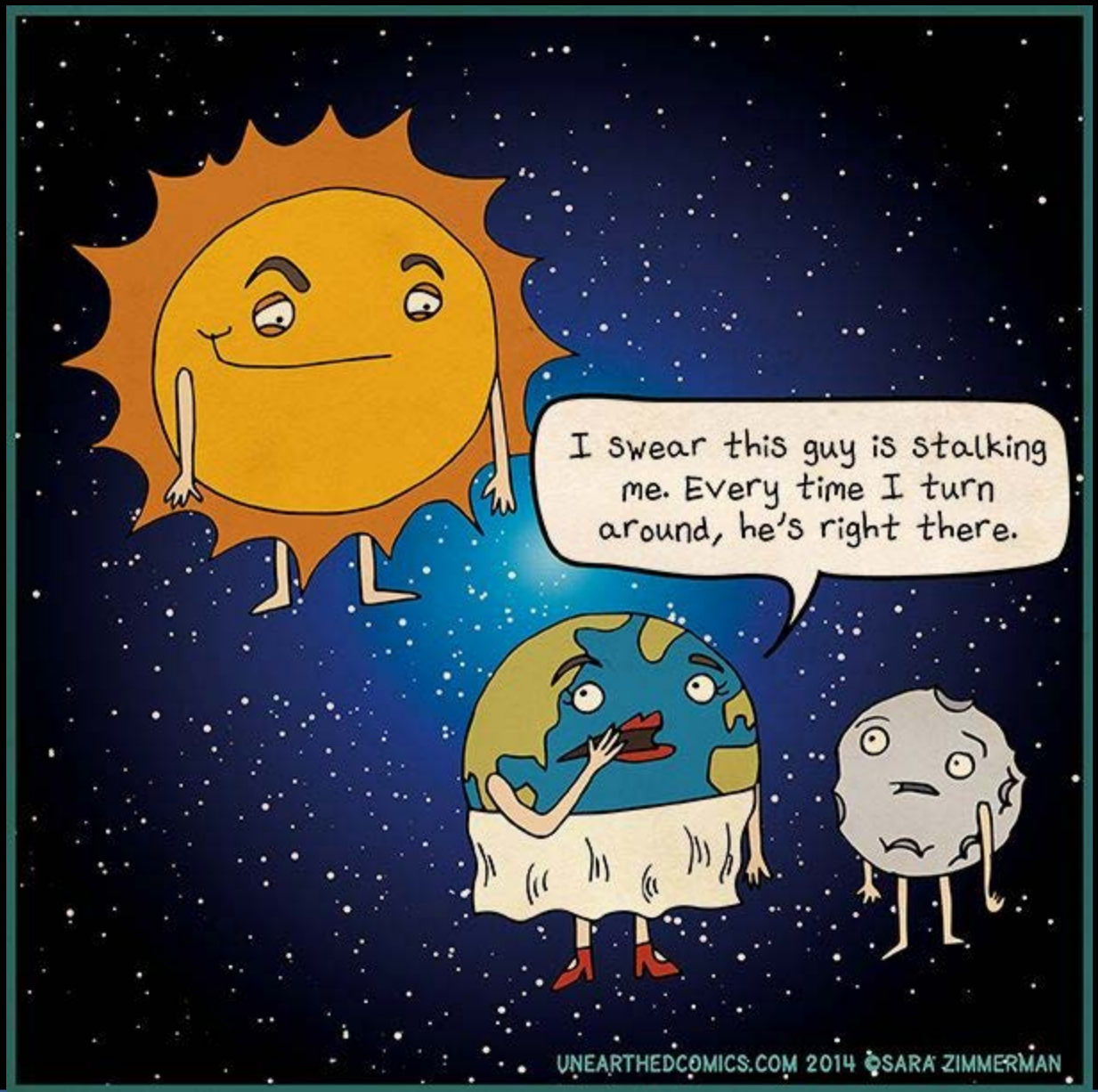
# Howard Astronomical League


June 18, 2020

# Astro Humor


I swear this guy is stalking me. Every time I turn around, he's right there.
UNEARTHEDCOMICS.COM 2014 ©SARA ZIMMERMAN

# HAL OFFICERS

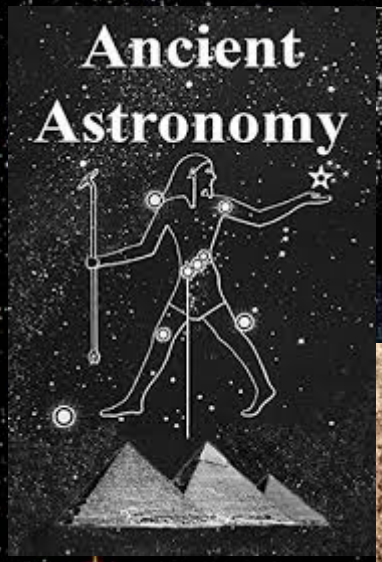
**HAL Officers/Positions 2020**

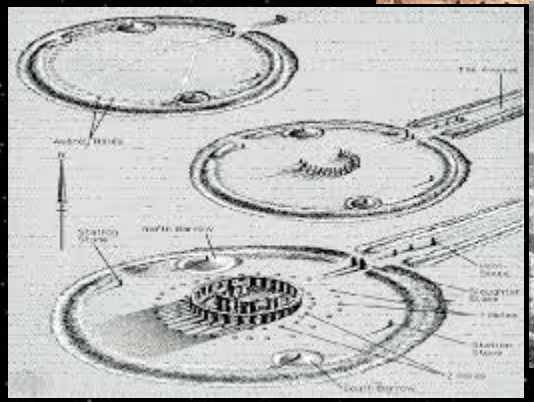
| | | |
|---|---|---|
| **President** | Phil Whitebloom | president@howardastro.org |
| **1st Vice President** | Victor Sanchez | 1stvp@howardastro.org |
| **2nd Vice President** | JoAnn Shapiro | 2ndvp@howardastro.org |
| **Treasurer** | Joel Goodman | hal_treasurer@howardastro.org |
| **Secretary** | Cheryl Kerr | secretary@howardastro.org |
| **Event Coordinator** | David Stein | events@howardastro.org |
| **Publicity Chair +** | Joel Goodman | halpublicity@howardastro.org |
| **Observatory Director *** | Joel Goodman | observatory@howardastro.org |
| **Librarian +** | Bob Dutilly | librarian@howardastro.org |
| **ALCor +** | Steve Jaworiwsky | halcor@howardastro.org |
| **Webmaster *** | Chas Rimpo | Use "Contact Us" Page |

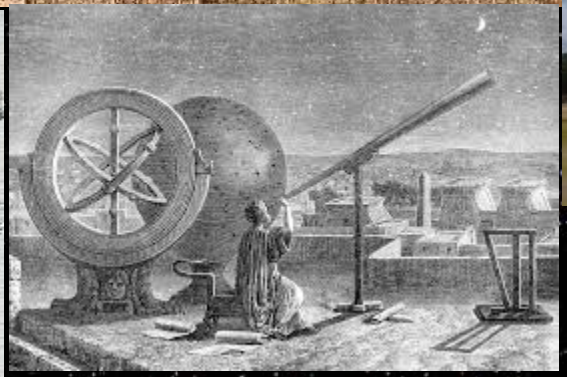
* Appointed as voting officers of the board of directors by President with board approval

+ Appointed non-voting member of the board except when position filled by an elected officer

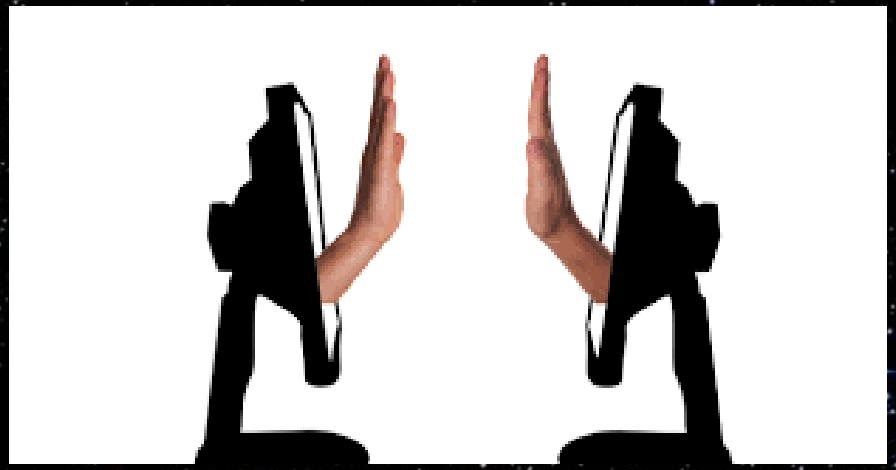
# Ancient Astronomy





# HAL Virtual
# What's Been Happening?



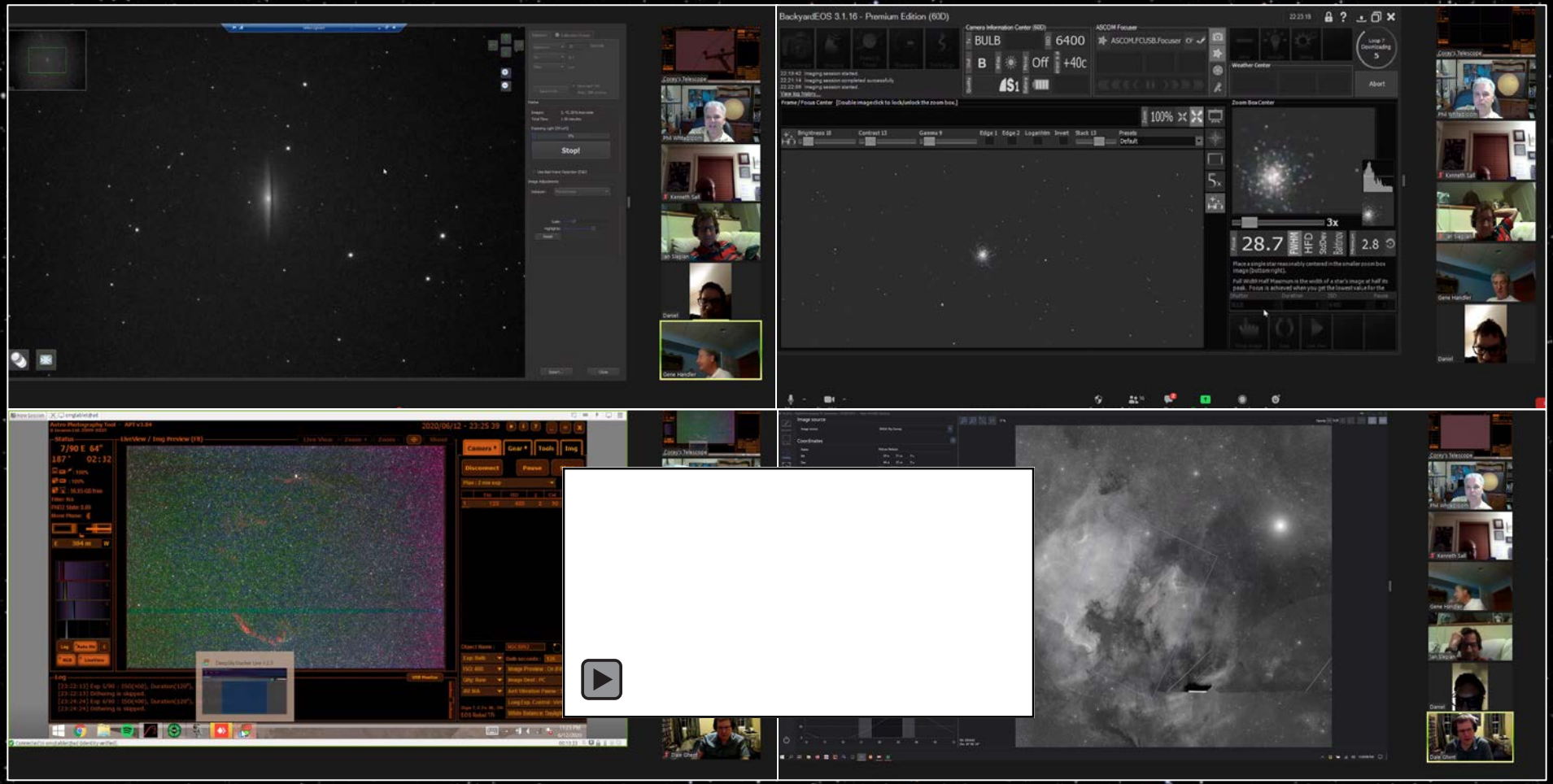
# Astro-School Virtual

We have not had an event since Jim concluded on the Celestial Sphere. Resulting from our Open Cluster get together, I will be talking with Dennis Conte regarding doing a session on exoplanets.

# HAL Open Cluster

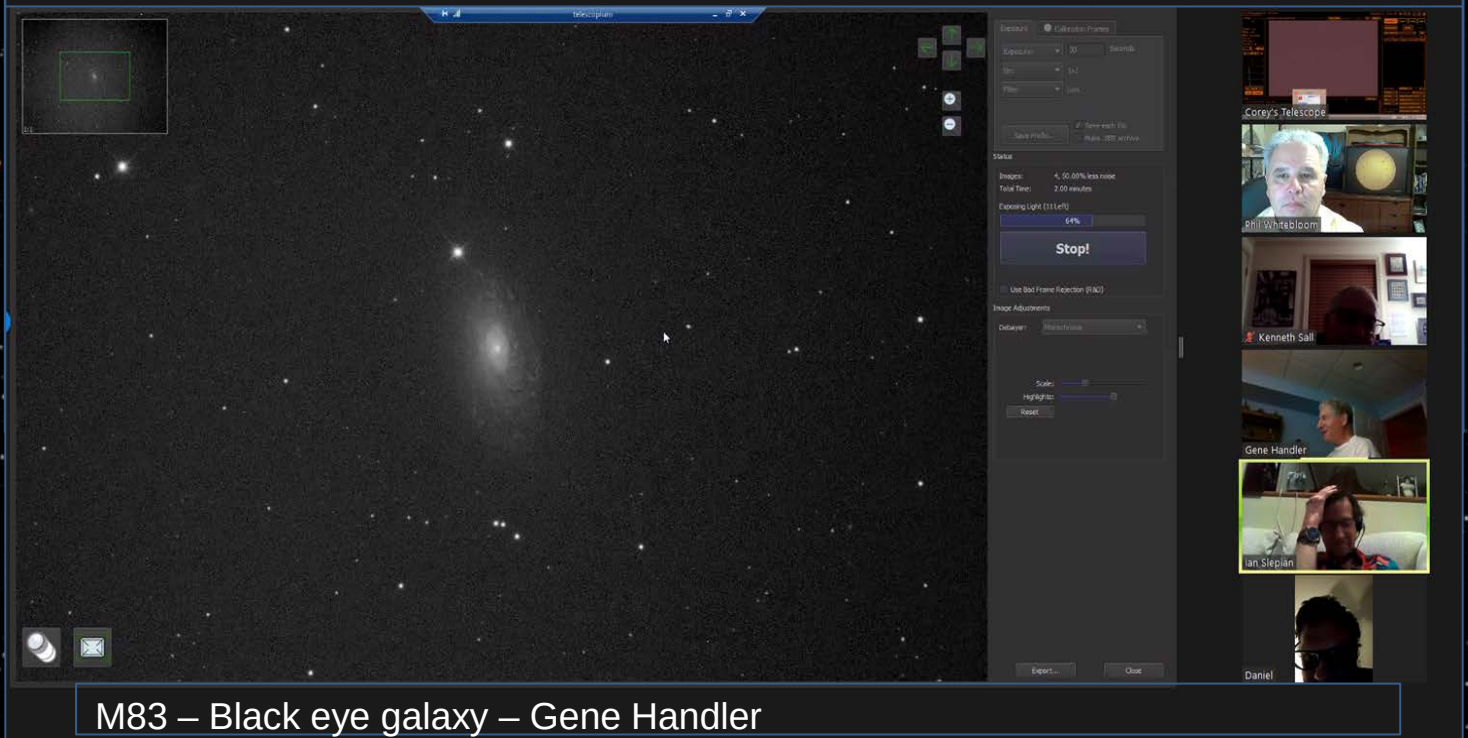
It is an open forum. The conversation guided itself. Great ideas came from it. Everybody wants to continue on a monthly basis. Next meeting will be soon after July 4th.

# Virtual Star Party

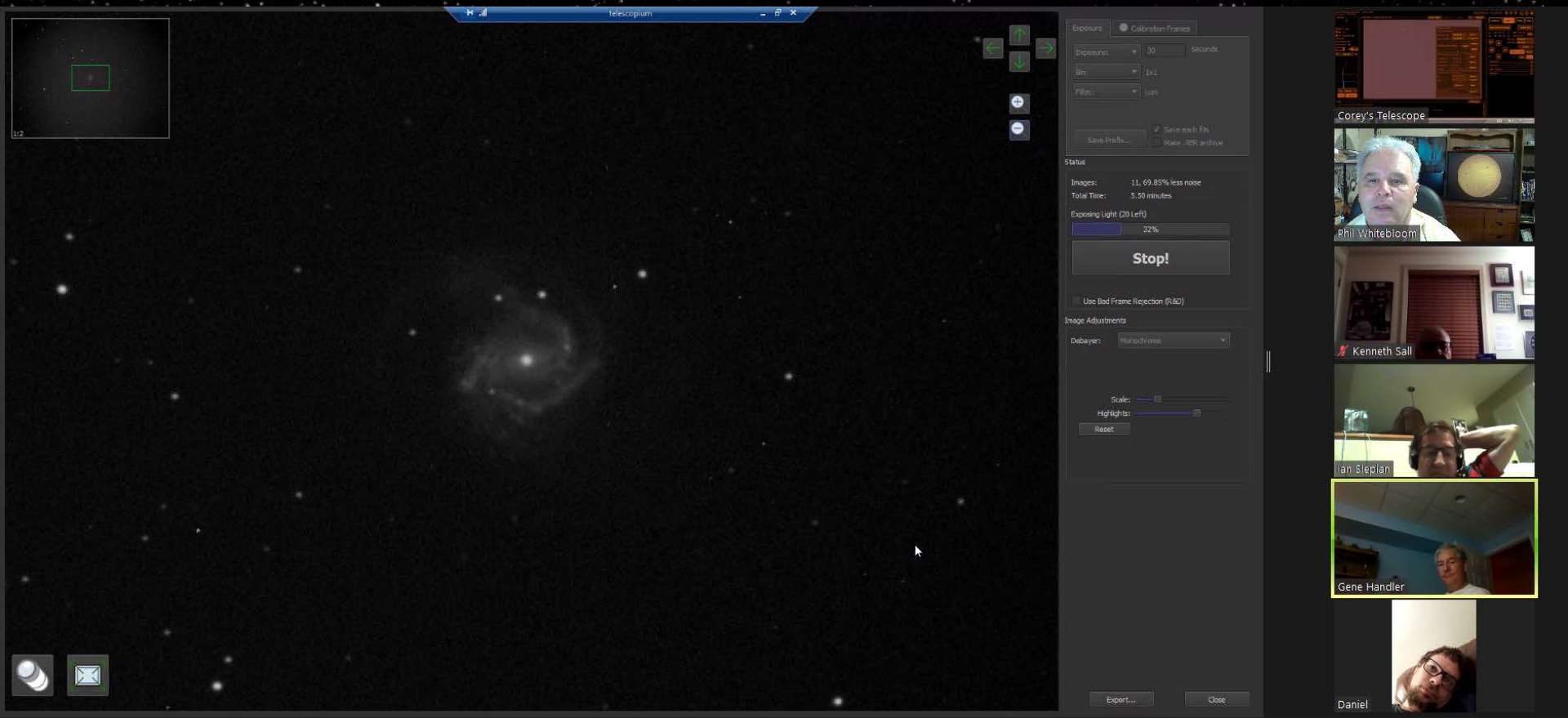



Thanks to our backyard astronomers: Gene Handler, Jim Johnson, Dale Ghent, and Corey Kovil

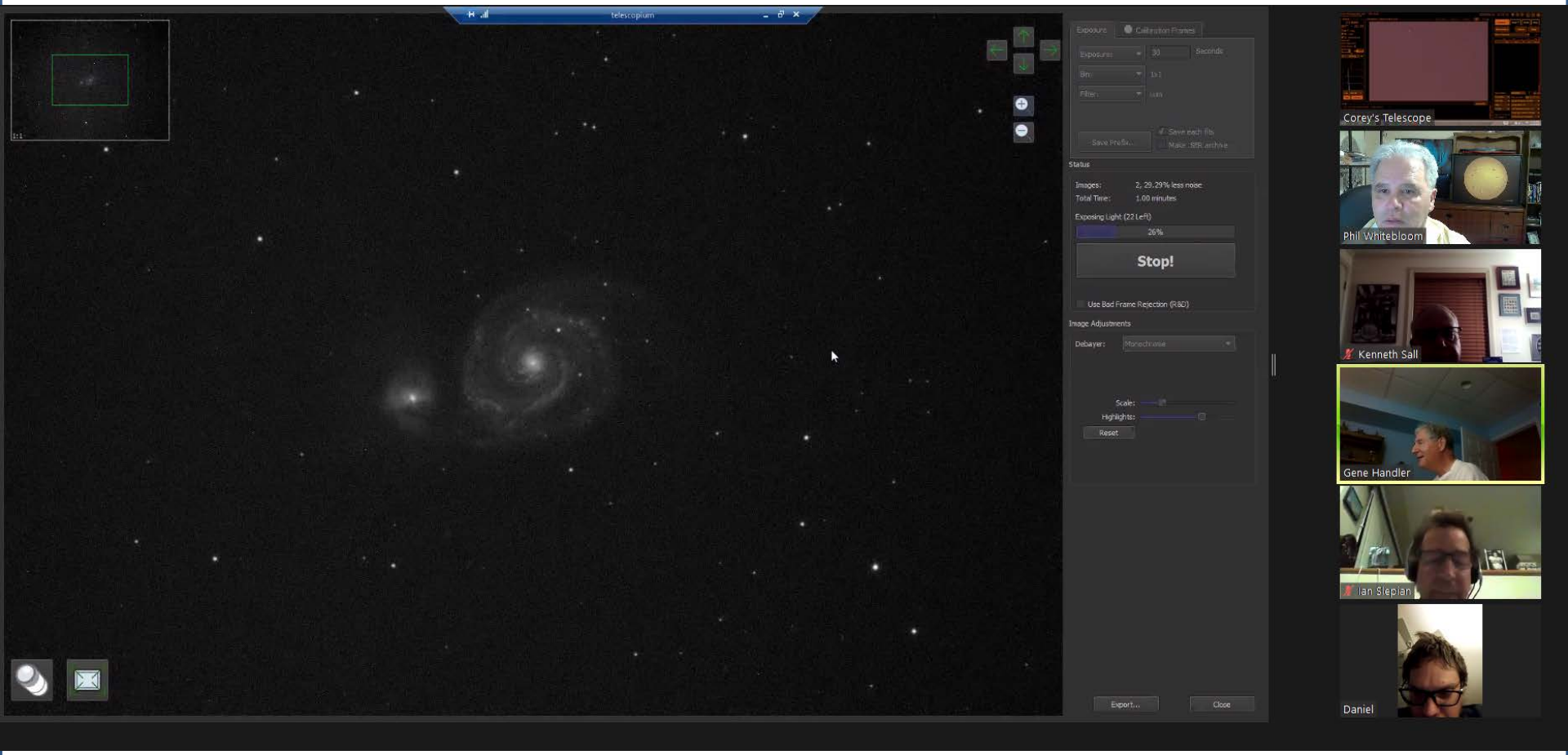

M81 and M82 – Gene Handler



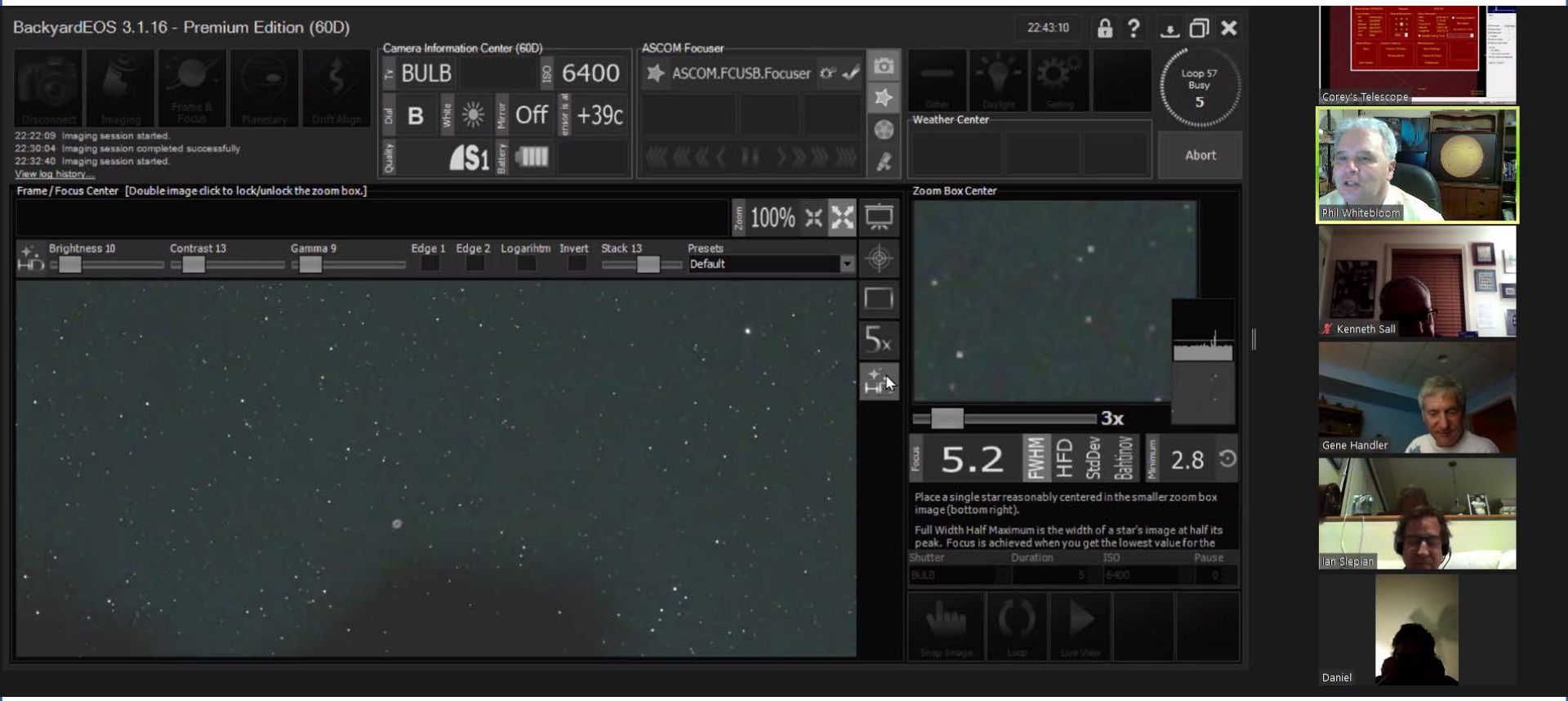

M83 – Black eye galaxy – Gene Handler



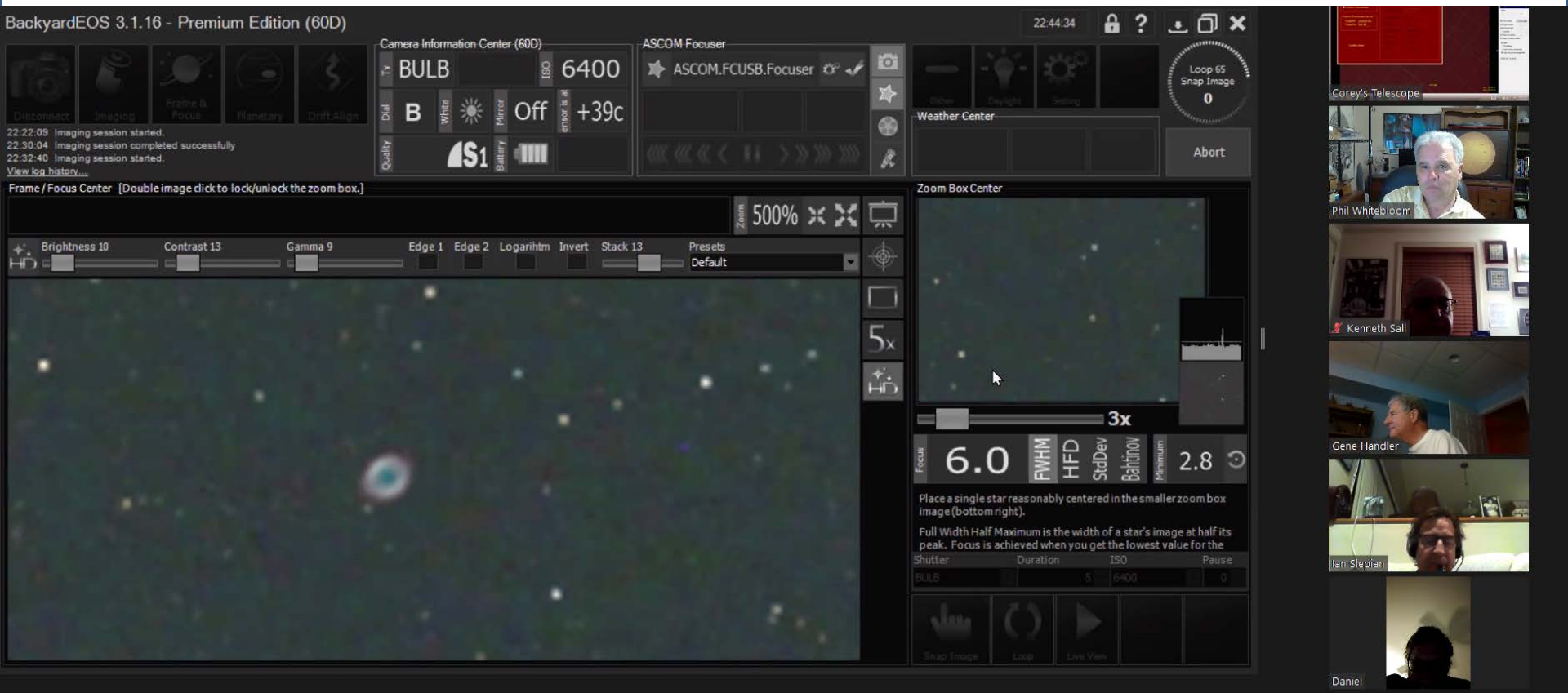

M61 with Super Nova – Gene Handler




M51 Whirlpool Galaxy – Gene Handler




M57 – Ring Nebula - Jim Johnson


BackyardEOS 3.1.16 - Premium Edition (60D)
22:44:34
Camera Information Center (60D)
BULB
6400
B
Off
+39c
ASCOM Focuser
ASCOM.FCUSB.Focuser
Weather Center
Loop 65
Snap Image
0
Abort
Disconnect
Imaging
Frame & Focus
Planetary
Drift Align
22:22:09 Imaging session started.
22:30:04 Imaging session completed successfully
22:32:40 Imaging session started.
View log history...
Frame / Focus Center [Double image click to lock/unlock the zoom box.]
Zoom
500%
Brightness 10
Contrast 13
Gamma 9
Edge 1
Edge 2
Logarihtm
Invert
Stack 13
Presets
Default
5x
Zoom Box Center
3x
Focus
6.0
RWHM
HFD
StdDev
Bahtinov
Minimum
2.8
Place a single star reasonably centered in the smaller zoom box image (bottom right).
Full Width Half Maximum is the width of a star's image at half its peak. Focus is achieved when you get the lowest value for the
Shutter
Duration
ISO
Pause
BULB
5
6400
0
Snap Image
Loop
Live View


Corey's Telescope


Phil Whitebloom


Kenneth Sall


Gene Handler


Ian Slepian


Daniel

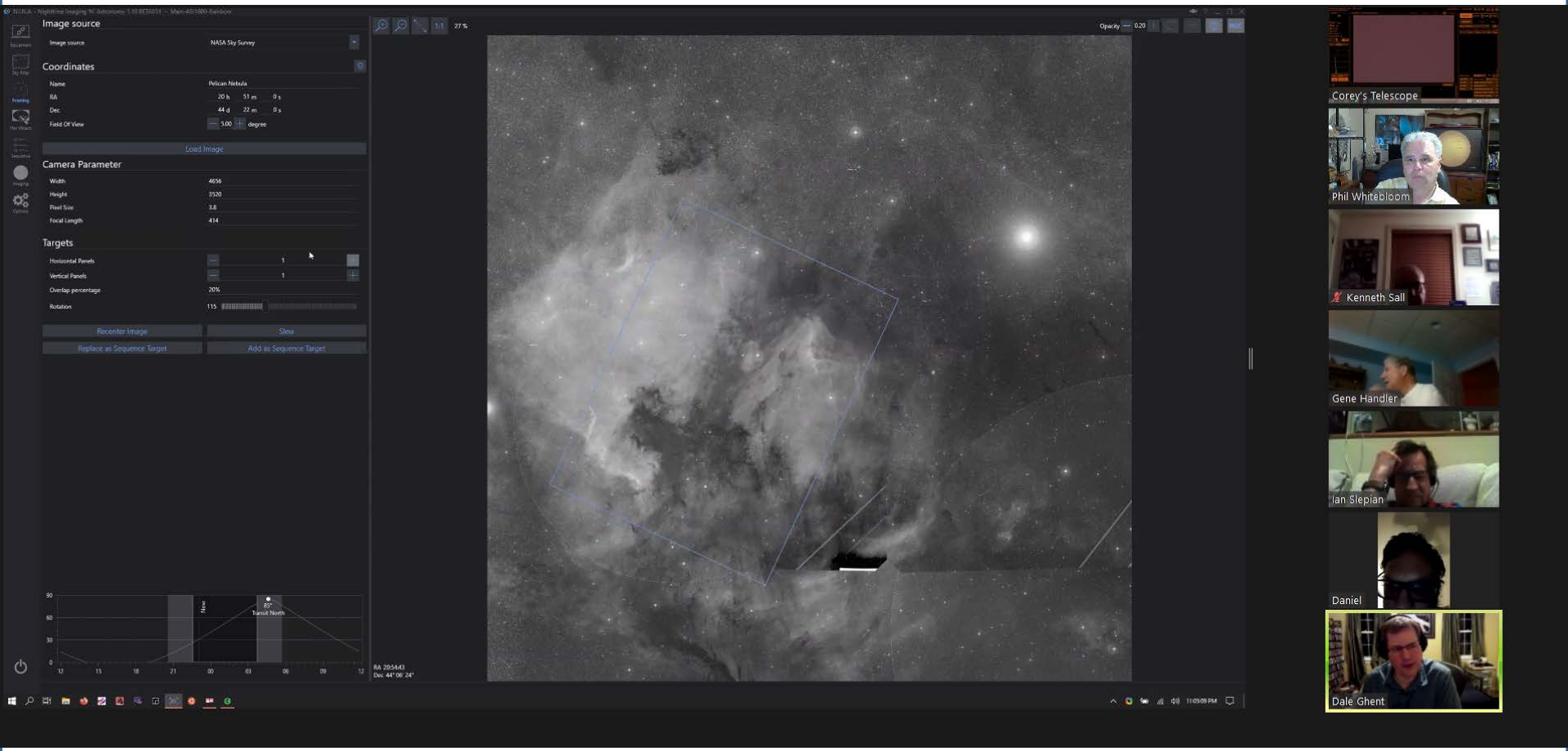
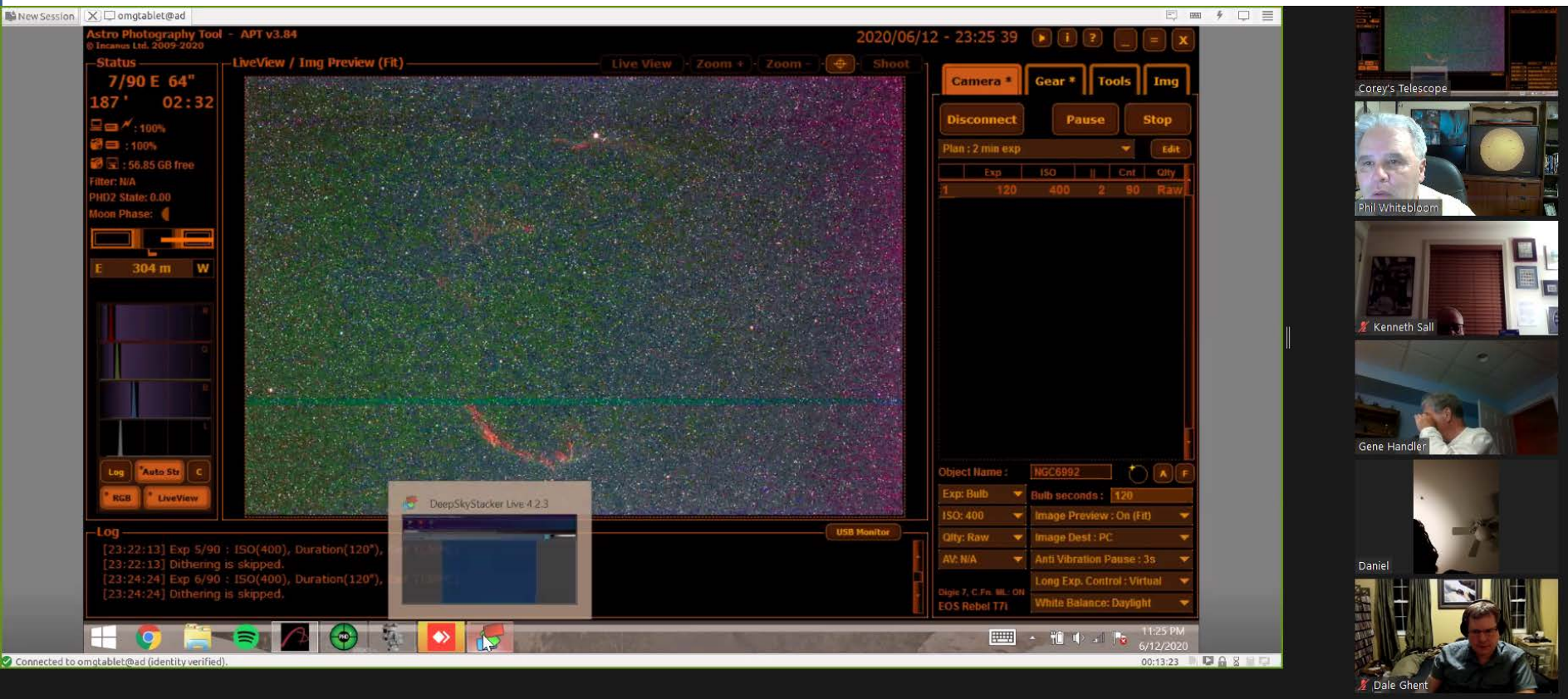


Image source
Image source
NASA Sky Survey
Coordinates
Name
Pelican Nebula
RA
20 h 51 m 0 s
Dec
44 d 22 m 0 s
Field Of View
5.00 degree
Load Image
Camera Parameter
Width
4656
Height
3520
Pixel Size
3.8
Focal Length
414
Targets
Horizontal Panels
1
Vertical Panels
1
Overlap percentage
20%
Rotation
115
Recenter Image
Slew
Replace as Sequence Target
Add as Sequence Target
Now
85°
Transit North
RA 20h44m43
Dec 44° 06' 24"
Opacity 0.20
Corey's Telescope
Phil Whitebloom
Kenneth Sall
Gene Handler
Ian Slepian
Daniel
Dale Ghent


New Session
omgtablet@ad
Astro Photography Tool - APT v3.84
© Incanus Ltd. 2009-2020
2020/06/12 - 23:25 39
Status
7/90 E 64"
187 ' 02:32
: 100%
: 100%
: 56.85 GB free
Filter: N/A
PHD2 State: 0.00
Moon Phase:
E 304 m W
LiveView / Img Preview (Fit)
Live View
Zoom +
Zoom -
Shoot
Camera *
Gear *
Tools
Img
Disconnect
Pause
Stop
Plan : 2 min exp
Edit
Exp
ISO
Cnt
Qlty
1 120 400 2 90 Raw
Log
Auto Str
C
RGB
LiveView
DeepSkyStacker Live 4.2.3
USB Monitor
Object Name :
NGC6992
Exp: Bulb
Bulb seconds :
120
ISO: 400
Image Preview : On (Fit)
Qlty: Raw
Image Dest : PC
AV: N/A
Anti Vibration Pause : 3s
Long Exp. Control : Virtual
EOS Rebel T7i
White Balance: Daylight
[23:22:13] Exp 5/90 : ISO(400), Duration(120"),
[23:22:13] Dithering is skipped.
[23:24:24] Exp 6/90 : ISO(400), Duration(120"),
[23:24:24] Dithering is skipped.
11:25 PM
6/12/2020
Connected to omgtablet@ad (identity verified).
00:13:23


Corey's Telescope


Phil Whitebloom

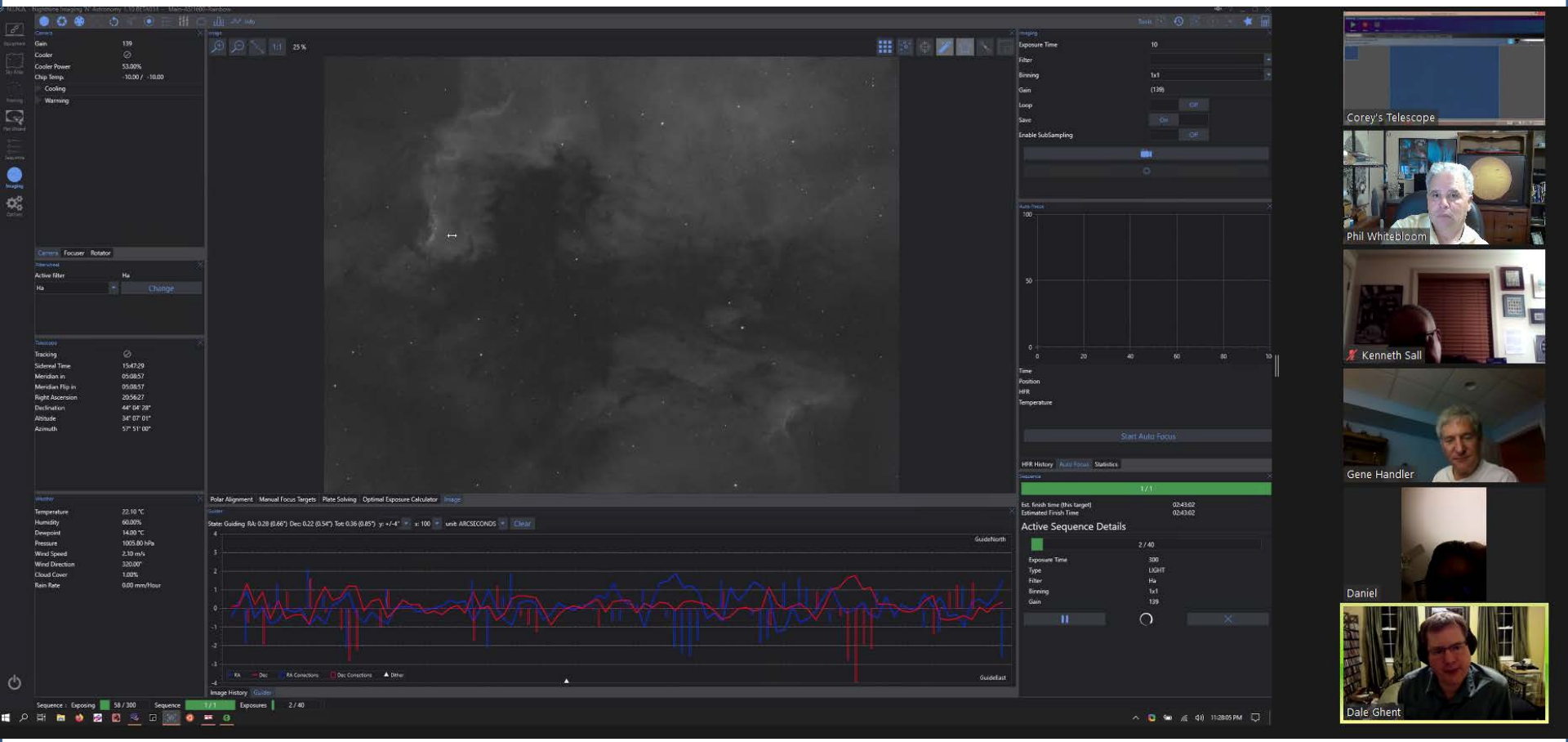

Kenneth Sall


Gene Handler

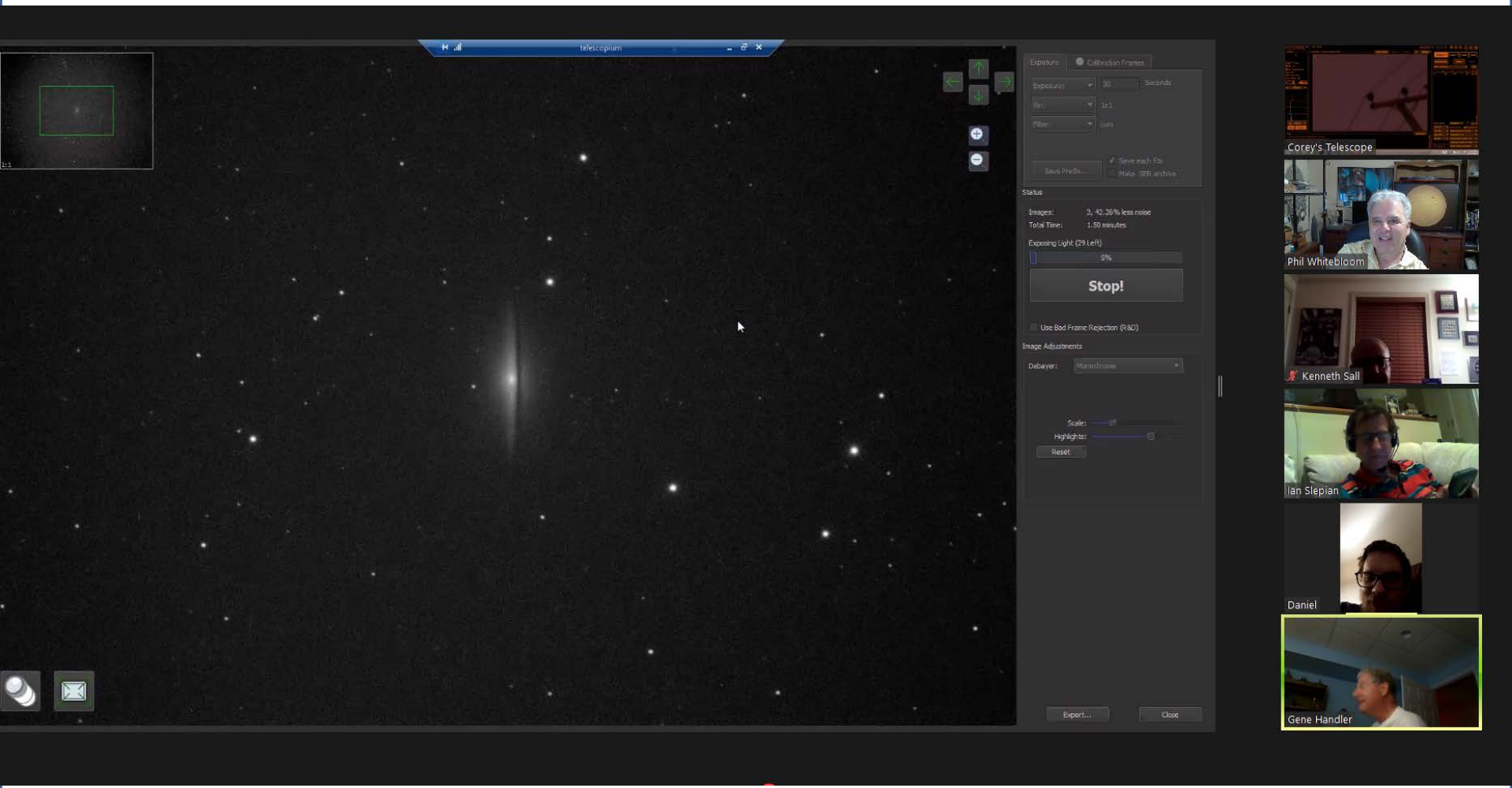

Daniel


Dale Ghent

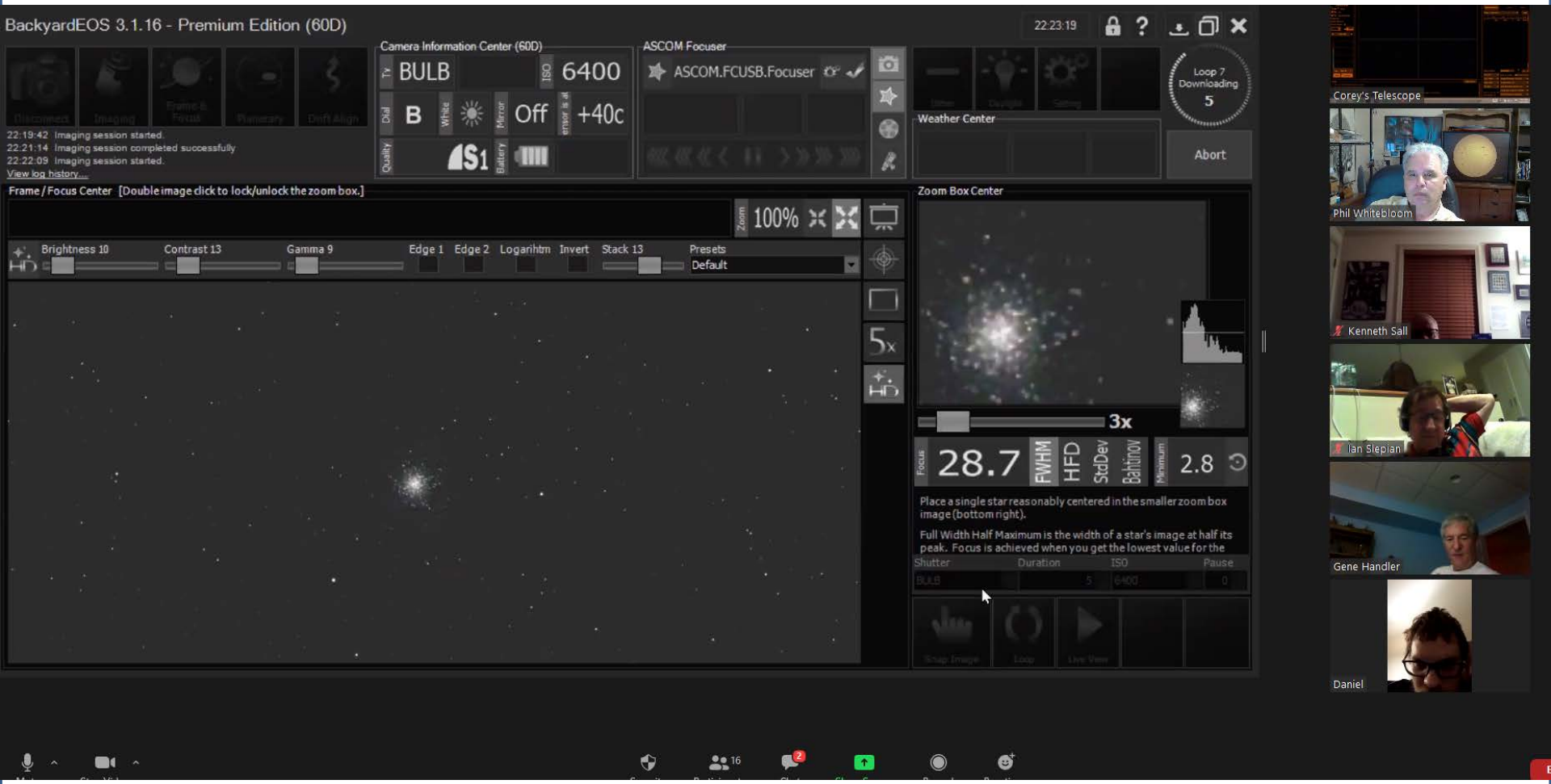

Dale Gent Screen




North American Nebula – Pelican Nebula - Dale Gent Screen



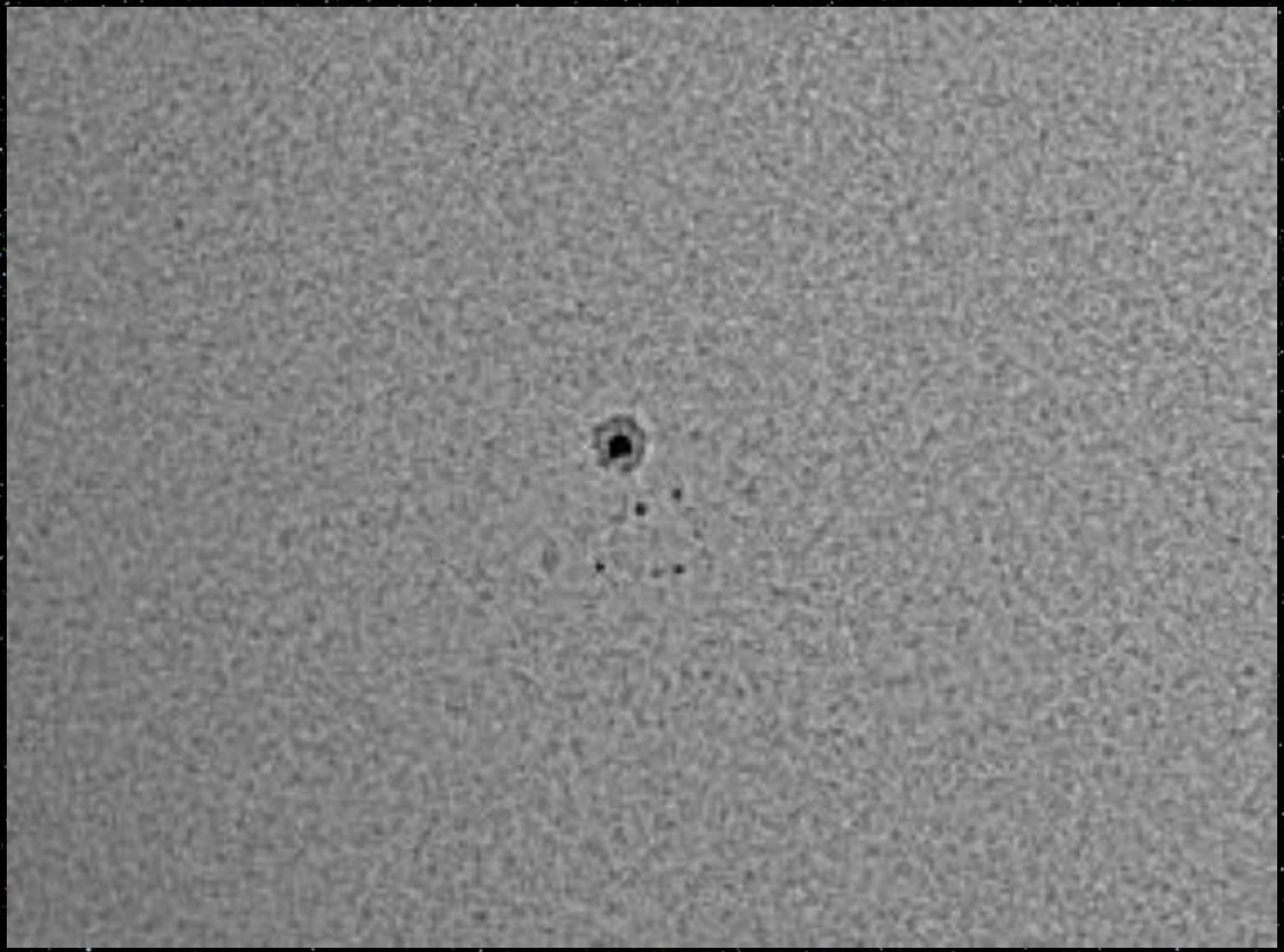

Sombrero Galaxy – Gene Handler




M13 Jim Johnson

# HAL Members Astro Art

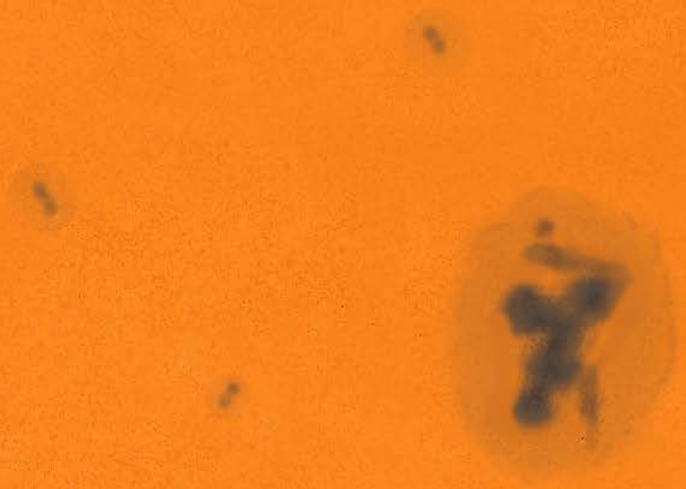
Chris Miskiewicz



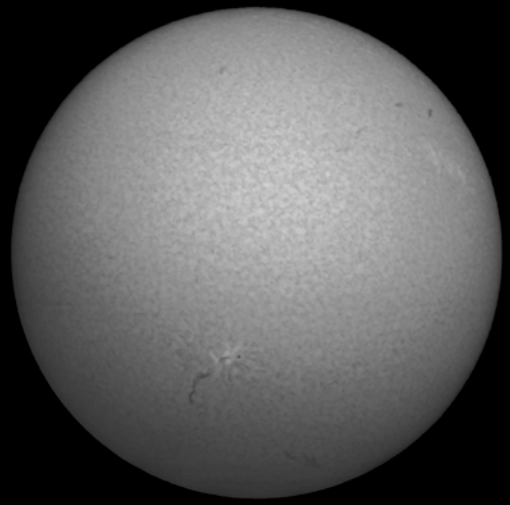
Chris Miskiewicz

# Sunspot Group
# Active Region AR-2765

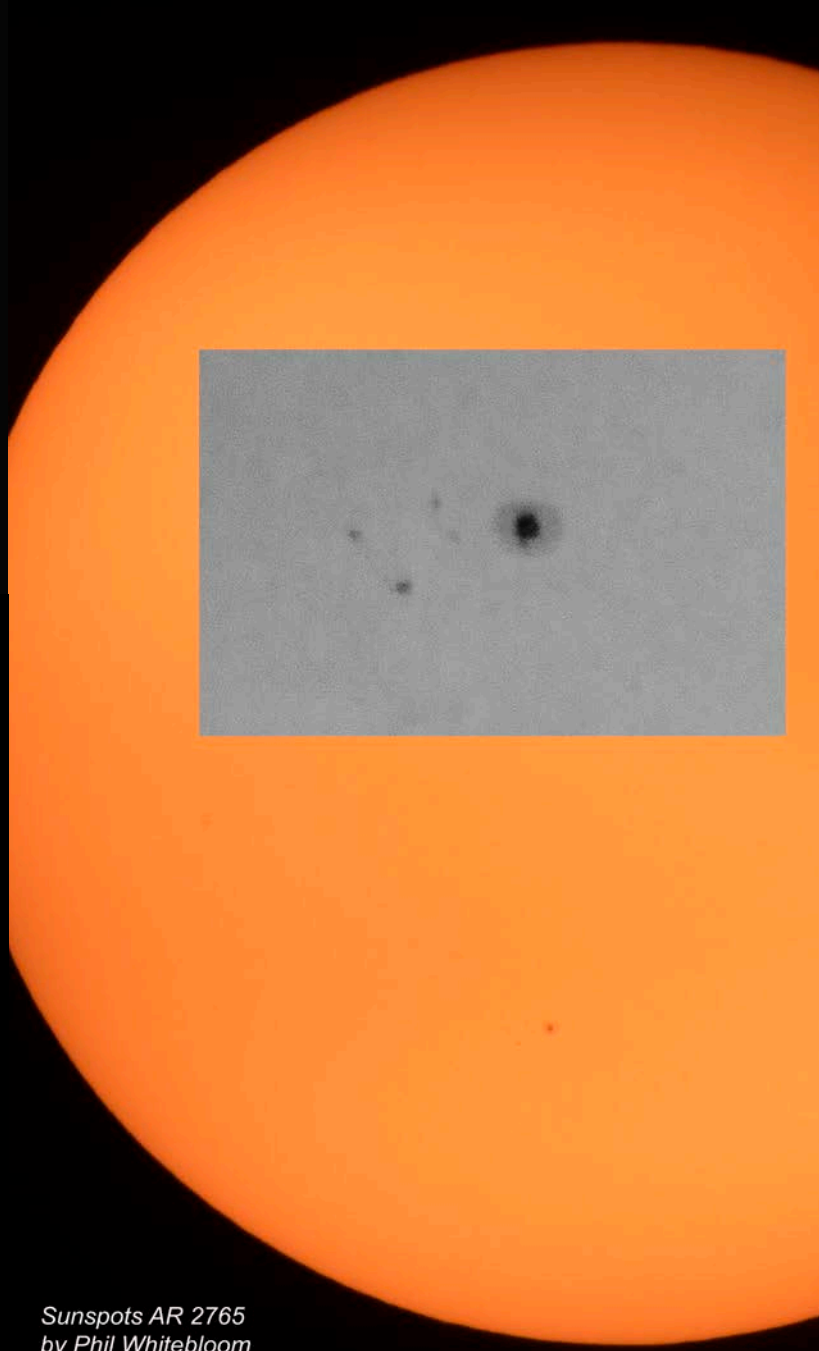
Date: 09-June-2020  Time: 08:45 to 09:30 EDT



Telescope: 155mm Refractor  Eyepiece: 6mm Delos (182x)
Solar Filter: Thousand Oaks  Orientation: Diagonal View
Drawing by: Richard Orr



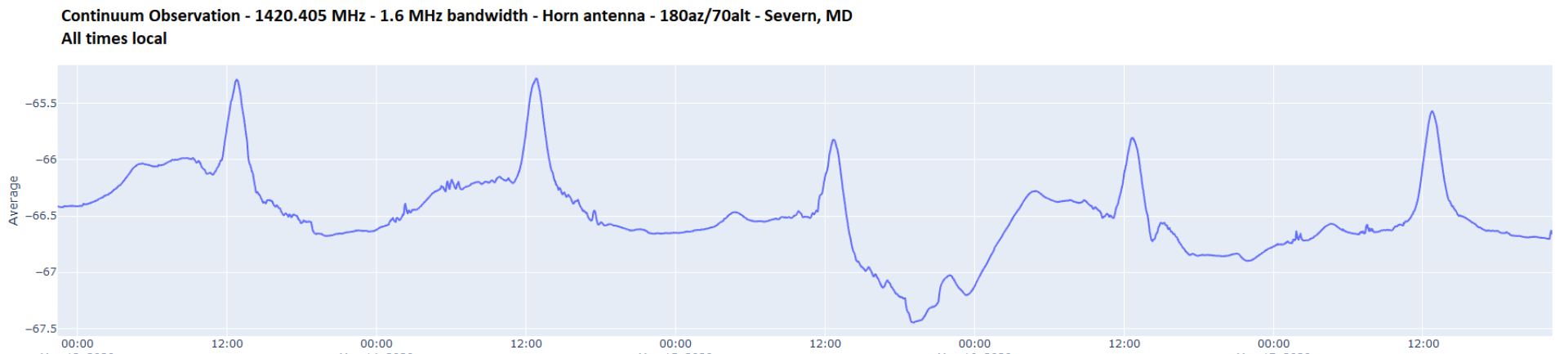
*Sunspots AR2765 Ha*
*by Phil Whitebloom*
*June 9, 2020*



*Sunspots AR 2765*
*by Phil Whitebloom*
*June 7, 2020*

# Radio Astronomy by Jim Lane

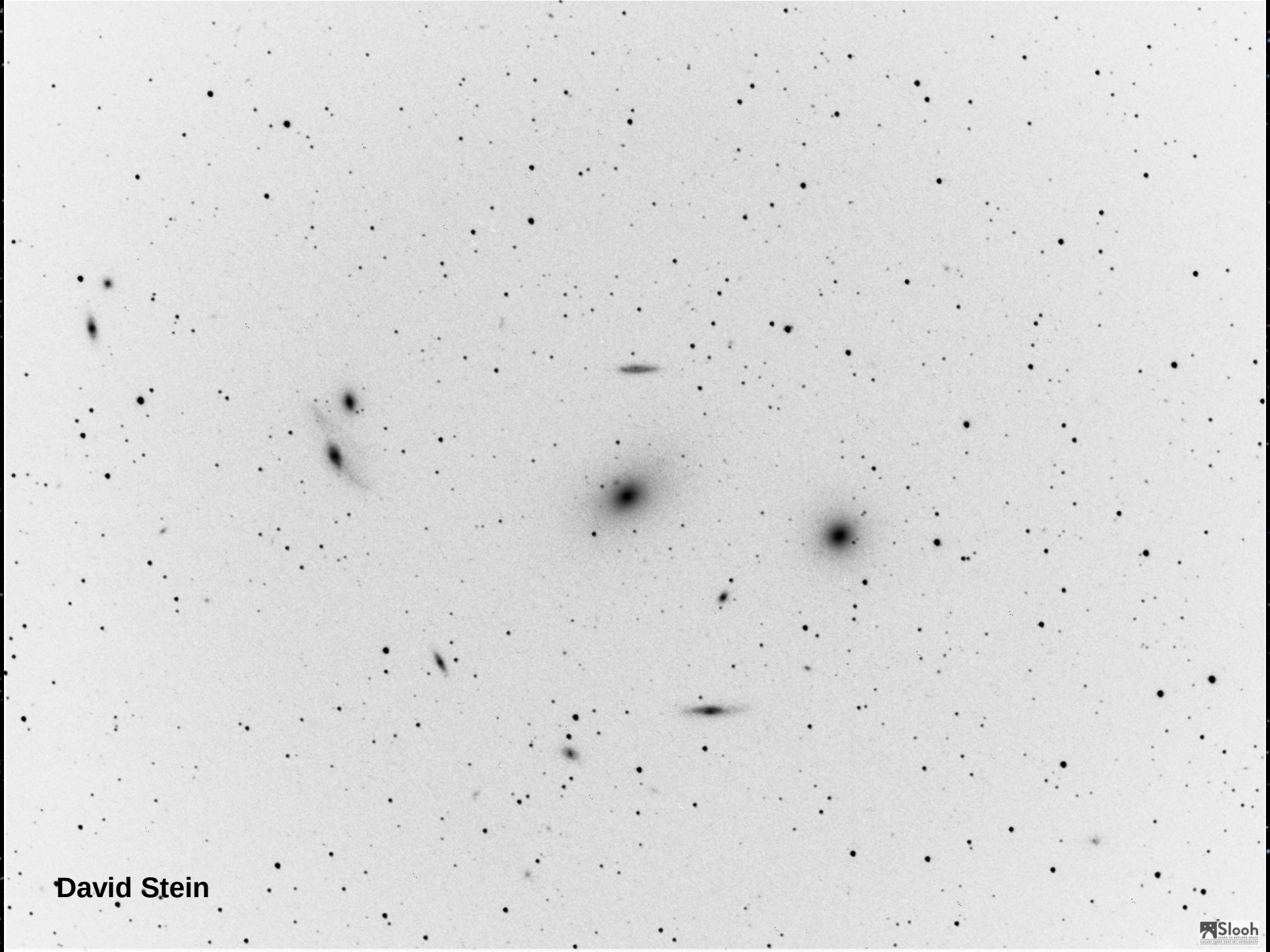
The plot is a continuous recording over five days. The larger spikes on the plot are the sun going in front of the antenna. The smaller bumps/ripples to the left and right of the larger spikes is the Milky Way going by. Milky Way times are ~0530 and ~1600 local times. Other ripples in the plot are unexplained (temperature swings of my gear outside; local noise; ??).




© Cheryl Kerr

Victor Sanchez

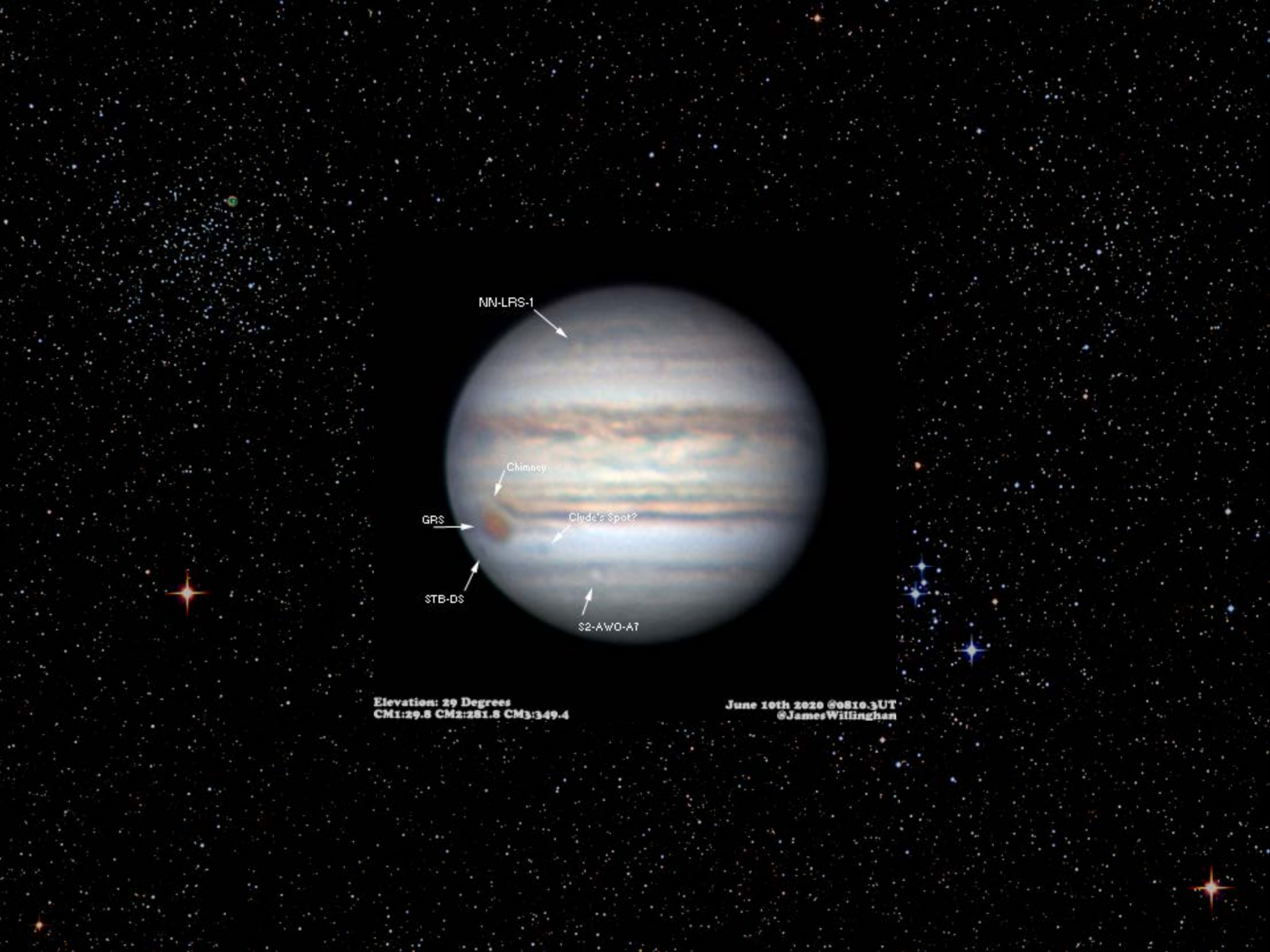

David Stein


David Stein


# Leo Triplet

M65 – M66 – NGC 3628
May 25, 2020
Towson, MD
(Class 8 Bortle)

- ✓ 375x10 sec exposures (about 1 hour integration)
- ✓ ISO 3200
- ✓ Canon t6s
- ✓ Vixen ED80sf refractor (80mm f/7.5)
- ✓ Processed using
  - DeepSkyStacker
  - PixInsight
  - Photoshop


NN-LRS-1
Chimney
GRS
Clyde's Spot?
STB-DS
S2-AWO-A7
Elevation: 29 Degrees
CM1:29.8 CM2:281.8 CM3:349.4
June 10th 2020 @0810.3UT
@JamesWillinghan


The Moon and Planets
June 10th 2020
@JamesWillinghan

# Tonight's Guest Presenter

**Dale Ghent**

Topic: "NINA Software and Astro Imaging Apps
"

# July Guest Presenter

July 16, 2020

7:00PM

To Be Announced

# Thank To All of You

Stay Healthy

Stay Safe

Clear Skies