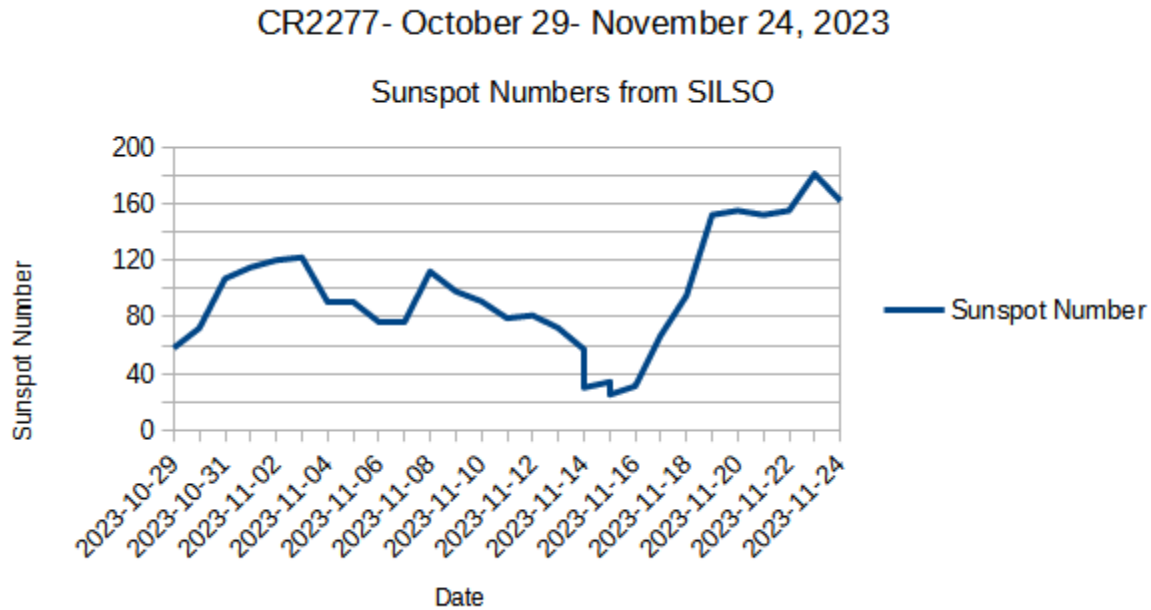


Carrington Rotation Report CR2277-CR2279 (October 29, 2023 – January 18, 2024)
 Kim Hay

CR2277 October 29- November 24, 2023

Information from SILSO Monthly reports



This rotation cycle was chaotic with sunspot activity. The most active groups (Those with E or F designations in magnetics) during this cycle were AR3479, AR3489, AR3490, AR3492.

The highest number of sunspots noted by SILSO was on November 23, 2023, with 181 and the lowest dip was 25 on November 17, 2023.

The C flares dominated this rotation at 138, M flares at 10 and with no X class flares noted.

Flares (Rotation)	C	M	X
	138	10	

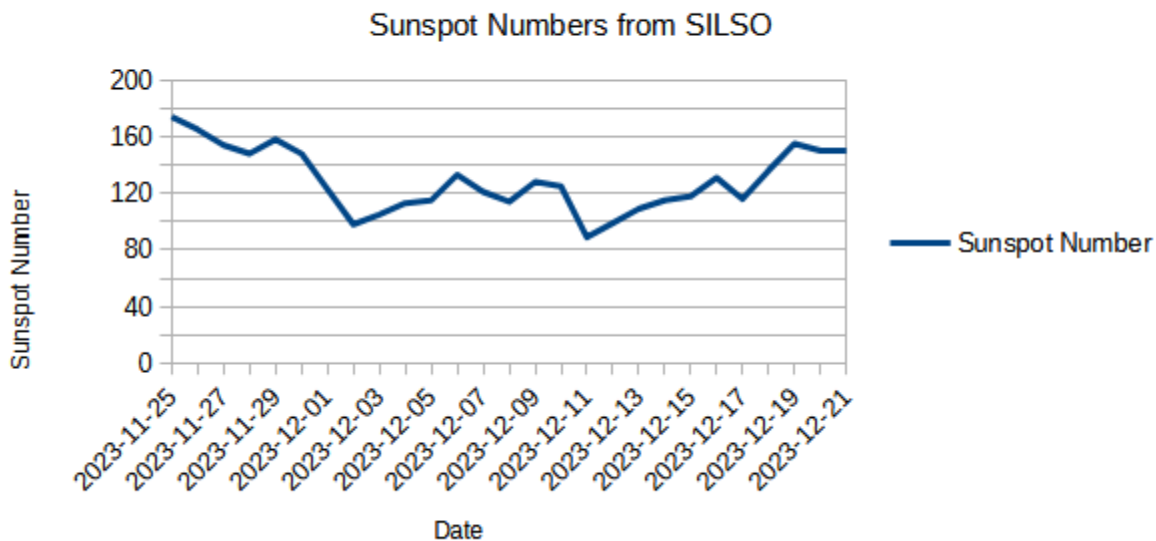
Sunspot Groups (Introduced in Rotation)	North	South
	16	14

CR2277 358 Images submitted 11 Observers

NAMES	WL	HAWL	HA	CAK	CAK/WL
DVDTSK	X	X	X		
EFRNMRLS			X		
FRNMILO	X		X		
GEVDBU	X				
GLHGRSM			X	X	
HWESK	X		X	X	
JMKVTY	X		X	X	
KIMHAY	X		X		
RKHLL				X	X
THRMK	X		X	X	
VDSLJV			X		

CR2278 (November 25- December 21, 2023)

CR2278 November 25- December 21, 2023



Flares (Rotation)	C	M	X
	242	20	1

Sunspot Groups (Introduced in Rotation)	North	South
	16	13

Imagers CR2278 387 Images submitted 9 Observers

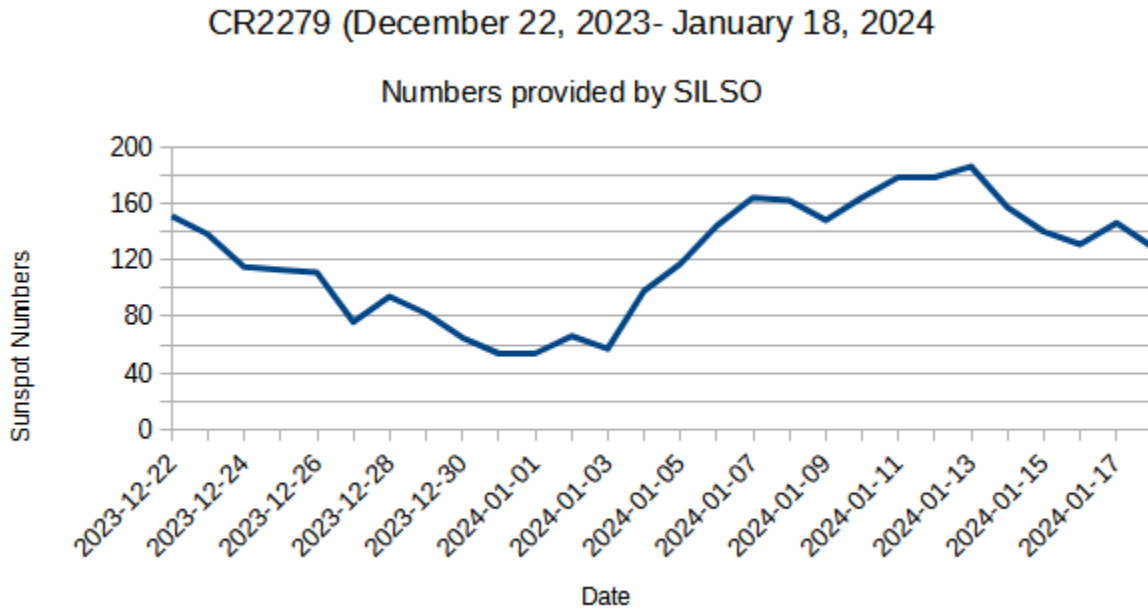
Names	WL	HAWL	HA	CAK	CAK/WL
DVDTSK	X	X			
FRNMILO	X		X		
GLHGRSM			X	X	
HWESK	X		X	X	
JMKVTY	X		X	X	
MKTH	X		X		
RKHLL			X		X
THRMK	X		X	X	
VDSLJ			X		

The sunspot count during this rotation seemed to be less chaotic but ranged from the highest on November 25, 2023, of 174 to a low of 89 sunspots on December 11, 2023. The numbers were provided by SILSO.

The most active groups (i.e., those with E or F designations in magnetics) during this cycle were AR 3492, AR3500, AR3511, AR3513, AR3514, AR3519.

C Class flares dominated this rotation as well almost twice that of CR2277, while the M class flares doubled this rotation from CR2277 with a total of 20. There also was one X2.87 class flare produced by AR3514 at 17:02 UTC.

CR2279 December 22, 2023- Jan 18, 2024



The numbers provided by SILSO show the highest peak of sunspot numbers at 186 on January 13, 2024, and the lowest number at 53 on December 31, 2023. On December 31, 2023, AR3536 produced an X 5.0 flare, even before its magnetics changed from Hax to Eai on January 1, 2024.

The most active groups (those with E or F designations in magnetics) during this Cycle were AR3529 and AR3536. The Sunspot Group AR3536 produced an X5 flare on December 31, 2023. This group had not even rotated onto the Earth facing side yet. This is quoted as the strongest flare of Cycle 25 so far.

The C class flares were a bit lower this rotation, along with the M class flares, but the one X class flare has been the strongest one yet.

The Northern Hemisphere is still leading with sunspot activity.

Flares (Rotation)	C	M	X
	208	9	1

Sunspot Groups (Introduced in Rotation)	North	South
	15	14

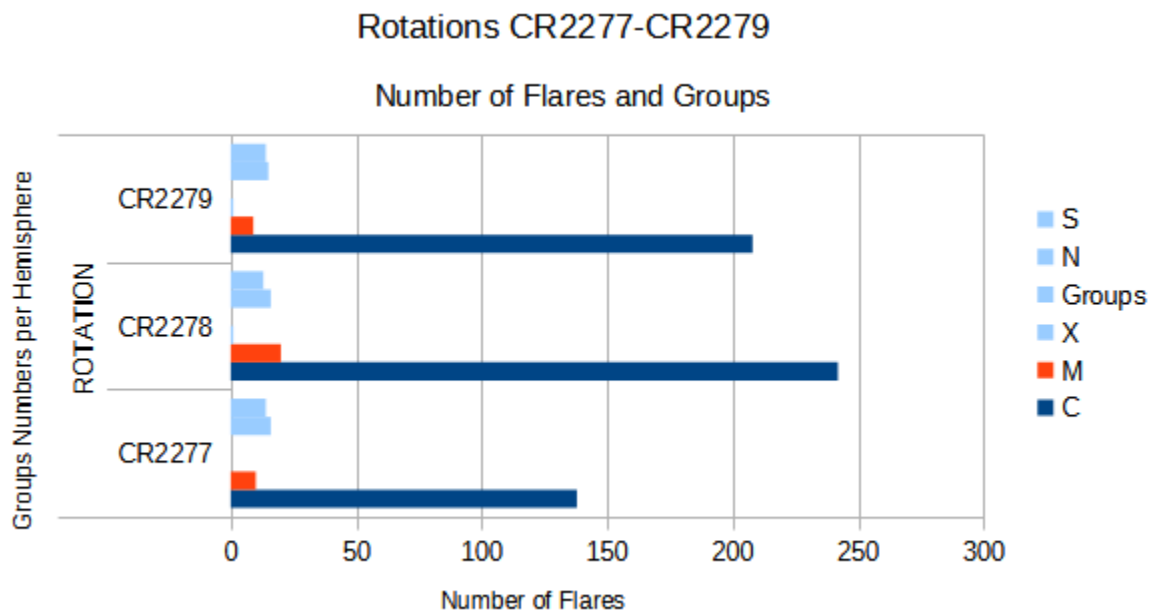
CR2279 362 Images submitted 10 Observers

Names	WL	HAWL	HA	CAK	CAK/WL
DVDTSK	X	X	X		
EFRNMRLS			X		
GEVDBU			X		
GLHGRSM			X	X	
HWESK	X		X	X	
JMKVTY	X		X	X	
MKTH	X		X		
RKHLL			X		X
THRMK	X		X	X	
VDSLJ			X		

Summary of the last three rotations (CR2277-CR2279) shows that the Northern Hemisphere is still dominating in Sunspot groups.

The submissions of observations and from observers was lower, but weather around the world had not been the greatest, with lots of rain and cloud, with some unexpected snow in some regions.

Just a quick graphic on the number of sunspot groups and flares-



Rotations CR2280-CR2282 will be reported on when SILSO releases the April Sunspot numbers.

Index

Names of Observers during CR2277-CR2279

Dvdtsk	David Teske	MkTh	Michael Teoh
EfrnMrls	Efrain Morales	Rkhll	Rik Hill
FrnMilo	Frank Mellilo	ThRmk	Theo Ramakers
GevDbU	Gerd Vanderbulcke	VdslvJ	Vlamiir da Silva Junior
GlhGrsm	Guilherme Grassmann		
HwEsk	Howard Eskildsen		
JmKvTy	James Kevin Ty		
KimHay	Kim Hay		

Legend

WL – White Light

HAWL-Hydrogen Alpha & White Light

HA- Hydrogen Alpha

CAK- calcium K

CAK-WL-Calcium K and White Light

OIII- Oxygen III

References

SILSO <https://www.sidc.be/SILSO/home>

Space Weather Live www.spaceweatherlive.com

Space Weather spaceweather.com

A.L.P.O. Image Gallery – Solar Section