

Activity was higher this month and many of the groups seen were of the new cycle. Most observers report that spotless days were less frequent and it is to be hoped that the long minimum is finally drawing to a close.

White light MDF, 1997 April

Observer	MDF				R		Q	
	North	South	Total	Days	Total	Days	Total	Days
T. Tanti	0.33	0.80	1.13	15	17.20	15	2.80	15
M. Götz	-	-	0.50	10	11.50	10	-	-
G.F. Johnstone	0.09	0.81	0.90	11	12.20	11	-	-
W. Heyes	0.33	0.66	1.00	6	-	-	3.33	6
K. Medway	0.18	0.96	1.14	28	-	-	-	-
CUAS	0.28	0.92	1.20	25	16.00	25	-	-
P. Medway	0.33	1.00	1.33	24	20.79	24	3.58	24
G. North	0.15	0.80	0.95	20	14.45	20	-	-
E.H. Strach	0.15	0.85	1.00	13	12.38	13	2.23	13
MEANS	0.23	0.89	1.08	152	15.73	118	3.05	58

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

Sunspot Activity, 1997 April

The group at S22/297 seen at the end of March changed form during the first six days of the month. Meadows reports that the leading penumbral spot decayed on the 1st and 2nd before reappearing on the 3rd. On this date the longitudinal extent of the group was 12°. After this the entire group decayed leaving only a small Hsx spot by the 6th. This remaining spot had disappeared by the 7th and Strach reports that it was replaced by an extensive area of faculae and plages.

On the 3rd Meadows reported a small Cao group near the E limb at S28/212. On the following day only a single Hsx spot was seen. By the 10th the group had become type Axx. A day earlier, on the 9th, a compact Cao group was seen for the first time at N25/217. By the next day it had developed into a Dsi type. On the 10th

and 11th Meadows could see a light bridge between the two main umbrae of the leading spot.

A high latitude group at S29/192 was first seen on the 12th. This developed leading and following penumbral spots by the 13th and Meadows classified it as type Dso. It passed around the W limb on the 16th. A D type group appeared on the 14th at S22/112 consisting of just two small penumbral spots but this developed into a group with a number of small spots and pores by the 16th.

The disk was quiet towards the end of the month except for a single Axx spot seen on the 23rd and 24th at N18/324 and a Cro group at S16/9 seen on the 28th.

Meadows reports polar faculae in the S on the 16th. Strach reports S. hem polar faculae on the 21st.

Prominence MDF, 1997 April

Observer	All Latitudes				0-40°			40-90°		
	North	South	Total	Days	North	South	Total	North	South	Total
E.H. Strach	1.64	1.64	3.27	11	0.73	0.64	1.37	0.91	1.00	1.91
K.J. Medway	1.00	1.56	2.56	23	0.56	1.09	1.65	0.43	0.48	0.91

Prominence activity, 1997 April

Strach reports that a high jet which curved in a S direction was seen on the W limb at N53 on the 1st. Medway noted a multiple looping system on April 15 between N35 and N47 but this had gone by the 16th. He also saw tall pillar prominences on the 27th at 0910. On the 22nd Strach reported a prominence on the E limb at N42.

According to Strach the most remarkable development was a filamentous surge which started at 1340 on the 1st near to the group at S26/293. This became a 1B flare which faded at around 1400.

Flares, 1997 April

Date	Time	Lat	CMD	Type	Obs.
5	1235	S40	E43	Sf	KJM
5	1350-1410	S41	E42	1B	KJM
5	1530	S41	E42	SB	KJM
9	1735-1740	N25	W20	Sn	KJM
12	1512-1515	S11	W39	Sn	KJM
15	1620-1630	S18	W2	1B	KJM
20	1310	S14	W55	Sn	KJM

