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1995年2月

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《太阳地球物理资料》各表表头内容说明

注:各表按目录顺序依次说明,若各表内容有相同的则只作一次说明。

太阳黑子相对数与面积数表

Day:	每天观测日期	E':	预报误差
Gro:	每天在日面上的黑子群总数	H α 太阳耀斑表	
Relative—Num—	每天的黑子相对数值	Sta:	台站
bers:		Start (UT):	耀斑开始时间(UT 为世界时,其中“E”为小于此时间。)
N. H.:	每天北半球的黑子相对数	Max (UT):	耀斑的极大时间(“U”为接近此时间,不确定。)
S. H.:	每天南半球的黑子相对数	End (UT):	耀斑的结束时间(“D”为大于此时间。)
Sum:	南、北半球黑子相对数的总和	Cen	日心距,即 r/R 。
Sunspot Areas:	太阳黑子面积数值	Dist:	
Drawing:	手描的	Area	耀斑极大时的面积(Sd 为视面积,单位为太阳圆面积的
Photographic:	照相的	Measurement	10^{-6} ; Sq 为校正面积,以平方度为单位。)
N. H.:	每天北半球黑子面积	Appar Corr	
S. H.:	每天南半球黑子面积	(sd) (sq):	耀斑的级别
Sum:	南、北半球黑子面积的总和	Imp:	耀斑资料类型
太阳黑子观测表		Obs	
Group:	在日面上的黑子群号	Type:	
CMP	黑子群过日面中心经圈日期,用月—日表示。	A. R.:	耀斑所在活动区的黑子群号
Mo—Day:		Rem:	备注(记录耀斑发生时的形态)
Lat:	黑子群在日面上的纬度		
L:	黑子群在日面上的卡林顿经度		
CMD:	黑子群在日面上的中经距		
Type:	黑子群的 McIntosh 类型	H α 耀斑巡视时间表	
r/R:	黑子群在日面上的日心距(以太阳半径为 1)	From:	耀斑照相巡视开始时间
		To:	耀斑照相巡视的结束时间
Corre. Area Sd	黑子群在日面上所占的面积	太阳活动区磁场和速度场的观测表	
whole Max:	(Sd 为视面积,Whole 为校正后的全群面积,Max 为校正后的最大黑子的面积。)	L $_0$:	每天的日面中心经度
		Huairou	北京天文台怀柔观测站的
See:	观测时大气视宁静度	Region:	活动区编号
Remarks:	备注(空白表示云南天文台的观测资料,注明 PLAT 的为北京天文馆资料,PURP 为南京紫金山天文台资料。)	Data:	取得的磁场资料类型
		太阳射电辐射流量表	
		BEIJ	每天的太阳在 2840 MHz 的流量密度(北台 0400 UT 测量,以 $10^{-22} \cdot \text{瓦} \cdot \text{米}^{-2} \cdot \text{赫}^{-1}(\text{s. f. u.})$ 为单位。)
		2840:	
		PURP	每天的太阳在 2700 MHz 的流量密度(紫台 0400 UT 测)
		2700:	

太阳黑子相对数的平滑值预报表

Time:	预报的时间	PURP	每天的太阳在 2700 MHz 的流量密度(紫台 0400 UT 测)
R':	月平滑黑子相对数的预报值	2700:	

URUM 每天的太阳在 9375 MHz 的
9375 : 流量密度(乌站 0500 UT 测)
YUNN 每天的太阳在 2840 MHz 的
2840 : 流量密度(云台 0500 UT 测)

太阳射电辐射显著事件表

Freq: 观测频率
Type: 射电爆发的型别
Duration: 射电爆发的持续时间(以分钟为单位)
Flux Density: 射电爆发的流量密度
Peak: 射电爆发流量的峰值增值
Rel: 射电爆发峰值流量与爆发前流量之比值
Mean: 流量密度的增值对时间求积分再除以爆发持续时间

太阳射电辐射巡视时间表

BEIJ 北京天文台 2840 MHz 频率
From To 巡视时间
2840 :
PURP 紫金山天文台 2700 MHz 频率
From To 巡视时间
2700 :
URUM 新疆乌鲁木齐天文站频率为
From To 9375 MHz 巡视时间
9375 :
YUNN 云南天文台 2840 MHz 频率
From To 巡视时间
2840 :

宇宙线强度表

这部分共有三个表和宇宙线强度图。其中第 1 个表是“中子堆数据表”,它给出的值是记数率与 1500 的差;第 2 个表是“ μ 介子垂直分量表”它给出的值是记数率与 3000 的差;第 3 个表是“ μ 介子数据表”,它列出的是相对强度与 1000 的差。这三个表的第一行数据是 1—24 小时。

详细说明请见每年第一期。

Explanation of data reports can be found in the first issue of the year.

Mean: 日均值
N: 记录的小时数
Day: 日期
最后四行是仪器全天工作天数的月平均日变化与相应的月均值的差。宇宙线强度图说明请参见每年第 1 期说明。

突然电离层扰动(D 层)表

Imp: 级别(最小为 1—级,最大为 3+ 级。)
SPA: 相位突然异常
LF-SPA: 低频相位突然异常
VLF-SPA: 甚低频相位突然异常
LF-SFA: 低频场强突然异常
地磁活动指数 K 和 A_K 表
第一行: 以三小时为时段的 K 指数
Sum: 总和
 A_K : A_K 指数

磁暴表

Time of Magnetic 磁暴时间
tic:
Begining: 开始时间
Ending: 终止时间
h: 小时
m: 分钟
Type: 类型
Sudden Com. 急始变幅
Amplitude
D' HnT ZnT:
Deg. of Acti.: 活动程度
Maximum Acti. 最大活动程度
on K-scale:
3 hour Int.: 三小时时段
K Index: K 指数
Maximum 最大幅度
Range
D' HnT ZnT:

DAILY RELATIVE SUNSPOT NUMBERS AND SUNSPOT AREAS

FEBRUARY 1995

Relative-Numbers					Sunspot Areas		
Day	Gro.	N.H.	S.H.	Sum	N.H.	Drawing S.H.	Photographic Sum
1	4	0	41	41	0	145	145
2	4	0	46	46	0	127	127
3	4	0	39	39	0	131	131
4	4	0	46	46	0	86	86
5	5	10	40	50	4	108	112
6	3	9	26	35	4	90	94
7	3	8	27	35	4	99	103
8	1	0	13	13	0	46	46
9	2	8	11	19	70	27	97
10	5	14	21	35	103	13	116
11	4	14	15	29	111	10	121
12	3	14	7	21	125	3	128
13	2	8	7	15	123	3	126
14	3	18	7	25	127	28	155
15	4	23	7	30	130	44	174
16	5	23	17	40	95	52	147
17	4	16	17	33	67	54	121
18	3	15	18	33	66	79	145
19	4	24	22	46	71	74	145
20	3	19	26	45	82	218	300
21	4	26	22	48	82	191	273
22	4	19	33	52	37	252	289
23	3	12	25	37	20	138	158
24	3	14	17	31	37	114	151
25	3	10	15	25	24	90	114
26	4	9	22	31	15	68	83
27	3	8	24	32	12	148	160
28	4	0	47	47	0	247	247
Mean		11.5	23.5	35.0	50.3	95.9	146.2

DAILY SUNSPOT OBSERVATIONS

FEBRUARY 1995

Day	Group	CMP		Lat	L	CMD	Type	r/R	Sd	Corre. Area		See	Remarks
		Mo-Day								Whole	Max		
1.02	16	1-26.8		-20	10	71W	DRO	0.94	21	32	19	0	PURP
	17	2- 3.3		-18	270	28E	AXX	0.49	4	2	2	0	PURP
	18	2- 5.2		-13	245	59E	DAI	0.85	113	108	96	0	PURP
	19	2- 4.9		-8	249	49E	AXX	0.75	4	3	3	0	PLAT
2.02	16					85W	BXO	0.99	8	28	14	0	PURP
	17					15E	BXO	0.31	8	4	2	0	PURP
	18					44E	DAI	0.69	130	90	67	0	PURP
	20	2- 7.3		-7	218	68E	AXX	0.92	4	5	5	0	PLAT
3.32	17					1E	BXO	0.16	8	4	2	0	PLAT
	18					25E	CSI	0.44	185	103	96	0	
	20					54E	AXX	0.80	8	7	4	0	
	21	2- 3.7		-7	265	5E	DRI	0.10	34	17	6	0	
4.12	17					11W	AXX	0.23	8	4	2	0	PLAT
	18					16E	DAI	0.29	134	70	53	0	PURP
	20					43E	AXX	0.67	8	6	6	0	PLAT
	21					6W	CRO	0.12	13	6	4	0	PURP
5.23	17					25W	BXO	0.45	8	5	2	0	
	18					0W	DSI	0.11	189	95	72	0	
	19					2W	AXX	0.06	8	4	4	0	PLAT
	21					21W	AXX	0.34	8	4	2	0	
	22	2- 5.7		1	239	6E	BXI	0.16	8	4	2	0	
6.24	18					14W	DSI	0.24	164	85	67	0	
	21					34W	BXI	0.53	8	5	2	0	
	22					7W	BXO	0.17	8	4	2	0	
7.23	18					26W	DSI	0.44	168	93	47	0	
	21					48W	BXI	0.72	8	6	3	0	
	22					20W	AXX	0.33	8	4	2	0	
8.07	18					38W	CAI	0.61	71	46	30	0	PLAT
9.03	18					52W	DRO	0.78	34	27	14	0	PURP
	23	1-15.0		9	117	80E	HSX	0.99	21	70	70	0	PURP
10.32	18					68W	AXX	0.92	4	5	5	0	

DAILY SUNSPOT OBSERVATIONS

FEBRUARY 1995

Day	Group	CMP		L	CMD	Type	r/R	Sd	Corre. Area		See	Remarks
		Mo-Day	Lat						Whole	Max		
	23				62E	HSX	0.90	84	95	95	0	
	24	2-10.3	-25	178	4E	AXX	0.31	4	2	2	0	PURP
	25	2-15.4	-4	112	70E	AXX	0.94	4	6	6	0	
	26	2-15.9	10	105	73E	AXX	0.97	4	8	8	0	
11.07	23				51E	HSX	0.80	126	106	106	0	
	25				61E	BXD	0.86	8	8	4	0	
	26				62E	AXX	0.90	4	5	5	0	
	27	2- 9.6	-15	187	19W	AXX	0.36	4	2	2	0	
12.06	23				38E	HSX	0.66	185	122	122	0	
	25				45E	AXX	0.70	4	3	3	0	
	26				49E	AXX	0.78	4	3	3	0	
13.05	23				25E	HSX	0.49	214	123	121	0	
	25				33E	AXX	0.55	4	3	3	0	
14.05	23				12E	HSX	0.34	231	123	121	0	
	28	2-13.6	3	135	6W	BXD	0.20	8	4	2	0	
	29	2-21.1	-14	36	85E	AXX	0.99	8	28	28	0	
15.06	23				1W	HSX	0.26	231	120	120	0	
	28				17W	BXI	0.33	8	4	2	0	
	29				73E	HSX	0.94	29	44	44	0	
	30	2-20.2	12	48	70E	AXX	0.94	4	6	6	0	
16.06	23				14W	HSX	0.36	160	86	86	0	
	25				9W	BXD	0.17	8	4	2	0	
	26				3W	AXX	0.30	8	4	2	0	
	28				30W	BXD	0.51	8	5	2	0	
	29				60E	CSO	0.85	50	48	44	0	
17.05	23				27W	HSX	0.51	105	61	61	0	
	25				23W	AXX	0.39	4	2	2	0	
	28				43W	BXI	0.69	8	6	3	0	
	29				47E	CSO	0.72	71	52	49	0	
18.03	23				40W	HSX	0.67	88	59	59	0	
	28				56W	BXD	0.83	8	7	4	0	
	29				37E	CSI	0.60	126	79	45	0	

DAILY SUNSPOT OBSERVATIONS

FEBRUARY 1995

Day	Group	CMP		L	CMD Type	r/R	Sd	Corre. Area		See	Remarks
		Mo-Day	Lat					Whole	Max		
19.15	23				54W HSX	0.83	67	60	60	0	
	29				24E ERI	0.41	135	74	30	0	
	30				16E BXO	0.41	8	5	2	0	
	31	2-22.2	11	21	41E BXO	0.70	8	6	3	0	
20.05	23				66W HSX	0.92	42	54	54	0	
	29				14E EAI	0.26	421	218	118	0	
	31				29E CRI	0.56	46	28	23	0	
21.06	23				79W HSX	0.99	21	70	70	0	
	29				1E EAI	0.13	378	191	72	0	
	30				11W BXO	0.38	8	5	2	0	
	31				16E BXO	0.40	13	7	2	0	
22.06	29				12W ERI	0.23	193	99	26	0	
	30				22W AXX	0.48	4	2	2	0	
	31				2E DRO	0.31	67	35	35	0	
	32	2-28.3	-14	301	84E HSX	0.99	46	153	153	0	
23.05	29				26W CRI	0.48	55	31	17	0	
	31				15W CRI	0.38	38	20	16	0	
	32				71E HSX	0.94	71	107	107	0	
24.05	29				43W BXI	0.68	8	6	3	0	
	31				27W DRI	0.54	63	37	15	0	
	32				58E HSX	0.84	118	108	108	0	
25.28	29				62W AXX	0.87	8	9	9	0	
	31				41W CRO	0.70	34	24	12	0	
	32				41E CAD	0.66	122	81	78	0	
26.09	29				72W AXX	0.94	4	6	6	0	
	31				52W CRO	0.82	17	15	11	0	
	32				30E HSX	0.51	84	49	34	0	
	33	3- 3.4	-16	260	70E AXX	0.94	8	13	6	0	
27.04	31				67W AXX	0.93	8	12	6	0	
	32				17E DSI	0.30	93	48	24	0	
	33				59E CSI	0.84	109	100	89	0	

DAILY SUNSPOT OBSERVATIONS

FEBRUARY 1995

		CMP						Corre. Area			
Day	Group	Mo-Day	Lat	L	CMD	Type	r/R	Sd	Whole	Max	See Remarks
28.05	32				4E	CSI	0.14	55	28	21	0
	33				45E	DAI	0.69	294	203	58	0
	34	3- 1.1	-17	291	14E	AXX	0.29	8	4	2	0
	35	3- 4.3	-12	249	60E	BXO	0.86	13	12	8	0

INTERVALS OF H-ALPHA FLARE PATROL OBSERVATION

FEBRUARY 1995

Day	From	To	From	To	From	To	From	To	From	To	From	To
-----	------	----	------	----	------	----	------	----	------	----	------	----

1												
2												
3												
4												
5												
6	923	1020										
7	330	420	510	600								
8	740	800										
9	334	340	840	1000								
10	255	321										
11	310	400	910	930	952	1000						
12	345	555										
13												
14	352	455	500	520	943	954						
15	347	439										
16	314	358	930	1010								
17												
18												
19												
20	828	840										
21	420	503										
22	435	530	858	937								
23	229	327	840	939								
24	234	334	902	936								
25	247	350										
26	1030	1050										
27												
28	814	900										

Combined reports from the observatories listed below:

YUNN

OBSERVATION OF MAGNETIC AND VELOCITY FIELDS OF SOLAR ACTIVE REGIONS

FEBRUARY 1995

HUAIROU ST. BEIJING OBS.

Day	L0	Huairou Region	Lat	L	Data
1	300.8	9	(-18)	265	D4 V4 S5 L5 D5 V5
		10	-15	15	D4 V4 S5 L5 D5 V5
		11	(-13)	(245)	S4 L4 D4 V4 S5 L5 D5 V5 T5 Q5 U5
2	287.7	11			S5 L5
3	274.5	9			S5 L5
		10			S5 L5
		11			S4 L4 D4 V4 S5 L5 D5 V5 T5 Q5 U5
		12	-9	264	S4 L4 D4 V4 S5 L5 D5 V5 T5 Q5 U5
4	261.3	11			S4 L4 D4 V4 S5 L5 D5 V5 T5 Q5 U5
		12			S4 L4 D4 V4 S5 L5 D5 V5 T5 Q5 U5
		13	(- 7)	219	S4 L4 D4 V4 S5 L5 D5 V5 T5 Q5 U5
5	248.2	11			S4 L4 D4 V4 S5 L5 D5 V5 T5 Q5 U5
		12			S4 L4 D4 V4 S5 L5 D5 V5 T5 Q5 U5
		13			S4 L4 D4 V4 S5 L5 D5 V5 T5 Q5 U5
6	235.0	11			S4 L4 D4 V4 S5 L5 D5 V5 T5 Q5 U5
		12			S4 L4 D4 V4 S5 L5 D5 V5 T5 Q5 U5
		13			S4 L4 D4 V4 S5 L5 D5 V5 T5 Q5 U5
7	221.8	11			S4 L4 D4 V4 S5 L5 D5 V5 T5 Q5 U5
		12			S4 L4 D4 V4 S5 L5 D5 V5 T5 Q5 U5
		13			S4 L4 D4 V4 S5 L5 D5 V5 T5 Q5 U5
8	208.7	11			L4 D4 V4 S5 L5 D5 V5 T5 Q5 U5 .
9	195.5	11			S4 L4 D4 V4 S5 L5 D5 V5 T5 Q5 U5
10	182.3	11			S5 L5
11	169.2	14	6	115	S4 L4 D4 V4 S5 L5 D5 V5 T5 Q5 U5
12	156.0	14			S5 L5
13	142.8	14			S4 L4 D4 V4 S5 L5 D5 V5 T5 Q5 U5
14	129.7	14			S4 L4 D4 V4 S5 L5 D5 V5 T5 Q5 U5
15	116.5	14			S4 L4 D4 V4 S5 L5 D5 V5 T5 Q5 U5

OBSERVATION OF MAGNETIC AND VELOCITY FIELDS OF SOLAR ACTIVE REGIONS

FEBRUARY 1995

HUAIROU ST. BEIJING OBS.

Day	L0	Huairou Region	Lat	L	Data
		15	(-14)	41	S4 L4 D4 V4 S5 L5 D5 V5 T5 Q5 U5
16	103.3	14			S4 L4 D4 V4 S5 L5 D5 V5 T5 Q5 U5
		15			S4 L4 D4 V4 S5 L5 D5 V5 T5 Q5 U5
17	90.2	14			S4 L4 D4 V4 S5 L5 D5 V5 T5 Q5 U5
		15			S4 L4 D4 V4 S5 L5 D5 V5 T5 Q5 U5
18	77.0	14			S5 L5
		15			S5 L5
19	63.8	14			S5 L5
		15			S4 L4 D4 S5 L5 D5 V5 T5 Q5 U5
20	50.7	14			S5 L5
		15			S4 L4 D4 V4 S5 L5 D5 V5 T5 Q5 U5
		16	9	18	S4 L4 D4 V4 S5 L5 D5 V5 T5 Q5 U5
22	24.3	15			S4 L4 D4 V4 S5 L5 D5 V5 T5 Q5 U5
		16			S4 L4 D4 V4 S5 L5 D5 V5 T5 Q5 U5
23	11.2	15			S5 L5 V5 T5 Q5 U5
		16			S5 L5 V5 T5 Q5 U5
24	358.0	15			S5 L5
		16			S5 L5
25	344.8	15			S5 L5
		16			S5 L5
		17	-15	298	S4 L4 D4 V4 S5 L5 D5 V5 T5 Q5 U5
26	331.6	16			S5 L5
		17			S4 L4 D4 V4 S5 L5 D5 V5 T5 Q5 U5
27	318.5	17			S4 L4 D4 V4 S5 L5 D5 V5 T5 Q5 U5
		18	-15	255	S4 L4 D4 V4 S5 L5 D5 V5 T5 Q5 U5
28	305.3	17			S5 L5
		18			S4 L4 D4 V4 S5 L5 D5 V5 T5 Q5 U5
		19	-11	247	S4 L4 D4 V4 S5 L5 D5 V5 T5 Q5 U5

SOLAR RADIO EMISSION FLUX

FEBRUARY 1995

Day	BEIJ 2840	PURP 2700	URUM 9375	YUNN 2840
1	86	86		
2	85	85		
3	85	83		
4	80	83		
5	82	83		
6				
7	82	82		
8	83	83		
9	81	81		
10	80	84		
		82		
11	81			
12	77	78		
13	80	79		
14	74			
15	80			
16				
17	83			
18	84			
19	88			
20	96			
21	87	87		
22	85	87		
23	82			
24	82	87		
25	83	85		
26				
27	81	85		
28	84	89		
	86	89		
Mean	83.0			

SOLAR RADIO EMISSION OUTSTANDING OCCURRENCES

FEBRUARY 1995

Day	Freq	Sta	Type	Start (UT)	Time of	Duration (Min)	Flux		Density	
					Maximum (UT)		Peak	Rel	Mean	
03	2700	PURP	7 C	0141.5	0148.0	9.5	44.6			
03	2840	BEIJ	5 S	0144.0	0149.5	9.0	35.8	42.1		
04	2700	PURP	2 S/F	0541.0	0543.6	5.3	10.4			
06	2700	PURP	2 S/F	0650.8	0651.5	6.2	11.4			
13	2840	BEIJ	3 S	0634.0	0643.5	13.0	17.6	22.0		

INTERVALS OF SOLAR RADIO EMISSION PATROL OBSERVATION

FEBRUARY 1995

Day	BEIJ	PURP	URUM	YUNN
	From To	From To	From To	From To
	2840	2700	9375	2840

1	0118 0727	0030 0808	
2	2351 2400	0028 0822	
3	0103 0718	0023 0812	
4	0127 0649	0011 0810	
5	0015 0847	0024 0812	
6	2355 2400	0029 0814	
7	2344 2400	0035 0745	
8	0000 0802	0030 0745	
9	2340 2400	0036 0740	
10	2333 2400	0030 0730	
11	2319 2400	0032 0745	
12	2352 2400	0040 0510	
13	0000 0804		
14	2340 2400		
15	0000 0900		
16	2324 2400		
17	0007 0905		
18	0012 0904		
19	2340 2400		
20	0000 0933		
	2323 2400		
	2330 2400		

INTERVALS OF SOLAR RADIO EMISSION PATROL OBSERVATION

FEBRUARY 1995

Day	BEIJ	PURP	URUM	YUNN
	From To	From To	From To	From To
	2840	2700	9375	2840

21	0000 0903	2326 2400
22	0000 0912	2333 2400
23	0000 0932	2341 2400
24	0000 0740	2354 2400
25	0000 0931	0343 0350
26	0000 0933	0630 0743
27	0000 0746	0039 0810
28	0049 0944	0037 0738

COSMIC RAY NEUTRON INTENSITY Real Counts: 256 Times (Tabulated Counts Plus 1500)

FEB 1995

U.T. Hours at End of Interval

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 Mean H

1	547	553	561	552	553	551	551	550	543	554	546	540	542	533	529	538	532	538	534	542	548	538	546	554	544.8	24	
2	544	554	547	556	549	551	543	539	538	542	535	542	536	531	543	542	537	545	547	544	557	554	553	539	544.6	24	
3	538	558	552	558	562	552	553	555	545	549	547	537	537	539	546	536	551	546	553	552	558	557	551	553	550.2	24	
4	554	556	551	551	548	555	543	535	533	531	535	522	530	532	544	542	541	545	552	537	552	552	559	547	542.8	24	
5	548	550	540	544	543	529	523	526	520	524	517	526	524	527	533	524	527	519	529	525	529	525	529	527	537	519.6	24
6	526	522	524	524	525	519	523	504	511	501	506	520	524	520	518	521	518	522	517	523	515	521	527	537	519.6	24	
7	537	539	524	530	530	522	524	525	511	509	516	513	512	507	515	519	517	515	526	529	530	541	543	539	523.9	24	
8																											
9	541	535	526	525	519	520	514	519	515	517	524	510	515	525	510	512	517	526	520	523	529	521	526	526	541	519.0	24
10	532	522	524	524	525	519	515	507	505	505	503	505	514	525	515	508	523	519	523	529	521	526	526	541	519.0	24	
11	531	523	517	520	519	515	522	515	521	514	507	520	518	521	528	528	524	519	529	523	524	526	531	536	522.1	24	
12	535	536	536	534	535	533	529	526	526	527	524	530	523	523	524	530	521	529	529	524	521	540	531	541	529.4	24	
13	546	535	537	539	531	517	533	528	522	510	522	526	521	516	514	528	524	528	525	527	531	529	539	544	528.0	24	
14	543	541	543	545	543	539	532	526	525	536	523	535	533	515	534	537	539	545	533	546	551	541	546	544	537.3	24	
15	543	536	535	537	533	535	537	530	537	523	533	525	532	528	531	535	533	540	532	547	541	544	555	541	535.5	24	
16	552	557	535	546	542	536	531	525	525	535	536	540	530	535	534	538	544	545	541	539	544	544	547	547	539.2	24	
17	544	547	539	533	524	524	520	528	527	523	517	537	525	534	531	531	537	531	537	536	541	535	539	539	532.5	24	
18	537	534	543	544	548	548	547	541	545	544	540	541	533	537	530	537	540	547	544	547	552	547	534	543	541.8	24	
19	548	550	548	537	550	540	535	545	546	544	537	538	549	542	536	543	545	556	548	552	546	548	553	563	546.3	24	
20	561	558	558	556	555	548	546	533	537	542	537	538	544	543	543	529	540	542	543	549	544	552	554	562	546.4	24	
21	558	554	542	551	537	539	533	531	525	535	526	537	527	529	528	538	539	530	544	539	546	545	545	542	538.1	24	
22	541	539	537	527	528	529	526	517	518	517	509	507	525	510	527	530	528	529	534	541	538	554	546	540	529.0	24	
23	542	534	530	528	531	525	516	509	510	505	511	528	526	530	523	529	528	534	531	537	539	539	540	527.2	24		
24	541	530	521	524	534	528	531	518	526	520	516	512	510	512	514	514	522	528	535	531	531	532	544	541	525.1	24	
25	541	522	529	522	528	526	515	518	515	515	516	521	525	513	513	529	534	528	535	537	544	543	546	554	527.9	24	
26	545	539	537	534	530	544	536	549	545	543	544	540	543	542	542	544	548	548	542	548	553	538	550	543	542.8	24	
27	542	537	538	539	536	529	533	537	531	544	536	535	524	545	542	552	543	544	542	536	541	550	556	552	540.2	24	
28	547	543	534	534	527	521	529	525	541	533	538	524	525	524	529	518	518	525	544	544	550	538	545	540	532.5	24	

MONTHLY MEAN=533.857

MONTHLY MEAN DAILY VARIATION FOR 27 COMPLETE DAYS DEVIATIONS FROM AVERAGE:534.020

(1-12) 9.09 6.87 3.31 3.54 2.46 -0.54 -2.91 -5.83 -6.54 -7.95 -6.13
(13-24) -6.58 -6.95 -5.69 -3.02 -1.83 -0.46 0.46 3.83 4.61 6.65 9.76 10.39

HARMONIC COMPONENTS (ORDER, COS, SIN, AMPLITUDE, MAX.-HR)

U.T.=(1 7.93 -1.35 8.05 23.36) (2 0.99 0.03 0.99 0.07) (3 0.23 -0.36 0.43 6.73) (4 0.51 -0.71 0.88 5.09)
L.T.=(1 -2.80 7.54 8.05 7.36) (2 -0.46 -0.87 0.99 8.07) (3 0.23 -0.36 0.43 6.73) (4 0.37 0.79 0.88 1.09)

COSMIC RAY MESON INTENSITY
VERTICAL COMPONENT
Real Counts: 128 Times (Tabulated Counts Plus 3000)

U.T. Hours at End of Interval

9661 834

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	Mean	N	
1	67	81	71	64	63	66	66	45	41	48	38	41	46	46	40	44	44	44	54	54	56	40	40	48	46	52.0	24
2	53	47	53	59	59	53	57	53	44	47	47	47	40	35	54	51	44	44	34	34	54	57	40	39	48	48.5	24
3	48	65	58	58	60	55	49	55	42	53	49	42	50	60	49	52	52	49	49	49	46	44	49	46	50.9	24	
4	59	63	68	57	61	66	48	45	40	30	51	30	47	41	38	47	47	38	46	46	60	49	48	57	49.8	24	
5	57	55	49	44	60	51	51	50	40	40	37	37	35	49	38	42	22	40	34	36	37	37	43	53	43.6	24	
6	43	45	29	33	48	44	49	53	34	19	33	42	35	47	39	31	22	54	29	36	42	43	49	41	43.6	24	
7	53	56	54	54	54	54	41	39	40	38	29	27	22	32	32	29	32	29	46	46	55	46	58	49	40.3	24	
8	52	38	48	42	46	48	49	58	52	31	21	34	26	27	24	30	27	24	46	28	51	46	58	49	40.3	24	
9	41	52	46	46	39	39	37	40	40	17	24	22	21	4	23	12	12	30	30	30	32	32	34	51	38.4	24	
10	35	32	31	35	35	44	37	36	29	26	24	29	20	11	25	25	27	23	29	35	36	34	47	29.6	24		
11	36	34	34	34	35	44	37	39	35	35	31	27	20	14	14	25	37	23	29	36	32	29	24	32	31.0	24	
12	37	38	30	38	48	39	26	23	22	27	16	27	8	28	6	17	8	15	18	15	22	12	12	22.5	24		
13	23	23	43	38	43	36	36	25	32	28	12	20	3	8	6	17	8	15	18	15	22	12	12	22.5	24		
14	13	13	28	28	33	33	28	15	28	15	35	25	34	30	25	33	33	22	32	33	32	27	30	30	34.5	24	
15	15	14	37	32	42	47	37	38	28	17	17	17	16	10	10	10	10	24	24	30	30	27	30	30	34.6	24	
16	16	17	19	19	29	29	29	36	36	46	46	46	46	36	36	36	36	17	17	29	32	29	24	32	31.0	24	
17	17	18	18	19	19	22	22	22	22	24	24	24	24	12	12	12	12	30	30	30	32	32	34	51	38.4	24	
18	18	18	18	19	19	22	22	22	22	24	24	24	24	12	12	12	12	30	30	30	32	32	34	51	38.4	24	
19	19	19	19	20	20	21	21	21	21	21	21	21	21	14	14	14	14	21	21	25	26	26	27	27	28.7	24	
20	20	20	20	20	20	20	20	20	20	20	20	20	20	16	16	16	16	21	21	25	26	26	27	27	28.7	24	
21	21	21	21	21																							

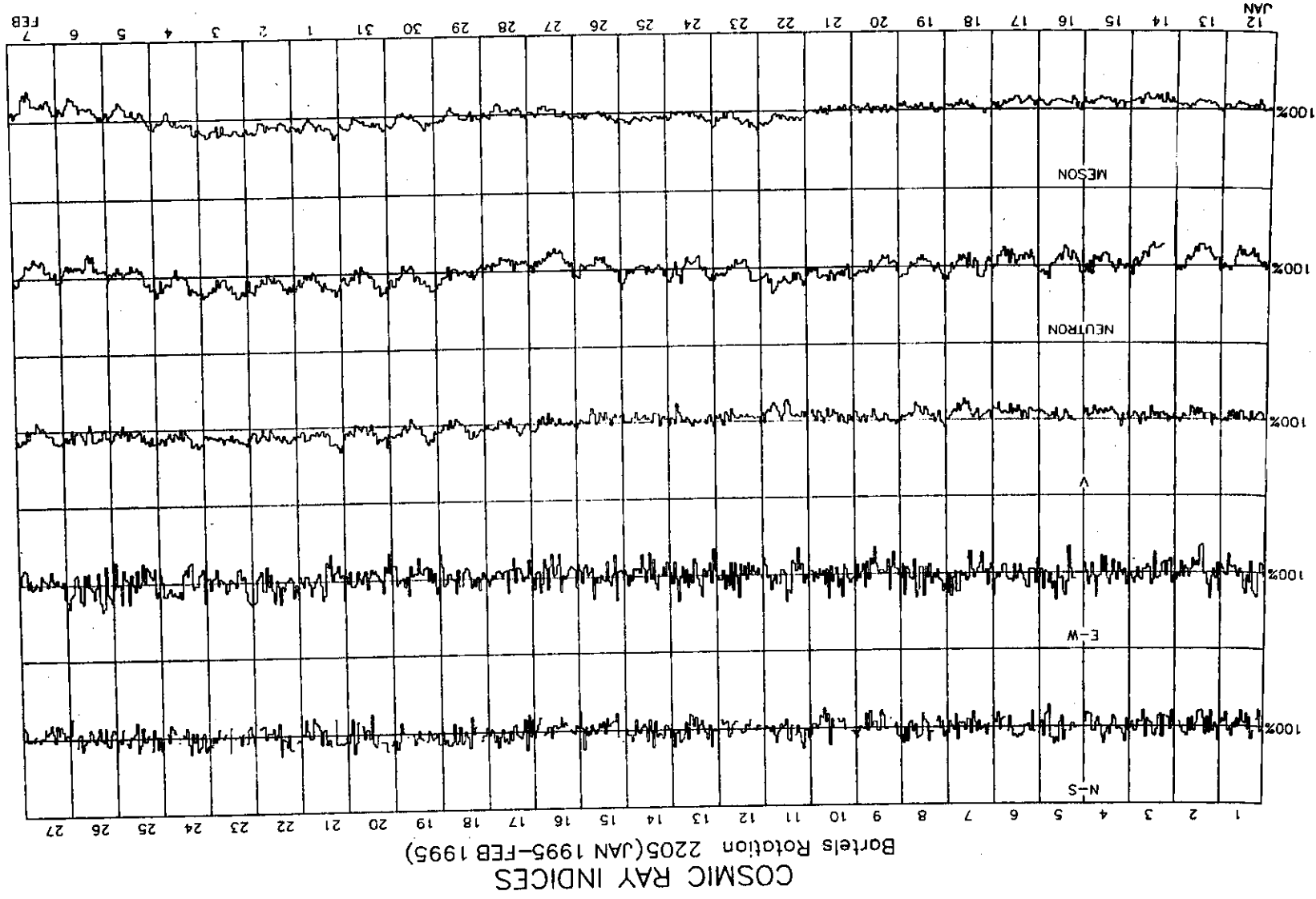
MONTHLY MEAN DAILY VARIATION FOR 28 COMPLETE DAYS DEVIATIONS FROM AVERAGE: 35.458													
(1-12)		6.08		6.83		5.40		6.54		6.54		4.58	
3.51		2.43		1.36		-3.57		-3.99		-6.57		4.97	
HARMONIC COMPONENTS (ORDER, COS, SIN, AMPLITUDE, MAX, -HR)													
(13-24)		-4.03		-7.82		-5.78		-6.64		-5.32		-5.07	
-1.57		-0.03		-0.67		1.51		1.29		4.97			

	U.T.=1	L.T.=1
3.92	6.60	2.43
(2 -0.58	0.13	0.59
5.58)	(3 0.06	0.04
0.07	0.79)	(4 0.27
0.60	0.66	1.09)
2.64	6.60	10.43)
(2 0.40	0.44	0.59
1.58)	(3 0.06	0.04
0.07	0.79)	(4 -0.65
-0.06	0.66	3.09)

COSMIC RAY MESON INTENSITY
Real Relative Intensity: 0.1% Times (Tabulated Value Plus 1000)
U. T. Hours at End of Interval
FEB 1995

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	Mean
1	62	63	66	62	59	55	58	60	56	57	57	58	56	60	55	54	54	58	59	56	54	58	60	57	58.4
2	57	60	59	56	55	54	55	61	61	57	57	57	56	62	55	54	54	58	61	62	61	61	60	58	57.7
3	60	62	62	61	59	59	61	62	61	61	61	61	62	62	60	59	59	60	61	60	61	61	60	58	58.5
4	57	64	52	51	54	54	56	56	54	55	56	52	55	54	51	46	46	51	53	54	53	55	58	53	54.3
5	58	54	56	47	50	46	49	49	45	48	48	48	48	43	43	43	43	44	48	48	48	46	46	49	47.4
6	61	48	48	51	46	46	46	43	38	40	43	43	43	42	41	41	41	41	43	43	43	45	45	46	43.7
7	46	47	44	44	44	44	42	42	42	41	41	41	46	40	40	37	37	37	39	39	35	35	46	49	47.4
8	46	51	49	48	49	49	47	47	44	44	44	44	44	43	43	43	43	43	43	43	43	43	43	43	43.7
9	44	49	44	44	46	46	46	40	40	46	46	46	49	44	44	44	44	44	46	46	46	46	46	46	43.0
10	48	48	49	46	46	46	46	45	45	45	44	44	44	44	44	42	42	43	43	43	43	43	43	43	46.8
11	46	49	49	48	48	48	48	48	48	46	46	46	48	48	48	40	40	43	46	46	46	46	46	46	45.3
12	52	52	51	51	52	52	47	47	47	47	47	47	47	47	47	44	44	48	48	48	48	48	48	48	45.4
13	52	52	53	53	52	52	48	48	48	48	48	48	48	48	48	39	43	43	43	43	43	43	43	43	45.4
14	48	48	50	50	50	50	49	49	49	49	49	49	49	49	49	42	42	43	43	43	43	43	43	43	47.8
15	53	53	54	54	53	53	50	50	50	50	50	50	50	50	50	48	48	48	49	49	49	49	49	49	47.4
16	51	54	56	52	53	53	52	52	53	54	52	52	48	48	48	45	45	46	46	46	46	46	46	46	49.9
17	52	52	56	56	55	55	55	55	56	56	56	52	47	47	47	42	42	43	43	43	43	43	43	43	47.5
18	48	48	50	49	49	49	48	48	48	48	48	48	48	48	48	46	46	46	46	46	46	46	46	46	47.5
19	53	53	55	55	55	55	53	53	53	53	53	53	50	50	50	52	52	48	48	48	48	48	48	48	48.4
20	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	51	51	48	48	48	48	48	48	48	48.4
21	48	48	50	50	50	50	50	50	50	50	50	50	50	50	50	51	51	48	48	48	48	48	48	48	48.4
22	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	51	51	48	48	48	48	48	48	48	48.4
23	48	48	50	50	50	50	50	50	50	50	50	50	50	50	50	51	51	48	48	48	48	48	48	48	48.4
24	46	46	52	52	52	52	49	49	49	49	49	49	49	49	49	50	50	46	46	46	46	46	46	46	47.6
Mean	49.653	49.653	49.653	49.653	49.653	49.653	49.653	49.653	49.653	49.653	49.653	49.653	49.653	49.653	49.653	49.653	49.653	49.653	49.653	49.653	49.653	49.653	49.653	49.653	49.653

MONTHLY MEAN DAILY VARIATION FOR 28 COMPLETE DAYS DEVIATIONS FROM AVERAGE: 49.653
 (1-12) 3.17 3.42 2.63 0.45 -0.55 -0.19 0.42 -0.26 -0.69 -1.26 -0.90
 (13-24) -0.15 -0.69 -3.80 -4.94 -3.97 -1.62 0.63 1.63 1.42 1.42 1.49 1.92
 HARMONIC COMPONENTS (ORDER, COS, SIN, AMPLITUDE, MAX, -NR)
 U.T.=(1) 2.12 0.78 2.26 1.35 (2) 0.77 -0.86 1.16 10.39 (3) -0.53 0.41 0.67 3.17 (4) 0.51 1.11 1.22 1.09
 L.T.=(1) -1.74 1.45 2.26 9.35 (2) -1.13 -0.23 1.16 6.39 (3) -0.53 0.41 0.67 3.17 (4) -1.22 -0.12 1.22 3.09



SUDDEN IONOSPHERIC DISTURBANCES (D REGION)

FEBRUARY 1995

Day	Sta	Start (UT)	Max (UT)	End (UT)	Imp	LF	SPA	VLF	SFA	LF
-----	-----	---------------	-------------	-------------	-----	----	-----	-----	-----	----

01	LINT	0059	0103	0122	3-	- 6.3			- 3.5, + 3.5	
01	LINT	0601	0611	0642	1-	- 0.7			- 1.0	
03	LINT	0141	0155	0213	3+	-12.5			- 6.7	
04	LINT	0234	0243	0259	1-	- 0.3			0	
04	LINT	0545	0549	0630	1	- 1.7			0	
06	LINT	0652	0658	0750	2-	- 3.1			+ 2.2	
19	LINT	2342	2344	2355	1	- 1.9			- 0.4	
20	LINT	0108	0113	0133	2-	- 3.3			- 5.7	
20	LINT	0155	0200	0225	1	- 1.8			0	
20	LINT	0316	0325	0445	3-	- 6.1			- 0.9, + 1.2	
21	LINT	0247	0254	0310	1-	- 0.8			- 0.6	
21	LINT	0721	0733	0800	1+	- 3.0			+ 2.7	
22	LINT	0400	0415	0450	1-	- 0.5			- 0.5	

GEOMAGNETIC ACTIVITY INDICES K AND A_K

BGMO

FEBRUARY 1995

Three-Hourly Indices K

Sum A_K

Day

0-3 3-6 6-9 9-12 12-15 15-18 18-21 21-24

1	2	2	2	3	3	3	3	3	3	21	12	
2	2	3	4	3	5	5	3	3	3	28	24	
3	3	3	4	3	5	4	4	3	3	29	24	
4	4	3	2	4	5	4	3	3	1	26	21	
5	1	2	1	2	3	2	2	2	1	14	7	
6	2	3	1	4	4	3	2	2	1	20	13	
7	3	2	3	2	1	1	2	2	3	17	9	
8	2	5	4	4	4	4	2	2	3	28	23	
9	1	3	2	1	1	1	1	1	1	11	5	
10	1	1	2	0	1	2	1	3	3	11	5	
11	3	2	5	3	5	5	4	4	4	31	29	
12	2	2	3	3	3	5	5	3	3	26	21	
13	4	3	4	5	6	5	3	3	3	33	34	
14	4	3	2	3	5	4	2	1	1	24	19	
15	3	4	3	3	2	4	4	2	2	25	18	
16	1	2	2	2	3	3	3	2	2	18	10	
17	1	2	1	3	4	3	2	2	2	18	11	
18	3	2	2	3	2	3	3	1	1	19	11	
19	1	2	2	1	1	2	2	2	2	13	6	
20	1	2	2	2	2	3	2	2	1	15	7	
21	1	1	2	2	1	0	2	1	1	10	4	
22	0	2	2	2	0	1	1	0	0	8	3	
23	1	2	2	4	2	3	1	1	1	16	9	
24	0	2	1	1	0	1	1	1	1	7	3	
25	1	1	1	1	1	1	0	1	1	7	3	
26	1	3	3	3	3	4	3	3	3	23	15	
27	2	4	4	4	5	5	5	3	3	32	31	
28	3	3	6	5	3	3	4	3	3	30	29	
											Sum	406
											Mean	14.5

MAGNETIC STORMS

FEBRUARY 1995

BGMO

Time of Magnetic					Sudden Com.			Deg.	Maximum Acti.				Maximum		
Beginning Ending					Amplitude			of	on K-scale				Range		
									3hour k						
Day	h	m	Day	h	Type	D'	HnT	ZnT	Acti.	Day	Int.	Index	D'	HnT	ZnT
07	19		08	24	GC				m	08	2	5	11.2	130	13
11	01		12	05	GC				m	11	3	5	6.4	97	18
27	03		01	23	GC				ms	28	3	6	7.9	108	27

Data of quiet and disturbed days are not available.

Late Data for January 1995

Quietest Day: 15 24 26 27 28

Most Disturbed Day: 3 17 18 29 30

1990年8月至1994年6月的月平滑 太阳黑子相对数的预报评价

张桂清

(中国科学院 北京天文台)

1991年我们对1988年10月到1990年7月的月平滑太阳黑子相对数预报作了检验,并与SGD Part 1给出的月平滑太阳黑子相对数预报的效果作了比对。结果表明,用门限自回归分析模型预报的太阳黑子数比SGD上预报的太阳黑子数更接近实测值。我们预报的总平均标准差为14.0,而SGD上预报的总标准差为18.9^[1]

对1990年8月至1994年6月的月平滑太阳黑子相对数的预报评价方法仍采用文献[1]的方法,即求各步预报的标准差:

$$S = \left(\frac{1}{n-1} \sum_{i=1}^n \Delta E_i^2 \right)^{\frac{1}{2}} \quad (1)$$

表1中给出了月平滑太阳黑子相对数的实测值(R),SGD Part 1上发布的预报值(R_1),门限自回归分析模型的预报值(R_2), R_1 的预报误差($\Delta E_1 = |R - R_1|$)和 R_2 的预报误差($\Delta E_2 = |R - R_2|$)。表2给出了 R_1 和 R_2 各步预报的平均预报误差 $\overline{\Delta E_1}$ 和 $\overline{\Delta E_2}$ 以及标准差 S_1 和 S_2 (表1和表2见英文稿)。

由表2可计算出用门限自回归模型所作预报的总平均预报误差为7.3,平均标准差为10.2,这个结果明显好于1988年10月至1990年6月的预报效果;SGD Part 1上发布的预报的总平均误差为9.6,平均标准为13.6。显然,我们的预报优于SGD上发布的预报。6年的实际预报结果表明,我们用门限自回归模型作月平滑太阳黑子相对数的预报是成功的。

(参考文献见英文稿)

VERIFICATION FOR THE PREDICTION OF MONTHLY SMOOTHED SUNSPOT NUMBERS FROM AUGUST 1990 TO JUNE 1994

ZHANG Gui-qing

(Beijing Astronomical Observatory
Chinese Academy of Sciences)

The prediction of smoothed sunspot numbers for October 1988-July 1990 was evaluated and was compared with the effectiveness of the prediction of smoothed sunspot numbers issued on SGD part I. The results showed that values of predictions using SETAR Model were closer to observed values than the values of predictions on SGD part I. The mean standard deviation of our predictions for all steps was 14.0 and the mean standard deviation of the predictions given by SGD part I for all steps was 18.9^[1].

The evaluating method of the prediction in reference [1] is also used here for August 1990 to June 1994. That is to calculate the standard deviation (S) of every step and mean standard deviation ($\bar{S}$) between the values of prediction and observed values:

$$S = \left(\frac{1}{n-1} \sum_{i=1}^n \Delta E^2 \right)^{1/2} \quad (1)$$

S_1 represents the standard deviation of the predictions given by SGD part I, S_2 represents the standard deviation of the predictions given by SETAR Model in CSGD.

The observed values (R), predicted values given by SGD part I (R_1), predicted values given by SETAR Model (R_2) of smoothed sunspot numbers and the errors of R_1 and R_2 ($\Delta E_1 = |R - R_1|$ and $\Delta E_2 = |R - R_2|$) are listed in Table 1. The mean errors of R_1 ($\bar{\Delta E}_1$) and R_2 ($\bar{\Delta E}_2$) for every step as well as the mean standard deviation of R_1 ($\bar{S}_1$) and R_2 ($\bar{S}_2$) for every step are listed in Table 2.

From Table 2. we can obtain that the mean error of the prediction by SETAR for all steps was 7.3 and the mean standard deviation for all steps was 10.2, which was better than ones for October 1988 to July 1990; the mean error of prediction given by SGD part I for all steps was 9.6 and the mean standard deviation for all steps was 13.6. The predicting results for 6 years have proved that the prediction of monthly smoothed sunspot number made by SETAR Model seems to be more successful.

Reference

[1] ZHANG Gui-qing CSGD(1991) No. 4-5, 74.

Period	step	content	Aug.1990	Jul.1991	Oct.1990	Sep.1991	Dec.1990	Nov.1991	Feb.1991	Jan.1992	Apr.1991	Mar.1992	Jun.1991	-	May.1992	1	2	3	4	5	6	7	8	9	10	11	12	Note
			R	ΔE_1	R_2	ΔE_2	R	ΔE_1	R_2	ΔE_2	R	ΔE_1	R_2	ΔE_2	R	ΔE_1	R_2	ΔE_2	R	ΔE_1	R_2	ΔE_2	R	ΔE_1	R_2	ΔE_2	CSGD(90) No.11-12	
			140	137	130	128	142	133	130	126	147	138	135	127	145	136	131	124	146	137	130	128	147	138	135	126	146	SGD.1 No.558
			140	140	130	138.0	137.4	137.9	139.4	141.6	144.3	144.3	141.6	144.3	144.5	144.3	144.3	143.3	140.5	137.5	134.4	132.7	13.3	145	122	120	120	26
			142	142	142	138.0	137.4	137.9	139.4	141.6	144.3	144.3	141.6	144.3	144.5	144.3	144.3	143.3	140.5	137.5	134.4	132.7	13.3	146	122	120	120	26
			142	142	142	138.0	137.4	137.9	139.4	141.6	144.3	144.3	141.6	144.3	144.5	144.3	144.3	143.3	140.5	137.5	134.4	132.7	13.3	146	122	120	120	26
			142	142	142	138.0	137.4	137.9	139.4	141.6	144.3	144.3	141.6	144.3	144.5	144.3	144.3	143.3	140.5	137.5	134.4	132.7	13.3	146	122	120	120	26
			142	142	142	138.0	137.4	137.9	139.4	141.6	144.3	144.3	141.6	144.3	144.5	144.3	144.3	143.3	140.5	137.5	134.4	132.7	13.3	146	122	120	120	26
			142	142	142	138.0	137.4	137.9	139.4	141.6	144.3	144.3	141.6	144.3	144.5	144.3	144.3	143.3	140.5	137.5	134.4	132.7	13.3	146	122	120	120	26
			142	142	142	138.0	137.4	137.9	139.4	141.6	144.3	144.3	141.6	144.3	144.5	144.3	144.3	143.3	140.5	137.5	134.4	132.7	13.3	146	122	120	120	26
			142	142	142	138.0	137.4	137.9	139.4	141.6	144.3	144.3	141.6	144.3	144.5	144.3	144.3	143.3	140.5	137.5	134.4	132.7	13.3	146	122	120	120	26
			142	142	142	138.0	137.4	137.9	139.4	141.6	144.3	144.3	141.6	144.3	144.5	144.3	144.3	143.3	140.5	137.5	134.4	132.7	13.3	146	122	120	120	26
			142	142	142	138.0	137.4	137.9	139.4	141.6	144.3	144.3	141.6	144.3	144.5	144.3	144.3	143.3	140.5	137.5	134.4	132.7	13.3	146	122	120	120	26
			142	142	142	138.0	137.4	137.9	139.4	141.6	144.3	144.3	141.6	144.3	144.5	144.3	144.3	143.3	140.5	137.5	134.4	132.7	13.3	146	122	120	120	26
			142	142	142	138.0	137.4	137.9	139.4	141.6	144.3	144.3	141.6	144.3	144.5	144.3	144.3	143.3	140.5	137.5	134.4	132.7	13.3	146	122	120	120	26
			142	142	142	138.0	137.4	137.9	139.4	141.6	144.3	144.3	141.6	144.3	144.5	144.3	144.3	143.3	140.5	137.5	134.4	132.7	13.3	146	122	120	120	26
			142	142	142	138.0	137.4	137.9	139.4	141.6	144.3	144.3	141.6	144.3	144.5	144.3	144.3	143.3	140.5	137.5	134.4	132.7	13.3	146	122	120	120	26
			142	142	142	138.0	137.4	137.9	139.4	141.6	144.3	144.3	141.6	144.3	144.5	144.3	144.3	143.3	140.5	137.5	134.4	132.7	13.3	146	122	120	120	26
			142	142	142	138.0	137.4	137.9	139.4	141.6	144.3	144.3	141.6	144.3	144.5	144.3	144.3	143.3	140.5	137.5	134.4	132.7	13.3	146	122	120	120	26
			142	142	142	138.0	137.4	137.9	139.4	141.6	144.3	144.3	141.6	144.3	144.5	144.3	144.3	143.3	140.5	137.5	134.4	132.7	13.3	146	122	120	120	26
			142	142	142	138.0	137.4	137.9	139.4	141.6	144.3	144.3	141.6	144.3	144.5	144.3	144.3	143.3	140.5	137.5	134.4	132.7	13.3	146	122	120	120	26
			142	142	142	138.0	137.4	137.9	139.4	141.6	144.3	144.3	141.6	144.3	144.5	144.3	144.3	143.3	140.5	137.5	134.4	132.7	13.3	146	122	120	120	26
			142	142	142	138.0	137.4	137.9	139.4	141.6	144.3	144.3	141.6	144.3	144.5	144.3	144.3	143.3	140.5	137.5	134.4	132.7	13.3	146	122	120	120	26
			142	142	142	138.0	137.4	137.9	139.4	141.6	144.3	144.3	141.6	144.3	144.5	144.3	144.3	143.3	140.5	137.5	134.4	132.7	13.3	146	122	120	120	26
			142	142	142	138.0	137.4	137.9	139.4	141.6	144.3	144.3	141.6	144.3	144.5	144.3	144.3	143.3	140.5	137.5	134.4	132.7	13.3	146	122	120	120	26
			142	142	142	138.0	137.4	137.9	139.4	141.6	144.3	144.3	141.6	144.3	144.5	144.3	144.3	143.3	140.5	137.5	134.4	132.7	13.3	146	122	120	120	26
			142	142	142	138.0	137.4	137.9	139.4	141.6	144.3	144.3	141.6	144.3	144.5	144.3	144.3	143.3	140.5	137.5	134.4	132.7	13.3	146	122	120	120	26
			142	142	142	138.0	137.4	137.9	139.4	141.6	144.3	144.3	141.6	144.3	144.5	144.3	144.3	143.3	140.5	137.5	134.4	132.7	13.3	146	122	120	120	26
			142	142	142	138.0	137.4	137.9	139.4	141.6	144.3	144.3	141.6	144.3	144.5	144.3	144.3	143.3	140.5	137.5	134.4	132.7	13.3	146	122	120	120	26
			142	142	142	138.0	137.4	137.9	139.4	141.6	144.3	144.3	141.6	144.3	144.5	144.3	144.3	143.3	140.5	137.5	134.4	132.7	13.3	146	122	120	120	26
			142	142	142	138.0	137.4	137.9	139.4	141.6	144.3	144.3	141.6	144.3	144.5	144.3	144.3	143.3	140.5	137.5	134.4	132.7	13.3	146	122	120	120	26
			142	142	142	138.0	137.4	137.9	139.4	141.6	144.3	144.3	141.6	144.3	144.5	144.3	144.3	143.3	140.5	137.5	134.4	132.7	13.3	146	122	120	120	26
			142	142	142	138.0	137.4	137.9	139.4	141.6	144.3	144.3	141.6	144.3	144.5	144.3	144.3	143.3	140.5	137.5	134.4	132.7	13.3	146	122	120	120	26
			142	142	142	138.0	137.4	137.9	139.4	141.6	144.3	144.3	141.6	144.3	144.5	144.3	144.3	143.3	140.5	137.5	134.4	132.7	13.3	146	122	120	120	26
			142	142	142	138.0	137.4	137.9	139.4	141.6	144.3	144.3	141.6	144.3	144.5	144.3	144.3	143.3	140.5	137.5	134.4	132.7	13.3	146	122	120	120	26
			142	142	142	138.0	137.4	137.9	139.4	141.6	144.3	144.3	141.6	144.3	144.5	144.3	144.3	143.3	140.5	137.5	134.4	132.7	13.3	146	122	120	120	26
			142	142	142	138.0	137.4	137.9	139.4	141.6	144.3	144.3	141.6	144.3	144.5	144.3	144.3	143.3	140.5	137.5	134.4	132.7	13.3	146	122	120	120	26
			142	142	142	138.0	137.4	137.9	139.4	141.6	144.3	144.3	141.6	144.3	144.5	144.3	144.3	143.3	140.5	137.5	134.4	132.7	13.3	146	122	120	120	26
			142	142	142	138.0	137.4	137.9	139.4	141.6	144.3	144.3	141.6	144.3	144.5	144.3	144.3	143.3	140.5	137.5	134.4	132.7	13.3	146	122	120	120	26
			142	142	142	138.0	137.4	137.9	139.4	141.6	144.3	144.3	141.6	144.3	144.5	144.3	144.3	143.3	140.5	137.5	134.4	132.7	13.3	146	122	120	120	26
			142	142	142	138.0	137.4	137.9	139.4	141.6	144.3	144.3	141.6	144.3	144.5	144.3	144.3	143.3	140.5	137.5	134.4	132.7	13.3	146	122	120	120	26
			142	142	142	138.0	137.4	137.9	139.4	141.6	144.3	144.3	141.6	144.3	144.5	144.3	144.3	143.3	140.5	137.5	134.4	132.7	13.3	146	122	120	120	26
			142	142	142	138.0	137.4	137.9	139.4	141.6	144.3	144.3	141.6	144.3	144.5	144.3	144.3	143.3	140.5	137.5	134.4	132.7	13.3	146	122	120	120	26
			142	142	142	138.0	137.4	137.9	139.4	141.6	144.3	144.3	141.6	144.3	144.5	144.3	144.3	143.3	140.5	137.5	134.4	132.7	13.3	146	122	120	120	26
			142	142	142	138.0	137.4	137.9	139.4	141.6	144.3	144.3	141.6	144.3	144.5	144.3	144.3	143.3	140.5	137.5	134.4	132.7	13.3	146	122	120	120	26
			142	142	142	138.0	137.4	137.9	139.4	141.6	144.3	144.3	141.6	144.3	144.5	144.3	144.3	143.3	140.5	137.5	134.4	132.7	13.3	146	122	120	120	26
			142	142	142	138.0	137.4	137.9	139.4	141.6	144.3	144.3	141.6	144.3	144.5	144.3	144.3	143.3	140.5	137.5	134.4	132.7	13.3	146	122	120	120	26
			142	142	142	138.0	137.4	137.9	139.4	141.6	144.3	144.3	141.6	144.3	144.5	144.3	144.3	143.3	140.5	137								

Table 1

Aug.1991	R	ΔE_1	R_1	147	140	134	131	130	130	138	132	124	115	108	103	108	129	121	114	108	103	100	97	98	91	SGD.1 No.570	CSGD(91) No.11-12	Oct.1991	R	ΔE_1	R_1	142	143	142	138	132	124	115	108	103	108	126	123	120	116	113	110	106	101	27	111.4	37.4	CSGD(92) No.4-5	Feb.1992	R	ΔE_2	R_2	ΔE_1	R_1	R	ΔE_2	R_2	ΔE_1	R_1	103	106	103	97	91	84	80	77	74	73	71	69	67	64	60	66	6	58.2	1.8	CSGD(92) No.10	May.1993
	-			147	140	134	131	130	130	138	132	124	115	108	103	108	129	121	114	108	103	100	97	98	91	SGD.1 No.570	CSGD(91) No.11-12	Jul.1992	ΔE_2	R_2	ΔE_1	R_1	R	ΔE_2	R_2	ΔE_1	R_1	R	ΔE_2	R_2	ΔE_1	R_1	103	106	103	97	91	84	80	77	74	73	71	69	67	64	60	66	6	58.2	1.8	CSGD(92) No.10	May.1993																						
	-			145.7	140	134	131	130	130	138.3	141.0	142.3	0.3	1.1	1.7	143.9	143.9	143.9	128.9	103	100	97	98	91	98	SGD.1 No.570	CSGD(91) No.11-12	Jul.1992	ΔE_2	R_2	ΔE_1	R_1	R	ΔE_2	R_2	ΔE_1	R_1	R	ΔE_2	R_2	ΔE_1	R_1	103	106	103	97	91	84	80	77	74	73	71	69	67	64	60	66	6	58.2	1.8	CSGD(92) No.10	May.1993																						
	-			145.7	140	134	131	130	130	138.3	141.0	142.3	0.3	1.1	1.7	143.9	143.9	143.9	128.9	103	100	97	98	91	98	SGD.1 No.570	CSGD(91) No.11-12	Jul.1992	ΔE_2	R_2	ΔE_1	R_1	R	ΔE_2	R_2	ΔE_1	R_1	R	ΔE_2	R_2	ΔE_1	R_1	103	106	103	97	91	84	80	77	74	73	71	69	67	64	60	66	6	58.2	1.8	CSGD(92) No.10	May.1993																						
	-			145.7	140	134	131	130	130	138.3	141.0	142.3	0.3	1.1	1.7	143.9	143.9	143.9	128.9	103	100	97	98	91	98	SGD.1 No.570	CSGD(91) No.11-12	Jul.1992	ΔE_2	R_2	ΔE_1	R_1	R	ΔE_2	R_2	ΔE_1	R_1	R	ΔE_2	R_2	ΔE_1	R_1	103	106	103	97	91	84	80	77	74	73	71	69	67	64	60	66	6	58.2	1.8	CSGD(92) No.10	May.1993																						
	-			145.7	140	134	131	130	130	138.3	141.0	142.3	0.3	1.1	1.7	143.9	143.9	143.9	128.9	103	100	97	98	91	98	SGD.1 No.570	CSGD(91) No.11-12	Jul.1992	ΔE_2	R_2	ΔE_1	R_1	R	ΔE_2	R_2	ΔE_1	R_1	R	ΔE_2	R_2	ΔE_1	R_1	103	106	103	97	91	84	80	77	74	73	71	69	67	64	60	66	6	58.2	1.8	CSGD(92) No.10	May.1993																						
	-			145.7	140	134	131	130	130	138.3	141.0	142.3	0.3	1.1	1.7	143.9	143.9	143.9	128.9	103	100	97	98	91	98	SGD.1 No.570	CSGD(91) No.11-12	Jul.1992	ΔE_2	R_2	ΔE_1	R_1	R	ΔE_2	R_2	ΔE_1	R_1	R	ΔE_2	R_2	ΔE_1	R_1	103	106	103	97	91	84	80	77	74	73	71	69	67	64	60	66	6	58.2	1.8	CSGD(92) No.10	May.1993																						
	-			145.7	140	134	131	130	130	138.3	141.0	142.3	0.3	1.1	1.7	143.9	143.9	143.9	128.9	103	100	97	98	91	98	SGD.1 No.570	CSGD(91) No.11-12	Jul.1992	ΔE_2	R_2	ΔE_1	R_1	R	ΔE_2	R_2	ΔE_1	R_1	R	ΔE_2	R_2	ΔE_1	R_1	103	106	103	97	91	84	80	77	74	73	71	69	67	64	60	66	6	58.2	1.8	CSGD(92) No.10	May.1993																						
	-			145.7	140	134	131	130	130	138.3	141.0	142.3	0.3	1.1	1.7	143.9	143.9	143.9	128.9	103	100	97	98	91	98	SGD.1 No.570	CSGD(91) No.11-12	Jul.1992	ΔE_2	R_2	ΔE_1	R_1	R	ΔE_2	R_2	ΔE_1	R_1	R	ΔE_2	R_2	ΔE_1	R_1	103	106	103	97	91	84	80	77	74	73	71	69	67	64	60	66	6	58.2	1.8	CSGD(92) No.10	May.1993																						
	-			145.7	140	134	131	130	130	138.3	141.0	142.3	0.3	1.1	1.7	143.9	143.9	143.9	128.9	103	100	97	98	91	98	SGD.1 No.570	CSGD(91) No.11-12	Jul.1992	ΔE_2	R_2	ΔE_1	R_1	R	ΔE_2	R_2	ΔE_1	R_1	R	ΔE_2	R_2	ΔE_1	R_1	103	106	103	97	91	84	80	77	74	73	71	69	67	64	60	66	6	58.2	1.8	CSGD(92) No.10	May.1993																						
	-			145.7	140	134	131	130	130	138.3	141.0	142.3	0.3	1.1	1.7	143.9	143.9	143.9	128.9	103	100	97	98	91	98	SGD.1 No.570	CSGD(91) No.11-12	Jul.1992	ΔE_2	R_2	ΔE_1	R_1	R	ΔE_2	R_2	ΔE_1	R_1	R	ΔE_2	R_2	ΔE_1	R_1	103	106	103	97	91	84	80	77	74	73	71	69	67	64	60	66	6	58.2	1.8	CSGD(92) No.10	May.1993																						
	-			145.7	140	134	131	130	130	138.3	141.0	142.3	0.3	1.1	1.7	143.9	143.9	143.9	128.9	103	100	97	98	91	98	SGD.1 No.570	CSGD(91) No.11-12	Jul.1992	ΔE_2	R_2	ΔE_1	R_1	R	ΔE_2	R_2	ΔE_1	R_1	R	ΔE_2	R_2	ΔE_1	R_1	103	106	103	97	91	84	80	77	74	73	71	69	67	64	60	66	6	58.2	1.8	CSGD(92) No.10	May.1993																						
	-			145.7	140	134	131	130	130	138.3	141.0	142.3	0.3	1.1	1.7	143.9	143.9	143.9	128.9	103	100	97	98	91	98	SGD.1 No.570	CSGD(91) No.11-12	Jul.1992	ΔE_2	R_2	ΔE_1	R_1	R	ΔE_2	R_2	ΔE_1	R_1	R	ΔE_2	R_2	ΔE_1	R_1	103	106	103	97	91	84	80	77	74	73	71	69	67	64	60	66	6	58.2	1.8	CSGD(92) No.10	May.1993																						
	-			145.7	140	134	131	130	130	138.3	141.0	142.3	0.3	1.1	1.7	143.9	143.9	143.9	128.9	103	100	97	98	91	98	SGD.1 No.570	CSGD(91) No.11-12	Jul.1992	ΔE_2	R_2	ΔE_1	R_1	R	ΔE_2	R_2	ΔE_1	R_1	R	ΔE_2	R_2	ΔE_1	R_1	103	106	103	97	91	84	80	77	74	73	71	69	67	64	60	66	6	58.2	1.8	CSGD(92) No.10	May.1993																						
	-			145.7	140	134	131	130	130	138.3	141.0	142.3	0.3	1.1	1.7	143.9	143.9	143.9	128.9	103	100	97	98	91	98	SGD.1 No.570	CSGD(91) No.11-12	Jul.1992	ΔE_2	R_2	ΔE_1	R_1	R	ΔE_2	R_2	ΔE_1	R_1	R	ΔE_2	R_2	ΔE_1	R_1	103	106	103	97	91	84	80	77	74	73	71	69	67	64	60	66	6	58.2	1.8	CSGD(92) No.10	May.1993																						
	-			145.7	140	134	131	130	130	138.3	141.0	142.3	0.3	1.1	1.7	143.9	143.9	143.9	128.9	103	100	97	98	91	98	SGD.1 No.570	CSGD(91) No.11-12	Jul.1992	ΔE_2	R_2	ΔE_1	R_1	R	ΔE_2	R_2	ΔE_1	R_1	R	ΔE_2	R_2	ΔE_1	R_1	103	106	103	97	91	84	80	77	74	73	71	69	67	64	60	66	6	58.2	1.8	CSGD(92) No.10	May.1993																						
	-			145.7	140	134	131	130	130	138.3	141.0	142.3	0.3	1.1	1.7	143.9	143.9	143.9	128.9	103	100	97	98	91	98	SGD.1 No.570	CSGD(91) No.11-12	Jul.1992	ΔE_2	R_2	ΔE_1	R_1	R	ΔE_2	R_2	ΔE_1	R_1	R	ΔE_2	R_2	ΔE_1	R_1	103	106	103	97	91	84	80	77	74	73	71	69	67	64	60	66	6	58.2	1.8	CSGD(92) No.10	May.1993																						
	-			145.7	140	134	131	130	130	138.3	141.0	142.3	0.3	1.1	1.7	143.9	143.9	143.9	128.9	103	100	97	98	91	98	SGD.1 No.570	CSGD(91) No.11-12	Jul.1992	ΔE_2	R_2	ΔE_1	R_1	R	ΔE_2	R_2	ΔE_1	R_1	R	ΔE_2	R_2	ΔE_1	R_1	103	106	103	97	91	84	80	77	74	73	71	69	67	64	60	66	6	58.2	1.8	CSGD(92) No.10	May.1993																						
	-			145.7	140	134	131	130	130	138.3	141.0	142.3	0.3	1.1	1.7	143.9	143.9	143.9	128.9	103	100	97	98	91	98	SGD.1 No.570	CSGD(91) No.11-12	Jul.1992	ΔE_2	R_2	ΔE_1	R_1	R	ΔE_2	R_2	ΔE_1	R_1	R	ΔE_2	R_2	ΔE_1	R_1	103	106	103	97	91	84	80	77	74	73	71	69	67	64	60	66	6	58.2	1.8	CSGD(92) No.10	May.1993																						
	-			145.7	140	134	131	130	130	138.3	141.0	142.3	0.3	1.1	1.7	143.9	143.9	143.9	128.9	103	100	97	98	91	98	SGD.1 No.570	CSGD(91) No.11-12	Jul.1992	ΔE_2	R_2	ΔE_1	R_1	R	ΔE_2	R_2	ΔE_1	R_1	R	ΔE_2	R_2	ΔE_1	R_1	103	106	103	97	91	84	80	77	74	73	71	69	67	64	60	66	6	58.2	1.8	CSGD(92) No.10	May.1993																						
	-			145.7	140	134	131	130	130	138.3	141.0	142.3	0.3	1.1	1.7	143.9	143.9	143.9	128.9	103	100	97	98	91	98	SGD.1 No.570	CSGD(91) No.11-12	Jul.1992	ΔE_2	R_2	ΔE_1	R_1	R	ΔE_2	R_2	ΔE_1	R_1	R	ΔE_2	R_2	ΔE_1	R_1	103	106	103	97	91	84	80	77	74	73	71	69	67	64	60	66	6	58.2	1.8	CSGD(92) No.10	May.1993																						
	-			145.7	140	134	131	130	130	138.3	141.0	142.3	0.3	1.1	1.7	143.9	143.9	143.9	128.9	103	100	97	98	91	98	SGD.1 No.570	CSGD(91) No.11-12																																																										

Aug.1992	R	84	88	86	83	77	74	73	71	69	67	64	60	56	55	60	64	62	56	55	52	48	45	40.9	59.0	4.0
	ΔE_1	4	6	6	6	6	6	6	3	3	3	72	74	71	69	2	2	66	64	62	52	48	44	60.9	59.0	4.0
Jul.1993	ΔE_2	0.3	0.4	0.4	0.1	0.1	0.4	0.4	0.5	1.5	2.1	3.0	3.9	4.9	3.9	63.9	63.9	64	62	56	55	52	44	60.9	59.0	4.0
	R	77	74	74	73	71	69	67	64	60	56	52	48	45	41	38	35	34	34	34	34	34	34	38.0	37.5	4.5
	R_1	77	74	74	72	69	68	65	62	60	57	53	51	48	45	41	37	34	34	34	34	34	34	38.0	37.5	4.5
	R_2	76.3	72.9	69.4	66.7	64.7	62.8	60.3	57.2	54.3	52.4	51.3	49.8	48	45	41	37	34	34	34	34	34	34	38.0	37.5	4.5
Sep.1993	ΔE_2	0.7	1.1	3.6	4.3	4.3	4.2	3.7	2.8	1.7	2.6	3.9	4.9	3.9	6.5	11.1	12.5	11.8	11.8	11.8	11.8	11.8	11.8	11.8	11.8	11.8
	R	73	71	69	67	64	60	56	52	48	45	41	38	35	32	29	26	23	20	17	14	11	8	5	2	1
	ΔE_1	0	0	0	1	2	2	2	0	3	2	6	7	10	6	58.1	56.0	53.3	53.3	53.3	53.3	53.3	53.3	53.3	53.3	53.3
	R_1	72	69	68	65	62	60	59	57	55	52	48	45	41	38	35	32	29	26	23	20	17	14	11	8	5
	R_2	73.2	72.3	71.6	70.5	68.6	65.7	62.8	61.2	59.9	58.1	56.0	53.3	51	48	45	41	37	34	31	28	25	22	19	16	13
Dec.1992	R	73	71	69	67	64	60	56	52	48	45	41	38	35	32	29	26	23	20	17	14	11	8	5	2	1
	ΔE_1	1	2	1	2	2	2	0	3	2	6	7	10	6	58.1	56.0	53.3	53.3	53.3	53.3	53.3	53.3	53.3	53.3	53.3	53.3
	R_1	72	69	68	65	62	60	59	57	55	52	48	45	41	38	35	32	29	26	23	20	17	14	11	8	5
	R_2	73.2	72.3	71.6	70.5	68.6	65.7	62.8	61.2	59.9	58.1	56.0	53.3	51	48	45	41	37	34	31	28	25	22	19	16	13
Nov.1993	ΔE_2	0.2	1.3	2.6	3.5	4.6	5.7	6.8	7.9	8.8	9.9	10.1	11.0	12.3	12.3	12.3	12.3	12.3	12.3	12.3	12.3	12.3	12.3	12.3	12.3	12.3
	R	69	67	64	60	56	52	48	45	41	38	35	32	29	26	23	20	17	14	11	8	5	2	1	1	1
	ΔE_1	0	0	0	1	2	2	2	0	3	2	6	7	10	6	58.1	56.0	53.3	53.3	53.3	53.3	53.3	53.3	53.3	53.3	53.3
	R_1	69	67	64	60	56	52	48	45	41	38	35	32	29	26	23	20	17	14	11	8	5	2	1	1	1
	R_2	69.3	67.2	65.1	63.0	61.1	59.2	57.3	55.6	53.8	52.1	50.5	48.8	47	45	41	37	34	31	28	25	22	19	16	13	10
Feb.1993	R	69	67	64	60	56	52	48	45	41	38	35	32	29	26	23	20	17	14	11	8	5	2	1	1	1
	ΔE_1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	R_1	69	67	64	60	56	52	48	45	41	38	35	32	29	26	23	20	17	14	11	8	5	2	1	1	1
	R_2	69.3	67.2	65.1	63.0	61.1	59.2	57.3	55.6	53.8	52.1	50.5	48.8	47	45	41	37	34	31	28	25	22	19	16	13	10
Jan.1994	ΔE_2	0.3	0.2	1.1	3.0	5.1	7.6	10.1	12.5	15.0	17.5	20.0	22.5	25.0	27.5	30.0	32.5	35.0	37.5	40.0	42.5	45.0	47.5	50.0	52.5	55.0
	R	64	60	56	52	48	45	41	38	35	32	29	26	23	20	17	14	11	8	5	2	1	1	1	1	1
	ΔE_1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	R_1	64	60	56	52	48	45	41	38	35	32	29	26	23	20	17	14	11	8	5	2	1	1	1	1	1
	R_2	63.0	59.2	56.2	54.6	53.7	52.3	50.6	48.3	45.7	43.5	41.8	40.5	39.1	37.5	35.8	34.1	32.4	30.7	29.0	27.3	25.6	23.9	22.2	20.5	18.8
Mar.1994	ΔE_2	1.0	0.8	0.2	0.4	1.7	4.3	6.6	8.9	11.2	13.5	15.8	18.1	20.4	22.7	25.0	27.3	29.6	31.9	34.2	36.5	38.8	41.1	43.4	45.7	48.0
	R	56	55	52	48	45	41	38	35	32	29	26	23	20	17	14	11	8	5	2	1	1	1	1	1	1
	ΔE_1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	R_1	58	57	55	53	52	50	49	48	46	45	44	43	42	41	40	39	38	37	36	35	34	33	32	31	30
	R_2	55.9	54.1	53.0	51.5	49.7	47.3	44.6	42.3	40.5	39.1	38.0	37.5	36.5	35.5	34.5	33.5	32.5	31.5	30.5	29.5	28.5	27.5	26.5	25.5	24.5
Jun.1993	R	56	55	52	48	45	41	38	35	32	29	26	23	20	17	14	11	8	5	2	1	1	1	1	1	1
	ΔE_1	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
	R_1	58	57	55	53	52	50	49	48	46	45	44	43	42	41	40	39	38	37	36	35	34	33	32	31	30
	R_2	55.9	54.1	53.0	51.5	49.7	47.3	44.6	42.3	40.5	39.1	38.0	37.5	36.5	35.5	34.5	33.5	32.5	31.5	30.5	29.5	28.5	27.5	26.5	25.5	24.5
May.1994	ΔE_2	0.1	0.9	1.0	3.5	4.7	6.3	8.6	10.9	13.2	15.5	17.8	20.1	22.4	24.7	27.0	29.3	31.6	33.9	36.2	38.5	40.8	43.1	45.4	47.7	50.0

step \ content	1	2	3	4	5	6	7	8	9	10	11	12	mean
S_1	3.3	6.2	8.5	10.3	11.3	13.1	13.9	14.8	15.5	16.2	16.3	16.5	13.64
S_2	1.3	2.9	4.4	6.1	7.5	9.0	10.6	12.3	14.1	16.2	17.8	19.9	10.18
ΔE_1	2.4	4.8	6.4	8.1	9.0	10.6	11.4	11.9	12.3	12.6	12.6	12.8	9.58
ΔE_2	0.9	2.1	3.1	4.4	5.2	6.3	7.6	8.8	10.1	11.8	12.8	14.7	7.31

Table 2

Aug. 1993	Jul. 1994	Oct. 1993	Sep. 1994	Dec. 1993	Nov. 1994	Feb. 1994	Jan. 1995
R	52	48	45	41	46	38	35
R_1	53	51	50	49	47	43	41
ΔE_1	1	3	5	5	2	0	0
R_2	53.8	52.4	50.4	47.9	45.0	42.4	39.9
ΔE_2	1.8	4.4	5.4	6.9	7.0	5.4	4.9
R	48	45	41	38	37	34	33
R_1	51	50	49	47	46	43	41
ΔE_1	3	5	6	6	0	0	1
R_2	52.4	50.4	47.9	45.0	42.4	39.9	37.6
ΔE_2	4.4	5.4	6.9	7.0	5.4	4.9	3.6
R	33	34	37	38	39	38	37
R_1	42	42	31	33	33	31	31
ΔE_1	8	8	6	5	5	1	0
R_2	33.7	33.7	27.1	25.1	22.6	20.0	18.2
ΔE_2	0.7	1.0	23.1	22.4	13.5	26	24
SGD.1 No.594	38	31	40	41	42	43	44
CSGD(93) No.12	29.8	32.0	32.0	32.0	32.0	32.0	32.0
SGD.1 No.596	32	34	35	37	38	39	40
CSGD(94) No.2	22.4	23.1	25.1	27.1	28.5	29.8	31.5
SGD.1 No.598	26	27	28	29	31	33	34
CSGD(94) No.5	13.5	15.5	17.8	20.0	22.6	25.0	27.0
SGD.1 No.600	24	24	25	26	27	28	30
CSGD(94) No.6	15.1	16.8	18.2	19.5	21.0	22.7	24.8

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