



**Bureau des Publications SIIG - Bulletin Mensuel n°99 - 12 - Decembre 1999**  
**ISGI Publications Office Monthly Bulletin n°99 - 12 - December 1999**

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Explanations about published data are given in Special Issue 1994 of ISGI Monthly Bulletin.

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**PRELIMINARY REPORT ON RAPID VARIATIONS**

**DECEMBER 1999**

**SSC - Storm Sudden Commencements**

12 15 51 A : HRB COI BJI  
 B : NGK\* VAL\* BDV\* CLF\* NAG\* MMB KAK  
 KNY  
 C : QUE HYB GNA CNB  
 - : WNG\*

**SFE - Solar Flare Effects**

01 1007-1024 BDV  
 17 0625-0639 BDV  
 28 0042-0105 MMB+ KAK+ KNY+

REPORTING OBSERVATORIES (up to 2nd of February 2000):

SOD NUR WNG NGK VAL BDV CLF HRB NAG MMB EBR COI BJI SPT KAK KNY QUE HYB GNA CNB

**FIVE INTERNATIONAL QUIETEST DAYS**

**FIVE INTERNATIONAL MOST DISTURBED DAYS**

<b>December 1999</b>	22	21	26	14	23	31	4	13	5	6*
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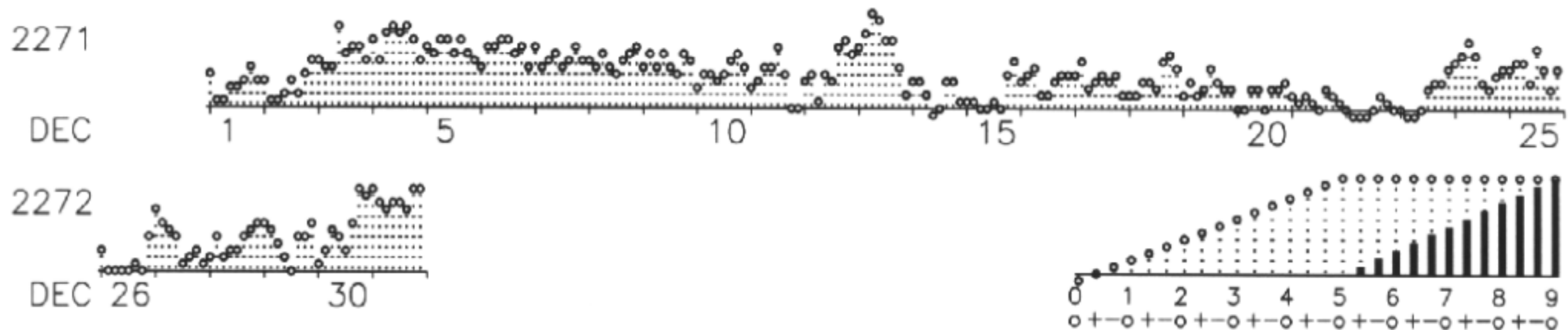
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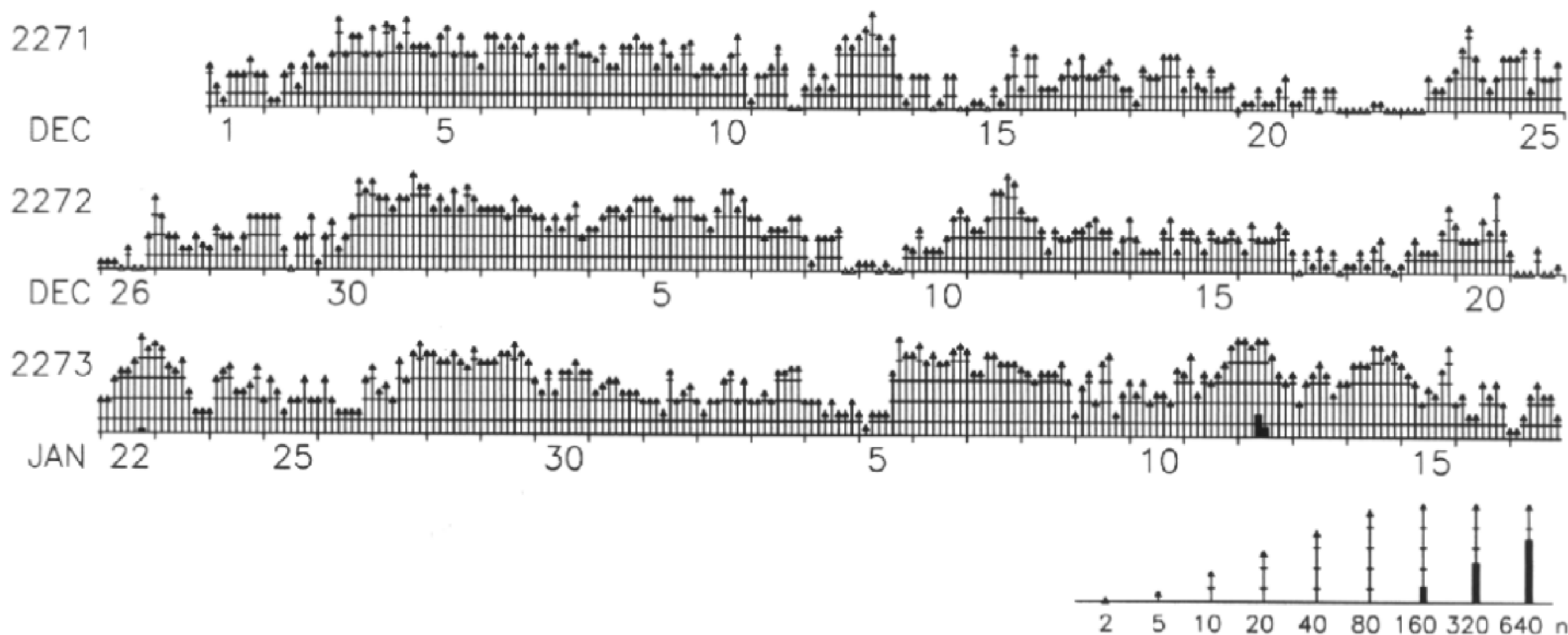
Web : <http://www.cetp.ipsl.fr/~isgi/homepag1.htm>

DECEMBER 1999		Geomagnetic Indices (provisional)												Daily Average and Sum				
aa		quiet days	am and Km for each three hour interval								Daily Average and Sum							
N	S		am	pm	D	1	2	3	4	5	6	7	8	Am	Σ Km	Ap	Σ Kp	
1	14	10	10	14	12	CK	14 2o	5 1-	4 1-	9 1+	8 1+	11 2-	19 2+	12 2-	10	12-	5	10o
2	12	12	9	16	12	C	11 2-	5 1-	5 1-	6 1o	11 2-	7 1o	16 2o	22 3-	10	11+	5	9+
3	34	35	34	35	34		23 3-	20 2+	17 2+	68 4+	31 3o	39 3+	36 3+	23 3-	32	24o	16	24o
4	45	51	52	44	48		48 4-	26 3-	57 4o	68 4+	51 4o	68 4+	42 4-	26 3-	48	29+	30	33-
5	40	30	40	29	35		40 3+	28 3o	43 4-	47 4-	31 3o	44 4-	29 3o	21 3-	35	26o	20	28-
6	36	35	35	37	36		20 2+	40 3+	34 3+	42 4-	46 4-	33 3o	38 3+	18 2+	34	25o	18	26-
7	31	24	28	27	28		38 3+	17 2+	24 3-	28 3o	20 2+	25 3-	35 3+	21 3-	26	22+	16	25-
8	28	26	23	31	27		22 3-	18 2+	28 3o	20 2+	16 2o	24 3-	28 3o	35 3+	24	21+	14	23o
9	30	27	30	27	29		20 2+	29 3o	20 2+	31 3o	20 2+	16 2o	31 3o	25 3-	24	21-	14	23-
10	22	17	14	25	20		10 1+	14 2o	15 2o	13 2-	15 2o	23 3-	31 3o	17 2+	17	17o	10	18+
11	13	11	11	13	12	K	8 1+	13 2-	18 2+	17 2+	37 3+	14 2o	2 0+	2 0+	14	14-	7	13+
12	22	18	11	29	20		12 2-	15 2o	5 1-	14 2o	11 2-	34 3+	44 4-	32 3o	21	18o	11	18o
13	44	43	63	24	43		37 3+	53 4o	87 5o	73 5-	47 4-	41 4-	18 2+	7 1o	45	28-	26	27o
14	6	11	10	8	9	CK*	13 2-	11 2-	6 1o	1 0o	2 0+	11 2-	12 2-	4 1-	8	9-	3	5+
15	7	11	4	14	9	KK	4 1-	4 1-	3 0+	3 0+	5 1-	3 0+	15 2o	26 3-	8	8-	4	6-
16	10	18	16	12	14		12 2-	16 2o	17 2+	7 1o	6 1o	12 2-	15 2o	16 2o	13	14-	5	11o
17	15	14	15	14	15	C	15 2o	24 3-	10 1+	12 2-	14 2o	13 2-	14 2o	6 1o	14	14+	7	15-
18	18	13	10	21	16		7 1o	6 1o	12 2-	12 2-	9 1+	22 3-	28 3o	19 2+	14	15-	6	12+
19	10	10	10	10	10	CK	7 1o	12 2-	7 1o	10 1+	19 2+	12 2-	8 1+	8 1+	10	12-	5	10o
20	6	7	5	8	6	CC	2 0+	3 0+	9 1+	9 1+	3 0+	8 1+	8 1+	12 2-	7	8o	3	6-
21	5	7	7	5	6	CC*	6 1o	5 1-	7 1o	5 1-	2 0+	10 1+	6 1o	5 1-	6	7-	2	4o
22	3	3	2	4	3	CC*	3 0+	1 0o	1 0o	0 0o	3 0+	6 1o	5 1-	3 0+	3	3-	1	1o
23	6	6	2	10	6	CK*	3 0+	1 0o	1 0o	3 0+	10 1+	12 2-	12 2-	19 2+	8	8-	2	5-
24	18	31	35	14	24		23 3-	30 3o	47 4-	29 3o	13 2-	10 1+	15 2o	20 2+	23	20-	11	18+
25	19	22	22	19	21		18 2+	24 3-	25 3-	12 2-	37 3+	19 2+	10 1+	17 2+	20	19-	10	18o
26	4	7	4	6	5	CK*	8 1+	2 0+	2 0+	2 0+	3 0+	4 1-	3 0+	15 2o	5	6-	2	3+
27	17	15	23	9	16	K	34 3+	24 3-	17 2+	16 2o	5 1-	7 1o	10 1+	5 1-	15	14o	7	13o
28	16	13	12	17	15		7 1o	15 2o	7 1o	10 1+	10 1+	14 2o	19 2+	21 3-	13	14-	8	15o
29	17	15	20	13	16		22 3-	17 2+	13 2-	6 1o	3 0+	15 2o	15 2o	23 3-	14	15-	8	15o
30	21	34	11	44	28		4 1-	8 1+	18 2+	16 2o	10 1+	21 3-	61 4+	60 4o	25	19-	11	16+
31	61	55	51	65	58		68 4+	42 4-	40 3+	43 4-	47 4-	40 3+	64 4+	70 4+	52	31-	36	35o

ROT DAY IN SOLAR ROTATION INTERVAL Three-hour indices Km(provisional) DEC 1999



ROT DAY IN SOLAR ROTATION INTERVAL Three-hour indices aa (logscale) DEC1999-FEB2000



HOURLY EQUATORIAL DST VALUES (PROVISIONAL) - DECEMBER 1999 -

Unit=NT

U.T. DAY	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
1	7	7	5	1	3	3	1	1	3	5	7	6	6	4	3	4	4	-4	1	1	-4	-1	1	2
2	3	7	13	11	7	9	11	10	11	12	11	15	17	19	15	14	15	15	15	10	10	9	0	-3
3	-3	-1	-3	1	0	2	0	-1	1	9	7	-13	-17	-15	-18	-28	-37	-30	-21	-18	-21	-20	-18	-14
4	-11	-9	2	-4	-12	-5	-7	-21	-14	-20	-29	-31	-24	-37	-33	-36	-37	-32	-28	-33	-33	-29	-31	-37
5	-30	-24	-28	-32	-30	-36	-40	-34	-31	-27	-31	-26	-31	-29	-27	-25	-25	-22	-19	-23	-19	-21	-22	-22
6	-16	-11	-8	-23	-25	-24	-21	-22	-30	-29	-24	-22	-23	-25	-33	-31	-23	-27	-31	-28	-20	-18	-17	-17
7	-17	-15	-16	-17	-15	-16	-16	-16	-14	-10	-13	-16	-15	-13	-12	-14	-17	-20	-17	-17	-21	-22	-23	-19
8	-19	-17	-19	-17	-13	-12	-12	-14	-17	-19	-19	-19	-20	-16	-14	-13	-15	-19	-19	-24	-27	-25	-21	-25
9	-27	-21	-17	-20	-27	-22	-21	-20	-21	-24	-29	-22	-22	-21	-18	-18	-18	-17	-14	-17	-15	-14	-18	-23
10	-20	-16	-17	-18	-18	-18	-21	-19	-14	-13	-13	-12	-15	-21	-21	-19	-15	-20	-18	-17	-21	-19	-19	-24
11	-22	-16	-12	-12	-12	-11	-7	-10	-15	-19	-17	-18	-13	-12	-19	-20	-15	-13	-14	-15	-15	-15	-15	-16
12	-14	-9	-7	-11	-14	-16	-16	-18	-18	-21	-22	-18	-18	-16	-20	-17	-13	-12	-10	-14	-19	-22	-21	-25
13	-26	-20	-22	-26	-34	-37	-45	-53	-77	-92	-85	-71	-72	-68	-74	-73	-67	-55	-48	-39	-35	-30	-33	-36
14	-37	-32	-27	-26	-27	-25	-25	-26	-26	-26	-28	-30	-31	-31	-30	-27	-23	-19	-14	-15	-21	-19	-18	-18
15	-18	-16	-15	-14	-14	-10	-6	-2	-1	-1	-4	-4	-7	-8	-5	-2	-3	-3	-2	-3	0	-6	-10	-12
16	-10	-10	-12	-12	-15	-15	-19	-12	-5	-2	0	-2	-4	-3	0	0	1	-4	-3	-2	-2	-7	-11	-12
17	-11	-5	-4	-7	-11	-8	-6	-3	-5	-6	-7	-8	-9	-7	-7	-7	-9	-11	-6	-5	-4	-5	-5	-4
18	-4	-2	-3	1	4	4	2	0	4	-1	2	2	1	2	3	6	2	0	1	1	1	0	-5	-6
19	-7	-5	-4	-3	-1	2	2	1	2	2	4	5	-4	-8	-3	-3	-6	-4	-1	-3	0	1	2	1
20	2	3	3	2	3	4	6	5	5	6	5	2	4	7	8	10	8	7	7	7	9	7	4	1
21	4	6	5	5	6	4	2	2	1	2	4	8	9	7	7	6	6	6	7	7	7	5	4	7
22	7	10	8	5	7	10	11	12	9	8	7	6	6	7	7	6	5	4	2	0	3	4	6	7
23	10	11	11	11	11	12	14	15	17	19	22	25	30	33	32	26	24	16	16	11	13	13	16	19
24	23	20	24	22	21	20	15	15	12	0	-1	9	6	5	9	10	9	11	10	8	10	6	1	-5
25	-3	0	4	4	1	-5	-9	-10	-13	-11	-8	-3	-2	-5	-16	-11	-5	-1	-3	-2	0	0	0	-4
26	-3	-4	-5	-5	-6	-7	-5	-5	-2	0	2	2	1	3	5	6	6	7	4	2	2	3	3	6
27	0	-7	-7	1	7	6	2	6	7	6	8	-1	-5	-3	0	2	-1	-2	-4	-5	-5	-6	-7	-8
28	-8	-9	-8	-8	-9	-7	-2	2	5	4	6	3	0	0	-1	-2	1	3	3	3	3	-6	-15	-16
29	-18	-23	-28	-29	-20	-14	-11	-8	-2	2	2	2	3	3	2	1	1	-2	-2	-4	-3	-7	-10	-9
30	-7	-4	-3	-4	-5	-3	-3	2	3	6	4	5	8	11	18	20	22	24	24	19	14	4	1	3
31	1	6	-5	-7	-12	-21	-20	-25	-24	-25	-23	-22	-18	-31	-23	-15	-23	-31	-28	-36	-40	-35	-35	-46

DST  
PROVISIONAL  
1999  
DEC

WDC-C2 KYOTO

