

Enchanted Skies Star Party. October, 2025

After spending the last 2.5 weeks exploring New Mexico and spending time with Kiski Astronomer friends John & Wini L who live in Magdalena, NW, it was time for the Enchanted Skies Star Party. Magdalena is located in a scenic Bortle-1 dark-sky region and John had taken advantage of that, building his own private observatory.



It was a fun interval between the Okie-Tex Star Party and Enchanted Skies, doing the usual touristy things, visiting National & BLM parks in New Mexico to see extinct volcanoes, dinosaur tracks, white sand dunes, petro-glyphs and ancient cliff dwellings of Native Americans, and the professional mountain top observatories in the Sacramento Mountains at Sunspot and Apache Point at 9,147 ft elevation.



Prior to the start of the ESSP, we were joined by ORAS/Kiski members Denny H and Janice S who came down a few days early to also stay with John & Wini. The three of us, Denny, John, and I visited the Very Large Array (VLA) during its annual open-house.



During our stay, we also visited the Astronomical Lyceum in Magdalena, owned and operated by local Magdalena Astronomical Society club president John W. Briggs. What an amazingly interesting repository of antique telescopes and astronomical manuscripts!

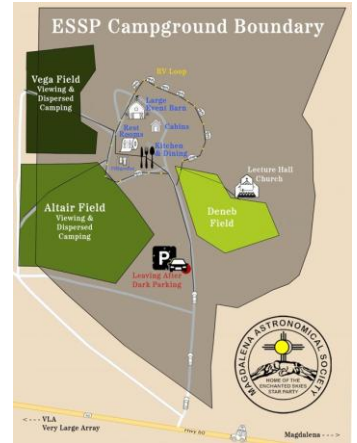


But now, it was time to get back to attending the ESSP convention and doing amateur astronomy under an exceptionally dark sky!

Tuesday 10/14/2025:

As members of the Magdalena Astronomical Society, Wini and John needed to leave early Tuesday morning for the opening of the star party. (Wini was also the event register and needed to be on-hand to check folks in as they arrived).

I had packed up most of my spare clothes and equipment the night before, so just a few last minute things to pack this morning. Hooked up the camper and after breakfast with Denny and Janice, I was on the road by 9am for the short drive to the Montosa Ranch and the Enchanted Skies Star Party. It had been raining the night before so there were a few mud holes on the dirt road out from John & Wini's ranch, and I think I hit them all, lol.



Arrived on-site at 9:50am and stopped at registration where Wini got me checked-in. After meeting the camp hosts Laurie and Charlie, I headed over to my camping spot next to Wini and John and began unloading. A little while later, Denny and Janice arrived in their camper and backed into their spot next to me. After several hours, Denny and I are pretty much setup here at the Enchanted Skies Star Party.



My usual EAA equipment setup: 8" Celestron SCT optical tube @ f6.3 with a ZWO ASI294MC Pro camera, ZWO filter wheel & focuser, on an Atlas EQ GEM mount, along with a piggybacked Sky-Watcher EVO 50mm refractor with a ASI294MC camera (uncooled model), and a 60mm Antaries refractor guidescope with an ASI120MC camera. I also setup my AllSky cam, a ZWO ASI224MC camera & fisheye lens in a DIY dome attached to a tripod. And my SeeStar S30 smart telescope.

The ground is a lot sandier than Okie-Tex. Plus a lot of small scrub trees. And there were a lot of large red ant mounds! They were tall enough to cast shadows, Yikes! LOL!



Not sure how much observing we're going to get tonight. While the sky is partly sunny and most of the clouds should dissipate after sunset, it's very windy and gusty. Hopefully that will die down later.

Around 3pm, I went for a stroll around the ESSP ranch, orienting myself to the locations of the cafeteria, lecture hall, cabins, restrooms, and the other campers. Stopped in at registration and visited with Wini, about 50 of the 140+ registered attendees had already arrived. Headed back to camp where I helped Denny setup his observing tent in the wind. (Janice pitched in to help too, see photo above).



At 6pm I headed down to the cafeteria for dinner. Delicious!! Roast beef, potatoes, carrots, onions, with strawberry cobbler! Yum! Enjoyed interesting conversations with attendees Mark and Tim at the dining table.

Back at camp, I setup my laptop in the camper clamshell work area and prepped my blackout tent that attached to the open camper hatch. The winds had begun to die down with the sky clearing. Looking good for the night!

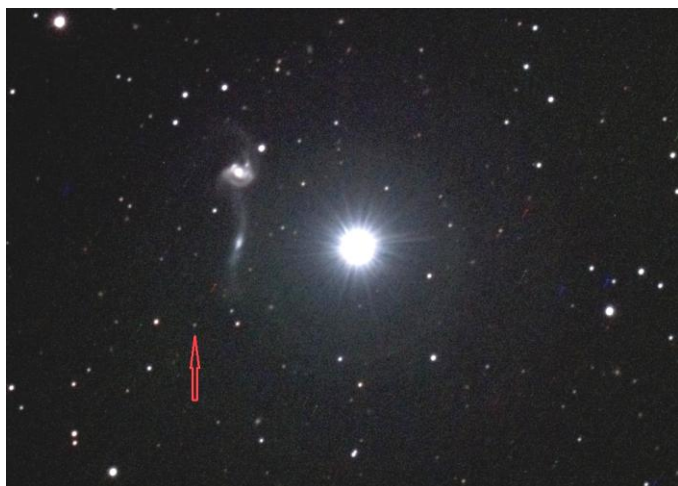


After a phone home, and a change into warmer clothes, I was soon polar aligned. (Both Denny and I had pointed our mounts too far east and we had to physically pick them up and rotate the telescopes). Soon the Milky-Way was softly glowing in the south.



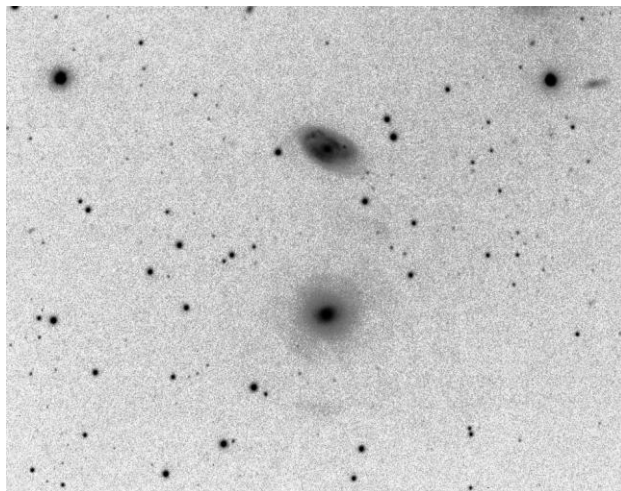
One of the noticeable differences in sky quality between the SW high desert and back home at Cherry Springs, (beside the low humidity), is the difference in how the Milky-Way looks. Both at Okie-Tex and ESSP, the glowing band of light is brighter and much wider with numerous faint stars trailing off to either side of the branches. Also, many more Messier Objects are noticeably naked-eye.

Starting with the 8" SCT, it was "Galaxy Night" in Pisces and Aries. My first observation of the night was to visit an old friend, Quasar QS02333+019 located in Pisces near the interacting galaxies NGC7714 & NGC7715, which is close-by the bright star 16 Piscium. (a +5.7 mag star, a pair of +12.5 & 14.2 mag galaxies, and a +18.1 mag quasar. 101 Light-years, 100 Million LY, and 10 Billion LY distant respectively!) Then, while still in Pisces, I moved the scope over to the +13th mag face-on spiral galaxy NGC234, with three bright arms and several spurs.



(8" SCT @ f6.3 on an Atlas Gem, ZWO ASI294MC Pro camera with L-Pro filter, 180 second subs, dark & flat frames, PHD guided, livestacked using Sharpcap for 30 minutes).

My next target was the small cluster of galaxies around the nearly face-on +11.7 mag spiral NGC470 that is interacting with +12.4 mag elliptical galaxy NGC474 generating several faint tidal shells and plumes. (the pair is also known as Arp227). Nearby is the bright +11.8 mag lenticular galaxy NGC467, and along with several small PGC spiral galaxies - PGC4755, PGC4765, and PGC1249151, are located close to an +8th mag field star. Here's the EAA observation, including a cropped negative version that better shows the tidal shells around NGC474.



(8" SCT @ f6.3 on an Atlas Gem, ZWO ASI294MC Pro camera with L-Pro filter, 180 second subs, dark & flat frames, PHD guided, livestacked using Sharpcap for 45 minutes).

Stepped outside a few times to visit Denny in his observing tent. He was hunting Sharpless nebula near M8 in Sagittarius. Delivered Snickerdoodle cookies to both Denny and Janice, who in turn gave me a Snickers candy bar - a little early trick-or-treat!

After finishing the NGC470+ observation, I slewed the scope over to Aries for another face-on spiral galaxy NGC673. The +12.6 mag galaxy displays several nice spiral arms containing knots of HII star forming regions.



(same scope info as above using the L-Pro filter, 180 sec subs, stacked for 30 minutes).

A few times during the night, dark clouds swept thru from the south. Also noticed that the sky transparency had gone soft, dimming the Milky-Way. Around 9:45pm, we began to see lightening flashes to our SE, occasionally lighting up the sky. Upon checking the weather radar, there was a line of storms stretching from Las Cruces to the SE of Socorro.

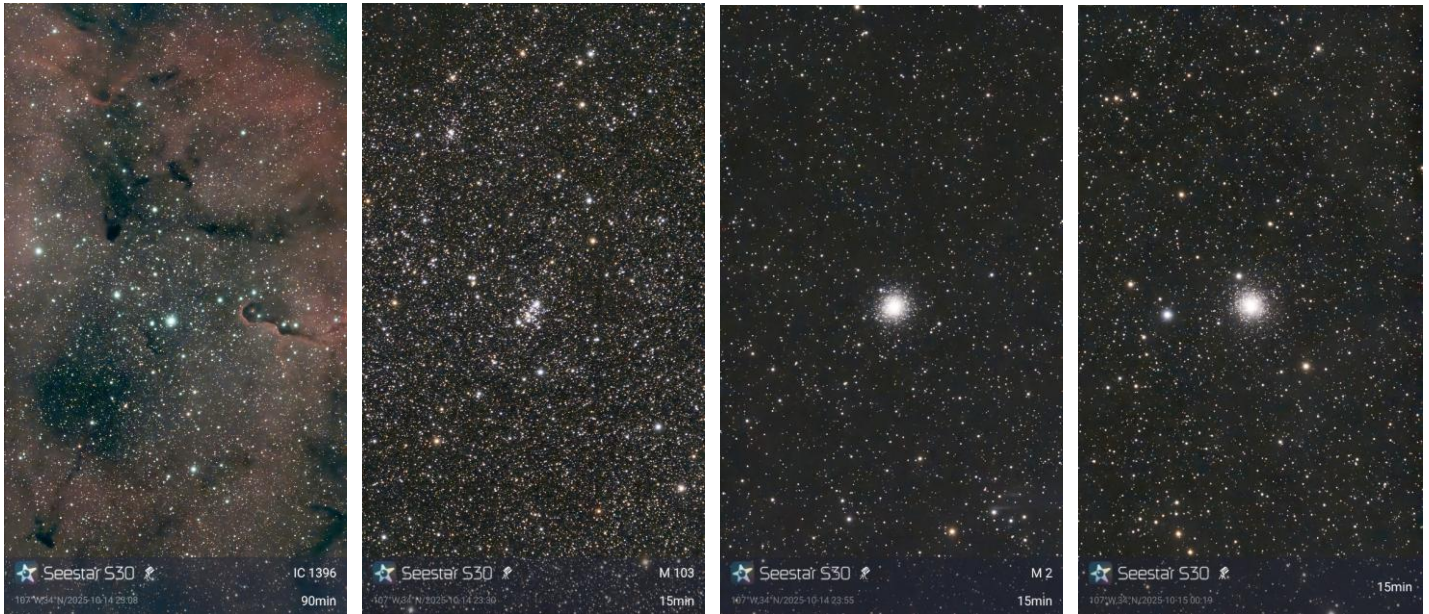


Have to keep an eye on that.

While outside, I noticed that it had become dewy. The ground was giving back all the moisture it had accumulated over the weekend. Denny didn't have his heaters turned-on and needed to borrow my hairdryer to clear his optics.

With the 8" SCT capturing images, I EQ aligned the S30 SeeStar and sent it to do a deep dive on IC1396 the "Elephant Trunk" in Cepheus. After 90 minutes, I finalized the observation. I then did a quick 15 minute live-view of open cluster M103 in Cassiopeia.

I followed that up with 15 minute observations of globular clusters M2 in Aquarius, and then M15 in Pegasus.



(SeeStar S30: for IC1396 - 60 second exposures in EQ mode with the NB filter, livestacked for 90 minutes, then AI noise reduction applied in-app)

(SeeStar S30: for the clusters - 60 second exposures in EQ mode with the IR filter, livestacked for 15 minutes, then AI noise reduction applied in-app)

Around midnight, thicker clouds began drifting thru. Denny and I stuck it out for another half hour before deciding it had been a good first night and calling it quits. Powered down the scopes, disassembled the blackout tent and headed indoors to bed.

Here's an AllSky time-lapse from Tuesday evening: <https://youtu.be/xZYfORpTUz8>

Wednesday 10/15/2025:

Slept in till 9am. It was a sunny but cool morning, temps in the mid 50's, but a breeze had also picked up. While making breakfast, discovered my coffee machine was non functional,,, ☹

Shortly after noon, Janice walked down to the restroom and called Denny to tell him that a large snake was on the road. So Denny and I went to investigate. It didn't take us long to find the 2ft long snake. While we were watching the serpent slowly slither along, Wini and John arrived and identified it as a non-poisonous gopher snake. Using a stick, we helped the animal across the road into the tall grass where it found a hole to go down.

So in addition to the red ants, we also have big beetles, and non-poisonous gopher snakes. There's also coyote's around as I've seen their footprints in the sand.



At 2pm, I headed over to the lecture hall to take in the presentation on using a commercial made solar spectroscope for imaging the Sun by MAS member Lee M. The presentation re-sparked my interest, once I'm back home, I'll have to dust off my old solar equipment and get back into solar observing.



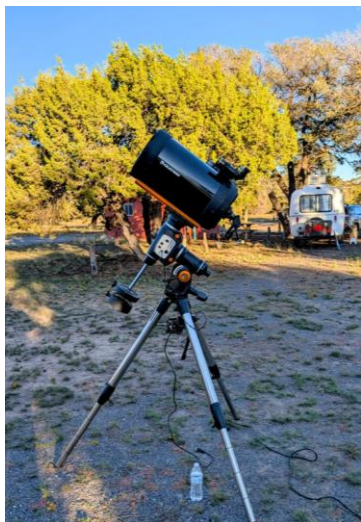
Then it was time for my presentation on "E.E. Barnard and his Dark Nebula". The talk was well attended with about 70 people present. Several good follow-up questions from the audience. Afterwards, MAS President John Briggs setup a "Barnard" display of equipment and books from his Astronomical Lyceum that were once used by E.E. Barnard, along with a copy of Barnard's original atlas. It was pretty amazing to see and handle!



I stuck around for the next talk on infrared astronomy by the former editor of "Sky & Telescope" Dr. Richard Fienberg. Unfortunately, about mid way thru Dr Fienberg's interesting talk, Denny texted me to say that high winds back at the camp had blown over my ez-up canopy! I hastily hurried back to camp to find that the wind must have pulled two of the tent stakes out of the loose sand, flipping the tent over, bending the frame and shredding the fabric. Fortunately, no telescopes were harmed.



With a little time to kill before the 6pm dinner, I went for a stroll around the ranch, stopping in to take photos and talk with other attendees. Ran into Bill A from the BFSP folks in PA. It's a small world! I then joined Wini and John for dinner at the cafeteria.



At sunset, I prepped the blackout tent and my observing notes. Then powered on the C8 and the SeeStar telescopes. Also started up the AllSky camera.



First target of the night for the 8" SCT was the Shallow-Sky object Comet Swan (C/2025 R2) cruising thru Serpens. Using both the 8" optics and the 50mm EVOscope piggybacked on top, with an L-Pro filter and exposing for 30 seconds, the comet displayed as a bright blue circular shaped coma containing an even brighter white core in a starry field. There was no sign of a tail in either instrument. With the 8" livestack, I aligned on the comet, creating an interesting star-trailed FOV. With the 50mm livestack, I aligned on the starfield. The occasional gust of wind was impacting guiding of the main scope, so I pulled the dew shields and crossed my fingers that the dew would stay away.

Here are both EAA observations:



8" SCT

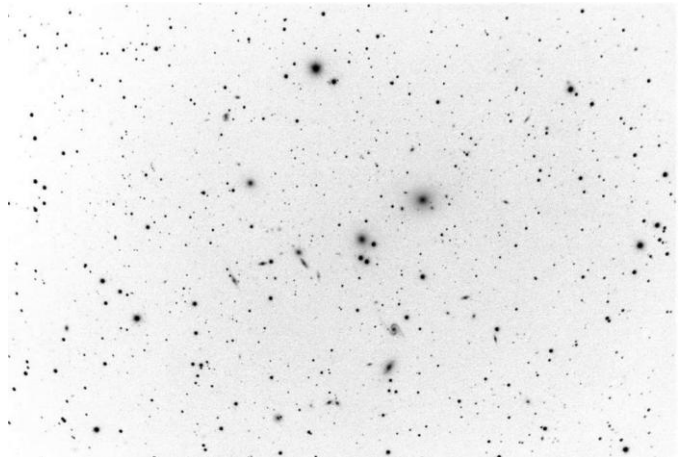


EVO 50mm Refractor

(8" SCT @ f6.3 on an Atlas Gem, ZWO ASI294MC Pro camera with L-Pro filter, 30 second subs, dark & flat frames, PHD guided, livestacked using Sharpcap for 12 minutes).
(EVO50mm @ f4.2 ZWO ASI294MC camera with L-Pro filter, 30 second subs, dark & flat calibration frames pre-applied, PHD guided, livestacked using Sharpcap for 12 minutes).

I also wanted to hunt Comet Lemmon, but it was lost in the trees to my west.

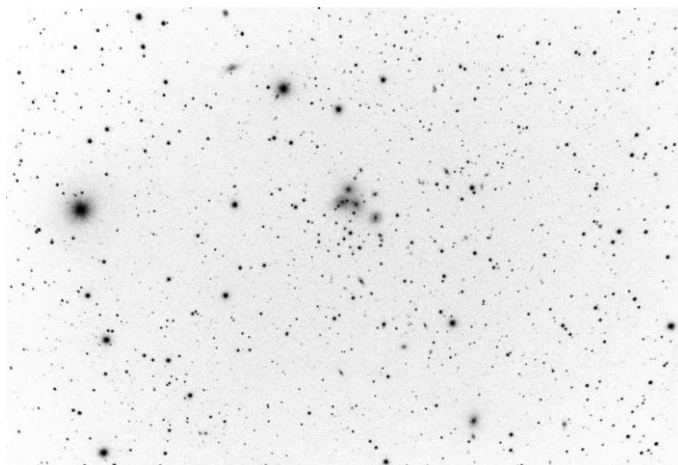
So I then went galaxy hunting in Andromeda, but not the usual suspects. Instead I slewed the telescope to southwestern Andromeda to the NGC80 galaxy group. There's nearly a dozen +12 mag NGC elliptical, lenticular, and spiral galaxies in the FOV: NGC79, NGC80, NGC81, NGC83, NGC85, NGC86, NGC90, NGC93, NGC96, and several bright IC galaxies - IC1542 & IC1546, along with several PGC galaxies - PGC1396, PGC1666918, PGC1670567, and MCG+4-2-10. The group namesake - NGC80, at about 260 Mly distant, is a bright +12.07 mag lenticular galaxy just right of center in the FOV. At the center of the FOV is +13.3 mag elliptical galaxy NGC83, at about the same distance as NGC80. The most interesting member of the galaxy cluster is NGC90, (below center in the FOV) is a spiral with two highly elongated arms visible to either side of the galaxy's core. The +13.7 mag spiral is further distant than the main group, at about 334 Mly.



(8" SCT @ f6.3 on an Atlas Gem, ZWO ASI294MC Pro camera with L-Pro filter, 180 second subs, dark & flat frames, PHD guided, livestacked using Sharpcap for 30 minutes).

I then moved to another nearby cluster of galaxies, the NGC68 group, consisting of a compact tight grouping of four +13 mag NGC galaxies, NGC68, NGC70, NGC71, & NGC72 embedded in a rich grouping of +13 to +15 mag field stars, giving the region the look of diffuse nebulosity within an open cluster. The brightest of the galaxies is +12.9 mag elliptical NGC68, located about 260 Mly distant. (similar to the NGC80 group distance). Also of note is +13.2 mag spiral galaxy NGC70 with several of the foreground field star seemingly embedded in its spiral arms, which at least one arm is visible. NGC70 is about 300Mly distant. In addition to the four compact galaxies, nearby are also NGC74, NGC76,

and PGC1183, PGC1163, PGC1138, and UGC166, along with several other unidentified +15 mag galaxies in the FOV. Here's the observation:



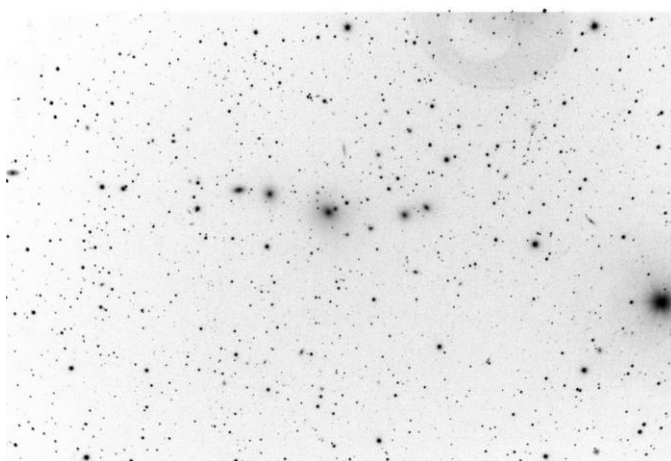
(same scope info as above, 180 second subs, stacked for 30 minutes)

Being in the Andromeda celestial neighborhood, I then stopped in to visit galaxy NGC7640. The +11.1 mag highly inclined barred spiral, about 30 Mly distant, displays nice internal details, a bright core, and several spiral arms with visible HII knots and dust lanes.



(same scope info as above, 180 second subs, stacked for 30 minutes)

Then it was back to another galaxy cluster, this time over the border in Pisces for the NGC383 group. This gathering of +13 mag elliptical galaxies at about 29 Mly distant is known as the "Pisces Chain". (also called the "Pisces Cloud"), and is part of the Perseus-Pisces galaxy supercluster. The core galaxy, NGC383 (Arp331) is a +13.4 mag quasar like radio galaxy (3C 31) with double radio jet lobes bisecting the galaxy. The rest of the +13 & +14 mag group, which is about 209 Mly distant consists of NGC373, NGC375, NGC379, NGC380, NGC382, NGC384, and NGC385.



(same scope info as above, 180 second subs, stacked for 30 minutes)

With the time now past 3am, I decided to switch gears and look for a few nearby galactic dust clouds, starting near the Hyades Cluster in Taurus, with the remains of a dust shell that surrounds a bright +10th mag, relatively young variable star called "T-Tauri". The shell is named "Hind's variable Nebula", (NGC1554 & NGC1555), discovered in 1852 by English astronomer John Russell Hind using his 7" refractor in London. It was later realized that as the variable star changed in magnitude, so did the nearby dust cloud, at times almost appearing to disappear. While Hind's Variable Nebula can be a difficult visual amateur observation, requiring large aperture telescopes and dark skies, using EAA techniques, observing both the brighter crescent shaped portion of the 500 Ly distant nebula, along with the larger surrounding shell is fairly easy. Here's my EAA observation of the nebula:

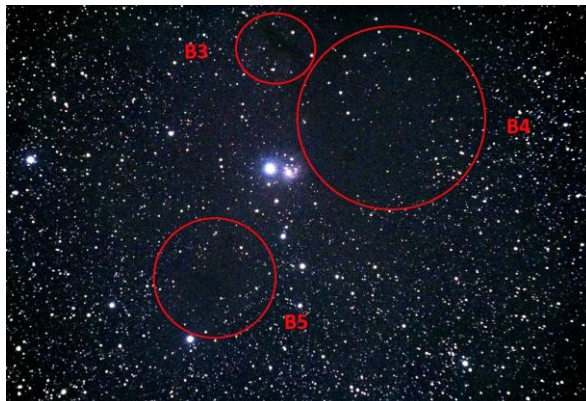


(8" SCT @ f6.3 on an Atlas Gem, ZWO ASI294MC Pro camera with L-Pro filter, 180 second subs, dark & flat frames, PHD guided, livestacked using SharpCap for 30 minutes).

In the spirit of my earlier talk that day, I then slewed the telescope a short distance northwards back into Perseus to hunt for Barnard Dark Nebula around Omicron Persei and reflection nebula IC348 using the 50mm Evoscope Refractor. First up, B1 & B2:



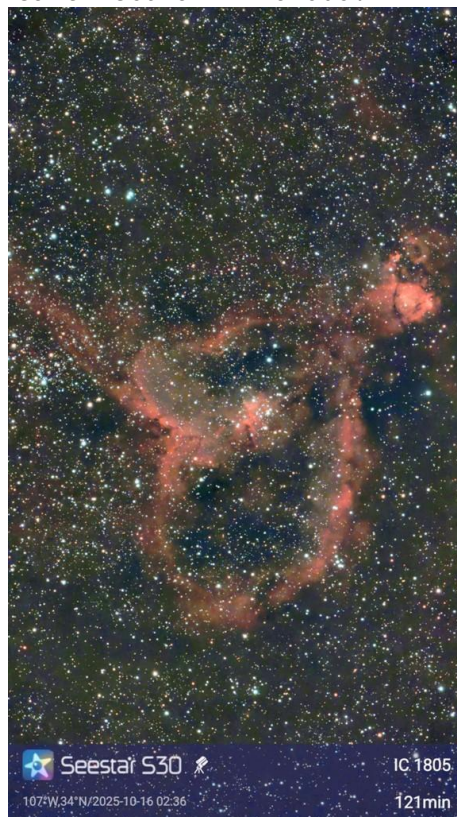
Then B3, B4 & B5:



EVO50mm @ f4.2 ZWO ASI294MC camera with L-Pro filter, 180 second subs, dark & flat calibration frames pre-applied, PHD guided, livestacked using SharpCap for 15 minutes).

For all five of these Barnard Objects, I used the 2011 Cambridge Publishing reprint of Barnard's "Photographic Atlas of Selected Regions of the Milky Way" by Gerald Dobeck, finder-chart and plate#3 as a guide for identifying these objects. A useful tool to have in hunting E.E's dark nebula!

While I was humming away with the 8", the S30 SeeStar was also put to use. Started off with a couple of nebulous deep-dives in Cassiopeia:
The "Pacman nebula" - NGC281, and then the "heart Nebula" - IC1805.



(SeeStar S30: for both - 60 second exposures in EQ mode with the NB filter, livestacked, then AI noise reduction applied in-app)

I then did a little galaxy and cluster work: NGC253 - "Silver Coin Galaxy" in Sculptor, M33 - "Triangulum Galaxy" in Triangulum, and open cluster M34 in Perseus:



(SeeStar S30: for all three - 60 second exposures in EQ mode with the IR filter, livestacked, then AI noise reduction applied in-app, NGC253 & M33 = 45 min, M34 = 10 min)

Earlier in the evening, John L stopped in to visit for awhile and I gave him a demo of using SharpCap for doing EAA observing. Both of us then went to visit with Denny inside his warm-up tent, where he was busy imaging Abell Planetary Nebula.

It had been a really great night of EAA observing under a beautiful dark sky! Except for the occasional breeze, but taking the dew shields off solved that problem. Fortunately, it was a dry night with no dew, humidity dropping down below 30%.

But now, with the clock past 5am, I was out of gas and couldn't stay up any longer. Powered-off the scopes, disassembled the blackout tent, and crawled into bed.

The next morning I inadvertently deleted the entire AllSky camera captures from Wednesday night, so no time-lapse vids.

Thursday 10/16/2025:

After a little over 5 hrs of sleep, I was up at 10am. It was a pleasant late morning, temps in the upper 50's, calm and sunny. Sat outside and relaxed for awhile, visiting with Denny. Went thru my observation notes from the previous night. After a light brunch, Denny and I walked over to the lecture hall to take in a talk by the Observatory director of Apache Point Observatory, but unfortunately he had to cancel having come down with Covid. In his place, MAS member John B have a funny and interesting talk about his experience in over-wintering at the South Pole in Antarctica.

Afterwards Denny and I walked back to camp. I got out my little visual 80mm refractor and set it up for the night. Spent some time scoping out the mountain cliffs to our north.

Mid-afternoon, I donned a light sweater and went for a short walk around the observing field, checking out several camps. Unfortunately, I never made it over to the western observing field to see who was setup there. The spread-out nature of the ranch, along with my fighting altitude sickness, worked against my usual walking about.



While I was heading back to my campsite, I stopped by the "Antler Arch", made up of Elk, Deer, and Moose antlers donated by various hunters over the years. (the Montosa Ranch is a hunting camp for most of the year).



Then it was time for a late-afternoon nap. At a quarter to six, Janice, Denny, and I walked over to the cafeteria for dinner and joined Wini and John L there.

After finishing dinner, I headed back at camp to assemble the blackout tent over the back hatch, prepped the main scope and SeeStar, and headed indoors to change into heavier clothing. There was a freeze warning out for our area and the temps were expected to get down into the mid 30's overnight. As soon as the sun dropped behind the trees, you could feel it getting chilly. Soon the Milky Way was glowing brightly in the SW, and Messier Objects began to pop to the naked-eye.



It was another beautiful night here in New Mexico. The daytime breeze having died down, the sky was clear and calm, with outdoor temps already down to 52 degrees and dropping with 27% humidity.

After spending a few minutes reviewing my list of observing objects, I started the early part of the evening hunting nebula in Vulpecula and Sagitta. Then after stopping in Capricornus for a galaxy, I took advantage of the low southern horizon and the ESSP's 34 deg latitude and spent the rest of the night in the southern constellation of Sculptor, EAA observing Deep-Sky objects that normally just barely skim above the horizon back home in Western Pa, but was well place here in south-central New Mexico with its Bortle-1 skies.

John L stopped by and visited again to watch me using Sharpcap to do EAA with the 8" and the SeeStar app with the S30. We then visited with Denny in his bike tent. Denny was imaging the Sadr region with his 71mm refractor and capturing the "Wizard Nebula" with his little Dwarf-2 smart scope.

The first object of the night was emission nebula and open cluster NGC6820 & NGC6823 (also known as SH2-86) located in Vulpecula - "the Fox", and is about 6,000 Ly distant.

In addition to the combined star cluster and Ha nebulosity, the object contains a trunk-like pillar of dust extending from the eastern edge of the nebula towards the open cluster. Also, several dark globules of dust are also visible embedded within the nebula.

Next was the small Ha emission nebula SH2-82, known as the "Little Trifid", located in the constellation of Sagitta, "The Arrow", about 3,600 Ly distant. Next to the larger emission nebula is a small reflection nebula with several dark lanes dividing the two, giving the nickname.

Here's the EAA observations: (NGC6820/6823 to the left, SH2-82 on the right)



(8" SCT @ f6.3 on an Atlas Gem, ZWO ASI294MC Pro camera with L-Pro filter, 180 second subs, dark & flat frames, PHD guided, livestacked using Sharpcap for 30 minutes).

I then slewed the telescope southwards stopping in Capricornus for galaxy NGC6907. The near face-on diminutive spiral galaxy is considered to be a 'grand design' type with two spiral arms coming off of an elliptical bulge of the bright central galactic core. Visible within the spiral arms are several HII star-forming knots. The +11 mag galaxy is about 120 Mly distant.



(same scope info as above, 180 second subs, stacked for 30 minutes).

Next stop was the constellation of Sculptor, now crossing the southern meridian. I started off with the +7.8 mag near edge-on barred spiral NGC55 along the southern boundary of Sculptor and Phoenix. It is one of the dozen of the sky's brightest galaxies! At about 6.5 Mly distant, NGC55 is also one of the closest non-Local Group galaxies to our Milky-Way galaxy. Numerous dust lanes and bright knots of HII can be observed in its spiral arms.

Here's the EAA observation:



Next up was NGC300, a +9 mag near face-on, low surface brightness spiral galaxy at about 6.9 Mly distant, another close external galaxy to our Local Group. Multiple spiral arms and spurs are visible, with dust lanes, and HII regions, and contains a tiny star-like core. For both of the above galaxies, I executed a deeper dive than normal.

(8" SCT @ f6.3 on an Atlas Gem, ZWO ASI294MC Pro camera with L-Pro filter, 300 second subs, dark & flat frames, PHD guided, livestacked using Sharpcap for 45 minutes).

I then went hunting for an actual member of our Local Group of galaxies, the Sculptor Dwarf Spheroidal - Scl dSph. This +10 mag galaxy is a satellite galaxy to the Milky-Way, located at a distance of only 290,000 Ly. It's very faint stars fill the FOV, almost as large as the Full Moon, resembling a faint globular cluster. With the excellent sky transparency, I let the exposure run for 5 minute subs to take advantage of the higher elevation of the dwarf galaxy.



Also, another galaxy on my list was +10 mag NGC7793, located about 12.2 Mly distant. The face-on flocculent spiral galaxy has ill-defined spiral arms; instead it displays a 'puffy or patchy' structure of many small spur arms. Also, intertwined within the arm stubs are numerous HII star-forming regions. A star-like galactic core is visible.

(8" SCT @ f6.3 on an Atlas Gem, ZWO ASI294MC Pro camera with L-Pro filter, 300 second subs for Sculptor Dwarf, 180 second subs for NGC7793, dark & flat frames, PHD guided, both livestacked using Sharpcap for 30 minutes).

It was beginning to get late, and after multiple long nights of observing I was beginning to wear down. So I made my last two observations in Sculptor sort and easy, clusters!

Sculptor's brightest deep-sky object is the +4.5 mag open cluster is called Blanco-1, also nicknamed the "Zeta Sculptoris Cluster". Containing about 300 stars, at about 850 light-years distant, the cluster is fairly sparse and due to its size is best observed using small instruments.

Next was the globular cluster NGC288.(also called Melotte-3), At +13.8 mag and a distance of around 29,000 Ly, the cluster, containing about 40,000 stars, displays as a glowing ball of mostly resolved stars with a bright core.



(Blanco-1: EVO50mm @ f4.2 ZWO ASI294MC camera with L-Pro filter, 15 second subs, dark & flat calibration frames pre-applied, PHD guided, livestacked using Sharpcap for 5 min).

(NGC288: 8" SCT @ f6.3 on an Atlas Gem, ZWO ASI294MC Pro camera with L-Pro filter, 15 second subs, dark & flat frames, PHD guided, livestacked using Sharpcap for 5 minutes).

Once again, the little S30 SeeStar was busy, doing deep-dives.

NGC7331 - "Deer Lick Galaxy" in Pegasus for 63 minutes. (look for the tiny galaxy knot of "Stephen's Quintet" below right of center). Then on to M74 in Pisces for 1 hour.

Finally M45 - "Pleiades" in Taurus for an hour and 47 minutes to really bring out both the bright reflection nebula the cluster is embedded in, along with the faint outer wisps of dust that fills the region.



(0 second exposures in EQ mode with the IR filter, livestacked, AI noise reduction)

In between making observations with the 8" SCT, I also would step outside for a few minutes of visual work with the 80mm refractor. Early on I observed the Messier Milky-Way objects in Sagittarius - M8 - "Lagoon Nebula" and M20 - "Trifid Nebula", then M16 - "Eagle nebula" and M17 - "Swan Nebula". Later in the evening, I viewed galaxies M31 - "Andromeda" and M33 - "Triangulum, then the cluster M45 - "Pleiades". Finally, I got in a chilly peek at M42 - "Great Orion Nebula". Good visual stuff!!!

With the outdoor temperature down to 37 deg, (and still no dew!), and the Moon on the rise, I called it a night around 3:15am. Powered off the equipment, threw the blackout tent into the car, and headed indoors to a warm camper!



Here's an AllSky time-lapse from Thursday evening: <https://youtu.be/liElOm6B--c>

Friday 10/17/2025:

Another day of sleeping in late. Up at 10am.

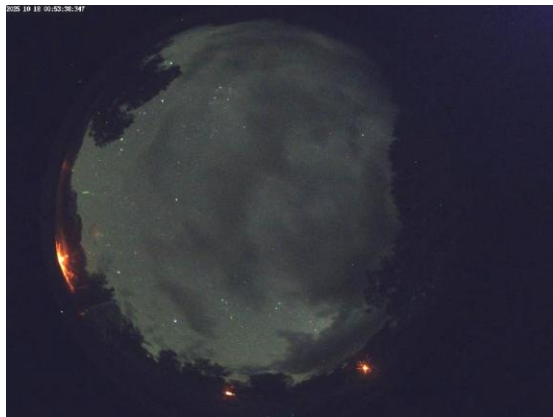
Fixed breakfast and then headed outdoors to download the AlkSky cam images from the night before and recharge the SeeStar external battery. Visited with Denny who was also outside, and we both reviewed our previous night's observations.

A little after 1pm, I walked over to the lecture hall and caught the last half of the "Observing Occultations is for Everyone" presentation. I then stayed and listened to several of the "Twilight Talks". The talks were interesting, but I couldn't stay long as I was falling asleep in my chair. Too many late nights out observing, lol. Back at camp, I assembled the blackout hatch tent and setup the SeeStar, then headed indoors for a nap.

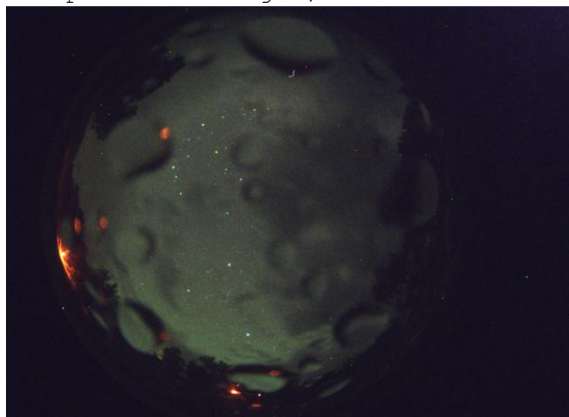
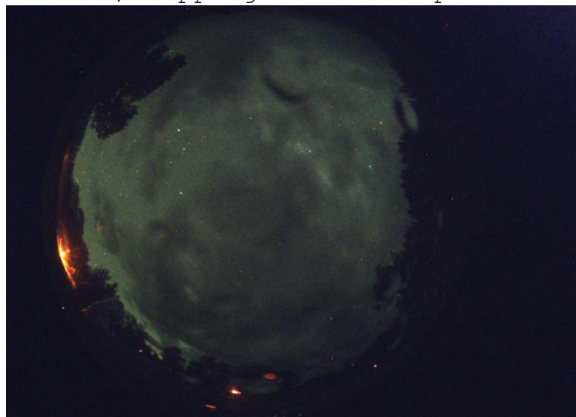
About 90 minutes later, once back awake, I changed into warmer clothes as the outdoor temps had dropped into the low 60's. Sat outside in the Sun for awhile and read. At 5:45pm, I walked down to the cafeteria with Denny and Janice for a spaghetti dinner. We joined John and Wini at the table. The earlier sunny sky had gone mostly cloudy with the weather radar showing rain in the area to our SW. It didn't look good for observing this evening, though it might improve after midnight. At sunset, the clouds thickened.



Back at camp, I got out the cookie jar and delivered snickerdoodles to John and Wini's camp and then Denny and Janice. As it was cloudy and getting cold, I headed back indoors to read and wait out for the sky to hopefully clear. At 8pm, we had a short lived clearing, just long enough for a good view of the Milky-Way. Then around 8:30pm, another wave of dark clouds began to roll in out of the SW.



Around 9pm, while I was back indoors reading, Denny texted me a heads-up that it was raining. I hurriedly threw on my shoes and jacket and headed outside to take down the blackout tent and close up the car. Decided to bring in the laptop and should it clear later, work from inside the camper. Back inside, I put some music on and worked on images. I could hear the wind picking up. Around 10:30pm, another round of light showers went over, tapping on the camper roof. Stayed up till midnight, then called it a night.



Here's an AllSky time-lapse from Friday evening: <https://youtu.be/yIeaDU2uTes>

Saturday 10/18/2025:

Up at 8am. It was a sunny, but chilly morning, 38 deg, so I was in no hurry to go outdoors. The temp must have briefly dipped into the low 30's as there was a light frost visible on the car's windshield. After dressing and having breakfast, Denny and I walked down to the swap meet. Didn't find anything on the tables that I needed so I soon left. Denny was selling a few items so he stuck around for awhile.



Back at camp, after reviewing my travel plans for tomorrow, I decided that I needed to leave for home by noon, so I reluctantly began to pack up the 8" telescope and AllSky. I did leave out the S30 and the 80mm visual refractor for using that evening. Denny, back from the swap, was also out packing his equipment as he too wanted to get on the road early on Sunday.

After lunch, I walked over to the western observing field to see if there was a good low horizon for hunting Comet Lemmon later that evening. (planning on carrying the S30 over). While checking out the larger open field, I ran into Rich from Las Cruces who I met at the Okie-Tex star party. He was there with a group from his club.

At 2:30pm Denny, Janice, and I walked over to the lecture hall. On the way, I stopped in to visit with Bill A from PA.



Once at the hall, the three of us sat in on the 3:15pm talk on the Southwest region of the AL - "The Astronomical League, Its Southwest Region, and Its Wonderful Observing Program", by Edward Flaspoepler, Gary J. Carter, and Viola Sanchez. Then it was time for the keynote talk by astronomer Dr David Levy titled - "All he cares about are his damned stars". A very good autobiographical presentation on his life, along with his discovery of Comet Shoemaker-Levy.



Afterwards we hurried back to camp, where I changed into heavier clothes and headed down to the cafeteria for a taco dinner and sat with Wini and John L. At 6:30pm, Denny and Janice joined us for the raffle drawing, which Wini and MAS VP Anton officiated.



None of our little group won any of the great door prizes from the MAS club. After the last ticket had been pulled, the three of us hurried back to camp to prepare for the night. It was looking to be a really good final night here at the ESSP!

At dusk, Denny and I carried the SeeStar to the west field with the low horizon that I had surveyed earlier that afternoon. It was a little difficulty finding our way along the sandy road and after getting directions at another camp, found our way to the open field. We also had binocs with us and after we had dark adapted, could see Comet Lemmon naked eye. Denny was the first to visually find the comet while I was busy aligning the S30 SeeStar. Later I was able to get my 10x32 monocular on the object before it sat behind the trees.

Took longer than I planned to get the comet into the S30 FOV, but after the first 30 second subframe came thru, it was well worth the effort! The comet with its tail nearly filled the FOV! There was a bright bluish coma in front of and surrounding the brilliant white comet core arching to either side, along with a bright spine going down the middle of the gossamer tail, with at least one streamer breaking off from the main spine. The comet was moving quickly enough that the S30 had difficulty aligning using a 60 second subframe exposure, so I dropped it to 30 seconds and the S30 was able to livestack six of those without blurring the comet. Here's the observation, flipped on its side. ☺



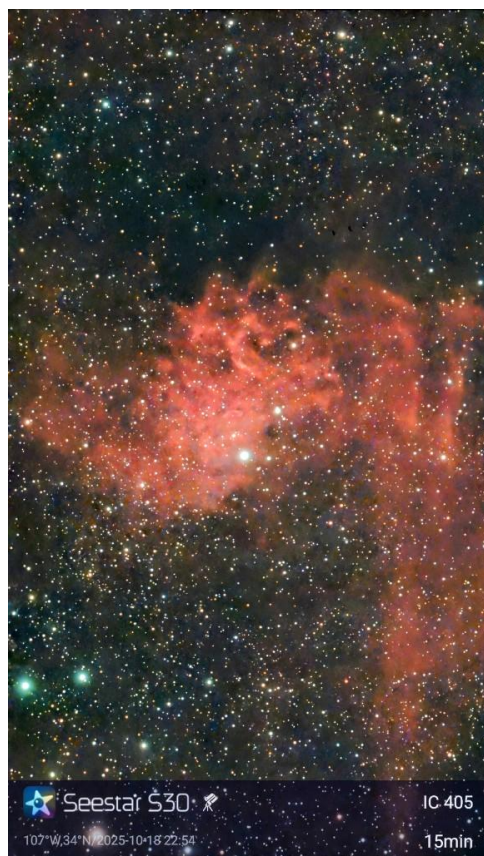
(SeeStar S30, 30 second exposures in EQ mode with the IR filter, livestacked for 3 minutes, then AI noise reduction applied in-app)

Once Comet Lemmon had sat into the trees, we headed back to camp where after I re-polar aligned the SeeStar, and went hunting for Comet Swan in Serpens. Here's a 5 minute stack of Comet Swan, with a 10 second exposure, using the IR filter.



I then slewed the S30 scope over to the center of Auriga - "The Charioteer" for an observation of IC405 - the "Flaming Star Nebula". Here's a 15 minute stack of IC405, with a 60 second exposure, and NB filter. Lots of bright Ha details in the nebulosity.

As I was starting to get chilly standing outside, I headed indoors and after settling in started a mosaic of both IC405 and included IC410, the "Tadpole Nebula" in the FOV. After letting the livestack run for over 90 minutes and only getting 58 minutes of image, I realized that the S30 was having difficulty aligning and stacking subframes and was dropping a lot of them. It was already 1am and I wanted to be up early to finish packing, so I killed the mosaic and saved the incomplete observation. Will have to try on another night and place for the widefield view of the pair. Here's the partial observation:



Powered down the S30 and stashed it in the camper back hatch for the night. In bed by 1:30am.

Sunday 10/19/2025:

Slept in till 7:30am. It was Cold outside!! Temperature at 30 degrees! There was an even heavier frost on the car this morning. I packed the camper inside while having breakfast, then got out a heavy jacket and moved outdoors to put away the SeeStar tripod and 80mm Refractor. Visited with Denny who was also out getting his camper ready for travel. Once I had the camper hitched, I said my goodbyes to John & Wini, thanking them for hosting me these last several weeks, and to Denny and Janice wishing them safe travels as they made their way to Florida. Pulled out for home at 12:30pm, with the night's first planned stop in Tucumcari, NM. After another four days on the road, I finally backed the camper into my Pgh, Pa. driveway around 1pm Thursday, Oct 23rd. Thus ends the ESSP portion of my Southwestern trip.

The facilities at the Enchanted Skies Star Party are a bit more rustic than Okie-Tex, and depending on where you setup camp the horizons could be partly blocked, lots of small scrub trees, but there's some nice large fields too, with plenty of room to spread out. There's limited power on the field unless you rent an RV spot, so be prepared to go solar. Very sandy ground, so take better tent stakes with you. Also bring plenty of water to drink, and if you don't get the excellent meal plan, bring plenty of food as the nearest 'grocery' store is a very long drive away. But overall, for us amateur astronomers, the Montosa Ranch is a pretty nice location, and the Magdalena Astronomical Society does an excellent job of running the starparty.

Also, the high elevation, (7,200 ft), is a pita. I was always out of breath or getting a low grade headache. I needed to constantly drink lots of water and popping Tylenol helps. I've read it can take up to 3 weeks for some folks to acclimate. Guess I was one of the not-lucky ones. Interestingly, we had bags of chips, cans of Pringles, mini-creamers, and other packaged stuff pop from the lower air pressure. I also learned that you never let your auto get below a half-tank of gas as the next station could be a long distance away, and you always carry water and snacks with you for the same reason. You'll need to bring 4 seasons of clothes to wear as it can be hot during the day and freezing at night.

So, what are my final thoughts on my southwest adventure? Was it worth it? Would I do it again? While it is a long trip, especially towing a camper, the drive from Western PA thru the Midwest into the Plains and then High Desert and Mountains was worthwhile in just seeing how the countryside changed the further west I got. Going from green rolling hills where you could only see the road till the next bend to flat sandy expanses with the road running straight to the horizon, and realizing there's no other car in front or behind you for 10 miles. From the occasional small herd of farm cows to huge ranch's with 1000's of head of cattle in the feedlot, to wild herds of antelope running along the highway, to tens of miles of wind farms to vast fields of corn and sorghum with only an occasional silo in the distance indicating civilization. To encountering a wild herd of Llamas along the road to watching Tarantulas scurry across. The views were spectacular, and many times I wished I had a dash-cam to take photos.

And being able to observe from a dark Bortle-1 sky made everything worthwhile! I highly recommend every amateur astronomer should make the trip at least once.

So the answer is "Yes"! I would go out west again. But maybe not every year. While it's true that us East Coasters don't have a lot of dark-sky options, the locations we do have, Cherry Springs, Calhoun, Spruce Knob, and a few others do hold their own against the much more pristine western skies, if you factor in the effort and expense it takes to get out west. While Cherry Springs isn't Bortle-1, it only takes about a half-day to get there and only a tank or two of gas compared to the 4 or 5 DAYS of travel and constant stops for gas to go west. So maybe taking that into account, all things considered, Cherry Springs skies ain't so bad,,,,

If you do go west, bring along a friend or two, or meet them there. It's fun to share the experience with someone you know.



Larry McHenry

Astronomical Webportal: <http://www.stellar-journeys.org/>

Note several of the field, scopes, and people images used were graciously supplied by Denny H & Janice S, and John & Wini L.*