



# **GEORGI DOBROVOLSKI SOLAR OBSERVATORY**

## **SUNSPOT CO-ORDINATES AND CLASSIFICATIONS**

# **1997**

### **CONTENTS:**

<b>JANUARY</b>	<b>2</b>
<b>FEBRUARY</b>	<b>3</b>
<b>MARCH</b>	<b>4</b>
<b>APRIL</b>	<b>5-6</b>
<b>MAY</b>	<b>7</b>
<b>JUNE</b>	<b>8</b>
<b>JULY</b>	<b>9</b>
<b>AUGUST</b>	<b>10-11</b>
<b>SEPTEMBER</b>	<b>12-13</b>
<b>OCTOBER</b>	<b>14-15</b>
<b>NOVEMBER</b>	<b>16-17</b>
<b>DECEMBER</b>	<b>18-19</b>

REGION CO-ORDINATES AND CLASSIFICATIONS FOR  
JANUARY 1997

All observations carried out by HOWARD BARNES .

Telescope : 76 mm refractor ( f . l . 910 mm ) .

Observed by PROJECTION . Full disc diameter = 145 mm approx .

CM is stated in degrees .

Region Numbers are NOAA/SEC Numbers .

B = Heliographic Latitude ( + if NORTH , - if SOUTH ) .

CMD = Degrees of Longitude in respect to the Central Meridian ( - if EAST, + if WEST).

OBS	DATE	UT	CM	REG.No	B	CMD	f	p	s	gr	grfp	grf	efp	ef	Class.	Rem.
3181	1997 / 01 / 03	2150	22,40	—	—	—	0	0	0	0	0	0	0	0	—	—
3182	1997 / 01 / 04	2020	10,05	8009	-02	+03	5	0	5	1	0	5	0	0	BXI	—
3183	1997 / 01 / 05	2110	356,43	8009	-02	+17	3	0	3	1	0	3	0	0	BXI	—
3184	1997 / 01 / 11	2145	277,10	—	—	—	0	0	0	0	0	0	0	0	—	—
3185	1997 / 01 / 12	2015	264,76	—	—	—	0	0	0	0	0	0	0	0	—	—
3186	1997 / 01 / 13	2010	251,63	—	—	—	0	0	0	0	0	0	0	0	—	—
3187	1997 / 01 / 14	2055	238,05	—	—	—	0	0	0	0	0	0	0	0	—	—
3188	1997 / 01 / 15	2030	225,12	8011	-06	-25	3	1	1	1	2	1	0	0	CAO	—
3189	1997 / 01 / 16	2025	212,00	8011	-06	-12	2	0	2	1	0	2	0	0	BXO	—
3190	1997 / 01 / 17	2030	198,78	—	—	—	0	0	0	0	0	0	0	0	—	—
3191	1997 / 01 / 19	2030	172,45	—	—	—	0	0	0	0	0	0	0	0	—	—
3192	1997 / 01 / 21	2025	146,16	—	—	—	0	0	0	0	0	0	0	0	—	—
3193	1997 / 01 / 23	2135	119,19	—	—	—	0	0	0	0	0	0	0	0	—	—
3194	1997 / 01 / 25	2150	92,72	—	—	—	0	0	0	0	0	0	0	0	—	—
3195	1997 / 01 / 26	2020	80,37	8014	-14	-38	2	0	2	1	0	2	0	0	BXO	—
3196	1997 / 01 / 27	2120	66,65	—	—	—	0	0	0	0	0	0	0	0	—	—
3197	1997 / 01 / 29	2155	40,00	8015	+06	-35	3	1	2	1	1	2	0	0	CRI	—
3198	1997 / 01 / 30	2020	27,70	8015	+05	-24	4	2	2	1	2	2	0	0	DAI	—
3199	1997 / 01 / 31	2010	14,63	8015	+05	-11	3	0	3	1	0	3	0	0	BXI	—

**GEORGI DOBROVOLSKI SOLAR OBSERVATORY**

**REGION CO-ORDINATES AND CLASSIFICATIONS FOR  
FEBRUARY 1997**

All observations carried out by HOWARD BARNES .  
 Telescope : 76 mm refractor ( f . l . 910 mm ) .  
 Observed by PROJECTION . Full disc diameter = 145 mm approx .  
 CM is stated in degrees .  
 Region Numbers are NOAA/SEC Numbers .  
 B = Heliographic Latitude ( + if NORTH , - if SOUTH ) .  
 CMD = Degrees of Longitude in respect to the Central Meridian ( - if EAST, + if WEST).

OBS	DATE	UT	CM	REG.No	B	CMD	f	p	s	gr	grp	grf	efp	ef	Class.	Rem.
3200	1997 / 02 / 04	2015	321,92	8016	-20	+02	10	1	8	1	2	8	0	0	CAI	—
				8015	+05	+45	8	3	3	1	5	3	0	0	DSC	—
3201	1997 / 02 / 05	2100	308,34	8016	-20	+16	2	1	1	1	1	1	0	0	CSO	—
				8015	+05	+61	5	2	3	1	2	3	0	0	DSI	—
3202	1997 / 02 / 07	2005	282,51	8016	-20	+42	1	0	1	0	0	0	0	1	AXX	—
3203	1997 / 02 / 12	2005	216,68	—	—	—	0	0	0	0	0	0	0	0	—	—
3204	1997 / 02 / 14	1955	190,43	—	—	—	0	0	0	0	0	0	0	0	—	—
3205	1997 / 02 / 21	2205	97,06	—	—	—	0	0	0	0	0	0	0	0	—	—
3206	1997 / 02 / 22	2055	84,53	—	—	—	0	0	0	0	0	0	0	0	—	—
3207	1997 / 02 / 25	2115	44,84	—	—	—	0	0	0	0	0	0	0	0	—	—
3208	1997 / 02 / 26	2020	32,17	—	—	—	0	0	0	0	0	0	0	0	—	—
3209	1997 / 02 / 27	2105	18,58	—	—	—	0	0	0	0	0	0	0	0	—	—

REGION CO-ORDINATES AND CLASSIFICATIONS FOR  
MARCH 1997

All observations carried out by HOWARD BARNES .

Telescope : 76 mm refractor ( f . l . 910 mm ) .

Observed by PROJECTION . Full disc diameter = 145 mm approx .

CM is stated in degrees .

Region Numbers are NOAA/SEC Numbers .

B = Heliographic Latitude ( + if NORTH , - if SOUTH ) .

CMD = Degrees of Longitude in respect to the Central Meridian ( - if EAST, + if WEST).

OBS	DATE	UT	CM	REG.No	B	CMD	f	p	s	gr	grfp	grf	efp	ef	Class.	Rem.
3210	1997 / 03 / 06	2010	286,87	8020	+06	-76	1	1	0	0	0	0	1	0	HSX	—
3211	1997 / 03 / 07	2050	273,33	8020	+06	-62	2	1	1	1	1	1	0	0	CSO	—
3212	1997 / 03 / 09	2130	246,61	8020	+07	-34	2	1	1	1	1	1	0	0	CSO	—
				8021	-30	-31	1	0	1	0	0	0	0	1	AXX	—
3213	1997 / 03 / 12	2000	207,90	8020	+07	+03	6	0	6	1	0	6	0	0	BXI	—
3214	1997 / 03 / 13	2045	194,31	8020	+07	+16	4	0	4	1	0	4	0	0	BXI	—
3215	1997 / 03 / 15	2045	167,95	8022	-05	+32	2	0	2	1	0	2	0	0	BXO	—
3216	1997 / 03 / 17	2010	141,91	8022	-04	+58	1	0	1	0	0	0	0	1	AXX	—
3217	1997 / 03 / 18	2020	128,63	—	—	—	0	0	0	0	0	0	0	0	—	—
3218	1997 / 03 / 23	2005	62,84	—	—	—	0	0	0	0	0	0	0	0	—	—
3219	1997 / 03 / 26	2015	23,19	—	—	—	0	0	0	0	0	0	0	0	—	—
3220	1997 / 03 / 27	2020	9,96	8026	-25	-74	2	0	2	1	0	2	0	0	BXO	—
3221	1997 / 03 / 28	2010	356,86	8026	-25	-61	8	1	6	1	2	6	0	0	CAI	—
3222	1997 / 03 / 30	2030	330,29	8026	-25	-34	11	3	5	1	6	5	0	0	DAI	—
3223	1997 / 03 / 31	2020	317,20	8026	-25	-22	9	1	6	1	3	6	0	0	CAI	—

**REGION CO-ORDINATES AND CLASSIFICATIONS FOR  
APRIL 1997**

All observations carried out by HOWARD BARNES .  
 Telescope : 76 mm refractor ( f . l . 910 mm ) .  
 Observed by PROJECTION . Full disc diameter = 145 mm approx .  
 CM is stated in degrees .  
 Region Numbers are NOAA/SEC Numbers .  
 B = Heliographic Latitude ( + if NORTH , - if SOUTH ) .  
 CMD = Degrees of Longitude in respect to the Central Meridian ( - if EAST, + if WEST).

OBS	DATE	UT	CM	REG.No	B	CMD	f	p	s	gr	grp	grf	efp	ef	Class.	Rem.
3224	1997 / 04 / 01	2225	302,85	8026	-25	-09	10	1	8	1	2	8	0	0	CAO	—
3225	1997 / 04 / 02	2145	290,03	8027	-29	-78	1	1	0	0	0	0	1	0	HSX	—
				8026	-24	+02	22	3	12	1	10	12	0	0	EAC	—
3226	1997 / 04 / 03	2035	277,48	8027	-28	-66	2	1	1	1	1	1	0	0	CSO	—
				8026	-24	+13	12	3	4	1	8	4	0	0	DAC	—
3227	1997 / 04 / 04	2050	264,14	8027	-29	-53	4	1	2	1	2	2	0	0	CAI	—
				8026	-24	+24	7	2	2	1	5	2	0	0	DAI	—
3228	1997 / 04 / 05	2100	250,86	8027	-28	-40	4	1	3	1	1	3	0	0	CSI	—
				8026	-23	+38	1	0	1	0	0	0	0	1	AXX	—
3229	1997 / 04 / 08	2205	210,66	8027	-28	-01	2	0	2	1	0	2	0	0	BXO	—
3230	1997 / 04 / 09	2025	198,38	8027	-28	+11	3	0	3	1	0	3	0	0	BXI	—
				8030	+11	+15	1	0	1	0	0	0	0	1	AXX	—
				8029	+24	+17	9	2	5	1	4	5	0	0	DAI	—
3231	1997 / 04 / 10	2055	184,91	?	+08	-02	1	0	1	0	0	0	0	1	AXX	—
				8029	+24	+31	12	2	4	1	8	4	0	0	DAI	—
3232	1997 / 04 / 11	2045	171,80	8029	+24	+44	6	2	2	1	4	2	0	0	DAI	—
3233	1997 / 04 / 12	2040	158,64	8031	-30	+34	5	1	4	1	1	4	0	0	CSI	small
				8029	+24	+56	4	1	2	1	2	2	0	0	CAI	small
3234	1997 / 04 / 14	2055	132,11	8032	-22	-21	2	0	2	1	0	2	0	0	BXO	—
				8031	-30	+62	6	2	2	1	4	2	0	0	DAI	—
3235	1997 / 04 / 15	2110	118,76	8032	-22	-09	11	2	7	1	4	7	0	0	DRI	—
				?	-18	+14	1	0	1	0	0	0	0	1	AXX	—
				8031	-30	+76	3	2	1	1	2	1	0	0	DAI	—

CONTINUED OVERLEAF

REGION CO-ORDINATES AND CLASSIFICATIONS FOR  
APRIL 1997 continued.

OBS	DATE	UT	CM	REG.No	B	CMD	f	p	s	gr	grfp	grf	efp	ef	Class.	Rem.
3236	1997 / 04 / 16	2035	105,88	8032	-23	+04	6	1	5	1	1	5	0	0	CSI	—
				8031	-30	+84	1	1	0	0	0	0	1	0	HSX	—
3237	1997 / 04 / 17	2115	92,30	8032	-23	+19	3	0	3	1	0	3	0	0	BXI	—
3238	1997 / 04 / 19	2050	66,12	—	—	—	0	0	0	0	0	0	0	0	—	—
3239	1997 / 04 / 20	2100	52,82	—	—	—	0	0	0	0	0	0	0	0	—	—
3240	1997 / 04 / 21	2120	39,43	—	—	—	0	0	0	0	0	0	0	0	—	—
3241	1997 / 04 / 24	2220	359,24	—	—	—	0	0	0	0	0	0	0	0	—	—
3242	1997 / 04 / 26	2115	333,41	8035	+18	-10	1	0	1	0	0	0	0	1	AXX	—
				8036	-19	+35	3	1	2	1	1	2	0	0	CSI	—

REGION CO-ORDINATES AND CLASSIFICATIONS FOR  
MAY 1997

All observations carried out by HOWARD BARNES .

Telescope : 76 mm refractor ( f . l . 910 mm ) .

Observed by PROJECTION . Full disc diameter = 145 mm approx .

CM is stated in degrees .

Region Numbers are NOAA/SEC Numbers .

B = Heliographic Latitude ( + if NORTH , - if SOUTH ) .

CMD = Degrees of Longitude in respect to the Central Meridian ( - if EAST, + if WEST).

OBS	DATE	UT	CM	REG.No	B	CMD	f	p	s	gr	grfp	grf	efp	ef	Class.	Rem.
3243	1997 / 05 / 01	2100	267,47	—	—	—	0	0	0	0	0	0	0	0	—	—
3244	1997 / 05 / 02	2115	254,11	?	+24	-06	1	0	1	0	0	0	0	1	AXX	very small
3245	1997 / 05 / 04	2120	227,64	—	—	—	0	0	0	0	0	0	0	0	—	—
3246	1997 / 05 / 05	2100	214,60	8038	+20	-74	1	1	0	0	0	0	1	0	HSX	—
3247	1997 / 05 / 06	2120	201,20	8038	+20	-61	1	1	0	0	0	0	1	0	HSX	—
3248	1997 / 05 / 07	2205	187,57	8038	+20	-46	1	1	0	0	0	0	1	0	HSX	—
3249	1997 / 05 / 12	2210	121,41	8038	+20	+19	1	1	0	0	0	0	1	0	HSX	—
3250	1997 / 05 / 13	2100	108,82	8038	+20	+29	4	1	3	1	1	3	0	0	CSI	—
3251	1997 / 05 / 14	2055	95,64	8038	+20	+42	3	1	2	1	1	2	0	0	CSI	—
3252	1997 / 05 / 15	2235	81,50	8038	+20	+57	1	1	0	0	0	0	1	0	HSX	small
3253	1997 / 05 / 26	2335	295,42	8046	-26	-27	1	0	1	0	0	0	0	1	AXX	big
3254	1997 / 05 / 28	2215	269,69	8047	+27	-57	2	0	2	1	0	2	0	0	BXO	—
				8046	-26	+00	1	0	1	0	0	0	0	1	AXX	—
3255	1997 / 05 / 29	2240	256,23	8047	+26	-44	5	0	5	1	0	5	0	0	BXI	—

REGION CO-ORDINATES AND CLASSIFICATIONS FOR  
JUNE 1997

All observations carried out by HOWARD BARNES .

Telescope : 76 mm refractor ( f . l . 910 mm ) .

Observed by PROJECTION . Full disc diameter = 145 mm approx .

CM is stated in degrees .

Region Numbers are NOAA/SEC Numbers .

B = Heliographic Latitude ( + if NORTH , - if SOUTH ) .

CMD = Degrees of Longitude in respect to the Central Meridian ( - if EAST, + if WEST).

OBS	DATE	UT	CM	REG.No	B	CMD	f	p	s	gr	grp	grf	efp	ef	Class.	Rem.
3256	1997 / 06 / 03	2105	190,94	8048	-29	-05	7	2	4	1	3	4	0	0	DAI	—
3257	1997 / 06 / 04	2150	177,29	8048	-28	+11	5	2	2	1	3	2	0	0	DAI	—
3258	1997 / 06 / 05	2235	163,64	8048	-27	+21	7	2	2	1	5	2	0	0	DAI	—
3259	1997 / 06 / 06	2110	151,19	8048	-27	+35	5	2	1	1	4	1	0	0	DAO	—
3260	1997 / 06 / 08	2055	124,86	8050	+27	-57	1	0	1	0	0	0	0	1	AXX	—
				8048	-28	+62	1	0	1	0	0	0	0	1	AXX	—
3261	1997 / 06 / 11	2215	84,41	8050	+29	-18	2	0	2	1	0	2	0	0	BXO	—
3262	1997 / 06 / 12	2100	71,86	8052	+17	-44	2	0	2	1	0	2	0	0	BXO	—
				8050	+29	-07	1	0	1	0	0	0	0	1	AXX	—
3263	1997 / 06 / 13	2055	58,67	8052	+17	-30	4	0	4	1	0	4	0	0	BXI	—
				8050	+29	+07	2	0	2	1	0	2	0	0	BXO	—
3264	1997 / 06 / 14	2200	44,84	8052	+18	-17	5	1	4	1	1	4	0	0	CSI	—
				8050	+29	+20	2	0	2	1	0	2	0	0	BXO	—
3265	1997 / 06 / 15	2110	32,06	8052	+18	-05	8	1	7	1	1	7	0	0	CSI	—
				8050	+28	+32	1	0	1	0	0	0	0	1	AXX	small
3266	1997 / 06 / 19	2140	338,84	8053	-27	-20	3	0	3	1	0	3	0	0	BXI	—
				8052	+18	+49	1	0	1	0	0	0	0	1	AXX	very small
3267	1997 / 06 / 20	2140	325,61	8053	-27	-08	1	0	1	0	0	0	0	1	AXX	—
3268	1997 / 06 / 21	2130	312,46	8053	-27	+05	1	0	1	0	0	0	0	1	AXX	very small
3269	1997 / 06 / 22	2145	299,08	—	—	—	0	0	0	0	0	0	0	0	—	—
3270	1997 / 06 / 23	2110	286,16	8055	+15	+04	3	0	3	1	0	3	0	0	BXO	—
3271	1997 / 06 / 24	2115	272,89	8056	+17	+04	3	0	3	1	0	3	0	0	BXI	—
				8055	+15	+18	1	0	1	0	0	0	0	1	AXX	—
3272	1997 / 06 / 26	2140	246,18	8056	+17	+31	8	0	8	1	0	8	0	0	BXI	—
3273	1997 / 06 / 27	2135	232,99	8056	+17	+45	3	0	3	1	0	3	0	0	BXI	—

Ref. GDCC 9706 / 150 / HD

PAGE 1 OF 1





# GEORGI DOBROVOLSKI SOLAR OBSERVATORY

## REGION CO-ORDINATES AND CLASSIFICATIONS FOR

### JULY 1997

All observations carried out by HOWARD BARNES .

Telescope : 76 mm refractor ( f . l . 910 mm ) .

Observed by PROJECTION . Full disc diameter = 145 mm approx .

CM is stated in degrees .

Region Numbers are NOAA/SEC Numbers .

B = Heliographic Latitude ( + if NORTH , - if SOUTH ) .

CMD = Degrees of Longitude in respect to the Central Meridian ( - if EAST, + if WEST).

OBS	DATE	UT	CM	REG.No	B	CMD	f	p	s	gr	grp	grf	efp	ef	Class.	Remarks
3274	1997 / 07 / 03	2145	153,48	8058	-21	-31	1	0	1	0	0	0	0	1	AXX	—
3275	1997 / 07 / 04	2130	140,38	8059	-30	-03	1	0	1	0	0	0	0	1	AXX	small
3276	1997 / 07 / 05	2135	127,10	—	—	—	0	0	0	0	0	0	0	0	—	—
3277	1997 / 07 / 06	2130	113,91	8059	-31	+23	1	0	1	0	0	0	0	1	AXX	resighted
3278	1997 / 07 / 08	2135	87,40	8060	+05	-08	3	0	3	1	0	3	0	0	BXI	—
				8059	-31	+50	1	0	1	0	0	0	0	1	AXX	—
3279	1997 / 07 / 10	2200	60,70	—	—	—	0	0	0	0	0	0	0	0	—	—
3280	1997 / 07 / 11	2140	47,65	—	—	—	0	0	0	0	0	0	0	0	—	—
3281	1997 / 07 / 12	2135	34,46	—	—	—	0	0	0	0	0	0	0	0	—	—
3282	1997 / 07 / 13	2205	20,96	—	—	—	0	0	0	0	0	0	0	0	—	—
3283	1997 / 07 / 14	2125	8,09	—	—	—	0	0	0	0	0	0	0	0	—	—
3284	1997 / 07 / 15	2130	354,81	—	—	—	0	0	0	0	0	0	0	0	—	—
3285	1997 / 07 / 20	2130	288,65	8063	-25	+11	1	0	1	0	0	0	0	1	AXX	small
3286	1997 / 07 / 21	2150	275,23	—	—	—	0	0	0	0	0	0	0	0	—	—
3287	1997 / 07 / 22	2135	262,14	8064	+23	-76	1	0	1	0	0	0	0	1	AXX	small
3288	1997 / 07 / 23	2210	248,59	8064	+23	-61	3	0	3	1	0	3	0	0	BXI	—
				8062	+27	+08	4	0	4	1	0	4	0	0	BXI	—
3289	1997 / 07 / 24	2125	235,77	8064	+23	-49	3	0	3	1	0	3	0	0	BXI	—
				8062	+27	+22	4	1	3	1	1	3	0	0	CSI	—
				8065	+17	+41	9	2	4	1	5	4	0	0	DAI	—
3290	1997 / 07 / 25	2155	222,27	8066	+22	-73	1	0	1	0	0	0	0	1	AXX	small
				?	+20	-49	2	0	2	1	0	2	0	0	BXO	small
				8062	+27	+36	3	1	2	1	1	2	0	0	CSI	—
				8065	+17	+55	10	3	4	1	6	4	0	0	DAC	—
3291	1997 / 07 / 27	2205	195,73	8065	+17	+81	1	0	1	0	0	0	1	AXX	—	
3292	1997 / 07 / 28	2230	182,27	—	—	—	0	0	0	0	0	0	0	—	—	
3293	1977 / 07 / 30	2125	156,41	—	—	—	0	0	0	0	0	0	0	—	—	



# GEORGI DOBROVOLSKI SOLAR OBSERVATORY

## REGION CO-ORDINATES AND CLASSIFICATIONS FOR

### AUGUST 1997

All observations carried out by HOWARD BARNES .

Telescope : 76 mm refractor ( f . l . 910 mm ) .

Observed by PROJECTION . Full disc diameter = 145 mm approx .

CM is stated in degrees .

Region Numbers are NOAA/SEC Numbers .

B = Heliographic Latitude ( + if NORTH , - if SOUTH ) .

CMD = Degrees of Longitude in respect to the Central Meridian ( - if EAST, + if WEST).

OBS	DATE	UT	CM	REG.No	B	CMD	f	p	s	gr	grp	grf	efp	ef	Class.	Remarks
3294	1997/08/03	2120	103,56	8068	-22	-35	4	1	2	1	2	2	0	0	CAI	—
3295	1997/08/04	2130	90,24	8068	-22	-20	2	1	1	1	1	1	0	0	CSO	—
3296	1997/08/07	2120	50,66	8070	-20	-27	8	2	4	1	4	4	0	0	DAI	—
				8068	-20	+21	1	0	1	0	0	0	0	1	AXX	—
				8069	+21	+60	5	2	3	1	2	3	0	0	DSI	—
3297	1997/08/08	2155	37,12	8071	+23	-64	2	0	2	1	0	2	0	0	BXO	—
				8070	-20	-13	11	2	8	1	3	8	0	0	DAI	—
				8069	+22	+74	3	0	3	1	0	3	0	0	BXI	—
3298	1997/08/09	2135	24,08	8070	-20	-01	6	1	4	1	2	4	0	0	CAI	—
3299	1997/08/11	2220	357,23	8074	+26	-78	1	1	0	0	0	0	1	0	HSX	—
				8073	+14	-75	1	1	0	0	0	0	1	0	HSX	—
				8071	+26	-22	4	1	2	1	2	2	0	0	CAI	—
				8070	-20	+27	3	0	3	1	0	3	0	0	BXI	—
3300	1997/08/13	2245	330,56	8074	+26	-53	1	1	1	0	0	0	1	0	HSX	—
				8073	+14	-51	1	1	1	0	0	0	1	0	HSX	large
				8071	+26	+04	3	1	1	1	2	1	0	0	CAO	—
				8070	-20	+52	4	1	2	1	2	2	0	0	CAI	—
3301	1997/08/14	2125	318,07	8074	+26	-41	1	1	0	0	0	0	1	0	HSX	—
				8073	+14	-39	1	1	0	0	0	0	1	0	HSX	big
				8071	+26	+18	3	0	3	1	0	3	0	0	BXO	—
				8070	-20	+65	1	0	1	0	0	0	0	1	AXX	small
3302	1997/08/15	2210	304,44	8074	+27	-27	1	1	0	0	0	0	1	0	HSX	small
				8073	+14	-25	1	1	0	0	0	0	1	0	HSX	—

CONTINUED OVERLEAF.



# GEORGI DOBROVOLSKI SOLAR OBSERVATORY

## REGION CO-ORDINATES AND CLASSIFICATIONS FOR AUGUST 1997 continued.

OBS	DATE	UT	CM	REG.No	B	CMD	f	p	s	gr	grfp	grf	efp	ef	Class.	Remarks
3303	1997 / 08 / 16	2145	291,46	8074	+27	-13	1	0	1	0	0	0	0	1	AXX	—
				8073	+15	-12	1	1	0	0	0	0	1	0	HSX	—
3304	1997 / 08 / 17	2120	278,47	8074	+27	00	3	0	3	1	0	3	0	0	BXI	—
				8073	+15	+02	1	1	0	0	0	0	1	0	HSX	—
3305	1997 / 08 / 19	2105	252,18	8073	+15	+28	1	1	0	0	0	0	1	0	HSX	—
3306	1997 / 08 / 21	2055	225,83	?	-17	-16	1	0	1	0	0	0	0	1	AXX	very small
				8073	+14	+54	1	1	0	0	0	0	1	0	HSX	—
3307	1997 / 08 / 23	2100	199,36	—	—	—	0	0	0	0	0	0	0	0	—	—
3308	1997 / 08 / 24	2240	185,22	—	—	—	0	0	0	0	0	0	0	0	—	—
3309	1997 / 08 / 26	2050	159,81	8076	+30	-54	9	1	7	1	2	7	0	0	CAI	—
3310	1997 / 08 / 27	2115	146,37	8076	+30	-40	13	2	11	1	2	11	0	0	DAI	—
				8078	+17	-28	1	0	1	0	0	0	0	1	AXX	—
3311	1997 / 08 / 28	2245	132,33	8076	+29	-25	22	3	16	1	6	16	0	0	DAI	—
				8078	+18	-14	1	0	1	0	0	0	0	1	AXX	very small
3312	1997 / 08 / 29	2135	119,76	?	+32	-36	1	0	1	0	0	0	0	1	AXX	—
				8076	+28	-14	31	3	20	1	11	20	0	0	DAC	—
				8080	+19	+16	2	0	2	1	0	2	0	0	BXO	—
3313	1997 / 08 / 30	2115	106,73	8076	+29	-01	25	3	13	1	12	13	0	0	EAC	—
				8080	+18	+28	4	0	4	1	0	4	0	0	BXI	—
3314	1997 / 08 / 31	2045	93,81	8081	+33	-75	1	0	1	0	0	0	0	1	AXX	—
				8076	+28	+12	24	4	16	1	8	16	0	0	EAC	—
				8080	+18	+41	1	0	1	0	0	0	0	1	AXX	—



# GEORGI DOBROVOLSKI SOLAR OBSERVATORY

## REGION CO-ORDINATES AND CLASSIFICATIONS FOR SEPTEMBER 1997

All observations carried out by HOWARD BARNES .

Telescope : 76 mm refractor ( f . l . 910 mm ) .

Observed by PROJECTION . Full disc diameter = 145 mm approx .

CM is stated in degrees .

Region Numbers are NOAA/SEC Numbers .

B = Heliographic Latitude ( + if NORTH , - if SOUTH ) .

CMD = Degrees of Longitude in respect to the Central Meridian ( - if EAST , + if WEST ).

OBS	DATE	UT	CM	REG.No	B	CMD	f	p	s	gr	grp	grf	efp	ef	Class.	Remarks	
3315	1997/09/03	2220	53,31	8083	-27	-56	5	2	1	1	4	1	0	0	DAI	—	
				8081	+34	-38	3	0	3	1	0	3	0	0	BXO	—	
				?	+20	+09	1	0	1	0	0	0	0	0	1	AXX	small
				8076	+28	+53	8	2	5	1	3	5	0	0	EAI	—	
3316	1997/09/05	2145	27,22	8084	+22	-65	1	0	1	0	0	0	0	1	AXX	—	
				8083	-27	-30	9	2	3	1	6	3	0	0	DAI	—	
				8082	+20	-23	7	1	6	1	1	6	0	0	CSI	—	
				8076	+26	+79	2	0	2	1	0	2	0	0	BXO	—	
3317	1997/09/10	2055	321,65	8085	-26	-30	24	3	14	1	10	14	0	0	EHC	—	
				8084	+22	-02	22	2	17	1	5	17	0	0	DAI	—	
				8083	-28	+32	16	2	7	1	9	7	0	0	DKI	—	
3318	1997/09/11	2055	308,45	8085	-26	-16	22	3	15	1	7	15	0	0	EHC	—	
				8084	+22	+12	19	3	14	1	5	14	0	0	DHC	2nd & 3rd penumbrae small	
				8083	-28	+46	12	3	6	1	6	6	0	0	DKC	—	
3319	1997/09/12	2050	295,28	8085	-26	-04	15	3	10	1	5	10	0	0	EHC	—	
				8084	+22	+25	20	3	9	1	11	9	0	0	DHC	—	
				8083	-28	+59	6	3	1	1	5	1	0	0	DAC	—	
3320	1997/09/13	2035	282,22	8086	+27	-52	4	1	2	1	2	2	0	0	CAI	—	
				8085	-26	+09	16	3	8	1	8	8	0	0	EHC	—	
				8084	+22	+38	14	2	7	1	7	7	0	0	DSI	—	
				8083	-28	+73	4	2	2	1	2	2	0	0	DHI	—	
3321	1997/09/15	2030	255,86	8086	+27	-28	14	3	7	1	7	7	0	0	DAC	—	
				8085	-25	+37	5	1	2	1	3	2	0	0	CHO	class correct	
				8084	+22	+62	9	3	4	1	5	4	0	0	DAC	—	

CONTINUED OVERLEAF.



# GEORGI DOBROVOLSKI SOLAR OBSERVATORY

## REGION CO-ORDINATES AND CLASSIFICATIONS FOR SEPTEMBER 1997 continued.

OBS	DATE	UT	CM	REG.No	B	CMD	f	p	s	gr	grfp	grf	efp	ef	Class.	Remarks
3322	1997 / 09 / 16	2055	242,43	8086	+27	-15	13	3	8	1	5	8	0	0	DAC	—
				8085	-25	+53	3	1	1	1	2	1	0	0	CKO	—
				8084	+22	+75	6	2	2	1	4	2	0	0	DKI	—
3323	1997 / 09 / 17	2105	229,13	8086	+28	-02	15	1	13	1	2	13	0	0	CAI	—
				8085	-25	+68	3	1	1	1	2	1	0	0	CKO	—
3324	1997 / 09 / 18	2040	216,16	8086	+28	+11	8	1	6	1	2	6	0	0	CAI	—
3325	1997 / 09 / 19	2120	202,60	8086	+28	+24	5	1	3	1	2	3	0	0	CAI	—
3326	1997 / 09 / 20	2050	189,67	8086	+26	+36	3	1	2	1	1	2	0	0	CSI	—
3327	1997 / 09 / 27	2000	97,74	8088	-29	+27	6	2	3	1	3	3	0	0	DAI	—
3328	1997 / 09 / 28	2135	83,68	8088	-29	+41	4	2	1	1	3	1	0	0	DAO	—
3329	1997 / 09 / 29	2120	70,62	8088	-29	+54	3	1	1	1	2	1	0	0	CAO	—
3330	1997 / 09 / 30	2115	57,46	8090	-27	-70	1	1	0	0	0	0	1	0	HSX	—
				8088	-29	+68	3	1	1	1	2	1	0	0	CAO	—



# GEORGI DOBROVOLSKI SOLAR OBSERVATORY

## REGION CO-ORDINATES AND CLASSIFICATIONS FOR OCTOBER 1997

All observations carried out by HOWARD BARNES .  
 Telescope : 76 mm refractor ( f . l . 910 mm ) .  
 Observed by PROJECTION . Full disc diameter = 145 mm approx .  
 CM is stated in degrees .  
 Region Numbers are NOAA/SEC Numbers .  
 B = Heliographic Latitude ( + if NORTH , - if SOUTH ) .  
 CMD = Degrees of Longitude in respect to the Central Meridian ( - if EAST , + if WEST ) .

OBS	DATE	UT	CM	REG.No	B	CMD	f	p	s	gr	grp	grf	efp	ef	Class.	Remarks
3331	1997 / 10 / 01	2010	44,87	8091	+22	-75	3	0	3	1	0	3	0	0	BXI	—
				8090	-27	-58	1	1	0	0	0	0	1	0	HSX	—
3332	1997 / 10 / 05	2050	351,72	8091	+24	-23	2	0	2	1	0	2	0	0	BXO	—
				8090	-27	-05	1	1	0	0	0	0	1	0	HSX	small
3333	1997 / 10 / 06	2015	338,85	8091	+24	-09	2	0	2	1	0	2	0	0	BXO	—
				8090	-28	+08	1	0	1	0	0	0	0	1	AXX	big
3334	1997 / 10 / 07	2040	325,43	8092	+25	-58	2	0	2	1	0	2	0	0	BXO	—
				8090	-28	+22	1	0	1	0	0	0	0	1	AXX	—
3335	1997 / 10 / 12	2045	259,42	8093	+31	-04	11	3	4	1	7	4	0	0	DAC	—
				8094	+22	+49	2	0	2	1	0	2	0	0	BXO	—
3336	1997 / 10 / 13	2040	246,27	8093	+31	+09	8	2	4	1	4	4	0	0	DAI	—
				8094	+21	+61	1	0	1	0	0	0	0	1	AXX	—
3337	1997 / 10 / 14	2220	232,17	8096	+14	-62	1	0	1	0	0	0	0	1	AXX	big
				8093	+31	+23	4	1	2	1	2	2	0	0	CAI	—
3338	1997 / 10 / 15	2100	219,71	8097	+17	-81	1	0	1	0	0	0	0	1	AXX	big
				8096	+14	-50	4	1	2	1	2	2	0	0	CAI	—
				8093	+31	+35	5	1	4	1	1	4	0	0	CSI	—
3339	1997 / 10 / 16	1945	207,21	8097	+17	-69	3	1	2	1	1	2	0	0	CAI	—
				8096	+14	-37	4	1	3	1	1	3	0	0	CSI	—
				8093	+30	+48	6	2	4	1	2	4	0	0	DSI	—
3340	1997 / 10 / 19	2010	167,41	8097	+17	-29	3	1	1	1	2	1	0	0	CAI	—
				8096	+13	+02	3	1	2	1	1	2	0	0	CSI	—
3341	1997 / 10 / 20	2030	154,03	8097	+16	-15	3	1	1	1	2	1	0	0	CAO	—
				8096	+13	+14	3	0	3	1	0	3	0	0	BXI	—
3342	1997 / 10 / 21	2025	140,89	8097	+16	-02	4	1	3	1	1	3	0	0	CSI	—
				8096	+13	+27	1	0	1	0	0	0	0	1	AXX	—

CONTINUED OVERLEAF.



# GEORGI DOBROVOLSKI SOLAR OBSERVATORY

## REGION CO-ORDINATES AND CLASSIFICATIONS FOR OCTOBER 1997 continued.

OBS	DATE	UT	CM	REG.No	B	CMD	f	p	s	gr	grfp	grf	efp	ef	Class.	Remarks
3343	1997 / 10 / 26	2005	75,13	8099	+20	-54	1	1	0	0	0	0	1	0	HSX	—
				8098	-26	+26	1	0	1	0	0	0	0	1	AXX	—
3344	1997 / 10 / 27	2015	61,85	8100	-20	-70	3	0	3	1	0	3	0	0	BXI	—
				8099	+20	-41	4	1	3	1	1	3	0	0	CSI	—
				8098	-24	+39	2	0	2	1	0	2	0	0	BXO	—
3345	1997 / 10 / 29	1930	35,89	8100	-21	-46	12	2	5	1	7	5	0	0	DAI	—
				8099	+20	-15	2	1	1	1	1	1	0	0	CSO	—
3346	1997 / 10 / 30	2055	21,92	8100	-20	-32	14	2	6	1	8	6	0	0	DAI	—
				8099	+20	-01	5	1	4	1	1	4	0	0	CSI	—
3347	1997 / 10 / 31	2150	8,24	8100	-20	-18	9	2	2	1	7	2	0	0	DAI	—
				8099	+19	+15	2	1	1	1	1	1	0	0	CSI	—



# GEORGI DOBROVOLSKI SOLAR OBSERVATORY

## REGION CO-ORDINATES AND CLASSIFICATIONS FOR NOVEMBER 1997

All observations carried out by HOWARD BARNES .

Telescope : 76 mm refractor ( f . l . 910 mm ) .

Observed by PROJECTION . Full disc diameter = 145 mm approx .

CM is stated in degrees .

Region Numbers are NOAA/SEC Numbers .

B = Heliographic Latitude ( + if NORTH , - if SOUTH ) .

CMD = Degrees of Longitude in respect to the Central Meridian ( - if EAST , + if WEST ).

OBS	DATE	UT	CM	REG.No	B	CMD	f	p	s	gr	grp	grf	efp	ef	Class.	Remarks
3348	1997 / 11 / 03	1920	330,05	—	-15	-15	1	0	1	0	0	0	0	1	AXX	—
				8100	-20	+22	31	5	11	1	20	11	0	0	DKC	—
3349	1997 / 11 / 08	1945	263,90	8104	+28	-60	1	0	1	0	0	0	0	1	AXX	—
				8103	+22	+40	2	0	2	1	0	2	0	0	AXX	class correct
3350	1997 / 11 / 09	2025	250,35	8104	+29	-45	1	0	1	0	0	0	0	1	AXX	—
				8103	+21	+55	7	1	5	1	2	5	0	0	CAI	pen. small
3351	1997 / 11 / 10	1935	237,63	8106	+27	+27	2	0	2	1	0	2	0	0	BXO	—
				8103	+20	+66	11	2	5	1	6	5	0	0	DAI	—
3352	1997 / 11 / 14	2020	184,48	8108	+20	-69	8	2	6	1	2	6	0	0	DSI	—
				8107	-24	+36	5	1	4	1	1	4	0	0	CSI	—
				8106	+28	+81	1	0	1	0	0	0	0	1	AXX	—
3353	1997 / 11 / 17	1920	145,47	8109	-18	-53	3	1	2	1	1	2	0	0	CSI	—
				8108	+20	-32	19	3	10	1	9	10	0	0	EAC	—
3354	1997 / 11 / 18	2220	130,65	8109	-18	-39	6	1	5	1	1	5	0	0	CSI	—
				8108	+20	-18	24	4	13	1	11	13	0	0	EAC	—
3355	1997 / 11 / 19	1945	118,88	8109	-19	-27	4	1	3	1	1	3	0	0	CSI	—
				8108	+19	-05	18	3	10	1	8	10	0	0	EAC	—
3356	1997 / 11 / 20	2000	105,57	8109	-19	-14	2	1	1	1	1	1	0	0	CSO	—
				8108	+19	+08	25	1	18	1	7	18	0	0	CKI	—
3357	1997 / 11 / 23	2205	64,88	8111	+23	-62	4	1	3	1	1	3	0	0	CSI	—
				8109	-19	+28	2	1	1	1	1	1	0	0	CSO	—
				8108	+19	+49	9	3	3	1	6	3	0	0	EAC	—
3358	1997 / 11 / 24	1855	53,43	8111	+23	-50	4	1	3	1	1	3	0	0	CSI	—
				8109	-19	+41	1	1	0	0	0	0	1	0	HSX	small
				8108	+19	+62	6	3	2	1	4	2	0	0	DAC	—

CONTINUED OVERLEAF.





# GEORGI DOBROVOLSKI SOLAR OBSERVATORY

## REGION CO-ORDINATES AND CLASSIFICATIONS FOR NOVEMBER 1997 continued.

OBS	DATE	UT	CM	REG.No	B	CMD	f	p	s	gr	grfp	grf	efp	ef	Class.	Remarks
3359	1997 / 11 / 25	1955	39,70	8111	+23	-37	1	0	1	0	0	0	0	1	AXX	big
				8108	+19	+75	2	1	1	1	1	1	0	0	CSO	—
3360	1997 / 11 / 26	2000	26,48	8113	+20	-77	9	4	1	1	8	1	0	0	EAC	—
				8111	+23	-23	1	0	1	0	0	0	0	1	AXX	big
3361	1997 / 11 / 27	1945	13,44	8113	+20	-64	20	4	5	1	15	5	0	0	EAC	—
				8111	+22	-09	1	0	1	0	0	0	0	1	AXX	—



# GEORGI DOBROVOLSKI SOLAR OBSERVATORY

## REGION CO-ORDINATES AND CLASSIFICATIONS FOR DECEMBER 1997

All observations carried out by HOWARD BARNES .

Telescope : 76 mm refractor ( f . l . 910 mm ) .

Observed by PROJECTION . Full disc diameter = 145 mm approx .

CM is stated in degrees .

Region Numbers are NOAA/SEC Numbers .

B = Heliographic Latitude ( + if NORTH , - if SOUTH ) .

CMD = Degrees of Longitude in respect to the Central Meridian ( - if EAST , + if WEST ) .

OBS	DATE	UT	CM	REG.No	B	CMD	f	p	s	gr	grp	grf	efp	ef	Class.	Remarks	
3362	1997 / 12 / 08	1935	228,58	8118	-39	-41	2	1	1	1	1	1	0	0	CSO	—	
				8120	-21	-38	5	0	5	1	0	5	0	0	BXI	—	
				8116	+27	-01	8	1	6	1	2	6	0	0	CAI	—	
				8115	+32	+55	1	0	1	0	0	0	0	0	1	AXX	—
				8113	+20	+81	1	1	0	0	0	0	0	1	0	HHX	—
3363	1997 / 12 / 10	2130	201,17	8118	-39	-13	1	1	0	0	0	0	1	0	HSX	—	
				8120	-21	-10	6	0	6	1	0	6	0	0	BXI	—	
				8116/9	+31	+27	11	3	5	1	6	5	0	0	DAC	—	
				8121	+25	+54	1	0	1	0	0	0	0	0	1	AXX	big
3364	1997 / 12 / 11	2105	188,22	8118	-39	00	1	1	0	0	0	0	1	0	HSX	—	
				8120	-21	+03	2	0	2	1	0	2	0	0	BXO	—	
				8122	+31	+02	13	3	5	1	8	5	0	0	DAC	—	
				8116/9	+30	+40	12	3	6	1	6	6	0	0	DAC	—	
				8121	+25	+67	1	0	1	0	0	0	0	0	1	AXX	big
3365	1997 / 12 / 12	2040	175,27	8118	-39	+13	1	1	0	0	0	0	1	0	HSX	—	
				8120	-21	+16	2	0	2	1	0	2	0	0	BXO	—	
				8122	+30	+17	9	2	4	1	5	4	0	0	DAI	—	
				8116/9	+30	+52	8	3	3	1	5	3	0	0	DAC	—	
3366	1997 / 12 / 13	2020	162,28	8118	-40	+26	1	1	0	0	0	0	1	0	HSX	—	
				8122	+30	+30	6	1	4	1	2	4	0	0	CAI	—	
				8116/9	+29	+65	3	1	2	1	1	2	0	0	CSI	—	
3367	1997 / 12 / 14	2020	149,10	8123	+20	-62	1	0	1	0	0	0	0	1	AXX	—	
				8118	-40	+40	1	1	0	0	0	0	1	0	HSX	—	
				8122	+30	+44	7	3	3	1	4	3	0	0	DSC	—	
				8119	+31	+77	2	0	2	1	0	2	0	0	BXO	—	

CONTINUED OVERLEAF.



# GEORGI DOBROVOLSKI SOLAR OBSERVATORY

## REGION CO-ORDINATES AND CLASSIFICATIONS FOR DECEMBER 1997 continued.

OBS	DATE	UT	CM	REG.No	B	CMD	f	p	s	gr	grfp	grf	efp	ef	Class.	Remarks
3368	1997 / 12 / 17	2015	109,63	8123	+18	-22	7	2	3	1	4	3	0	0	DSI	—
				8122	+30	+82	1	0	1	0	0	0	0	0	1	AXX
3369	1997 / 12 / 18	2030	96,31	8123	+18	-08	9	1	7	1	2	7	0	0	CSI	—
3370	1997 / 12 / 21	2010	56,98	8124	-22	-68	6	3	2	1	4	2	0	0	DSC	—
				8123	+18	+31	2	1	1	1	1	1	0	0	CSO	—
3371	1997 / 12 / 25	2015	4,24	8126	+20	-57	2	1	0	1	2	0	0	0	HHX	—
				8124	-22	-15	17	4	9	1	8	9	0	0	EAC	—
				8127	-18	+40	2	0	2	1	0	2	0	0	BXO	—
3372	1997 / 12 / 26	2005	351,16	8126	+20	-44	2	1	0	1	2	0	0	0	HKX	—
				8124	-22	-02	15	3	9	1	6	9	0	0	EAC	—
3373	1997 / 12 / 28	2020	324,68	8126	+20	-18	6	2	0	1	6	0	0	0	DKO	—
				8124	-22	+22	14	3	8	1	6	8	0	0	DAC	—
3374	1997 / 12 / 31	2005	285,31	8130	-29	-06	10	2	5	1	5	5	0	0	DAI	—
				8126	+21	+22	9	1	2	1	7	2	0	0	CKI	—
				8124	-22	+62	6	2	2	1	4	2	0	0	DAI	—