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ALASKA MAGNETIC TABLES AND MAGNETIC CHARTS FOR 1920

By

DANIEL L. HAZARD
Assistant Chief, Division of Terrestrial Magnetism

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ALASKA MAGNETIC TABLES AND MAGNETIC CHARTS FOR 1920.

INTRODUCTION.

In the 10 years which have elapsed since the publication of Appendix 4, Report for 1909, on the Distribution of the Magnetic Declination in Alaska and Adjacent Regions for 1910, the number of available results has increased largely and the rate of change of the magnetic declination has altered materially, so that a new edition of the publication is demanded. The additional data include numerous results in southeastern Alaska and along the south and west coasts as far as the mouth of the Kuskokwim, results obtained in connection with the survey of the one hundred and forty-first meridian boundary, some results in the interior between the Yukon River and Prince William Sound, and observations at sea on the vessels of the Coast and Geodetic Survey and on the *Carnegie* of the Department of Terrestrial Magnetism of the Carnegie Institute of Washington.

Isogonic charts showing graphically the distribution of the magnetic declination in Alaska and adjacent regions have been published for the years 1885, 1890, 1895, 1900, 1902, and 1910. In most cases the values of declination used in the preparation of the chart have been published with it. The same practice will be followed in the present instance. In Appendix 9, Report for 1881, were published the results of all magnetic observations made by this Bureau up to that time, including those in Alaska, and the general collections of dip and intensity results published as Appendix 6, Report for 1885, and Appendix 1, Report for 1897, also included results in Alaska. The present publication contains all the available results of observations of the three magnetic elements, declination, dip, and horizontal intensity, made in Alaska and adjacent regions since 1870, together with corresponding values for January 1, 1920.

The distribution of the earth's magnetism over a given area is best represented graphically by magnetic charts on which are drawn lines of equal declination, equal inclination, and equal horizontal intensity, each line passing through all places at which the values of a particular element are the same. In practice it seldom happens that the observed values are identical at more than a very few places; but the position of a particular line may be determined approximately by interpolation between the observed values. For performing this

interpolation either a graphical or an analytical method may be employed.

The analytical method consists in deriving from the observed values, by the method of least squares, a formula in which the element is expressed in terms of the latitude and longitude. This method is usually employed where the observations are few in number and widely distributed, or where it is desired to determine for a limited area the uniform distribution most nearly approximating the observed facts. The resulting lines are necessarily smooth curves, uniformly distributed.

The graphical method consists in plotting the results on a map and drawing the lines free-hand to conform as nearly as possible to the plotted values. In this way it is possible to show, in a general way, the irregularities of distribution and the presence of local disturbance.

Up to 1902 the available results were so widely scattered that the analytical method was used in the construction of the isogonic charts. At the present time, as was the case for the 1910 chart, the results are so numerous that it is advantageous to make use of the graphical method and attempt to show some of the irregularities of distribution. The observations indicate the presence of local disturbance all along the coast from Cape Muzon to St. Michael. It is especially marked at a number of places in southeastern Alaska, sufficient in amount to affect the compasses of passing vessels. (Coast Pilot of Alaska, Pt. I, 6th ed., p. 42.) The most remarkable of these areas of local disturbance occurs on Douglas Island, near Juneau, where special observations made in 1904 revealed the presence of a local magnetic pole, at which point the compass needle lost its directive property and the dip needle stood vertical and toward which, within a limit area, the needle pointed from every direction. St. George Island in Bering Sea was also found to be a highly disturbed region, when observations were made there in 1897. These areas of great local disturbance are, in general, too limited in extent to be shown on a map of the scale suitable for an isogonic chart.

The dip and horizontal intensity results now available, although much less in number than the declination results, are sufficient to determine fairly well the distribution of those two elements for all but the extreme northwestern part of the Territory, and charts showing the lines of equal inclination and of equal horizontal intensity for January 1, 1920, have been prepared, in addition to the isogonic chart for that date.

SECULAR-CHANGE DATA.

When results extending over a number of years are to be used in the construction of a magnetic chart, it is necessary to take account of the change in the magnetic elements with lapse of time and reduce

the results to a common epoch before they can be used for a study of the distribution of the earth's magnetism over the area involved. Data for making this reduction are based on observations repeated at selected stations at more or less frequent intervals.

The results available for determining the secular change in Alaska since 1870 are given in the table on pages 10–13. Earlier results for Sitka, Port Etches, Kodiak, Unalaska, and Port Clarence will be found in Appendix 1, Report for 1895. As it was not always possible to reoccupy old stations exactly, allowance has been made in some cases for change of location.

Sitka.—Most of the observations at Sitka have been made at one of three stations: (1) Japonski Island, where the Russians maintained a magnetic observatory from 1842 to 1867; (2) Parade Ground, in front of the Presbyterian Church; (3) absolute building of the Coast and Geodetic Survey magnetic observatory. Observations were made at all three of these stations in 1901, as well as numerous other places in the vicinity of Sitka, when looking for the best site for the observatory.

Dutch Harbor.—In 1867 observations were made at the end of the spit at the eastern entrance to Captains (now Dutch) Harbor. Between 1871 and 1896 observations were made at different places near the astronomic station on Amaknak Island, just across from Iliuliuk village (now Unalaska). In 1900 a new station was established near the village of Dutch Harbor, which has been used regularly since that time. The relation between the different stations has been determined approximately with the aid of observations at a number of different points in 1908 and a consideration of the general trend of the secular-change curves.

St. Michael.—Observations have been made at a number of places in St. Michael, and the results indicate the presence of much local disturbance. There is not sufficient data to reduce all the results to the same station, but the effect of local disturbance has been partly eliminated by combining the results obtained at several stations in the same year. An idea of the change between 1908 and 1918 was obtained from the observations at Holy Cross (on the lower Yukon) in those years.

SECULAR-CHANGE TABLES.

For each of the repeat stations the values were plotted on cross-section paper, with time as abscissa and declination, dip, or horizontal intensity as ordinate, and smoothed curves were drawn to represent approximately the plotted values. The correction to reduce a value to January 1, 1920, was then obtained by taking the difference between the ordinate for the date of observation and the 1920 ordinate. For convenience in interpolating, the tables on page 14 were

prepared, giving for each of the more complete secular-change stations the reduction to 1920 at five-year intervals. The reductions for other than the repeat stations were found from these tables by interpolation according to geographic position or in some cases by extrapolation. Because of the wide distribution of the repeat stations, considerable uncertainty was sometimes involved; but the effect on the reduced results is not sufficient to alter materially the position of the isomagnetic lines.

TABLE OF RESULTS.

The observed values of declination, dip, and horizontal intensity, together with the corresponding values for January 1, 1920, will be found tabulated on pages 15–31. In addition to the results of observations in Alaska, there are given results for adjacent portions of Canada down to latitude 52° and those derived from observations on shipboard. The results are divided into groups, the number of results in each group being as follows:

Group.	Number of results.		
	Declination.	Dip.	Horizontal intensity.
Southeastern Alaska	231	111	87
Yakutat Bay to Sannak Islands	139	43	46
Aleutian Islands	30	14	12
Bering Sea and Arctic Ocean	40	28	25
Yukon River	20	19	19
One hundred and forty-first meridian boundary	52	1	1
Canada adjacent to Alaska	55	27	27
Reconnoissance surveys	99	.....	.....
On shipboard, inland passages	69	20	20
On shipboard, at sea	130	90	91
	865	353	328

In each group the results are arranged in the order either of increasing latitudes or of increasing longitudes, according as the greater extent of the group is north and south or east and west. All longitudes are expressed as west of Greenwich.

It will be seen by referring to the tables that the stations are very unevenly distributed, being crowded together in southeastern Alaska and at the more important harbors along the coast to the west and widely separated over the greater part of the interior. This has resulted from the necessity of securing magnetic observations almost exclusively in connection with other branches of the survey work, which have been directed largely by the demands of commerce. The usual practice has been to determine the magnetic declination with a compass declinometer at a number of the triangulation stations forming the basis for the survey of a harbor or inland waterway.

ABBREVIATIONS TO INDICATE SOURCE.

In the column headed "Source" ("Remarks" in the table of secular-change data) abbreviations are given to indicate the publications in which the results were originally published and in which additional information regarding them can usually be found. The meaning of these abbreviations is as follows:

BN.—Observations by officers of the British Navy, published in List of Magnetic Observations, etc., for the years 1890 to 1900, 1900 to 1905, or 1905 to 1906.

CI.1, CI.2, CI.3.—Observations made by the department of research in terrestrial magnetism of the Carnegie Institution of Washington. Carnegie Institution Publication No. 175, volumes 1, 2, and 3.

CO.—Observations by Canadian officials.

CS.—United States Coast and Geodetic Survey. Not heretofore published.

CS.x.—Appendix 9, Report for 1881.

CS.d.—Magnetic declination tables and isogonic charts for 1902. Declination only.

CS.0.—Appendix 6, Report for 1885. Dip and intensity only.

CS.1.—Appendix 1, Report for 1897. Dip and intensity only.

CS.2.—Appendix 6, Report for 1902. Dip and intensity only.

CS.3.—Appendix 5, Report for 1903.

CS.4.—Appendix 3, Report for 1904.

CS.5.—Appendix 3, Report for 1905.

CS.6.—Appendix 3, Report for 1906.

CS.7.—Appendix 5, Report for 1907.

CS.8.—Appendix 3, Report for 1908.

CS.9.—Appendix 3, Report for 1909.

CS.10.—Appendix 3, Report for 1910.

CS.11.—Appendix 3, Report for 1911.

CS.15.—Special Publication No. 15.

CS.20.—Special Publication No. 20.

CS.25.—Special Publication No. 25.

CS.36.—Special Publication No. 36.

CS.42.—Special Publication No. 42.

CS.51.—Special Publication No. 51.

CS.55.—Special Publication No. 55.

GS.—United States Geological Survey.

UN.—United States Navy.

CONSTRUCTION OF THE MAGNETIC CHARTS.

The lines of equal declination and equal inclination are shown for intervals of 1°, those for horizontal intensity for intervals of 0.01 c. g. s. unit. The reduced values were plotted on a large base map of Alaska and the lines were drawn free-hand to conform to the plotted values. Because of the prevalence of local disturbance revealed by the large number of stations along the coast, it was not feasible on a chart of convenient size to attempt to represent the irregularities in detail. In the interior the results, as a rule, are too widely distributed or of insufficient accuracy to warrant drawing the lines to fit the individual values.

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In general, there are very few values which are exactly the amount selected for a particular line—e. g., there are very few stations at which the reduced declination is exactly 30° east—so that the location of the line must depend largely upon interpolation between values a little larger and a little smaller than the selected amount. The aim has been to draw the lines to represent the general distribution, so that the average difference between the plotted values and corresponding values obtained by interpolation between the lines shall be a minimum.

Use was made of the magnetic charts of western Canada for 1917.0, issued by the topographical surveys branch of the Department of the Interior of Canada, in fixing the location and direction of the ends of the lines adjacent to that portion of Canada.

Lines of equal annual change of declination are shown in blue on the isogonic chart, but because of the limited number of repeat stations they are necessarily only rough approximations to the truth. It is not considered advisable as yet to attempt to draw lines of equal annual change of inclination or horizontal intensity. From an inspection of the tables for reducing observed values to 1920 it will be seen that the inclination appears to be decreasing in the greater part of Alaska at the rate of 1′ or 2′ a year, and that the annual change of horizontal intensity is small.

Results of observations at repeat stations.

BRITISH COLUMBIA.

Station.	Lat.	Long.	Date.	Decl'n.	Dip.	Hor.int.	Remarks.
	° ′	° ′		East. ° ′	° ′	c. g. s.	
Union, B. C.....	49 36	124 54	1900.7	25 57.5	71 30.1	.....	CS.d2.
	49 36	124 54	1900.8	25 53.6	71 30.4	.....	CS.d2.
	49 36	124 54	1903.5	26 00.0	.....	.18997	CS.3.
	49 36	124 54	1904.3	26 05.6	71 26.4	.18957	CS.4.
	49 36	124 54	1906.5	26 00.9	71 24.2	.18993	CS.6.
	49 36	124 54	1906.5	26 17.4	71 25.3	.19077	New station. CS.6.
	49 36	124 54	1907.8	26 15.4	71 20.6	.19020	1904 station. CS.8.
	49 36	124 54	1908.2	26 19.6	71 16.5	.19014	1904 station. CS.9.
	49 36	124 54	1908.3	26 30.2	71 24.2	.19061	1906 station. CS.8.
	49 36	124 54	1908.8	26 36.0	71 23.9	.18981	1906 station. CS.9.
	49 36	124 54	1909.3	26 26.4	71 14.5	.19019	CS.10.
	49 36	124 54	1909.4	26 29.0	71 19.5	.19045	CS.9.
	49 36	124 54	1909.8	26 31.6	71 21.5	.19009	CS.10.
	49 36	124 54	1910.3	26 28.3	71 18.7	.19023	CS.10.
	49 36	124 54	1910.3	26 33.2	71 18.0	.18967	CS.10.
	49 36	124 54	1910.8	26 40.6	71 15.8	.18992	CS.11.
	49 36	124 54	1911.6	26 30.9	71 12.8	.19018	CS.15.
	49 36	124 54	1911.8	26 35.7	71 16 3	.19105	CS.15.
	49 36	124 54	1911.8	.....	71 16.4	.19011	CS.15.
	49 36	124 54	1912.6	26 37.9	71 15.2	.19000	CS.15.
	49 36	124 54	1912.8	.....	71 17.3	.18983	CS.15.
Port Simpson, B. C.	54 34	130 26	1881.6	27 54.1	74 21.0	0.1615	CS.x.
	54 34	130 26	1885.4	28 03.3	74 10.8	.1604	CS.
	54 34	130 26	1895.4	28 37.2	74 09.3	.1629	CS.d1.
	54 34	130 26	1906.5	28 35	73 50.9	.1645	H. M. S. Egeria. BN.
	54 34	130 26	1907.3	28 30	.....	.....	Do.
	54 34	130 26	1908.7	28 44.8	.....	.....	Do.

Results of observations at repeat stations—Continued.

ALASKA.

Station.	Lat.	Long.	Date.	Decl'n.	Dip.	Hor.int.	Remarks.
	° ′	° ′		East. ° ′	° ′	c. g. s.	
Ketchikan	55 20	131 40	1900.8	.....	74 11.2	.....	CS.2.
	55 20	131 40	1907.6	29 08.2	74 02.5	.16129	CS.8.
	55 20	131 40	1907.7	28 59.5	74 14.8	.15950	New station. CS. 8.
	55 20	131 40	1911.9	29 07.0	.....	.....	CS.15.
	55 20	131 40	1912.4	29 12.5	.....	.....	CS.15.
	55 20	131 40	1914.6	29 16.5	.....	.....	CS.25.
	55 20	131 40	1915.4	29 18.2	.....	.....	CS.36.
	55 20	131 40	1916.3	29 16.3	74 08.8	.15946	CS.42.
Fort Wrangell	56 28	132 23	1880.4	.....	75 19.2	.....	Etolin Hbr. CS.x.
	56 28	132 23	1881.6	29 17.0	75 32.8	.1503	New station. CS.x.
	56 28	132 23	1893.5	29 38.3	75 17.0	.1513	CS.d1.
	56 28	132 23	1900.7	29 54.6	74 46.8	.15345	CS.2.
Sitka	57 03	135 20	1867.6	28 49	.....	.....	Japonski Island. CS.x.
	57 03	135 20	1874.3	28 59.5	.....	.....	Parade Ground. CS.x.
	57 03	135 20	1880.4	29 04.8	75 11.7	0.1524	Japonski Island. CS.x.
	57 03	135 20	1881.7	29 11.2	75 16.6	.1516	Do.
	57 03	135 20	1892.4	29 32.9	75 04.6	.1528	Parade Ground. CS.
	57 03	135 20	1892.5	29 26.8	75 02.0	.1529	Japonski Island. CS.
	57 03	135 20	1892.7	29 29.3	75 05.6	.1525	Do.
	57 03	135 20	1892.7	29 35.0	75 09.4	.1525	Parade Ground. CS.
	57 03	135 20	1893.6	29 33.8	75 01.7	.1530	Do.
	57 03	135 20	1894.4	29 36.9	75 00.5	.1533	Do.
	57 03	135 20	1898.5	29 39.4	74 59.7	.1535	Parade Ground. CS.1.
	57 03	135 20	1900.7	29 43.7	74 46.4	.15449	Parade Ground. CS.2.
	57 03	135 20	1900.7	.....	74 49.0	.15419	Do.
	57 03	135 20	1900.7	29 37.9	74 49.4	.15436	Blockhouse D. CS.2.
	57 03	135 20	1900.7	.....	74 50.5	.15433	Do.
	57 03	135 20	1900.8	29 47.4	.....	.15385	Swanson property. CS.2.
	57 03	135 20	1901.4	29 40.0	74 44.8	.15408	Government reservation 1. CS.2
	57 03	135 20	1901.4	29 43.6	74 43.0	.15409	Government reservation 2. CS.2
	57 03	135 20	1901.4	29 37.8	74 48.3	.15396	Government reservation 3. CS.2
	57 03	135 20	1901.4	29 44.4	74 42.8	.15435	Blockhouse D. CS.2.
	57 03	135 20	1901.5	29 41.4	74 40.2	.15457	Japonski Island. CS.2.
	57 03	135 20	1901.5	29 46.9	74 45.5	.15428	Parade Ground. CS.2.
	57 03	135 20	1901.5	29 48.3	74 45.6	.15366	Swanson property. CS.2.
	57 03	135 20	1901.5	29 51.2	74 46.0	.15375	Do.
	57 03	135 20	1902.3	29 47.5	74 45.6	.15447	Parade Ground. CS.
	57 03	135 20	1902.5	29 51.1	74 47.8	.15441	Absolute observatory.
	57 03	135 20	1903.5	29 53.9	74 46.3	.15457	Do.
	57 03	135 20	1903.5	29 54.6	74 48.9	.15415	Do.
	57 03	135 20	1903.6	29 33.6	74 50.1	.15488	Do.
	57 03	135 20	1904.5	29 55.8	74 45.4	.15475	Do.
	57 03	135 20	1905.5	29 59.1	74 43.2	.15494	Do.
	57 03	135 20	1906.5	30 03.0	74 41.0	.15513	Do.
	57 03	135 20	1907.5	30 07.1	74 38.4	.15529	Do.
	57 03	135 20	1908.4	30 07.5	74 36.6	.15521	Do.
	57 03	135 20	1908.5	30 10.7	74 36.5	.15546	Do.
	57 03	135 20	1909.5	30 13.1	74 34.6	.15560	Do.
	57 03	135 20	1910.5	30 16.4	74 32.2	.15577	Do.
	57 03	135 20	1911.5	30 19.1	74 30.4	.15590	Do.
	57 03	135 20	1912.5	30 20.9	74 28.8	.15599	Do.
	57 03	135 20	1913.5	30 22.0	74 27.7	.15606	Do.
	57 03	135 20	1914.5	30 22.9	74 26.6	.15605	Do.
	57 03	135 20	1914.5	30 20.9	74 27.7	.15599	Do.
	57 03	135 20	1915.5	30 23.2	74 26.5	.15593	Do.
	57 03	135 20	1916.5	30 23.9	74 25.6	.15585	Do.
	57 03	135 20	1917.5	30 24.7	74 24.8	.15584	Do.
	57 03	135 20	1918.5	30 24.9	74 23.9	.15580	Do.
Seward	60 06	149 26	1905.4	26 59.8	74 09.0	.15694	CS.
	60 06	149 26	1905.8	27 01.5	74 07.6	.15674	CS.6.
	60 06	149 26	1912.7	26 37.1?	.....	.....	CS.15.
	60 07	149 26	1918.7	26 53.5	73 43.1	.15776	New. CS.55.
Kachemak Bay	59 36	151 24	1880.5	25 48.5	73 59.6	.1595	Coal (Ugolnoi) Point. CS.x.
	59 36	151 25	1910.7	24 48.8	73 66.6	.16272	Homer. CS.11.
Kodiak	57 48	152 24	1867.7	26 04.7	.....	.....	Harbor of St. Paul. CS.x.
	57 48	152 24	1874.4	25 22.0	.....	.....	St. Paul village. CS.x.
	57 48	152 24	1880.5	25 09.2	72 34.6	.1714	Chagafka cove. CS.x.
	57 48	152 24	1896.5	24 33.8	72 19.8	.1717	Near St. Paul. CS.d1.
	57 48	152 24	1906.7	24 16.2	71 58.1	.17325	CS.7.
	57 48	152 24	1906.8	24 10.4	71 57.9	.17356	CS.7.
	57 48	152 24	1907.4	24 05.8	71 58.2	.17372	CS.8.
	57 48	152 24	1907.8	24 08.0?	71 58.1	.17371	CS.8.
	57 48	152 24	1908.2	24 31.6?	71 54.4	.17342	CS.8.

Results of observations at repeat stations—Continued.

ALASKA—Continued.

Station.	Lat.	Long.	Date.	Decl'n.	Dip.	Hor. int.	Remarks.
	° ′	° ′		East. ° ′	° ′	c. g. s.	
Kodiak	57 48	152 24	1908.3	24 11.5	71 57.9?	.17397	CS.9.
	57 48	152 24	1908.8	24 12.2	71 56.0	.17375	CS.9.
	57 48	152 24	1909.4	24 03.7?	71 56.2	.17375	CS.10.
Sand Point	55 19	160 31	1873.8	20 28.9	.....	.....	Humboldt Harbor. CS.x.
	55 19	160 31	1880.5	20 17.0	69 28.8	.1938	Humboldt Harbor. CS.x.
	55 19	160 32	1913.5	18 32.4	68 45.3	.19588	Popof Island CS.20.
Dutch Harbor	53 54	166 30	1867.7	19 47.4	.....	.....	Captain's Harbor. CS.x.
	53 53	166 32	1871.9	18 36	.....	.....	Illulluk Harbor. CS.x.
	53 53	166 32	1873.6	19 03.2	.....	.....	Illulluk Harbor. CS.x.
	53 53	166 32	1874.7	18 42.8	.....	.....	Illulluk Harbor. CS.x.
	53 53	166 32	1880.6	18 38.0	67 35.8	.2053	Illulluk Harbor. CS.x.
	53 53	166 32	1883.7	.....	67 25.7	.....	Illulluk Harbor. CS.
	53 53	166 32	1883.7	18 42.8	.....	.2020	Illulluk Harbor. CS.0.
	53 53	166 32	1889.5	18 12.4	67 06.8	.2050	Amaknak Island. CS.
	53 53	166 32	1889.5	17 46	67 13.2	.2056	Amaknak Island. CS.
	53 53	166 32	1891.5	18 06.9	67 17.2	.2055	Amaknak Island. CS.
	53 53	166 32	1896.3	17 43.6	67 02.6	.2055	Amaknak Island. CS.
	53 53	166 32	1900.8	18 14.0	66 59.2	.20904	Dutch Harbor. CS.d2.
	53 53	166 32	1903.7	17 51.5	67 06.0	.20890	Dutch Harbor. CS.4.
	53 53	166 32	1904.5	17 57.3	66 55.6	.20952	Dutch Harbor. CS.4.
	53 53	166 32	1904.7	17 55.6	.....	.....	Dutch Harbor. CS.5.
	53 53	166 32	1908.3	17 38.4	66 52.0	.20960	Dutch Harbor. CS.9.
	53 53	166 32	1908.4	16 18.6	66 41.2	.20677	Obsy. CS.9.
	53 53	166 32	1909.4	17 30.8	66 51.3	.20960	Dutch Harbor. CS.9.
	53 53	166 32	1909.7	17 36.9	66 48.4	.20961	Dutch Harbor. CS.10.
	53 53	166 32	1910.4	17 29.2	66 45.7	.20940	Dutch Harbor. CS.10.
	53 53	166 32	1911.6	17 26.6	66 41.7	.20949	Dutch Harbor. CS.15.
	53 53	166 32	1911.6	17 29.6	66 41.5	.20883	Dutch Harbor. CS.15.
	53 53	166 32	1911.7	17 30.5	66 45.8	.21027	Dutch Harbor. CS.15.
	53 53	166 32	1912.5	17 27.0	66 40.2	.20947	Dutch Harbor. CS.15.
	53 53	166 32	1913.4	17 27.0	66 40.7	.20942	Dutch Harbor. CS.20.
	53 53	166 32	1913.7	17 25.0	66 41.0	.20959	Dutch Harbor. CS.20.
	53 53	166 32	1913.8	.....	66 41.9	.....	Dutch Harbor. CS.20.
	53 53	166 32	1914.6	17 24.1	66 38.5	.20930	Dutch Harbor. CS.25.
	53 53	166 32	1915.7	17 19.1	.....	.....	Dutch Harbor. CS.36.
	53 53	166 32	1915.6	17 19.7	66 31.4	.20933	Dutch Harbor. CI.
Kiska	51 59	182 28	1873.6	11 06.4	65 01.3	.....	CS.x.
	51 59	182 28	1904.6	8 18.2	64 19.0	.21884	Astro. CS.5.
	51 59	182 28	1904.6	8 14.3	64 01.3	.22065	Post. CS.5.
	51 59	182 27	1904.7	8 04.5	.....	.....	Barrel. CS.5.
St. Paul Island	57 07	170 18	1874.6	17 24.0	.....	.....	CS.x.
	57 07	170 19	1880.6	17 39.2	68 36.6	.2006	CS.x.
	57 07	170 17	1891.6	17 01	.....	.....	
	57 07	170 16	1897.5	16 42.0	70 24.2	.18361	CS.d2.
St. Michael	63 29	162 01	1879.6	24 40	75 06	.....	J. W. Danenhower.
	63 29	162 01	1883.7	.....	75 12.1	.....	P. H. Ray, U. S. N.
	63 29	162 01	1889.5	23 15.0	74 57.8	.1478	A. CS.
	63 29	162 01	1889.5	23 09.8	75 06.5	.1470	B. CS.
	63 29	162 01	1890.9	23 07.0	75 12.1	.1473	B. CS.
	63 29	162 01	1891.2	23 05.0	75 00.0	.1473	B. CS.
	63 29	162 01	1891.5	22 59.8	75 10.0	.1474	B. CS.
	63 29	162 01	1898.5	22 17.3	74 55.7	.14782	CS.d2.
	63 29	162 01	1900.5	22 54.0	74 44.1	.14902	CS.d2.
	63 29	162 01	1902.7	21 55	.....	.....	1. CS.3.
	63 29	162 01	1902.7	22 18	.....	.....	2 (1900 ?). CS.3.
	63 29	162 01	1902.7	21 43	.....	.....	3. CS.3.
	63 29	162 01	1902.7	21 34	.....	.....	Mesa. CS.3.
	63 29	162 01	1902.7	21 30	.....	.....	Hill Top. CS.3.
	63 29	162 01	1905.6	22 11.7	.....	.....	1. CS.6.
	63 29	162 01	1905.6	22 02.2	.....	.....	2. CS.6.
	63 29	162 01	1905.6	21 31.6	.....	.....	3A. CS.6.
	63 29	162 01	1905.6	21 48.8	.....	.....	Mesa. CS.6.
	63 29	162 01	1905.6	21 24.7	.....	.....	Hill Top. CS.6.
	63 29	162 01	1905.6	22 23.7	.....	.....	North. CS.6.
	63 29	162 01	1908.7	21 36.6	74 36.6	.14978	Mesa. CS.9.
	63 29	162 01	1908.7	21 10.6	74 34.7	.15089	Hill Top. CS.9.
	63 29	162 01	1908.6	22 16.6	74 33.4	.15109	North. CS.9.
Port Clarence	65 16	166 51	1880.7	22 45	76 04.0	.1392	Near Pt. Spencer. CS.x.
	65 17	166 46	1900.7	19 55.4	75 47.3	.14102	End of spit. CS.d2.

Results of observations at repeat stations—Continued.

ALASKA—Continued.

Station.	Lat.	Long.	Date.	Decl'n.	Dip.	Hor. int.	Remarks.
	° ′	° ′		*East.* ° ′	° ′	*c. g. s.*	
Eagle	64 47	141 12	1905.6	35 50.9	78 27.8	.11782	Fort Egbert. CS.6.
	64 47	141 12	1908.5	35 55.5	78 20.5	.11996	Fort Egbert. CS.8.
	64 47	141 12	1918.5	35 47.0	78 08.6	.12023	Fort Egbert. CS.55.
Circle	65 50	144 04	1908.5	34 10.6	78 48.5	.11398	CS.8.
	65 50	144 04	1918.5	34 01.0	78 32.2	.11520	CS.55.
	65 49	144 05	1918.5	34 02.4	78 35.2	.11483	New. CS.55.
Fort Yukon	66 34	145 18	1889.6	34 46.9	79 34.3	.1069	CS.
	66 34	145 18	1890.6	35 12.0	79 37.8	.1069	CS.
	66 34	145 18	1891.5	35 05.9	78 59.9	.1073	CS.d1.
	66 34	145 18	1908.5	34 01.6	79 05.5	.11062	CS.8.
	66 34	145 18	1918.5	33 46.4	78 55.1	.11166	CS.55.
	66 34	145 18	1918.5	33 46.4	78 54.6	.11186	New. CS.55.
Rampart	65 31	150 13	1908.5	29 57.4	77 40.7	.12396	CS.9.
	65 31	150 13	1918.5	29 50.9	77 24.6	.12528	CS.55.
Tanana	65 11	152 04	1908.5	28 43.4	77 10.0	.12911	CS.9.
	65 11	152 04	1918.5	28 31.6	76 51.4	.12998	CS.55.
Kokrines	64 56	154 42	1908.5	26 15.4	76 27.7	.13351	CS.9.
	64 56	154 42	1918.5	26 04.6	76 14.6	.13462	CS.55.
Nulato	64 43	158 04	1908.5	25 25.2	75 56.7	.13901	CS.9.
	64 43	158 04	1918.5	25 03.6	75 40.7	.13928	CS.55.
Holy Cross	62 12	159 46	1908.6	23 08.2	74 00.6	.15527	CS.9.
	62 12	159 46	1918.5	22 40.4	73 44.8	.15570	CS.55.

YUKON TERRITORY.

White Horse	60 42	135 04	1887.6	30 55.2	77 43.9	.12623	W. Ogilvie.
	60 42	135 04	1907.6	32 17.0	77 38.3	.12714	CI.1.
	60 42	135 04	1908.4	32 05.6	77 36.2	.12779	C. I. station. CS. 8
Tantalus	62 04	136 04	1887.6	33 54.8	78 10.4	.12246	W. Ogilvie.
	62 06	136 06	1907.7	34 12.6	77 54.0	.12422	CI.1.
Fort Selkirk	62 48	137 25	1887.6	34 17.0	79 08.6	.11332	W. Ogilvie.
	62 47	137 22	1907.7	33 57.9	78 40.1	.11675	CI.1.
Dawson	64 04	139 26	1907.7	35 04.1	77 58.4	.12479	CI.1.
	64 04	139 26	1908.5	35 04.0	77 54.7	.12510	CI. station. CS.8.
	64 04	139 26	1912.7	34 57	.....	.....	CI. station
Forty Mile	64 25	140 32	1887.7	35 01.1	78 46.2	.11570	W. Ogilvie.
	64 25	140 36	1907.7	34 49.6	78 13.4	.12082	CI.1.
	64 25	140 34	1908.5	34 41.2	78 09.0	.12134	CI. station. CS.8.
Camp Davidson	64 41	140 55	1888.2	35 46.5	78 49.6	.11625	W. Ogilvie.
	64 41	140 55	1889.8	35 47.3	78 36.6	.1170	CS.
	64 41	140 55	1890.5	35 44.1	78 32.6	.1172	Do.
	64 41	140 55	1891.2	35 43.0	78 33.9	.1172	CS.d1
	64 41	140 55	1907.7	35 37.2	78 31.6	.11856	CI.1.
	64 41	140 55	1908.5	35 36.2	78 39.3	.12068	CI. station. CS.8.

Tables for reducing observed values to January 1, 1920.

DECLINATION.

	Washington, west.	Sitka.	Kodiak.	Dutch Harbor.	Kiska.	St. Michael.	Fort Yukon.	Eagle.
	° ′	° ′	° ′	° ′	° ′	° ′	° ′	° ′
Latitude	47 30	57 03	57 48	53 53	51 59	63 29	66 34	64 47
Longitude	122 30	135 20	152 24	166 32	182 28	162 01	145 18	141 12
	° ′	° ′	° ′	° ′	° ′	° ′	° ′	° ′
1870	+1 52	+1 28	−1 40	−2 52	−4 19	.....	.....	.....
1875	+1 45	+1 20	−1 25	−2 39	−3 51	.....	.....	.....
1880	+1 39	+1 11	−1 10	−2 23	−3 23	−3 44	.....	.....
1885	+1 33	+1 02	−0 57	−2 06	−2 55	−2 54	.....	.....
1890	+1 26	+0 54	−0 46	−1 47	−2 27	−2 12	−1 13	−0 15
1895	+1 17	+0 46	−0 37	−1 27	−1 59	−1 40	−0 57	−0 12
1900	+1 04	+0 41	−0 28	−1 05	−1 31	−1 10	−0 41	−0 10
1905	+0 44	+0 30	−0 19	−0 43	−1 03	−0 48	−0 25	−0 08
1910	+0 18	+0 12	−0 10	−0 20	−0 35	−0 30	−0 10	−0 05
1915	+0 05	+0 05	−0 04	−0 09	−0 16	−0 14	−0 05	−0 02

DIP.

	′	′	′	′	′	′	′	′
1870	−29	.....	.....	.....	.....	.....	.....	.....
1875	−27	.....	.....	.....	.....	.....	.....	.....
1880	−25	−54	−65	−64	−68	−64	.....	.....
1885	−23	−49	−60	−57	−60	−56	.....	.....
1890	−21	−43	−55	−50	−52	−48	−36	−36
1895	−20	−36	−50	−43	−44	−40	−30	−30
1900	−19	−27	−40	−36	−36	−32	−24	−24
1905	−17	−18	−30	−28	−28	−24	−18	−18
1910	−12	−10	−20	−20	−20	−16	−12	−12
1915	−06	−03	−10	−10	−10	−08	−06	−06

HORIZONTAL INTENSITY.

1880	−24	+41	+30	+40	.....	+52	.....	.....
1885	−18	+38	+25	+26	.....	+46	.....	.....
1890	−14	+34	+20	+14	.....	+40	+48	+48
1895	−10	+27	+15	+ 5	.....	+33	+38	+38
1900	−10	+18	+10	+ 0	.....	+24	+28	+28
1905	−14	+07	+ 6	− 3	.....	+15	+18	+18
1910	−14	−02	+ 3	− 6	.....	+ 7	+10	+10
1915	− 8	−05	+ 1	− 3	.....	+ 3	+ 5	+ 5

Observed magnetic elements and corresponding values for Jan. 1, 1920.

SOUTHEASTERN ALASKA.

Station.	Lat.	Long.	Date.	Observed.			Reduced to 1920.			Source.
				D.	I.	H.	D.	I.	H.	
	° ′	° ′		East. ° ′	° ′	c. g. s.	East. ° ′	° ′	c. g. s.	
Cape Muzon	54 40	132 40	1908.6	25 19	.. ..	.....	25 38	.. ..	.....	CS.9.
Do.	54 41	132 41	1908.6	25 52	.. ..	.....	26 11	.. ..	.....	CS.9.
Portland Canal	54 46	130 24	1888.6	29 37	74 35	.1620	30 53	73 56	.1647	CS.d1.
McLean Arm	54 48	132 05	1900.7	.. ..	73 27	.....	.. ..	73 04	.....	CS.2.
Nakat Harbor	54 49	130 42	1912.8	30 36	.. ..	.....	30 45	.. ..	.....	CS.15.
Howkan Mission	54 50	132 50	1881.7	27 03	74 22	.1752	28 14	73 37	.1777	CS.x.
Anchor	54 50	132 20	1909.6	25 43	.. ..	.....	25 59	.. ..	.....	CS.10.
Rhea	54 51	132 21	1909.6	29 23	.. ..	.....	29 39	.. ..	.....	CS.10.
Turn	54 52	132 24	1909.6	27 24	.. ..	.....	27 40	.. ..	.....	CS.10.
Breeze	54 54	132 39	1907.7	28 52	.. ..	.....	29 15	.. ..	.....	CS.8.
Nice	54 58	132 47	1907.7	29 13	.. ..	.....	29 36	.. ..	.....	CS.8.
Jon	54 58	131 26	1915.7	29 21	.. ..	.....	29 25	.. ..	.....	CS.36.
Cent	54 59	132 54	1907.7	29 02	.. ..	.....	29 25	.. ..	.....	CS.8.
Luck	55 00	132 49	1912.5	29 10	.. ..	.....	29 19	.. ..	.....	CS.15.
Fripo	55 02	131 14	1915.6	27 52	.. ..	.....	27 57	.. ..	.....	CS.36.
Nut	55 02	132 35	1905.5	28 58	.. ..	.....	29 29	.. ..	.....	CS.5.
Sage	55 02	131 12	1915.6	28 03	.. ..	.....	28 07	.. ..	.....	CS.36.
Safety Rock	55 04	132 05	1912.8	29 08	.. ..	.....	29 17	.. ..	.....	CS.15.
Boreas	55 04	132 58	1907.7	29 17	.. ..	.....	29 40	.. ..	.....	CS.8.
Tamgas Harbor	55 04	131 28	1883.6	28 35	74 28	.1602	29 52	73 43	.1629	CS.d0.
Mary Island	55 06	131 14	1895.5	28 22	74 28	.1591	29 22	73 56	.1613	CS.d1.
Metlakatla	55 07	131 34	1900.7	.. ..	74 09	.....	.. ..	73 44	.....	CS.2.
Jump	55 07	133 01	1907.7	29 05	.. ..	.....	29 28	.. ..	.....	CS.8.
Village Point	55 08	131 35	1914.6	29 19	.. ..	.....	29 25	.. ..	.....	CS.25.
Dolomi	55 08	132 03	1900.7	.. ..	74 17	.....	.. ..	73 52	.....	CS.2.
Side	55 08	132 56	1907.7	29 38	.. ..	.....	30 01	.. ..	.....	CS.8.
Lump	55 08	131 35	1914.6	29 21	.. ..	.....	29 26	.. ..	.....	CS.25.
Gull	55 08	131 36	1914.4	29 23	.. ..	.....	29 29	.. ..	.....	CS.25.
Clarno	55 08	132 08	1905.4	28 35	.. ..	.....	29 07	.. ..	.....	CS.5.
Time	55 09	132 56	1907.7	29 32	.. ..	.....	29 55	.. ..	.....	CS.8.
Lap	55 10	132 53	1907.8	29 52	.. ..	.....	30 14	.. ..	.....	CS.8.
Driest	55 10	131 36	1914.4	29 18	.. ..	.....	29 23	.. ..	.....	CS.25.
Bluff	55 10	132 46	1914.7	29 13	.. ..	.....	29 19	.. ..	.....	CS.25.
Fish	55 11	132 49	1908.8	29 34	.. ..	.....	29 52	.. ..	.....	CS.9.
Mac	55 11	133 02	1907.7	29 00	.. ..	.....	29 22	.. ..	.....	CS.8.
Salt	55 11	132 48	1908.8	29 36	.. ..	.....	29 54	.. ..	.....	CS.9.
Mar	55 12	132 07	1908.7	27 37	.. ..	.....	27 55	.. ..	.....	CS.9.
Flat	55 12	133 05	1907.6	29 13	.. ..	.....	29 35	.. ..	.....	CS.8.
First	55 13	132 06	1908.7	27 00	.. ..	.....	27 18	.. ..	.....	CS.9.
Guide	55 13	133 04	1907.7	29 56	.. ..	.....	30 18	.. ..	.....	CS.8.
South Base	55 13	133 06	1907.8	28 05	.. ..	.....	28 27	.. ..	.....	CS.8.
Pow	55 13	131 26	1915.7	29 35	.. ..	.....	29 40	.. ..	.....	CS.36.
North Base	55 13	133 06	1907.8	27 33	.. ..	.....	27 55	.. ..	.....	CS.8.
Astronomical Point	55 13	130 04	1888.7	27 44	75 14	.1577	29 07	74 34	.1609	CS.d2.
Gone	55 14	133 06	1907.6	28 30	.. ..	.....	28 52	.. ..	.....	CS.8.
Turn Point	55 16	133 07	1912.7	29 00	.. ..	.....	29 09	.. ..	.....	CS.15.
Blank Island Light	55 16	131 38	1914.7	29 28	.. ..	.....	29 33	.. ..	.....	CS.25.
Cabin	55 16	133 08	1907.7	29 03	.. ..	.....	29 25	.. ..	.....	CS.8.
Pin	55 16	133 12	1907.6	29 13	.. ..	.....	29 35	.. ..	.....	CS.8.
Stone	55 17	133 12	1907.6	28 54	.. ..	.....	29 16	.. ..	.....	CS.8
Mud	55 17	133 13	1907.7	30 14	.. ..	.....	30 36	.. ..	.....	CS.8.
Chasima Point, 1	55 17	132 02	1900.7	.. ..	74 35	.....	.. ..	74 10	.....	CS.2.
Chasima Point, 2	55 17	132 02	1900.7	.. ..	74 36	.....	.. ..	74 11	.....	CS.2.
Work	55 17	131 37	1914.7	29 33	.. ..	.....	29 39	.. ..	.....	CS.25.
Antonio	55 17	133 14	1907.6	30 25	.. ..	.....	30 47	.. ..	.....	CS.8.
Tongass Narrows	55 20	131 39	1900.8	28 47	.. ..	.....	29 13	.. ..	.....	CS.7.
Ketchikan	55 20	131 40	1916.3	29 16	74 09	.1595	29 20	74 06	.1591	CS.42.
McKenzie Inlet	55 21	132 21	1905.6	29 56	.. ..	.....	30 26	.. ..	.....	CS.6.
Flores	55 21	133 18	1907.7	29 06	.. ..	.....	29 28	.. ..	.....	CS.8.
Ward Cove	55 23	131 44	1882.8	28 18	74 36	.1554	29 37	73 50	.1587	CS.d0.

Observed magnetic elements and corresponding values for Jan. 1, 1920—Continued.

SOUTHEASTERN ALASKA—Continued.

Station.	Lat.	Long.	Date.	Observed.			Reduced to 1920.			Source.
				D.	I.	H.	D.	I.	H.	
	° ′	° ′		East. ° ′	° ′	c.g.s.	East. ° ′	° ′	c.g.s.	
Peninsula Point	55 23	131 44	1885.6	28 07	74 47	.1558	29 22	74 04	.1591	CS.d1.
Ignace	55 23	133 25	1907.6	29 16	.. ..	.....	29 38	.. ..	.....	CS.8.
Skowl Point	55 26	132 16	1900.7	.. ..	74 42	.....	.. ..	74 17	.....	CS.2.
Suspire	55 27	133 08	1913.8	29 22	.. ..	.....	29 29	.. ..	.....	CS.20.
Do	55 27	133 08	1913.8	30 33	.. ..	.....	30 41	.. ..	.....	CS.20.
Clam	55 28	133 25	1907.7	29 45	.. ..	.....	30 07	.. ..	.....	CS.8.
Fish	55 29	133 11	1907.7	29 45	.. ..	.....	30 07	.. ..	.....	CS.8.
Kasaan Bay	55 30	132 19	1880.4	27 48	73 58	.....	29 13	73 11	.....	CS.x.
Southwest Base	55 30	133 12	1907.7	29 36	.. ..	.....	29 58	.. ..	.....	CS.8.
Northeast Base	55 30	133 11	1907.6	29 20	.. ..	.....	29 42	.. ..	.....	CS.8.
Isa	55 30	133 10	1914.6	29 53	.. ..	.....	29 58	.. ..	.....	CS.25.
Port	55 32	133 28	1907.7	29 37	.. ..	.....	29 59	.. ..	.....	CS.8.
Witness	55 33	133 14	1913.7	30 05	.. ..	.....	30 12	.. ..	.....	CS.20.
Crook	55 34	132 29	1908.7	29 52	.. ..	.....	30 10	.. ..	.....	CS.9.
Crook	55 34	132 29	1908.7	30 18	.. ..	.....	30 36	.. ..	.....	CS.9.
Karta Bay	55 35	132 34	1900.7	.. ..	74 03	.....	.. ..	73 38	.....	CS.2.
Gibson Anchorage	55 35	132 30	1906.5	27 45	.. ..	.....	28 12	.. ..	.....	CS.6.
Philip Rock	55 38	133 26	1907.7	29 42	.. ..	.....	30 04	.. ..	.....	CS.8.
Cul	55 39	133 27	1913.7	30 02	.. ..	.....	30 09	.. ..	.....	CS.20.
Twin	55 42	133 38	1907.6	29 11	.. ..	.....	29 33	.. ..	.....	CS.8.
Union Bay	55 45	132 12	1885.6	30 30	73 33	.1667	31 44	72 49	.1701	Cs.d1.
Gull	55 45	133 44	1903.7	29 04	.. ..	.....	29 40	.. ..	.....	CS.4.
Surf	55 50	133 38	1903.7	29 01	.. ..	.....	29 37	.. ..	.....	CS.4.
Surf, a	55 50	133 38	1903.7	29 00	.. ..	.....	29 36	.. ..	.....	CS.4.
Black	55 52	133 46	1903.7	28 25	.. ..	.....	29 01	.. ..	.....	CS.4.
Black, a	55 52	133 46	1903 7	28 33	.. ..	.....	29 09	.. ..	.....	CS.4.
Black, b	55 52	133 46	1903.7	28 25	.. ..	.....	29 01	.. ..	.....	CS.4.
Lichen	55 54	133 50	1903.7	26 06	.. ..	.....	26 42	.. ..	.....	CS.4.
Lichen, a	55 54	133 50	1903.7	26 38	.. ..	.....	27 14	.. ..	.....	CS.4.
Green	55 54	133 37	1903.7	29 28	.. ..	.....	30 04	.. ..	.....	CS.4.
Green, a	55 54	133 37	1903.7	29 22	.. ..	.....	29 58	.. ..	.....	CS.4.
Dewey Anchorage	55 56	132 22	1886.7	28 30	.. ..	.....	29 43	.. ..	.....	CS.d.
Portland Canal	55 56	130 00	1888.5	30 09	75 24	.1543	31 32	74 42	.1580	CS.d1.
Warren, 2	55 56	133 54	1903.7	32 06	.. ..	.....	32 41	.. ..	.....	CS.4.
Warren, 2a	55 56	133 54	1903.7	30 47	.. ..	.....	31 22	.. ..	.....	CS.4.
Heather	55 57	133 49	1903.7	28 32	.. ..	.....	29 08	.. ..	.....	CS.4.
Heather, a	55 57	133 49	1903.7	28 34	.. ..	.....	29 09	.. ..	.....	CS.4.
Cob	56 02	132 36	1916.5	29 29	.. ..	.....	29 33	.. ..	.....	CS.42.
Lake Bay	56 02	132 55	1916.7	30 01	74 33	.....	30 04	74 30	.....	CS.42.
Burroughs Bay	56 02	131 06	1893.4	30 24	75 18	.1529	31 30	74 42	.1560	CS.d1.
Lake Bay	56 03	132 52	1905.7	29 42	.. ..	.....	30 11	.. ..	.....	CS.6.
Port McArthur	56 04	134 06	1886.6	27 50	.. ..	.....	28 53	.. ..	.....	CS.d.
Albans	56 05	133 58	1903.7	29 09	.. ..	.....	29 44	.. ..	.....	CS.4.
Shakan Village	56 09	133 28	1886.5	33 00	.. ..	.....	34 06	.. ..	.....	CS.d.
Point Shakan	56 09	133 36	1886.6	29 25	.. ..	.....	30 31	.. ..	.....	CS.d.
Shakan	56 09	133 38	1881.6	30 03	74 50	.1563	31 20	74 01	.1597	CS.x.
Cop	56 17	133 00	1916.6	29 52	.. ..	.....	29 55	.. ..	.....	CS.42.
Red Bay	56 20	133 15	1886.4	29 40	.. ..	.....	30 49	.. ..	.....	CS.d.
Fort Wrangell	56 27	132 23	1886.5	29 20	.. ..	.....	30 35	.. ..	.....	CS.d.
Do	56 28	132 23	1893.5	29 38	75 17	.1513	30 38	74 41	.1544	CS.d1.
Wrangell	56 28	132 23	1900.7	29 55	74 47	.1534	30 43	74 22	.1550	CS.d2.
Island, East	56 30	133 01	1910.6	30 38	.. ..	.....	30 50	.. ..	.....	CS.11.
Start	56 30	132 57	1910.6	29 26	.. ..	.....	29 38	.. ..	.....	CS.11.
Work	56 31	132 59	1910.6	30 20	.. ..	.....	30 32	.. ..	.....	CS.11.
In	56 31	132 59	1910.6	30 32	.. ..	.....	30 44	.. ..	.....	CS.11.
Hum	56 33	132 58	1910.7	30 29	.. ..	.....	30 41	.. ..	.....	CS.11.
No. 65 U. S. E	56 34	132 58	1910.7	31 39	.. ..	.....	31 51	.. ..	.....	CS.11.
No. 63 U. S. E	56 34	132 58	1910.7	31 30	.. ..	.....	31 42	.. ..	.....	CS.11.
No. 62 U. S. E	56 34	132 59	1910.7	31 24	.. ..	.....	31 36	.. ..	.....	CS.11.
No. 60 U. S. E	56 35	132 59	1910.7	31 02	.. ..	.....	31 14	.. ..	.....	CS.11.
No. 57 U. S. E	56 36	132 58	1910.7	31 43	.. ..	.....	31 55	.. ..	.....	CS.11.
Duncan Canal	56 36	133 06	1887 6	30 06	75 14	.1553	31 15	74 30	.1591	CS.d1.

Observed magnetic elements and corresponding values for Jan. 1, 1920—Continued.

SOUTHEASTERN ALASKA—Continued.

Station.	Lat.	Long.	Date.	Observed.			Reduced to 1920.			Source.
				D.	I.	H.	D.	I.	H.	
	° ′	° ′	° ′	East. ° ′	° ′	c.g.s.	East. ° ′	° ′	c.g.s.	
Near No. 53 U. S. E.	56 36	132 58	1910.7	32 09	.. ..	.....	32 21	.. ..	.....	CS. 11.
Near No. 48 U. S. E.	56 37	132 58	1910.7	31 57	.. ..	.....	32 09	.. ..	.....	CS. 11.
Near No. 47 U. S. E.	56 38	132 57	1910.7	31 48	.. ..	.....	32 00	.. ..	.....	CS. 11.
Near No. 45 U. S. E.	56 38	132 56	1910.7	30 15	.. ..	.....	30 27	.. ..	.....	CS. 11.
Near No. 38 U. S. E.	56 39	132 56	1910.7	31 19	.. ..	.....	31 31	.. ..	.....	CS. 11.
No. 35 U. S. E.	56 41	132 56	1910.8	31 08	.. ..	.....	31 20	.. ..	.....	CS. 11.
Near No. 30 U. S. E.	56 41	132 57	1910.8	30 52	.. ..	.....	31 05	.. ..	.....	CS. 11.
Near No. 31 U. S. E.	56 42	132 56	1910.7	30 55	.. ..	.....	31 07	.. ..	.....	CS. 11.
Near No. 28 U. S. E.	56 42	132 57	1910.7	30 43	.. ..	.....	30 55	.. ..	.....	CS. 11.
No. 27 U. S. E.	56 43	132 56	1910.7	30 45	.. ..	.....	30 57	.. ..	.....	CS. 11.
No. 22 U. S. E.	56 44	132 58	1910.8	30 33	.. ..	.....	30 45	.. ..	.....	CS. 11.
No. 21 U. S. E.	56 46	132 58	1910.8	30 10	.. ..	.....	30 22	.. ..	.....	CS. 11.
Near No. 17 U. S. E.	56 47	132 59	1910.8	30 31	.. ..	.....	30 43	.. ..	.....	CS. 11.
Near No. 9 U. S. E.	56 48	132 59	1910.8	30 46	.. ..	.....	30 58	.. ..	.....	CS. 11.
Near No. 2 U. S. E.	56 50	132 57	1910.8	30 25	.. ..	.....	30 37	.. ..	.....	CS. 11.
Hot Springs Bay	56 52	135 20	1880.4	.. ..	75 02	.1640	.. ..	74 09	.1580	CS. x.
Frederick Sound	56 55	132 51	1887.4	29 38	75 29	.1534	30 51	74 43	.1574	CS. d1.
Portage Bay	57 00	133 20	1882.8	30 51	75 08	.1515	32 11	74 17	.1554	CS. d0.
Do	57 00	133 20	1887.5	30 29	75 15	.1549	31 38	74 29	.1585	CS. d1.
Jamestown Bay	57 03	135 17	1901.5	29 53	74 43	.1542	30 31	74 19	.1557	CS.
Sitka and vicinity:										
Observatory	57 03	135 20	1918.5	30 25	74 24	.1558	30 26	74 24	.1557	CS.
Indian Park, 1	57 03	135 19	1901.4	29 44	74 46	.1543	30 22	74 22	.1558	
Indian Park, 2	57 03	135 19	1901.4	29 41	74 44	.1543	30 19	74 20	.1558	
Indian Park, 3	57 03	135 19	1901.4	29 38	74 44	.1542	30 16	74 20	.1557	
Government Reservation, 1.	57 03	135 20	1901.4	29 40	74 45	.1541	30 18	74 21	.1556	
Government Reservation, 2.	57 03	135 20	1901.4	29 44	74 43	.1541	30 22	74 19	.1556	
Government Reservation, 3.	57 03	135 20	1901.4	29 38	74 48	.1540	30 16	74 24	.1555	
Exp. Farm, 1	57 03	135 20	1901.4	29 45	74 48	.1541	30 23	74 24	.1556	
Exp. Farm, 2	57 03	135 20	1901.4	29 38	74 45	.1540	30 16	74 21	.1555	
Exp. Farm, 3	57 03	135 20	1901.4	29 49	74 47	.1541	30 27	74 23	.1556	
Block House, D.	57 03	135 20	1901.4	29 44	74 43	.1544	30 22	74 19	.1559	
Public Garden	57 03	135 20	1901.4	29 47	74 43	.1545	30 25	74 19	.1560	
Japonski Island	57 03	135 21	1901.5	29 41	74 40	.1546	30 19	74 16	.1561	
Swanson property	57 03	135 20	1901.5	29 51	74 46	.1538	30 29	74 22	.1553	
Parade Ground	57 03	135 20	1901.5	29 47	74 46	.1543	30 25	74 22	.1558	
Cross Mountain	57 03	135 17	1901.5	29 54	74 48	.1538	30 32	74 24	.1553	
Watsons Point	57 04	135 22	1901.5	29 51	74 46	.1544	30 29	74 22	.1559	
Woewodski Harbor	57 10	134 15	1889.5	29 35	75 36	.1523	30 30	74 52	.1557	CS.d1.
Cape Fanshaw	57 11	133 34	1887.5	30 05	75 30	.1536	31 03	74 44	.1572	CS.d1.
Cleveland Passage	57 12	133 30	1889.3	30 13	75 37	.1536	31 16	74 53	.1570	CS.d1.
Poke	57 27	133 50	1889.5	30 16	75 40	.1509	31 11	74 56	.1547	CS.d1.
Killisnoo	57 27	134 30	1895.7	29 28	76 38	.1420	30 13	76 02	.1446	CS.d1.
Do	57 28	134 34	1900.8	28 14	.. ..	.....	28 53	.. ..	.....	CS.d.
Do	57 28	134 34	1900.7	.. ..	76 25	.....	.. ..	76 00	.....	CS.2.
Povorotni Station	57 28	135 28	1880.4	.. ..	75 03	.....	.. ..	74 09	.....	CS.x.
Slocum Arm	57 33	136 02	1906.7	30 12	.. ..	.....	30 36	.. ..	.....	CS.7.
Khaz Bay	57 34	136 05	1906.7	30 48	.. ..	.....	31 12	.. ..	.....	CS.7.
Clot	57 41	133 28	1889.7	28 12	75 54	.1484	29 13	75 11	.1519	CS.d1.
Marble Bluff	57 45	134 44	1880.4	.. ..	75 57	.....	.. ..	75 03	.....	CS.x.
Rate	57 51	136 27	1917.5	28 26	.. ..	.....	28 28	.. ..	.....	CS.51.
Kay	57 55	136 22	1917.5	30 56	.. ..	.....	30 59	.. ..	.....	CS.51.
Stephens Passage	58 00	134 04	1888.4	.. ..	75 47	.....	.. ..	75 02	.....	CS.1.
Near Pt. Marsden	58 05	134 49	1880.4	.. ..	76 02	.1439	.. ..	75 08	.1482	CS.x.
First	58 05	135 07	1901.4	30 29	.. ..	.....	31 01	.. ..	.....	CS.d.
Do	58 05	135 07	1901.5	30 38	.. ..	.....	31 10	.. ..	.....	CS.d.
Spasskaia Id	58 08	135 16	1900.8	.. ..	75 36	.....	.. ..	75 10	.....	CS.1.
Peach	58 10	135 03	1901.5	30 28	.. ..	.....	31 00	.. ..	.....	CS.d.

Observed magnetic elements and corresponding values for Jan. 1, 1920—Continued.

SOUTHEASTERN ALASKA—Continued.

Station.	Lat.	Long.	Date.	Observed.			Reduced to 1920.			Source.
				D.	I.	H.	D.	I.	H.	
	° ′	° ′		East. ° ′	° ′	c.g.s.	East. ° ′	° ′	c.g.s.	
Port Althorp	58 12	136 24	1880.5	32 16	75 22	.1510	33 12	74 29	.1553	CS.x.
Auke Point	58 12	134 33	1890.5	30 44	75 58	.1472	31 34	75 17	.1507	CS.d1.
Spence	58 12	136 38	1901.6	30 09	.. ..	.....	30 41	.. ..	.....	CS.d.
Juneau, 14	58 12	134 15	1903.6	30.55	75 47	.1454	31 22	75 27	.1465	CS.4.
Hat	58 12	134 09	1893.5	31 02	.. ..	.....	31 50	.. ..	.....	CS.d.
Juneau, 17	58 12	134 22	1903.6	31 10	75 25	.1479	31 37	75 05	.1490	CS.4.
Juneau, 18	58 13	134 30	1903.6	31 08	75 39	.1469	31 35	75 19	.1480	CS.4.
Jog	58 13	136 02	1901.5	29 04	.. ..	.....	29 35	.. ..	.....	CS.d.
Juneau, 23	58 13	134 17	1903.6	30 12	75 41	.1465	30 39	75 21	.1476	CS.4.
Lack	58 13	136 08	1901.5	31 19	.. ..	.....	31 51	.. ..	.....	CS.d.
Juneau, 15	58 14	134 16	1903.6	31 39	76 02	.1454	32 06	75 42	.1465	CS.4.
Funter Bay	58 14	134 55	1890.7	30 15	76 04	.1458	31 00	75 23	.1493	CS.d1.
Juneau, 13	58 14	134 17	1903.6	32 32	74 44	.1547	32 59	74 24	.1558	CS.4.
Juneau, 16	58 15	134 20	1903.6	29 32	75 31	.1482	29 59	75 11	.1493	CS.4.
Juneau, 12	58 15	134 19	1903.6	29 41	75 59	.1442	30 08	75 39	.1452	CS.4.
Juneau, 11	58 15	134 21	1903.6	24 06	76 05	.1566	24 33	75 45	.1577	CS.4.
Juneau, 19	58 15	134 38	1903.6	31 08	75 40	.1461	31 35	75 20	.1472	CS.4.
Juneau, 29	58 15	134 21	1903.6	16 28	77 08	.1432	16 55	76 48	.1443	CS.4.
Juneau, 20	58 15	134 21	1903.6	16 07	77 11	.1511	16 34	76 51	.1522	CS.4.
Juneau, 4	58 15	134 21	1903.6	38 14	75 07	.1538	38 41	74 47	.1549	CS.4.
Juneau, 7	58 16	134 20	1903.6	30 12	76 39	.1402	30 39	76 19	.1413	CS.4.
Juneau, 24	58 16	134 21	1903.6	32 41	76 11	.1421	33 08	75 51	.1432	CS.4.
Juneau Isle	58 16	134 23	1903.6	33 03	75 36	.1475	33 30	75 16	.1486	CS.4.
Juneau, 1	58 16	134 23	1903.5	32 56	75 39	.1466	33 23	75 19	.1478	CS.4.
Juneau, 9	58 17	134 24	1903.6	32 09	75 40	.1467	32 36	75 20	.1478	CS.4.
Juneau, 25	58 17	134 24	1903.6	32 29	75 42	.1464	32 56	75 22	.1475	CS.4.
Juneau, 28	58 18	134 41	1903.6	30 54	75 40	.1458	31 21	75 20	.1469	CS.4.
Juneau, 26	58 18	134 26	1903.6	31 58	75 30	.1467	32 25	75 16	.1478	CS.4.
Juneau School	58 18	134 25	1903.7	31 52	75 39	.1461	32 19	75 19	.1472	CS.4.
Juneau Hill	58 18	134 24	1900.8	33 23	75 13	.1562	33 56	75 13	.1544	CS.d2.
Do	58 18	134 24	1903.6	33 33	.. ..	.1548	34 00	.. ..	.1559	CS.4.
Juneau, 22	58 18	134 25	1903.6	31 50	75 38	.1462	32 17	75 18	.1473	CS.4.
Juneau, 5	58 18	134 23	1903.6	31 39	75 56	.1433	32 06	75 36	.1444	CS.4.
Juneau, 10	58 18	134 24	1903.6	32 16	76 03	.1432	32 43	75 43	.1443	CS.4.
Juneau, 8	58 18	134 26	1903.6	31 43	75 33	.1472	32 10	75 13	.1483	CS.4.
Juneau, 3	58 20	134 28	1903.6	31 41	75 37	.1471	32 08	75 17	.1482	CS.4.
Juneau, 21	58 21	134 30	1903.6	31 28	75 36	.1465	31 55	75 16	.1476	CS.4.
Juneau, 27	58 21	134 32	1903.6	31 18	75 47	.1450	31 45	75 27	.1460	CS.4.
Dixon Harbor	58 22	135 53	1905.7	30 14	.. ..	.....	30 36	.. ..	.....	CS.6.
Dixon Harbor	58 22	136 51	1900.8	.. ..	75 40	.....	.. ..	75 14	.....	CS.2.
Dundas Bay	58 22	136 22	1900.8	31 14	75 30	.....	31 47	75 04	.....	CS.d2.
Gus	58 23	135 55	1901.5	30 19	.. ..	.....	30 50	.. ..	.....	CS.d.
Point Lena	58 24	134 46	1890.4	30 24	76 03	.1468	31 08	75 22	.1503	CS.d1.
Taku astro. station	58 26	133 59	1893.6	30 16	76 10	.1428	31 03	75 33	.1459	CS.d1.
Bartlett Bay	58 27	135 52	1900.7	.. ..	75 53	.....	.. ..	75 27	.....	CS.2.
Do	58 28	135 52	1900.7	.. ..	75 46	.....	.. ..	75 20	.....	CS.2.
Island	58 30	133 54	1893.4	30 49	.. ..	.....	31 35	.. ..	.....	CS.d.
Terrace	58 31	133 46	1893.4	30 57	.. ..	.....	31 43	.. ..	.....	CS.d.
Duck	58 31	133 52	1893.4	30 52	.. ..	.....	31 38	.. ..	.....	CS.d.
Islet	58 32	133 44	1893.4	30 12	.. ..	.....	30 58	.. ..	.....	CS.d.
Fishery	58 32	133 41	1893.5	32 06	.. ..	.....	32 52	.. ..	.....	CS.d.
Wood	58 34	133 40	1893.5	32 25	.. ..	.....	33 11	.. ..	.....	CS.d.
Lean	58 34	133 40	1893.5	31 28	.. ..	.....	32 14	.. ..	.....	CS.d.
Shoal	58 35	133 38	1893.5	32 34	.. ..	.....	33 20	.. ..	.....	CS.d.
Nob	58 35	133 40	1893.5	31 58	.. ..	.....	32 44	.. ..	.....	CS.d.
Fast	58 36	133 35	1893.5	31 38	.. ..	.....	32 24	.. ..	.....	CS.d.
Point Whidbey	58 36	135 15	1880.4	.. ..	76 27	.....	.. ..	75 34	.....	CS.x.
Lituya	58 37	137 40	1874.4	30 03	.. ..	.....	30 50	.. ..	.....	CS.x.
La Perouse	58 38	137 41	1894.6	30 10	.. ..	.....	30 38	.. ..	.....	CS.d.
William Henry Bay	58 43	135 13	1900.8	.. ..	75 59	.....	.. ..	75 33	.....	CS.2.
Camp Muir	58 50	136 05	1890.7	30 26	75 51	.150	31 06	75 10	.1535	CS.d1.
Seduction Island	59 00	135 22	1880.4	.. ..	76 44	.....	.. ..	75 51	.....	CS.x.
Anchorage Point	59 10	135 28	1894.6	30 29	75 23	.1517	31 04	74 47	.1548	CS.d1.
Pyramid Island Harbor	59 11	135 28	1880.3	.. ..	75 35	.1509	.. ..	74 42	.1540	CS.x.

Observed magnetic elements and corresponding values for Jan. 1, 1920—Continued.

SOUTHEASTERN ALASKA—Continued.

Station.	Lat.	Long.	Date.	Observed.			Reduced to 1920.			Source.
				D.	I.	H.	D.	I.	H.	
	° ′	° ′		East. ° ′	° ′	c. g. s.	East. ° ′	° ′	c. g. s.	
Chilkat	59 12	135 27	1890.5	30 39	73 10	.1846	31 19	72 29	.1885	CS.d1.
Battery Point, 4	59 12	135 21	1900.8	.. ..	76 07	.....	.. ..	75 41	.....	CS.2.
Battery Point, 3	59 12	135 22	1900.8	.. ..	77 03	.....	.. ..	76 37	.....	CS.2.
Battery Point, 1	59 12	135 21	1900.8	.. ..	79 03	.....	.. ..	78 37	.....	CS.2.
Chilkoot	59 12	135 21	1890.6	19 39	81 20	.0995	20 19	.. ..	.....	CS.d.
Battery Point, 2	59 13	135 22	1900.8	.. ..	79 59	.....	.. ..	79 33	.....	CS.2.
Dalton	59 20	135 48	1894.5	31 57	.. ..	.....	32 30	.. ..	.....	CS.d.
Open	59 20	135 48	1894.5	31 54	.. ..	.....	32 27	.. ..	.....	CS.d.
Sight	59 23	135 53	1894.5	29 55	.. ..	.....	30 27	.. ..	.....	CS.d.
Upper	59 24	135 54	1900.5	32 24	74 06	.1625	32 50	73 40	.1644	CS.d2.
Koklux	59 24	135 53	1894.5	24 08	.. ..	.....	24 41	.. ..	.....	CS.d.
Porcupine Creek	59 25	136 16	1900.5	31 25	76 14	.1408	31 48	75 48	.1428	CS.d2.
Limber	59 32	135 20	1894.6	32 09	.. ..	.....	32 45	.. ..	.....	CS.d.

YAKUTAT BAY TO SANNAK ISLANDS.

Mount Hoorts	59 45	139 32	1892.6	30 51	.. ..	.....	31 07	.. ..	.....	CS.d.
Port Mulgrave	59 34	139 46	1880.5	30 00	76 18	.1413	30 21	75 24	.1458	CS.x.
Do	59 34	139 46	1874.4	29 58	.. ..	.....	.. ..	.. ..	.....	CS.x.
Yakutat	59 34	139 47	1892.7	29 56	76 12	.1421	30 12	75 36	.1452	CS.d1.
Do	59 34	139 47	1903.6	29 32	75 55	.1446	29 43	75 35	.1457	CS.4.
Ocean Cape	59 32	139 52	1892.7	30 24	.. ..	.....	30 45	.. ..	.....	CS.d.
Malaspina, N. E. base	59 45	140 06	1892.6	30 42	.. ..	.....	30 56	.. ..	.....	CS.d.
Malaspina, S. W. base	59 44	140 12	1894.4	30 43	.. ..	.....	30 56	.. ..	.....	CS.d.
Do	59 44	140 12	1892.6	30 54	.. ..	.....	31 08	.. ..	.....	CS.d.
Yahtse	59 49	141 08	1894.5	30 30	.. ..	.....	30 37	.. ..	.....	CS.d.
McCarthy	61 27	142 55	1918.6	30 48	75 41	.1429	30 48	75 39	.1429	CS.55.
Controller Bay	59 59	144 20	1909.6	29 02	.. ..	.1507	29 01	.. ..	.1504	CS.10.
Do	59 59	144 20	1909.8	29 06	74 50	.1508	29 05	74 35	.1511	CS.10.
Wingham Island	59 59	144 23	1906.5	28 52	.. ..	.....	28 53	.. ..	.....	CS.6.
Chitina	60 31	144 26	1918.6	30 21	75 29	.1431	30 21	75 27	.1431	CS.55.
Kokinhenik	60 18	145 03	1898.6	29 26	75 19	.1479	29 17	74 44	.1501	CS.d2.
Orca	60 35	145 41	1898.4	28 47	75 24	.1468	28 35	74 48	.1490	CS.d2.
Do	60 35	145 41	1900.6	29 27	.. ..	.....	29 18	.. ..	.....	CS.d.
Do	60 35	145 41	1903.7	28 09	75 22	.1483	28 01	74 54	.1494	CS.4.
Do	60 35	145 41	1903.7	28 17	75 18	.1486	28 09	74 51	.1496	CS.4.
Nibsy	60 36	145 42	1912.7	29 03	.. ..	.....	29 00	.. ..	.....	CS.15.
Egg	60 23	145 44	1916.6	29 11	.. ..	.....	29 10	.. ..	.....	CS.42.
Cordova	60 33	145 46	1918.6	28 13	74 35	.1517	28 12	74 33	.1517	CS.55.
Trade	60 29	145 53	1916.6	28 32	.. ..	.....	28 30	.. ..	.....	CS.42.
Reef	60 34	145 59	1900.7	28 58	.. ..	.....	28 47	.. ..	.....	CS.d.
Beach	60 24	146 03	1916.7	28 42	.. ..	.....	28 40	.. ..	.....	CS.42.
Elf	60 51	146 09	1915.7	28 57	.. ..	.....	28 55	.. ..	.....	CS.36.
Valdez	61 07	146 17	1905.8	29 12	75 25	.1453	29 03	75 01	.1465	CS.6.
Fort Liscum	61 06	146 20	1918.7	29 00	75 00	.1474	28 59	74 58	.1474	CS.55.
Mag	60 28	146 26	1900.6	28 40	.. ..	.....	28 25	.. ..	.....	CS.d.
Port Etches	60 20	146 31	1902.6	28 21	.. ..	.....	28 10	.. ..	.....	CS.3.
Do	60 21	146 34	1902.7	28 17	.. ..	.....	28 06	.. ..	.....	CS.3.
Hes	60 49	146 35	1914.7	28 50	.. ..	.....	28 48	.. ..	.....	CS.25.
Lo	60 49	146 37	1914.7	28 48	.. ..	.....	28 46	.. ..	.....	CS.25.
Port Etches	60 21	146 38	1874.4	29 10	.. ..	.....	.. ..	.. ..	.....	CS.x.
Tree	60 45	147 50	1912.7	28 18	.. ..	.....	28 12	.. ..	.....	CS.15.
Chow	60 29	147 59	1913.5	28 18	.. ..	.....	28 13	.. ..	.....	CS.20.
First	60 34	148 03	1913.4	28 01	.. ..	.....	27 55	.. ..	.....	CS.20.
Catch	60 40	148 06	1913.4	28 10	.. ..	.....	28 05	.. ..	.....	CS.20.
Wire	60 37	148 09	1913.4	28 00	.. ..	.....	27 54	.. ..	.....	CS.20.
Port	60 35	148 09	1917.6	27 47	.. ..	.....	27 45	.. ..	.....	CS.51.
Rane	60 46	148 23	1914.6	27 45	.. ..	.....	27 42	.. ..	.....	CS.25.
Cab	60 48	148 24	1914.6	27 49	.. ..	.....	27 46	.. ..	.....	CS.25.
Chickaloon	61 48	148 31	1918.7	28 36	75 11	.1453	28 35	75 09	.1453	CS.55.
Saw	60 48	148 36	1914.6	27 43	.. ..	.....	27 40	.. ..	.....	CS.25.

Observed magnetic elements and corresponding values for Jan. 1, 1920—Continued.

YAKUTAT BAY TO SANNAK ISLAND—Continued.

Station.	Lat.	Long.	Date.	Observed.			Reduced to 1920.			Source.
				D.	I.	H.	D.	I.	H.	
	° ′	° ′		East. ° ′	° ′	c. g. s.	East. ° ′	° ′	c. g. s.	
Delta	60 48	148 38	1914.5	27 43	.. ..	.....	27 40	.. ..	.....	CS. 25.
South Base	60 47	148 43	1914.5	27 40	.. ..	.....	27 38	.. ..	.....	CS. 25.
North Base	60 47	148 43	1914.5	27 34	.. ..	.....	27 31	.. ..	.....	CS. 25.
Matanuska Junction	61 34	149 14	1918.7	28 44	75 03	.1475	28 43	75 01	.1475	CS. 55.
Seward	60 06	149 26	1905.8	27 02	74 08	.1567	26 44	73 41	.1574	CS. 6.
Seward	60 08	149 25	1918.7	26 54	73 43	.1578	26 53	73 41	.1578	CS. 55.
Glacier	59 53	149 43	1912.7	26 04	.. ..	.....	25 58	.. ..	.....	CS. 15
Palisade	61 22	149 44	1910.7	28 02	.. ..	.....	27 54	.. ..	.....	CS. 11.
Turnagain Arm	60 58	149 50	1910.7	26 00	.. ..	.....	25 52	.. ..	.....	CS. 11.
Anchorage	61 13	149 54	1918.7	27 14	74 35	.1518	27 13	74 33	.1519	CS. 55.
Montana	62 01	149 58	1918.7	28 00	75 11	.1458	27 59	75 09	.1458	CS. 55.
Race Point	61 10	150 14	1909.7	27 08	.. ..	.....	26 56	.. ..	.....	CS. 10.
Little	61 16	150 18	1909.7	26 59	.. ..	.....	26 47	.. ..	.....	CS. 10.
Nuka Bay	59 32	150 40	1906.8	26 03	.. ..	.....	25 50	.. ..	.....	CS. 7.
Moose Point	60 57	150 41	1909.6	26 34	.. ..	.....	26 23	.. ..	.....	CS. 10.
Birch Hill	60 55	150 46	1909.6	26 35	.. ..	.....	26 24	.. ..	.....	CS. 10.
Beluga	61 12	150 54	1909.7	26 49	.. ..	.....	26 38	.. ..	.....	CS. 10.
Boulder	60 46	151 16	1909.5	27 03	.. ..	.....	26 52	.. ..	.....	CS. 10.
Do	60 46	151 16	1910.4	27 08	.. ..	.....	26 58	.. ..	.....	CS. 10.
Coal	59 36	151 24	1880.5	25 48	74 00	.1595	24 40	72 59	.1633	CS. x.
East Foreland	60 43	151 25	1909.6	27 26	.. ..	.....	27 16	.. ..	.....	CS. 9.
Homer	59 36	151 25	1910.7	24 49	73 07	.1627	24 40	72 49	.1630	CS. 11.
Seldovia	59 28	151 43	1910.7	24 03	.. ..	.....	23 54	.. ..	.....	CS. 11.
Do	59 28	151 43	1911.7	24 06	.. ..	.....	23 58	.. ..	.....	CS. 15.
Ninilchik	60 00	151 43	1911.7	25 35	.. ..	.....	25 27	.. ..	.....	CS. 15.
Seldovia Harbor	59 26	151 45	1911.7	24 58	.. ..	.....	24 50	.. ..	.....	CS. 15.
Port Chatham	59 14	151 46	1906.7	24 30	.. ..	.....	24 17	.. ..	.....	CS. 7.
Port Graham	59 21	151 47	1908.8	24 14	.. ..	.....	24 02	.. ..	.....	CS. 9.
Do	59 22	151 49	1910.3	.. ..	72 54	.1639	.. ..	72 35	.1642	CS. 10.
Do	59 21	151 50	1911.8	23 38	.. ..	.....	23 30	.. ..	.....	CS. 15.
Port Graham	59 21	151 50	1912.5	23 24	.. ..	.....	23 17	.. ..	.....	CS. 12.
Anchor Point	59 49	151 50	1911.6	25 14	.. ..	.....	25 06	.. ..	.....	CS. 15.
Dangerous Cape	59 24	151 53	1880.5	24 32	.. ..	.....	23 14	.. ..	.....	CS. x.
Dangerous	59 25	151 54	1910.8	23 04	.. ..	.....	22 55	.. ..	.....	CS. 11.
Do	59 25	151 54	1911.7	23 08	.. ..	.....	23 00	.. ..	.....	CS. 15.
Port Graham	59 24	151 55	1908.7	23 32	.. ..	.....	23 20	.. ..	.....	CS. 9.
Bill	60 24	152 14	1911.5	24 11	.. ..	.....	24 03	.. ..	.....	CS. 15.
Point Harriet	60 23	152 17	1908.7	25 33	.. ..	.....	25 21	.. ..	.....	CS. 9.
Ushagat	58 56	152 18	1907.7	23 30	.. ..	.....	23 16	.. ..	.....	CS. 8.
Kodiak	57 48	152 24	1908.8	24 12	71 56	.1738	24 00	71 33	.1741	CS. 9.
Do	57 48	152 24	1909.4	24 04	71 56	.1738	23 53	71 35	.1741	CS. 9.
Uzinki	57 55	152 31	1907.6	23 52	72 05	.1729	23 38	71 40	.1733	CS. 8.
Shuyak	58 37	152 34	1908.7	24 20	72 19	.1712	24 08	71 56	.1716	CS. 9.
Tuxedni	60 09	152 38	1911.7	25 46	.. ..	.....	25 37	.. ..	.....	CS. 15.
Afognak	58 05	152 45	1908.5	24 01	71 56	.1729	23 48	71 34	.1733	CS. 8.
Banner	58 12	152 57	1908.8	23 56	72 07	.1728	23 44	71 44	.1732	CS. 9.
Chinitna Bay	59 50	153 04	1911.7	26 01	.. ..	.....	25 52	.. ..	.....	CS. 15.
Bare Island	57 58	153 04	1908.5	23 53	.. ..	.1736	23 40	.. ..	.1740	CS. 9.
Onion Bay	58 03	153 13	1908.5	23 48	71 50	.1735	23 34	71 27	.1739	CS. 9.
Cape Douglas	58 51	153 18	1908.7	24 30	72 25	.1701	24 17	72 02	.1705	CS. 9.
Augustine Island	59 21	153 24	1908.5	22 20	.. ..	.....	22 07	.. ..	.....	CS. 9.
Kiukpalik Island	58 36	153 34	1908.6	24 44	72 18	.1717	24 30	71 55	.1721	CS. 9.
Iliamna Bay	59 39	153 36	1907.5	26 41	.. ..	.....	26 25	.. ..	.....	CS. 7.
Do	59 37	153 37	1907.5	22 59	.. ..	.....	22 43	.. ..	.....	CS. 8.
Uyak Bay	57 38	153 52	1908.5	22 41	71 27	.1763	22 27	71 04	.1767	CS. 9.
Miller Island	56 58	154 07	1906.7	23 06	71 04	.1799	22 48	70 37	.1803	CS. 7.
Snug Harbor	57 00	154 09	1906.5	23 01	.. ..	.1798	22 43	.. ..	.1802	CS. 6.
Alitak Bay	56 54	154 18	1918.7	22 45	70 38	.1807	22 44	70 36	.1807	CS. 55.
Chirikof Island	55 48	155 43	1874.5	23 01	.. ..	.....	21 34	.. ..	.....	CS. x.
Semidi Islands	56 05	156 39	1874.5	22 57	.. ..	.....	21 16	.. ..	.....	CS. x.
Chignik Bay	56 19	158 24	1874.5	22 02	.. ..	.....	20 05	.. ..	.....	CS. x.
Mitrofania	55 52	158 52	1914.7	21 12	.. ..	.....	21 06	.. ..	.....	CS. 42
Chiachi Islands	55 52	159 05	1874.5	21 56	.. ..	.....	19 54	.. ..	.....	CS. x.
Jacob	55 45	159 21	1914.6	20 31	.. ..	.....	20 24	.. ..	.....	CS. 25.

Observed magnetic elements and corresponding values for Jan. 1, 1920—Continued.

YAKUTAT BAY TO SANNAK ISLANDS—Continued.

Station.	Lat.	Long.	Date.	Observed.			Reduced to 1920.			Source.
				D.	I.	H.	D.	I.	H.	
	° ′	° ′		East. ° ′	° ′	c.g.s.	East. ° ′	° ′	c.g.s.	
Kupreanof Harbor	55 47	159 21	1914.6	20 04	69 47	.1903	19 57	69 36	.1902	CS.25.
Little Koniuji	55 03	159 23	1874.5	21 46	.. ..	.....	19 55	.. ..	.....	CS.x.
Do	55 03	159 24	1880.5	21 25	69 30	.1934	19 49	68 26	.1968	CS.x.
Kupreanof Harbor	55 48	159 24	1901.4	20 39	.. ..	.....	19 55	.. ..	.....	CS.d.
Mist Harbor	55 08	159 52	1915.5	19 28	68 28	.1941	19 22	68 19	.1940	CS.36.
Green	55 22	160 28	1913.5	17 37	.. ..	.....	17 28	.. ..	.....	CS.20.
Red	55 18	160 31	1913.5	17 55	.. ..	.....	17 46	.. ..	.....	CS.20.
Sand Point	55 19	160 31	1880.5	20 17	69 29	.1938	18 27	68 25	.1973	CS.x.
Do	55 19	160 32	1913.4	18 32	68 45	.1959	18 23	68 32	.1957	CS.20.
East Base	55 19	160 32	1913.6	17 30	.. ..	.....	17 21	.. ..	.....	CS.20.
Port Moller	55 56	160 33	1910.4	19 13	69 11	.1923	18 58	68 52	.1921	CS.10.
Beat	55 22	160 34	1913.5	17 43	.. ..	.....	17 34	.. ..	.....	CS.20.
Pop	55 07	161 36	1911.5	20 42	.. ..	.....	20 28	.. ..	.....	CS.15.
Ukolnoi	55 13	161 41	1913.8	16 47	70 32	.1801	16 38	70 20	.1799	CS.20.
Dolgoi Island	55 03	161 43	1880.6	17 59	.. ..	.....	16 10	.. ..	.....	CS.x.
Pier	55 08	161 46	1911.6	18 59	.. ..	.....	18 46	.. ..	.....	CS.15.
Anchor	55 06	161 47	1911.5	19 47	.. ..	.....	19 34	.. ..	.....	CS.15.
Entrance	55 06	161 49	1911.6	20 07	.. ..	.....	19 54	.. ..	.....	CS.15.
Point	55 10	161 54	1911.6	21 08	.. ..	.....	20 55	.. ..	.....	CS.15.
Knob	55 13	161 55	1911.5	28 20	.. ..	.....	28 07	.. ..	.....	CS.15.
Bear	55 10	161 58	1911.6	18 19	.. ..	.....	18 06	.. ..	.....	CS.15.
Belkofski	55 05	162 00	1880.6	21 26	69 16	.1931	19 28	68 12	.1967	CS.x.
Flat	55 12	162 01	1911.6	18 05	.. ..	.....	17 52	.. ..	.....	CS.15.
Patton	54 54	162 08	1911.6	17 51	.. ..	.....	17 38	.. ..	.....	CS.15.
King	55 02	162 21	1911.6	19 43	.. ..	.....	19 29	.. ..	.....	CS.15.
Cold	55 02	162 25	1911.7	29 30	67 48	.1882	29 16	67 31	.1879	CS.15.
Reef	54 51	162 31	1911.6	18 56	.. ..	.....	18 42	.. ..	.....	CS.15.
Peterson	54 24	162 38	1901.7	18 19	.. ..	.....	17 30	.. ..	.....	CS.d.
Acherk	54 29	162 49	1901.6	18 18	.. ..	.....	17 28	.. ..	.....	CS.d.
Amagat	54 54	162 53	1901.5	18 25	.. ..	.....	17 35	.. ..	.....	CS.d.
Otter Cove	54 46	163 20	1901.6	19 30	.. ..	.....	18 40	.. ..	.....	CS.d.

ALEUTIAN ISLANDS.

Ugimak	54 13	164 47	1901.6	18 45	.. ..	.....	17 52	.. ..	.....	CS.d.
Tigalda Bay	54 08	165 00	1901.6	17 03	.. ..	.....	16 09	.. ..	.....	CS.d.
Tigalda	54 08	165 08	1901.6	22 56	.. ..	.....	22 02	.. ..	.....	CS.d.
Basalt Rock	54 07	165 23	1901.6	17 32	.. ..	.....	16 37	.. ..	.....	CS.d.
Rootok Pass	54 03	165 31	1901.6	16 23	.. ..	.....	15 33	.. ..	.....	CS.d.
Egg	53 52	166 03	1901.5	18 22	.. ..	.....	17 25	.. ..	.....	CS.d.
Biorka	53 50	166 13	1901.5	18 48	.. ..	.....	17 50	.. ..	.....	CS.d.
Shelf	53 53	166 14	1901.5	17 38	.. ..	.....	16 40	.. ..	.....	CS.d.
Strait	53 48	166 18	1901.5	17 32	.. ..	.....	16 34	.. ..	.....	CS.d.
Food	53 52	166 19	1901.5	16 09	.. ..	.....	15 11	.. ..	.....	CS.d.
Round	53 46	166 23	1901.5	20 51	.. ..	.....	19 53	.. ..	.....	CS.d.
Flat	53 53	166 30	1908.3	17 09	66 56	.2073	16 42	66 33	.2068	CS.8.
North Base	53 55	166 30	1908.3	17 44	67 00	.2053	17 17	66 37	.2048	CS.8.
South Base	53 54	166 31	1908.3	17 07	66 54	.2069	16 40	66 31	.2064	CS.8.
Rocky Point	53 53	166 32	1908.3	18 03	67 21	.2030	17 36	66 58	.2034	CS.8.
Dutch Harbor	53 53	166 32	1908.4	16 19	66 41	.2068	15 50	66 18	.2063	CS.8.
Do	53 53	166 32	1914.6	17 24	66 38	.2093	17 14	66 28	.2090	CS.25.
Do	53 53	166 32	1880.6	18 38	67 36	.2053	16 17	66 33	.2062	CS.x.
Do	53 53	166 32	1896.3	17 44	67 03	.2055	16 23	66 22	.2059	CS.c1.
Eliza	53 54	166 32	1908.3	16 30	66 50	.2073	16 03	66 27	.2068	CS.8.
Elder	53 58	166 36	1901.5	16 28	.. ..	.....	15 24	.. ..	.. .	CS.d.
Cove Point	53 24	167 30	1880.8	16 15	67 14	.2093	13 51	66 11	.2131	CS.x.
Atka Island	52 11	174 15	1873.6	16 57	.. ..	.....	13 38	.. ..	.	CS.x.
Adak Island	51 49	176 52	1873.6	13 52	.. ..	.....	10 20	.. ..	. .	CS.x.
Amchitka Island	51 24	180 48	1873.6	7 17	.. ..	.....	3 27	.. ..		CS.x.
Kiska	52 00	182 27	1904.7	8 04	.. ..	.....	7 00	.. ..	.	CS.5.
Do	51 59	182 28	1904.6	8 18	64 19	.2188	7 14	63 50	.2185	CS.5.
Do	51 59	182 28	1904.6	8 14	64 01	.2206	7 10	63 32	.2203	CS.5.
Kiska Harbor	51 59	182 30	1873.5	11 06	65 01	.....	7 08	63 43		CS.x.
Chicagof Harbor	52 56	186 48	1873.5	7 43	65 11	.....	3 28	63 53		CS.x.

Observed magnetic elements and corresponding values for Jan. 1, 1920—Continued.

BERING SEA AND ARCTIC OCEAN.

Station.	Lat.	Long.	Date.	Observed.			Reduced to 1920.			Source.
				D.	I.	H.	D.	I.	H.	
	° ′	° ′		East. ° ′	° ′	c. g. s.	East. ° ′	° ′	c. g. s.	
St. George Island	56 36	169 32	1897.7	19 03	69 54	.1875	17 35	69 16	.1885	CS. d2
St. Paul Island	57 07	170 18	1874.6	17 24	.. ..	.....	.. ..	.. ..	.....	CS. x.
Do	57 07	170 19	1880.6	17 39	68 37	.2006	14 33	67 32	.2056	CS. x.
Do	57 07	170 17	1891.6	17 01	.. ..	.....	15 00	.. ..	.....	CS. d.
Do	57 07	170 16	1897.5	16 42	70 24	.1836	15 14	69 46	.1846	CS. d2.
Protection Point	58 30	158 40	1910.5	21 33	71 24	.1768	21 19	71 06	.1769	CS. 10.
Do	58 30	158 40	1910.7	21 34	71 24	.1770	21 20	71 06	.1771	CS. 11.
Security Cove	58 41	162 01	1912.7	19 13	70 50	.1792	19 00	70 37	.1792	CS. 15.
Hagemeister Island	58 48	160 40	1874.6	22 53	.. ..	.....	19 43	.. ..	.....	CS. x.
Clark Point	58 50	158 32	1909.4	21 38	71 41	.1741	21 17	71 21	.1741	CS. 9.
Do	58 50	158 32	1909.7	21 40	71 40	.1741	21 19	71 21	.1741	CS. 10.
Do	58 50	158 32	1910.4	21 40	71 41	.1742	21 20	71 23	.1742	CS. 10.
Goodnews Bay	59 03	161 48	1911.6	19 03	71 12	.1760	18 48	70 56	.1760	CS. 15.
Do	59 03	161 48	1913.6	19 01	71 10	.1759	18 49	70 58	.1759	CS. 20.
Island	59 45	161 54	1915.6	20 30	.. ..	.....	20 19	.. ..	.....	CS. 36.
Nunivak Island	60 04	167 14	1902.7	17 00	.. ..	.....	16 00	.. ..	.....	CS. 3.
Fish	60 11	162 19	1915.6	20 19	.. ..	.....	20 08	.. ..	.....	CS. 36.
Nunivak Island	60 25	166 08	1874.6	21 34	.. ..	.....	17 00	.. ..	.....	CS. x.
Bethel	60 48	161 45	1915.6	21 01	.. ..	.....	20 50	.. ..	.....	CS. 36.
Kun	61 51	165 34	1899.6	19 45	73 35	.1577	18 32	73 02	.1598	CS. d2.
Bright	62 11	163 58	1899.7	20 38	73 42	.....	19 25	73 09	.....	CS. d2.
Black	62 20	165 19	1898.7	19 42	73 34	.1574	18 25	73 00	.1597	CS. d2.
Kwiklokchun	62 34	164 51	1898.6	19 49	73 48	.1575	18 31	73 14	.1598	CS. d2.
Head of Apoon	62 54	164 00	1899.6	20 36	74 13	.....	19 24	73 41	.....	CS. d2.
Okweah	63 02	164 37	1899.6	20 38	.. ..	.....	19 26	.. ..	.....	CS. d2.
Quit	63 02	163 33	1899.7	21 15	.. ..	.....	20 03	.. ..	.....	CS. d2.
Kotlik	63 02	163 36	1908.6	20 31	74 09	.1538	19 56	73 51	.1546	CS. 9.
Pastoliak	63 03	163 13	1898.6	21 01	74 29	.....	19 43	73 55	.....	CS. d2.
St. Lawrence Island	63 16	168 43	1902.7	17 26	.. ..	.....	16 22	.. ..	.....	CS. 3.
St. Michael, Mesa	63 29	162 01	1908.7	21 37	74 37	.1498	21 02	74 19	.1507	CS. 9.
St. Michael, Hill Top	63 29	162 01	1908.7	21 11	74 35	.1509	20 36	74 17	.1518	CS. 9.
St. Michael, North	63 29	162 01	1908.7	22 17	74 33	.1511	21 42	74 15	.1520	CS. 9.
Current	65 07	165 19	1900.7	20 53	.. ..	.....	19 36	.. ..	.....	CS. d.
Port Clarence	65 17	166 46	1900.7	19 55	75 47	.1410	18 38	75 16	.1438	CS. d2.
Do	65 16	166 51	1880.7	22 45	76 04	.1392	18 05	75 01	.1451	CS. x.
Chamisso Harbor	66 13	161 49	1880.7	26 49	77 17	.1286	22 41	76 14	.1345	CS. x.
Near Cape Lisburne	68 53	166 06	1880.6	25 43	78 53	.1133	.. ..	.. ..	.....	CS. x.
Mouth of Firth River	69 39	139 51	1890.3	43 22	.. ..	.....	.. ..	.. ..	.....	CS. d.
Icy Cape	70 13	162 15	1880.7	30 06	80 08	.1011	.. ..	.. ..	.....	CS. x.
Near Point Belcher	70 47	159 40	1880.7	.. ..	80 53	.0937	.. ..	.. ..	.....	CS. x.
Ooglaamie	71 18	156 40	1883.5	35 37	81 23	.0892	.. ..	.. ..	.....	CS. d.

YUKON RIVER.

Eagle	64 47	141 12	1918.5	35 47	78 09	.1202	35 47	78 07	.1204	CS. 55.
Island	65 22	143 06	1908.5	34 56	78 58	.1129	34 46	78 44	.1141	CS. 8.
Circle	65 49	144 05	1918.5	34 02	78 35	.1148	34 02	78 43	.1150	CS. 55.
Fort Yukon	66 35	145 18	1918.5	33 46	78 55	.1119	33 45	78 53	.1120	CS. 55.
Fairbanks	64 51	147 44	1918.6	30 56	77 21	.1259	30 55	77 19	.1260	CS. 55.
Hodzana River	66 15	147 45	1908.5	32 01	78 36	.1155	31 43	78 21	.1167	CS. 9.
Nenana	64 34	149 06	1918.6	30 02	76 58	.1291	30 00	76 56	.1292	CS. 55.
Shaman	66 00	149 06	1891.5	33 11	.. ..	.....	31 51	.. ..	.....	CS. d.
Fort Hamlin	65 54	149 14	1908.5	31 46	78 08	.1199	31 34	77 53	.1211	CS. 9.
Rampart	65 31	150 13	1918.5	29 51	77 25	.1253	29 49	77 23	.1254	CS. 55.
Hot Springs	65 00	150 36	1918.6	29 36	77 00	.1281	29 34	76 58	.1282	CS. 55.
Tanana	65 11	152 04	1918.5	28 32	76 51	.1300	28 30	76 49	.1301	CS. 55.
Kokrines	64 56	154 42	1918.5	26 05	76 15	.1346	26 02	76 13	.1347	CS. 55.
Louden	64 37	156 42	1908.6	25 06	76 04	.1375	24 36	75 47	.1386	CS. 9.
Nulato	64 43	158 04	1918.5	25 04	75 41	.1393	25 00	75 39	.1394	CS. 55.
Kaltag	64 20	158 45	1908.6	24 11	75 44	.1407	23 39	75 26	.1417	CS. 9.
Holy Cross	62 12	159 46	1918.5	22 40	73 45	.1557	22 37	73 43	.1558	CS. 55.
Anvik	62 40	160 12	1908.6	22 42	74 47	.1512	22 12	74 30	.1522	CS. 9.
Russian Mission	61 47	161 21	1908.6	21 27	73 37	.1586	20 55	73 19	.1596	CS. 9.
Andreafski	62 03	163 13	1908.6	20 14	73 29	.1592	19 42	73 11	.1602	CS. 9.

Observed magnetic elements and corresponding values for Jan. 1, 1920—Continued.

ONE HUNDRED AND FORTY-FIRST MERIDIAN BOUNDARY.*

Station.	Lat.	Long.	Date.	Observed.			Reduced to 1920.			Source.
				D.	I.	H.	D.	I.	H.	
	° ′	° ′		East. ° ′	° ′	c. g. s.	East. ° ′	° ′	c. g. s.	
Monument No. 187	61 37	141 00	1913.6	31 33	.. ..	.....	31 33	.. ..	.....	CS.20.
Monument No. 177	61 58	141 00	1913.6	30 54	.. ..	.....	30 54	.. ..	.....	CS.20.
Monument No. 166	62 28	141 00	1913.6	32 54	.. ..	.....	32 53	.. ..	.....	CS.20.
Monument No. 163	62 35	141 00	1913.6	32 51	.. ..	.....	32 50	.. ..	.....	CS.20.
Monument No. 147	63 16	141 00	1913.6	33 56	.. ..	.....	33 55	.. ..	.....	CS.20.
Monument No. 31	63 18	141 00	1910.5	33 40	.. ..	.....	33 38	.. ..	.....	CS.11.
Monument No. 30, a	63 21	141 00	1910.5	33 52	.. ..	.....	33 50	.. ..	.....	CS.11.
Monument No. 30	63 23	141 00	1910.5	33 07	.. ..	.....	33 05	.. ..	.....	CS.11.
Monument No. 29	63 25	141 00	1910.5	33 56	.. ..	.....	33 54	.. ..	.....	CS.11.
Monument No. 28	63 28	141 00	1910.5	33 56	.. ..	.....	33 54	.. ..	.....	CS.11.
Summit	63 29	141 08	1910.5	33 22	.. ..	.....	33 20	.. ..	.....	CS.11.
Monument No. 27	63 30	141 00	1910.6	33 32	.. ..	.....	33 30	.. ..	.....	CS.11.
Monument No. 26	63 33	141 00	1910.6	33 35	.. ..	.....	33 33	.. ..	.....	CS.11.
Monument No. 25, a	63 34	141 00	1910.6	33 29	.. ..	.....	33 26	.. ..	.....	CS.11.
Monument No. 25	63 37	141 00	1910.6	33 50	.. ..	.....	33 18	.. ..	.....	CS.11.
Monument No. 24	63 39	141 00	1910.6	33 48	.. ..	.....	33 46	.. ..	.....	CS.11.
Monument No. 23	63 42	141 00	1910.6	33 37	.. ..	.....	33 34	.. ..	.....	CS.11.
Monument No. 126, a	64 04	141 00	1913.5	34 25	.. ..	.....	34 23	.. ..	.....	CS.20.
Monument No. 121	64 19	141 00	1913.5	34 37	.. ..	.....	34 35	.. ..	.....	CS.20.
Monument No. 114, A	64 36	141 00	1913.5	34 55	.. ..	.....	34 53	.. ..	.....	CS.20.
Monument No. 112	64 41	141 00	1913.6	35 07	.. ..	.....	35 05	.. ..	.....	CS.20.
View, N. E.	65 16	140 55	1910.4	36 20	.. ..	.....	36 14	.. ..	.....	CS.11.
Nation	65 16	141 08	1910.4	36 35	.. ..	.....	36 28	.. ..	.....	CS.11.
Casca	65 21	141 03	1910.5	36 22	.. ..	.....	36 15	.. ..	.....	CS.11.
Yellow	65 28	141 03	1910.5	36 36	.. ..	.....	36 29	.. ..	.....	CS.11.
Halley	65 34	141 04	1910.5	36 26	.. ..	.....	36 19	.. ..	.....	CS.11.
Union	65 36	141 01	1910.5	36 37	.. ..	.....	36 30	.. ..	.....	CS.11.
Seal	65 46	140 50	1910.5	37 12	.. ..	.....	37 05	.. ..	.....	CS.11.
Fire	65 48	141 12	1910.5	36 31	.. ..	.....	36 24	.. ..	.....	CS.11.
Kandik	65 55	140 54	1910.5	37 01	.. ..	.....	36 53	.. ..	.....	CS.11.
Bench	65 57	141 16	1910.5	36 34	.. ..	.....	36 26	.. ..	.....	CS.11.
Stripe	66 06	140 58	1910.6	37 06	.. ..	.....	36 57	.. ..	.....	CS.11.
Fishing	66 14	140 59	1910.6	36 50	.. ..	.....	36 41	.. ..	.....	CS.11.
Igloo	66 21	141 11	1910.6	36 40	.. ..	.....	36 30	.. ..	.....	CS.11.
White	66 39	141 11	1910.6	38 10	.. ..	.....	38 00	.. ..	.....	CS.11.
Storm	66 51	141 08	1910.7	37 03	.. ..	.....	36 53	.. ..	.....	CS.11.
Near Monument No. 50	67 25	141 00	1912.4	37 04	.. ..	.....	36 56	.. ..	.....	CS.15.
Camp Colonna	67 25	140 59	1890.5	38 07	80 37	.0971	36 56	80 06	.1020	CS.d1.
Gun	67 36	140 53	1911.5	38 42	.. ..	.....	38 32	.. ..	.....	CS.15.
Comb	67 50	141 12	1911.6	38 55	.. ..	.....	38 45	.. ..	.....	CS.15.
Pasture	68 08	141 14	1911.5	38 20	.. ..	.....	38 10	.. ..	.....	CS.15.
Yankee	68 19	141 13	1911.5	37 52	.. ..	.....	37 42	.. ..	.....	CS.15.
Wee	68 25	141 14	1911.5	38 09	.. ..	.....	37 58	.. ..	.....	CS.15.
Coral	68 31	141 14	1911.5	38 09	.. ..	.....	37 58	.. ..	.....	CS.15.
Valley of Three Rivers	68 37	141 00	1890.3	40 33	.. ..	.....	39 18	.. ..	.....	CS.d.
Shark	68 39	140 55	1911.6	39 11	.. ..	.....	39 00	.. ..	.....	CS.15.
Siwash	68 48	141 18	1911.6	39 01	.. ..	.....	38 49	.. ..	.....	CS.15.
Tub	68 58	140 58	1912.5	39 51	.. ..	.....	39 40	.. ..	.....	CS.15.
Near Empire	69 08	140 53	1912.5	40 42	.. ..	.....	40 31	.. ..	.....	CS.15.
Aurora	69 15	140 50	1912.5	40 37	.. ..	.....	40 26	.. ..	.....	CS.15.
Mosquito	69 27	141 13	1912.6	40 38	.. ..	.....	40 26	.. ..	.....	CS.15.
Monument No. 1	69 39	141 00	1912.6	40 22	.. ..	.....	40 10	.. ..	.....	CS.15.

* A large number of values of declination, determined in 1908, 1909, and 1910, in connection with the survey and demarcation of this boundary, have not been included in this tabulation because the method employed (compass needle and protractor of the plane table) gave only approximate results.

Observed magnetic elements and corresponding values for Jan. 1, 1920—Continued.

CANADA ADJACENT TO ALASKA.

Station.	Lat.	Long.	Date.	Observed.			Reduced to 1920.			Source.
				D.	I.	H.	D.	I.	H.	
	° ′	° ′		East. ° ′	° ′	c. g. s.	East. ° ′	° ′	c. g. s.	
McLoughlin Bay	52 08	128 10	1881.6	26 43	73 12	.1745	28 06	72 36	.1752	CS.x.
Rose Harbor	52 09	131 15	1881.7	26 01	72 30	.1791	27 24	71 54	.1798	CS.x.
Kynumt Harbor	52 12	128 12	1866.5	26 10	.. ..	.....	27 56	.. ..	.....	BN.
North Bentinck Arm	52 23	126 48	1864.5	24 46	.. ..	.....	27 10	.. ..	.....	BN.
Carter Bay	52 50	128 25	1866.5	25 59	.. ..	.....	27 58	.. ..	.....	BN.
Head of Dean Inlet	52 52	127 13	1876.5	27 00	.. ..	.....	28 54	.. ..	.....	CO.
Anchor Cove	53 12	132 14	1866.5	24 59	.. ..	.....	26 18	.. ..	.....	BN.
Head of Gardner Inlet	53 15	127 37	1875.5	26 30	.. ..	.....	28 25	.. ..	.....	CO.
Alpha Bay	53 52	130 18	1866.5	26 34	.. ..	.....	28 18	.. ..	.....	BN.
Queen Charlotte Island	54 00	132 35	1907.5	28 23	.. ..	.....	28 47	.. ..	.....	BN.
Refuge Bay	54 03	130 32	1909.5	28 59	.. ..	.....	29 18	.. ..	.....	BN.
Masset	54 05	132 15	1907.7	27 59	.. ..	.....	28 22	.. ..	.....	BN.
Stephens Island	54 13	130 46	1908.5	28 48	.. ..	.....	29 08	.. ..	.....	BN.
North Island	54 14	133 00	1908.5	29 04	.. ..	.....	29 24	.. ..	.....	CS.9.
Port Essington	54 14	129 47	1879.5	27 20	.. ..	.....	28 58	.. ..	.....	CO.
Head of Wark Canal	54 18	129 43	1879.5	27 30	.. ..	.....	29 08	.. ..	.....	CO.
Prince Rupert	54 18	130 21	1908.4	28 48	.. ..	.....	29 08	.. ..	.....	BN.
Do	54 19	130 21	1909.4	28 50	.. ..	.....	29 07	.. ..	.....	BN.
20 miles up Skeena River.	54 19	129 19	1879.5	27 20	.. ..	.....	29 04	.. ..	.....	CO.
31 miles up Skeena River.	54 22	129 00	1879.5	26 45	.. ..	.....	28 36	.. ..	.....	CO.
50 miles up Skeena River.	54 30	128 35	1879.5	26 30	.. ..	.....	28 24	.. ..	.....	CO.
Port Simpson	54 34	130 26	1895.4	28 37	74 09	.1629	29 30	73 38	.1645	CS.d1.
Do	54 34	130 26	1906.5	28 35	73 51	.1645	29 02	.. ..	.....	BN.
Do	54 34	130 26	1907.3	28 30	.. ..	.....	28 54	.. ..	.....	BN.
Do	54 34	130 26	1908.7	28 45	.. ..	.....	29 03	.. ..	.....	BN.
Gnarled Island	54 39	130 50	1908.4	28 46	.. ..	.....	29 05	.. ..	.....	BN.
Lion Point	55 53	130 01	1895.4	30 13	75 25	.1522	31 02	74 52	.1552	CS.d1.
Magnetic Station	58 28	130 02	1887.5	30 26	.. ..	.....	31 21	.. ..	.....	CO.
Lake Lindeman	59 47	135 05	1887.5	32 17	77 05	.1336	33 02	76 21	.1378	CO.
Lake Marsh	60 21	134 17	1887.5	32 46	77 32	.1301	33 26	76 50	.1348	CO.
Miles Canyon	60 42	135 04	1887.6	30 55	77 44	.1262	31 35	77 01	.1310	CO.
White Horse	60 44	135 02	1907.6	32 17	77 38	.1271	32 30	77 24	.1278	CI.1.
Do	60 44	135 02	1908.4	32 06	77 36	.1278	32 18	77 23	.1284	CS.8.
Magnetic Station	61 29	129 39	1887.5	33 45	.. ..	.....	34 19	.. ..	.....	CO.
Do	61 49	131 01	1887.5	34 30	.. ..	.....	35 04	.. ..	.....	CO.
Lewes River	62 04	136 04	1887.6	33 55	78 16	.1225	34 24	77 34	.1275	CO.
Tantalus	62 06	136 06	1907.7	34 13	77 54	.1242	34 23	77 40	.1251	CI.1.
Fort Selkirk	62 47	137 22	1907.7	33 58	78 40	.1168	34 02	78 25	.1178	CI.1.
Do	62 48	137 25	1887.6	34 17	79 09	.1133	34 30	78 28	.1184	CO.
White River	63 12	139 38	1887.6	34 28	78 19	.1208	34 28	77 38	.1256	CO.
Stewart	63 18	139 29	1907.7	34 02	78 01	.1223	34 02	77 46	.1234	CI.1.
Stewart River	63 22	139 28	1887.6	33 53	78 37	.1178	33 48	77 56	.1226	CO.
Dawson	64 04	139 26	1907.6	35 04	77 58	.1248	35 01	77 43	.1260	CI.1.
Do	64 04	139 26	1908.5	35 04	77 54	.1251	35 01	77 40	.1261	CS.8.
Do	64 04	139 26	1912.7	34 57	.. ..	.....	34 57	.. ..	.....	CS.15.
Forty Mile	64 25	140 34	1908.5	34 41	78 09	.1213	34 35	77 55	.1224	CS.8.
Do	64 25	140 34	1907.6	34 50	78 13	.1208	34 44	77 58	.1220	CI.1.
Do	64 25	140 34	1887.7	35 01	78 46	.1157	34 50	78 06	.1207	CO.
Camp Davidson	64 41	140 55	1907.7	35 37	78 32	.1186	35 31	78 17	.1199	CI.1.
Do	64 41	140 55	1908.5	35 36	78 39	.1207	35 30	78 25	.1218	CS.8.
Do	64 41	140 55	1891.2	35 43	78 34	.1172	35 29	78 00	.1216	CS.d1.
Boundary A	64 41	141 00	1907.7	35 29	78 17	.1211	35 23	78 02	.1224	CI.1.
Porcupine River	65 43	139 40	1888.4	37 34	79 55	.1050	37 14	79 18	.1102	CO.
Herschel I., S. E. side	69 33	138 57	1889.6	43 40	.. ..	.....	.. ..	.. ..	.....	CS.d.
Mouth of Firth River	69 39	139 51	1890.3	43 22	.. ..	.....	.. ..	.. ..	.....	CS.d.

Observed magnetic elements and corresponding values for Jan. 1, 1920—Continued.

RESULTS FROM RECONNOISSANCE SURVEYS IN THE INTERIOR.

Station.	Lat.	Long.	Date.	Observed.			Reduced to 1920.			Source.
				D.	I.	H.	D.	I.	H.	
	° ′	° ′		East. ° ′	° ′	c. g. s.	East. ° ′	° ′	c. g. s.	
Katmai	58 04	154 53	1898.8	24 33	.. ..	.....	23 53	.. ..	.....	G. S.
Savonoski	58 34	155 27	1898.8	23 56	.. ..	.....	23 14	.. ..	.....	G. S.
Naknek Lake	58 48	156 35	1898.8	24 53	.. ..	.....	24 08	.. ..	.....	G. S.
Nushagak	58 56	158 27	1898.8	25 02	.. ..	.....	24 07	.. ..	.....	G. S.
Ualik Lake	59 07	159 28	1898.7	23 13	.. ..	.....	22 15	.. ..	.....	G. S.
Kwinak	59 46	162 01	1898.6	20 38	.. ..	.....	19 26	.. ..	.....	G. S.
On Portage	59 48	160 00	1898.7	22 01	.. ..	.....	20 59	.. ..	.....	G. S.
Kagati Lake	59 53	160 15	1898.7	21 14	.. ..	.....	20 13	.. ..	.....	G. S.
Apokak	60 09	162 15	1898.6	21 25	.. ..	.....	20 11	.. ..	.....	G. S.
Kuskokwim Bay	60 35	162 16	1898.6	20 44	.. ..	.....	19 30	.. ..	.....	G. S.
Bethel	60 47	161 52	1898.6	21 17	.. ..	.....	20 03	.. ..	.....	G. S.
Kuskokwim River	60 54	161 18	1898.6	20 22	.. ..	.....	19 08	.. ..	.....	G. S.
Tyonok	61 04	151 10	1902.4	27 00	.. ..	.....	26 33	.. ..	.....	G. S.
Do.	61 10	151 10	1898.3	27 15	.. ..	.....	26 39	.. ..	.....	G. S.
Kuskokwim River	61 17	160 45	1898.6	25 37	.. ..	.....	24 23	.. ..	.....	G. S.
Mouth Susitna River	61 19	150 38	1898.4	27 15	.. ..	.....	26 39	.. ..	.....	G. S.
Kuskokwim River	61 26	160 46	1898.6	23 50	.. ..	.....	22 40	.. ..	.....	G. S.
Knik	61 27	149 46	1906.5	28 38	.. ..	.....	28 22	.. ..	.....	G. S.
Kuskokwim River	61 32	160 42	1898.6	23 51	.. ..	.....	22 41	.. ..	.....	G. S.
Mouth Yentna River	61 35	150 27	1898.4	27 20	.. ..	.....	26 44	.. ..	.....	G. S.
Susitna River	61 35	150 30	1906.5	25 54	.. ..	.....	25 37	.. ..	.....	Cook.
Chickaloon Creek	61 45	148 25	1905.6	28 19	.. ..	.....	28 01	.. ..	.....	G. S.
Station	61 45	151 41	1902.5	28 00	.. ..	.....	27 30	.. ..	.....	G. S.
Susitna River	61 54	150 07	1898.4	27 50	.. ..	.....	27 14	.. ..	.....	G. S.
Copper Center	61 58	145 20	1902.5	30 38	.. ..	.....	30 26	.. ..	.....	G. S.
On Skwentna River	61 58	152 40	1898.5	27 20	.. ..	.....	26 35	.. ..	.....	G. S.
On Portage Creek	61 59	152 57	1898.5	26 58	.. ..	.....	26 12	.. ..	.....	G. S.
Near Pass	61 59	153 01	1898.5	26 29	.. ..	.....	25 43	.. ..	.....	G. S.
Do	61 59	153 05	1898.5	25 45	.. ..	.....	25 00	.. ..	.....	G. S.
On Portage Creek	62 00	152 46	1898.5	27 19	.. ..	.....	26 34	.. ..	.....	G. S.
Near Pass	62 00	153 04	1898.5	25 58	.. ..	.....	25 12	.. ..	.....	G. S.
Station	62 06	151 32	1902.5	28 30	.. ..	.....	28 03	.. ..	.....	G. S.
Do	62 11	152 54	1902.5	27 15	.. ..	.....	26 40	.. ..	.....	G. S.
Do	62 15	152 24	1902.5	27 15	.. ..	.....	26 42	.. ..	.....	G. S.
Do	62 17	153 15	1902.5	26 40	.. ..	.....	26 03	.. ..	.....	G. S.
Do	62 18	151 50	1906.5	26 11	.. ..	.....	25 52	.. ..	.....	Cook.
Forks Susitna River	62 20	150 10	1898.5	29 30	.. ..	.....	28 54	.. ..	.....	G. S.
Station	62 26	153 27	1902.5	26 45	.. ..	.....	26 07	.. ..	.....	G. S.
Do	62 40	150 40	1906.5	27 52	.. ..	.....	26 34	.. ..	.....	Cook.
Do	62 40	152 51	1902.6	27 20	.. ..	.....	26 42	.. ..	.....	G. S.
Mouth Indian Creek	62 49	149 39	1898.5	29 30	.. ..	.....	28 52	.. ..	.....	G. S.
Station	62 53	152 16	1902.6	27 30	.. ..	.....	26 55	.. ..	.....	G. S.
Do	63 06	151 43	1902.6	28 10	.. ..	.....	27 35	.. ..	.....	G. S.
Chisana Mountain	63 14	142 38	1898.6	32 45	.. ..	.....	32 35	.. ..	.....	G. S.
Station	63 15	151 12	1902.6	28 30	.. ..	.....	27 56	.. ..	.....	G. S.
Station	63 42	149 24	1902.6	29 35	.. ..	.....	29 05	.. ..	.....	G. S.
Do	63 28	150 38	1902.6	28 45	.. ..	.....	28 12	.. ..	.....	G. S.
Do	63 43	149 04	1902.6	29 50	.. ..	.....	29 20	.. ..	.....	G. S.
Do	64 10	149 00	1902.7	30 10	.. ..	.....	29 40	.. ..	.....	G. S.
Tortella	64 34	149 05	1902.7	30 45	.. ..	.....	30 15	.. ..	.....	G. S.
Station	64 38	156 40	1906.6	25 10	.. ..	.....	24 31	.. ..	.....	U. S. E.
White Mountain	64 42	163 25	1900.5	20 00	.. ..	.....	18 45	.. ..	.....	G. S.
Norton Bay	64 44	161 50	1900.6	23 45	.. ..	.....	22 35	.. ..	.....	G. S.
Station	64 45	155 25	1906.6	25 40	.. ..	.....	25 06	.. ..	.....	U. S. E.
Do	64 50	157 02	1906.6	24 50	.. ..	.....	24 13	.. ..	.....	U. S. E.
On Fish River	64 55	163 15	1900.5	21 30	.. ..	.....	20 16	.. ..	.....	G. S.
Station	64 55	154 27	1906.6	27 00	.. ..	.....	26 28	.. ..	.....	U. S. E.
Do	64 55	162 26	1906.6	22 15	.. ..	.....	21 30	.. ..	.....	U. S. E.
Do	64 56	159 04	1906.6	24 10	.. ..	.....	23 30	.. ..	.....	U. S. E.
Do	64 56	163 00	1906.6	21 50	.. ..	.....	21 03	.. ..	.....	U. S. E.

Observed magnetic elements and corresponding values for Jan. 1, 1920—Continued.

RESULTS FROM RECONNOISSANCE SURVEYS IN THE INTERIOR—Continued.

Station.	Lat.	Long.	Date.	Observed.			Reduced to 1920.			Source.
				D.	I.	H.	D.	I.	H.	
	° ′	° ′		East. ° ′	° ′	c. g. s.	East. ° ′	° ′	c. g. s.	
Station	64 58	159 52	1906.6	24 00	.. ..	.....	23 19	.. ..	.....	U. S. E.
Do	64 58	160 55	1906.6	23 00	.. ..	.....	22 17	.. ..	.....	U. S. E.
Do	64 58	163 32	1906.6	21 30	.. ..	.....	20 42	.. ..	.....	U. S. E.
Do	64 59	157 58	1906.6	24 30	.. ..	.....	23 52	.. ..	.....	U. S. E.
Do	65 00	161 28	1906.6	22 45	.. ..	.....	22 01	.. ..	.....	U. S. E.
Do	65 01	162 00	1906.6	22 30	.. ..	.....	21 45	.. ..	.....	U. S. E.
Do	65 05	153 40	1906.6	27 30	.. ..	.....	27 00	.. ..	.....	U. S. E.
On Fish River	65 06	163 02	1900.5	21 45	.. ..	.....	20 32	.. ..	.....	G. S.
Station	65 06	148 53	1902.7	30 50	.. ..	.....	30 16	.. ..	.....	G. S.
Do	65 11	152 42	1906.6	28 10	.. ..	.....	27 41	.. ..	.....	U. S. E.
Do	65 11	151 50	1906.6	28 40	.. ..	.....	28 12	.. ..	.....	U. S. E.
Head Koyuk River	65 23	162 35	1900.7	20 00	.. ..	.....	18 47	.. ..	.....	G. S.
Station	66 02	149 10	1901.5	32 15	.. ..	.....	31 37	.. ..	.....	G. S.
Mouth Swan River	66 03	162 40	1901.7	23 23	.. ..	.....	22 13	.. ..	.....	G. S.
Station	66 14	148 34	1901.5	32 30	.. ..	.....	31 49	.. ..	.....	G. S.
Do	66 15	148 02	1901.5	32 30	.. ..	.....	31 50	.. ..	.....	G. S.
Do	66 16	147 35	1901.4	34 00	.. ..	.....	33 24	.. ..	.....	G. S.
Dall City	66 22	149 56	1901.5	31 00	.. ..	.....	30 12	.. ..	.....	G. S.
Station	66 26	147 18	1901.4	33 00	.. ..	.....	32 24	.. ..	.....	G. S.
Do	66 31	146 45	1901.4	33 45	.. ..	.....	33 07	.. ..	.....	G. S.
Do	66 34	146 13	1901.4	34 30	.. ..	.....	33 53	.. ..	.....	G. S.
Fort Yukon	66 34	145 19	1901.4	36 00	.. ..	.....	35 24	.. ..	.....	G. S.
Do	66 35	145 20	1903.5	34 35	.. ..	.....	34 05	.. ..	.....	G. S.
Station	66 36	145 38	1901.4	34 30	.. ..	.....	33 54	.. ..	.....	G. S.
Do	66 47	161 25	1901.7	25 00	.. ..	.....	23 50	.. ..	.....	G. S.
Do	66 51	156 30	1901.6	28 30	.. ..	.....	27 26	.. ..	.....	G. S.
Do	66 52	154 47	1901.6	29 20	.. ..	.....	28 20	.. ..	.....	G. S.
Kikiktak	66 52	162 36	1901.7	24 10	.. ..	.....	23 00	.. ..	.....	G. S.
Station	66 53	156 57	1901.6	28 15	.. ..	.....	27 08	.. ..	.....	G. S.
Do	66 56	160 35	1901.7	26 00	.. ..	.....	24 54	.. ..	.....	G. S.
Do	66 58	160 14	1901.7	25 30	.. ..	.....	24 24	.. ..	.....	G. S.
Do	66 59	153 40	1901.6	28 30	.. ..	.....	27 30	.. ..	.....	G. S.
Do	67 04	153 58	1901.6	29 10	.. ..	.....	28 10	.. ..	.....	G. S.
Do	67 05	154 16	1901.6	29 30	.. ..	.....	28 23	.. ..	.....	G. S.
Do	67 08	157 45	1901.6	26 30	.. ..	.....	25 22	.. ..	.....	G. S.
Do	67 09	159 38	1901.7	25 30	.. ..	.....	24 20	.. ..	.....	G. S.
On John River	67 20	152 09	1901.5	29 23	.. ..	.....	28 23	.. ..	.....	G. S.
Station	68 10	151 52	1901.5	31 04	.. ..	.....	30 04	.. ..	.....	G. S.
Do	68 13	151 45	1901.6	30 30	.. ..	.....	29 30	.. ..	.....	G. S.

Observations on board ship.

INLAND PASSAGES OF BRITISH COLUMBIA AND SOUTHEASTERN ALASKA.

Lat.	Long.	Date.	Observed.				Reduced to 1920.			Source.
			D.	I.	H.	F.	D.	I.	H.	
° ′	° ′		East. ° ′	° ′	c. g. s.	c. g. s.	East. ° ′	° ′	c. g. s.	
51 26	127 52	1908.8	26 34	.. ..	.....	.....	26 55	.. ..	.....	CS.9
51 26	127 52	1909.4	25 22	72 40	0.1761	0.5911	25 40	72 28	0.1752	CS.9
51 32	127 52	1909.4	27 33	.. ..	.....	.....	27 51	.. ..	.....	CS.9
51 45	127 57	1908.8	.. ..	72 44	.1744	.5876	.. ..	72 31	.1736	CS.9
52 04	127 56	1909.4	25 14	.. ..	.....	.....	25 32	.. ..	.....	CS.9
52 04	128 06	1907.6	27 00	.. ..	.....	.....	27 26	.. ..	.....	CS.8
52 04	128 06	1917.3	28 18	72 45	.1733	.5843	28 20	72 42	.1730	CS.51
52 16	128 27	1909.4	27 11	.. ..	.....	.....	27 29	.. ..	.....	CS.9
52 22	128 32	1908.8	30 40	.. ..	.....	.....	31 00	.. ..	.....	CS.9
52 22	128 32	1910.4	28 09	.. ..	.....	.....	28 23	.. ..	.....	CS.10
52 24	128 33	1917.3	28 34	.. ..	.....	.....	28 36	.. ..	.....	CS.51
52 25	128 33	1909.4	26 22	.. ..	.....	.....	26 39	.. ..	.....	CS.9
52 43	128 34	1909.8	.. ..	73 24	.1677	.5871	.. ..	73 13	.1669	CS.10
52 48	128 25	1909.4	28 13	.. ..	.....	.....	28 30	.. ..	.....	CS.9
53 10	128 36	1917.3	29 13	.. ..	.....	.....	29 15	.. ..	.....	CS.51
53 11	128 36	1908.8	28 14	.. ..	.....	.....	28 33	.. ..	.....	CS.9
53 18	129 05	1914.3	28 10	.. ..	.....	.....	28 16	.. ..	.....	CS.25
53 20	128 55	1914.3	26 52	.. ..	.....	.....	26 58	.. ..	.....	CS.25
53 20	129 11	1909.4	26 36	.....	.....	.....	26 53	.....	.....	CS.9
53 22	129 17	1908.8	27 34	73 08	.1714	.5908	27 53	72 56	.1708	CS.9
53 26	129 25	1908.3	.. ..	73 23	.1686	.5897	.. ..	73 10	.1681	CS.8
53 44	129 51	1910.4	28 52	73 07	.1723	.5934	29 05	72 58	.1717	CS.10
53 58	130 10	1909.4	29 15	74 05	.1609	.5866	29 32	73 53	.1604	CS.9
53 59	130 12	1909.4	28 18	.. ..	.....	.....	28 34	.. ..	.....	CS.9
53 59	130 11	1910.3	28 43	.. ..	.....	.....	28 56	.. ..	.....	CS.10
54 03	130 13	1908.8	27 22	.. ..	.....	.....	27 41	.. ..	.....	CS.9
54 10	131 51	1906.9	28 40	.. ..	.....	.....	29 06	.. ..	.....	BN.
54 12	132 55	1907.8	27 55	.. ..	.....	.....	28 16	.. ..	.....	BN.
54 15	130 30	1917.3	29 26	74 01	.1603	.5820	29 28	73 58	.1600	CS.51
54 15	130 30	1907.8	28 22	.. ..	.....	.....	28 45	.. ..	.....	CS.8
54 16	130 37	1907.3	28 45	.. ..	.....	.....	29 11	.. ..	.....	BN.
54 23	130 57	1914.3	28 39	.. ..	.....	.....	28 45	.. ..	.....	CS.25
54 25	130 36	1908.3	29 07	73 51	.1634	.5876	29 29	73 38	.1629	CS.8
54 27	131 58	1909.4	27 56	.. ..	.....	.....	28 12	.. ..	.....	CS.9
54 27	132 05	1910.4	28 28	.. ..	.....	.....	28 41	.. ..	.....	CS.10
54 30	130 29	1906.5	29 05	.. ..	.....	.....	29 35	.. ..	.....	BN.
54 38	130 42	1911.6	29 14	.. ..	.....	.....	29 25	.. ..	.....	CS.15
54 38	130 44	1910.3	28 42	.. ..	.....	.....	28 55	.. ..	.....	CS.10
54 41	130 43	1909.4	27 03	.. ..	.....	.....	27 19	.. ..	.....	CS.9
54 41	130 54	1907.8	28 23	74 05	.1616	.5894	28 46	73 51	.1614	CS.8
54 43	133 26	1906.7	28 14	.....	.....	.....	28 41	.....	.....	BN.
55 00	131 08	1908.8	29 08	74 11	.1606	.5892	29 26	73 59	.1603	CS.9.
55 00	131 05	1890.4	29 19	.....	.....	.....	30 28	.. ..	.....	UN.
55 06	131 10	1909.4	28 21	.. ..	.....	.....	28 37	.. ..	.....	CS.9.
55 06	131 10	1910.3	29 09	.. ..	.....	.....	29 21	.. ..	.....	CS.10.
55 06	131 50	1905.4	28 31	.. ..	.....	.....	29 03	.. ..	.....	CS.5.
55 13	131 38	1914.3	29 19	.. ..	.....	.....	29 25	.. ..	.....	CS.25.
55 17	131 36	1907.6	28 55	74 07	.1627	.5944	29 18	73 53	.1626	CS.8.
55 17	131 36	1907.8	29 11	74 15	.1591	.5803	29 33	74 01	.1590	CS.8.
55 18	131 36	1908.3	29 00	74 13	.1593	.5858	29 20	74 00	.1591	CS.8.
55 30	132 00	1912.4	29 52	.. ..	.....	.....	30 01	.. ..	.....	CS.15.
55 31	132 06	1896.6	28 34	.. ..	.....	.....	29 28	.. ..	.....	UN.
55 44	132 22	1908.8	29 32	74 26	.1578	.5881	29 49	74 14	.1576	CS.9.
55 52	133 38	1904.6	29 19	.. ..	.....	.....	29 52	.. ..	.....	CS.5.
56 00	132 02	1904.6	29 18	.. ..	.....	.....	29 58	.. ..	.....	BN.
56 03	133 57	1909.8	29 46	74 24	.1581	.5880	30 00	74 13	.1578	CS.10.
56 04	132 30	1913.4	30 29	.. ..	.....	.....	30 36	.. ..	.....	CS.20.
56 09	132 45	1910.8	28 56	74 14	.1609	.5923	29 10	74 05	.1606	CS.11.
56 15	132 55	1904.6	29 19	.. ..	.....	.....	29 55	.. ..	.....	BN.
56 24	133 35	1908.3	29 59	.. ..	.....	.....	30 19	.. ..	.....	CS.8.

Observations on board ship—Continued.

INLAND PASSAGES OF BRITISH COLUMBIA AND SOUTHEASTERN ALASKA—Contd.

Lat.	Long.	Date.	Observed.				Reduced to 1920.			Source.
			D.	I.	H.	F.	D.	I.	H.	
° ′	° ′		East. ° ′	° ′	c. g. s.	c. g. s.	East. ° ′	° ′	c. g. s.	
56 30	134 35	1894.5	30 07	.. ..	.....	.....	30 56	.. ..	.....	UN.
56 51	132 53	1910.8	.. ..	74 44	.1547	.5877	.. ..	74 35	.1545	CS.11.
56 51	132 55	1913.8	30 07	.. ..	.....	.....	30 14	.. ..	.....	CS.20.
57 02	135 19	1903.6	29 56	.. ..	.....	.....	30 29	.. ..	.....	CS.4.
57 03	135 20	1907.5	30 03	74 32	.1568	.....	30 24	74 18	.1570	CI.3.
57 03	135 20	1888.4	28 50	.. ..	.....	.....	29 47	.. ..	.....	UN.
57 20	135 40	1892.3	29 42	.. ..	.....	.....	30 30	.. ..	.....	UN.
57 25	134 51	1893.6	29 39	.. ..	.....	.....	30 29	.. ..	.....	UN.
57 29	135 07	1895.6	30 43	.. ..	.....	.....	31 29	.. ..	.....	UN.
58 05	135 03	1909.3	30 01	.. ..	.....	.....	30 13	.. ..	.....	CS.10.
58 14	134 18	1903.8	25 54	.. ..	.....	.....	26 21	.. ..	.....	CS.4.
58 17	136 23	1913.8	32 24	.. ..	.....	.....	32 30	.. ..	.....	CS.20.
59 14	140 36	1913.8	30 12	.. ..	.....	.....	30 17	.. ..	.....	CS.20.

PACIFIC OCEAN.

51 58	131 47	1907.4	27 01	71 19	.1849	.5773	27 22	71 01	.1843	CS.8.
52 04	132 15	1906.5	26 18	71 29	.1845	.....	26 36	71 10	.1839	CS.7.
52 44	133 00	1910.3	.. ..	72 28	.1714	.5690	.. ..	72 15	.1707	CS.10.
54 44	135 08	1910.4	29 12	73 18	.1673	.5822	29 22	73 05	.1669	CS.10.
54 46	135 30	1909.4	28 20	73 09	.1688	.5823	28 29	72 55	.1684	CS.9.
56 05	136 40	1894.4	27 57	.. ..	.....	.....	28 32	.. ..	.....	UN.
55 42	138 53	1907.6	27 55	.. ..	.....	.....	28 04	.. ..	.....	CI.3.
54 37	139 00	1907.6	.. ..	72 31	.1715	.....	.. ..	72 13	.1713	CI.3.
53 48	139 47	1907.6	26 03	.. ..	.1814	.....	26 04	.. ..	.1812	CI.3.
55 14	140 22	1907.4	.. ..	72 38	.1704	.5709	.. ..	72 19	.1703	CS.8.
57 45	140 22	1910.3	.. ..	74 04	.1565	.5700	.. ..	73 52	.1565	CS.10.
55 11	140 53	1910.4	.. ..	72 10	.1748	.5709	.. ..	71 55	.1746	CS.10.
58 40	141 27	1910.8	28 50	74 13	.1560	.5736	28 54	74 02	.1560	CS.11.
55 12	141 34	1908.4	.. ..	72 14	.1747	.5724	.. ..	71 54	.1745	CS.9.
54 05	142 13	1907.4	24 07	.. ..	.....	.....	24 02	.. ..	.....	CI.3.
55 23	143 29	1910.4	26 15	.. ..	.....	.....	26 15	.. ..	.....	CS.10.
57 14	144 18	1908.3	28 59	.. ..	.....	.....	29 01	.. ..	.....	CS.8.
57 15	144 31	1908.3	28 52	.. ..	.....	.....	28 54	.. ..	.....	CS.8.
58 49	145 04	1910.8	29 14	.. ..	.....	.....	29 14	.. ..	.....	CS.11.
56 23	145 59	1907.4	.. ..	72 14	.1732	.5677	.. ..	71 51	.1733	CS.8.
55 15	146 50	1906.5	24 10	70 49	.1847	.....	24 05	70 25	.1848	CS.7.
55 43	147 19	1910.4	24 40	71 14	.1799	.5591	24 36	70 57	.1799	CS.10.
58 53	147 24	1910.8	27 05	.. ..	.....	.....	27 02	.. ..	.....	CS.11.
55 32	147 25	1909.4	24 52	71 20	.1812	.5662	24 47	71 00	.1812	CS.9.
55 02	148 42	1911.6	.. ..	70 33	.1856	.5574	.. ..	70 17	.1853	CS.15.
60 08	149 13	1905.4	26 45	74 12	.1552	.....	26 30	73 50	.1562	CS.6.
60 05	149 15	1905.8	27 34	73 58	.1580	.....	27 19	73 37	.1590	CS.6.
57 23	149 35	1908.3	26 00	72 26	.1749	.5794	25 52	72 04	.1753	CS.8.
55 40	149 42	1909.4	22 53	.. ..	.....	.....	22 46	.. ..	.....	CS.9.
56 04	150 03	1909.7	25 13	.. ..	.....	.....	25 05	.. ..	.....	CS.10.
59 37	151 23	1910.7	25 00	73 13	.1632	.5652	24 52	73 00	.1634	CS.11.
55 43	151 31	1906.5	22 38	70 23	.1863	.....	22 24	69 57	.1867	CS.7.
57 36	151 36	1908.3	23 51	.. ..	.....	.....	23 40	.. ..	.....	CS.8.
55 56	151 56	1909.7	23 13	70 45	.1822	.5526	23 03	70 25	.1825	CS.10.
57 48	152 20	1908.3	24 24	71 54	.1744	.5613	24 11	71 31	.1748	CS.8.
57 48	152 20	1908.8	24 14	71 53	.1741	.5599	24 02	71 31	.1745	CS.9.
57 48	152 21	1908.2	24 08	71 55	.1737	.5597	23 55	71 32	.1741	CS.9.
57 48	152 21	1907.8	24 15	71 53	.1736	.5582	24 01	71 29	.1740	CS.8.
57 46	152 26	1907.4	24 12	72 04	.1736	.5637	23 57	71 39	.1741	CS.9.
49 30	152 32	1907.5	.. ..	66 01	.2137	.....	.. ..	65 42	.2123	CI.3.
57 57	152 33	1907.6	24 14	72 04	.1734	.5633	24 00	71 39	.1738	CS.8.
58 02	153 13	1908.5	22 32	71 53	.1743	.5606	22 18	71 30	.1747	CS.9.
59 40	153 24	1913.7	27 44	.. ..	.....	.....	27 38	.. ..	.....	CS.20.
55 31	153 37	1909.4	22 05	70 08	.1870	.5504	21 53	69 50	.1865	CS.9.
55 36	153 52	1910.4	22 24	70 06	.1870	.5494	22 13	69 49	.1865	CS.10.

Observations on board ship—Continued.

PACIFIC OCEAN—Continued.

Lat.	Long.	Date.	Observed.				Reduced to 1920.			Source.
			D.	I.	H.	F.	D.	I.	H.	
° ′	° ′		East. ° ′	° ′	c. g. s.	c. g. s.	East. ° ′	° ′	c. g. s.	
57 38	154 31	1907.6	23 47	71 58	.1735	.5603	23 30	71 33	.1738	CS.8.
55 33	154 36	1911.6	.. ..	69 40	.1903	.5476	.. ..	69 25	.1899	CS.15.
55 42	155 30	1909.7	22 18	.. ..	.....	.....	22 05	.. ..	.....	CS.10.
55 59	155 41	1906.5	21 53	69 53	.1891	.....	21 32	69 30	.1891	CS.7.
55 30	156 10	1909.4	20 39	.. ..	.....	.....	20 25	.. ..	.....	CS.9.
56 50	156 14	1913.4	22 00	70 20	.1867	5549	21 52	70 07	.1867	CS.20.
55 32	156 51	1910.4	20 26	.. ..	.....	.....	20 13	.. ..	.....	CS.10.
55 32	157 40	1909.7	20 56	69 13	.1922	.5416	20 41	68 52	.1919	CS.10.
55 53	157 53	1911.8	21 30	68 58	.2022	.5634	21 19	68 42	.2021	CS.15.
58 28	158 03	1910.4	22 01	71 26	.1761	.5531	21 42	71 08	.1763	CS.10.
58 50	158 33	1909.7	21 10	71 37	.1739	.5514	21 19	71 18	.1742	CS.10.
58 49	158 34	1909.5	21 45	71 42	.1740	.5541	21 24	71 23	.1743	CS.9.
57 26	158 34	1909.7	21 03	71 29	.1750	.5509	20 42	71 10	.1752	CS.10.
58 30	158 39	1910.7	21 29	71 25	.1768	.5547	21 10	71 07	.1771	CS.11.
58 31	158 39	1910.5	21 23	71 20	.1764	.5511	21 04	71 02	.1767	CS.10.
56 39	159 34	1910.4	20 06	69 46	.1891	.5467	19 52	69 27	.1892	CS.10.
55 24	159 50	1910.4	18 54	68 45	.1948	.5374	18 40	68 26	.1949	CS.10.
58 22	160 30	1910.7	20 12	.. ..	.....	.....	19 53	.. ..	.....	CS.11.
55 24	160 31	1883.5	19 45	.. ..	.....	.....	18 04	.. ..	.....	UN.
55 18	160 32	1913.8	18 28	68 31	.1979	.5403	18 19	68 19	.1977	CS.20.
55 20	160 52	1894.5	20 28	.. ..	.....	.....	19 20	.. ..	.....	UN.
55 20	161 19	1909.7	21 03	.. ..	.....	.....	20 46	.. ..	.....	CS.10.
55 12	161 44	1913.8	18 40	68 12	.1992	.5363	18 30	68 00	.1990	CS.20.
55 08	161 56	1913.8	18 02	68 44	.1942	.5354	17 52	68 32	.1940	CS.20.
56 03	161 56	1909.7	18 20	68 57	.1943	.5409	18 02	68 37	.1941	CS.10.
56 07	161 56	1900.4	18 37	68 44	.1967	.5422	18 18	68 24	.1965	CS.9.
55 02	162 28	1911.7	18 59	68 29	.1966	.5361	18 45	68 12	.1963	CS.15.
58 25	162 29	1910.7	19 08	.. ..	.....	.....	18 48	.. ..	.....	CS.11.
59 29	162 31	1910.7	18 51	.. ..	.....	.....	18 30	.. ..	.....	CS.11.
54 23	162 38	1910.4	18 52	.. ..	.....	.....	18 36	.. ..	.....	CS.10.
54 44	162 53	1909.7	19 11	68 23	.1949	.5290	18 53	68 02	.1945	CS.10.
54 05	163 00	1913.7	17 48	67 18	.2064	.5348	17 38	67 05	.2061	CS.20.
55 11	164 05	1909.7	16 42	.. ..	.....	.....	16 23	.. ..	.....	CS.10.
55 07	164 11	1909.4	19 03	.. ..	.....	.....	18 42	.. ..	.....	CS.9.
56 28	164 34	1911.6	.. ..	69 08	.1922	.5395	.. ..	68 52	.1920	CS.15.
50 52	164 50	1910.8	15 47	.. ..	.....	.....	15 32	.. ..	.....	CS.11.
54 08	165 23	1909.4	.. ..	67 08	.2031	5227	.. ..	66 47	.2026	CS.9.
54 19	165 39	1910.4	.. ..	66 58	.2052	.5244	.. ..	66 39	.2046	CS.10.
54 04	165 40	1909.4	13 48	.. ..	.....	.....	13 26	.. ..	.....	CS.9.
54 30	166 20	1907.7	16 47	.. ..	.....	.....	16 16	.. ..	.....	BN.
54 54	166 24	1893.6	17 43	.. ..	.....	.....	16 07	.. ..	.....	UN.
53 56	166 27	1913.8	16 50	66 50	.2078	.5281	16 38	66 38	.2074	CS.20.
53 55	166 29	1909.7	17 35	67 15	.2061	.5329	17 14	66 54	.2055	CS.10.
55 05	166 30	1894.7	18 00	.. ..	.....	.....	16 29	.. ..	.....	UN.
53 54	166 31	1904.7	16 46	66 40	.2072	.5236	16 02	66 12	.2069	CS.5.
53 54	166 31	1911.7	16 22	66 43	.2079	.5259	16 04	66 26	.2074	CS.15.
53 53	166 32	1911.7	.. ..	66 32	.2098	.5268	.. ..	66 15	.2093	CS.15.
54 01	166 32	1892.6	16 49	.. ..	.....	.....	15 12	.. ..	.....	UN.
52 40	167 00	1907.6	16 07	.. ..	.....	.....	15 37	.. ..	.....	BN.
56 39	169 23	1892.5	17 03	.. ..	.....	.....	15 11	.. ..	.....	UN.
57 16	169 30	1894.5	15 50	.. ..	.....	.....	14 06	.. ..	.....	UN.
55 51	169 54	1891.7	16 32	.. ..	.....	.....	14 35	.. ..	.....	UN.
56 03	170 16	1904.6	15 09	.. ..	.....	.....	14 16	.. ..	.....	BN.
51 59	182 28	1904.7	9 26	.. ..	.....	.....	8 21	.. ..	.....	CS.5.

Observations on board ship—Continued.

PRELIMINARY RESULTS "CARNEGIE" FOURTH CRUISE.

Pacific Ocean.

Lat.	Long.	Date.	Observed.			Reduced to 1920.			Source.
			D.	I.	H.	D.	I.	H.	
° ′	° ′		East. ° ′	° ′	c. g. s.	East. ° ′	° ′	c. g. s.	
45 26	139 21	1916.7	21 18	.. ..	.....	21 18	.. ..	.....	CI.3.
45 29	139 23	1916.7	.. ..	65 00	.224	.. ..	64 55	.224	CI.3.
45 37	139 32	1916.7	21 54	.. ..	.....	21 54	.. ..	.....	CI.3.
46 49	140 51	1916.7	22 30	.. ..	.....	22 30	.. ..	.....	CI.3.
46 59	141 01	1916.7	.. ..	65 48	.218	.. ..	65 43	.218	CI.3.
47 42	141 45	1916.7	22 42	.. ..	.....	22 42	.. ..	.....	CI.3.
49 16	143 47	1916.7	.. ..	67 00	.210	.. ..	66 55	.210	CI.3.
49 49	144 32	1916.7	23 18	.. ..	.....	23 18	.. ..	.....	CI.3.
51 16	146 46	1916.7	22 12	.. ..	.....	22 12	.. ..	.....	CI.3.
51 33	147 12	1916.7	.. ..	68 06	.201	.. ..	68 00	.201	CI.3.
52 53	151 10	1916.7	.. ..	68 12	.199	.. ..	68 06	.199	CI.3.
52 57	151 50	1916.7	21 54	.. ..	.....	21 54	.. ..	.....	CI.3.
53 12	155 11	1916.7	.. ..	67 36	.201	.. ..	67 30	.201	CI.3.
53 22	156 29	1916.7	20 24	.. ..	.....	20 22	.. ..	.....	CI.3.
52 47	159 46	1916.7	18 42	.. ..	.....	18 40	.. ..	.....	CI.3.
52 44	160 04	1916.7	.. ..	66 36	.206	.. ..	66 30	.206	CI.3.
52 28	161 21	1916.7	17 54	.. ..	.....	17 51	.. ..	.....	CI.3.
51 58	163 39	1916.7	.. ..	66 00	.206	.. ..	65 53	.206	CI.3.
51 55	164 26	1916.7	16 36	.. ..	.....	16 31	.. ..	.....	CI.3.
51 38	167 07	1916.7	15 24	.. ..	.....	15 18	.. ..	.....	CI.3.
51 35	167 31	1916.7	.. ..	64 30	.217	.. ..	64 23	.217	CI.3.
51 22	168 56	1916.7	14 18	.. ..	.....	14 11	.. ..	.....	CI.3.
53 00	169 11	1915.6	14 24	.. ..	.....	14 16	.. ..	.....	CI.3.
52 40	169 21	1915.6	.. ..	65 24	.212	.. ..	65 16	.212	CI.3.
49 03	169 30	1915.5	13 48	.. ..	.....	13 40	.. ..	.....	CI.3.
49 40	169 35	1915.5	.. ..	63 06	.223	.. ..	62 58	.223	CI.3.
50 00	169 36	1915.5	14 00	.. ..	.....	13 52	.. ..	.....	CI.3.
50 10	169 36	1915.5	14 00	.. ..	.....	13 52	.. ..	.....	CI.3.
52 21	170 06	1915.5	14 06	.. ..	.....	13 58	.. ..	.....	CI.3.
51 06	171 56	1916.7	.. ..	63 24	.221	.. ..	63 17	.221	CI.3.
50 46	173 04	1916.7	12 06	.. ..	.....	11 58	.. ..	.....	CI.3.
49 58	175 23	1916.7	11 06	.. ..	.....	10 58	.. ..	.....	CI.3.
49 56	175 31	1916.7	.. ..	62 30	.225	.. ..	62 23	.225	CI.3.
49 34	177 13	1916.7	10 06	.. ..	.....	9 58	.. ..	.....	CI.3.
49 32	177 26	1916.7	.. ..	61 48	.228	.. ..	61 41	.228	CI.3.
49 01	179 34	1916.7	.. ..	60 54	.233	.. ..	60 47	.233	CI.3.
49 00	179 37	1916.7	8 30	.. ..	.....	8 21	.. ..	.....	CI.3.

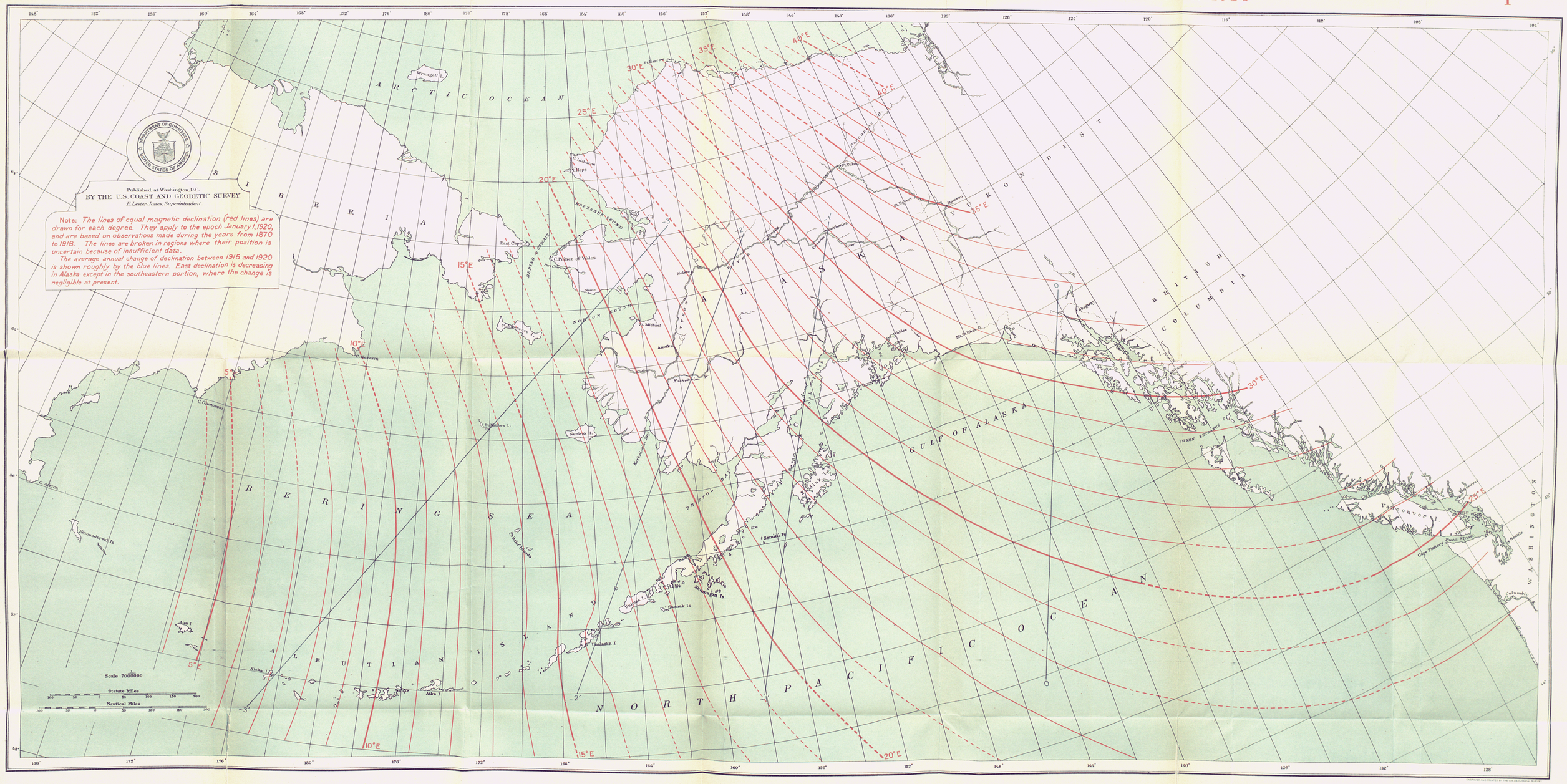
Observations on board ship—Continued.

PRELIMINARY RESULTS "CARNEGIE" FOURTH CRUISE—Continued.

Bering Sea.

Lat.	Long.	Date.	Observed.			Reduced to 1920.			Source.
			D.	I.	H.	D.	I.	H.	
° ′	° ′		East. ° ′	° ′	c. g. s.	East. ° ′	° ′	c. g. s.	
53 54	166 32	1915.6	16 30	.. ..	.....	16 22	.. ..	.....	CI.3.
54 18	166 38	1915.6	.. ..	67 36	.200	.. ..	67 28	.200	CI.3.
58 07	166 48	1915.6	16 24	.. ..	.....	16 14	.. ..	.....	CI.3.
57 24	166 55	1915.6	.. ..	69 24	.189	.. ..	69 16	.189	CI.3.
57 37	166 58	1915.6	16 24	.. ..	.....	16 14	.. ..	.....	CI.3.
56 37	167 33	1915.6	.. ..	68 18	.196	.. ..	68 10	.196	CI.3.
58 00	167 56	1915.6	.. ..	69 42	.184	.. ..	69 34	.184	CI.3.
57 55	168 22	1915.6	15 06	.. ..	.....	14 55	.. ..	.....	CI.3.
57 53	168 34	1915.6	14 42	.. ..	.....	14 31	.. ..	.....	CI.3.
57 40	169 01	1915.6	15 24	.. ..	.....	15 13	.. ..	.....	CI.3.
58 12	170 14	1915.6	.. ..	70 00	.186	.. ..	69 52	.186	CI.3.
59 05	171 29	1915.6	15 24	.. ..	.....	15 12	.. ..	.....	CI.3.
59 02	172 24	1915.6	.. ..	69 48	.184	.. ..	69 40	.184	CI.3.
59 01	172 24	1915.6	13 30	.. ..	.....	13 17	.. ..	.....	CI.3.
59 26	172 40	1915.6	12 30	.. ..	.....	12 17	.. ..	.....	CI.3.
59 33	173 27	1915.6	.. ..	70 12	.182	.. ..	70 04	.182	CI.3.
59 29	174 00	1915.6	11 24	.. ..	.....	11 11	.. ..	.....	CI.3.
59 01	176 17	1915.6	11 36	.. ..	.....	11 22	.. ..	.....	CI.3.
58 42	177 24	1915.6	.. ..	69 30	.188	.. ..	69 22	.188	CI.3.
58 36	177 39	1915.6	9 24	.. ..	.....	9 10	.. ..	.....	CI.3.
58 30	177 58	1915.6	10 12	.. ..	.....	9 58	.. ..	.....	CI.3.
57 49	179 42	1915.6	9 12	.. ..	.....	8 58	.. ..	.....	CI.3.
57 02	181 11	1915.6	.. ..	67 54	.198	.. ..	67 46	.198	CI.3.
56 57	181 24	1915.6	7 36	.. ..	.....	7 20	.. ..	.....	CI.3.
56 44	182 55	1915.6	6 42	.. ..	.....	6 26	.. ..	.....	CI.3.
56 28	182 58	1915.6	6 54	.. ..	.....	6 38	.. ..	.....	CI.3.
56 37	183 01	1915.6	.. ..	67 18	.202	.. ..	67 10	.202	CI.3.
55 49	184 23	1915.6	6 06	.. ..	.....	5 50	.. ..	.....	CI.3.
55 36	184 47	1915.6	.. ..	66 18	.207	.. ..	66 10	.207	CI.3.
55 28	185 59	1915.6	4 48	.. ..	.....	4 32	.. ..	.....	CI.3.
54 35	186 39	1915.6	4 42	.. ..	.....	4 25	.. ..	.....	CI.3.
53 46	187 55	1915.6	.. ..	64 42	.217	.. ..	64 34	.217	CI.3.
53 35	188 05	1915.6	3 42	.. ..	.....	3 25	.. ..	.....	CI.3.
52 22	189 42	1915.6	3 18	.. ..	.....	3 00	.. ..	.....	CI.3.
51 35	190 21	1915.6	.. ..	63 06	.225	.. ..	62 58	.225	CI.3.
51 13	191 22	1915.6	2 12	.. ..	.....	1 54	.. ..	.....	CI.3.

LINES OF EQUAL MAGNETIC DECLINATION AND OF EQUAL ANNUAL CHANGE IN ALASKA FOR 1920



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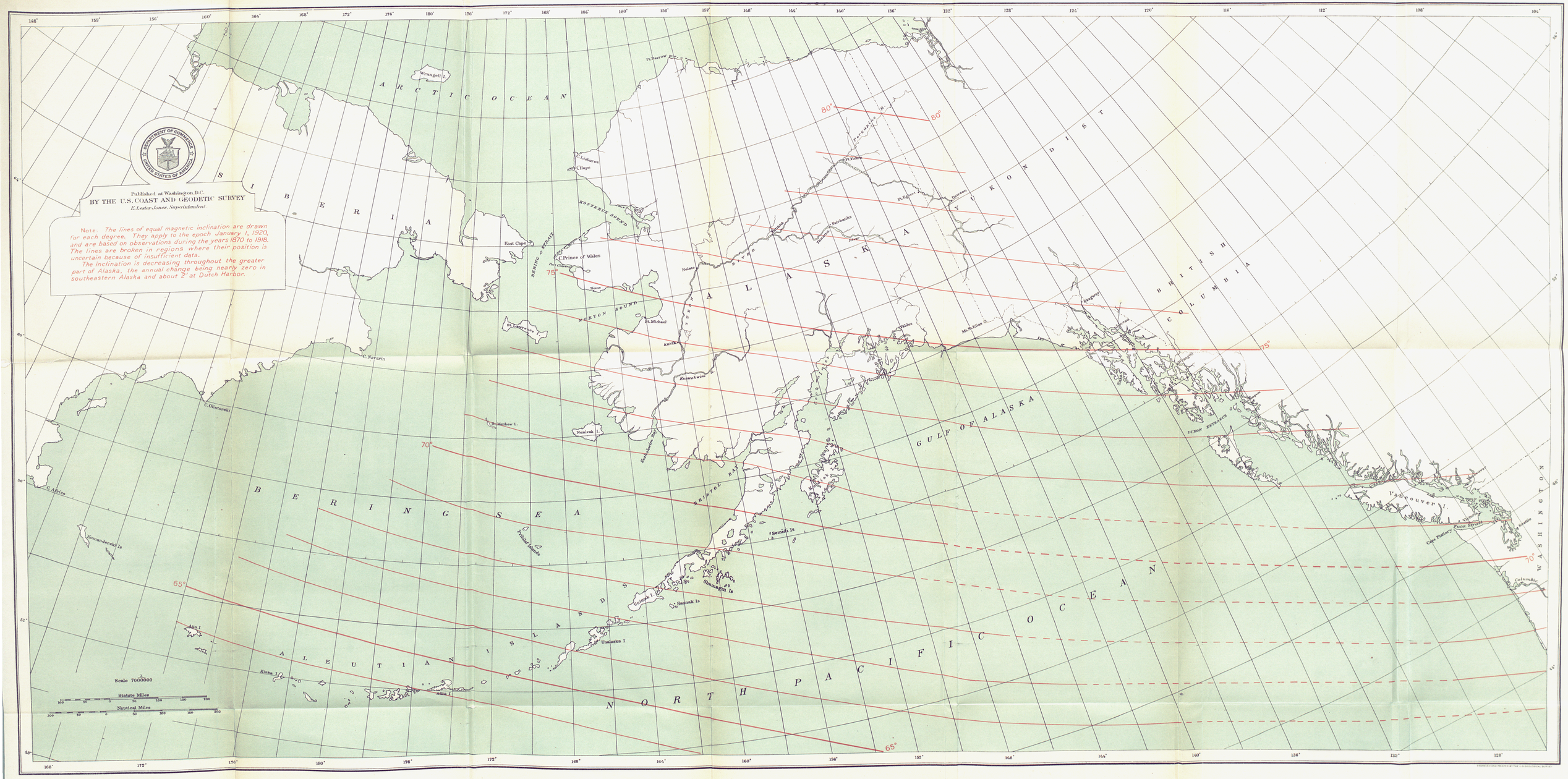
LINES OF EQUAL MAGNETIC INCLINATION IN ALASKA FOR 1920



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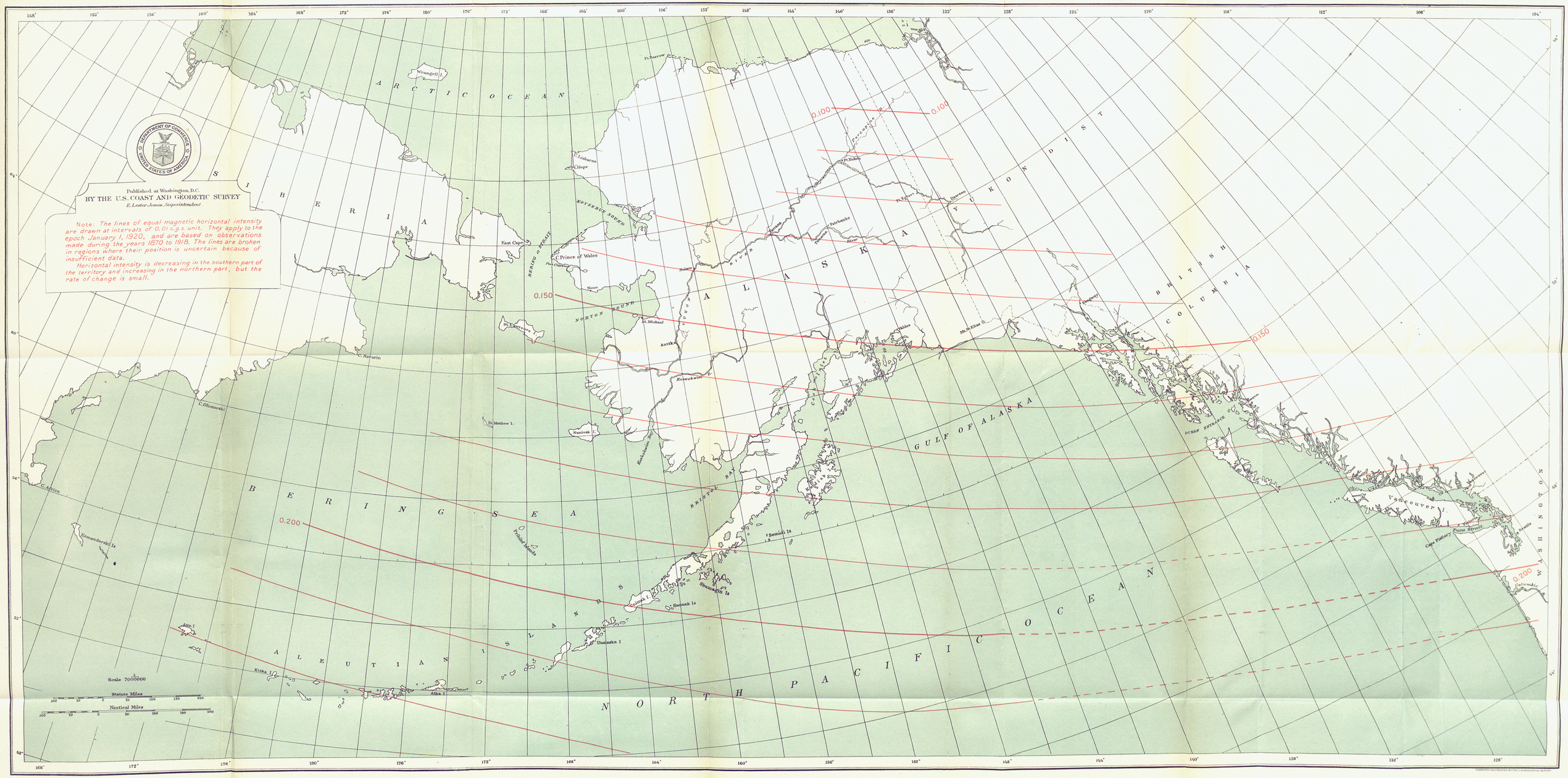
LINES OF EQUAL MAGNETIC HORIZONTAL INTENSITY IN ALASKA FOR 1920



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