Randy Shivak

Randy Shivak, Armature Astronomer

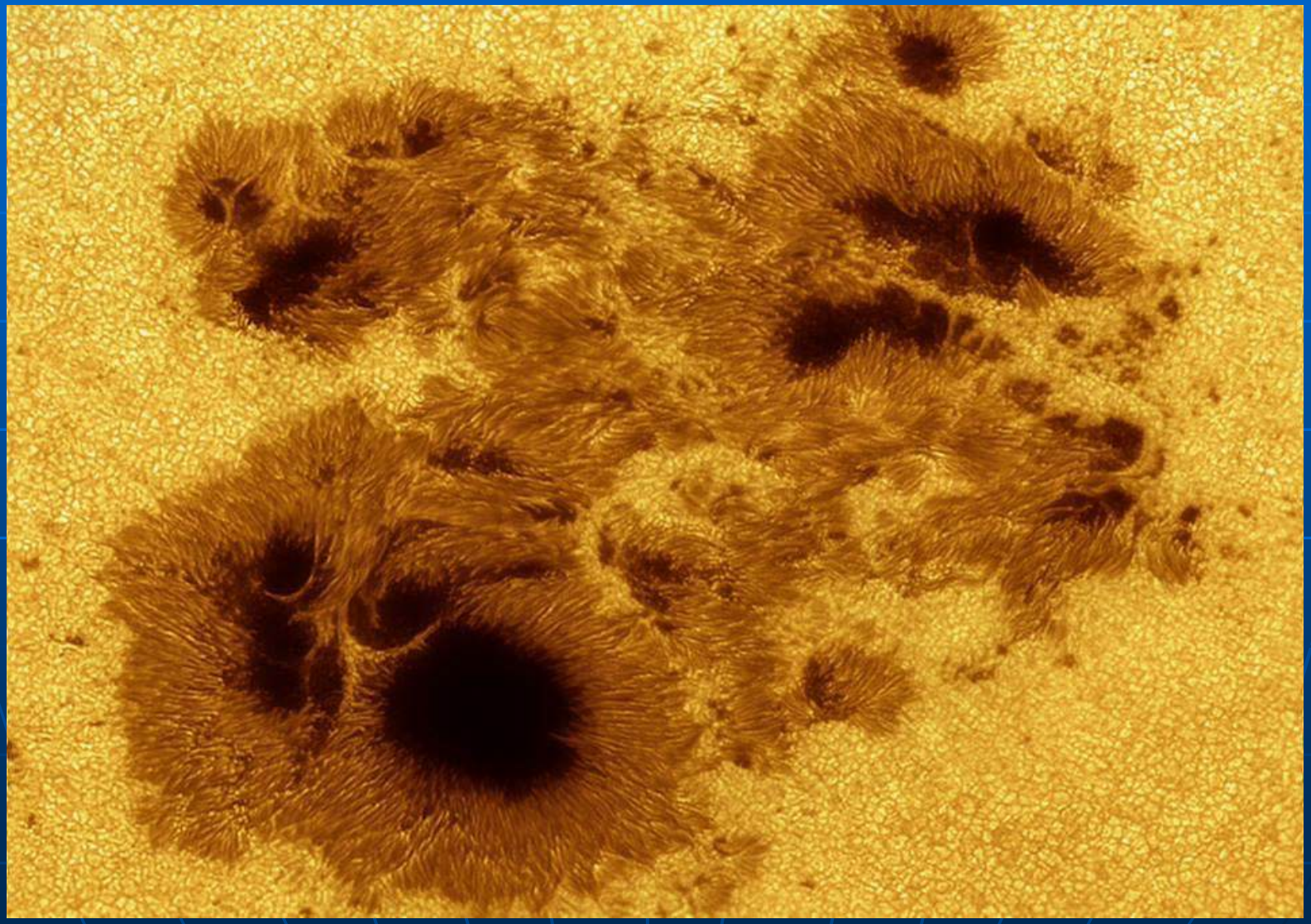
- Randy Shivak is an avid amateur solar astronomer, specializing in solar imaging, a self-taught machinist and a telescope maker.
  Randy and his wife Pamela are originally from Ohio. They moved to Arizona in 2012 to pursue serious solar astronomy. After being in Arizona for 6 years they now reside in Southwest Florida.
- In 1968, Randy and his friend built an 8" reflector even grinding and polishing the mirror.
  Thus began his interest in astronomy and equipment building.
  He was fascinated by the dynamics of the sun and decided to focus his field of expertise on solar astronomy and solar imaging and has been honing his skills for the past 50 years.
- His early solar equipment building in the early 70's started with an Arcetri design spectrohelioscope. From there he went on to build 3 other Littrow design spectrohelioscopes. The last one included a vacuum tower telescope.
- Randy's latest endeavor produced a 9" refractor where he utilized his machining skills and incorporated an Istar Lens.
- Randy's solar images have been featured in books, magazines, scientific papers, album covers and Daystar Filters packaging. His images have won awards at RTMC, NASA's picture of the day and featured in Discover Magazine.
- Randy and his wife travel across the United States attending star parties and conferences where they setup solar telescopes and where Randy gives talks on his solar life and solar imaging techniques.
- Recently Randy decided to expand into night time astronomy taking narrowband images of Nebula, giant clouds of interstellar gas composed mainly of hydrogen.

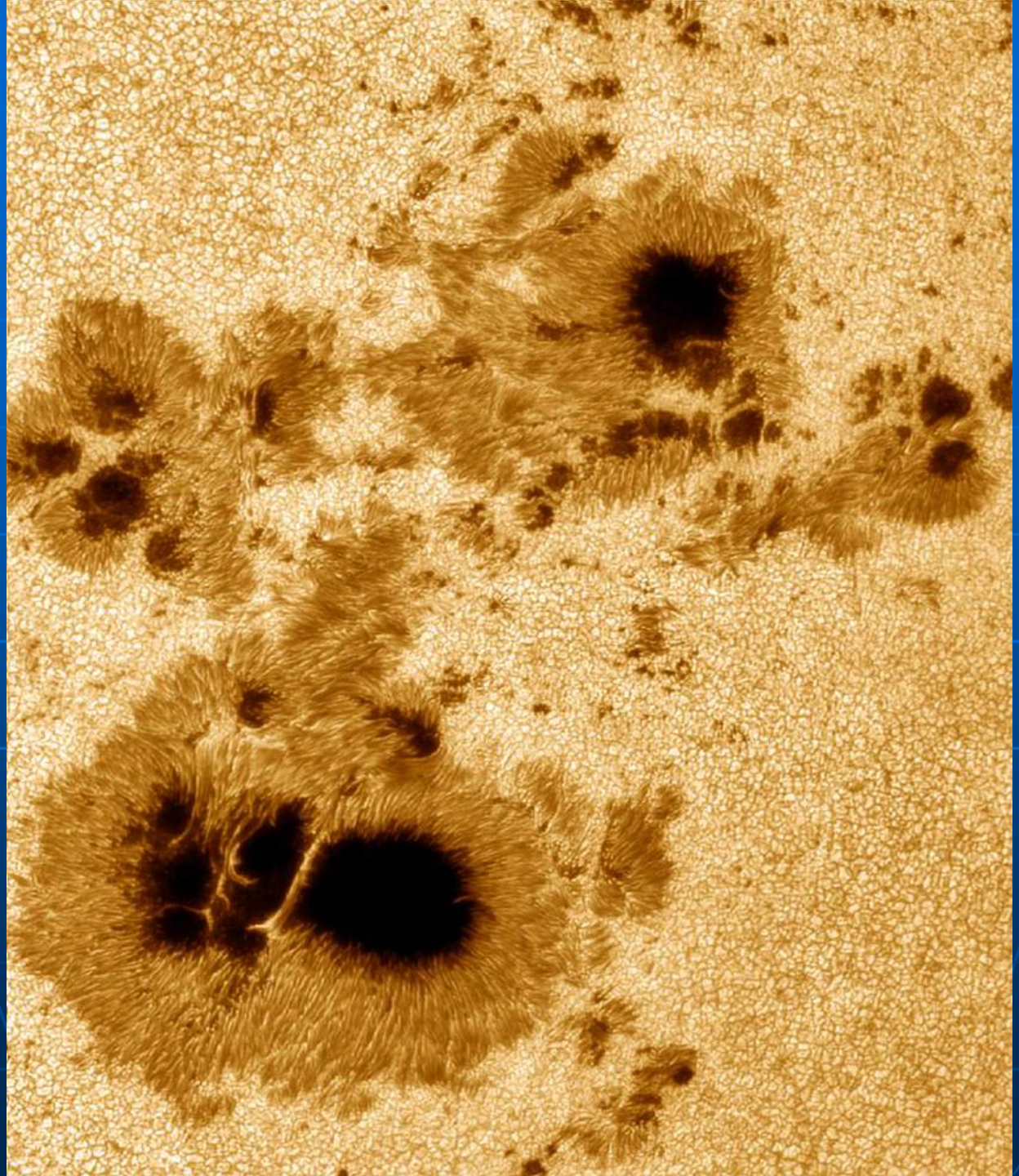
Sunspots,Prominences, & Flares

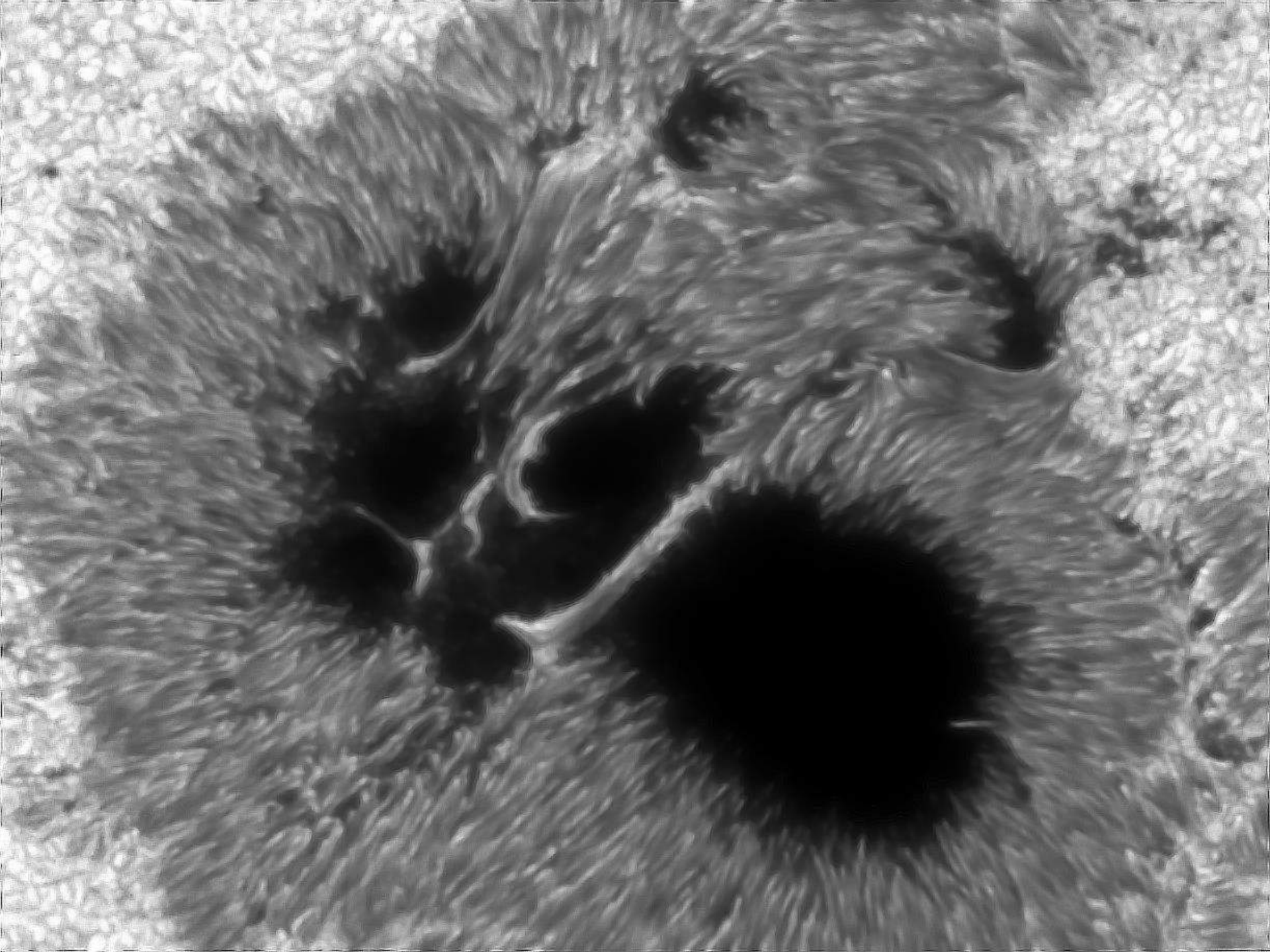
- For 50 years I concentrated on the sun. The reason was because it is so dynamic. The ever changing Sunspots dancing across the solar face was fascinating to me. Later building a spectrohelioscope I was able to see details only visible in the narrow band of light call Hydrogen Alpha. This is the frequency of light that prominences and solar flares are most easily seen.
- I hope that you were all able to see the total solar eclipse of 2024. There are usually total solar eclipses every year, the problem is that they are only seen in a narrow band, most of the time lying over the oceans which cover most of the Earth.
- Recently I have decided to expand into deep sky imaging. Now taking images of Nebula which are gigantic areas of mostly hydrogen gas, forming beautiful images. The various colors are due to the different gasses and how the Red, Green, Blue pallet is represented.
- Over the last 55 years I have seen a tremendous change in the technology used in astronomy. In the early years my telescopes didn’t have a drive to track the stars and planets. Today electronic drives track the stars and guide scopes make tiny corrections to both axis simultaneously making your images nearly perfect.
- Today's narrowband filters, the size of your hand, are replacing instruments more than 12 ft. in length with more precision and less cost.

Total Solar Eclipse April 8, 2024

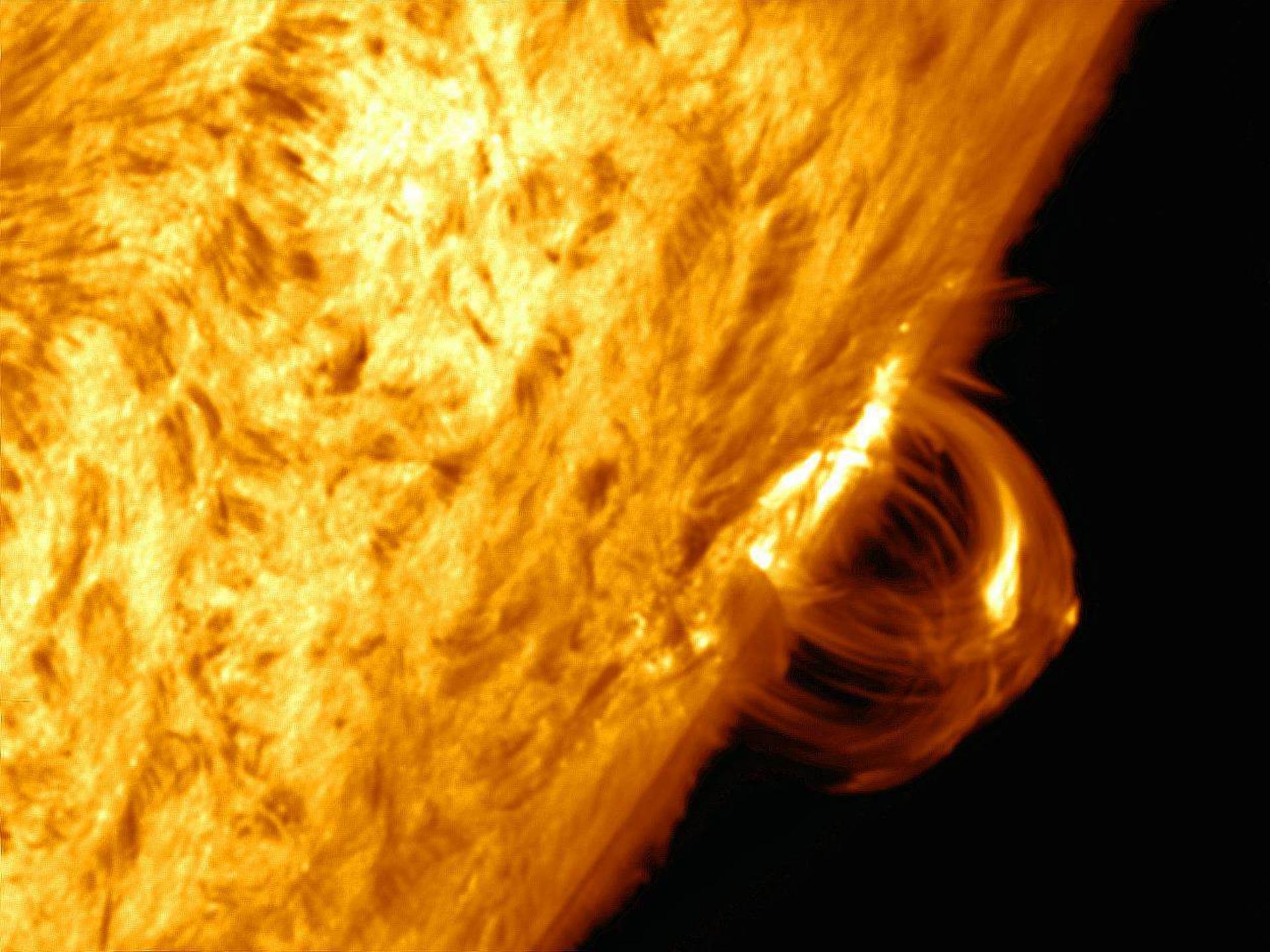
Largest Sunspot of Solar Cycle 24



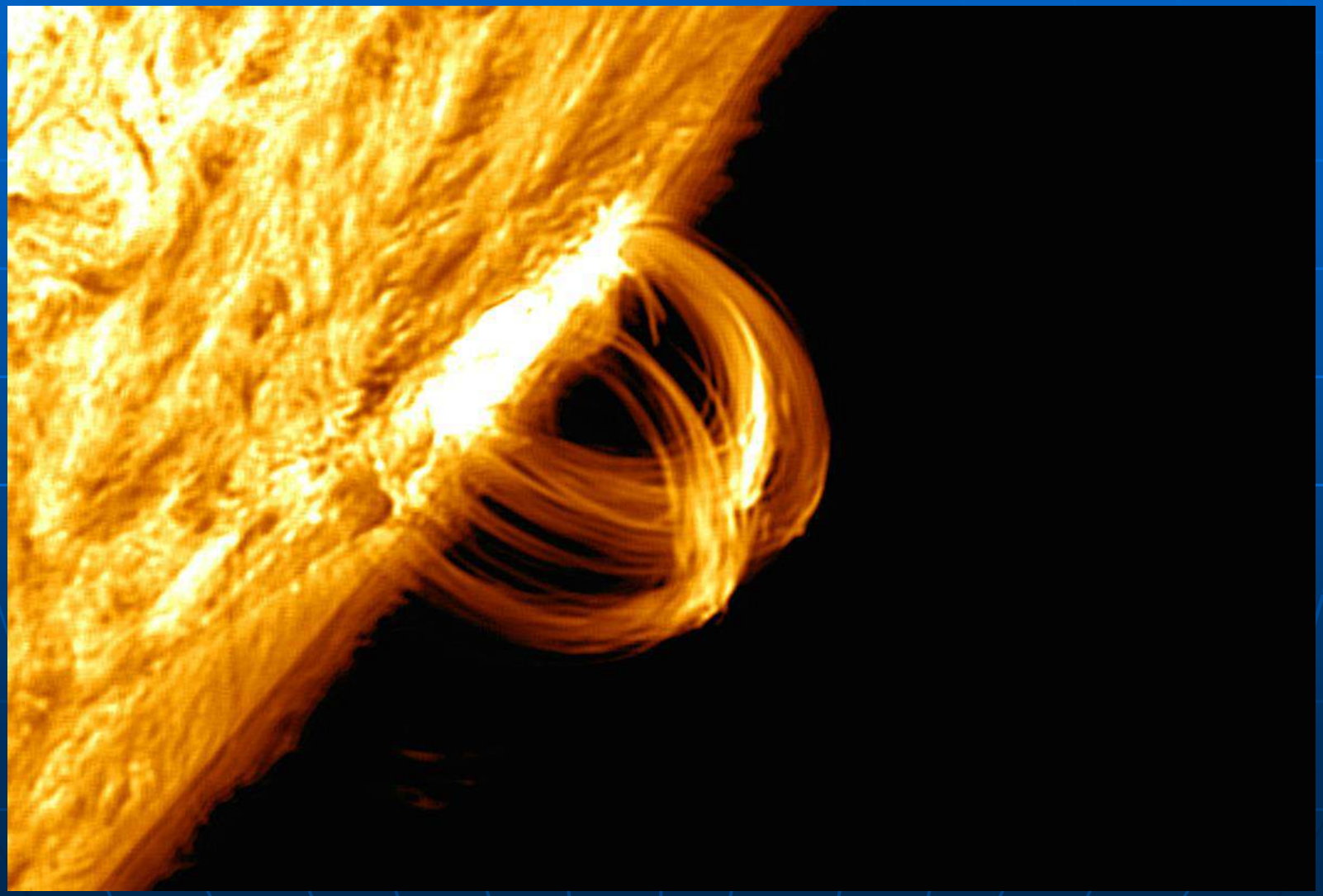


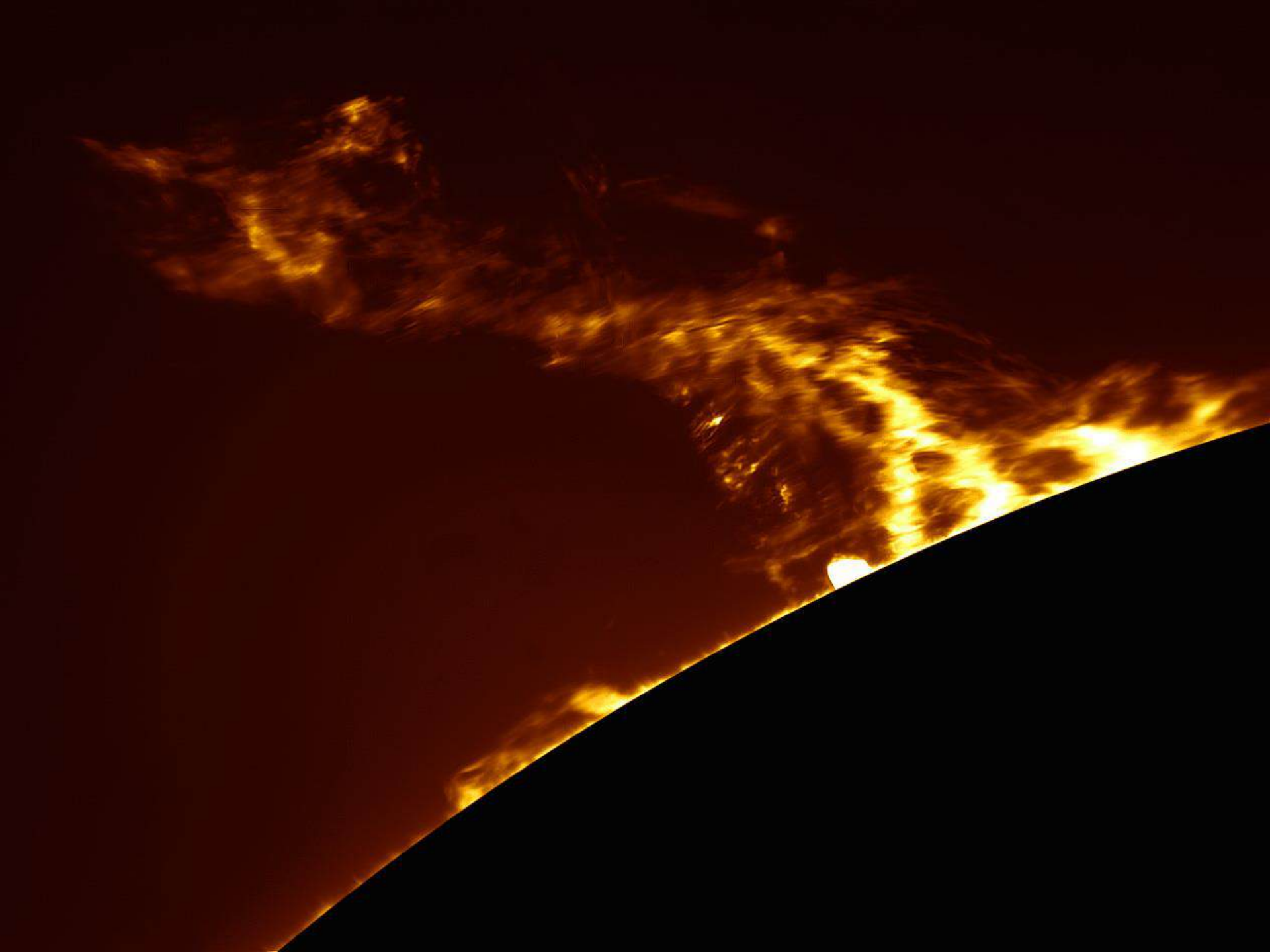


Solar Prominence

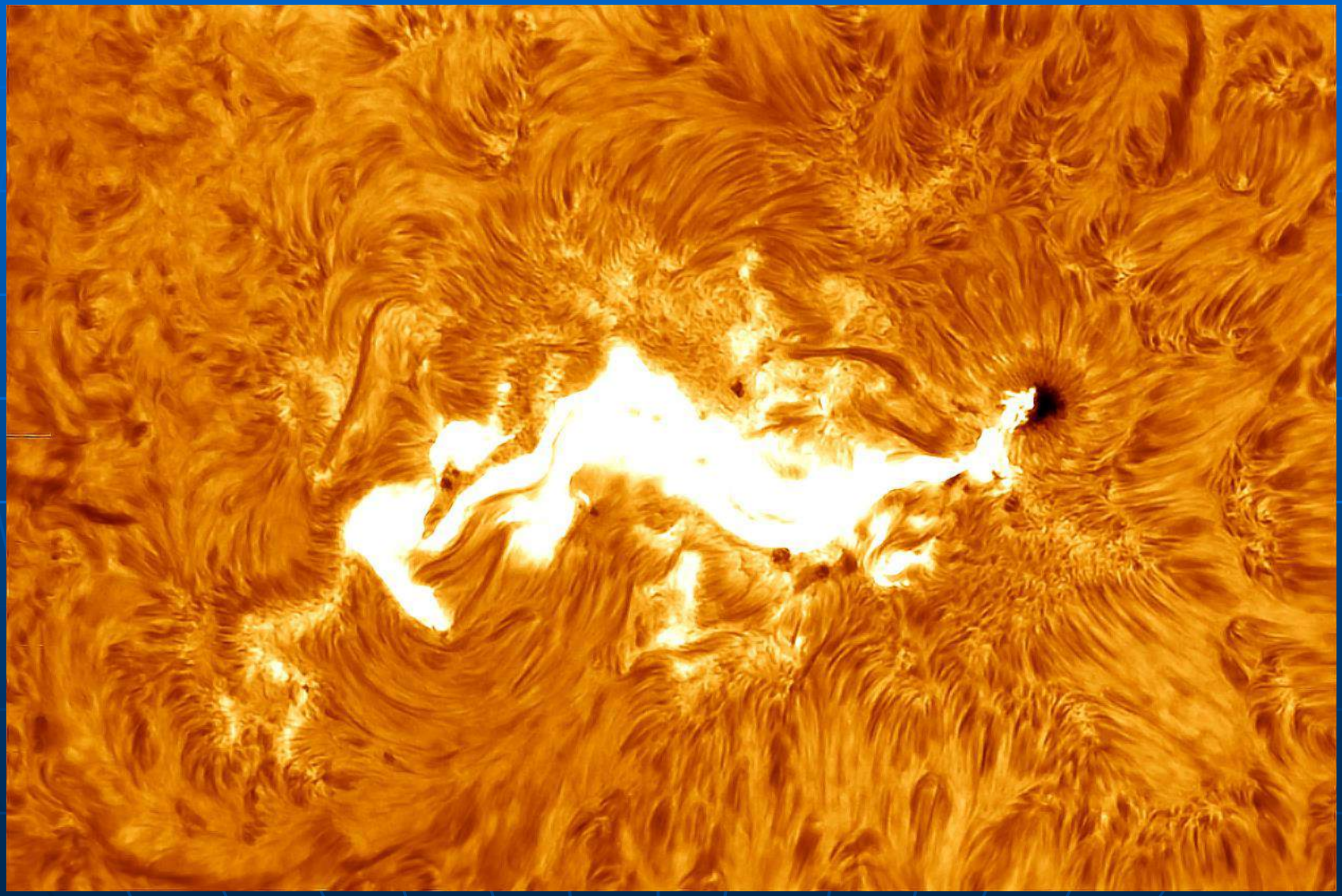


Loop Prominence with Solar Flare



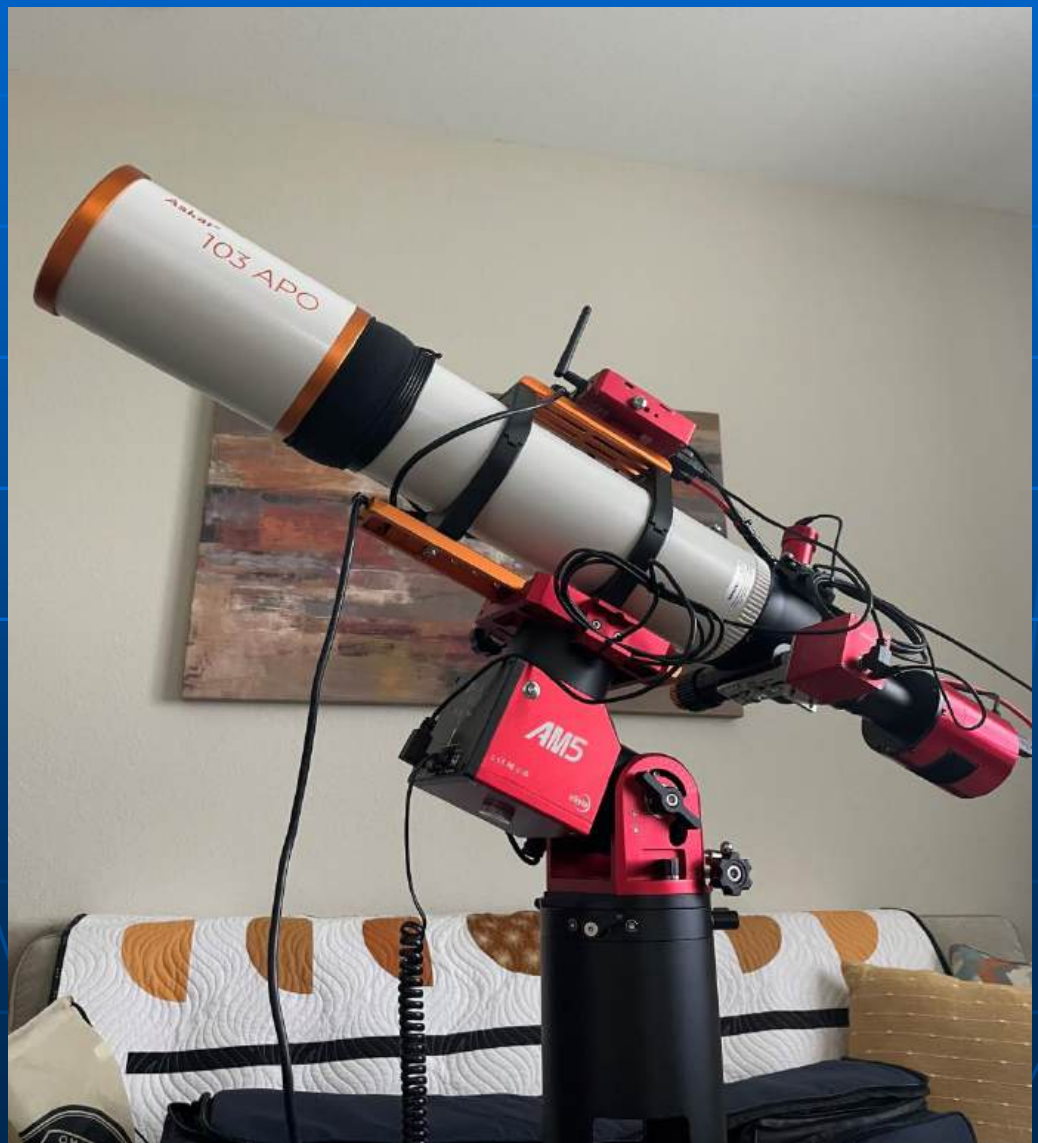


Large Solar Flare



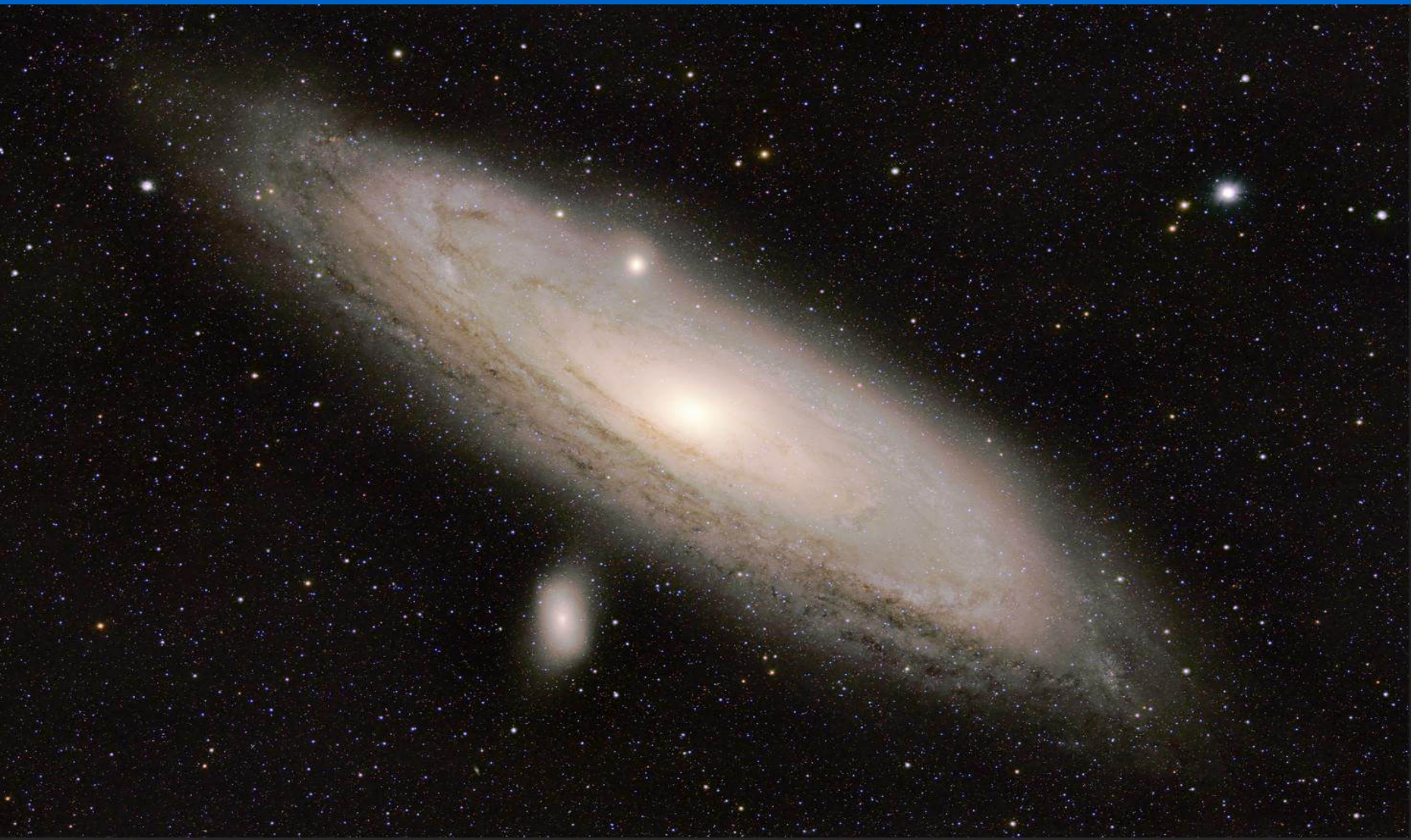
My Askar 103 telescope

This is one of the telescopes I use today to take most of my deep sky images. This scope, mount, and tripod with associated cameras and guide scope cost $7,000.00 but you can start with a SeeStar 50 for about $650.00

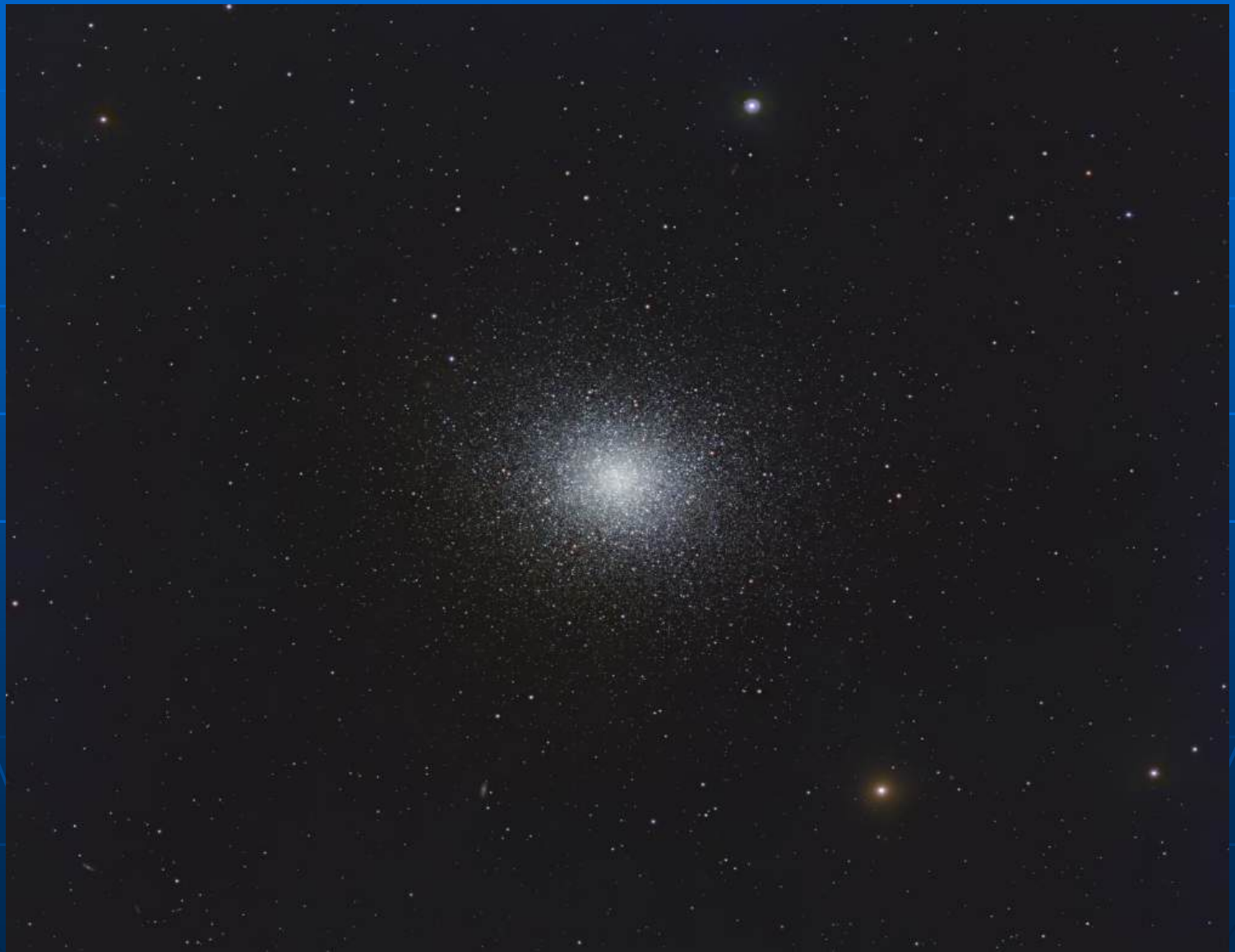


See Star 50
What you can do

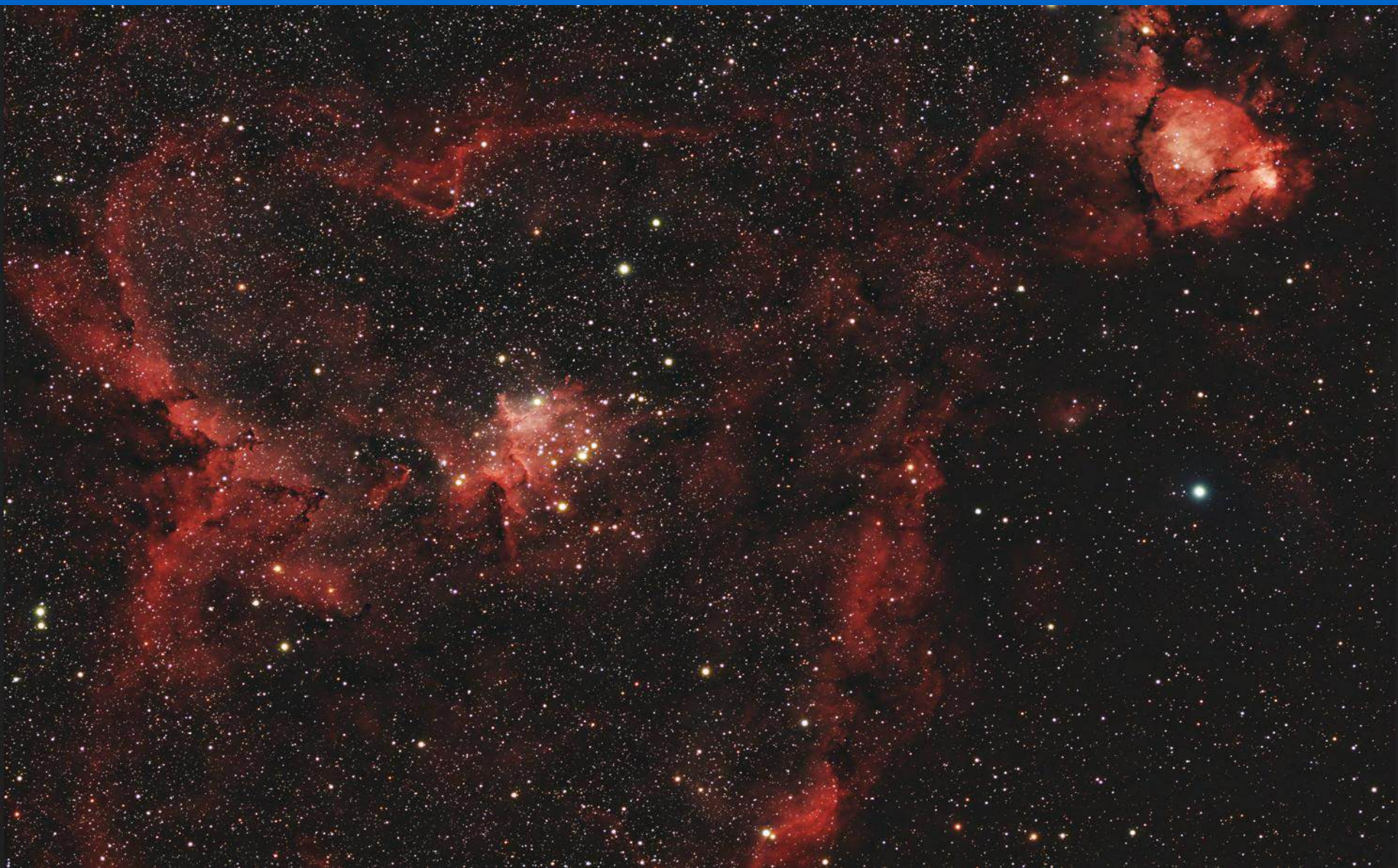
The Andromeda galaxy lies 2.5 million light year away with a diameter of 152,000 light years.



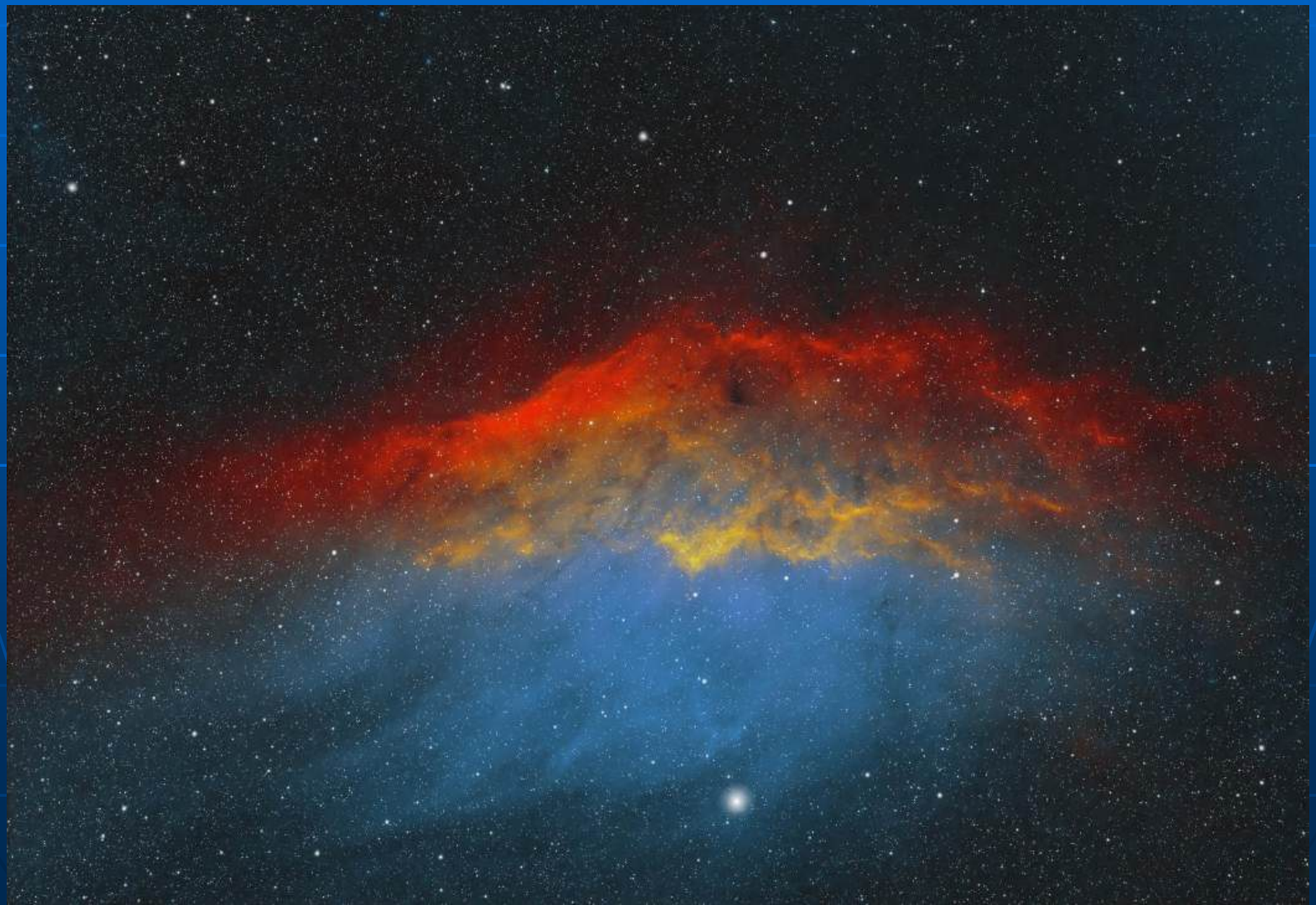
Messier 13 a globular cluster lies 22.2 thousand light years away and is 168 light years in diameter. This cluster is easily seen with binoculars on a clear summer night in the constellation Hercules.



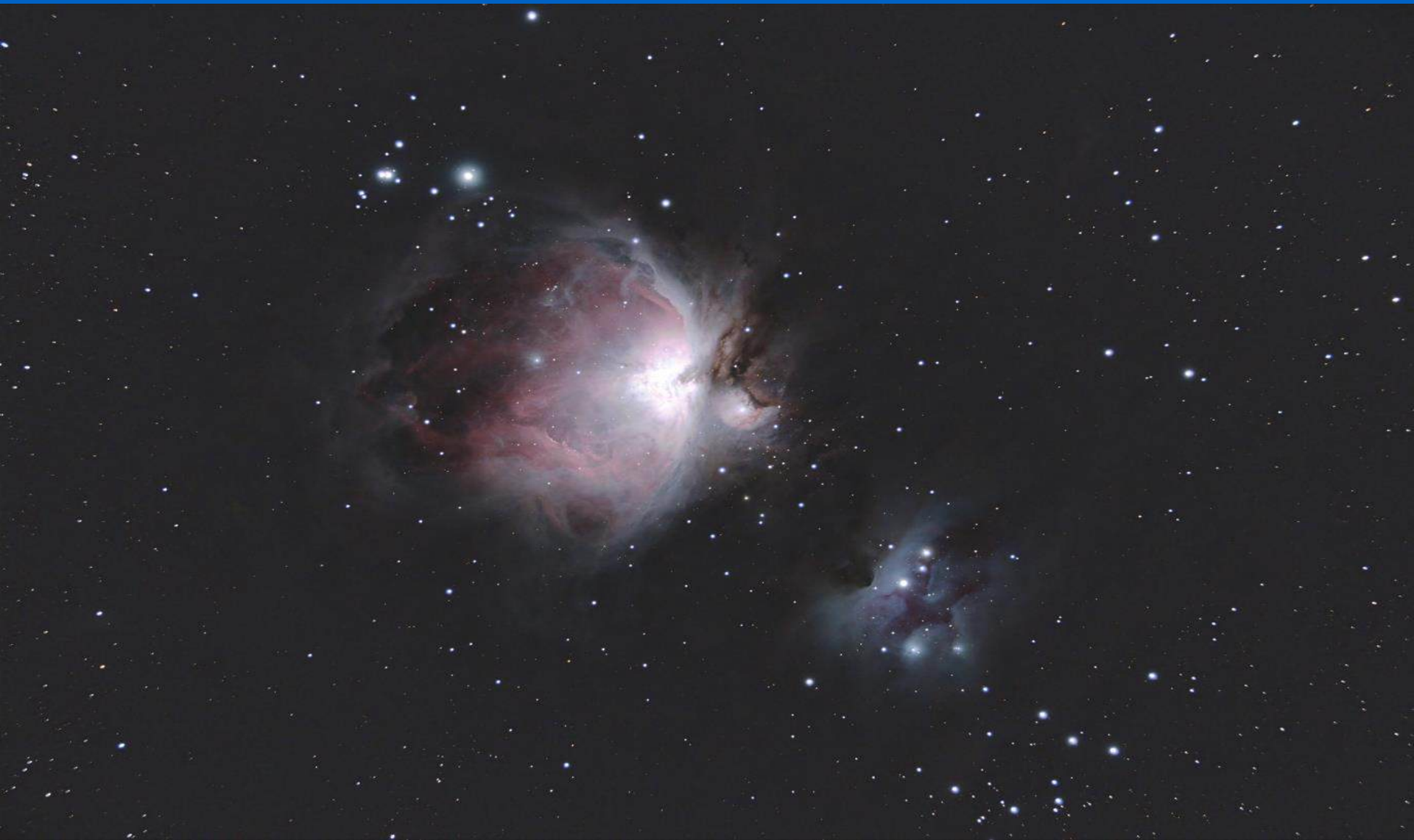
The Heart Nebula 330 light years in diameter lies 7500 light year away.



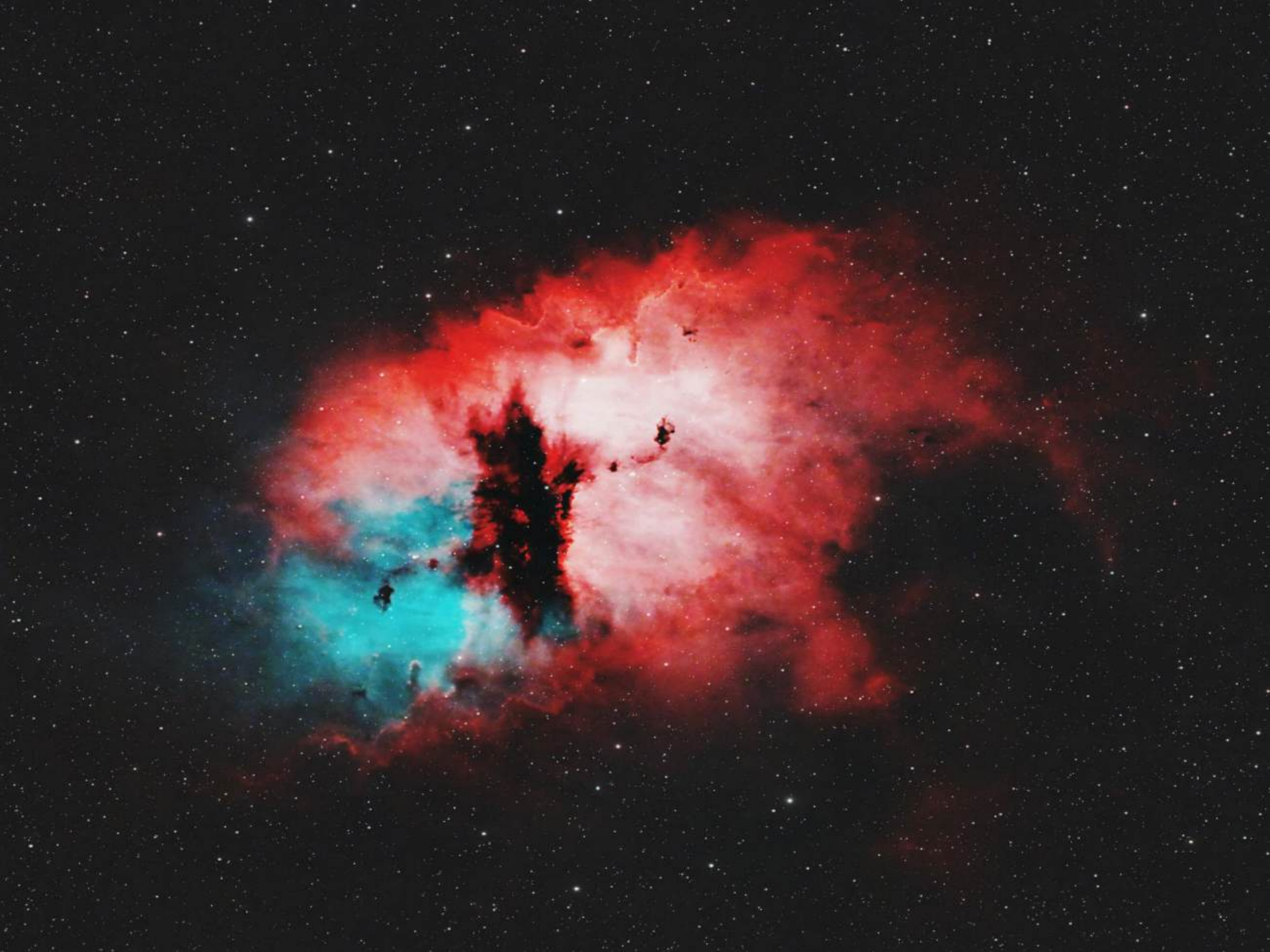
The California Nebula also known as Sh2-220 is an emission nebula located 1,000 light years away and lies in the constellation Perseus.



Messier 42 or better know as the Orion Nebula lies 1,344 light year away with a diameter of 26 light years.



As visitors, comets are seen from time to time. Best seen usually in the predawn or after sunset.



Magazine Publications

Star People

Real People in Astronomy

by Robert Reeves

Name: Randy & Pamela Shivak
Residence: Phoenix, Arizona
Occupation: Randy Shivak, retired CNC machine shop owner/operator
Pamela Shivak, retired Administration Assistant and Cost Accounting Manager
Astronomer since: High School
Websites: https://www.facebook.com/groups/solaractivity/
https://www.facebook.com/randyshivakastronomy

Amateur solar astronomy has blossomed in the past several decades. Randy and Pamela Shivak have been at the forefront of this realm; Randy as a talented instrument maker and observer and Pamela as a social media wizard connecting thousands of solar enthusiasts from all over the world. This is their story....

This app is available only on the App Store for iPhone and iPad.

SkySafari 4+

Astronomy Guide To Night Sky

Simulation Curriculum Corp.

#3 in Reference

★★★★½ 4.7 • 17K Ratings

$1.99 · Offers In-App Purchases

SkyView® Lite

Editors' Choice

Terminal Eleven Education

★★★★½ 41,657

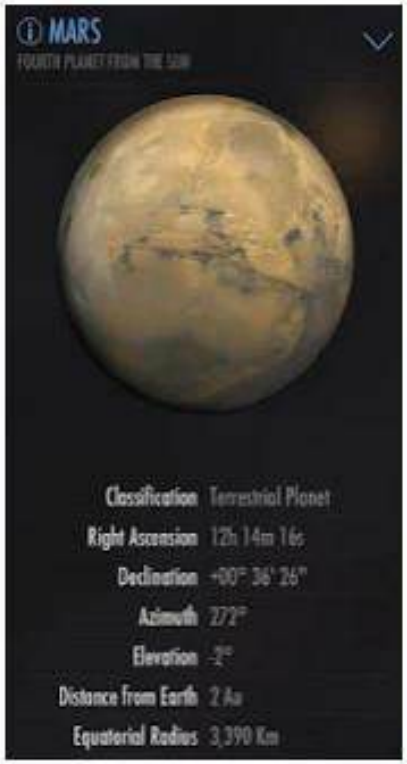
Everyone

Contains Ads

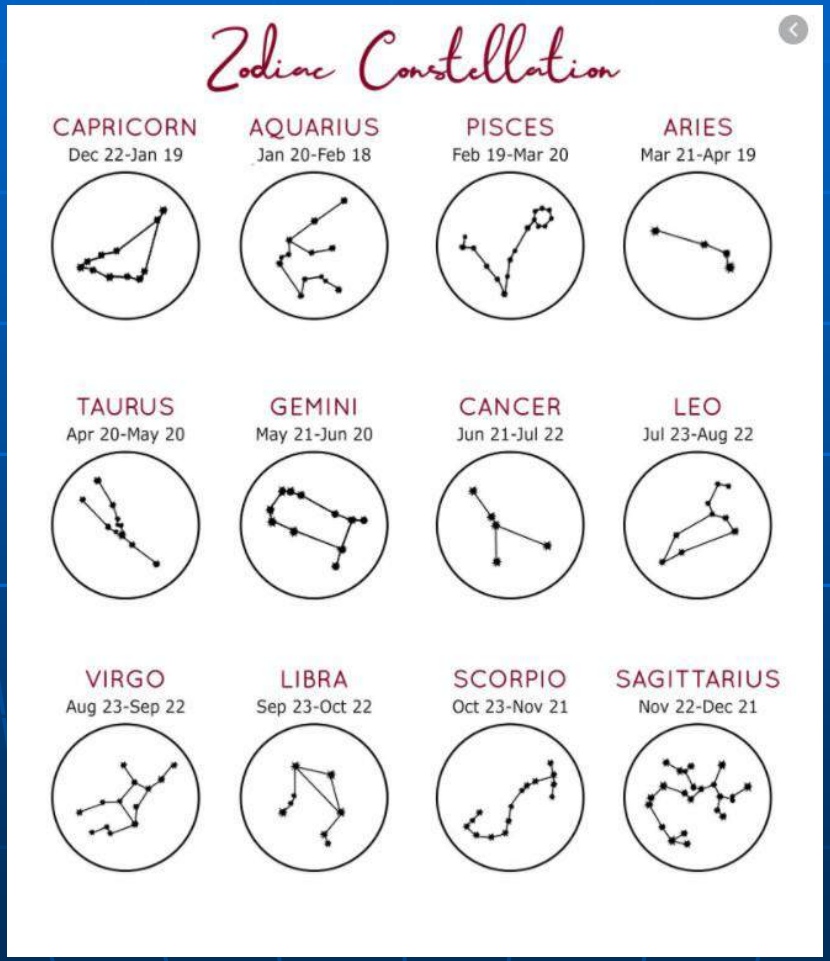
You don't have any devices.

Add to Wishlist

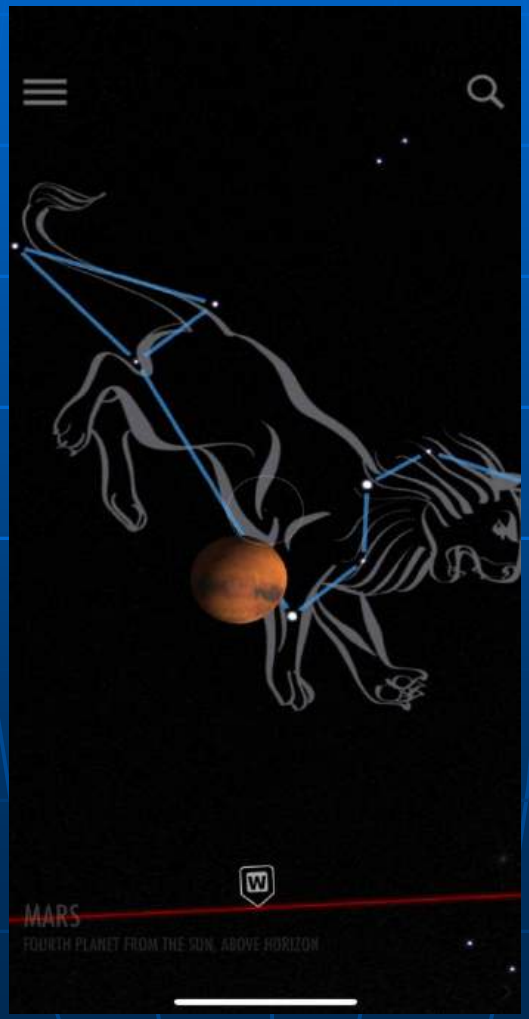
Install



Zodiac


Zodiac Constellation
CAPRICORN
Dec 22-Jan 19
AQUARIUS
Jan 20-Feb 18
PISCES
Feb 19-Mar 20
ARIES
Mar 21-Apr 19
TAURUS
Apr 20-May 20
GEMINI
May 21-Jun 20
CANCER
Jun 21-Jul 22
LEO
Jul 23-Aug 22
VIRGO
Aug 23-Sep 22
LIBRA
Sep 23-Oct 22
SCORPIO
Oct 23-Nov 21
SAGITTARIUS
Nov 22-Dec 21

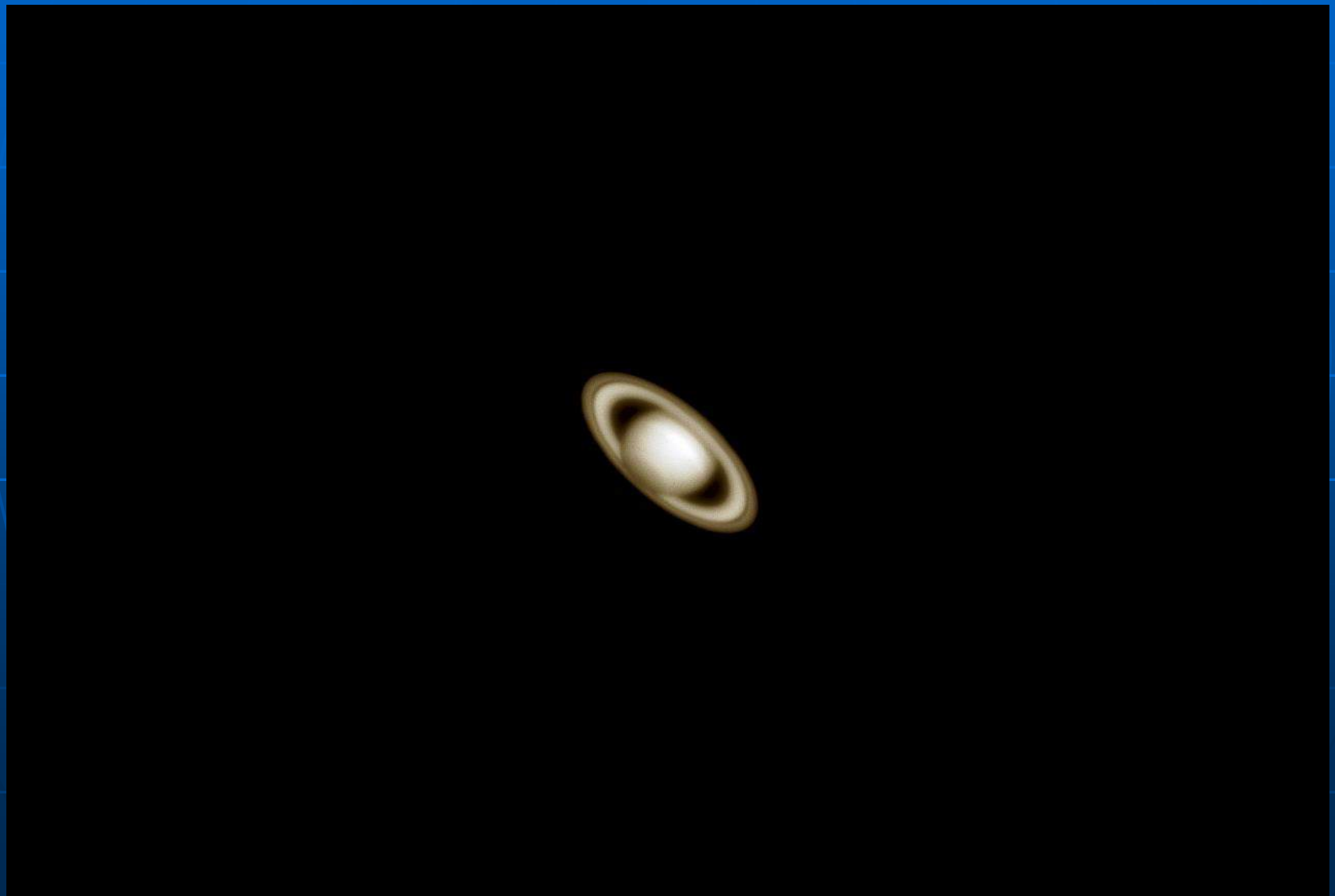
The planet Mars in the constellation Leo



Moon

Mars

Saturn



Jupiter

Apollo 11 Landing Site