

II. POSITION, ELEVATION AND ICE THICKNESS OF STATIONS

Renji NARUSE* and Kotaro YOKOYAMA**

1. Position and Elevation

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A traverse survey from the astronomic station at Syowa Station to Mizuho Camp was conducted on 10-23 September 1973, along route S-H-Z (see Fig. A) for determining geodetic positions and elevations of stations between the coastal region and Mizuho Camp. Instruments used are a Wild T2 theodolite and a Geodimeter (Hewlett-Packard Distance Meter). The number of traverse stations is 109; the total distance connecting each station is 280 km. Astronomic observations (sun shots) of azimuth were made at three stations so that the error of direction of the traverse line was corrected. The positions and elevations (above mean sea level) at Mikaeri Terrace (S16) and Mizuho Camp were obtained as follows:

Mikaeri Terrace: ($69^{\circ}01'55''S$; $40^{\circ}02'56''E$), 554 m,

Mizuho Camp : ($70^{\circ}41'53''S$; $44^{\circ}19'54''E$), 2230 m.

A triangulation survey for measurements of the ice sheet flow was carried out along route A (A001-A164) during the austral summer of 1973-1974 (see report III in this volume). Positions and elevations of the triangulation stations were obtained by the results of the survey, based on the nunatak A001 whose position was ($71^{\circ}47'28''S$; $36^{\circ}12'12''E$) and elevation 2254 m given by the observations in 1969.

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Astronomic observations by sun shots were made in 1973 at M 54 on the moraine field and at three nunataks near the Yamato Mountains.

At stations other than the above traverse or triangulation survey stations or astronomic control points, positions were determined by the use of navigational data, namely, azimuthes with a magnetic hand compass and distances with an odometer of a vehicle; elevations were by the barometric altimetry. The altimetry employed throughout the present oversnow traverses was the single altimeter method with two barometric altimeters; that is to say, readings of elevation differences between two stations were corrected only by air temperature not by variations of pressure.

Positions and elevations of stations which were obtained along nine traverse routes are shown in Tables 2, 3 and 4. Positions and elevations along routes S (S31-S121; S169-S239), X and C were determined by the previous surveys in 1968-1971 by astronomic observations, navigational data, and barometric method (Fujiwara et al., 1971; Shimizu et al., 1972). The latitude and longitude of stations in Tables 2-4 are indicated up to the minimum order of 1 second, 0.1 minute, 1 minute or 0.1 degree respectively regarding the accuracy in the determination of the positions.

Supplemental stations were established along some traverse routes, i.e., one or two intermediate stations between two stations along routes H, Z, C and A; six intermediate stations along route S (S16-S30), giving such notations as S16-1, -2, -3, -4, -5 and -6.

2. Ice Thickness

Observer: Kotaro Yokoyama

Ice thickness was measured by radio echo soundings along the traverse routes from Syowa Station to the Yamato Mountains via Mizuho Camp in 1973-1974 (see Fig. A).

Used for the measurement were a radio echo sounder designated as SPRI (Scott Polar Research Institute) Mk II (1972) and a 3-element Yagi antenna which was connected to the sounder. Another sounder of the same make was kept in reserve. The specifications of the sounder and antenna are shown in Table 1. The sounder was installed in an oversnow vehicle KD-608; the antenna was set up on a 2-ton sledge.

The electromagnetic wave velocity of $171 \text{ m}/\mu\text{sec}$ was used to calculate the ice thickness. When multiple echoes were observed on the oscilloscope, the one with the longest echo time was regarded as the echo from the surface of the bedrock.

The results of soundings along routes S-H-Z, X, C, D, A, and S (S169-S239) are shown in Tables 2 and 3. The dash (-) in the column of one-way echo time indicates that no echo was observed at the station concerned in spite of sounding, the reason of which remains unknown.

3. 10 m Snow Temperature

Observer: Renji Naruse

Snow temperature at 10 m depth was measured at four stations by using a steam-operated drill (Naruse and Suzuki, 1975) and a thermistor-thermometer. Results are as follows: -20.1°C at H101, -29.4°C at C98, -34.0°C at S200, and -33.5°C at A022 (measured in a crevasse).

References

Fujiwara, K., S. Kakinuma and Y. Yoshida (1971): Surveys and some considerations on the Antarctic ice sheet. Report of the Japanese Traverse Syowa-South Pole, 1968-1969. JARE Sci. Rep., Special Issue, 2, 30-48.

Shimizu, H., R. Naruse, K. Omoto and A. Yoshimura (1972): Position of stations, surface elevation and thickness of the ice sheet, and snow temperature at 10 m depth in the Mizuho Plateau-West Enderby Land area, East Antarctica, 1969-1971. Glaciological Research Program in Mizuho Plateau-West Enderby Land, Part 1, 1969-1971. JARE Data Rep., 17 (Glaciology), 12-37.

Naruse, R. and Y. Suzuki (1975): A steam-operated drill used by the 14th Japanese Antarctic Research Expedition (1972-1974). Antarctic Rec., 53, 53 - 56.

Table 1. Specification of instruments.

SPRI Mk II Radio echo sounder

Transmitter:

- | | | |
|------------------------------|-------|------------------|
| 1. Center frequency | | 35 MHz |
| 2. Pulse power | | 500 watts |
| 3. Pulse repetition interval | | 50 μ seconds |
-

Receiver:

- | | | |
|---------------------|-------|--------|
| 1. Center frequency | | 35 MHz |
| 2. 3 db band width | | 12 MHz |
-

3-element Yagi Antenna

- | | | |
|-----------------------------------|-------|-------|
| 1. Gain | | 6 db |
| 2. Directional ratio (front/back) | | 13 db |
-

Table 2. Positions, elevations and ice thicknesses of stations along route S-H-Z in Mizuho Plateau.

Positions and elevations (indicated with asterisks) at the traverse survey stations were obtained by the traverse survey from Syowa Station to Mizuho Camp; the traverse stations are denoted by traverse No. as T003-T109.

Station	Traverse No.	Latitude (S)	Longitude(E)	Elevation (m)	Radio Echo Sounding		
					One-way echo time (μ s)	Ice thickness (m)	Multiple echo time (μ s)
S 15-1	T 003	69° 00' 41"	40° 00' 46"	* 510			
S 16	T 004	69 01 55	40 02 56	* 554			
S 16-3	T 005	69 01 45	40 04 33	* 578			
S 17		69° 01.7'	40° 05.3'	597	3.8	650	
S 17-3	T 006	69 01 34	40 06 25	* 600	5.0	855	
S 18		69 01.5	40 08.1	618	3.4	581	
S 18-3	T 007	69 01 23	40 09 24	* 627	7.9	1351	6.1
S 19	T 008	69 01 19	40 10 44	* 638	7.85	1342	6.8, 7.3
S 20		69 01.4	40 13.6	659	6.2	1060	5.5
S 20-3	T 009	69 01 25	40 15 02	* 683	6.35	1086	5.8
S 21		69 01.5	40 16.7	708			
S 21-3	T 010	69 01 32	40 17 57	* 740	6.35	1086	5.7
S 22		69 01.6	40 19.5	757			
S 22-1	T 011	69 01 35	40 19 55	* 764	6.65	1137	4.7, 5.0, 5.35, 5.5, 6.3
S 23		69 01.7	40 22.4	788			
S 23-4	T 012	69 01 45	40 24 13	* 814	6.3	1077	4.4, 5.3, 5.9
S 24		69 01.8	40 25.2	831			
S 24-1	T 013	69 01 49	40 26 02	* 843	6.8	1163	4.7, 5.1, 5.9, 6.4
S 25	T 014	69 01 58	40 28 07	* 868	6.4	1094	4.4, 5.0, 5.6
S 26		69 02.2	40 31.3	895			
S 26-5	T 015	69 02 17	40 33 02	* 915	6.2	1060	5.7
S 27		69 02.4	40 33.8	919	6.2	1060	5.7, 5.9
S 28		69 02.6	40 36.6	942			

Station	Traverse No.	Latitude (S)	Longitude(E)	Elevation (m)	Radio Echo Sounding		
					One-way echo time (μ s)	Ice thickness (m)	Multiple echo time (μ s)
S 28-1	T 016	69° 02' 42"	40° 36' 58"	* 945	7.0	1197	6.3
S 29		69° 02.8'	40° 39.2'	962	7.3	1248	5.4, 5.8, 6.85
S 30	T 017	69 03 01	40 42 13	* 988	7.6	1300	5.5, 5.9, 7.05
H 0		69 03.1	40 42.5	990	7.0	1197	5.5, 6.2, 6.6
H 6-1	T 018	69 04 00	40 44 50	* 1021	7.5	1283	4.15, 4.3, 4.8, 5.2, 7.0
H 12		69 04.6	40 46.4	1022	7.95	1359	3.9, 4.15, 4.55, 4.7, 7.35
H 17	T 019	69 05 09	40 47 57	* 1035	7.8	1334	4.6, 6.0, 6.6, 7.0
H 20-1	T 020	69 05 32	40 48 57	* 1050	7.7	1317	4.4, 5.6, 6.1, 6.8, 7.2
H 27	T 021	69 06 16	40 50 55	* 1071	7.6	1300	6.7, 7.2
H 34-1	T 022	69 07 07	40 53 11	* 1090	7.6	1300	6.3, 6.7, 7.2, 7.35
H 39		69 07.6	40 54.4	1096	7.35	1257	4.5, 4.8, 5.3, 6.5
H 45	T 023	69 08 17	40 56 13	* 1124	8.5	1454	4.8, 5.0, 5.7, 6.4, 7.2
H 48-1	T 024	69 08 42	40 57 17	* 1133	8.35	1428	5.0, 6.6, 7.6
H 54		69 09.3	40 58.9	1143	8.4	1436	7.25, 8.0
H 59	T 025	69 09 56	41 00 21	* 1145	8.6	1471	6.9, 7.6
H 62		69 10.3	41 01.3	1168	8.35	1428	7.2, 7.8
H 65	T 026	69 10 53	41 02 41	* 1162	7.6	1300	6.7
H 68		69 11.5	41 04.3	1176	8.3	1419	5.1, 5.7, 6.7, 7.3, 7.9
H 70	T 027	69 11 55	41 05 15	* 1186	8.4	1436	5.4, 7.6, 8.0
H 72		69 12.3	41 06.2	1187	7.6	1300	6.1, 7.0
H 74-1	T 028	69 12 49	41 07 24	* 1207	8.4	1436	6.2, 7.0
H 77	T 029	69 13 16	41 08 25	* 1217	8.4	1436	7.2, 7.8
H 80		69 13.9	41 09.9	1224	7.9	1351	7.2
H 83	T 030	69 14 30	41 11 15	* 1243	8.6	1471	7.0, 7.9
H 84	T 031	69 14 40	41 11 54	* 1247			
H 86		69 15.0	41 13.0	1245	8.0	1368	
H 89	T 032	69 15 28	41 14 37	* 1256	7.7	1317	5.6

Station	Traverse No.	Latitude (S)	Longitude(E)	Elevation (m)	Radio Echo Sounding		
					One-way echo time (μ s)	Ice thickness (m)	Multiple echo time (μ s)
H 93	T 033	69° 16' 13"	41° 16' 43"	* 1270	7.6	1300	
H 97-1	T 034	69 17 15	41 18 54	* 1280	8.0	1368	7.2, 7.5
H 100		69° 17.8'	41° 20.3'	1298	8.0	1368	6.9, 7.3
H 101-1	T 035	69 18 08	41 21 03	* 1309	7.6	1300	5.2, 5.5
H 104-1	T 036	69 18 43	41 22 33	* 1322	9.0	1539	5.3, 5.8, 8.4
H 106		69 19.0	41 23.5	1321	9.6	1642	4.95, 5.05, 9.2
H 110		69 19.9	41 25.8	1318	8.85	1513	4.7, 4.85, 5.2, 8.4
H 113-1	T 037	69 20 30	41 27 36	* 1339	8.7	1488	4.5, 5.25, 7.8
H 114-1	T 038	69 20 46	41 28 12	* 1344			
H 116		69 21.1	41 29.1	1341	8.9	1522	
H 120		69 22.0	41 31.5	1360	9.4	1607	4.4, 4.6, 4.9, 5.1, 5.4
H 124	T 039	69 22 44	41 33 26	* 1373	8.4	1436	4.6, 5.0, 5.25, 7.8, 8.0
H 127	T 040	69 23 27	41 34 33	* 1378	8.8	1505	
H 131-1	T 041	69 24 34	41 36 33	* 1385	8.6	1471	4.6, 4.9, 5.1, 5.4
H 134		69 25.2	41 37.7	1387	8.5	1454	
H 136		69 25.7	41 38.5	1392	8.9	1522	8.4
H 137	T 042	69 25 51	41 38 52	* 1396			
H 140		69 26.6	41 40.1	1408	8.4	1436	4.3, 4.6, 5.1
H 143	T 043	69 27 18	41 41 25	* 1416	7.95	1359	7.26
H 146		69 28.0	41 42.8	1425	7.68	1314	
H 148-1	T 044	69 28 34	41 43 51	* 1441	8.21	1404	
H 150		69 29.0	41 44.8	1440			
H 155	T 045	69 30 01	41 47 28	* 1465	7.79	1332	
H 156		69 30.2	41 48.0	1468			
H 159	T 046	69 30 51	41 49 38	* 1488	-		
H 160		69 31.0	41 50.1	1486			
H 164		69 31.9	41 52.3	1483			

Station	Traverse No.	Latitude (S)	Longitude (E)	Elevation (m)	Radio Echo Sounding		
					One-way echo time (μ s)	Ice thickness (m)	Multiple echo time (μ s)
H 166	T 047	69° 32' 20"	41° 53' 25"	* 1492	9.68	1656	4.74, 5.58
H 168		69° 32.7'	41° 54.4'	1487			
H 172		69 33.6	41 56.4	1508			
H 174	T 048	69 34 08	41 57 18	* 1524	9.37	1602	
H 176		69 34.5	41 58.4	1529			
H 178	T 049	69 34 57	41 59 32	* 1536	-		
H 180		69 35.3	42 00.6	1540	-		
H 182		69 35.7	42 01.7	1546			
H 184	T 050	69 36 12	42 02 48	* 1546	-		
H 186		69 36.6	42 03.8	1556			
H 189	T 051	69 37 18	42 05 21	* 1556	-		
H 192		69 38.0	42 07.0	1562			
H 194	T 052	69 38 22	42 08 02	* 1560	-		
H 196		69 38.9	42 09.1	1571			
H 198	T 053	69 39 16	42 10 07	* 1572	-		
H 200		69 39.7	42 11.1	1586			
H 201	T 054	69 39 57	42 11 36	* 1586	-		
H 204		69 40.6	42 13.2	1596			
H 207	T 055	69 41 16	42 14 45	* 1602			
H 209		69 41.7	42 15.6	1607			
H 212		69 42.3	42 17.2	1615			
H 213	T 056	69 42 33	42 17 57	* 1617	5.68	972	
H 216		69 43.1	42 19.8	1625	6.95	1188	5.37, 5.79
H 219	T 057	69 43 43	42 21 33	* 1630	5.68	972	
H 222		69 44.3	42 23.2	1641			
H 225	T 058	69 45 02	42 24 40	* 1649	5.89	1008	5.34
H 226		69 45.2	42 25.2	1655			

Station	Traverse No.	Latitude (S)	Longitude(E)	Elevation (m)	Radio Echo Sounding		
					One-way echo time (μ s)	Ice thickness (m)	Multiple echo time (μ s)
H 230	T 058	69° 46.2'	42° 27.1'	1659			
H 231	T 059	69° 46' 26"	42° 27' 37"	* 1667	-		
H 234		69 47.1	42 29.1	1670			
H 237	T 060	69 47 47	42 30 41	* 1684	-		
H 238		69 48.0	42 31.2	1687			
H 240		69 48.4	42 32.1	1692			
H 243	T 061	69 49 07	42 33 29	* 1696	-		
H 245-1	T 062	69 49 43	42 34 56	* 1715	-		
H 250		69 50.6	42 37.0	1732			
H 251-1	T 063	69 50 56	42 37 45	* 1736	-		
H 253	T 064	69 51 16	42 38 49	* 1739			
H 254		69 51.5	42 39.4	1740			
H 256	T 065	69 51 49	42 40 43	* 1742			
H 258		69 52.2	42 41.9	1742			
H 260		69 52.6	42 43.1	1748			
H 262	T 066	69 53 00	42 44 15	* 1759	-		
H 264		69 53.4	42 45.4	1759	7.0	1197	
H 266	T 067	69 53 49	42 46 31	* 1769	-		
H 268		69 54.2	42 47.6	1769			
H 270		69 54.6	42 48.7	1780			
H 272	T 068	69 55 09	42 49 45	* 1789	8.84	1512	
H 274		69 55.6	42 51.0	1798			
H 275-1	T 069	69 55 53	42 51 53	* 1804	9.58	1638	
H 278		69 56.4	42 53.2	1806			
H 280		69 56.9	42 54.2	1811			
H 283	T 070	69 57 29	42 55 36	* 1827	9.16	1566	
H 286		69 58.2	42 56.8	1840			

Station	Traverse No.	Latitude (S)	Longitude (E)	Elevation (m)	Radio Echo Sounding		
					One-way echo time (μ s)	Ice thickness (m)	Multiple echo time (μ s)
H 289	T 071	69° 59' 02"	42° 58' 01"	* 1857	9.16	1566	
H 290		69° 59.3'	42° 58.5'	1865			
H 291-1	T 072	69 59 37	42 59 01	* 1869	-		
H 294		70 00.3	43 00.4	1873	10.53	1800	
H 295-1	T 073	70 00 34	43 01 06	* 1881	-		
H 298		70 01.1	43 02.1	1883	-		
H 302	T 074	70 01 14	43 05 24	* 1896	-		
H 304		70 01.2	43 06.8	1898			
S 122	T 075	70 01 15	43 09 24	* 1910	9.2	1573	6.4, 7.35
Z 1		70 01.7	43 10.2	1919			
Z 2	T 076	70 02 09	43 11 05	* 1926	9.05	1548	
Z 3		70 02.6	43 11.9	1936			
Z 4		70 03.1	43 12.8	1946			
Z 4-1	T 077	70 03 16	43 13 27	* 1953	8.74	1494	
Z 5		70 03.5	43 13.6	1954			
Z 6		70 03.9	43 14.5	1962			
Z 6-1	T 078	70 04 00	43 15 01	* 1966	-		
Z 7		70 04.3	43 15.4	1964			
Z 8	T 079	70 04 41	43 16 23	* 1971	-		
Z 9		70 05.1	43 17.2	1971			
Z 10		70 05.6	43 18.0	1973	8.95	1530	
Z 11		70 06.0	43 18.8	1978			
Z 11-1	T 080	70 06 11	43 19 22	* 1984	-		
Z 12		70 06.5	43 19.7	1983			
Z 13		70 06.9	43 20.5	1981			
Z 14		70 07.4	43 21.3	1981			
Z 15		70 07.8	43 22.1	1983			

Station	Traverse No.	Latitude (S)	Longitude(E)	Elevation (m)	Radio Echo Sounding		
					One-way echo time (μs)	Ice thickness (m)	Multiple echo time (μs)
Z 15-1	T 081	70° 08' 00"	43° 22' 45"	* 1984	8.32	1422	
Z 16		70° 08.3'	43° 23.0'	1988			
Z 17		70 08.7	43 23.8	1996			
Z 18		70 09.2	43 24.6	2006			
Z 19	T 082	70 09 34	43 25 27	* 2010	-		
Z 20		70 10.1	43 26.2	2013	-		
Z 21		70 10.5	43 26.9	2014			
Z 22		70 11.0	43 27.7	2016			
Z 22-1	T 083	70 11 18	43 27 59	* 2011	-		
Z 23		70 11.5	43 28.4	2020			
Z 24		70 11.9	43 29.1	2026	-		
Z 25		70 12.4	43 29.8	2031	-		
Z 26	T 084	70 12 54	43 30 33	* 2036	-		
Z 27		70 13.3	43 31.3	2041			
Z 28		70 13.8	43 32.1	2048			
Z 29	T 085	70 14 12	43 32 53	* 2052	-		
Z 30		70 14.7	43 33.7	2056			
Z 31	T 086	70 15 06	43 34 33	* 2059	10.11	1728	
Z 32		70 15.6	43 35.3	2062			
Z 33	T 087	70 16 00	43 36 03	* 2064	10.21	1746	
Z 34		70 16.5	43 36.8	2068			
Z 35	T 088	70 16 55	43 37 32	* 2070	10.11	1728	
Z 36		70 17.4	43 38.3	2076			
Z 37	T 089	70 17 47	43 39 02	* 2074	-		
Z 38		70 18.2	43 39.7	2080			
Z 38-1	T 090	70 18 20	43 40 02	* 2089	-		
Z 39		70 18.7	43 40.5	2084			

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Station	Traverse No.	Latitude (S)	Longitude (E)	Elevation (m)	Radio Echo Sounding		
					One-way echo time (μ s)	Ice thickness (m)	Multiple echo time (μ s)
Z 39-1	T 091	70° 18' 54"	43° 41' 00"	* 2095	-		
Z 40		70° 19.2'	43° 41.3'	2083	-		
Z 41		70 19.6	43 42.0	2080			
Z 42		70 20.1	43 42.8	2079			
Z 42-1	T 092	70 20 15	43 43 27	* 2097	-		
Z 43		70 20.5	43 43.6	2079			
Z 44		70 20.7	43 44.1	2082			
Z 45		70 20.9	43 44.5	2086			
Z 46		70 21.1	43 45.0	2087			
Z 46-1	T 093	70 21 10	43 45 12	* 2107	-		
Z 47		70 21.4	43 45.4	2090			
Z 48		70 21.6	43 45.8	2087			
Z 49		70 21.8	43 46.2	2086			
Z 50		70 22.0	43 46.6	2085	-		
Z 51		70 22.2	43 47.0	2084			
Z 52		70 22.4	43 47.4	2084			
Z 53		70 22.7	43 47.8	2081			
Z 53-1	T 094	70 22 47	43 47 59	* 2104	9.79	1674	
Z 54		70 22.9	43 48.2	2085			
Z 55		70 23.1	43 48.6	2086			
Z 56		70 23.4	43 49.0	2087			
Z 57		70 23.6	43 49.4	2090	7.89	1350	
Z 58		70 23.8	43 49.8	2093			
Z 59		70 24.0	43 50.2	2097			
Z 60		70 24.3	43 50.5	2100			
Z 60-1	T 095	70 24 22	43 50 40	* 2118			
Z 61		70 24.5	43 50.9	2103	10.63	1818	

Station	Traverse No.	Latitude (S)	Longitude (E)	Elevation (m)	Radio Echo Sounding		
					One-way echo time (μ s)	Ice thickness (m)	Multiple echo time (μ s)
Z 62	T 095	70° 24.7'	43° 51.3'	2107			
Z 63		70 24.9	43 51.7	2110			
Z 64		70 25.1	43 52.1	2115			
Z 65		70 25.3	43 52.5	2119			
Z 66	T 096	70° 25' 32"	43° 52' 51"	* 2133			
Z 67		70 25.8	43 53.3	2135			
Z 68		70 26.0	43 53.7	2136			
Z 69		70 26.2	43 54.1	2137			
Z 70	T 097	70 26 25	43 54 29	* 2139	-		
Z 71		70 26.9	43 55.3	2143			
Z 72		70 27.3	43 56.1	2146			
Z 73		70 27.8	43 57.0	2150			
Z 73-1	T 098	70 28 03	43 57 35	* 2157	-		
Z 74		70 28.2	43 57.8	2163			
Z 75	T 099	70 28 40	43 58 34	* 2159	-		
Z 76		70 29.1	43 59.4	2159			
Z 77		70 29.5	44 00.3	2159	-		
Z 78		70 30.0	44 01.1	2160			
Z 79		70 30.4	44 02.0	2161			
Z 79-2	T 100	70 30 41	44 02 42	* 2166	-		
Z 80		70 30.8	44 02.9	2161			
Z 81		70 31.2	44 03.8	2162			
Z 81-2	T 101	70 31 33	44 04 30	* 2167			
Z 82		70 31.7	44 04.7	2161			
Z 83		70 32.1	44 05.5	2161			
Z 84		70 32.6	44 06.3	2161	5.37	918	
Z 85	T 102	70 33 02	44 07 05	* 2161			

Station	Traverse No.	Latitude (S)	Longitude (E)	Elevation (m)	Radio Echo Sounding		
					One-way echo time (μs)	Ice thickness (m)	Multiple echo time (μs)
Z 86	T 102	70° 33.5'	44° 07.7'	2163			
Z 87		70 34.0	44 08.3	2165	7.16	1224	
Z 88		70 34.5	44 08.9	2169			
Z 88-1	T 103	70° 34' 38"	44° 09' 23"	* 2171	9.89	1692	5.47, 5.89
Z 89		70 35.0	44 09.6	2172			
Z 90	T 104	70 35 27	44 10 12	* 2176	-		
Z 91		70 35.9	44 10.9	2179			
Z 92	T 105	70 36 20	44 11 31	* 2181	-		
Z 93		70 36.8	44 12.2	2183			
Z 94	T 106	70 37 16	44 12 53	* 2186	-		
Z 95		70 37.7	44 13.5	2188			
Z 96		70 38.2	44 14.1	2192	11.84	2025	
Z 97		70 38.6	44 14.7	2195			
Z 97-2	T 107	70 39 01	44 15 09	* 2201			
Z 98		70 39.1	44 15.4	2199	12.1	2070	7.21
Z 99		70 39.5	44 16.0	2198			
Z 100		70 40.0	44 16.7	2199			
Z 101	T 108	70 40 32	44 17 21	* 2202			
Z 102		70 41.0	44 17.9	2208	11.58	1980	
Z 103		70 41.5	44 18.5	2216			
Z 104		70 41.9	44 19.1	2226	11.68	1998	6.32
Mizuho Camp	T 109	70 41 53	44 19 54	* 2230			

Table 3. Positions, elevations and ice thicknesses of stations along routes X, C, D, A and S (S169-S239) in Mizuho Plateau.

Station	Latitude (S)	Longitude(E)	Elevation (m)	Radio Echo Sounding		
				One-way echo time (μ s)	Ice thickness (m)	Multiple echo time (μ s)
X 1	70° 42.1'	44° 14.2'	2143	-		
2	70 42.2	44 10.9	2138			
3	70 42.5	44 07.1		10.53	1800	6.42
4	70 42.8	44 03.6	2116			
5	70 43.1	44 00.0			-	
6	70 43.4	43 56.3	2111			
7	70 43.7	43 52.6			-	
8	70 44.0	43 49.0	2097			
9	70 44.4	43 45.4			-	
10	70 44.7	43 41.7	2094			
11	70 45.2	43 38.2			-	
12	70 45.7	43 34.7	2087			
13	70 46.0	43 31.0			-	
14	70 46.4	43 27.4	2069			
15	70 46.8	43 23.8		8.74	1494	
16	70 47.1	43 20.1	2064			
17	70 47.4	43 16.4		7.16	1224	
18	70 47.8	43 12.8	2055			
19	70 48.6	43 10.1		11.16	1908	
C 0	71 23.1	35 41.1	1800	9.21	1575	5.16, 5.79, 6.11, 6.74, 7.37, 8.00, 8.32, 8.58
1	71 23.6	35 44.6	1813	7.79	1332	5.68, 6.26, 6.47, 7.58
2	71 21.9	35 48.1	1832	7.00	1197	5.58, 5.89, 6.32
2-1				8.00	1368	3.84, 4.47, 5.37, 6.05, 6.42, 6.79, 7.11
3	71 21.4	35 50.9	1848	7.58	1296	5.89, 6.53, 7.00, 7, 32

Station	Latitude (S)	Longitude(E)	Elevation (m)	Radio Echo Sounding		
				One-way echo time (μ s)	Ice thickness (m)	Multiple echo time (μ s)
C 3-1				6.79	1161	4.53, 5.37, 5.58, 6.32
4	71° 20.8'	35° 53.7'	1828	-		
4-1				7.79	1332	5.26, 6.21, 6.89, 7.11, 7.37
5	71 20.4	35 56.5	1808	6.84	1170	5.58, 6.00, 6.32, 6.58
5-1				9.21	1575	5.84, 6.11, 6.42, 6.74, 7.32, 7.58, 7.89, 8.63, 8.84
6	71 19.7	35 59.3	1796	7.63	1305	6.11, 6.42, 6.74, 6.95, 7.37
7	71 19.3	36 02.1	1794	-		
7-1				8.00	1368	7.16, 7.53, 7.79
8	71 18.7	36 04.9	1790	9.11	1557	7.37, 7.89, 8.16, 8.63
8-1				9.89	1692	5.74, 6.11, 7.00
9	71 18.2	36 07.8	1779	7.16	1224	5.58, 6.32
9-1				-		
10	71 17.6	36 10.5	1768	8.11	1386	6.32, 6.47, 6.74, 7.05, 7.89
11	71 17.2	36 13.2	1764	8.74	1494	5.00, 6.74, 7.11, 7.42, 7.68, 8.05, 8.26
12	71 16.5	36 16.0	1757	8.53	1458	6.05, 6.47, 7.05, 7.32, 7.74, 8.11
13	71 16.1	36 18.8	1754	8.53	1458	5.47, 5.89, 6.53, 6.79, 7.32, 7.89, 8.16
14	71 15.5	36 21.6	1758	8.21	1404	5.53, 6.53, 7.37, 8.00
15	71 15.0	36 24.4	1763	9.58	1638	7.37, 7.74, 7.84, 8.37, 8.84
15-1				8.58	1467	7.74, 7.89, 8.05, 8.32
16	71 14.4	36 27.2	1759	8.37	1431	7.37, 7.79
17	71 13.9	36 30.0	1759	9.05	1548	7.05, 7.42, 8.16
18	71 13.3	36 32.6	1768	8.68	1485	6.21, 7.05, 7.79, 8.05
18-1				8.84	1512	7.42, 7.68, 8.21, 8.42
19	71 12.6	36 34.2	1762	9.16	1566	5.58, 8.32
19-1				9.47	1620	8.84
20	71 11.9	36 36.6	1764	9.79	1619	

Station	Latitude (S)	Longitude(E)	Elevation (m)	Radio Echo Sounding		
				One-way echo time (μ s)	Ice thickness (m)	Multiple echo time (μ s)
C 21	71° 11.5'	36° 39.4'	1766	-		
22	71 11.0	36 41.5	1756	8.42	1440	7.26, 7.78, 8.05
22-1				7.89	1350	6.95, 7.37
23	71 10.6	36 44.3	1759	8.32	1422	6.63, 7.21, 7.63, 8.00
24	71 10.1	36 46.9	1771	8.58	1467	
25	71 09.7	36 49.5	1782	7.42	1269	5.84, 6.42
26	71 09.2	36 52.2	1779	6.84	1170	6.00
27	71 08.8	36 55.6	1786	6.84	1170	5.53, 6.53
28	71 08.2	36 58.4	1787	6.42	1098	
29	71 08.2	37 01.6	1787	9.26	1584	5.95
30	71 08.1	37 04.7	1792	9.16	1566	6.95, 8.79
31	71 08.1	37 07.9	1798	12.26	2097	5.79
32	71 08.6	37 11.1	1798	12.16	2079	
33	71 08.1	37 14.3	1799	9.79	1674	
34	71 08.0	37 17.5	1797	9.74	1665	8.37, 8.63
35	71 08.0	37 20.7	1801	8.74	1494	7.47, 7.89, 8.11, 8.53
36	71 08.0	37 23.9	1803	8.37	1431	7.16, 7.58, 8.00
37	71° 07' 53"	37 27.5	1805	9.68	1656	8.05, 8.42
38	71 07.9	37 30.3	1806	8.84	1512	7.05, 7.53, 7.95, 8.37
39	71 07.8	37 33.5	1808	8.68	1485	7.53, 7.89, 8.05
40	71 07.8	37 36.6	1813	8.42	1440	7.58, 7.89
41	71 07.7	37 39.8	1815	8.84	1512	7.32, 7.68, 8.11
42	71 07.7	37 43.0	1811	9.32	1593	7.74, 8.00, 8.42, 8.74
43	71 07.6	37 46.2	1808	9.63	1647	8.42, 8.68, 8.95
44	71 07.6	37 49.4	1807	8.00	1368	5.74, 6.05, 6.74, 7.21
45	71 07.5	37 52.5	1799	7.89	1350	6.11, 6.42, 6.95, 7.37, 7.58
46	71 07.5	37 55.7	1793	8.21	1404	6.05, 6.47, 6.84, 7.37, 7.84

Station	Latitude (S)	Longitude(E)	Elevation (m)	Radio Echo Sounding		
				One-way echo time (μ s)	Ice thickness (m)	Multiple echo time (μ s)
C 47	71° 07.3'	37° 58.9'	1799	9.16	1566	6.89, 7.26, 7.68, 8.26, 8.63
48	71 07.3	38 02.1	1793	9.26	1584	8.89
49	71 07.2	38 05.3	1792	10.11	1728	9.74
50	71 07.2	38 08.4	1796	9.58	1638	5.89, 8.53, 8.84, 9.16
51	71 07.1	38 11.6	1786	10.00	1710	5.47, 9.37, 9.63, 9.74
52	71 07.1	38 14.8	1768	9.47	1620	8.42, 8.84, 9.16
53	71 07.0	38 18.0	1757	9.95	1701	5.74, 6.21, 9.37
54	71 07.0	38 21.2	1763	9.42	1611	5.37, 6.11
55	71 06.9	38 24.3	1757	9.95	1701	5.00, 5.95, 9.58
56	71 06.9	38 27.5	1745	10.00	1710	5.95
56-1				10.00	1710	5.79, 6.47
57	71 06.8	38 30.7	1730	-		
58	71 06.8	38 33.9	1725	7.84	1341	5.47, 6.05, 6.89
58-1				7.95	1359	5.32, 5.79, 6.32, 6.74, 7.53, 7.95
59	71 06.7	38 37.2	1721	8.58	1467	5.37, 5.79, 6.16, 6.53, 7.37
60	71 06.7	38 40.3	1729	9.63	1647	5.11, 5.53, 6.11, 6.42, 6.84, 7.26, 7.63
61	71 06.6	38 43.5	1744	10.05	1719	5.68, 6.00, 6.89, 7.11, 9.74
62	71 06.6	38 46.7	1749	-		
62-1				12.58	2151	5.16, 6.00, 12.00
63	71 06.5	38 49.8	1748	12.26	2097	5.11, 5.79, 6.37, 6.89, 11.68
63-1				11.63	1989	5.16, 5.37
64	71 06.5	38 53.0	1741	11.11	1899	
64-1				11.05	1890	
65	71 06.4	38 56.2	1737	6.11	1044	5.68
66	71 06.4	38 59.4	1741	8.84	1512	
67	71 06.3	39 02.6	1740	8.21	1404	7.58, 7.79
68	71 06.3	39 05.7	1719	9.00	1539	8.11, 8.32, 8.79

Station	Latitude (S)	Longitude(E)	Elevation (m)	Radio Echo Sounding		
				One-way echo time (μs)	Ice thickness (m)	Multiple echo time (μs)
C 69	71° 06.2'	39° 08.9'	1743	8.84	1512	5.58, 5.95, 8.16, 8.53
69-1				10.00	1710	8.32, 8.58, 9.42, 9.68
70	71 06.2	39 12.1	1747	9.74	1665	4.74, 5.11, 5.37, 5.74, 6.84, 7.84, 8.16, 9.05
71	71 06.1	39 15.3	1713	9.47	1620	4.82, 5.37, 5.79, 9.05, 9.26
72	71 06.1	39 18.5	1733	9.79	1674	6.00, 6.53, 7.63, 7.95, 8.53, 8.95
73	71 06.0	39 21.6	1734	9.47	1620	5.05, 5.53, 8.00, 8.37, 8.79, 9.16
73-1				9.68	1656	4.68, 4.95, 5.47, 5.79, 7.68, 8.00, 8.37, 8.68, 9.05
74	71 06.0	39 24.3	1733	9.89	1692	5.79, 6.21, 7.53, 7.79, 8.26, 8.84, 9.37
74-1				9.89	1692	4.84, 5.26, 6.11, 6.42, 7.37, 8.05, 8.26, 8.47
75	71 05.9	39 28.0	1749	9.47	1620	5.00, 5.37, 5.79, 6.32, 7.21, 8.68, 8.98
76	71 05.9	39 31.2	1753	9.32	1593	6.11, 7.74, 8.00, 8.32, 8.68
77	71 05.8	39 34.4	1751	9.47	1620	5.63, 6.00, 8.00, 8.58, 8.89
78	71 05.8	39 37.5	1757	10.11	1728	4.74, 5.16, 5.53, 5.89, 6.37, 7.21, 7.63, 8.32, 8.84, 9.26, 9.68
79	71 05.8	39 40.7	1772	8.42	1440	4.58, 4.95, 5.21, 5.53, 6.00, 6.44, 7.79
80	71° 05' 40"	39° 43' 53"	1767	9.53	1629	5.89, 8.74, 9.05
80-1				10.42	1782	8.68, 8.95, 9.26, 9.95
81	71 05.7	39 47.4	1767	10.53	1800	9.47, 9.89, 10.21, 10.53
81-1				10.89	1863	5.58, 6.47
82	71 05.7	39 50.8	1775	11.84	2025	6.05, 7.32, 11.32
83	71 05.8	39 54.1	1780	11.05	1890	6.42
83-1				10.95	1872	10.53
84	71 05.8	39 57.5	1793	11.53	1971	9.47
85	71 05.8	40 01.0	1794	11.05	1890	6.11

Station	Latitude (S)	Longitude(E)	Elevation (m)	Radio Echo Sounding		
				One-way echo time (μ s)	Ice thickness (m)	Multiple echo time (μ s)
C 86	71° 05.8'	40° 03.5'	1799	11.21	1917	6.00, 7.11
86-1				11.53	1971	6.32
87	71 05.8	40 06.8	1817	9.05	1548	7.84
88	71 05.8	40 10.2	1817	7.11	1215	6.32
89	71 05.8	40 13.6	1806	7.00	1197	4.84, 5.79
89-1				6.16	1053	5.26, 5.79
90	71 05.8	40 17.1	1802	7.05	1206	4.47, 4.95, 5.26, 5.63, 6.32
91	71 05.8	40 20.5	1805	10.16	1737	6.95
92	71 05.8	40 23.9	1801	11.37	1944	7.74, 10.68, 11.11
93	71 05.9	40 27.3	1787	11.05	1890	6.32, 8.00, 8.84, 9.16
94	71 05.9	40 31.8	1794	9.95	1701	5.68, 6.32, 6.74, 7.47, 9.00, 9.32
94-1				10.32	1764	5.11, 5.58, 6.42, 7.37, 8.05
95	71 05.9	40 35.3	1796	8.53	1458	5.74, 6.32, 6.63, 7.00, 7.37, 8.00
96	71 05.9	40 38.7	1790	9.53	1629	5.79, 6.32
97	71 05.9	40 42.0	1809	10.53	1800	5.26, 6.16, 6.42, 8.26, 8.53, 8.79, 9.21, 9.58
98	71 06.0	40 45.5	1824	10.32	1764	4.74, 5.00, 5.47, 5.74, 6.00, 6.47, 8.89, 9.32, 9.58, 9.89
98-1				9.79	1674	9.26
99	71 06.0	40 48.9	1838	9.89	1692	
99-1				-		
100	71 06.0	40 52.4	1823	10.95	1872	7.32
100-1				10.32	1764	5.89, 6.42, 9.74
101	71 06.0	40 55.7	1827	12.21	2088	6.42, 6.89, 7.47, 7.95, 10.53, 11.79
102	71 06.0	40 59.1	1827	12.32	2106	5.32, 7.11, 8.05
102-1				12.11	2070	6.00, 6.42
103	71 06.1	41 02.5	1838	12.00	2052	

Station	Latitude (S)	Longitude(E)	Elevation (m)	Radio Echo Sounding		
				One-way echo time (μ s)	Ice thickness (m)	Multiple echo time (μ s)
C 103-1						
104	71° 06.1'	41° 06.0'	1837	11.95	2043	11.32
105	71 06.1	41 09.5	1836	11.63	1989	5.89, 6.79, 7.42, 11.37, 11.63
106	71 06.1	41 12.8	1853	11.63	1989	11.42
107	71 06.2	41 16.2	1856	12.00	2052	
108	71 06.3	41 19.6	1860	10.74	1836	5.47, 6.00, 6.37, 6.95, 8.05, 9.89
109	71 06.3	41 23.1	1875	11.16	1908	5.68, 6.47, 6.84, 10.42, 10.89
110	71 06.3	41 26.6	1889	10.53	1800	6.53, 6.95, 7.32, 9.47, 10.32
111	71 06.3	41 29.9	1890	11.26	1926	5.84, 6.74, 10.63
112	71 06.3	41 33.3	1889	12.37	2115	7.47, 11.21
113	71 06.4	41 36.7	1917	12.53	2142	5.68, 11.89
114	71 06.4	41 40.2	1934	12.58	2151	5.79, 7.32
115	71 06.4	41 43.6	1930	6.63	1134	5.26, 5.79, 6.16, 6.63
116	71 06.5	41 47.0	1919	8.63	1476	4.68, 4.95, 5.16, 5.53, 6.11, 6.53, 7.53
117	71 06.5	41 50.4	1904	11.89	2034	6.37, 6.84, 7.68, 7.95, 8.63, 10.95, 11.26
118	71 06.6	41 53.8	1937	11.47	1962	10.63
119	71 06.6	41 57.3	1969	11.37	1944	6.42, 10.63
120	71 06.6	42 00.7	1984	11.58	1980	6.32, 6.95
121	71 05.6	42 03.1	1991	11.58	1980	6.26, 6.95
122	71 05.3	42 05.4	1991	11.53	1971	8.00, 8.84
123	71 04.8	42 07.7	1993	7.89	1350	5.21, 6.68, 6.95
124	71 04.2	42 10.1	1982	9.16	1566	7.32
125	71 03.6	42 12.3	1968	7.68	1314	5.00, 5.47, 5.89, 6.21, 6.63, 7.37
126	71 02.9	42 14.6	1958	6.58	1125	5.37, 6.00
127	71 02.3	42 17.0	1963	8.84	1512	5.11, 6.84, 7.26, 8.21
128	71 01.7	42 19.3	1965	13.05	2232	6.95, 12.00
129	71 01.1	42 21.5	1966	14.42	2466	5.89, 6.21, 6.74, 7.42

Station	Latitude (S)	Longitude(E)	Elevation (m)	Radio Echo Sounding		
				One-way echo time (μ s)	Ice thickness (m)	Multiple echo time (μ s)
C 130	71° 00.5'	42° 23.8'	1978	13.58	2322	5.16, 5.58, 5.95, 6.32, 6.74, 7.05
131	70 59.8	42 26.2	1985	13.79	2358	5.89, 8.58, 9.05
132	70 59.2	42 28.4	1994	-		
133	70 58.7	42 30.8	2004	12.00	2052	5.47, 6.42, 8.16, 8.53
134	70 58.1	42 33.1	2003	13.53	2313	5.00, 5.47, 6.68, 7.39, 7.68, 8.16, 9.37
135	70 57.4	42 35.4	1998	13.32	2277	5.37, 6.16, 7.00, 7.79, 8.16
136	70 56.8	42 37.7	1993	13.58	2322	5.16, 5.42, 6.11, 6.42, 6.89, 7.26, 8.16, 13.11
137	70 56.2	42 40.0	1988	13.95	2385	5.47, 6.84, 7.37, 9.68
138	70 55.6	42 42.4	1994	13.26	2268	6.21, 7.16, 8.42
139	70 55.0	42 44.6	2000	12.53	2142	
140	70 54.4	42 46.9	2002	13.37	2286	
141	70 53.8	42 49.3	2006	14.21	2430	13.58
142	70 53.1	42 51.5	2012	12.21	2088	
143	70 52.6	42 53.8	2016	-		
144	70 52.0	42 56.2	2025	-		
145	70 51.3	42 58.5	2031	-		
146	70 50.7	43 00.8	2029	7.74	1323	6.79, 7.26
147	70 50.1	43 03.1	2040	12.42	2124	
148	70 49.8	43 05.6	2054	8.21	1404	6.42, 7.68
149	70 49.8	43 08.3	2044	8.63	1476	7.37, 8.21
D 0	71° 19' 10"	35° 39' 28"	1678	6.74	1152	
1	71° 20'	35.6°	1691	9.89	1692	
2	71 20	35.5	1682	9.05	1548	7.32, 7.89
3	71 21	35.5	1671	9.00		
4	71 20	35.5	1644	-		
5	71 19	35.4	1644	-		

Station	Latitude (S)	Longitude(E)	Elevation (m)	Radio Echo Sounding		
				One-way echo time (μ s)	Ice thickness (m)	Multiple echo time (μ s)
D	6	71° 19'	35.4°	1651	9.21	
	7	71 19	35.3	1642	-	
	8	71 20	35.4	1644	7.16	
	9	71 21	35.4	1640	-	
	10	71 21	35.4	1637	21.53	3681 4.95
	11	71 22	35.4	1634	-	
	12	71 22	35.3	1636	6.89	1179 5.42
	13	71 23	35.3	1656	7.32	1251 5.21, 5.68, 6.37, 6.84
	14	71 24	35.3	1672	7.11	1215 6.00, 6.42
	15	71 25	35.3	1680	7.00	1197 6.11, 6.79
	16	71 26	35.2	1700	8.16	1395 7.84
	17	71 28	35.2	1710	7.84	1341 5.37, 7.26
	18	71 29	35.2	1712	7.26	1242 5.32, 5.79
	19	71 30	35.3	1714	-	
	20	71 30	35.3	1726	7.53	1287 5.79, 6.42
	21	71 31	35.3	1729	6.42	1098 5.74, 5.95
	22	71 32	35.4	1728	6.84	1170 5.26, 6.16, 6.53
	23	71 32	35.4	1736	7.05	1206 6.37
	24	71 33	35.4	1738	6.95	1188 5.37, 5.74
	25	71 34	35.5	1756	6.95	1188
	26	71 35	35.5	1770	11.42	1953 6.26, 7.00
	27	71 36	35.5	1784	13.84	2367 5.58, 6.32, 6.84
	28	71 37	35.5	1800	12.53	2142
	29	71 38	35.5	1826	12.11	2070 6.32, 6.74, 7.16, 7.58, 8.05, 9.53, 11.21
	30(B18)	71 38	35.5	1847	10.00	1710 5.79
	31	71 39	35.6	1869	6.89	1179 5.53, 5.89, 6.37
	32	71 40	35.6	1881	7.26	1242 6.79, 6.95

Station	Latitude (S)	Longitude(E)	Elevation (m)	Radio Echo Sounding		
				One-way echo time (μ s)	Ice thickness (m)	Multiple echo time (μ s)
D 33	71° 41'	35.6°	1894	7.05	1206	5.16, 5.42, 5.79, 6.05, 6.32
34	71 42	35.7	1918	6.95	1188	5.58, 5.89, 6.37
35	71 43	35.7	1920	7.89	1350	6.47, 6.95
36	71 43	35.7	1960	9.47	1620	5.79, 6.21, 6.58
37	71 44	35.8	2006	-		
B 12	71 44	35.8	1991	8.00	1368	5.42, 5.95, 6.32, 6.74, 7.26
A 001	71° 47' 28"	36° 12' 12"	2254			
002	71 47 12	36 11 02	2279			
003	71 48 03	36 11 17	2250	7.37	1260	5.89, 6.63
004	71 48 34	36 13 07	2269	7.00	1197	6.37
005	71 48 24	36 16 13	2281			
006	71 49 46	36 17 14	2318	7.05	1206	5.16, 5.32, 5.74, 6.05, 6.32
007	71 48 44	36 20 14	2294			
008	71 48 47	36 16 09	2286			
009	71 48 57	36 19 54	2296			
010	71 50 00	36 19 56	2338			
011	71 49 43	36 22 31	2334	7.79	1332	6.11, 6.47
012	71 50 26	36 22 11	2351			
013	71 50 28	36 17 56	2336			
014	71 50 36	36 21 55	2351	6.74	1152	5.84
015	71 51 45	36 23 18	2353			
016	71 50 47	36 26 43	2370	7.79	1332	4.68, 5.26, 5.68, 6.05
017	71 52 34	36 26 59	2376			
018	71 50 48	36 30 59	2377	8.84	1512	4.74, 5.58, 6.11, 6.42, 6.79, 7.37, 8.53
019	71 51 52	36 34 28	2387			
020	71 50 53	36 36 25	2388	9.89	1692	4.84, 6.00, 6.63, 8.63, 8.95
021	71 51 18	36 39 18	2391			

Station	Latitude (S)	Longitude(E)	Elevation (m)	Radio Echo Sounding		
				One-way echo time (μ s)	Ice thickness (m)	Multiple echo time (μ s)
A 022	71° 50' 05"	36° 38' 55"	2375	9.89	1692	7.53, 7.84, 8.53, 8.84
023	71 50 16	36 43 44				
523	71 50 21	36 43 32	2383			
024	71 51 20	36 47 01	2382			
025	71 50 31	36 47 42	2377	8.42	1440	4.42, 7.79, 8.05
026	71 51 45	36 50 00	2395			
027	71 50 32	36 51 05	2375	8.68	1485	4.42, 4.47, 4.74, 5.53, 7.79, 8.05, 8.42
028	71 52 10	36 54 40	2397			
029	71 51 04	36 57 00	2394	9.89	1692	3.95, 4.21, 4.84, 5.05, 5.37, 5.89, 8.16, 9.05, 9.47
030	71 52 45	36 59 55	2414			
031	71 51 35	37 03 00	2410	9.47	1620	4.11, 4.32, 4.95, 5.42, 5.89, 6.53, 8.68, 9.11
031-1	71° 52.0'	37° 06.4'		9.84	1683	4.84, 5.26, 5.68, 8.74, 9.05, 9.53
032	71 53 05	37 04 56	2416			
033	71 52 26	37 09 40	2411	8.89	1521	4.95, 5.16, 5.47, 6.47, 6.84, 7.26, 7.63, 7.89, 8.42
034	71 53 20	37 10 04	2425			
035	71 53 12	37 12 08	2423	9.11	1557	5.37, 5.68, 7.58, 7.68, 8.00, 8.32
036	71 53 48	37 11 56	2433			
037	71 53 36	37 13 54	2427	10.53	1800	4.53, 4.84, 5.42, 5.74, 6.21, 7.95, 8.42, 9.58, 10.00
038	71 54 34	37 15 18	2432			
538	71 54 28	37 15 09	2432			
039	71 53 35	37 20 25	2419			
040	71 54 57	37 24 21	2426			
041	71 53 37	37 29 05	2412	6.16	1053	4.32, 4.63, 5.05

Station	Latitude (S)	Longitude(E)	Elevation (m)	Radio Echo Sounding		
				One-way echo time (μ s)	Ice thickness (m)	Multiple echo time (μ s)
A 041-1						
042	71° 54' 50"	37° 33' 56"	2414	11.11	1899	
043	71 53 32	37 35 55	2405	9.47	1620	4.74, 5.16, 6.32
043-1	71° 53.9'	37° 39.4'		10.32	1764	4.42, 5.00, 6.32, 7.68, 10.00
043-2	71 53.7	37 41.9		10.16	1737	5.16, 5.68, 6.42
044	71 54 42	37 41 13	2412			
045	71 53 23	37 46 02	2399	10.58	1809	4.42, 4.68, 5.58, 7.11, 7.58, 10.16
046	71 54 33	37 49 08	2409			
047	71 53 56	37 51 58	2410			
048						
548	71 54 55	37 53 52	2417			
049	71 54 13	37 59 09	2412	10.21	1746	4.84, 5.26, 6.21, 8.79, 9.58, 9.89
049-1	71 54.6	38 04.4		12.11	2070	5.26, 6.21, 7.63, 11.58
050						
550	71 55 30	38 01 33	2423			
051	71 54 30	38 08 21	2415	11.58	1980	4.68, 4.84, 5.74, 9.89, 10.32
052	71 55 54	38 12 23	2426			
053	71 54 41	38 13 49	2410	12.00	2052	6.05, 6.42, 9.37, 10.16, 11.26
054	71 55 40	38 19 32	2417			
055	71 54 28	38 18 39	2404	11.32	1935	5.26, 6.11, 10.05, 10.53
055-1	71 54.2	38 22.0		11.16	1908	7.37, 9.05
055-2	71 54.0	38 25.8		11.05	1890	5.84, 6.32, 10.53
056	71 55 28	38 24 21	2414			
057	71 53 55	38 29 29	2398	9.95	1701	5.47
058						
558	71 55 12	38 30 28	2408			
059	71 53 40	38 35 23	2392	10.21	1746	6.21

Table 3. Positions, elevations and ice thicknesses of stations along routes X, C, D, A and S (S169-S239) in Mizuho Plateau.

Station	Latitude (S)	Longitude(E)	Elevation (m)	Radio Echo Sounding		
				One-way echo time (μs)	Ice thickness (m)	Multiple echo time (μs)
X 1	70° 42.1'	44° 14.2'	2143	-		
2	70 42.2	44 10.9	2138			
3	70 42.5	44 07.1		10.53	1800	6.42
4	70 42.8	44 03.6	2116			
5	70 43.1	44 00.0			-	
6	70 43.4	43 56.3	2111			
7	70 43.7	43 52.6			-	
8	70 44.0	43 49.0	2097			
9	70 44.4	43 45.4			-	
10	70 44.7	43 41.7	2094			
11	70 45.2	43 38.2			-	
12	70 45.7	43 34.7	2087			
13	70 46.0	43 31.0			-	
14	70 46.4	43 27.4	2069			
15	70 46.8	43 23.8		8.74	1494	
16	70 47.1	43 20.1	2064			
17	70 47.4	43 16.4			7.16	1224
18	70 47.8	43 12.8	2055			
19	70 48.6	43 10.1			11.16	1908
C 0	71 23.1	35 41.1	1800	9.21	1575	5.16, 5.79, 6.11, 6.74, 7.37, 8.00, 8.32, 8.58
1	71 23.6	35 44.6	1813	7.79	1332	5.68, 6.26, 6.47, 7.58
2	71 21.9	35 48.1	1832	7.00	1197	5.58, 5.89, 6.32
2-1				8.00	1368	3.84, 4.47, 5.37, 6.05, 6.42, 6.79, 7.11
3	71 21.4	35 50.9	1848	7.58	1296	5.89, 6.53, 7.00, 7, 32

Station	Latitude (S)	Longitude(E)	Elevation (m)	Radio Echo Sounding		
				One-way echo time (μ s)	Ice thickness (m)	Multiple echo time (μ s)
C 3-1				6.79	1161	4.53, 5.37, 5.58, 6.32
4	71° 20.8'	35° 53.7'	1828	-		
4-1				7.79	1332	5.26, 6.21, 6.89, 7.11, 7.37
5	71 20.4	35 56.5	1808	6.84	1170	5.58, 6.00, 6.32, 6.58
5-1				9.21	1575	5.84, 6.11, 6.42, 6.74, 7.32, 7.58, 7.89, 8.63, 8.84
6	71 19.7	35 59.3	1796	7.63	1305	6.11, 6.42, 6.74, 6.95, 7.37
7	71 19.3	36 02.1	1794	-		
7-1				8.00	1368	7.16, 7.53, 7.79
8	71 18.7	36 04.9	1790	9.11	1557	7.37, 7.89, 8.16, 8.63
8-1				9.89	1692	5.74, 6.11, 7.00
9	71 18.2	36 07.8	1779	7.16	1224	5.58, 6.32
9-1				-		
10	71 17.6	36 10.5	1768	8.11	1386	6.32, 6.47, 6.74, 7.05, 7.89
11	71 17.2	36 13.2	1764	8.74	1494	5.00, 6.74, 7.11, 7.42, 7.68, 8.05, 8.26
12	71 16.5	36 16.0	1757	8.53	1458	6.05, 6.47, 7.05, 7.32, 7.74, 8.11
13	71 16.1	36 18.8	1754	8.53	1458	5.47, 5.89, 6.53, 6.79, 7.32, 7.89, 8.16
14	71 15.5	36 21.6	1758	8.21	1404	5.53, 6.53, 7.37, 8.00
15	71 15.0	36 24.4	1763	9.58	1638	7.37, 7.74, 7.84, 8.37, 8.84
15-1				8.58	1467	7.74, 7.89, 8.05, 8.32
16	71 14.4	36 27.2	1759	8.37	1431	7.37, 7.79
17	71 13.9	36 30.0	1759	9.05	1548	7.05, 7.42, 8.16
18	71 13.3	36 32.6	1768	8.68	1485	6.21, 7.05, 7.79, 8.05
18-1				8.84	1512	7.42, 7.68, 8.21, 8.42
19	71 12.6	36 34.2	1762	9.16	1566	5.58, 8.32
19-1				9.47	1620	8.84
20	71 11.9	36 36.6	1764	9.79	1619	

Station	Latitude (S)	Longitude(E)	Elevation (m)	Radio Echo Sounding		
				One-way echo time (μ s)	Ice thickness (m)	Multiple echo time (μ s)
C 21	71° 11.5'	36° 39.4'	1766	-		
22	71 11.0	36 41.5	1756	8.42	1440	7.26, 7.78, 8.05
22-1				7.89	1350	6.95, 7.37
23	71 10.6	36 44.3	1759	8.32	1422	6.63, 7.21, 7.63, 8.00
24	71 10.1	36 46.9	1771	8.58	1467	
25	71 09.7	36 49.5	1782	7.42	1269	5.84, 6.42
26	71 09.2	36 52.2	1779	6.84	1170	6.00
27	71 08.8	36 55.6	1786	6.84	1170	5.53, 6.53
28	71 08.2	36 58.4	1787	6.42	1098	
29	71 08.2	37 01.6	1787	9.26	1584	5.95
30	71 08.1	37 04.7	1792	9.16	1566	6.95, 8.79
31	71 08.1	37 07.9	1798	12.26	2097	5.79
32	71 08.6	37 11.1	1798	12.16	2079	
33	71 08.1	37 14.3	1799	9.79	1674	
34	71 08.0	37 17.5	1797	9.74	1665	8.37, 8.63
35	71 08.0	37 20.7	1801	8.74	1494	7.47, 7.89, 8.11, 8.53
36	71 08.0	37 23.9	1803	8.37	1431	7.16, 7.58, 8.00
37	71° 07' 53"	37 27.5	1805	9.68	1656	8.05, 8.42
38	71 07.9	37 30.3	1806	8.84	1512	7.05, 7.53, 7.95, 8.37
39	71 07.8	37 33.5	1808	8.68	1485	7.53, 7.89, 8.05
40	71 07.8	37 36.6	1813	8.42	1440	7.58, 7.89
41	71 07.7	37 39.8	1815	8.84	1512	7.32, 7.68, 8.11
42	71 07.7	37 43.0	1811	9.32	1593	7.74, 8.00, 8.42, 8.74
43	71 07.6	37 46.2	1808	9.63	1647	8.42, 8.68, 8.95
44	71 07.6	37 49.4	1807	8.00	1368	5.74, 6.05, 6.74, 7.21
45	71 07.5	37 52.5	1799	7.89	1350	6.11, 6.42, 6.95, 7.37, 7.58
46	71 07.5	37 55.7	1793	8.21	1404	6.05, 6.47, 6.84, 7.37, 7.84

Station	Latitude (S)	Longitude(E)	Elevation (m)	Radio Echo Sounding		
				One-way echo time (μ s)	Ice thickness (m)	Multiple echo time (μ s)
C 47	71° 07.3'	37° 58.9'	1799	9.16	1566	6.89, 7.26, 7.68, 8.26, 8.63
48	71 07.3	38 02.1	1793	9.26	1584	8.89
49	71 07.2	38 05.3	1792	10.11	1728	9.74
50	71 07.2	38 08.4	1796	9.58	1638	5.89, 8.53, 8.84, 9.16
51	71 07.1	38 11.6	1786	10.00	1710	5.47, 9.37, 9.63, 9.74
52	71 07.1	38 14.8	1768	9.47	1620	8.42, 8.84, 9.16
53	71 07.0	38 18.0	1757	9.95	1701	5.74, 6.21, 9.37
54	71 07.0	38 21.2	1763	9.42	1611	5.37, 6.11
55	71 06.9	38 24.3	1757	9.95	1701	5.00, 5.95, 9.58
56	71 06.9	38 27.5	1745	10.00	1710	5.95
56-1				10.00	1710	5.79, 6.47
57	71 06.8	38 30.7	1730	-		
58	71 06.8	38 33.9	1725	7.84	1341	5.47, 6.05, 6.89
58-1				7.95	1359	5.32, 5.79, 6.32, 6.74, 7.53, 7.95
59	71 06.7	38 37.2	1721	8.58	1467	5.37, 5.79, 6.16, 6.53, 7.37
60	71 06.7	38 40.3	1729	9.63	1647	5.11, 5.53, 6.11, 6.42, 6.84, 7.26, 7.63
61	71 06.6	38 43.5	1744	10.05	1719	5.68, 6.00, 6.89, 7.11, 9.74
62	71 06.6	38 46.7	1749	-		
62-1				12.58	2151	5.16, 6.00, 12.00
63	71 06.5	38 49.8	1748	12.26	2097	5.11, 5.79, 6.37, 6.89, 11.68
63-1				11.63	1989	5.16, 5.37
64	71 06.5	38 53.0	1741	11.11	1899	
64-1				11.05	1890	
65	71 06.4	38 56.2	1737	6.11	1044	5.68
66	71 06.4	38 59.4	1741	8.84	1512	
67	71 06.3	39 02.6	1740	8.21	1404	7.58, 7.79
68	71 06.3	39 05.7	1719	9.00	1539	8.11, 8.32, 8.79

Station	Latitude (S)	Longitude(E)	Elevation (m)	Radio Echo Sounding		
				One-way echo time (μ s)	Ice thickness (m)	Multiple echo time (μ s)
A 137						
637	71° 59' 39"	42° 13' 02"	2525	9.05	1548	5.16, 5.37, 5.79, 6.37, 7.00, 7.63, 8.42
138	72 00 27	42 15 24	2514			
638	72 00 09	42 18 24	2514			
139						
639	71 59 14	42 15 27	2520	6.74	1152	4.74, 5.58, 5.79, 6.00
140	71 59 57	42 21 21	2534			
141	71 58 27	42 18 27	2516	6.16	1053	4.68, 4.84, 5.05, 5.58, 5.84
141-1	71° 58.1'	42° 21.0'		12.58	2151	5.37, 5.79, 6.74, 12.11
142	71 59 14	42 25 39	2548			
143						
643	71 57 45	42 24 03	2508	12.58	2151	5.89, 6.47, 7.37, 11.05, 11.58, 12.11
643-1	71 57.6	42 27.5		12.37	2115	5.84, 6.11, 6.84, 7.11, 8.32
643-2	71 57.8	42 30.9		12.68	2169	6.16, 7.21, 8.42, 11.68, 12.11
144	71 58 55	42 28 38	2550			
145	71 57 59	42 33 56	2541	12.11	2070	4.84, 5.79, 7.37
146	71 58 56	42 33 51	2559			
147	71 58 06	42 36 52	2550	7.42	1269	4.53, 4.84, 5.47
148	71 59 40	42 35 42	2568			
149	71 58 28	42 39 55	2556	9.79	1674	5.47, 5.74, 6.32, 6.63, 6.95, 9.05
150						
650	71 59 26	42 40 32	2565			
151	71 58 28	42 43 32	2551	6.84	1170	4.74, 5.26, 5.53, 6.21
152						
652	71 59 25	42 44 09	2559			
153						
653	71 59 01	42 47 56	2548	13.37	2286	4.00, 5.68, 7.11, 13.16

Station	Latitude (S)	Longitude(E)	Elevation (m)	Radio Echo Sounding		
				One-way echo time (μ s)	Ice thickness (m)	Multiple echo time (μ s)
A 154	72° 00' 50"	42° 46' 34"	2577			
155	72 01 24	42 52 04	2588			
155-1				12.74	2178	4.42, 4.84, 5.68, 10.74
156						
656	72 00 05	42 52 30	2560			
656-1	72° 00.1'	42° 55.7'		12.21	2088	
157	72 01 27	42 55 20	2584			
158						
658	71 59 54	42 58 13	2556	11.58	1980	5.26, 5.74, 6.26, 6.95, 9.95
159	72 01 26	43 00 30	2601			
160	72 00 08	43 03 33	2581	13.74	2349	5.84, 6.42, 6.89, 7.53, 8.37, 8.63, 11.58, 12.05, 12.79
161	72 01 32	43 03 55	2614			
162	72 00 12	43 06 58	2600	8.68	1485	5.26, 6.11, 6.42, 7.11, 7.37
163	72 01 32	43 07 27	2619			
164	72 00 07	43 09 48	2606	8.47	1449	6.11, 6.74
S 169	70 49.4	43 07	2035	9.00	1539	6.74
170	70 50 38	43 11 32	2034	11.16	1908	5.37, 10.84
171	70 51.1	43 05	2026	13.11	2241	12.16
172	70 51.6	43 02	2040	11.21	1917	4.84, 5.32
173	70 52.2	43 00	2034	12.21	2088	6.89, 10.63, 11.16
174	70 52.8	42 57	2018	14.68	2511	8.16, 10.89, 13.16
175	70 53.8	42 56	2036	22.11	3780	9.74, 10.63, 16.95
176	70 54.8	42 56	2063	22.63	3870	11.84, 13.89, 19.47
177	70 55.8	42 56	2064	18.95	3240	6.68, 11.95, 13.95
178	70 56.8	42 56	2061	17.63	3015	6.21, 7.58, 13.68
179	70 57.9	42 56	2062	11.84	2025	6.47

Station	Latitude (S)	Longitude(E)	Elevation (m)	Radio Echo Sounding		
				One-way echo time (μ s)	Ice thickness (m)	Multiple echo time (μ s)
S 180	70° 58.9'	42° 57'	2075	11.68	1998	11.53
181	70 59.9	42 57	2085	11.37	1944	5.79, 6.21
182	71 00.9	42 57	2100	10.53	1800	6.16, 6.89, 7.32, 8.16
183	71 01.9	42 57	2133	11.16	1908	6.79
184	71 03.0	42 57	2139	12.32	2106	5.32
185	71 04.0	42 57	2114	12.00	2052	
186	71 05.0	42 58	2150	11.63	1989	4.84, 5.84, 6.53, 10.37, 10.84, 11.32
187	71 06.0	42 58	2158			
188	71 07.0	42 58	2159			
189	71 08.1	42 58	2173	12.16	2079	11.58
190	71 09.1	42 58	2180	12.53	2142	6.79 8.05 8.94 11.58
191	71 10.1	42 58	2183	12.21	2088	6.00, 7.42, 8.53, 11.84
192	71 11.2	42 58	2195	12.16	2079	
193	71 12.2	42 59	2207	12.21	2088	11.79
194	71 13.2	42 59	2211	12.42	2124	12.05
195	71 14.2	42 59	2208	12.37	2115	12.05
196	71 15.3	42 59	2217	11.68	1998	11.26
197	71 16.3	43 00	2240	12.00	2052	4.42, 5.79
198	71 17.3	43 00	2251	12.21	2088	
199	71 18.3	43 00	2257	12.63	2160	
200	71 19.4	43 00	2261	13.95	2385	
201	71 20.4	43 00	2260	13.63	2331	4.79
202	71 21.4	43 00	2261	12.68	2169	5.26, 6.21
203	71 22.4	43 01	2274	12.63	2160	5.53, 6.21, 6.79
204	71 23.5	43 01	2294	9.26	1584	6.32, 6.95
205	71 24.5	43 01	2303	8.63	1476	5.68, 5.89, 7.53
206	71 25.5	43 01	2310	14.16	2421	7.00

Station	Latitude (S)	Longitude(E)	Elevation (m)	Radio Echo Sounding		
				One-way echo time (μ s)	Ice thickness (m)	Multiple echo time (μ s)
S 207	71° 26.5'	43° 02	2312			
208	71 27.5	43 02	2315			
209	71 28.5	43 02	2317	13.42	2295	4.32, 5.16
210	71 29.6	43 03	2332	6.26	1071	
211	71 30.6	43 03	2342	13.32	2277	11.58
212	71 31.6	43 03	2346			
213	71 32.6	43 03	2356	6.53	1116	
214	71 33.7	43 03	2369	6.53	1116	5.05, 5.68, 6.05
215	71 34.7	43 04	2374	14.21	2430	7.37
216	71 35.7	43 04	2377	13.68	2340	5.58, 6.47, 7.47, 7.95
217	71 36.7	43 04	2388	12.37	2115	7.05
218	71 37.7	43 04	2401	13.79	2358	5.21, 5.63, 6.84, 7.79, 8.58
219	71 38.7	43 04	2403	8.68	1485	4.68, 6.47, 7.74
220	71 39.7	43 04	2410	6.84	1170	4.32, 5.79
221	71 40.8	43 05	2422	13.11	2241	4.74, 6.37, 7.37, 7.89
222	71 41.8	43 05	2433	13.21	2259	6.74, 7.68
223	71 42.8	43 05	2443	8.37	1431	4.74, 5.79
224	71 43.8	43 05	2453	13.63	2331	4.79, 5.74, 6.58
225	71 44.8	43 05	2462	14.21	2430	5.26, 5.89, 6.89, 8.00, 9.16
226	71 45.8	43 06	2468	7.84	1341	4.79, 5.89, 7.05
227	71 46.8	43 06	2473	8.11	1386	5.79, 6.79
228	71 47.8	43 06	2485	8.95	1530	5.79, 6.84, 7.42, 8.42
229	71 48.9	43 06	2494	6.74	1152	6.11
230	71 49.9	43 06	2506	8.00	1368	6.79
231	71 50.9	43 07	2511	13.95	2385	8.05
232	71 51.9	43 07	2515	7.84	1341	6.53
233	71 53.0	43 07	2522	5.84	999	5.16, 5.74

Station	Latitude (S)	Longitude(E)	Elevation (m)	Radio Echo Sounding		
				One-way echo time (μ s)	Ice thickness (m)	Multiple echo time (μ s)
S 234	71° 54.0'	43° 08'	2528	8.95	1530	
235	71 55.0	43 08	2534	12.21	2088	
236	71 56.0	43 08	2550			
237	71 57.0	43 08	2567	13.58	2322	5.79, 12.21
238	71 58.1	43 08	2574	5.68	972	4.58
239	71 59.1	43 08	2580	6.84	1170	4.95

Table 4. Positions and elevations of stations along routes S (S31-S121), M and N in Mizuho Plateau.

Station	Latitude (S)	Longitude (E)	Elevation (m)
S 31	69° 03. 3'	40° 43'	981
32	69 03. 6	40 46	994
33	69 03. 9	40 48	1014
34	69 04. 2	40 51	1030
35	69 04. 4	40 54	1046
36	69 04. 8	40 56	1064
37	69 04. 8	40 59	1074
38	69 04. 9	41 02	1088
39	69 04. 8	41 05	1099
40	69 04. 7	41 07	1112
41	69 04. 6	41 10	1124
42	69 04. 6	41 13	1138
43	69 04. 5	41 15	1148
44	69 04. 3	41 18	1164
45	69 04. 4	41 21	1179
46	69 04. 5	41 24	1188
47	69 04. 3	41 26	1184
48	69 04. 2	41 29	1200
49	69 04. 2	41 32	1208
50	69 04. 2	41 35	1215
51	69 04. 1	41 37	1217
52	69 04. 1	41 40	1227
53	69 04. 0	41 43	1233
54	69 04. 1	41 46	1259
55	69 04. 2	41 48	1271
56	69 03. 7	41 51	1274
57	69 03. 8	41 54	1276
58	69 04. 2	41 57	1287
59	69 04. 4	41 59	1307
60	69 04. 6	42 02	1332
61	69 05. 0	42 04	1335
62	69 05. 2	42 07	1341
63	69 05. 3	42 09	1348
64	69 05. 5	42 12	1356
65	69 05. 8	42 15	1362
66	69 05. 9	42 18	1366

Station	Latitude (S)	Longitude (E)	Elevation (m)
S 67	69° 06. 0'	42° 21'	1363
68	69 06. 2	42 23	1380
69	69 06. 4	42 26	1381
70	69 06. 9	42 29	1388
71	69 07. 9	42 29	1403
72	69 09. 0	42 30	1409
73	69 10. 0	42 30	1419
74	69 11. 0	42 31	1422
75	69 12. 1	42 32	1435
76	69 13. 1	42 32	1444
77	69 14. 2	42 33	1451
78	69 15. 2	42 34	1459
79	69 16. 2	42 34	1468
80	69 17. 3	42 35	1473
81	69 18. 4	42 36	1476
82	69 19. 4	42 36	1489
83	69 20. 5	42 37	1499
84	69 21. 5	42 38	1518
85	69 22. 5	42 38	1522
86	69 23. 5	42 39	1526
87	69 24. 6	42 40	1534
88	69 25. 6	42 41	1543
89	69 26. 7	42 41	1551
90	69 27. 7	42 42	1560
91	69 28. 8	42 43	1569
92	69 29. 8	42 43	1568
93	69 30. 9	42 44	1570
94	69 31. 9	42 45	1579
95	69 32. 8	42 46	1588
96	69 33. 9	42 47	1594
97	69 34. 9	42 48	1605
98	69 36. 0	42 48	1614
99	69 37. 0	42 49	1618
100	69 38. 1	42 50	1630
101	69 39. 1	42 50	1631
102	69 40. 1	42 51	1636
103	69 41. 1	42 52	1643
104	69 42. 2	42 52	1651
105	69 43. 2	42 53	1656

Station	Latitude (S)	Longitude (E)	Elevation (m)
S 106	69° 44.3'	42° 54'	1660
107	69 45.4	42 55	1673
108	69 46.4	42 55	1684
109	69 47.5	42 56	1690
110	69 48.5	42 56	1696
111	69 49.5	42 57	1724
112	69 50.6	42 58	1736
113	69 51.7	42 59	1747
114	69 52.7	43 00	1754
115	69 53.8	43 01	1758
116	69 54.8	43 02	1763
117	69 55.9	43 03	1774
118	69 56.9	43 03	1816
119	69 58.0	43 04	1833
120	69 59.0	43 04	1845
121	70 00.1	43 05	1850
Z 15-1	70° 08' 00"	43° 22' 45"	1984
Z 16	70° 08.3'	43° 23.0'	1988
M 1	70 07.5	43 24.5	1992
2	70 06.5	43 26	1997
3	70 05.5	43 27.5	2004
4	70 04.5	43 29.5	2010
5	70 03.5	43 30.5	2021
6	70 02.5	43 32	2028
7	70 02	43 34	2043
8	70 01	43 35	2039
9	70 00	43 37	2045
10	69 59	43 38.5	2050
11	69 58	43 40.5	2058
12	69 57	43 41.5	2060
13	69 56	43 43	2055
14	69 55.5	43 45	2062
15	69 54.5	43 46	2066
16	69 53.5	43 47.5	2070
17	69 52.5	43 49	2087
18	69 51.5	43 51	2099
19	69 50.5	43 52.5	2110
20	69 49.5	43 54	2117
21	69 48.5	43 55.5	2118

Station	Latitude (S)	Longitude (E)	Elevation (m)
M 22	69° 48'	43° 57.5'	2127
23	69 47	43 59	2122
24	69 46	44 01	2124
25	69 45.5	44 03	2119
26	69 44.5	44 04.5	2115
27	69 43.5	44 06.5	2109
28	69 43	44 08.5	2103
29	69 42.5	44 11	2125
30	69 42	44 13	2151
Peak A	69 40.5	44 11.5	2168
M 31	69 41.5	44 14	2152
32	69 41.5	44 17	2154
33	69 40.5	44 17.5	2143
34	69 40	44 15	2103
35	69 39	44 12.5	2075
36	69 38.5	44 10.5	2071
37	69 38	44 08	2066
Peak B	69 36.5	44 08.5	2100
M 38	69 38	44 05	2049
39	69 38	44 02	2022
40	69 38	43 59	2015
41	69 38	43 56	2026
42	69 38	43 53	2032
43	69 37.5	43 50.5	2030
44	69 37.5	43 47.5	2085
45	69 37.5	43 44.5	2017
46	69 37.5	43 41.5	1999
47	69 37.5	43 38.5	1967
48	69 37.5	43 35.5	1937
49	69 37.5	43 33	1901
50	69 37.5	43 30.5	1893
51	69 38	43 28	1866
52	69 38	43 25	1825
53	69 38.5	43 23	1825
54	69° 38' 13"	43° 19' 41"	1787
55	69 38	43 18	1784
56	69 38	43 15	1780
57	69 38	43 12.5	1765
58	69 37.5	43 09.5	1751

Station	Latitude (S)	Longitude (E)	Elevation (m)
M 59	69° 38'	43° 06'	1731
60	69 37.5	43 03	1737
61	69 37.5	42 59.5	1739
62	69 37.5	42 55.5	1740
63	69 37	42 53	1713
64	69 37	42 50	1705
65	69 37	42 46	1700
66	69 36.5	42 43.5	1696
67	69 36.5	42 40.5	1672
68	69 36.5	42 38	1650
69	69 36.5	42 35	1635
70	69 36	42 31.5	1613
71	69 36	42 29	1613
72	69 35.5	42 26	1600
73	69 35.5	42 23	1591
74	69 36	42 19	1589
75	69 36	42 16	1582
76	69 36	42 13.5	1578
77	69 36.5	42 10.5	1571
78	69 37	42 07.5	1555
79	69 37	42 04.5	1557
H184	69° 36' 12"	42° 02' 48"	1546
N 0	71° 38'	35° 30'	1836
1	71 39	35 27	
2	71 40	35 21	1834
3	71 41	35 15	1832
4	71 42	35 09	1844
5	71 43	35 03	1858
6	71 45	34 59	1842
7	71 47	34 55	1862
8	71 49	34 51	1869
9	71 47	34 59	
10	71 48	35 02	1910
11	71 50	35 04	1934
12	71 53	35 06	1976
13	71 55	35 08	1996
14	71 57	35 10	2014
15	71 59	35 12	2043
16	72 00	35 13	2086

Station	Latitude (S)	Longitude (E)	Elevation (m)
N 17	71° 58'	35° 19'	2068
18	71 56	35 21	2058
19	71 54	35 25	2042
20	71 51	35 26	
21	71 49	35 27	2022
22	71 47	35 33	2012
23	71 46	35 38	1995