

**METEOROLOGICAL AND SOLAR RADIATION DATA
COLLEGE, ALASKA**

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UNIVERSITY OF ALASKA

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MATERIALS LABORATORY
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WRIGHT AIR DEVELOPMENT CENTER
AIR RESEARCH AND DEVELOPMENT COMMAND
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WRIGHT-PATTERSON AIR FORCE BASE, OHIO

Contrails

FOREWORD

This report was prepared by the Department of Chemistry of the University of Alaska under Contract AF 18(600)-40. The contract was begun under Project No. 7312, "Finishes and Materials Preservation," Task No. 73124 "Preservative Chemicals," formerly RDO No. 611-16, "Effect of Actinic Exposure," and was administered under the direction of the Materials Laboratory, Directorate of Research, Wright Air Development Center, with Dr. A.E. Prince, acting as project engineer. These data were collected in conjunction with investigations on the exposure of USAF materials to sub-arctic conditions. This report covers work conducted from February 1952 to September 1954.

ACKNOWLEDGEMENTS

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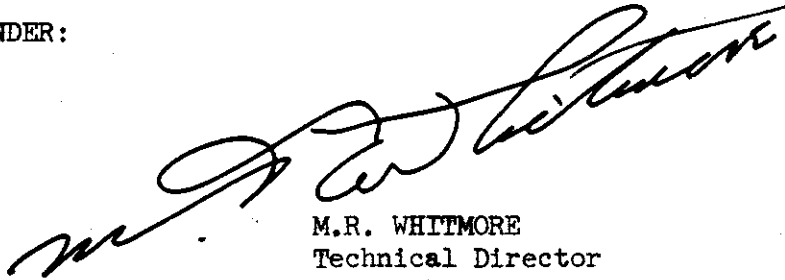
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The daily observations of maximum and minimum temperatures, maximum, minimum, and mean of the relative humidity with the approximate time (Alaskan Standard Time) of the occurrence of each maximum and minimum, maximum intensity of solar radiation and total radiation received on a horizontal surface and a surface slanted 45° to the south are tabulated along with the monthly averages and totals of each of these factors as obtained in connection with the project on the "Exposure of USAF Materials near College, Alaska." The temperature data for a given year are represented on a composite graph. The monthly values of all data are accumulated in separate tables.

PUBLICATION REVIEW

This report has been reviewed and is approved.

FOR THE COMMANDER:



M.R. WHITMORE
Technical Director
Materials Laboratory
Directorate of Research

Controls
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METEOROLOGICAL AND SOLAR RADIATION DATA

COLLEGE, ALASKA

1 February 1952 to 30 September 1954

SECTION I

Procedures

The content of this report is a compilation, in tabular and graphical form, of meteorological and solar radiation data collected in connection with the operation of the test site for the "Exposure of USAF Materials in the Sub-arctic at College, Alaska." The data herein contained have been to the larger extent collected at the site which is about one and one-half miles from the main campus of the University of Alaska (latitude 65°N., longitude 148°W.) with the remainder obtained from the records of the Fairbanks Weather Bureau which is about three miles from the campus in southerly direction. The pertinent details concerning the various recordings are described below. The data presented include the following:

1. Daily values of the maximum and minimum temperatures.
2. Daily values of the maximum, minimum, and mean of the relative humidity, together with the approximate time (Alaskan Standard Time) of the occurrence of each maximum and minimum.
3. Daily values of the precipitation as rainfall.
4. Daily values of the maximum and intensity of the solar radiation.
5. Monthly averages of the maximum and minimum daily temperatures.
6. Monthly averages of the maximum, minimum and the means of the daily values of the relative humidity.
7. Monthly averages of the daily total solar radiation values.
8. Monthly totals of precipitation as rainfall and of the solar radiation received.
9. Certain observations on clear days and weather trends.

Monthly averages or totals, whichever applies, of the above groups of data are collected in tables. A composite graph, of the daily values of the maximum and minimum temperatures, is included. The various recordings are described in the sections which follow.

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SECTION II

Temperature

The daily observations of the temperature have been made with various pieces of equipment during the period of this report. The temperature values during the first part were read from a Mechanical Bristol Recorder (12 inch dial set on weekly revolution) situated in a weather shelter at the site during the period when the temperature was sufficiently high (above 0°F) to allow operation of the instrument. When this instrument failed during the cold months of 1952 and early 1953, the values were obtained from standard maximum-minimum thermometers in the range in which the maximum mercury thermometer still was valid. For maxima below this, a Remo mechanical thermometer was used. This also failed on occasions. For these days the values of the Fairbanks Weather Bureau were entered into the tables. These would normally vary little from those at the site. Very few variations of more than four degrees have been noted by those working with the project. In the fall of 1953 a Bristol recorder with a 150 foot lead was obtained. The active element was placed in the weather shelter and the recorder in a nearby heated shelter. The instrument has operated very satisfactorily. All instruments were checked against standard thermometers. The Bristol Recorder gave a continuous record. This record allows the assignment of the proper maximum or minimum to the calendar day.

The daily values of the maximum and minimum temperatures are tabulated in Tables 1-32, pages 5-36 of this report. The monthly totals are also included at this point and are summarized in Table 33, page 37. The daily values are also shown in the graphs of figures I, II, and III, pages 38-40.

SECTION III

Humidity

The daily values of the maximum, minimum and mean values of the relative humidity are given in Tables 1-32, pages 5-36. The monthly averages of each of these are included at this point and are summarized in Table 33.

The values in the tabulations were obtained from the records at the Weather Bureau. A mechanical Friez thermohydrograph was tried for a period at the site. It did not operate satisfactorily at normal temperatures. It also failed when the temperature fell to 0°F or below.

This was time of interest to the work. This gave two alternatives, to get a maximum and minimum reading: namely, to visit the site each hour during the day and night or to rely wholly on the records at the Fairbanks Weather Bureau. The latter alternative was chosen. The approximate time (Alaskan Standard Time) representative of the time or the period(s) of each maximum and minimum is given.

SECTION IV

Precipitation

Daily precipitation is also recorded in Tables 1-32, pages 5-36, along with the monthly totals. The monthly totals are also summarized in Table 33, page 37.

The values were obtained manually by a standard open top rain-gauge.

Relative to precipitation, it may be pertinent to remark that College, Alaska, is in a semi-arid region. In spite of this, the retention of moisture on the surface due to the long period of cold, and the relatively cool summers, is such that the area is rather abundantly covered with vegetation.

Weather Data

The following 32 tables, pages 5-36, include a tabulation of the daily values of the maximum and minimum temperatures, the daily values of the maximum, minimum, and mean values of the relative humidity, with the approximate times (Alaskan Standard Time) of the maximum and minimum values of the relative humidity, the daily values of precipitation, and the monthly averages of the temperature and humidity data and the monthly totals of precipitation gathered in connection with the operation of Contract AF 18(600)-40 at College, Alaska. Each table contains the monthly compilation of the above weather elements. The period extends from February 1952 through September 1954.

In the tables the symbols used are (T) Trace, (M) Machine failure and (MS) Melting snow. All times given are Alaskan Standard Time.

The daily values of the relative humidity and precipitation were obtained from the records of the U.S. Weather Bureau at the Fairbanks International Airport.

TABLE 1. - TEMPERATURE, HUMIDITY AND PRECIPITATION DATA

College, Alaska

AF 18(600)-40

February 1952

Date	Temperature (°F)		Relative Humidity (%)				Mean	Precipitation * (inches-rain)
	Max	Min	Max	Time	Min	Time		
1	0	-17	61	1225	30	1825	45.5	T
2	-6	-27	65	427	45	1820	55	T
3	-5	-19	67	1228	31	2823	49	0
4	-9	-28	74	1021	42	1624	58	T
5	-7	-31	80	1524	27	0823	53.5	0
6	14	-15	84	1126	45	0922	64.5	0
7	4	-13	80	1321	43	0525	61.5	0
8	17	-10	82	1027	43	0420	62.5	0
9	12	-4	77	0823	52	1825	64.5	0
10	9	-5	76	1327	59	0005	67.5	0.06
11	3	-10	68	0020	54	1625	61	0.02
12	-5	-17	70	0420	45	324	57.5	T
13	3	-26	61	1823	47	1425	54	0.01
14	8	-23	M		M		M	0.01
15	-1	-16	65	0025	48	2325	56.5	0.01
16	-2	-28	80	0026	34	1825	57	T
17	7	-30	74	0419	26	1925	50	T
18	4	-24	67	2325	40	1224	53.5	T
19	16	-2	72	0423	47	1825	59.5	T
20	14	-2	68	0820	45	1625	56.5	T
21	6	-12	66	0622	39	1500	52.5	T
22	4	-24	60	1024	40	0628	50	0
23	14	-21	69	1825	38	0624	53.5	0
24	12	-3	76	2224	53	1525	64.5	T
25	11	-6	67	2135	54	1625	60.5	T
26	18	-5	77	2340	57	1821	67	T
27	35	-4	77	0000	51	1625	64	T
28	31	18	87	0222	76	1100	81.5	0.03
29	37	3	78	0015	59	0925	68.5	0
Average	8.4	-13.8	72.4		45.4		58.9	Total 0.14

* All precipitation during February 1952 was snow.

All data on this sheet were based on the records of the U.S. Weather Bureau at the Fairbanks International Airport.

TABLE 2. - TEMPERATURE, HUMIDITY AND PRECIPITATION DATA

College, Alaska

AF 18(600)-40

March 1952

Date	Temperature (°F)		Relative Humidity (%)				Mean	Precipitation * (inches-rain)
	Max	Min	Max	Time	Min	Time		
1	21	7	77	1725	65	0220	71	0.01
2	13	-10	71	0200	24	1921	47.5	0.02
3	12	-28	69	1125	23	2200	46	0
4	4	-13	66	2125	32	0825	49	T
5	1	-30	65	0900	28	1825	46.5	0.04
6	3	-38	75	0925	38	1922	56.5	0
7	17	-13	65	2325	42	0625	53.5	0
8	16	-11	82	2321	59	1200	70.5	0.01
9	29	13	81	0818	65	1220	73	T
10	34	1	86	0929	42	1128	64	0.01
11	40	5	71	2227	42	1323	56.5	0
12	35	-2	80	1025	44	1625	62	0
13	27	-5	72	0725	53	1125	62.5	0
14	29	-9	85	0925	48	1420	66.5	T
15	31	15	87	0724	58	1525	72.5	0.21
16	32	13	80	0600	53	1325	66.5	T
17	20	-2	67	0022	43	2225	55	0
18	9	-10	55	2325	32	0125	43.5	0
19	20	-13	64	2127	39	0224	51.5	0
20	25	-4	68	0426	35	1825	51.5	0
21	36	-1	74	0020	39	1125	56.5	0
22	40	15	80	1328	51	0225	65.5	0
23	44	6	76	0720	48	1325	62	0
24	39	11	87	2325	58	1325	72.5	0.01
25	34	20	84	0425	54	1625	69	T
26	36	15	78	0500	50	1125	64	T
27	15	-10	72	0025	40	2125	56	0.03
28	1	-15	67	0625	37	1400	52	T
29	6	-5	69	0625	35	2022	52	T
30	5	-17	68	0820	38	1725	53	0.01
31	21	-26	66	1725	37	0222	51.5	0
Average	22.4	-4.5	73.8		43.6		58.7	Total 0.35

* All precipitation during March 1952 was snow.

All data on this sheet were based on the records of the U.S. Weather Bureau at the Fairbanks International Airport.

Continued

TABLE 3. - TEMPERATURE, HUMIDITY AND PRECIPITATION DATA

College, Alaska

AF 18(600)-40

April 1952

Date	Temperature (°F)		Relative Humidity (%)				Mean	Precipitation (inches-Rain)
	Max	Min	Max	Time	Min	Time		
1	33	2	63	0525	41	1524	52	0
2	25	-8	59	2322	40	0422	49.5	0
3	25	-11	70	0225	44	1625	57	0
4	28	-15	72	2325	44	1825	58	0
5	35	-13	72	0725	40	1725	56	0
6	41	1	65	0626	37	1627	52	0
7	42	12	76	2323	42	1525	59	0
8	45	18	74	0426	48	1525	61	0
9	48	23	85	0222	48	1425	66.5	T (S)
10	38	32	91	1325	72	1725	81.5	0.04 (MS)
11	32	11	79	0024	55	1928	67	T
12	33	5	74	0726	47	1422	60.5	0
13	38	23	60	1425	47	1025	53.5	0
14	45	21	61	0625	42	1521	51.5	0
15	45	24	65	0325	39	1525	52	T (MS)
16	38	23	80	0625	57	1400	68.5	0
17	41	15	87	0225	51	1424	69	0
18		16	81	0300	33	1226	57	0
19	48		70	0525	28	1724	49	0
20	47	16	81	0423	34	0926	57.5	0
21	49	25	87	0525	44	1624	65.5	0
22	47	26	92	0525	39	1625	65.5	0
23	45	21	88	0625	29	1400	58.5	0
24	51	35	67	2325	36	1424	51.5	0
25	52	31	83	0325	30	1525	56.5	0
26	51	26	88	2325	31	1227	59.5	0
27	45	28	96	2325	51	1300	73.5	0.04 (MS)
28	38	29	94	0024	52	1826	73	0.10 (MS)
29	35	17	62	0024	37	1725	49.5	0
30	39	13	80	0325	38	1325	59	0
Average	39.3	14.9	76.7		42.5		59.6	Total 0.18

(S) Snow (MS) Melting Snow

Contrails

TABLE 4. - TEMPERATURE, HUMIDITY AND PRECIPITATION DATA

College, Alaska

AF 18(600)-40

May 1952

Date	Temperature (°F)		Relative Humidity (%)				Mean	Precipitation (inches-rain)
	Max	Min	Max	Time	Min	Time		
1	45	20	70	0528	33	1400	51.5	0
2	33	16	92	0825	35	1726	63.5	0.04
3	34	11	66	2325	24	1225	45.0	0
4	37	21	87	2200	66	1925	76.5	0.01
5	36	27	98	0324	60	1425	79.0	0.16
6	40	21	91	0323	49	1325	70.0	T
7	43	29	63	0425	40	1525	51.5	T
8	45	23	94	2400	35	1325	64.5	T
9	39	27	94	0025	42	1627	68.0	0.02
10	44	24	89	2125	35	1427	62.0	0
11	41	25	74	0225	33	1225	53.5	0
12	41	22	61	0122	30	1225	45.5	0
13	43	29	69	2225	31	1628	50.0	0
14	45	32	78	0400	37	1825	57.5	T
15	44	32	71	2325	43	1420	57.0	0
16	50	33	82	2224	35	1420	58.5	0
17	52	32	75	0125	36	0825	55.5	0
18	60	37	71	0325	31	1425	51.0	0
19	64	41	85	0425	27	1400	56.0	0
20	58	35	87	1822	24	1025	55.5	0.04
21	54	30	92	0300	34	1325	63.0	0
22	55	39	69	0225	34	1423	51.5	0
23	53	36	92	2225	43	1125	67.5	0.04
24	55	35	93	0527	33	1528	63.0	0
25	51	31	89	2325	45	0825	67.0	T
26	60	32	92	0200	27	1525	59.5	0
27	57	41	72	2226	38	1225	55.0	0
28	63	42	76	0527	35	1525	55.5	T
29	62	47	95	2127	35	0925	65.0	0.03
30	56	39	96	0229	43	1725	69.5	T
31	60	36	86	0425	23	1700	54.5	0
Average	49.0	30.5	82.2		36.6		59.4	Total 0.34

All precipitation during May 1952 was rain.

TABLE 5. - TEMPERATURE, HUMIDITY AND PRECIPITATION DATA

College, Alaska

AF 18(600)-40

June 1952

Date	Temperature (°F)		Relative Humidity (%)				Mean	Precipitation (inches-rain)
	Max	Min	Max	Time	Min	Time		
1	63	33	79	0225	23	1727	51.0	0
2	62	46	75	2325	24	1728	49.5	0
3	63	37	82	0326	21	1823	51.5	0
4	66	37	68	2325	23	1425	45.5	0
5	59	44	94	0822	55	1425	74.5	0.15
6	66	39	95	0325	27	1425	61.0	0.02
7	66	35	73	0322	22	1425	47.5	0
8	61	33	82	0424	22	1625	52.0	0
9	58	39	88	0626	52	1823	70.0	T
10	75	38	92	0126	18	1725	55.0	0
11	59	48	90	1825	49	0026	69.5	0.02
12	59	39	85	0400	35	1825	60.0	0.02
13	57	39	88	1325	57	0825	72.5	0.07
14	67	47	93	0427	41	1827	67.0	0.02
15	61	47	92	0325	55	2026	73.5	0.08
16	68	46	97	0228	23	1523	60.0	T
17	66	46	92	0100	43	1225	67.5	T
18	63	50	95	0400	49	1822	72.0	0.21
19	71	48	96	2326	33	1525	64.5	0.12
20	75	42	98	0025	34	1225	66.0	T
21	72	48	92	2223	35	1525	63.5	0.01
22	72	43	98	0225	34	1325	66.0	0
23	73	48	92	0425	38	1325	65.0	0
24	72	46	94	0125	44	1125	69.0	0.11
25	74	45	99	0225	40	1525	69.5	T
26	73	48	85	0225	38	1227	61.5	0.03
27	77	48	94	0125	24	1700	59.0	0.02
28	73	48	92	2238	41	1430	66.5	0.17
29	73	51	92	0625	49	1625	70.5	0.01
30	64	50	97	2028	65	1225	81.0	0
Average	66.9	43.6	89.6		37.1		63.3	Total 1.06

All precipitation during June 1952 was rain.

TABLE 6. - TEMPERATURE, HUMIDITY AND PRECIPITATION DATA

College, Alaska

AF 18(600)-40

July 1952

Date	Temperature (°F)		Relative Humidity (%)				Mean	Precipitation (inches-rain)
	Max	Min	Max	Time	Min	Time		
1	68	53	95	0127	56	1625	75.5	0.07
2	58	50	97	2025	73	0026	85.0	0.59
3	72	52	98	0125	38	1626	68.0	T
4	72	48	90	0326	31	1426	60.5	0
5	75	46	88	0125	21	1626	54.5	0
6	73	40	80	0226	24	1425	52.0	0
7	68	50	75	0225	34	1527	54.5	0
8	65	48	89	2225	43	1525	66.0	0.05
9	69	45	83	0222	29	1527	56.0	0
10	76	42	82	0127	33	1627	57.5	0
11	73	43	80	2300	39	1800	59.5	T
12	80	46	93	0225	28	1725	60.5	T
13	74	51	84	2326	39	1526	61.5	0.02
14	59	53	95	0727	67	1424	81.0	0.57
15	59	51	96	0424	69	1522	82.5	0.06
16	62	47	96	0420	65	1825	80.5	T
17	65	47	99	0400	54	1227	76.5	T
18	66	43	97	0427	71	1500	84.0	0.01
19	73	49	93	0325	38	1527	65.5	T
20	77	44	95	0300	32	1725	63.5	0
21	75	43	93	0325	42	1827	67.5	0
22	79	51	88	0426	29	1725	58.5	0
23	66	58	94	0725	54	0025	74.0	0.09
24	65	53	88	2325	60	1625	74.0	0.03
25	59	48	95	0925	82	1625	88.5	0.06
26	64	55	96	2327	62	1300	79.0	0.08
27	67	53	97	0125	51	1525	74.0	0.04
28	59	51	93	2127	78	1327	85.0	0.06
29	56	48	94	0525	63	1525	78.5	0.01
30	59	41	97	0300	62	1225	79.5	0.03
31	65	39	100	0325	51	1526	75.5	0.02
Average	67.7	48.0	91.6		49.0		70.2	Total: 1.79

All precipitation during July 1952 was rain.

TABLE 7. . . TEMPERATURE, HUMIDITY AND PRECIPITATION DATA

College, Alaska

AF 18(600)-40

August 1952

Date	Temperature (°F)		Relative Humidity (%)				Mean	Precipitation (inches-rain)
	Max	Min	Max	Time	Min	Time		
1	60	50	97	0225	58	1525	77.5	0.04
2	71	45	98	0023	38	1725	68.0	0
3	66	46	90	0200	47	1325	68.5	T
4	74	54	92	0325	35	1400	63.5	0
5	75	48	96	0325	34	1525	65.0	0
6	74	47	93	0326	37	1325	65.0	0
7	65	50	94	2325	66	0725	80.0	0.07
8	73	47	97	0224	45	1741	71.0	0
9	73	41	97	0129	46	1425	71.5	T
10	74	41	94	0324	40	1415	67.0	0.02
11	60	42	80	0025	47	1425	63.5	0
12	56	48	88	0624	67	1125	77.5	T
13	57	46	87	2325	49	1224	68.0	T
14	54	44	100	0325	66	1725	83.0	0.24
15	53	38	96	0325	59	1725	77.5	T
16	58	33	95	0400	48	1425	71.5	0
17	64	32	91	0223	40	1523	65.5	T
18	62	39	96	0627	43	1329	69.5	T
19	67	39	96	0525	51	1625	73.5	0.08
20	66	39	79	0025	40	1226	59.5	0
21	60	44	74	0425	45	1500	59.5	0
22	58	32	75	2300	29	1325	52.0	0
23	51	27	95	2225	43	1300	69.0	0.07
24	51	40	92	2325	70	1700	81.0	0.05
25	54	33	96	0500	51	1625	73.5	0.10
26	46	32	96	0535	78	1225	87.0	0.09
27	58	33	99	0822	41	1725	70.0	0
28	60	29	94	0400	40	1528	67.0	0
29	53	39	94	2025	72	1325	83.0	0.09
30	56	40	94	0225	61	1726	77.5	0.05
31	60	35	97	2023	48	1225	72.5	0.27
Average	61.6	40.4	92.3		49.5		70.9	Total 1.17

All precipitation during August 1952 was rain.

TABLE 8. - TEMPERATURE, HUMIDITY AND PRECIPITATION DATA

College, Alaska

AF 18(600)-40

September 1952

Date	Temperature (*F)		Relative Humidity (%)				Mean	Precipitation (inches-rain)
	Max	Min	Max	Time	Min	Time		
1	54	47	94	2225	74	1500	84.0	0.44
2	50	44	94	2027	69	1400	81.5	T
3	47	41	94	2325	77	1300	85.5	0.16
4	44	36	94	0028	55	1629	74.5	0.09
5	42	32	92	0625	40	1728	66.0	0.04 (MS)
6	41	22	75	2324	31	1625	53.0	0
7	46	16	85	0325	28	1734	56.5	T
8	56	19	87	0325	25	1626	56.0	T
9	45	40	96	0724	58	0200	77.0	0.24
10	51	38	93	0224	55	1625	74.0	0.27
11	49	38	91	0625	59	1225	75.0	0
12	54	30	94	0500	51	1725	72.5	0
13	63	29	89	0425	36	1426	62.5	0
14	52	40	91	0725	50	1528	70.5	0
15	50	34	92	0525	61	1625	72.5	0.01
16	55	27	86	0526	39	1227	62.5	T
17	50	32	89	0526	57	1429	73.0	T
18	45	33	95	2225	74	1400	84.5	T
19	57	30	99	0526	43	1600	71.0	0
20	51	24	95	0026	54	1423	74.5	0.03
21	59	42	98	2225	69	1426	83.0	T
22	68	35	99	0026	46	1626	72.5	0
23	67	30	95	0326	41	1425	68.0	0
24	61	43	71	0525	41	1300	56.0	0
25	58	36	75	2325	47	1500	61.0	0
26	56	35	81	0421	59	1428	70.0	0
27	49	37	83	2025	58	1125	70.5	0
28	44	28	95	1827	69	0727	82.0	0.05 (MS)
29	36	25	82	1828	61	2328	71.5	0
30	36	24	75	1525	47	1225	61.0	0
Average	51.2	32.9	89.3		52.5		70.9	Total 1.33

(MS) Melting Snow

TABLE 9. - TEMPERATURE, HUMIDITY AND PRECIPITATION DATA

College, Alaska

AF 18(600)-40

October 1952

Date	Temperature (°F)		Relative Humidity (%)				Mean	Precipitation (inches-rain)
	Max	Min	Max	Time	Min	Time		
1	35.5	23	67	1725	43	1326	55.0	0
2	41	8	75	0526	37	1125	56.0	0
3	54	28	63	0025	40	1726	51.5	0
4	56	42	81	2326	47	0025	64.0	T
5	57	35	88	0525	48	1426	68.0	0.01 (R)
6	54	30	91	2223	52	1625	71.5	0.04 (R)
7	42	30	91	0025	55	1527	73.0	0
8	44	27	93	0526	60	1325	76.5	0
9	46	23	93	0925	56	1325	74.5	0
10	51	27	92	2328	48	1424	70.0	0
11	40	29	95	2127	82	1425	88.5	0
12	40	30	96	0025	73	1629	84.5	0.01 (S)
13	47	28	86	0626	58	1520	72.0	0
14	50	24	95	2227	57	1325	76.0	T (S)
15	52	24	90	0026	45	0929	67.5	0
16	40	24	88	2300	62	1228	75.0	T (R)
17	36.5	14	92	0828	61	1425	76.5	0
18	33	12	85	1727	43	1428	64.0	0
19	30	7.5	88	1528	65	0925	76.5	0.04 (S)
20	29	18	93	0328	79	1200	86.0	0.13 (S)
21	27	16	91	0727	77	1125	84.0	0.08 (S)
22	25	14	91	1724	75	1227	83.0	0.03 (S)
23	21	0	89	1725	60	0525	74.5	0
24	17	3	87	0100	71	2025	79.0	0.01 (S)
25	30	1	86	1925	60	1225	73.0	0
26	32.4	11	94	1124	83	0025	89.5	0.14 (S)
27	32.5	15	94	0829	84	2226	89.0	0.04 (S)
28	39.2	12	88	0225	64	1325	76.0	0
29	36	2.4	92	1125	74	0624	83.0	0
30	30	17	88	0028	70	0925	79.0	0
31	25	10	85	0225	65	2126	75.0	0.16 (S)
Average	38.5	18.8	88.0		61.1		74.6	Total 0.68

(R) Rain (S) Snow

Continued

TABLE 10. - TEMPERATURE, HUMIDITY AND PRECIPITATION DATA

College, Alaska

AF 18(600)-40

November 1952

Date	Temperature (°F)		Relative Humidity (%)				Mean	Precipitation (inches-rain)
	Max	Min	Max	Time	Min	Time		
1	28	18	79	2023	61	0800	70.0	0
2	21	18	89	2320	67	1225	78.0	0
3	21	12	89	0025	72	1325	80.5	0
4	38	8	86	2325	57	1525	71.5	0
5	30	14	88	1925	69	0825	78.5	0
6	28.5	6	87	1725	76	0025	81.5	0
7	39.5	2	83	1225	51	2225	67.0	0
8	39.5	16	85	2225	55	0827	70.0	0
9	41.3	12	84	0824	52	2025	68.0	0
10	38.5	24	94	2325	63	0125	78.5	0
11	30	7	94	0125	63	1800	78.5	T (R)
12	16	-5	82	0325	63	1125	72.5	0
13	8	-11	80	2121	69	1125	74.5	0
14	20	-5	87	0725	70	2221	78.5	T (S)
15	26.5	-5	80	0825	55	1826	67.5	0
16	25	13	89	1227	75	0525	82.0	0.04 (S)
17	28	2.5	81	2123	60	0525	70.5	0
18	15	4	85	1626	71	1026	78.0	0
19	19.3	-5.5	85	1226	62	2025	73.5	0.15 (S)
20	38	-5.5	77	0325	55	1424	66.0	0
21	47	22	95	1600	52	0725	73.5	0
22	44	5	89	2100	72	2325	80.5	0
23	49	33	80	2326	56	1323	68.0	0
24	39	22	96	1623	75	1220	85.5	0.04 (S)
25	32	14	94	0226	81	2300	87.5	T (S)
26	14	0	87	0126	62	1800	74.5	0
27	18.5	-2	85	0824	67	2227	76	0
28	15	-5.5	78	0200	49	1925	63.5	0
29	8	-1.8	62	0025	29	2328	45.5	0
30	0.1	-19	52	2025	22	0925	37	0
Average	27.3	5.9	84.0		61.0		72.5	Total 0.23

(R) Rain (S) Snow

Continued

TABLE 11. - TEMPERATURE, HUMIDITY AND PRECIPITATION DATA

College, Alaska

AF 18(600)-40

December 1952

Date	Temperature (°F)		Relative Humidity (%)				Mean	Precipitation * (inches-rain)
	Max	Min	Max	Time	Min	Time		
1	-4.5	-26	72	0923	49	2025	60.5	0.054
2	-12	-30.5	72	0422	46	0828	59.0	T
3	-11.5	-27	68	1125	29	2329	48.5	T
4	-4.5	-21.4	70	0800	53	1325	66.5	T
5	2	-16.8	72	0900	50	0624	61.0	0
6	2	-13.5	70	0326	49	2025	59.5	0
7	-3.5	-16	75	0625	33	1826	54.0	0
8	-9	-21	49	0420	27	0028	38.0	0
9	-11	-23	62	0727	28	0527	45.0	0
10	-16	-29	49	0125	22	2226	35.5	0
11	-13.2	-31.6	42	1400	20	0700	31.0	0
12	1.8	-30	54	1925	20	0325	37.0	0
13	-2	-19	78	1725	50	0425	63.5	T
14	-6	-12	75	1825	62	2322	68.5	T
15	6.1	-14.8	75	2223	60	1225	62.5	0
16	4	-11.4	81	2122	69	1225	75.0	T
17	24.9	-5	89	2120	75	1000	82.0	0
18	20	2	87	0025	76	2024	81.5	0
19	11	-2.8	83	1025	72	2325	77.5	0
20	0.5	-10.4	80	0600	70	1628	75.0	0
21	10	-5	84	2326	66	1824	75.0	0
22	14.5	-7	84	2026	66	2325	75.0	0
23	20	6.5	83	2026	63	0025	73.0	0
24	27	8	88	1725	69	0200	78.5	0
25	32	9	89	1725	58	0225	73.5	0
26	20	4	88	0400	83	0926	85.5	0
27	15	-3	86	0425	78	0925	82.0	0
28	18	-5	84	0426	75	2227	79.5	0
29	19	0	87	1325	76	0126	81.0	0
30	14	-2	84	0426	70	1225	77.5	0
31	7	-14	84	1900	68	1425	76.0	0.01
Average	6.0	-11.9	75.6		55.9		65.7	Total 0.064

* All precipitation during December 1952 was snow.

Contrails

TABLE 12. - TEMPERATURE, HUMIDITY AND PRECIPITATION DATA

College, Alaska

AF 18(600)-40

January 1953

Date	Temperature (°F)		Relative Humidity (%)				Mean	Precipitation * (inches-rain)
	Max	Min	Max	Time	Min	Time		
1	7	-13	86	1425	72	0326	79.0	T
2	4	-13	85	1122	64	0025	79.5	T
3	-3	-14	76	1328	61	1925	68.5	0
4	6	-12	84	1500	54	1025	69.0	0
5	15	-3	85	0400	63	1825	74.0	0
6	16	-13	80	0425	39	2325	59.5	0
7	21	-14	63	0525	42	1524	52.5	0
8	8	-24	62	0323	41	0926	51.5	0
9	-14	-28	46	0421	13	0528	29.5	0
10	-11	-28	40	1226	15	0624	27.5	0
11	-22	-35	56	1927	17	0026	36.5	0
12	-21	-40	43	1225	33	1325	38.0	0
13	-23	-39	49	1325	26	1725	37.5	0
14	-23	-41	32	1400	28	1225	30.0	0
15	-19	-42	29	1400	28	1525	28.5	0
16	-19	-40	38	1400	28	2125	33.0	0
17	-12	-35	60	2025	28	1125	44.0	0
18	-8	-24	64	2327	45	2125	54.5	0
19	0	-26	75	0600	56	0026	65.5	0.03
20	-6	-15	70	1925	55	1025	62.5	0.05
21	-9	-23	67	2025	50	1125	58.5	0
22	-10	-53	56	0025	20	1725	38.0	0
23	-34	-53	M	M	M	M		0
24	-20	-51	58	1225	20	1725	34.0	0.15
25	-25	-55	M	M	M	M		0
26	-32	-55	M	M	M	M		0
27	-32	-48	44	1225	28	2329	36.0	0
28	-21	-37	54	1825	18	2328	36.0	0
29	3	-26	64	1425	39	0420	51.5	0
30	-4	-35	56	1226	24	0825	40.0	0
31	-13	-43	46	1425	29	1626	37.5	0
Average	-9.7	-31.5	59.2		37.4		48.3	Total 0.23

* All precipitation during January 1953 was snow.

TABLE 13. - TEMPERATURE, HUMIDITY AND PRECIPITATION DATA

College, Alaska

AF 18(600)-40

February 1953

Date	Temperature (°F)		Relative Humidity (%)				Mean	Precipitation * (inches-rain)
	Max	Min	Max	Time	Min	Time		
1	-15	-45	M	M	M	M		0
2	-8	-38	64	2027	32	0725	48.0	T
3	-11	-20	66	1825	47	0725	56.5	0.05
4	-13	-46	M	M	M	M		0.01
5	-27	-53	M	M	M	M		0
6	-30	-53	M	M	M	M		0
7	-21	-38	45	1429	22	0925	33.5	0.005
8	21	-30	79	2100	37	0027	58.0	0
9	16	-23	83	0125	48	2225	65.5	0
10	16	-27	69	2025	29	0400	49.0	0
11	36	0	83	2328	49	0425	66.0	0
12	34	8	84	0920	68	1200	76.0	0
13	43	15	94	1226	81	1523	87.5	T
14	35	15	92	0025	59	1525	75.5	0
15	26	-1	90	2221	73	1727	81.5	0
16	20	2	87	0100	72	0625	79.5	0
17	25	-5	90	0525	74	2300	82.0	0
18	35	-6	84	0623	57	1425	70.5	0
19	32	4	87	0227	55	1225	71.0	0
20	43	6	87	0126	57	1025	72.0	0
21	25	-2	94	1125	70	1725	82.0	0.04
22	32	-7	85	0625	55	1225	70.0	0
23	31	0	80	2125	58	0325	69.0	0
24	40	0	88	2325	58	1400	73.0	0
25	43	11	88	1026	60	1326	74.0	0
26	27	9	86	0925	66	1925	76.0	0
27	26	-8	85	1026	60	1500	72.5	T
28	31	-3	97	2225	51	1425	74.0	T
Average	18.3	12.0	82.7		55.8		69.1	Total 0.105

* All precipitation during February 1953 was snow.

TABLE 14. - TEMPERATURE, HUMIDITY AND PRECIPITATION DATA

College, Alaska

AF 18(600)-40

March 1953

Date	Temperature (°F)		Relative Humidity (%)				Mean	Precipitation (inches-rain)	*
	Max	Min	Max	Time	Min	Time			
1	32	-10	94	0425	59	1400	76.5	0.18	
2	21	-14	87	1125	60	0525	73.5	T	
3	18	-16	83	0825	57	1527	70.0	0	
4	18	-19	80	2000	62	1425	71.0	0	
5	16	-17	76	1125	25	0825	50.5	0	
6	9	-28	72	0925	37	2325	54.5	0	
7	2	-32	71	1200	33	0325	52.0	0	
8	7	-26	79	1924	46	0700	62.5	0	
9	13	-7	84	1824	55	2321	69.5	0.1	
10	13	-27	72	1825	27	0625	49.5	0	
11	9	-28	67	1125	32	0325	49.5	0	
12	22	-26	63	1925	18	0325	40.5	0	
13	(20)	(-21)	72	1925	29	1625	50.5	0	
14	30	(-11)	75	0525	32	1625	53.5	0	
15	35	9	80	2325	51	1025	65.5	0	
16	41	7	84	0325	46	0826	64.0	0	
17	42	2	81	0625	49	1520	65.0	0	
18	30	2	83	0725	59	1622	71.0	0	
19	25	11	83	0525	55	1620	69.0	0	
20	36	-12	82	0925	52	1625	67.0	0	
21	37	-6	84	0122	49	1400	66.5	0	
22	30	-8	83	0723	49	1725	66.0	0	
23	37	-7	81	0826	49	1730	65.0	0	
24	40	5	79	0625	41	1725	60.0	0	
25	35	-3	79	0125	49	1427	64.0	0	
26	29	16	90	2125	68	0025	79.0	0	
27	28	-1	88	0025	55	1327	71.5	0.1	
28	43	-3	84	0826	42	1525	63.0	0	
29	42	2	80	0025	47	1225	63.5	0	
30	26	6	86	2125	62	1526	74.0	T	
31	22	8	84	0028	52	1226	68.0	0	
Average	25.2	-8.2	80.2		46.7		63.5	Total 0.38	

* All precipitation during March 1953 was snow.

TABLE 15. - TEMPERATURE, HUMIDITY AND PRECIPITATION DATA

College, Alaska

AF 18(600)-40

April 1953

Date	Temperature (*F)		Relative Humidity (%)				Mean	Precipitation * (inches-rain)
	Max	Min	Max	Time	Min	Time		
1	44	9	72	0026	43	1426	56.5	0
2	52	33	74	2244	34	1628	54.0	0
3	52	18	88	0425	34	1622	61.0	0
4	42	18	87	0525	59	1825	73.0	0
5	32	9	81	0100	55	1800	68.0	0
6	26	-2	87	2327	47	1800	67.0	0
7	34	-8	86	0255	33	1825	59.5	0
8	41	5	61	0125	26	1400	43.5	0
9	52	20	76	0600	21	1527	48.5	0
10	54	33	73	0525	40	1425	56.5	0
11	49	23	78	0322	35	1625	56.5	0
12	44	23	87	0100	44	1523	65.5	0
13	39	6	60	0323	39	1623	49.5	0
14	22	0	60	0526	44	1124	52.0	0
15	34	15	69	0723	42	1623	55.5	0
16	51	20	62	0520	34	1522	48.0	0
17	58	35	69	0534	35	1400	52.0	0
18	66	37	56	0421	27	1523	41.5	0
19	61	29	70	2324	25	1300	47.5	0
20	55	25	75	0624	22	1500	48.5	0
21	56	22	81	0500	17	1423	49.0	0
22	56	25	86	2324	37	1400	61.5	T
23	52	26	97	2324	56	1023	76.5	T
24	53	25	98	0123	26	1223	62.0	0
25	58	23	81	0525	23	1423	52.0	0
26	63	29	85	0424	23	1500	54.0	0
27	65	33	70	0424	25	1500	47.5	0
28	69	46	66	0323	24	1425	45.0	0
29	67	45	67	0523	33	1525	50.0	0
30	67	50	57	2320	27	1025	42.0	0
Average	50.5	22.4	75.3		34.3		54.8	Total T

* All precipitation during April 1953 was snow.

Continued

TABLE 16. - TEMPERATURE, HUMIDITY AND PRECIPITATION DATA

College, Alaska

AF 18(600)-40

May 1953

Date	Temperature (°F)		Relative Humidity (%)				Mean	Precipitation (inches-rain)
	Max	Min	Max	Time	Min	Time		
1	60	35	67	0324	43	1100	55.0	0
2	51	32	59	0324	32	1422	45.5	0
3	52	32	52	0130	20	1124	36.0	0
4	54	31	62	0628	28	1124	45.0	0
5	56	35	93	0622	29	1723	61.0	0.2
6	54	33	70	0025	36	1725	53.0	0
7	55	35	61	2124	33	1100	47.0	0
8	58	36	92	2124	26	1324	59.0	0
9	57	34	80	0024	34	1625	57.0	0
10	51	23	82	0925	53	0724	67.5	0
11	61	24	87	0024	17	1625	52.0	0
12	61	36	64	2322	28	1523	46.0	0
13	66	31	87	0322	29	1322	58.0	0
14	65	M	93	1826	38	1323	65.5	0.14
15	61	35	96	0524	33	1525	64.5	0
16	72	31	84	0424	21	1324	52.5	0
17	71	36	65	0324	27	1120	46.0	0
18	72	31	82	0225	23	1624	52.5	0
19	71.5	50	81	0523	35	1526	58.0	0
20	72	45	76	0321	34	1623	55.0	0
21	63	43	85	2223	55	1526	70.0	0
22	66	45	91	0523	31	1723	61.0	0
23	75	40	82	2324	29	1500	55.5	0
24	71	38	94	2324	43	1424	68.5	T
25	72	41	98	0229	46	1225	72.0	0.30
26	71	46	100	0125	76	1824	88.0	0.36
27	71	34	100	0300	29	1222	64.5	0
28	71	43	82	2320	39	1023	60.5	T
29	69	37	87	0224	32	1823	59.5	0
30	76	34	97	0224	21	1621	59.0	0
31	74	41	80	0200	28	1621	54.0	0
Average	64.5	36.2	81.6		33.8		57.6	Total 1.0

All precipitation during May 1953 was rain.

TABLE 17. - TEMPERATURE, HUMIDITY AND PRECIPITATION DATA

College, Alaska

AF 18(600)-40

June 1953

Date	Temperature (*F)		Relative Humidity (%)				Mean	Precipitation (inches-rain)
	Max	Min	Max	Time	Min	Time		
1	80	58	83	0400	32	1620	57.0	0
2	83	48	88	0423	28	1721	58.0	0
3	83	42	63	2323	15	1700	39.0	0
4	84	54	80	0423	21	1625	50.5	0
5	84	49	74	2223	37	1624	55.5	T
6	82	47	89	2325	29	1324	59.0	T
7	71	45	100	0425	54	1720	77.0	0
8	76	45	94	0225	39	1624	66.5	0
9	76	53	100	0523	55	1522	77.5	0.09
10	68	44	100	0124	36	1724	68.0	0.065
11	72	48	85	0421	29	1824	57.0	0
12	72	51	95	2224	57	0024	76.0	0.02
13	73	45	94	0624	30	1723	62.0	0.61
14	68	33	92	0024	33	1300	62.5	0
15	73	43	93	0424	29	1723	61.0	0
16	73	49	62	0324	35	1425	48.5	0
17	72	36	86	2324	66	0024	76.0	0.18
18	68	43	94	0300	47	1723	70.5	T
19	71	44	84	2323	37	1526	60.5	0
20	74	43	95	0225	32	1525	63.5	T
21	74	40	95	0323	36	1425	65.5	0.01
22	73	48	75	0225	46	1723	60.5	0
23	64	53	79	2323	57	1424	68.0	T
24	69	52	97	0720	66	0021	81.5	0.95
25	71	51	94	2325	65	1825	79.5	0.01
26	78	48	93	0224	41	1722	67.0	0
27	80	51	82	0419	32	1424	57.0	0
28	78	50	80	1024	44	0025	62.0	T
29	66	44	75	0420	41	1523	58.0	0
30	67	43	97	0521	55	1824	76.0	0.18
Average	74.1	46.6	87.3		40.8		64.0	Total 2.115

All precipitation during June 1953 was rain.

TABLE 18. - TEMPERATURE, HUMIDITY AND PRECIPITATION DATA

College, Alaska

AF 18(600)-40

July 1953

Date	Temperature (°F)		Relative Humidity (%)				Mean	Precipitation (inches-rain)
	Max	Min	Max	Time	Min	Time		
1	60	36	99	2300	66	1325	82.5	0.53
2	67	39	100	0500	44	1900	72.0	0.01
3	68	35	100	0324	41	1323	70.5	0.03
4	62	44	99	0300	47	1224	73.0	0.06
5	74	35	95	0124	35	1823	65.0	0
6	74	52	75	0724	34	1425	54.5	0.03
7	72	52	99	2223	50	1324	74.5	0.01
8	65	48	99	0300	62	1228	80.5	0.19
9	67	50	99	0224	52	1724	75.5	0.16
10	74	45	100	0224	38	1824	69.0	0
11	78	39	91	0225	31	1624	61.0	0
12	78	41	93	0300	33	1700	63.0	0
13	77	60	87	0124	30	1124	53.5	0
14	69	56	99	0625	66	1724	82.5	0.20
15	67	39	100	0400	44	1724	72.0	0.10
16	67	40	96	0024	61	1323	78.5	T
17	66	36	100	0300	45	1324	72.5	T
18	65	35	100	0100	52	1322	76.0	T
19	67	48	94	0300	48	1724	71.0	0
20	68	49	96	0224	48	1123	72.0	0.02
21	67	49	98	0122	59	1624	78.5	0.15
22	73	48	100	0425	44	1425	72.0	T
23	78	41	93	0400	40	1524	66.5	0
24	83	39	96	0323	26	1521	61.0	0
25	84	41	92	0323	28	1425	60.0	0
26	84	43	91	0420	26	1519	58.5	0
27	87	49	77	2324	26	1600	51.5	0
28	87	45	81	0420	22	1523	51.5	0
29	87	44	91	0325	30	1223	60.5	T
30	88	50	89	0424	29	1500	59.0	0
31	81	51	89	0321	35	1724	62.0	0
Average	73.7	44.5	94.1		41.6		67.7	Total 1.33

All precipitation during July 1953 was rain.

Contrails

TABLE 19. - TEMPERATURE, HUMIDITY AND PRECIPITATION DATA

College, Alaska

AF 18(600)-40

August 1953

Date	Temperature (°F)		Relative Humidity (%)				Mean	Precipitation (inches-rain)
	Max	Min	Max	Time	Min	Time		
1	82	47	91	0224	41	1724	66.0	T
2	79	48	90	0524	36	1524	63.0	T
3	78	39	94	0324	31	1724	62.5	0
4	76	40	97	0525	48	1424	72.5	T
5	69	40	92	0024	44	1624	68.0	0
6	74	40	81	0423	42	1624	61.5	0
7	76	39	92	0322	36	1524	64.0	T
8	70	36	99	0425	41	1620	70.0	0.02
9	70	33	100	0330	33	1600	66.5	0.02
10	69	47	100	0600	73	1620	86.5	0.20
11	69	44	100	0330	40	1525	70.0	0
12	71	32	100	0330	33	1723	66.5	0
13	74	33	100	0300	25	1524	62.5	0
14	72	47	92	2125	50	1624	71.0	0.06
15	62	49	100	0425	67	1124	83.5	0.01
16	57	40	93	0200	48	1625	70.5	T
17	64	36	88	0100	44	1400	66.0	0
18	62	46	86	0625	50	1623	68.0	0.01
19	66	35	94	0524	39	1623	66.5	0
20	69	44	93	0425	28	1622	60.5	T
21	66	28	100	0400	33	1424	66.5	T
22	60	46	100	0622	92	0020	96.0	1.57
23	58	M	96	0024	71	1723	83.5	0.07
24	66	50	96	0224	60	1425	78.0	0.08
25	60	38	100	0600	74	1225	87.0	0.46
26	57	45	98	0224	75	1224	86.5	0.18
27	59	44	95	0425	61	1600	78.0	T
28	54	39	100	2200	79	1624	89.5	0.20
29	60	43	100	0325	57	1423	78.5	0.01
30	63	36	99	0525	48	1225	73.5	T
31	52	44	96	0525	58	1625	77.0	0.08
Average	66.6	39.6	95.5		50.2		72.8	Total 2.97

All precipitation during August 1953 was rain.

Contrails

TABLE 20. - TEMPERATURE, HUMIDITY AND PRECIPITATION DATA

College, Alaska

AF 18(600)-40

September 1953

Date	Temperature (°F)		Relative Humidity (%)				Mean	Precipitation * (inches-rain)
	Max	Min	Max	Time	Min	Time		
1	51	39	100	0625	75	1725	87.5	0.94
2	56	37	100	0125	63	1322	81.5	0.03
3	57	36	99	0223	50	1524	74.5	0
4	65	41	92	0422	51	1524	71.5	0
5	63	44	100	2324	55	1224	77.5	T
6	59	37	100	0525	49	1520	74.5	0.14
7	65	26	100	0312	30	1520	65.0	T
8	66	26	91	0522	35	1524	63.0	0
9	65	26	91	0523	37	1424	64.0	0
10	62	24	93	0522	43	1424	68.0	0
11	60.5	26	94	2325	44	1324	69.0	0
12	64.5	42	93	0225	46	1324	69.5	0.08
13	56	42	100	2225	77	0024	88.5	0.01
14	52.5	43	100	0421	87	1625	93.5	0.46
15	63	29	100	0524	40	1625	70.0	T
16	62	26	93	0225	30	1324	61.5	0
17	60	32	93	0624	37	1324	65.0	0
18	56	37	98	2325	61	1625	78.5	T
19	60.5	30.5	100	0423	40	1625	70.0	0.01
20	54	35	99	2325	69	1424	84.0	0.01
21	57	30	100	0524	44	1625	72.0	0
22	55	28.5	96	0825	57	1623	76.5	0.01
23	55	28	91	0024	47	1322	69.0	T
24	54.5	35.5	98	0924	74	0324	86.0	0.01
25	49	16.5	98	0024	58	1525	78.0	T
26	47	22	97	0424	57	1325	77.0	0
27	44	24.5	94	0124	59	1424	76.5	0
28	42.5	31	89	0624	65	1225	77.0	0.02
29	39.5	26	95	0424	49	1523	72.0	0
30	40	24	94	0324	45	2225	69.5	0.015
Average	56.0	31.5	96.3		52.5		74.4	Total 1.735

* All precipitation during September 1953 was rain except for September 28 on which there was both rain and snow.

TABLE 21. - TEMPERATURE, HUMIDITY AND PRECIPITATION DATA

College, Alaska

AF 18(600)-40

October 1953

Date	Temperature (°F)		Relative Humidity (%)				Mean	Precipitation (inches-rain)
	Max	Min	Max	Time	Min	Time		
1	37	26	61	0625	36	1225	48.5	0
2	30	16.5	63	0025	33	1525	48.0	0
3	30	15	62	1824	36	1325	49.0	0
4	39	21	74	2225	43	0825	58.5	0
5	54	28	78	0724	32	1424	55.0	0
6	59	45	91	2324	31	1623	61.0	0
7	57	20	95	0223	33	1424	64.0	0
8	55	19	90	0224	36	1424	63.0	0
9	(50)	(23)	93	0425	38	1324	65.5	0
10	55	18	98	1824	69	1023	83.5	0.01 (R)
11	32	24	100	1925	95	0225	97.5	0
12	45	24	100	0025	61	1426	80.5	0.01 (R)
13	50	11	92	0525	41	1725	66.5	0
14	35	22	96	1924	65	0123	80.5	0.01 (R)
15	47	27	97	0525	61	1424	79.0	0
16	(42)	(19)	92	0023	49	1424	70.5	0
17	45.5	7	87	0525	51	1324	69.0	0
18	43	7	86	0324	53	1324	69.5	0
19	39.5	11.5	90	1925	56	1324	73.0	0
20	36	7	91	2225	64	1129	77.5	0
21	43.5	9	98	2225	55	1625	76.5	0
22	42	24.5	100	0526	86	1424	93.0	0
23	30	21	96	0521	90	1024	93.0	0.18 (S)
24	(28)	(18)	93	0824	81	2325	87.0	0
25	29	15.5	86	1524	64	1825	75.0	0
26	20	-3	81	0525	31	2025	56.0	0.03 (S)
27	11	-19.5	73	1124	46	0824	59.0	0
28	7	(-17)	70	1424	37	0724	53.5	0
29	6	-24	69	1623	38	1225	53.5	0
30	(0)	(-12)	63	2326	51	1425	57.0	0
31	(-1)	(-12)	69	1624	50	0625	59.5	0.01 (S)
Average	35.4	12.6	85.0		52.0		68.3	Total 0.25

() Weather Bureau Values (R) Rain (S) Snow

TABLE 22. - TEMPERATURE, HUMIDITY AND PRECIPITATION DATA

College, Alaska

AF 18(600)-40

November 1953

Date	Temperature (°F)		Relative Humidity (%)				Mean	Precipitation (inches-rain)	*
	Max	Min	Max	Time	Min	Time			
1	11	-3	75	1624	50	0025	62.5	T	
2	9	-10	73	1224	55	0924	64.0	T	
3	4	-17	70	0325	29	1225	49.5	T	
4	0	-17	62	1424	40	1825	51.0	T	
5	4	-8	71	2325	50	1225	60.5	T	
6	8	-12	81	0525	49	2125	65.0	T	
7	1	-15	61	0724	42	1130	51.5	0	
8	10	-11	65	1725	46	2225	55.5	0	
9	8	-12	64	1324	50	2325	57.0	0	
10	11	-10	73	2125	41	0325	57.0	0	
11	18	3	83	1730	57	1124	70.0	0	
12	25	8	83	1524	76	0125	79.5	0	
13	26	3	88	2025	68	0924	78.0	0	
14	25	2	89	0224	72	1925	80.5	T	
15	8	1	83	1825	68	0725	75.5	0.10	
16	16	-3	85	1224	72	2025	78.5	0.10	
17	10	-4	83	1024	64	0425	73.5	0	
18	15	-6	81	1124	69	2128	75.0	0	
19	-1	-10	71	0125	53	1930	62.0	T	
20	8	-10	75	1720	53	0225	64.0	0	
21	13	-10	79	1930	51	2230	65.0	0	
22	12	8	57	0624	44	0724	50.5	0	
23	12	4	66	1324	54	2225	60.0	0	
24	24	0	75	1430	45	0024	60.0	T	
25	8	-3	80	2324	43	0930	61.5	T	
26	10	-3	78	0124	53	2324	65.5	0	
27	6	-3	78	1725	45	0025	61.5	0	
28	0	-8	78	1325	69	0025	73.5	0	
29	1	-10	77	1924	68	0425	72.5	0	
30	-2	-12	80	2325	69	0925	74.5	0	
Average	10	5.6	75.5		54.8		65.2	Total	0.20

* All precipitation during November 1953 was snow.

TABLE 23. - TEMPERATURE, HUMIDITY AND PRECIPITATION DATA

College, Alaska

AF 18(600)-40

December 1953

Date	Temperature (*F)		Relative Humidity (%)				Mean	Precipitation * (inches-rain)
	Max	Min	Max	Time	Min	Time		
1	4	-7	80	1125	70	1525	75.0	0
2	-4	-8	77	1325	69	2325	73.0	0
3	1	-8	78	0430	61	0030	69.5	0
4	-6	-11	78	0925	69	1025	73.5	0
5	(-6)	(-20)	77	0030	56	1025	66.5	T
6	(-2)	(-13)	83	1725	68	0125	75.5	T
7	(3)	(-8)	74	1525	51	1630	62.5	0
8	7	-14	74	2130	59	0525	65.5	T
9	13	4	81	0225	65	1830	73.0	0.02
10	6	-5	80	0025	65	2324	72.5	T
11	(-3)	(-21)	80	1425	58	0625	69.0	T
12	-6	-30	78	0425	55	2225	66.5	0.01
13	-6	-17	73	0824	48	0025	60.5	0
14	-8	-20	59	0025	51	2325	55.0	T
15	18	-8	83	0525	59	0024	71.0	0
16	26	6	84	1328	68	0828	76.0	0.06
17	19	11	82	0024	70	1825	76.0	0
18	11	-8	78	0024	64	1925	76.0	0
19	7	-2	80	0525	67	0024	73.5	0
20	6	-5	73	1324	62	2025	67.5	0
21	19	7	81	1330	69	0025	75.0	0
22	24	5	84	1430	69	2325	76.5	T
23	7	-4	76	1330	67	0135	71.5	0
24	12	2	82	1725	73	0025	77.5	0
25	17	-7	77	0825	62	2325	69.5	0
26	6	-8	79	1625	60	0420	69.5	T
27	11	0	77	0024	68	1825	72.5	0.04
28	0	-21	75	0624	56	1625	65.5	T
29	0	-15	67	2024	54	1525	60.5	T
30	-12	-31	72	2124	48	1724	60.0	0
31	-7	-32	72	2324	48	1030	60.0	T
Average	5.3	-9.3	77.2		61.6		69.4	Total 0.13

* All precipitation during December 1953 was snow.

TABLE 24. - TEMPERATURE, HUMIDITY AND PRECIPITATION DATA

College, Alaska

AF 18(600)- 40

January 1954

Date	Temperature (°F)		Relative Humidity (%)				Mean	Precipitation (inches-rain)	*
	Max	Min	Max	Time	Min	Time			
1	-7	-38	73	1924	45	1420	59.0	T	
2	-38	-47	M		M			T	
3	-26	-42	M		M			0	
4	-20	-38	M		M			0	
5	-12	-31	56	0525	39	0125	47.5	0	
6	-11	-28	52	0525	37	0725	44.5	0	
7	8	-27	75	2325	31	0224	53.0	T	
8	21	8	82	0325	65	1024	73.5	0.08	
9	8	-2	85	0025	67	2324	76.0	T	
10	5	-19	79	0325	58	1724	68.5	0.01	
11	12	3	81	0625	71	2224	76.0	0.10	
12	3	-23	73	0424	50	2124	61.5	T	
13	-6	-28	67	0324	54	0925	60.5	0	
14	-14	-24	73	0125	56	2324	64.5	0	
15	19	-24	82	1225	56	0024	69.0	0.14	
16	12	-13	81	0125	58	0925	69.5	0	
17	-4	-23	67	0125	54	1625	60.5	T	
18	4	-21	78	1830	58	0025	68.0	0.05	
19	8	-18	81	2224	62	0325	71.5	T	
20	9	-9	80	0525	61	2325	70.5	T	
21	-4	-25	71	2030	55	2225	63.0	T	
22	3	-26	77	2225	46	0225	61.5	T	
23	13	-7	78	0627	69	2030	73.5	0.12	
24	-8	-16	73	0125	48	2330	60.5	0	
25	-7	-41	M		M			T	
26	-26	-48	M		M			0	
27	-22	-45	M		M			0	
28	-24	-50	M		M			T	
29	-22	-41	M		M			T	
30	-11	-40	M		M			0.04	
31	-11	-19	72	1925	41	1025	56.5	0.01	
Average	-4.8	-25.9	74.4		53.7		64.0	Total	0.55

* All precipitation during January 1954 was snow.

TABLE 25. - TEMPERATURE, HUMIDITY AND PRECIPITATION DATA

College, Alaska

AF 18(600)-40

February 1954

Date	Temperature (*F)		Relative Humidity (%)				Mean	Precipitation (inches-rain) *
	Max	Min	Max	Time	Min	Time		
1	-15	-29	62	0025	46	1025	54.0	T
2	-7	-25	69	0425	54	1425	61.5	0.02
3	2	-13	77	1125	62	0025	69.5	0.12
4	14	-13	74	1625	61	0425	67.5	0
5	37	3	87	1825	61	0730	74.0	T
6	29	12	83	1225	64	1625	73.5	T
7	26	6	84	1625	66	0025	75.0	0.01
8	18	3	88	1425	73	2225	80.5	0.06
9	18	-20	72	1830	25	0225	48.5	T
10	7	-23	65	1225	23	2230	44.0	0
11	4	-18	70	1525	23	0125	46.5	T
12	5	-28	68	1325	21	0625	44.5	0
13	-14	-42	M		M			T
14	-17	-47	M		M			0
15	-17	-45	M		M			0
16	-16	-45	M		M			0
17	-13	-43	M		M			0
18	-8	-40	M		M			0
19	-18	-44	M		M			0
20	-11	-40	M		M			T
21	-12	-40	M		M			T
22	-16	-46	M		M			0
23	-9	-48	M		M			0
24	-15	-40	M		M			T
25	-25	-49	M		M			T
26	-23	-52	M		M			0
27	-13	-45	M		M			0
28	-7	-40	M		M			0
Average	-3.4	-30.4	74.9		48.2		61.6	Total 0.19

* All precipitation, except the occurrence of sleet and glaze on the 5th of February, was snow.

TABLE 26. - TEMPERATURE, HUMIDITY AND PRECIPITATION DATA

College, Alaska

AF 18(600)-40

March 1954

Date	Temperature (°F)		Relative Humidity (%)				Mean	Precipitation * (inches-rain)
	Max	Min	Max	Time	Min	Time		
1	18	0	71	2125	44	0125	57.5	0
2	27	2	75	2025	57	0225	66.0	0
3	15	-1	76	1725	56	2325	66.0	0.03
4	13	-21	69	0125	47	0825	58.0	T
5	26	-8	72	2125	49	1330	60.5	0
6	29	-18	69	1025	33	0525	51.0	0
7	13	-2	71	0825	47	1225	59.0	0
8	19	-1	78	1925	59	0125	68.5	T
9	17	-21	73	0925	43	2025	58.0	T
10	22	-18	62	2125	44	0825	53.0	0
11	14	-2	72	2025	49	0125	60.5	0
12	20	0	73	0625	56	1025	64.5	T
13	9	-17	74	0425	49	1325	61.5	T
14	13	-25	72	1025	39	0125	55.5	T
15	26	-13	86	2225	45	1025	65.5	0.05
16	25	-8	86	0425	59	1725	72.5	0.05
17	23	-19	83	1025	53	0125	68.0	T
18	24	-22	68	1025	36	1525	52.0	0
19	30	9	87	2325	38	0525	62.5	0.09
20	33	25	94	0425	87	1125	90.5	0.34
21	29	16	93	0525	64	1725	78.5	0.04
22	28	-2	80	0225	43	1625	61.5	T
23	34	2	79	0530	51	1625	65.0	0
24	42	5	77	0425	43	1625	60.0	0
25	44	1	84	0825	45	1625	64.5	T
26	49	9	82	0525	47	1625	64.5	0
27	48	14	85	2325	49	1225	67.0	0
28	47	8	85	0125	40	1225	62.5	0
29	53	18	78	0525	36	1225	57.0	0
30	48	13	74	0625	37	1225	55.5	0
31	48	12	80	0625	35	1325	57.5	0
Average	28.6	-2.1	77.7		47.7		62.7	Total 0.60

* All precipitation during March 1954 was snow. There was considerable day-time thawing near the end of the month.

TABLE 27. - TEMPERATURE, HUMIDITY AND PRECIPITATION DATA

College, Alaska

AF 18(600)-40

April 1954

Date	Temperature (°F)		Relative Humidity (%)				Mean	Precipitation * (inches-rain)
	Max	Min	Max	Time	Min	Time		
1	48	19	79	0225	40	1500	59.5	0
2	47	11	72	0600	28	1325	50.0	0
3	44	26	69	0625	43	1725	56.0	0
4	39	23	73	0525	57	1525	65.0	0
5	28	0	84	0425	30	1725,2025	57.0	T
6	25	-9	63	2325	28	1325	45.5	0
7	20	-8	66	0325	29	1725	47.5	0
8	26	-12	64	0225	34	1325	49.0	0
9	23	11	75	2025	44	0925	59.5	T
10	27	5	78	2125	52	1525	65.0	T
11	37	7	71	0025	39	1325	55.0	0
12	31	16	59	0500	38	1000	48.5	T
13	28	11	56	0225,1725	32	1325	44.0	T
14	38	11	74	2225	43	0025	58.5	0
15	43	13	93	1925	50	1225	71.5	0
16	42	8	81	2325	50	1425	65.5	0
17	44	8	84	0625	44	1425	64.0	0
18	44	15	83	0225	49	1525,1725	66.0	T
19	43	9	78	0425	36	1325	57.0	0
20	43	17	67	0325	34	1425	50.5	0
21	41	9	80	0225	41	1825	60.5	0
22	48	9	82	0525	32	1825	57.0	0
23	54	18	72	0600	23	1625	47.5	0
24	53	27	57	0325	23	1625	40.0	0
25	52	18	72	0500	27	1625	49.5	0
26	48	25	69	2325	35	1725	52.0	T
27	47	20	74	0525	26	1425	50.0	0
28	52	25	65	2325	23	1625	44.0	0
29	50	28	72	2325	34	1125	53.0	0
30	48	25	86	2325	49	1425	67.5	T
Average	40.4	12.8	73.3		37.1		55.2	Total T

* All precipitation during April 1954 was snow. The snow cover melted away during this month. There were only traces present after 20 April 1954. 0.1 in. snow fell 5 April 1954. This is one of the three driest Aprils on record.

TABLE 28. - TEMPERATURE, HUMIDITY AND PRECIPITATION DATA

College, Alaska

AF 18(600)-40

May 1954

Date	Temperature (°F)		Relative Humidity				Mean	Precipitation (inches-rain)
	Max	Min	Max	Time	Min	Time		
1	55	25	93	0425	32	1125	62.5	0
2	60	28	84	0425	25	1525	54.5	0
3	63	30	89	2325	29	1225,1425	59.0	0
4	61	41	74	2300	24	1025	49.0	0
5	59	33	80	2225	38	1525	59.0	T
6	68	28	89	0325	22	1125	55.5	0
7	68	31	83	0325	25	1425	54.0	0
8	71	33	73	0400	20	1725	46.5	0
9	68	36	60	2325	29	1725	49.5	0
10	64	44	63	0225	28	1625	45.5	0
11	57	32	64	0225	30	2230	47.0	0
12	48	28	79	2225	19	1825	49.0	0
13	51	28	53	2325	13	1725	33.0	0
14	59	31	69	0025	14	1625	41.5	0
15	63	26	68	0325	14	1725	41.0	0
16	67	27	71	2225	14	1725	42.5	0
17	70	28	75	0025,2225	15	1725	45.0	0
18	71	33	80	0325	15	1425	47.5	0
19	67	34	67	2225	23	1325,1900	45.0	0
20	70	27	81	0025	20	1825	50.5	0
21	66	39	74	2325	27	1600	50.5	0
22	65	39	90	0325	38	1225	64.0	0.01
23	71	33	91	0225	28	1500	59.5	T
24	72	48	64	2225	23	1625	43.5	0
25	70	41	85	0025	30	1225	57.5	0
26	68	36	85	0425	26	1625	55.5	0
27	69	40	86	0225	23	1229	54.5	T
28	54	40	93	0725	57	1625	75.0	0.13
29	66	37	87	0325	27	1400	57.0	0
30	72	37	91	0125	26	1825	58.5	0.03
31	76	43	86	0225	27	1725	56.5	T
Average	64.8	34.1	78.3		25.2		51.9	Total 0.17

All precipitation during May 1954 was rain. It was below normal.

TABLE 29. - TEMPERATURE, HUMIDITY AND PRECIPITATION DATA

College, Alaska

AF 18(600)-40

June 1954

Date	Temperature (°F)		Relative Humidity (%)				Mean	Precipitation (inches-rain)
	Max	Min	Max	Time	Min	Time		
1	79	47	95	0525	18	1425	56.5	T
2	74	53	92	2300	41	1025	66.5	0.05
3	69	48	96	0225	36	1725	66.0	T
4	77	42	82	0425	15	1525	48.5	0
5	79	43	78	0300	24	1225	51.0	0
6	80	50	81	0225	28	1225	54.5	0
7	78	48	64	0130	16	1100	40.0	0
8	74	54	49	1825	26	1225	37.5	T
9	74	53	54	2325	28	1600	41.0	0
10	69	44	65	2325	28	1725	46.5	0
11	74	49	70	2325	32	1425	51.0	0
12	59	38	93	1300	51	0725	72.0	0.31
13	62	40	100	0125	50	1725	75.0	0
14	62	47	95	0400	59	1825	77.0	0.48
15	65	45	84	2325	51	1625	67.5	T
16	63	46	86	2325	33	1825	59.5	0
17	69	37	88	2325	38	1725	63.0	T
18	76	38	95	0325	24	1425	59.5	0
19	81	42	74	0325	16	1325	45.0	0
20	76	45	75	0400	22	1325	48.5	T
21	63	46	97	0400	48	1725	72.5	0.35
22	55	45	97	0400	72	2000	84.5	0.11
23	60	48	93	0400	57	1825	75.0	T
24	69	30	97	0325	41	1125	69.0	0
25	70	43	93	0425	35	1700	64.0	0
26	74	38	93	2325	43	1225	68.0	0.25
27	65	43	98	0500	59	1725	78.5	0.20
28	73	38	97	0225	38	1625	67.5	T
29	76	44	91	2325	33	1525	62.0	0.03
30	73	53	94	0325	39	1525	66.5	0
Average	70.6	44.6	85.5		36.7		61.1	Total 1.78

All precipitation during June 1954 was rain.

TABLE 30. - TEMPERATURE, HUMIDITY AND PRECIPITATION DATA

College, Alaska

AF 18(600)-40

July 1954

Date	Temperature (°F)		Relative Humidity (%)				Mean	Precipitation (inches-rain)
	Max	Min	Max	Time	Min	Time		
1	66	45	95	1525,1925	73	2525	84.0	0.21
2	70	36	89	0325	27	1725	58.0	0
3	70	37	85	0225	32	1725	58.5	0
4	76	41	81	0200	38	1200	60.5	0
5	75	46	90	0425	27	1400	58.5	T
6	73	40	83	0225,2325	34	1025	58.5	T
7	72	51	88	0325	36	1825	62.0	0
8	77	40	85	0225	32	1425	58.5	0
9	75	57	83	0225	29	1725	56.0	0
10	60	47	93	1625	56	1025	74.5	0.13
11	53	42	93	2325	62	1800	78.5	0.13
12	65	39	91	0425	37	1325	64.0	0
13	72	39	85	0025	30	1500	58.5	0
14	78	38	89	0325	23	1525	56.0	0
15	80	45	79	0225	26	1525	52.5	0
16	82	43	84	0225	30	1425	57.0	0
17	82	57	87	2325	45	1425	66.0	0.01
18	79	51	95	0225	44	1600	70.5	0
19	79	54	92	0300	41	1725	66.5	0
20	64	51	99	2325	61	0025	80.0	1.24
21	54	47	100	0225	76	1825	88.0	0.60
22	58	45	97	2325	60	1525	78.5	0.04
23	62	44	100	2325	49	1025	74.5	0.05
24	67	40	100	0125	47	1525	74.5	T
25	69	35	100	0225	41	1125	70.5	T
26	58	52	99	2325	86	0625	92.5	0.20
27	73	57	100	0300	57	1525	78.5	0.13
28	62	50	97	2300	79	1325	88.5	0.14
29	62	50	98	0425	65	1725	82.5	T
30	60	50	98	2026	83	1525	90.5	0.42
31	64	47	99	0325	65	1625	82.0	T
Average	69.0	45.7	92.1		48.1		70.3	Total 3.22

All precipitation during July 1954 was rain.

TABLE 31. - TEMPERATURE, HUMIDITY AND PRECIPITATION DATA

College, Alaska

AF 18(600)-40

August 1954

Date	Temperature (°F)		Relative Humidity (%)				Mean	Precipitation (inches-rain)
	Max	Min	Max	Time	Min	Time		
1	65	45	97	0400	60	1200	78.5	T
2	70	49	97	0425	49	1425	73.0	T
3	74	54	93	0125	44	1725	68.5	T
4	74	48	94	0125	46	1325	70.0	T
5	71	47	94	0425	49	1400	71.5	0
6	75	50	92	0400	43	1625	67.5	0
7	81	49	90	0325	35	1525	63.5	0
8	81	47	96	0325	41	1425	69.5	T
9	75	53	93	0525	48	1625	70.5	0.03
10	74	51	93	0225	41	1325	67.0	0
11	78	47	94	0325	33	1500	63.5	0
12	72	47	93	2325	52	1425	72.5	0.14
13	68	45	99	0425	42	1525	70.5	0.01
14	58	40	93	2325	59	1525	76.0	T
15	66	38	98	0525	50	1325	74.0	0.06
16	70	34	95	0425	36	1525	66.5	0
17	67	33	99	0300	29	1425	64.0	0
18	70	43	94	0225	50	1025	72.0	T
19	74	43	95	0125	48	1025	72.5	T
20	58	41	99	2325	59	1125	79.0	0.09
21	61	37	99	0125, 1100	57	1400	78.0	0.02
22	73	52	100	0425	30	1525	65.0	0
23	76	50	87	0525	37	1425	62.0	0
24	62	52	95	1725	65	0225	80.0	0.20
25	56	45	88	0125	55	1125	71.5	T
26	54	43	95	0625	74	1725	84.5	0.07
27	53	48	100	0500	70	1125	85.0	0.15
28	56	48	97	0300	74	1425	86.5	0.04
29	54	35	100	0425	68	1525	84.0	0.01
30	58	37	96	0125	62	1125	79.0	T
31	59	45	100	0425	64	1425	82.0	0.02
Average	67.2	45.0	95.3		50.6		73.1	Total 0.84

All precipitation during August 1954 was rain.

TABLE 32. - TEMPERATURE, HUMIDITY AND PRECIPITATION DATA

College, Alaska

AF 18(600)-40

September 1954

Date	Temperature (°F)		Relative Humidity (%)				Mean	Precipitation (inches-rain)
	Max	Min	Max	Time	Min	Time		
1	68	38	100	0400	49	1425	74.5	0
2	68	35	100	0525	44	1325	72.0	0
3	58	39	100	0625	69	1325	85.5	T
4	61	34	100	0325	52	1625	76.0	0
5	71	42	98	0200	44	1525	71.0	0
6	57	45	94	0525	61	1525	77.5	0.01
7	53	28	97	2300	51	1425	74.0	T
8	52	26	100	0025	48	1425	74.0	T
9	65	39	98	0525	46	1425,1726	72.0	0.05
10	54	28	99	0225	62	1525	80.5	0.01
11	54	32	98	0825	49	1625	74.5	0
12	60	23	100	0325	32	1625	66.0	0
13	67	22	95	0525	21	1500	58.0	0
14	55	24	93	2325	43	1425	68.0	0
15	55	36	96	2025	59	1725	77.5	T
16	48	43	100	0900	92	1525	96.0	1.21
17	55	34	100	0300	45	1825	73.5	0.01
18	44	20	87	2025	41	1525	64.0	0
19	46	14	90	0625	38	1400	64.0	0
20	47	15	69	0225	29	1425	49.0	0
21	47	26	69	2325	30	1525	50.5	0
22	50	20	81	2025	34	1500	58.5	0
23	54	27	75	2025	38	1525	56.5	0
24	45	33	100	2225	60	0125	80.0	0.02 (MS)
25	40	30	100	0325	76	1600	88.0	T (MS)
26	49	24	100	0525	54	1525	77.0	0
27	52	19	95	0400	39	1425	67.0	0
28	52	30	97	1425,2300	40	1525	68.5	T
29	47	34	100	0125,2000	78	1025	89.0	0.50
30	54	30	100	0125	55	1625	77.5	0.01
Average	54.3	29.7	94.3		49.3		72.0	Total 1.82

(MS) Melting Snow

Contrails

TABLE 33. - Monthly averages of the Maximum, Minimum Temperatures, Maximum, Minimum, and Mean Values of the Relative Humidity, and Monthly Totals of the Precipitation at College, Alaska, during the Period February 1952 through September 1954.

Month	Maximum	Minimum	Maximum	Minimum	Mean	Precipitation
						in Rainfall Inches
1952 February	8.4	-13.8	72.4	45.4	58.9	0.14
March	22.4	-4.5	73.8	43.6	58.7	0.35
April	39.3	14.9	76.7	42.5	59.6	0.18
May	49.0	30.5	82.2	36.6	59.4	0.34
June	66.9	43.6	89.6	37.1	63.3	1.06
July	67.7	48.0	91.6	49.0	70.2	1.79
August	61.6	40.4	92.3	49.5	70.9	1.17
September	51.2	32.9	89.3	52.5	70.9	1.33
October	38.5	18.8	88.0	61.1	74.6	0.68
November	27.3	5.9	84.0	61.0	72.5	0.23
December	6.0	-11.9	75.6	55.9	65.7	0.064
1953 January	-9.7	-31.5	59.2	37.4	48.3	0.23
February	18.3	12.0	82.7	55.8	69.1	0.105
March	25.2	-8.2	80.2	46.7	63.5	0.38
April	50.5	22.4	75.3	34.3	54.8	T
May	64.5	36.2	81.6	33.8	57.6	1.00
June	74.1	46.6	87.3	40.8	64.0	2.115
July	73.7	44.5	94.1	41.6	67.7	1.33
August	66.6	39.6	95.5	50.2	72.8	2.97
September	56.0	31.5	96.3	52.5	74.4	1.735
October	35.4	12.6	85.0	52.0	68.3	0.25
November	10.0	5.6	75.5	54.8	65.2	0.20
December	5.3	-9.3	77.2	61.6	69.4	0.13
1954 January	-4.8	-25.9	(74.4)	(53.7)	64.0	0.55
February	-3.4	-30.4	(74.9)	(48.2)	61.6	0.19
March	28.6	-2.1	77.7	47.7	62.7	0.60
April	40.4	12.8	73.3	37.1	55.2	T
May	64.8	34.1	78.3	25.2	51.9	0.17
June	70.6	44.6	85.5	36.7	61.1	1.78
July	69.0	45.7	92.1	48.1	70.3	3.22
August	67.2	45.0	95.3	50.6	73.1	0.84
September	54.3	29.7	94.3	49.3	72.0	1.82

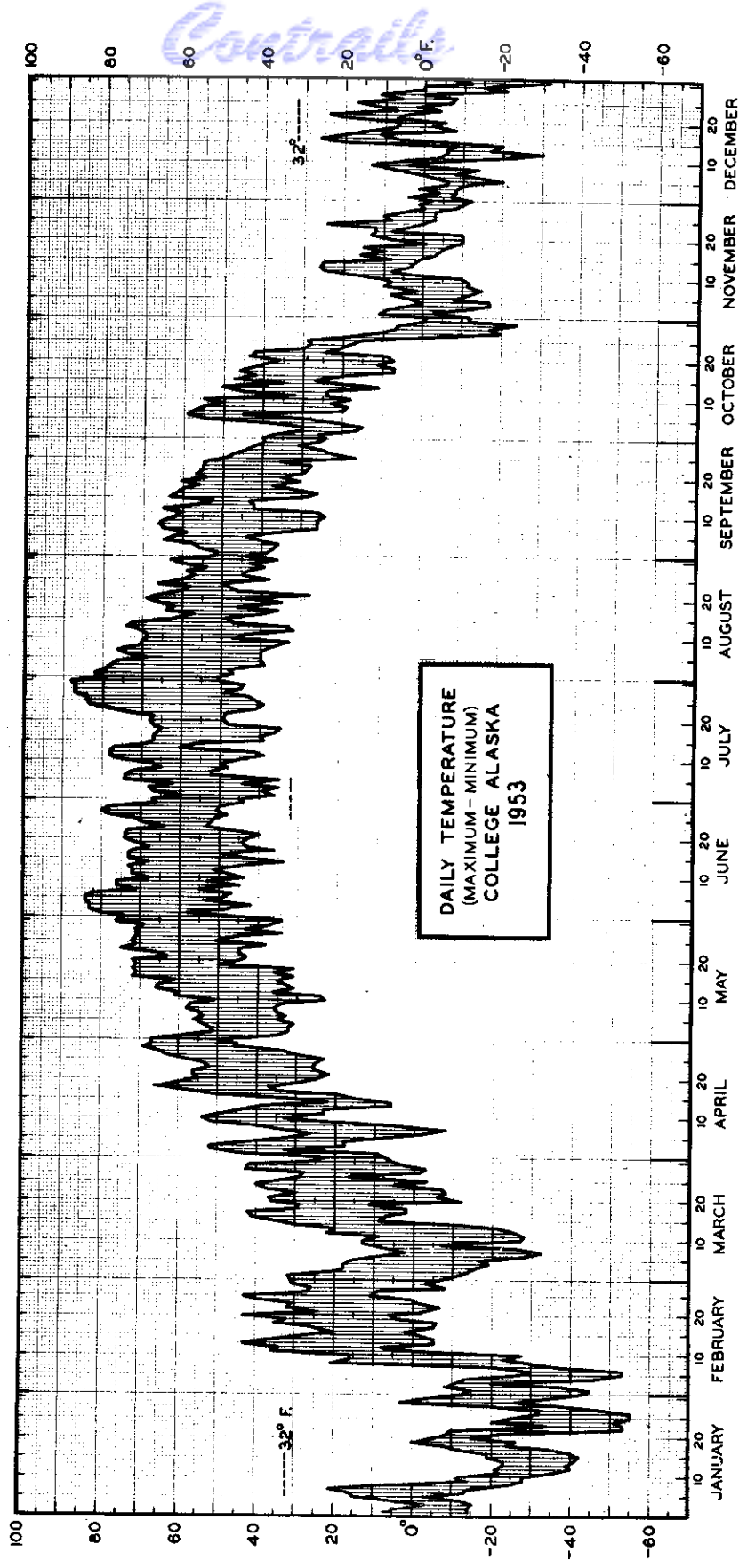


FIGURE II

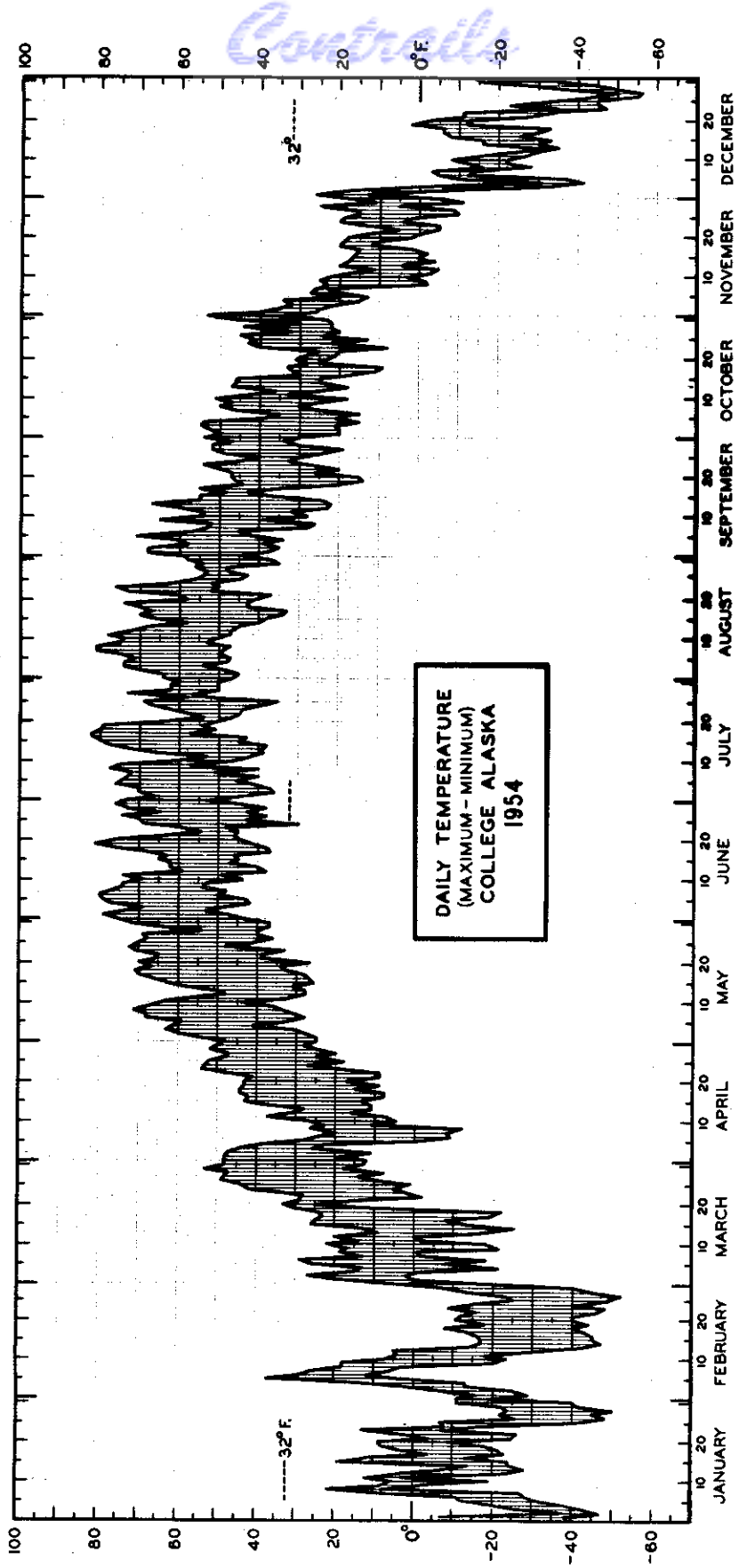


FIGURE III

Solar Radiation

The following 29 tables (pages 43 to 72) include a tabulation of the daily values, of the weekly and monthly averages, and of the monthly totals of the solar radiation data gathered in connection with the operation of Contract AF 18(600)-40. The table is referred to as in two divisions viz., Tables 34-39, and Tables 40-62. The first division (Tables 34-39), contains values obtained from the U.S. Weather Bureau before the pyreheliometers were available at the Test Site. The second division (Tables 40-62) contains the data obtained with the pyreheliometers at the test site. This section includes data from both the horizontal and the 45° slant to the south. The two sections overlap for a short period to show the possible relationship of the data from the U.S. Weather Bureau. Materials exposed to weathering are attached to racks which face 45° toward the geographic south. This permits a better comparison with materials exposed in other areas.

Continents
SECTION V

Solar Radiation

The solar radiation data presented in this report were obtained during the period February 1952 to November 1952 from the Fairbanks Weather Bureau at the International Airport and for the period November 1952 to 30 September 1954 from two Eppley pyreheliometers situated on the top of a heated shelter near the Test Site.

Data from the Weather Bureau were utilized while waiting delivery of the pyreheliometers. These data are given in Tables 34-39, pages 43-48, which include the values of the maxima in gram calories per minute as obtained from the average over the hour which gave the greatest total radiation during the day and the total during each twenty-four hour period.

These tables include overlapping data for comparison purposes. Monthly and weekly averages of all quantities are also given as well as monthly totals.

The recordings at the Site include the standard measurements on the horizontal surface, measurements directly onto a pyreheliometer set on a slant 45° to the south; also they are included in the tables. Listed in Tables 40-62, pages 49-72, are the maximum peak intensities, daily totals of radiation, weekly and monthly averages, and monthly totals. The monthly averages and totals of the solar radiation are collected in Table 63, page 73.

The overlapping of the horizontal and 45° slant values has often given some concern. However, a study of the effect of cloud conditions and the like verifies the reality of such measurements. It may also be noted that the 10-junction pyreheliometers give rather indefinite readings near the Winter Solstice. Another feature is the differences between the values recorded at the Test Site and at the Fairbanks Weather Bureau at the Fairbanks International Airport. These differences are due to local cloud effects, and terrain effects as the two locations are in the shadows of different mountains and hills at different times of the day.

Due to power failures, machine failures, and other incidental factors, many values were not obtained directly. These and all values affected by them are enclosed in parentheses in the tables. In general these values were estimated by various details from those actually obtained. The method used in most instances was one of comparison, e.g. if a 45° slant value was not obtained on a certain day and the horizontal trace was available, a similar horizontal trace for a day near this day was located and the corresponding values of the maximum and the total were entered, with any necessary adjustment for the

TABLE 34. - SOLAR RADIATION (LANGLEYS) - February 1 to March 31, 1952

Exposure Station

College, Alaska

Data from: U.S. Weather Bureau
Fairbanks International Airport

Horizontal Surface			Horizontal Surface		
Date	Maximum	Total	Date	Maximum	Total
	gm cal/cm ² min	gm cal/cm ²		gm cal/cm ² min	gm cal/cm ²
Feb. 1	0.108	28			
2	0.123	31	Mar. 1	0.395	123
3	0.202	48	2	0.438	159
4	0.165	43	3	0.502	194
Average	0.149	34	Average	0.393	138
5	0.160	42	4	0.295	109
6	0.300	73	5	0.633	177
7	0.138	40	6	0.587	212
8	0.277	71	7	0.530	188
9	0.197	55	8	0.487	135
10	0.172	45	9	0.433	144
11	0.128	41	10	0.597	207
Average	0.196	52	Average	0.509	167
12	0.280	78	11	0.637	228
13	0.375	61	12	0.620	240
14	0.372	108	13	0.663	247
15	0.135	42	14	0.347	151
16	0.358	104	15	0.520	200
17	0.419	133	16	0.440	169
18	0.172	54	17	0.712	268
Average	0.302	83	Average	0.563	215
19	0.352	107	18	0.727	306
20	0.443	102	19	0.738	292
21	0.322	117	20	0.740	310
22	0.433	125	21	0.733	294
23	0.395	125	22	0.773	265
24	0.490	149	23	0.813	330
25	0.330	120	24	0.678	264
Average	0.395	121	Average	0.757	294
26	0.285	93	25	0.840	260
27	0.403	127	26	0.745	240
28	0.303	107	27	0.675	279
29	0.427	164	28	0.802	325
Monthly Total		2,433	29	0.802	321
Monthly			30	0.907	348
Average	0.285	84	31	0.883	431
			Average	0.808	315
			Monthly Total		7,416
			Monthly		
			Average	0.635	239

TABLE 35. - SOLAR RADIATION (LANGLEYS) - April 1 to May 31, 1952

Exposure Station

College, Alaska

Data from: U.S. Weather Bureau
Fairbanks International Airport

Date	Horizontal Surface		Date	Horizontal Surface	
	Maximum gm cal/cm ² min	Total gm cal/cm ²		Maximum gm cal/cm ² min	Total gm cal/cm ²
Apr. 1	0.872	405			
2	0.885	404			
3	0.887	399	May 1	1.103	607
4	0.905	451	2	1.155	542
5	0.898	425	3	1.087	552
6	0.773	384	4	0.542	275
7	0.887	404	5	0.523	323
Average	0.872	410	Average	0.947	495
8	0.893	396	6	1.098	349
9	0.625	241	7	0.872	402
10	0.497	253	8	1.150	599
11	0.512	M	9	1.112	436
12	M	M	10	1.185	608
13	0.818	313	11	1.275	677
14	0.912	464	12	1.058	575
Average	0.710	333	Average	1.107	521
15	0.985	492	13	0.983	416
16	0.770	322	14	1.022	416
17	0.948	460	15	0.610	327
18	1.063	511	16	1.128	397
19	1.012	534	17	0.775	399
20	0.970	442	18	1.190	523
21	0.847	362	19	1.087	560
Average	0.942	446	Average	0.971	434
22	1.052	538	20	1.037	460
23	0.837	397	21	1.373	601
24	0.885	408	22	0.998	419
25	1.070	474	23	1.047	384
26	1.043		24	1.030	474
27	1.123	499	25	0.925	421
28	0.607	306	26	1.163	611
Average	0.945	374	Average	1.082	481
29	1.092	533	27	0.887	385
30	1.128	631	28	0.825	401
Monthly Total		11,448	29	0.860	379
Monthly			30	0.810	343
Average	0.860	382	31	1.113	632
M - Machine			Monthly Total		14,493
			Monthly		
			Average	1.001	468

TABLE 36. - SOLAR RADIATION (LANGLEYS) - June 1 to July 31, 1952

Exposure Station

College, Alaska

Data from: U.S. Weather Bureau
Fairbanks International Airport

Date	Horizontal Surface		Date	Horizontal Surface	
	Maximum gm cal/cm ² min	Total gm cal/cm ²		Maximum gm cal/cm ² min	Total gm cal/cm ²
			July 1	0.472	276
			2	0.522	186
			3	1.153	662
			4	1.198	759
			5	1.183	755
June 1	1.232	666	6	1.093	629
2	1.137	702	7	0.913	458
Average	0.980	501	Average	0.933	532
3	1.098	535	8	0.893	478
4	1.197	636	9	1.148	690
5	0.933	402	10	1.160	642
6	1.220	746	11	1.188	471
7	1.227	755	12	1.135	688
8	1.777	546	13	0.932	402
9	0.823	315	14	0.610	162
Average	1.182	562	Average	1.009	505
10	1.220	785	15	0.560	206
11	0.803	402	16	0.852	366
12	1.173	486	17	1.073	512
13	0.465	193	18	0.623	284
14	1.200	646	19	1.153	678
15	0.727	326	20	1.130	693
16	1.188	598	21	1.080	606
Average	0.968	491	Average	0.924	478
17	1.213	502	22	1.107	618
18	0.867	418	23	0.723	291
19	1.233	518	24	0.515	200
20	1.212	648	25	0.285	139
21	1.268	683	26	0.928	344
22	1.212	760	27	1.043	564
23	1.225	655	28	0.337	168
Average	1.176	598	Average	0.705	332
24	1.203	433	29	0.677	278
25	1.180	733	30	0.582	311
26	1.122	635	31	0.847	352
27	1.185	731	Monthly Total		13,868
28	1.213	550	Monthly		
29	1.160	499	Average	0.875	447
30	0.680	244			
Average	1.106	546			
Monthly Total		16,748			
Monthly					
Average	1.113	558			

Contrails

TABLE 37. - SOLAR RADIATION (LANGLEYS) - August 1 to September 30, 1952

Exposure Station

College, Alaska

Data from: U.S. Weather Bureau
Fairbanks International Airport

Date	Horizontal Surface		Date	Horizontal Surface	
	Maximum gm cal/cm ² min	Total gm cal/cm ²		Maximum gm cal/cm ² min	Total gm cal/cm ²
Aug. 1	0.732	301			
2	1.065	494			
3	0.552	279			
4	1.042	574	Sept. 1	0.355	128
Average	0.785	350	Average	0.588	236
5	1.018	514	2	0.320	131
6	0.930	486	3	0.573	198
7	0.410	184	4	0.293	158
8	0.970	466	5	0.485	141
9	1.035	428	6	0.852	406
10	0.965	405	7	0.823	411
11	0.752	333	8	0.560	292
Average	0.868	402	Average	0.558	248
12	0.792	256	9	0.260	101
13	0.630	297	10	0.452	163
14	0.533	195	11	0.740	246
15	0.845	356	12	0.592	212
16	1.032	383	13	0.743	342
17	0.982	537	14	0.503	180
18	0.623	319	15	0.400	154
Average	0.777	335	Average	0.527	200
19	0.963	430	16	0.590	241
20	1.003	463	17	0.418	178
21	0.800	351	18	0.288	97
22	0.976	477	19	0.675	287
23	0.712	238	20	0.275	100
24	0.390	146	21	0.448	131
25	0.662	292	22	0.595	237
Average	0.786	342	Average	0.470	182
26	0.352	M	23	0.603	233
27	0.925	M	24	0.642	226
28	0.890	440	25	0.575	155
29	0.525	183	26	0.372	119
30	0.605	236	27	0.257	94
31	0.463	194	28	0.222	68
Monthly Total		10,257	29	0.415	124
Monthly Average	0.780	354	Average	0.442	146
			30	0.430	133
M - Machine			Monthly Total		5,686
			Monthly Average	0.492	190

TABLE 38. - SOLAR RADIATION (LANGLEYS) - October 1 to November 30, 1952

Exposure Station

College, Alaska

Data from: U.S. Weather Bureau
Fairbanks International Airport

Date	Horizontal Surface		Date	Horizontal Surface	
	Maximum gm cal/cm ² min	Total gm cal/cm ²		Maximum gm cal/cm ² min	Total gm cal/cm ²
Oct. 1	0.337	115			
2	0.528	185			
3	0.157	39			
4	0.153	71	Nov. 1	0.142	39
5	0.457	157	2	0.122	28
6	0.345	105	3	0.140	35
Average	0.344	115	Average	0.142	37
7	0.388	132	4	0.105	26
8	0.360	92	5	0.062	18
9	0.238	72	6	0.120	33
10	0.287	100	7	0.077	19
11	0.172	64	8	0.142	28
12	0.147	52	9	0.090	19
13	0.467	121	10	0.078	17
Average	0.294	90	Average	0.096	23
14	0.343	119	11	0.198	53
15	0.318	99	12	0.260	52
16	0.358	102	13	0.133	32
17	0.255	80	14	0.157	25
18	0.327	89	15	0.040	10
19	0.122	38	16	0.087	17
20	0.130	43	17	0.067	12
Average	0.265	81	Average	0.134	29
21	0.132	38	18	0.038	9
22	0.115	39	19	0.103	17
23	0.160	M	20	0.103	19
24	M	M	21	0.038	9
25	0.295	M	22	0.047	10
26	0.075	23	23	0.053	12
27	0.157	42	24	0.030	6
Average	0.156	36	Average	0.059	12
28	0.225	46	25	0.035	6
29	0.128	38	26	0.157	28
30	0.093	26	27	0.042	7
31	0.141	46	28	0.030	8
Monthly Total		2,173	29	0.038	8
Monthly Average	0.247	71	30	0.057	10
			Monthly Total		612
			Monthly Average	0.093	20.4

TABLE 39. - SOLAR RADIATION (LANGLEYS) - December 1, 1952, to January 31, 1953

Exposure Station

College, Alaska

Data from: U.S. Weather Bureau
Fairbanks International Airport

Date	Horizontal Surface		Date	Horizontal Surface	
	Maximum gm cal/cm ² min	Total gm cal/cm ²		Maximum gm cal/cm ² min	Total gm cal/cm ²
			Jan. 1	0.030	6
			2	0.123	20
			3	0.115	20
			4	0.026	5
			5	0.127	21
			6	0.117	22
			7	0.060	11
Dec. 1	0.048	8			
Average	0.058	11	Average	0.085	15
2	0.027	6	8	0.048	10
3	0.045	8	9	0.095	18
4	0.070	12	10	0.087	15
5	0.037	8	11	0.053	10
6	0.068	13	12	0.150	27
7	0.070	13	13	0.168	34
8	0.043	7	14	0.147	26
Average	0.051	10	Average	0.107	20
9	0.077	13	15	0.158	31
10	0.087	14	16	0.175	35
11	0.042	8	17	0.083	15
12	0.027	5	18	0.038	10
13	0.020	4	19	0.080	14
14	0.025	5	20	0.033	8
15	0.062	8	21	0.067	14
Average	0.049	8	Average	0.091	18
16	0.017	2	22	0.142	25
17	0.010	1	23	0.138	28
18	0.015	2	24	0.042	9
19	0.023	4	25	0.221	46
20	0.017	4	26	0.120	28
21	0.015	3	27	0.255	64
22	0.018	3	28	0.092	21
Average	0.016	3	Average	0.144	32
23	0.018	3	29	0.155	37
24	0.018	3	30	0.180	46
25	0.022	4	31	0.220	57
26	0.038	6	Monthly Total		733
27	0.023	4	Monthly		
28	0.068	10	Average	0.114	24.4
29	0.013	3			
Average	0.028	5			
30	0.047	8			
31	0.068	12			
Monthly Total		204			
Monthly					
Average	0.038	6.8			

Contrails

TABLES 40-62

Data from the Exposure Site.

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TABLE 40. - SOLAR RADIATION (LANGLEYS) - November 1 to November 30, 1952

Exposure Station

College, Alaska

Date	Horizontal Surface		45° Slant Surface	
	Maximum gm cal/cm ² min	Total gm cal/cm ²	Maximum gm cal/cm ² min	Total gm cal/cm ²
Nov. 1	0.253	35	0.671	44
2	0.131	26	0.131	23
3	0.143	24	0.151	25
Average				
4	0.194	21	0.701	39
5	0.037	11	0.036	10
6	0.216	33	0.524	59
7	0.082	14	0.087	14
8	0.211	27	(0.240)	(31)
9	0.102	15	(0.131)	(15)
10	0.155	13	(0.170)	(15)
Average	0.142	19	0.270	26
11	0.260	42	(0.770)	(112)
12	0.236	43	(0.750)	(110)
13	0.246	44	0.781	115
14	0.257	26	0.928	81
15	0.046	8	0.050	8
16	0.146	13	0.532	22
17	0.080	9	0.096	12
Average	0.182	26	0.558	66
18	0.054	7	0.059	8
19	0.114	11	0.422	24
20	0.165	17	0.712	67
21	0.048	6	0.360	17
22	0.051	8	0.122	14
23	(0.090)	10	0.522	58
24	0.019	2	0.179	4
Average	0.077	9	0.339	27
25	0.034	4	0.043	5
26	0.156	28	0.559	96
27	0.044	4	0.094	9
28	0.042	4	0.174	8
29	0.051	5	(0.120)	(7)
30	0.071	8	0.490	52
Monthly Total		518		1,104
Monthly Average	0.124	17	0.354	37

() Indicates Estimated Values.

TABLE 41. - SOLAR RADIATION (LANGLEYS) - December 1 to December 31, 1952

Exposure Station

College, Alaska

Date	Horizontal Surface		45° Slant Surface	
	Maximum gm cal/cm ² min	Total gm cal/cm ²	Maximum gm cal/cm ² min	Total gm cal/cm ²
Dec. 1	0.076	6	0.348	8
Average	0.068	8	0.261	26
2	0.027	3	0.083	4
3	0.046	5	0.209	14
4	0.088	14	0.483	75
5	0.070	6	0.344	24
6	0.122	19	0.492	75
7	0.119	18	0.433	65
8	0.010	6	0.470	29
Average	0.069	10	0.359	41
9	0.087	9	0.394	33
10	0.065	11	0.392	50
11	0.068	7	0.394	36
12	(0.050)	(2)	0.213	10
13	0.019	1	0.149	5
14	0.015	1	0.067	3
15	0.078	6	0.428	33
Average	0.055	(5)	0.291	24
16	0.014	1	0.041	2
17	0.000	0	0.004	0
18	0.007	0.5	0.014	1
19	(0.015)	(1)	0.044	(2)
20	0.010	1	(0.075)	(3)
21	0.007	0.5	0.027	4
22	0.010	1	0.053	5
Average	0.009	(0.7)	0.037	2
23	0.008	0.5	0.060	2
24	0.015	7	0.044	3
25	0.054	2	0.280	13
26	0.054	4	0.201	13
27	0.022	1	0.151	8
28	0.051	6	0.307	28
29	0.007	0.4	0.011	1
Average	0.030	3	0.150	10
30	0.044	4	0.137	8
31	0.078	8	0.440	44
Monthly Total		151.9		601
Monthly Average	0.043	5	0.219	19

() Indicates Estimated Values.

TABLE 42. - SOLAR RADIATION (LANGLEYS) - January 1 to January 31, 1953

Exposure Station

College, Alaska

Date	Horizontal Surface		45° Slant Surface	
	Maximum gm cal/cm ² min	Total gm cal/cm ²	Maximum gm cal/cm ² min	Total gm cal/cm ²
Jan. 1	0.015	1.1	0.092	5.1
2	0.083	10.4	0.440	47.7
3	0.092	12.7	0.460	65.5
4	0.017	2.3	0.051	5.6
5	0.100	13.4	0.540	70.7
6	0.085	13.6	0.530	84.7
7	0.063	10.0	0.520	86.8
Average	0.065	9.1	0.376	52.3
8	0.068	10.5	0.530	84.8
9	0.094	14.0	0.560	90.1
10	0.075	9.2	0.450	45.6
11	0.060	5.2	0.370	23.8
12	0.110	18.9	0.590	100.2
13	0.126	20.6	(0.580)	(10.5)
14	(0.125)	(21.0)	0.560	108.7
Average	(0.094)	14.2	0.520	66.2
15	0.130	25.3	0.670	135.8
16	0.130	24.4	0.680	131.6
17	0.104	10.4	0.580	29.3
18	0.046	6.1	0.150	21.4
19	0.078	11.9	0.110	13.1
20	0.026	2.9	0.046	4.9
21	0.063	11.5	0.140	15.8
Average	0.082	13.2	0.339	50.3
22	0.160	22.5	0.710	109.2
23	0.160	32.0	0.740	160.2
24	0.034	4.5	0.037	5.7
25	0.180	31.8	0.820	116.7
26	0.170	29.2	0.750	91.3
27	0.180	41.9	0.790	197.3
28	0.095	19.3	0.110	23.5
Average	0.140	25.8	0.565	100.6
29	0.180	46.5	0.810	204.9
30	0.230	56.6	0.850	224.5
31	0.240	55.7	0.910	239.0
Monthly Total		595.4		2,554.0
Monthly Average	0.107	19.2	0.489	82.4

() Indicates Estimated Values.

TABLE 43. - SOLAR RADIATION (LANGLEYS) - February 1 to February 28, 1953

Exposure Station

College, Alaska

Date	Horizontal Surface		45° Slant Surface	
	Maximum gm cal/cm ² min	Total gm cal/cm ²	Maximum gm cal/cm ² min	Total gm cal/cm ²
Feb. 1	0.220	58.0	0.920	251.6
2	0.120	27.5	0.140	24.4
3	0.190	20.3	0.390	26.8
4	0.250	52.1	0.860	172.5
Average	0.204	45.2	0.697	163.0
5	0.280	70.4	0.970	254.3
6	0.290	71.3	1.050	268.7
7	0.370	52.1	1.100	145.1
8	0.110	18.8	0.160	23.4
9	0.160	36.1	0.370	44.9
10	0.240	44.3	0.630	67.9
11	0.320	40.8	0.990	79.0
Average	0.253	47.7	0.753	126.0
12	0.310	47.1	0.940	132.4
13	0.440	76.2	1.090	171.8
14	0.220	39.4	0.400	49.0
15	0.360	77.5	1.120	230.4
16	0.300	57.1	0.620	72.5
17	0.350	59.8	0.940	117.2
18	0.540	72.1	1.330	165.4
Average	0.360	61.3	0.920	134.0
19	0.370	53.0	0.990	88.8
20	0.280	57.8	0.770	96.6
21	0.340	59.2	0.710	54.7
22	0.130	35.4	0.120	34.8
23	0.310	76.2	0.570	117.9
24	0.560	76.2	1.230	118.6
25	0.660	108.8	1.560	303.2
Average	0.378	66.5	0.850	116.0
26	0.260	68.0	0.430	65.3
27	0.490	125.8	1.260	413.9
28	0.140	38.1	0.130	38.3
Monthly Total		1,619.0		3,629.0
Monthly Average	0.308	57.8	0.778	130.0

() Indicates Estimated Values.

TABLE 44. - SOLAR RADIATION (LANGLEYS) - March 1 to March 31, 1953

Exposure Station

College, Alaska

Date	Horizontal Surface		45° Slant Surface	
	Maximum gm cal/cm ² min	Total gm cal/cm ²	Maximum gm cal/cm ² min	Total gm cal/cm ²
Mar. 1	0.751	169	1.620	380
2	0.520	99	0.985	121
3	0.607	164	1.413	365
4	0.554	185	1.314	432
Average	0.482	121	1.022	259
5	0.575	213	1.338	494
6	0.802	194	1.686	432
7	0.617	205	1.338	438
8	0.561	151	1.290	218
9	0.670	172	1.287	307
10	0.644	250	1.432	558
11	0.672	254	1.404	619
Average	0.649	205	1.396	438
12	0.670	261	1.463	566
13	0.724	211	1.509	403
14	0.911	186	1.610	291
15	0.275	93	0.311	96
16	0.706	269	1.463	522
17	0.945	252	1.661	486
18	0.709	217	1.400	370
Average	0.706	213	1.488	390
19	0.809	218	1.397	333
20	0.743	320	1.468	599
21	0.756	331	1.486	590
22	0.768	341	1.500	615
23	0.765	341	1.592	621
24	0.785	339	1.512	638
25	0.937	307	1.644	539
Average	0.795	314	1.514	562
26	0.811	184	1.246	206
27	1.200	276	1.668	(525)
28	0.950	331	(1.650)	(600)
29	0.787	220	1.365	347
30	0.882	248	1.349	308
31	1.005	372	1.712	582
Monthly Total		7,373		13,601
Monthly Average	0.746	238	1.432	439

() Indicates Estimated Values.

TABLE 45. - SOLAR RADIATION (LANGLEYS) - April 1 to April 30, 1953

Exposure Station

College, Alaska

Date	Horizontal Surface		45° Slant Surface	
	Maximum gm cal/cm ² min	Total gm cal/cm ²	Maximum gm cal/cm ² min	Total gm cal/cm ²
Apr. 1	0.961	287	1.509	423.2
Average	0.942	274	1.499	427.0
2	1.018	307	1.708	385.6
3	0.897	343	1.518	522.6
4	1.282	318	(1.780)	(462.2)
5	1.175	341	(1.780)	(461.5)
6	0.955	447	1.615	693.0
7	0.938	451	1.592	698.6
8	1.078	409	(1.575)	(600.0)
Average	1.049	374	1.652	546.0
9	1.209	382	(1.775)	(418.2)
10	1.117	348	1.632	453.5
11	0.947	448	1.520	649.3
12	0.962	471	1.543	678.6
13	1.151	552	1.711	706.4
14	0.993	273	1.284	302.3
15	1.166	468	1.793	660.1
Average	1.078	420	1.608	552.0
16	1.081	372	1.543	501.3
17	0.785	194	1.053	197.4
18	1.032	482	1.534	542.9
19	1.132	391	1.605	498.2
20	1.064	382	1.534	495.1
21	1.027	518	1.580	704.9
22	1.260	380	1.786	660.1
Average	1.054	388	1.519	514.0
23	1.265	595	1.711	683.3
24	0.983	498	1.342	496.6
25	1.071	514	1.576	667.1
26	1.049	518	1.585	655.5
27	1.108	562	1.580	687.9
28	1.255	537	1.674	641.6
29	1.360	364	1.843	434.9
Average	1.156	505	1.615	610.0
30	1.100	580	1.569	687.9
Monthly Total		12,682		19,231.0
Monthly Average	1.081	423	1.595	641.0

() Indicates Estimated Values.

TABLE 46. - SOLAR RADIATION (LANGLEYS) - May 1 to May 31, 1953

Exposure Station

College, Alaska

Date	Horizontal Surface		45° Slant Surface	
	Maximum gm cal/cm ² min	Total gm cal/cm ²	Maximum gm cal/cm ² min	Total gm cal/cm ²
May 1	1.459	345	1.600	(425)
2	0.918	350	1.340	(430)
3	1.130	679	1.716	746
4	1.445	441	1.928	483
5	1.479	(395)	2.294	484
6	1.606	483	2.043	472
Average	1.305	(468)	1.784	(532)
7	1.457	386	1.696	386
8	1.391	479	1.793	583
9	1.462	630	1.966	674
10	1.318	282	1.731	264
11	1.260	127	1.619	634
12	1.603	335	1.966	261
13	1.088	446	1.450	375
Average	1.083	384	1.745	454
14	1.115	182	1.330	197
15	1.590	472	2.082	316
16	1.249	587	1.638	666
17	1.493	404	1.619	436
18	1.250	629	1.600	714
19	1.700	475	2.168	415
20	1.391	454	1.716	433
Average	1.398	468	1.736	454
21	0.722	274	0.686	184
22	1.599	635	1.935	692
23	1.436	494	1.781	645
24	1.640	409	1.985	495
25	1.164	418	1.446	412
26	0.688	173	0.559	154
27	1.402	562	1.773	677
Average	1.236	424	1.452	466
28	1.334	382	1.550	344
29	1.462	649	(1.450)	(455)
30	1.216	(634)	1.619	(746)
31	1.244	460	1.554	386
Monthly Total		13,670		14,584
Monthly Average	1.333	441	1.666	470

() Indicates Estimated Values.

TABLE 47. - SOLAR RADIATION (LANGLEYS) - June 1 to June 30, 1953

Exposure Station

College, Alaska

Date	Horizontal Surface		45° Slant Surface	
	Maximum gm cal/cm ² min	Total gm cal/cm ²	Maximum gm cal/cm ² min	Total gm cal/cm ²
June 1	1.164	620	1.542	728
2	1.352	693	1.542	833
3	1.353	735	1.665	662
Average	1.304	(596)	(1.560)	593
4	1.275	614	1.523	743
5	1.450	462	1.677	466
6	1.375	341	1.542	554
7	1.624	417	1.847	393
8	1.334	823	1.793	618
9	1.700	420	(2.100)	(440)
10	1.343	339	1.311	(322)
Average	1.443	488	1.684	505
11	1.601	703	1.951	794
12	0.714	157	0.759	130
13	1.669	577	1.997	469
14	1.606	596	1.835	601
15	1.525	700	1.928	685
16	1.377	625	1.600	(618)
17	1.557	311	1.804	(333)
Average	1.435	524	1.696	518
18	(1.600)	(590)	1.885	655
19	1.692	371	2.194	489
20	1.474	701	1.557	734
21	1.051	411	1.199	399
22	1.692	445	2.081	413
23	1.226	173	1.870	162
24	0.456	152	0.401	106
Average	1.915	(406)	1.598	422
25	1.498	301	1.600	262
26	0.930	(210)	1.734	660
27	1.547	(433)	1.916	541
28	1.630	321	1.469	264
29	1.608	570	1.874	611
30	1.622	464	2.086	432
Monthly Total		14,275		15,117
Monthly Average	1.402	476	1.676	504

() Indicates Estimated Values.

TABLE 48. - SOLAR RADIATION (LANGLEYS) - July 1 to July 31, 1953

Exposure Station

College, Alaska

Date	Horizontal Surface		45° Slant Surface	
	Maximum gm cal/cm ² min	Total gm cal/cm ²	Maximum gm cal/cm ² min	Total gm cal/cm ²
July 1	1.624	277	1.966	219
Average	1.494	(406)	1.806	427
2	1.538	548	1.854	532
3	1.328	292	1.600	256
4	1.302	428	1.473	424
5	1.304	674	1.584	722
6	1.557	476	1.781	514
7	1.624	326	1.850	333
8	1.226	275	1.446	182
Average	1.411	431	1.655	423
9	1.617	343	1.985	290
10	1.450	692	1.843	665
11	1.365	680	1.565	498
12	1.497	573	1.496	654
13	1.532	636	1.534	604
14	1.039	197	0.929	146
15	1.618	439	1.866	426
Average	1.445	508	1.602	469
16	1.556	375	1.523	328
17	1.416	416	1.712	426
18	1.372	315	1.504	322
19	1.523	330	1.507	321
20	1.445	330	1.492	339
21	1.624	416	2.024	327
22	1.530	474	1.650	435
Average	1.495	379	1.630	357
23	1.012	588	1.689	618
24	1.105	664	1.469	706
25	1.114	635	1.504	689
26	1.234	561	1.700	(609)
27	1.226	586	1.638	685
28	1.180	511	1.534	662
29	1.086	524	1.369	550
Average	1.137	581	1.558	(646)
30	1.105	539	1.407	604
31	1.081	566	1.461	628
Monthly Total		14,686		14,714
Monthly Average	1.362	474	1.611	475

() Indicates Estimated Values.

Continued

TABLE 49. - SOLAR RADIATION (LANGLEYS) - August 1 to August 31, 1953

Exposure Station

College, Alaska

Date	Horizontal Surface		45° Slant Surface	
	Maximum gm cal/cm ² min	Total gm cal/cm ²	Maximum gm cal/cm ² min	Total gm cal/cm ²
Aug. 1	1.446	277	1.499	270
2	1.465	366	2.043	392
3	1.218	335	1.465	301
4	1.476	259	1.735	258
5	1.112	394	1.426	396
Average	1.272	391	1.576	407
6	1.221	382	1.446	413
7	1.200	409	(1.500)	(440)
8	1.486	394	(1.800)	(413)
9	1.116	419	(1.400)	(440)
10	0.797	237	(1.000)	(250)
11	1.615	449	(1.700)	(460)
12	1.638	569	(2.000)	(625)
Average	1.296	408	(1.549)	(434)
13	1.247	565	1.600	708
14	0.874	268	1.020	244
15	0.982	258	1.220	247
16	1.341	268	2.160	210
17	1.044	407	1.380	(450)
18	1.170	244	1.650	(275)
19	1.131	424	1.623	592
Average	1.113	348	1.522	(389)
20	1.217	472	1.840	630
21	1.115	352	1.670	451
22	0.199	45	1.550	43
23	(0.600)	(130)	0.770	139
24	1.380	258	2.050	316
25	0.343	123	0.330	107
26	1.271	176	1.908	184
Average	(0.875)	(222)	1.445	267
27	1.162	202	1.650	215
28	0.561	131	0.630	131
29	1.318	251	1.700	316
30	1.279	298	1.950	371
31	0.663	200	0.840	205
Monthly Total		9,562		10,492
Monthly Average	1.119	308	1.502	338

() Indicates Estimated Values.

TABLE 50. - SOLAR RADIATION (LANGLEYS) - September 1 to September 30, 1953

Exposure Station

College, Alaska

Date	Horizontal Surface		45° Slant Surface	
	Maximum gm cal/cm ² min	Total gm cal/cm ²	Maximum gm cal/cm ² min	Total gm cal/cm ²
Sept. 1	0.608	99	0.740	91
2	1.131	215	1.710	247
Average	0.960	199	1.317	225
3	1.170	463	1.610	638
4	0.764	214	1.640	208
5	0.421	155	0.370	126
6	1.123	310	1.750	348
7	0.811	452	1.310	582
8	0.788	422	1.380	569
9	0.811	427	1.410	586
Average	0.841	349	1.353	437
10	0.998	405	1.480	539
11	0.920	328	1.560	462
12	0.952	287	1.460	354
13	(0.593)	99	(0.880)	(129)
14	(0.655)	164	(1.360)	(146)
15	(0.905)	314	(1.620)	(351)
16	(0.811)	421	1.380	(561)
Average	(0.833)	288	(1.391)	(363)
17	0.796	217	1.460	349
18	1.014	82	1.630	179
19	0.928	278	1.520	483
20	0.842	154	1.350	166
21	0.764	235	1.480	400
22	0.905	191	1.460	321
23	0.203	49	1.850	439
Average	0.779	172	1.535	334
24	0.484	88	0.700	862
25	0.769	193	1.470	296
26	0.593	212	1.110	367
27	0.380	98	0.170	54
28	0.970	127	0.950	111
29	0.920	160	0.980	162
30	0.996	83	1.050	68
Average	0.730	137	0.918	274
Monthly Total		6,942		10,194
Monthly Average	0.801	231	1.295	340

() Indicates Estimated Values.

TABLE 51. - SOLAR RADIATION (LANGLEYS) - October 1 to October 31, 1953

Exposure Station

College, Alaska

Date	Horizontal Surface		45° Slant Surface	
	Maximum gm cal/cm ² min	Total gm cal/cm ²	Maximum gm cal/cm ² min	Total gm cal/cm ²
Oct. 1	0.608	244	1.328	510
2	0.608	228	1.336	510
3	0.741	162	(1.272)	(328)
4	(0.342)	(71)	0.994	107
5	(0.228)	(60)	0.370	94
6	0.298	63	0.546	57
7	0.494	206	1.208	443
Average	0.474	(156)	1.008	(293)
8	0.323	63	0.515	74
9	0.494	117	1.127	219
10	0.304	55	0.708	61
11	0.142	28	0.129	25
12	0.509	141	1.368	348
13	0.475	154	1.240	316
14	0.361	79	0.982	121
Average	0.372	91	0.867	166
15	0.551	132	1.328	328
16	0.456	(146)	1.167	347
17	0.399	140	1.111	373
18	0.475	138	1.208	300
19	0.390	128	1.054	349
20	0.418	69	0.950	87
21	0.133	44	0.419	42
Average	0.403	(114)	1.034	218
22	0.361	42	0.837	49
23	0.133	47	0.121	37
24	0.456	85	0.966	168
25	0.152	40	0.145	35
26	0.342	71	0.837	139
27	0.390	94	1.030	263
28	(0.342)	(100)	1.006	303
Average	0.311	(68)	0.706	142
29	0.323	73	0.886	166
30	0.380	74	1.030	175
31	0.266	75	0.805	193
Monthly Total		3,171		6,569
Monthly Average	0.384	102	0.904	212

() Indicates Estimated Values.

TABLE 52. - SOLAR RADIATION (LANGLEYS) - November 1 to November 30, 1953

Exposure Station

College, Alaska

Date	Horizontal Surface		45° Slant Surface	
	Maximum gm cal/cm ² min	Total gm cal/cm ²	Maximum gm cal/cm ² min	Total gm cal/cm ²
Nov. 1	0.276	44	1.036	60
2	0.361	81	1.020	228
3	0.304	79	0.926	213
4	0.380	82	0.848	178
Average	0.327	73	0.936	173
5	0.323	39	1.052	58
6	0.285	30	0.754	50
7	0.266	58	0.848	166
8	0.209	56	0.848	206
9	0.266	53	0.769	170
10	0.114	20	0.118	26
11	0.152	21	0.377	45
Average	0.231	40	0.681	103
12	0.114	21	0.377	39
13	0.209	40	0.706	115
14	0.226	45	0.754	116
15	0.086	19	0.109	20
16	0.086	24	0.353	28
17	0.095	23	0.118	26
18	0.190	44	0.691	153
Average	0.149	31	0.444	71
19	0.162	42	0.659	150
20	0.171	43	0.706	157
21	0.190	24	0.667	92
22	0.048	9	0.039	6
23	0.124	27	0.581	107
24	0.114	12	0.361	18
25	0.057	11	0.071	13
Average	0.124	24	0.440	78
26	0.152	(21)	(0.126)	(47)
27	(0.104)	(26)	0.534	74
28	0.048	10	(0.063)	(12)
29	0.076	9	0.424	31
30	0.057	13	0.220	19
Monthly Total		1,026		2,623
Monthly Average	0.176	34.2	0.538	87

() Indicates Estimated Values.

TABLE 53. - SOLAR RADIATION (LANGLEYS) - December 1 to December 31, 1953

Exposure Station

College, Alaska

Date	Horizontal Surface		45° Slant Surface	
	Maximum gm cal/cm ² min	Total gm cal/cm ²	Maximum gm cal/cm ² min	Total gm cal/cm ²
Dec. 1	0.114	16	0.419	48
2	0.038	11	0.064	8
Average	(0.084)	15	0.264	34
3	0.099	18	0.483	62
4	0.114	18	0.443	63
5	0.053	10	0.164	13
6	0.034	6	0.161	16
7	0.065	8	0.306	17
8	0.036	6	0.032	5
9	0.030	4	0.016	2
Average	0.062	10	0.235	25
10	0.030	4	0.029	5
11	0.019	3	0.016	3
12	0.066	8	0.306	24
13	0.086	15	0.451	56
14	0.034	8	0.121	10
15	0.038	5	0.266	13
16	x.xxx	xx	x.xxx	xx
Average	0.046	7	0.198	18
17	0.019	3	0.016	2
18	0.028	5	0.121	7
19	0.019	3	0.032	3
20	0.032	7	0.169	16
21	0.028	3	0.105	4
22	0.038	5	0.249	21
23	0.104	12	0.258	28
Average	0.038	5	0.136	12
24	0.057	6	0.322	22
25	0.038	7	0.076	8
26	0.009	3	0.013	2
27	0.015	3	0.011	3
28	0.057	7	0.451	26
29	0.019	6	0.032	4
30	0.048	8	0.177	9
Average	0.035	6	0.154	11
31	0.017	4	0.016	3
Monthly Total		222		503
Monthly Average	0.048	8	0.178	17

() Indicates Estimated Values.

TABLE 54. - SOLAR RADIATION (LANGLEYS) - January 1 to January 31, 1954

Exposure Station

College, Alaska

Date	Horizontal Surface		45° Slant Surface	
	Maximum gm cal/cm ² min	Total gm cal/cm ²	Maximum gm cal/cm ² min	Total gm cal/cm ²
Jan. 1	0.016	5	0.023	5
2	0.039	11	0.242	11
3	0.071	11	0.423	60
4	0.094	17	0.343	54
5	0.079	11	0.451	56
6	0.066	8	0.406	36
7	0.031	3	0.029	3
Average	0.056	9.4	0.274	32.1
8	0.024	6	0.021	3
9	0.063	9	0.258	12
10	0.086	11	0.290	19
11	0.031	6	0.042	6
12	0.107	25	0.628	113
13	0.094	25	0.562	107
14	0.118	32	0.452	76
Average	0.075	16.3	0.322	48.0
15	0.036	4	0.048	5
16	0.115	23	0.491	95
17	0.107	18	0.483	63
18	0.016	4	0.016	3
19	0.077	13	0.179	16
20	0.165	17	0.596	35
21	0.149	33	0.696	138
Average	0.095	16.0	0.358	50.7
22	0.060	13	0.061	13
23	0.110	11	0.056	8
24	0.102	13	0.260	28
25	0.212	44	0.708	145
26	0.212	47	0.757	156
27	0.228	55	0.708	167
28	0.306	55	0.580	104
Average	0.176	34.0	0.447	88.7
29	0.245	43	0.837	123
30	0.071	14	0.097	16
31	0.283	52	0.950	108
Monthly Total		639		1 789
Monthly Average	0.110	20.6	0.377	57.7

() Indicates Estimated Values.

TABLE 55. - SOLAR RADIATION (LANGLEYS) - February 1 to February 28, 1954

Exposure Station

College, Alaska

Date	Horizontal Surface		45° Slant Surface	
	Maximum gm cal/cm ² min	Total gm cal/cm ²	Maximum gm cal/cm ² min	Total gm cal/cm ²
Feb. 1	0.298	43	0.805	161
2	0.102	28	0.105	21
3	0.345	44	0.797	61
4	0.353	51	0.982	144
Average	0.260	42	0.470	71
5	0.094	21	0.082	19
6	0.345	79	0.894	183
7	0.306	64	0.953	155
8	0.314	42	0.547	40
9	0.305	88	0.966	287
10	0.330	87	1.063	228
11	0.270	57	0.467	75
Average	0.280	62	0.710	141
12	0.462	124	0.934	277
13	0.361	110	1.087	343
14	0.380	115	1.079	328
15	0.408	120	1.055	330
16	0.447	97	0.966	182
17	0.440	129	1.143	375
18	0.416	140	1.167	392
Average	0.416	119	1.062	318
19	0.386	125	1.159	337
20	0.479	108	1.014	179
21	0.620	186	1.356	399
22	0.557	139	1.264	321
23	0.502	165	1.248	439
24	0.361	93	0.673	101
25	0.581	138	1.087	269
Average	0.498	136	1.114	292
26	0.518	181	1.264	413
27	0.526	189	1.256	453
28	0.584	148	1.304	312
Monthly Total		2,911		6,824
Monthly Average	0.396	104	0.954	244

() Indicates Estimated Values.

TABLE 56. - SOLAR RADIATION (LANGLEYS) - March 1 to March 31, 1954

Exposure Station

College, Alaska

Date	Horizontal Surface		45° Slant Surface	
	Maximum gm cal/cm ² min	Total gm cal/cm ²	Maximum gm cal/cm ² min	Total gm cal/cm ²
Mar. 1	0.236	59	0.238	61
2	0.542	109	1.183	152
3	0.279	79	0.338	79
4	0.615	226	1.409	503
Average	0.471	142	0.999	282
5	0.570	196	1.417	495
6	0.589	225	1.412	531
7	0.777	171	1.610	293
8	0.667	198	1.497	392
9	0.636	249	1.369	584
10	0.652	250	1.377	599
11	0.691	235	1.642	539
Average	0.654	218	1.474	490
12	0.659	171	1.352	332
13	0.895	197	1.755	348
14	0.746	303	1.827	696
15	0.550	97	1.103	149
16	0.581	179	1.167	295
17	0.895	213	1.932	676
18	0.772	325	2.013	773
Average	0.728	212	1.592	467
19	0.502	137	0.934	193
20	0.314	94	0.491	194
21	1.178	294	2.013	580
22	0.958	319	2.093	724
23	0.854	254	2.130	670
24	0.958	334	2.640	859
25	0.801	364	2.240	929
Average	0.795	256	1.792	593
26	0.809	360	2.220	928
27	0.816	361	2.120	967
28	0.832	389	2.420	1,052
29	0.942	383	2.540	1,073
30	0.840	393	2.480	1,078
31	0.958	330	2.430	825
Monthly Total		7,494		17,569
Monthly Average	0.713	242	1.658	567

() Indicates Estimated Values.

TABLE 57. - SOLAR RADIATION (LANGLEYS) - April 1 to April 30, 1954

Exposure Station

College, Alaska

Date	Horizontal Surface		45° Slant Surface	
	Maximum gm cal/cm ² min	Total gm cal/cm ²	Maximum gm cal/cm ² min	Total gm cal/cm ²
Apr. 1	1.115	351	2.860	859
Average	0.902	367	2.440	969
2	1.024	419	2.520	1,159
3	0.903	406	2.590	1,112
4	1.028	199	2.520	354
5	0.966	463	2.860	1,271
6	0.986	471	2.920	1,323
7	0.973	296	2.640	535
8	1.391	442	4.090	1,289
Average	1.039	385	2.880	1,006
9	0.758	270	2.010	579
10	1.099	368	3.250	991
11	1.008	494	3.480	1,558
12	1,162	374	3.920	1,380
13	1.044	429	3.560	1,378
14	1.005	431	3.660	1,376
15	1.335	456	3.830	954
Average	1.059	403	3.390	1,174
16	1.021	531	1.603	744
17	1.225	510	1.809	716
18	1.449	516	2.120	633
19	1.055	546	1.630	757
20	1.057	551	1.620	752
21	0.667	336	0.763	335
22	1.068	553	1.552	712
Average	1.220	506	1.585	664
23	0.981	493	1.381	596
24	1.049	572	1.560	745
25	1.064	479	1.601	686
26	1.492	379	1.960	398
27	1.107	601	1.615	782
28	1.091	631	1.601	746
29	0.911	347	1.101	355
Average	1.099	500	1.546	615
30	1.342	341	1.731	366
Monthly Total		13,255		25,441
Monthly Average	1.079	442	2.345	848

() Indicates Estimated Values.

Continued

TABLE 58. - SOLAR RADIATION (LANGLEYS) - May 1 to May 31, 1954

Exposure Station

College, Alaska

Date	Horizontal Surface		45° Slant Surface	
	Maximum gm cal/cm ² min	Total gm cal/cm ²	Maximum gm cal/cm ² min	Total gm cal/cm ²
May 1	1.319	306	1.909	342
2	1.438	341	1.950	404
3	(1.400)	370	1.713	466
4	1.397	382	1.841	432
5	1.551	282	1.991	295
6	1.372	402	1.820	416
Average	(1.403)	346	1.850	389
7	1.538	369	(1.950)	(388)
8	1.118	388	(1.550)	(420)
9	1.118	436	(1.550)	(440)
10	1.158	437	1.562	490
11	1.397	430	1.887	484
12	1.196	461	1.650	523
13	1.196	522	1.629	527
Average	1.246	435	(1.682)	(467)
14	(1.200)	520	(1.650)	(600)
15	1.177	441	1.542	483
16	1.138	455	1.542	503
17	(1.138)	(460)	1.542	491
18	(1.140)	(540)	(1.542)	(650)
19	(1.140)	(450)	1.542	494
20	(1.140)	(450)	1.629	502
Average	(1.153)	(474)	(1.570)	(532)
21	1.138	401	(1.600)	(480)
22	(1.120)	(420)	(1.650)	(490)
23	(1.140)	(450)	(1.600)	(510)
24	(1.100)	(420)	(1.550)	(490)
25	(1.200)	(460)	1.929	364
26	(0.900)	(350)	1.411	261
27	(0.910)	(360)	(1.000)	(390)
Average	(1.072)	(409)	(1.534)	(426)
28	0.627	104	(1.020)	(400)
29	(1.050)	420	1.180	348
30	(1.200)	420	1.480	370
31	(1.100)	400	1.714	337
Monthly Total		12,647		13,790
Monthly Average	1.186	408	1.617	445

() Indicates Estimated Values.

TABLE 59. - SOIAR RADIATION (LANGLEYS) - June 1 to June 30, 1954

Exposure Station

College, Alaska

Date	Horizontal Surface		45° Slant Surface	
	Maximum gm cal/cm ² min	Total gm cal/cm ²	Maximum gm cal/cm ² min	Total gm cal/cm ²
June 1	(1.200)	(550)	(1.900)	(680)
2	(0.720)	(250)	(1.000)	(260)
3	(1.120)	(550)	1.608	709
Average	(1.002)	(385)	1.414	(443)
4	1.625	521	(2.100)	(700)
5	(1.190)	(500)	1.874	(670)
6	(1.190)	(505)	1.703	586
7	(1.150)	(530)	1.640	786
8	(1.150)	(500)	1.660	465
9	(1.150)	(560)	2.000	651
10	1.432	447	2.090	669
Average	(1.270)	(509)	1.867	(647)
11	(1.400)	(426)	2.000	651
12	0.402	98.3	(0.600)	(120)
13	1.200	550	2.172	659
14	1.261	220	1.685	236
15	1.624	310	2.302	310
16	1.261	281	1.725	273
17	1.341	483	1.766	555
Average	(1.213)	(338)	1.750	(400)
18	1.018	589	1.490	678
19	1.139	(630)	1.599	706
20	1.109	432	1.279	480
21	(1.260)	(270)	1.790	259
22	0.525	151	0.321	143
23	0.807	276	1.084	274
24	1.403	329	1.961	395
Average	(1.037)	(382)	1.360	419
25	1.130	354	1.555	408
26	1.372	343	1.896	345
27	1.291	289	1.705	285
28	1.251	623	1.811	739
29	1.230	556	1.811	692
30	(1.200)	(570)	1.940	612
Monthly Total		12,693		14,996
Monthly Average	1.172	423	1.669	500

() Indicates Estimated Values.

Continued

TABLE 60. - SOLAR RADIATION (LANGLEYS) - July 1 to July 31, 1954

Exposure Station

College, Alaska

Date	Horizontal Surface		45° Slant Surface	
	Maximum gm cal/cm ² min	Total gm cal/cm ²	Maximum gm cal/cm ² min	Total gm cal/cm ²
July 1	0.98	(180)	1.96	180
Average	1.21	416.4	1.81	465.7
2	1.47	(640)	2.12	685
3	1.17	668	1.69	783
4	1.33	536	(1.80)	(640)
5	1.33	576	(1.80)	(700)
6	1.52	354	(2.10)	(460)
7	1.34	472	1.86	572
8	1.32	546	1.86	611
Average	1.35	541.7	1.89	635.8
9	1.23	(380)	1.79	429
10	0.44	127	0.51	127
11	0.75	189	0.85	194
12	1.44	524	2.13	627
13	1.24	623	1.81	740
14	1.17	597	1.64	745
15	0.99	445	1.36	502
Average	1.04	412.1	1.44	480.5
16	1.30	520	(1.76)	(610)
17	1.32	377	1.88	495
18	1.43	486	1.73	586
19	1.19	555	(1.75)	(690)
20	0.30	83	(0.35)	(87)
21	0.65	158	0.75	(175)
22	1.28	237	1.88	261
Average	1.06	345.1	1.44	414.8
23	1.14	321	1.54	366
24	1.36	405	2.09	438
25	1.31	461	2.00	571
26	0.26	69	0.24	66
27	1.40	263	1.98	301
28	0.34	74	0.36	64
29	1.22	285	1.75	342
Average	1.00	268.2	1.42	306.8
30	0.36	99	0.45	99
31	1.32	210	1.96	229
Monthly Total		11,460		13,375
Monthly Average	1.09	369.6	1.54	431.4

() Indicates Estimated Values.

TABLE 61. - SOLAR RADIATION (LANGLEYS) - August 1 to August 31, 1954

Exposure Station

College, Alaska

Date	Horizontal Surface		45° Slant Surface	
	Maximum gm cal/cm ² min	Total gm cal/cm ²	Maximum gm cal/cm ² min	Total gm cal/cm ²
Aug. 1	0.949	199	(1.100)	(195)
2	1.292	(360)	2.005	462
3	1.302	445	1.972	607
4	1.292	396	2.005	530
5	1.302	344	1.939	435
Average	1.117	282	1.632	394.5
6	1.160	351	1.878	465
7	0.929	507	1.535	688
8	0.929	463	1.535	651
9	0.968	452	1.535	634
10	1.026	423	1.599	592
11	1.089	498	1.427	598
12	1.401	338	1.749	387
Average	1.072	433	1.608	573.6
13	1.391	535	1.855	637
14	0.444	200	0.402	163.8
15	1.573	410	1.984	462
16	1.110	583	1.578	714
17	1.101	569	1.578	688
18	1.220	280	1.620	282
19	1.301	270	1.600	160
Average	1.163	406.7	1.517	443.8
20	1.281	296	1.608	312
21	1.412	407	1.735	405
22	1.078	515	1.562	681
23	1.140	436	1.590	570
24	0.504	112.2	0.556	108
25	1.492	(273)	1.870	287
26	0.909	190	1.001	167.5
Average	1.116	318.4	1.417	361.5
27	0.675	134	0.626	115
28	1.101	172	1.016	155
29	1.371	229	1.110	222
30	1.074	248	1.567	340
31	1.371	(138)	1.496	173
Monthly Total		10,413		12,697.3
Monthly Average	1.135	347.1	1.504	423.2

() Indicates Estimated Values.

TABLE 62. - SOLAR RADIATION (LANGLEYS) - September 1 to September 30, 1954

Exposure Station

College, Alaska

Date	Horizontal Surface		45° Slant Surface	
	Maximum gm cal/cm ² min	Total gm cal/cm ²	Maximum gm cal/cm ² min	Total gm cal/cm ²
Sept. 1	(1.250)	(380)	1.440	519
2	0.886	381	1.311	509
Average	(1.104)	240	1.224	290
3	0.764	176	1.152	177
4	0.880	363	1.823	460
5	0.972	401	1.550	537
6	1.028	155	1.470	140
7	1.304	375	1.888	520
8	0.428	106	0.462	75
9	0.775	189	1.299	200
Average	0.879	252	1.378	301
10	1.061	179	1.677	160
11	1.021	178	1.677	184
12	0.876	405	1.489	642
13	0.866	398	1.489	650
14	0.839	163	1.341	175
15	0.569	131	(0.720)	(135)
16	0.324	66	(0.250)	(45)
Average	0.794	217	(1.235)	(284)
17	1.123	143	(1.700)	(145)
18	0.822	384	(1.340)	(525)
19	0.861	372	(1.490)	(520)
20	0.805	344	(1.400)	(490)
21	0.788	325	(1.300)	(470)
22	0.761	251	1.353	(386)
23	0.875	291	1.459	319
Average	0.862	301	(1.434)	(408)
24	0.327	67	0.242	45
25	0.339	95	0.262	64
26	0.909	211	1.471	296
27	0.726	269	1.325	464
28	0.501	104	0.706	107
29	0.248	66	0.211	49
30	0.344	149	1.618	238
Average	0.485	137	0.834	180
Monthly Total		7,107		9,246
Monthly Average	0.776	237	1.230	308

() Indicates Estimated Values.

TABLE 63. - Values of the Monthly Averages of the Maximum and Daily Solar Radiation and Monthly Totals on a Horizontal Surface and on a 45° Slant (South) Surface at College, Alaska, during the Period February 1952 through September 1954.

Month	Maximum		Daily Average		Monthly Total	
	Horizontal Surface	45° Slant South	Horizontal Surface	45° Slant South	Horizontal Surface	45° Slant South
1952 February*	0.285		84		2,433	
March*	0.635		239		7,416	
April*	0.860		382		11,448	
May*	1.001		468		14,493	
June*	1.113		558		16,748	
July*	0.875		447		13,868	
August*	0.780		354		10,257	
September*	0.492		190		5,686	
October*	0.247		71		2,173	
November	0.124	0.354	17	37	518	1,104
December	0.043	0.219	5	19	152	601
1953 January	0.107	0.489	19	82	595	2,554
February	0.308	0.778	58	130	1,619	3,629
March	0.746	1.432	238	439	7,373	13,691
April	1.081	1.595	423	641	12,682	19,231
May	1.333	1.666	441	470	13,670	14,584
June	1.402	1.676	476	504	14,275	15,117
July	1.362	1.611	474	475	14,686	14,714
August	1.119	1.502	308	338	9,562	10,492
September	0.801	1.295	231	340	6,942	10,194
October	0.384	0.904	102	212	3,171	6,569
November	0.176	0.538	34	87	1,026	2,623
December	0.048	0.178	8	17	222	503
1954 January	0.110	0.377	21	58	639	1,789
February	0.396	0.954	104	244	2,911	6,824
March	0.713	1.658	242	567	7,494	17,569
April	1.079	2.345	442	848	13,255	25,441
May	1.186	1.617	408	445	12,647	13,790
June	1.172	1.669	423	500	12,693	14,996
July	1.090	1.540	397	431	11,460	13,375
August	1.135	1.504	347	423	10,413	12,697
September	0.776	1.230	237	308	7,107	9,246

* Only the horizontal values were available from the Fairbanks Weather Bureau for these months.

Since there was always a machine value during any one month, parentheses were not included in this table.

TABLE 64. - Clear Days during the Period 1 February 1952 to 30 September 1954.

	<u>Month</u>	<u>Day(s)</u>
1952	February	6*, 17
	March	3, 31
	April	4, 30
	May	none
	June	none
	July	4*, 20*
	August	none
	September	7
	October	26, 28*
	November	26, 30
	December	4, 6, 8, 9*, 12*, 20*, 31*
	1953	January
February		1, 4, 5*
March		5, 10, 11, 12, 20, 21, 22, 23, 24
April		7*, 12, 13
May		3
June		none
July		10*, 11*, 24*, 26*, 27*
August		none
September		8*, 10*
October		1, 7
November		8*, 19, 20
December		4, 13, 23*, 30
1954	January	3, 4, 12, 13, 26*, 27
	February	9, 13, 14, 15, 17, 18, 23*, 27
	March	6*, 14, 27, 28, 29*, 30
	April	11, 16, 19*, 20, 27, 28
	May	9, 10*, 11*, 16, 17
	June	18*, 19*
	July	3*
	August	7*, 16*, 17*
	September	12*, 13, 18, 19, 20, 21

* Almost clear

seasonal trend superimposed, as the missing value. If neither value was available, the values on the horizontal from the local station of the U.S. Weather Bureau were used directly as guides and ratios from the values typical of that period of the year were used to enter the 45° slant values. It is to be noted that this procedure corresponds to an empirical application of the method derived by Dr. Nagel (1). Though no values in this report were derived directly by use of this method, values checked by use of this method agree well with those in the tables. A further application of this method will be discussed in a later report in this series or in a special report.

SECTION VI

Summary

The content of this report is limited to tabulations, averages, and graphs of the maximum and minimum temperatures, maximum, minimum and mean values of the relative humidity, the rainfall, and the daily maxima and total values of the solar radiation on a horizontal surface and a slant surface of 45° to the south as gathered during the periods of exposures at a Test Site situated near College, Alaska, in a Sub-Arctic, Semi-Arid region.

LITERATURE

(1) N.R. Nagel, On the Irradiation on Inclined Surfaces as Related to Photographic and Technological Exposure Problems, Technical Note WCLF 54-4, March 1954.