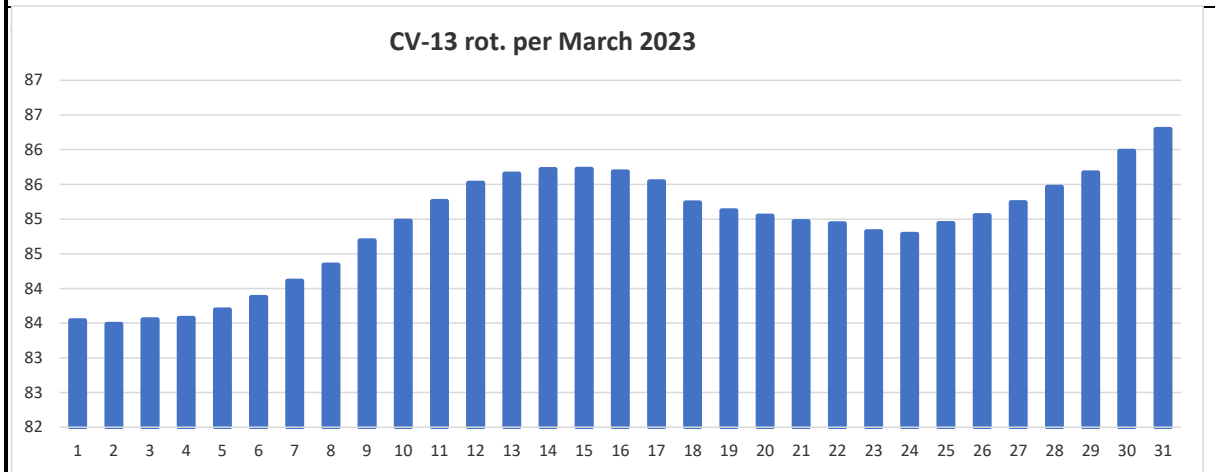
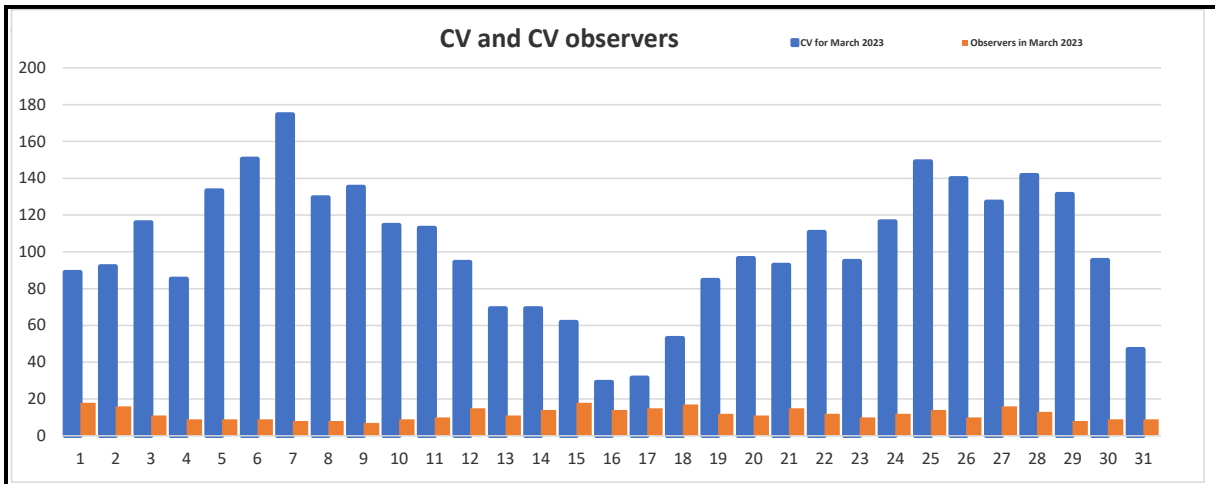




<b>Results</b>						
Date	CV	Obsrvrs	Regions 6 rot.	CV-USAF 6-rot.	CV-6 rot.	CV-13 rot.
1	88,94	18	6,22	103,86	97,99	83,54
2	92,13	16	6,23	103,93	98,18	83,49
3	115,91	11	6,26	104,00	98,41	83,55
4	85,22	9	6,28	103,78	98,43	83,57
5	133,33	9	6,30	103,90	98,55	83,69
6	150,56	9	6,34	104,29	98,65	83,88
7	174,63	8	6,37	104,35	98,65	84,11
8	129,50	8	6,40	104,50	98,57	84,34
9	135,29	7	6,44	104,65	98,61	84,69
10	114,44	9	6,47	104,90	98,72	84,97
11	113,00	10	6,51	105,13	98,98	85,26
12	94,47	15	6,55	105,38	99,19	85,52
13	69,18	11	6,55	105,65	99,25	85,65
14	69,29	14	6,57	105,30	99,05	85,72
15	61,78	18	6,58	104,79	98,69	85,72
16	29,21	14	6,58	104,09	98,03	85,68
17	31,60	15	6,57	103,47	97,32	85,54
18	53,12	17	6,54	103,15	96,83	85,24
19	84,58	12	6,54	102,87	96,65	85,12
20	96,55	11	6,53	102,76	96,53	85,05
21	92,87	15	6,52	102,27	96,39	84,97
22	110,75	12	6,51	102,05	96,38	84,94
23	95,00	10	6,51	101,70	96,34	84,82
24	116,50	12	6,53	101,52	96,55	84,78
25	149,07	14	6,55	101,71	97,02	84,94
26	139,90	10	6,59	102,00	97,37	85,05
27	127,19	16	6,62	102,61	98,07	85,24
28	141,69	13	6,64	103,34	98,92	85,46
29	131,38	8	6,68	103,73	99,66	85,67
30	95,44	9	6,70	103,78	100,05	85,98
31	47,00	9	6,70	103,77	100,56	86,30
Totals/ Avrgs	<b>3,96</b>	<b>27,3</b>	<b>0,97</b>	<b>4,83</b>	<b>98,15</b>	<b>84,92</b>



**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
3256	17.03.23	28.03.23	30.03.23	-22	33	2268	340	FHO	51
3239	28.02.23	08.03.23	12.03.23	31	240	2268	140	HSX	10
3242	03.03.23	07.03.23	13.03.23	10	219	2268	300	ESC	35
3243	03.03.23	05.03.23	07.03.23	18	306	2268	110	DAO	19
3245	03.03.23	08.03.23	15.03.23	-23	195	2268	440	DHI	52
3249	07.03.23	08.03.23	16.03.23	-11	142	2268	150	HAX	7

**:Product: Weekly Highlights and Forecasts**

Highlights of Solar and Geomagnetic Activity  
03 - 09 April 2023

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

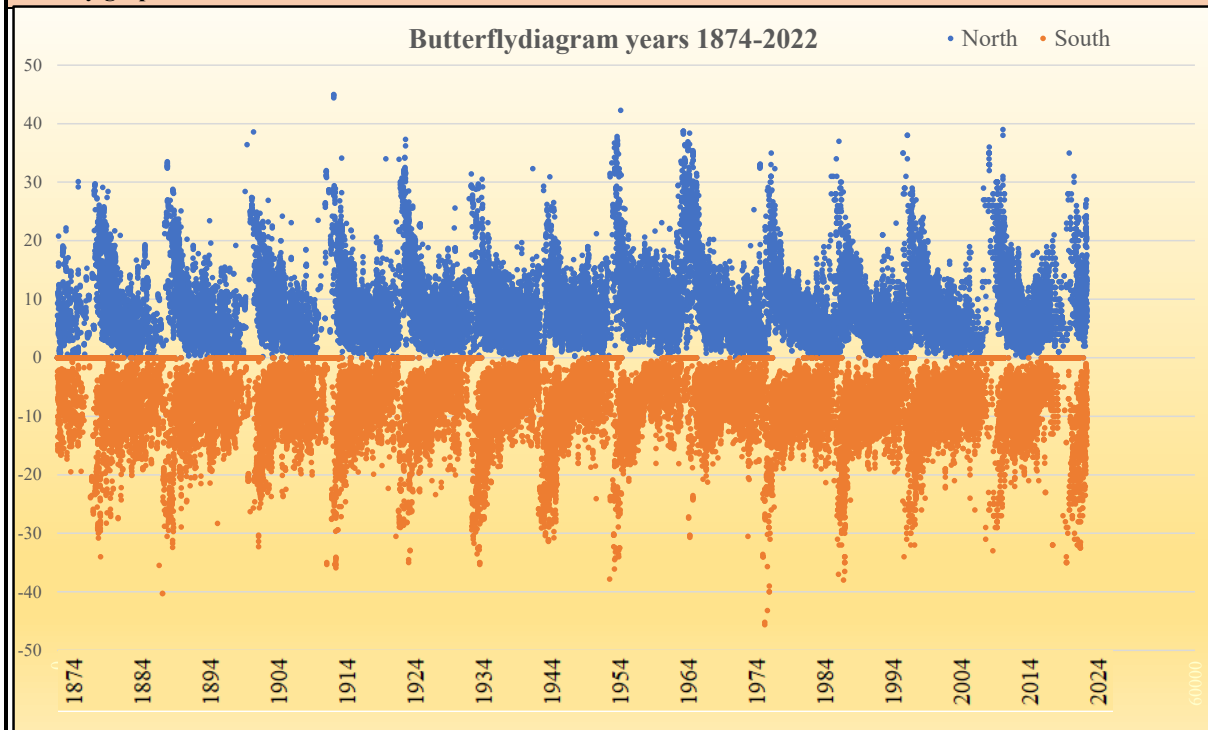
Solar activity was at low to moderate levels. Low levels were observed on 03-05, 07, and 09 Apr while moderate levels were observed on 06 and 08 Apr. Region 3272 (S21, L=102, class/area Eai/280 on 09 Apr) was responsible for the majority of the C-class activity since its emergence on 05 Apr. The region also produced M3 and M2/1n flares at 06/0553 UTC and 08/0146 UTC, respectively. Other activity included a CME off the SW limb first observed at 07/1336 UTC that was associated with a filament eruption seen in SDO/AIA 304 imagery beginning at 07/0829 UTC centered near S27W10. Modelling indicated a miss, however a glancing blow could not be ruled out early on 12 Apr.

No proton events were observed at geosynchronous orbit.

Solar activity is expected to be low with a chance for moderate levels (R1-R2, Minor-Moderate) on 10-25 Apr and again from 02-06 May due to flare potential of Region 3272 and the return of old Region 3256 (S22, L=001) on 12 Apr. Very low to low levels are expected on 26 Apr-01 May.

No proton events are expected at geosynchronous orbit.

## Monthly graph



The above graphic show a complete daily averaged latitude hemisphere distribution for all sunspotregions for years 1874-2022.

## Highlights March 2023

Welcome to CV-Helios Network's MPR number 500!

Solar activity has been several times at high levels in March 2023.

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

A total of 528 regions this cycle per mid Apr. 2023 (254 regions North and 274 regions South).

At the same time solar cycle 24 produced 423 regions.

Region	First date	Max.date	Last date	Lat.	Long.	Rot.	Max.mvh	Max class	Max CV
3239	28.02.23	08.03.23	12.03.23	31	240	2268	140	HSX	10
3242	03.03.23	07.03.23	13.03.23	10	219	2268	300	ESC	35
3243	03.03.23	05.03.23	07.03.23	18	306	2268	110	DAO	19
3245	03.03.23	08.03.23	15.03.23	-23	195	2268	440	DHI	52
3249	07.03.23	08.03.23	16.03.23	-11	142	2268	150	HAX	7
3256	17.03.23	28.03.23	30.03.23	-22	33	2268	340	FHO	51
3257	18.03.23	23.03.23	30.03.23	-27	348	2269	190	HAX	7
3260	19.03.23	22.03.23	31.03.23	23	346	2269	180	CAO	8
3262	22.03.23	22.03.23	03.04.23	-19	307	2269	180	HSX	10

Sun has continued producing lots of small regions through February.

CV-Int. numbers are now nearly 30 percent over solar cycle 24 at the same stage!

It has become quite apparent that solar cycle 25 will superceed solar cycle 24 with good margins.

A second acceleration in P-Index is awaited later this year.

We reckon t

March now produces lots of big regions and solar flares too!

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!

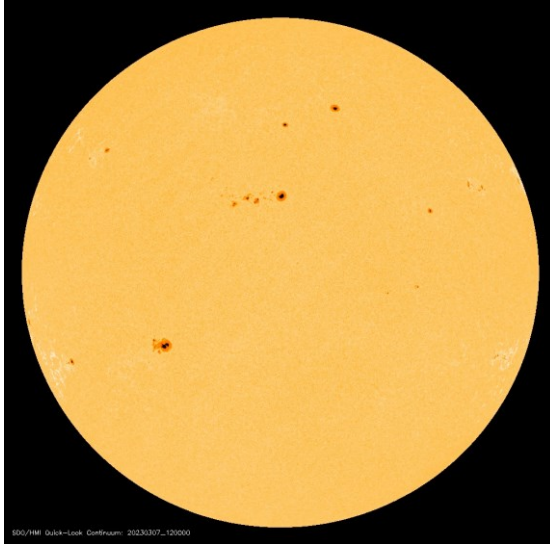
TAKE A SURVEY:

**Here is a Survey of hmiigr SOHO solar images 2022.**

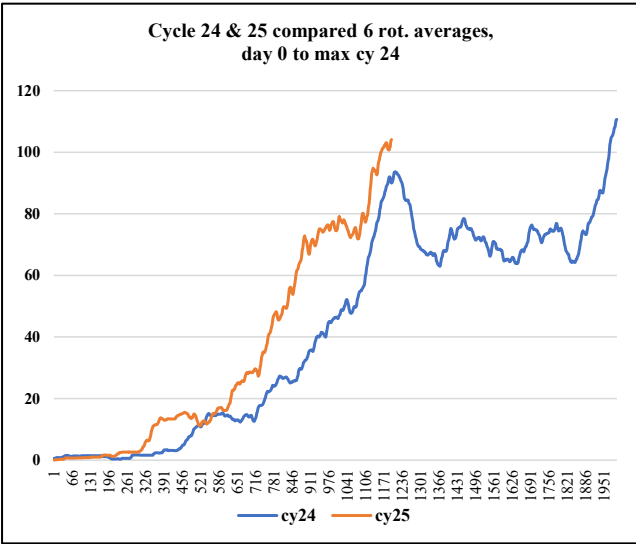
<https://www.cv-helios.net/helios/cv/web/2022/Video2022.mov>

**Pictures from last month - Observer contributions, etc.**

photo courtesy SDO/HMI NOAA gov



**Highlights March 23**



Left: The top CV-I day of March 2023; SOHO image "hmiigr" 07 Mar 2023.

Right: Cycles cy24/cy25 progress compared.

**Awards this month**

1

**Award no.: 158 to CV-139 JAVIER ALONSO date 23 February 2023 milestone 4000 CV-obs.!  
CONGRATULATIONS!**




**New members:**

**Welcome to:**

CV-221 JON ADAMS, England

Welcome to our New Member!

We are now 49 active members (last 12 mo.)

<b>Solar Coordinates</b>	New from April 2020
Daily list of Solar Ephemeris available at: <a href="#">Daily list of Solar Ephemeris and SDO on grid</a> Here you can see Today's Po, Bo, Lo, Rotation no., RA and Dec. and adjusted SOHO-picture on grid.	
<b>Calculating CV</b>	
For your convenience and security, use the mif2021, <a href="https://www.cv-helios.net/mif2021.xlsx">https://www.cv-helios.net/mif2021.xlsx</a> the Monthly Input Form, which you can use for all of your next reportings!	
<b>Monitor MPR daily progress</b>	
<b>CV-Helios Network: Monitor MPR progress as entries are made!</b> Monitor your submissions as they are registered: <a href="https://cv-helios.net/helios/cv/web/mprpost.html">https://cv-helios.net/helios/cv/web/mprpost.html</a> 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	
<b>Registration data</b>	
Check if your CV-observations have been registered (please allow up to 24 hrs): <a href="https://www.cv-helios.net/helios/cv/web/datlist.htm">https://www.cv-helios.net/helios/cv/web/datlist.htm</a> <a href="https://www.cv-helios.net/helios/cv/web/cvobsmonth.htm">https://www.cv-helios.net/helios/cv/web/cvobsmonth.htm</a> for checking of Entries Summary	
<b>CONTRIBUTE WITH YOUR PHOTOS AND OTHER OF INTEREST!</b>	
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: <a href="mailto:cvhelios@gmail.com">cvhelios@gmail.com</a>	
<b>Please check out <a href="http://www.cv-helios.net/cvrep2.html">www.cv-helios.net/cvrep2.html</a> for updates of files!</b>	
<b><u>SUBMISSIONS OF CV-OBSERVATIONS</u></b>	
Log on to: <a href="https://www.cv-helios.net/observations/index.html">https://www.cv-helios.net/observations/index.html</a> <a href="#">Classification Help</a> login solaris password cvheliosobs <a href="#">Monthly Input Form as excel</a> Submission before 15th of proceeding month 18:00 UTC. (password: cvhelios) MPR issue 15th of proceeding month 2000 UTC. Good luck CV-observing!	
<b>Average received to registered time: 0 day 13 hours 19 minutes  and Average macrotime used for one registration is 15,01 seconds</b>	
<b>CV-Helios Network  - over 41 years in solar amateur astronomy service!</b>	
There are now Entries reg.: 12872 entries registered containing 207488 CV-observations! Last 12 months 5780 CV-observations from 39 observers originating from 17 countries	
<b>Editorial close: 15.04.2023 19:12 UTC</b>	
 <b>CV-Helios Network</b>	