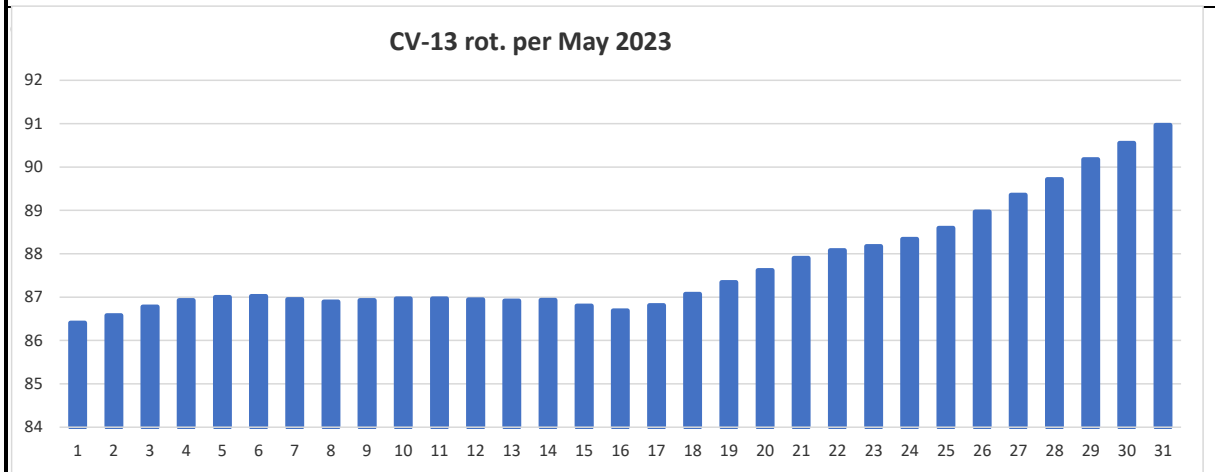
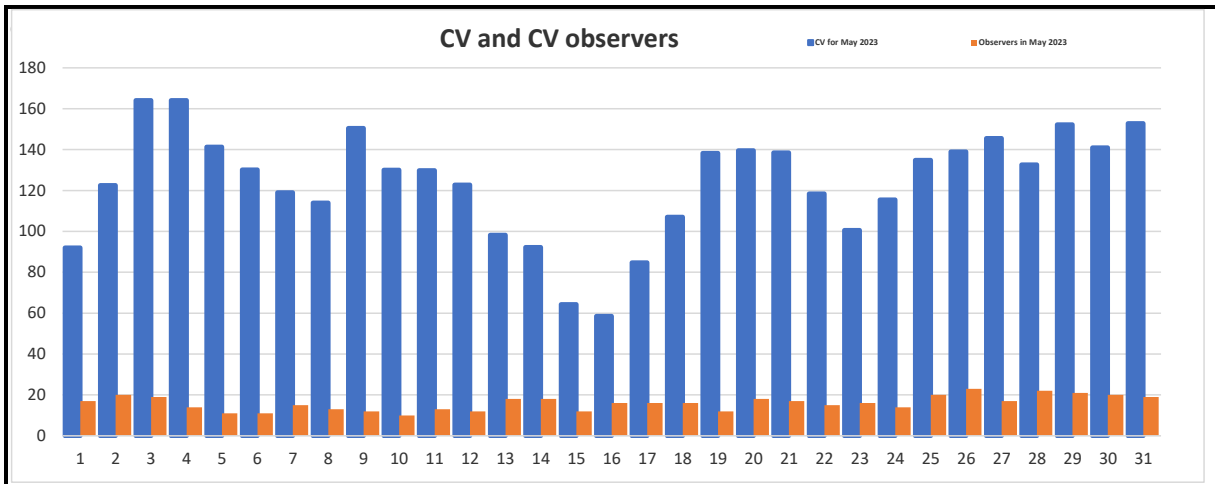


Results						
Date	CV	Obsrvrs	Regions 6 rot.	CV-USAF 6-rot.	CV-6 rot.	CV-13 rot.
1	92,00	17	6,84	107,77	104,26	86,41
2	122,60	20	6,87	108,45	104,72	86,58
3	164,16	19	6,89	109,15	105,48	86,78
4	164,07	14	6,91	109,78	106,12	86,93
5	141,36	11	6,92	110,46	106,54	87,00
6	130,18	11	6,93	110,95	106,95	87,02
7	119,07	15	6,93	111,59	107,22	86,95
8	113,92	13	6,94	112,20	107,77	86,89
9	150,50	12	6,97	112,88	108,47	86,92
10	130,10	10	6,99	113,57	108,90	86,96
11	129,85	13	7,02	114,38	109,44	86,97
12	122,75	12	7,07	114,96	109,84	86,94
13	98,28	18	7,11	115,55	110,16	86,92
14	92,22	18	7,13	115,54	110,45	86,93
15	64,33	12	7,13	115,48	110,29	86,80
16	58,50	16	7,15	115,21	109,99	86,69
17	84,75	16	7,16	115,12	109,85	86,81
18	107,00	16	7,18	115,06	109,84	87,07
19	138,25	12	7,19	115,45	109,87	87,34
20	139,56	18	7,20	116,00	110,08	87,62
21	138,53	17	7,20	116,32	110,16	87,90
22	118,40	15	7,18	116,16	110,19	88,08
23	100,63	16	7,18	115,87	109,96	88,17
24	115,50	14	7,16	115,49	109,92	88,34
25	134,85	20	7,14	115,38	109,97	88,59
26	139,00	23	7,12	115,20	110,02	88,97
27	145,53	17	7,10	115,13	110,00	89,36
28	132,64	22	7,10	114,96	109,81	89,72
29	152,29	21	7,10	114,57	109,81	90,18
30	141,00	20	7,11	114,51	109,76	90,55
31	152,84	19	7,12	114,91	109,86	90,97
Totals/ Avrgs	3,96	27,3	0,97	4,83	108,89	87,72



Latest sunspot regions developments

Reg.-First-Last-Lat.-Long.-Rot.-Area-Lgth.-CV-max.

Region	First date	Max. date	Last date	Lat.,	Long.,	Rot.,	Max.mvh,	Max class,	Max CV
3305	12.05.23	20.05.23	21.05.23	11,	28,	2270,	250,	DKI,	46
3293	30.04.23	03.05.23	12.05.23	12,	150,	2270,	290,	DHC,	58
3294	02.05.23	08.05.23	14.05.23	-8,	126,	2270,	130,	HSX,	10
3296	02.05.23	04.05.23	13.05.23	16,	138,	2270,	300,	DKI,	46
3297	02.05.23	08.05.23	14.05.23	9,	121,	2270,	510,	EKC,	56
3301	09.05.23	09.05.23	18.05.23	13,	38,	2270,	120,	HSX,	10

Product: Weekly Highlights and Forecasts

Highlights of Solar and Geomagnetic Activity
05 - 11 June 2023

<http://services.swpc.noaa.gov/text/weekly.txt>

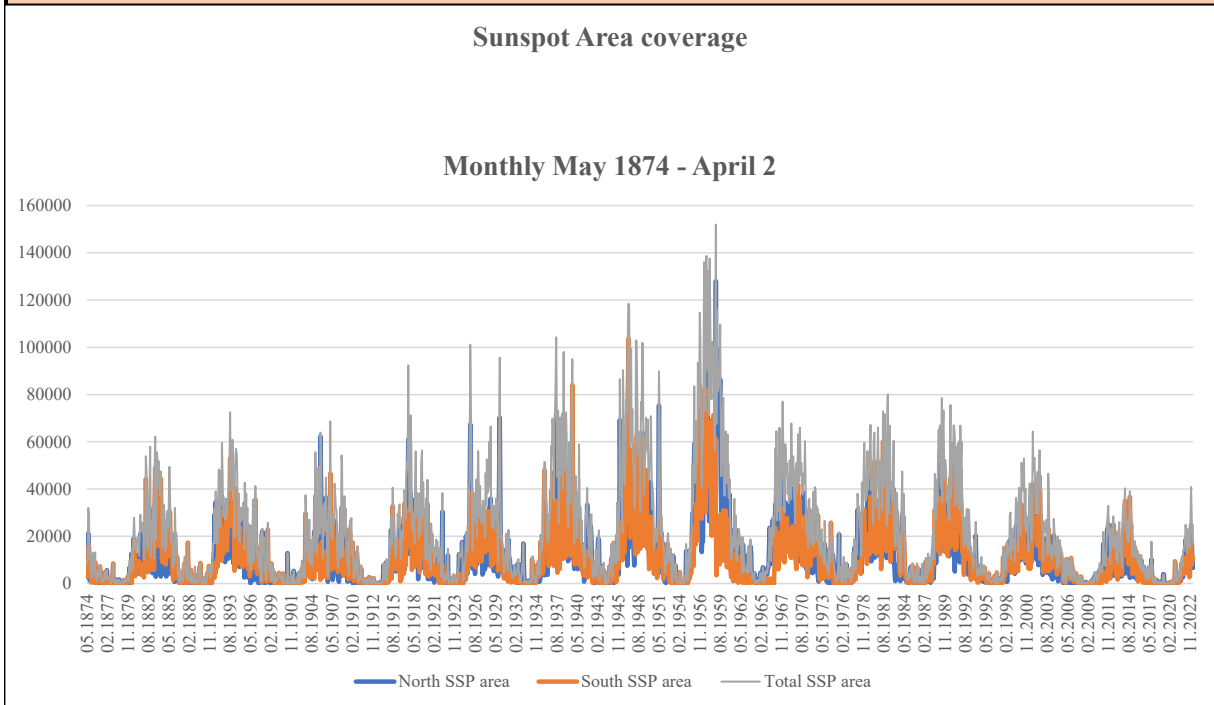
Solar activity was moderate. There were two M-class flares during the period. The largest event was an M4.7 flare (R1-Minor) at 07/1146 UTC from Region 3327 (S14, L=052, class/area = Dki/300 on 06 June). Region 3331 (N18, L=066, class/area = Dro/20 on 07 June) produced an M2.5 flare (R1-Minor) at 09/1711 UTC. The remaining numbered regions on the visible disk were either quiet or produced C-class events.

No proton events were observed at geosynchronous orbit.

The greater than 2 MeV electron flux at geosynchronous orbit reached moderate levels each day of the highlight period.

Geomagnetic field activity ranged from quiet to unsettled levels. Unsettled levels were reached on 06, 07, and 11 June. Quiet conditions were observed on 05 and 08-10 June.

Monthly graph



The above graphic show SunspotArea totals per month from May 1874 to April 2023, (RGO/USAF)

Highlights May 2023

The sun has been crackling with lots of new regions and with it lots of activity last month. Solar activity has been several times at high levels in May 2023.

The CV-I 6 rot. average is now very close to the max CV-I 6-rot. For max cycle 24! In fact:

The CV-13 rot. average is now 94,5, just 7,2 units away from max. Solar cycle 24!

The Solar Flux-adjusted-13 rot. average is now 144,1, just 2,1 units away from max. Solar cycle 24!

The CV-6 rotation averages have now been 24 times over the max. of solar cycle 24 compared!

A total of 580 regions this cycle per mid June 2023 (283 regions North and 297 regions South).

At the same time solar cycle 24 produced 469 regions.

Region	First date	Max.date	Last date	Lat.,	Long.,	Rot.,	Max.mvh,	Max class,	Max CV
3293	30.04.23	03.05.23	12.05.23	12	150	2270	290	DHC	58
3294	02.05.23	08.05.23	14.05.23	-8	126	2270	130	HSX	10
3296	02.05.23	04.05.23	13.05.23	16	138	2270	300	DKI	46
3297	02.05.23	08.05.23	14.05.23	9	121	2270	510	EKC	56
3301	09.05.23	09.05.23	18.05.23	13	38	2270	120	HSX	10
3305	12.05.23	20.05.23	21.05.23	11	28	2270	250	DKI	46
3310	17.05.23	24.05.23	29.05.23	-20	284	2271	480	CHO	41
3311	18.05.23	24.05.23	30.05.23	18	271	2271	470	EAI	23
3313	19.05.23	23.05.23	01.06.23	23	255	2271	120	HSX	10
3314	20.05.23	26.05.23	27.05.23	15	284	2271	160	DAO	19
3315	23.05.23	28.05.23	02.06.23	-17	234	2271	800	EKC	56
3318	29.05.23	29.05.23	02.06.23	25	232	2271	120	DAO	19
3319	29.05.23	31.05.23	05.06.23	-19	201	2271	300	DHI	52
3320	29.05.23	31.05.23	09.06.23	8	127	2271	120	CSO	11
3321	30.05.23	31.05.23	11.06.23	-15	119	2271	260	HHX	40

We reckon t

May continue production of lots of large regions and major solar flares and CME's to Solar Max.: Our latest and final prediction to occur late July 2025, earliest possible may be April 2025.

Solar Flux onset: OCCURED 30 September 2022, the Onset 13 rot. ctrd. Occurred 18 Mar 2023.

Stay tuned and observe the solar disk from now on!

Please remember you are always welcome to contribute with drawings and photos!

TAKE A SURVEY:

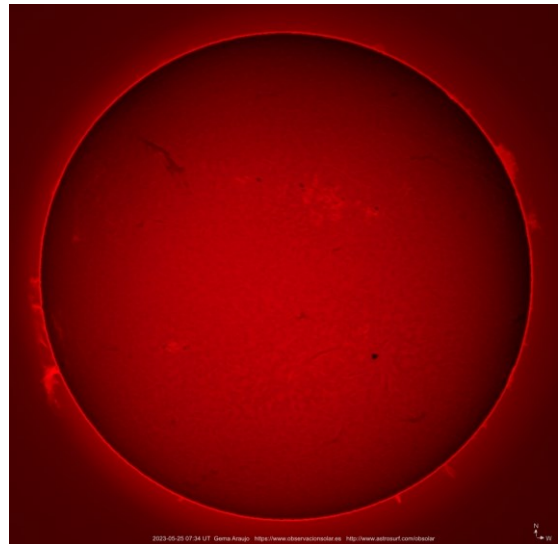
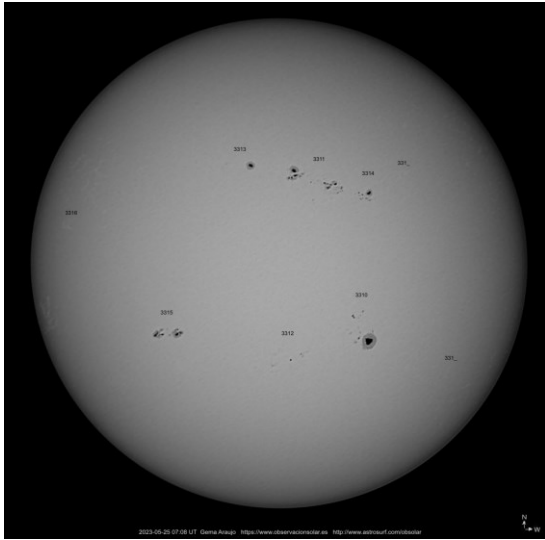
Here is a Survey of hmiigr SOHO solar images 2022.

<https://www.cv-helios.net/helios/cv/web/2022/Video2022.mov>

Pictures from last month - Observer contributions, etc.

Photo courtesy: Thanks to CV-135 Gema Araujo, Spain

Highlights May 2023



Left: Sun in white light 25 May '23, CV-135 Gema Araujo, Spain

Right: Sun in H-apha 25 May '23, CV-135 Gema Araujo, Spain

Awards this month

0

none



New members:


Welcome to:

CV-222 Milena Niemczyk, Poland

07 Jun 2023

Welcome to our New Member!

We are now 52 active members (last 12 mo.)

Solar Coordinates	New from April 2020
Daily list of Solar Ephemeris available at: Daily list of Solar Ephemeris and SDO on grid Here you can see Today's Po, Bo, Lo, Rotation no., RA and Dec. and adjusted SOHO-picture on grid.	
Calculating CV	
For your convenience and security, use the mif2021, https://www.cv-helios.net/mif2021.xlsx the Monthly Input Form, which you can use for all of your next reportings!	
Monitor MPR daily progress	
CV-Helios Network: Monitor MPR progress as entries are made! Monitor your submissions as they are registered: https://cv-helios.net/helios/cv/web/mprpost.html The data are available fresh from about 10:00 UTC until local midnight. Content comprises CV-Report for latest month, CV-Report for latest month individual results, Extracts from NOAA on forecasts/discussion, Extracts from NOAA warehouse on SRS and other activity, Last 24 months CV-data, This month CV acc. to USAF	
Registration data	
Check if your CV-observations have been registered (please allow up to 24 hrs): https://www.cv-helios.net/helios/cv/web/datlist.htm https://www.cv-helios.net/helios/cv/web/cvobsmonth.htm for checking of Entries Summary	
CONTRIBUTE WITH YOUR PHOTOS AND OTHER OF INTEREST!	
We would like YOU to contribute with drawings or photos from last month Also any other contribution that may have an interest for our observers. Please send by email to: cvhelios@gmail.com	
Please check out www.cv-helios.net/cvrep2.html for updates of files!	
<u>SUBMISSIONS OF CV-OBSERVATIONS</u>	
Log on to: https://www.cv-helios.net/observations/index.html Classification Help login solaris password cvheliosobs Monthly Input Form as excel Submission before 15th of proceeding month 18:00 UTC. (password: cvhelios) MPR issue 15th of proceeding month 2000 UTC. Good luck CV-observing!	
Average received to registered time: 0 day 15 hours 00 minutes and Average macrotime used for one registration is 16,11 seconds	
CV-Helios Network - over 41 years in solar amateur astronomy service!	
There are now Entries reg.: 12935 entries registered containing 208569 CV-observations! Last 12 months 5733 CV-observations from 40 observers originating from 17 countries	
Editorial close: 15.06.2023 18:37 UTC	
 CV-Helios Network	