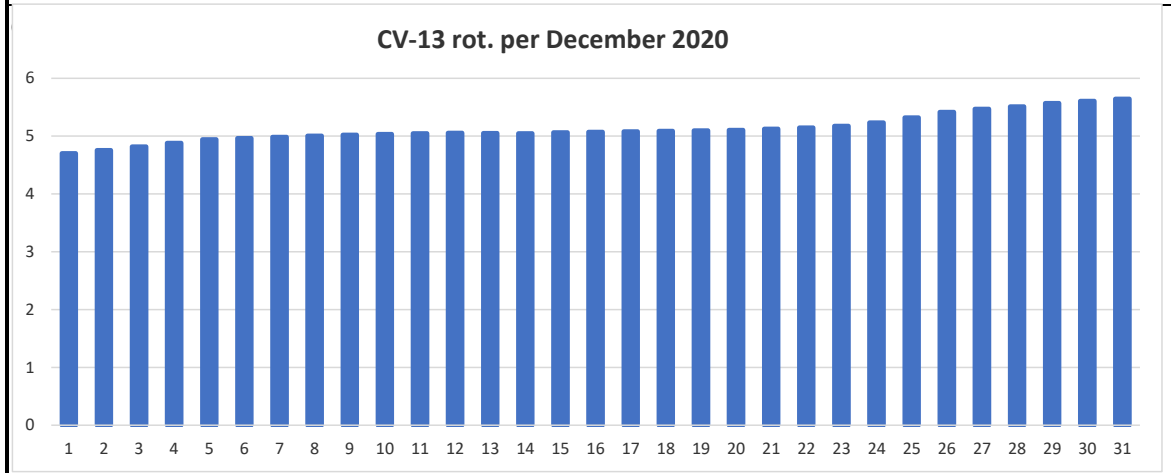
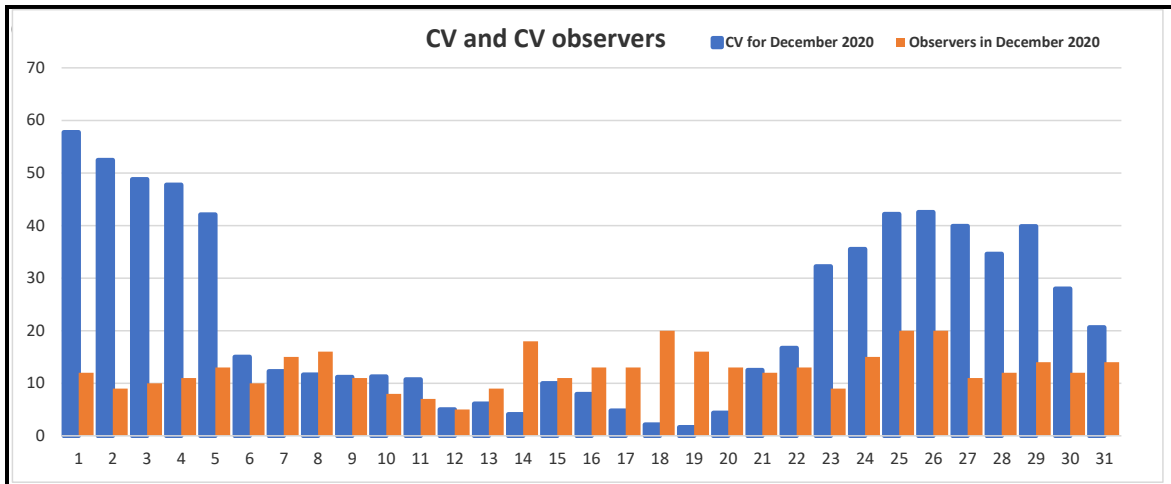


Results						
Date	CV	Obsrvrs	Regions 6 rot.	CV-USAF 6-rot.	CV-6 rot.	CV-13 rot.
1	57,75	12	0,15	9,65	8,19	4,70
2	52,44	9	0,15	9,98	8,35	4,76
3	48,80	10	0,15	10,33	8,51	4,82
4	47,73	11	0,15	10,66	8,69	4,88
5	42,08	13	0,16	10,98	8,88	4,94
6	15,00	10	0,16	11,05	8,97	4,96
7	12,27	15	0,16	11,12	9,05	4,98
8	11,63	16	0,16	11,18	9,12	5,00
9	11,18	11	0,16	11,24	9,18	5,02
10	11,25	8	0,16	11,30	9,26	5,04
11	10,71	7	0,16	11,36	9,32	5,05
12	5,00	5	0,16	11,40	9,39	5,05
13	6,11	9	0,16	11,41	9,46	5,05
14	4,11	18	0,17	11,43	9,50	5,05
15	10,00	11	0,16	11,46	9,55	5,06
16	7,92	13	0,16	11,48	9,62	5,07
17	4,77	13	0,16	11,49	9,67	5,08
18	2,15	20	0,16	11,49	9,70	5,09
19	1,63	16	0,16	11,49	9,72	5,10
20	4,38	13	0,17	11,55	9,77	5,11
21	12,50	12	0,17	11,60	9,85	5,12
22	16,69	13	0,17	11,66	9,95	5,15
23	32,22	9	0,18	11,76	10,09	5,18
24	35,53	15	0,18	11,93	10,27	5,23
25	42,20	20	0,18	12,11	10,49	5,32
26	42,55	20	0,18	12,29	10,72	5,42
27	39,91	11	0,18	12,50	10,87	5,47
28	34,58	12	0,18	12,68	11,02	5,51
29	39,86	14	0,18	12,79	11,22	5,57
30	28,00	12	0,18	12,88	11,37	5,61
31	20,64	14	0,18	12,95	11,51	5,65
Totals/ Avrgs	3,96	27,3	0,97	4,83	9,72	5,13



Sunspot Region Summary for December 2020
Reg.-First day-Last day-Lat.-Lon.-Rot.-CVavg.-ZMcl day1 to day14
 2785,22.11.20,04.12.20,-22,084,2237-HSX,CSO,HSX,HSX,HSX,CSO,FSO,HSX,HSX,HSX,HSX,HSX,HSX,
 2786,23.11.20,05.12.20,-17,343,2237-HSX,CKO,CKO,FKO,FKO,FKO,FKI,CKI,CKO,HKX,HKX,HKX,CKO,
 2790,01.12.20,12.12.20,-23,252,2238-CSO,CAO,HSX,CAO,CSO,HSX,HSX,HSX,HSX,HSX,HSX,HRX,,
 2791,05.12.20,07.12.20,-16,220,2238-BXO,BXO,AXX,,,,,,,,,,,,,
 2792,12.12.20,15.12.20,-22,104,2238-BXO,BXO,BXO,BXO,,,,,,,,,,,,,
 2793,14.12.20,17.12.20,-15,082,2238-AXX,CRO,CRO,BXO,,,,,,,,,,,,,
 2794,20.12.20,02.01.21,-16,346,2238-HSX,HSX,HSX,HSX,HSX,HSX,HSX,HSX,HSX,HSX,HSX,HSX,HSX,
 2795,23.12.20,02.01.21,-18,318,2238-CRO,DAO,DAO,DAO,DSO,DAO,CAO,CRO,BXO,BXO,AXX,,,

:Product: Weekly Highlights and Forecasts
 :Issued: 2021 Jan 11 0124 UTC
 # Prepared by the US Dept. of Commerce, NOAA, Space Weather Prediction Center
 # Product description and SWPC contact on the Web
 # <https://www.swpc.noaa.gov/content/subscription-services>
 #
 # Weekly Highlights and Forecasts
 #
 Highlights of Solar and Geomagnetic Activity
 04 - 10 January 2021

 Solar activity was very low with no spotted groups on the visible disk.

 No proton events were observed at geosynchronous orbit.

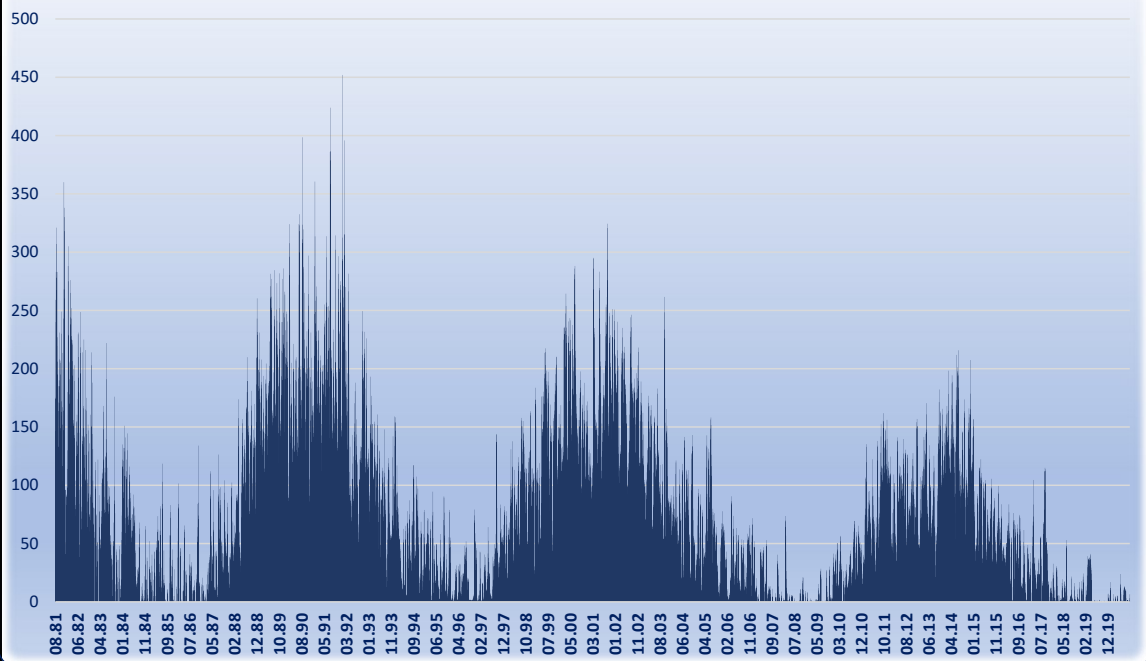
 The greater than 2 MeV electron flux at geosynchronous orbit was at normal to moderate levels for the highlight period.

 Geomagnetic field activity reached active levels on 05-06 Jan due to recurrent coronal hole high speed stream influences (CH HSS). Quiet to unsettled levels were observed during the remainder of the highlight period.

 Forecast of Solar and Geomagnetic Activity
 11 January - 06 February 2021

 Solar activity is expected to be at very low levels during the

Monthly graph


**CV-International 13-rot. averages for all CV-cycles
per 31.12.2020**

News December 2020

Solar activity is still growing at the start of the new solar cycle 25.
Even if December 2020 activity was at far lower levels than November,
we still see the chance of developing activity.

In the beginning of the month of December 2020 there were some C-class flares
to be observed 3rd to 7th December.
Later in the month more very low activity, C-class flare on the 15th.
Apart from that, only B-class enhancements were observed according to NOAA Space Weather.

Regions:

Region 2786, lat. S17, long. 347, rot. 2238, reached 460 mvh on the 4th December,
and classified as HKX, was by far the most active region in November/December 2020.
Region 2790, lat. S23, long. 252, rot. 2238, on the 5th December classified as CSO,
The small region was mostly classified as an HSX, and was very stable.
Region 2794, lat. S16, long. 345, rot. 2239, reached 220 mvh on 25 December and class HSX, very stable.
and class HSX, very stable.
Region 2795, followed 2794, at lat. S18, long. 318, reached 200 mvh on 24 December,
and classified as DSO, and as we neared the end of the year, it decayed.

NEW MENU AT CV-HELIOS NETWORK WEBSITE:

Located via the "Misc."-menu at <https://www.cv-helios.net/cvmisc3.html>:

DAILY RUN FILES

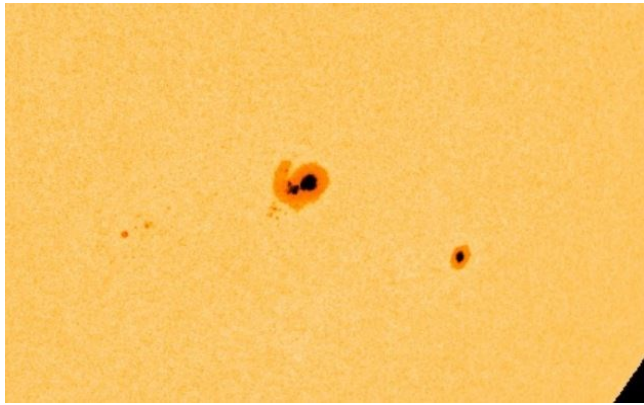
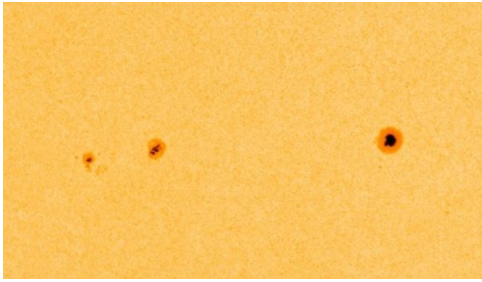
giving you daily updates on DAILY SOLAR & CV-REPORTS, CV-OBS. REG. UPDATES,
TEXT LIST & TABLE DAILY CV-INT., CV-USAF NUMBERS & NOAA/USAF SUNSPOT REGIONS,
SOHO GRIDDED IMAGES AND POSITIONAL TABLES, SOLAR FLUX & P-INDEX, SOLAR WIND.

The menu is dynamic in the green background fields, meaning it is date-dependant
and should be available from about 10:00 UTC until local midnight.

January 2021 updates;

We are now working on a slight change on menu front page
and a special Graphics page is underway soon.

An email will be sent out when the new menu is ready.

Pictures from last month - Observer contributions, etc.	
SOLAR CYCLE 25	Largest Regions of December 2020
 <p>Region 2786 on 01 Dec 2020 1200 UTC courtesy SDO/HMI NOAA gov</p>	 <p>Region 2795 on 27 Dec 2020 1200 UTC courtesy SDO/HMI NOAA gov</p>
Awards this month	0
none	
New member:	Welcome to:
CV-216 VISHAL SHARMA, India	Welcome our New Member! We are now 53 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 mif2002,

<https://www.cv-helios.net/mif2002.xls>

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

NEW! A special **Graphic section** is underway soon available from front page of www.cv-helios.net

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>

for checking of Entries Summary

<https://www.cv-helios.net/helios/cv/web/cvobsmonth.htm>**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](http://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>

login

solaris

password

cvheliosobs

Submission before 15th of proceeding month 18:00 UTC.

MPR issue 15th of proceeding month 2000 UTC. Good luck CV-observing!

Registration time average last 40 entries: 15 hours 9 minutes**CV-Helios Network****- over 39 years in solar amateur astronomy service!**

There are now 11849 entries registered
containing 190557 CV-observations!

Editorial close: 15.01.2021 17:39 UTC**CV-Helios Network**