

Near-Earth ICMEs Compiled by Hilary Cane and Ian Richardson (JGR 108, 2003)
 Rev. Jul 21, 2004

Disturbance Time (UT)	Note a	ICME Start (UT)	ICME End (UT)	Qual.Note b	SC Note c (gamma)	V{ej} (km/s)	V{max} (km/s)	B (nT)	MC?	Dst (nT)	Vtr (km/s)	LASCO CME	Note d
1996													
May 27 1500		May 27 1500	May 29 0000	2	...	370	400	9	2	-33	...		
July 01 1320		July 01 1800	July 02 1100	2	0	360	370	10	2	-20	...		
Aug. 07 1300		Aug. 07 1300	Aug. 08 1000	2	...	350	380	7	2	-23	...		
Dec. 23 1600		Dec. 23 1700	Dec. 25 1000	2	...	360	420	10	2	-18	435	Dec. 19 1630	H
1997													
Jan. 10 0104		Jan. 10 0400	Jan. 11 0200	1	9	450	460	14	2	-78	507	Jan. 06 1510	H
Feb. 09 1321		Feb. 10 0200	Feb. 10 1900	1	22	450	600	8	2	-68	683	Feb. 07 0030	H
Feb. 16 1600		Feb. 16 2300	Feb. 17 1800	1	...	350	350	9	1	-54	...		
April 10 1745		April 11 0600	April 11 2000	1	0	430	420	22	0	-82	552	April 07 1427	H
April 21 0600		April 21 1000	April 23 0400	2	...	400	400	12	2	-107	...		
May 15 0159		May 15 0900	May 16 0000	1	33	450	430	23	2	-115	616	May 12 0630	H
May 26 0957		May 26 1600	May 27 1000	2	2	350	350	10	1	-74	381	May 21 2100	
June 08 1636		June 08 1800	June 10 0000	2	0	380	400	12	2	-84	...		
June 19 0032		June 19 0700	June 20 2300	2	0	360	390	8	2	-36	...		
July 15 0311		July 15 0800	July 16 1100	1	0	350	360	12	2	-45	...		
Aug. 03 1042		Aug. 03 1300	Aug. 04 0300	1	0	400	480	16	2	-48	410	July 30 0445	H
Aug. 17 0200		Aug. 17 0600	Aug. 17 2000	1	...	390	410	7	0	-28	...		
Sept. 03 0800		Sept. 03 1300	Sept. 03 2100	1	...	400	490	15	0	-98	405	Aug. 30 0130	H
Sept. 17 0800		Sept. 17 1600	Sept. 18 0200	1	...	330	350	8	2	-45	...		
Sept. 21 1651		Sept. 21 2100	Sept. 22 1600	1	0	450	470	20	2	-36	450	Sept. 17 2028	H
Oct. 01 0059		Oct. 01 1600	Oct. 02 2300	2	23	450	470	10	2	-98	580	Sept. 28 0108	H
Oct. 10 1612		Oct. 10 2200	Oct. 12 0000	1	15	400	450	12	2	-130	430	Oct. 06 1528	
Oct. 26 1200		Oct. 27 0000	Oct. 28 0700	2	...	500	520	7	1	-60	572	Oct. 23 1126	H
Nov. 06 2248		Nov. 07 0400	Nov. 09 1200	1	33	400	460	15	2	-110	640	Nov. 04 0610	H
Nov. 22 0949		Nov. 22 1500	Nov. 23 1400	2	34	510	510	17	2	-108	600	Nov. 19 1227	H
Dec. 10 0526		Dec. 10 1800	Dec. 12 0000	1	32	350	380	15	0	-60	460	Dec. 06 1027	
Dec. 30 0209		Dec. 30 1200	Dec. 31 1100	3	11	390	360	12	1	-77	430	Dec. 26 0231	
1998													
Jan. 06 1416		Jan. 07 0100	Jan. 08 2200	2	29	400	410	16	2	-83	480	Jan. 02 2328	H
Jan. 09 0700		Jan. 09 0700	Jan. 10 0800	2	...	450	500	6	0	-45	...		
Jan. 20 0000		Jan. 20 1700	Jan. 21 0400	2	...	430	450	5	1	-42	...		
Jan. 21 0400		Jan. 21 0600	Jan. 22 1300	3	...	380	400	12	0	-27	430	Jan. 17 0409	H
Jan. 28 1800		Jan. 29 1800	Jan. 31 0100	2	...	350	400	7	0	-72	421	Jan. 25 1526	H
Feb. 04 0000		Feb. 04 0400	Feb. 05 2300	1	...	320	390	11	2	-50	...		
Feb. 17 0400		Feb. 17 1000	Feb. 17 2100	2	...	400	400	12	1	-102	602	Feb. 14 0655	
Feb. 18 0750 (A)		Feb. 18 2300	Feb. 20 0000	2	...	440	460	9	1	-66	...		
March 04 1156		March 04 1300	March 06 0900	1	0	350	380	12	2	-56	440	Feb. 28 1248	
March 06 0300		March 06 1500	March 07 1600	1	...	330	330	7	1	-25	...		
March 25 1000		March 25 1300	March 26 1000	1	...	400	400	10	0	-72	...		
April 11 2300		April 11 2300	April 13 1800	3	...	390	390	8	0	-56	...		
May 01 2156		May 02 0500	May 03 1700	2	29	520	650	10	2	-100	780	April 29 1658	H
May 04 0215 (A)		May 04 1000	May 08 0000	3	...	550	780	12	0	-216	1150	May 02 1406	H Note e
May 15 1451		May 15 2300	May 16 0800	2	0	400	340	15	0	-14	...		
May 29 1536		May 29 2200	May 30 1600	3	0	700	700	10	1	-58	...		
June 02 0800		June 02 1000	June 02 1800	2	...	390	400	11	2	-14	...		
June 13 1925		June 14 0400	June 15 0600	2	0	350	400	11	1	-68	...		
June 24 1000		June 24 1300	June 25 2100	2	...	450	540	13	2	-33	...	June 21 0535?	
June 25 1636		June 26 0000	June 26 1900	1	0	460	490	10	0	-111	...		
July 05 0500		July 06 0600	July 09 0700	1	...	450	630	5	0	-37	dg	dg	
July 10 2300		July 11 0000	July 13 1500	2	...	400	400	10	0	-45	dg	dg	
July 30 2333		July 31 0600	July 31 1600	3	0	410	430	13	1	-51	dg	dg	
Aug. 01 0400		Aug. 01 0400	Aug. 03 0300	3	...	410	450	7	1	-30	dg	dg	
Aug. 05 1300		Aug. 05 1300	Aug. 06 1200	2	...	360	420	13	1	-166	dg	dg	
Aug. 07 1800		Aug. 07 2300	Aug. 09 2300	2	...	450	500	7	0	-73	dg	dg	
Aug. 10 0046		Aug. 10 1100	Aug. 11 0800	3	11	400	500	8	0	-37	dg	dg	

Aug. 11 2300	Aug. 12 0100	Aug. 13 1400	3	...	380	420	7	1	-28	dg	dg		
Aug. 19 1847	Aug. 20 0600	Aug. 21 2000	1	0	300	340	14	2	-86	dg	dg		
Aug. 26 0651	Aug. 26 2200	Aug. 28 0000	2	53	650	860	14	0	-188	1260	dg (Aug. 24 2200)		
Sept. 24 2345	Sept. 25 0600	Sept. 26 1600	1	45	620	770	20	2	-234	1130	dg (Sept. 23 1100)		
Oct. 18 1952	Oct. 19 0400	Oct. 20 0700	2	22	400	410	18	2	-139	508	Oct. 15 1004	H	
Oct. 23 1230 (A)	Oct. 23 1900	Oct. 25 1000	3	...	500	600	5	0	-60	...			
Nov. 07 0815	Nov. 07 2200	Nov. 08 1200	2	13	450	530	15	1	-92	550	Nov. 04 0418	H	
Nov. 08 0451	Nov. 08 1900	Nov. 10 2000	2	0	450	640	12	2	-148	740	Nov. 05 2044	H	
Nov. 13 0143	Nov. 13 0200	Nov. 14 1200	2	0	390	400	17	0	-134	520	Nov. 09 1818		
Nov. 30 0507	Nov. 30 0900	Dec. 01 0600	3	24	400	470	8	0	0	...			
Dec. 28 1826	Dec. 29 1800	Dec. 31 0200	2	11	400	410	8	0	-53	dg	dg		
1999													
Jan. 04 0000	Jan. 04 0400	Jan. 04 2200	3	...	350	360	8	0	-28	dg	dg		
Jan. 13 1054	Jan. 13 1500	Jan. 13 2200	2	18	420	420	20	0	-113	dg	dg		
Jan. 22 1950 (A)	Jan. 23 0900	Jan. 24 0200	3	...	530	670	12	0	-49	dg	dg		
Feb. 13 1900	Feb. 13 1900	Feb. 14 1500	3	dg	440	470	9	0	-22	...			
Feb. 18 0246	Feb. 18 1000	Feb. 21 0000	2	41	520	700	8	2	-134	870	dg (Feb. 16 0312)		
March 10 0130	March 10 1700	March 12 1200	2	8	410	460	7	0	-78	...			
April 16 1125	April 16 1800	April 17 1900	1	18	400	450	20	2	-105	520	April 13 0330	H	
April 20 1600	April 21 0400	April 22 1600	1	...	500	620	8	1	-32	...	April 18 0830?		
May 15 1600	May 15 1600	May 18 0000	2	...	390	400	5	0	-10	...			
June 02 2000	June 02 2300	June 03 2200	2	...	430	470	9	1	-6	...			
June 26 0325	June 26 0600	June 26 1900	3	8	350	350	15	1	-20	520	June 22 1854	H	
June 26 2016	June 27 1400	June 28 1400	3	36	680	880	8	0	-43	760	June 24 1331	H	
July 02 0059	July 02 2200	July 06 0600	2	11	450	650	5	0	-34	...			
July 06 1509	July 06 2100	July 08 0400	3	15	440	450	5	1	-8	620	July 03 1954		
July 27 0000	July 27 1700	July 29 0600	3	...	390	430	6	0	-40	560	July 23 2130		
July 30 1600	July 30 2000	July 31 0800	3	...	500	660	8	1	-60	710	July 28 0530?	H	
July 31 1837	July 31 1900	Aug. 02 0600	3	17	480	650	5	1	-37	510	July 28 0906	H	
Aug. 02 1100	Aug. 02 1400	Aug. 03 1100	3	...	370	400	4	0	-21	...			
Aug. 08 1841	Aug. 08 1900	Aug. 10 1700	2	0	360	420	9	2	-62	...			
Aug. 11 2300	Aug. 12 2000	Aug. 14 0000	3	...	370	420	7	0	-24	615	Aug. 09 0326		
Aug. 20 2300	Aug. 20 2300	Aug. 23 1600	2	...	450	570	8	1	-80	510	Aug. 17 1331		
Sept. 22 1222	Sept. 22 1900	Sept. 24 1800	1	36	510	600	10	0	-164	770	Sept. 20 0606	H	
Oct. 21 0225	Oct. 21 0800	Oct. 22 0700	2	42	500	580	20	0	-231	561	Oct. 18 0026	H	
Nov. 11 1900	Nov. 12 1000	Nov. 13 1800	1	...	450	680	5	0	-100	dg	dg		
Nov. 22 0000	Nov. 22 0000	Nov. 24 0300	3	...	450	490	9	0	-38	dg	dg		
Dec. 12 1551	Dec. 12 1900	Dec. 13 1600	2	16	520	700	12	0	-92	dg	dg		
Dec. 13 2300	Dec. 14 0400	Dec. 14 2000	2	...	440	480	12	0	-37	dg	dg		
Dec. 26 2130 (A)	Dec. 27 1100	Dec. 28 0400	2	...	430	450	8	1	-9	...			
2000													
Jan. 18 1500	Jan. 19 0300	Jan. 19 1500	2	...	270	330	7	0	-5	...			
Jan. 22 0023	Jan. 22 1700	Jan. 23 0200	2	...	380	415	16	1	-91	530	Jan. 18 1754	H	
Feb. 11 0258	Feb. 11 1600	Feb. 11 2000	1	0	420	505	7	0	-25	630	Feb. 08 0930	H	
Feb. 11 2352	Feb. 12 1200	Feb. 13 0000	2	49	540	590	13	1	-169	915	Feb. 10 0230	H	
Feb. 14 0731	Feb. 15 0000	Feb. 16 0800	3	0	500	686	5	0	-88	815	Feb. 12 0431	H	
Feb. 20 2139	Feb. 21 0500	Feb. 22 1400	2	24	400	460	16	2	-20	560	Feb. 17 2006	H	
March 01 0130	March 01 0300	March 02 0300	1	...	480	530	8	0	-49	...			
March 09 2300	March 10 0100	March 10 0600	2	...	390	400	6	1	0	...			
March 18 2200	March 19 0200	March 19 1200	1	...	380	390	9	0	-2	...			
March 29 1100	March 29 1900	March 31 2300	2	...	420	590	6	0	-58	...			
April 06 1639	April 07 0700	April 08 1800	2	74	550	620	5	1	-321	860	April 04 1632	H	
April 24 0400	April 24 0400	April 24 1400	2	...	490	520	13	0	-7	...			
April 27 1800	April 27 1800	April 28 0100	1	...	400	410	10	1	-15	...			
May 02 1045 (A)	May 02 2000	May 05 1000	3	...	500	860	6	0	-38	...	April 29 0154?		
May 06 1600	May 07 0000	May 08 1600	3	...	380	440	10	0	-4	...			
May 13 1700	May 13 1700	May 14 1800	2	...	500	600	8	0	0	603	May 10 2006		
May 15 1900	May 15 1900	May 16 1200	3	...	430	450	8	0	-25	...			
May 16 2300	May 16 2300	May 17 0700	2	...	550	580	9	1	-88	500	May 13 1226		
May 23 0700	May 23 1000	May 23 2100	2	...	570	610	12	0	0	650	May 20 1450		
May 23 2300	May 24 1200	May 26 1600	2	...	550	690	5	1	-147	653	May 21 0726		

June 04 1502	June 05 0000	June 06 2200	3	17	470	560	10	1	-35	403	May 31 0806	
June 08 0910	June 08 1600	June 10 1700	3	59	550	790	10	0	-87	1007	June 06 1554	H
June 11 0801	June 11 0700	June 11 1800	2	0	510	530	11	1	-41	...		
June 12 2208	June 13 1200	June 14 0600	2	0	440	550	7	0	-39	...		
June 18 0900	June 18 0900	June 18 1700	2	...	380	400	6	1	-9	...		
June 23 1303	June 24 0200	June 26 0800	2	37	500	590	8	0	-33	...		
June 26 0000	June 26 1000	June 27 0000	1	...	540	560	10	0	-74	...		
June 30 0700	June 30 0700	June 30 2300	2	...	380	400	6	0	-6	...		
July 01 0100	July 01 0600	July 03 0800	3	...	390	440	7	1	0	...		
July 10 0638	July 11 0200	July 11 1400	2	36	440	490	13	0	0	609	July 07 1026	H
July 11 1123 (A)	July 11 2200	July 13 0200	1	...	520	540	10	1	-24	...		
July 13 0942	July 13 1600	July 14 1500	2	31	620	700	7	0	-35	940	July 11 1327	H
July 14 1532	July 14 1700	July 15 1400	2	29	780	800	9	1	-60	...	July 12 2030?	
July 15 1437	July 15 1900	July 17 0800	2	120	850	980	20	2	-300	1500	July 14 1054	H
July 19 1527	July 20 0100	July 21 0700	2	19	530	630	8	0	-95	...	July 17 0854?	
July 23 1041	July 23 1500	July 25 0400	3	0	380	430	9	0	-66	...	dg	
July 26 1857	July 27 0200	July 28 0200	2	0	360	400	6	1	-43	490	July 23 0530	
July 28 0634	July 28 1200	July 30 1300	3	45	460	480	10	2	-74	550	July 25 0330	H
Aug. 10 0407 (A)	Aug. 10 1900	Aug. 11 2100	1	...	430	490	12	1	-103	...	Aug. 06 1830?	
Aug. 11 1845	Aug. 12 0500	Aug. 13 2200	1	21	580	670	16	2	-237	830	Aug. 09 1630	H
Sept. 02 1300	Sept. 02 2200	Sept. 03 1300	1	...	430	450	8	0	-58	...	Aug. 29 1830?	
Sept. 08 1200	Sept. 08 1800	Sept. 10 1000	2	...	450	500	5	0	-44	530	Sept. 05 0554	
Sept. 17 1657 (A)	Sept. 17 2300	Sept. 21 0000	3	...	600	880	10	2	-172	...	Sept. 15/16 note e	
Oct. 03 0054	Oct. 03 1000	Oct. 05 0300	1	0	400	430	14	2	-146	...		
Oct. 05 0326	Oct. 05 1300	Oct. 07 1100	2	0	450	530	6	1	-192	756	Oct. 02 2026	H
Oct. 12 2228	Oct. 13 0800	Oct. 14 1700	2	21	410	470	13	2	-110	580	Oct. 09 2350	H
Oct. 20 1800	Oct. 20 2200	Oct. 21 0800	2	...	400	440	4	0	-2	...		
Oct. 28 0954	Oct. 28 2100	Oct. 29 2200	1	35	380	420	14	2	-113	565	Oct. 25 0826	H
Nov. 06 0948	Nov. 06 2200	Nov. 08 0300	2	18	510	610	20	2	-159	...		
Nov. 11 0400 (A)	Nov. 11 0800	Nov. 12 0000	2	...	790	910	7	0	-43	1200	(Nov. 09 1615)	
Nov. 26 1158	Nov. 27 0800	Nov. 28 0300	2	0	580	630	11	0	-72	...	Nov. 24 note e	
Nov. 28 0530	Nov. 28 1600	Nov. 29 1900	2	24	530	590	10	1	-130	720	Nov. 25/26 note e	
2001												
Jan. 23 1048	Jan. 24 0900	Jan. 26 0800	1	30	400	550	5	1	-55	680	Jan. 20 2130	H note e
March 03 1121	March 04 0400	March 05 0200	2	0	440	520	8	0	-71	610	Feb. 28 1450	
March 19 1114	March 19 1700	March 21 2200	1	19	410	490	17	2	-165	520	March 16 0350	
March 27 1747	March 28 0600	March 30 1900	3	26	520	650	4	0	-98	850	March 25 1706	H
March 31 0052	March 31 0500	March 31 2200	3	105	640	710	39	1	-358	690	March 28 1250	H
March 31 2200	April 01 0400	April 03 0300	2	...	640	820	5	0	0	700	March 29 1026	H
April 04 1455	April 05 1100	April 07 0300	3	57	520	780	6	0	-38	1020	April 02 2206	
April 08 1101	April 08 1900	April 10 1000	3	41	610	780	8	0	-51	1050	April 06 1930	H
April 11 1343	April 11 2200	April 13 0700	2	0	640	740	14	2	-257	1290	April 10 0530	H
April 13 0734	April 13 0900	April 14 1200	1	31	730	830	9	0	-66	990	April 11 1331	H
April 18 0046	April 18 1200	April 20 1100	2	0	430	520	8	0	-100	580		
April 21 1601	April 21 2300	April 23 0800	1	19	350	390	11	2	-104	...		
April 28 0431 (A)	April 28 1400	May 1 0200	2	58	540	730	8	2	-33	1040	April 26 1230	H
May 07 0800	May 07 1900	May 08 0700	1	...	360	410	8	1	-24	...		
May 08 1101	May 09 1200	May 10 2200	2	...	430	560	8	1	-70	...		
May 11 1300	May 11 1300	May 12 0000	2	...	430	430	8	0	-40	...		
May 12 0920 (A)	May 12 1700	May 13 1600	3	...	570	670	7	0	-46	...	May 10 0131?	
May 15 1500	May 16 0900	May 17 0000	3	...	460	530	5	1	-20	...		
May 27 1459	May 28 0300	May 29 2100	1	0	460	600	8	2	-39	...		
May 30 0800	May 30 0800	May 31 0800	2	...	350	370	5	1	-2	...		
June 07 0852 (A)	June 07 1800	June 08 0700	1	...	390	430	9	1	-4	...		
June 21 0300	June 21 0300	June 21 1000	3	...	570	600	5	1	-27	...		
June 26 1200	June 27 0300	June 28 1700	1	...	420	490	3	0	-18	...		
July 08 1200	July 09 0200	July 11 0400	2	...	400	460	4	1	-41	520	July 05 0354	
July 13 1700	July 13 1700	July 14 0100	2	...	400	420	8	1	-8	...		
Aug. 03 0716	Aug. 03 1100	Aug. 03 1400	3	0	420	440	10	0	-17	...		
Aug. 15 0500	Aug. 15 0500	Aug. 16 1400	3	...	390	450	5	0	-16	...		
Aug. 17 1103	Aug. 17 2000	Aug. 20 0000	2	29	490	600	10	0	-104	620	Aug. 14 1601	H

Aug. 27 1952	Aug. 28 2000	Aug. 29 2000	3	20	470	580	4	0	-20	810	Aug. 25 1650	H
Aug. 30 1411	Aug. 30 2000	Aug. 31 1000	2	0	420	500	6	1	-45	...		
Sept. 01 1300	Sept. 01 1300	Sept. 02 1800	2	...	360	410	5	1	-17	...		
Sept. 13 0200	Sep 13 1800	Sep 14 2200	2	...	410	440	10	1	-58	...		
Sept. 23 1100	Sept. 24 0000	Sept. 25 0000	3	...	450	570	7	1	-77	650	Sept. 20 1931	
Sept. 29 0940	Sept. 30 0000	Oct. 01 0000	2	0	520	700	12	1	-64	...	Sept. 27 0454?	
Sept. 30 1924	Oct. 01 0800	Oct. 02 0000	2	0	490	550	9	0	-150	710	Sept. 28 0854	H
Oct. 01 2200	Oct. 02 1200	Oct. 03 1600	2	...	510	530	13	1	-182	715	Sept. 29 1154	
Oct. 11 1701	Oct. 12 0200	Oct. 12 1100	2	46	530	580	17	1	-74	780	Oct. 09 1130	H
Oct. 21 1648	Oct. 22 0000	Oct. 25 1000	1	61	470	670	9	0	-166	870	Oct. 19 1650	H
Oct. 26 2200	Oct. 27 0000	Oct. 28 0200	2	...	390	410	8	0	-28	550	Oct. 23 1826	
Oct. 28 0319	Oct. 29 2200	Oct. 31 1300	2	48	360	510	4	0	-160	694	Oct. 25 1526	
Oct. 31 1348	Oct. 31 1800	Nov. 02 1200	2	19	340	390	11	2	-97	...		
Nov. 06 0152	Nov. 06 2100	Nov. 09 0600	2	110	570	750	6	0	-277	1250	Nov. 04 1635	H
Nov. 19 1815	Nov. 19 2200	Nov. 20 1100	3	0	480	580	6	1	-32	680	Nov. 17 0530	H
Nov. 24 0656	Nov. 24 1400	Nov. 26 1100	2	62	660	1000	12	2	-213	1320	Nov. 22 2330	H
Nov. 27 0300	Nov. 27 0300	Nov. 27 1200	2	...	470	480	6	0	-27	...		
Dec. 28 0000	Dec. 28 0000	Dec. 29 1200	2	...	360	370	8	0	0	...		
Dec. 29 0538	Dec. 30 0000	Dec. 30 1400	2	78	400	460	17	1	-39	580	Dec. 26 0530?	
2002												
Feb. 15 1000	Feb. 15 1000	Feb. 15 1700	1	...	370	380	7	1	0	621	Feb. 12 1506	H
Feb. 28 0451	Feb. 28 1700	March 01 1000	2	46	390	410	13	1	-64	...		
March 18 1322	March 19 0500	March 20 1600	2	64	380	470	15	2	-41	667	March 15 2306	
March 20 1328	March 21 1400	March 22 0600	3	15	440	580	8	0	-10	...		
March 23 1137	March 23 2100	March 25 2000	2	24	450	500	15	2	-101	625	March 20 1706?	
April 12 0100	April 12 0100	April 13 1300	3	...	420	450	8	0	-20	...		
April 17 1107	April 17 2100	April 19 0900	2	54	480	610	12	1	-126	...		
April 19 0835	April 20 0000	April 21 1800	2	30	500	640	8	2	-152	863	April 17 0826	H
May 20 0340	May 20 1500	May 21 2200	3	13	410	510	6	0	-33	420	May 16 0050	H
May 21 2203	May 22 1800	May 23 0500	3	17	420	440	9	0	-13	...		
May 23 1050	May 23 2000	May 25 1800	2	59	590	920	11	2	-108	1323	May 22 0326	H
July 17 1603	July 18 1200	July 19 0900	3	0	460	520	6	0	-13	955	July 15 2030	H
July 19 1450 (A)	July 20 0400	July 22 0600	2	13	650	930	6	0	-33	...		
Aug. 01 0510	Aug. 01 0900	Aug. 01 2300	2	26	450	460	12	2	-46	...		
Aug. 01 2309	Aug. 02 0400	Aug. 04 0100	2	18	460	520	10	0	-85	500	July 29 1145	
Aug. 18 1846	Aug. 19 1200	Aug. 21 1400	2	44	460	580	8	1	-92	766	Aug. 16 1230	H
Aug. 29 2100	Aug. 29 2100	Aug. 30 0600	2	...	400	420	8	1	-35	...		
Sept. 07 1636	Sept. 08 0400	Sept. 08 2000	2	dg	470	550	10	0	-164	880	Sept. 05 1654	H
Sept. 08 2000	Sept. 08 2200	Sept. 10 2100	2	dg	440	520	9	0	-64	...		
Sept. 19 0600	Sept. 19 2000	Sept. 20 2100	2	dg	490	750	5	0	-26	901	Sept. 17 0754	H
Oct. 02 2214 (A)	Oct. 03 0100	Oct. 04 1800	2	dg	430	520	11	2	-13	...		
Nov. 16 2305	Nov. 17 1000	Nov. 19 1200	2	dg	380	500	8	2	-24	...		
Dec. 17 1800	Dec. 17 1800	Dec. 19 1200	2	...	380	430	14	0	-56	...		
Dec 20. 1700	Dec 21. 0300	Dec. 22 1900	2	...	440	540	11	0	-58	...		

Note a The time of the associated SC when present. Otherwise, 'A' indicates the time of shock passage at ACE. If no shock or SC is reported, the estimated arrival time of the disturbance (which in some cases is also the ICME leading edge) is given to the nearest hour.

Note b The quality of the boundary times ('1' indicating the most reliable).

Note c The SC size is the mean horizontal component for mid--latitude stations (from reports in { it Solar-Geophysical Data}).

Note d 'H' indicates that the CME had a 360 deg. angular extent (i.e. halo CME). '?' indicates that the CME association may be doubtful. Times in brackets indicate associated solar events during an interval with no coronagraph coverage. 'dg' indicates that there was a LASCO data gap around the expected time of the associated CME.

Note e ICMEs could result from multiple CMEs.