Monthly Preliminary Report

MPR

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CV-Helios Network

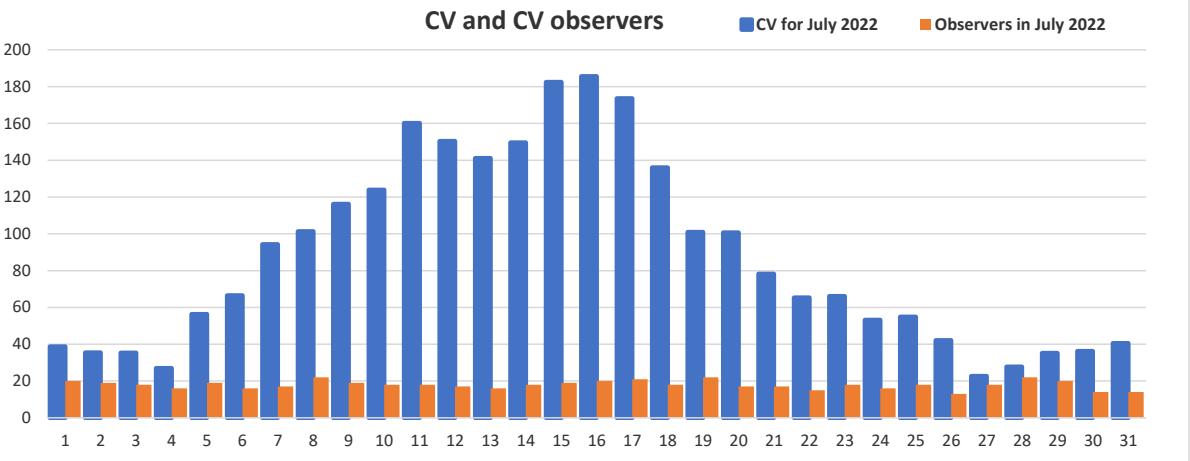
Monthly Preliminary Report for July 2022
Solar Cycle 25: Month no. 32
Report id.: cv2207 - CV-report no.: 492

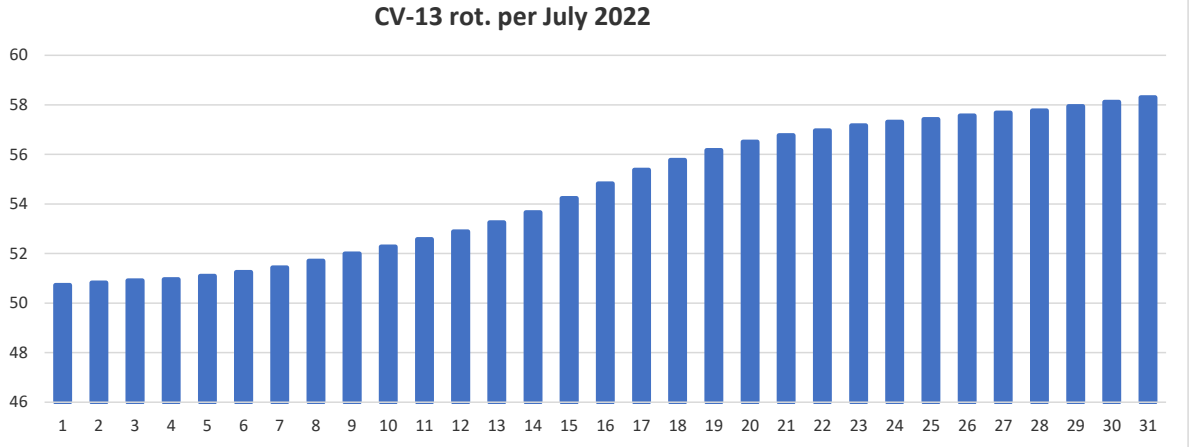
Memno.	Name	Country	CV	Obs	K	Obs. Tot.
CV-001	KJELL INGE MALDE	NORWAY	108,4	23	1,194	8993
CV-010	FRANKY DUBOIS	BELGIUM	74,1	30	0,816	9343
CV-019	ELMAR JUNKER	GERMANY	117,3	12	1,292	3734
CV-023	HARTMUT BRETSCHNEIDE	GERMANY	58,7	23	0,646	5627
CV-068	SVEN OVE THIMM	DENMARK	67,1	24	0,739	4066
CV-077	ANDREW JOHNSTON	UNITED KINGDOM	81,7	20	0,899	3473
CV-080	JAN JANSSENS	BELGIUM	85,2	6	0,937	1173
CV-082	PIOTR URBANSKI	POLAND	88,9	26	0,978	5262
CV-086	TOS POLAND	POLAND	85,6	31	0,943	8270
CV-091	GRZEGORZ DALEK	POLAND	99,3	28	1,093	4610
CV-102	PAULO ROBERTO MOSER	BRAZIL	79,1	31	0,870	2710
CV-105	ALEXEY RYBACK	RUSSIA	80,0	20	0,880	3287
CV-107	MONTY LEVENTHAL	AUSTRALIA	70,9	7	0,780	4717
CV-135	GEMA ARAUJO	SPAIN	91,7	31	1,010	7082
CV-136	FAUSTINO GARCIA	SPAIN	73,4	15	0,808	3746
CV-139	JAVIER ALONSO	SPAIN	92,9	23	1,023	3896
CV-151	JEFFREY CARELS	BELGIUM	78,8	20	0,867	3076
CV-171	WALTER JOSE MALUF	BRAZIL	138,6	24	1,526	2782
CV-181	ADAM DERDZIKOWSKI	POLAND	77,5	10	0,853	1065
CV-198	DENIS WALLIAN	FRANCE	131,2	19	1,444	521
CV-204	STEFAN MEISTER	SWITZERLAND	73,8	27	0,812	680
CV-207	ONDREJOV OBS. (AI CAS)	CZECH REPUBLIC	124,6	27	1,371	3577
CV-208	JOHAN NEYS	BELGIUM	107,8	12	1,187	625
CV-214	IGOR GRAGEDA	BOLIVIA	72,2	28	0,795	933
CV-215	ARNAUD MENGUS	FRANCE	70,5	8	0,776	283
CV-219	KANDILLI OBSERVATORY	TURKEY	73,0	30	0,804	658

Totals	Observers	Days	CV	No	K
	26	**31**	**88,55**	**555**	**0,975**

Results

Date	CV	Obsrvrs	Regions 6 rot.	CV-USAF 6-rot.	CV-6 rot.	CV-13 rot.
1	38,70	20	4,64	75,03	69,23	50,73
2	35,42	19	4,64	74,93	69,04	50,82
3	35,33	18	4,63	74,85	68,93	50,91
4	27,00	16	4,65	74,87	69,05	50,96
5	56,37	19	4,68	74,95	69,17	51,09
6	66,56	16	4,71	75,33	69,41	51,24
7	94,24	17	4,74	75,82	69,74	51,43
8	101,27	22	4,74	76,32	70,05	51,70
9	116,16	19	4,74	76,79	70,38	52,00
10	123,89	18	4,75	77,56	70,79	52,27
11	160,11	18	4,76	78,28	71,40	52,58
12	150,41	17	4,77	79,09	71,88	52,88
13	141,06	16	4,77	79,49	72,22	53,25
14	149,61	18	4,76	79,85	72,59	53,66
15	182,47	19	4,77	80,04	73,16	54,23
16	185,55	20	4,79	80,48	73,77	54,82
17	173,67	21	4,80	81,10	74,33	55,38
18	136,00	18	4,82	81,46	74,59	55,77
19	101,00	22	4,83	81,77	74,51	56,17
20	100,71	17	4,85	82,14	74,60	56,50
21	78,29	17	4,88	82,62	74,64	56,77
22	65,27	15	4,90	82,53	74,55	56,96
23	66,17	18	4,91	82,34	74,52	57,16
24	53,25	16	4,93	82,07	74,45	57,31
25	54,83	18	4,93	81,73	74,37	57,42
26	42,08	13	4,95	81,50	74,38	57,56
27	22,61	18	4,96	81,26	74,28	57,68
28	27,77	22	4,95	80,90	74,01	57,76
29	35,25	20	4,94	80,79	73,81	57,94
30	36,21	14	4,90	80,59	73,69	58,12
31	40,57	14	4,88	80,63	73,75	58,30
Totals/ Avrgs	**3,96**	**27,3**	**0,97**	**4,83**	**72,43**	**54,56**





Latest sunspot regions developments

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

3081-13.08.22-14.08.22-10,0-7,0-2260-200-6-22
3080-12.08.22-13.08.22-20,5-102,5-2260-10-2-2
3079-12.08.22-14.08.22--11,0-77,0-2260-107-6-14
3078-10.08.22-14.08.22--24,8-32,4-2260-48-2-8
3077-09.08.22-13.08.22--17,0-112,8-2260-26-3-5
3076-07.08.22-14.08.22-14,9-60,9-2260-136-3-12
3075-07.08.22-09.08.22-20,3-78,0-2260-13-4-3
3074-05.08.22-14.08.22--16,8-90,0-2260-121-3-10
3073-05.08.22-08.08.22--34,3-201,3-2260-48-4-9
3072-04.08.22-07.08.22--23,0-197,5-2260-28-5-7

:Product: Weekly Highlights and Forecasts

Highlights of Solar and Geomagnetic Activity
08 - 14 August 2022

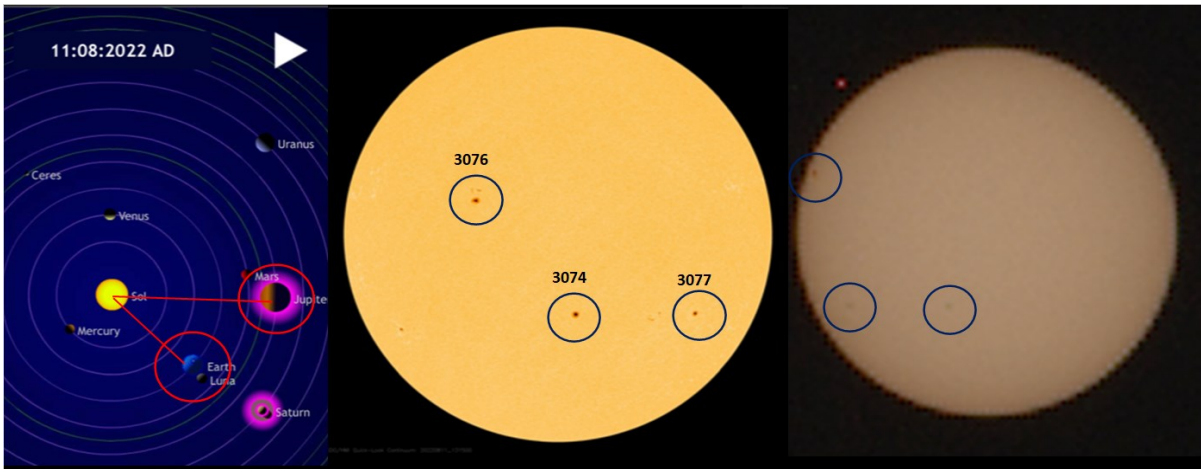
Solar activity was very low with B-class flare activity on 08-10 Aug. Solar activity increased to low levels with C-class flare activity observed on 11-14 Aug. Regions 3076 (N15, L=61, class/area=Dao/170 on 13 Aug) and 3079 (S11, L=77, class/area=Cai/130 on 14 Aug) were responsible for the majority of C-class flare activity throughout the period. At 14/1235 UTC, a long-duration C2 flare and filament eruption were observed from Region 3076. Associated Type-II radio emissions estimated a shock velocity of 629 km/s. The associated CME was first seen in LASCO C2 imagery beginning at 14/1248 UTC and is expected to impact Earth on 17 Aug.

No proton events were observed at geosynchronous orbit.

Solar activity is expected to be predominately low with C-class flare activity and a chance for isolated M-class flare activity throughout the outlook period.

No proton events are expected at geosynchronous orbit.

Monthly graph



These two images were taken on the same day, 11 Aug 2022, one from SOHO and the other from rover Mars Perserverance by the left Mastcam-Z showing the three dominant sunspot groups 3076, 3074, 3077. Since Mars is behind Earth's orbit now, any surface features on the sun will appear further to the east.

News July 2022

Solar activity is low to more average and number of regions are slowly increasing. The CV 13-rot. Ctrd. Avgs. 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 almost 70 percent compared to same date in cycle 24!
Sunspot region production at Month 32 is still good. A total of 303 regions this cycle per mid July 2022.
(151 regions North and 176 regions South).
At the same time solar cycle produced 240 regions.

SUNSPOT REGIONS EXCEEDING 100 mvh in July 2022
Region,First date,Max.date,Last date,Lat.,Long.,Rot.,Max.mvh,Max class,Max CV
3046,01.07.22,06.07.22,11.07.22,17,198,2259,240,HSX,10
3053,05.07.22,08.07.22,17.07.22,15,135,2259,700,EKO,44
3055,07.07.22,11.07.22,18.07.22,-17,122,2259,960,EKC,56
3056,10.07.22,15.07.22,21.07.22,-16,78,2259,250,EAI,23
3057,11.07.22,12.07.22,23.07.22,16,58,2259,380,DHO,49
3058,14.07.22,17.07.22,22.07.22,14,21,2259,310,DKI,46
3059,15.07.22,17.07.22,26.07.22,-8,9,2259,200,DSO,25
3062,19.07.22,21.07.22,31.07.22,-25,305,2

Date	Strongest flare	July 2022	
05.07.2022	M1.0	11.07.2022	M1.1
08.07.2022	M2.6	14.07.2022	M2.9
10.07.2022	M1.3	16.07.2022	M1.4

Though region production in July 2022 seemed a bit disappointing regarding numbers and sizes, we should still have a lot to look forward to!

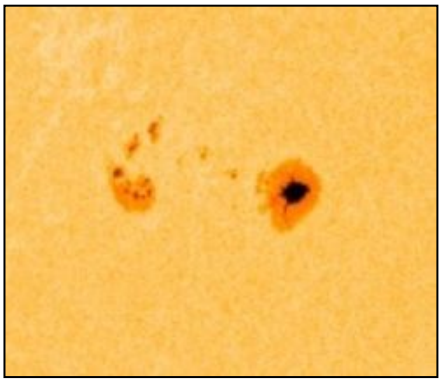
We reckon there have passed 969 days (solar flux 1006 days) of the new cycle by this issue.
The prospects for a solar cycle much higher than no. 24 certainly is good!

Solar Max.: Our latest and final prediction to occur late July 2025, earliest possible may be April 2025.
Solar Flux onset period is ongoing but the P-Index is still rising (data from solar flux).
The Onset predicted to occur late November 2022, still promising for a larger cycle than the previous!

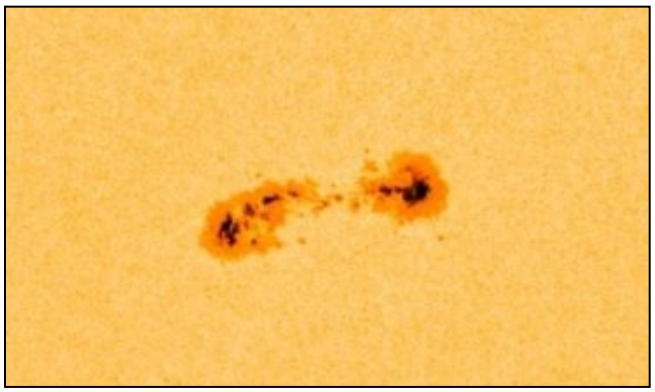
Stay tuned and observe the solar disk from now on!
Please remember you are always welcome to contribute with drawings and photos!

Pictures from last month - Observer contributions, etc.

Highlights July 2022



Region 3053 on June 08,
at max 960 mvh



Region 3055 on June 11,
at max 700 mvh

photo courtesy SDO/HMI NOAA gov

Awards this month 0

none

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 15 hours 21 minutes

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

There are now Entries reg.: 12619 entries registered
containing 203920 CV-observations!
Last 12 months 6544 CV-observations from 44 observers originating from 18 countries

Editorial close: 15.08.2022 18:36 UTC

CV-Helios Network