

Soft X-ray flare indices in 1981 and 1982 years

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Abstract. The heliographic longitudinal distribution of the daily soft X-ray flare index (FI) values is given for 1981 and 1982 years (Table 1). The days, when FI exceeds the value 500 (300) are indicators of extremely large LDE activity and they are as follows: 1979 - 3 (6) days; 1980 - 3 (12); 1981 - 6 (16) and maximum in 1982 - 8 (16) days. The FI was determined from the daily continuous SMS-GOES profile of the solar soft X-ray flux (0.1 – 0.8 nm), as published in SGD. The left (right) columns of Table 1 comprise the 1981 (1982) daily data. The Eastern (E), Central (C) and Western (W) distribution of the LDE-type FIs, as well as a daily FI computed from the impulsive (I) – type flares, were so far published from 1969 to 1982.

Key words: the Sun – LDE type flares – impulsive flares – flare index (FI)

1. The description of the Table 1

In earlier papers, the LDE events, represented by 'the flare index' were taken as proxy data of Coronal Mass Ejections (Jakimiec et al., 1995; Storini et al., 1995). As is known, in some cases a connection between CMEs and LDE-type flares exists (Kahler et al., 1989; Seely and Feldman, 1992; Gosling and Hundhausen, 1995; Dryer, 1996; Bieber et al., 1999; Wood et al., 1999;). This paper gives the 1981–1982 continuation of the daily FIs. The FIs were constructed by weighing the SXR flare-classes (in units of 10^{-6} W/m^2) regardless the duration of a flare (Antalová, 1996). For example, the flare of GOES class M7.1 has FI value equal 71. The LDE-type FI values are given into E-C-W heliographic belts and their sum represents the global value for the all solar disk (D). The left (right) columns of Table 1 comprise the 1981 (1982) daily soft X-ray flare index, which was computed separately for: (i) the LDE-type flare (duration in soft X-ray ≥ 2 hours), which is identical with the flare-type known as a 'long decay' (Kahler, 1977). LDE are related to an eruptive flare definition (Švestka, 1995) and CMEs (Webb et al. 1997, 1998). LDE-type FIs are distributed into E, C, and W heliolongitudinal belts. (ii) the impulsive-type flare (lasting in SXR less than 2 hours). The following flare subsets are given in Table 1:

E - the daily FI from LDE located between $E90^\circ$ and $E45^\circ$ on the solar disk;

Table 1. The 1981 (the left E–T columns) and 1982 (right) daily values of the soft X-ray (0.1–0.8 nm) flare indices. E–C–W columns give the FI distribution of LDE-type flares located into Eastern, Central and Western solar longitudinal belts.

Date	E	C	W	D	I	T	E	C	W	D	I	T
JAN 01	0	1	3	4	13	17	0	11	10	21	26	47
JAN 02	0	4	0	4	7	11	4	12	81	97	21	118
JAN 03	0	3	5	8	17	25	4	18	0	22	45	67
JAN 04	0	0	7	7	10	17	2	8	0	10	24	34
JAN 05	49	0	1	50	18	68	0	2	0	2	22	24
JAN 06	0	0	5	5	25	30	0	6	0	6	13	19
JAN 07	3	9	8	20	15	35	0	10	0	10	30	40
JAN 08	8	25	0	33	20	53	0	0	39	39	19	58
JAN 09	1	15	1	17	10	27	0	22	24	46	78	124
JAN 10	0	4	0	4	25	29	0	2	0	2	42	44
JAN 11	0	6	1	7	17	24	0	0	17	17	20	37
JAN 12	0	2	2	4	11	15	1	1	0	2	10	12
JAN 13	1	6	0	7	13	20	0	0	20	20	9	29
JAN 14	0	3	0	3	25	28	0	1	1	2	6	8
JAN 15	0	1	0	1	18	19	0	8	0	8	7	15
JAN 16	3	6	0	9	9	18	0	2	0	2	26	28
JAN 17	1	2	0	3	7	10	0	3	0	3	27	30
JAN 18	0	3	1	4	5	9	0	8	2	10	23	33
JAN 19	0	3	0	3	7	10	0	11	2	13	49	62
JAN 20	1	1	1	3	10	13	0	3	0	3	36	39
JAN 21	0	1	0	1	10	11	0	4	8	12	41	53
JAN 22	1	1	1	3	13	16	0	2	15	17	17	34
JAN 23	1	1	0	2	9	11	0	6	0	6	10	16
JAN 24	6	17	0	23	26	49	60	32	0	92	20	112
JAN 25	347	77	0	424	160	584	0	8	0	8	40	48
JAN 26	84	55	3	142	98	240	0	0	12	12	30	42
JAN 27	78	21	2	101	58	159	17	2	0	19	65	84
JAN 28	117	17	0	134	50	184	15	94	0	109	81	190
JAN 29	3	17	4	24	59	83	7	39	0	46	69	115
JAN 30	0	11	0	11	45	56	10	210	0	220	79	299
JAN 31	2	5	1	8	53	61	3	88	0	91	72	163
FEB 01	3	20	0	23	30	53	0	343	0	343	144	487
FEB 02	2	24	0	26	19	45	0	74	12	86	157	243
FEB 03	3	17	0	20	16	36	21	148	5	174	117	291
FEB 04	14	22	0	36	13	49	0	26	20	46	97	143
FEB 05	4	34	9	47	11	58	8	59	0	67	135	202
FEB 06	21	69	18	108	22	130	19	106	105	230	97	327
FEB 07	24	16	15	55	64	119	0	45	100	145	112	257
FEB 08	0	90	8	98	30	128	0	57	143	200	93	293
FEB 09	0	50	14	64	40	104	0	141	103	244	176	420

Date	E	C	W	D	I	T	E	C	W	D	I	T
FEB 10	0	28	9	37	55	92	38	69	17	124	146	270
FEB 11	4	56	0	60	40	100	0	33	0	33	102	135
FEB 12	0	51	2	56	68	124	0	67	0	67	28	95
FEB 13	50	34	5	89	61	150	7	10	0	17	66	83
FEB 14	0	9	13	22	44	66	10	0	40	50	63	113
FEB 15	0	14	16	30	26	56	0	15	2	17	29	46
FEB 16	0	9	0	9	46	55	2	21	0	23	24	47
FEB 17	0	134	0	134	30	164	0	15	0	15	51	66
FEB 18	6	35	0	41	14	55	0	51	2	53	75	128
FEB 19	0	77	0	77	37	114	0	30	0	30	41	71
FEB 20	8	39	247	294	30	324	15	34	0	49	34	83
FEB 21	0	8	13	21	33	54	0	0	7	7	17	24
FEB 22	3	12	32	47	43	90	0	0	2	2	18	20
FEB 23	22	36	68	126	45	171	2	16	8	26	16	42
FEB 24	425	24	9	458	103	561	35	8	0	43	20	63
FEB 25	51	12	6	69	26	95	16	0	0	16	32	48
FEB 26	553	62	2	617	45	662	17	9	0	26	40	66
FEB 27	11	40	0	51	77	128	4	11	0	15	50	65
FEB 28	6	6	0	12	46	58	0	36	2	38	64	102
FEB 29	-	-	-	-	-	-	-	-	-	-	-	-
MAR 01	5	17	0	22	38	60	2	11	0	13	23	36
MAR 02	13	58	3	74	85	159	0	8	0	8	33	41
MAR 03	14	85	12	111	46	157	0	16	0	16	60	76
MAR 04	0	43	22	65	63	128	0	14	0	14	40	54
MAR 05	0	37	26	63	28	91	0	80	0	80	46	126
MAR 06	2	19	29	50	22	72	0	27	4	31	57	88
MAR 07	2	30	6	38	24	62	0	5	276	281	25	306
MAR 08	26	21	6	53	29	82	0	5	93	98	52	150
MAR 09	0	35	4	39	21	60	0	4	5	9	27	36
MAR 10	1	12	0	13	45	58	26	0	0	26	19	45
MAR 11	3	13	0	16	26	42	0	2	0	2	14	16
MAR 12	0	21	0	21	24	45	0	7	0	7	24	31
MAR 13	0	55	9	64	31	95	0	12	0	12	22	34
MAR 14	5	29	12	46	76	122	0	15	0	15	44	59
MAR 15	0	67	44	111	41	152	0	35	0	35	26	61
MAR 16	2	14	15	31	26	57	0	20	0	20	86	106
MAR 17	0	6	3	9	49	58	0	14	0	14	80	94
MAR 18	14	26	0	40	35	75	0	43	0	43	90	133
MAR 19	12	7	3	22	27	49	2	62	0	64	68	132
MAR 20	9	22	5	36	52	88	0	12	0	12	64	76
MAR 21	36	35	0	71	86	157	0	4	16	20	27	47
MAR 22	7	25	0	32	177	209	0	27	6	33	79	112
MAR 23	1	26	14	41	107	148	18	0	7	25	32	57
MAR 24	0	11	23	34	78	112	26	6	0	32	52	84
MAR 25	0	13	207	220	76	296	15	2	0	17	67	84

Date	E	C	W	D	I	T	E	C	W	D	I	T
MAR 26	0	45	0	45	43	88	5	6	0	11	68	79
MAR 27	0	52	9	61	20	81	0	78	0	78	72	150
MAR 28	2	28	10	40	47	87	0	27	0	27	77	104
MAR 29	0	16	9	25	28	53	0	9	17	26	93	119
MAR 30	5	28	46	79	37	116	0	327	0	327	115	442
MAR 31	2	36	20	58	22	80	0	113	0	113	165	278
APR 01	8	216	232	456	7	463	9	5	74	88	21	109
APR 02	3	10	256	269	26	295	0	2	67	69	41	110
APR 03	11	77	99	187	35	222	0	10	6	16	68	84
APR 04	108	21	170	299	67	366	0	4	21	25	32	57
APR 05	9	29	0	38	53	91	0	12	15	27	10	37
APR 06	50	37	0	87	17	104	0	4	0	4	10	14
APR 07	5	56	3	64	56	120	2	3	0	5	12	17
APR 08	68	165	0	233	89	322	2	0	0	2	12	14
APR 09	102	153	0	255	92	347	13	12	0	25	28	53
APR 10	188	321	0	509	108	617	2	22	0	24	34	58
APR 11	30	143	0	173	140	313	0	27	10	37	44	81
APR 12	0	175	15	190	118	308	0	17	6	23	42	65
APR 13	17	53	33	103	117	220	0	6	0	6	26	32
APR 14	41	49	8	98	97	195	0	32	0	32	63	95
APR 15	19	90	44	153	167	320	0	6	0	6	17	23
APR 16	3	140	0	143	55	198	0	0	4	4	35	39
APR 17	0	88	0	88	47	135	0	0	0	0	14	14
APR 18	0	407	6	413	49	462	0	4	4	8	17	25
APR 19	0	24	90	114	60	174	0	30	0	30	15	45
APR 20	0	10	166	176	41	217	0	0	0	0	6	6
APR 21	2	16	2	20	37	57	0	4	0	4	2	6
APR 22	3	46	27	76	32	108	38	2	0	40	16	56
APR 23	6	12	0	18	30	48	0	5	0	5	31	36
APR 24	0	192	665	857	81	938	0	2	0	2	34	36
APR 25	31	0	30	61	63	124	0	4	0	4	28	32
APR 26	15	25	316	356	136	492	0	5	0	5	10	15
APR 27	0	78	708	786	25	811	2	2	0	4	17	21
APR 28	120	27	5	152	41	193	1	0	0	1	29	30
APR 29	2	2	0	4	22	26	0	2	25	27	15	42
APR 30	5	2	0	7	5	12	0	2	0	2	18	20
MAY 01	11	3	0	14	13	27	0	5	0	5	8	13
MAY 02	7	7	0	14	19	33	24	2	0	26	30	56
MAY 03	0	15	0	15	21	36	7	0	0	7	50	57
MAY 04	0	131	0	131	15	146	10	0	0	10	17	27
MAY 05	0	202	0	202	49	251	0	1	0	1	9	10
MAY 06	3	14	2	19	46	65	0	2	0	2	11	13
MAY 07	5	16	8	29	27	56	0	10	0	10	13	23
MAY 08	4	91	6	101	35	136	0	2	0	2	8	10
MAY 09	0	44	34	78	39	117	0	2	0	2	7	9

Date	E	C	W	D	I	T	E	C	W	D	I	T
MAY 10	2	134	22	158	39	197	0	7	0	7	2	9
MAY 11	18	69	2	89	79	168	0	0	0	0	10	10
MAY 12	17	13	3	33	60	93	0	1	3	4	26	30
MAY 13	207	17	0	224	53	277	5	0	2	7	5	12
MAY 14	0	55	5	60	40	100	0	3	0	3	5	8
MAY 15	0	17	0	17	50	67	1	1	0	2	4	6
MAY 16	3	127	3	133	48	181	0	5	0	5	5	10
MAY 17	0	15	0	15	9	24	2	6	0	8	15	23
MAY 18	2	20	0	22	19	41	70	3	0	73	18	91
MAY 19	2	14	2	18	9	27	0	27	0	27	28	55
MAY 20	0	20	1	21	19	40	0	64	0	64	13	77
MAY 21	3	4	0	7	18	25	3	84	0	87	19	106
MAY 22	1	3	1	5	19	24	0	49	0	49	73	122
MAY 23	7	6	1	14	7	21	0	25	0	25	34	59
MAY 24	4	13	28	45	30	75	0	6	0	6	17	23
MAY 25	7	13	7	27	18	45	1	3	0	4	33	37
MAY 26	2	9	0	11	13	24	0	6	17	23	52	75
MAY 27	3	8	2	13	13	26	3	17	6	26	96	122
MAY 28	0	2	1	3	13	16	0	22	23	46	112	158
MAY 29	1	6	1	8	3	11	135	0	4	139	96	235
MAY 30	1	1	1	3	9	12	25	36	21	82	27	109
MAY 31	2	2	1	5	4	9	2	10	12	24	35	59
JUN 01	0	5	1	6	6	12	1	7	0	8	11	19
JUN 02	0	4	3	7	5	12	6	14	0	20	141	161
JUN 03	5	6	1	12	6	18	82	0	0	82	883	965
JUN 04	4	5	2	11	2	13	725	25	0	750	585	1335
JUN 05	1	1	1	3	2	5	61	185	0	246	183	429
JUN 06	0	0	3	3	3	6	0	1298	0	1298	60	1358
JUN 07	1	6	1	8	8	16	0	45	0	45	120	165
JUN 08	17	4	0	21	6	27	0	64	0	64	46	110
JUN 09	8	9	0	17	16	33	10	40	0	50	60	110
JUN 10	6	1	0	7	32	39	0	91	19	110	84	194
JUN 11	8	1	0	9	15	24	0	39	58	97	113	210
JUN 12	0	7	0	7	25	32	456	0	36	492	134	626
JUN 13	1	4	1	6	12	18	290	10	44	334	153	487
JUN 14	0	13	1	14	16	30	174	6	36	216	196	412
JUN 15	2	3	0	5	12	17	424	453	54	931	77	1008
JUN 16	0	6	2	8	32	40	35	223	0	258	53	311
JUN 17	0	8	6	14	78	92	0	103	0	103	67	170
JUN 18	1	21	2	24	7	31	3	18	0	21	87	108
JUN 19	1	4	2	7	16	23	0	43	0	43	83	126
JUN 20	0	8	0	8	20	28	0	139	0	139	107	146
JUN 21	9	2	2	13	17	30	0	395	0	395	88	483
JUN 22	7	27	1	35	15	50	0	119	0	119	77	196

Date	E	C	W	D	I	T	E	C	W	D	I	T
JUN 23	30	60	0	90	59	149	0	122	0	122	83	205
JUN 24	22	65	0	87	45	132	0	35	14	49	44	93
JUN 25	47	65	0	112	61	173	0	0	90	90	69	159
JUN 26	21	108	0	129	37	166	0	0	300	300	47	347
JUN 27	29	67	1	97	102	199	0	5	72	77	10	87
JUN 28	2	10	2	14	39	53	0	8	8	16	15	31
JUN 29	2	69	17	78	29	107	3	3	3	9	3	12
JUN 30	0	6	0	6	22	28	0	2	0	2	2	4
JUL 01	0	6	0	6	13	19	1	0	0	1	0	1
JUL 02	0	33	4	37	31	68	0	0	0	0	5	5
JUL 03	0	44	48	92	53	145	6	0	0	6	17	23
JUL 04	0	8	6	14	30	44	30	0	0	30	8	38
JUL 05	3	0	6	9	10	19	2	0	0	2	4	6
JUL 06	0	6	0	6	1	7	1	4	0	5	14	19
JUL 07	0	0	19	19	6	25	8	20	2	30	14	44
JUL 08	1	2	26	29	33	62	246	0	0	246	79	325
JUL 09	23	2	11	36	25	61	260	0	0	260	1139	1399
JUL 10	22	2	0	24	32	56	160	64	0	224	186	410
JUL 11	1	10	0	11	38	49	58	103	0	161	263	424
JUL 12	0	28	0	28	54	82	0	883	0	883	247	1130
JUL 13	0	8	8	16	17	33	28	108	0	136	183	319
JUL 14	0	7	2	9	17	26	89	131	0	220	210	430
JUL 15	0	110	0	110	18	128	0	152	0	152	210	362
JUL 16	0	97	0	97	67	164	0	189	0	189	170	359
JUL 17	170	120	6	296	59	355	28	562	13	603	181	784
JUL 18	53	28	63	144	95	239	0	35	31	66	154	220
JUL 19	387	56	151	594	145	739	0	352	151	503	102	605
JUL 20	0	24	107	131	83	214	0	50	118	168	244	412
JUL 21	0	103	0	103	65	168	9	40	50	99	72	171
JUL 22	20	50	0	70	85	155	0	0	114	114	58	172
JUL 23	45	52	0	97	57	154	0	0	7	7	18	25
JUL 24	41	31	0	72	72	144	0	1	4	5	15	20
JUL 25	0	74	6	80	54	134	0	1	15	16	4	20
JUL 26	0	494	25	519	443	962	0	3	0	3	0	3
JUL 27	0	305	10	315	163	478	1	1	0	2	0	2
JUL 28	0	44	0	44	60	104	0	2	0	2	0	2
JUL 29	4	5	1	10	51	61	0	0	0	0	2	2
JUL 30	0	76	4	80	104	184	1	2	0	3	4	7
JUL 31	0	23	5	28	88	116	1	1	0	2	4	6
AUG 01	0	12	7	19	35	54	1	18	0	19	2	21
AUG 02	0	15	11	26	25	51	0	36	0	36	16	52
AUG 03	135	18	0	153	120	273	0	18	0	18	30	48
AUG 04	64	15	10	89	125	314	7	34	0	41	41	82
AUG 05	13	0	0	13	55	68	0	0	0	0	38	38
AUG 06	14	5	2	21	33	54	7	2	0	9	101	110

Date	E	C	W	D	I	T	E	C	W	D	I	T
AUG 07	0	68	0	68	21	89	25	11	13	49	75	124
AUG 08	0	33	0	33	18	51	17	39	5	61	126	187
AUG 09	0	12	0	12	21	33	5	31	0	36	43	79
AUG 10	12	51	0	63	9	72	25	18	0	43	71	114
AUG 11	6	57	4	67	70	137	0	20	0	20	61	81
AUG 12	14	284	3	301	54	355	0	8	2	10	66	76
AUG 13	14	98	68	180	56	236	0	11	5	16	72	88
AUG 14	10	40	37	87	59	146	0	2	24	26	123	149
AUG 15	5	2	72	79	34	113	0	7	0	7	44	51
AUG 16	9	12	10	31	71	102	0	8	0	8	33	41
AUG 17	8	12	0	20	54	74	2	2	0	4	63	67
AUG 18	3	15	2	20	55	75	17	0	0	17	77	94
AUG 19	4	46	4	54	40	94	6	0	2	8	44	52
AUG 20	2	42	0	44	84	128	2	2	4	8	33	41
AUG 21	4	87	10	101	78	179	0	2	1	3	27	30
AUG 22	3	34	2	39	72	111	1	1	0	2	12	14
AUG 23	6	13	2	21	45	66	0	6	0	6	10	16
AUG 24	5	19	0	24	44	88	0	3	0	3	7	10
AUG 25	0	32	0	32	36	68	0	7	0	7	16	23
AUG 26	7	49	6	62	72	134	0	23	0	23	21	44
AUG 27	70	129	2	201	74	275	0	37	0	37	87	124
AUG 28	37	16	18	71	110	181	2	4	3	9	156	165
AUG 29	42	24	34	100	142	242	2	10	4	16	17	33
AUG 30	54	52	10	116	165	281	0	7	0	7	13	20
AUG 31	29	23	33	85	45	130	18	24	13	55	17	72
SEP 01	17	26	7	50	68	118	74	15	0	89	41	130
SEP 02	0	14	5	19	63	82	11	0	0	11	62	73
SEP 03	0	99	0	99	45	144	3	5	3	11	50	61
SEP 04	3	11	2	16	26	42	0	188	5	193	58	251
SEP 05	44	17	10	71	201	272	8	0	0	8	39	47
SEP 06	23	17	2	42	82	124	0	2	0	2	26	28
SEP 07	0	167	15	182	187	369	9	5	4	18	32	50
SEP 08	0	50	8	58	59	117	0	16	0	16	36	52
SEP 09	0	76	10	86	95	181	6	29	0	35	44	79
SEP 10	0	50	0	50	144	194	9	0	2	11	30	41
SEP 11	5	77	9	91	35	126	0	2	0	2	32	34
SEP 12	0	88	0	88	171	259	2	11	0	13	21	34
SEP 13	0	28	0	28	25	43	0	7	0	7	17	24
SEP 14	3	20	4	27	14	41	0	0	0	0	29	29
SEP 15	7	33	18	58	276	334	3	2	0	5	39	44
SEP 16	0	16	7	23	31	54	0	2	0	2	15	17
SEP 17	0	10	2	17	39	56	0	4	0	4	15	19
SEP 18	2	8	0	10	50	60	0	0	0	0	17	17
SEP 19	88	7	1	96	33	129	0	11	0	11	13	24
SEP 20	0	9	0	9	14	23	0	0	0	0	10	10

Date	E	C	W	D	I	T	E	C	W	D	I	T
SEP 21	0	3	2	5	31	36	0	2	0	2	18	20
SEP 22	15	1	0	16	12	28	0	6	0	6	29	35
SEP 23	0	2	0	2	26	28	3	0	0	3	8	11
SEP 24	0	5	2	7	20	27	2	0	2	4	44	48
SEP 25	0	7	0	7	14	21	2	0	0	2	9	11
SEP 26	0	2	0	2	13	15	6	16	5	27	30	57
SEP 27	0	5	0	5	27	32	0	14	0	14	24	38
SEP 28	0	11	2	13	33	46	0	10	0	10	27	37
SEP 29	0	19	0	19	35	54	0	8	0	8	52	60
SEP 30	2	7	4	13	32	45	5	0	0	5	88	93
OCT 01	20	14	0	34	43	77	0	6	0	6	24	30
OCT 02	0	41	3	44	49	93	0	5	4	9	44	53
OCT 03	6	47	4	57	33	90	0	2	3	5	35	40
OCT 04	0	16	30	46	35	81	0	0	6	6	21	27
OCT 05	0	7	2	9	24	33	0	9	9	18	26	44
OCT 06	0	16	2	18	33	51	2	0	12	14	34	48
OCT 07	363	17	7	387	86	473	0	0	4	4	30	34
OCT 08	2	8	16	26	90	116	0	1	0	1	3	4
OCT 09	18	8	2	28	45	73	0	2	0	2	3	5
OCT 10	17	34	0	51	123	174	0	2	0	2	5	7
OCT 11	0	17	3	20	109	129	0	1	0	1	13	14
OCT 12	0	468	0	468	163	631	0	2	0	2	8	10
OCT 13	55	30	0	85	98	183	0	2	0	2	9	11
OCT 14	310	37	0	347	138	485	3	2	0	5	19	24
OCT 15	19	12	0	31	157	188	0	8	0	8	21	29
OCT 16	10	80	0	90	88	178	0	7	0	7	8	15
OCT 17	0	27	0	27	103	130	0	0	0	0	7	7
OCT 18	9	24	30	54	24	78	2	5	0	7	6	13
OCT 19	2	27	4	33	24	57	0	3	0	3	15	18
OCT 20	3	40	0	43	78	121	0	1	0	1	7	8
OCT 21	0	32	0	32	55	87	0	14	0	14	45	59
OCT 22	4	0	0	4	37	41	8	4	0	12	22	34
OCT 23	9	0	0	9	16	25	0	12	0	12	44	56
OCT 24	0	2	22	24	36	60	0	37	0	37	57	94
OCT 25	0	4	3	7	28	35	0	61	2	63	68	131
OCT 26	0	2	0	2	2	4	0	7	0	7	63	70
OCT 27	0	2	10	12	26	38	0	42	0	42	80	122
OCT 28	0	2	12	14	23	37	0	7	0	7	33	40
OCT 29	3	2	0	5	26	31	0	14	2	16	35	51
OCT 30	0	6	0	6	17	23	0	5	0	5	19	24
OCT 31	2	8	0	10	36	46	0	2	0	2	8	10
NOV 01	0	13	0	13	75	88	0	18	0	18	23	41
NOV 02	0	9	0	9	47	56	0	0	10	10	44	54
NOV 03	0	18	2	20	57	97	0	0	4	4	28	32
NOV 04	2	21	0	23	79	102	0	0	4	4	28	32

Date	E	C	W	D	I	T	E	C	W	D	I	T
NOV 05	14	24	4	42	88	130	0	2	0	2	1	3
NOV 06	4	9	3	16	72	88	0	2	0	2	17	19
NOV 07	0	11	0	11	77	88	0	4	0	4	6	10
NOV 08	0	13	0	13	80	93	7	3	0	10	21	31
NOV 09	0	59	0	59	55	114	12	0	0	12	14	26
NOV 10	0	5	0	5	60	65	38	0	0	38	18	56
NOV 11	0	13	0	13	67	80	2	13	0	15	33	48
NOV 12	0	148	0	148	84	232	0	215	0	215	63	278
NOV 13	10	39	0	49	173	222	0	97	0	97	136	233
NOV 14	12	3	60	75	118	193	2	2	1	5	34	39
NOV 15	0	0	0	0	113	113	0	103	0	103	33	136
NOV 16	0	2	5	7	24	31	2	51	0	53	34	87
NOV 17	0	0	0	0	42	42	0	40	0	40	39	79
NOV 18	0	9	5	14	92	106	0	28	0	28	29	57
NOV 19	0	10	0	10	21	31	0	19	0	19	45	64
NOV 20	0	0	0	0	22	22	0	23	0	23	93	116
NOV 21	0	2	0	2	28	30	0	42	15	57	125	182
NOV 22	0	25	2	27	35	62	0	106	9	115	151	266
NOV 23	6	0	1	7	19	26	20	0	14	34	111	145
NOV 24	0	4	0	4	13	17	0	8	7	15	72	87
NOV 25	0	7	2	9	35	44	0	4	0	4	99	103
NOV 26	8	2	0	10	24	34	0	16	458	474	68	542
NOV 27	0	5	0	5	26	31	0	12	0	12	24	36
NOV 28	0	2	0	2	30	32	7	2	0	9	76	85
NOV 29	0	23	0	23	46	69	0	5	0	5	56	61
NOV 30	2	19	0	21	53	74	0	3	0	3	36	39
DEC 1	5	74	0	79	69	148	0	2	0	2	11	13
DEC 2	2	13	0	15	49	64	54	15	0	69	32	101
DEC 3	0	5	5	10	67	77	41	10	0	51	34	85
DEC 4	19	6	0	25	60	85	0	65	0	65	94	159
DEC 5	3	9	0	12	67	79	4	31	0	35	110	145
DEC 6	4	8	0	12	55	67	15	19	7	41	92	133
DEC 7	29	33	9	71	69	140	45	0	298	343	456	799
DEC 8	0	6	5	11	128	139	167	25	0	192	169	361
DEC 9	0	126	0	126	46	172	16	67	0	83	343	426
DEC 10	0	22	0	22	102	124	10	200	18	278	229	507
DEC 11	0	0	4	4	54	58	90	16	21	127	158	285
DEC 12	0	56	45	101	45	146	0	4	10	14	58	72
DEC 13	0	7	20	27	30	57	142	22	0	164	53	217
DEC 14	0	4	0	4	39	43	0	27	0	27	59	86
DEC 15	0	3	10	13	76	89	0	1899	0	1899	54	1953
DEC 16	0	5	11	16	5	21	0	228	0	228	87	315
DEC 17	0	0	3	3	9	12	0	1139	58	1197	92	1289
DEC 18	0	1	0	1	6	7	0	119	9	128	204	332
DEC 19	0	0	0	0	4	4	0	10	96	106	109	215

Date	E	C	W	D	I	T	E	C	W	D	I	T
DEC 20	0	1	0	1	7	8	0	0	15	15	51	66
DEC 21	0	1	0	1	4	5	6	0	30	36	44	80
DEC 22	0	0	0	0	10	10	0	11	240	251	47	298
DEC 23	0	1	0	1	5	6	6	5	0	11	12	23
DEC 24	1	4	0	5	8	13	0	6	10	16	25	41
DEC 25	0	2	2	4	13	17	20	105	0	125	31	156
DEC 26	0	0	2	2	9	11	0	26	0	26	54	80
DEC 27	0	12	0	12	37	49	0	0	5	5	70	75
DEC 28	30	7	0	37	30	67	0	4	0	4	76	80
DEC 29	0	2	0	2	18	20	0	190	2	192	42	234
DEC 30	0	4	0	4	22	26	0	92	0	92	204	296
DEC 31	0	0	0	0	12	12	0	8	1	9	19	28

C - the FI for LDE-type flares located from E44° to W44° on the Sun;
W - the same as above but for LDE-type flares located from W45° to W90°;
D - the soft X-ray flare index of all LDE-type flares observed in the given day;
I - the daily flare index of the impulsive-type flares;
T - the daily flare index of all soft X-ray flares (total, $T = D + I$).

The role of the CMEs (using large values of FI, as proxy data) in producing the nonrecurrent geomagnetic storms has been confirmed by Landi and Storini (1997) as well as Landi et al. (1998).

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