

### 3. Measurements of Drifting Snow at Mizuho Camp, 1974 - 1975

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Measurements of the mass flux of drifting snow, together with wind speed, were carried out with a new drawer-type collector improved from Kobayashi's (Kobayashi, 1975). The collector has ten drawers with a 5 cm  $\times$  5 cm entrance, and can measure the mass flux at different heights from the surface to 1 m height (Fig. 1). The collection efficiency of this collector was about 0.55 (Inoue, to be submitted). The observation was made in a wide and fairly flat area. The wind speed was measured at the height of 3.5 m and air temperature at 1.5 m.

The results are given in Table 1.

#### References

- Kobayashi, S. (1975): Saikuron-kata jifubuki-kei to hikidashi-kata jifubuki-kei no hikaku (A comparison between cyclone-type and chest-of-drawer-type drift collectors). *Teion Kagaku (Low Temp. Sci.), Ser. A*, 32, 89 - 95.
- Inoue, M. (1977): Measurements of drifting snow at Mizuho Camp. (to be submitted to *Antarct. Rec.*).

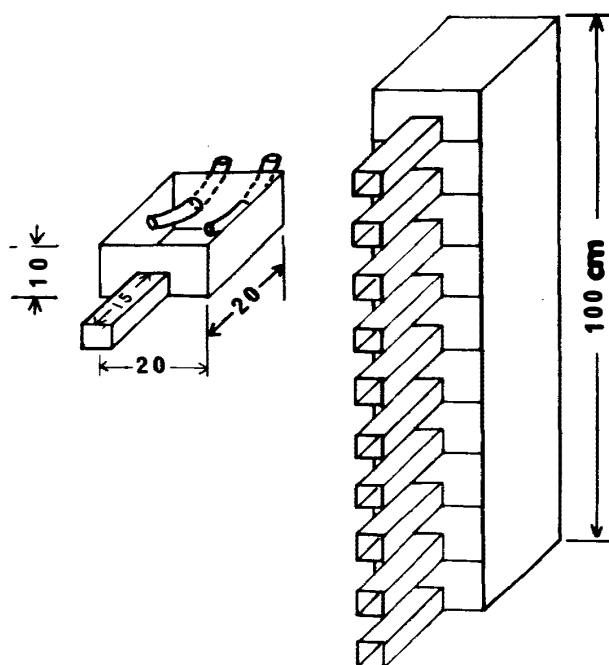


Fig. 1. A schema of drawers-type collector.

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Table 1. Results of drifting snow observations, where T and V represent air temperature at 2.5 m in height and wind speed at 3.5 m, respectively.

No.	Date	Time (min)	Mass flux ( $\times 10^{-3} \cdot \text{g} \cdot \text{cm}^{-2} \cdot \text{sec}^{-1}$ )										V ( $\text{m} \cdot \text{sec}^{-1}$ )	T ( $^{\circ}\text{C}$ )	
			0-5	10-15	20-25	30-35	40-45	50-55	60-65	70-75	80-85	90-95			
1	1974. July 8	15	86.7	20.8	9.4	7.9	8.0	7.6	7.6	6.8	6.4	---	12	-48	
2		13	418	94.6	34.3	22.4	17.5	14.8	13.3	10.8	9.7	9.0	14	-36	
3		14	270	96.8	25.8	15.2	11.2	8.1	7.3	5.7	5.1	3.2	14	-35	
4		14	371	164	56.0	35.8	26.0	18.3	17.0	12.6	12.0	10.9	16	-32	
5		17	622	304	115	75.3	57.0	44.3	42.0	36.6	33.3	30.9	15	-32	
6		22	648	175	80.8	55.3	42.0	31.0	29.4	22.9	20.7	19.1	16	-30	
7		25	194	45.1	15.9	11.9	9.8	6.8	7.0	5.4	5.1	5.1	13	-35	
8		28	641	452	157	81.7	58.7	45.8	39.2	33.7	31.1	30.6	18	-48	
9	Aug. 3	5	585	179	78.3	47.5	35.0	25.6	22.4	17.5	15.5	14.0	15	-38	
10		4	1786	787	403	278	224	170	145	130	110	107	19	-42	
11		5	1019	470	271	198	163	137	128	110	99.8	82.7	20	-32	
12		9	382	119	28.2	15.8	11.2	6.8	7.0	5.4	5.1	3.8	13	-50	
13		17	3.5	112	58.4	28.0	24.4	18.0	13.4	14.0	9.6	11.0	9.1	13	-35
14		23	11.5	136	49.3	11.1	6.3	4.9	4.2	3.7	2.3	2.7	2.3	12	-42
15		28	5	428	173	80.8	51.4	39.2	36.3	26.6	21.6	18.1	16.6	17	-38
16		29	5	302	106	42.9	25.0	19.5	14.8	14.0	10.8	9.1	7.6	15	-39
17	Dec. 5	7	375	102	26.3	11.4	5.7	3.7	3.0	2.8	2.7	2.7	15	- 9	
18		7	7	729	205	52.5	23.6	20.0	10.6	8.5	7.2	7.9	---	17	-13
19	1975, Feb. 3	10	290	102	27.6	13.2	10.5	4.0	4.2	2.7	2.6	1.9	14	-15	
20		3	10	544	200	60.7	29.0	21.7	16.8	11.2	8.7	7.8	5.7	16	-17