

# Developing Space Weather Data Sets for NOAA's Science On a Sphere®

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[http://sos.noaa.gov/Showcase/#SOS\\_Photo\\_Showcase](http://sos.noaa.gov/Showcase/#SOS_Photo_Showcase) – Photo by Casey Cass

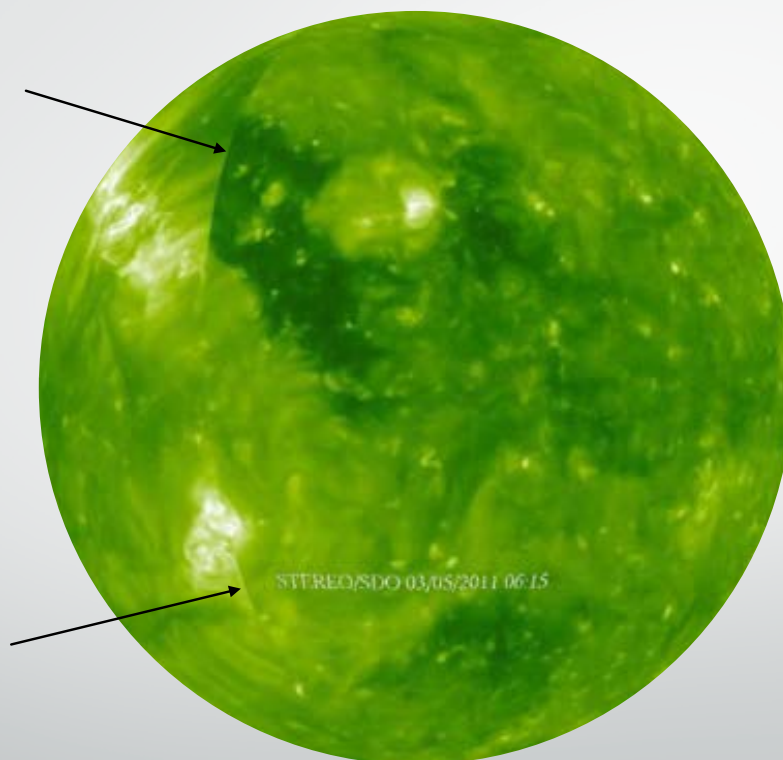


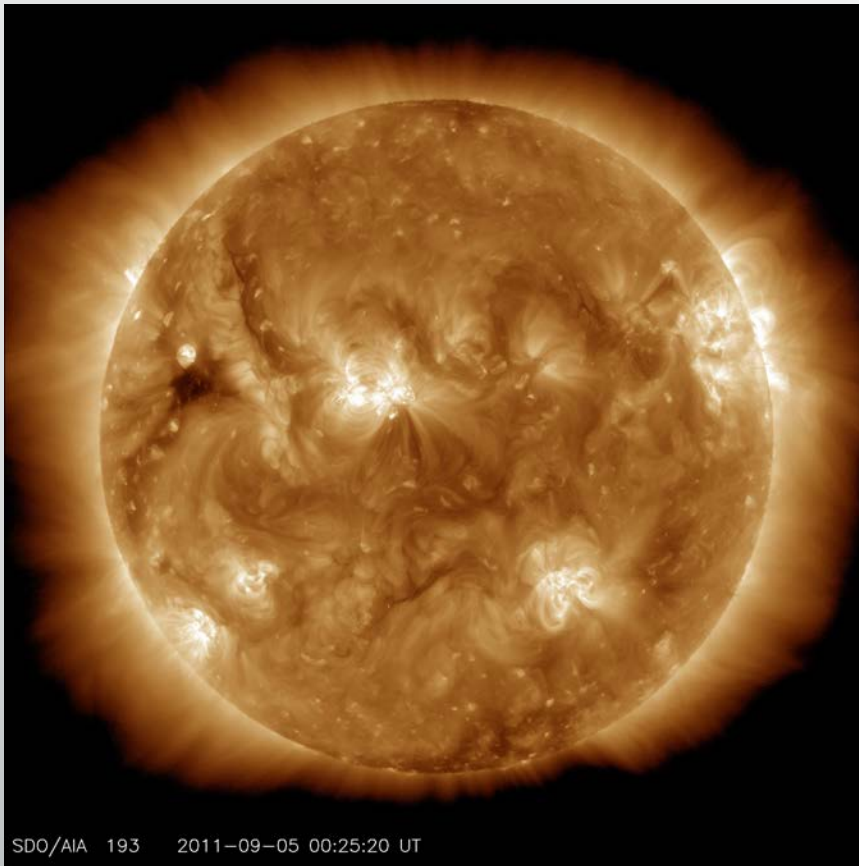
[http://sos.noaa.gov/Showcase/#SOS\\_Photo\\_Showcase](http://sos.noaa.gov/Showcase/#SOS_Photo_Showcase) – Photo provided by NOAA

## Current Models of our Sun on SOS®

- [http://sos.noaa.gov/videos/nasa\\_stereo.mov](http://sos.noaa.gov/videos/nasa_stereo.mov)
- <http://sos.noaa.gov/Datasets/dataset.php?id=265#>
- <http://sos.noaa.gov/Datasets/dataset.php?id=267#>

## Current Data Set - STEREO

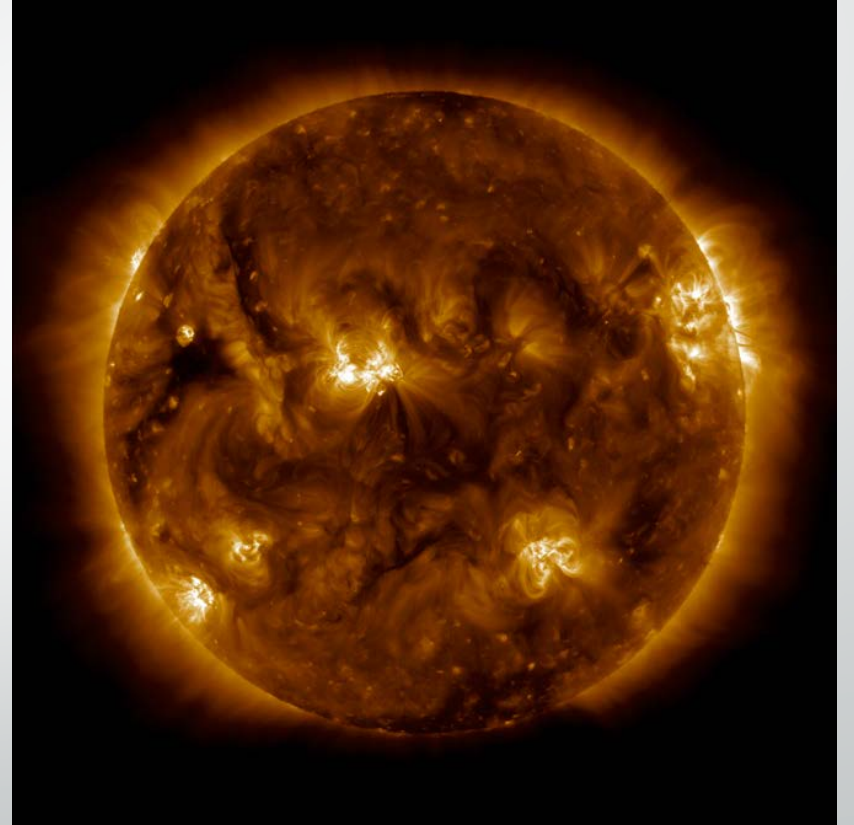
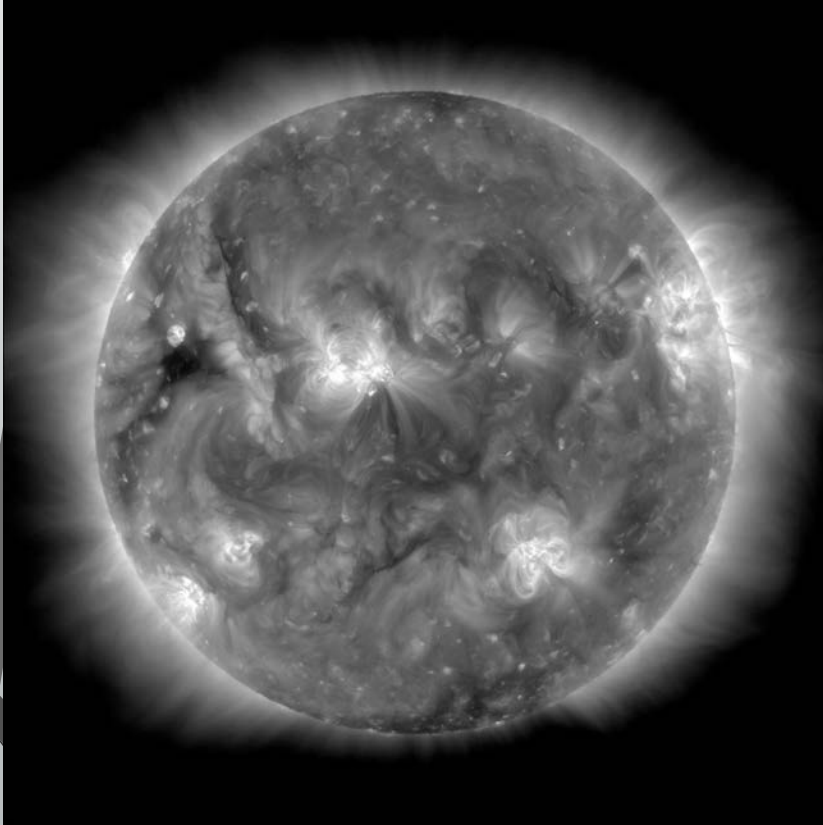


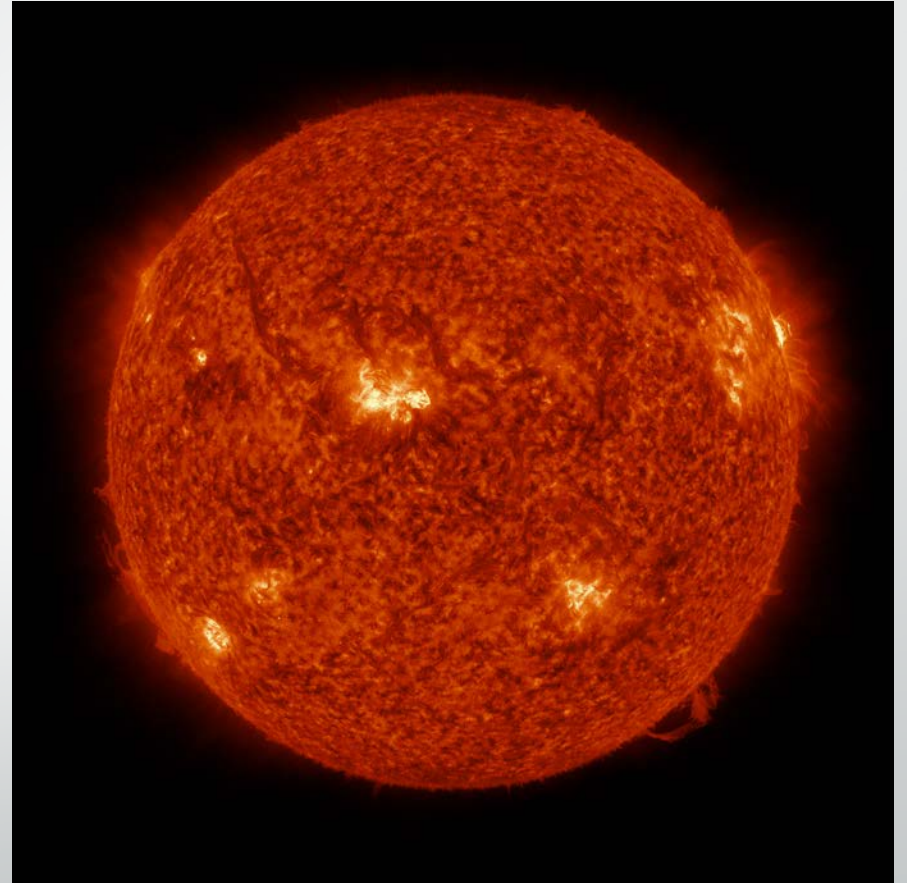
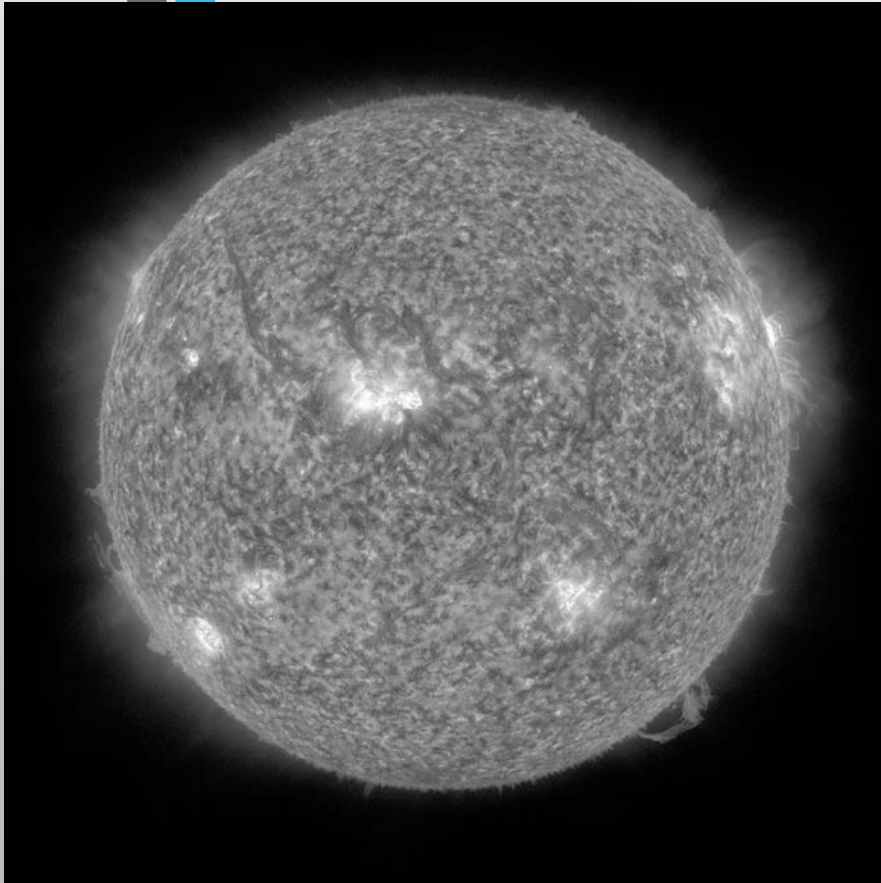


# Original SDO/AIA Image – PNG

<http://sdo.gsfc.nasa.gov/assets/img/browse/2011/09/>

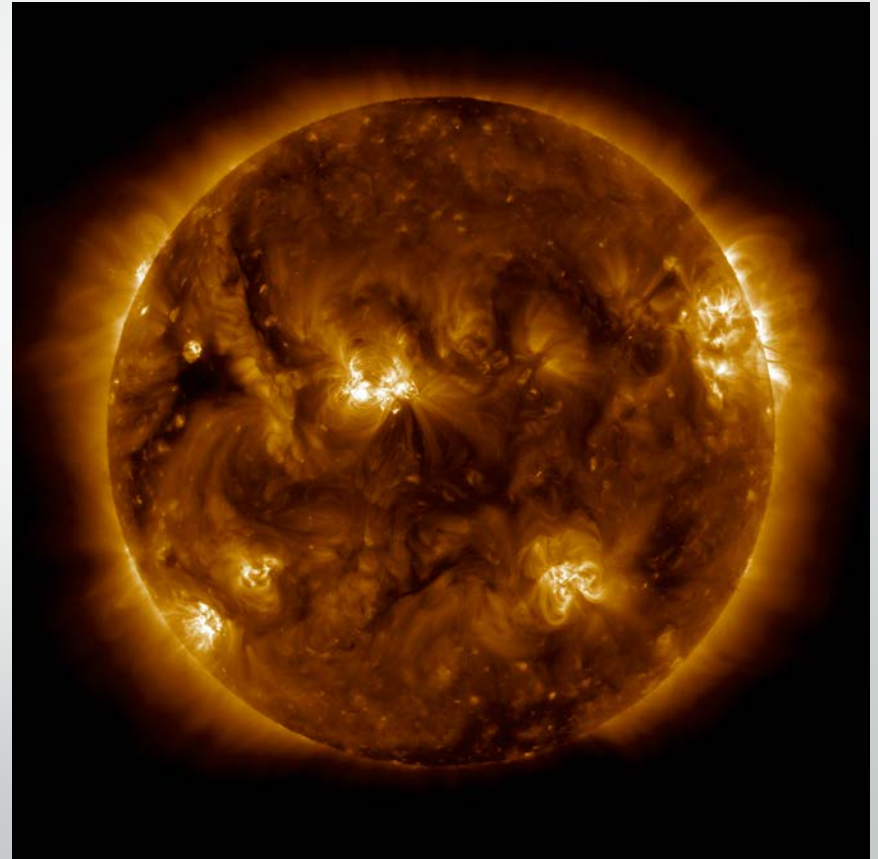
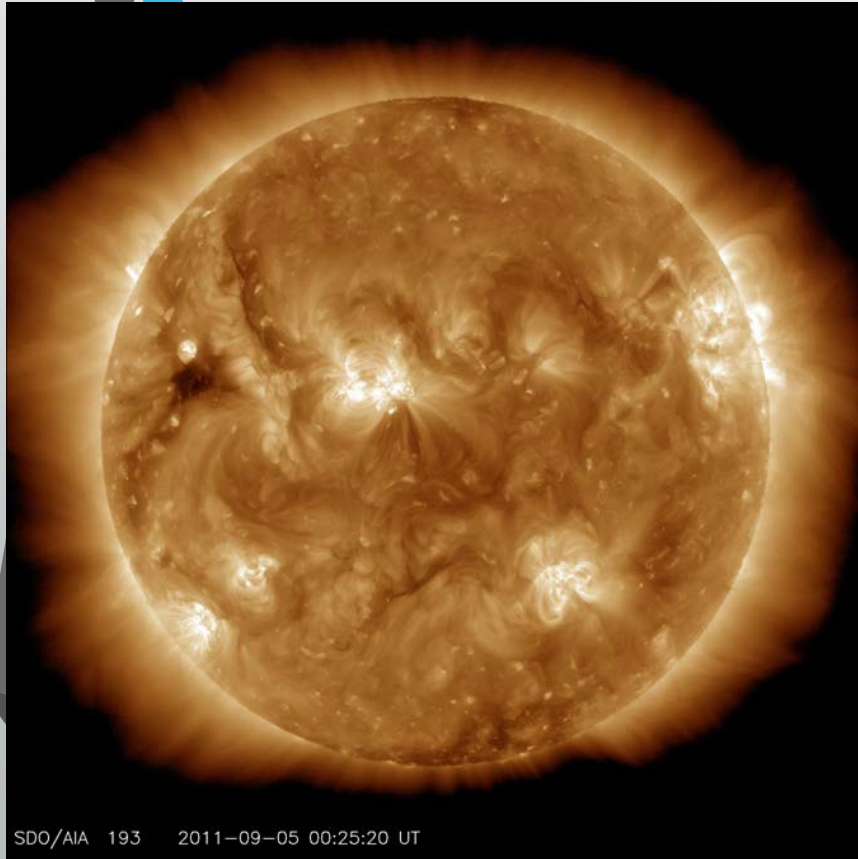
## JPEG 2000 Images

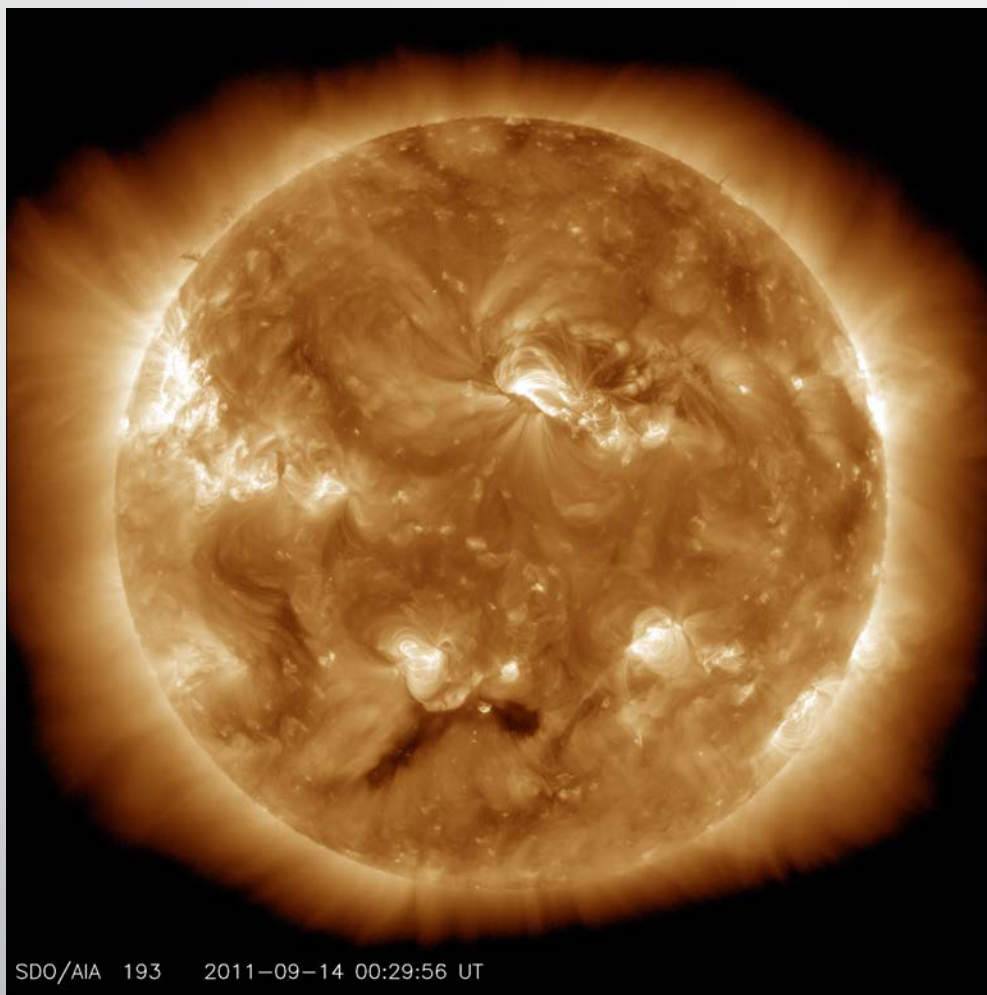






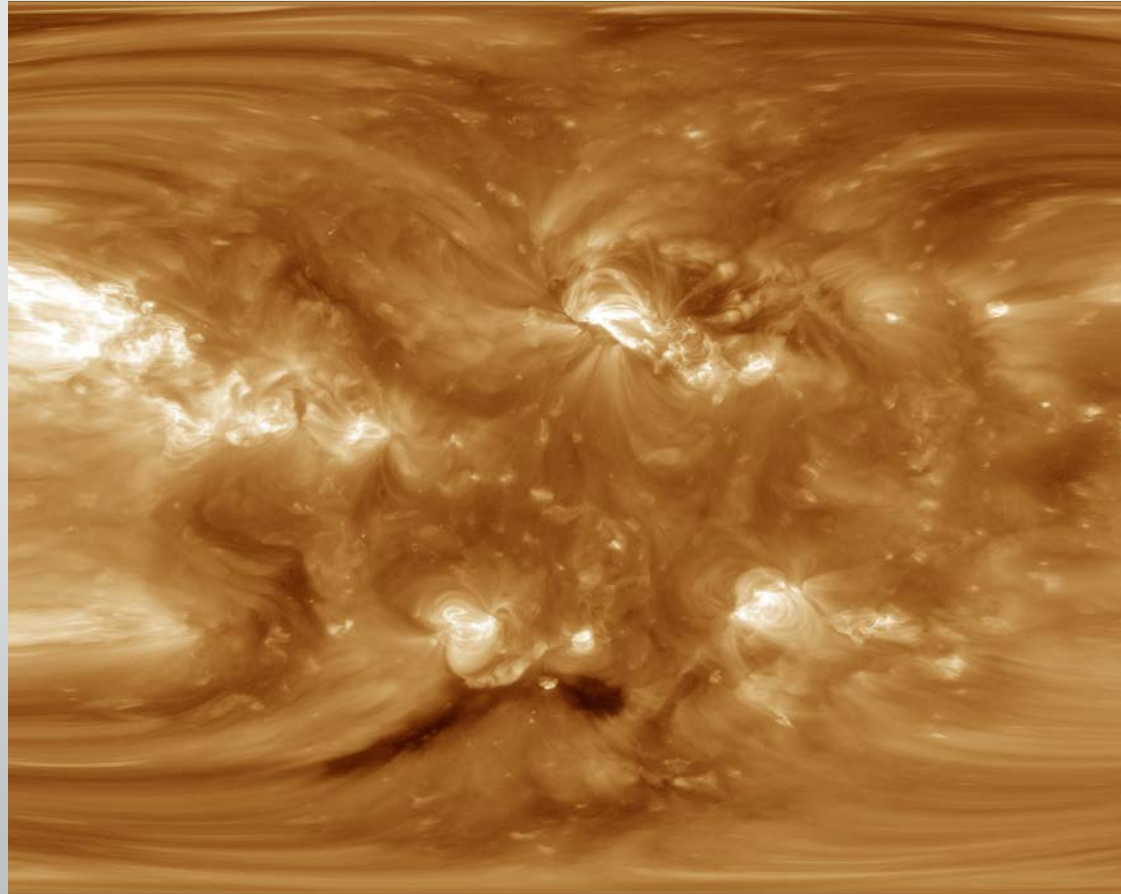
## PNG vs. edited JPEG2000



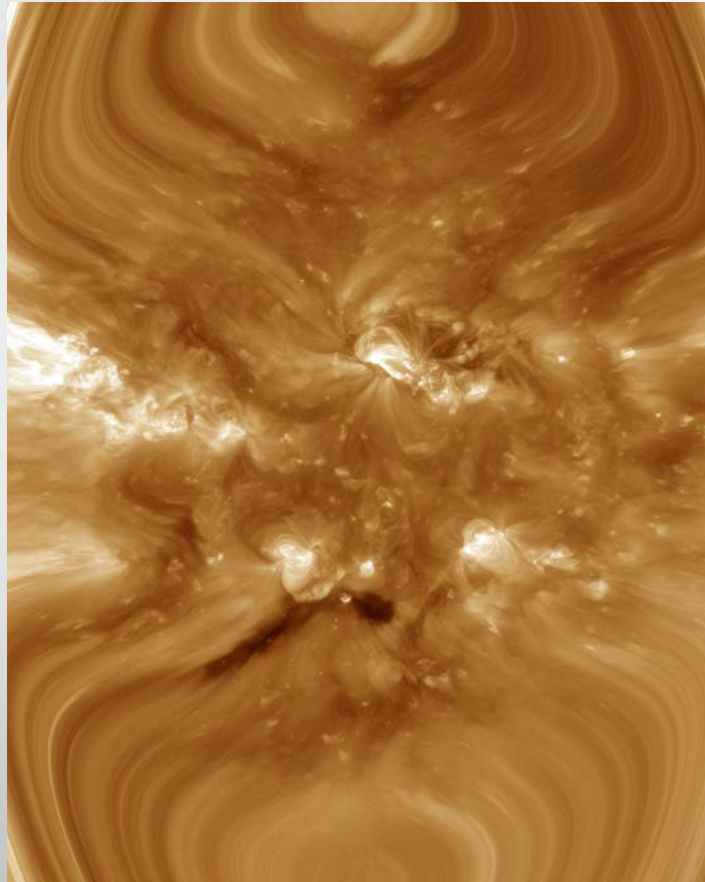


SDO/AIA 193 2011-09-14 00:29:56 UT

## First Edit – Original Method



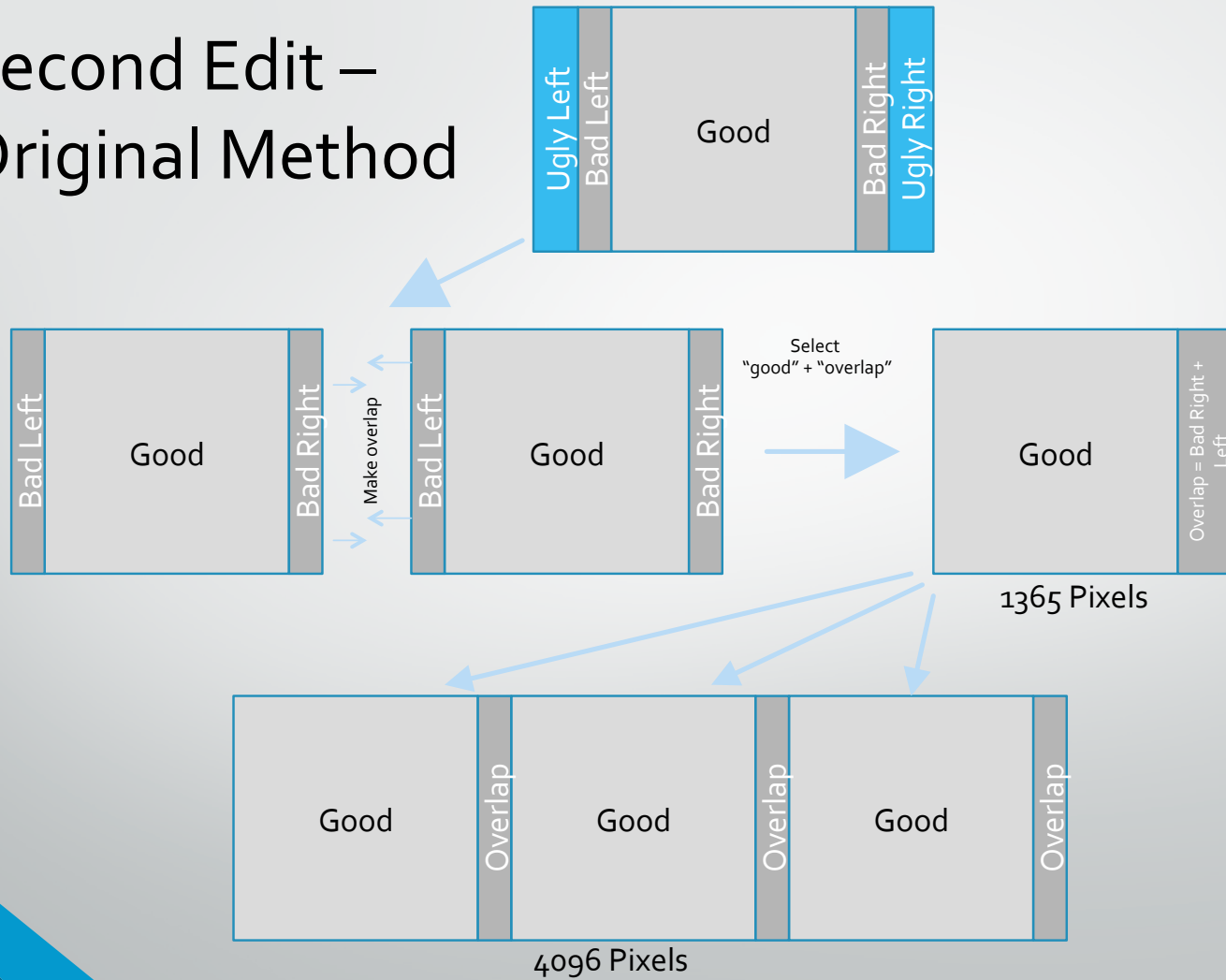
# First Edit – Second Method



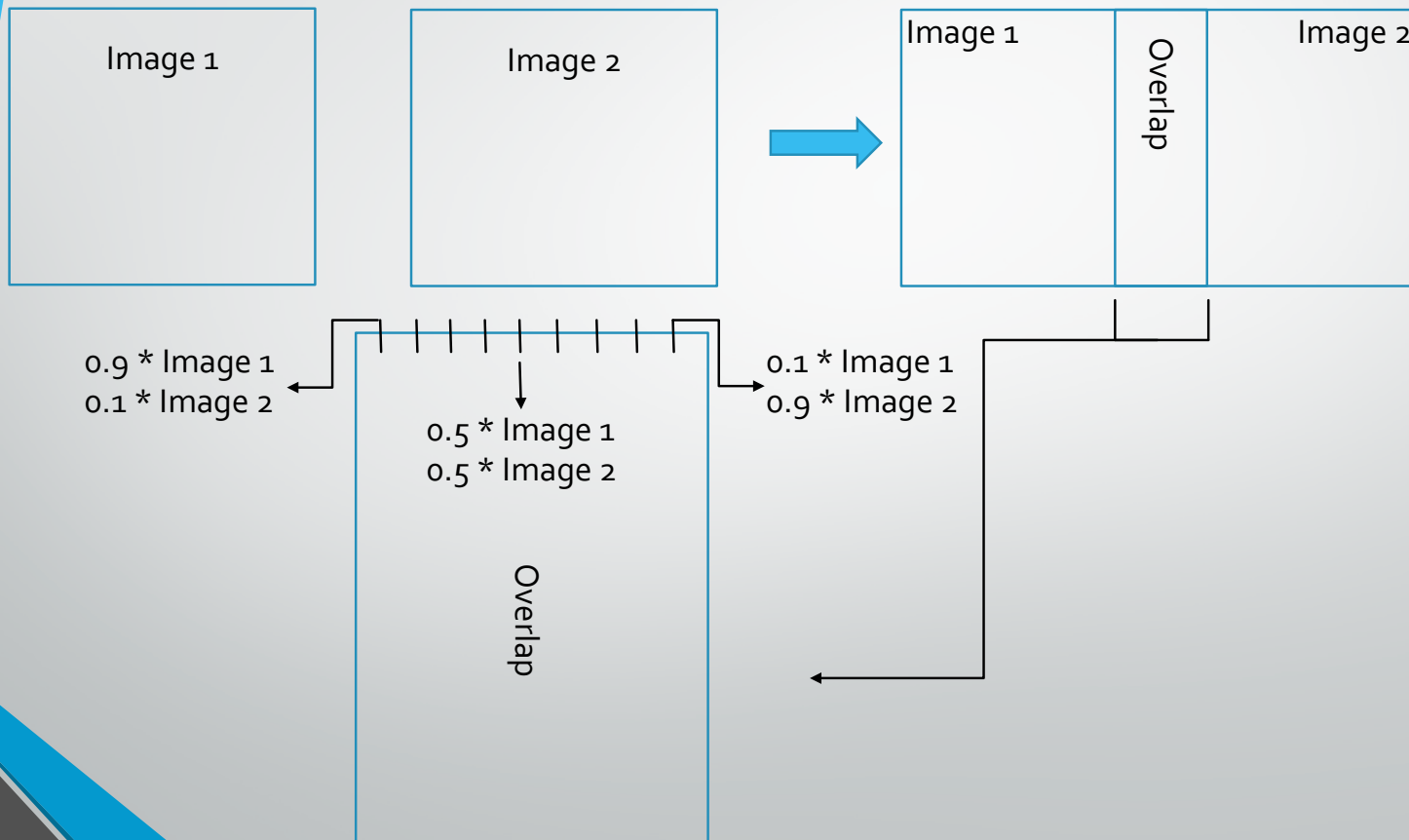
# Solarsoft

- Why didn't we use it?

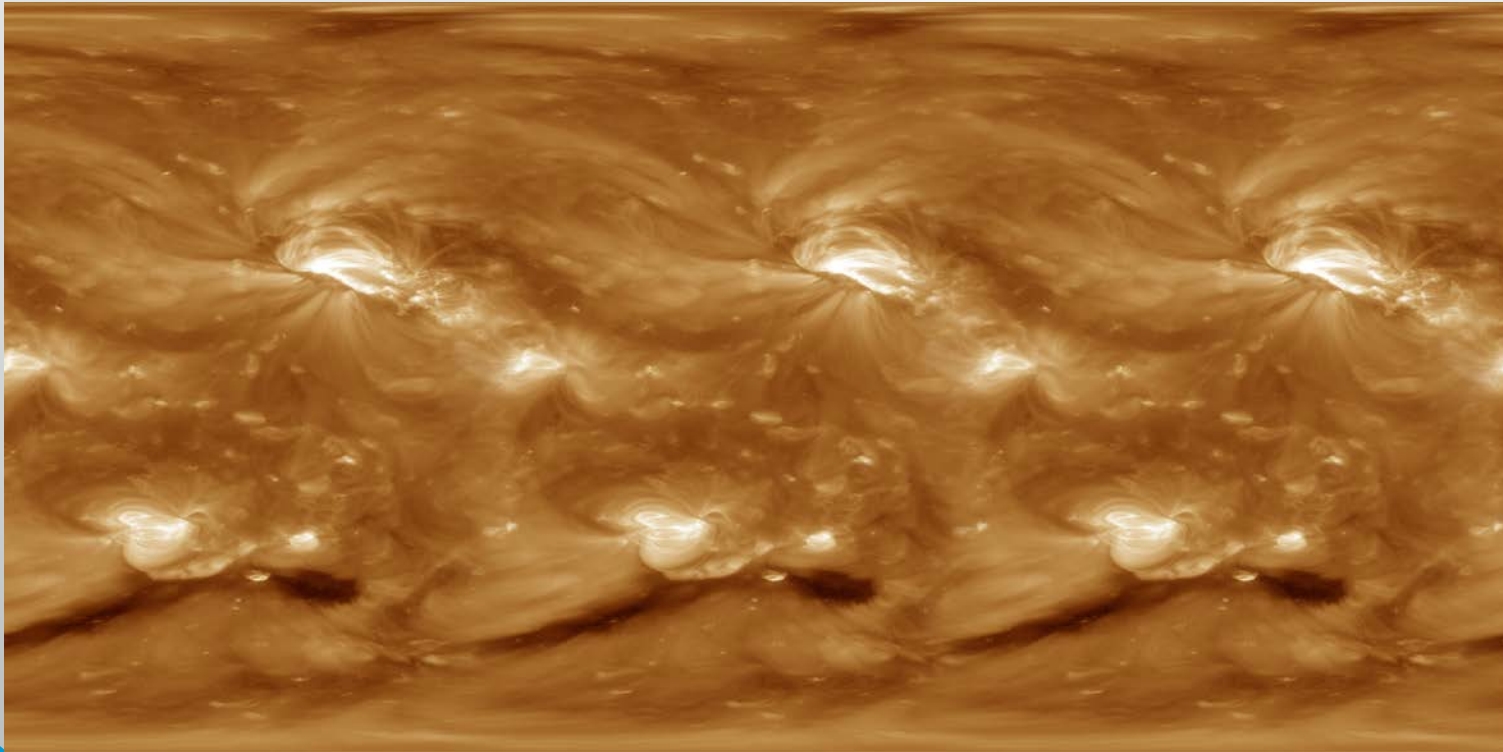
# Second Edit – Original Method



# The Blending Process

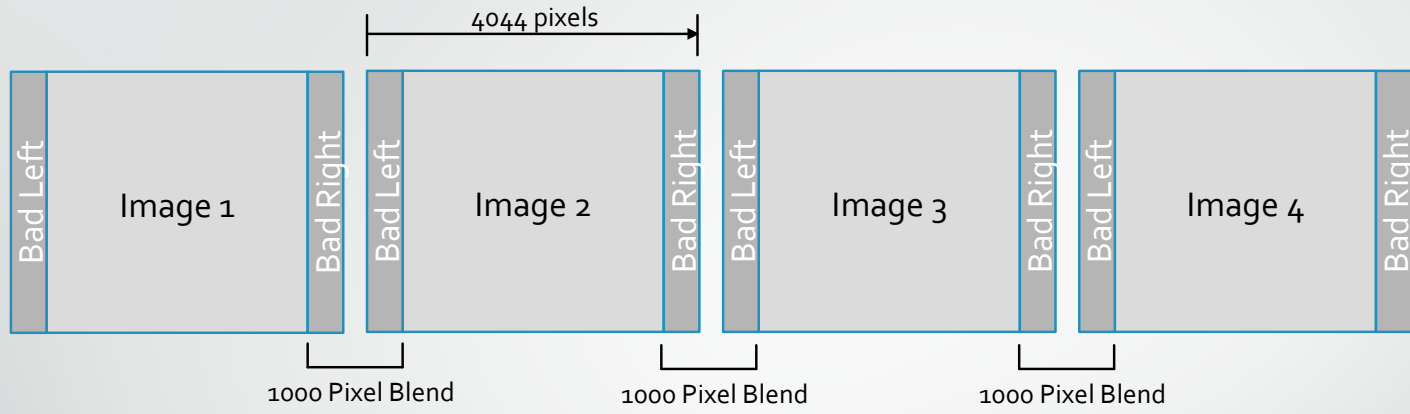


## Second Edit – Original Method





## Second Edit – Second Method

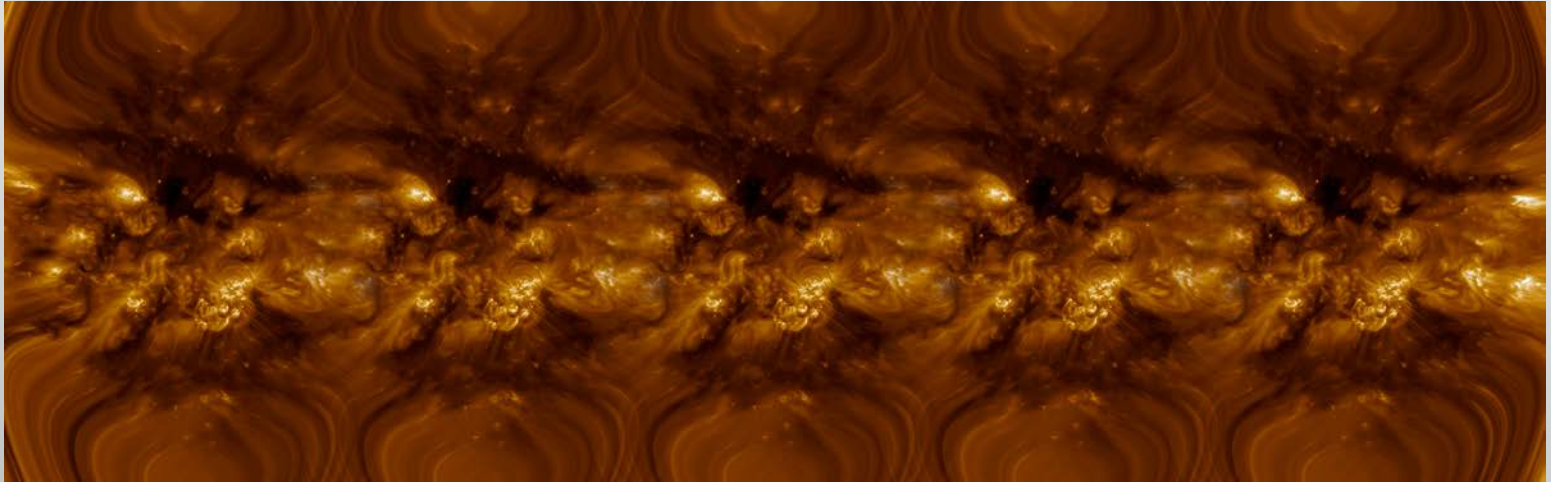


- 1) Clipped from 1,000:10,132
- 2) Resized to 4096 x 2048

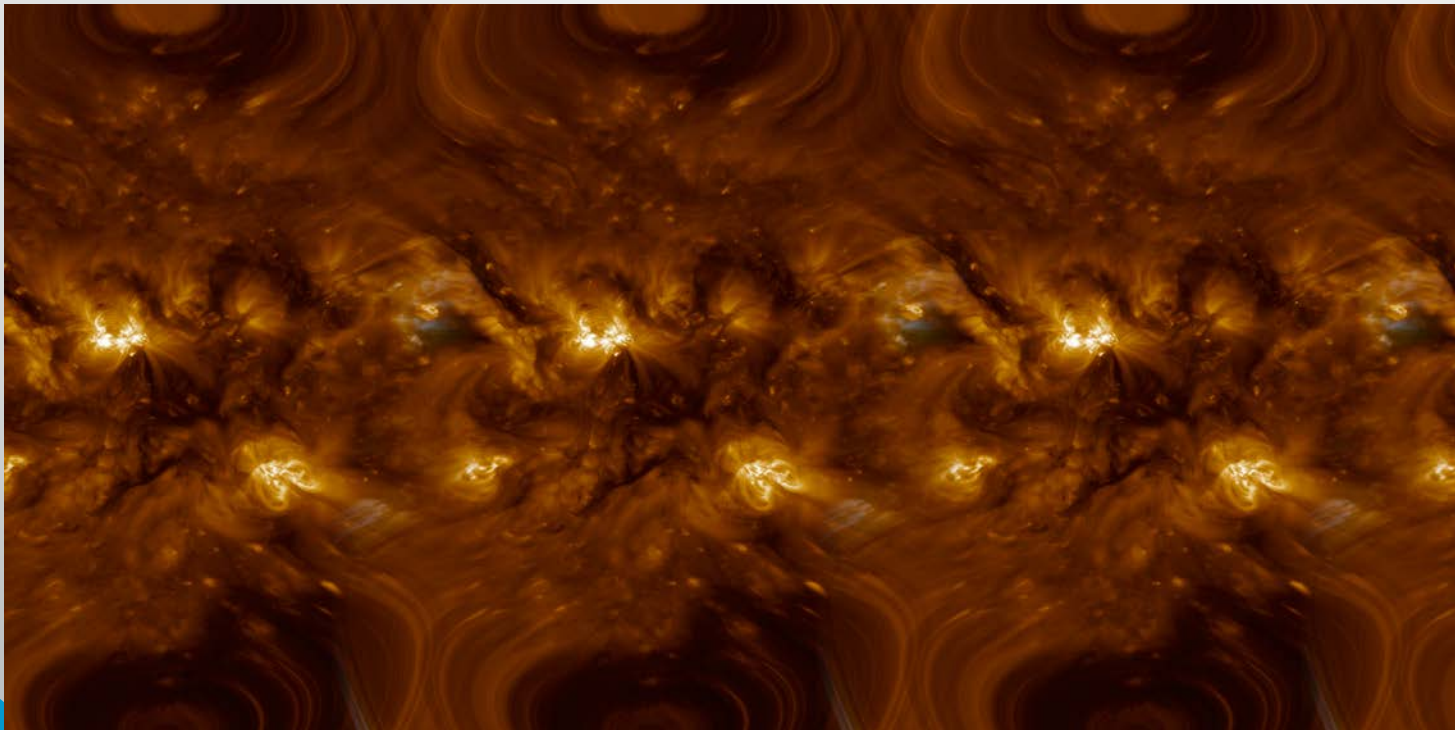


Image ready to be mapped onto SOS®

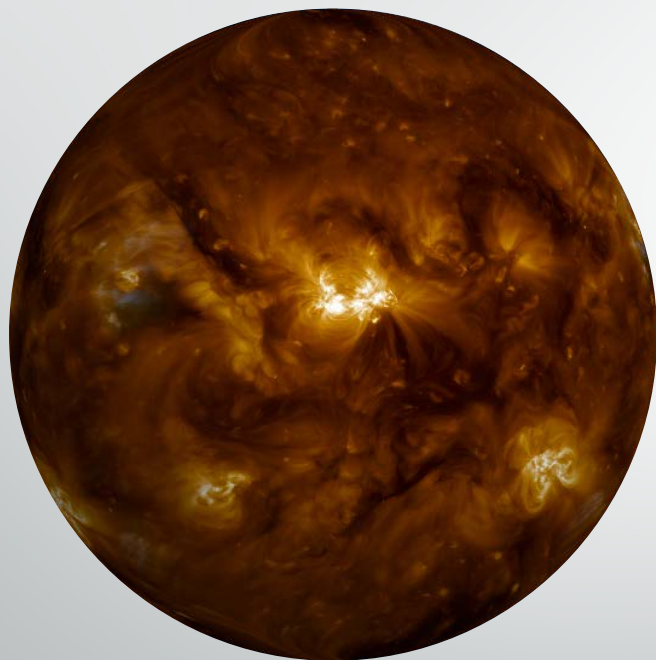
# Second Edit – Second Method Step 1



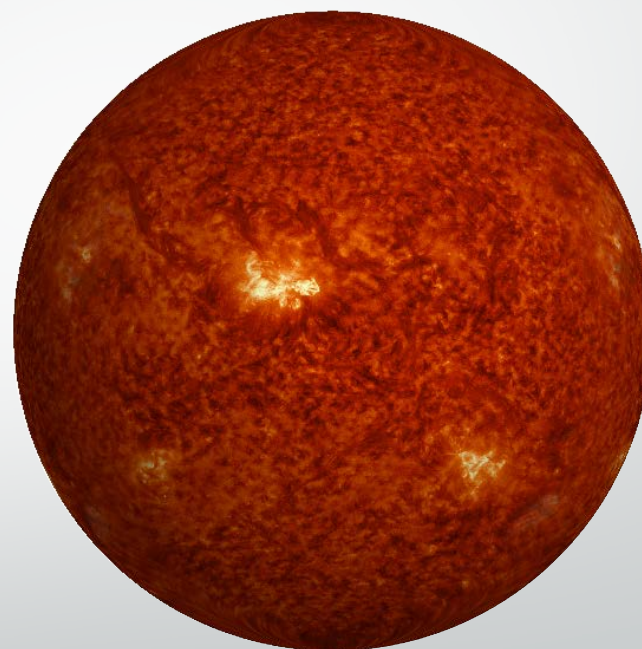
## Second Edit – Second Method Step 2




## Images mapped onto a Sphere




193 A



304 A



First Working Sequence(LIGHT) – September 14<sup>th</sup> to September 24<sup>th</sup>, 2011  
193 A



Movie Sequence (Darker) – September 5<sup>th</sup> to September 9<sup>th</sup>, 2011  
193 A

# Sequences on the Sphere!

- Show Videos!

# Acknowledgements

- Rodney Viereck
- Marty Snow
- Erin Wood
- LASP
- NOAA/SWPC