

Sculptor Galaxy, NGC 253



- The Sculptor Galaxy (also known as the Silver Coin Galaxy) is an intermediate spiral galaxy in the constellation Sculptor.
- It is a starburst galaxy, which means that it is currently undergoing a period of intense star formation.
- As one of the brightest galaxies in the sky, the Sculptor Galaxy can be seen through binoculars and is near the star Beta Ceti. It is considered one of the most easily viewed spiral galaxies in the sky after the Andromeda Galaxy
- It is located at the center of the Sculptor Group, one of the nearest groups of galaxies to the Milky Way. It is the brightest galaxy in the group and one of the intrinsically brightest galaxies in our vicinity, only surpassed by the Andromeda Galaxy and the Sombrero Galaxy
- A weighted average of the most reliable distance estimates gives a distance of 11.4 ± 0.7 Mly. Diameter is $\sim 120,000$ ly.



Sculptor Galaxy

David Meiklejohn

EdgeHD 8 f10

ASI2600MC

Gain 200

180 x 120 sec

L-Pro

Sculptor Galaxy (NGC 253)

EdgeHD 8 f/10

ASI2600MC gain 200

1/11/25 180 x 120 sec L-Pro

Sculptor Galaxy

Mark Sellars

Seestar S50 Pro
30 min.



Sculptor Galaxy

Mark Sellars

Seestar S50 Pro

Extra frames
added without
the duoband
filter





Sculptor Galaxy

Frank Alvaro

Skywatcher
Esprit 120

ASI2600MM

R, G, B,
luminosity filters

7h24m

Corona Australis Nebula, NGC 6729



- NGC 6729 (also known as Caldwell 68) is a reflection/emission nebula of the Corona Australis Molecular Cloud in the constellation Corona Australis
- This fan-shaped nebula opens from the star R Coronae Australis toward the star T CrA to the south-east. R CrA is a pre-main-sequence star in the Corona Australis molecular complex, one of the closer star-forming regions of the galaxy at a distance of 425 ly
- NGC 6729 is a variable nebula which shows irregular variations in brightness and in shape
- Surrounding Complex: It sits near other notable dusty reflection nebulae like NGC 6726 and NGC 6727, as well as the unrelated background globular cluster NGC 6723



Corona Australis Nebula
NGC 6729

Greg Bradford

Seestar S30 Pro

334 x 20 sec

IR cut filter



Corona Australis Nebula
NGC 6729

John Rombi

Seestar S50

118 min.



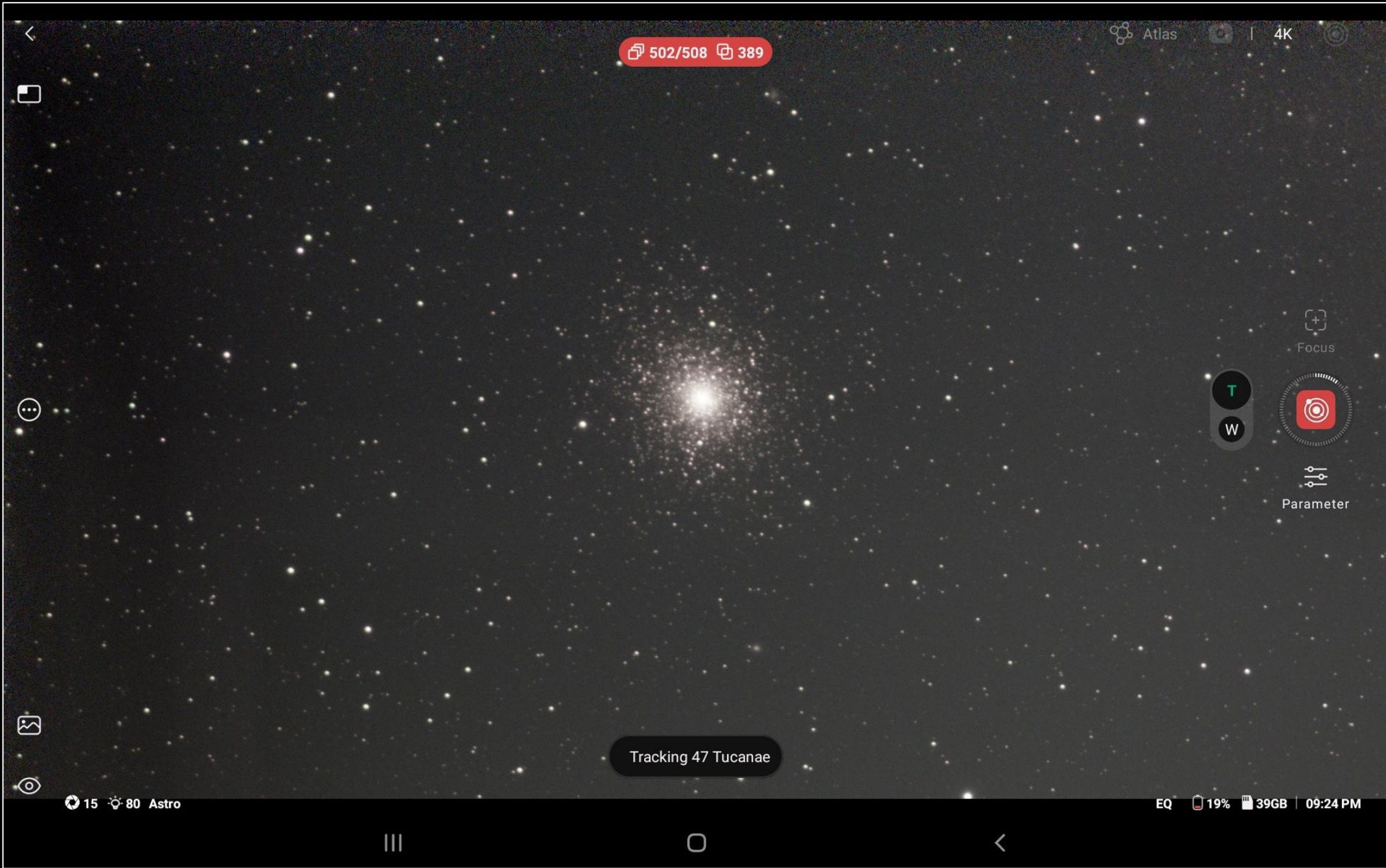
Corona Australis Nebula
NGC 6729

Robert McGoven

ZWO ASI 533mc Pro on
SVbony MK127 @
967mm with reducer
UVIRcut
 $66 \times 180\text{sec} = 3' 18''$

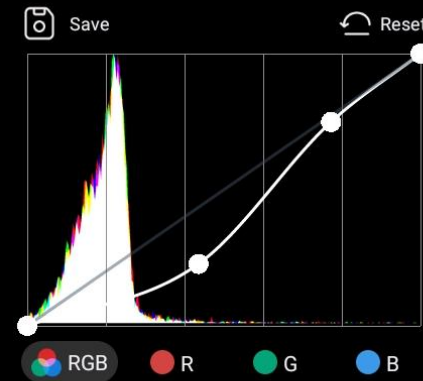
47 Tucanae

- 47 Tucanae, designated as NGC 104, or simply 47 Tuc, is a globular cluster located in the constellation Tucana.
- It is about $14,500 \pm 32.6$ ly from Earth, and 120 light years in diameter.
- 47 Tuc can be seen with the naked eye, with an apparent magnitude of 4.1. It appears about 44 arcminutes across including its far outreaches, appearing roughly the size of the full moon in the sky under ideal conditions.
- 47 Tuc is the second brightest globular cluster after Omega Centauri, and telescopically reveals about ten thousand stars, many appearing within a small dense central core. The cluster may contain an intermediate-mass black hole.
- It is one of the most massive globular clusters in the Galaxy, containing millions of stars. Though it appears adjacent to the Small Magellanic Cloud, the latter is some $200,000 \pm 3,300$ ly distant, being over fifteen times farther than 47 Tuc.



47 Tucanae

Sue Adijans



47 Tucanae

Sue Adijans

“I am including the image with the curves because I want to point out a mistake I made. In getting the background nice and dark, I lost the red in some of the stars which are part of the charm of this target.”







47 Tucanae

Frank Alvaro

Skywatcher
Esprit 120

ASI2600MM

R, G, B filters

1hr42min



47 Tucanae

David
Meiklejohn

EdgeHD 8
f10

ASI2600MC

Gain 200

L-Pro

60 x 60sec

47 Tucanae (NGC 104)

EdgeHD 8 f/10
ASI2600MC gain 200
L-Pro
13/8/26 60 x 60 sec



47 Tucanae

David
Meiklejohn

EdgeHD 8 f10

0.7 reducer
ASI2600MC

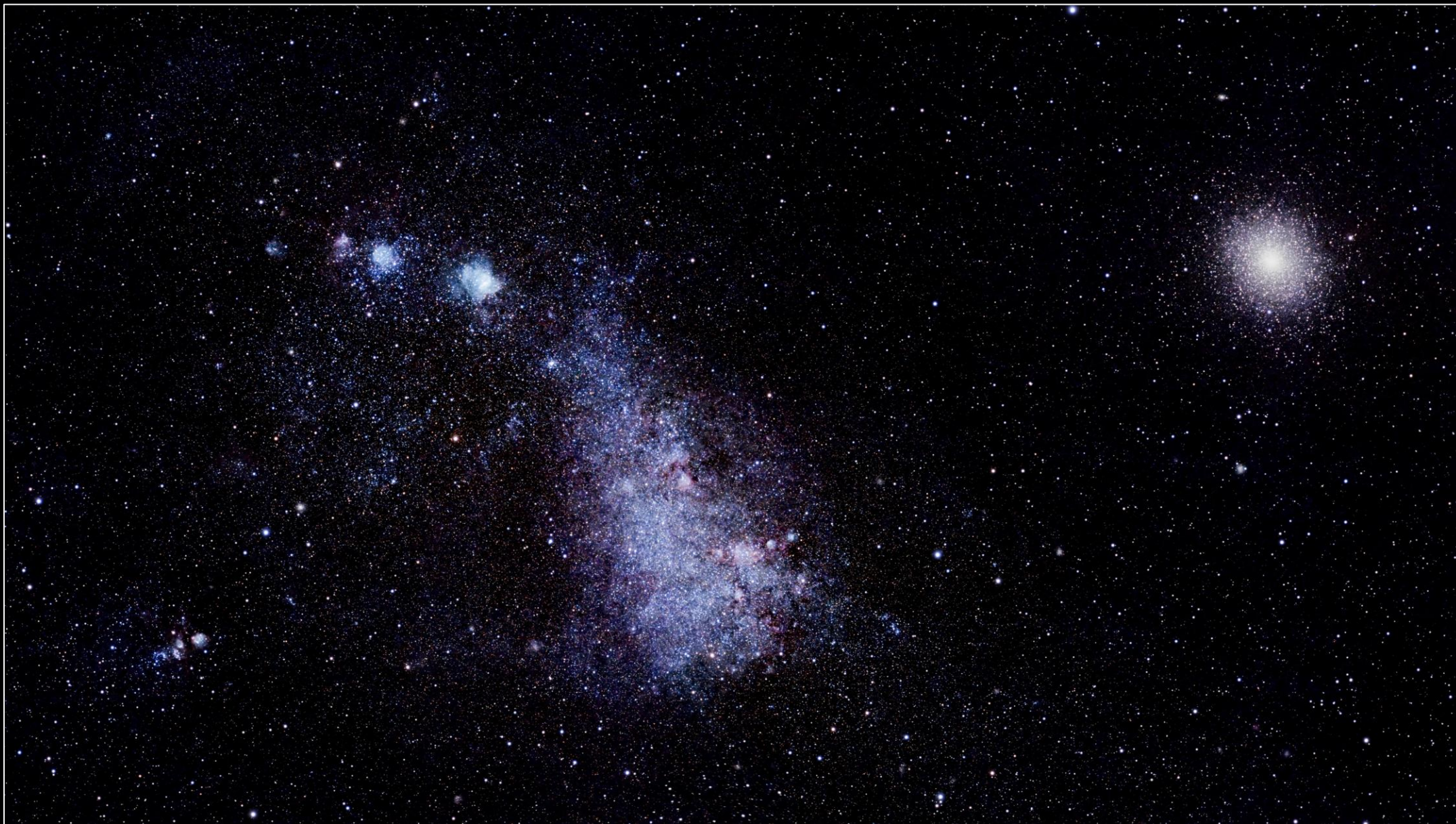
Gain 200

L-Pro

10 x 60sec

47 Tucanae (NGC 104)

EdgeHD 8 f/7
ASI2600MC gain 200
18/11/25 10 x 60 sec L-Pro



47 Tucanae
and SMC

Ray
Armstrong

Four panel
mosaic

390 x 30 sec
subs
Stacked and
processed in
Siril

Gain 60

Astro filter

Eagle Nebula, M16



- The Eagle Nebula (sometimes referred to as the Star Queen Nebula) is a diffuse emission nebula, or H II region. It lies in the Sagittarius Arm of the Milky Way.
- This region of active current star formation is about 5700 light-years distant.
- A spire of gas that can be seen coming off the nebula in the northeastern part is approximately 9.5 light-years or about 90 trillion kilometers long.
- Both the "Eagle" and the "Star Queen" refer to visual impressions of the dark silhouette near the center of the nebula, an area made famous as the "Pillars of Creation" imaged by the Hubble Space Telescope. The nebula contains several active star-forming gas and dust regions, including the aforementioned Pillars of Creation.
- The cluster associated with the nebula has approximately 8100 stars, which are mostly concentrated in a gap in the molecular cloud to the north-west of the Pillars
- The brightest star (HD 168076) has an apparent magnitude of +8.24, easily visible with good binoculars. It is actually a binary star formed of an O3.5V star plus an O7.5V companion. It has a mass of roughly 80 solar masses, and a luminosity up to 1 million times that of the Sun. The cluster's age has been estimated to be 1–2 million years.



Eagle Nebula
M16

Frank Alvaro

Skywatcher
Esprit 120

ASI2600MM

R,G,B filters
for stars,
Ha, O3 filters
for nebula

14h30m



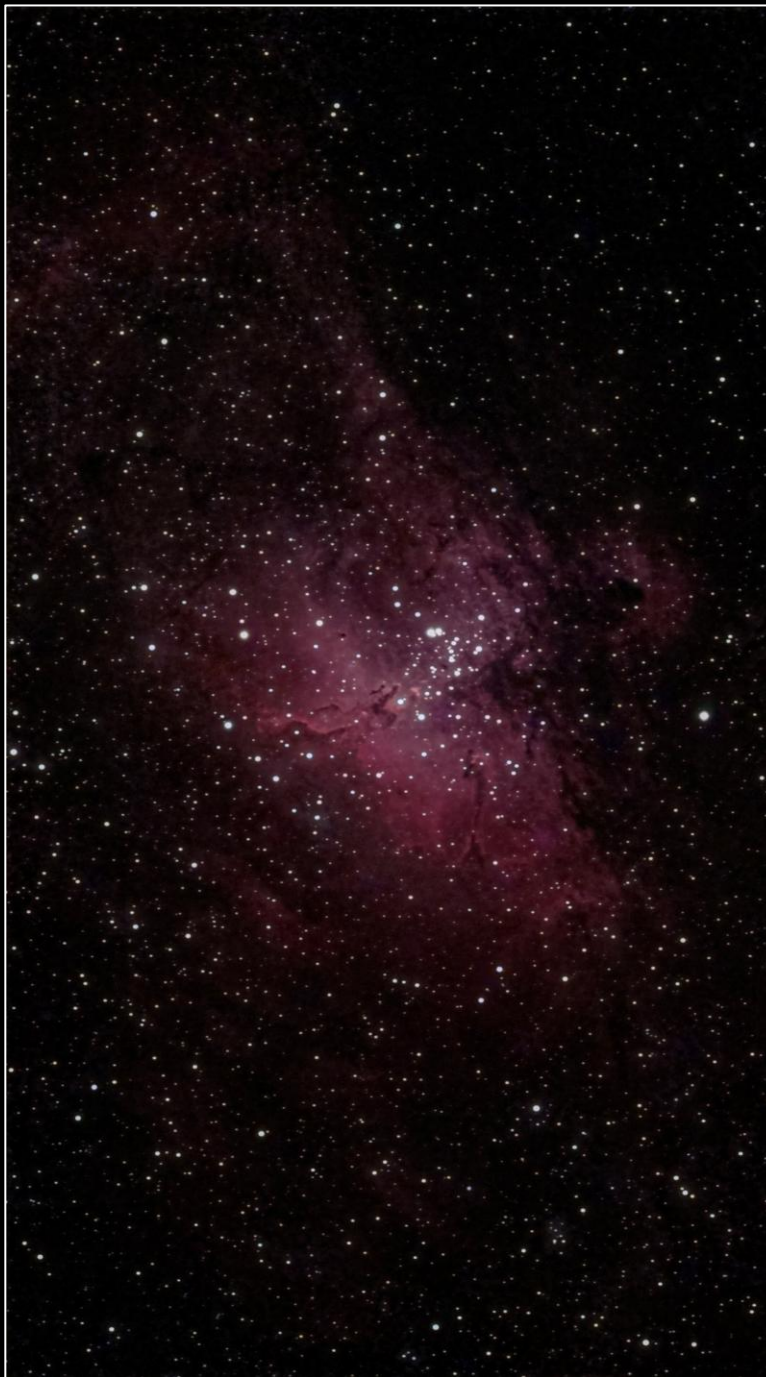
Eagle Nebula
M16

Greg Bradford

Seestar S30 Pro
1727 x 10sec
(4.8hrs)

LP filter

All processing in Pix.



Eagle Nebula
M16

Harry Filipczyk

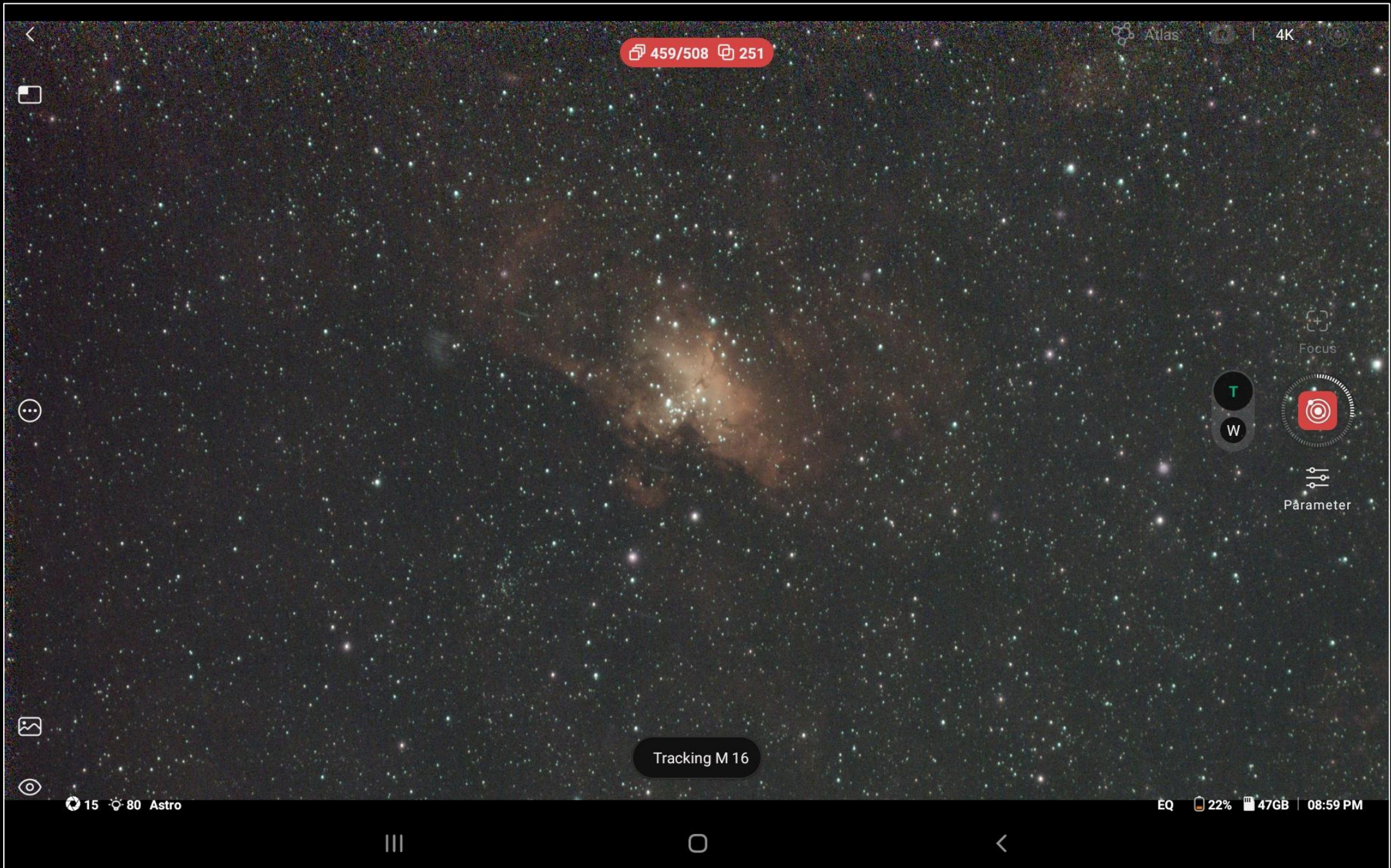
First image with new
rig...

SkyWatcher EQ5 pro;
ZWO FF70 refractor;
ASI585mc pro;
guide scope and
guide camera.

90sec subs at
250 gain

NINA

Astro Wizard,
Photoshop



Eagle Nebula
M16

Sue Adijans

Eagle Nebula
M16

Sue Adijans

Stars removed





Eagle Nebula
M16

Robert McGoven

ASI 533mc pro on
80mm Apo @
383mm with
reducer

IdasNB filter 64 x
180sec
= 3'12"



Eagle Nebula
M16

Robert McGoven

ZWO ASI 533mc pro
on SVbony MK127
@ 967mm with
reducer

IdasNB 61 x 180sec
+ NB SiiOiii 79 x
180sec

= Total 7'0"



Eagle Nebula
M16

Robert McGoven

False colour

ZWO ASI 533mc pro
on SVbony MK127
@ 967mm with
reducer

IdasNB
61 x 180sec
+ NB SiiOiii
79 x 180sec

= Total 7' 0"

Eagle Nebula
M16

David Meiklejohn

EdgeHD8, f/7

90 x 30sec subs
= 45 mins, no filter

Eagle Nebula (M16)
20/9/25

Barnard's Galaxy

- Barnard's Galaxy, NGC 6822, is a barred irregular galaxy approximately 1.6 million light-years away in the constellation Sagittarius.
- Part of the Local Group of galaxies, it is the closest non-satellite galaxy to the Milky Way, but lies just outside its virial radius*.
- It is similar in structure and composition to the Small Magellanic Cloud. It is about 7,000 light-years in diameter.
- Observations of the galaxy show stars-forming in the dense cores of giant clouds of molecular hydrogen gas, cold enough to collapse under its own gravity. The distribution of hydrogen gas is disk-shaped, but mysteriously, it is angled at about 60° relative to the stellar distribution. Most of its stars formed within the last 3 to 5 billion years.
- NGC 6822 has spent most of its life in relative isolation. However, it likely passed within the virial radius of the Milky Way some 3 to 4 billion years ago, which may be coincident with its increase in star formation.



**Virial radius: the boundary of the spherical region surrounding a galaxy where the matter is in stable gravitational balance, known as virial equilibrium*

Barnard's Galaxy

David Meiklejohn

EdgeHD8, f/10

ASI2600MC

Gain 200

L-Pro

103 x 120 sec.



Barnard's Galaxy (NGC 6822)

EdgeHD 8 f/10
ASI2600MC gain 200
L-Pro
13/8/26 103 x 120 sec

Barnard's Galaxy

Frank Alvaro

Skywatcher Esprit
120

ASI2600MM

Red, green, blue and
luminance filters

16hr