Monthly Preliminary Report

MPR

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CV-Helios Network

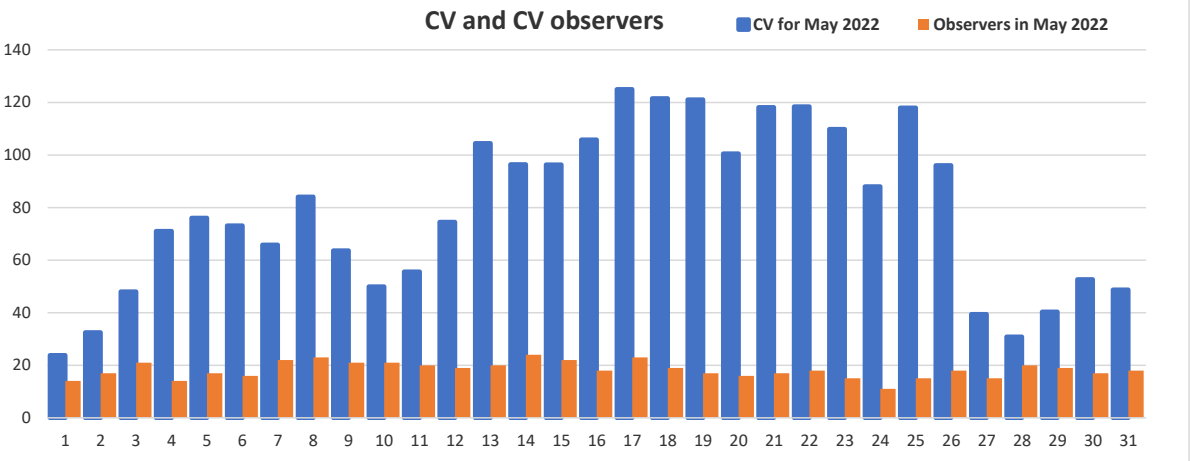
Monthly Preliminary Report for May 2022
Solar Cycle 25: Month no. 30
Report id.: cv2205 - CV-report no.: 490

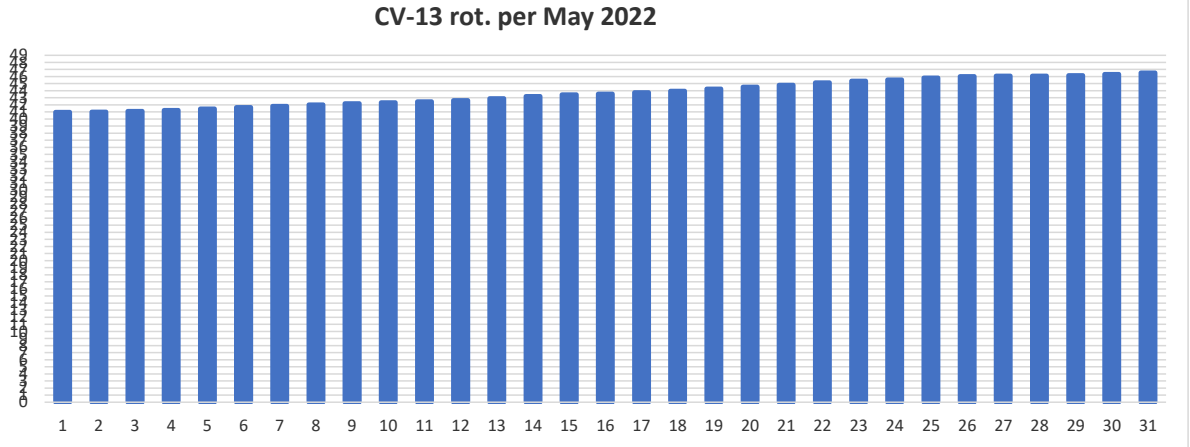
Memno.	Name	Country	CV	Obs	K	Obs. Tot.
CV-001	KJELL INGE MALDE	NORWAY	85,6	21	1,060	8949
CV-010	FRANKY DUBOIS	BELGIUM	67,9	28	0,840	9286
CV-019	ELMAR JUNKER	GERMANY	91,1	13	1,128	3718
CV-020	MANFRED HOLL	GERMANY	52,8	5	0,654	5846
CV-023	HARTMUT BRETSCHNEIDE	GERMANY	60,2	27	0,746	5575
CV-040	ROBERTO BATTAIOLA	ITALY	107,0	9	1,325	2025
CV-041	JENS ROTHERMEL	GERMANY	99,9	15	1,237	1359
CV-068	SVEN OVE THIMM	DENMARK	51,5	17	0,638	4018
CV-077	ANDREW JOHNSTON	UNITED KINGDOM	85,7	17	1,061	3437
CV-080	JAN JANSSENS	BELGIUM	85,6	8	1,060	1161
CV-082	PIOTR URBANSKI	POLAND	69,2	27	0,857	5210
CV-086	TOS POLAND	POLAND	69,7	31	0,863	8209
CV-091	GRZEGORZ DALEK	POLAND	97,8	25	1,210	4560
CV-102	PAULO ROBERTO MOSER	BRAZIL	69,9	27	0,865	2655
CV-105	ALEXEY RYBACK	RUSSIA	84,0	10	1,040	3258
CV-107	MONTY LEVENTHAL	AUSTRALIA	52,5	18	0,650	4699
CV-122	VLASTISLAV FEIK	CZECH REPUBLIC	71,1	19	0,880	2982
CV-135	GEMA ARAUJO	SPAIN	91,0	31	1,126	7021
CV-139	JAVIER ALONSO	SPAIN	74,6	19	0,924	3852
CV-151	JEFFREY CARELS	BELGIUM	71,8	14	0,889	3036
CV-171	WALTER JOSE MALUF	BRAZIL	116,2	21	1,439	2741
CV-181	ADAM DERDZIKOWSKI	POLAND	75,9	19	0,940	1038
CV-198	DENIS WALLIAN	FRANCE	128,6	18	1,592	486
CV-204	STEFAN MEISTER	SWITZERLAND	68,6	22	0,849	637
CV-205	TOM MANGELSDORF	UNITED STATES	67,0	1	0,830	49
CV-206	TADEUSZ FIGIEL	POLAND	62,1	9	0,769	311
CV-207	ONDREJOV OBS. (AI CAS)	CZECH REPUBLIC	110,6	25	1,370	3526
CV-208	JOHAN NEYS	BELGIUM	78,3	11	0,969	600
CV-214	IGOR GRAGEDA	BOLIVIA	62,6	25	0,776	878
CV-215	ARNAUD MENGUS	FRANCE	70,0	6	0,867	269
CV-219	KANDILLI OBSERVATORY	TURKEY	68,7	29	0,850	602

Totals	Observers	Days	CV	No	K
	31	**31**	**78,95**	**567**	**0,978**

Results

Date	CV	Obsrvrs	Regions 6 rot.	CV-USAF 6-rot.	CV-6 rot.	CV-13 rot.
1	23,79	14	4,26	67,95	61,39	40,99
2	32,47	17	4,28	67,98	61,37	41,03
3	48,00	21	4,29	68,13	61,50	41,10
4	71,00	14	4,30	68,53	61,87	41,26
5	76,06	17	4,32	68,93	62,34	41,44
6	73,13	16	4,32	69,32	62,72	41,64
7	65,86	22	4,32	69,76	62,87	41,83
8	84,09	23	4,34	70,23	63,26	42,04
9	63,62	21	4,35	70,65	63,36	42,21
10	49,95	21	4,35	70,62	63,50	42,34
11	55,55	20	4,35	70,71	63,52	42,47
12	74,53	19	4,37	70,91	63,71	42,64
13	104,45	20	4,37	71,40	64,02	42,91
14	96,42	24	4,38	72,10	64,42	43,21
15	96,32	22	4,41	72,48	64,93	43,44
16	105,83	18	4,45	73,15	65,47	43,55
17	124,96	23	4,48	74,18	66,17	43,77
18	121,53	19	4,50	74,84	66,94	43,97
19	121,06	17	4,54	75,55	67,60	44,27
20	100,50	16	4,58	76,23	68,17	44,53
21	118,18	17	4,62	76,82	68,76	44,83
22	118,39	18	4,66	77,60	69,44	45,15
23	109,87	15	4,71	78,29	70,05	45,40
24	88,00	11	4,76	78,92	70,65	45,57
25	118,00	15	4,79	79,71	71,25	45,82
26	96,00	18	4,82	80,34	71,65	46,03
27	39,40	15	4,84	80,34	71,69	46,10
28	30,85	20	4,82	79,79	71,36	46,09
29	40,37	19	4,80	79,53	71,06	46,16
30	52,71	17	4,78	79,01	70,66	46,34
31	48,78	18	4,76	78,61	70,43	46,54
Totals/ Avrgs	**3,96**	**27,3**	**0,97**	**4,83**	**66,33**	**43,70**





LAST 10 SUNSPOT REGIONS

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

3036-14.06.22-14.06.22--12,0-180,0-2258-50-5-25 DSO----------

3035-13.06.22-14.06.22--18,0-70,5-2258-65-5-18 DSO-CSO----------

3034-13.06.22-14.06.22-1,0-68,5-2258-90-6-18 DSO-CSO----------

3033-12.06.22-14.06.22-17,0-87,3-2258-50-5-15 BXO-DSO-DAO----------

3032-12.06.22-14.06.22-21,0-106,3-2258-130-5-23 DAI-DAI-DSO----------

3031-11.06.22-14.06.22--27,0-129,5-2258-60-8-9 CRO-CRO-CRO-DAI----------

3030-10.06.22-14.06.22-20,0-115,8-2258-88-12-19 EAO-EAO-DAO-DAO-DAO---------

3029-05.06.22-11.06.22--17,3-200,6-2258-23-2-4 AXX-AXX-AXX-AXX-DAO-BXO-BXO-------

3028-05.06.22-05.06.22-14,0-206,0-2258-10-1-1 AXX----------

3027-01.06.22-07.06.22--16,9-295,3-2258-46-4-14 DSO-DSO-DAO-DAO-CRO-CRO-BXO-------

:Product: Weekly Highlights and Forecasts

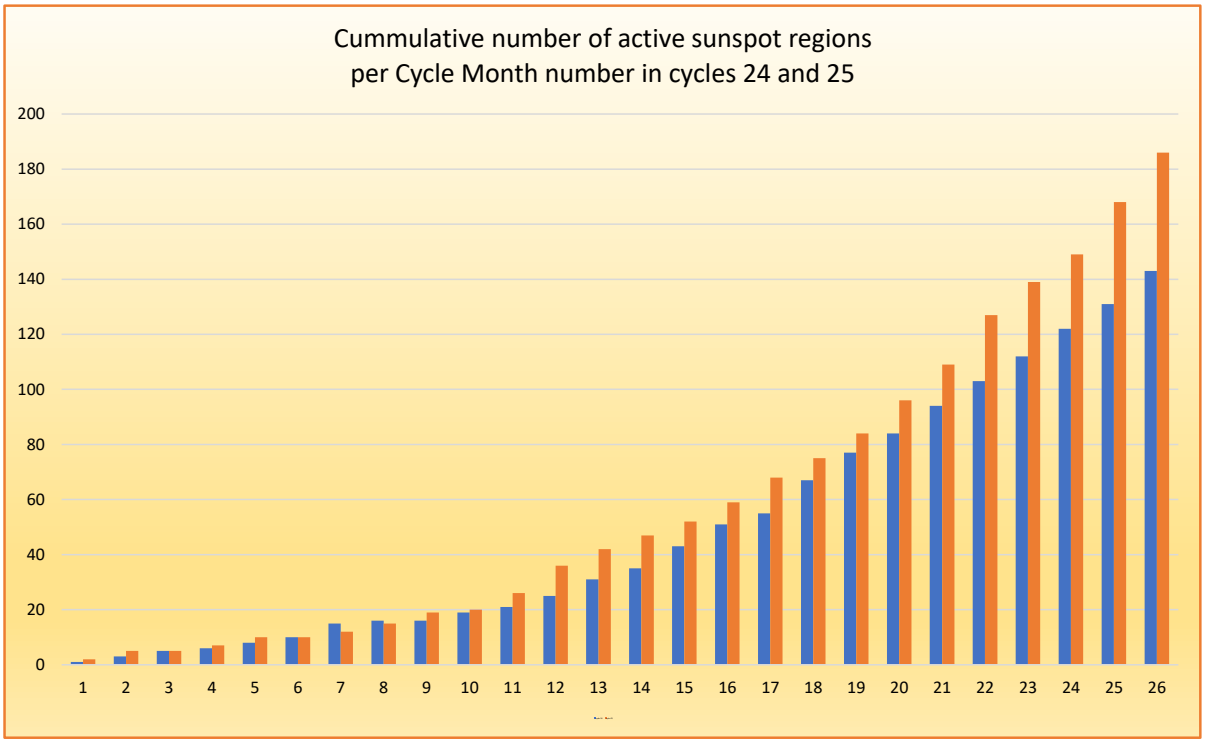
Highlights of Solar and Geomagnetic Activity
06 - 12 June 2022

Solar activity ranged from very low to moderate levels. Very low levels were observed on 06-08 Jun. Low levels were observed on 09 and 11-12 Jun with the majority of the C-class flares from Regions 3029 (S17, L=204, class/area Dao/070 on 09 Jun) and 3030 (N20, L=113, class/area Eao/180 on 11 Jun). Region 3030 was also responsible for the moderate activity on 10 Jun due to an isolated M1/Sf flare at 10/1054 UTC. By 12 Jun, Region 3030 had rotated into view enough to determine it was two separate regions. The trailing spots were reclassified as Region 3032 (N21, L=106 class/area Dai/090 on 12 Jun). Just after the end of the period, an M3.4 flare was observed at 13/0407 UTC along with Type II and IV radio sweeps. The bulk of the flare activity was from Region 3032 with sympathetic flaring noted around the same time from Region 3030. No Earth-directed CMEs were observed, however we are waiting on further coronagraph imagery associated with the recent M3.4 flare to determine if there is an Earth-directed component.

Solar activity is expected to be very low to low with a chance for further M-class flares on 13-24 Jun due to potential flare activity from Regions 3030 and 3032.

There is a chance for a greater than 10 MeV proton event in the next

Monthly graph



Comparing cycles 24 & 25 production of sunspot regions

News May 2022

Solar activity is low to more 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 nearly 59 percent compared to same date in cycle 24 (01.04.11)!
Sunspot region production at Month 30 is still good. A total of 281 regions this cycle per mid May 2022.
At the same time solar cycle produced 200 regions.

SUNSPOT REGIONS EXCEEDING 100 mvh in May 2022
Region,First date,Max.date,Last date,Lat.,Long.,Rot.,Max.mvh,Max class,Max CV
3004,02.05.22,05.05.22,09.05.22,-16,324,2257,500,DKC,55
3006,04.05.22,10.05.22,15.05.22,-30,240,2257,180,EAI,23
3007,08.05.22,12.05.22,20.05.22,-23,185,2257,350,EKC,56
3010,12.05.22,14.05.22,24.05.22,-15,128,2257,190,DSO,25
3014,15.05.22,20.05.22,26.05.22,22,106,2257,1190,DKC,55
3015,15.05.22,16.05.22,22.05.22,14,108,2257,110,HSX,10
3016,16.05.22,18.05.22,24.05.22,-18,75,2257,180,DAO,19
3017,16.05.22,23.05.22,27.05.22,13,85,2257,130,DAI,22
3023,25.05.22,26.05.22,06.06.22,-13,325,2258,180
3025,29.05.22

May 2022

Date	Strongest flare	Date	Strongest fl
10.05.2022	X1.1	23.05.2022	M2.4
11.05.2022	M5.7	24.05.2022	M1.0
12.05.2022	M2.7	25.05.2022	M1.1
17.05.2022	X1.5	26.05.2022	M5.6
18.05.2022	M2.67	27.05.2022	M3.0
19.05.2022	M1.3		

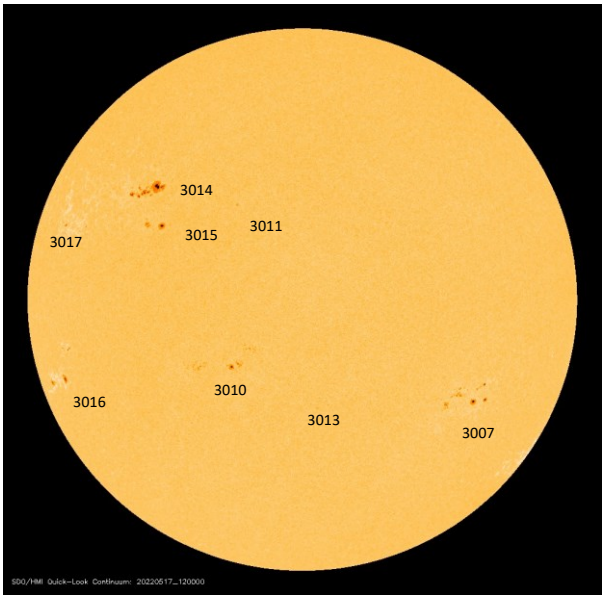
We reckon there have passed 908 days (solar flux 945 days) of the new cycle by this issue.
The prospects for a solar cycle much higher than no. 24 certainly is good!

Solar Max.: Our latest and final 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, though slower in May.
Stay tuned and observe the solar disk from now on!

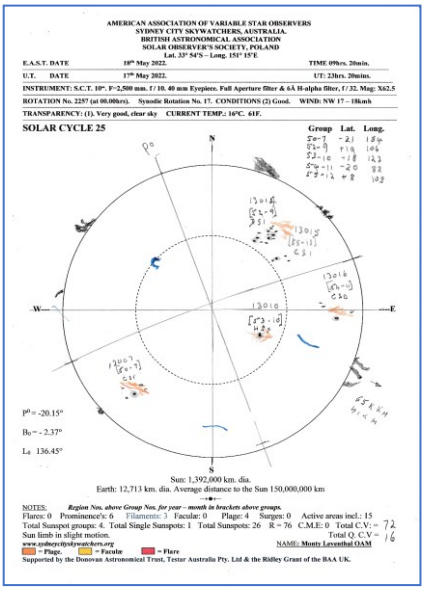
Please remember you are always welcome to contribute with drawings and photos!

Pictures from last month - Observer contributions, etc.

Highlights May 2022



Peak of May, the 17th. photo courtesy SDO/HMI NOAA gov



Solar diagram 17-5-22, CV-107 Monty Leventhal OAM

Awards this month 1

Award no.: 153 to CV-135 GEMA ARAUJO date 10 May 2022 milestone 7000 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

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 16 hours 31 minutes

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

There are now Entries reg.: 12561 entries registered
containing 202824 CV-observations!
Last 12 months 6921 CV-observations from 46 observers originating from 18 countries

Editorial close: 15.06.2022 16:09 UTC

CV-Helios Network