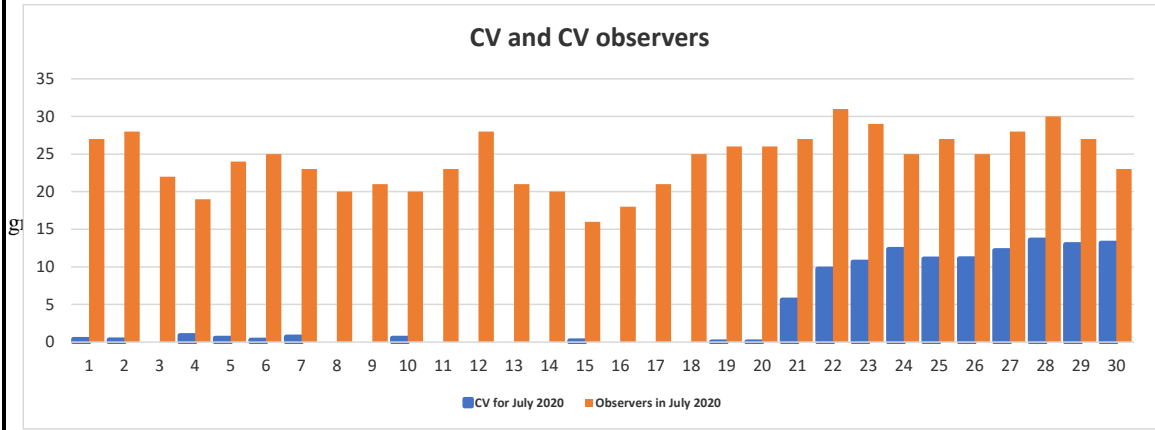


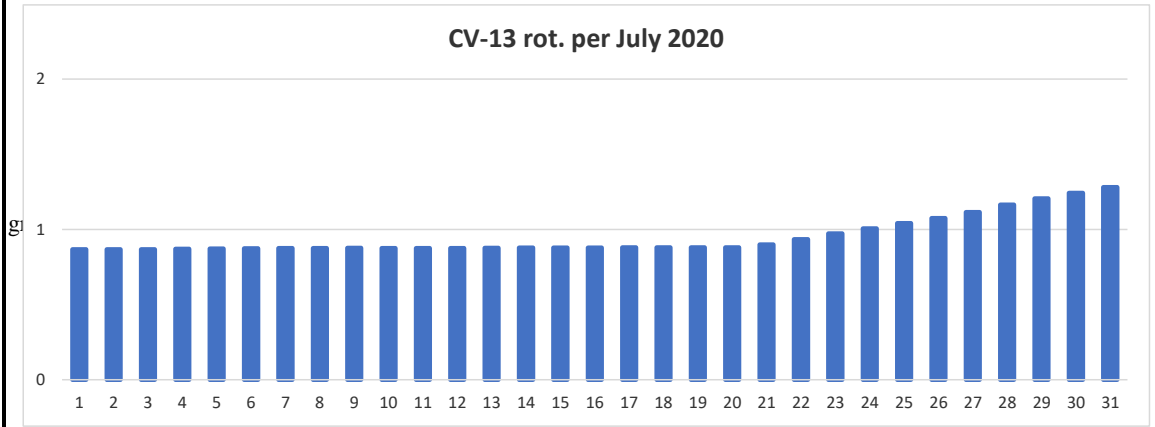


<b>Results</b>						
Date	CV	Obsrvrs	Regions 6 rot.	* CV- USAF	CV-6 rot.	CV-13 rot.
1	0,42	33	0,19	1,35	1,50	0,86
2	0,39	36	0,19	1,35	1,50	0,86
3	0,00	27	0,19	1,35	1,49	0,86
4	0,95	21	0,20	1,36	1,49	0,87
5	0,50	30	0,20	1,37	1,49	0,87
6	0,32	31	0,20	1,35	1,48	0,87
7	1,03	30	0,19	1,34	1,46	0,87
8	0,00	20	0,18	1,29	1,39	0,87
9	0,00	28	0,18	1,23	1,36	0,87
10	0,68	28	0,18	1,18	1,32	0,87
11	0,00	30	0,17	1,12	1,27	0,87
12	0,00	35	0,16	1,05	1,24	0,87
13	0,00	29	0,16	1,05	1,23	0,87
14	0,05	21	0,16	1,05	1,22	0,87
15	0,27	22	0,16	1,05	1,22	0,87
16	0,00	21	0,16	1,05	1,22	0,87
17	0,00	26	0,16	1,05	1,21	0,87
18	0,00	31	0,16	1,05	1,21	0,87
19	0,03	33	0,16	1,05	1,21	0,87
20	0,03	33	0,16	1,05	1,20	0,87
21	5,94	33	0,17	1,12	1,24	0,89
22	9,78	37	0,18	1,18	1,32	0,94
23	10,54	35	0,18	1,24	1,39	0,98
24	11,97	30	0,19	1,30	1,47	1,02
25	10,94	31	0,20	1,36	1,54	1,06
26	10,81	32	0,20	1,42	1,61	1,10
27	11,77	35	0,21	1,48	1,69	1,14
28	13,41	37	0,22	1,55	1,79	1,20
29	12,89	35	0,23	1,62	1,88	1,25
30	12,55	31	0,24	1,74	1,96	1,30
31	11,29	35	0,26	1,81	2,04	1,34
Totals/ Avrgs	<b>4,08</b>	<b>30,2</b>	<b>0,64</b>	<b>4,16</b>	<b>1,44</b>	<b>0,96</b>

**CV and CV observers**



**CV-13 rot. per Jul 2020**



**Solar Region Summary for July 2020**

Reg.-First day-Last day-Lat.-Lon.-Rot.-Area-Lgth.-CVtot.-class14d

2766-04.07.20-06.07.20-N06-117-2232-10-4-1,7-BXO-AXX-BXO

2767-21.07.20-02.08.20-S22-197-2233-80-1-10,0-HSX-HSX-HSX-HSX-HSX-HSX-HSX-HSX-HSX-HSX-HSX-HSX-HSX-HSX-HSX

2768-28.07.20-01.08.20-N25-113-2233-10-1-3,0-AXX-AXX-HSX-BXO-AXX

-----  
 -----  
 -----  
 -----  
 -----  
 -----  
 -----

**:Product: Weekly Highlights and Forecasts**

:Issued: 2020 Aug 10 0329 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  
 03 - 09 August 2020

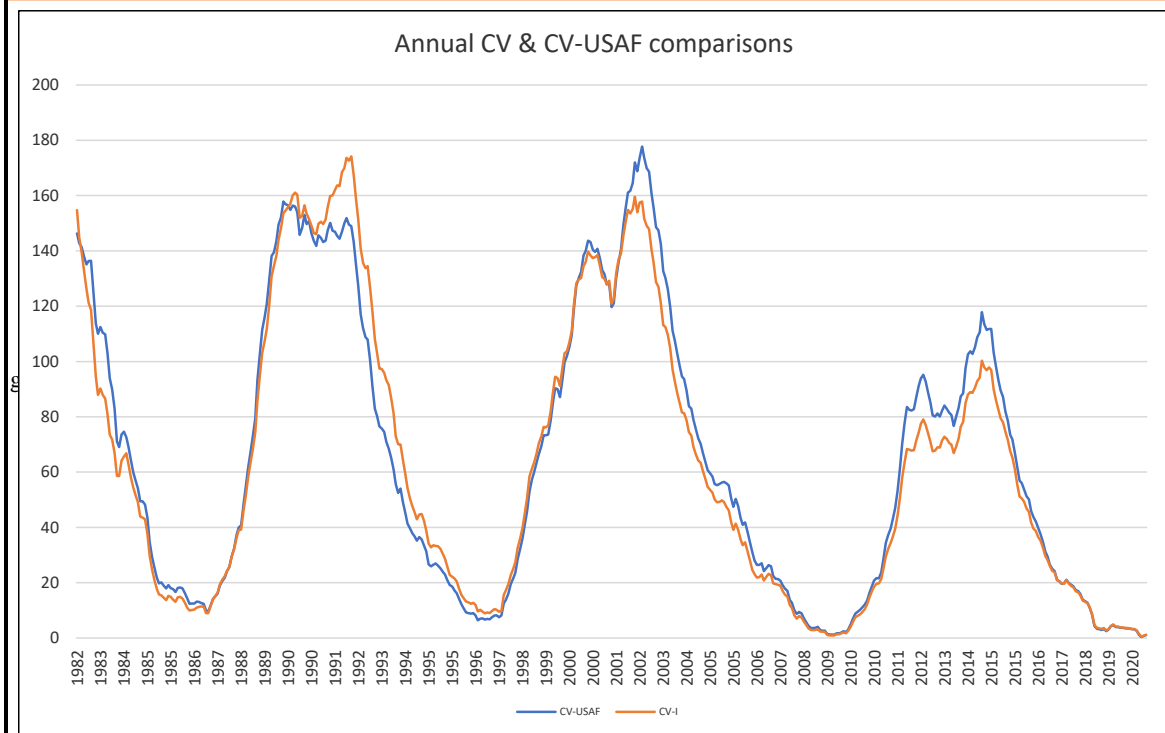
Solar activity was at very low levels on 03-07 and 09 Aug. Low levels were reached on 08 Aug as Region 2770 (N23, L=023, class/area Cso/070 on 06 Aug) produced an isolated C1/Sn flare at 08/0349 UTC. This was the first C-class flare observed since 29 May. No Earth-directed CMEs were observed.

No proton events were observed at geosynchronous orbit.

The greater than 2 MeV electron flux at geosynchronous orbit was at moderate to high levels. Moderate levels were observed on 03-04 Aug. High levels were observed on 05-09 Aug due to coronal hole high speed stream (CH HSS) influence. The maximum flux of the period was 2,815 pfu observed at 05/1630 UTC.

Geomagnetic field activity ranged from quiet to active levels. The period began with the onset of a positive polarity CH HSS. Total field reached 10 nT at the beginning of the period and solar wind

## Monthly graph



## News July 2020

## HAS SOLAR CYCLE 24 FINALLY ENDED?

Yes.

The lowest solar flux adjusted center averaged 13 rotations indicate 23 Nov 2019 as the approx. min. date.

The low level did not reach as low as for transition solar cycles 23 and 24, at 67,93 on 01 Nov 2008.

This time, the cycle transition occurred on 23 Nov 2019 at pfu 69,02, same calculation as above.

Now, using the same calculation scheme as above on our CV-International numbers, we end up as 10 Nov 2019 as the minimum date with cv 0,48.

Using the other commonly used Relative numbers we end up with the same date as above CV-I, i.e. either 09 or 10 Nov 2019 at Ri 1,46.

Between 12 and 20 Dec 2019 it may seem we made the maximum number of spotless days ending up at 255 days with definite days under cv=0,5.

## PICK FROM SPACEWEATHERLIVE.COM BLOG

<https://spaceweatherarchive.com/2020/08/04/solar-cycle-25-is-coming-to-life/>

Solar Cycle 25 is Coming to Life

AUGUST 4, 2020 / DR.TONY PHILLIPS

August 3, 2020: There's no longer any doubt. New Solar Cycle 25 is coming to life. The latest sign came today with the emergence of a new sunspot group, AR2770, inset in this magnetic map of the sun's surface from NASA's Solar Dynamics Observatory

Kjell Inge Malde

AUGUST 6, 2020 AT 8:49 AM

Calculating the 10,7cm solar flux 2800 MHz from Penticton, Canada, giving a 13-rotation centered average for the 1AU adjusted values, I have landed on 2019 November 23 as a center minimum date.

This correspond fairly well with R-I, CV-I, maximum spotless days on the mentioned values,

and also some of the various measurements done by Nobeyama in Japan.

All indices should indicate solar cycle 25 has well entered the front door.

There are so far one comment to my own comment:

cammcnaughton

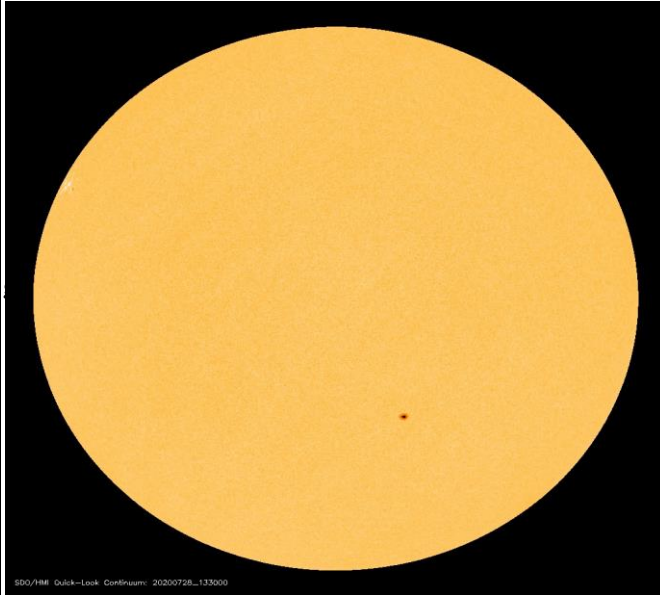
AUGUST 6, 2020 AT 9:26 PM

Bottom graph here pegs it in November 2019, as well: <https://www.solen.info/solar/>

## ISSUES OF MPR AND MPR IN HTML SOON

Work has been done over the past few months to make templates for issuing MPR and AFR as html.

The first issue of templated MPR is made.

**Pictures from last month - Observer contributions, etc.****SOLAR CYCLE 25 IS HERE!**

Region 2767 taken from SOHO on 28 Jul 2020 at 1330 UTC.  
 Positioned at S22 long. 197 in rot. no. 2233,  
 yet another region in the solar cycle 25 history,  
 and covered an average of 80 mvh on the 13 days from E to W.  
 It was classified at HSX for the entire period.  
 The SOHO picture from 28th July also reveals the upcoming region 2768 in the NE.  
 Regions stable and unremarkable but numbers may be picking up again now.  
 Hopefully no more blank days?

Many plages, one very large, appeared on the solar disk during July,  
 but very few of them evolved into spots.

Please feel free to send in your images for publication here!  
 Thank you.

**Awards this month**

1


CV-105 ALEXEY RYBACK: 3000 CV-obs. on 31.07.2020

Congratulations!

**New member:****Welcome to:**

Already registered CV-classifier since Jan 2020, CV-214 Igor Grageda Mendez, is heartly welcomed!

We are now 54 active members (last 12 mo.)

<b>Solar Coordinates</b>	New from April 2020
Daily list of Solar Ephemeris available at: <a href="#">Daily list of Solar Ephemeris</a> Here you can see Today's Po, Bo, Lo, Rotation no., RA and Dec. and adjusted SOHO-picture on grid.	
<b>Calculating CV</b>	
For your convenience and security, use the mif2002, <a href="https://www.cv-helios.net/mif2002.xls">https://www.cv-helios.net/mif2002.xls</a> the Monthly Input Form, which you can use for all of your next reportings!	
<b>Monitor MPR daily progress</b>	
<b>CV-Helios Network: Monitor MPR progress as entries are made!</b> Monitor your submissions as they are registered: <a href="https://cv-helios.net/helios/cv/web/mprpost.html">https://cv-helios.net/helios/cv/web/mprpost.html</a> 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	
<b>Registration data</b>	
Check if your CV-observations have been registered: <a href="https://www.cv-helios.net/helios/cv/web/datlist.htm">https://www.cv-helios.net/helios/cv/web/datlist.htm</a> for checking of Entries Summary <a href="https://www.cv-helios.net/helios/cv/web/cvobsmonth.htm">https://www.cv-helios.net/helios/cv/web/cvobsmonth.htm</a>	
<b>CONTRIBUTE WITH YOUR PHOTOS AND OTHER OF INTEREST!</b>	
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: <a href="mailto:cvhelios@gmail.com">cvhelios@gmail.com</a>	
<a href="http://www.cv-helios.net/cvrep2.html">Please check out www.cv-helios.net/cvrep2.html for updates of files!</a>	
<b><u>SUBMISSIONS OF CV-OBSERVATIONS</u></b>	
Log on to: <a href="https://www.cv-helios.net/observations/index.html">https://www.cv-helios.net/observations/index.html</a> 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!	
<b>Last 40 entries Average Time Receipt to Registered: 4 hours 43 minutes</b>	
CV-Helios Network - over 38 years in solar amateur astronomy service!  There are now 11653 entries registered containing 187056 CV-observations!	
<b>Editorial close: 15.08.2020 18:05 UTC</b>	
 <b>CV-Helios Network</b>	