Monthly Preliminary Report

MPR

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CV-Helios Network

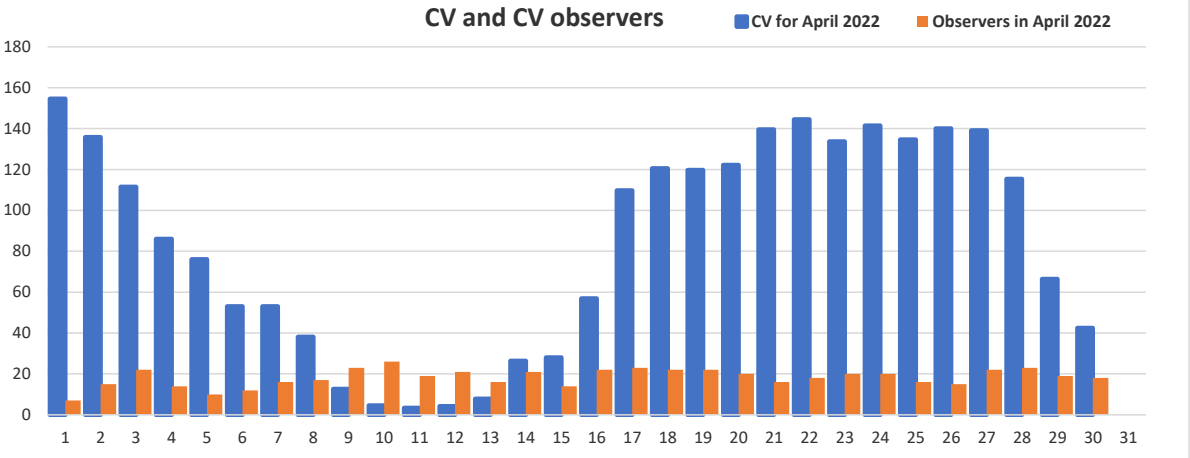
Monthly Preliminary Report for April 2022
Solar Cycle 25: Month no. 29
Report id.: cv2204 - CV-report no.: 489

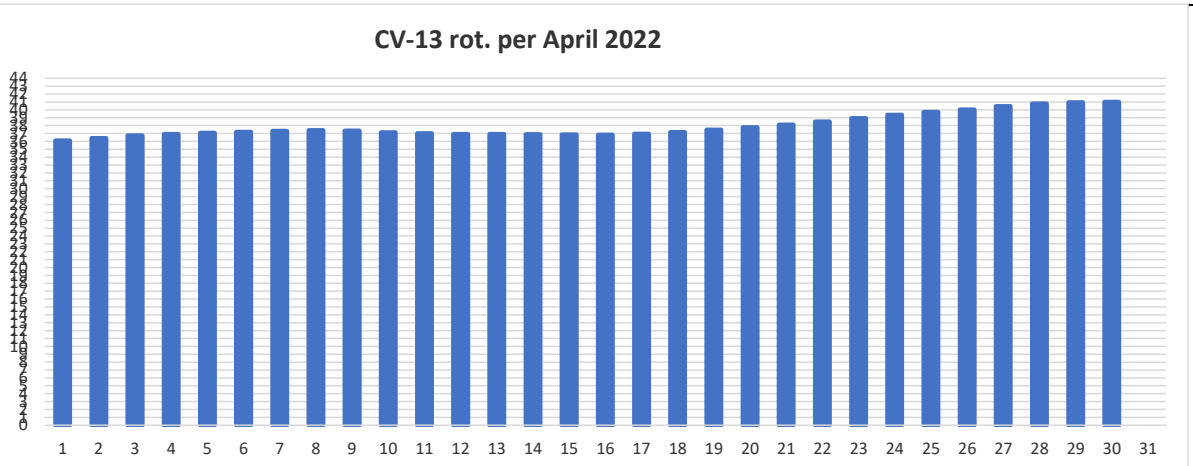
Memno.	Name	Country	CV	Obs	K	Obs. Tot.
CV-001	KJELL INGE MALDE	NORWAY	116,9	24	1,406	8928
CV-010	FRANKY DUBOIS	BELGIUM	88,7	23	1,066	9258
CV-019	ELMAR JUNKER	GERMANY	86,9	13	1,045	3705
CV-020	MANFRED HOLL	GERMANY	46,6	21	0,561	5841
CV-023	HARTMUT BRETSCHNEIDE	GERMANY	51,2	22	0,616	5548
CV-040	ROBERTO BATTAIOLA	ITALY	73,9	12	0,889	2016
CV-041	JENS ROTHERMEL	GERMANY	145,2	10	1,746	1344
CV-068	SVEN OVE THIMM	DENMARK	53,5	22	0,643	4001
CV-077	ANDREW JOHNSTON	UNITED KINGDOM	96,3	21	1,158	3420
CV-080	JAN JANSSENS	BELGIUM	85,8	8	1,031	1153
CV-082	PIOTR URBANSKI	POLAND	78,3	24	0,941	5183
CV-086	TOS POLAND	POLAND	87,3	30	1,050	8178
CV-091	GRZEGORZ DALEK	POLAND	65,9	11	0,793	4535
CV-102	PAULO ROBERTO MOSER	BRAZIL	85,2	26	1,025	2628
CV-105	ALEXEY RYBACK	RUSSIA	98,1	13	1,180	3248
CV-107	MONTY LEVENTHAL	AUSTRALIA	47,1	13	0,566	4681
CV-116	TERJE BJERKGAARD	NORWAY	158,4	5	1,905	1001
CV-122	VLASTISLAV FEIK	CZECH REPUBLIC	47,7	19	0,574	2963
CV-135	GEMA ARAUJO	SPAIN	101,4	29	1,219	6990
CV-136	FAUSTINO GARCIA	SPAIN	74,7	20	0,898	3719
CV-139	JAVIER ALONSO	SPAIN	94,7	22	1,139	3833
CV-151	JEFFREY CARELS	BELGIUM	86,6	16	1,041	3022
CV-171	WALTER JOSE MALUF	BRAZIL	106,2	25	1,277	2720
CV-181	ADAM DERDZIKOWSKI	POLAND	62,3	12	0,749	1019
CV-204	STEFAN MEISTER	SWITZERLAND	59,7	15	0,718	615
CV-205	TOM MANGELSDORF	UNITED STATES	117,0	1	1,407	48
CV-206	TADEUSZ FIGIEL	POLAND	69,1	9	0,831	302
CV-207	ONDREJOV OBS. (AI CAS)	CZECH REPUBLIC	104,6	18	1,258	3501
CV-208	JOHAN NEYS	BELGIUM	90,3	13	1,086	589
CV-214	IGOR GRAGEDA	BOLIVIA	80,2	26	0,964	853
CV-215	ARNAUD MENGUS	FRANCE	42,8	6	0,515	263
CV-219	KANDILLI OBSERVATORY	TURKEY	74,2	20	0,892	573

Totals	Observers	Days	CV	No	K
	32	**30**	**83,64**	**549**	**1,006**

Results

Date	CV	Obsrvrs	Regions 6 rot.	CV-USAF 6-rot.	CV-6 rot.	CV-13 rot.
1	154,57	7	3,92	60,09	53,13	36,11
2	135,87	15	3,96	61,11	53,83	36,41
3	111,45	22	4,00	62,10	54,55	36,75
4	86,00	14	4,02	62,60	54,90	36,93
5	76,10	10	4,04	62,68	55,10	37,07
6	53,00	12	4,05	62,65	55,19	37,18
7	53,06	16	4,04	62,57	55,17	37,32
8	38,18	17	4,03	62,35	54,98	37,40
9	12,70	23	4,02	61,99	54,54	37,34
10	4,54	26	3,99	61,52	53,93	37,14
11	3,37	19	3,98	60,87	53,39	37,00
12	4,19	21	3,97	60,52	52,91	36,91
13	7,81	16	3,96	60,22	52,60	36,91
14	26,43	21	3,96	60,16	52,42	36,88
15	28,07	14	3,96	60,12	52,35	36,85
16	56,86	22	3,98	60,60	52,56	36,81
17	109,70	23	3,99	61,37	53,22	36,95
18	120,59	22	4,01	61,91	53,94	37,18
19	119,68	22	4,01	62,49	54,66	37,47
20	122,25	20	4,03	63,13	55,35	37,78
21	139,56	16	4,04	63,90	55,95	38,12
22	144,56	18	4,05	64,59	56,60	38,51
23	133,75	20	4,08	65,31	57,25	38,94
24	141,50	20	4,10	66,15	57,99	39,35
25	134,63	16	4,12	66,45	58,71	39,71
26	140,07	15	4,16	66,98	59,40	40,03
27	139,09	22	4,19	67,42	60,31	40,45
28	115,39	23	4,23	67,86	60,94	40,79
29	66,42	19	4,25	67,94	61,13	40,94
30	42,50	18	4,26	67,96	61,25	40,99
Totals/ Avrgs	**3,96**	**27,3**	**0,97**	**4,83**	**55,61**	**37,94**





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

3013-14.05.22-14.05.22--28,0-147,0-2257-10-2-2 BXO----------

3012-13.05.22-13.05.22--19,0-188,0-2257-10-3-2 BXO----------

3011-13.05.22-14.05.22-16,0-123,0-2257-30-5-5 CRO-CRO----------

3010-12.05.22-14.05.22--14,3-129,0-2257-103-6-20 HSX-DSO-DSO----------

3009-11.05.22-12.05.22-14,0-237,0-2257-20-4-5 BXO-CAO----------

3008-11.05.22-13.05.22-16,0-182,0-2257-23-4-6 BXO-CAO-CAO----------

3007-08.05.22-14.05.22--23,9-184,9-2257-254-12-41 CAO-DSO-ESI-EHC-EKC-EKC-EKC-------

3006-04.05.22-14.05.22--29,8-239,9-2257-87-11-12 CRO-CAO-CAO-CAO-CAO-CSO-EAI-EAO-EAO-EAO-BXO---

3005-02.05.22-04.05.22-20,0-331,0-2257-17-2-4 BXO-CAO-AXX----------

3004-02.05.22-09.05.22--15,5-324,0-2257-321-8-37 BXO-CSI-DKC-DKC-DKC-DKC-DKC-HSX------

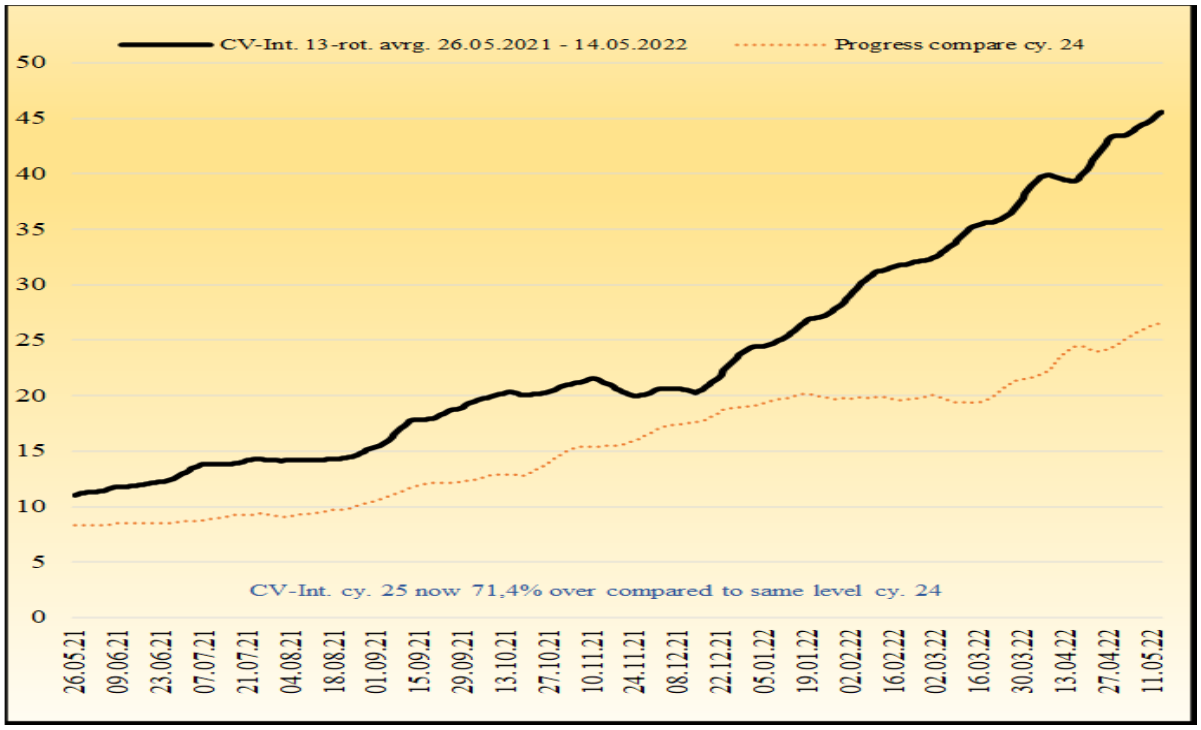
:Product: Weekly Highlights and Forecasts

Highlights of Solar and Geomagnetic Activity
02 - 08 May 2022

Solar activity was ranged from low to high levels. High levels were observed on 03-04 May in response to an X1/Sf flare (R3-Strong) at 03/1308 UTC, an M5 flare (R2-Moderate) 04/0019 UTC, and an M5/1b flare at 04/0900 UTC. The X-flare and first M-Flare were from Region 3006 (S29, L=245, class/area=Cao/080 on 07 May) as it was behind the SE limb. The last M5 flare was from Region 3004 (S16, L=324, class/area=Dkc/500 on 05 May). Associated with the M5 flare from Region 3006 was a Type IV radio sweep. Both regions produced moderate activity from smaller M1-M2 flares (R1-Minor) over 05 May. Only C-class activity was observed for 02 May and 06-08 May. The two regions were responsible for the vast majority of flare activity during the week. Only Region 3007 (S23, L=190, class/area=Cao/060 on 08 May) was able to produce additional flare activity but the events remained in the C-class range.

Solar activity is expected to be at mostly low levels during the outlook period. However, there is a slight chance for M-class (R1-R2 Minor-Moderate) activity throughout the period due to multiple regions currently on the visible disk and several that are expected to rotate on back onto the visible disk that produced M-class

Monthly graph



Solar Cycle 25's ahead measured as CV-Int. numbers

News April 2022

Solar activity is low to average and number of regions are slowly increasing. The CV 13-rot. centered averages are now considerably higher than for solar cycle 24 at the same time of progress from minimum!
The CV-Int. 13-rot. avrgs. is now ahead with 70,8 percent (!) compared to same date in cycle 24 (18.03.11)!
Sunspot region production at Month 27 is still good. A total of 256 regions this cycle per mid May 2022.
At the same time solar cycle produced 180 regions.

List of 7 significant sunspot regions exceeding 100 mvh developing in April 2022:
The LARGEST SUNSPOT REGIONS (>=100 mvh) 01.04-30.04 were:
Reg.-First-Last--Lat.-Long.-Rot.-Area - ZMcI-history
2975: 23.03-03.04 Lat N14, Lo 089 Rt. 2255 273 m., CV 56,0, DAO CAO ESO HSX CSI DAC DHC DKC DKC EKC EKC EKC
2976: 24.03-04.04 Lat N17, Lo 072 Rt. 2255 333 m., CV 43,5, DHO EHO EHO EHO EHO EKO EKO EKO EKO EHO HHX HHX
2978: 27.03-09.04 Lat S18, Lo 009 Rt. 2255 317 m., CV 42,4, HSX ESO DHO EKO EHO EKI CHI CHI EHI EHI EHI CHO CHO HSX
2992: 16.04-18.04 Lat S30, Lo 247 Rt. 2256 150 m., CV 15,3, CAO DAO DAO
2993: 16.04-28.04 Lat N20, Lo 068 Rt. 2256 299 m., CV 31,9, CHO DHO DHI EHI DHI FKC EKC DKC DKC CAO CSO HAX HAX
2994: 16.04-29.04 Lat N14, Lo 061 Rt. 2256 331 m., CV 26,5, HHX EHO EKO EKO DKO EKC EKI EKI EKI EKO EKO EKO EKO HAX
2995: 19.04-01.05 Lat N14, Lo 031 Rt. 2256 103 m., CV 11,9, HSX HSX CHO CHO CHO HHX HSX HSX HSX CSO HSX HSX HSX

FL April 2022

Date	Strongest flare	Date	Strongest fl
02.04.2022	M4.3	26.04.2022	M3.7
09.04.2022	M4.3	27.04.2022	X2.2
22.04.2022	M2.2	28.04.2022	M9.7
23.04.2022	M1.0	29.04.2022	M3.4
25.04.2022	M1.9		

We reckon there have passed 913 days of the new cycle by this issue.
The prospects for a solar cycle much higher than no. 24 certainly is good!

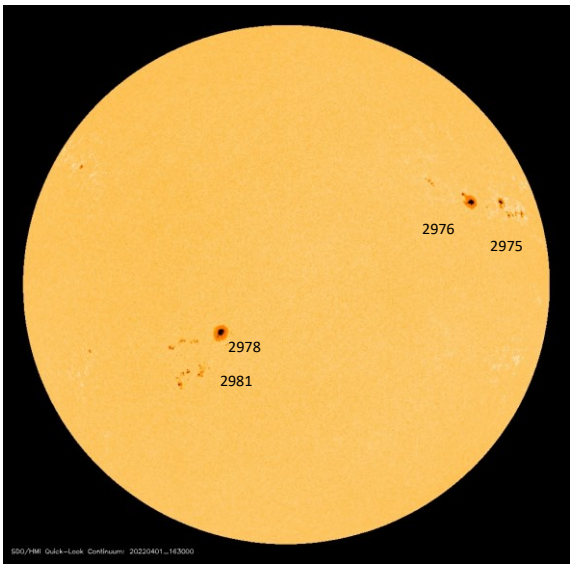
Solar Max.: Our latest prediction to occur late July 2025, earliest possibility April 2025.
Solar Flux onset expected late this year. The P-Index, rise/fall data from solar flux,
The predicted great activity in January 2022 and until this month proved right.
Stay tuned and observe the solar disk from now on!

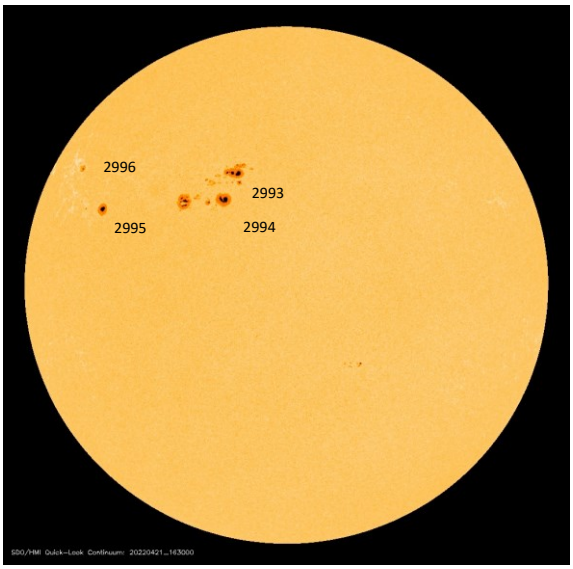
Please remember you are always welcome to contribute with drawings and photos!

The Annual Report for 2021 was released on April 10 after some programming errors.

Pictures from last month - Observer contributions, etc.

Highlights March 2022





The most active days, 1st Apr and 21 Apr 2022 **photo courtesy SDO/HMI NOAA gov**

Awards this month 1

Award no.: 151 to CV-116 TERJE BJERKGAARD date 24 April 2022 milestone 1000 CV-obs.! CONGRATULATIONS!

Award no.: 152 to CV-068 SVEN OVE THIMM date 29 April 2022 milestone 4000 CV-obs.! CONGRATULATIONS!

New members:	**Welcome to:**
none	

We are now 51 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!

SUBMISSIONS OF CV-OBSERVATIONS

Log on to:
https://www.cv-helios.net/observations/index.html Classification Help

login	solaris
password	cvheliosobs

Monthly Input Form as excel
(password: cvhelios)

Submission before 15th of proceeding month 18:00 UTC.
MPR issue 15th of proceeding month 2000 UTC. Good luck CV-observing!

Average received to registered time: 0 day 05 hours 20 minutes

CV-Helios Network
- over 40 years in solar amateur astronomy service!

There are now Entries reg.: 12530 entries registered
containing 202257 CV-observations!
Last 12 months 7113 CV-observations from 47 observers originating from 18 countries

Editorial close: 15.05.2022 17:43 UTC

CV-Helios Network