

# Howard Astronomical League



September 17, 2020

# Astro Humor



**Why couldn't the astronaut book a room on the moon?**



**Because it was full!**

**WHAT IS A SPACEMAN'S  
FAVORITE HALLOWEEN  
TREAT?**



**A Moon Pie.**

# Welcome New Members and Guests



*International* OBSERVE  
THE **MOON** NIGHT 2020

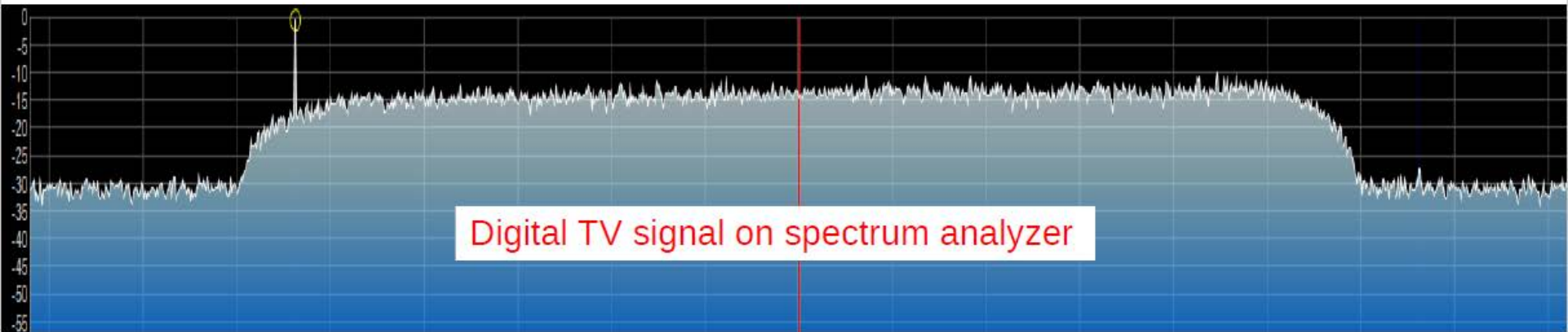
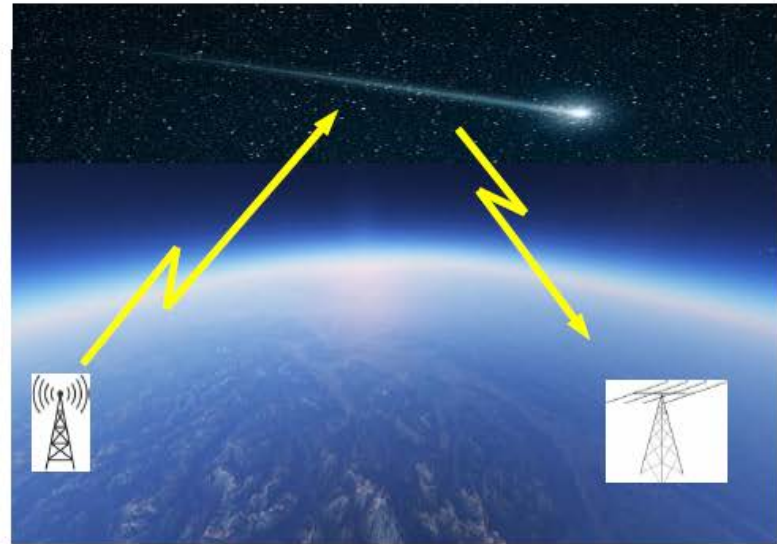


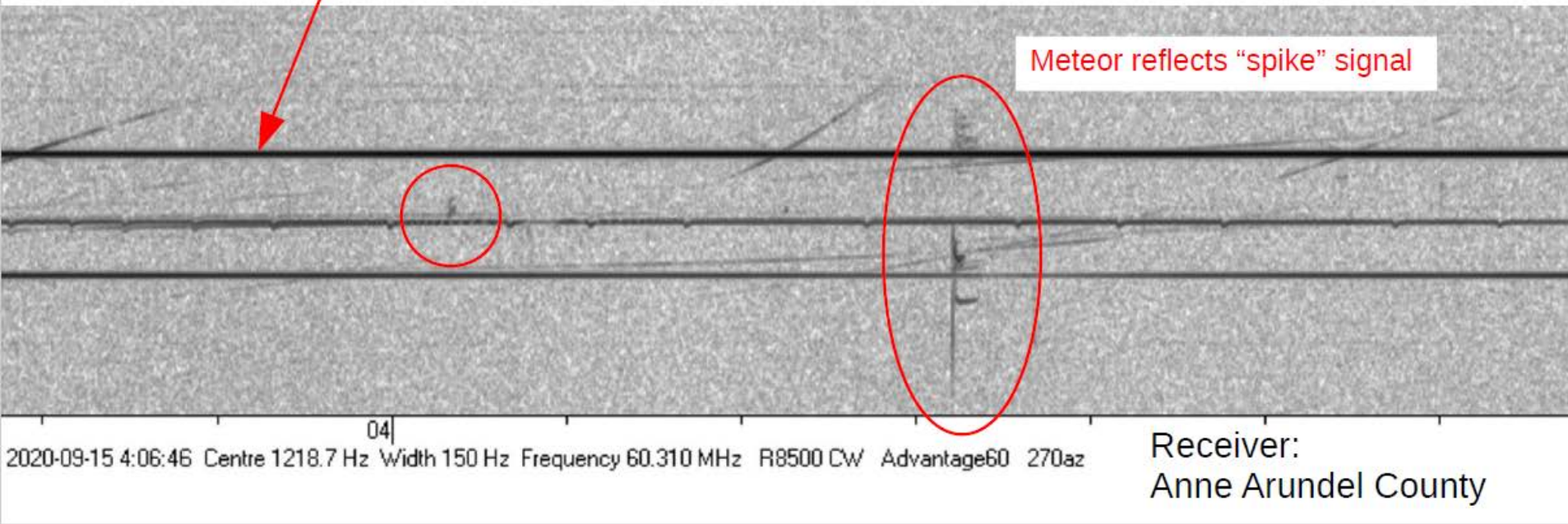
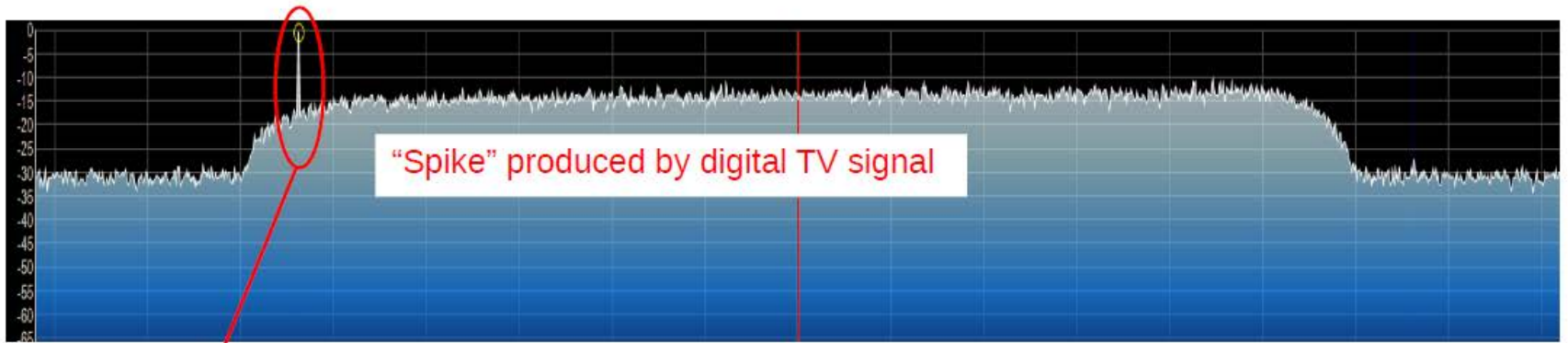
*September*  
**26<sup>TH</sup>**

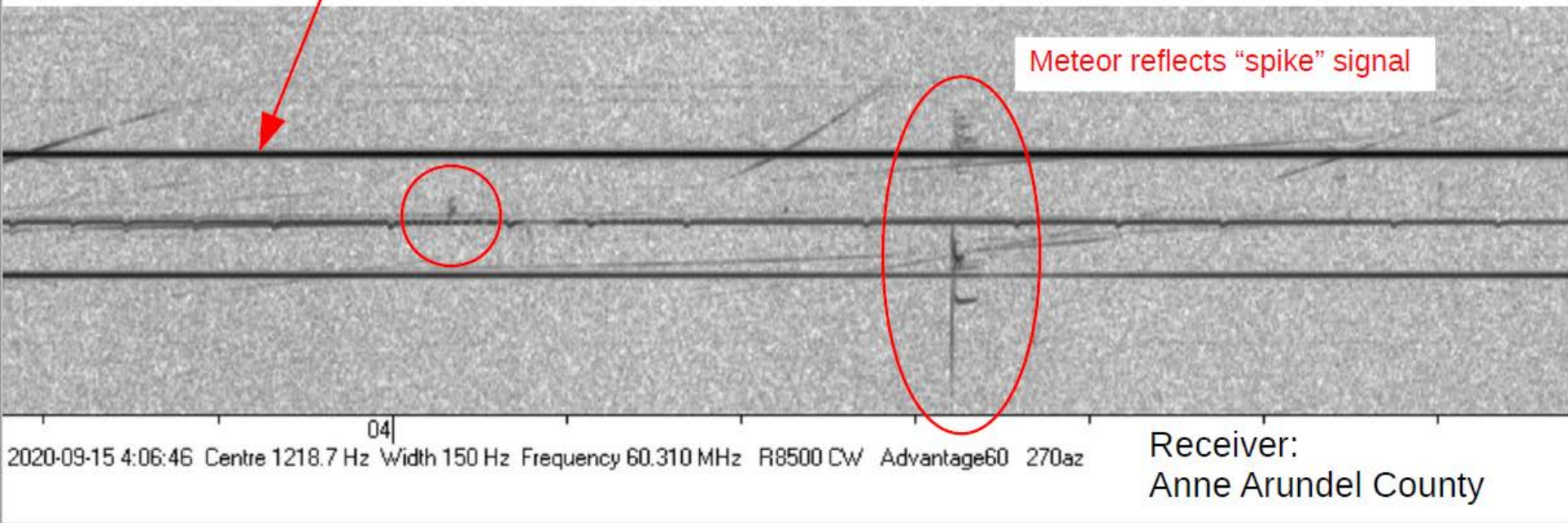
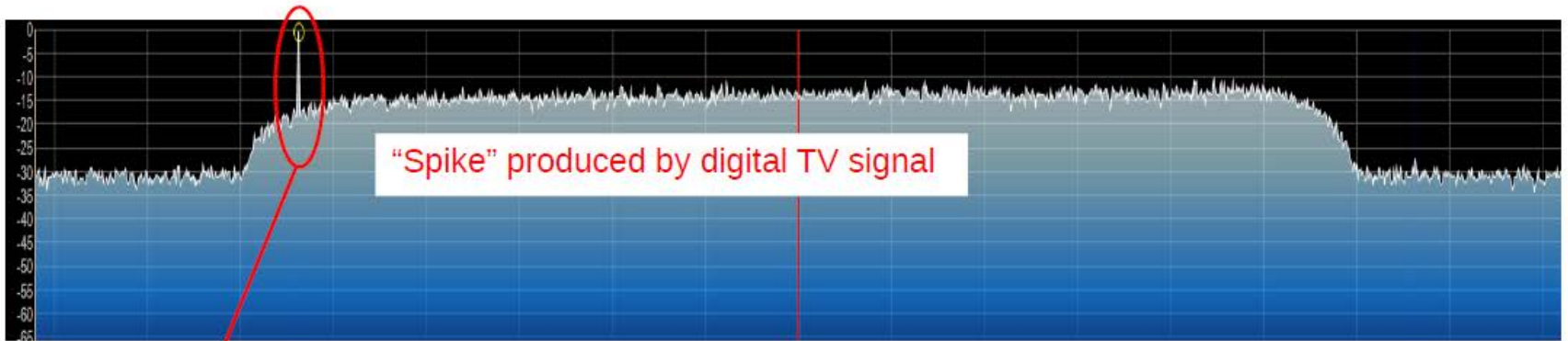
#ObserveTheMoon

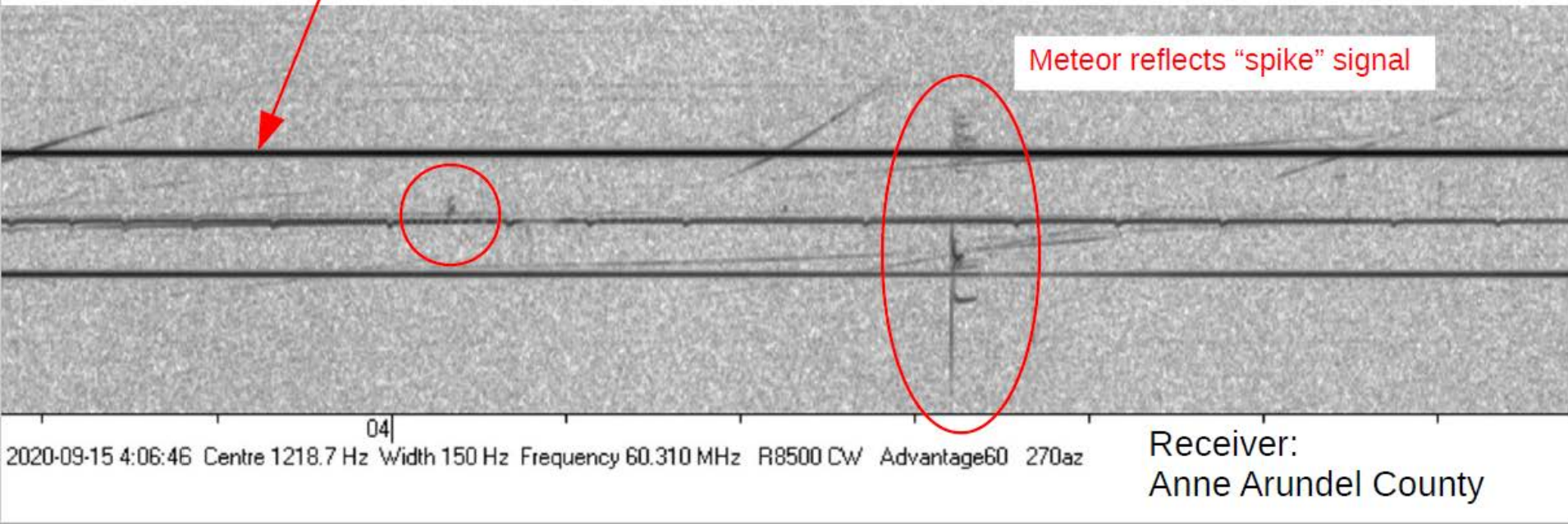
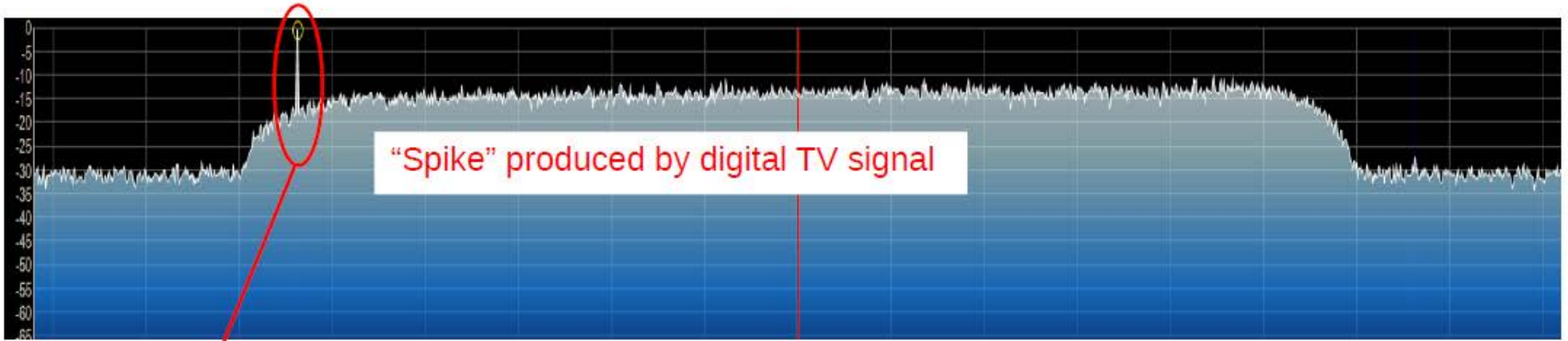
MOON.NASA.GOV/OBSERVE

# Detecting meteors using digital television broadcasts



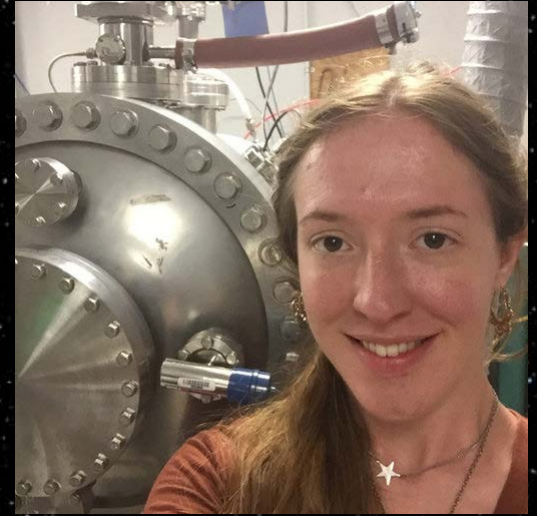






**Guest Presenter**

**Dr. Caitlin Ahrens**



**NASA Postdoctoral Program Fellow  
Ph.D. Space and Planetary Science  
NASA Goddard Space Flight Center**



# Impromptu Star Parties

Alpha Ridge is open for a keyholder to call an Impromptu with the following provisions:

- 1) HALO will remain closed, except to the keyholder to turn off/on the parking lot and restroom lights and to turn on power to the exterior SE corner of HALO.
- 2) The restrooms will not be unlocked. If they are left unlocked by the County, they are not to be used.
- 3) The keyholder is responsible for closing the gate after entering and keeping lock separately until locking up at the end of the observing session.
- 4) Members will be informed that the gate is being left closed except for entry and exit. Members will be asked to open the gate inwards and close the gate behind them upon arrival and to repeat the routine upon departure.
- 5) Members will be reminded that all social distancing protocols currently called for in Howard County will be in effect.

# HAL OFFICERS

## HAL Officers/Positions 2020

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

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

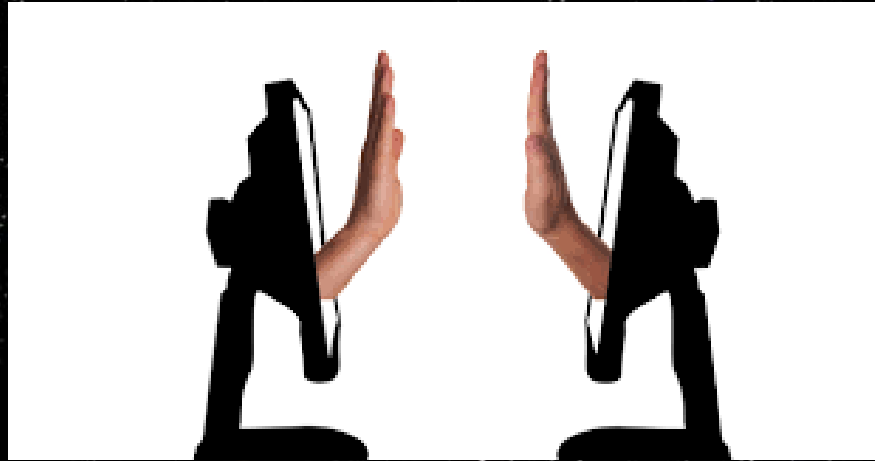
+ Appointed non-voting member of the board except when position filled by an elected officer

# Membership

Our Membership in HAL has grown by at least 35 new members this month. Our FaceBook membership is also growing as well as our Impromptu list.

# HAL Virtual

## What's Been Happening?



# Astro-School Virtual

## Lunar Features



*More than Simple Craters*

# HAL Members Astro Art





Messier 31 - Andromeda Galaxy  
by John Nagy




Cheryl Kerr



© Cheryl Kerr



Cheryl Kerr



© Cheryl Kerr

This is the same M31 image I took with just my DSLR & a 400mm zoom lens back in Oct, 2019. The difference? The one on the RIGHT was my original processing attempt w/ Deep-Sky Stacker back in Oct, 2019, when I wasn't too skilled in processing. - The one on the LEFT was my attempt at re-processing it in May, 2020, but this time, in Photoshop, after I learned a bit more!



M31 - Andromeda Galaxy  
Canon T6i DSLR  
Tamron 18-400 Lens @ 400mm, f/6.3  
185 stacked frames @ 10 secs, ISO 1600

RIGHT: Imaged, stacked & processed w/ DSS, Oct, 2019  
LEFT: Reprocessed w/ Photoshop, May, 2020

© Steve Rifkin, 2020

M27 - Dumbbell Nebula  
Celestron C8 SCT  
Canon T6i DSLR  
105 stacked frames @ 180 secs, ISO 800  
July/August, 2020

© Steve Rifkin, 2020

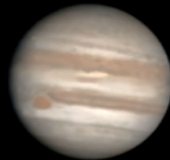


# JUPITER

Date: 7-September-2020  
Time: 21:35 to 22:45 EDT

Magnitude: -2.56  
Distance: 418,301,133 miles  
Size: 43 x 41 arcseconds

• Ganymede



• Star (PM 734972)

• Europa

• Callisto

Location: Deck of House  
Drawing by: Richard Orr

Telescope: 155mm Refractor  
Eyepiece: 3.5mm Delos (312x)  
Filters: Green #58 & Blue 80A  
Orientation: Inverted (South Up)

• Star (HD 179663)

# SATURN & MOONS

Star (HD 187225) ·

Date: 7-September-2020  
Time: 20:30 to 21:30 EDT  
Magnitued: 0.35  
Size: 41 x 16 arcseconds  
Distance: 864,489,000 miles

• Titan

Dione ·



Tethys ·

· Rhea

Telescope: 155mm Refractor  
Eyepiece: 3.5mm Delos (312x)  
Orientation: Inverted (South Up)  
Location: Deck of House  
Drawing by: Richard Orr

· Iapetus

# MARS

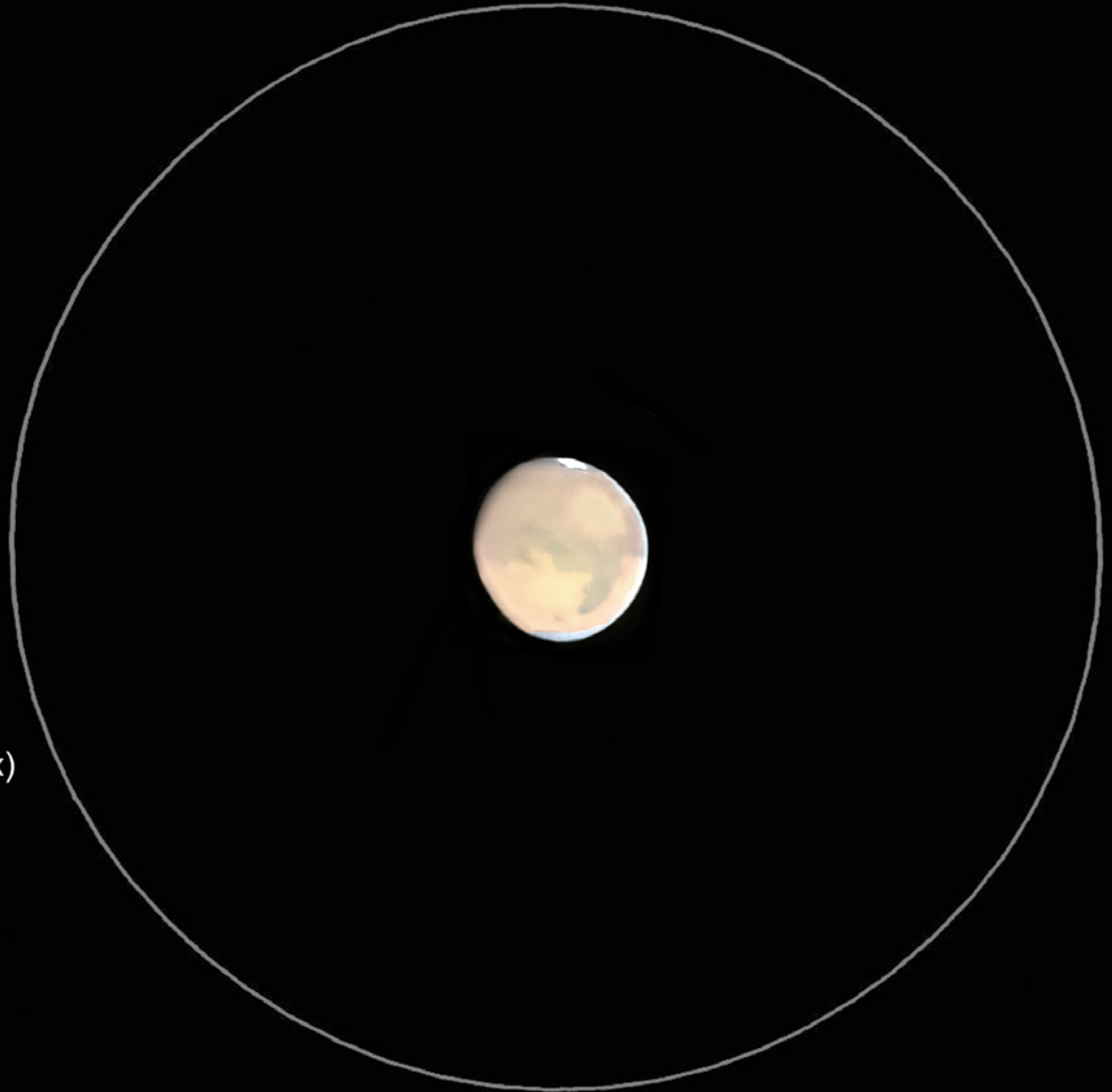
Date: 6-September-2020  
Time: 02:15 to 03:40 EDT

Constellation: Pisces

Magnitude: -1.94  
Distance: 44,618,787 miles  
Phase: 93%  
Size: 19.7 arcseconds  
CM: 254 degrees (03:00)

Telescope: 155mm Refractor  
Eyepiece: 4.5mm Delos w/barlow (413x)  
Filters: Mars B, Red #25  
Green #58, Blue #80A  
Orientation: Inverted (South Up)

Location: Deck of House  
Drawing by: Richard Orr





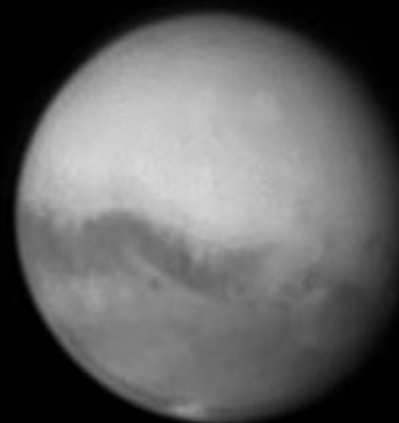
@JamesWillinghan  
September 15th 2020



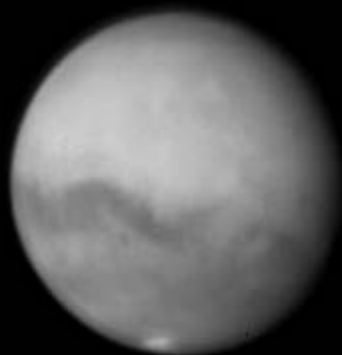
RGB



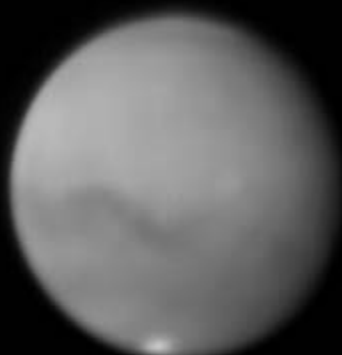
IR(G)B



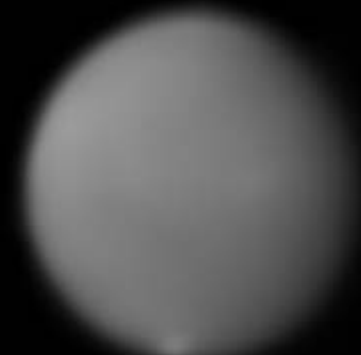
IR742 @0448.2UT



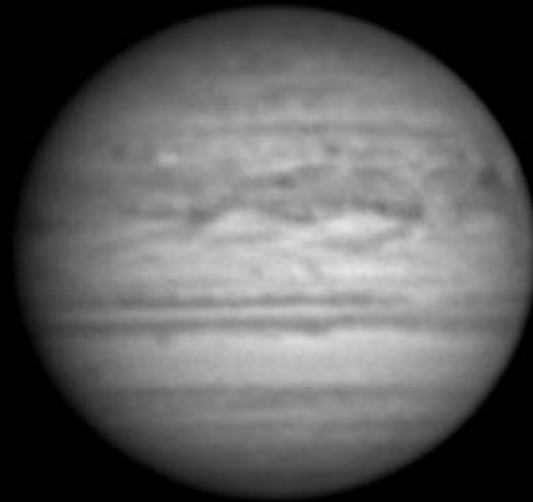
Red



Green



Blue



Red @0123.1UT

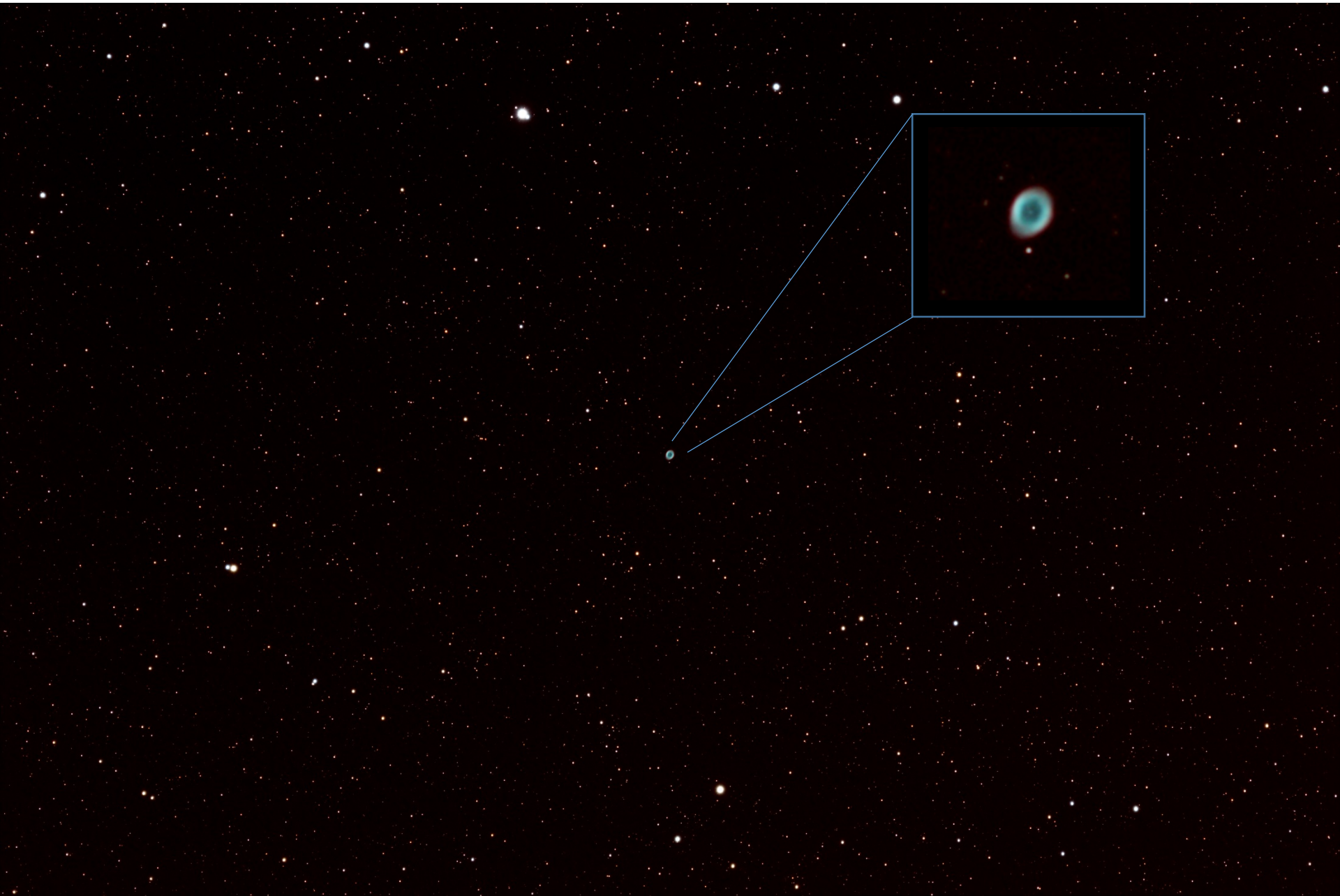
**Hercules Cluster – Messier 13 - Ellicott City - May 31<sup>st</sup>**

Astro-Tech (AT72EDii) - 72/432mm (f/6), Canon T2i, 163x60 sec. (2.7 hrs), ISO-800



# Ring Nebula – Messier 57- Ellicott City - June 20<sup>th</sup>

Astro-Tech (AT72EDii) - 72/432mm (f/6), Canon T2i, 12x30 seconds, ISO-800



**Comet NEOWISE – Bethany Beach, DE - July 9<sup>th</sup>**

Canon T2i w/ 55-250mm lens @ 250mm f/5.6, 3.2 seconds, ISO-3200



**Comet NEOWISE – Ellicott City, MD - July 18<sup>th</sup>**

Astro-Tech (AT72EDii) - 72/432mm (f/6), Canon T2i, f/6, 12x30 seconds, ISO-800



**Messier 27 – Dumbbell Nebula – Ellicott City, MD - July 27<sup>th</sup>**

Astro-Tech (AT72EDii) - 72/432mm (f/6), Canon T2i, 119x60 sec. (1.95 hr), ISO-1600



**Messier 27 – Dumbbell Nebula – Ellicott City, MD - July 29<sup>th</sup>**

Astro-Tech (AT72EDii) - 72/432mm (f/6), Canon T2i, 276x60 sec. (4.6 hr), ISO-1600



**Iris Nebula – NGC 7023 – Ellicott City, MD - August 8-10, 2020**

Astro-Tech (AT72EDii) - 72/432mm (f/6), ZWO ASI183MC-Pro, 96x240 sec. (6.4 hr), Gain-111



**Eastern Veil Nebula – NGC 6992 – Ellicott City, MD - August 16-17, 2020**

Astro-Tech (AT72EDii) - 72/432mm (f/6), ZWO ASI183MC-Pro, 137x240 sec. (9.1 hr), Gain-111



**Andromeda Galaxy – Messier 31 – Ellicott City, MD - Sept 6, 2020**

Astro-Tech (AT72EDii) - 72/432mm (f/6), ZWO ASI183MC-Pro, 20x360 sec. (2 hr), Gain-111



## **Mars 2020-09-07 0445 UTC**

Jim Johnson, Ashton MD

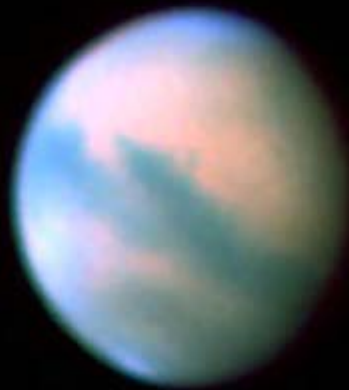
ZWO ASI290MM (iRGB)

Meade LX850 (12" f/16)

Autostakkert! (Stacking)

Registax (Sharpening)

Photoshop (Final Processing)



*Jim Johnson*  
© 2020

Theophilus  
and Cyrilius

by  
Jim Johnson





Clavius  
by  
Jim Johnson

Aristoteles  
by  
Jim Johnson



**Next Month**

**Monthly Meeting: Sept 17th**

**Speaker: TBD**

Thank To All of You

Stay Healthy

Stay Safe

Clear Skies