SEVERE LOCAL STORMS, NOVEMBER 1941

[Compiled by Mary O. Souder]

[The table herewith contains such data as has been received concerning severe local storms that occurred during the month. A revised list of tornadoes will appear in the United States Meteorological Yearbook]

Place	Date	Time	Width of path, yards	Loss of life	Value of property destroyed	Character of storm	Remarks
Iowa	Oct. 31–Nov. 1 and Nov. 4–5				$250,000	Sleet and snow	Both of these storms covered about the same area. The heavy, wet snow mixed with rain, clung to electric and telephone lines until the accumulated weight caused the wires to break carrying the poles. The area of damage began in Mills and Montgomery Counties and extended northward to the Minnesota border. The eastern boundary of the damage extended northward through Audubon, Greene, Webster, and Kossuth Counties. The western boundary extended northward along the Missouri River into Woodbury County, and thence northeastward across Cherokee, Clay, and Dickinson Counties. At the southern end the storm extended westward into Nebraska. Centers of greatest damage were located at Council Bluffs, Carroll, and Storm Lake. In addition to the damage to wires, there was some interruption of highway and rail traffic and many trees and limbs broken. Many communities were isolated for short periods. The interruption of electric service handicapped farmers using electric power, operators of cold storage lockers, and local newspapers. Total cost to permanent repairs to power and telephone equipment will amount to in excess of $250,000, but, outside of delay, discomfort, and inconvenience, loss to other interests was rather small.
Buffalo, N. Y.	7–8				14,000	Wind	Navigation at standstill. A cargo of wheat was swept into the water when a barge with a broken steering cable was grounded in the harbor.
Highland City to Lakeland, Fla., and vicinities.	14		100		15,500	do	Property damage, $11,000; loss in crops, $4,500; path 10 miles long.
Stevensville, Mont	24	8:30–9:30 p. m.			5,000	do	Several barns and small buildings damaged; buildings demolished; many trees uprooted and windows broken.
Washington, western portion of State.	24			1		do	Several boats and a sea-plane hangar blown from their moorings. Man drowned; minor damage to power and communication lines.
Stanford, Mont., and vicinity	24–25				3,000	do	Several buildings blown over and hay lost from stacks.
LATE REPORTS FOR OCTOBER, 1941							
Mansfield, La., vicinity of	26	10 p. m.	100	1		Tornado	12 houses damaged with loss of household goods. An automobile demolished and 10 persons injured.
Lake Charles, La., vicinity of	30	9:30 a. m.	20	0	20,000	do	2 persons injured; property damaged.

SOLAR RADIATION AND SUNSPOT DATA FOR NOVEMBER 1941

[Solar Radiation Investigations Section, I. F. HAND in charge]

SOLAR RADIATION OBSERVATIONS

By HELEN CULLINANE and IOLA PAINE

Measurements of solar radiant energy received at the surface of the earth are made at 9 stations maintained by the Weather Bureau and at 12 cooperating stations maintained by other institutions. The intensity of the total radiation from sun and sky on a horizontal surface is continuously recorded (from sunrise to sunset) at all these stations by self-registering instruments; pyrheliometric measurements of the intensity of direct solar radiation at normal incidence are made at frequent intervals on clear days at three Weather Bureau stations (Madison, Wis.; Lincoln, Nebr.; and Albuquerque, N. Mex.), and at the Blue Hill Observatory at Harvard University. Occasional observations of sky polarization are taken at the Weather Bureau station at Madison and at Blue Hill Observatory.

The geographic coordinates of the stations, descriptions of the instrumental equipment, station exposures, and methods of observation, together with summaries of the data obtained, up to the end of 1939, are given in the MONTHLY WEATHER REVIEW for December 1937, April 1941, and September 1941.

Table 1 contains the measurements of the intensity of direct solar radiation at normal incidence, with means and their departures from normal (means based on less than 3 values are in parentheses). At Lincoln, Madison, Albuquerque, and Blue Hill the observations are obtained with a recording thermopile, checked by observations with a Smithsonian silver-disk pyrheliometer at Blue Hill. The table also gives vapor pressures at 7:30 a. m. and at 1:30 p. m. (75th meridian time).

Table 2 contains the daily total amounts of radiation received on a horizontal surface from both sun and sky for all stations except Fairbanks, Alaska; and also the weekly means, their departures from normal, and the accumulated departures since the beginning of the year. The values at most of the stations are obtained from the Eppley pyrheliometer recording either on a microammeter or a potentiometer. If the daily figures for total solar and sky radiation at Fairbanks should be desired, they may be obtained approximately 2 months after the date of the observation by writing to the Solar Radiation Investigations Supervisory Station, Blue Hill Observatory, Milton, Mass. Table 2 also includes values of ultraviolet radiation below 3132 Angströms at San Juan (see MO. WEA. REV., Sept. 1941, p. 286).

Radiation at normal incidence was below normal at Madison and Lincoln and close to normal at Blue Hill during November.

Total solar and sky radiation received on a horizontal surface during November was below normal for all stations for which normals have been computed with the exception of Washington, New York, New Orleans, and Riverside.

The single polarization observation made on the 26th is lower than both the November mean and mean maximum.

The single polarization observation made on the 26th at Madison serves as both the mean and the maximum for the month.

The pyrheliometric equipment at Cornell University was recalibrated by Helen Cullinane during the latter part of November and found to be about 9 percent low. Corrected data for this station are given in table 2–A.

In table 2, "Pyrheliometric Instrumental Data," page 264 of the September 1941 MONTHLY WEATHER REVIEW, it was erroneously stated that the station at Twin Falls is under the direction of the Bureau of Plant Industry. This station is under the direct supervision of J. R. Douglass, of the Bureau of Entomology and Plant Quarantine.

TABLE 1.—*Solar radiation intensities during November 1941*

[Gram-calories per minute per square centimeter of normal surface]

MADISON, WIS.

Date	Sun's zenith distance										
	7:30 a. m.	78.7°	75.7°	70.7°	60.0°	0.0°	60.0°	70.7°	75.7°	78.7°	1:30 p. m.
	75th mer. time	Air mass									Local mean solar time
		A. M.					P. M.				
	e.	5.0	4.0	3.0	2.0	[1] 1.0	2.0	3.0	4.0	5.0	e.
	mm.	*cal.*	*cal.*	*cal.*	*cal.*	*cal.*	*cal.*	*cal.*	*cal.*	*cal.*	*mm.*
Nov. 14	5.79	------	0.53	0.74	------	1.46	------	------	------	------	6.50
Nov. 18	8.18	0.55	.71	.86	------	1.41	------	0.74	------	------	9.83
Nov. 24	1.88	.81	.98	1.14	------	1.50	------	1.10	------	------	2.49
Nov. 26	2.36	.90	1.02	1.13	------	1.48	------	1.06	------	------	2.74
Nov. 27	4.37	.98	1.07	1.11	------	1.51	------	------	------	------	5.36
Nov. 28	4.37	.41	.57	.80	------	1.36	------	.87	------	------	6.76
Means	------	.73	.81	.96	------	1.45	------	.94	------	------	------
Departures	------	−.14	−.18	−.19	------	−.09	------	−.03	------	------	------

ALBUQUERQUE, N. MEX.

Nov. 1	3.46	1.05	------	1.28	------	------	------	------	------	------	3.30
Nov. 2	5.15	.95	------	1.26	1.41	------	1.39	1.20	1.09	1.00	4.75
Nov. 3	4.75	------	------	------	1.34	------	------	1.23	1.10	.97	6.02
Nov. 4	4.95	------	------	------	1.40	------	------	------	------	.96	4.75
Nov. 5	4.36	------	------	------	1.34	1.48	1.38	1.25	1.11	1.02	4.36
Nov. 6	3.96	------	------	------	1.43	------	------	------	------	------	3.82
Nov. 7	4.58	1.06	1.15	------	1.42	------	------	------	1.18	------	1.78
Nov. 8	2.26	------	------	------	------	------	------	------	1.20	1.12	1.88
Nov. 10	2.86	1.07	1.16	1.29	1.42	1.55	1.40	------	------	------	3.30
Nov. 11	3.96	.98	1.10	1.24	1.39	1.44	1.39	1.26	1.16	1.05	4.17
Nov. 12	3.96	------	------	1.22	1.37	------	------	------	------	------	4.75
Nov. 13	5.36	------	------	------	------	------	1.40	1.14	1.00	.88	7.29
Nov. 14	5.36	.91	1.02	1.16	1.35	------	1.38	1.21	1.11	1.02	4.95
Nov. 15	5.56	.97	1.07	1.19	1.35	------	1.36	1.25	1.14	1.06	6.02
Nov. 16	5.15	------	------	1.25	1.39	1.60	1.38	1.23	1.05	1.00	6.50
Nov. 17	5.15	.95	1.05	1.12	1.31	------	1.34	1.07	.94	.82	5.15
Nov. 19	3.00	------	------	1.32	1.48	1.78	1.45	1.26	------	------	2.49
Nov. 20	2.62	1.11	1.20	1.31	1.45	1.59	1.43	1.26	1.14	1.03	3.30
Nov. 21	3.00	------	------	1.26	1.40	------	------	------	------	------	2.74
Nov. 22	4.58	------	------	1.28	------	------	1.42	1.24	1.13	1.06	3.82
Nov. 23	1.88	1.10	1.20	1.32	1.46	1.78	1.40	1.27	1.16	1.07	2.06
Nov. 24	1.88	------	1.24	1.32	------	------	1.47	1.35	1.24	1.15	2.26
Nov. 25	2.06	1.14	1.23	1.34	1.45	------	1.45	1.31	1.22	1.11	2.61
Nov. 26	2.49	1.11	1.21	1.32	1.45	------	1.45	1.31	1.18	1.07	2.74
Nov. 27	3.00	1.11	1.20	1.32	1.45	------	------	1.31	1.17	1.11	3.30
Nov. 29	5.15	------	------	------	1.40	------	------	1.24	1.15	------	5.36
Nov. 30	3.46	------	------	------	------	------	1.42	1.28	1.19	1.08	4.17
Means	------	1.04	1.15	1.27	1.40	1.60	1.41	1.25	1.13	1.03	------

TABLE 1.—*Salar radiation intensities during November 1941*—Con.

[Gram-calories per minute per square centimeter of normal surface]

LINCOLN, NEBR.

Date	Sun's zenith distance										
	7:30 a. m.	78.7°	75.7°	70.7°	60.0°	0.0°	60.0°	70.7°	75.7°	78.7°	1:30 p. m.
	75th mer. time	Air mass									Local mean solar time
		A. M.					P. M.				
	e.	5.0	4.0	3.0	2.0	[1] 1.0	2.0	3.0	4.0	5.0	e.
	mm.	*cal.*	*cal.*	*cal.*	*cal.*	*cal.*	*cal.*	*cal.*	*cal.*	*cal.*	*mm.*
Nov. 1	3.00	0.92	1.07	1.20	1.36	------	1.34	1.14	------	------	4.17
Nov. 6	3.30	------	------	------	------	------	------	------	1.03	0.90	4.17
Nov. 11	4.17	------	------	------	------	------	------	1.24	1.11	1.01	4.57
Nov. 12	4.17	------	------	------	------	------	1.34	1.16	1.01	.88	4.57
Nov. 16	4.57	------	.68	.88	1.18	------	1.18	------	------	------	5.56
Nov. 17	7.87	.88	1.01	1.14	1.25	------	1.25	1.03	.92	.82	7.57
Nov. 21	3.15	.92	1.07	1.22	------	------	------	1.20	1.09	.99	3.45
Nov. 24	2.26	.83	.98	1.20	------	------	------	1.20	1.05	.96	2.16
Nov. 25	3.30	------	.101	1.20	------	------	------	------	------	------	3.63
Nov. 26	3.99	.75	.92	1.07	------	------	------	------	------	------	4.37
Nov. 27	3.99	.83	.94	1.16	------	------	------	1.16	1.03	.92	4.37
Nov. 28	5.16	------	------	------	------	------	------	1.09	.94	.81	5.56
Means	------	.86	.96	1.13	1.26	------	1.28	1.15	1.02	.91	------
Departures	------	−.04	−.06	−.04	−.10	------	−.07	−.03	−.02	−.01	------

BLUE HILL, MASS.

Nov. 4	5.0	0.92	1.00	1.13	------	------	------	------	------	------	4.8
Nov. 5	7.1	------	------	------	------	------	------	------	0.55	0.45	6.3
Nov. 7	9.9	------	------	------	------	------	------	------	.76	.55	12.8
Nov. 8	4.2	.81	.88	.98	1.15	------	------	------	------	------	5.0
Nov. 12	3.5	------	------	------	------	------	1.30	1.19	1.09	.99	1.8
Nov. 13	1.9	.83	.93	------	------	------	------	------	------	------	3.2
Nov. 15	6.3	------	------	------	------	------	------	------	.61	.49	6.3
Nov. 17	2.2	1.07	------	------	------	------	------	1.10	.95	.85	1.7
Nov. 18	5.0	.68	.80	.93	------	------	------	.82	------	------	4.4
Nov. 19	5.6	.54	.64	------	------	------	------	------	------	------	7.6
Nov. 20	9.2	.69	.81	------	------	------	------	------	------	------	9.9
Nov. 21	4.4	------	------	------	------	------	------	1.11	.98	.89	2.9
Nov. 22	3.3	.96	1.05	------	------	------	------	1.15	.99	------	2.5
Nov. 24	4.6	------	------	------	------	------	------	------	1.06	.97	2.8
Nov. 25	2.0	1.03	1.12	1.19	------	------	------	------	------	------	2.9
Nov. 28	4.2	.74	.85	.98	------	------	------	------	------	------	3.8
Means	------	.83	.90	1.04	1.15	------	1.30	1.07	.86	.74	------
Departures	------	−.06	−.07	−.05	−.08	------	+.10	+.04	−.06	−.06	------

[1] Extrapolated.

TABLE 2.—*Daily totals and weekly means of solar radiation (direct + diffuse) received on a horizontal surface*

[Gram-calories per square centimeter]

Date	Washington	Madison	Lincoln	New York	Chicago	Fresno	Albuquerque	Fairbanks	Newport	Cambridge	Friday Harbor	Riverside	New Orleans	La Jolla	State College	Ithaca	San Juan	Twin Falls	San Juan
																			ultra violet below 3132° A milligram cal.
	cal.	*cal.*	*cal.*	*cal.*	*cal.*	*cal.*	*cal.*	*cal.*	*cal.*	*cal.*	*cal.*	*cal.*	*cal.*	*cal.*	*cal.*	*cal.*	*cal.*	*cal.*	*cal.*
Oct. 29	335	154	39	326	122	319	70	--------	341	300	216	379	325	318	339	321	354	95	286
Oct. 30	192	40	58	85	8	356	191	--------	111	79	156	380	252	395	161	41	361	267	329
Oct. 31	82	31	28	58	10	323	408	--------	69	109	59	382	311	386	43	48	384	233	281
Nov. 1	66	32	374	14	12	157	393	--------	30	27	226	277	539	331	25	95	370	149	208
Nov. 2	325	303	241	216	301	248	328	--------	250	130	146	341	536	355	27	31	259	69	188
Nov. 3	258	295	264	222	250	303	360	--------	288	242	214	329	460	348	196	158	412	169	323
Nov. 4	268	170	90	222	151	67	369	--------	290	280	29	325	215	302	171	171	82	234	94
Mean	218	146	156	163	122	253	302	53	197	167	149	345	377	348	138	124	382	174	262
Departure	−23	−39	−78	−15	−39	−78	−70	+11	−33	−11	+15	+40	+71	+8	--------	−28	--------	−42	--------
Nov. 5	243	75	41	157	30	233	371	--------	144	181	--------	347	340	364	185	210	277	170	95
Nov. 6	73	71	232	16	3	316	356	--------	52	50	231	345	434	360	21	26	314	234	296
Nov. 7	179	74	147	224	29	301	379	--------	176	90	171	342	432	278	65	65	303	283	160
Nov. 8	199	121	65	110	26	267	382	--------	254	251	155	344	453	342	94	81	393	251	362
Nov. 9	195	92	148	99	80	238	338	--------	103	141	190	329	359	322	128	209	341	282	305
Nov. 10	130	39	98	168	146	298	361	--------	213	215	63	334	304	341	101	76	214	283	312
Nov. 11	267	105	234	176	23	251	347	--------	247	195	186	177	384	169	97	17	384	274	241
Mean	184	82	138	136	48	272	362	28	170	160	142	317	387	311	99	98	335	254	259
Departure	−40	−83	−96	−20	−92	−26	+9	−8	−51	−13	+28	+21	+91	+1	--------	−53	--------	+45	--------
Nov. 12	257	246	277	152	194	280	267	--------	248	224	175	228	419	279	33	52	331	115	264
Nov. 13	263	181	210	112	207	287	300	--------	126	156	20	309	363	291	230	117	313	206	3
Nov. 14	358	138	207	178	181	291	335	--------	210	192	42	307	391	217	214	78	270	119	294
Nov. 15	243	117	217	210	225	244	334	--------	224	195	55	307	406	332	220	118	252	133	257
Nov. 16	224	200	224	222	213	104	334	--------	214	197	38	289	389	105	181	46	300	62	2
Nov. 17	285	213	249	261	219	255	321	--------	273	249	62	286	332	268	276	263	249	102	189
Nov. 18	232	207	228	190	209	305	51	--------	234	214	96	326	325	326	186	191	208	119	169
Mean	266	186	230	189	207	252	277	28	218	204	70	293	375	260	192	124	286	122	252
Departure	+67	+35	+21	+55	+72	0	−55	0	+30	+14	−21	+12	+129	−38	--------	+22	--------	−45	--------
Nov. 19	194	32	97	164	119	297	342	--------	209	168	183	333	144	338	140	134	294	172	224
Nov. 20	225	54	256	179	167	299	343	--------	223	208	112	339	260	334	80	79	322	221	152
Nov. 21	186	221	277	218	79	295	177	--------	231	243	118	352	57	337	92	33	163	248	36
Nov. 22	246	157	65	190	74	266	326	--------	253	236	162	314	195	304	199	176	352	226	254
Nov. 23	68	241	262	34	155	284	337	--------	15	29	108	329	194	340	30	18	252	253	83
Nov. 24	211	225	266	244	230	283	334	--------	221	226	11	320	377	311	178	111	261	246	170
Nov. 25	243	134	254	168	186	223	323	--------	249	225	46	294	327	316	236	216	241	234	196
Mean	196	152	211	171	144	278	312	14	200	191	106	326	222	326	136	110	269	229	162
Departure	+11	+21	+11	+43	+20	+40	+23	−3	+36	+10	+1	+52	−24	+25	-----	−17	--------	+68	--------
Nov. 26	266	218	253	160	217	187	322	--------	182	153	59	214	357	280	206	144	252	245	133
Nov. 27	267	205	248	195	132	159	315	--------	189	176	63	186	320	227	184	70	377	225	295
Nov. 28	214	189	241	212	191	208	221	--------	221	199	34	273	312	285	197	193	336	214	337
Nov. 29	246	83	62	167	185	46	306	--------	201	183	31	92	244	161	207	143	403	186	228
Nov. 30	197	28	40	107	18	132	288	--------	99	60	96	282	133	301	36	27	346	197	252
Dec. 1	89	61	186	149	51	107	295	--------	223	137	23	279	198	276	22	127	244	213	239
Dec. 2	87	172	225	29	27	74	310	--------	50	52	62	255	167	239	30	26	369	27	314
Mean	195	137	179	145	117	130	299	12	166	137	37	226	247	253	126	104	327	187	261
Departure	+29	+12	−3	+28	+19	−84	+21	−2	−10	−18	−47	−25	+19	−29	--------	+15	--------	+34	--------
ACCUMULATED DEPARTURES ON DEC. 2, 1941																			
	+5,894	+3,122	−8,414	+18,683	+15,372	−3,094	--------	−1,505	−357	−189	--------	+70	+16,576	−4,501	--------	--------	--------	--------	--------

TABLE 2A.—*Corrections to Ithaca data*

	Cal.		Cal.		Cal.		Cal.
July 2	534	Aug. 6	690	Sept. 10	444	Oct. 15	374
July 3	578	Aug. 7	719	Sept. 11	358	Oct. 16	345
July 4	552	Aug. 8	711	Sept. 12	570	Oct. 17	417
July 5	770	Aug. 9	414	Sept. 13	566	Oct. 18	57
July 6	489	Aug. 10	747	Sept. 14	570	Oct. 19	248
July 7	320	Aug. 11	469	Sept. 15	542	Oct. 20	365
July 8	476	Aug. 12	382	Sept. 16	490	Oct. 21	156
Average	530	Average	590	Average	506	Average	280
Departure	−37	Departure	+123	Departure	+158	Departure	+4
July 9	762	Aug. 13	638	Sept. 17	452	Oct. 22	284
July 10	764	Aug. 14	544	Sept. 18	485	Oct. 23	44
July 11	390	Aug. 15	138	Sept. 19	565	Oct. 24	155
July 12	447	Aug. 16	354	Sept. 20	543	Oct. 25	86
July 13	723	Aug. 17	672	Sept. 21	544	Oct. 26	286
July 14	734	Aug. 18	586	Sept. 22	532	Oct. 27	48
July 15	642	Aug. 19	394	Sept. 23	394	Oct. 28	56
Average	638	Average	475	Average	502	Average	136
Departure	+116	Departure	+5	Departure	+130	Departure	−31
July 16	651	Aug. 20	702	Sept. 24	487		
July 17	587	Aug. 21	612	Sept. 25	355		
July 18	740	Aug. 22	468	Sept. 26	285		
July 19	707	Aug. 23	607	Sept. 27	502		
July 20	754	Aug. 24	594	Sept. 28	401		
July 21	713	Aug. 25	243	Sept. 29	316		
July 22	587	Aug. 26	371	Sept. 30	200		
Average	678	Average	513	Average	364		
Departure	+128	Departure	+30	Departure	+38		
July 23	553	Aug. 27	594	Oct. 1	284		
July 24	691	Aug. 28	670	Oct. 2	398		
July 25	686	Aug. 29	565	Oct. 3	94		
July 26	720	Aug. 30	533	Oct. 4	293		
July 27	705	Aug. 31	311	Oct. 5	290		
July 28	342	Sept. 1	570	Oct. 6	368		
July 29	627	Sept. 2	619	Oct. 7	284		
Average	617	Average	551	Average	287		
Departure	+137	Departure	+28	Departure	−5		
July 30	269	Sept. 3	566	Oct. 8	101		
July 31	240	Sept. 4	312	Oct. 9	326		
Aug. 1	528	Sept. 5	448	Oct. 10	224		
Aug. 2	748	Sept. 6	594	Oct. 11	320		
Aug. 3	743	Sept. 7	612	Oct. 12	207		
Aug. 4	585	Sept. 8	595	Oct. 13	430		
Aug. 5	686	Sept. 9	489	Oct. 14	56		
Average	543	Average	517	Average	237		
Departure	+29	Departure	+83	Departure	−33		

TABLE 1.—*Solar radiation intensities during October 1941*

[Gram-calories per minute per square centimeter of normal surface]

LATE DATA—TABLE 1-A, BLUE HILL, MASS.

Date	Sun's zenith distance										
	8 a. m.	78.7°	75.7°	70.7°	60.0°	0.0°	60.0°	70.7°	75.7°	78.7°	1:30 p. m.
	75th mer. time	Air mass									Local mean solar time
		A. M.					P. M.				
	e.	5.0	4.0	3.0	2.0	*1.0	2.0	3.0	4.0	5.0	e.
	mm.	cal.	cal.	cal.	cal.	cal.	cal.	cal.	cal.	cal.	mm.
Oct. 8	8.8	0.81	0.97	1.08	------	------	------	------	------	------	7.4
Oct. 9	4.8	.90	1.01	------	------	------	------	------	------	------	5.8
Oct. 11	5.4	.91	.98	------	------	------	------	------	------	------	4.2
Oct. 13	6.3	.89	1.00	------	------	------	------	1.08	0.97	0.86	5.8
Oct. 16	5.6	.88	.97	1.07	------	------	1.27	1.11	------	.95	4.4
Oct. 18	6.5	1.03	1.12	1.24	------	------	1.30	1.17	1.05	.94	6.8
Oct. 19	8.8	------	------	.88	------	------	------	------	.90	.79	5.8
Oct. 20	4.4	.93	------	1.18	------	------	1.25	1.07	.96	------	4.0
Oct. 22	6.5	.84	.96	1.07	------	------	------	1.11	.99	.89	6.3
Oct. 24	2.9	.97	1.06	1.17	1.31	------	------	1.07	------	.83	2.8
Oct. 26	2.1	1.04	1.11	1.22	1.33	------	------	------	------	------	1.3
Oct. 29	2.6	.97	1.06	1.17	------	------	1.25	------	------	------	2.8
Mean	------	.92	1.02	1.12	1.32	------	1.27	1.10	.97	.87	------
Departure	------	+.03	+.03	0	+.05	------	+.02	0	+.01	+.03	------

TABLE 1.—*Solar radiation intensities during October 1941*—Con.

TABLE 2-A

	Twin Falls	Fairbanks		Twin Falls	Fairbanks
	cal.	cal.		cal.	cal.
Oct. 1	336	------	Oct. 15	363	------
Oct. 2	491	------	Oct. 16	339	------
Oct. 3	455	------	Oct. 17	396	------
Oct. 4	120	------	Oct. 18	372	------
Oct. 5	252	------	Oct. 19	189	------
Oct. 6	428	------	Oct. 20	130	------
Oct. 7	426	------	Oct. 21	114	------
Mean	358	112	Mean	272	46
Departure	−5	−6	Departure	−50	−24
Oct. 8	455	------	Oct. 22	363	------
Oct. 9	517	------	Oct. 23	207	------
Oct. 10	433	------	Oct. 24	250	------
Oct. 11	421	------	Oct. 25	328	------
Oct. 12	420	------	Oct. 26	318	------
Oct. 13	421	------	Oct. 27	112	------
Oct. 14	424	------	Oct. 28	157	------
Mean	442	118	Mean	248	82
Departure	+87	+24	Departure	−31	+21

Accumulated departures on Oct. 28, 1941, Fairbanks, −1491.

POSITIONS, AREAS, AND COUNTS OF SUN SPOTS FOR NOVEMBER 1941

[Communicated by Capt. J. F. Hellweg, U. S. Navy (Ret.), Superintendent, U. S. Naval Observatory.] All measurements and spot counts were made at the Naval Observatory from plates taken at the observatories indicated. Difference in longitude is measured from the central meridian, positive toward the west. Latitude is positive toward the north. Areas are corrected for foreshortening and expressed in millionths of sun's hemisphere. For each day, under longitude, latitude, area of spot or group, and spot count, are included assumed longitude of center of the disk, assumed latitude of center of the disk, total area of spots and groups, and total spot count

Date	Eastern standard time		Mount Wilson group No.	Heliographic: Difference in longitude	Heliographic: Longitude	Heliographic: Latitude	Heliographic: Distance from center of disk	Area of spot or group	Spot count	Plate quality	Observatory
1941	h	m		°	°	°	°				
Nov. 1	11	6	7318	−47	279	+12	48	24	3	VG	Mt Wilson.
			7316	−6	320	+12	10	24	10		
			7317	+20	346	+4	20	48	8		
			7315	+37	3	+14	38	630	29		
			7315	+47	13	+12	48	533	12		
			7314	+48	14	0	48	24	1		
					(326)	(+4)		1,283	63		
Nov. 2	13	13	7318	−33	279	+11	34	12	1	F	U. S. Naval.
			7319	+21	333	+7	22	12	3		
			7317	+34	346	+3	34	291	18		
			7315	+50	2	+14	51	630	14		
			7315	+60	12	+11	60	533	17		
					(312)	(+4)		1,478	53		
Nov. 3	11	7	7318	−18	282	+11	20	48	2	F	Do.
			7320	+6	306	+3	7	12	1		
			7317	+48	348	+3	48	388	21		
			7315	+63	3	+14	63	582	16		
			7315	+74	14	+11	74	533	6		
					(300)	(+4)		1,563	46		
Nov. 4	11	1	7318	−3	284	+11	8	24	2	G	Do.
			7319	+47	334	+8	47	48	8		
			7317	+62	349	+3	62	485	25		
			7315	+76	3	+14	76	582	14		
			7315	+88	15	+11	88	388	3		
					(287)	(+4)		1,527	52		
Nov. 5	11	4	(*)	−61	212	+5	61	24	1	F	Do.
			7318	+6	279	+11	9	12	2		
			7318	+11	284	+11	13	24	1		
			7319	+62	335	+8	62	48	4		
			7317	+75	348	+4	75	582	8		
			7315	+88	1	+15	88	242	2		
					(273)	(+4)		932	18		
Nov. 6	11	5	7321	−70	190	−2	70	12	1	F	Mt. Wilson.
			7317	+88	348	+4	88	242	1		
					(260)	(+4)		254	2		