

アメリカ海軍天文台サーキュラー№.157について

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サーキュラー№.157は1979年2月26日の皆既日食についての局地予報をまとめたものである。(全部で47頁)

ここには、その中で必要な項目を、次の順に従ってぬき出してある。

1. 皆既帯中心線、南北限界線の緯度、経度
2. 時刻毎の雲量のパーセンテージ頻度
3. 皆既帯上の各都市の局地予報
4. 地図 (オレゴン、モンタナ、マニトバ)。

2の雲量パーセンテージ頻度はC(快晴)を0、本曇りを10とし、C(快晴)0~3、P(一部くもり)4~7、O(本曇り)8~10として、2月と3月のそれぞれのパーセンテージが書いてある。

たとえば、Salem, Oregon の2月の6時はC:13%、P:12%、O:75%である。

各地でのくもりは時間と共にわずかに増大し、再び少なくなる傾向を示す。

全般的に快晴の確率は、海岸よりも内陸部で大きい。

1. 皆既帯中心線、南北限界線の緯度 (Latitude)、経度 (Longitude)

世界時 h m Limit	北限界線		中心線		南限界線	
	Latitude	Longitude	Latitude	Longitude	Latitude	Longitude
	+48 23	+139 30	+47 16	+139 25	+46 12	+139 21
16 10	*	+46 22.8	+132 39.5	+44 48.0	+127 26.1
12	+47 31.7	+132 30.8	45 57.8	127 20.6	44 38.4	123 51.3
14	47 11.3	127 27.8	45 51.1	123 53.4	44 37.1	121 03.9
16	47 06.9	124 04.9	45 51.8	121 09.7	44 40.5	118 42.9
18	47 09.4	121 23.1	45 56.9	118 50.6	44 47.3	116 39.0
16 20	+47 16.1	+119 05.1	+46 05.2	+116 48.0	+44 56.6	+114 47.3
22	47 25.7	117 02.9	46 15.8	114 57.0	45 07.9	113 04.9
24	47 37.7	115 12.2	46 28.5	113 15.0	45 20.9	111 29.7
26	47 51.7	113 30.1	46 42.7	111 40.0	45 35.5	110 00.3
28	48 07.2	111 54.8	46 58.5	110 10.5	45 51.3	108 35.6
16 30	+48 24.2	+110 25.0	+47 15.6	+108 45.6	+46 08.4	+107 14.8
32	48 42.6	108 59.6	47 33.8	107 24.5	46 26.5	105 57.3
34	49 02.1	107 37.9	47 53.2	106 06.5	46 45.8	104 42.5
36	49 22.8	106 19.2	48 13.7	104 51.1	47 06.0	103 30.0
38	49 44.6	105 03.0	48 35.2	103 38.0	47 27.2	102 19.5
16 40	+50 07.4	+103 48.9	+48 57.7	+102 26.6	+47 49.4	+101 10.6
42	50 31.3	102 36.5	49 21.1	101 16.7	48 12.5	100 03.0
44	50 56.2	101 25.5	49 45.6	100 08.1	48 36.5	98 56.5
46	51 22.1	100 15.5	50 11.0	99 09.4	49 01.5	97 50.8
48	51 49.0	99 06.3	50 37.3	97 53.3	49 27.3	96 45.7
16 50	+52 17.0	+ 97 57.7	+51 04.7	+ 96 46.8	+49 54.1	+ 95 41.0
52	52 46.0	96 49.4	51 33.1	95 40.5	50 21.9	94 36.6
54	53 16.2	95 41.2	52 02.5	94 34.2	50 50.7	93 32.1
56	53 47.4	94 32.7	52 32.9	93 27.7	51 20.4	92 27.5
58	54 19.9	93 23.9	53 04.5	92 20.8	51 51.2	91 22.4
17 00	+54 53.6	+ 92 14.3	+53 37.3	+ 91 13.3	+52 23.1	+ 90 16.8
02	55 28.6	91 03.8	54 11.2	90 04.9	52 56.1	89 10.3
04	56 05.0	89 52.1	54 46.4	88 55.3	53 30.3	88 02.7
06	56 42.8	88 38.8	55 23.0	87 44.3	54 05.8	86 53.8
08	57 22.3	87 23.6	56 01.1	86 31.5	54 42.7	85 43.3
17 10	+58 03.5	+ 86 06.0	+56 40.8	+ 85 16.6	+55 21.0	+ 84 30.9
12	58 46.6	84 45.6	57 22.1	83 59.1	56 00.9	83 16.1
14	59 31.8	83 21.8	58 05.4	82 38.5	56 42.5	81 58.6
16	60 19.4	81 53.8	58 50.8	81 14.3	57 26.0	80 37.7
18	61 09.6	80 20.8	59 38.5	79 45.7	58 11.6	79 13.0
17 20	+62 02.9	+ 78 41.7	+60 28.9	+ 78 11.8	+58 59.6	+ 77 43.6
22	62 59.7	76 55.0	61 22.3	76 31.4	59 50.2	76 08.6
24	64 00.8	74 58.5	62 19.3	74 42.9	60 43.9	74 26.7
26	65 07.2	72 49.5	63 20.6	72 44.1	61 41.2	72 36.3
28	66 20.2	70 23.4	64 27.1	70 32.1	62 42.8	70 35.0
17 30	+67 42.0	+ 67 33.1	+65 40.3	+ 68 01.9	+63 49.7	+ 68 19.6
32	69 16.6	64 05.2	67 02.4	65 06.0	65 03.5	65 45.0
34	71 12.2	59 30.0	68 37.6	61 29.8	66 26.4	62 42.7
36	+73 54.7	+ 52 06.6	70 34.5	56 40.5	68 02.9	58 56.7
17 38	+73 22.1	+ 48 39.5	+70 02.6	+ 53 49.2
39	76 27.7	37 13.5	71 19.0	50 12.3
Limit	+77 58	+ 37 16	+77 10	+ 34 00	+76 21	+ 31 17

2. 時刻毎の雨量のパーセンテージ頻度

Hour of Day	Salem, Oregon				Portland, Oregon				Seattle-Tacoma, Washington				Yakima, Washington											
	February		March		February		March		February		March		February		March									
	C	P	O	C P O	C	P	O	C P O	C	P	O	C P O	C	P	O	C P O								
03	16	15	69	26	13	61	16	8	76	21	8	70	15	8	77	25	11	64	35	12	53	51	10	39
04	13	15	71	20	17	63	17	5	78	21	9	70	14	12	73	24	8	68	39	13	48	51	12	37
05	14	11	75	22	9	69	17	5	77	19	9	72	11	13	75	19	11	70	36	15	49	46	14	41
06	13	12	75	15	12	74	15	8	77	16	10	73	13	13	74	13	13	74	29	15	56	37	12	50
07	12	13	75	13	9	78	11	8	80	11	6	83	8	11	81	12	10	78	21	11	67	34	10	56
08	15	6	79	10	13	77	11	8	81	10	8	81	8	8	84	11	11	77	16	12	72	34	14	53
09	14	8	78	11	10	79	11	7	82	11	7	81	10	7	83	13	11	76	20	10	70	34	10	57
10	13	11	76	9	14	77	9	8	82	11	10	80	11	9	80	13	14	74	23	8	69	34	11	55

Hour of Day	Spokane, Washington				Boise, Idaho				Missoula, Montana				Helena, Montana											
	February		March		February		March		February		March		February		March									
	C	P	O	C P O	C	P	O	C P O	C	P	O	C P O	C	P	O	C P O								
04	24	7	68	36	10	53	32	11	58	39	7	54	16	11	74	23	10	67	28	14	57	35	9	55
05	22	11	67	31	8	60	30	8	62	37	7	56	16	10	74	18	14	68	25	19	56	35	7	57
06	15	12	73	25	14	61	28	8	63	33	12	55	16	11	73	15	12	73	23	22	55	23	16	61
07	15	8	77	23	12	65	26	8	65	28	10	62	16	9	74	16	8	76	17	19	64	19	8	72
08	15	9	76	24	12	64	25	8	67	27	7	66	12	4	84	14	9	77	19	11	70	17	8	75
09	16	7	77	22	12	66	21	10	69	28	12	60	13	3	84	16	10	74	19	10	71	18	13	69
10	18	5	77	20	12	68	22	12	66	26	15	59	13	5	82	16	8	75	18	16	65	20	12	68
11	17	10	72	16	15	69	20	13	66	26	15	60	13	9	77	14	9	77	20	13	67	19	14	66

Hour of Day	Great Falls, Montana				Billings, Montana				Bismarck, North Dakota				Fargo, North Dakota											
	February		March		February		March		February		March		February		March									
	C	P	O	C P O	C	P	O	C P O	C	P	O	C P O	C	P	O	C P O								
04	34	8	58	37	13	50	33	11	56	37	14	48	40	10	49	36	10	54	42	10	49	40	11	49
05	33	9	58	34	15	52	33	11	56	34	18	48	39	11	49	34	8	57	43	5	52	38	14	48
06	30	10	60	27	14	59	29	18	53	26	17	57	38	11	51	31	10	59	44	6	50	36	12	52
07	20	13	67	26	10	64	25	13	62	21	17	62	33	11	55	28	12	60	39	10	52	30	9	61
08	20	10	71	24	8	67	18	14	67	23	10	67	27	12	60	23	13	64	36	9	55	30	10	60
09	20	10	69	25	9	66	20	11	69	22	12	66	27	11	62	24	11	65	35	10	54	28	13	59
10	22	10	68	27	11	62	17	18	65	25	11	65	30	12	58	24	12	65	33	11	57	25	13	62
11	22	14	64	28	11	61	17	20	63	22	17	61	30	10	60	25	12	64	34	14	52	25	11	64

Sky cover is judged on a 10-point scale, from 0 for clear to 10 for overcast. The monthly columns above show percentage frequencies collected into three groups: C—Clear (0-3), P—Partly cloudy (4-7), O—Overcast (8-10). For example, in Salem, Oregon, on any day in February, at the sixth hour, chances are 13% that the sky is clear, 12% that it is partly cloudy, and 75% that it is overcast. Percentages in italics bracket the time of maximum eclipse for the station. Percentages for a particular hour may not add up to 100%.

These frequency tables are reproduced here to give a rough idea of the typical cloud cover along the path of totality, and typical daily trends at various points. Thus, for example, one sees that at every station the tendency is for cloud cover to increase gradually from pre-dawn to mid-morning, then begin to diminish. Overall, the percentage frequency of clear sky increases from the coast toward the continental interior.

These data are excerpted from "Climatology of the United States No. 30—Summary of Hourly Observations" (1956); "Climatology of the United States No. 82—Decennial Census of United States Climate—Summary of Hourly Observations" (1960 program); and "Climatology of the United States No. 60" (by state). Series 30 is based on data gathered in 1949-54, and series 82 on data gathered in 1951-60 or 1956-60. The hourly program or processing and publication of the data thereof was discontinued some time after 1960. However, in a few instances where more recent data are available for comparison, there is no significant change. These publications of the Department of Commerce Weather Bureau, for sale by the Superintendent of Documents, contain a wealth of climatological information and weather statistics for the states and various cities.

3. 皆既帯上の各都市の局地予報

Geographic Locations	LOCAL CIRCUMSTANCES									
	Latitude		Longitude		First Contact			Second Contact		
					Universal Time	P	V	Universal Time	P	V
IDAHO										
Ashton	+44	04.0	+111	29.0	15 14 31.0	255	297			
Boise	+43	37.1	+116	12.0	15 11 03.3	256	300			
Bonnars Ferry	+48	41.0	+116	19.0	15 19 34.0	252	290			
Coeur d'Alene	+47	40.0	+116	46.0	15 17 34.3	253	292			
Council	+44	44.0	+116	27.0	15 12 45.5	255	298			
Grangeville	+45	56.0	+116	07.0	15 14 56.2	254	295	16 19 07.5	81	118
Hailey	+43	31.0	+114	19.0	15 11 53.6	256	299			
Idaho Falls	+43	30.0	+112	01.0	15 13 14.9	256	299			
Kamiah	+46	14.0	+116	01.0	15 15 29.9	254	295	16 19 42.1	69	105
Kellogg	+47	33.0	+116	06.0	15 17 42.4	253	292			
Lewiston	+46	25.0	+117	00.0	15 15 18.9	254	295	16 19 10.4	58	94
McCall	+44	55.0	+116	06.0	15 13 14.2	255	297	16 18 11.0	138	176
Moscow	+46	44.0	+117	00.3	15 15 51.1	253	294	16 19 49.2	43	79
Payette	+44	05.0	+116	56.0	15 11 27.0	256	299			
Pocatello	+42	52.4	+112	27.0	15 11 57.8	256	300			
St. Maries	+47	17.0	+116	34.0	15 17 00.5	253	293	16 21 34.6	12	47
Salmon	+45	11.0	+113	55.0	15 14 52.5	254	296	16 20 36.0	133	169
Sandpoint	+48	16.0	+116	33.0	15 18 43.2	252	291			
Twin Falls	+42	33.0	+114	29.0	15 10 14.8	257	301			
Wallace	+47	28.0	+115	55.0	15 17 39.5	253	292	16 22 42.4	360	34
MONTANA										
Anaconda	+46	09.0	+112	56.0	15 17 04.9	254	294	16 22 31.7	86	121
Augusta	+47	29.0	+112	24.0	15 19 41.3	253	291	16 25 28.9	32	65
Big Sandy	+48	11.0	+110	06.0	15 22 23.4	252	289	16 29 13.6	17	48
Billings	+45	47.0	+108	30.1	15 19 26.6	254	293			
Bozeman	+45	40.0	+111	00.0	15 17 29.8	254	294	16 24 14.7	126	160
Butte	+46	01.1	+112	32.2	15 17 06.0	254	294	16 22 46.1	94	129
Choteau	+47	49.0	+112	10.0	15 20 24.5	252	291	16 26 32.5	15	48
Circle	+47	27.0	+105	34.0	15 24 31.3	253	289	16 32 41.8	93	122
Culbertson	+48	09.0	+104	31.0	15 26 33.7	252	287	16 34 54.1	77	104
Dillon	+45	14.0	+112	38.0	15 15 43.3	254	295	16 22 11.3	143	179
Eddy	+47	34.0	+115	09.0	15 18 14.2	253	292	16 23 36.7	358	32
Forsyth	+46	15.0	+106	40.0	15 21 37.7	253	291			
Glasgow	+48	12.0	+106	37.0	15 24 57.2	252	288	16 32 34.6	54	83
Glendive	+47	08.0	+104	42.0	15 24 42.5	253	289	16 33 37.1	119	147
Great Falls	+47	30.0	+111	16.0	15 20 26.2	252	291	16 26 32.7	41	73
Hamilton	+46	15.0	+114	10.0	15 16 31.9	254	294	16 21 27.1	76	111
Harlem	+48	33.0	+108	47.0	15 23 56.2	252	288	16 31 19.9	11	40
Havre	+48	34.0	+109	40.0	15 23 20.8	252	288			
Helena	+46	35.6	+112	02.4	15 18 23.3	253	293	16 24 06.5	73	107
Jordan	+47	20.0	+106	55.0	15 23 15.2	253	290	16 30 52.6	84	114
MONTANA(Cont.)										
Kalispell	+48	12.0	+114	19.0	15 19 47.7	252	291			
Lewistown	+47	04.0	+109	26.0	15 20 56.1	253	291	16 27 36.5	73	105
Livingston	+45	40.0	+110	33.0	15 17 47.9	254	294	16 24 50.1	131	165
Malta	+48	22.0	+107	51.0	15 24 18.1	252	288	16 31 39.8	54	63
Miles City	+46	24.0	+105	48.0	15 22 34.4	253	291			
Missoula	+46	52.0	+114	00.0	15 17 40.6	253	293	16 22 42.3	51	85
Plains	+47	28.0	+114	51.0	15 18 13.9	253	292	16 23 25.6	13	47
Plentywood	+48	46.0	+104	32.0	15 27 35.1	252	286	16 35 51.1	54	80
Roundup	+46	27.0	+108	34.0	15 20 30.8	253	292	16 27 50.2	106	138
Sidney	+47	42.0	+104	10.0	15 26 06.4	252	288	16 34 48.7	99	126
Utica	+46	58.0	+110	06.0	15 20 18.1	253	291	16 26 43.9	72	104
Virginia City	+45	18.0	+111	56.0	15 16 16.4	254	295	16 23 07.0	148	182
Winnett	+47	00.0	+108	21.0	15 21 35.2	253	291	16 28 44.0	84	116
Wolf Point	+48	05.0	+105	40.0	15 25 30.4	252	288	16 33 26.2	68	96

TOTAL SOLAR ECLIPSE OF 26 FEBRUARY 1979

LOCAL CIRCUMSTANCES

Obscuration %	Maximum Eclipse				Sun's		Third Contact				Fourth Contact				Duration		Width of	
	Universal Time		Magnitude	Alt. °	Az. °	Universal Time			P °	V °	Universal Time		P °	V °	m	s	mi	
	h	m				s	h	m			s	h						m
98.4	16	21	56.9	0.981	21	127												
98.4	16	16	29.3	0.982	18	122												
98.7	16	24	43.0	0.984	16	124												
99.9	16	22	38.2	0.997	16	123												
100.0	16	18	05.0	0.999	17	122												
100.0	16	20	21.8	1.037	17	123	16	21	36.1	244	281	17	31	23.5	71	99	2 28.6	183
98.0	16	18	07.7	0.978	19	123												
97.5	16	20	28.1	0.974	21	126												
100.0	18	20	57.0	1.037	17	123	16	22	11.9	256	292	17	31	57.2	72	99	2 29.8	184
100.0	16	23	02.4	0.999	17	124												
100.0	16	20	21.9	1.037	16	122	16	21	33.4	268	304	17	30	56.4	72	100	2 23.0	183
100.0	16	18	42.2	1.037	17	122	16	19	13.4	187	225	17	29	56.3	71	99	1 02.4	180
100.0	16	20	53.2	1.037	16	123	16	21	57.2	283	319	17	31	23.7	72	100	2 08.0	184
99.3	16	16	34.7	0.990	17	121												
96.5	16	19	00.2	0.965	21	125												
100.0	16	22	10.9	1.037	16	123	16	22	47.2	314	349	17	32	44.0	73	99	1 12.6	185
100.0	16	21	14.1	1.038	19	125	16	21	52.2	192	228	17	33	18.2	70	97	1 16.2	184
99.2	16	23	49.3	0.989	16	124												
96.3	16	16	23.9	0.963	19	123												
100.0	16	23	04.1	1.037	17	124	16	23	25.9	326	0	17	33	49.7	73	99	0 43.5	186
100.0	16	23	47.2	1.038	19	126	16	25	02.6	238	272	17	36	00.7	71	96	2 30.9	187
100.0	16	26	28.7	1.038	19	128	16	27	28.4	292	325	17	38	32.3	72	95	1 59.5	190
100.0	16	29	59.1	1.038	20	131	16	30	44.6	307	337	17	42	37.6	72	92	1 31.0	193
100.0	16	27	59.1	0.999	22	131												
100.0	16	25	01.7	1.038	21	128	16	25	46.7	198	232	17	38	06.4	70	93	1 34.0	189
100.0	16	23	58.6	1.038	20	127	16	25	11.0	230	264	17	36	23.2	71	95	2 24.9	187
100.0	16	27	15.1	1.038	19	128	16	27	57.6	309	341	17	39	17.8	72	95	1 25.1	191
100.0	16	53	59.0	1.039	24	136	16	35	16.1	229	257	17	48	19.8	69	86	2 34.3	194
100.0	16	56	17.2	1.039	24	138	16	37	40.4	245	272	17	50	40.4	70	85	2 46.3	194
100.0	16	22	36.7	1.038	20	126	16	23	02.2	181	216	17	35	10.5	70	95	0 50.9	186
100.0	16	23	56.5	1.037	17	125	16	24	16.3	327	1	17	34	57.8	73	98	0 39.6	188
100.0	16	30	51.0	0.999	23	134												
100.0	16	33	52.7	1.039	22	135	16	35	10.9	269	297	17	47	38.0	70	88	2 36.3	194
100.0	16	34	33.5	1.039	24	137	16	35	29.8	203	231	17	49	16.7	69	85	1 52.7	194
100.0	16	27	40.2	1.038	20	129	16	28	47.7	283	315	17	40	07.7	71	94	2 15.0	191
100.0	16	22	43.6	1.038	18	125	16	24	00.1	249	284	17	34	27.2	71	97	2 33.0	186
100.0	16	31	58.7	1.039	21	133	16	32	37.4	313	342	17	44	55.6	71	91	1 17.5	193
100.0	16	31	02.9	0.999	20	132												
100.0	16	25	24.9	1.039	20	128	16	26	43.3	251	284	17	37	51.5	71	95	2 36.8	189
100.0	16	32	12.8	1.039	23	134	16	33	32.9	238	268	17	46	11.3	70	88	2 40.3	193
99.6	16	25	45.6	0.993	18	126												
100.0	16	28	56.9	1.039	21	131	16	30	17.2	251	282	17	42	11.0	71	91	2 40.7	192
100.0	16	25	30.8	1.039	21	129	16	26	11.6	192	226	17	38	45.5	70	93	1 21.5	189
100.0	16	32	43.7	1.039	22	134	16	33	47.7	289	318	17	46	02.4	71	89	2 07.9	193
100.0	15	32	07.1	0.999	24	135												
100.0	16	23	53.5	1.038	18	126	16	25	04.7	274	308	17	35	31.8	72	97	2 22.4	187
100.0	16	24	03.6	1.037	17	125	16	24	41.6	312	346	17	35	13.1	72	97	1 16.0	188
100.0	16	37	10.4	1.039	23	138	16	38	29.8	266	295	17	51	18.7	70	85	2 38.7	195
100.0	16	28	57.1	1.039	22	132	16	30	04.0	217	248	17	42	40.5	70	90	2 13.8	192
100.0	16	36	03.1	1.039	24	138	16	37	17.4	223	250	17	50	42.6	69	84	2 28.7	194
100.0	16	28	03.8	1.038	21	130	16	29	23.6	252	284	17	41	05.8	71	92	2 39.7	191
100.0	16	23	26.8	1.038	20	127	16	23	46.7	177	211	17	36	16.0	70	94	0 39.7	187
100.0	16	30	03.2	1.039	22	132	16	31	22.5	239	269	17	43	40.6	70	90	2 38.5	193
100.0	16	34	48.8	1.039	23	136	16	36	11.4	255	283	17	48	53.7	70	87	2 45.2	194

TOTAL SOLAR ECLIPSE OF 26 FEBRUARY 1979

LOCAL CIRCUMSTANCES

Geographic Locations	Latitude		Longitude		First Contact			Second Contact			
	°	'	°	'	Universal Time			Universal Time			
					h	m	s	P	V	h	m
NORTH DAKOTA											
Beach	+46	56.0	+104	01.0	15	24	57.5	253	289		
Bismarck	+46	48.4	+100	47.3	15	27	41.8	253	288		
Bottineau	+48	50.7	+100	28.0	15	31	17.8	252	284	16	41 04.4 100 124
Fargo	+46	52.5	+ 96	47.3	15	31	53.5	254	286		
Langdon	+48	46.0	+ 98	21.0	15	33	14.2	252	284		
Minot	+48	14.3	+101	17.8	15	29	32.9	252	286	16	39 24.0 115 140
Mohall	+48	47.0	+101	31.0	15	30	14.5	252	285	16	39 33.2 88 113
Rolla	+48	52.0	+ 99	36.0	15	32	10.6	252	284	16	42 25.0 113 136
Williston	+48	09.0	+103	39.0	15	27	17.9	252	287	16	35 59.5 86 113
OREGON											
Albany	+44	38.0	+123	07.0	15	09	52.4	256	300	16	12 21.5 157 197
Astoria	+46	12.0	+123	50.0	15	12	13.8	254	297	16	13 31.9 58 97
Baker	+44	46.0	+117	50.0	15	12	08.5	255	298	16	16 29.6 144 182
Corvallis	+44	34.0	+123	16.0	15	09	43.1	256	300		
The Dalles	+45	36.0	+121	10.0	15	12	08.2	255	298	16	14 24.1 85 124
Elgin	+45	34.0	+117	56.0	15	13	25.9	254	297	16	16 58.5 92 130
Eugene	+44	03.0	+123	04.0	15	08	56.8	256	301		
La Grande	+45	21.0	+118	05.0	15	12	59.9	255	297	16	16 34.4 102 140
Madras	+44	39.0	+121	08.0	15	10	34.7	256	300	16	13 41.4 149 189
Pendleton	+45	40.0	+118	46.0	15	13	13.4	254	297	16	16 24.5 85 123
Portland	+45	32.0	+122	40.0	15	11	29.8	255	298	16	13 12.4 88 128
St. Helens	+45	50.0	+122	48.0	15	11	57.0	255	298	16	13 34.9 74 114
Salem	+44	57.0	+123	01.0	15	10	25.3	255	300	16	12 18.6 121 161
WASHINGTON											
Ellensburg	+47	00.0	+120	34.0	15	14	43.6	253	295	16	17 46.4 13 51
Ellensburg, <i>Manastash Ridge Obs.</i>	+46	57.1	+120	43.4	15	14	34.6	253	295	16	17 31.4 16 53
Ephrata	+47	19.0	+119	32.0	15	15	41.5	253	294		
Billingham	+48	45.0	+122	28.6	15	17	01.6	252	292		
Keiso	+46	08.0	+122	54.0	15	12	25.0	254	297	16	14 02.8 60 99
Mt. Rainier	+46	50.0	+121	45.0	15	13	57.8	254	295	16	16 30.0 18 56
Olympia	+47	03.0	+122	53.0	15	13	57.9	254	295	16	16 20.9 3 41
Pasco	+46	15.0	+119	07.0	15	14	03.4	254	295	16	17 06.3 59 97
Pullman	+46	46.0	+117	09.0	15	15	50.2	253	294	16	19 46.1 41 77
Richland	+46	17.0	+119	17.0	15	14	02.5	254	296	16	17 02.2 57 95
Richland, <i>Rattlesnake Mt. Obs.</i>	+46	23.7	+119	35.7	15	14	05.5	254	296	16	17 00.8 51 88
Seattle	+47	36.5	+122	20.2	15	15	06.4	253	294		
South Bend	+46	39.0	+123	48.0	15	12	59.6	254	296	16	14 31.7 34 73
Spokane	+47	39.5	+117	25.6	15	17	14.0	253	293		
Tacoma	+47	16.0	+122	30.0	15	14	27.9	253	295		
Walla Walla	+46	05.0	+118	18.0	15	14	08.2	254	296	16	17 28.0 68 106
Wenatchee	+47	26.0	+120	20.0	15	15	33.7	253	294		
Yakima	+46	35.7	+120	30.8	15	14	03.6	254	296	16	16 44.5 40 77
MANITOBA											
Bissett	+50	58.0	+ 95	10.0	15	39	57.2	251	279	16	50 41.8 98 116
Brandon	+49	51.0	+ 99	57.0	15	33	26.5	251	282	16	42 56.0 69 92
Churchill	+58	45.3	+ 94	10.0	15	52	36.6	247	267		
Dauphin	+51	09.0	+100	05.0	15	35	26.4	250	280	16	45 09.3 14 35
Delta Beach	+50	11.0	+ 98	20.0	15	35	31.7	251	281	16	45 26.8 79 100
Flin Flon	+54	47.0	+101	53.0	15	39	53.2	248	275		
Grand Beach	+50	34.0	+ 96	38.0	15	37	49.7	251	280	16	48 12.1 90 109
Killarney	+49	12.0	+ 99	40.0	15	32	39.2	252	283	16	42 33.7 97 120
McCreary	+50	46.0	+ 99	30.0	15	35	21.3	251	281	16	44 53.8 42 63
Morris	+49	22.0	+ 97	21.0	15	35	12.5	252	282	16	46 28.8 135 155
Ninette	+49	24.0	+ 99	40.0	15	32	58.7	252	283	16	42 45.5 89 112
The Pas	+53	50.0	+101	15.0	15	38	50.0	249	277		
Portage la Prairie	+49	58.0	+ 98	20.0	15	35	10.9	251	282	16	45 12.4 87 108
Russell	+50	47.0	+101	17.0	15	33	45.3	251	281	16	43 18.7 8 31
St. Claude	+49	40.0	+ 98	26.0	15	34	42.1	252	282	16	44 55.4 98 120

TOTAL SOLAR ECLIPSE OF 26 FEBRUARY 1979

LOCAL CIRCUMSTANCES

Observation	Maximum Eclipse			Sun's		Third Contact			Fourth Contact			Duration	Width of Path	
	Universal Time	Magnitude	Alt.			Az.	Universal Time	P	V	Universal Time	P			V
100.0	16 35 06.4	0.999	25	137				17 50 05.8	69	84				
98.7	16 39 04.5	0.984	27	142				17 54 57.8	67	80				
100.0	16 42 18.9	1.040	26	143	16 43 33.4	220	244	17 57 25.9	69	80	2 29.0	194		
96.6	16 44 38.6	0.966	29	147				18 01 19.3	65	73				
100.0	16 44 59.5	0.999	27	146				18 00 34.1	68	77				
100.0	16 40 35.5	1.040	26	142	16 41 27.0	206	231	17 55 36.5	69	81	2 03.0	194		
100.0	16 40 54.5	1.040	25	142	16 42 15.8	233	257	17 55 48.4	69	81	2 42.6	194		
100.0	16 43 28.9	1.040	26	144	16 44 32.7	208	230	17 58 46.1	68	78	2 07.7	194		
100.0	16 37 20.6	1.039	24	139	16 38 41.8	235	261	17 51 59.1	69	84	2 42.3	195		
100.0	16 12 30.1	1.036	12	116	16 12 36.6	171	212	17 20 48.2	72	106	0 17.3	166		
100.0	16 14 37.4	1.036	11	116	16 15 43.0	270	309	17 22 27.6	73	106	2 11.1	171		
100.0	16 16 53.9	1.037	16	121	16 17 18.2	182	221	17 27 26.2	71	101	0 48.6	177		
100.0	16 12 17.1	0.999	12	115				17 20 31.6	72	106				
100.0	16 15 33.3	1.036	13	118	16 16 42.5	242	281	17 24 34.3	72	104	2 18.4	174		
100.0	16 18 08.2	1.037	16	121	16 19 17.8	234	272	17 28 29.9	72	101	2 19.3	179		
99.4	16 11 34.1	0.991	12	115				17 19 56.2	71	106				
100.0	16 17 38.8	1.037	16	121	16 18 43.3	224	262	17 27 59.2	71	101	2 08.9	178		
100.0	16 13 59.8	1.036	14	117	16 14 18.1	179	218	17 23 08.7	72	104	0 36.7	170		
100.0	16 17 35.6	1.037	15	120	16 18 46.7	241	279	17 27 35.7	72	102	2 22.2	178		
100.0	16 14 19.6	1.036	12	116	16 15 26.8	239	279	17 22 43.6	72	105	2 14.4	170		
100.0	16 14 44.0	1.036	12	116	16 15 53.2	253	292	17 23 02.5	73	105	2 18.3	172		
100.0	16 13 06.1	1.036	12	116	16 13 53.5	207	247	17 21 24.8	72	105	1 34.9	167		
100.0	16 18 21.7	1.036	14	119	16 18 56.9	314	351	17 27 24.1	73	103	1 10.5	179		
100.0	16 18 09.2	1.036	13	119	16 18 46.9	311	349	17 27 08.5	73	103	1 15.5	179		
100.0	16 19 42.7	0.998	14	120				17 29 06.1	73	102				
98.0	16 19 53.2	0.978	12	118				17 27 51.4	75	104				
100.0	16 15 09.9	1.036	12	116	16 16 17.0	267	306	17 23 23.6	73	105	2 14.2	173		
100.0	16 17 09.1	1.036	13	118	16 17 48.2	310	347	17 25 45.3	73	104	1 18.2	177		
100.0	16 16 43.2	1.036	12	117	16 17 05.5	325	3	17 24 49.5	74	105	0 44.6	176		
100.0	16 18 16.4	1.037	15	120	16 19 26.6	267	305	17 28 01.9	72	102	2 20.3	179		
100.0	16 20 48.5	1.037	16	122	16 21 50.9	285	321	17 31 15.1	72	100	2 04.8	183		
100.0	16 18 11.5	1.037	15	120	16 19 20.9	269	306	17 27 52.5	72	102	2 18.7	179		
100.0	16 18 07.1	1.037	14	120	16 19 13.4	276	313	17 27 39.4	73	102	2 12.6	179		
99.6	16 18 03.4	0.993	12	118				17 26 17.3	74	104				
100.0	16 15 24.2	1.036	11	116	16 16 16.7	294	332	17 23 11.9	73	106	1 45.0	174		
99.8	16 22 02.7	0.996	16	123				17 32 10.8	73	100				
99.9	16 17 21.6	0.998	12	117				17 25 35.1	74	104				
100.0	16 18 40.9	1.037	15	121	16 19 53.7	258	295	17 28 48.0	72	101	2 25.7	180		
99.8	16 19 16.3	0.996	14	120				17 28 19.4	74	103				
100.0	16 17 43.5	1.036	14	119	16 18 42.5	287	325	17 26 51.4	73	103	1 58.0	178		
100.0	16 51 58.1	1.040	26	152	16 53 14.5	221	238	18 06 59.4	68	73	2 32.7	190		
100.0	16 44 21.4	1.040	25	145	16 45 46.7	251	273	17 59 07.4	69	79	2 50.7	193		
94.9	17 01 37.7	0.952	20	157				18 12 28.8	73	76				
100.0	16 45 55.5	1.039	24	145	16 46 41.7	307	328	18 00 02.9	70	80	1 32.4	193		
100.0	16 46 51.8	1.040	26	147	16 48 16.9	241	262	18 01 47.2	69	77	2 50.1	193		
95.4	16 48 37.4	0.956	21	145				18 00 34.4	73	83				
100.0	16 49 33.5	1.040	26	149	16 50 54.9	230	249	18 04 34.5	68	75	2 42.8	191		
100.0	16 43 50.6	1.040	26	145	16 45 07.6	223	246	17 58 58.1	69	79	2 33.9	193		
100.0	16 46 08.6	1.040	25	146	16 47 23.3	278	300	18 00 34.0	70	79	2 29.5	193		
100.0	16 47 06.1	1.040	27	148	16 47 43.5	185	206	18 02 34.8	68	75	1 14.5	193		
100.0	16 44 06.8	1.040	26	145	16 45 28.0	231	253	17 59 08.6	69	79	2 42.5	193		
96.9	16 48 05.0	0.968	22	145				18 00 38.5	73	82				
100.0	16 46 35.0	1.040	26	147	16 47 57.5	233	254	18 01 36.5	69	77	2 45.1	193		
100.0	16 43 57.7	1.039	24	143	16 44 36.7	313	335	17 58 00.7	70	81	1 18.0	193		
100.0	16 46 11.6	1.040	26	147	16 47 27.8	222	243	18 01 21.5	68	77	2 32.4	193		

TOTAL SOLAR ECLIPSE OF 26 FEBRUARY 1979

LOCAL CIRCUMSTANCES

Geographic Locations	Latitude		Longitude		First Contact			Second Contact						
	°	'	°	'	Universal Time			Universal Time						
					h	m	s	P	V	h	m	s	P	V
MANITOBA (Cont.)														
Selkirk	+50	10.0	+96	52.0	15	36	57.7	251	281	16	47	31.4	102	122
Souris	+49	38.0	+100	17.0	15	32	46.6	251	283	16	42	13.1	73	96
Thompson	+55	45.0	+97	52.0	15	44	50.0	248	273					
Victoria Beach	+50	43.0	+96	32.0	15	38	09.8	251	280	16	48	29.2	86	105
Winkler	+49	12.0	+97	55.0	15	34	22.3	252	283	16	45	24.9	130	152
Winnipeg	+49	53.9	+97	08.3	15	36	15.8	252	281	16	46	55.6	109	129
Winnipeg Beach	+50	30.0	+97	00.0	15	37	21.1	251	280	16	47	37.0	87	107
ONTARIO														
Belleville	+44	09.5	+77	22.5	15	55	48.4	261	280					
Kingston	+44	15.0	+76	38.0	15	57	11.1	261	279					
Lake Traverse, Algonquin Radio Obs., NRC	+45	57.3	+78	04.4	15	56	17.5	259	277					
London	+42	59.0	+81	15.0	15	48	00.6	261	284					
North Bay	+46	18.5	+79	27.5	15	54	24.1	258	278					
Ottawa	+45	25.7	+75	42.8	15	59	47.4	261	276					
Ottawa, Ottawa River Solar Obs.	+45	23.2	+75	53.6	15	59	26.8	261	277					
Peterborough	+44	18.0	+78	19.5	15	54	17.8	261	280					
Richmond Hill, David Dunlap Obs.	+43	51.8	+79	25.3	15	52	00.2	261	282					
Red Lake	+50	59.0	+93	40.0	15	41	34.1	251	278	16	53	16.7	131	147
Sault Ste. Marie	+46	31.5	+84	20.0	15	47	13.0	257	280					
Sudbury	+46	28.5	+80	58.5	15	52	11.9	258	278					
Thunder Bay	+48	25.0	+89	14.0	15	43	02.0	254	280					
Toronto, Meteorological Obs.	+43	40.0	+79	23.9	15	51	50.9	261	282					
Winisk	+55	20.0	+85	15.0	15	56	51.5	251	268	17	08	10.6	120	128
PRINCE EDWARD ISLAND														
Charlottetown	+46	14.0	+63	07.8	16	23	02.5	266	266					
QUEBEC														
Montreal, McGill Univ. Obs.	+45	30.3	+73	34.7	16	03	34.6	261	275					
Quebec, Quebec Obs., Plains of Abraham	+46	48.0	+71	13.2	16	08	35.0	261	271					
Sherbrooke	+45	24.0	+71	53.5	16	06	31.0	262	274					
Trois-Rivieres	+46	21.0	+72	33.0	16	05	58.5	261	273					
SASKATCHEWAN														
Bengough	+49	25.0	+105	10.0	15	28	10.0	251	285	16	36	36.8	15	42
Estevan	+49	09.0	+103	00.0	15	29	31.7	252	285	16	38	13.6	57	82
Moose Jaw	+50	23.5	+105	32.5	15	29	31.9	251	284					
Regina	+50	27.0	+104	36.5	15	30	22.4	251	283					
Rockglen	+49	11.0	+105	57.0	15	27	08.9	251	286	16	35	20.6	16	44
Saskatoon	+52	07.8	+106	39.7	15	31	40.2	249	281					
Stoughton	+49	40.0	+103	01.0	15	30	22.7	251	284	16	39	09.2	36	61
Weyburn	+49	39.0	+103	51.0	15	29	38.6	251	284	16	38	19.1	25	50
Whitewood	+50	19.0	+102	16.0	15	32	06.8	251	283	16	41	18.7	16	40

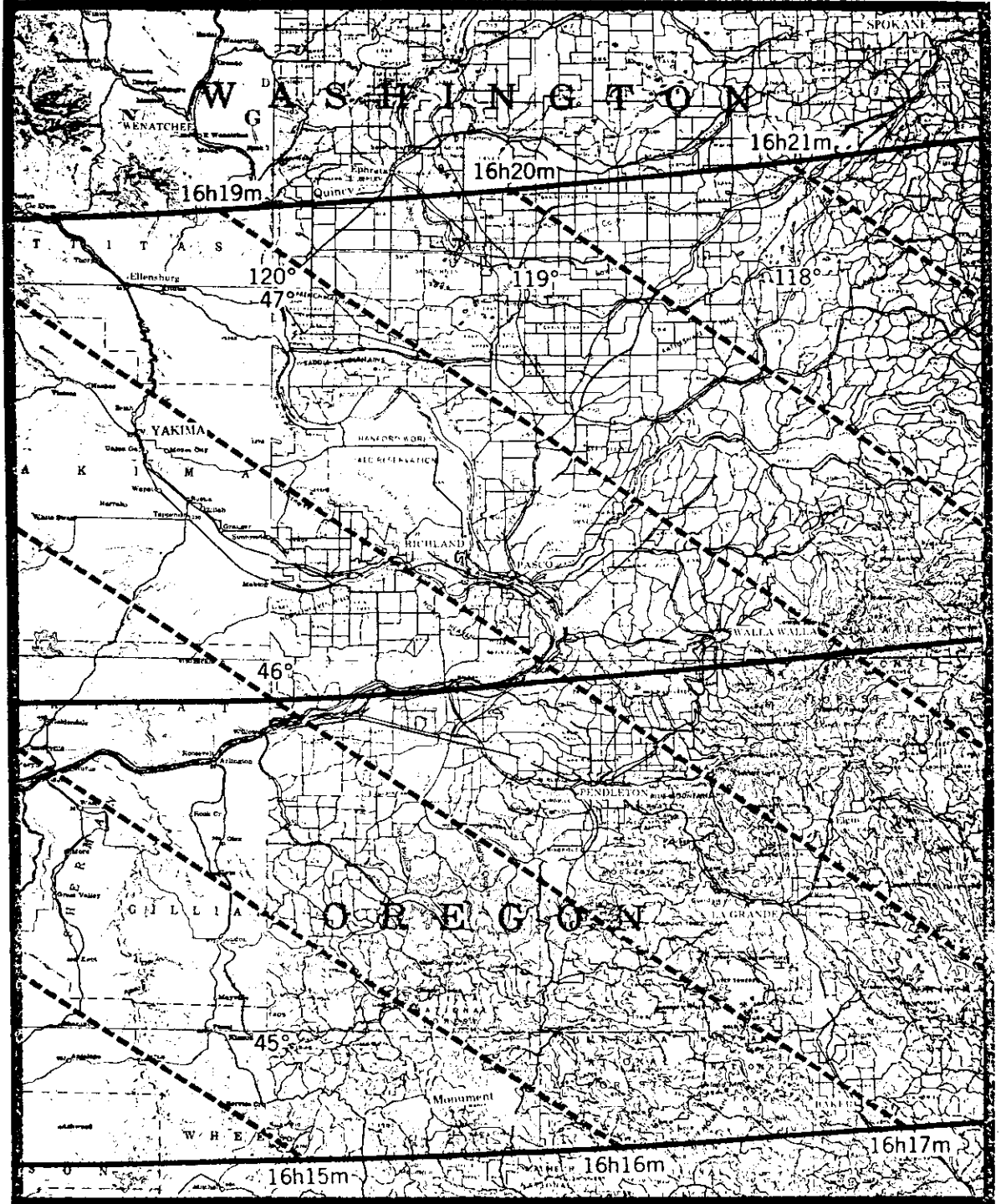
TOTAL SOLAR ECLIPSE OF 26 FEBRUARY 1979

LOCAL CIRCUMSTANCES

Observation	Maximum Eclipse			Sun's		Third Contact				Fourth Contact			Duration	Width of Path					
	Universal Time			Alt.	Az.	Universal Time		P	V	Universal Time		P			V				
	%	h	m	s	°	'	h	m	s	°	'	°	'	°	'	°	'	m	s
100.0	16	48	45.2	1.040	26	149	16	49	59.0	218	237	18	03	55.8	68	75	2	27.6	192
100.0	16	43	38.5	1.040	25	144	16	45	03.8	248	270	17	58	26.2	69	80	2	50.7	194
96.3	16	54	18.4	0.963	22	151						18	06	25.2	73	79			
100.0	16	49	52.4	1.040	26	150	16	51	15.7	234	252	18	04	49.9	69	75	2	46.5	191
100.0	16	46	08.0	1.040	27	147	16	46	51.2	190	211	18	01	35.6	68	76	1	26.3	193
100.0	16	48	03.5	1.040	26	148	16	49	11.4	211	231	18	03	19.3	68	75	2	15.8	192
100.0	16	48	59.8	1.040	26	149	16	50	22.6	233	252	18	03	59.3	69	75	2	45.6	192
72.9	17	12	26.6	0.778	37	177						18	28	58.7	52	38			
72.2	17	13	45.4	0.772	37	178						18	30	02.3	52	36			
77.7	17	12	37.3	0.815	35	176						18	28	57.2	55	41			
74.8	17	04	52.0	0.793	38	170						18	22	41.4	53	43			
80.0	17	10	39.1	0.834	35	174						18	27	13.3	56	44			
73.8	17	16	05.4	0.785	36	180						18	31	51.1	53	37			
73.9	17	15	46.1	0.785	36	180						18	31	35.9	53	37			
74.3	17	10	57.5	0.789	37	175						18	27	45.1	53	39			
74.6	17	08	45.5	0.791	37	173						18	25	56.7	53	41			
100.0	16	53	58.9	1.040	27	154	16	54	41.0	188	204	18	09	10.0	68	71	1	24.3	189
85.6	17	03	03.2	0.878	34	166						18	20	20.7	59	53			
82.0	17	08	21.2	0.849	35	171						18	25	10.7	57	47			
93.6	16	57	25.3	0.941	31	159						18	14	07.7	63	62			
74.2	17	08	37.9	0.788	37	173						18	25	51.1	53	40			
100.0	17	09	03.9	1.040	25	168	17	09	57.2	198	205	18	22	13.8	68	63	1	46.6	177
60.4	17	36	04.4	0.677	33	201						18	46	12.5	47	20			
71.4	17	19	36.2	0.766	36	184						18	34	36.3	52	33			
71.5	17	23	59.9	0.767	34	188						18	37	54.2	52	32			
69.1	17	22	15.9	0.747	36	187						18	36	37.3	50	31			
72.1	17	21	42.2	0.771	35	186						18	36	11.2	52	33			
100.0	16	37	22.9	1.039	23	138	16	38	09.1	307	333	17	51	04.7	71	86	1	32.3	195
100.0	16	39	35.0	1.039	24	140	16	40	56.5	265	290	17	53	57.8	70	83	2	42.9	194
99.3	16	38	23.2	0.990	22	138						17	51	34.3	72	87			
99.6	16	39	32.5	0.992	22	139						17	52	57.0	71	85			
100.0	16	36	07.7	1.039	22	136	16	36	54.7	306	333	17	49	41.9	71	87	1	34.1	194
96.7	16	39	42.5	0.966	20	137						17	51	50.4	73	88			
100.0	16	40	18.0	1.039	24	140	16	41	26.8	285	310	17	54	27.2	70	83	2	17.6	194
100.0	16	39	16.6	1.039	23	139	16	40	14.0	297	322	17	53	13.6	71	84	1	54.9	195
100.0	16	42	07.4	1.039	24	142	16	42	56.2	305	329	17	56	10.1	71	82	1	37.5	194

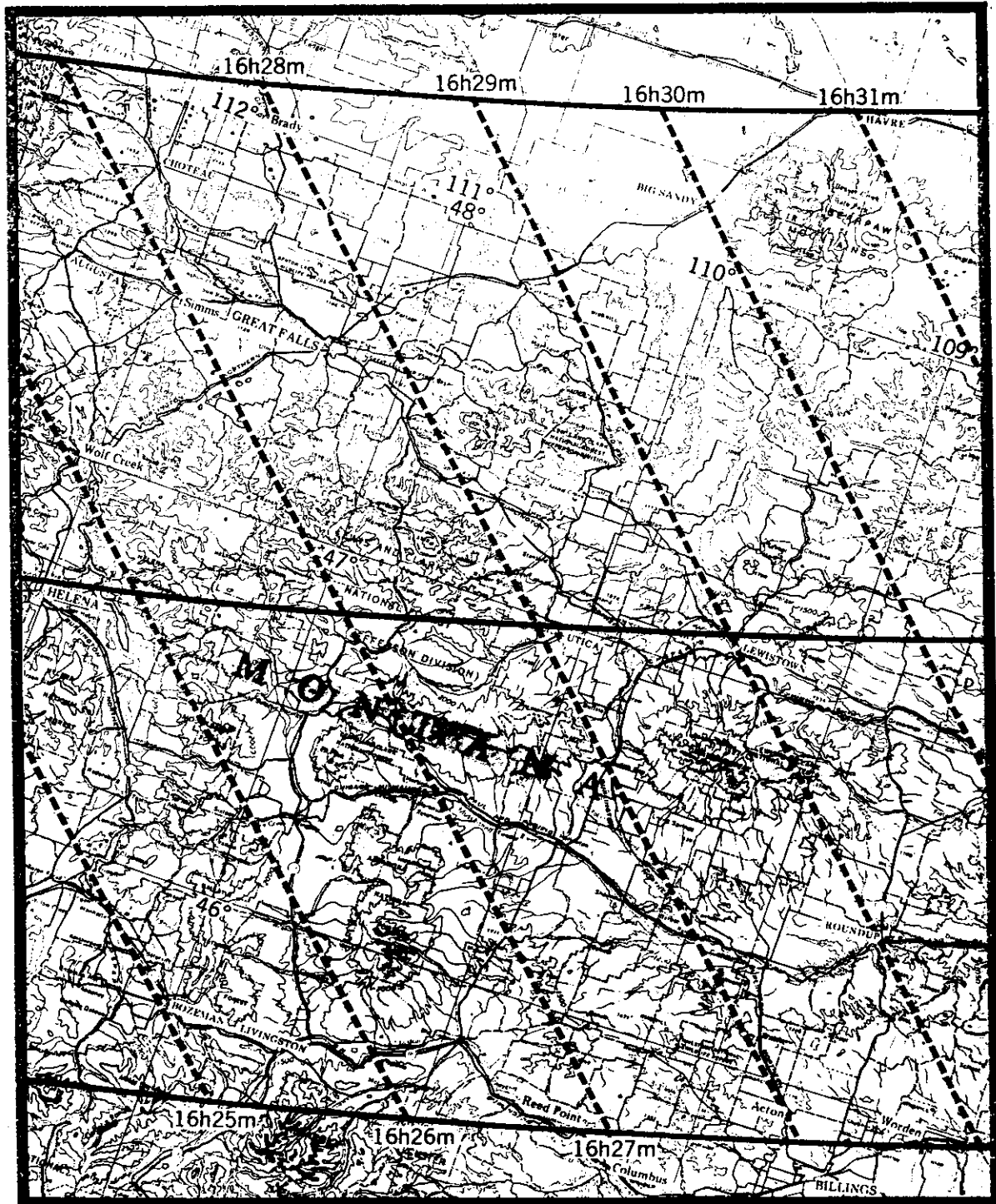
4. 地図 (オレゴン)

TOTAL SOLAR ECLIPSE OF 26 FEBRUARY 1979



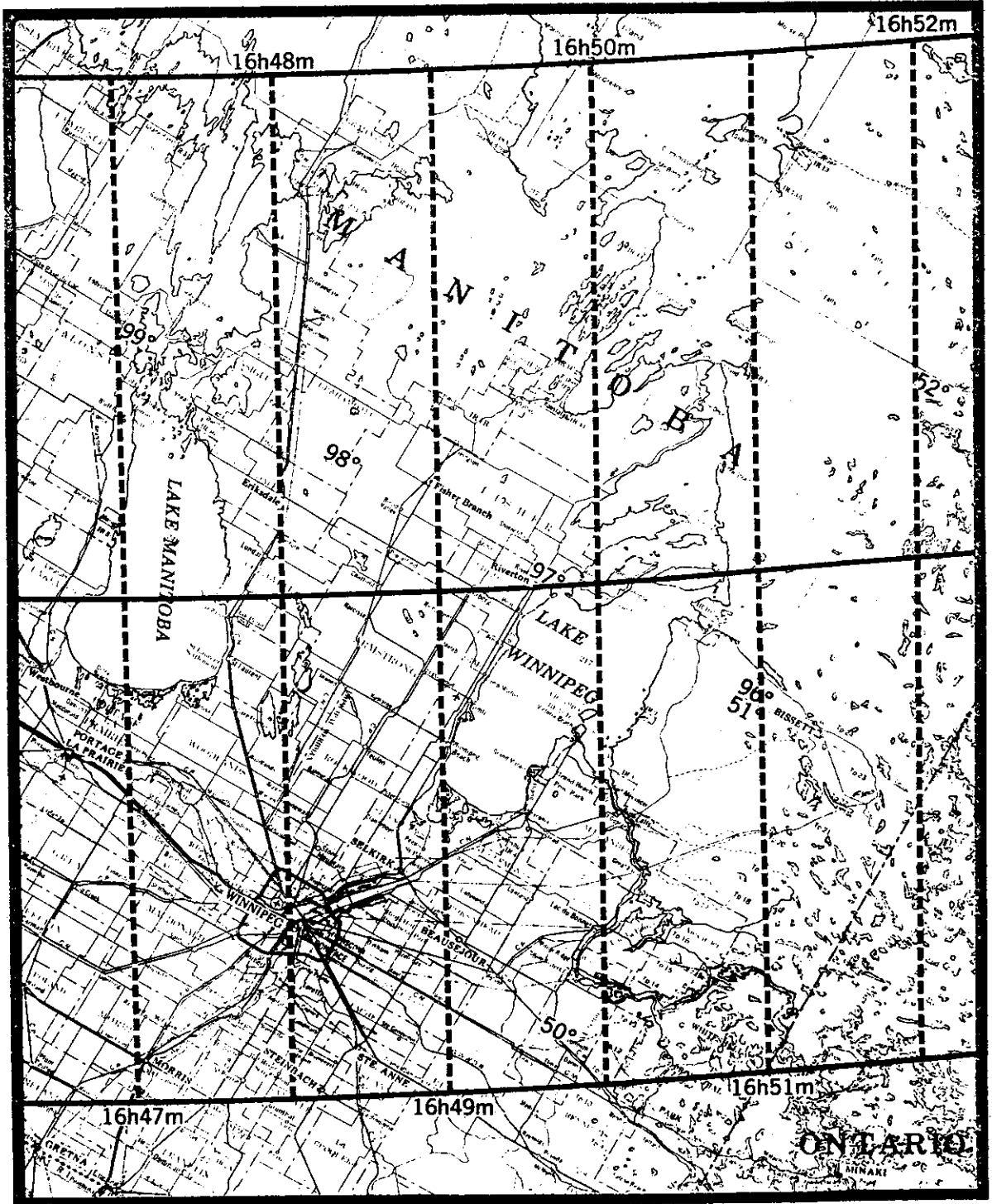
地図 (モンタナ)

TOTAL SOLAR ECLIPSE OF 26 FEBRUARY 1979



地図 (マニトバ)

TOTAL SOLAR ECLIPSE OF 26 FEBRUARY 1979



↑
ウイニペグ