Monthly Preliminary Report

MPR

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CV-Helios Network

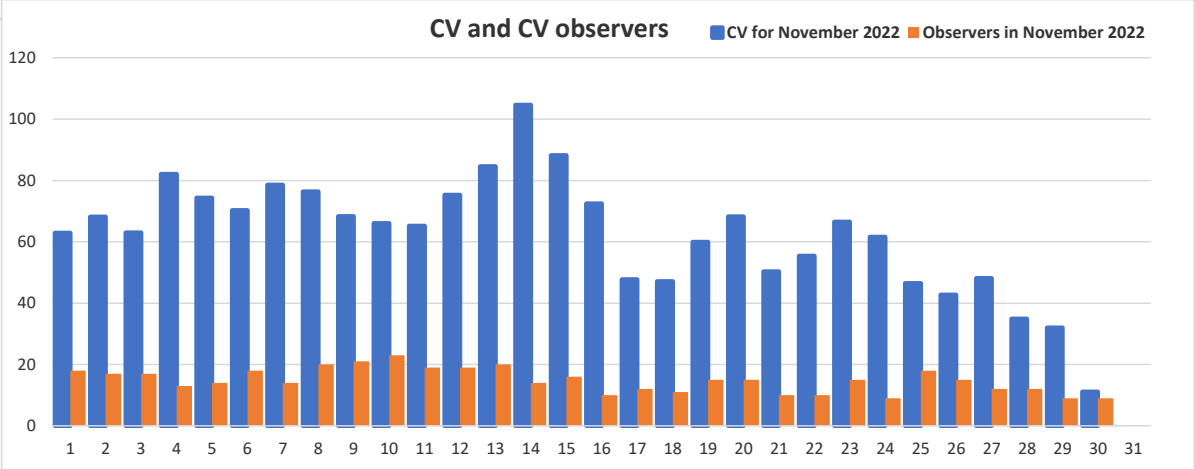
Monthly Preliminary Report for November 2022
Solar Cycle 25: Month no. 36
Report id.: cv2211 - CV-report no.: 496

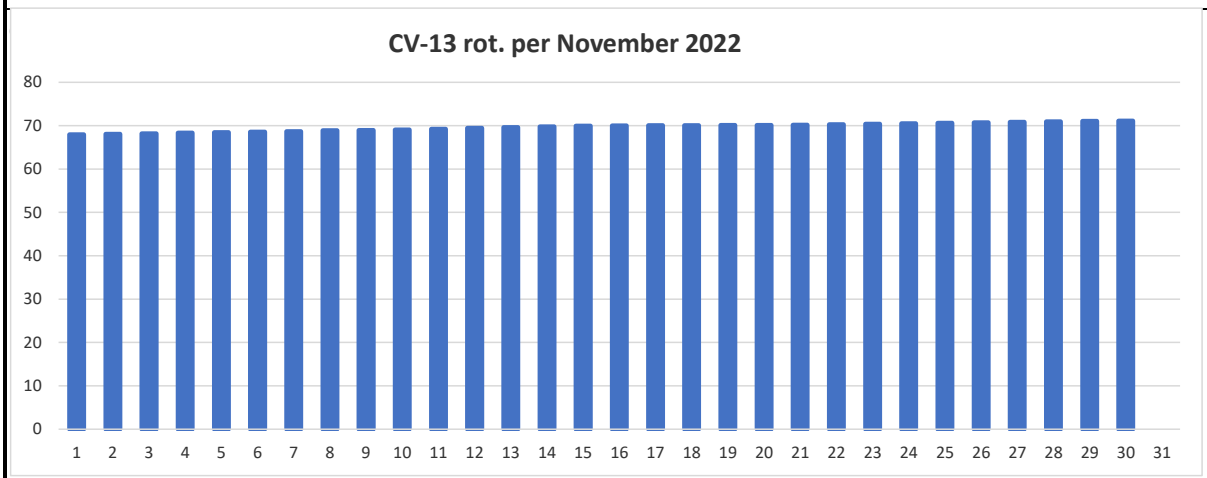
Memno.	Name	Country	CV	Obs	K	Obs. Tot.
CV-001	KJELL INGE MALDE	NORWAY	79,3	16	1,179	9078
CV-010	FRANKY DUBOIS	BELGIUM	66,4	22	0,988	9448
CV-019	ELMAR JUNKER	GERMANY	97,3	7	1,448	3766
CV-023	HARTMUT BRETSCHNEIDE	GERMANY	42,2	20	0,628	5716
CV-040	ROBERTO BATTAIOLA	ITALY	66,7	6	0,992	2073
CV-068	SVEN OVE THIMM	DENMARK	39,2	5	0,583	4125
CV-077	ANDREW JOHNSTON	UNITED KINGDOM	67,2	15	1,000	3541
CV-080	JAN JANSSENS	BELGIUM	54,8	4	0,815	1191
CV-082	PIOTR URBANSKI	POLAND	58,6	9	0,871	5346
CV-086	TOS POLAND	POLAND	65,0	30	0,968	8392
CV-091	GRZEGORZ DALEK	POLAND	58,6	9	0,871	4680
CV-102	PAULO ROBERTO MOSER	BRAZIL	63,6	28	0,947	2811
CV-105	ALEXEY RYBACK	RUSSIA	61,5	4	0,915	3340
CV-107	MONTY LEVENTHAL	AUSTRALIA	54,3	12	0,809	4751
CV-122	VLASTISLAV FEIK	CZECH REPUBLIC	57,6	13	0,857	3080
CV-135	GEMA ARAUJO	SPAIN	68,7	27	1,022	7200
CV-136	FAUSTINO GARCIA	SPAIN	46,8	17	0,696	3820
CV-139	JAVIER ALONSO	SPAIN	73,2	16	1,089	3963
CV-151	JEFFREY CARELS	BELGIUM	60,7	6	0,903	3125
CV-171	WALTER JOSE MALUF	BRAZIL	123,8	18	1,842	2841
CV-177	HENDRIK DE BACKER	BELGIUM	64,6	24	0,961	1913
CV-181	ADAM DERDZIKOWSKI	POLAND	62,0	2	0,923	1088
CV-202	JORDI ZAMORA	SPAIN	70,2	11	1,044	1004
CV-204	STEFAN MEISTER	SWITZERLAND	60,5	4	0,900	730
CV-206	TADEUSZ FIGIEL	POLAND	54,0	1	0,804	330
CV-207	ONDREJOV OBS. (AI CAS)	CZECH REPUBLIC	85,1	12	1,266	3658
CV-208	JOHAN NEYS	BELGIUM	71,5	6	1,064	670
CV-211	EDWIN DE CEUNINCK	BELGIUM	64,8	18	0,964	638
CV-213	DIRK LAURENT	BELGIUM	57,0	8	0,848	465
CV-214	IGOR GRAGEDA MENDEZ	BOLIVIA	52,2	30	0,777	1045
CV-215	ARNAUD MENGUS	FRANCE	71,8	4	1,068	302
CV-219	KANDILLI OBSERVATORY	TURKEY	55,4	20	0,824	761
CV-220	MICHEL FRANGEUL	FRANCE	50,6	21	0,753	49

Totals	Observers	Days	CV	No	K
	33	**30**	**64,39**	**445**	**0,958**

Results

Date	CV	Obsrvrs	Regions 6 rot.	CV-USAF 6-rot.	CV-6 rot.	CV-13 rot.
1	62,89	18	4,98	72,18	73,53	67,93
2	68,18	17	4,95	71,99	73,23	68,09
3	63,00	17	4,93	71,68	72,98	68,20
4	82,08	13	4,91	71,34	72,97	68,36
5	74,36	14	4,91	71,00	72,75	68,46
6	70,28	18	4,91	70,74	72,60	68,54
7	78,57	14	4,91	71,05	72,79	68,70
8	76,35	20	4,93	71,41	73,09	68,89
9	68,29	21	4,95	71,70	73,27	68,97
10	66,04	23	4,96	71,80	73,33	69,07
11	65,16	19	4,96	71,99	73,42	69,23
12	75,26	19	4,95	72,09	73,51	69,43
13	84,60	20	4,95	72,28	73,60	69,64
14	104,64	14	4,95	72,71	73,83	69,78
15	88,19	16	4,96	73,11	73,99	69,93
16	72,50	10	4,95	73,39	74,21	69,99
17	47,75	12	4,95	73,60	74,43	70,08
18	47,09	11	4,96	73,96	74,62	70,08
19	59,93	15	4,98	74,34	74,89	70,13
20	68,27	15	5,00	74,62	75,14	70,14
21	50,30	10	5,02	74,82	75,34	70,17
22	55,40	10	5,02	74,91	75,58	70,29
23	66,53	15	5,02	75,05	75,78	70,41
24	61,56	9	5,01	74,60	75,70	70,51
25	46,50	18	4,99	73,98	75,15	70,62
26	42,73	15	4,96	73,42	74,54	70,72
27	48,08	12	4,93	72,74	74,03	70,85
28	34,92	12	4,91	72,27	73,49	70,92
29	32,00	9	4,87	71,77	73,08	71,04
30	11,11	9	4,83	71,21	72,75	71,13
Totals/ Avrgs	**3,96**	**27,3**	**0,97**	**4,83**	**73,92**	**69,68**





Latest sunspot regions developments

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

3168-14.12.22-14.12.22--16,0-161,0-2265-90-2-11
3167-13.12.22-14.12.22-20,0-241,5-2265-185-7-21
3166-11.12.22-14.12.22--8,3-224,3-2265-18-5-3
3165-11.12.22-14.12.22--19,5-278,3-2265-75-6-19
3164-11.12.22-14.12.22--19,5-300,5-2265-15-5-8
3163-10.12.22-14.12.22--20,0-215,6-2265-196-11-32
3162-09.12.22-14.12.22--13,0-238,5-2265-75-2-10
3161-08.12.22-10.12.22-26,0-311,0-2265-13-4-9
3160-06.12.22-14.12.22-22,2-259,3-2265-74-2-9
3159-06.12.22-08.12.22-28,7-269,7-2265-13-1-1

:Product: Weekly Highlights and Forecasts

Highlights of Solar and Geomagnetic Activity
05 - 11 December 2022

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

Solar activity was at low levels through the period. A total of 46 C-class flares were observed from Regions 3153 (S17, L=327, class/area Fko/1080 on 04 Dec), 3155 (N23, L=026, class/area Dai/140 on 04 Dec), 3156 (N25, L=319, class/area Dao/220 on 03 Dec), 3157 (N16, L=305, class/area Esi/230 on 10 Dec), 3158 (N24, L=354, class/area Dai/110 on 05 Dec), 3161 (N26, L=312, class/area Bxo/020 on 09 Dec), 3162 (S13, L=239, class/area Hsx/070 on 10 Dec) and 3163 (S20, L=217, class/area Eso/140 on 11 Dec). During the period, numrous CMEs were observed, but none were detected to have Earth-directed components.

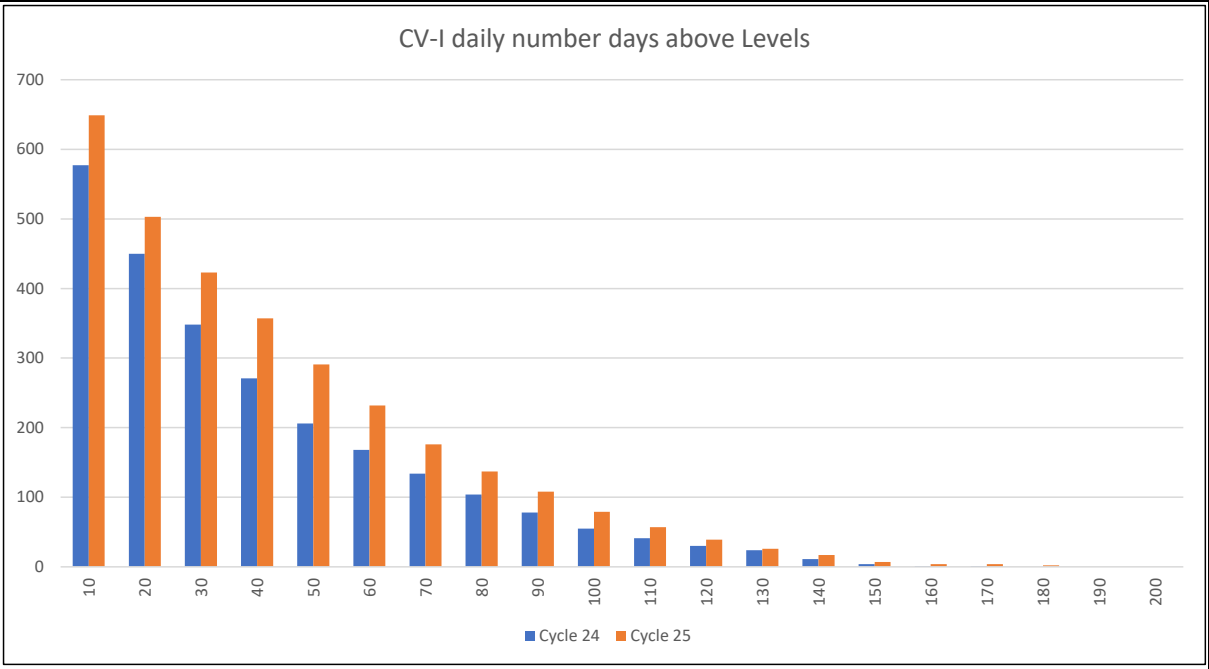
No proton events were observed at geosynchronous orbit.

The greater than 2 MeV electron flux at geosynchronous orbit was at high levels on 05-07 Dec with a peak flux reading of 2,610 pfu observed at 05/1450 UTC. Moderate levels were observed on 08-11 Dec.

Solar activity is expected to be at very low to low levels throughout the outlook period. M-class (R1-R2, Minor-Moderate) flares are possible on 11-31 Dec due to current and returning M-class producing regions.

No proton events are expected at geosynchronous orbit.

Monthly graph



The above graphic show how many days from the beginning of cycles 24 and 25 compared where the CV-I have been over the levels assigned here.
It appears that cycle 25 is approximately 32 percent over cycle 24 taken the differences in levels.
This can again indicate that we may see CV=300 on certain days at solar max. in 2025!

Highlights November 2022

Solar activity has become more average and number of regions are slowly increasing.
The CV 13-rot. ctrd. avgs. are still higher than for solar cycle 24 at the same time of progress!
The CV-Int. 13-rot. avrgs. is now ahead with 33 percent compared to same date in cycle 24.
A marked drop since last month. Sunspot region production at Month 36 was slowing down a bit.
A total of 373 regions this cycle per mid Dec. 2022 (171 regions North and 202 regions South).
At the same time solar cycle 24 produced 334 regions.

SUNSPOT REGIONS EXCEEDING 100 mvh in November 2022
Region,First date,Max.date,Last date,Lat.,Long.,Rot.,Max.mvh,Max class,Max CV
3140,04.11.22,14.11.22,16.11.22,25,328,2264,550,EKC,56
3141,04.11.22,11.11.22,16.11.22,14,318,2264,610,EKI,47

Date	Strongest flare	Date	Strongest	Date	Strongest flare
05.11.2022	M5.2	07.11.2022	M5.2	09.11.2022	M1.2
11.11.2022	M1.2	10.11.2022	M1.1	12.11.2022	M1.1
13.11.2022	M1.0	17.11.2022	M1.6	15.11.2022	M1.0
19.11.2022	M1.6				

We reckon there have passed 1091 days (solar flux 1128 days) of the new cycle by this issue.
The prospects for a solar cycle much higher than no. 24 still is good!
December produce lots of regions and solar flares too!

Solar Max.:
Solar Flux onset: OCCURED 30 September 2022, the Onset 13 rot. ctrd. will occur during last part of 2022.

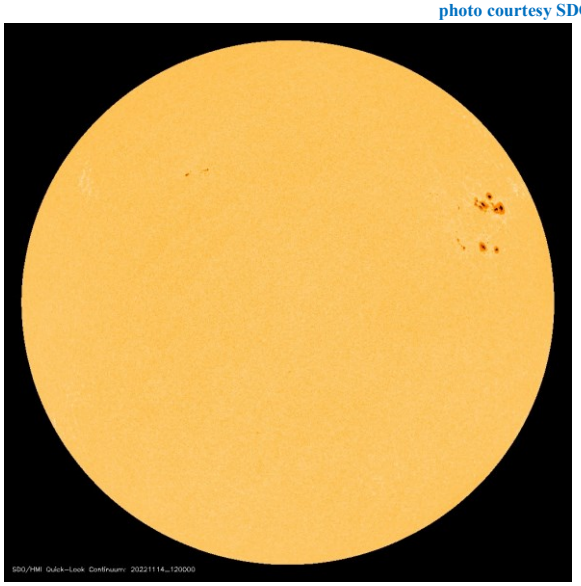
Stay tuned and observe the solar disk from now on!
Please remember you are always welcome to contribute with drawings and photos!

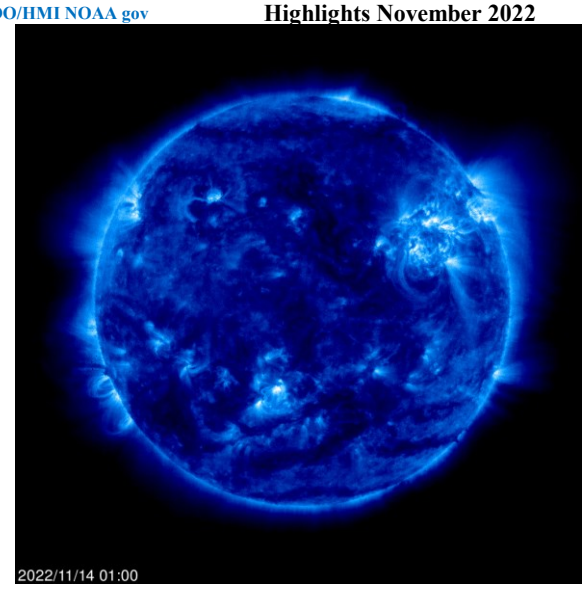
CV-Helios Network wish you a Merry Christmas and a Happy New Year!

Pictures from last month - Observer contributions, etc.

photo courtesy SDO/HMI NOAA gov

Highlights November 2022





Left: SOHO image "hmiigr" 14 Nov. 2022. Right: SOHO image in "eit171" from 14 Nov. 2022.

Awards this month	1

Award no.: 157 to CV-202 JORDI ZAMORA date 10 November 2022 milestone 1000 CV-obs.!
CONGRATULATIONS!

New members:	**Welcome to:**

We are now 50 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 22 hours 13 minutes

CV-Helios Network
- over 41 years in solar amateur astronomy service!

There are now Entries reg.: 12757 entries registered
containing 206095 CV-observations!
Last 12 months 6373 CV-observations from 46 observers originating from 18 countries

Editorial close: 15.12.2022 18:10 UTC

CV-Helios Network