

WHITE LIGHT SOLAR ACTIVITY

Observer	MDF				R		Q	
	North	South	Total	Days	Total	Days	Total	Days
E.H. Strach	1.15	0.26	1.41	27	16.81	27	3.11	27
P.J. Meadows	1.32	0.18	1.50	22	18.50	22	-	-
J.G. Gissing	0.80	0.10	0.90	10	-	-	1.50	10
CUAS	1.40	0.20	1.60	19	20.00	19	-	-
W.F. Heyes	1.25	0.25	1.50	8	-	-	2.88	8
T. Tanti	1.30	0.45	1.75	20	22.60	20	3.60	20
B. Hardie	0.95	0.26	1.21	23	15.00	23	-	-
K.J. Medway	1.00	0.20	1.20	30	-	-	-	-
MEANS	1.15	0.24	1.39	159	18.36	111	2.98	65

MDF = Mean Daily Frequency of active areas, R = sunspot number, Q = mean quality estimate (JBAA 98,6,pp282-286)

Table 1: Solar activity, 1994 April

Observer	MDF				R		Q	
	North	South	Total	Days	Total	Days	Total	Days
M. Gotz	-	-	1.05	21	22.10	21	-	-
MEANS	0.88	1.21	2.09	158	34.91	116	4.79	51

Table 2: Solar activity, Additional report for 1994 March

BAA/TA Comparison

Month	Active areas		Spot numbers	
	BAA	TA	BAA	TA
1994 March	2.80	2.09	39.6	34.9

Strach reports that a spot first seen near the E limb on the 15th showed a marked Wilson effect on the 16th and had developed a companion. By the 18th the companion was lost and it crossed the CM on the 20th and passed over the W limb on the 27th.

Sunspot Activity, 1994 April

Solar activity continued its gradual decline. Strach recorded six days of blank disks at the start of the month and noted that the S hemisphere was devoid of spots for 20 days. Heyes noted that the largest group that he saw during the month was a C group on the 25th. Despite the variable weather Medway managed to observe on all 30 days of the month and also reported low activity with six spotless days.

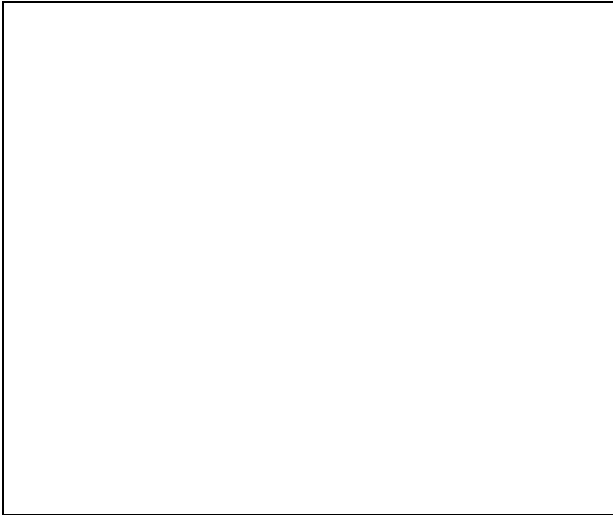
On the 9th Strach first noted a small spot at N9/204. He followed it until the 13th when it seems to have broken up in to a scattering of five small spots which, although they were no longer visible by the 14th, small pores were seen. In H α bright flocculi were visible in this position on the following four days.

Strach noted his first equatorial spot of the present cycle on the 26th at a longitude of 77.5° with a companion spot at S1/75. On the 27th both spots were in the S hemisphere at S1 and S0.7 but by the 28th they were no longer visible. The spots were seen again on the 29th and on the next day bright hydrogen was seen on the limb, almost reaching limb-flare intensity.

Strach's average latitudes for the month were 6.5° in the N and 8.7° in the S. He saw *polar faculae* in the S on April 2, 9, 14, 16, 17, 22, 26, 29 and 30. A single polar facula was seen in the N on the 29th. Medway reports extensive polar faculae on the 7th near the NE limb at 1250 when three were seen in a cluster. On the 8th two of these were still visible in the same position as before. Hardie reports observing polar faculae on April 1 (S), 4 (S), 5 (N&S), 7-10 (S), 12 (N &S), 13 (S), 14 (N&S), 15-20 (S), 23 (N&S), 25 (N&S), 30 (S).

MONOCHROMATIC SOLAR ACTIVITY

Observer	All Latitudes				0-40°			40-90°		
	North	South	Total	Days	North	South	Total	North	South	Total
E.H.Strach	2.76	1.28	4.04	25	2.16	0.92	3.08	0.60	0.36	0.96
K.J. Medway	3.68	3.36	7.04	22	2.14	1.54	3.68	1.55	1.81	3.36
B. Hardie			4.12	15						



*Prominence on the NW limb. (K.J. Medway)
1994 April 4, 1040, 50mm f/30 refr. + 0.6Å filter.*

H α Prominence Activity, 1994 April

Medway managed to observe the Sun in H α on 22 mostly consecutive days. He reports that, in general, the prominences showed no particular latitude preferences.

The highlight of the month was the appearance of a magnificent hedgerow/arch/mound prominence on the 4th. Medway writes: "I would be surprised if we see a more magnificent prominence this year". His drawing is attached. Strach described this prominence as striking. It extended from the W limb between 0 and N30. He noted that it was seen as a long curving filament on previous days and his drawing shows the appearance on March 29 when it crossed the CM. Medway notes that this prominence had disappeared by the next day.

Medway observed a low arch prominence on the 6th on the NE limb between 0 and +12°.

On the 10th Medway noted a surge filament at 1114 close to the small spot at N9/E55. He also noted miniature loops on the 17th on the SE limb between S32 and S40. They were seen at 0950 but were very short-lived having vanished by 1050. Tall arches were noted on the 21st between N12 and N20 and N37 to N50 on the NE limb.

During the last week of the month prominence activity increased on the W limb. Strach reports that a smaller version of the llarge event was seen on the 19th, 20th and 21st between S2 and N14. On previous days it was seen as a filament extending from NE to SW with its most southerly part just crossing the equator.

Medway reports a variety of types on the 28th consisting of mounds, low arches and large spikes. On the 30th he notes a large amount of eruptive activity on the NW limb as a small spot passed out of view. Particular events at N15 were

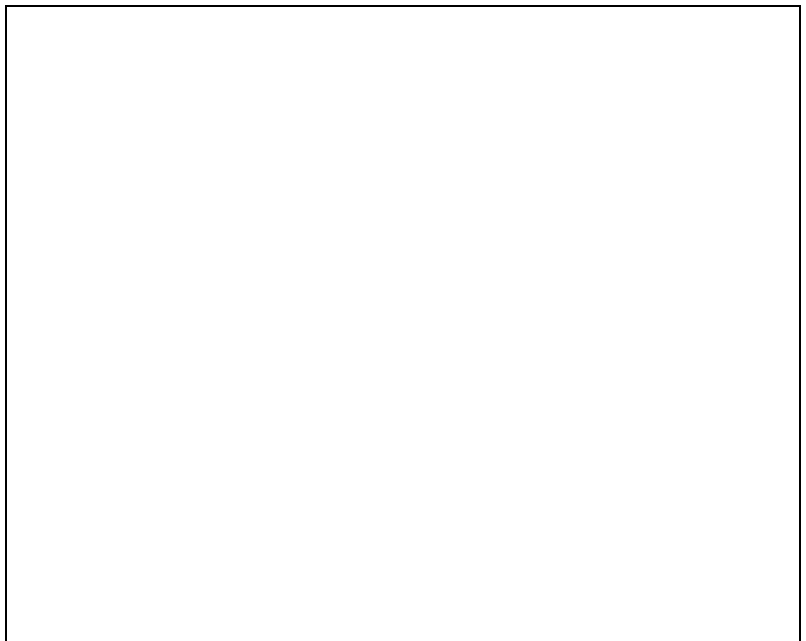
timed at 0915, 1150 and 1355.

Medway reports that filaments were seen on most days, seen being seen on the 24th. A very dense filament was seen on the 10th at 0930 with the preceding edge at N9/E21 and the following at E40. Strach reports that on the 10th a spot at N8/204 was surrounded by bright Hydrogen which erupted to 1F flare intensity at 1130. At the same time he noticed a broad, dense filament to the E and N of this spot. It had broadened considerably by 1315. On the next day it had disappeared and Strach notes that it was probably a filamentous surge. Filaments in general were more numerous from the 21st onwards, covering longitudes 125° to 0°.

A high latitude filament was observed by Strach along the 45° to 50° parallel in the N from the 24th onwards. It straddled the CM on the 29th and it was approaching the W limb at the end of the month.

Flares, 1994 April

Date	Time	Lat	CMD	Type	Obs.
10	0950	N11	E55	Sf	KJM
10	1050	N11	E55	Sf	KJM
10	1130	N9	E55	1F	EHS
10	1417	N14	E56	SB	KJM
10	1421	S8	E65	Sf	KJM
16	1740	S16	W32	Sn	KJM
21	1625	N7	E17	Sn	KJM
21	1743	N3	E15	Sn	KJM
23	0949	N5	W3	SB	BH
24	1025	N9	W65	Sf	KJM
24	1750	N7	E21	Sf	KJM
25	0944-0949	N8	W80	SB	BH



*A filament becomes a prominence- E.H. Strach.
1994 March 29, filament. 1994 April 4, prominence*