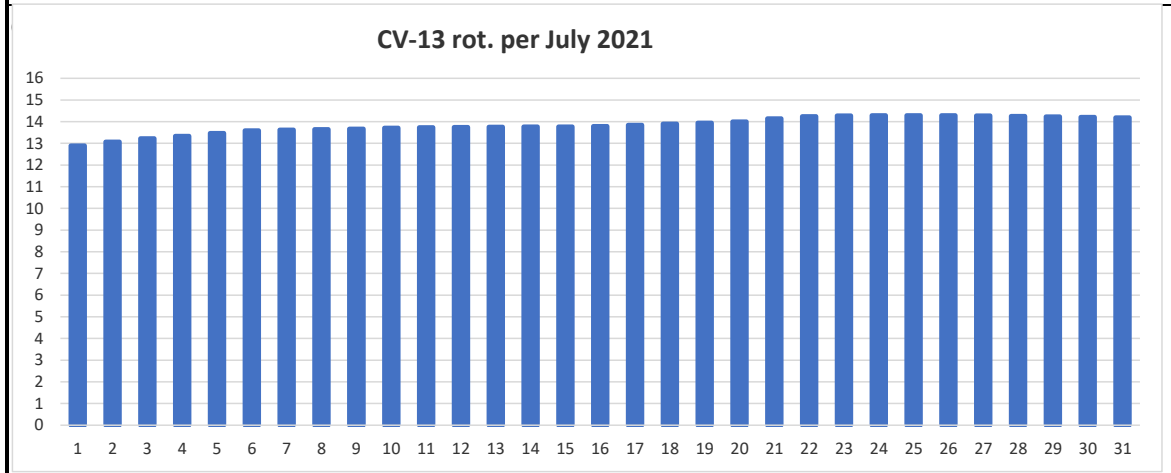
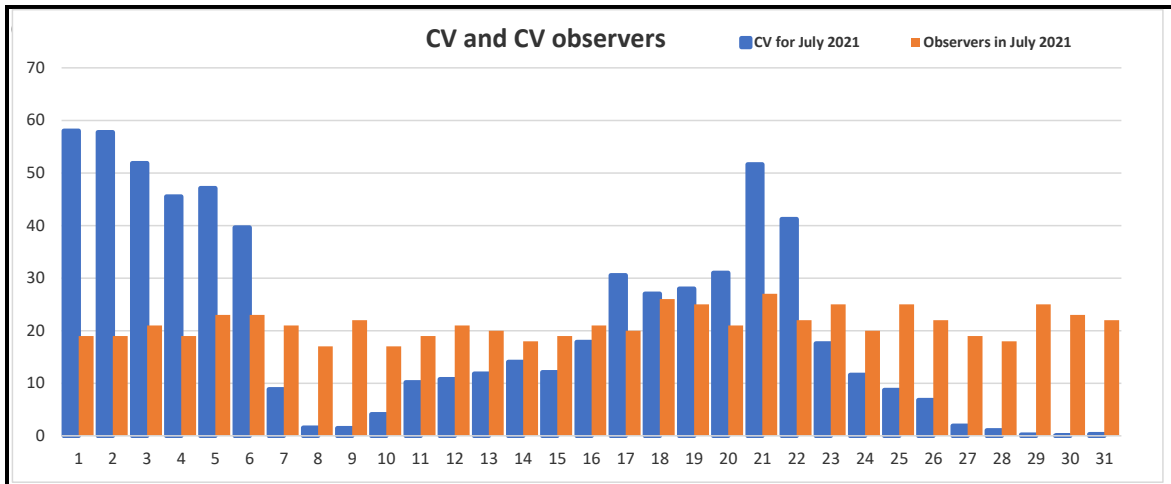




<b>Results</b>						
Date	CV	Obsrvrs	Regions 6 rot.	CV-USAF 6-rot.	CV-6 rot.	CV-13 rot.
1	58,00	19	1,55	12,76	15,56	12,90
2	57,74	19	1,57	13,13	15,79	13,07
3	51,86	21	1,58	13,41	16,00	13,22
4	45,53	19	1,59	13,70	16,14	13,34
5	47,13	23	1,59	13,90	16,34	13,47
6	39,61	23	1,59	14,12	16,50	13,59
7	8,86	21	1,59	14,09	16,47	13,62
8	1,53	17	1,59	14,00	16,41	13,65
9	1,45	22	1,59	14,01	16,33	13,67
10	4,12	17	1,59	14,06	16,32	13,71
11	10,16	19	1,60	14,13	16,33	13,74
12	10,76	21	1,60	14,20	16,35	13,75
13	11,80	20	1,60	14,26	16,39	13,76
14	14,06	18	1,61	14,33	16,47	13,76
15	12,11	19	1,62	14,40	16,50	13,77
16	17,86	21	1,63	14,46	16,55	13,80
17	30,55	20	1,65	14,55	16,67	13,85
18	27,04	26	1,66	14,78	16,81	13,90
19	27,96	25	1,67	15,04	16,92	13,95
20	31,00	21	1,69	15,27	17,06	14,00
21	51,63	27	1,72	15,71	17,35	14,15
22	41,23	22	1,75	15,88	17,54	14,24
23	17,57	25	1,77	15,95	17,61	14,27
24	11,57	20	1,77	16,01	17,68	14,29
25	8,71	25	1,78	16,04	17,72	14,29
26	6,79	22	1,79	16,06	17,76	14,29
27	1,89	19	1,79	16,08	17,77	14,27
28	1,06	18	1,79	16,08	17,80	14,26
29	0,23	25	1,79	16,08	17,74	14,23
30	0,01	23	1,79	16,08	17,70	14,21
31	0,33	22	1,79	16,08	17,67	14,19
Totals/ Avrgs	<b>3,96</b>	<b>27,3</b>	<b>0,97</b>	<b>4,83</b>	<b>16,85</b>	<b>13,84</b>



**Sunspot Region Summary for July 2021 (last 10)**

Reg-First day-Last day-Lat.-Lon.-Rot.-CVavg.-ZMcl day1 to day14  
 2835,25.06.21,06.07.21,-18,053,2245-DSO,DSO,DSO,DSI,EKI,EKI,EKC,DKC,DKC,DKC,CKO,HXX,,  
 2836,27.06.21,03.07.21,-27,059,2245-CRO,CRO,CRO,CRO,HSX,AXX,AXX,,,,,  
 2837,28.06.21,06.07.21,17,009,2245-HSX,HRX,HRX,BXO,DRO,BXO,BXO,AXX,AXX,,,,,  
 2838,03.07.21,03.07.21,24,100,2245-CRO,,,,,,,,,,,,,  
 2839,04.07.21,09.07.21,19,321,2245-CRO,CAO,CRO,AXX,AXX,AXX,,,,,  
 2840,06.07.21,08.07.21,27,035,2246-BXO,BXO,BXO,,,,,,,,,,,,,  
 2841,09.07.21,12.07.21,-18,234,2246-BXO,BXO,BXO,AXX,,,,,,,,,,,,,  
 2842,10.07.21,22.07.21,25,201,2246-HSX,HSX,HSX,HSX,HSX,HSX,CSO,DSO,DSI,DAI,DSI,CSO,  
 2843,14.07.21,17.07.21,-17,271,2246-AXX,AXX,BXO,AXX,,,,,,,,,,,,,  
 2844,16.07.21,18.07.21,-43,138,2246-AXX,AXX,AXX,,,,,,,,,,,,

**:Product: Weekly Highlights and Forecasts**

:Issued: 2021 Aug 09 0352 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  
 02 - 08 August 2021

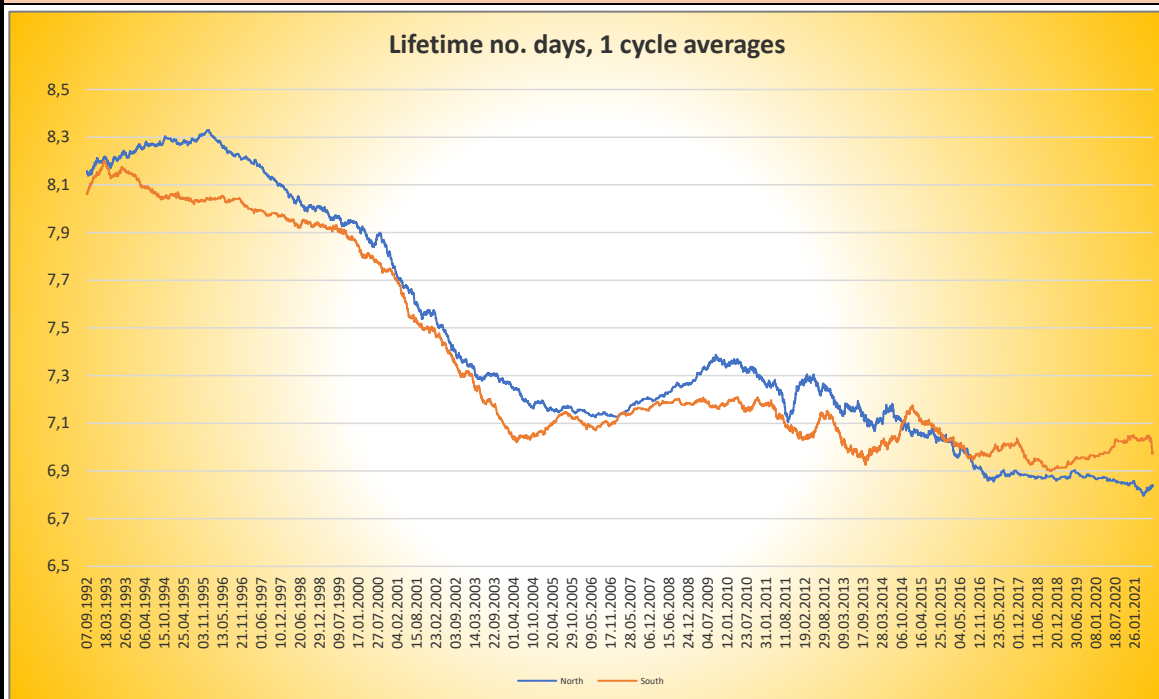
Solar activity was at very low levels. An isolated C1 flare peaked at 09/0004 UTC just after the reporting period from new Region 2853 (N23, L=192, class/area Axx/010 on 08 Aug). The single spot just appeared late on 08 Aug but was preceded by an area of active plage which rotated onto the visible disk on 06 Aug. No Earth-directed CMEs were observed.

No proton events were observed at geosynchronous orbit.

The greater than 2 MeV electron flux at geosynchronous orbit reached high levels on 04-05 Aug with a peak flux of 1,570 pfu observed at 05/1725 UTC.

Geomagnetic field activity ranged from quiet to G1 (Minor) geomagnetic storming. An enhancement in the IMF field began at 02/0900 UTC, likely from a glancing blow from the 28 Jul CME. Total

## Monthly graph



**The above graph shows the development in average lifetime of sunspot regions.  
Lifetime today: 6,91 days average = 84,2% of max Lifetime 01.03.1993 which was 8,21 days.**

## News July 2021

Solar activity is still low but number of regions are slowly increasing.  
As shown in this issue, the CV as 13-rot. centered averages are now higher than for solar cycle 24 at the same time of progress from minimum!

There were a total of 12 sunspot regions developing in July 2021.

## SUNSPOT REGIONS 01.07-31.07

Reg.-First-Last--Lat.-Long.-Rot.-Area(a.) -Lgth.(l.) - CV - history (h.)

2835: 25.06-06.07-S18-053 (2245) - a.407- 1.9- CV 41- h. DSO-DSO-DSO-DSI-EKI-EKI-EKC-DKC-DKC-DKC-CKO-HKX

2838: 03.07--3.07-03.07-N24-100 (2245)- a. 30-1.4- CV 5- h. CRO

2842: 10.07--0.07-22.07-N25-201 (2246)- a. 62-1.3- CV 15- h. HSX-HSX-HSX-HSX-HSX-HSX-HSX-CSO-DSO-DSI-DAI-DSI-CSO

2846: 19.07--9.07-27.07-N25-085 (2246)- a. 47-1.5- CV 6- h. HSX-CSO-CSO-CRO-CRO-CRO-CRO-BXO-BXO

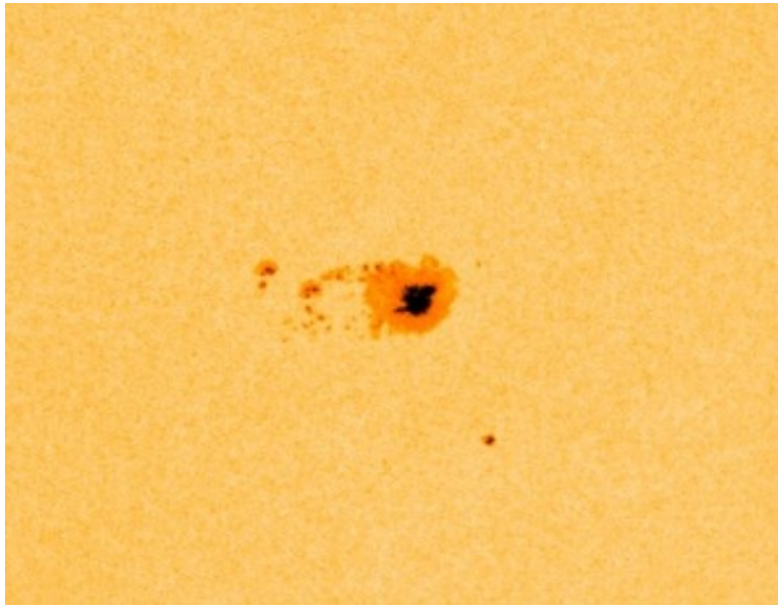
The above mentioned regions were the 4 only out of 12 regions appearing in July.  
Especially from the 1st until the 7th there were according to NOAA multiple C.class flares that was produced.  
They mainly came from regions 2835 and 2838.  
In combination with region 2842 this was also the case on the 20th.  
Large filaments were observed on the 11th and 31st.

Region 2844 (S43-138-rot 2246) was a very rare sunspotregion,  
a small HAX that lived for three days only but surrounded with active faculae.  
The extreme latitude of this region are only superseded by 7 regions  
in history 1982 until today.  
The last time this happened in the sun's southern hemisphere was in late June 2001  
when two regions appeared at S48.  
The last time it happened on the northern hemisphere was in May 2010 when  
a region appeared at N42 latitude.  
From 15 August 1981 until 18 July 2021 the totals are:  
NORTH 4310 regions (47% of all) average latitude 15,16 heliographic degrees  
SOUTH 4917 regions (53% of all) average latitude 15,42 heliographic degrees

We wish you all lots of sunny days, happy observing and good luck further on in 2021!

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

**Pictures from last month - Observer contributions, etc.**



**CV-Helios Network  
is 40 years  
on 15 August 2022**



**40**

15Aug1981 - 15Aug2021

**Largest Regions of July 2021**

Region 2835 (upper)  
Region 2836 (lower)  
on July 01, 2021  
courtesy SDO/HMI NOAA gov




**Awards this month** 0

none

**New members:** **Welcome to:**

**none** none

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 and SDO on grid</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 mif2021, <a href="https://www.cv-helios.net/mif2021.xlsx">https://www.cv-helios.net/mif2021.xlsx</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 (please allow up to 24 hrs): <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</a> for updates of files!		
<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>Average Registration time over last 40 entries: 10 hours 31 minutes</b>		
<p><b>CV-Helios Network</b> - over 40 years in solar amateur astronomy service!</p> <p>There are now Entries reg.: 12101 entries registered containing 195014 CV-observations! Last 12 months 7766 CV-observations from 48 observers originating from 17 countries</p>		
<b>Editorial close: 15.08.2021 18:18 UTC</b>		
 <p><b>40</b> years</p>	 <p><b>CV-Helios Network</b></p>	 <p><b>40</b> years</p>