



spot Index

Date Center

BULLETIN

# Bulletin Werkgroep Zon Januari 1995

NMWS Werkgroep Zon. Sekretariaat: Veenenburg 36, 2804 WZ Gouda. Tel: 01820-39082

## Zonnevlekkengetalen (Sunspot numbers)

0006, 1532 bp

Zonnevlekkengetalen (Sunspot numbers)

Day	Bais	Gr 6	Groes	Men	Jn 8	Jn 4	vSloc	Sp 7	Zans	Zille
1		0			0			0		0
2		0			0			0		0
3		0			0			0		0
4	13	0	0	0	0	25	-0	0		0
5	14	12	24	0	0	14	13	13		13
6										
7	0			0	0	0				
8										
9	0			0	0					
10										0
11	11	12		0	0				12	0
12	0	0		0	0				0	0
13	0									
14		17	12							
15										
16	17	18	18	14		26	19	18		
17	31	29	19	13	14	36		17	16	
18										
19	48	47		25	27	44	37	35		
20	49	47		23	35	80		77	42	
21	46	47	57						50	
22										
23		63		24						
24	46								47	
25										
26										
27	25			11					13	11
28		34		11						
29										
30	41	40	42	11		62			26	
31										
observ	15	1	15	7	19	2	10	6	13	6
k	0.93	1.17	0.85	0.84	1.85	1.60	0.68	1.03	1.16	1.09
std. dev.	0.16	-	0.13	0.32	0.55	0.06	0.15	0.37	0.32	0.49
std. dev. k	0.18	-	0.15	0.38	0.30	0.04	0.22	0.36	0.27	0.44

Observers	[...]	[...]	[RI...]	[...]
Bais	= H.A.M. Balster [70]	[...] = Reflector, d = ... mm.	vSlo	= B. van Slooten [90]
Gr 6	= Mw G. Gravers [60]	Jden	= J.A. Idenburg [RI 125]	Sp 7
Gr 6	= A. Groenewegen [102]	Jn .9	= D. Jannink [9]	Zans
		Jn 4	= D. Jannink [40]	Zijle
			= W.A. Zijlema [90]	



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NMWS Werkgroep Zon. Sekretariaat: Veenenburg 36, 2804 WZ Gouda. Tel: 01820-39082

## Bulletin Werkgroep Zon Januari 1995

NMWS Werkgroep Zon. Sekretariaat: Veenenburg 36, 2804 WZ Gouda. Tel: 01820-39082

1995 JANUARY R<sub>FM</sub> = 23.8

Date	R <sub>f</sub>	PPSI	600	2800	COB	SFI	XI	AK	SEA	MAG
31	7	0	37	077	990	0	0/0	6		
1	10	0	38	075	996	0	0/0	5		
2	8	0	37	077	993	1	0/0	21		
3	11	0	38	077	990	1	0/0	38		
4	14	1	37	077	987	0	0/0	20		
5	11	2	38	076	983	0	0/0	28		
6	15	3	38	074	981	0	0/0	19		
7	7	-	38	075	984	0	0/0	13		
8	9	1	37	074	988	0	0/0	8		
9	9	1	38	074	993	0	0/0	7		
10	8	1	38	073	996	0	0/0	8		
11	9	1	38	075	998	0	0/0	16		
12	12	0	37	076	1000	0	0/0	6		
13	8	1	38	075	991	0	0/0	7		
14	11	4	38	077	993	0	0/0	6		
15	12	10	38	081	998	1	0/0	5		
16	17	15	38	083	994	1	0/0	24		
17	23	27	38	084	986	0	0/0	42		
18	35	39	38	087	990	1	0/0	34		
19	42	29	38	090	998	0	0/0	5		
20	51	41	38	093	996	6	0/0	11		
21	55	38	40	096	995	7	0/0	10		
22	53	37	40	096	997	1	0/0	9		
23	50	49	40	096	995	5	0/0	7		
24	53	62	41	097	999	24	0/0	3		
25	49	33	40	090	999	1	0/0	4		
26	30	32	39	086	997	15	0/0	2	1525	
27	21	12	37	088	990	23	0/0	2		
28	25	10	38	083	988	13	0/0	3		
29	16	7	38	085	990	7	0/0	38		
30	31	6	39	086	986	6	0/0	33		
31	32	12	40	087	988	27	0/0	32		

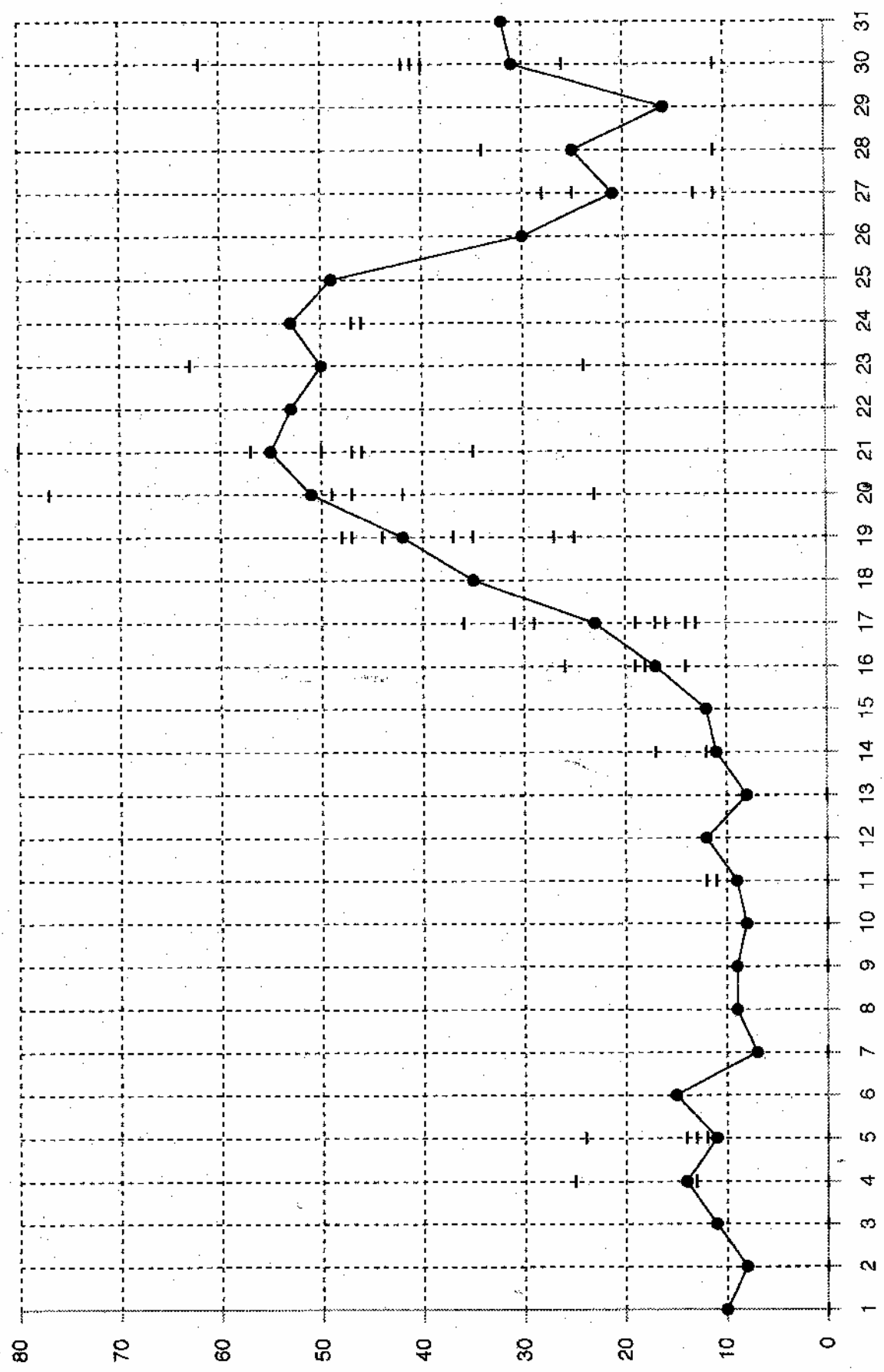
Very low activity, slightly increasing from 19.

R<sub>f</sub>, R<sub>fm</sub>: provisional international sunspot numbers from the S.I.D.C.  
 PPSI: prompt photometric sunspot index from the S.I.D.C. in 10.5 μm: the quantity to subtract from the mean solar constant.  
 600: 600 MHz solar flux from Huairui station (Belgium).  
 2800: 2800 MHz solar flux from Ottawa (origin: Ursigrans - UG601 group 2). The 10.7cm Flux data are provided as a service of the National Research Council of Canada.  
 COB: thousands of the cosmic ray counts (origin: Ursigrans - UG056 Kerguelen).  
 XI: From October 1992, Solar Flare Index from the S.I.D.C. (origin: Ursigrans - UG606 group 3).  
 AK: X-flares index from the Ursigrans (M-flares/X-flares) (origin: Ursigrans - UG606 group 3).  
 SEA: planetary geomagnetic index from Mingat, Germany (origin: Ursigrans).  
 MAG: sudden enhancements of atmospheric pressure from Uccle & Humin (Royal Observatory, Belgium).  
 KESK: magnetic events from Dourbes station (Royal Meteorological Institute, Belgium).  
 RESK: sudden ionospheric disturbances; asc (sudden storm commencement); magst (magnetic storm); sfs (solar flare effect); s-1-2-3-4 (class of flares); 11-1V radio-burst; T (ten cm radio-burst); P (proton flare); p (proton event); s1 (ground level event); n (neutron event); sj (sudden impulse); F (forbush); SFI Evaluation (1 x 10<sup>10</sup> x m<sup>2</sup> s<sup>-1</sup>).

● = SIDC  
-- = Observers Werkgroep Zon

● = SIDC

R

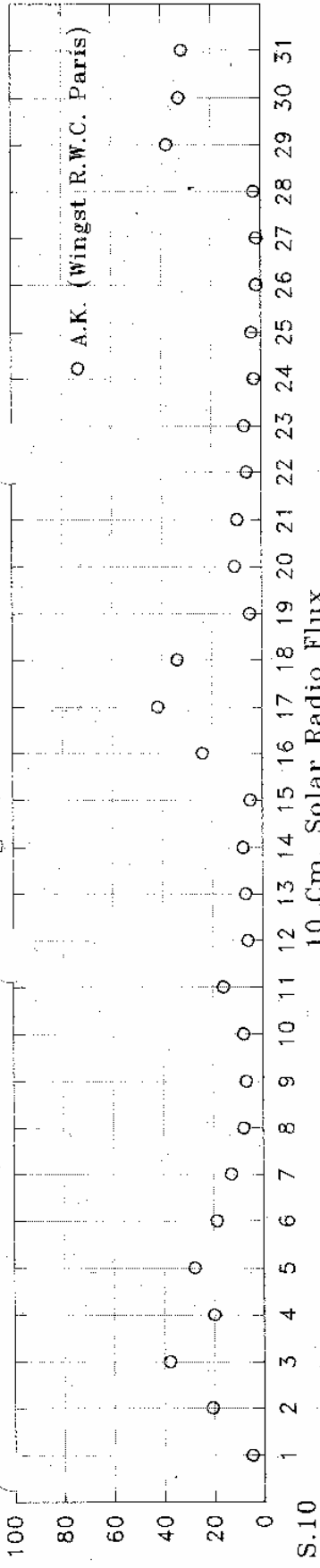


T

A.K.

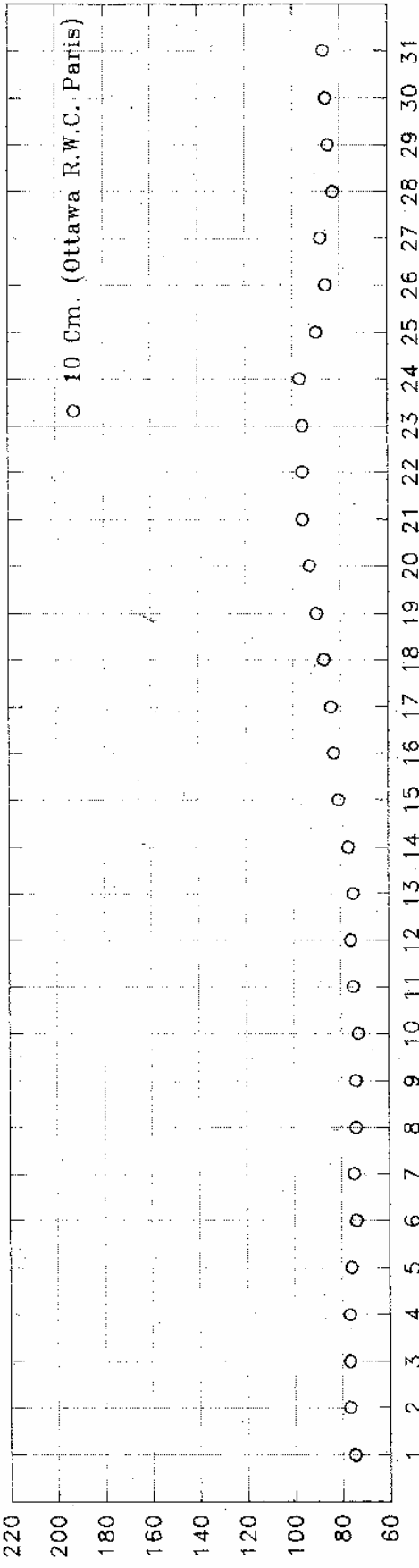
Geomagnetic A.K. Index

Januari 1995



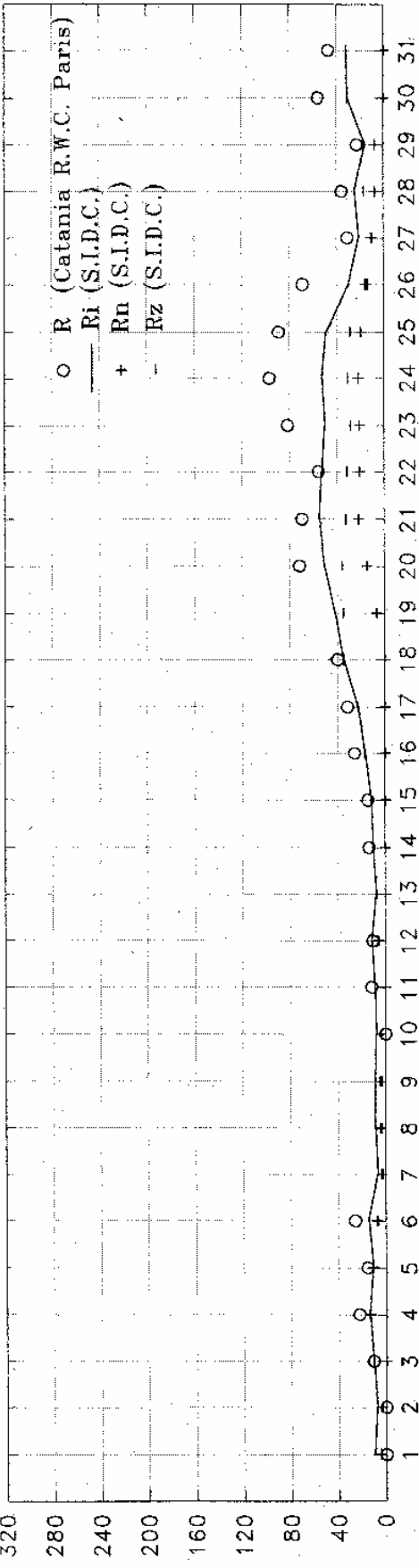
S.10

10 Cm. Solar Radio Flux



R.

Relative Sunspot Numbers



Rimax 55  
Jan. 21

Rimin 7  
Jan. 7

Rigem.  
23,8

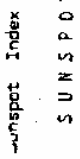




# Bulletin Werkgroep Zon

## Februari 1995

NWVS Werkgroep Zon, Sekretariaat: Veeningenburg 36, 2804 WZ Gouda. Tel: 01820-39062



# SUNSPOT BULLETIN

## S.I.D.C. SUMMARY OF THE URSIGRAMS

### 1995 FEBRUARY R(1M) = 29.9

Zonnevlekgetallen (Sunspot numbers)

Day	Bals	Gr 6	Groes	Iden	Jh. 9	Jh. 4	vSlo	Sp. 7	Vers	Zans	Zijle
1											
2	41	40	31	12	15	58	46	18	31		
3	53	42	42	12	67						
4		42									
5											
6		44									
7											
8											
9		11	26	11	24	24	23	24	11		
10											
11		11	11	11	11	11	11	11	11		
12	12	11									
13											
14	23	23				37	22	22	22		
15	25		22	22							
16	37		22	22							
17	42	38	22	24		33	27	34	43		
18											
19	49		71	14		67	60	58			
20											
21		41									
22	72	46	75	25	63	88	15	49			
23	58		23		56						
24											
25											
26	39	24	25	23	33	39	41	13	24	25	
27	49	40	41	24		50	32	39			
28											
Observ.	11	3	12	7	16	3	11	4	8	12	6
k	0.80	1.10	0.99	0.90	1.82	1.73	0.76	0.67	1.55	0.94	1.02
stdev.	0.17	0.17	0.23	0.29	0.80	0.87	0.22	0.15	0.84	0.21	0.33
eld./k	0.22	0.15	0.23	0.32	0.44	0.50	0.29	0.23	0.54	0.22	0.32

Aanvulling Bulletin januari '95: D. Verschuuren: observ. = 6; k = 1.88; st. dev. = 0.22; st. dev. / k = 0.12.

Observers	l...	Reflector, d = ... mm
Bals = H.A.M. Balsest [70]	Jh. 9 = D. Jannink [9]	Vers = D. Verschuuren [R1 40]
Gr 6 = Mw G. Gravers [60]	Jh 4 = D. Jannink [40]	Zans = W. Zanstra [R1 155]
Groes = A. Groenewegen [102]	vSlo = B. van Sooten [90]	Zijle = W.A. Zijlstra [90]
Iden = J.A. Idenburg [R1 125]	Sp 7 = T. Spatinks [75]	

Date	R	PSGI	600	2800	COS	SFI	XI	AK	SEA	MAG
31	32	12	40	087	988	27	0/0	32		
1	35	16	38	087	989	25	2/0	14	0819 B -IN	
2	41	26	38	086	985	2	0/0	24	1300	
3	38	29	39	083	988	111	1/0	25	0135 S -2B	
4	35	21	39	086	989	111	1/0	24	1544	1536 S -2B, T, SID
5	35	35	39	081	985	12	0/0	4	1350	
6	34	21	38	084	988	16	0/0	10		
7	16	17	38	084	990	2	0/0	14		
8	12	7	38	086	989	0	0/0	21		
9	17	4	40	084	991	1	0/0	3		
10	23	7	39	081	995	0	0/0	4		
11	13	9	38	081	992	1	0/0	27		
12	14	17	-	081	991	1	0/0	33		
13	14	14	40	086	992	0	0/0	42		
14	17	16	38	082	998	1	0/0	33		
15	25	24	38	085	999	1	0/0	23		
16	26	13	38	086	998	1	0/0	12		
17	33	23	39	089	998	4	0/0	7		
18	31	24	40	089	990	4	0/0	12		
19	46	34	41	095	991	6	0/0	8		
20	46	46	41	091	988	55	1/0	6	1358	
21	45	57	41	089	989	3	0/0	6		
22	47	41	41	085	-	1	0/0	1		
23	42	35	41	085	999	1	0/0	4		
24	30	10	40	083	998	0	0/0	3		
25	26	15	39	083	998	0	0/0	1		
26	26	15	39	086	999	10	0/0	14	1115	T
27	32	26	39	088	996	0	0/0	28		
28	38	39	38	091	993	1	0/0	31		

Moderate solar activity in the beginning of the month with two centers of activity, then moderate to low.

R, R(1M): provisional international sunspot numbers from the S.I.D.C.  
 PSI: prompt photometric sunspot index from the S.I.D.C. in 10.5 w/m<sup>2</sup>; the quantity to subtract from the mean solar constant.  
 600: 600 MHz solar flux from Humin station (Belgium).  
 2800: 2800 MHz solar flux from Ottawa (origin: Ursigram - UGEO1 group 2); the 10.7cm flux data are provided as a service of the National Research Council of Canada.  
 COS: thousands of the cosmic ray counts (origin: Ursigram - UGOS Kerguelen).  
 XI: From October 1992, Solar Flare Index from the S.I.D.C. (origin: Ursigram - UGEO1 group 3).  
 AK: X-flares index from the Ursigram (X-flares/X-flares) (origin: Ursigram - UGEO1 group 2); UGEO1 group 5).  
 SEA: planetary geomagnetic index from Wines, Bernay (origin: Ursigram).  
 MAG: sudden enhancements of atmospheric ionization from Uccle & Humin Royal Observatory, Belgium.  
 nummets: a) sid (sudden ionospheric disturbance); nuc (sudden storm commencement); magst (magnetic storm); sfo (solar flare effect); s-1-2-3-4 (class of flares); II-IV (radio-burst); T (ten cm radio-burst); P (proton flare); P (proton event); gte (ground level event; neutron event); el (sudden impulses); F (forbush); SFI Evaluation (1 x 10<sup>-10</sup> x 10<sup>-11</sup>).

● = SIDC

— = Observers Werkgroep Zon

R

100

80

60

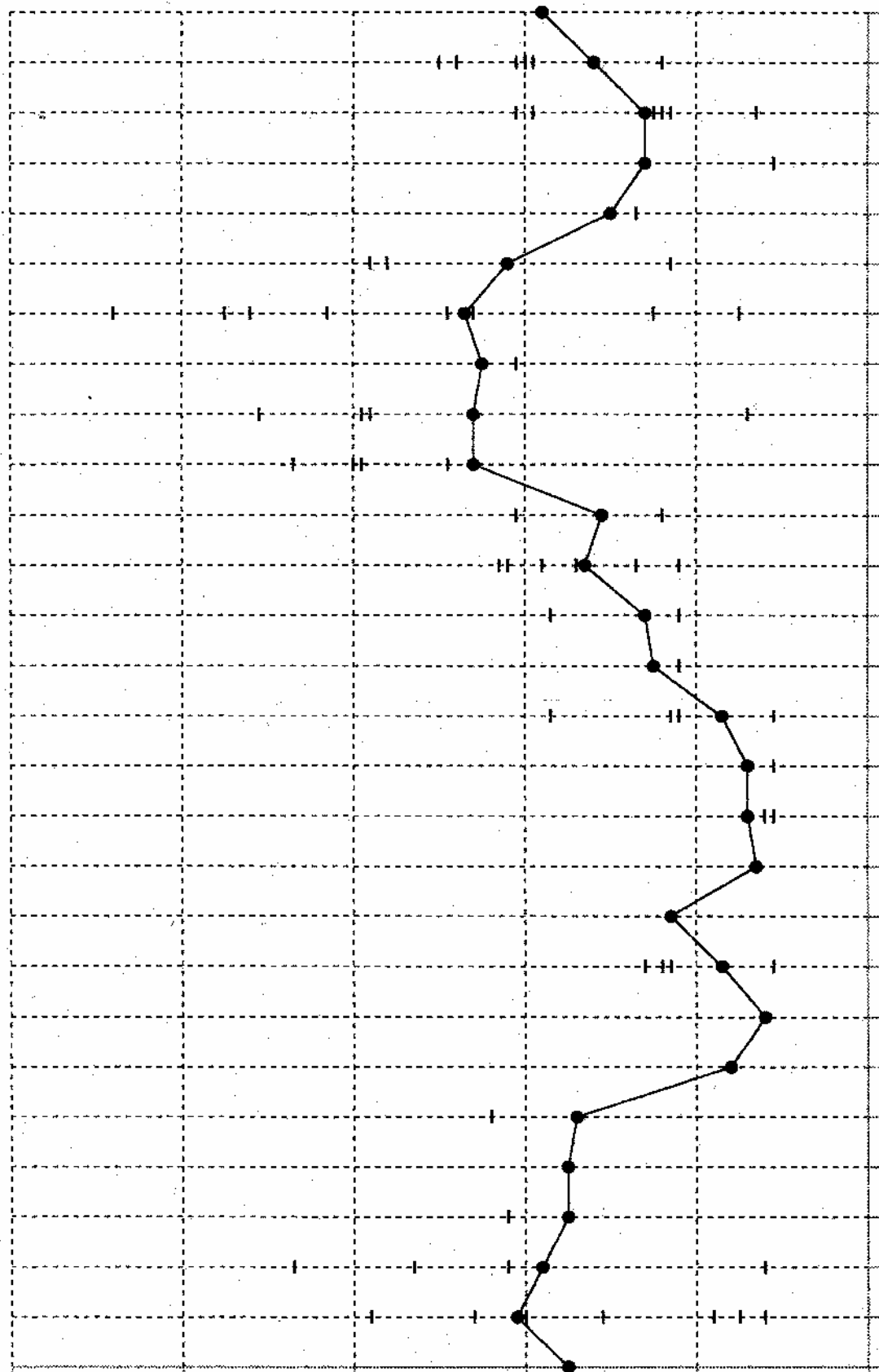
40

20

0

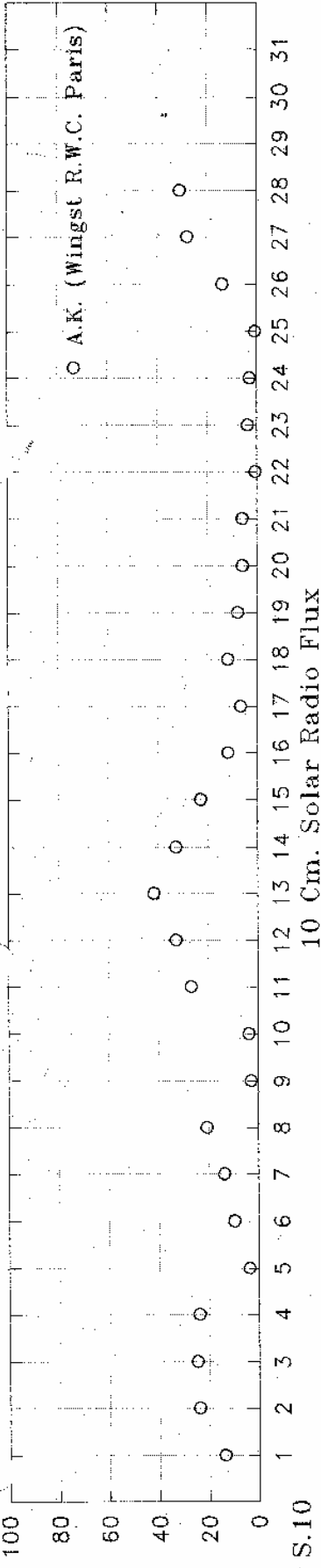
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T



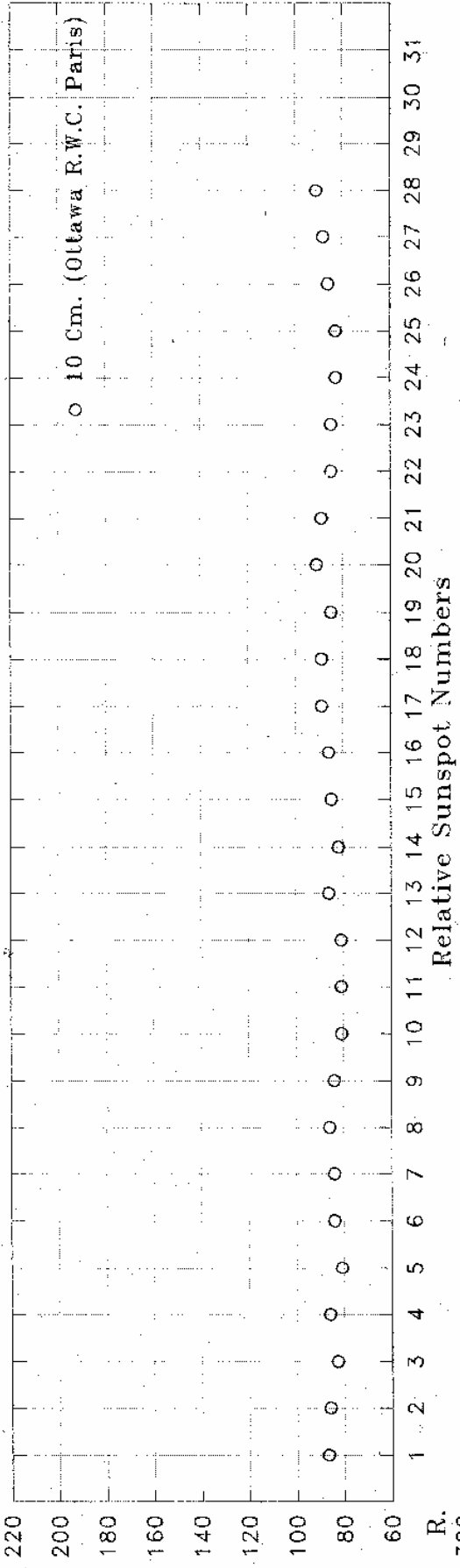
Geomagnetic A.K. Index

A.K.



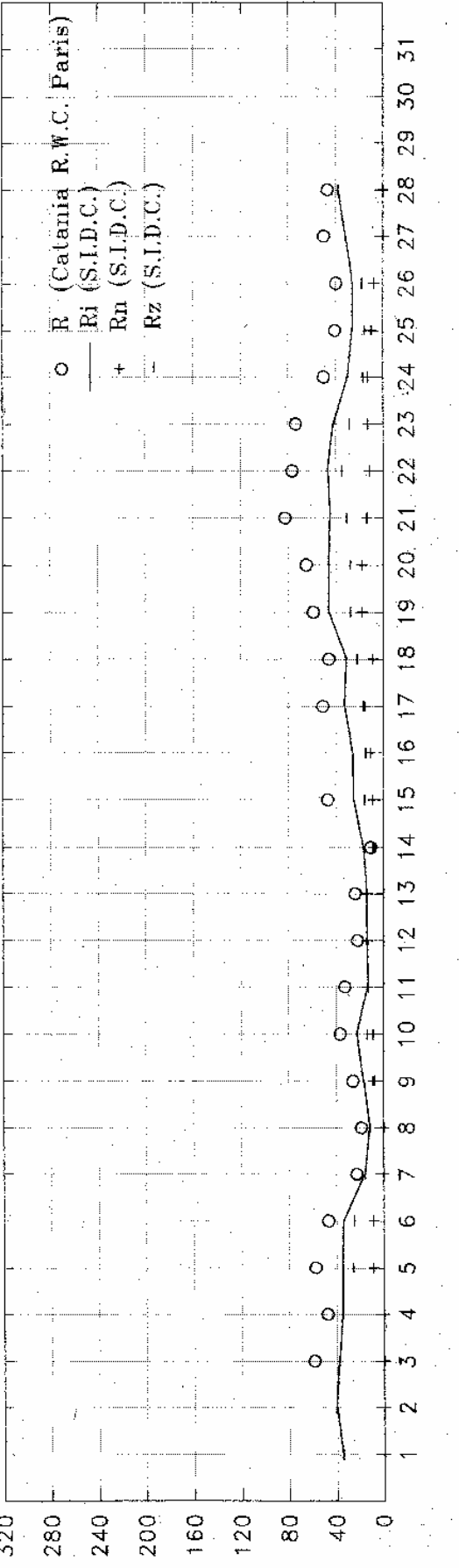
10 Cm. Solar Radio Flux

S.10



Relative Sunspot Numbers

R.



Rimax 47  
Febr. 23

Rimin 12  
Febr. 8

Rigem.  
29.9







Bulletin Werkgroep Zon Maart 1995

NVWS Werkgroep Zon, Sekretariaat: Veenenburg 36, 2804 WZ Gouda. Tel: 01820-39082

Zonnevlekgetallen (Sunspot numbers)

Day	Bals	Gr 6	Groe	Iden	Jn 9	Jn 4	Scho	vSlo	Sp 7	Vers	Zans	Zijle
1	59	36	80	87	54							
2	57	37	75	75	58	68						
3	57	39	91	91	42							
4	80	48	103	94	58	70	88					
5												
6	36	53	23	37								
7	45	39	51	22	35	41	50					
8	25	37	11	27								
9	23	11	11	11	11	11	12	0	0			
10	0	0	0	0	0	0	0	0	0			
11	12	11	11	11	11	11	11	11	11	0	11	0
12	24	0	12	11	13	11	0	0	25	0	25	0
13	0	0	0	0	23	0	0	0	0	0	0	0
14	12	11	11	11	11	0	13	0	13	0	13	0
15	16	12	15	12	31	15	15	13				
16	22	16	13	13	19	17	15	15	17			
17	18	13	13	13								
18	54	32	55	55	41	53						
19	43	46	37	42	52	51	41	53				
20	55	42	42	55	55	42	54	48				
21	61	42	42	58	68	27	89					
22	47	34	26	26	28	68	55	43				
23	64	49	27	69	55	40	37					
24	59	46	24	65	44							
25	38	41	35	36	48	85	46					
26	35	41	11									
27	39	14	19	40	26	19	13					
28						28						
29	35	16	13	35	18	18	28					
30	34	22	12	31	18	28						
31												
observ	24	6	26	8	28	4	25	17	17	18	12	
k	0.75	0.92	1.04	0.79	1.78	1.20	0.86	0.73	0.76	1.06	0.91	0.97
sl.dev.	0.15	0.20	0.27	0.21	0.61	0.28	0.09	0.15	0.14	0.22	0.25	0.50
sl.d./k	0.20	0.22	0.25	0.26	0.34	0.23	0.10	0.20	0.18	0.21	0.27	0.51

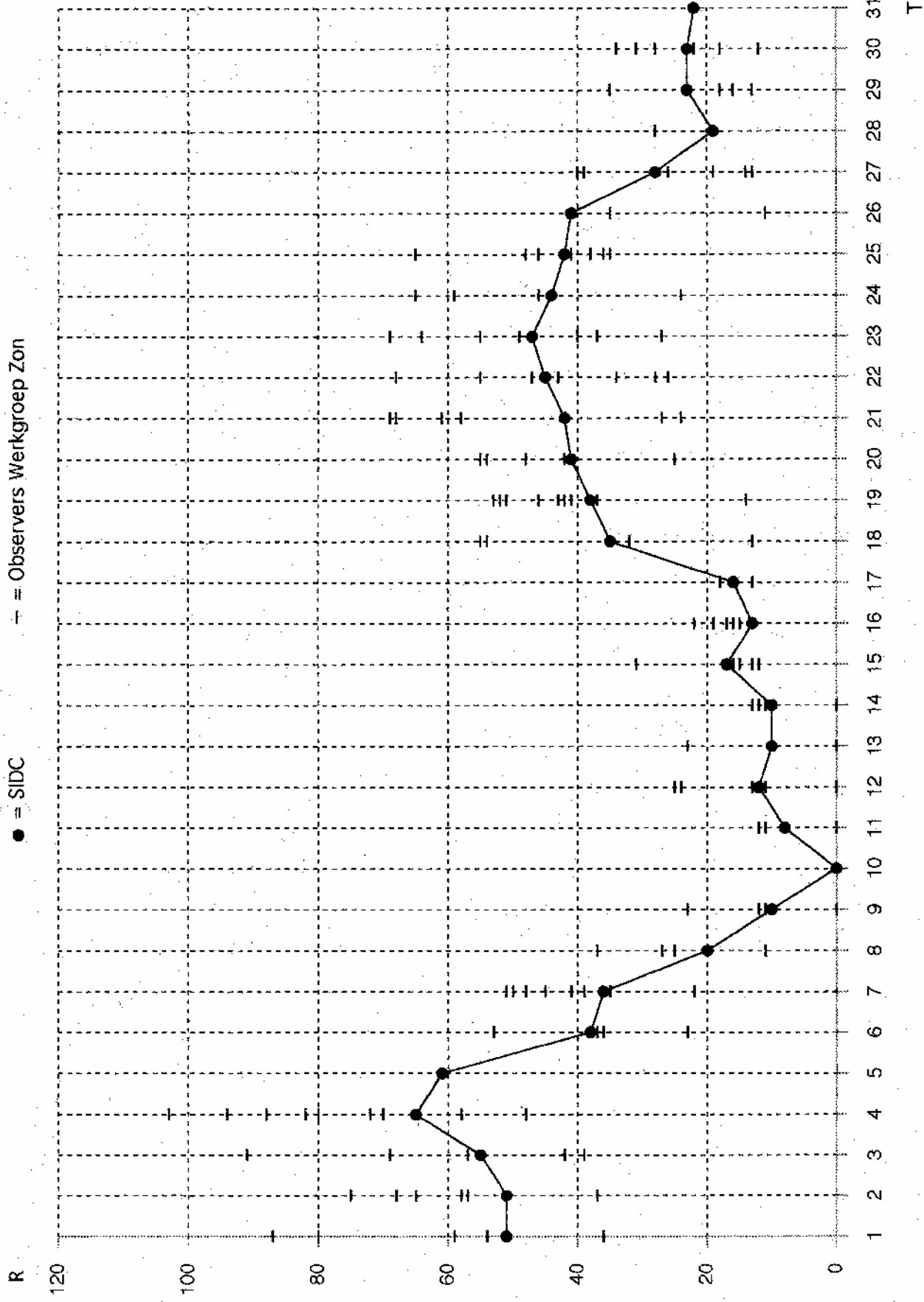
Observers	[...]	Reflector, d = ... mm
Bals = H.A.M. Baister [70]	Jn 9 = D. Jannink [9]	[Rf 1] = Reflector, d = ... mm
Gr 6 = M.w.G. Gravers [60]	Jn 4 = D. Jannink [40]	Sp 7 = T. Spaninks [75]
Groe = A. Groenewegen [102]	Scho = A. Scholten [60]	Vers = D. Verschuuren [Rf 40]
Iden = J.A. Idenburg [Rf 125]	vSlo = B. van Slooten [90]	Zans = W. Zanstra [Rf 155]
		Zijle = W.A. Zijlstra [90]

Date	Rf	PPSI	600	2800	COB	SFI	XI	AK	SEA	MAG
28	38	39	38	091	993	1	0/0	31		
1	51	69	38	090	993	0	0/0	33		
2	51	58	39	090	987	0	0/0	24		
3	55	86	42	091	922	2	0/0	9		
4	65	83	40	089	983	1	0/0	25		
5	61	49	41	084	984	1	0/0	22		
6	38	34	42	084	978	10	0/0	3		
7	36	22	36	084	985	2	0/0	3		
8	20	7	36	081	998	7	0/0	4		
9	10	1	35	078	998	1	0/0	24		
10	0	-	36	079	990	0	0/0	23		
11	8	0	35	076	991	0	0/0	34		
12	12	1	36	076	981	0	0/0	44		
13	10	1	35	077	985	0	0/0	32		
14	10	2	37	079	982	2	0/0	21		
15	17	8	37	081	987	1	0/0	14		
16	13	13	37	084	991	13	0/0	15	1417	
17	16	24	37	083	995	0	0/0	10		
18	35	37	38	092	996	1	0/0	5		
19	38	51	39	084	994	0	0/0	6		
20	41	41	39	089	997	9	0/0	5		
21	42	54	40	090	996	4	0/0	2		
22	45	56	39	094	992	12	1/0	2	1407+1627	
23	47	52	39	094	999	1	0/0	7	1037(SSC)	
24	44	42	38	095	986	3	0/0	6		
25	42	21	38	092	994	1	0/0	5		
26	41	23	38	090	998	6	0/0	23		
27	28	26	38	089	988	3	0/0	20		
28	19	31	39	084	988	4	0/0	19		
29	23	31	38	081	992	15	0/0	18		
30	23	33	38	080	987	1	0/0	8		
31	22	24	38	077	992	0	0/0	8		

Very low to moderate solar activity.

Rf, Rf<sub>10</sub>: provisional international sunspot numbers from the S.I.D.C.  
 PPSI: prompt photometric sunspot index from the S.I.D.C. in 10-5 w/m<sup>2</sup>; the quantity to subtract from the mean solar constant.  
 600: 600 MHz solar flux from Kungälv station (Belgium).  
 2800: 2800 MHz solar flux from Ottawa (origin: Ursigrans - UGEOR group 2); UGEOR group 5).  
 COB: thousands of the cosmic ray counts (origin: Ursigrans - UGDOE Kerguelen).  
 SFI: X-flares index from the Ursigrans (X-flares/X-flares) (origin: Ursigrans - UGEOR group 3).  
 XI: planetary geomagnetic index from Wiesbaden, Germany (origin: Ursigrans).  
 AK: sudden enhancements of atmospheric radio noise from Uccle & Namur (Royal Observatory, Belgium).  
 SEA: magnetic events from Dourbes station (Royal Meteorological Institute, Belgium).  
 MAG: magnetic events from Dourbes station (Royal Meteorological Institute, Belgium).  
 Remarks: s: sid (sudden ionospheric disturbance); mac (sudden storm commencement); agst (magnetic storm); sfe (solar flare effect); s-1-2-3-4 (class of flares); ll-W radio-burst; T (ten on radio-burst); P (proton flare); P (proton event); gte (ground level event); n (neutron event); st (sudden impulse); F (Forbush); SFI evaluation (1 x 5h10 x 4h100 x 4h10).

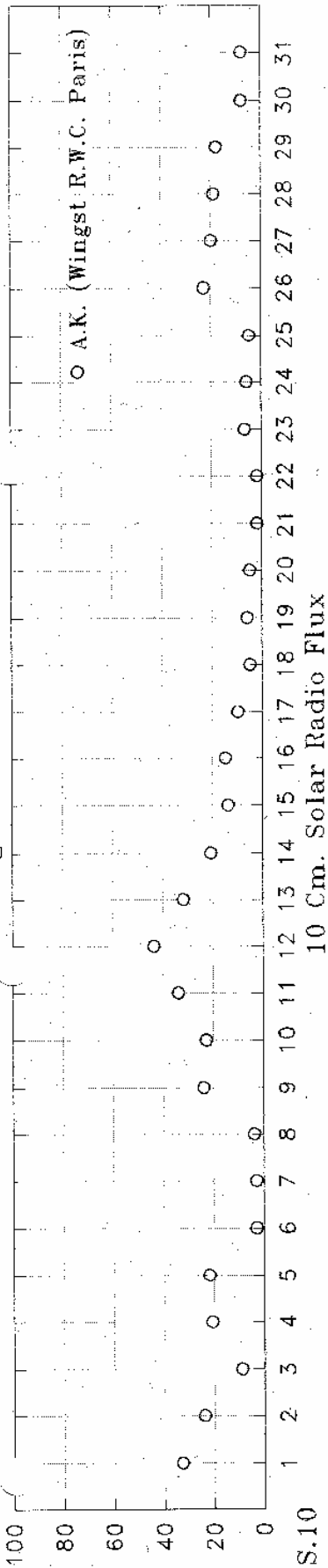
● = SIDC  
+ = Observers Werkgroep Zon



T

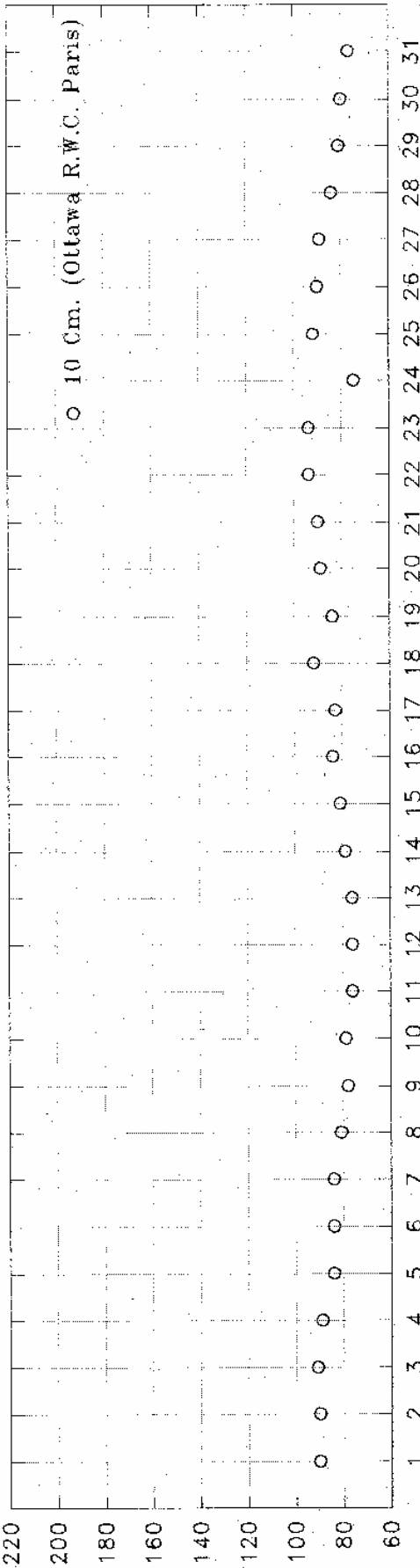
Geomagnetic A.K. Index

A.K.



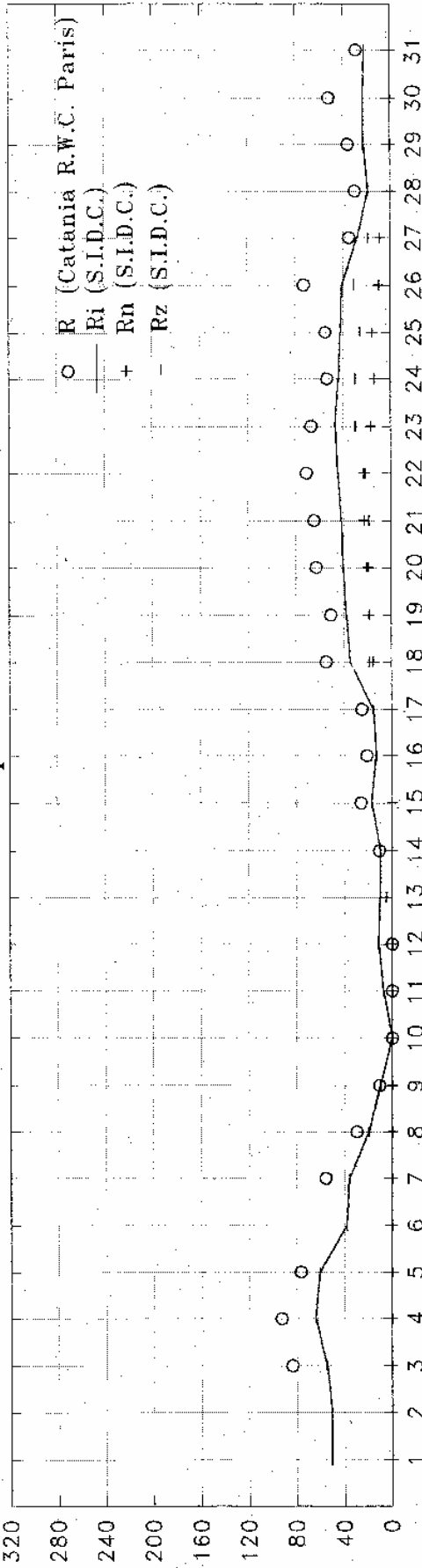
S.10

10 Cm. Solar Radio Flux



R.

Relative Sunspot Numbers



Rimax 65  
Mrt. 4

Rimin 0  
Mrt. 10

Rigcm.  
31.1





# Bulletin Werkgroep Zon April 1995

NVWS Werkgroep Zon. Sekretariaat: Veerenburg 36, 2804 WZ Gouda. Tel: 01820-39082

Sunspot Index



Date Center

## SUNSPOT BULLETIN

S.I.D.C. SUMMARY OF THE URSIGRAMS

1995 APRIL R<sub>SM</sub> = 14.6

Date R<sub>i</sub> PP8I 600 2800 COS SFI XI AK SEA MAG

Date	R <sub>i</sub>	PP8I	600	2800	COS	SFI	XI	AK	SEA	MAG
31	22	24	38	077	992	0	0/0	8		
1	16	19	35	075	994	0	0/0	15		SBC 1436
2	17	4	34	076	989	0	0/0	21	1400	
3	19	3	33	075	990	0	0/0	1		
4	10	0	33	073	991	0	0/0	3		mgst 2330
5	0	-	33	072	991	0	0/0	12		
6	0	-	-	072	986	0	0/0	6		
7	0	0	32	071	991	0	0/0	112		
8	0	-	32	072	991	0	0/0	28		
9	8	0	33	073	987	0	0/0	29		
10	7	0	36	074	989	0	0/0	24		
11	10	4	33	078	996	2	0/0	21		
12	18	9	33	082	997	14	0/0	16		
13	31	40	33	083	991	7	0/0	(5)		
14	38	58	36	088	999	1	0/0	6		
15	42	83	-	091	998	1	0/0	4		
16	46	72	-	089	997	2	0/0	5		
17	48	69	-	089	991	1	0/0	6		
18	37	88	-	090	987	6	0/0	11		
19	34	54	-	092	995	5	0/0	7		
20	25	25	-	086	991	0	0/0	8		
21	13	7	-	085	997	3	0/0	2		
22	11	0	-	084	999	100	2/0	15	1145-1709-1730 S-2F	1128
23	0	-	-	077	999	0	0/0	21		
24	0	-	-	073	999	0	0/0	25		
25	0	-	-	070	999	0	0/0	19		
26	0	-	-	069	997	0	0/0	20		
27	8	0	-	068	989	0	0/0	26		
28	0	-	-	068	989	0	0/0	14		
29	0	-	-	068	991	0	0/0	12		
30	0	-	-	067	995	0	0/0	5		

R<sub>i</sub>, R<sub>SM</sub>: provisional international sunspot numbers from the S.I.D.C.  
 PP8I: protonic sunspot index from the S.I.D.C. in 10.5 m/m<sup>2</sup>; the quantity to subtract from the mean solar constant.  
 600: 600 MHz solar flux from Maim station (Belgium).  
 2800: 2800 MHz solar flux from Ottawa (origin: Ursigrama - URSIGRAM - URSIGRAM group 2; URSIGRAM group 5).  
 COS: thousands of the cosmic ray counts (origin: Ursigrama - URSIGRAM - URSIGRAM group 3).  
 SFI: From October 1992, Solar Flare Index from the S.I.D.C. (origin: Ursigrama - URSIGRAM - URSIGRAM group 3).  
 XI: X-flares index from the Ursigrama (X-flares/X-flares) (origin: Ursigrama - URSIGRAM - URSIGRAM group 5).  
 AK: planetary geomagnetic index from Kingst, Germany (origin: Ursigrama).  
 SEA: sudden enhancements of atmospheres from Uctte & Humein (Royal Observatory, Belgium).  
 MAG: magnetic events from Bourbes station (Royal Meteorological Institute, Belgium).  
 Remarks: sid (sudden ionospheric disturbance); ssc (sudden storm commencement); mgst (magnetic storm); sfc (solar flare effect); a-1-2-3-4 (class of flares); II-TV radio-burst; T (tan on radio-burst); P (proton flare); P (proton event); gte (ground level event); neutron event; al (sudden impulses); F (forbush); SFI Evaluation (1 x S-10 x 100 x 100 x 100).

### Zonnevlekgetallen (Sunspot numbers)

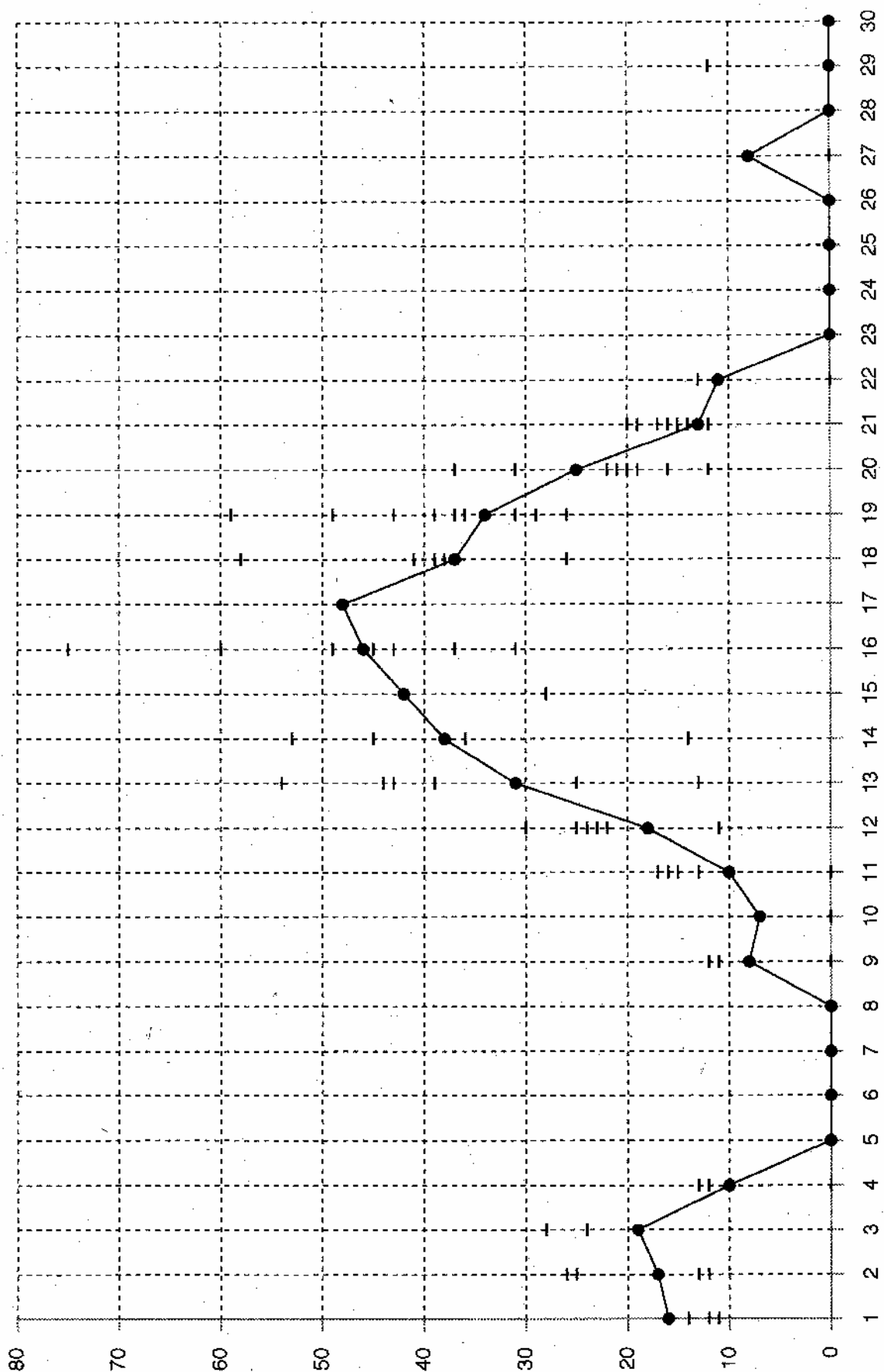
Day	Bals	Gr 6	Gro 6	Iden	Jn 9	Jn 4	Scho	vSlo	Sp 7	Spt 5	Vers	Zans	Zijle
1	14	11										12	
2	26	13	12	12				13	25				12 12
3	28	24						0					
4	0	13	0	0	0			0				0 12	
5	0	0	0	0	0			0				0 0	
6	0	0	0	0	0			0				0 0	
7	0	0	0	0	0			0				0 0	
8	0	0	0	0	0			0				0 0	
9	0	0	0	0	0			12	11				
10													
11	17	17						16	16				15 13
12	22							24					25 30
13	39	39						43	44				25 36
14	36							53					45
15													
16	45	37						75	80				43 49
17													
18	38	41						58					39
19	49	39	29	49	26	31		59					36 37
20	20	18	31	12				37	19				22 21
21	17	19						20					16 14 15
22	0							13					
23	0							0					
24	0							0					
25	0							0					
26	0							0					
27	0							0					
28	0							0					
29	0							0					
30	0							0					
observ	16	22	16	7	26	3	2	25	8	1	12	20	11
k	0.83	0.94	1.22	0.75	1.70	1.91	0.72	0.73	0.85	0.73	1.08	0.99	0.90
std.	0.21	0.24	0.32	0.15	0.52	1.14	-	0.20	0.32	-	0.20	0.22	0.31
std./k	0.25	0.26	0.26	0.20	0.30	0.60	-	0.27	0.38	-	0.19	0.23	0.34

Observers	[...] = Reflector, d = ... mm.
Bals = H.A.M. Balster [70]	Jn 9 = D. Jannink [9]
Gr 6 = Mw G. Gravers [60]	Jn 4 = D. Jannink [40]
Gro 6 = A. Groenewegen [102]	Scho = A. Scholten [50]
Iden = J.A. Idenburg [Rf 125]	vSlo = B. van Stodden [90]
	Zijle = W.A. Zijlstra [90]
	Sp 7 = T. Spaninks [75]
	Sp 15 = T. Spaninks [150 mm]
	Vers = D. Verschuuren [Rf 40]
	Zans = W. Zanstra [Rf 155]
	Zijle = W.A. Zijlstra [90]

— = Observers Werkgroep Zon

● = SIDC

R

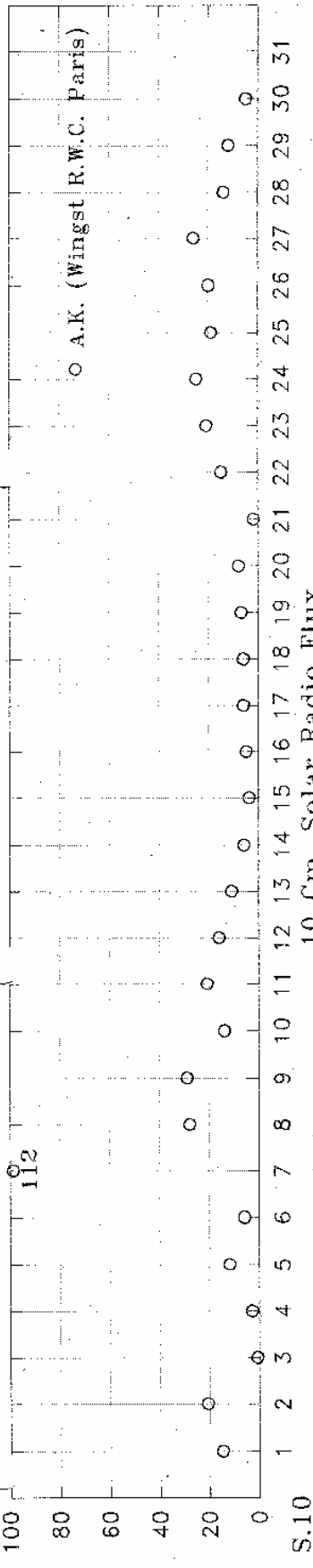


T

A.K.

Geomagnetic A.K. Index

April 1995

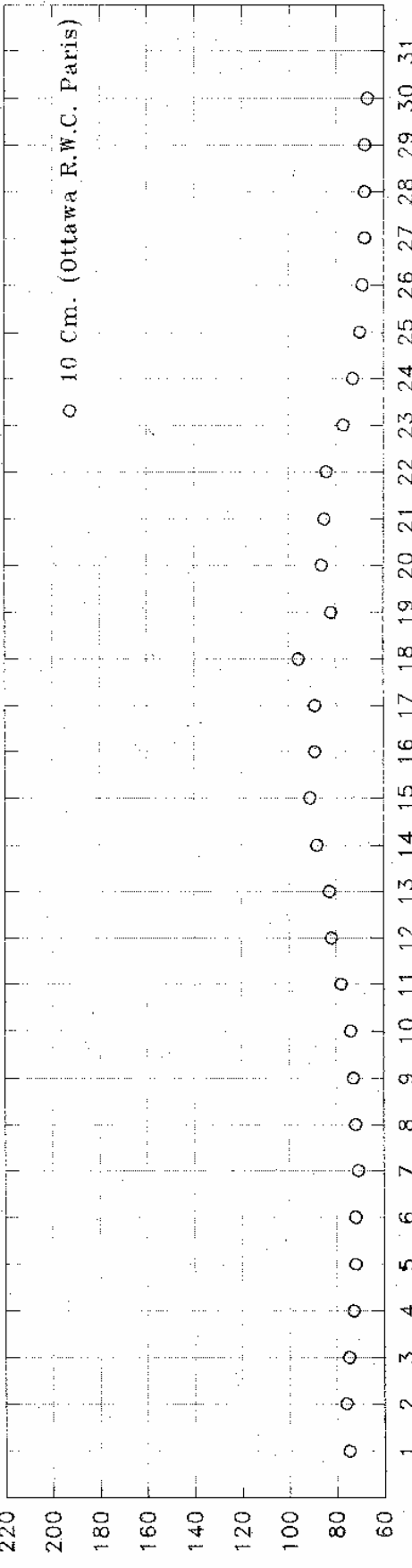


○ A.K. (Wingst R.W.C. Paris)

112

S.10

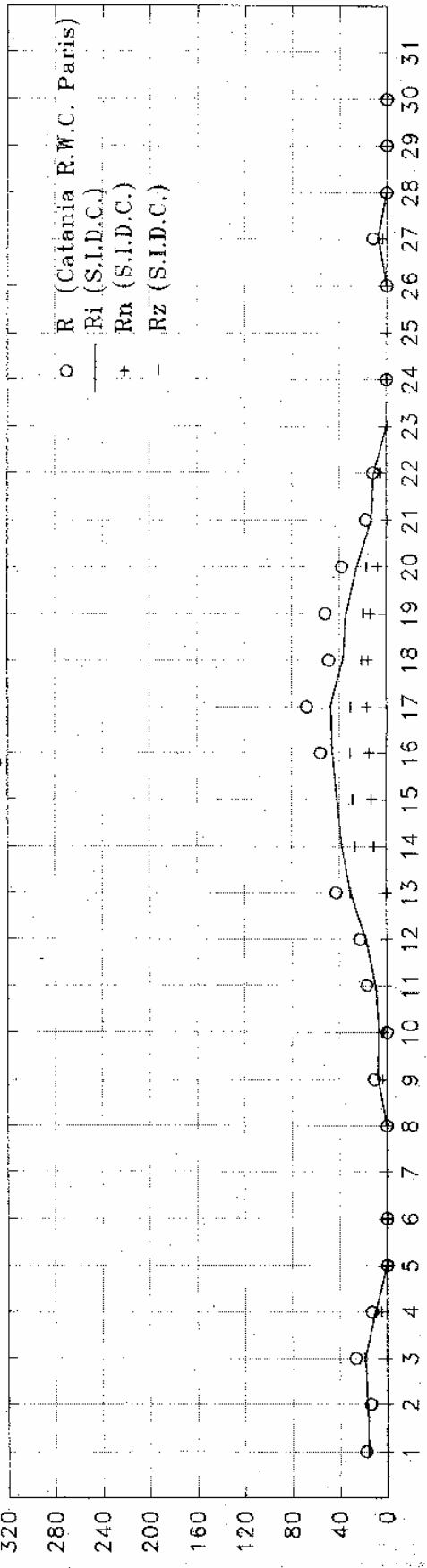
10 Cm. Solar Radio Flux



○ 10 Cm. (Ottawa R.W.C. Paris)

R.

Relative Sunspot Numbers



○ R (Catania R.W.C. Paris)  
 — Ri (S.I.D.C.)  
 + Rn (S.I.D.C.)  
 - Rz (S.I.D.C.)

Rimax 48  
Apr. 17

Rimin 0  
Apr. 5-8,  
23-26,  
28-30

Rigem.  
14,6

# Zonnevleckengetallen noordelijk- en zuidelijk halfrond

(Hemispheric sunspot numbers)

April 1995

Day	S.I.D.C.		Balster		Groenew.		Idenburg		Jannink 4		Scholten		v. Slooten		Spaninks	
	Rn	Rs	Rn	Rs	Rn	Rs	Rn	Rs	Rn	Rs	Rn	Rs	Rn	Rs	Rn	Rs
1	0	16			0	11										
2	0	17	0	26	0	12							0	13	0	25
3	0	19			0	24										
4	5	5	0	0	0	0							0	0		
5	0	0	0	0	0	0							0	0		
6	0	0											0	0		
7	0	0			0	0							0	0		
8	0	0	0	0	0	0			0	0			0	0	0	0
9	4	4	0	0									12	0		
10	4	3														
11	0	10	0	17									0	16	0	16
12	0	18	0	23									0	24		
13	0	31	13	26			54	0			13	30	13	31		
14	11	27							14	0			20	33		
15	13	29														
16	15	31	20	25									27	48	20	40
17	17	31														
18	16	21			0	41							26	32		
19	14	20	16	27	0	29	0	49	31	0			22	37		
20	8	17	0	20	0	16	0	31					13	24	19	0
21	0	13	0	17			0	14					0	20		
22	6	5	0	0									0	13		
23	0	0	0	0									0	0	0	0
24	0	0	0	0	0	0	0	0					0	0	0	0
25	0	0			0	0	0	0			0	0	0	0	0	0
26	0	0			0	0							0	0		
27	4	4			0	0							0	0		
28	0	0			0	0							0	0		
29	0	0	0	0	0	0	0	0					0	0		
30	0	0											0	0		





# Bulletin Werkgroep Zon

Mei 1995

NVWS Werkgroep Zon. Sekretariaat: Veenenburg 36, 2804 WZ Gouda. Tel: 01820-39082

## Zonnevlekgetallen (Sunspot numbers)

Day	Bais	Gr 6	Groes	Ideen	Jh 9	Jh 9	Sono	Sp 7	Vers	Zans	Zille
1	0	0	0	0	0	0	0	0	0	0	11
2	0	0	0	0	0	0	0	0	0	0	0
3	0	0	0	0	0	0	0	0	0	0	0
4	12	12	0	0	0	0	0	0	0	0	12
5	12	13	0	0	0	13	11	0	0	0	15
6	12	0	11	0	0	0	11	0	0	0	0
7	12	12	11	12	11	11	12	13	11	11	11
8	14	12	12	11	11	11	14	0	0	0	0
9	14	13	11	11	11	11	14	0	0	0	0
10	14	14	11	11	15	16	0	0	0	0	14
11	16	14	11	11	11	16	0	0	0	0	17
12	29	19	11	11	31	19	39	0	0	0	8
13	29	24	24	25	39	44	0	0	0	0	14
14	30	32	28	42	34	58	43	18	32	35	35
15	48	33	56	13	63	45	0	0	0	0	40
16	54	45	26	31	51	0	0	0	0	0	39
17	43	31	27	27	53	56	0	0	0	0	8
18	43	38	47	28	63	56	0	0	0	0	8
19	59	38	29	31	39	37	0	0	0	0	8
20	34	16	14	13	15	21	16	16	17	17	17
21	14	16	11	13	0	14	0	0	0	0	13
22	0	0	0	0	0	0	0	0	0	0	13
23	0	0	0	0	0	0	0	0	0	0	0
24	0	0	0	0	0	0	0	0	0	0	0
25	0	0	0	0	0	0	0	0	0	0	0
26	0	0	0	0	0	0	0	0	0	0	0
27	0	0	0	0	0	0	0	0	0	0	0
28	11	14	13	26	0	12	13	0	0	0	0
29	16	14	13	26	0	18	15	16	13	13	13
30	13	12	12	0	0	13	13	0	0	0	13
31	11	11	11	0	0	11	0	0	0	0	12
observ	28	13	22	13	31	3	14	28	20	4	22
k	0.76	0.80	0.85	0.70	1.42	1.06	0.76	0.69	0.75	1.50	0.89
st.dev.	0.09	0.11	0.13	0.13	0.59	0.34	0.07	0.09	0.10	0.20	0.10
std./k	0.11	0.14	0.12	0.18	0.42	0.32	0.09	0.14	0.13	0.22	0.13

Observers	[...]	Reflector, d = ... mm	[Ri...]	Reflector, d = ... mm
Bais = H.A.M. Balster [70]	Jh. 9 = D. Jannink [9]		Sp 7 = T. Spaninks [75]	
Gr 6 = M.w.G. Gravers [60]	Jh. 4 = D. Jannink [40]		Vers = D. Verschuuren [Ri 40]	
Groes = A. Groenewegen [102]	Scho = A. Scholten [60]		Zans = W. Zanstra [Ri 155]	
Ideen = J.A. Idenburg [Ri 125]	vSlo = B. van Slooten [90]		Zille = W.A. Zijlema [90]	

Correctie Bulletin maart 1995. Grafiek van 10 cm solar radio flux op 24 maart 95 (i.p.v. 75)



Sunspot Index

## SUNSPOT BULLETIN

### S.I.D.C. SUMMARY OF THE URSIGRAMS

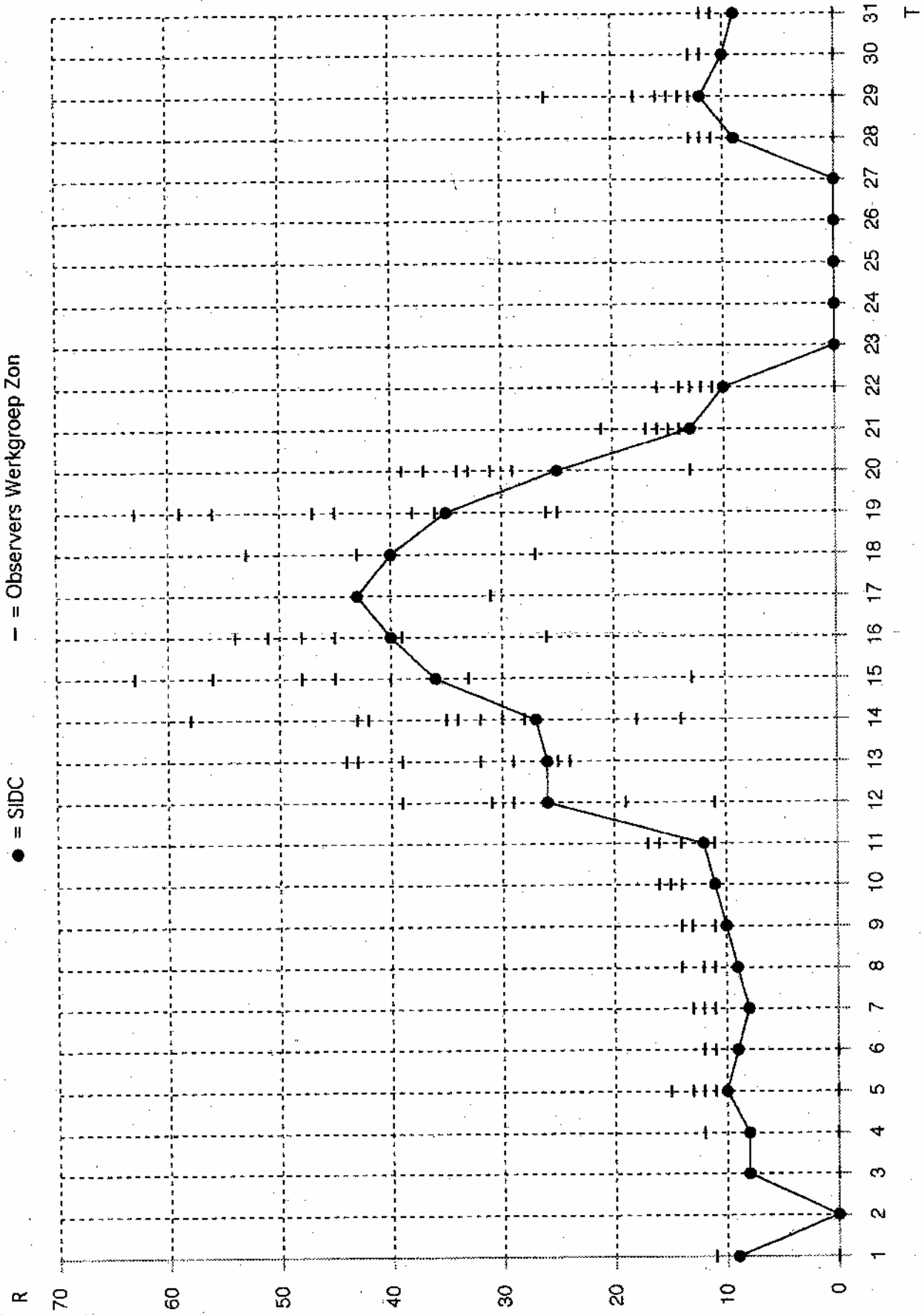
1995 MAY R<sub>fM</sub> = 14.7

Date	R <sub>f</sub>	PFBI	600	2800	COB	SFI	XI	AK	SEA	MAG	ssc,mgst (2200)
30	0	-	-	067	995	0	0/0	5			
1	9	1	31	069	1000	0	0/0	2			
2	0	-	31	069	1000	0	0/0	38			
3	8	-	31	069	994	0	0/0	42			
4	8	1	31	071	989	0	0/0	31			
5	10	1	31	073	990	0	0/0	38			
6	9	0	32	076	990	0	0/0	22			
7	8	3	33	078	994	0	0/0	25			
8	9	12	34	078	997	0	0/0	17			
9	10	15	34	078	994	0	0/0	12			
10	11	17	34	078	992	0	0/0	6	1710		
11	12	18	36	077	998	0	0/0	8			
12	26	17	36	081	988	1	0/0	8			
13	26	27	37	081	989	14	0/0	14			
14	27	27	37	080	997	2	0/0	10			
15	36	30	36	086	997	7	0/0	7			
16	40	65	36	094	993	28	0/0	39	1123		SSC (1048)
17	43	83	36	095	993	4	0/0	30			
18	40	95	36	091	993	3	0/0	14			
19	35	47	36	086	997	3	0/0	13			
20	25	25	36	081	995	0	0/0	16			
21	13	12	35	075	999	1	0/0	4			
22	10	4	32	071	995	0	0/0	7			
23	0	-	31	069	997	0	0/0	21			
24	0	-	31	067	994	0	0/0	28			
25	0	-	31	067	1000	0	0/0	16			
26	0	-	31	066	997	0	0/0	18			
27	0	-	31	066	-	0	0/0	7			
28	9	1	31	067	998	0	0/0	9			
29	12	4	31	067	-	0	0/0	10			
30	10	3	31	068	991	0	0/0	32			
31	9	1	31	069	985	0	0/0	32			

Very low solar activity increasing slightly in the middle of the month, then decreasing again.

R<sub>f</sub>, R<sub>fM</sub>: provisional international sunspot numbers from the S.I.D.C.  
 PFBI: proton photometric sunspot index from the S.I.D.C. in 10-5 w/m<sup>2</sup>; the quantity to subtract from the mean solar constant.  
 600: 600 Mhz solar flux from Ottawa (origin: Ursigrama - URSIGRAM group 2); URSIGRAM group 2; URSIGRAM group 5).  
 2800: 2800 Mhz solar flux from Ottawa (origin: Ursigrama - URSIGRAM group 2); URSIGRAM group 2; URSIGRAM group 5).  
 COB: thousands of the cosmic ray counts (origin: Ursigrama - URSIGRAM group 2); URSIGRAM group 2; URSIGRAM group 5).  
 SFI: From October 1992, Solar Flux Index from the S.I.D.C. (origin: Ursigrama - URSIGRAM group 3).  
 XI: X-flares index from the Ursigrama (M-flares/K-flares) (origin: Ursigrama - URSIGRAM group 2); URSIGRAM group 2; URSIGRAM group 5).  
 AK: planetary geomagnetic index from Wang, Germany (origin: Ursigrama).  
 SEA: sudden enhancements of atmosphere from Uccle & Muna (Royal Observatory, Belgium).  
 MAG: magnetic events from Bourbes station (Royal Meteorological Institute, Belgium).  
 Remarks: sid (sudden ionospheric disturbance); sec (sudden storm commencement); magt (magnetic storm); sfa (solar flare effect); s-1-2-3-4 (class of flares); II-IV radio-burst; I (sun cw radio-burst); P (proton flare); p (proton event); sfl (ground level event; neutron event); sf (sudden impulse); F (Forbush); SFI Evaluation (1 x 50-10 x 10<sup>4</sup> x 10<sup>3</sup>).

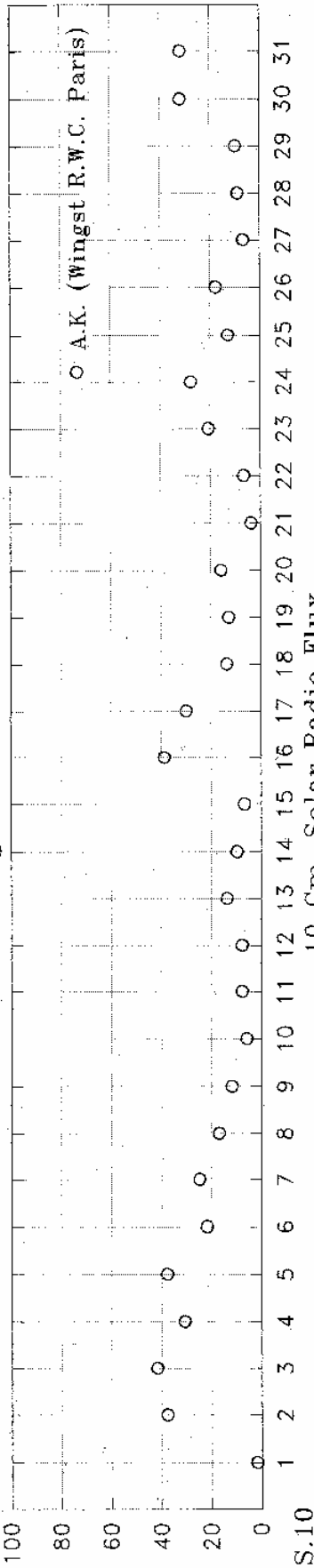
● = SIDC  
- = Observers Werkgroep Zon



Mei 1997

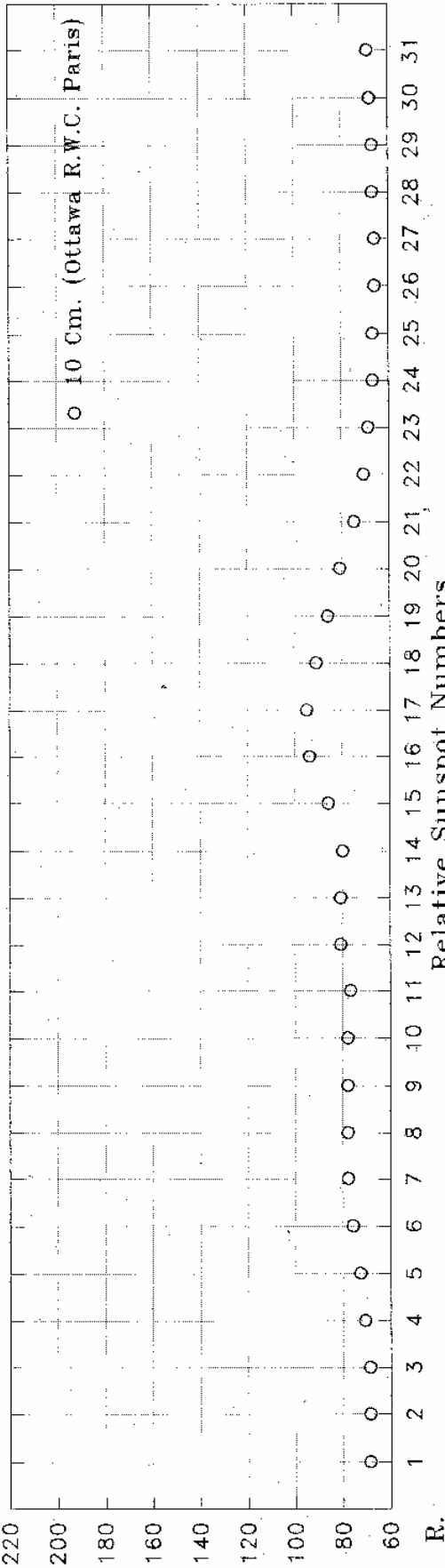
Geomagnetic A.K. Index

A.K.



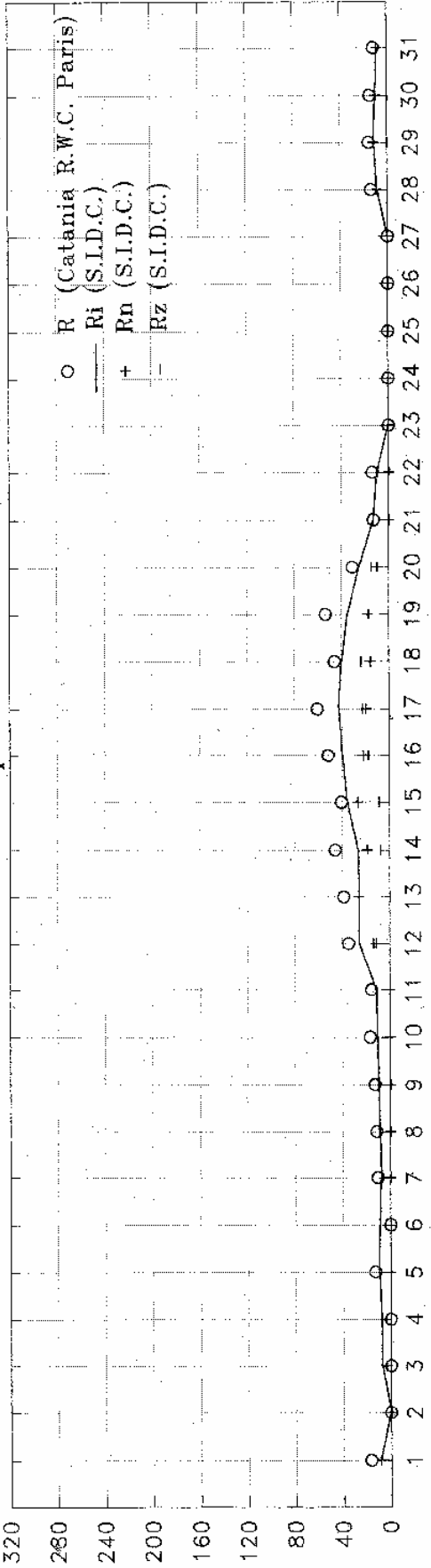
10 Cm. Solar Radio Flux

S.10



Relative Sunspot Numbers

R.



Rimax 43  
 Mei 17  
 Rimin 0  
 Mei 2,  
 23-27  
 Rigem.  
 14,7

# Zonnevlekkengetallen noordelijk- en zuidelijk halfrond

(Hemispheric sunspot numbers)

mei 1995

Day	S.I.D.C.		Balster		Groenew.		Idenburg		Jannink 4		Scholten		v. Slooten		Spaninks	
	Rn	Rs	Rn	Rs	Rn	Rs	Rn	Rs	Rn	Rs	Rn	Rs	Rn	Rs	Rn	Rs
1	9	0	0	0	0	0	0	0			0	0	0	0	0	0
2	0	0	0	0	0	0	0	0			0	0	0	0	0	0
3	4	4	0	0	0	0	0	0			0	0	0	0	0	0
4	4	4	0	12	0	12	0	0			0	0	0	0	0	0
5	0	10	0	12	0	13					0	0	0	13	0	11
6	0	9	0	12	11	0					0	0	0	11	0	0
7	0	8	0	12	11	0	12	0	11	0	0	11	0	12	0	13
8	0	9	0	14	12	0							0	12		
9	0	10	0	14	13	0							0	14		
10	0	11			14	0					0	15	0	16		
11	0	12	0	16	14	0							0	16		
12	12	14	12	17											13	18
13	26	0	16	13					25	0	22	19	25	19		
14	19	8	19	11	17	11	30	12			22	12	42	16	28	15
15	27	9	35	13	20	13	15	41					48	15	32	13
16	22	18	30	24			0	45							27	24
17	20	23														
18	16	24											21	32		
19	18	17	30	29	0	36	0	47	11	14			29	34	26	30
20	10	15	12	22	0	29	0	31					15	24	14	23
21	0	13			0	14					0	15	0	21	0	16
22	0	10	0	14	0	11	0	13					0	14		
23	0	0	0	0			0	0					0	0	0	0
24	0	0	0	0									0	0		
25	0	0	0	0							0	0	0	0		
26	0	0	0	0	0	0					0	0	0	0	0	0
27	0	0			0	0							0	0	0	0
28	9	0	11	0							0	12	12	0	13	0
29	12	0	16	0	13	0	26	0					18	0	15	0
30	10	0	13	0	12	0							13	0	13	0
31	9	0	11	0	11	0							11	0		



# Bulletin Werkgroep Zon

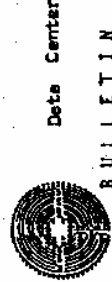
Juni 1995

NVWS Werkgroep Zon. Sekretariaat: Veenenburg 36, 2804 WZ Gouda. Tel: 01820-39082

## Zonnevlekgetallen (Sunspot numbers)

Day	Bals	Gr 5	Groep	Iden	Jun 9	Jun 4	Scho	vSio	Sp 7	Vers	Zans	Zijle
1	0	0	0	0	0	0	0	0	0	0	0	0
2	0	0	0	0	0	0	0	0	0	0	0	0
3	12	15	0	0	27	13	0	0	0	0	0	0
4	14	17	0	0	21	11	0	0	0	0	0	0
5	30	18	0	12	35	41	48	19	25	0	0	0
6	0	0	0	0	0	0	0	0	0	0	0	0
7	0	0	0	23	33	0	0	0	0	0	0	0
8	38	0	0	14	25	36	0	30	22	0	0	0
9	0	0	0	0	0	0	0	0	0	0	0	0
10	0	0	0	15	37	0	0	26	38	0	0	0
11	24	19	0	14	35	0	0	24	24	0	0	0
12	26	22	0	13	25	0	0	23	22	0	0	0
13	22	14	0	0	27	0	0	18	26	0	0	0
14	0	0	0	0	0	0	0	0	0	0	0	0
15	0	0	0	0	0	0	0	0	0	0	0	0
16	0	0	0	0	0	0	0	0	0	0	0	0
17	0	0	0	0	0	0	0	0	0	0	0	0
18	12	25	23	0	23	13	0	11	11	0	0	0
19	23	13	28	11	25	26	0	11	28	0	0	0
20	16	13	17	11	15	16	16	16	16	0	0	0
21	14	16	0	11	11	11	22	19	26	0	0	0
22	14	12	18	11	11	11	21	19	18	0	0	0
23	17	12	17	11	11	11	18	16	17	0	0	0
24	17	14	0	11	16	16	17	13	18	17	0	0
25	13	12	15	11	15	17	13	11	11	0	0	0
26	14	12	16	11	14	24	13	14	14	0	0	0
27	13	13	13	0	13	13	0	0	12	0	0	0
28	11	0	0	0	13	13	0	0	12	0	0	0
29	0	0	0	0	29	33	34	28	19	31	0	0
30	41	38	42	0	0	0	0	0	0	0	0	0
observ	21	15	17	2	24	1	12	24	10	3	18	17
k	0.87	1.01	0.84	0.90	1.54	1.55	0.80	0.78	0.79	1.03	1.05	0.83
sdlev	0.15	0.33	0.20	0.40	0.20	0.13	0.20	0.09	0.30	0.21	0.28	0.26
sl.d/k	0.17	0.32	0.24	0.28	0.26	0.17	0.25	0.09	0.28	0.28	0.28	0.26

Observers	[...]	[...]	[...]	[...]	[...]	[...]	[...]	[...]	[...]	[...]	[...]	[...]
Bals	= H.A.M. Baister [70]	Jun 9	= D. Jannink [9]	Sp 7	= T. Spaninks [75]	Reflector	d = ... mm					
Gr 5	= M.W. G. Gravers [50]	Jun 4	= D. Jannink [40]	Vers	= D. Verschuuren [R1 40]							
Groep	= A. Groenewegen [102]	Scho	= A. Scholten [60]	Zans	= W. Zanstra [R1 155]							
Iden	= J.A. Idenburg [R1 125]	vSio	= B. van Slooten [90]	Zijle	= W.A. Zijlstra [90]							



# SUNSPOT BULLETIN

S.I.D.C. SUMMARY OF THE URSIGRAMS

1995 JUNE RIM = 15.8

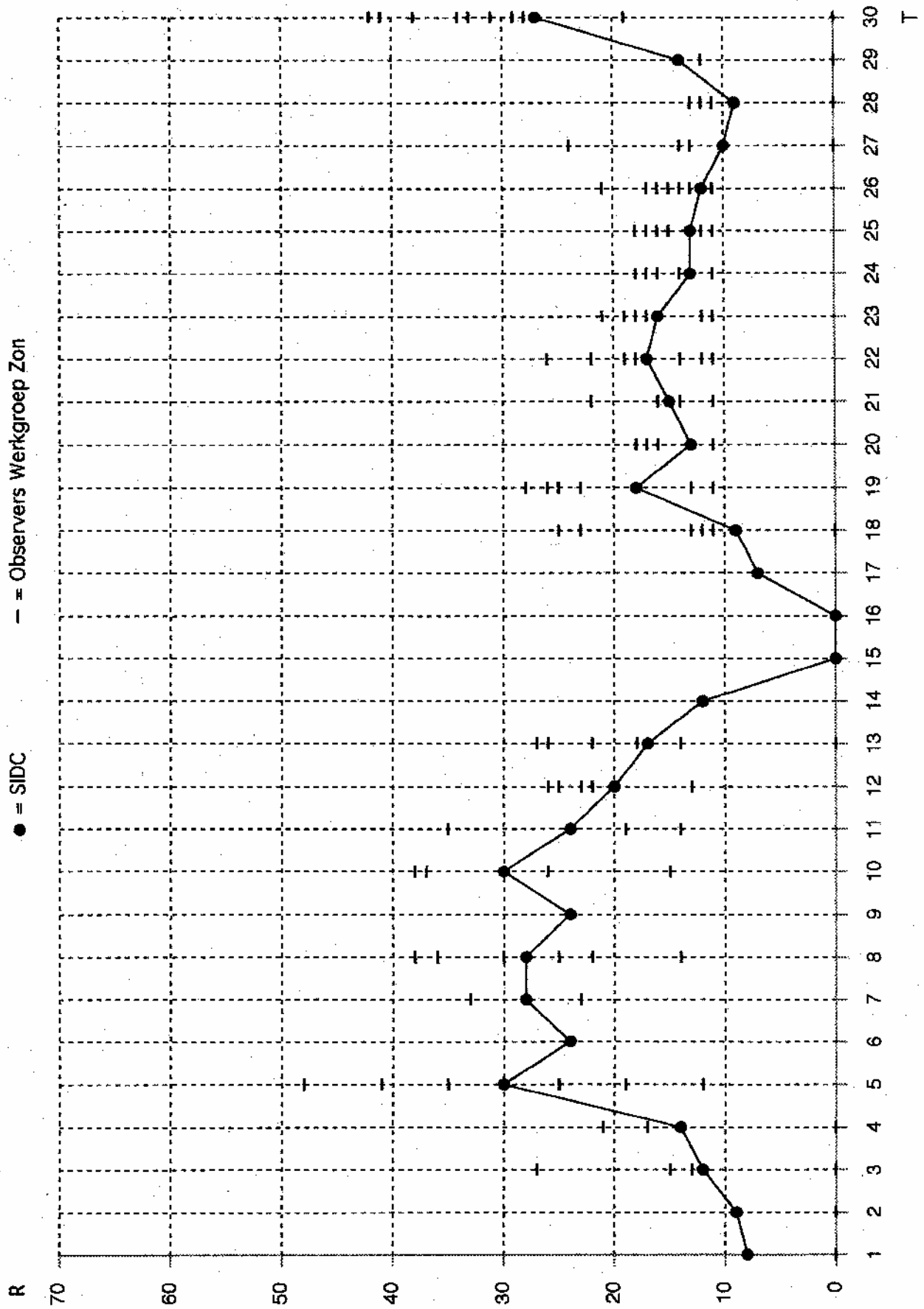
DATE RI PPSI 600 2800 COB SFI XI AK SEA MAG

Date	Ri	PPSI	600	2800	COB	SFI	XI	AK	SEA	MAG
31	9	1	31	069	985	0	0/0	32		
1	8	0	33	071	992	0	0/0	27		
2	9	1	32	073	993	0	0/0	22		
3	12	2	34	075	993	2	0/0	22		
4	14	7	34	079	993	9	0/0	10		
5	30	18	36	082	996	10	0/0	8		
6	24	15	36	079	999	6	0/0	10		
7	28	17	36	082	999	1	0/0	6		
8	28	26	37	084	992	3	0/0	4		
9	24	35	38	089	995	0	0/0	6		
10	30	34	39	084	992	1	0/0	12		
11	24	33	36	083	991	0	0/0	6		
12	20	12	36	081	997	2	0/0	4		
13	17	5	36	077	994	1	0/0	3		
14	12	1	36	076	994	0	0/0	8		
15	0	0	36	073	993	0	0/0	6		
16	0	0	32	071	999	0	0/0	17		
17	7	0	33	070	995	0	0/0	6		
18	9	3	34	070	999	1	0/0	14		
19	18	4	33	071	1000	0	0/0	31		
20	13	5	33	072	997	0	0/0	24		
21	15	11	33	072	997	2	0/0	12		
22	17	17	33	073	996	0	0/0	8		
23	16	8	33	072	998	4	0/0	10		
24	13	8	31	071	999	0	0/0	5		
25	13	9	34	071	997	0	0/0	20		
26	12	6	33	071	996	0	0/0	16		
27	10	2	33	072	998	0	0/0	8		
28	9	1	33	074	999	1	0/0	12		
29	14	2	35	078	990	2	0/0	8		
30	27	5	36	078	988	3	0/0	27		

Low to very low solar activity.

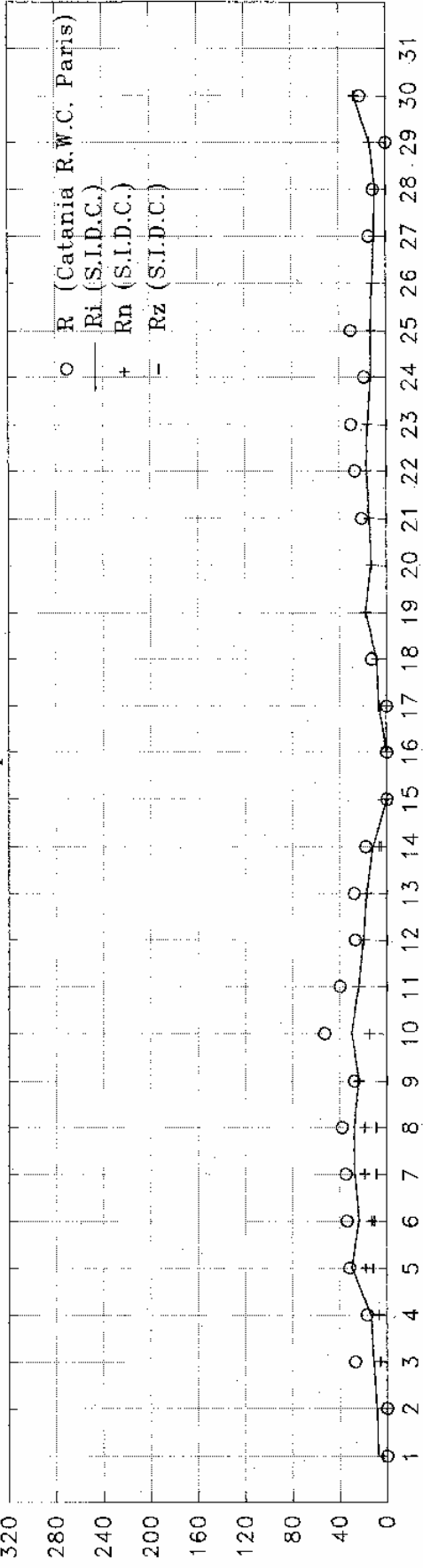
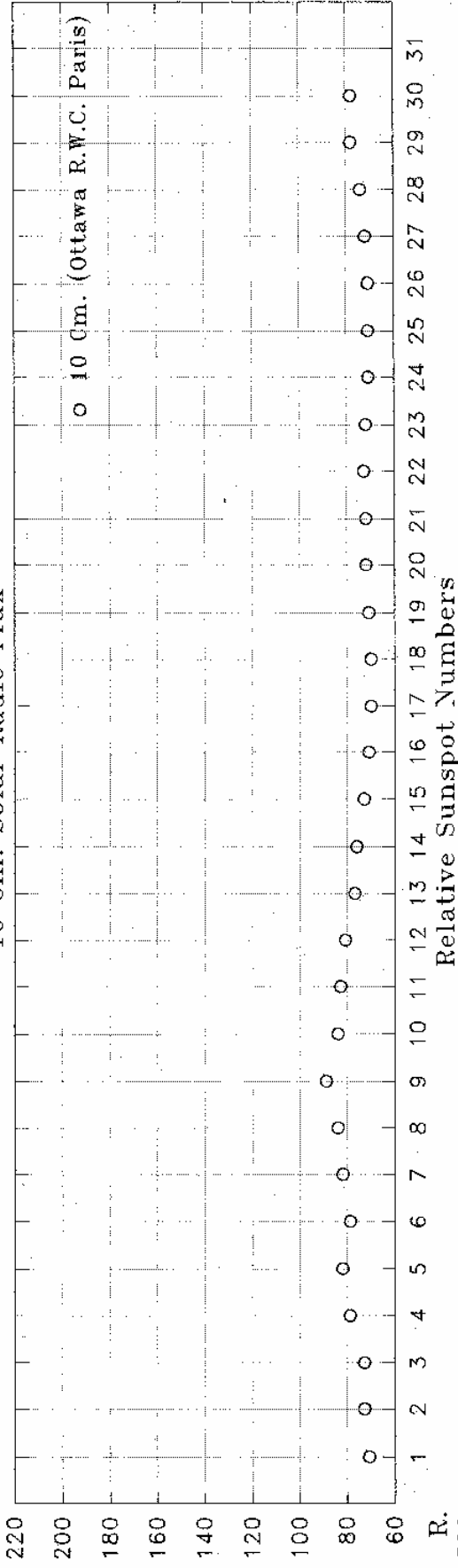
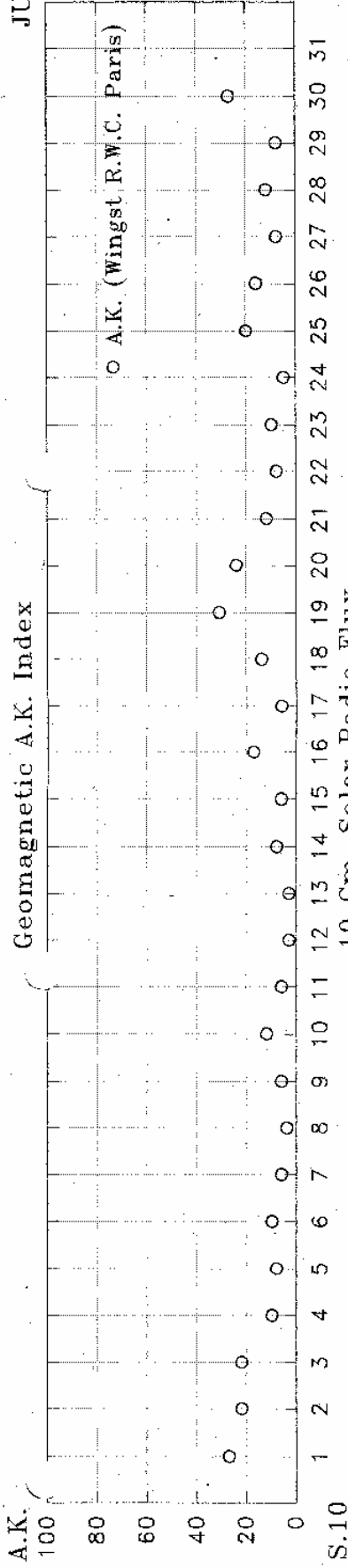
Ri, Rik: provisional international sunspot numbers from the S.I.D.C.  
 PPSI: prompt photometric sunspot index from the S.I.D.C. in 10<sup>-5</sup> w/m<sup>2</sup>; the quantity to subtract from the mean solar constant.  
 600: 600 MHz solar flux from Nainital station (Belgium).  
 2800: 2800 MHz solar flux from Ottawa (origin: Ursigrans - UGEO1 group 2); the 10.7cm Flux data are provided as a service of the National Research Council of Canada.  
 COB: thousands of the cosmic ray counts (origin: Ursigrans - UGEO1 group 3).  
 SFI: From October 1992, Solar Flare Index from the S.I.D.C. (origin: Ursigrans - UGEO1 group 3).  
 XI: X-flares index from the Ursigrans (X-flares/X-flares) (origin: Ursigrans - UGEO1 group 3).  
 AK: planetary geomagnetic index from Kingst, Germany (origin: Ursigrans).  
 SEA: sudden enhancements of atmospheric pressure from Uccle & Rumain (Royal Observatory, Belgium).  
 MAG: magnetic events from Dourbes station (Royal Meteorological Institute, Belgium).  
 Remarks: st (sudden ionospheric disturbance); asc (sudden storm commencement); magt (magnetic storm); sfc (solar flare effect); a-1-2-3-4 (class of flares); II-IV radio-burst; T (ten cm radio-burst); P (proton event); N (neutron event); I (ground level event); F (forbush); SFI Evaluation (1 x Sp-10 x 10<sup>-4</sup> x 10<sup>10</sup> x 10<sup>10</sup>).

● = SIDC  
- = Observers Werkgroep Zon



T

Geomagnetic A.K. Index



Rimax 30  
Jun. 5,10

Rimin 0  
Jun. 15,  
16

Rigem.  
15,8

# Zonnevlekkengetallen noordelijk- en zuidelijk halfrond

(Hemispheric sunspot numbers)

juni 1995

Day	S.I.D.C.		Balster		Groenew.		Idenburg		Jannink 4		Scholten		v. Slooten		Spaninks	
	Rn	Rs	Rn	Rs	Rn	Rs	Rn	Rs	Rn	Rs	Rn	Rs	Rn	Rs	Rn	Rs
1	4	4	0	0	0	0					0	0	0	0		
2	0	9	0	0			0	0					0	0		
3	6	6	0	12			15	0					16	11	13	0
4	7	7	0	14									21	0		
5	18	12									11	24	11	30		
6	13	11														
7	19	9											20	13		
8	19	9	26	12							25	0	23	13		
9	24	0														
10	15	15											37	0		
11	24	0	24	0	19	0							35	0		
12	20	0	26	0	22	0							25	0		
13	17	0	22	0	17	0							27	0		
14	7	5														
15	0	0														
16	0	0														
17	0	7														
18	9	0	12	0	11	12					11	12	13	0		
19	18	0	23	0	14	12					13	12	26	0		
20	13	0	16	0	17	0							16	0	18	0
21	15	0	14	0	16	0					15	0	16	0	16	0
22	17	0	14	0	18	0			11	0			22	0		
23	16	0	17	0	17	0							21	0		
24	13	0	17	0	14	0					18	0	16	0		
25	13	0	13	0	15	0					16	0	17	0	13	0
26	12	0	14	0	16	0					15	0	17	0	13	0
27	10	0	13	0	13	0							14	0	24	0
28	9	0	11	0	0	0					13	0	13	0	0	0
29	14	0	0	0	0	0					0	0	12	0	0	0
30	27	0	41	0	42	0					29	0	33	0	34	0





# Bulletin Werkgroep Zon

Juli 1995

NVWS Werkgroep Zon. Sekretariaat: Veenerburg 36, 2804 WZ Gouda. Tel.: 01820-39092

## Zonnevlekgetallen (Sunspot numbers)

Day	Bals	Gr 5	Gr 6	Iden	Jh. 8	Jh. 4	Scho	vSlo	Sp 7	Sp 15	Vers	Zans	Zenn(J)	Zijle
1	38	27	26		11		39	43				14	27	25
2	26		17	15	11		15	28				12	15	31
3					12									
4	14	16	14	12	12		16	18				12	12	16
5	28	26	28		11		29	29				12	12	14
6	31	27	33	61	22		32					26		33
7	31	29	29	50	22		28	34	27			38	29	35
8	25	26	26	36	23		24	28				25	24	28
9	28		33	36	11		33					26	25	32
10	23		28	11	11		11	25	12			24	24	27
11	12			11	11		25	11				11	11	12
12	11		12	11	11		11	22	11			11	11	11
13	0	13	0	0	0		12	22	0			0	0	11
14	17	16	18	0	14		14	20	19			19	19	17
15	21				14		21	30				18		19
16	22				13		18	22				14	18	18
17	20	16	25	12	12		19					12		17
18					13									
19					0								46	32
20	25	11	15	0	0		12	31	15				30	27
21	12		13	0	0		0	23					14	11
22	0	0	0	0	0		0	14		13		0	15	15
23	0	0	0	0	0		0	0	0			0	0	0
24	0	0	0	0	0		0	0	0			0	0	0
25	0	0	0	0	0		0	0	0			0	0	0
26	0	0	0	0	0		0	0	0			0	0	0
27	0	0	0	0	0		0	0	0			0	0	0
28	0	0	0	0	0		0	0	0			0	0	0
29	0	0	0	0	0		0	0	0			0	0	0
30	0	0	0	0	0		0	11	0			0	0	0
31	13	0	15	0	0		0	12	13			0	17	15
observ	26	15	25	11	30	1	21	27	9	1	15	15	11	28
k	0.97	1.17	1.00	1.01	1.63	1.08	1.16	0.76	1.35	1.23	1.37	1.16	0.74	0.97
stddev	0.23	0.46	0.27	0.53	0.58		0.43	0.11	0.42		0.54	0.33	0.26	0.28
std/k	0.24	0.39	0.27	0.52	0.33		0.37	0.15	0.31		0.39	0.28	0.35	0.29

Observers	[...] = Refractor, d = ... mm.	[R...] = Reflector, d = ... mm.
Bals = H.A.M. Balster [70]	Jh 4 = D. Jannink [40]	Vers = D. Verschuuren [Rf 40]
Gr 5 = Mw G. Gravers [50]	Scho = A. Scholten [60]	Zans = W. Zanstra [Rf 155]
Iden = J.A. Idenburg [Rf 125]	vSlo = B. van Slooten [90]	Zann(J) = W. Zanstra [100, Jura]*
Jh. 9 = D. Jannink [9]	Sp 7 = T. Spaninks [75]	Zijle = W.A. Zijlema [90]
	Sp15 = T. Spaninks [Rf 150]	*Jura Sternwarte, Switzerland



Sunspot Index

Date Center

## SUNSPOT BULLETIN

S.I.D.C. SUMMARY OF THE URSIGRAMS

1995 JULY R<sub>IM</sub> = 14.6

Date	R <sub>i</sub>	PPSI	600	2800	COS	SFI	XI	AK	SEA	MAG
30	27	5	36	078	988	3	0/0	27		mgst(1010)SSC(1015)
1	30	10	36	079	992	11	0/0	16		
2	25	18	37	078	987	0	0/0	6		
3	14	22	37	078	992	0	0/0	11		SSC(2114)
4	14	26	37	081	996	0	0/0	8		
5	22	37	38	080	999	2	0/0	4		
6	27	42	38	080	1000	0	0/0	2		
7	29	41	37	081	996	2	0/0	6		
8	25	36	37	081	994	1	0/0	6		
9	28	34	37	080	991	1	0/0	8		
10	21	18	36	077	994	0	0/0	3		
11	13	12	36	076	996	0	0/0	2		
12	16	3	-	074	997	0	0/0	5		
13	9	2	36	-	996	-	-	7		
14	13	7	36	074	997	0	0/0	8		
15	19	32	36	074	999	0	0/0	8		
16	17	30	35	073	999	0	0/0	29		
17	16	21	35	072	996	0	0/0	25	1504	
18	14	14	35	072	991	2	0/0	16		
19	21	8	34	071	992	0	0/0	10		
20	23	6	35	070	994	0	0/0	14		
21	16	2	33	069	997	0	0/0	6		
22	11	2	34	069	996	0	0/0	6		
23	0	0	33	068	998	0	0/0	10		
24	0	0	33	069	999	0	0/0	24		
25	0	0	33	070	994	0	0/0	8		
26	7	1	34	069	994	0	0/0	6		mgst-ssc(0252)
27	8	0	34	070	994	0	0/0	5		
28	0	0	34	070	995	0	0/0	7		
29	0	0	34	070	999	0	0/0	7		
30	0	0	34	070	999	0	0/0	7		
31	10	2	35	071	995	0	0/0	8		

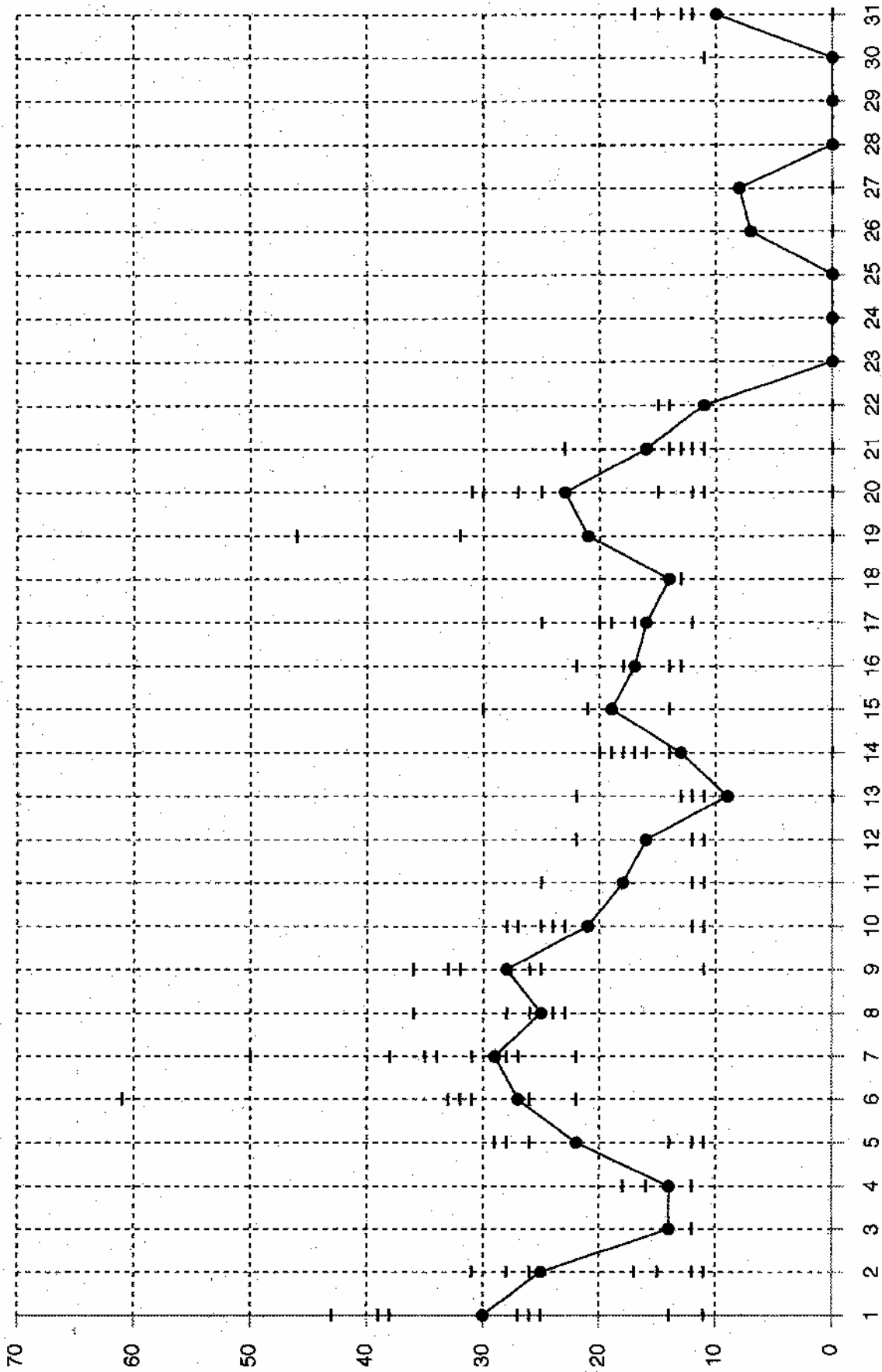
Very low solar activity-geomagnetic activity: low to active.

R<sub>i</sub>, R'<sub>i</sub>: provisional international sunspot numbers from the S.I.D.C.  
 PPSI: prompt photometric sunspot index from the S.I.D.C. in 10<sup>-5</sup> W/m<sup>2</sup>; the quantity to subtract from the mean solar constant.  
 600: 600 Mhz solar flux from Hainin station (Belgium).  
 2800: 2800 Mhz solar flux from Ottawa (origin: Ursigrama - UGE01 group 2). \*The 10.7cm Flux data are provided as a service of the National Research Council of Canada.  
 COS: thousands of the cosmic ray counts (origin: Ursigrama - UG05E Kerguelen).  
 SFI: From October 1992, Solar Flare Index from the S.I.D.C. (origin: Ursigrama - UGE01 group 3).  
 XI: X-flares index from the Ursigrama (H-flares/X-flares) (origin: Ursigrama - UGE01 group 2; UGE01 group 5).  
 AK: planetary geomagnetic index from Wangst, Germany (origin: Ursigrama).  
 SEA: sudden enhancements of atmospheres from Uccle & Hainin (Royal Observatory, Belgium).  
 MAG: magnetic events from Dourbes station (Royal Meteorological Institute, Belgium).  
 Remarks: std (sudden ionospheric disturbance); ssc (sudden storm commencement); mgst (magnetic storm); sfe (solar flare effect); s-1-2-3-4 (class of flares); II-IV radio-burst; T (ten cm radio-burst); P (proton flare); p (proton event); g (ground level event); n (neutron event); si (sudden impulse); F (for-bush); SFI Evaluation (1 x 5m-10 x 10m-100 x 10m-10).

● = SIDC

— = Observers Werkgroep Zon

R

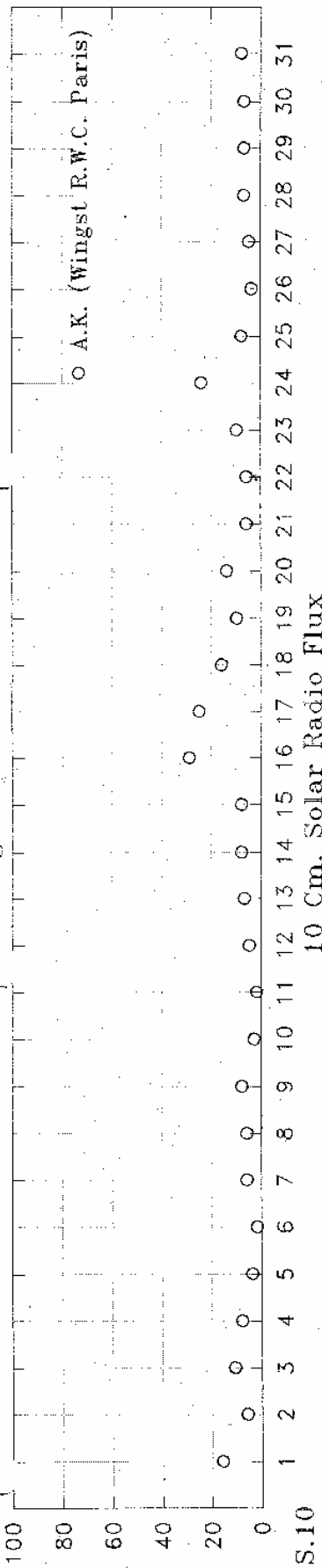


T

A.K.

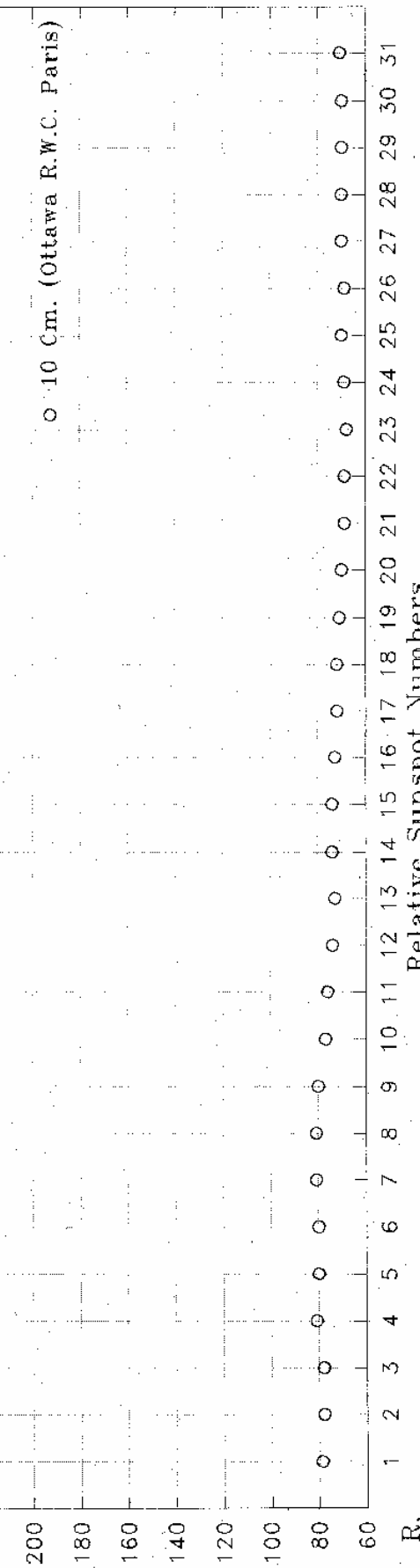
Geomagnetic A.K. Index

JULY 1995



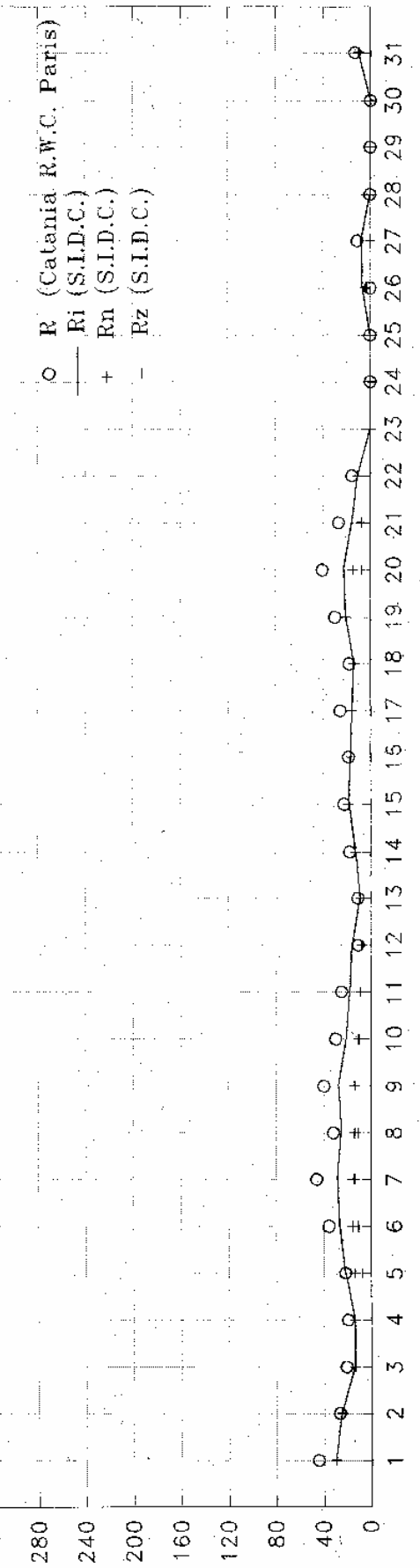
S.10

10 Cm. Solar Radio Flux



R.

Relative Sunspot Numbers



Rimax 30

Jul. 1

Rimin 0

Jul. 23, 24

25, 28, 29, 30

Rigem. 14, 6

# Zonnevlekkengetallen noordelijk- en zuidelijk halfrond

(Hemispheric sunspot numbers)

juli 1995

Day	S.I.D.C.		Balster		Groenew.		Idenburg		Jannink 4		Scholten		v. Slooten		Spaninks	
	Rn	Rs	Rn	Rs	Rn	Rs	Rn	Rs	Rn	Rs	Rn	Rs	Rn	Rs	Rn	Rs
1	30	0	38	0	26	0					39	0	43	0		
2	25	0	26	0	17	0	0	15			15	0	28	0		
3	14	0														
4	14	0	14	0	16	0	0	14			16	0	18	0		
5	14	8	17	11	17	11							18	11		
6	16	11	15	16	16	17	11	50					17	15		
7	15	14	15	16	13	16	12	28			14	14	17	17	13	14
8	14	11	12	13	11	15	11	25			11	13	12	16		
9	14	14	13	15	14	19	11	25					15	18		
10	10	11	12	11	11	17	11	0			11	0	11	14	12	0
11	9	9	12	0			11	0					11	14	11	0
12	8	8	11	0	12	0					11	0	11	11		
13	9	0	0	0	13	0	0	0			0	12	22	0	0	0
14	13	0	17	0	16	0	0	18			0	14	20	0		
15	19	0	21	0							0	21	30	0		
16	17	0	22	0					0	13	0	18	22	0		
17	16	0	20	0	16	0	25	0					19	0		
18	14	0														
19	21	0														
20	15	8	13	12	15	0					12	0	17	14	15	0
21	8	8	12	0	13	0					0	0	11	12	13	0
22	11	0			0	0					0	0	14	0		
23	0	0	0	0	0	0					0	0	0	0	0	0
24	0	0	0	0	0	0					0	0	0	0	0	0
25	0	0	0	0	0	0					0	0	0	0		
26	4	3	0	0	0	0							0	0		
27	0	8			0	0					0	0	0	0		
28	0	0	0	0	0	0							0	0		
29	0	0	0	0	0	0					0	0				
30	0	0	0	0	0	0					0	0	11	0	0	0
31	10	0	13	0	15	0					0	0	12	0	13	0



# Bulletin Werkgroep Zon Augustus 1995

NVWS Werkgroep Zon, Sekretariaat: Veenenburg 36, 2804 WZ Gouda, Tel: 01820-39062

## Zonnevlekkengetallen (Sunspot numbers)

Day	Bais	Gr 5	Gr 5*	Gr 6	Gr 6	Iden	Jun 8	Jun 4	Scho	vSlo	Sp 7	Vers	Zan(J)	Zan	Zijl(J)	Zijl
1	16	14		17			0	16	17	15			16			15
2	16	16		17	15		0	17	15	15			19			18
3	12	12		16	14		0	19	14	14			17			22
4	0	0		14	14		0	14	14	18			18		21	
5				12	28		0	12	12	15			15		16	
6		18		27			12	20	34	22			28			
7		15					11						18			17
8	13	0		12			0	14	14				14		22	
9	0	0		0	0		0	0	0	0			0		0	0
10	0	0		0	0		0	0	0	0			0		0	0
11	0	0		0	0		0	0	22	0			0		11	
12	0	0		0	0		0	0	0	0			0		0	0
13	0	0		0	0		0	0	0	0			0		0	0
14	0	0		0	0		0	0	0	0			0		0	0
15	0	0		14	0		0	0	0	0			0		0	0
16	26			24	26		0	27	0	27			0		30	
17	11			11	0		0	11	0	11			0		11	
18	0			0	0		0	0	0	0			0		0	0
19	0			0	0		0	0	0	0			0		0	0
20	0	0		0	0		0	0	0	0			0		0	0
21	0	0		0	0		0	0	0	0			0		0	0
22	11			11	11		0	0	0	0			0		0	0
23	15			21	0		0	18	18	34			32		23	
24	36			34			23	41	36	42			42			
25	32			33			24	36	36	42			42			
26	49			47			34	34	38	57			38		65	
27				47			11	27	45	45			40		31	
28	27			27			11	11	29	29			12		34	
29	15			15			11	11	19	19			16		16	
30	13			13			11	14	16	16			15		22	
31	12			13			11	15	15	15			14		14	
observ	23	4	12	9	26	13	31	2	15	31	7	3	14	10	2	23
k	0.92	1.12	1.09	1.05	0.95	0.89	1.61	1.59	1.05	0.86	1.07	1.02	0.94	1.01	0.88	0.82
std dev.	0.11	0.26	0.21	0.18	0.18	0.38	0.59	0.69	0.17	0.20	0.12	0.10	0.13	0.42	0.17	0.21
std./k	0.12	0.23	0.20	0.18	0.18	0.43	0.37	0.41	0.16	0.23	0.12	0.10	0.14	0.41	0.19	0.26

Observers	[...]	Reflector, d = ... mm	[R...]	Reflector, d = ... mm
Bais	H.A.M. Balster [70]	Jun 9 = D. Jannink [9]	Vers = D. Verschuuren [Rf 40]	
Gr 5*	Mw G. Gravers [50]	Jun 4 = D. Jannink [40]	Zan(J) = W. Zanstra [100]	
Gr 5	Mw G. Gravers [50]	Scho = A. Scholten [60]	Zan = W. Zanstra [Rf 155]	
Gr 6	Mw G. Gravers [60]	vSlo = B. van Slooten [90]	Zijl(J) = W.A. Zijlema [100]	
Groo	A. Groenewegen [102]	Sp 7 = T. Spaninks [75]	Zijl = W.A. Zijlema [90]	
Iden	J.A. Idenburg [Rf 125]			(J) = Jura Sternwarte, Switzerland
*	Denekamp and Pulmiche			

Date Center



SUNSPOT INDEX

## SUNSPOT BULLETIN

### S.I.D.C. SUMMARY OF THE URSIGRAMS

1995 AUGUST RfM = 15.1

Date	Rf	PPBI	600	2800	COB	SFI	XI	AK	SEA	MAG
31	10	2	35	071	995	0	0/0	8		
1	14	8	35	073	999	0	0/0	6		
2	15	4	35	074	995	1	0/0	6	1514	
3	17	7	35	073	993	0	0/0	11		
4	16	5	36	073	997	0	0/0	6	1654	
5	16	2	36	075	999	0	0/0	8		
6	22	18	36	075	996	0	0/0	6		
7	21	9	35	074	989	0	0/0	10		
8	13	3	33	074	991	0	0/0	28		
9	9	-	35	073	988	0	0/0	29		
10	10	0	35	073	992	0	0/0	16		mgst ssc 1230
11	11	0	34	073	994	0	0/0	8	1210	
12	9	0	34	072	995	0	0/0	10		
13	9	0	33	071	995	0	0/0	14		
14	0	-	-	070	992	0	0/0	27		
15	15	2	34	071	991	0	0/0	16		
16	21	5	33	070	992	0	0/0	8		
17	13	1	32	070	998	0	0/0	12		
18	10	-	33	072	992	0	0/0	10	1442	
19	0	0	34	072	998	0	0/0	12		
20	8	0	34	071	997	0	0/0	8		
21	0	-	34	071	995	0	0/0	3		
22	8	0	33	070	898	0	0/0	18		
23	15	4	34	074	998	2	0/0	12		
24	31	16	36	077	994	7	0/0	9		
25	30	29	34	077	995	3	0/0	14		
26	41	19	35	077	998	1	0/0	9		
27	32	15	34	080	991	2	0/0	11		
28	24	17	35	082	989	4	0/0	6		
29	14	20	35	078	988	0	0/0	12		
30	13	20	35	077	992	0	0/0	6		
31	11	24	36	076	982	1	0/0	4		

Very low solar activity.

Rf, RfM: provisional international sunspot numbers from the S.I.D.C.

PPBI: prompt photometric sunspot index from the S.I.D.C. in 10.5 w/m<sup>2</sup>; the quantity to subtract from the mean solar constant.

600: 600 Mhz solar flux from Humain station (Belgium).

2800: 2800 Mhz solar flux from Ottawa (origin: Ursigrams - UGEI group 2), the 10.7cm flux data are provided as a service of the National Research Council of Canada.

COB: thousands of the cosmic ray counts (origin: Ursigrams - UGOS Kerguelen).

SFI: From October 1992, Solar Flare Index from the S.I.D.C. (origin: Ursigrams - UGEOR group 3).

XI: X-flares index from the Ursigrams (M-flares/X-flares) (origin: Ursigrams - UGEOR group 2; UGEI group 5).

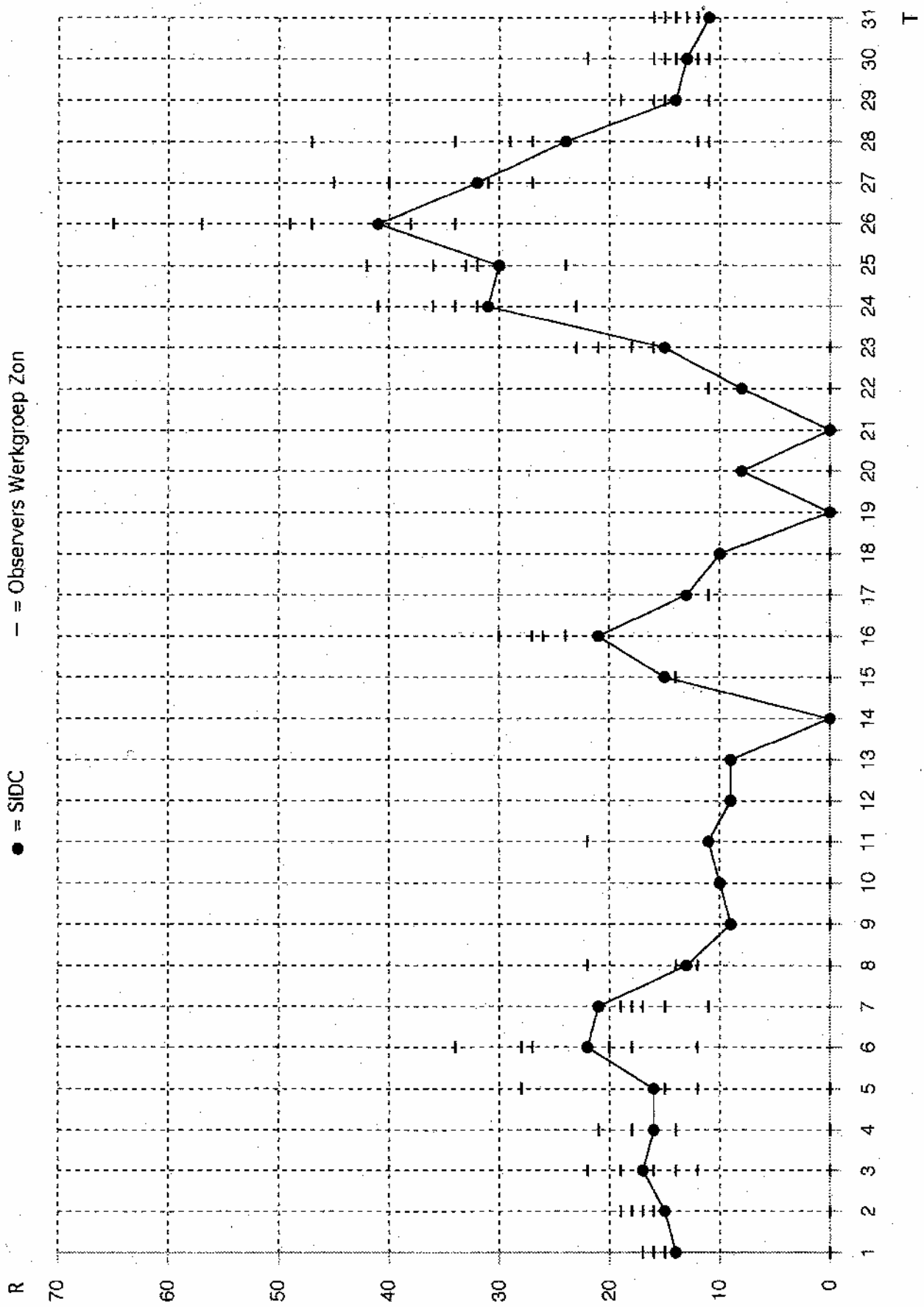
AK: planetary geomagnetic index from Mingst, Germany (origin: Ursigrams).

SEA: sudden enhancements of atmospheres from Uccle & Humain (Royal Observatory, Belgium).

MAG: magnetic events from Dourbes station (Royal Meteorological Institute, Belgium).

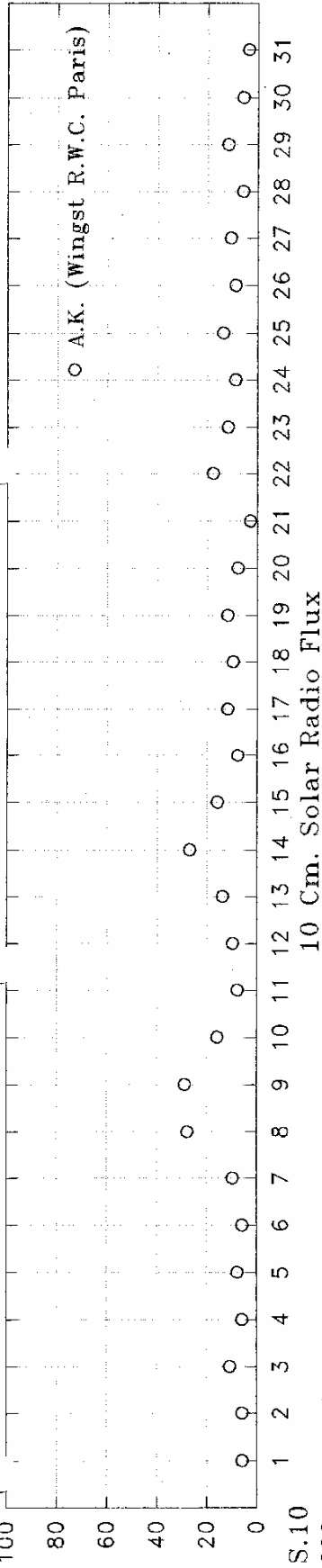
Remarks: sid (sudden ionospheric disturbance); sac (sudden storm commencement); mgst (magnetic storm); sse (solar flare effect); s-1-2-3-4 (class of flares); I-I-W radio-burst; T (ten on radio-burst); P (proton event); N (neutron event); F (Forbush); SFI Evaluation (1 x 5m-10 x 4m-10).

gls (ground level event; neutron event); st (sudden impulse); F (Forbush); SFI Evaluation (1 x 5m-10 x 4m-10).



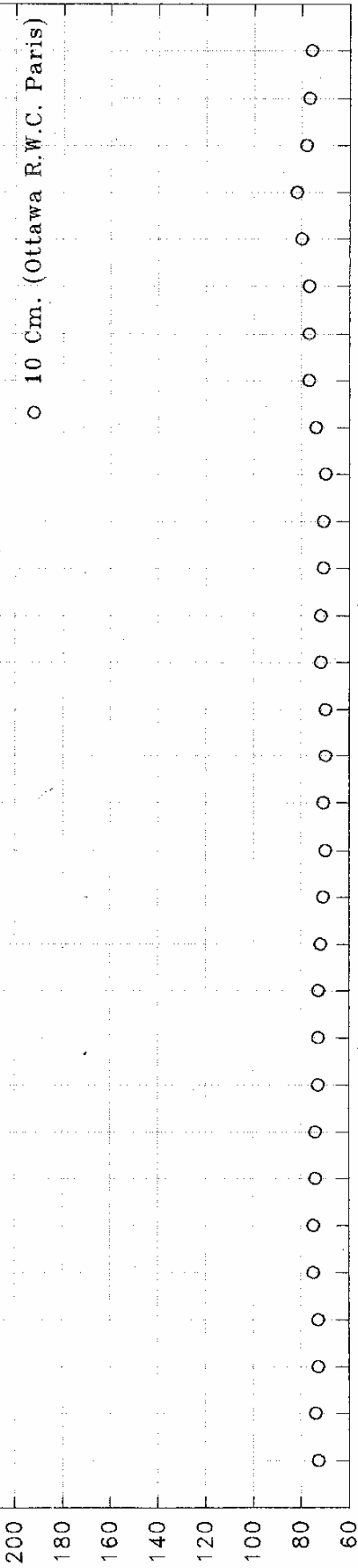
Geomagnetic A.K. Index

A.K.



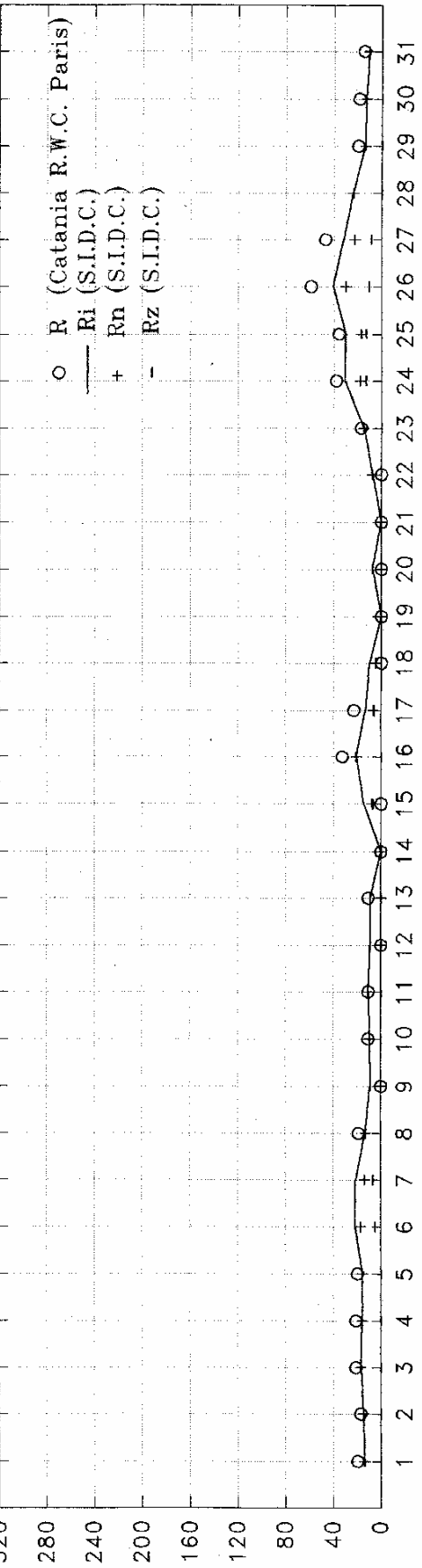
10 Cm. Solar Radio Flux

S.10



Relative Sunspot Numbers

R.



Rimax 41  
Aug. 26

Rimin 0  
Aug. 14,  
19,21

Rigem.  
15,1

# Zonnevlekkengetallen noordelijk- en zuidelijk halfrond

(Hemispheric sunspot numbers)

augustus 1995

Day	S.I.D.C.		Balster		Groenew.		Idenburg		Jannink 4		Scholten		v. Slooten		Spaninks	
	Rn	Rs	Rn	Rs	Rn	Rs	Rn	Rs	Rn	Rs	Rn	Rs	Rn	Rs	Rn	Rs
1	14	0	16	0	17	0					16	0	17	0		
2	15	0			18	0					17	0	15	0	15	0
3	17	0			16	0							19	0	14	0
4	16	0			14	0					0	0	14	0		
5	16	0			28	0					0	12	12	0		
6	17	5			27	0					0	20	34	0	22	0
7	14	7											19	0		
8	13	0	13	0	12	0							14	0		
9	0	9	0	0	0	0					0	0	0	0		
10	10	0	0	0	0	0	0	0			0	0	0	0		
11	11	0	0	0	0	0	0	0			0	0	22	0	0	0
12	0	9			0	0	0	0			0	0	0	0	0	0
13	0	9	0	0	0	0							0	0		
14	0	0	0	0	0	0	0	0			0	0	0	0		
15	8	7	0	0	0	0							0	0		
16	21	0	14	12	26	0							15	12		
17	7	6	0	11	0	0	0	0					0	11	0	0
18	5	5	0	0	0	0	0	0					0	0	0	0
19	0	0	0	0	0	0	0	0					0	0		
20	0	8	0	0	0	0	0	0			0	0	0	0		
21	0	0	0	0	0	0	0	0			0	0	0	0		
22	8	0	0	11	11	0							0	0		
23	15	0	15	0	21	0	0	0					18	0		
24	18	13	20	16	17	17							23	18		
25	17	13	17	15									18	18		
26	30	11	37	12			36	11	23	11	15	23	41	16		
27	23	9									13	14	32	13		
28	24	0	27	0			23	24	11	0			29	0		
29	14	0	15	0	0	19	0	11					19	0		
30	13	0	13	0	0	15					14	0	16	0		
31	11	0	12	0	0	13							15	0		





# Bulletin Werkgroep Zon September 1995

NVWS Werkgroep Zon. Secretaris: Veeneburg 86, 2804 WZ Gouda. Tel: 0182-539062

Sunspot Index

Date Center

## SUNSPOT BULLETIN

S.I.D.C. SUMMARY OF THE URSIGRAMS

1995 SEPTEMBER R(M) = 12.3

Date Rf PP8I 600 2800 COS 8YI XI AK SEA MAG

### Zonnevlektengetallen (Sunspot numbers)

Day	Bals	Gr 5	Gr 6	Groes	Id 12	Id 9	Id 8	Id 7	Id 6	Id 5	Id 4	Id 3	Id 2	Id 1	Vers	Zans	Zijle
1	12	14			22												
2																	
3	12		12	11													
4	22																
5	12	12															
6	11																
7	0																
8	0																
9	0																
10	0																
11																	
12	12																
13																	
14	0																
15	13																
16	12																
17	0																
18	0																
19	14																
20	29																
21	28																
22	42																
23	36																
24	35																
25	35																
26																	
27	34																
28	11																
29	0																
30	0																
observ	25	2	5	12	7	7	27	2	25	1	14	22	17				
k	0.79	0.99	0.75	0.77	0.94	0.89	1.59	1.82	0.90		1.09	1.03	0.78				
std.	0.15	0.49	0.08	0.28	0.47	0.13	0.68	1.28	0.21		0.31	0.26	0.11				
std./k	0.19	0.49	0.11	0.36	0.49	0.15	0.43	0.70	0.24		0.29	0.26	0.14				

Observers	[...] = Reflector, d = ... mm.	[Rf...] = Reflector, d = ... mm
Bals = H.A.M. Balster [70]	Id 12 = J.A. Idenburg [Rf 125]	vSio = B. van Siooten [90]
Gr 5 = M.W.G. Gravers [50]	Id 9 = J.A. Idenburg [Rf 93]	Sp 7 = T. Sparinks [75]
Gr 6 = M.W.G. Gravers [60]	Id 8 = D. Jannink [9]	Vers = D. Verschuuren [Rf 40]
Groes = A. Groenewegen [102]	Id 4 = D. Jannink [40]	Zans = W. Zanstra [Rf 155]
		Zijle = W.A. Zijlema [90]

Correctie Bulletin aug. '95: W.A. Zijlema [90], Jura Sternwarte, Switzerland

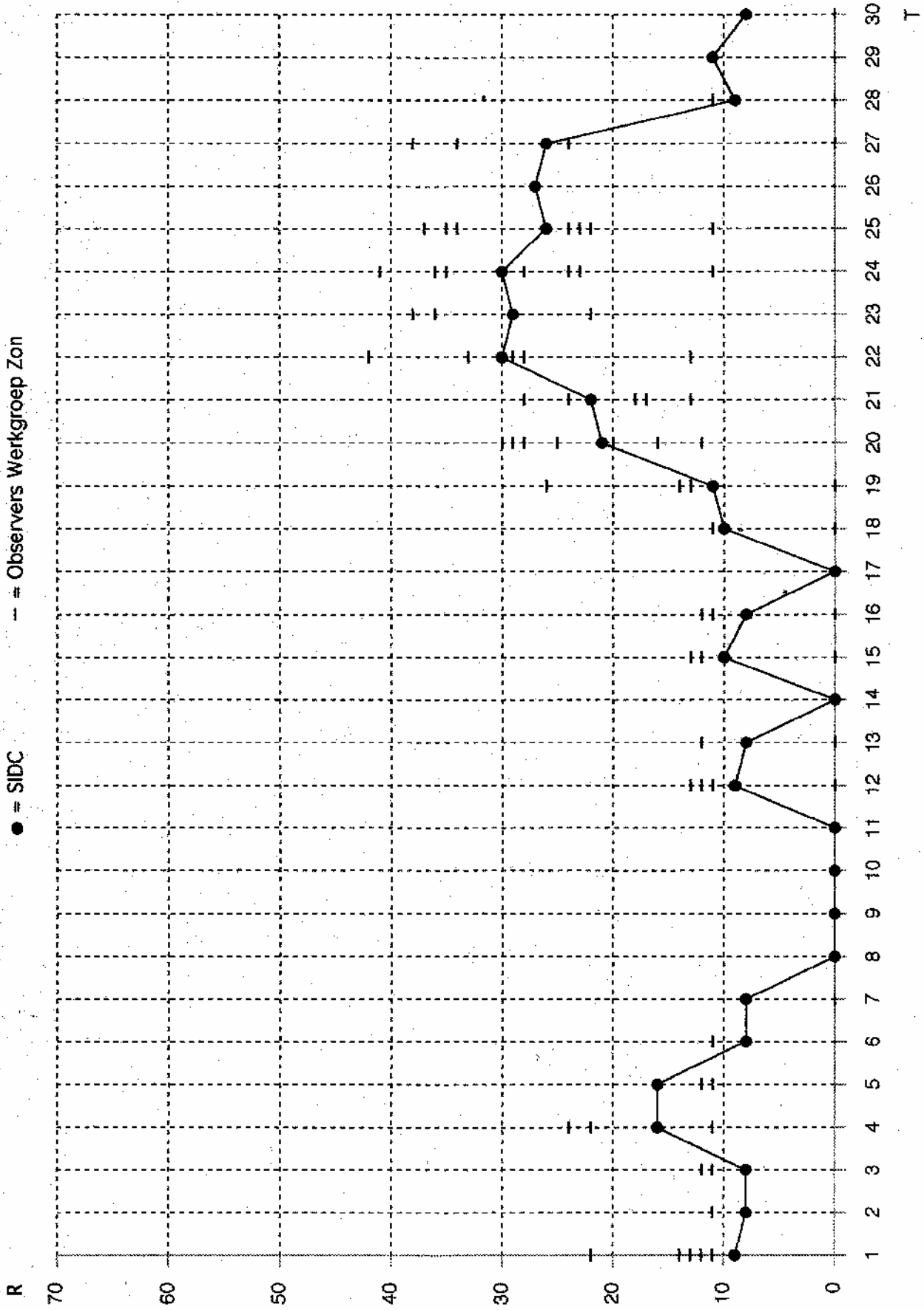
Rf, k, X: provisional international sunspot numbers from the S.I.D.C.  
 PP8I: prompt photometric sunspot index from the S.I.D.C. in 10<sup>-3</sup> W/m<sup>2</sup>; the quantity to subtract from the near-solar constant.  
 600: 600-MHz solar flux from Ottawa (origin: Ursigrama - UGEOR group 2).  
 2800: 2800-MHz solar flux from Ottawa (origin: Ursigrama - UGEOR group 2).  
 COS: thousands of the cosmic ray counts (origin: Ursigrama - UGEOR group 3).  
 8YI: From October 1992, Solar Flare Index from the S.I.D.C. (origin: Ursigrama - UGEOR group 3).  
 XI: X-flares index from the Ursigrama (M-flares/X-flares) (origin: Ursigrama - UGEOR group 5).  
 AK: planetary geomagnetic index from Uppsala, Germany (origin: Ursigrama).  
 SEA: sudden enhancements of atmospheric ions from Uppsala & Hummel (Royal Observatory, Belgium).  
 MAG: magnetic events from Dourbes station (Royal Meteorological Institute, Belgium).  
 Remarks: s1d (sudden ionospheric disturbance); sec (sudden storm commencement); sst (magnetic storm); sfa (solar flare effect); s-1-2-3-4 (class of flares); II-IV (radio-burst); T (ben ca radio-burst); P (proton flare); P (proton event); g1e (ground level event; neutron event); st (sudden impulse); F (Forbush); SFI Evaluation (1 x Sm10 x m10 x 100 x 4514).

Very low to low solar activity.

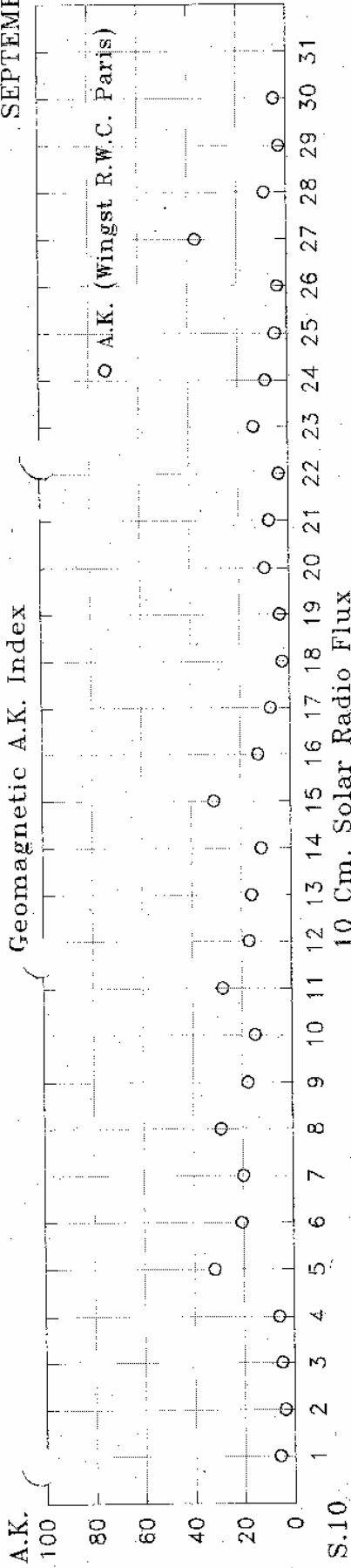
0848

1043

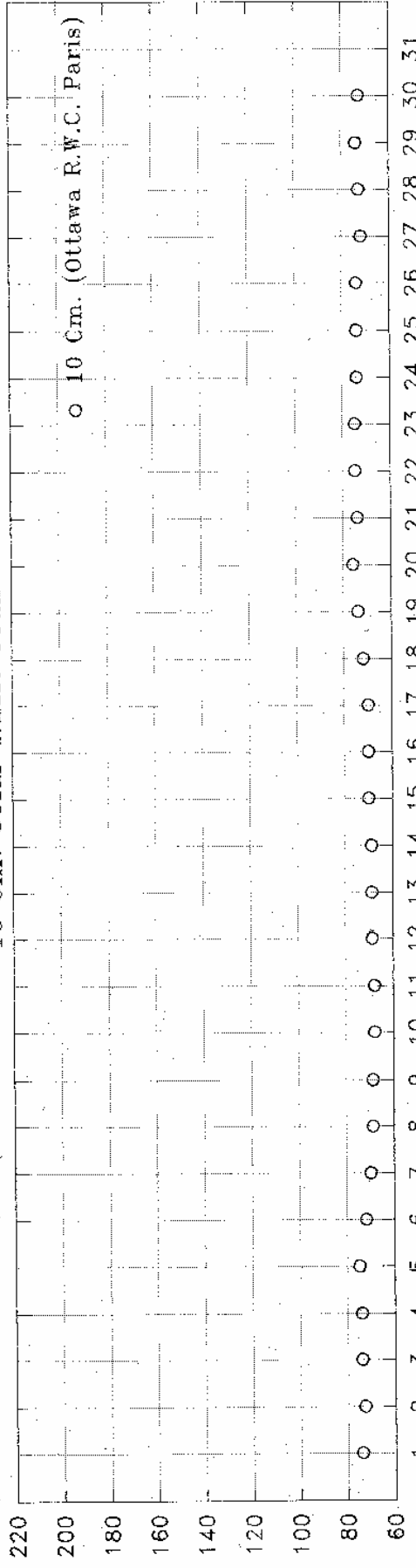
● = SIDC  
-- = Observers Werkgroep Zon



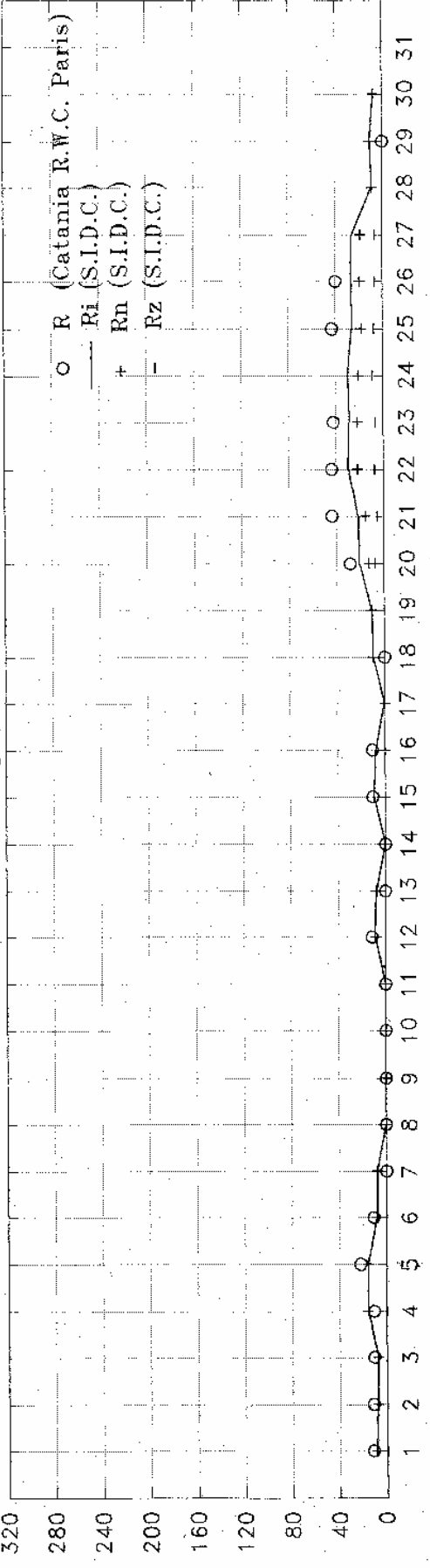
Geomagnetic A.K. Index



10 Cm. Solar Radio Flux



Relative Sunspot Numbers



Rimax 30  
Sept. 22,  
24.  
Rimin 0  
Sept. 8,9,  
10,11.  
Rigem.  
12,3





# Bulletin Werkgroep Zon

Oktober 1995

NVWS Werkgroep Zon, Secretariaat: Veenenburg 36, 2804 WZ Gouda. Tel: 0182-539082

## Zonnevlekgetallen (Sunspot numbers)

Day	Bals	Gr 6	Groe	Iden	Jn 9	Jn 4	Kroe	Scho	Sp 7	Vers	Zans	Zijle	
1	0	0	0	0	0	0	0	0	0	0	0	0	
2	0	0	0	0	0	0	0	0	0	0	0	0	
3	0	0	0	0	0	0	0	0	0	0	0	0	
4	0	0	0	0	0	0	0	0	0	0	0	0	
5	0	0	0	0	0	0	0	0	0	0	0	0	
6	0	0	0	0	0	0	0	0	0	0	0	0	
7	0	0	0	0	0	0	0	0	0	0	0	0	
8	13	11	12	11	11	11	14	14	11	11	12	11	
9	32	27	27	11	24	24	28	28	12	12	12	27	
10	32	32	32	12	38	38	38	38	28	28	38	33	
11	74	74	74	27	59	59	82	82	54	54	82	82	
12	74	74	74	26	68	68	74	74	57	57	74	74	
13	72	72	72	26	68	68	74	74	57	57	74	74	
14	67	67	67	26	68	68	74	74	57	57	74	74	
15	41	39	39	22	48	48	48	48	31	28	26	37	
16	53	23	23	23	40	40	39	39	26	26	26	28	
17	42	36	36	22	36	36	36	36	26	26	26	26	
18	25	25	25	12	22	22	22	22	22	22	22	22	
19	25	25	25	12	22	22	22	22	22	22	22	22	
20	24	24	24	11	22	22	22	22	22	22	22	22	
21	37	22	22	22	36	36	36	36	27	27	27	27	
22	27	30	30	11	11	11	42	42	27	27	27	27	
23	30	29	29	35	11	11	37	37	34	31	25	31	
24	33	30	30	33	12	12	38	38	32	27	27	31	
25	31	28	28	11	11	11	30	30	30	13	13	27	
26	14	15	15	0	0	0	0	0	0	0	0	0	
27	12	12	12	0	0	0	12	12	12	12	13	13	
28	0	0	0	0	0	0	0	0	0	0	0	0	
29	0	0	0	0	0	0	0	0	0	0	0	0	
30	0	0	0	0	0	0	0	0	0	0	0	0	
31	0	0	0	0	0	0	0	0	0	0	0	0	
obsrvy	24	5	21	13	25	3	5	2	28	10	8	16	17
k	0,86	0,79	0,86	1,14	1,86	1,74	0,76	0,83	0,81	0,87	1,23	1,14	0,96
std dev	0,20	0,08	0,11	0,48	0,47	0,81	0,11	—	0,14	0,12	0,41	0,51	0,21
std.r.k	0,24	0,10	0,12	0,42	0,25	0,47	0,15	—	0,17	0,13	0,34	0,45	0,22

Observers	[...]	Reflector, d = ... mm	[Rf...]	Reflector, d = ... mm
Bals = H.A.M. Balster [70]	Jn 9 = D. Jannink [9]	Jn 9 = D. Jannink [9]	Sp 7 = T. Spaninks [75]	Vers = D. Verschuuren [Rf 40]
Gr 6 = M.w.G. Gravers [60]	Jn 4 = D. Jannink [40]	Kroe = K. Kroesen [102]	Zans = W. Zanstra [Rf 155]	Zijle = W.A. Zijlstra [90]
Groe = A. Groenewegen [102]	Scho = A. Scholten [60]			
Iden = J.A. Idenburg [Rf 125]				

Sunspot Index



Date Center

## SUNSPOT BULLETIN

S.I.D.C. SUMMARY OF THE OBSERVATIONS

1995 OCTOBER RfM = 21.7

Date	Rf	PPSI	600	2800	COS	SFI	XI	AK	SEA	MAG
30	8	0	35	073	994	0	0/0	5		
1	0	0	34	073	991	0	0/0	6		
2	0	0	34	073	993	0	0/0	20		
3	0	0	34	071	994	0	0/0	25		mgst(1501)
4	0	0	33	071	997	0	0/0	51	1532	
5	0	0	33	071	999	0	0/0	21		
6	8	0	33	071	996	0	0/0	32		
7	10	1	34	073	996	0	0/0	25		
8	9	7	34	074	996	0	0/0	29		
9	22	19	34	076	1000	0	0/0	26		
10	29	27	34	082	999	4	0/0	11		
11	48	48	34	089	997	2	0/0	18		
12	57	82	35	092	992	9	1/0	18	1400	
13	58	88	37	088	994	18	1/0	12	1518	
14	54	79	42	087	1000	17	0/0	8		
15	31	71	38	083	992	1	0/0	8		
16	43	65	37	086	993	1	0/0	10		
17	37	54	35	085	997	0	0/0	10		mgst, ssc(1122)
18	28	43	35	082	—	1	0/0	27		
19	21	22	35	080	—	2	0/0	23	1239	
20	18	12	35	083	—	5	1/0	35		SF,T (0510)p(0825)
21	26	11	34	081	999	6	0/0	16		
22	26	20	34	080	994	0	0/0	16	0915	
23	26	20	35	077	996	0	0/0	18		
24	25	21	35	074	—	0	0/0	13		
25	22	19	32	074	992	0	0/0	3		
26	22	10	33	074	987	0	0/0	4		
27	12	6	33	074	998	0	0/0	8		
28	10	3	34	074	—	0	0/0	2		
29	9	0	34	074	—	0	0/0	3		
30	11	0	33	073	998	0	0/0	15		
31	10	0	33	073	—	0	0/0	24		

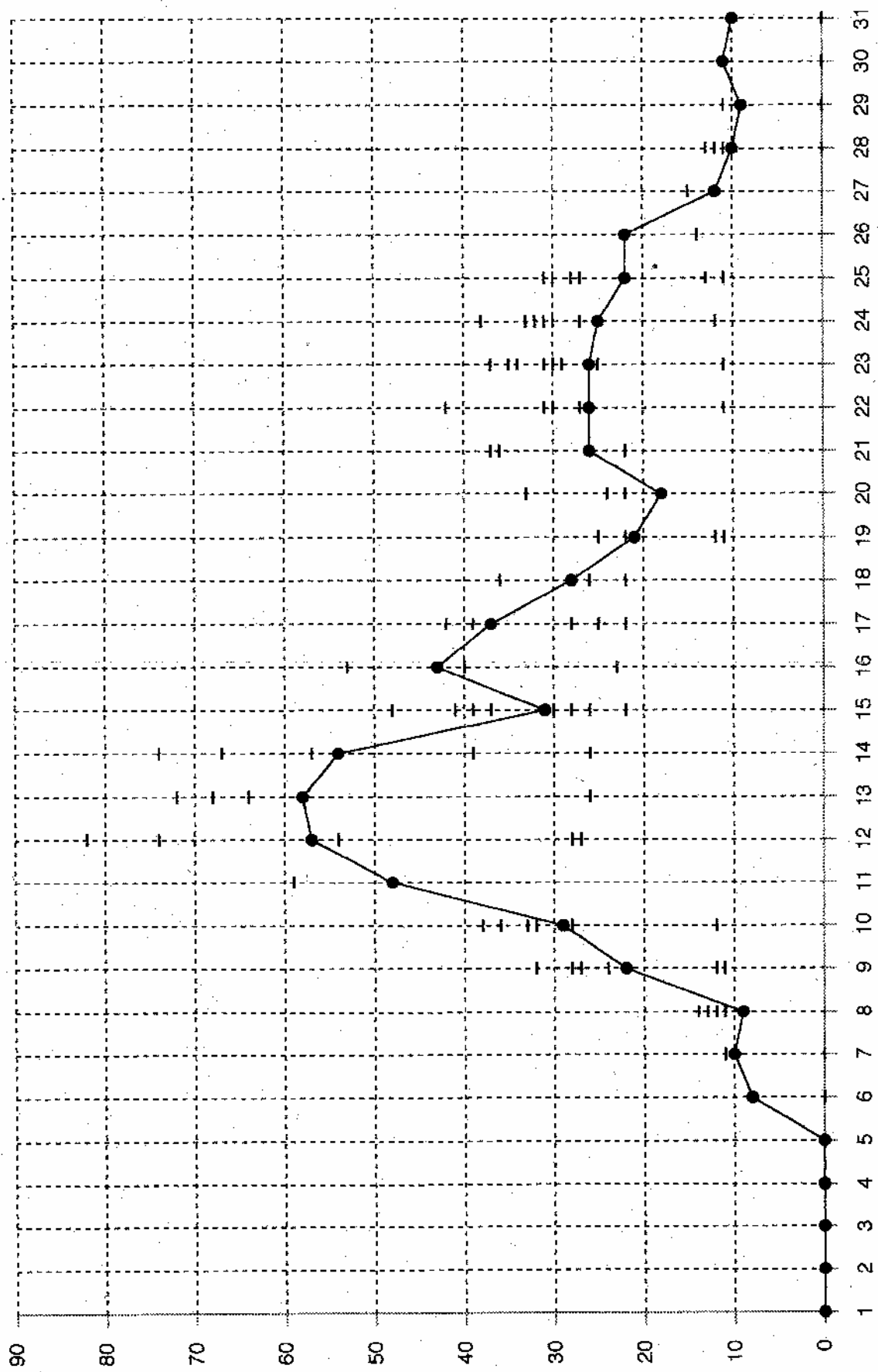
Very low to moderate solar activity at the middle of the month.

Rf, RfM: provisional international sunspot numbers from the S.I.D.C.  
 PPSI: prompt photometric sunspot index from the S.I.D.C. in 10-5 w/m<sup>2</sup>; the quantity to subtract from the mean solar constant.  
 600: 600 Mhz solar flux from Hainin station (Belgium).  
 2800: 2800 Mhz solar flux from Ottawa (origin: Ursigrans - UGEOI group 2). The 10-7cm flux data are provided as a service of the National Research Council of Canada.  
 COS: thousands of the cosmic ray counts (origin: Ursigrans - UGEOI Kerguelan).  
 SFI: From October 1992, Solar Flare Index from the S.I.D.C. (origin: Ursigrans - UGEOI group 3).  
 XI: X-flares index from the Ursigrans (M-flares/R-flares) (origin: Ursigrans - UGEOI group 2; UGEOI group 3).  
 AK: planetary geomagnetic index from Mingst, Germany (origin: Ursigrans).  
 SEA: sudden enhancements of atmospheres from Uccle & Kulin (Royal Observatory, Belgium).  
 MAG: magnetic events from Bourbes station (Royal Meteorological Institute, Belgium).  
 Remarks: sid (sudden ionospheric disturbance); sac (sudden storm commencement); mgst (magnetic storm); sfs (solar flare effect); s-1-2-3-4 (class of flares); II-IV radio-burst; T (ten cm radio-burst); p (proton flare); p (proton event); gfe (ground level event; neutron event); sf (sudden impulse); F (forbush); SFI Evaluation (1 x SFI+100 x RfM).

● = SIDC  
-- = Observers Werkgroep Zon

● = SIDC

R

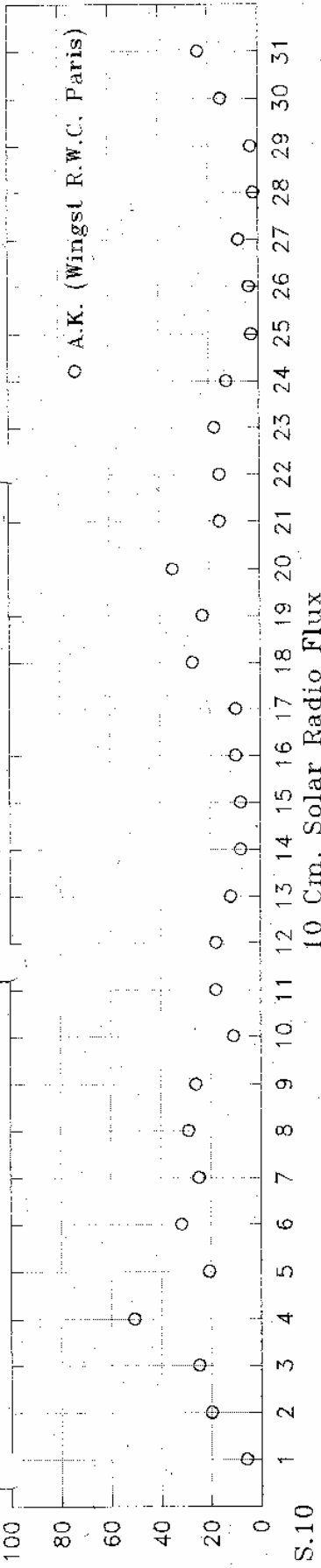


T

A.K.

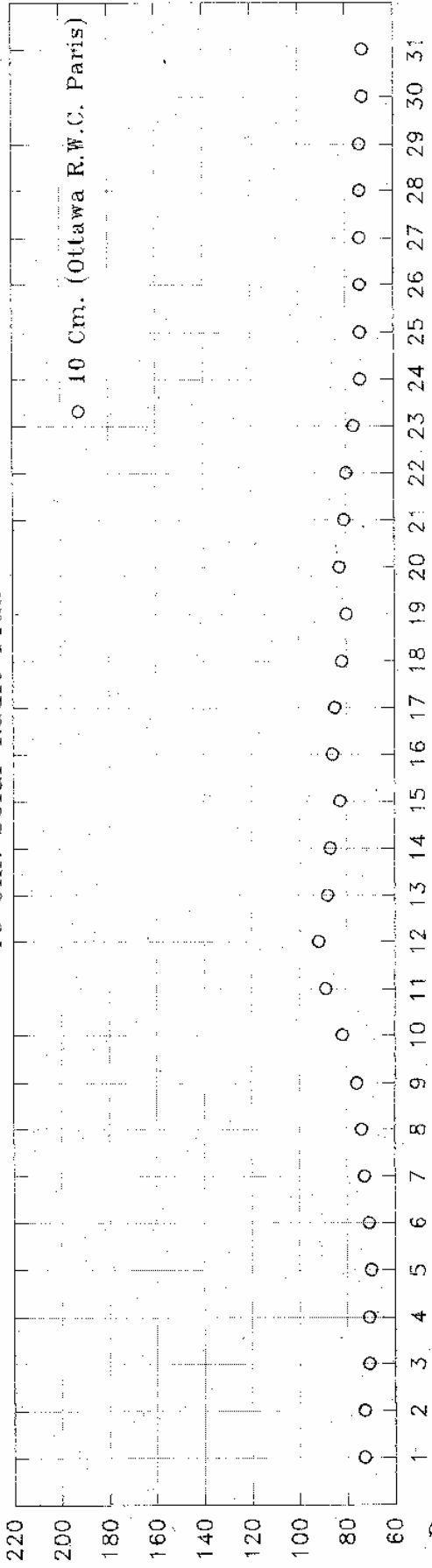
Geomagnetic A.K. Index

OKTOBER 1995



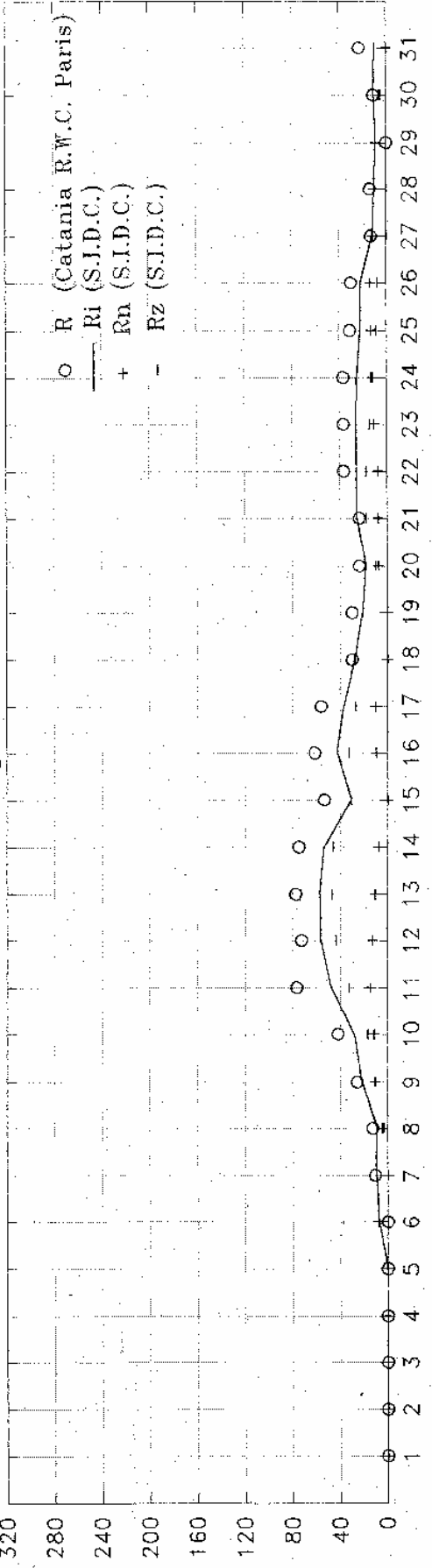
S.10

10 Cm. Solar Radio Flux



R.

Relative Sunspot Numbers



Rimax 58  
Okt. 13

Rimin 0  
Okt. 1 1/  
m 5.

Rigem.  
21,7

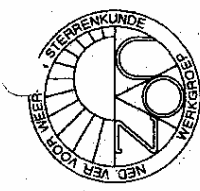
# Zonnevlekkengetallen noordelijk- en zuidelijk halfrond

(Hemispheric sunspot numbers)

oktober 1995

Day	S.I.D.C.		Baister		Groenew.		Idenburg		Jannink 4		Scholten		v. Stooten		Spaninks	
	Rn	Rs	Rn	Rs	Rn	Rs	Rn	Rs	Rn	Rs	Rn	Rs	Rn	Rs	Rn	Rs
1	0	0			0	0										
2	0	0	0	0									0	0		
3	0	0	0	0			0	0					0	0		
4	0	0	0	0	0	0							0	0		
5	0	0			0	0							0	0		
6	8	0	0	0	0	0	0	0					0	0		
7	0	10					0	0					0	11		
8	5	4	0	12	0	11	0	12	0	11			0	12	0	14
9	11	11	15	17	12	15	13	14					11	13	13	15
10	12	17	17	15	17	15							20	16		
11	15	33											20	39		
12	13	44	15	59					0	28			21	61		
13	11	47	15	57	14	50							13	55		
14	8	46	11	56									12	62	0	57
15	0	31	0	30			0	39					0	48	0	31
16	10	33	12	41			0	23					13	27		
17	10	27	13	29	11	28	0	25					11	28		
18	0	28											0	26		
19	0	21	0	25	0	25	0	12					0	22		
20	8	10			11	13							11	22		
21	8	18	13	24	11	11							12	24		
22	8	18	13	14	11	20			11	0			13	29	13	14
23	11	15	13	17	11	18	0	35					14	20	13	18
24	12	13	17	16	15	18							16	16	13	14
25	13	9	20	11	17	11							19	11		
26	14	8	14	0												
27	12	0			15	0										
28	10	0	12	0	12	0	11	0			12	0	12	0		
29	9	0	0	0	11	0	0	0			0	0	0	0	0	0
30	6	5	0	0	0	0							0	0	0	0
31	0	10	0	0	0	0	0	0					0	0		





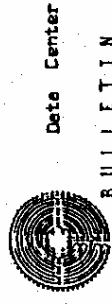
# Bulletin Werkgroep Zon November 1995

NWMS Werkgroep Zon, Secretariaat: Veenenburg 36, 2804 WZ Gouda. Tel: 0182-539082

## Zonnevlekgetallen (Sunspot numbers)

Day	Bals	Gr 6	Groe	Iden	Jn. 9	Jn. 4	Kroe	Scho	vScho	Sp	Vers	Zans	Zijle
1													
2	11			0	0				12			0	
3	0			0	0							0	
4	0			0	0							0	0
5	0			0	0							0	0
6	12			11	11					11		11	
7													
8					11								
9													
10	11			12	15		12					18	
11	11	12		12		11			11		11		11
12	11	12		12		11			11	11	11		
13	11				11	11	11		11	11	11		
14					11	11			13				
15													
16					11							22	
17	36			11								35	
18	26	19	24	11		12			25		14	24	
19	13		12						13			13	12
20	13	15		11	11	13	14		17		12	13	
21	11		11	0	0				13		11	0	
22	11			0	0						11		
23	0			0	0								
24	0			0	0								
25	0			0	0								
26	0			0	0								
27				0	0								
28				14			13			14			
29				17									
30	19	7	14	7	18	2	6	2	16	2	10	11	6
observ.	0,81	0,77	0,87	1,40	1,08	0,92	0,97	0,71	0,72	0,73	0,89	0,92	0,77
k	0,11	0,11	0,38	1,07	0,63	0,13	0,48		0,09	0,00	0,31	0,15	0,09
st.dev.	0,14	0,14	0,44	0,77	0,58	0,16	0,48		0,13	0,00	0,35	0,17	0,12

Observers	[...]	Reflector, d = ... mm	[Rf...]	Reflector, d = ... mm
Bals = H.A.M. Balster [70]	Jn. 9 = D. Jannink [9]		vScho = B. van Slooten [90]	
Gr 6 = M.W.G. Gravers [60]	Jn. 4 = D. Jannink [40]		Sp 7 = T. Spaninks [75]	
Groe = A. Groenewegen [102]	Kroe = K. Kroesen [102]		Vers = D. Verschuuren [Rf 40]	
Iden = J.A. Idenburg [Rf 125]	Scho = A. Scholten [60]		Zans = W. Zanstra [Rf 155]	
			Zijle = W.A. Zijlema [90]	



# SUNSPOT BULLETIN

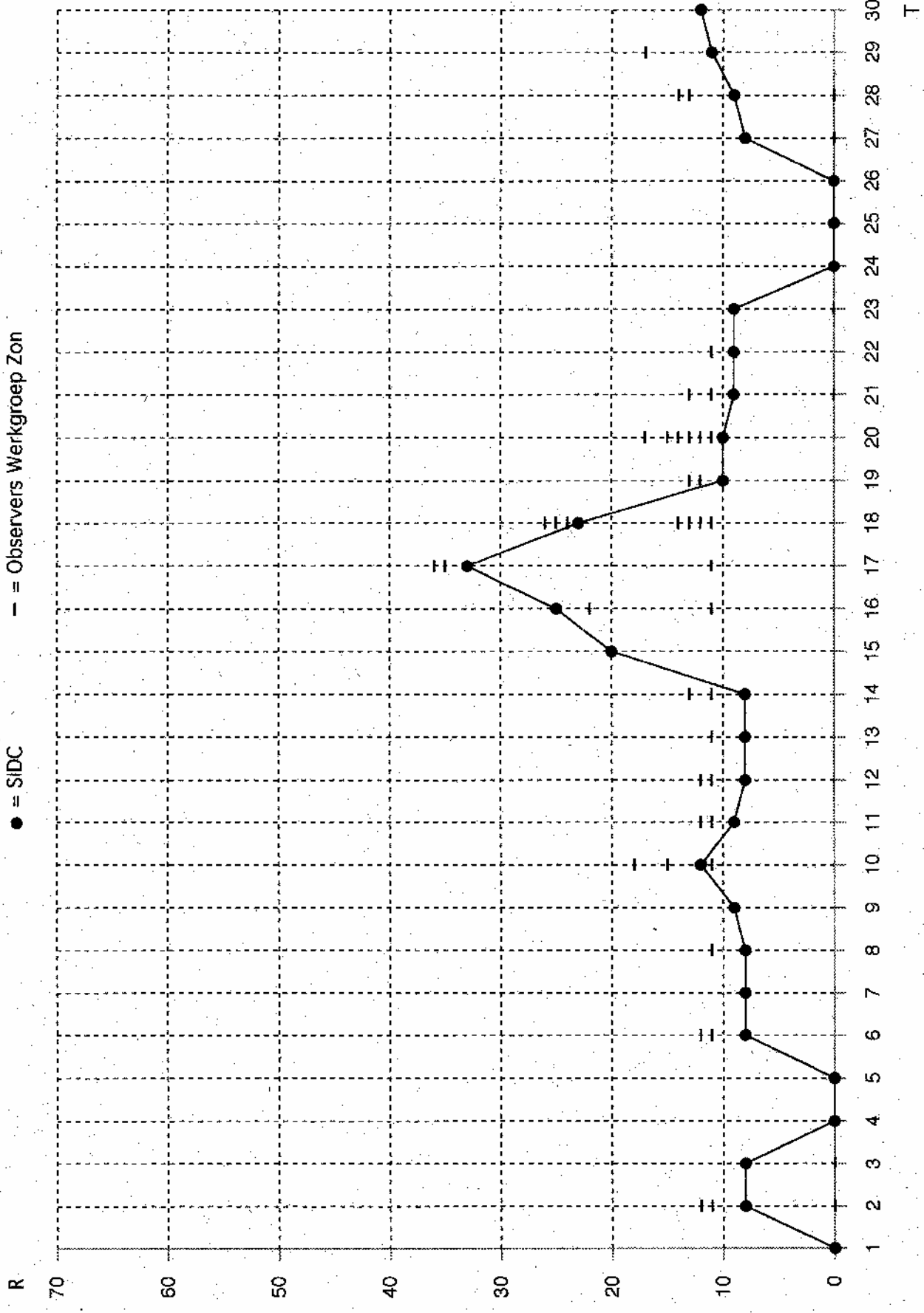
S.I.D.C. SUMMARY OF THE URSIGRAMS NOVEMBER R<sub>1</sub>M = 9.4

Date	R <sub>1</sub>	PFSI	600	2800	COS	SFI	XI	AK	SEA	MAG
31	10	0	33	073	-	0	0/0	24		
1	0	0	34	074	-	0	0/0	24		
2	8	0	34	073	994	0	0/0	24		
3	8	0	34	073	-	0	0/0	6		
4	0	0	34	073	999	0	0/0	12		
5	0	-	34	075	999	0	0/0	22		
6	8	3	35	075	-	0	0/0	24		
7	8	6	35	074	998	0	0/0	10		
8	8	14	35	076	-	0	0/0	9		
9	9	17	35	077	991	3	0/0	4		
10	12	23	35	078	997	1	0/0	6		
11	9	26	35	077	-	0	0/0	6		
12	8	24	35	076	997	0	0/0	12		
13	8	20	35	073	997	0	0/0	5		
14	8	23	35	075	999	0	0/0	5		
15	20	20	36	077	-	0	0/0	2		
16	25	15	35	076	996	2	0/0	4		
17	33	10	35	075	996	0	0/0	10		
18	23	11	37	075	990	0	0/0	6		
19	10	6	35	074	985	0	0/0	12		
20	10	17	35	073	983	0	0/0	5		
21	9	2	35	073	983	0	0/0	4		
22	9	3	-	073	983	0	0/0	7		
23	9	1	-	073	987	0	0/0	5		
24	0	-	-	072	985	0	0/0	2		
25	0	-	34	072	988	0	0/0	4		
26	0	-	35	073	995	0	0/0	2		
27	8	1	35	071	997	0	0/0	20		
28	9	1	35	073	999	2	0/0	12		
29	11	4	35	072	1000	0	0/0	16		
30	12	11	35	074	999	0	0/0	8		

Very low to low solar activity, somewhat increasing from 16.

ssc(0828)

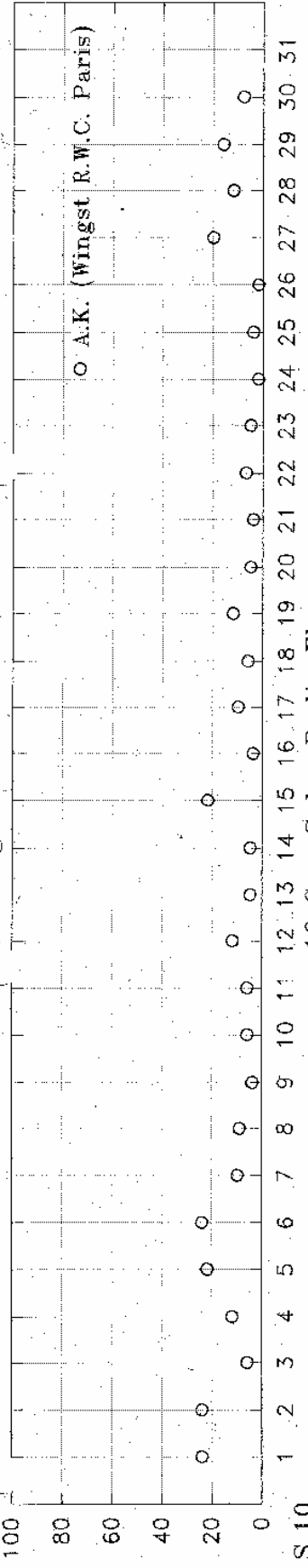
R<sub>1</sub>, R<sub>1</sub>M : provisional international sunspot numbers from the S.I.D.C.  
PFSI : percent photometric sunspot index from the S.I.D.C. in 10<sup>-5</sup> W/m<sup>2</sup>; the quantity to subtract from the mean solar constant.  
600 : 600 MHz solar flux from Naiman station (Belgium).  
2800 : 2800 MHz solar flux from Ottawa (origin : Ursigrans - UGE01 group 2). The 10.7cm Flux data are provided as a service of the National Research Council of Canada.  
COS : thousands of the cosmic ray counts (origin : Ursigrans - UG05 Kerguelen).  
SFI : From October 1992, Solar Flare Index from the S.I.D.C. (origin : Ursigrans - UGE01 group 3).  
XI : X-flares index from the Ursigrans (M-flares/X-flares) (origin : Ursigrans - UGE01 group 2).  
AK : planetary geomagnetic index from Wlissing, Germany (origin : Ursigrans).  
SEA : sudden enhancements of atmospheres from Uccle & Iumain (Royal Observatory, Belgium).  
MAG : magnetic events from Bourbes station (Royal Meteorological Institute, Belgium).  
Remarks : sid (sudden ionospheric disturbance); ssc (sudden storm commencement); mst (magnetic storm); sfc (solar flare effect); a-1-2-3-4 (class of flares); II-IV (radio-burst); T (ten cm radio-burst); P (proton flare); P (proton event); gle (ground level event); neutron event); si (sudden impulse); F (Forbush); SFI Evaluation (1 x Snt-10 x "11+100 x "11+10).



A.K.

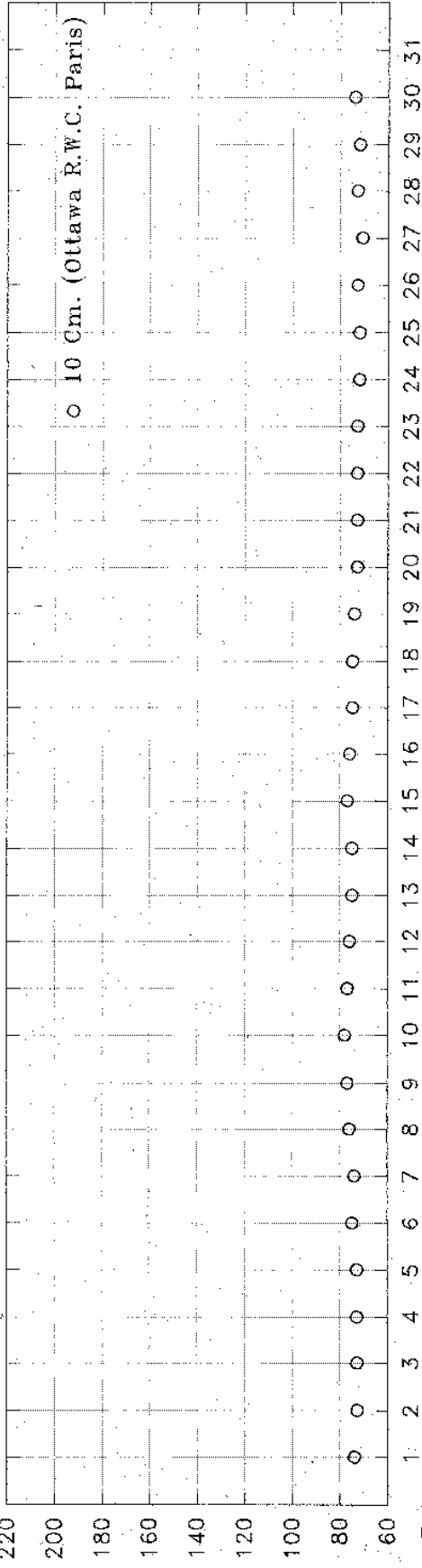
Geomagnetic A.K. Index

NOVEMBER 1995



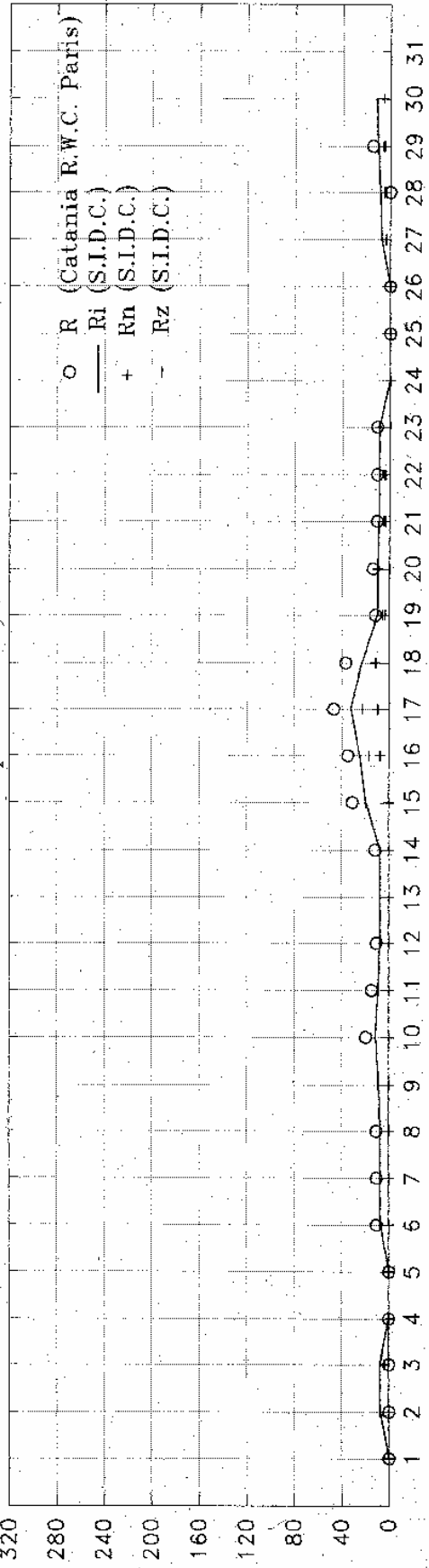
S.10

10 Cm. Solar Radio Flux



R.

Relative Sunspot Numbers



Rimax 33  
Nov. 17

Rimin 0  
Nov. 1,4,  
5,24,25,  
26.

Rigem.  
9,4





# Bulletin Werkgroep Zon December 1995

NVWS Werkgroep Zon, Secretariaat: Veenenburg 36, 2804 WZ Gouda, Tel. 0182-539082

## Zonnevlekgetallen (Sunspot numbers)

Day	Bals	Gr 6	Gro	Iden	Jn 9	Jn 4	Kroe	vSlo	Sp 7	Vers	Zans	Zille
1				13								13
2				33								
3					0							23
4	22			11	11			22			11	
5	11			11	11	11		11			11	
6	12			11	11	12		12				
7	11			11	11	14		14				
8	12			11	11	11		11			11	
9				26								
10												
11					11			14				
12	17				11			15				
13	14				11			11	15	13		
14				11	11			11			11	
15											11	
16	0			0	0			0			0	
17				0	0			0			0	
18												
19												
20	12				0			11			11	
21												
22												
23												
24	0			0	0			0			0	0
25				0	0			0			0	0
26				23				23			0	0
27	25	24	23	34	0			28	24	11	25	23
28	25	22	22	22	0			11	27	24	11	22
29	12	12	11		0			11	13	12	12	12
30	11	0			0			0			0	
31												
observ	14	4	12	6	18	1	8	14	4	10	11	5
k	0.80	0.75	0.87	0.78	1.00	1.27	0.94	0.79	0.72	1.17	0.89	0.77
st.dev.	0.17	0.00	0.20	0.35	0.24	—	0.30	0.18	0.04	0.40	0.28	0.02
st.d./k	0.22	0.00	0.23	0.44	0.24	—	0.32	0.23	0.06	0.35	0.31	0.02

Observers	[...]	= Reflector, d = ... mm	[R...]	= Reflector, d = ... mm
Bals	= H.A.M. Balster [70]	Jn 9 = D. Jannink [9]	Sp 7	= T. Spaninks [75]
Gr 6	= M.W.G. Gravers [60]	Jn 4 = D. Jannink [40]	Vers	= D. Verschuuren [R1 40]
Gro	= A. Groenewegen [102]	Kroe = K. Kroesen [102]	Zans	= W. Zanstra [R1 155]
Iden	= J.A. Idenburg [R1 125]	vSlo = B. van Slooten [90]	Zille	= W.A. Zillema [90]



# SUNSPOT BULLETIN

S.I.D.C. SUMMARY OF THE URSIGRAMS

1995 DECEMBER R<sub>IM</sub> = 10.8

Date	R	PPSI	600	2800	COS	SFI	XI	AK	SEA	MAG
30	12	11	35	074	999	0	0/0	8		
1	18	14	35	073	1000	0	0/0	28		
2	14	7	35	073	998	0	0/0	12		
3	16	3	34	073	993	0	0/0	13		
4	16	3	34	073	990	0	0/0	15		
5	14	7	35	074	985	0	0/0	6		
6	10	6	35	074	984	0	0/0	4		
7	10	18	—	074	985	0	0/0	4		
8	8	18	35	074	994	0	0/0	3		
9	19	13	35	074	989	0	0/0	9		
10	17	15	35	073	985	0	0/0	5		
11	18	14	35	073	985	0	0/0	4		SSC (1541)
12	11	10	35	072	990	1	0/0	8		
13	10	9	34	073	996	1	0/0	2		
14	9	3	35	070	—	0	0/0	6		
15	8	1	34	070	—	0	0/0	17		SSC (1515)
16	0	—	34	070	998	0	0/0	14		
17	0	—	33	069	990	0	0/0	13		
18	0	—	32	069	987	0	0/0	4		
19	9	0	32	069	987	0	0/0	7		
20	8	1	32	070	988	0	0/0	3		
21	9	1	31	070	996	0	0/0	6		
22	9	1	30	071	993	0	0/0	(15)		
23	8	0	31	072	994	0	0/0	(7)		
24	0	—	32	072	1000	0	0/0	(22)		
25	12	1	32	073	1000	0	0/0	(10)		mgst-ssc(0600)
26	21	2	33	074	995	0	0/0	17		
27	18	5	33	074	996	2	0/0	10		
28	17	3	34	076	998	0	0/0	6		
29	9	1	34	076	—	0	0/0	6		
30	10	1	35	075	—	0	0/0	4		
31	7	2	35	075	—	0	0/0	9		

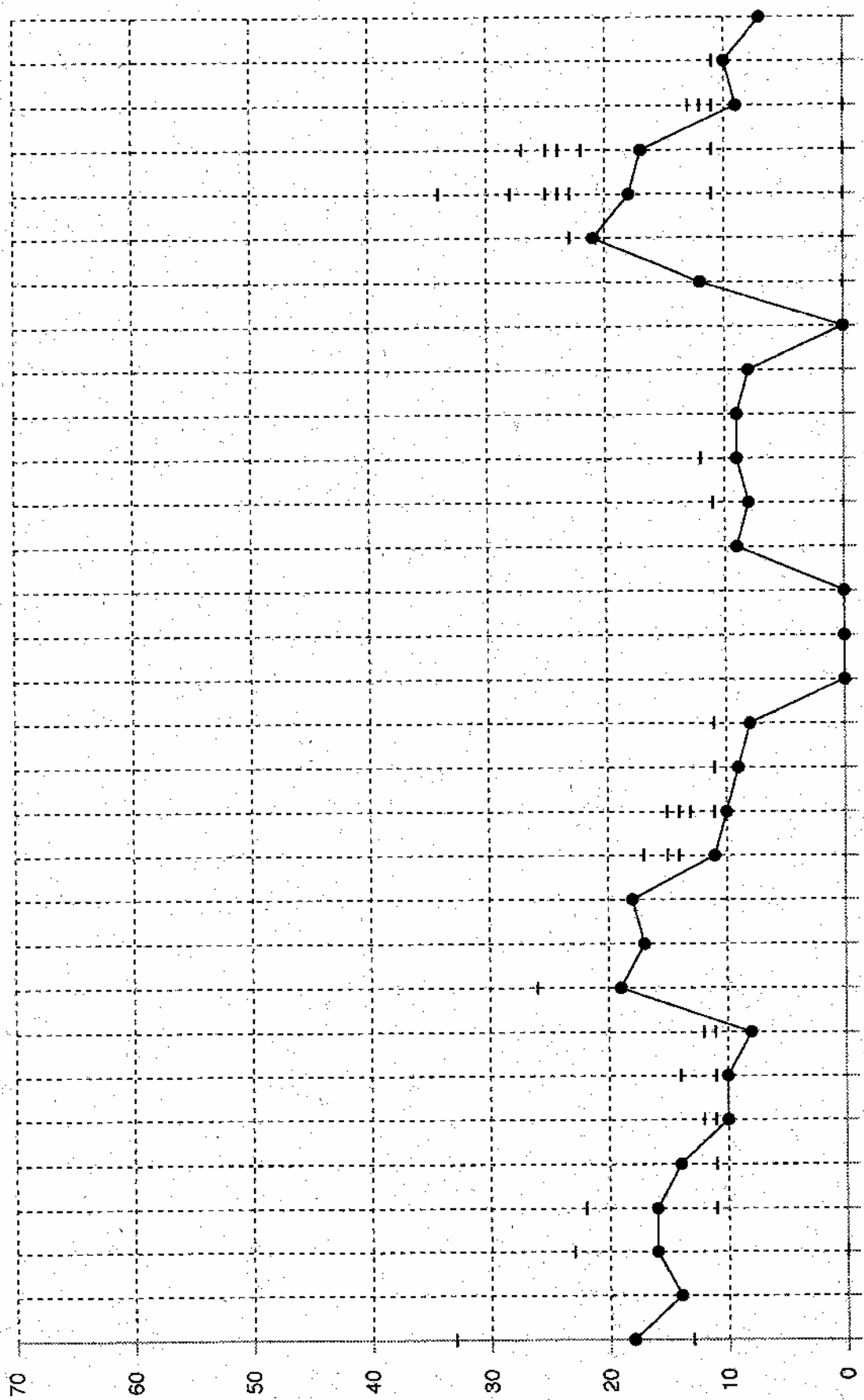
Very low solar activity during the whole month—some geomagnetic activity.

R<sub>I</sub>, R<sub>IM</sub>: provisional International sunspot numbers from the S.I.D.C.  
 PPSI: prompt photometric sunspot index from the S.I.D.C. in 10.5 W/m<sup>2</sup>; the quantity to subtract from the mean solar constant.  
 600: 600 Mhz solar flux from Kunming station (Belgium).  
 2800: 2800 Mhz solar flux from Ottawa (origin: Ursigrama - UGEO group 2); The 10.7cm Flux data are provided as a service of the National Research Council of Canada.  
 COS: thousands of the cosmic ray counts (origin: Ursigrama - UGEO group 2); UGEO group 2; UGEO group 5).  
 SFI: From October 1992, Solar Flare Index from the S.I.D.C. (origin: Ursigrama - UGEO group 3).  
 XI: X-flares index from the Ursigrama (M-flares/X-flares) (origin: Ursigrama - UGEO group 2); UGEO group 5).  
 AK: planetary geomagnetic index from Kingst, Germany (origin: Ursigrama).  
 SEA: sudden enhancements of atmosphere from Uccle & Humain (Royal Observatory, Belgium).  
 MAG: magnetic events from Dourbes station (Royal Meteorological Institute, Belgium).  
 Remarks: sid (sudden ionospheric disturbance); scs (sudden storm commencement); mst (magnetic storm); sfs (solar flare effect); s-1-2-3-4 (class of flares); II-IV radio-burst; T (ten cm radio-burst); P (proton flare); P (proton event); s (ground level event); n (neutron event); si (sudden impulse); F (Forbush); SFI Evaluation (1 x Sst-10 x 10<sup>11</sup> W/m<sup>2</sup> x 10<sup>17</sup>).

● = SIDC

— = Observers Werkgroep Zon

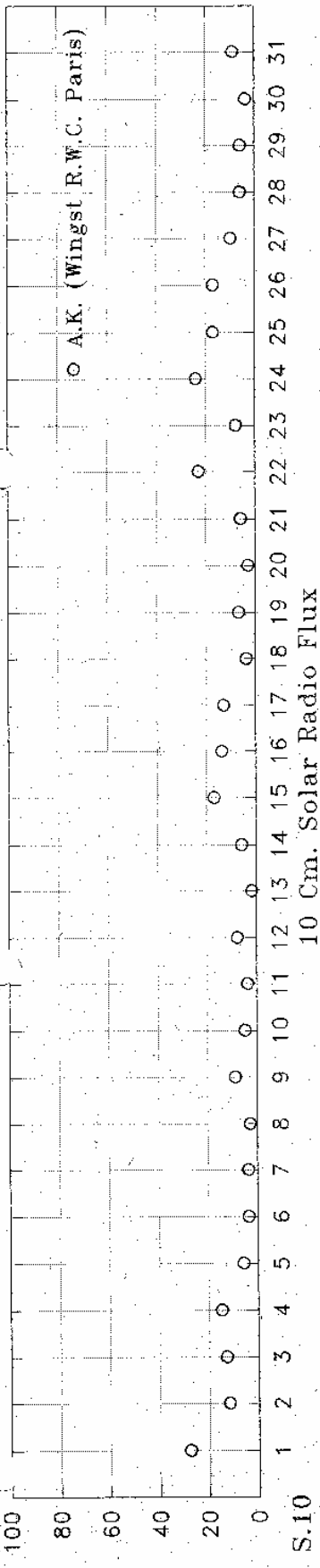
R



T

Geomagnetic A.K. Index

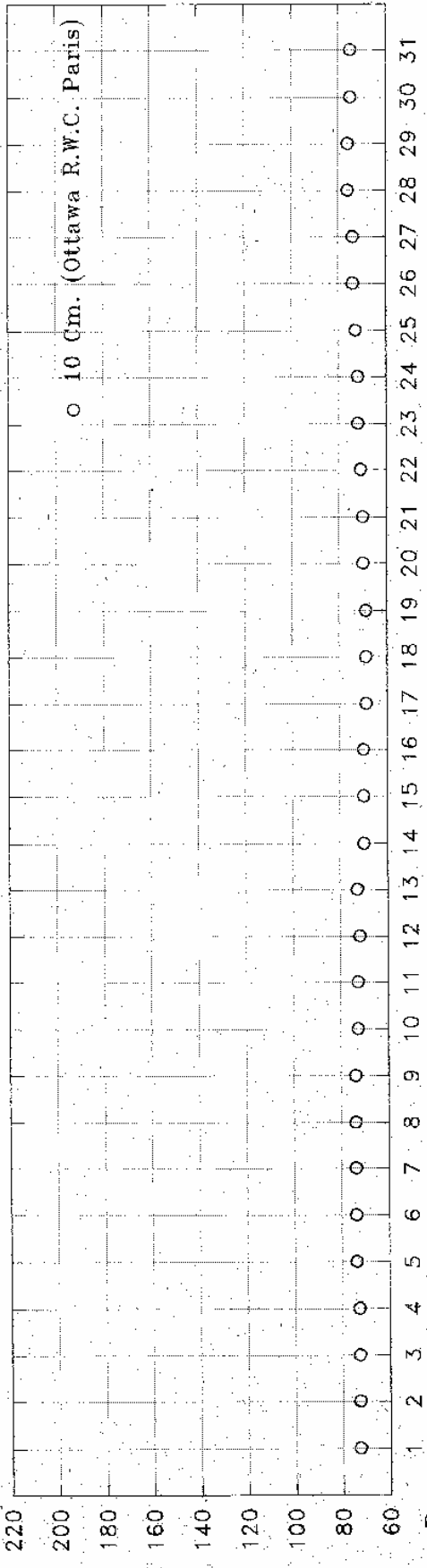
A.K.



○ A.K. (Wingst R.W.C. Paris)

10 Cm. Solar Radio Flux

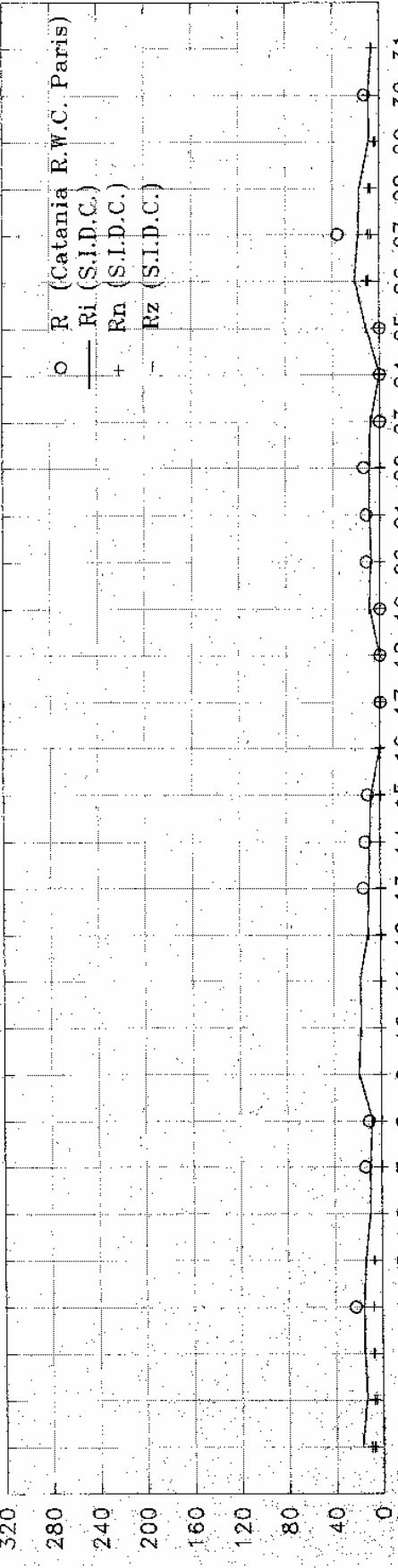
S.10



○ 10 Cm. (Ottawa R.W.C. Paris)

Relative Sunspot Numbers

R.



○ R (Catania R.W.C. Paris)  
 — Ri (S.I.D.C.)  
 + Rn (S.I.D.C.)  
 - Rz (S.I.D.C.)

Rimax 21  
Dec. 26

Rimin 0  
Dec. 16,  
17,18,24

Rigem.  
10,8

