

# The High Desert Observer

October 2021

## This Month's Meeting - October 22, 2021

Meeting will be virtual via Zoom®  
Friday, October 22nd at 7 p.m.

### Speaker for the Month - Tim Kostelecky **Old and Unstable - My Experience with Long-Period Variable Stars**



Tim Kostelecky spent most of his adult life observing the sky through the bottom of a beer glass, having recently retired from his career as a brewing chemist. Brewing science was great, but since childhood his first love was astronomy, acquiring a telescope at 9 years of age — and unsurprisingly

has had quite a collection since then. In addition to his personal relationship with the cosmos, Tim was involved with a number of outreach programs including the Pine Valley Observatory in Colorado, Goldendale Observatory State Park in Washington state, and of course, now the Astronomical Society of Las Cruces. Tim is a visual telescopist and enjoys the subtle spectacularity it brings to the senses, along with the appreciation of the universe it instills. His interests include variable star observing as part of the AAVSO, and has recently developed some artistic expression through astro-sketching.



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### Coming Events

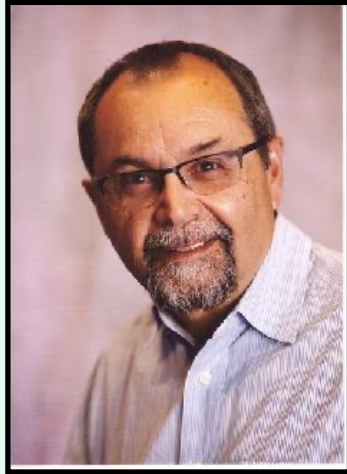
Monthly, on an evening close to the first-quarter moon, ASLC hosts a public "MoonGaze" observing session currently at the Plaza de Las Cruces. We also hold occasional special evening sessions at Tombaugh Observatory on the NMSU campus.

Also monthly, the ASLC welcomes public viewing at the Leasburg Dam State Park Observatory located just 20 miles north of Las Cruces. Our 16-inch Meade LX200 telescope at this site is used to observe under rather dark skies.

Keep updated on the dates, times, and locations through this [link](#) with additional information available at our website [www.aslc-nm.org](http://www.aslc-nm.org) as well as our [Facebook](#) page.

## From the Desk of Ed Montes ASLC President

So, William Shatner made it to “space”. I guess, to have a 90-year-old sci-fi icon go up in a ship is pretty impressive, both for the rocket team and for the man himself. I imagine that it had to be an extremely physically demanding event, so, hats off to Captain Kirk. I’ve gone through the thought experiment of going to space in one of these new tourist jaunts, and thoroughly dismissed it. I’m not talking about the expense (imagine you get it for free), nor about the end experience, it’s the getting there that makes it a “no” for me. I’m not interested in the physical prep needed to finally make the flight. That, and the risk, however slight it might be, and I have to think it’s not that slight.



As astronomy buffs, what are our limits? What are we willing to do to satisfy our astronomical desire? How far are we willing to travel and under what conditions? How much are we willing to spend for what equipment? How much non-direct astronomical stuff are we willing to do to scratch the itch? I’m sure we’ve all gone through those calculations, either explicitly or implicitly. I’ve driven 12 hours, endured “why are we staying in this dump” from whining progeny, and fought through hours of traffic jams subsequent to the event in order to see the 2017 solar eclipse in the middle of nowhere Wyoming. I’d do it again (and probably will for the 2024 eclipse in Texas).

Twice I’ve taken 20-hour flights across the Pacific and puddle-jumped to sites where rangers had to clear the zebras from dirt landing strips just to the resident astronomer at a lodge with dark, dark nights in Africa. I would still do that again, but as I crawl past 70, that itch will eventually be ignored. And of course, the cold nights, mosquitoes, strange sounds in the dark, skunks under the cot are all part of the lore of the amateur astronomer looking for the perfect observing site.

Yep, we all have our stories. What is your go/no go calculation? What would you do for a 10-minute glimpse of ultimate darkness and a view of the naked stars?

Once again and for a final time, I make the appeal to please volunteer to help out at the RennFaire on Nov 5th in the afternoon to set up, on Nov 6th and 7th to staff our booth during the fair, and afterwards to dismantle it. I’ll put up a request on groups.io and folks can sign up. If you are not yet on groups.io, please send a message to [president@aslc-nm.org](mailto:president@aslc-nm.org) or [treasurer@aslc-nm.org](mailto:treasurer@aslc-nm.org) to let us know that you are willing to participate, we’ll get back to you in a hurry.

Our next Zoom meeting is on Oct 22nd. Our Tombaugh Speaker this month will be our own Tim Kostecky. He will discuss what he has learned in his years of variable star observations.

That’s it for now. Clear skies!



**The Astronomical Society of Las Cruces (ASLC)** is dedicated to expanding public awareness and understanding of the wonders of the universe. ASLC holds frequent observing sessions and star parties, providing opportunities to work on Society and public educational projects. Members receive electronic delivery of The High Desert Observer, our monthly newsletter, plus membership in the Astronomical League including their quarterly publication, Reflector, available in either paper or digital format. ASLC members are also entitled to a discount on a subscription to Sky and Telescope magazine. Annual Individual Dues are \$36; Family \$42; Student (Full Time) \$24. Dues are payable in January and partial year prorated for new members. Please contact our Treasurer, Patricia Conley, [treasurer@aslc-nm.org](mailto:treasurer@aslc-nm.org) for further information.

## Member Article:

### Reconnaissance in the Burro Mountains

by John Kutney

#### Introduction

There was a detailed discussion with the Federal National Forester Ranger (Marta Call) about the Cosmic campground deviating from the original "Dark Site Sanctuary" configuration back in late 2018 and early 2019. It became open to campfires and was reduced in size by about two thirds. The Ranger was very cooperative in that she explained the overall purpose of the campground as controlled by the Federal Forest Service to be open to all types of campers and it was just coincidental that it was a dark site. Marta indicated "We have a fairly small footprint for this particular campground, but there are 3.3 million acres on the Gila National Forest with lots of room for dispersed camping and night sky viewing. New Mexico is famous for our dark skies". As part of the ongoing discussion, she suggested that I go to the Burro Mountains which are about 100 miles closer to Las Cruces in lieu of the Cosmic Campgrounds. The Burro Mountains are part of the Gila National Forest located between Silver City and Lordsburg NM. After near three years since the government changed the Cosmic to an open campground, I have been able to recon part of the



Route 90 at Mill Canyon Road

Burro Mountains suggested by the Ranger. It has taken three years because there was always another place to image or the weather was not cooperative.

#### Mill Canyon Road in the Burro Mountains

It was suggested that I try Mill Canyon as a first venture into this part of the Gila National Forest. It is a very easy place to reach from Las Cruces. It is 133 miles from Las Cruces with highway access all the way. Mills Canyon is 13.5 miles from Lordsburg on NM Route 90. There is signage indicating Mill Canyon Road and it is just past the Hidalgo County Line.

### Aerial Analysis

The area was reconned from aerial photos on Google Earth and I selected a location which seemed open and somewhat flat from the photos. My expectations and reality were soon distinguished. My original spot was about one mile up the dirt road from Route 90 as indicated by Base BM. It appears as an open area with a nice tree for shade. One can discern the spot from the yellow pin near the top of the map.

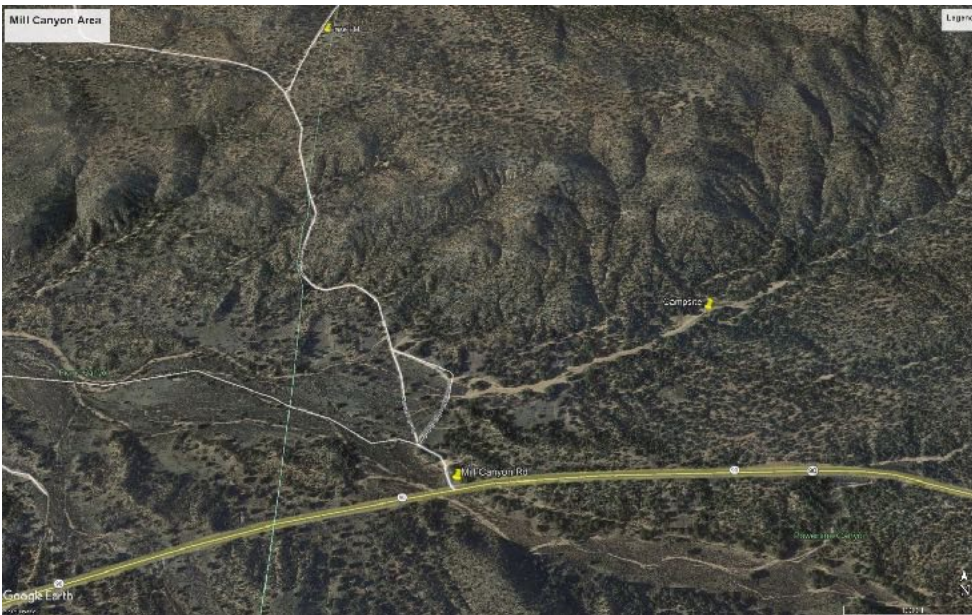
One can get a closer view of the Base BM by looking into Google Earth at 32°30'32.46"N 108°32'14.36"W. Further to the south of Mill Canyon are working gold mines so I was

anticipate needing them. I had to backup down the road about 100 yards before making a turn. So now it was return home or go to the place I wanted to avoid.

Reviewing the maps of the area I picked what should be the correct pseudo trail to get to the open area I wanted to avoid. The trail was narrower and in some spots tree limbs were hanging across the trail. It was slow going but passable. The vegetation was much more developed that indicated by the maps which are probably at least five years old for the non-road areas. Finally, the trail opened to a large wash area about 20 to 50 yards wide.

I traveled about 1/2 mile up the Wash until I found a suitable area to camp with open views to the sky.

Only a few ravens flying about but no signs of any recent visitations. I did see signs of cattle and deer. I set camp and planned for the night. I managed several pictures of the area to provide an idea of the location. It was a wash and it must have rained recently since the ground was damp in the wash area. The width of the wash would require a severe storm for several hours to rise above the ten-inch recent bank. This is a normal area for partial wilderness.



Mill Canyon Area

concerned that there might be significant light pollution from mining sites.

I wanted to avoid the area East (right) not marked by a trail but that seemed quite open. There were ATV tire marks in this area and it appears to lead to nowhere. I entered Mill Canyon Road and crossed a cow barrier onto a wet off-road narrow trail. I ventured about 300 yards and came upon a sign "Motor Vehicles Restricted Beyond this Area". This usually did not stop me on other ventures but there was a huge cut across the road which may not work for my AWD vehicle. I forgot my shovel and extraction tools since I didn't



Campsite Location on Wash

### Location Views

These are several views taken of the campsite. The bush was right behind my site with aluminum cans left behind by previous campers. Bugs and ants were not an issue even though there was minimal breeze during the day and evening. Wash extended East about another half mile. There were better sites here for night imaging but I had no idea where the sky would be situated since I was in a ravine surrounded by trees.



Three Season Tent



Looking West



West  
(tracks visible from my auto on the way into the wash)



Looking ENE



View of Camp and Wash



NW View



Looking South up the wash, note the high banks

### Night time

It was deep into the twilight before I could locate with certainty the North Star. I was using my IOptron Star Tracker and T2i DSLR to take some informal images. I was reluctant to take my imaging gear before I scouted the area for usability. The Star Tracker has a polar scope but is not user friendly to see thru. After polar alignment it was about one before dark skies.

To my amazement the Milky Way was running directly down the path of the wash. It was a perfect setup for everything except the south which was blocked by some nearby trees. A location 100 yards west would be useable for all directions.

The skies were very dark and possibly slightly better than Rusty's RV Village. This interpretation is very subjective because sky conditions dictate seeing and transparency. There were no light domes since the mountains screened both Silver City and Lordsburg. It was very dark and isolated.

I imaged the M31 area which was clearly visible with naked eye and therefore easy to locate for the DSLR. M33 was there with averted vision and easy with my binos. Around 11 PM the seeing dropped significantly due to temperatures reaching the dew point. Jupiter looked like a comet and M31 was unrecognizable with my binos until I cleared off the dew from the lens. It was time to pack up the equipment for the evening. Shut down my computer, DSLR, and Star Tracker and packed

everything away since I had plenty of time and wasn't tired. This proved to be a wise decision because the next morning the auto, the tent, and the ground was wet as if it rained.

I retired to my tent and turned on 107.1 on my all-purpose power pack, radio, light, and siren. This was the only station I was able to pick up broadcasting from Duncan, NM. I think I heard every song sung by the BeeGEEs as this station was all oldies. I was able to recognize most of the songs from the past. It was amazing how terrible the lyrics were but the music and melodies were very good. The song "Ring my Bell" while catchy to listen only has those words for lyrics.

It was easy to rest in my heated sleeping bag situated over a yoga mat. After my bout with near hyperthermia in the Cosmic Campgrounds in 2019 I came prepared with a winter tent and a heated mattress pad called a Mantuole (possibly French). It is powered by a 30,000 mAh power pack the size of my hand which can run the pad for three nights. It was cozy.

I was awakened by the Hooky Lau of a group of coyotes about 30 feet from my tent in the clearing behind me. I reverted to the Oldies channel to let the coyotes know that I was there. I heard some snorting later that night which was probably some javelinas was looking for mushrooms which were prevalent in the area. Several owls kept me

company and a hoot owl perch just over my tent was my morning alarm.

### Morning

The plan was to get up at first light and be gone within an hour. It was before sunrise but it was very gray. There was low overhanging clouds almost becoming fog. Everything was very, very wet. The sand and gravel were sticking to anything that touched the ground. It was a longer time than planned to dry and pack the gear which was not very much. It would not have made any difference if I camped on higher grounds since the forest was covered in dew. I would guess the temps were near 38-40 degrees last night and I recall the dew points in Las Cruces were around 48 degrees. Dew points and temps are another barnacle to consider when putting a plan together for imaging; especially away from one's home base.

### DSLR Image

I took a set of 30 second images with my DSLR at ISO 800 and F5.0 using EOS backyard software. With the image size around 110 mm I should have used a smaller time interval since the tracker is not very reliable for that interval and camera setting. Image is attached but is not processed very well since I need to refresh myself on DSLR processing.



Lone cow further west of camp

### Summary

Outside of the roads and dew the Burro Mountains look like a great place to image. The roads may be in poor conditions due to the long and wet monsoon season we have had. The lingering humidity is always and everywhere a challenge. The skies are dark and the place is secluded. There are other trails and possible locations in the Burros that I need to investigate.

While I enjoy the added safety and seclusion of the Cosmic Campground it is over 100 miles more in travel and it is just a ghost of its splendid past. If anyone has information about potential spots in the Burro's for imaging please don't hesitate to inform. I would guess that one needs to be west of the ridges that run North and South to avoid the light dome from Silver City. The gold miners were not an issue and I didn't see any Burros.

## Minutes of September 2021 Meeting

**John McCullough - Secretary**

Ed Montes, President, Astronomical Society of Las Cruces (ASLC, the Society), called the September 2021 meeting to order at 7:05 pm on 24 September 2021. He welcomed attendees to tonight's meeting via ZOOM. Eighteen (18) attendees were signed in for the start of the meeting.

Ed welcomed the group and announced that the minutes from the August 2021 meeting (thanks to John McCullough, Secretary) were published in the September issue of the Society newsletter, the High Desert Observer (HDO) (thanks to Tim Kostelecky, HDO Editor). Ed asked if there were any required additions, deletions, or corrections to the minutes as submitted. None being offered, a motion to accept the August 2021 minutes as published was offered by Tracy Stuart, seconded by Rani Bush. There being no objections, the motion was passed by acclamation.

Ed introduced tonight's speaker, Dr. Will Grundy.

Presentation:

Tonight's Tombaugh Series speaker was Dr. Will Grundy from the Lowell Observatory in Flagstaff, Arizona. Dr. Grundy does spectroscopic, thermal, and imaging observations of outer Solar System bodies using numerous large ground- and space-based telescopes including Hubble, Keck, Gemini, DCT, IRTF, and MMT. He also studies cryogenic ices and ice mixtures in the Astrophysical Materials Laboratory at Northern Arizona University. He is involved in projects to discover Kuiper Belt binaries and to determine their mutual orbits and masses, using the Hubble Space Telescope (HST), as well as laser guide star adaptive optics techniques at the Keck and Gemini observatories. Dr. Grundy is co-investigator on NASA's New Horizons mission that encountered the Pluto system in 2015 and the Kuiper Belt object Arrokoth in 2019. He heads the mission's surface composition science theme team.

Dr. Grundy's topic was "What the New Horizons Mission Taught Us About Pluto". He described several new findings obtained from data and images obtained from New Horizons' flyby. An extensive Question & Answer session followed.

Officer/Committee Reports:

Treasurer:

Trish Conley, Treasurer, reported on the status of the Society's accounts. The Society has a positive balance of \$511 for the year. Two (2) new family memberships were added this month.

Outreach:

Stephen Wood, program coordinator, reported that the last Moon Gaze at the Las Cruces Downtown Plaza was very successful. The next Moon Gaze will be 16 October, International Observe the Moon Night. Additional notice and information may get placed in local news media.

There will be an event at LDSP on 02 October. Dr. Doctor will be unavailable to open and operate the Observatory, so operators are needed. Directions are on the web site.

A star party for the White Sands Missile Range Cub Scouts will be held in November. More details, including the date, are pending. Members are asked to check the Events Calendar for updates.

The Observatory at Leasburg Dam State Park (LDSP):

Steve Barks reported he continues working to price/spec laptops from several vendors to support the Observatory. His warranty support concerns have been resolved. He plans to place the order next week but will have the equipment delivered to Jerry Gaber for software load and prep because Steve will be attending the OkieTex Star Party. Ed Montes offered to be an alternate recipient if needed.

Loaner Telescope Program:

Tim Kostelecky, program coordinator, plans to send out a report listing the operational telescopes in the program soon. He reported 6 or 7 telescopes are available.



**Nominating Committee:**

Tim Kostelecky, committee chair, offered the slate of officer candidates for 2022. No current officers are term-limited. Officer candidates for 2022 are as follows:

President: Ed Montes  
 Secretary: John McCullough  
 Vice-President: Tim Kostelecky  
 Director-at-Large #1: Mike Nuss  
 Treasurer: Patricia (Trish) Conley  
 Director-at-Large #2: Rani Bush

Tracy Stuart would continue as Immediate Past President.

The floor was opened for nominations with the caveat from the By-Laws "Nominations may be made from the floor at the regular meeting, provided: that only members who are present may be nominated from the floor, unless the nominator delivers to the Secretary a signed statement from the absent nominee stating that he will accept the nomination and will serve if elected". There were no nominations offered.

Elections will be part of the Annual Meeting to be held on 22 October 2021. Ballots will be sent out in advance of the meeting.

**Meetings/Presentations:**

Tim Kostelecky will be the speaker at the October meeting.

A presentation from the Green Bank Observatory in Green Bank, West Virginia, will be the November

program.

Ed Montes continues to work with staff at Good Samaritan Village (GSV) to resume in-person meetings but is exploring other potential venues as well. Steve Barkes offered to check the possibility of using the Amateur Radio Club house on the East Mesa as an alternate meeting location.

**Old Business:**

Renaissance Arts Faire 2021 will be 0607 November at Young Park. Setup will take place on 05 November and teardown on 07 November. As many volunteers as possible are needed for all aspects of the ASLC's participation in this event, one of the primary outreach events for the Society. Period costumes are necessary for booth workers on Saturday and Sunday and Trish Conley has some available. Contact her via email or the io.groups if you can help or if you need help locating a costume. Booth volunteers do not pay an admission fee to the Faire.

No additional old business was considered.

**New Business:**

No new business was offered for consideration.

The September 2021 meeting was adjourned at 8:49 pm.

-Respectfully submitted:  
 John McCullough  
 Secretary, ASLC

**ASLC Board of Directors**

	board@aslc-nm.org
President:	Ed Montes president@aslc-nm.org
Vice President:	Tim Kostelecky vp@acslc-nm.org
Treasurer:	Patricia Conley treasurer@aslc-nm.org
Secretary:	John McCullough secretary@aslc-nm.org
Director:	Michael Nuss director1@aslc-nm.org
Director:	Rani Bush director2@aslc-nm.org
Past Pres:	Tracy Stuart tracystuart@comcast.net

**Committee Chairs**

ALCOR:	Patricia Conly	tconly00@hotmail.com
Calendar:	Stephen Wood	clearskies2u@gmail.com
Education:	Rich Richins	education@aslc-nm.org
Loaner Program:	Tim Kostelecky	tim.kostel@cloud.com
Observatories:		
Leasburg Dam:	David Doctor	astrodoc71@gmail.com
Tombaugh:	Steve Shaffer	sshaffer@zianet.com
Outreach:	Stephen Wood	clearskies2u@gmail.com
Website:	Steve Barkes	steve.barkes@gmail.com
HDO Editor:	Tim Kostelecky	tim.kostel@icloud.com

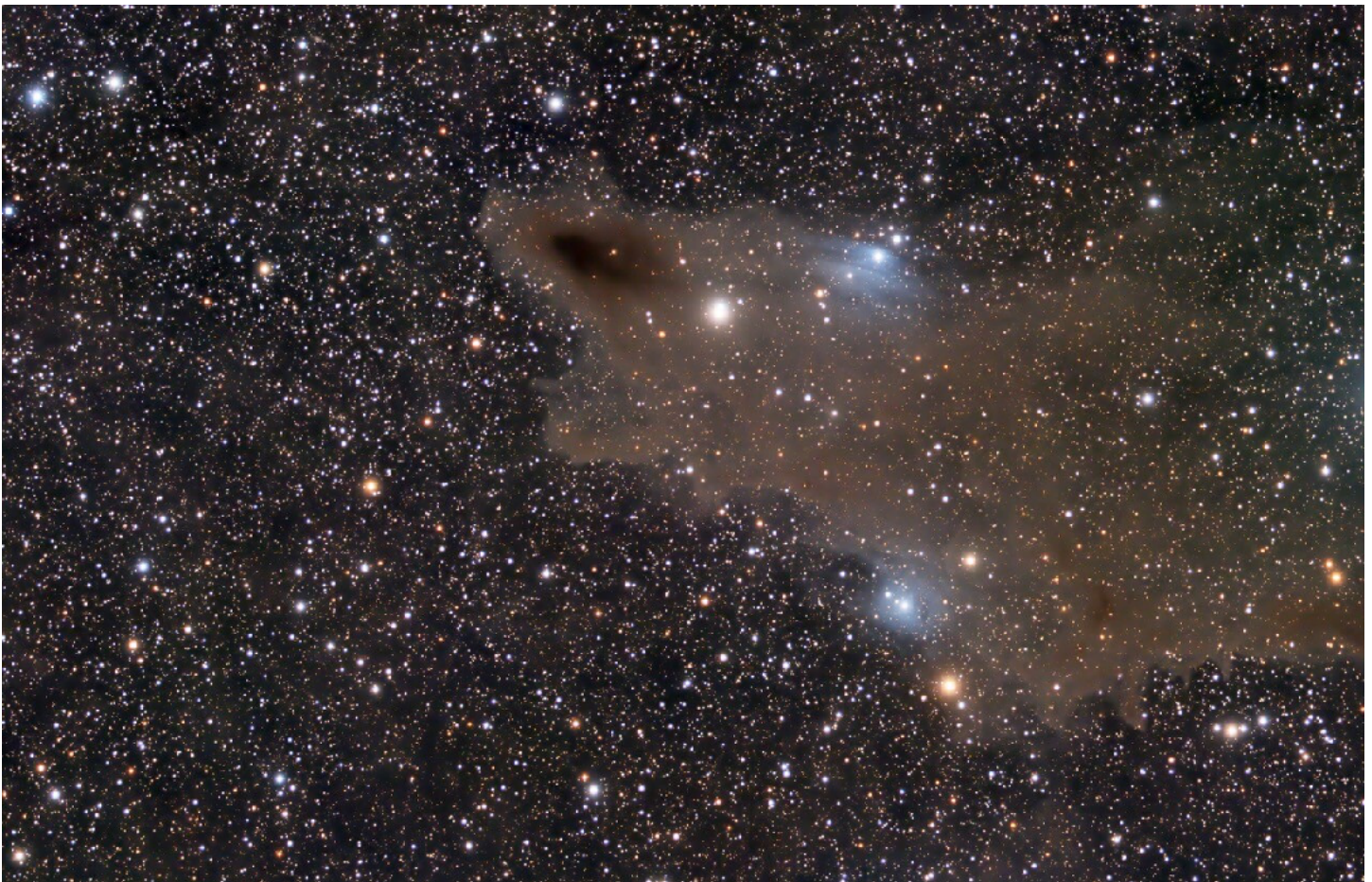
## Member Images

### Cassiopeia A (Cas A) SN1680 - John Kutney



**CASSIOPEIA A (CAS A) IS A SUPERNOVA REMNANT (SNR SN1680) IN THE CONSTELLATION CASSIOPEIA AND THE BRIGHTEST EXTRASOLAR RADIO SOURCE IN THE SKY AT FREQUENCIES ABOVE 1 GHZ. IT WAS VERY RESPONSIVE TO OIII AND SII FILTERS BUT MINIMAL HA. THE SNR SEEMS TO BE SURROUNDED BY SIGNIFICANT HA CLOUDS IN ITS GENERAL AREA. IMAGED OVER FOUR NIGHTS WITH MANY SUBS ELIMINATED BY CLOUDS AND SMOKE. HSO LRGB**

## LDN 1235 (Shark Nebula) in Cepheus- Bob Kimball



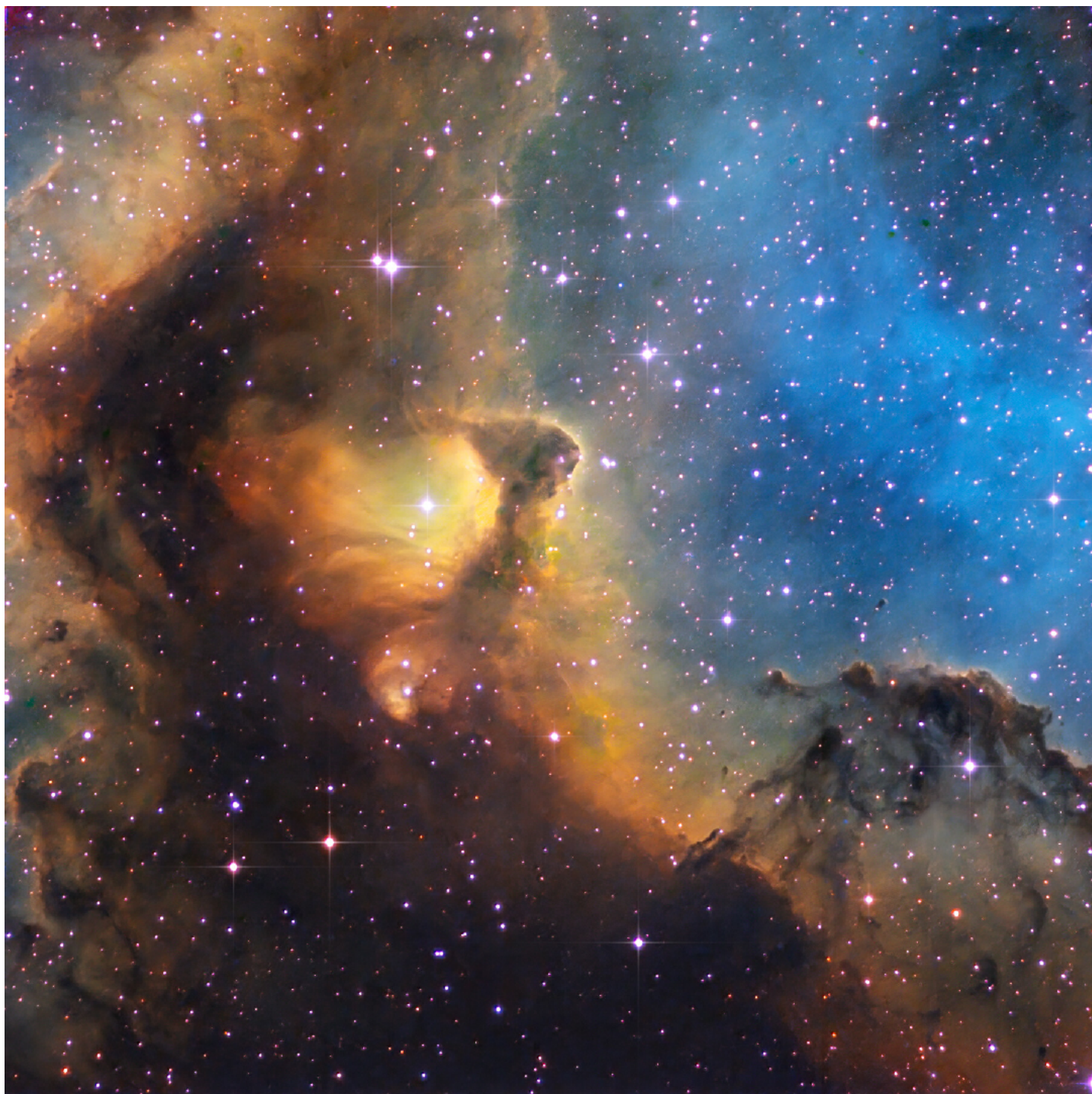
**THIS IS THE THRID IMAGE I TOOK AT THE OKIE-TERX STAR PARTY (2021). GREAT CLEAR SKIES. 1H EASH RGB(2X2) COMBINED WITH 3-1/2 OF LUMINANCE (1X1) USING A ZWO ASI2600 CAMERA AND A WILLIAM OPTICS FLT 110. PROCESSED IN PIXINSIGHT.**

## NGC 7635 - Bubble Nebula in Cassiopeia - Rich Richins



**IMAGED AT OKIE-TEX STAR PARTY, OCT 2012, THRU MY C11 @ F/10 USING MY TRUSTY OLD CANON DSLR (COLOR & HA) WITH ON-AXIS GUIDING (ONAG). TWO HOURS OF COLOR PLUS TWO NIGHTS OF HA. WISH I'D GOTTEN WAY MORE HA; THERE'S A LOT MORE NEBULOSITY UP THERE THAT I MISSED. ALSO WISH I'D TAKEN SOME O3 SUBS**

## IC1848 Nebula in Cassiopeia - Mike Sherick



**FROM OUR SAGRADA OBSERVATORY IN LAS CRUCES, IMAGED WITH THE 24" F8 RC TELESCOPE AND FLI-PL-09000 CAMERA.**