IX. Gravimetric Survey in the Mizuho Plateau-West Enderby Land Area, East Antarctica, 1969 - 1971

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1. Introduction

Measurements of gravity were carried out in the Mizuho Plateau-West Enderby Land area by the oversnow traverses of JARE 10 and 11, in 1969 - 1970 and 1970 - 1971 respectively. Yoshida made the measurements along the route Syowa Station - S240 - Yamato Mountains - S170 - Syowa Station, and Yoshimura along the route Syowa Station - S122 - Mizuho Camp - Y200 - Sandercock Nunataks - Mizuho Camp - S169 - Syowa Station, as shown in Fig. A attached to the end of this volume (Shimizu et al., 1972). The measurements were basically made at every 2 km in Mizuho Plateau and 5 km in West Enderby Land along these traverse routes. 290 new gravity stations were set up in Mizuho Plateau and 349 in West Enderby Land in addition to 200 previous stations of Route S, which is approximately along longitude $43°E$ (Tables IX-1 and IX-2). A LaCoste and Romberg Model G gravity meter No. G 183 was used in both traverses. The gravity values were calculated from observed values in the field on the basis of the gravity value determined at the Pendulum Gravity Station in Syowa Station.

2. Method of Measurement

A gravity meter with its proper case was kept in a shockproof box fixed in a KD60 type oversnow vehicle (Hosoya et al., 1971). The measurement was made by setting the leveling disc directly on the snow surface just beside the marking flag of a station. The time (G.M.T.) of measurement was determined with an accuracy of 1 min (record of the measurement time is not described in the present article). At each station, measurements of gravity were made twice in succession, whereby

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each measurement took 2 min with 0.06 mgal as a permitted limit of difference between the two readings. The linearity of the instrumental drift[*] was considered to be normal judging from the data of both JARE 9 (Yanai and Kakinuma, 1971) and JARE 10-11: the instrument used for the measurements, the procedure of maintenance of the instrument and the method of measurements were the same in all the three traverses.

3. Calculation

The following gravity value at Syowa Station which was determined by a pendulum gravity meter (Harada et al.,1963) was used as the base value:

$$g(\text{Syowa}) = 982.5394 \pm 0.0005 \text{ gals}$$
$$\varphi = 69^\circ \, 00 \,.3'\text{S}$$
$$\lambda = 39^\circ \, 35 \,.4'\text{E}$$
$$h = 14.0 \text{ m (above the mean sea level)}$$

The drift of the instrument was distributed over the traverse route according to the time elapsed. Corrections for earth tides and topographic conditions were not made. γ_0, g_0, $\triangle g_0$, g_0'', and $\triangle g_0''$ were calculated by the following equations:

$$\gamma_0 = 978.049 \,(1+0.0052884 \sin^2\varphi - 0.0000059 \sin^2 2\varphi \tag{1}$$
$$g_0 = g + 0.3086 \, h \tag{2}$$
$$\triangle g_0 = g_0 - \gamma_0 \tag{3}$$
$$g_0'' = g_0 - 0.1119 \, h + 0.0742 \, I \tag{4}$$
$$\triangle g_0'' = g_0'' - \gamma_0 \tag{5}$$

where γ_0 is the standard gravity value in gal, φ the latitude, g the observed gravity value in mgal at the height of h meters above sea level, g_0 the gravity value in mgal reduced to sea level by the application of free air reduction, $\triangle g_0$ the free air anomaly in mgal, g_0'' the value in mgal obtained by the application of the Bouguer reduction, assuming the density of ice and of the bed rock as 0.9 g/cm^3 and 2.67 g/cm^3 respectively, $\triangle g_0''$ the Bouguer anomaly in mgal, and I the thickness of the ice sheet in meters.

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[*] The total drifts during the traverses were 1.65 mgals per 90 days in Mizuho Plateau and 0.78 mgals per 83 days in West Enderby Land.

4. Accuracy

4.1. Value g

The following errors affect the accuracy of the value g :

1) An error less than 0.06 mgal in reading dial, namely a difference of 2 successive readings, was allowed as mentioned previously. This error was actually as small as 0.024 mgal on the average.

2) An error due to instrumental drift was expected less than 0.5 mgal from the characteristic data of the instrument as regards the linearity of the drift.

3) An error caused by the earth tide: No correction was made on the effect by the earth tide, because a previous report (Nakagawa et al., 1969) and field observations on the earth tide at Syowa Station and in Mizuho Plateau in 1969 and 1970 made by Yoshida, one of the present authors, showed that this error would be less than 0.2 mgal.

Thus, the obtained value of g may involve an error less than 0.76 mgal even when these errors are summed up ($\overline{O}$ura,1965).

4.2. Value γ_o

The accuracy in determining the geodetic position of a gravity station is a factor controlling the accuracy of the value γ_o. An error in estimating the geodetic position of a station 50 km away from an astronomic station by navigation records may be expected less than 2 km, as shown by experiments made in West Enderby Land in 1970 and 1971 by Yoshimura, one of the present authors. An error of 2 km in the geodetic position of a station along a longitude in the surveyed area produces an error of 1 mgal in the value γ_o.

4.3. Values g_o and $\triangle g_o$

The accuracy of the altitude is a controlling factor for the accuracy of the value g_o. Assuming that the error involved in the barometric altitude is 10%, the error involved in the value g_o of a station 2500 m above sea level would be 77.81 mgal by Eq.(2); the surface altitude of the ice sheet in the Mizuho Plateau-West Enderby Land area ranged from 1800 to 2800 m above sea level. However, an error involved in the difference of the g_o values at two neighboring stations with an altitude difference of 50 m does not exceed 3.06 mgal from Eq.(2), if the accuracy of the altitude difference is also 10%; an actual altitude difference of two neighboring stations was generally less than 50 m in the sur-

veyed area.   The error of values $\triangle g_o$ does not exceed the sum of the errors of the values γ_o and g_o.

4.4. Values g_o'' and $\triangle g_o''$

From Eqs. (2) and (4)

$$g_o'' = g + 0.1967\,h + 0.0742\,I \tag{6}$$

is obtained.   This equation gives the effect of errors in estimating the altitude and ice thickness of a station on the accuracy of value g_o''. Assuming the errors involved in the ice thickness obtained by the radio echo sounding and in the altitude by the barometric altimetry are 10% for each, the error involved in the value g_o'' is 64.78 mgal from Eq.(6) at a station 2500 m in altitude where the thickness of ice is 2000 m, which is the case representing a typical situation among those in the surveyed area. However, the error involved in the difference of the g_o'' values at two neighboring stations with a difference* of 50 m in altitude and 500 m in ice thickness does not exceed 6.21 mgal by Eq.(6), if the accuracies of the differences in altitude and ice thickness are 10% respectively.

The error of the value $\triangle g_o''$ does not exceed the sum of the errors of the values of g_o'' and γ_o.   The topographic corrections were neglected because of simple and fairly even topographic features of the surface in almost all the areas surveyed.

References

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* Generally speaking, a change of the surface elevation of the bed rock is much more abrupt than that of the ice sheet.

of the station, 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. JARE Data Rep., 17 (Glaciology), 12-37.

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Table IX- 1: Gravity values, and free air and Bouguer anomalies in Mizuho Plateau, 1969 - 1970. Location, elevation, and ice thickness were referred to Shimizu et al., (1972)

g: observed value, g_o: gravity value reduced to sea level by free air reduction, g_o'': gravity value by Bouguer reduction (assuming the density of ice and bed rock as 0.9 g/cm^3 and 2.67 g/cm^3 respectively), r_o: standard gravity value, $\triangle g_o$: free air anomaly, and $\triangle g_o''$: Bouguer anomaly.

Station No.	Latitude	Longitude	Elevation (m)	Thickness of ice (m)	g (mgal)	g_o (mgal)	g_o'' (mgal)	r_o (mgal)	$\triangle g_o$ (mgal)	$\triangle g_o''$ (mgal)
					982	982	982	982		
Syowa	69°00.3′S	39°35.4′E	14	0	539.4	543.7	542.2	554.8	−11.0	−12.6
F 0	69 02.0	39 42.2	26	0	534.4	542.4	539.5	556.5	−14.1	−17.0
G 1′	69 01.2	39 45.5	173		492.8	546.3		555.7	− 9.4	
3′	69 02.5	39 49.1	346		439.7	546.3		557.0	−10.7	
5	69 02.9	39 56.5	433		428.5	562.2		557.4	4.8	
6′	69 02.9	39 59.8	537		407.7	573.5		557.4	16.2	
S 16	69 01.9	40 02.8	553	470	406.1	576.7	549.8	556.4	20.3	− 6.6
17	69 01.9	40 04.0	583	501	397.9	577.8	549.8	556.4	21.5	− 6.6
18	69 01.7	40 07.0	609		383.2	571.2		556.2	15.0	
19	69 01.5	40 10.0	634	1.129	352.4	548.0	560.9	556.0	− 8.0	+ 4.9
20	69 01.5	40 12.0	653		350.2	551.7		556.0	− 4.3	
21	69 01.6	40 15.0	699	585	350.4	566.1	531.3	556.1	10.0	−24.8
22	69 01.7	40 18.0	743	817	339.0	568.3	545.8	556.2	12.1	−10.4
23	69 01.8	40 21.0	771	785	332.4	570.4	542.3	556.3	14.1	−10.0
24	69 01.9	40 24.0	811	715	323.2	573.5	535.7	556.4	17.1	−20.7
25	69 02.2	40 27.0	844	723	311.8	572.2	531.4	556.7	15.6	−25.3
26	69 02.3	40 29.0	870		304.3	572.7		556.8	16.0	
27	69 02.5	40 32.0	893		295.0	570.6		557.0	13.6	
28	69 02.7	40 35.0	916	970	288.0	570.7	540.2	557.2	13.5	−17.0
29	69 02.8	40 38.0	935		283.5	572.1		557.3	14.8	
30	69 03.1	40 40.0	961	929	274.2	570.8	532.1	557.6	13.2	−25.5
31	69 03.3	40 43.0	981	966	265.2	568.0	529.9	557.8	10.2	−27.9
32	69 03.6	40 46.0	994	1.134	259.8	566.5	539.4	558.1	8.4	−18.7
33	69 03.9	40 48.0	1014		254.9	567.8		558.4	9.4	

Station No.	Latitude	Longitude	Elevation (m)	Thickness of ice (m)	g (mgal)	go (mgal)	go″ (mgal)	ro (mgal)	△go (mgal)	△go″ (mgal)
S 34	69°04. 2′S	40° 51. 0′E	1030	1038	982 249. 1	982 566. 9	982 528. 7	982 558. 7	8. 2	−30. 0
35	69 04. 4	40 54. 0	1046	1108	245. 6	568. 4	533. 6	558. 9	9. 5	−25. 3
36	69 04. 8	40 56. 0	1064	1069	242. 6	571. 0	531. 2	559. 3	11. 7	−28. 1
37	69 04. 8	40 59. 0	1074		239. 8	571. 2		559. 3	11. 9	
38	69 04. 9	41 02. 0	1088	1100	233. 2	568. 9	528. 8	559. 4	9. 5	−30. 6
39	69 04. 8	41 05. 0	1099	1197	226. 4	565. 5	531. 4	559. 3	6. 2	−27. 9
40	69 04. 7	41 07. 0	1112	1100	223. 7	566. 8	524. 0	559. 2	7. 6	−35. 2
41	69 04. 6	41 10. 0	1124	1091	221. 0	567. 9	523. 1	559. 1	8. 8	−36. 0
42	69 04. 6	41 13. 0	1138	1134	218. 2	569. 4	526. 2	559. 1	10. 3	−32. 9
43	69 04. 5	41 15. 0	1148	1120	215. 3	569. 6	524. 3	559. 0	10. 6	−34. 7
44	69 04. 3	41 18. 0	1164	1227	212. 3	571. 5	532. 2	558. 8	12. 7	−26. 6
45	69 04. 4	41 21. 0	1179	1188	207. 2	571. 1	527. 2	558. 9	12. 2	−31. 7
46	69 04. 5	41 24. 0	1188	1185	201. 9	568. 5	523. 5	559. 0	9. 5	−35. 5
47	69 04. 3	41 26. 0	1184	1235	200. 0	565. 4	524. 5	558. 8	6. 6	−34. 3
48	69 04. 2	41 29. 0	1200	1240	194. 5	564. 8	522. 6	558. 7	6. 2	−36. 1
49	69 04. 2	41 32. 0	1208		194. 4	567. 2		558. 7	8. 5	
50	69 04. 2	41 35. 0	1215	1206	193. 8	568. 7	522. 3	558. 7	10. 0	−36. 4
51	69 04. 1	41 37. 0	1217		193. 2	568. 8		558. 6	10. 2	
52	69 04. 1	41 40. 0	1227	1219	190. 1	568. 7	521. 8	558. 6	10. 1	−36. 8
53	69 04. 0	41 43. 0	1233	1194	190. 2	570. 7	521. 3	558. 5	12. 2	−37. 2
54	69 04. 1	41 46. 0	1259		185. 0	573. 6		558. 6	15. 0	
55	69 04. 2	41 48. 0	1271	1223	180. 2	572. 4	520. 9	558. 7	13. 7	−37. 8
56	69 03. 7	41 51. 0	1274		178. 3	571. 5		558. 2	13. 3	
57	69 03. 8	41 54. 0	1276		178. 0	571. 7		558. 3	13. 4	

Station No.	Latitude	Longitude	Elevation (m)	Thickness of ice (m)	g (mgal)	go (mgal)	go″ (mgal)	ro (mgal)	△go (mgal)	△go″ (mgal)
					982	982		982		
S 58	69° 04. 2′S	41° 57. 0′E	1287		177. 0	574. 2		558. 7	15. 5	
59	69 04. 4	41 59. 0	1307		168. 0	571. 3		558. 9	12. 4	
60	69 04. 6	42 02. 0	1332	1332	151. 9	563. 0	982 512. 7	559. 1	3. 9	−46. 4
61	69 05. 0	42 04. 0	1335	1351	145. 7	557. 7	508. 5	559. 5	− 1. 8	−51. 0
62	69 05. 2	42 07. 0	1341	1440	141. 1	554. 9	511. 6	559. 7	− 4. 8	−48. 1
63	69 05. 3	42 09. 0	1348	1436	137. 5	553. 4	509. 2	559. 8	− 6. 4	−50. 6
64	69 05. 5	42 12. 0	1356		135. 0	553. 4		560. 0	− 6. 6	
65	69 05. 8	42 15. 0	1362		134. 8	555. 1		560. 3	− 5. 2	
66	69 05. 9	42 18. 0	1366		136. 2	557. 7		560. 4	− 2. 7	
67	69 06. 6	42 21. 0	1363		137. 9	558. 5		561. 1	− 2. 6	
68	69 06. 2	42 23. 0	1380	1286	131. 3	557. 2	498. 2	560. 7	− 3. 5	−62. 5
69	69 06. 4	42 26. 0	1381		128. 9	555. 1		560. 9	－ 5. 8	
70	69 06. 9	42 29. 0	1388	1419	124. 1	552. 4	502. 4	561. 4	− 9. 0	−59. 0
71	69 07. 9	42 29. 0	1403	1377	122. 7	555. 7	500. 9	562. 4	− 6. 7	−61. 5
72	69 09. 0	42 30. 0	1409		123. 7	558. 6		563. 5	− 5. 0	
73	69 10. 0	42 30. 0	1419	1411	122. 4	560. 3	506. 2	564. 5	− 4. 2	−58. 3
74	69 11. 0	42 31. 0	1422	1411	122. 8	561. 6	507. 2	565. 5	− 3. 9	−58. 3
75	69 12. 1	42 32. 0	1435	1428	120. 6	563. 5	508. 9	566. 6	− 3. 1	−57. 7
76	69 13. 1	42 32. 0	1444	1377	118. 7	564. 4	504. 9	567. 6	− 3. 3	−62. 7
77	69 14. 2	42 33. 0	1451	1479	115. 8	563. 6	510. 9	568. 7	− 5. 2	−57. 8
78	69 15. 2	42 34. 0	1459	1445	115. 7	565. 9	509. 8	569. 7	− 3. 8	−59. 9
79	69 16. 2	42 34. 0	1468	1436	114. 4	567. 4	509. 7	570. 7	− 3. 3	−61. 0
80	69 17. 3	42 35. 0	1473	1522	114. 7	569. 3	517. 3	571. 8	− 2. 6	−54. 5
81	69 18. 4	42 36. 0	1476	1351	118. 0	573. 5	508. 5	572. 9	0. 5	−64. 4

Station No.	Latitude	Longitude	Elevation (m)	Thickness of ice(m)	g (mgal)	go (mgal)	go" (mgal)	ro (mgal)	Δgo (mgal)	Δgo" (mgal)
S 82	69° 19. 4'S	42° 36. 0'E	1489		982 117. 4	982 576. 9		982 573. 9	3. 0	
83	69 20. 5	42 37. 0	1499	1394	115. 2	577. 8	982 513. 5	575. 0	2. 8	−61. 5
84	69 21. 5	42. 38. 0	1518	1334	105. 8	574. 3	503. 4	576. 0	− 1. 7	−72. 6
85	69 22. 5	42 38. 0	1522		102. 6	572. 3		577. 0	− 4. 8	
86	69 23. 5	42. 39. 0	1526		104. 7	575. 6		578. 0	− 2. 4	
87	69 24. 6	42 40. 0	1534		107. 2	580. 6		579. 1	1. 5	
88	69 25. 6	42 41. 0	1543		108. 3	584. 5		580. 1	4. 4	
89	69 26. 7	42 41. 0	1551		107. 2	585. 9		581. 2	4. 7	
90	69 27. 7	42 42. 0	1560	1436	107. 2	588. 6	520. 7	582. 2	6. 4	−61. 5
91	69 28. 8	42 43. 0	1569		102. 8	587. 0		583. 3	3. 7	
92	69 29. 8	42 43. 0	1568		103. 3	587. 2		584. 3	2. 9	
93	69 30. 9	42 44. 0	1570		111. 8	596. 3		585. 4	10. 9	
94	69 31. 9	42 45. 0	1579	1460	117. 5	604. 8	536. 5	586. 4	18. 5	−49. 9
95	69 32. 8	42 46. 0	1588	1436	121. 1	611. 2	540. 0	587. 2	23. 9	−47. 2
96	69 33. 9	42 47. 0	1594	1385	125. 3	617. 2	541. 6	588. 3	28. 9	−46. 7
97	69 34. 7	42 48. 0	1605	1360	126. 9	622. 2	543. 5	589. 1	33. 1	−45. 6
98	69 36. 0	42 48. 0	1614	1296	125. 0	623. 1	538. 7	590. 4	32. 7	−51. 7
99	69 37. 0	42 49. 0	1618		118. 3	617. 6		591. 4	26. 2	
100	69 38. 1	42 50. 0	1630	1368	110. 8	613. 8	532. 9	592. 5	21. 3	−59. 6
101	69 39. 1	42 50. 0	1631		110. 0	613. 3		593. 4	19. 9	
102	69 40. 1	42 51. 0	1636		110. 5	615. 4		594. 4	20. 9	
103	69 41. 1	42 52. 0	1643		109. 8	616. 8		595. 4	21. 4	
104	69 42. 2	42 52. 0	1651		112. 7	622. 2		596. 5	25. 7	
105	69 43. 2	42 53. 0	1656		115. 6	626. 6		597. 5	29. 1	

Station No.	Latitude	Longitude	Elevation (m)	Thickness of ice(m)	g (mgal)	go (mgal)	go″ (mgal)	ro (mgal)	△go (mgal)	△go″ (mgal)
					982	982	982	982		
S 106	69° 44. 3′S	42° 54. 0′E	1660	1305	121. 7	634. 0	545. 0	598. 6	35. 4	−53. 6
107	69 45. 4	42 55. 0	1673	1325	119. 0	635. 3	546. 3	599. 6	35. 6	−53. 3
108	69 46. 4	42 55. 0	1684	1488	109. 6	629. 3	551. 2	600. 6	28. 7	−49. 4
109	69 47. 5	42 56. 0	1690		110. 0	631. 6		601. 7	29. 9	
110	69 48. 5	42 56. 0	1696	1224	123. 6	647. 0	548. 0	602. 7	44. 3	−54. 7
111	69 49. 5	42 57. 0	1724	1103	126. 3	658. 3	547. 3	603. 7	54. 7	−56. 4
112	69 50. 6	42 58. 0	1736	1284	122. 8	658. 5	559. 5	604. 7	53. 8	−45. 2
113	69 51. 7	42 59. 0	1747	1334	118. 4	657. 5	561. 0	605. 8	51. 7	−44. 8
114	69 52. 7	43. 00. 0	1754	1305	117. 4	658. 7	559. 2	606. 8	51. 9	−47. 6
115	69 53. 8	43 01. 0	1758	1094	123. 2	665. 7	550. 1	607. 8	57. 8	−57. 7
116	69 54. 8	43 02. 0	1763	1151	126. 0	670. 0	558. 1	608. 8	61. 2	−50. 7
117	69 55. 9	43 03. 0	1774		121. 7	669. 2		609. 9	59. 3	
118	69 56. 9	43 03. 0	1816	1265	111. 8	672. 2	562. 9	610. 9	61. 3	−48. 0
119	69 58. 0	43 04. 0	1833		101. 0	666. 7		611. 9	54. 8	
120	69 59. 0	43 04. 0	1845		090. 0	659. 3		612. 9	46. 4	
121	70 00. 1	43 05. 0	1850	1531	089. 9	660. 8	567. 4	614. 0	46. 8	−46. 6
122	70 01. 1	43 06. 0	1853	1568	092. 3	664. 1	573. 1	615. 0	49. 2	−41. 9
123	70 02. 1	43 06. 0	1859	1377	094. 5	668. 2	562. 3	615. 9	52. 3	−53. 6
124	70 03. 2	43 06. 0	1865	1214	099. 1	674. 6	556. 0	617. 0	57. 6	−61. 0
125	70 04. 2	43 07. 0	1876	1248	097. 7	676. 6	559. 4	618. 0	58. 7	−58. 6
126	70 05. 2	43 07. 0	1883	1419	094. 7	675. 8	570. 3	618. 9	56. 8	−48. 6
127	70 06. 3	43 06. 0	1886	1296	093. 6	675. 6	560. 8	620. 0	55. 7	−59. 2
128	70 07. 3	43 06. 0	1887	1419	086. 6	668. 9	563. 1	621. 0	48. 0	−57. 9
129	70 08. 4	43 06. 0	1900		070. 5	656. 9		622. 0	34. 9	

Station No.	Latitude	Longitude	Elevation (m)	Thickness of ice(m)	g (mgal)	go (mgal)	go″ (mgal)	r₀ (mgal)	△go (mgal)	△go″ (mgal)
S 130	70° 09. 5′S	43° 06. 0′E	1900		982 069. 9	982 656. 2		982 623. 1	33. 1	
131	70 10. 4	43 06. 0	1907	1548	071. 8	660. 2	982 561. 7	623. 9	36. 3	−62. 2
132	70 11. 5	43 06. 0	1924	1556	063. 2	656. 9	557. 1	625. 0	31. 9	−67. 9
133	70 12. 5	43 06. 0	1923		058. 2	651. 6		626. 0	25. 7	
134	70 13. 5	43 06. 0	1917		059. 7	651. 3		626. 9	24. 4	
135	70 14. 6	43 06. 0	1909		065. 2	654. 3		628. 0	26. 3	
136	70 15. 6	43 06. 0	1914		065. 7	656. 4		628. 9	27. 5	
137	70 16. 7	43 06. 0	1923		062. 2	655. 7		630. 0	25. 7	
138	70 17. 7	43 06. 0	1924		059. 2	652. 9		631. 0	21. 9	
139	70 18. 7	43 06. 0	1925		056. 5	650. 6		631. 9	18. 7	
140	70 19. 8	43 06. 0	1934		049. 8	646. 7		633. 0	13. 7	
141	70 20. 9	43 06. 0	1944		045. 0	644. 9		634. 0	10. 9	
142	70 21. 9	43 06. 0	1945	1881	044. 0	644. 2	566. 2	635. 0	9. 2	−68. 8
143	70 22. 9	43 06. 0	1946		040. 9	641. 5		635. 9	5. 5	
144	70 24. 0	43 06. 0	1946		070. 1	670. 7		637. 0	33. 7	
145	70 25. 0	43 06. 0	1944		037. 0	636. 9		637. 9	− 1. 0	
146	70 26. 1	43 06. 0	1950		031. 5	633. 3		639. 0	− 5. 7	
147	70 27. 1	43 06. 0	1954		025. 2	628. 2		639. 9	−11. 7	
148	70 28. 1	43 06. 0	1952		029. 1	631. 5		640. 9	− 9. 4	
149	70 29. 2	43 06. 0	1953		037. 9	640. 6		641. 9	− 1. 4	
150	70 30. 0	43 04. 0	1971		036. 7	645. 0		642. 7	2. 3	
151	70 31. 0	43 05. 0	1975		034. 6	644. 1		643. 6	0. 4	
152	70 31. 9	43 06. 0	1978		034. 8	645. 2		644. 5	0. 7	
153	70 32. 9	43 05. 0	1979		035. 9	646. 6		645. 4	1. 2	

Station No.	Latitude	Longitude	Elevation (m)	Thickness of ice(m)	g (mgal)	go (mgal)	go″ (mgal)	ro (mgal)	△go (mgal)	△go″ (mgal)
S 154	70° 34. 0′S	43° 05. 0′E	1986		982 034. 3	982 647. 1		982 646. 5	0. 7	
155	70 35. 0	43 05. 0	1992		034. 0	648. 7		647. 4	1. 3	
156	70 36. 1	43 06. 0	1997		034. 4	650. 7		648. 5	2. 2	
157	70 37. 1	43 06. 0	2002	1855	032. 6	650. 5	982 564. 0	649. 4	1. 0	−85. 4
158	70 38. 2	43 06. 0	2005	1881	026. 4	645. 1	560. 4	650. 5	− 5. 3	−90. 1
159	70 39. 2	43 06. 0	2006		021. 4	640. 4		651. 4	−11. 0	
160	70 40. 2	43 06. 0	2008		017. 1	636. 7		652. 4	−15. 6	
161	70 41. 2	43 06. 0	2012		019. 1	640. 0		653. 3	−13. 3	
162	70 42. 3	43 06. 0	2020		025. 6	649. 0		654. 3	− 5. 3	
163	70 43. 3	43 07. 0	2025		029. 5	654. 4		655. 3	− 0. 8	
164	70 44. 3	43 07. 0	2034		030. 2	657. 9		656. 2	1. 7	
165	70 45. 3	43 07. 0	2035	2146	031. 2	659. 2	590. 7	657. 2	2. 0	−66. 5
166	70 46. 4	43 07. 0	2027	2138	034. 1	659. 6	591. 4	658. 2	1. 5	−66. 8
167	70 47. 4	43 07. 0	2027	2138	036. 1	661. 6	593. 4	659. 1	2. 5	−65. 7
168	70 48. 4	43 07. 0	2026		036. 5	661. 7		660. 1	1. 7	
169	70 49. 4	43 07. 0	2035		034. 0	662. 0		661. 0	1. 0	
170	70 50. 5	43 07. 0	2034	1967	042. 2	669. 8	588. 2	662. 0	7. 8	−73. 8
171	70 51. 1	43 05. 0	2026		049. 2	674. 4		662. 6	11. 8	
172	70 51. 6	43 02. 0	2040	1903	049. 5	678. 9	592. 1	663. 1	15. 9	−71. 0
173	70 52. 2	43 00. 0	2034	1903	054. 8	682. 5	596. 1	663. 6	18. 9	−67. 5
174	70 52. 8	42 57. 0	2018		057. 8	680. 5		664. 2	16. 3	
175	70 53. 8	42 56. 0	2036		055. 2	683. 5		665. 1	18. 4	
176	70 54. 8	42 56. 0	2063		046. 7	683. 4		666. 0	17. 3	
177	70 55. 8	42 56. 0	2064		046. 0	682. 9		667. 0	15. 9	

Station No.	Latitude	Longitude	Elevation (m)	Thickness of ice(m)	g (mgal)	go (mgal)	go″ (mgal)	ro (mgal)	△go (mgal)	△go″ (mgal)
S 178	70° 56. 8′S	42° 56. 0′E	2061		982 052. 1	982 688. 1		982 667. 9	20. 2	
179	70 57. 9	42 56. 0	2062		056. 7	693. 1		668. 9	24. 1	
180	70 58. 9	42 57. 0	2075		058. 1	698. 5		669. 9	28. 6	
181	70 59. 9	42 57. 0	2085		059. 4	702. 8		670. 8	32. 0	
182	71 00. 9	42 57. 0	2100		056. 7	704. 7		671. 7	33. 0	
183	71 01. 9	42 57. 0	2133		044. 5	702. 7		672. 6	30. 1	
184	71 03. 0	42 57. 0	2139		037. 0	697. 1		673. 7	23. 5	
185	71 04. 0	42 57. 0	2114	1903	044. 8	697. 2	982 601. 8	674. 6	22. 5	−72. 8
186	71 05. 0	42 58. 0	2150		037. 1	700. 6		675. 5	25. 1	
187	71 06. 0	42 58. 0	2158		035. 0	700. 9		676. 4	24. 5	
188	71 07. 0	42 58. 0	2159		038. 5	704. 8		677. 4	27. 4	
189	71 08. 1	42 58. 0	2173		037. 8	708. 4		678. 4	30. 0	
190	71 09. 1	42 58. 0	2180	1989	037. 1	709. 9	613. 5	679. 3	30. 6	−65. 8
191	71 10. 1	42 58. 0	2183	2009	036. 1	709. 8	614. 5	680. 2	29. 5	−65. 7
192	71 11. 2	42 58. 0	2195		032. 2	709. 5		681. 3	28. 3	
193	71 12. 2	42 59. 0	2207		029. 3	710. 4		682. 2	28. 2	
194	71 13. 2	42 59. 0	2211		028. 0	710. 3		683. 1	27. 2	
195	71 14. 2	42 59. 0	2208		030. 4	711. 8		684. 0	27. 7	
196	71 15. 3	42 59. 0	2217		029. 9	714. 1		685. 0	29. 1	
197	71 16. 3	43 00. 0	2240		022. 7	714. 0		686. 0	28. 0	
198	71 17. 3	43 00. 0	2251		017. 6	712. 3		686. 9	25. 4	
199	71 18. 3	43 00. 0	2257		013. 6	710. 2		687. 8	22. 4	
200	71 19. 4	43 00. 0	2261		010. 4	708. 2		688. 8	19. 4	
201	71 20. 4	43 00. 0	2260		010. 9	708. 3		689. 7	18. 6	

Station No.	Latitude	Longitude	Elevation (m)	Thickness of ice(m)	g (mgal)	go (mgal)	go″ (mgal)	ro (mgal)	△go (mgal)	△go″ (mgal)
S 202	71 21. 4′S	43 00. 0′E	2261		982 013. 8	982 711. 6		982 690. 6	20. 9	
203	71 22. 4	43 01. 0	2274		012. 1	713. 9		691. 5	22. 3	
204	71 23. 5	43 01. 0	2294		007. 4	715. 4		692. 5	22. 8	
205	71 24. 5	43 01. 0	2303		004. 3	715. 0		693. 4	21. 5	
206	71 25. 5	43 01. 0	2310		000. 9	713. 7		694. 4	19. 4	
207	71 26. 5	43 02. 0	2312		981 998. 8	712. 3		695. 3	17. 0	
208	71 27. 5	43 02. 0	2315		982 001. 0	715. 4		696. 2	19. 2	
209	71 28. 5	43 02. 0	2317		003. 1	718. 1		697. 1	21. 0	
210	71 29. 6	43 03. 0	2332		001. 9	721. 5		698. 1	23. 4	
211	71 30. 6	43 03. 0	2342		000. 4	723. 1		699. 0	24. 1	
212	71 31. 6	43 03. 0	2346		001. 0	725. 0		699. 9	25. 0	
213	71 32. 6	43 03. 0	2356		981 999. 5	726. 5		700. 8	25. 7	
214	71 33. 7	43 03. 0	2369		995. 9	727. 0		701. 8	25. 2	
215	71 34. 7	43 04. 0	2374		994. 6	727. 2		702. 7	24. 5	
216	71 35. 7	43 04. 0	2377		995. 2	728. 8		703. 6	25. 1	
217	71 36. 7	43 04. 0	2388		993. 4	730. 3		704. 5	25. 8	
218	71 37. 7	43 04. 0	2401		991. 2	732. 1		705. 4	26. 7	
219	71 38. 7	43 04. 0	2403		991. 3	732. 9		706. 3	26. 6	
220	71 39. 7	43 04. 0	2410		993. 9	737. 6		707. 2	30. 3	
221	71 40. 8	43 05. 0	2422		992. 4	739. 9		708. 2	31. 6	
222	71 41. 8	43 05. 0	2433		989. 8	740. 7		709. 1	31. 5	
223	71 42. 8	43 05. 0	2443		987. 7	741. 6		710. 0	31. 6	
224	71 43. 8	43 05. 0	2453		986. 1	743. 1		710. 9	32. 2	
225	71 44. 8	43 05. 0	2462		984. 1	743. 8		711. 8	32. 0	

Station No.	Latitude	Longitude	Elevation (m)	Thickness of ice(m)	g (mgal) 981	go (mgal) 982	go″ (mgal)	ro (mgal) 982	△go (mgal)	△go″ (mgal)
S 226	71° 45.8'S	43° 06.0'E	2468		985.2	746.8		712.7	34.1	
227	71 46.8	43 06.0	2473		986.4	749.6		713.6	36.0	
228	71 47.8	43 06.0	2485		985.5	752.4		714.5	37.9	
229	71 48.9	43 06.0	2494		983.6	753.2		715.5	37.7	
230	71 49.9	43 06.0	2506		980.4	753.8		716.4	37.4	
231	71 50.9	43 07.0	2511		979.7	754.6		717.3	37.3	
232	71 51.9	43 03.0	2515		980.8	756.9		718.2	38.7	
233	71 53.0	43 07.0	2522		981.0	759.3		719.2	40.2	
234	71 54.0	43 08.0	2528		982.9	763.0		720.1	43.0	
235	71 55.0	43 08.0	2534		983.8	765.8		721.0	44.9	
236	71 56.0	43 08.0	2550		982.2	769.1		721.8	47.3	
237	71 57.0	43 08.0	2567		977.0	769.2		722.7	46.5	
238	71 58.1	43 08.0	2574		975.0	769.3		723.7	45.6	
239	71 59.1	43 08.0	2580		974.4	770.6		724.6	45.9	
240	72 00.1	43 09.0	2591		971.0	770.5		725.5	45.0	
A 163	72 01.5	43 08.0	2604		972.4	776.0		726.7	49.3	
162	72 00.2	43 07.0	2585		977.4	775.1		725.6	49.5	
161	72 01.5	43 04.0	2599		979.0	781.0		726.7	54.3	
159	72 01.5	43 01.0	2586		985.6	783.7		726.7	56.9	
157	72 01.5	42 55.0	2568		990.0	782.5		726.7	55.7	
155	72 01.4	42 50.0	2573		985.2	779.2		726.6	52.6	
154	72 00.8	42 47.0	2561		982.7	773.0		726.1	46.9	
153	71 59.1	42 48.0	2533	1291	989.3	771.0	583.4 (982)	724.6	46.4	−141.6
150	71 59.5	42 41.0	2549		980.3	766.9		725.0	41.9	

Station No.	Latitude	Longitude	Elevation (m)	Thickness of ice(m)	g (mgal)	go (mgal)	go″ (mgal)	ro (mgal)	△go (mgal)	△go″ (mgal)
A 147	71° 58. 1'S	42° 37. 0'E	2536		981 986. 8	982 769. 4		982 723. 7	45. 7	
146	71 58. 9	42 34. 0	2545		988. 0	773. 4		724. 4	48. 9	
144	71 58. 9	42 29. 0	2536		997. 1	779. 7		724. 4	55. 2	
143	71 57. 8	42 24. 0	2491		982 007. 7	776. 4		723. 4	53. 0	
142	71 59. 3	42 26. 0	2534		981 999. 7	781. 7		724. 8	56. 9	
140	71 59. 9	42 21. 0	2520		982 004. 5	782. 2		725. 3	56. 8	
138	72 00. 5	42 15. 0	2499		009. 0	780. 2		725. 8	54. 4	
136	72 00. 3	42 13. 0	2509		002. 4	776. 7		725. 7	51. 0	
135	71 59. 8	42 11. 0	2508		981 998. 0	772. 0		725. 2	46. 7	
134	72 00. 5	42 08. 0	2510		999. 6	774. 2		725. 8	48. 3	
132	72 00. 8	42 03. 0	2518		996. 4	773. 5		726. 1	47. 3	
130	72 00. 9	41 56. 9	2527		993. 6	773. 4		726. 2	47. 2	
128	72 00. 9	41 50. 0	2533		995. 3	777. 0		726. 2	50. 8	
127	71 59. 9	41 47. 0	2535		982 003. 8	786. 1		725. 3	60. 7	
126	72 01. 1	41 47. 0	2545		981 997. 9	783. 3		726. 4	56. 9	
124	72 01. 4	41 40. 0	2533		982 009. 8	791. 5		726. 6	64. 8	
122	72 01. 6	41 36. 0	2544		005. 8	790. 9		726. 8	64. 0	
120	72 01. 5	41 33. 0	2537		007. 3	790. 2		726. 7	63. 5	
118	72 01. 0	41 26. 0	2528		006. 0	786. 2		726. 3	59. 9	
117	72 00. 0	41 27. 0	2511		011. 6	786. 5		725. 4	61. 1	
116	72 00. 8	41 23. 0	2521		007. 6	785. 6		726. 1	59. 5	
114	72 00. 4	41 21. 0	2511		008. 1	783. 0		725. 8	57. 2	
112	71 59. 9	41 15. 0	2504		003. 6	776. 3		725. 3	51. 0	
110	71 59. 9	41 12. 0	2499		006. 3	777. 5		725. 3	52. 2	

Station No.	Latitude	Longitude	Elevation (m)	Thickness of ice(m)	g (mgal)	go (mgal)	go″ (mgal)	γ_o (mgal)	△go (mgal)	△go″ (mgal)
A 108	71° 59. 7′S	41° 08. 0′E	2492		982 010. 2	982 779. 2		982 725. 1	54. 0	
107	71 58. 7	41 04. 0	2481		011. 8	777. 4		724. 2	53. 1	
106	71 59. 4	41 01. 0	2483		010. 0	776. 2		724. 9	51. 4	
104	71 59. 3	40 54. 0	2482		006. 3	772. 2		724. 8	47. 4	
102	71 59. 3	40 49. 0	2477		007. 9	772. 3		724. 8	47. 5	
100	71 59. 3	40 43. 0	2479		008. 2	773. 2		724. 8	48. 4	
099	71 57. 9	40 39. 0	2463		015. 9	776. 0		723. 5	52. 5	
098	71 59. 2	40 35. 0	2475		012. 4	776. 2		724. 7	51. 4	
096	71 58. 5	40 27. 0	2462		019. 0	778. 9		724. 1	54. 7	
094	71 58. 2	40 20. 0	2457		029. 4	787. 7		723. 8	63. 8	
093	71 56. 4	40 15. 0	2417		036. 6	782. 4		722. 2	60. 2	
092	71 58. 3	40 16. 0	2460		032. 3	791. 5		723. 9	67. 6	
090	71 58. 3	40 08. 0	2446		028. 3	783. 1		723. 9	59. 2	
089	71 56. 6	40 03. 0	2427		026. 5	775. 5		722. 4	53. 1	
087	71 56. 7	39 57. 0	2435		026. 6	778. 1		722. 5	55. 6	
086	71 58. 2	39 54. 0	2450		023. 5	779. 5		723. 8	55. 7	
084	71 58. 0	39 48. 0	2448		025. 0	780. 4		723. 6	56. 8	
082	71 57. 5	39 41. 0	2445		026. 6	781. 2		723. 2	58. 0	
080	71 57. 1	39 37. 0	2440		025. 5	778. 5		722. 8	55. 7	
078	71 56. 9	39 32. 0	2433		024. 6	775. 4		722. 6	52. 7	
076	71 56. 8	39 28. 0	2426		026. 6	775. 3		722. 6	52. 7	
075	71 55. 3	39 24. 0	2412		027. 6	772. 0		721. 2	50. 7	
074	71 56. 4	39 21. 0	2421		027. 3	774. 4		722. 2	52. 2	
072	71 56. 4	39 17. 0	2430		026. 2	776. 1		722. 2	53. 9	

Station No.	Latitude	Longitude	Elevation (m)	Thickness of ice(m)	g (mgal)	go (mgal)	go″ (mgal)	ro (mgal)	△go (mgal)	△go″ (mgal)
A 070	71° 56. 4′S	39° 13. 0′E	2431		982 029. 5	982 779. 7		982 722. 2	57. 5	
068	71 55. 6	39 06. 0	2422		037. 0	784. 4		721. 5	62. 9	
066	71 55. 6	39 01. 0	2423		042. 2	789. 9		721. 5	68. 4	
065	71 54. 3	38 57. 0	2384		056. 0	791. 7		720. 3	71. 3	
064	71 55. 6	38 52. 0	2408		052. 2	795. 3		721. 5	73. 8	
062	71 55. 4	38 47. 0	2406		053. 0	795. 5		721. 3	74. 2	
060	71 54. 9	38 39. 0	2404		044. 8	786. 7		720. 9	65. 9	
058	71 55. 3	38 30. 0	2408		042. 5	785. 6		721. 2	64. 4	
057	71 54. 0	38 30. 0	2399		045. 5	785. 8		720. 1	65. 8	
056	71 55. 5	38 24. 0	2413		039. 5	784. 1		721. 4	62. 7	
054	71 55. 7	38 20. 0	2416		040. 9	786. 4		721. 6	64. 9	
052	71 55. 9	38 12. 0	2425		045. 0	793. 4		721. 8	71. 6	
050	71 55. 5	38 02. 0	2422		043. 9	791. 3		721. 4	69. 9	
049	71 54. 2	37 59. 0	2412	1647	054. 0	798. 3	982 650. 6	720. 2	78. 1	−70. 0
046	71 54. 6	37 49. 0	2408		048. 6	791. 7		720. 6	71. 1	
044	71 54. 7	37 41. 0	2411		044. 0	788. 0		720. 7	67. 3	
042	71 54. 8	37 34. 0	2413		041. 5	786. 2		720. 8	65. 4	
040	71 55. 0	37 24. 3	2425		040. 3	788. 6		721. 0	67. 7	
039	71 53. 6	37 20. 0	2419		044. 1	790. 6		719 7	70. 9	
038	71 54. 6	37 15. 0	2430		039. 6	789. 5		720. 6	68. 9	
036	71 53. 8	37 12. 0	2431		045. 9	796. 1		719. 9	76. 2	
034	71 53. 3	37 10. 0	2422		054. 8	802. 2		719. 4	82. 8	
032	71 53. 1	37 05. 0	2414		052. 4	797. 3		719. 3	78. 1	
031	71 51. 6	37 03. 0	2410	1637	050. 8	794. 5	646. 3	717. 9	76. 6	−71. 2

Station No.	Latitude	Longitude	Elevation (m)	Thickness of ice(m)	g (mgal)	go (mgal)	go″ (mgal)	r₀ (mgal)	△go (mgal)	△go″ (mgal)
A 030	71° 52. 8′S	36° 59. 9′E	2414		982 045. 7	982 790. 7		982 719. 0	71. 7	
028	71 52. 2	36 55. 0	2397		058. 6	798. 4		718. 5	79. 9	
026	71 56. 8	36 50. 0	2395		066. 1	805. 2		718. 1	87. 1	
025	71 50. 5	36 48. 0	2377	1402	063. 2	796. 7	982 634. 7	716. 9	79. 8	−82. 2
021	71 51. 3	36 39. 0	2392		053. 6	791. 8		717. 7	74. 1	
020	71 50. 9	36 36. 0	2388	1479	060. 9	797. 9	640. 4	717. 3	80. 6	−76. 9
019	71 51. 9	36 34. 0	2387		064. 8	801. 4		718. 2	83. 2	
017	71 52. 6	36 27. 0	2376		093. 9	827. 1		718. 8	108. 3	
015	71 51. 7	36 23. 0	2353		096. 8	822. 9		718. 0	104. 9	
014	71 50. 6	36 22. 0	2350		104. 6	829. 8		717. 0	112. 8	
013	71 50. 4	36 18. 0	2336		104. 1	825. 0		716. 8	108. 1	
012	71 50. 4	36 22. 0	2351		107. 4	832. 9		716. 8	116. 1	
010	71 50. 0	36 20. 0	2338	390	121. 3	842. 8	610. 1	716. 5	126. 3	−106. 4
009	71 48. 9	36 20. 0	2296		133. 0	841. 5		715. 5	126. 0	
003	71 48. 0	36 11. 0	2251	436	143. 9	838. 5	619. 0	714. 7	123. 8	−96. 1
B 3	71 47. 0	36. 1°	2217		124. 3	808. 5		713. 8	94. 7	
5	71 46. 0	36. 1	2182		131. 8	805. 2		712. 9	92. 3	
12	71 44. 0	35. 8	1991		219. 6	834. 1		711. 1	123. 0	
13	71 43. 0	35. 7	1933	505	211. 1	807. 6	628. 8	710. 2	97. 4	−81. 4
14	71 42. 0	35. 7	1918		202. 7	794. 6		709. 3	85. 3	
15	71 41. 0	35. 6	1888		200. 0	782. 6		708. 4	74. 2	
16	71 40. 0	35. 6	1877		192. 2	771. 4		707. 5	63. 9	
17	71 39. 0	35. 5	1857		199. 9	772. 9		706. 6	66. 3	
18	71 38. 0	35. 5	1847		204. 5	774. 4		705. 7	68. 7	

Station No.	Latitude	Longitude	Elevation (m)	Thickness of ice(m)	g (mgal)	g_0 (mgal)	g_0'' (mgal)	r_0 (mgal)	$\triangle g_0$ (mgal)	$\triangle g_0''$ (mgal)
					982	982	982	982		
Yamato B-1	71° 37. 0'S	35. 6° E	1952	0	211. 0	823. 4	605. 0	704. 8	118. 6	−99. 8
Yamato B-3	71 36. 0	35. 7	2078	0	197. 7	839. 0	606. 4	703. 9	135. 1	−97. 5
Yamato B-2	71 36. 0	35. 6	2141	0	188. 0	848. 7	609. 1	703. 9	144. 8	−94. 8
B 19	71 37. 0	35. 5	1819		212. 4	773. 8		704. 8	69. 0	
20	71 36. 0	35. 5	1800		221. 6	777. 1		703. 9	73. 2	
21	71 35. 0	35. 5	1793		224. 6	777. 9		703. 0	74. 9	
22	71 34. 0	35. 5	1765		224. 8	769. 5		702. 1	67. 4	
23	71 33. 0	35. 5	1750		226. 3	766. 3		701. 2	65. 1	
24	71 32. 0	35. 5	1740	766	236. 4	773. 4	635. 5	700. 3	73. 1	−64. 8
25	71 31. 0	35. 5	1724		253. 4	785. 5		699. 4	86. 1	
26	71 30. 0	35. 4	1713	587	237. 2	765. 8	617. 8	698. 5	67. 4	−80. 7
27	71 30. 0	35. 4	1705		229. 3	755. 4		698. 5	57. 0	
28	71 29. 0	35. 4	1704	992	218. 3	744. 1	627. 0	697. 6	46. 6	−70. 5
29	71 28. 0	35. 3	1705		207. 4	733. 5		696. 6	36. 9	
30	71 28. 0	35. 3	1718		214. 1	744. 3		696. 6	47. 6	
31	71 27. 0	35. 4	1700		228. 4	753. 0		695. 7	57. 2	
32	71 26. 0	35. 3	1694	1036	221. 0	743. 8	631. 1	694. 8	49. 0	−63. 7
33	71 25. 0	35. 3	1680		224. 8	743. 3		693. 9	49. 3	
34	71 24. 0	35. 4	1663	975	229. 2	742. 4	628. 6	693. 0	49. 4	−64. 4
35	71 24. 0	35. 4	1649		230. 6	739. 4		693. 0	46. 5	
36	71 23. 0	35. 4	1635	965	229. 3	733. 9	622. 5	692. 1	41. 8	−69. 6
37	71 22. 0	35. 4	1632		223. 2	726. 9		691. 2	35. 7	
38	71 21. 0	35. 4	1643		219. 4	726. 4		690. 3	36. 1	
39	71 20. 0	35. 4	1638		221. 6	727. 1		689. 3	37. 7	

Station No.	Latitude	Longitude	Elevation (m)	Thickness of ice(m)	g (mgal)	go (mgal)	go″ (mgal)	ro (mgal)	△go (mgal)	△go″ (mgal)
B 40	71° 19. 0′S	35. 3 °E	1641		982 213. 6	982 720. 0	982	982 688. 4	31. 6	
41	71 20. 0	35. 4	1630	855	226. 5	729. 5	610. 5	689. 3	40. 2	−78. 8
42	71 21. 0	35. 4	1647		219. 9	728. 1		690. 3	37. 9	
43	71 20. 0	35. 5	1671	1248	206. 6	722. 3	627. 9	689. 3	33. 0	−61. 4
44	71 20. 0	35. 5	1671		200. 8	716. 5		689. 3	27. 2	
45	71 20. 0	35. 6	1685		198. 5	718. 5		689. 3	29. 1	
46	71 21. 0	35. 6	1705		196. 6	722. 7		690. 3	32. 5	
47	71 22. 0	35. 7	1743		186. 9	724. 8		691. 2	33. 6	
48	71 23. 0	35. 7	1800		180. 9	736. 4		692. 1	44. 3	
Yamato D−2	71 24. 0	35° 39. 0′	1976	0	211. 7	821. 5	600. 4	693. 0	128. 5	−92. 6
C 1	71 23. 6	35 44. 6	1813		195. 1	754. 6		692. 6	62. 0	
2	71 21. 9	35 48. 1	1832	629	190. 3	755. 6	597. 3	691. 1	64. 5	−93. 8
3	71 21. 4	35 50. 9	1848		178. 7	749. 0		690. 6	58. 4	
4	71 20. 8	35 53. 7	1828		185. 3	749. 4		690. 1	59. 4	
5	71 20. 4	35 56. 5	1808		181. 8	739. 8		689. 7	50. 0	
6	71 19. 7	35 59. 3	1796	1113	163. 6	717. 9	599. 5	689. 1	28. 8	−89. 6
7	71 19. 3	36 02. 1	1794		150. 8	704. 4		688. 7	15. 7	
8	71 18. 9	36 04. 9	1790		143. 1	695. 5		688. 3	7. 2	
9	71 18. 2	36 07. 8	1779		141. 6	690. 6		687. 7	2. 9	
10	71 17. 6	36 10. 5	1768	1171	158. 0	703. 6	592. 6	687. 1	16. 4	−94. 5
11	71 17. 2	36 13. 2	1764		168. 4	712. 8		686. 8	26. 0	
12	71 16. 5	36 16. 0	1757		175. 5	717. 7		686. 1	31. 6	
13	71 16. 1	36 18. 8	1754		183. 3	724. 6		685. 8	38. 8	
14	71 15. 5	36 21. 6	1758	1154	183. 0	725. 5	614. 4	685. 2	40. 3	−70. 8

Station No.	Latitude	Longitude	Elevation (m)	Thickness of ice(m)	g (mgal)	go (mgal)	go″ (mgal)	r₀ (mgal)	△go (mgal)	△go″ (mgal)
C 15	71° 15. 0′S	36° 24. 4′E	1763		982 176. 2	982 720. 2	982	982 684. 8	35. 5	
16	71 14. 4	36 27. 2	1759	1283	175. 0	717. 8	616. 2	684. 2	33. 6	−68. 0
17	71 13. 9	36 30. 0	1759	1240	171. 2	714. 0	609. 1	683. 7	30. 3	−74. 6
18	71 13. 3	36 32. 6	1768	1368	156. 4	702. 0	605. 7	683. 2	18. 8	−77. 5
19	71 12. 6	36 34. 2	1762	1385	153. 0	696. 8	602. 4	682. 6	14. 2	−80. 2
20	71 11. 9	36 36. 6	1764	1710	141. 3	685. 7	615. 2	681. 9	3. 8	−66. 7
21	71 11. 5	36 39. 4	1766		135. 5	680. 5		681. 5	− 1. 0	
22	71 11. 0	36 41. 5	1756	1334	151. 1	693. 0	595. 5	681. 1	11. 9	−85. 6
23	71 10. 6	36 44. 3	1759	1171	153. 8	696. 6	586. 7	680. 7	15. 9	−94. 0
24	71 10. 1	36 46. 9	1771		138. 9	685. 5		680. 2	5. 2	
25	71 09. 7	36 49. 5	1782	855	124. 5	674. 4	538. 5	679. 9	− 5. 4	−141. 4
26	71 09. 2	36 52. 2	1779		121. 3	670. 3		679. 4	− 9. 1	
27	71 08. 8	36 55. 6	1786		120. 3	671. 4		679. 0	− 7. 6	
28	71 08. 2	36 58. 4	1787		123. 7	675. 2		678. 5	− 3. 3	
29	71 08. 2	37 01. 6	1787		130. 6	682. 1		678. 5	3. 6	
30	71 08. 1	37 04. 7	1792		130. 0	683. 0		678. 4	4. 6	
31	71 08. 1	37 07. 9	1798		124. 3	679. 2		678. 4	0. 8	
32	71 08. 0	37 11. 1	1798		132. 3	687. 2		678. 3	8. 9	
33	71 08. 1	37 14. 3	1799		141. 7	696. 9		678. 4	18. 5	
34	71 08. 0	37 17. 5	1797	1539	151. 6	706. 2	619. 3	678. 3	27. 9	−59. 0
35	71 08. 0	37 20. 7	1801		158. 5	714. 3		678. 3	36. 0	
36	71 08. 0	37 23. 9	1803		160. 3	716. 7		678. 3	38. 4	
37	71 07. 9	37 27. 5	1805		158. 6	715. 6		678. 2	37. 4	
38	71 07. 9	37 30. 3	1806	1454	156. 0	713. 3	619. 1	678. 2	35. 1	−59. 1

Station No.	Latitude	Longitude	Elevation (m)	Thickness of ice(m)	g (mgal)	g_0 (mgal)	g_0'' (mgal)	r_0 (mgal)	$\triangle g_0$ (mgal)	$\triangle g_0''$ (mgal)
C 39	71° 07. 8′S	37° 33. 5′E	1808		982 157. 7	982 715. 7		982 678. 1	37. 5	
40	71 07. 8	37 36. 6	1813	1245	160. 1	719. 6	982 609. 1	678. 1	41. 5	−69. 0
41	71 07. 7	37 39. 8	1815	1419	156. 6	716. 7	618. 9	678. 0	38. 7	−59. 1
42	71 07. 7	37 43. 0	1811		155. 1	713. 9		678. 0	35. 9	
43	71 07. 6	37 46. 2	1808		155. 1	713. 0		677. 9	35. 1	
44	71 07. 6	37 49. 4	1807		162. 2	719. 8		677. 9	41. 9	
45	71 07. 5	37 52. 5	1799	1026	165. 0	720. 2	594. 9	677. 8	42. 3	−82. 9
46	71 07. 5	37 55. 7	1793		164. 0	717. 3		677. 8	39. 5	
47	71 07. 3	37 58. 9	1799	1368	154. 7	709. 9	610. 1	677. 7	32. 2	−67. 6
48	71 07. 3	38 02. 1	1793	1654	145. 8	699. 1	621. 2	677. 7	21. 4	−56. 5
49	71 07. 2	38 05. 3	1792	864	139. 9	692. 9	556. 6	677. 6	15. 4	−121. 0
50	71 07. 2	38 08. 4	1796	1394	136. 4	690. 7	593. 2	677. 6	13. 1	−84. 4
51	71 07. 1	38 11. 6	1786	1684	134. 7	685. 9	611. 1	677. 5	8. 4	−66. 4
52	71 07. 1	38 14. 8	1768	1462	137. 2	682. 8	593. 5	677. 5	5. 4	−84. 0
53	71 07. 0	38 18. 0	1757		133. 8	676. 0		677. 4	− 1. 3	
54	71 07. 0	38 21. 2	1763	1642	129. 1	673. 1	597. 7	677. 4	− 4. 3	−79. 7
55	71 06. 9	38 24. 3	1757		128. 4	670. 6		677. 3	− 6. 7	
56	71 06. 9	38 27. 5	1745		128. 2	666. 7		677. 3	−10. 6	
57	71 06. 8	38 30. 7	1730		124. 0	657. 9		677. 2	−19. 3	
58	71 06. 8	38 33. 9	1725		112. 8	645. 1		677. 2	−32. 1	
59	71 06. 7	38 37. 2	1721		103. 0	634. 1		677. 1	−43. 0	
60	71 06. 7	38 40. 3	1729		100. 8	634. 4		677. 1	−42. 7	
61	71 06. 6	38 43. 5	1744		103. 7	641. 9		677. 0	−35. 1	
62	71 06. 6	38 46. 7	1749		108. 3	648. 1		677. 0	−28. 9	

Station No.	Latitude	Longitude	Elevation (m)	Thickness of ice(m)	g (mgal)	g_0 (mgal)	g_0'' (mgal)	r_0 (mgal)	$\triangle g_0$ (mgal)	$\triangle g_0''$ (mgal)
					982	982		982		
C 63	71° 06. 5′S	38° 49. 8′E	1748		114. 2	653. 6		676. 9	−23. 3	
64	71 06. 5	38 53. 0	1741		121. 2	658. 5		676. 9	−18. 4	
65	71 06. 4	38 56. 2	1737		128. 2	664. 3	982	676. 8	−12. 5	
66	71 06. 4	38 59. 4	1741	1659	136. 1	673. 3	601. 6	676. 8	− 3. 5	−75. 2
67	71 06. 3	39 02. 6	1740	1488	146. 9	683. 9	599. 5	676. 7	7. 2	−77. 2
68	71 06. 3	39 05. 7	1719		157. 8	688. 3		676. 7	11. 6	
69	71 06. 2	39 08. 9	1743	1448	150. 3	688. 2	600. 5	676. 6	11. 5	−76. 1
70	71 06. 2	39 12. 1	1747		149. 2	688. 3		676. 6	11. 7	
71	71 06. 1	39 ′15. 3	1713		160. 3	688. 9		676. 5	12. 4	
72	71 06. 1	39 18. 5	1733		157. 5	692. 3		676. 5	15. 7	
73	71 06. 0	39 21. 6	1734		160. 0	695. 1		676. 4	18. 6	
74	71 06. 0	39 24. 3	1733	1262	163. 6	698. 4	598.0	676. 4	21. 9	−78. 4
75	71 05. 9	39 28. 0	1749		159. 0	698. 7		676. 4	22. 4	
76	71 05. 9	39 31. 2	1753		155. 2	696. 2		676. 4	19. 8	
77	71 05. 8	39 34. 4	1751	1462	154. 5	694. 9	607. 5	676. 3	18. 6	−68. 8
78	71 05. 8	39 37. 5	1757		154. 7	696. 9		676. 3	20. 6	
79	71 05. 8	39 40. 7	1772	1383	149. 4	696. 2	600. 6	676. 3	19. 9	−75. 7
80	71 05. 4	39 43. 9	1767		145. 5	690. 8		675. 9	14. 9	
81	71 05. 7	39 47. 4	1767	1595	138. 3	683. 6	604. 2	676. 2	7. 4	−72. 0
82	71 05. 7	39 50. 8	1775	1924	130. 0	677. 7	621. 9	676. 2	1. 6	−54. 3
83	71 05. 8	39 54. 1	1780	1924	128. 9	678. 2	621. 9	676. 3	2. 0	−54. 4
84	71 05. 8	39 57. 5	1793	1666	126. 5	679. 8	602. 8	676. 3	3. 6	−73. 5
85	71 05. 8	40 01. 0	1794	1693	123. 0	676. 6	601. 5	676. 3	0. 3	−74. 8
86	71 05. 8	40 03. 5	1799		117. 1	672. 3		676. 3	− 4. 0	

Station No.	Latitude	Longitude	Elevation (m)	Thickness of ice(m)	g (mgal)	g_0 (mgal)	g_0'' (mgal)	r_0 (mgal)	$\triangle g_0$ (mgal)	$\triangle g_0''$ (mgal)
C 87	71° 05 8′S	40° 06. 8E	1817	1751	982 108. 9	982 669. 6	982 596. 2	982 676. 3	− 6. 7	−80. 1
88	71 05. 8	40 10. 2	1817		102. 7	663. 4		676. 3	−12. 9	
89	71 05. 8	40 13. 6	1806		100. 2	657. 6		676. 3	−18. 7	
90	71 05. 8	40 17. 1	1802		104. 8	660. 8		676. 3	−15. 4	
91	71 05. 8	40 20. 5	1805		111. 1	668. 1		676. 3	− 8. 2	
92	71 05. 8	40 23. 9	1801		114. 8	670. 6		676. 3	− 5. 7	
93	71 05. 9	40 27. 3	1787	1654	121. 5	673. 0	595. 8	676. 4	− 3. 4	−80. 6
94	71 05. 9	40 31. 8	1794		120. 5	674. 1		676. 4	− 2. 2	
95	71 05. 9	40 35. 3	1796		118. 9	673. 2		676. 4	− 3. 2	
96	71 05. 9	40 38. 7	1790	1683	127. 3	679. 7	604. 3	676. 4	3. 3	−72. 1
97	71 05. 9	40 42. 0	1809	1539	126. 6	684. 8	596. 7	676. 4	8. 5	−79. 7
98	71 06. 0	40 45. 5	1824	1654	115. 3	678. 2	596. 8	676. 4	1. 8	−79. 7
99	71 06. 0	40 48. 9	1838		099. 2	666. 4		676. 4	−10. 1	
100	71 06. 0	40 52. 4	1823	1967	101. 7	664. 3	606. 2	676. 4	−12. 2	−70. 2
101	71 06. 0	40 55. 7	1827	1903	101. 3	665. 1	601. 8	676. 4	−11. 3	−74. 6
102	71 06. 0	40 59. 1	1827	2095	097. 6	661. 4	612. 4	676. 4	−15. 0	−64. 1
103	71 06. 1	41 02. 5	1838		095. 4	662. 6		676. 5	−13. 9	
104	71 06. 1	41 06. 0	1837	1989	098. 0	664. 9	606. 9	676. 5	−11. 6	−69. 6
105	71 06. 1	41 09. 5	1836	1903	100. 5	667. 1	602. 8	676. 5	− 9. 5	−73. 7
106	71 06. 1	41 12. 8	1853	1967	095. 4	667. 2	605. 8	676. 5	− 9. 4	−70. 7
107	71 06. 2	41 16. 2	1856		095. 3	668. 1		676. 6	− 8. 6	
108	71 06. 3	41 19. 6	1860	1753	098. 4	672. 4	594. 4	676. 7	− 4. 3	−82. 3
109	71 06. 3	41 23. 1	1875	1830	095. 9	674. 5	600. 5	676. 7	− 2. 2	−76. 2
110	71 06. 3	41 26. 6	1889	1825	092. 2	675. 2	599. 2	676. 7	− 1. 5	−77. 5

Station No.	Latitude	Longitude	Elevation (m)	Thickness of ice(m)	g (mgal)	go (mgal)	go″ (mgal)	ro (mgal)	△go (mgal)	△go″ (mgal)
					982	982	982	982		
C 111	71° 06. 3′S	41° 29. 9′E	1890	1903	090. 1	673. 3	603. 0	676. 7	− 3. 4	−73. 7
112	71 06. 3	41 33. 3	1889	2009	088. 3	671. 3	609. 0	676. 7	− 5. 5	−67. 7
113	71 06. 4	41 36. 7	1917		077. 6	669. 2		676. 8	− 7. 6	
114	71 06. 4	41 40. 2	1934		067. 7	664. 5		676. 8	−12. 3	
115	71 06. 4	41 43. 6	1930		064. 5	660. 1		676. 8	−16. 7	
116	71 06. 5	41 47. 0	1919		066. 7	658. 9		676. 9	−18. 0	
117	71 06. 5	41 50. 4	1904	1796	076. 5	664. 0	584. 3	676. 9	−12. 9	−92. 6
118	71 06. 6	41 53. 8	1937	1818	073. 6	671. 4	589. 5	677. 0	− 5. 6	−87. 5
119	71 06. 6	41 57. 3	1969	1881	063. 4	671. 1	590. 3	677. 0	− 5. 9	−86. 7
120	71 06. 6	42 00. 7	1984		053. 3	665. 5		677. 0	−11. 5	
121	71 05. 6	42 03. 1	1991	2074	050. 1	664. 5	595. 6	676. 1	−11. 6	−80. 5
122	71 05. 3	42 05. 4	1991	2160	043. 4	657. 8	595. 3	675. 8	−18. 0	−80. 5
123	71 04. 8	42 07. 7	1993		035. 5	650. 5		675. 3	−24. 8	
124	71 04. 2	42 10. 1	1982		035. 7	647. 4		674. 8	−27. 4	
125	71 03. 6	42 12. 3	1968		044. 8	652. 1		674. 2	−22. 1	
126	71 02. 9	42 14. 6	1958		051. 0	655. 2		673. 6	−18. 4	
127	71 02. 3	42 17. 0	1963		047. 5	653. 3		673. 0	−19. 8	
128	71 01. 7	42 19. 3	1965		043. 2	649. 6		672. 5	−22. 9	
129	71 01. 1	42 21. 5	1966		041. 9	648. 6		671. 9	−23. 3	
130	71 00. 5	42 23. 8	1978	2331	040. 4	650. 8	602. 4	671. 4	−20. 5	−68. 9
131	70 59. 8	42 26. 2	1985	2351	038. 3	650. 9	603. 2	670. 7	−19. 8	−67. 5
132	70 59. 2	42 28. 4	1994	2138	035. 2	650. 6	586. 0	670. 1	−19. 6	−84. 1
133	70 58. 7	42 30. 8	2004		033. 9	652. 3		669. 7	−17. 3	
134	70 58. 1	42 33. 1	2003		038. 7	656. 8		669. 1	−12. 3	

Station No.	Latitude	Longitude	Elevation (m)	Thickness of ice(m)	g (mgal)	go (mgal)	go″ (mgal)	ro (mgal)	△go (mgal)	△go″ (mgal)
C 135	70° 57. 4′S	42° 35. 4′E	1998		982 043. 7	982 660. 3		982 668. 5	− 8. 2	
136	70 56. 8	42 37. 7	1993		044. 6	659. 6		667. 9	− 8. 3	
137	70 56. 2	42 40. 0	1988		045. 4	658. 9		667. 4	− 8. 5	
138	70 55. 6	42 42. 4	1994		045. 1	660. 5		666. 8	− 6. 3	
139	70 55. 0	42 44. 6	2000		045. 1	662. 3		666. 2	− 3. 9	
140	70 54. 4	42 46. 9	2002		045. 3	663. 1		665. 7	− 2. 5	
141	70 53. 8	42 49. 3	2006		046. 0	665. 2		665. 1	0. 1	
142	70 53. 1	42 51. 5	2012		046. 5	667. 4		664. 5	3. 0	
143	70 52. 6	42 53. 8	2016		046. 3	668. 4		664. 0	4. 4	
144	70 52. 0	42 56. 2	2025		044. 0	668. 9		663. 4	5. 5	
145	70 51. 3	42 58. 5	2031		043. 3	670. 0		662. 8	7. 3	
146	70 50. 7	43 00. 8	2029		044. 3	670. 5		662. 2	8. 3	
147	70 50. 1	43 03. 1	2040		039. 9	669. 5		661. 6	7. 8	
148	70 49. 8	43 05. 6	2054		033. 4	667. 2		661. 4	5. 9	
149	70 49. 8	43 08. 3	2044		033. 8	664. 6		661. 4	3. 2	

Table IX-2: Gravity values, and free air and Bouguer anomalies in West Enderby Land, 1970 - 1971.
Location, elevation and ice thickness were referred to Shimizu et al. (1972).

g: observed value, g_o: gravity value reduced to sea level by free air reduction, g_o'': gravity value by Bouguer reduction (assuming the density of ice and bed rock as $0.9g/cm^3$ and $2.67g/cm^3$ respectively), γ_o: standard gravity value, Δg_o: free air anomaly, and $\Delta g_o''$: Bouguer anomaly.

Station No.	Latitude	Longitude	Elevation	Thickness of ice	g(mgal)	g_o(mgal)	g_o''(mgal)	γ_o(mgal)	Δg_o (mgal)	$\Delta g_o''$ (mgal)
Syowa	69°00.3'S	39°35'E	14.0^m	m	982 539.4	982 543.7	982 542.2	982 554.8	−11.0	−12.6
Syowa	69 00.3	39 35	16		539.0	543.9	542.1	554.8	−10.9	−12.6
S 16	69 02.0	40 03	553	470	406.0	576.7	549.7	556.5	20.2	−6.8
17	69 01.9	40 04	583	501	397.8	577.7	549.7	556.4	21.3	−6.7
22	69 01.7	40 18	743	817	338.8	568.1	545.6	556.2	11.9	−10.6
27	69 02.5	40 32	893		294.9	570.5		557.0	13.5	
32	69 03.6	40 46	994	1134	259.8	566.6	539.4	558.1	8.5	−18.7
37	69 04.8	40 59	1074		239.7	571.2		559.3	11.8	
42	69 04.6	41 13	1138	1134	218.2	569.4	526.2	559.1	10.3	−32.9
47	69 04.3	41 26	1184	1235	200.2	565.5	524.7	558.8	6.7	−34.1
52	69 04.1	41 40	1227	1219	190.2	568.8	521.9	558.6	10.2	−36.7
57	69 03.8	41 54	1276		177.9	571.7		558.3	13.4	
62	69 05.2	42 07	1341	1440	141.0	554.8	511.5	559.7	−4.9	−48.2
67	69 06.0	42 21	1363		137.7	558.3		560.5	−2.2	
70	69 06.9	42 29	1388	1419	123.9	552.2	502.2	561.4	−9.2	−59.2
72	69 09.0	42 30	1409		123.7	558.5		563.5	−5.0	
77	69 14.2	42 33	1451	1479	115.9	563.7	511.0	568.7	−5.1	−57.7
82	69 19.4	42 36	1489		117.5	577.0		573.9	3.1	
87	69 24.6	42 40	1534		107.4	580.8		579.1	1.7	
90	69 27.7	42 42	1560	1436	107.2	588.6	520.7	582.2	6.4	−61.5
92	69 29.8	42 43	1568		103.2	587.1		584.3	2.8	
97	69 34.9	42 48	1605	1360	126.9	622.2	543.5	589.3	32.9	−45.8
102	69 40.1	42 51	1636		110.5	615.4		594.4	21.0	
107	69 45.4	42 55	1673	1325	118.9	635.2	546.2	599.6	35.5	−53.4
112	69 50.6	42 58	1736	1284	122.7	658.5	559.5	604.7	53.7	−45.2
122	70 01.1	43 06	1853	1568	092.4	664.3	573.3	615.0	49.3	−41.7
Z 2	70 02.0	43 08	1866		090.7	666.5		615.8	50.7	
4	70 03.0	43 10	1886		084.7	666.7		616.8	49.9	
6	70 03.9	43 11	1903		075.4	662.7		617.7	45.0	
8	70 04.8	43 13	1909		070.2	659.3		618.5	40.8	
10	70 05.8	43 14	1911		067.8	657.5		619.5	38.0	
12	70 06.7	43 16	1921		060.2	653.0		620.4	32.7	
14	70 07.6	43 18	1919		065.8	658.0		621.2	36.7	

Station No.	Latitude	Longitude	Elevation	Thickness of ice	g (mgal)	g₀(mgal)	g₀″(mgal)	γ₀ (mgal)	Δg₀ (mgal)	Δg₀″ (mgal)
Z 16	70°08.6′ S	43°19′E	1927 ᵐ	ᵐ	982 071.8	982 666.5		982 622.2	44.3	
35	70 17.7	43 34	2012		045.0	665.9		631.0	35.0	
37	70 18.6	43 35	2014		043.6	665.2		631.8	33.3	
39	70 19.6	43 36	2021		034.2	657.9		632.8	25.1	
41	70 20.5	43 38	2018		030.3	653.0		633.6	19.4	
43	70 21.4	43 40	2017		028.3	650.8		634.5	16.3	
47	70 22.4	43 41	2025		023.8	648.7		635.4	13.3	
51	70 23.4	43 43	2020		028.0	651.4		636.4	15.0	
55	70 24.3	43 44	2026		028.2	653.4		637.3	16.2	
59	70 25.2	43 46	2035		023.1	651.1		638.1	12.9	
63	70 26.2	43 48	2044		015.3	646.0		639.1	7.0	
67	70 27.1	43 49	2056		005.8	640.3		639.9	0.4	
70	70 27.8	43 50	2059		000.1	635.5		640.6	− 5.1	
72	70 28.7	43 52	2064		981 992.2	629.2		641.5	−12.3	
74	70 29.7	43 53	2078		982.6	623.9		642.4	−18.5	
76	70 30.5	43·55	2074		980.4	620.4		643.2	−22.7	
78	70 31.3	43 57	2078		982.6	623.8		643.9	−20.1	
80	70 32.2	43 58	2091		982.2	627.5		644.8	−17.3	
82	70 33.0	44 00	2096		985.9	632.7		645.5	−12.9	
84	70 33.8	44 02	2094		993.1	639.4		646.3	− 6.9	
86	70 34.6	44 04	2096		982 000.5	647.3		647.0	0.3	
88	70 35.4	44 05	2103		005.3	654.3		647.8	6.5	
90	70 36.3	44 06	2111		006.7	658.1		648.7	9.5	
92	70 37.2	44 08	2119		005.5	659.4		649.5	9.9	
94	70 38.0	44 10	2125		004.9	660.7		650.3	10.4	
96	70 38.8	44 11	2131		004.8	662.4		651.0	11.4	
98	70 39.6	44 13	2138		001.3	661.1		651.8	9.3	
100	70 40.5	44 14	2138	2074	002.7	662.5	982 577.1	652.6	9.9	−75.5
102	70 41.3	44 15	2149		001.1	664.2		653.4	10.9	
104	70 42.1	44 17	2165		981 997.8	665.9		654.1	11.8	
Mizuho Camp	70 42.1	44 18	2169	2095	996.7	666.0	578.7	654.1	11.9	−75.4
Y 5	70 43.8	44 24	2202	2117	989.4	669.0	579.6	655.7	13.2	−76.1
10	70 45.6	44 30	2227		983.9	671.2		657.4	13.7	

Station No.	Latitude	Longitude	Elevation m	Thickness of ice m	g (mgal)	g_0 (mgal)	g_0^* (mgal)	γ_0 (mgal)	Δg_0 (mgal)	Δg_0^* (mgal)
Y 15	70° 4 7.4′ S	44 °37′ E	2249		981 9 76.0	982 6 70.0		982 6 59.1	1 0.9	
20	70 4 9.2	44 44	2272		9 65.8	6 67.0		6 60.8	6.1	
25	70 5 1.0	44 51	2286		9 69.1	6 74.6		6 62.5	1 2.1	
30	70 5 2.7	44 57	2314		9 63.3	6 77.4		6 64.1	1 3.3	
35	70 5 4.2	45 05	2342		9 56.5	6 79.3		6 65.5	1 3.8	
40	70 5 6.0	45 11	2359		9 51.2	6 79.2		6 67.2	1 2.0	
50	70 5 9.3	45 25	2395		9 45.7	6 84.8		6 70.2	1 4.5	
55	71. 0 1.0	45 31	2416		9 43.3	6 88.9		6 71.8	1 7.1	
60	71 0 2.6	45 38	2438		9 33.6	6 86.0		6 73.3	1 2.6	
65	71 0 4.5	45 45	2444		9 34.8	6 89.0		6 75.1	1 4.0	
70	71 0 6.0	45 51	2463		9 31.9	6 92.0		6 76.4	1 5.5	
75	71 0 7.7	45 58	2478		9 24.6	6 89.3		6 78.0	1 1.3	
80	71 0 9.4	46 05	2490		9 21.5	6 89.9		6 79.6	1 0.3	
85	71 1 1.1	46 12	2511		9 14.7	6 89.6		6 81.2	8.4	
90	71 1 2.6	46 19	2523		9 08.7	6 87.3		6 82.6	4.7	
95	71 1 4.3	46 25	2535		9 05.4	6 87.7		6 84.1	3.6	
100	71 1 5.9	46 32	2545		9 03.1	6 88.5		6 85.6	2.9	
105	71 1 7.5	46 40	2562		8 99.0	6 89.6		6 87.0	2.6	
110	71 1 9.1	46 46	2579		8 90.8	6 86.7		6 88.5	−1.8	
120	71 2 1.8	47 01	2603		8 86.1	6 89.4		6 91.0	−1.6	
125	71 2 3.4	47 08	2609		8 86.0	6 91.1		6 92.4	−1.4	
130	71 2 5.1	47 15	26 22		8 88.1	6 97.3		6 94.0	3.3	
135	71 2 6.8	47 22	2644		8 79.2	6 95.2		6 95.6	−0.4	
140	71 2 8.4	47 29	2655		8 76.2	6 95.5		6 97.0	−1.5	
145	71 3 0.0	47 36	2675		8 69.9	6 95.4		6 98.5	−3.1	
150	71 3 1.5	47 43	2693		8 64.2	6 95.3		6 99.8	−4.5	
155	71 3 3.1	47 50	2702		8 58.0	6 91.9		7 01.3	−9.4	
160	71 3 4.7	47 57	2707		8 59.1	6 94.4		7 02.7	−8.3	
165	71 3 6.2	48 04	2719		8 58.7	6 97.8		7 04.1	−6.3	
170	71 3 7.4	48 12	27 20		8 70.8	7 10.2		7 05.2	5.0	
175	71 3 9.0	48 19	2769		8 49.4	7 03.9		7 06.6	−2.7	
180	71 4 0.5	48 26	2777		8 38.9	6 95.9		7 08.0	−1 2.1	
185	71 4 1.9	48 34	2778		8 44.3	7 01.6		7 09.2	−7.6	

Station No.	Latitude	Longitude	Elevation	Thickness of ice	g (mgal)	g_o (mgal)	g_o'' (mgal)	γ_o (mgal)	Δg_o (mgal)	$\Delta g''$ (mgal)
Y 190	71° 43.4′ S	48° 41′ E	2809 m	m	981 834.1	982 701.0		982 710.6	− 9.6	
195	71 44.9	48 48	2815		830.0	698.8		711.9	−13.2	
200	71 46.2	48° 56	2819		836.4	706.3		713.1	− 6.8	
205	71 43.6	48 59	2813		831.7	699.8		710.8	−11.0	
210	71 41.1	49° 02	2807		839.7	706.0		708.5	− 2.5	
215	71 38.6	49 04	2794		834.9	697.1		706.2	− 9.1	
220	71 36.0	49 07	2792		834.1	695.7		703.9	− 8.2	
225	71 33.3	49 09	2785		830.5	689.9		701.5	−11.5	
230	71 30.7	49 11	2774		833.7	689.7		699.1	− 9.4	
235	71 28.2	49 14	2764		832.5	685.5		696.8	−11.3	
240	71 25.5	49 17	2759		833.5	684.9		694.4	− 9.4	
250	71 20.4	49 23	2733		853.7	697.1		689.7	7.4	
255	71 17.8	49 26	2720		860.3	699.7		687.3	12.4	
260	71 15.1	49 28	2699		874.0	706.9		684.8	22.0	
265	71 12.5	49 31	2679		877.0	703.8		682.4	21.3	
270	71 10.0	49 34	2676		862.2	688.0		680.2	7.8	
275	71 07.8	49 39	2672		859.2	683.8		678.1	5.7	
280	71 05.2	49 42	2666		873.4	696.1		675.7	20.4	
285	71 02.6	49 45	2648		899.5	716.7		673.3	43.4	
290	71 00.0	49 48	2635		897.5	710.6		670.9	39.7	
295	70 57.5	49 50	2643	1924	894.8	710.4	982 557.5	668.6	41.8	−111.1
300	70 54.9	49 53	2629		895.0	706.3		666.1	40.2	
305	70 52.4	49 56	2616		899.7	707.0		663.8	43.2	
310	70 49.8	49 59	2620	1710	904.3	712.8	546.6	661.4	51.4	−114.8
315	70 47.3	50 02	2601	1813	916.4	719.1	562.5	659.0	60.1	− 96.5
320	70 44.6	50 05	2604	2095	889.0	692.6	556.6	656.5	36.1	− 99.9
325	70 42.0	50 08	2591	1496	879.2	678.8	499.8	654.0	24.7	−154.2
330	70 39.5	50 11	2585		876.1	673.8		651.7	22.2	
335	70 36.9	50 13	2577		875.2	670.5		649.2	21.3	
340	70 34.2	50 16	2568		876.0	668.5		646.7	21.8	
345	70 31.6	50 19	2555		876.3	664.8		644.2	20.6	
350	70 29.1	50 22	2541		878.7	662.8		641.8	21.0	
355	70 26.6	50 25	2532		874.9	656.3		639.5	16.8	

Station No.	Latitude	Longitude	Elevation	Thickness of ice	g (mgal)	g₀(mgal)	g₀*(mgal)	γ₀ (mgal)	Δg₀ (mgal)	Δg₀* (mgal)
Y360	70°24.0′S	50°28′E	2527 m		981 870.9	982 650.7		982 637.0	13.8	
365	70 21.4	50 30	2514		871.7	647.5		634.5	13.0	
370	70 18.8	50 33	2503	2266	874.5	647.0	982 535.0	632.0	15.0	−97.0
375	70 16.0	50 34	2491		877.2	645.9		629.3	16.6	
380	70 13.4	50 36	2475		890.5	654.3		626.8	27.4	
385	70 10.8	50 39	2460		906.3	665.4		624.3	41.1	
390	70 08.2	50 41	2433		921.9	672.8		621.8	50.9	
400	70 02.9	50 44	2399		918.4	658.7		616.7	42.0	
405	70 00.3	50 46	2388	2180	916.0	652.9	547.5	614.2	38.8	−66.7
410	69 57.7	50 48	2366		910.2	640.3		611.6	28.7	
420	69 52.4	50 52	2344		904.4	627.8		606.5	21.3	
425	69 49.8	50 55	2335		897.6	618.2		604.0	14.3	
430	69 47.1	50 57	2322		898.3	614.9		601.3	13.6	
435	69 44.5	50 59	2317		900.0	615.0		598.8	16.2	
440	69 41.9	51 01	2306	2138	907.3	619.0	519.5	596.2	22.7	−76.7
445	69 39.3	51 03	2293		906.8	614.4		593.6	20.7	
450	69 36.7	51 05	2271		904.2	605.0		591.1	14.0	
455	69 34.1	51 07	2236		898.3	588.4		588.5	−0.2	
460	69 31.4	51 09	2219		896.4	581.1		585.9	−4.7	
465	69 28.8	51 11	2208		900.0	581.4		583.3	−1.9	
470	69 26.1	51 14	2204		902.0	582.1		580.6	1.5	
475	69 23.5	51 16	2181	2032	907.2	580.2	487.0	578.0	2.2	−91.0
480	69 20.9	51 18	2191		922.0	598.1		575.4	22.7	
485	69 18.3	51 20	2168		936.4	605.5		572.8	32.6	
490	69 15.9	51 22	2118		944.0	597.6		570.4	27.2	
495	69 13.3	51 24	2119		949.4	603.3		567.8	35.5	
500	69 10.6	51 26	2126		960.0	616.1		565.1	51.0	
510	69 05.3	51 30	2108	992	982 007.4	657.9	495.6	559.8	98.1	−64.2
515	69 02.7	51 32	2091		981 986.0	631.2		557.2	74.1	
520	69 00.3	51 35	2092		965.8	611.4		554.8	56.7	
525	68 59.2	51 41	2107		933.9	584.1		553.6	30.5	
530	68 58.2	51 48	2118		931.9	585.5		552.6	32.9	
535	68 55.5	51 49	2106	1043	911.0	560.9	402.6	549.9	11.0	−147.3

Station No.	Latitude	Longitude	Elevation	Thickness of ice	g (mgal)	g_0 (mgal)	g_0'' (mgal)	γ (mgal)	Δg_0 (mgal)	$\Delta g_0''$ (mgal)
Y540	68°52.9'S	51°51'E	2097 m	m	981 904.2	982 551.4		982 547.3	4.1	
545	68 50.3	51 53	2099		911.9	559.6		544.6	15.0	
550	68 47.6	51 54	2095		920.0	566.6		541.9	24.7	
560	68 42.4	52 00	2074		924.5	564.5		536.6	28.0	
570	68 37.9	52 05	2057		982 004.8	639.6		532.0	107.6	
573	68 37.0	52 06	2052		018.2	651.5		531.1	120.4	
W 1	68 38.4	52 02	2061		981 977.9	613.8		532.5	81.3	
2	68 39.7	51 56	2068		938.4	576.6		533.8	42.8	
4	68 42.1	51 47	2067		928.8	566.6		536.3	30.4	
5	68 42.9	51 43	2064		936.5	573.4		537.1	36.3	
6	68 43.6	51 41	2063		941.7	578.3		537.8	40.5	
7	68 45.1	51 36	2051	1693	948.1	581.1	982 477.1	539.3	41.7	−62.2
8	68 45.6	51 34	2045		949.5	580.6		539.8	40.7	
9	68 47.1	51 28	2032		950.4	577.5		541.4	36.1	
10	68 47.7	51 25	2019		958.2	581.2		542.0	39.3	
11	68 48.6	51 23	2011		964.0	584.6		542.9	41.7	
13	68 51.2	51 13	1962	1539	962.1	567.6	462.3	545.6	22.0	−83.3
14	68 52.1	51 11	1959		961.8	566.3		546.5	19.8	
16	68 54.8	51 00	1932		967.2	563.4		549.2	14.2	
17	68 55.7	50 59	1939		966.6	565.0		550.1	14.9	
18	68 56.8	50 57	1936		973.5	570.9		551.2	19.7	
19	68 58.7	50 51	1943	1419	982.1	581.7	469.6	553.2	28.5	−83.6
20	68 59.6	50 43	1907	1146	997.9	586.4	458.1	554.1	32.4	−96.0
21	69 00.2	50 42	1906	1317	994.9	583.0	467.5	554.7	28.4	−87.2
22	69 01.5	50 39	1909	1334	989.3	578.4	463.8	556.0	22.5	−92.2
23	69 02.8	50 33	1890	1488	986.4	569.7	468.6	557.3	12.4	−88.7
24	69 03.6	50 31	1885		979.9	561.6		558.1	3.6	
25	69 05.4	50 25	1883		961.2	542.3		559.9	−17.6	
26	69 05.9	50 22	1881		965.9	546.4		560.4	−14.1	
27	69 07.1	50 19	1877	1967	963.6	542.8	478.7	561.6	−18.8	−82.9
28	69 07.9	50 18	1871		960.9	538.2		562.3	−24.1	
29	69 09.4	50 14	1856	2095	964.3	537.1	484.7	563.9	−26.9	−79.2
30	69 11.1	50 09	1847	1539	989.1	559.1	466.6	565.6	− 6.5	−99.0

Station No.	Latitude	Longitude	Elevation	Thickness of ice	g(mgal)	g_o (mgal)	g_o^H (mgal)	γ_o (mgal)	Δg_o (mgal)	Δg_o^H (mgal)
W 31	69°12.7'S	50°05'E	1858 m	m	981 990.2	982 563.5		982 567.2	− 3.7	
32	69 14.3	4? ?9	1859		978.5	552.2		568.8	−16.7	
33	69 16.5	49 53	1851	2018	977.2	548.4	982 491.0	571.0	−22.6	−80.0
34	69 18.1	49 46	1864		954.0	529.2		572.6	−43.4	
35	69 19.0	49 43	1873	2138	953.4	531.4	480.4	573.5	−42.1	−93.1
36	69 19.7	49 41	1872	2223	954.0	531.7	487.1	574.2	−42.5	−87.1
37	69 20.9	49 37	1868	2009	957.9	534.3	474.4	575.4	−41.1	−101.0
38	69 21.4	49 36	1864		957.6	532.8		575.9	−43.1	
39	69 22.8	49 30	1835		958.5	524.8		577.3	−52.5	
40	69 23.3	49 28	1840	2245	961.1	528.9	489.6	577.8	−48.9	−88.2
41	69 25.5	49 21	1833	1753	976.1	541.7	466.7	580.0	−38.3	−113.3
42	69 28.3	49 17	1887	1753	962.4	544.8	463.7	582.8	−38.0	−119.1
43	69 28.9	49 13	1885	2095	949.7	531.4	475.9	583.4	−52.0	−107.5
44	69 30.8	49 08	1880	2160	933.4	513.6	463.5	585.3	−71.7	−121.8
45	69 31.3	48 59	1879		892.5	472.4		585.8	−113.4	
46	69 32.5	48 56	1897		893.6	479.0		586.9	−107.9	
47	69 34.4	48 47	1959	2608	913.4	518.0	492.2	588.8	−70.9	−96.6
48	69 34.9	48 46	1967	2736	914.2	521.2	504.1	589.3	−68.1	−85.2
49	69 36.3	48 40	1967	2394	933.3	540.3	497.8	590.7	−50.4	−92.9
50	69 37.9	48 32	1999	2288	944.8	561.7	507.8	592.3	−30.6	−84.5
51	69 38.7	48 25	2019		953.2	576.2		593.1	−16.8	
52	69 39.7	48 19	2060	1881	967.4	603.1	512.2	594.0	9.1	−81.8
53	69 40.0	48 15	2081		997.0	639.2		594.3	44.8	
54	69 40.0	48 14	2083	2245	964.1	606.9	540.3	594.3	12.5	−54.0
55	69 41.4	48 10	2107	2245	964.5	614.8	545.6	595.7	19.0	−50.1
205	69 44.0	48 04	2128		981.8	638.4		598.3	40.2	
210	69 46.0	47 58	2192		963.3	639.7		600.2	39.5	
215	69 48.1	47 52	2211		955.4	637.7		602.3	35.5	
220	69 50.0	47 46	2248	1710	949.8	643.5	518.8	604.1	39.4	−85.3
225	69 51.7	47 40	2255	1283	956.4	652.3	495.2	605.8	46.5	−110.6
230	69 53.7	47 34	2254	2095	917.4	612.9	516.2	607.8	5.2	−91.6
235	69 55.7	47 28	2277		917.2	619.9		609.7	10.2	
240	69 57.7	47 22	2285		934.9	640.1		611.6	28.4	

Station No.	Latitude	Longitude	Elevation m	Thickness of ice m	g(mgal)	g₀ (mgal)	g₀* (mgal)	γ (mgal)	Δg₀ (mgal)	Δg₀* (mgal)
W245	69°59.7′S	47°16′E	2298	2309	981 921.1	982 630.3	982 544.4	982 613.6	16.7	−69.2
250	70°01.6	47 10	2312		914.4	627.8		615.4	12.4	
255	70 03.6	47 04	2316		932.3	647.0		617.4	29.6	
260	70 05.5	46 58	2338		949.1	670.6		619.2	51.4	
265	70 07.4	46 52	2342		937.1	659.8		621.0	38.8	
270	70 09.4	46 46	2339		920.7	642.6		623.0	19.6	
275	70 11.3	46 40	2340		916.8	638.9		624.8	14.1	
280	70 13.3	46 34	2344		908.4	631.8		626.7	5.0	
290	70 17.0	46 23	2337		903.7	624.9		630.3	− 5.4	
295	70 18.9	46 17	2330		908.5	627.5		632.1	− 4.6	
300	70 20.6	46 11	2322		917.1	633.6		633.7	− 0.1	
305	70 22.4	46 05	2313		922.3	636.1		635.4	0.6	
310	70 24.3	45 59	2301		931.7	641.8		637.3	4.5	
315	70 26.1	45 53	2288		933.2	639.2		639.0	0.3	
320	70 28.0	45 47	2291		937.7	644.7		640.8	3.9	
325	70 29.4	45 40	2291		942.2	649.2		642.1	7.1	
330	70 30.7	45 32	2287		942.5	648.2		643.4	4.9	
335	70 32.0	45 24	2288		950.6	656.7		644.6	12.1	
340	70 33.4	45 16	2278		956.7	659.6		645.9	13.7	
345	70 34.8	45 09	2265		957.6	656.6		647.2	9.4	
350	70 36.0	45 01	2252		964.9	659.9		648.4	11.5	
360	70 38.5	44 46	2223		976.9	662.9		650.7	12.1	
365	70 39.8	44 38	2221		977.9	663.3		652.0	11.3	
370	70 41.0	44 31	2209	2223	985.0	666.7	584.4	653.1	13.6	−68.7
375	70 42.2	44 23	2199	2266	988.5	667.1	589.1	654.2	12.8	−65.1
X 1	70 42.1	44 14	2143		998.0	659.3		654.1	5.2	
2	70 42.2	44 11	2138		994.6	654.3		654.2	0.1	
4	70 42.8	44 04	2116		982 005.4	658.4		654.8	3.5	
6	70 43.4	43 56	2111		981 995.8	647.2		655.4	− 8.1	
8	70 44.0	43 49	2097	2009	982 012.1	659.2	573.6	655.9	3.3	−82.3
10	70 44.7	43 42	2094		008.3	654.5		656.6	− 2.1	
12	70 45.7	43 35	2087		009.4	653.4		657.5	− 4.1	
14	70 46.4	43 27	2069	1231	009.8	648.3	508.1	658.2	− 9.9	−150.1

Station No.	Latitude	Longitude	Elevation	Thickness of ice	g(mgal)	g_0(mgal)	g_0^*(mgal)	γ_0(mgal)	Δg_0 (mgal)	$\Delta g_0''$ (mgal)
X 16	70°47.1'S	43°20'E	2064 m	1129 m	982 010.8	982 647.8	982 500.6	982 658.8	−11.0	−158.2
18	70 47.8	43 13	2055	2138	026.0	660.2	588.8	659.5	0.7	−70.7
S169	70 49.4	43 07	2035	2309	033.4	661.4	605.0	661.0	0.4	−56.0
165	70 45.3	43 07	2035	2146	030.7	658.7	590.2	657.2	1.6	−67.0
160	70 40.2	43 06	2008		016.6	636.2		652.4	−16.1	
155	70 35.0	43 05	1992		033.4	648.1		647.4	0.7	
150	70 30.0	43 04	1971		036.4	644.7		642.7	2.0	
140	70 19.8	43 06	1934		049.6	646.4		633.0	13.4	
130	70 09.5	43 06	1900		069.6	656.0		623.1	32.9	

Sandercock Nunataks

Station No.	Latitude	Longitude	Elevation	Thickness of ice	g(mgal)	g_0(mgal)	g_0^*(mgal)	γ_0(mgal)	Δg_0 (mgal)	$\Delta g_0''$ (mgal)
W 0	68°36.7'S	52°06'E	2101 m	m	982 021.4	982 669.7	982 434.6	982 530.8	139.0	−96.1
B	68 33.6	52 07	2158		981 998.9	664.8	423.3	527.6	137.2	−104.3
C	68 36.4	52 06	2102		982 016.4	665.1	429.9	530.4	134.7	−100.6
C3	68 37.0	52 07	2091		026.0	671.2	437.3	531.1	140.2	−93.8
C4	68 37.5	52 08	2123		018.4	673.7	436.1	531.6	142.1	−95.5