	
92	14.1	35.9	-12
93	13	35.3	-9.7
94	16.5	32.3	-10.4
95	20	← 22 →	
96	13.5	—	—
97	17	29	-9
98	16	34.4	-11.4
99	18	32.4	-10.4
100	2	11	4
101	-4	19	-23
102	-2	0	0
103	3	← 13 →	
104	1	← 13 →	
105	-2	29.9	-12.9
106	-4	33.8	-17.8
107	-5	29.5	-9.5

Period Stake	Apr. 12- Aug. 24, 1972 (135 days)	Aug. 24- Oct. 23, 1972 (60 days)	Oct. 23, 1972- Jan. 27, 1973 (95 days)
S 16 108	-4	32.5	-10.5
109	-9	38	-14
110	-15	39	-13
111	-10	28.5	-8.5
112	-8	30.1	-17.1
113	0	← 15 →	
114	-4	← 6 →	
115	-3	30	-14
116	-2	33	-29
117	-8	33.5	-27.5
118	-2	21.5	-29.5
119	1	11	-9
120	-4	27.7	-11.7
121	-4	26.6	-12.6
122	-2	23	-14
123	-5	26.7	-15.7
124	1	18.9	-10.9
125	0	22.7	-9.7
126	-3	28.5	-23.5
127	-1	16	-9
128	-2	17.5	-14.5
129	-5	18.7	-11.7
130	2	10.6	-6.6
131	0	16.9	-19.9
132	0	7.1	-7.1
133	-2	11.5	4.5
134	-2	23.9	-5.9
135	-3	26.3	-6.3
136	-4	26.5	-12.5
137	-2	25.5	-16.5
138	0	14.2	-8.2
139	-1	21.6	-11.6
140	-8	29.3	-12.3
141	-8	25.8	-13.8
142	-6	← 13 →	
143	1	← 18 →	
144	-3	27.8	-5.8

Period Stake	Apr. 12- Aug. 24, 1972 (135 days)	Aug. 24- Oct. 23, 1972 (60 days)	Oct. 23, 1972- Jan. 27, 1973 (95 days)
S 16 145	5	22.1	-1.5
146	5	33.4	-13.4
147	4	34.5	-24.5
148	0	24.2	-7.2
149	-6	35.3	-12.3
150	-3	31.5	—
151	-2	← 18 →	
152	-3	41.2	-11.2
153	-3	31.3	-15.3
154	-4	30.5	-13.5
155	-2	34.8	-16.8
156	-2	31	-15
157	-4	28.1	-22.1
158	-5	23.4	-18.4
159	-2	20.4	-14.4
160	-5	15	-17
161	-4	10.1	-12.1
162	-4	6.1	-10.1
163	-6	11.3	-10.3
164	-9	0.7	3.3
165	-3	-0.5	1.5
166	-3	← -3 →	
167	-6	5	-3
168	-3	6.3	-0.3
169	-1	9.7	2.3
170	6	4.8	5.2
171	-2	6	9
172	-3	5	5
173	-2	-0.1	2.1
174	-2	-0.1	2.1
175	1	4.7	1.8
176	-5	10.5	-3.6
177	-5	5.5	-2.5
178	-6	4.8	-2.8
179	-2	4	-1
180	-4	6.5	-1.5
181	-4	7	1

Period Stake	Apr.12- Aug.24,1972 (135 days)	Aug.24- Oct.23,1972 (60 days)	Oct.23,1972- Jan.27,1973 (95 days)
S 16 182	-2	10.2	-1.2
183	-4	15.5	-2.5
184	-1	8.2	0.8
185	-4	← 4 →	
186	-2	6.1	-8.1
187	-4	12	-7
188	-6	10.3	12.3
189	-4	← 11 →	
190	-4	14.9	-6.9
191	-2	12.1	-9.1
192	-1	11.5	-7.5
193	-4	3.1	4.9
194	-5	← 10 →	
195	-3	7.5	8.5
196	0	7	-7
197	-1	10	-8
198	-8	9.8	-9.8
199	0	5	-14
200	-3	19	-10

Period		Apr. 24- Aug. 27, 1972 (125 days)	Aug. 27- Oct. 26, 1972 (60 days)	Oct. 26, 1972- Jan. 24, 1973 (89 days)
Stake				
S 122	1	12	1	1
	2	18	-1	-1
	3	21	-4.8	2.8
	4	18	0.3	4.7
	5	17	-0.2	10.2
	6	15	5.3	4.7
	7	17	4.9	6.1
	8	23	6.3	7.7
	9	21	7	7
	10	26	3.5	8.5
	11	31	-0.4	9.4
	12	28	-1.5	18.5
	13	26	0.7	15.7
	14	33	5.5	12.5
	15	32	2	15
	16	33	-1	17
	17	35	-2.5	21.5
	18	32	1	15
	19	32	0.3	15.7
	20	29	0.5	11.5
	21	26	1.8	10.2
	22	33	2.5	11.5
	23	34	1.2	10.8
	24	26	0.7	11.3
	25	24	-3.1	18.1
	26	24	-0.8	18.8
	27	27	5.8	22.2
	28	29	3.5	24.5
	29	26	5	20
	30	23	3.9	22.1
	31	25	5.6	21.4
	32	21	2.7	23.3
	33	24	4	27
	34	24	2	33
	35	20	4.5	32.5
	36	16	5	42
	37	12	5.4	48.6

Period		Apr. 24- Oct. 26, 1972 (125 days)	Aug. 27- Oct. 26, 1972 (60 days)	Oct. 26, 1972- Jan. 24, 1973 (89 days)	
Stake	S 122 38	13	6	51	
	39	14	5.9	53.1	
	40	15	13.5	50.5	
	41	15	8.5	49.5	
	42	22	0	51	
	43	16	8.5	47.5	
	44	17	9	45	
	45	10	13	40	
	46	14	17	35	
	47	16	23.5	25.5	
	48	14	30	21	
	49	2	30.8	18.8	
	50	15	15	11	
	51	4	35.8	18.2	
	52	3	36.8	4.2	
	53	5	31.2	7.8	
	54	8	28	9	
	55	3	30	12	
	56	6	27.3	14.7	
	57	5	24.7	13.3	
	58	1	27.6	12.4	
	59	7	21.5	11.5	
	60	8	25.5	10.5	
	61	10	23.7	12.3	
	62	11	24.2	10.8	
	63	10	25.3	10.7	
	64	6	24.5	8.5	
	65	21	22.8	8.2	
	66	25	23	5	
	67	← 55 →			-2
	68	27	31.5	-1.5	
	69	26	35	-5	
	70	28	40.5	-5.5	
	71	33	33.4	-3.4	
72	35	31.4	-5.4		
73	29	34.5	-6.5		
74	30	30.9	-6.9		

Period		Apr. 24- Aug. 27, 1972 (125 days)	Aug. 27- Oct. 26, 1972 (60 days)	Oct. 26, 1972- Jan. 24, 1973 (89 days)
Stake				
S 122	75	29	39.1	-0.1
	76	29	35.7	-6.7
	77	33	32.6	-6.6
	78	34	36.3	-9.3
	79	37	35	-7
	80	34	30.5	-5.5
	81	39	27.4	-5.4
	82	35	41.2	-7.2
	83	31	45.8	-10.8
	84	27	46.4	-8.4
	85	31	44.3	-9.3
	86	25	45.3	-10.3
	87	31	41	-9
	88	27	45.8	-11.8
	89	26	47	-7
	90	22	45.7	-8.7
	91	39	40	-13
	92	28	49	-8
	93	33	42.3	-13.3
	94	23	49.2	-8.2
	95	27	51	-8
	96	34	49	-9
	97	35	40.8	-6.8
	98	35	37.6	-7.6
	99	33	36.5	-9.5
	100	32	32.5	-7.5
	101	2	32.2	14.8
	102	0	30	20
	103	2	27.5	19.5
	104	2	23.7	20.3
	105	1	15.2	12.7
	106	2	19.3	13.7
	107	1	18	17
	108	4	18.5	21.5
	109	-1	18.8	23.2
	110	0	12.6	27.4
	111	2	6.6	31.4

Period		Apr.24- Aug.27,1972 (125 days)	Aug.27- Oct.26,1972 (60 days)	Oct.26,1972- Jan.24,1973 (89 days)
Stake				
S 122	112	2	6	19
	113	2	4.9	28.1
	114	-1	4.5	27.5
	115	2	1.5	26.5
	116	0	3.2	20.8
	117	8	-2.7	7.7
	118	8	2.4	7.6
	119	2	2.5	9.5
	120	11	0	17
	121	14	-0.7	15.7
	122	10	3.3	11.7
	123	6	14	13
	124	2	17.8	13.2
	125	-2	12.9	13.1
	126	1	12.5	13.5
	127	1	-0.3	14.3
	128	-3	2.7	19.3
	129	-1	-0.5	19.5
	130	3	5.5	9.5
	131	8	0.8	-1.8
	132	11	13.8	-4.2
	133	17	13.7	-4.7
	134	13	7.6	-7.6
	135	12	10.5	-7.5
	136	12	16.3	-7.3
	137	17	8	-8
	138	14	5.5	-7.5
	139	8	4	-3.5
	140	2	1.2	-1
	141	13	9.6	2.8
	142	1	2.7	5.4
	143	9	6.7	2.3
	144	-1	6.7	6.3
	145	2	9.9	1.1
	146	0	15.8	1.2
	147	0	-1.6	1.6
	148	-2	12	-12

Period		Apr. 24- Aug. 27, 1972 (125 days)	Aug. 27- Oct. 26, 1972 (60 days)	Oct. 26, 1972- Jan. 24, 1973 (89 days)
Stake				
S 122	149	0	-1	-1
	150	-1	-0.3	-4.7
	151	1	5	-7
	152	1	9	-2
	153	-1	10.6	-0.6
	154	-1	20.5	-11.5
	155	6	24	-13
	256	2	27.1	-4.1
	157	6	6	14
	158	5	-0.5	9.5
	159	1	8.6	3.4
	160	-1	9	-1
	161	0	5.5	-3.5
	162	-1	6.7	-6.7
	163	-1	2.5	-3.5
	164	0	1.5	-0.5
	165	-1	4.8	-5.8
	166	-1	6	-1
	167	0	5	0
	168	0	5.5	-2.5
	169	0	4	-3
	170	0	0	-8
	171	1	-1.4	-1.6
	172	2	-0.4	-0.6
	173	0	-1	-1
	174	0	0	-2
	175	-2	0.8	-0.8
	176	-1	4.5	-4.5
	177	2	11	-11
	178	0	15.5	-15.5
	179	1	16.2	-17.2
	180	-2	8	-11
	181	-2	11.3	-12.3
	182	0	8.5	-11.5
	183	-1	0.2	-3.2
	184	-2	0.5	-1.5
	185	-1	-1	-2

Period		Apr. 24- Aug. 27, 1972 (125 days)	Aug. 27- Oct. 26, 1972 (60 days)	Oct. 26, 1972- Jan. 24, 1973 (89 days)
Stake				
S 122	186	7	-3.4	-3.6
	187	-2	4	8
	188	0	1	-3
	189	2	-1.5	-1.5
	190	4	-0.5	-4.5
	191	0	-0.6	-2.4
	192	0	-0.9	-3.1
	193	-1	-1.1	-1.9
	194	-2	-7.9	-2.1
	195	6	-2.5	-4.5
	196	-4	9	-6
	197	-2	24.9	-11.9
	198	0	25.5	-8.5
	199	-1	26.5	-10.5
	200	0	26.5	-10.5

Period		May 6- July 22, 1972 (77 days)	July 22- Sep. 14, 1972 (54 days)	Sep. 14- Oct. 9, 1972 (25 days)	Oct. 9- Nov. 7, 1972 (29 days)	Nov. 7- Dec. 8, 1972 (31 days)	Dec. 8, 1972- Jan. 4, 1973 (27 days)
Stake Mizuho Camp	1	0	-0.3	0.3	-1	-1	-1
	2	1.5	0	-0.5	0	-1	0
	3	1	1.7	0.3	4	-1	1
	4	0	-0.2	0.2	1	-2	-2
	5	1	0.3	0.7	-1	-1	0
	6	0.5	-0.1	-0.4	0	0	-2
	7	-1	-0.2	-0.2	0	-1	-2
	8	-0.5	-0.3	0.2	0	-1	-1
	9	-0.5	-0.1	-0.4	0	-1	-1
	10	2	-0.8	-0.2	-1	-1	-1
	11	-1	0	0	0	-1	-2
	12	-4	0.2	-0.2	0	-1	17
	13	-0.5	-0.3	0.2	0	-1	1
	14	-1	-0.2	-0.7	0	0	3
	15	-4.5	1.5	0	-1	-1	7
	16	-2.5	3	-0.5	0	-1	7
	17	-2.5	-0.7	2.7	0	-1	7
	18	-7.5	0.2	3.3	0	-1	6
	19	-6.5	-0.2	1.7	1	-1	4
	20	-1	-0.1	0.1	0	-1	6
	21	-7.5	0.5	0	-1	-1	6
	22	0.5	0	-0.5	1	-1	9
	23	1	-0.4	0.6	0	-1	16
	24	1	-0.8	-0.2	-2	1	9
	25	0	0.2	-0.2	0	-1	17
	26	-0.5	0.3	0.2	-1	0	16
	27	2	2.7	0.3	-1	-1	16
	28	-0.5	1.3	0.2	-1	-1	17
	29	-0.5	2	-0.5	-1	-1	16
	30	2	1.5	-0.5	0	-1	17
	31	2.5	-0.3	-0.2	0	-1	15
	32	-2	2	0	-1	-1	14
	33	-0.5	0.6	-0.1	0	-3	15
	34	0	0.2	-0.2	1	-1	11
	35	0	0.5	-0.5	2	-3	16
	36	0	-0.2	0.2	3	-3	9
	37	1	-0.4	8.4	-3	-2	5

Period		May 6- July 22, 1972 (77 days)	July 22- Sep. 14, 1972 (54 days)	Sep. 14- Oct. 9, 1972 (25 days)	Oct. 9- Nov. 7, 1972 (29 days)	Nov. 7- Dec. 8, 1972 (31 days)	Dec. 8, 1972- Jan. 4, 1973 (27 days)
Stake							
Mizuho	38	-0.5	0.2	0.3	2	-3	4
Camp	39	-0.5	-0.2	-0.3	3	-3	2
	40	-1.5	0.1	0.4	-1	0	0
	41	-2.5	0	0.5	3	-1	5
	42	-0.5	-0.4	-0.1	3	-1	-1
	43	-0.5	-0.2	0.7	1	-2	4
	44	-1	0	0	4	-5	12
	45	-0.5	-0.1	-0.4	1	-1	14
	46	-3	0.2	-0.2	0	-1	24
	47	1	-0.9	-0.1	0	-1	17
	48	1	0	0	-1	-1	16
	49	0	-0.8	-0.2	-3	2	20
	50	1	-0.1	0.1	0	-1	17
	51	-1	-0.6	0.6	3	-4	17
	52	0.5	-0.4	-0.1	6	-2	11
	53	-0.5	-0.5	0	2	-1	5
	54	0	-0.1	0.1	5	-1	6
	55	0	0.2	-0.2	0	-1	10
	56	0	-0.3	0.3	-1	0	12
	57	1.5	0.2	-0.7	0	-1	13
	58	0.5	-0.5	0	5	-5	19
	59	0.5	-0.6	1.1	15	-7	19
	60	2	4.5	0.5	12	-5	16
	61	0	8.1	-0.1	8	-4	17
	62	1	10.8	-3.2	11	-3	16
	63	0	7	0	11	-1	15
	64	-0.5	9.8	0.7	7	-5	24
	65	-0.5	11.3	0.2	8	-4	25
	66	1	12.8	-0.8	7	-7	28
	67	0.5	13.6	-0.1	7	-7	24
	68	0.5	13.8	1.7	7	-7	25
	69	1	12.2	0.8	7	-6	23
	70	0.5	16.3	-0.8	3	-3	19
	71	2.5	20.4	0.1	0	-1	25
	72	6	20	0	0	-1	14
	73	5	19.5	-0.5	1	-2	13
	74	8	17.2	0.8	-2	-1	22

Period		May.6- July 22,1972 (77 days)	July 22- Sep.14,1972 (54 days)	Sep.14- Oct. 9,1972 (25 days)	Oct.9- Nov.7,1972 (29 days)	Nov.7- Dec.8,1972 (31 days)	Dec.8,1972- Jan. 4,1973 (27 days)
Stake							
Mizuho	75	18.5	13	-0.5	-1	-1	22
Camp	76	15	12	-2	0	0	9
	77	17	12.2	-1.2	-1	0	10
	78	25.5	-0.5	0	0	-2	8
	79	19.5	17.5	0	0	-1	8
	80	14	15.7	-0.7	0	-1	7
	81	4.5	23.3	-0.8	0	-1	7
	82	1	23.2	-0.2	0	-2	8
	83	0.5	25.4	-1.9	-1	-1	9
	84	2.5	25.8	-4.3	-1	-1	11
	85	8	22.5	-0.5	1	-1	4
	86	1.5	27.5	-1	1	-2	9
	87	8.5	20.3	-3.8	0	-1	8
	88	2	24.4	-1.4	0	-2	9
	89	0	30.2	-3.8	-1	-2	7
	90	-1.5	23.9	-0.4	-1	-1	8
	91	1	27.5	-9.5	-1	-1	9
	92	0.5	18.8	-4.3	-1	9	1
	93	0	16.2	-6.2	0	-1	8
	94	-0.5	12.8	-0.3	0	-1	6
	95	-1	9	-1	-1	0	2
	96	-0.5	9.3	-0.8	-1	-1	0
	97	-0.5	13.4	-0.9	-1	-1	-1
	98	-0.5	7.4	-0.9	0	-1	0
	99	1.5	8.2	-0.7	0	-2	1
	100	-1.5	11.4	-2.9	0	-1	-2
	101	-8.5	13.9	-2.4	-1	-1	-2
	102	-1.5	-1.1	-0.6	-1	-2	25
	103	0.5	10.4	-6.9	-1	-3	18
	104	1	-3.1	-3.9	-1	21	-2
	105	-32.5	1.7	-0.4	0	-1	-1
	106	-47	1.2	0.2	0	-2	2
	107	-35	0.2	-0.2	0	-3	0
	108	-28	-9.3	-0.7	0	-2	14
	109	-25	4.8	-0.8	0	9	-7
	110	-21	-4.5	0.5	4	-4	2
	111	-5.5	-4.5	13	-1	-10	0

Period Stake		May.6- July22,1972 (77 days)	July 22- Sep.14,1972 (54 days)	Sep.14- Oct.9,1972 (25 days)	Oct.9- Nov.7,1972 (29 days)	Nov.7- Dec.8,1972 (31 days)	Dec.8,1972- Jan.4,1973 (27 days)
		Mizuho	112	-2	-1.2	-0.8	0
Camp	113	-8.5	-0.9	0.4	-1	-2	-1
	114	-15	0.5	-0.5	-2	-1	0
	115	-16	7.5	-0.5	-1	-2	0
	116	-24	5.7	-0.3	-1	-2	2
	117	-25	4	1	-1	-1	0
	118	-18.5	5.8	-1.3	-1	-2	5
	119	-26.5	9.9	-5.4	0	-2	3
	120	-31	11.4	-6.4	0	-2	-1
	121	-2	4.2	-1.2	0	-1	-4
	122	-0.5	7.7	-1.2	-1	-4	-3
	123	-1.5	-0.6	0.1	0	-2	-1
	124	-4.5	7.9	0.4	-2	-1	-1
	125	-0.5	9	-0.5	-1	-1	-2
	126	-0.5	0.2	-0.7	0	-1	-1
	127	2	3.9	-0.9	-1	-1	-2
	128	1.5	-0.3	-0.2	0	-1	-2
	129	0	-0.5	-0.5	0	-2	-2
	130	0.5	0.3	-0.2	0	-3	-1
	131	-5.5	0	-0.5	0	0	-3
	132	0	-0.5	-0.5	0	-2	-1
	133	0	0.1	-0.1	0	-1	-1
	134	1	0.5	5.5	-6	-1	-1
	135	0.5	-0.2	-1.3	0	-1	-3
	136	0	-0.2	0.2	0	-1	-2
	137	2.5	-0.3	-0.2	0	-1	-2
	138	-0.5	-0.1	0.5	0	-2	-2
	139	0	-0.7	-0.3	0	-1	-2
	140	0.5	-0.2	-0.3	0	-1	-2
	141	1	-0.4	0.4	-1	-1	-2
	142	0	-0.2	0.2	-1	-1	-2
	143	1.5	0.3	-0.8	20	-1	4
	144	0.5	11.9	-13.4	0	0	6
	145	1	0	0	0	-2	1
	146	1	0.4	-0.4	0	-1	8
	147	2	1.8	-0.8	0	-2	10
	148	0	3.3	-0.3	-1	-1	5

Period		May.6- July22,1972 (77 days)	July22- Sep.14,1972 (54 days)	Sep.14- Oct.9,1972 (25 days)	Oct.9- Nov.7,1972 (29 days)	Nov.7- Dec.8,1972 (31 days)	Dec.8,1972- Jan.4,1973 (27 days)
Stake							
Mizuho	149	1	-0.2	0.2	0	-2	1
Camp	150	1.5	-0.4	-0.1	4	-2	4
	151	0	-0.4	0.6	6	-1	10
	152	-1	-0.6	-0.6	3	-4	17
	153	2	-0.6	-0.4	1	-2	20
	154	1	-0.4	0.4	-1	-5	13
	155	1	0.7	-0.7	9	-4	28
	156	0	0.5	1.5	14	-5	21
	157	1	4	1	14	-1	6
	158	0	5.5	-0.5	17	-2	9
	159	-2	10.8	-0.2	14	-1	7
	160	-2	12.2	-0.2	12	-2	4
	161	-0.5	11.2	9.3	6	-2	5
	162	0	6.7	6.3	8	-2	1
	163	2.5	17	-2.5	8	-3	2
	164	0	11.8	-0.8	2	-1	-1
	165	0.5	8.5	-3	14	-1	-1
	166	1	9.9	-1.9	13	-2	-2
	167	1.5	1	-0.5	7	-1	-2
	168	1.5	9.3	-0.8	8	-1	-1
	169	-2.5	1.8	-2.3	12	-2	-1
	170	-1	-0.3	1.4	11	-2	-1
	171	-1	4.9	1.1	6	-1	-2
	172	0.5	7.6	-1.1	4	-2	-1
	173	1.5	-0.4	7.9	-2	-3	0
	174	1	-0.4	7.4	0	0	-1
	175	0	0	2	-1	0	-2
	176	0	-0.7	0.7	-1	0	-3
	177	0.5	-0.4	3.9	0	-2	-1
	178	-1	6.9	2.1	-1	-3	0
	179	2	-1	1	-1	-1	0
	180	1	-3.1	6.9	-1	-1	-1
	181	3	-2	1	-1	-1	7
	182	1	-0.6	0.6	-1	0	5
	183	1	-0.8	-0.2	1	-2	6
	184	-1	-0.5	0.5	-1	-1	5
	185	2.5	-0.1	0.1	-0.5	-1	0

Period		May 6- July 22, 1972 (77 days)	July 22- Sep. 14, 1972 (54 days)	Sep. 14- Oct. 9, 1972 (25 days)	Oct. 9- Nov. 7, 1972 (29 days)	Nov. 7- Dec. 8, 1972 (31 days)	Dec. 8, 1972- Jan. 4, 1973 (27 days)
Stake							
Mizuho	186	1.5	-1.3	-0.8	-1	-1	0
Camp	187	0.5	-0.4	-0.1	0	-1	5
	188	1	-0.1	0.1	0	-1	-1
	189	1	0.7	-0.7	0	-2	-1
	190	0.5	-1.6	-1.1	-1	-2	1
	191	0.5	-0.9	-0.6	0	-1	9
	192	0.5	0.2	0.3	-1	-1	12
	193	1	1	-1	-1	-2	14
	194	0.5	-0.3	-0.2	-1	-2	1
	195	1	0.3	-0.3	-1	-1	6
	196	0.5	0.6	0.9	-1	-1	6
	197	1	-0.2	0.2	-1	-1	18
	198	1	10.4	-11.4	0	-1	25
	199	-0.5	2.4	0.1	5	-2	8
	200	21.5	-23	-0.5	-1	26	2
	201	-3	-7	0	16	-2	4
	202	2	-0.9	0.9	9	-3	-2