

# Reflector

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**Magdalena: A Stone's Throw to the VLA**

**ALCon 2016 Registration—Washington, D.C.**

**Join the International Dark Sky Association**

**From Around the League: Officer Candidates' Statements**

By John W. Briggs

**When I returned** to live in the small village of Magdalena, New Mexico, never in my wildest dreams did I expect to find a thriving community interest in astronomy. Was I surprised!

Magdalena is among the closest small towns to National Radio Astronomy Observatory's famous Very Large Array radio telescope. An icon of science, the monumental VLA was made famous by the movie *Contact* starring Jody Foster. Yet it can't help but remain mysterious to most folks passing through it on Route 60, a road connecting Arizona to western New Mexico in a very rural area on the Continental Divide. With the VLA just over the horizon, Route 60 continues eventually through little Magdalena, and drivers are forced to slow down. Side streets quickly become dirt, and it's not unusual to see riders on horseback and an occasional loose donkey. Mountains immediately to the south rise to nearly 11,000 feet. They might hardly be noticed, however, given the general high altitude and the all-over splendor of the American Southwest.

I came here a decade ago working for New Mexico Tech in Socorro to help build Magdalena Ridge Observatory, but before long I was called away to teach in New England—a one-year opportunity that evolved into a nine-year adventure. My family and

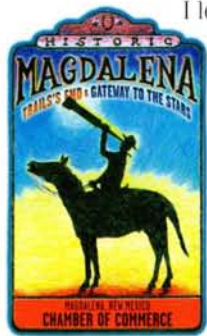
I left behind a small home we'd set up several miles north of the village, with a new well, electricity we'd brought in, new fencing to keep cattle out and horses in, and a backyard hilltop at 6,500 feet. Intervening hills block any village lights shining in our direction.

Earlier I'd had opportunity to watch astronomical development several hours south, near Mayhill, New Mexico, starting in the 1990s. Mayhill is near Cloudcroft, and Cloudcroft is near Sunspot, famous as the high-altitude site

of National Solar Observatory, Apache Point Observatory, and most recently, Sloan Digital Sky Survey. Many well-known amateurs built observatories around Cloudcroft, and today, driving east toward Mayhill, there are entire developments with domes popping up, making the place look like a miniature Kitt Peak!

It wasn't like that here in Magdalena when we set our roots. But land was affordable, the local history was neat, and the village was two thousand feet higher than Socorro to the east. A thirty-mile drive didn't seem like too much for a working commute or for the sundries of living. In recompense, backyard skies near Magdalena offered a breadth and darkness beyond the wildest dreams of many friends back East. For example, the all-too-elusive *gegenschein* (solar counter glow), discovered by Barnard in the early days of Yerkes Observatory, is a feature one can point out easily here, even to non-astronomer friends, at certain times of year. The high desert landscape, drab in a passing glance, is in fact replete with life and has a powerful beauty that seduces one to full sympathy with the state slogan, "Land of Enchantment." The general lack of tall trees—like those back home in Massachusetts, the ones we called swamp maples growing like weeds around my first observatory—is a blessing, because the effective horizon here is naturally low and typically amazingly distant. The air is frequently so transparent that seeing a mountain some 70 miles away is not unusual at all.

So in returning here to live and build a new backyard observatory, the potential was clear enough. Perhaps the only concern was astronomical loneliness given that, for example, the excellent activities of the Albuquerque Astronomical Society were centered 100 miles away.



# MAKING IT IN



An 1875 5-inch Alvan Clark refractor, originally at Abbot Academy in Andover, Massachusetts, is now a regular feature at the Enchanted Skies Star Party in New Mexico. Photograph by Michael Mideke, Magdalena Astronomical Society, courtesy of the Astronomical Lyceum collection.



The 13-inch Rutherford refractor, formerly of Columbia University, was built in 1868 and did pioneering work in celestial photography, astrometry, and spectroscopy. It is seen here as currently displayed at the CWB Gallery in Magdalena, New Mexico, in an exhibit prepared for the Astronomical League's 2015 convention. Dennis and Kim Cassia of the Springfield Telescope Makers recently contributed a large Cave Astrola German equatorial mount that will allow this telescope to be used on the sky again.

But in our absence, a significant transformation had begun. The small Magdalena Chamber of Commerce, populated with folks from the local art community, had embraced the idea of promoting astronomical tourism as a new theme. The village slogan, "Trail's End," had been expanded to become "Trail's End, Gateway to the Stars!" I didn't know this. My family and I were newly back in town, dining in a cafe. A table of local ladies sat nearby (who, it turned

# MAGDALENA



Campers await the emergence of zodiacal light as Venus beams in evening twilight at the spring 2015 Enchanted Skies Star Party, one of two organized in Cibola National Forest near Magdalena, New Mexico, in 2015.



FOAH Observatory outside Magdalena, New Mexico, will eventually house several telescopes. The first installation is a 10-foot Parablum portable dome, surplus from White Sands Missile Range. A massive central section lowers hydraulically for three-point contact on the ground, leaving the telescope isolated from the large trailer. The current instrument is a differential image motion monitor for measuring astronomical seeing, a system originally developed for Apache Point Observatory and the Sloan Digital Sky Survey.

out, were representatives of the Chamber). Conversation ensued. When I mentioned to them, perhaps somewhat timidly and apologetically, that I happened to have a keen interest in astronomy, I was entirely unprepared by the explosive and enthusiastic reaction. They'd embraced the idea of promoting astronomy, and now, suddenly, a local astronomer materialized before them!

Beyond mere sloganing, the Magdalena Chamber had united with

the long-running Enchanted Skies Star Party, already over 20 years old in the region, and had enticed the event to come operate a short drive outside the village in Cibola National Forest. At the same time, the Chamber successfully applied to the New Mexico Tourism Department for a \$2,500 grant to support 2015 Star Party activities, including expanded advertising. Most importantly, the Chamber's collaboration brought in a network of folks from Magdalena's art and business communities, all of them enthusiastic to promote astronomy with talent curiously disproportional to the small size of the town. Among the ideas generated by the Chamber, for example, was to create the Magdalena Astronomical Society, a task that fell upon me. Turnout for the star party multiplied, with participants in 2015 coming from as far as Denver, San Francisco, and New York City. A good number said they'll return.

I had a lifetime's collection of antique telescopes, related instrumentation, and books in storage in Magdalena, my interest in such things having been arguably an illness, but one encouraged by fellow members of the Antique Telescope Society. A community theater group had been operating in a former school gymnasium from 1936 on Main Street. It had become inactive, allowing me to acquire the building to house and maintain the telescope collection, display it, and install related labs and a technical library. The "Astronomical Lyceum," as we call it, is becoming a center of activity for the Magdalena Astronomical Society. Our first club project, now underway, is to build a 37-inch Dobsonian for a mirror made by Intermountain Optics and owned by Wheaton College of Norton, Massachusetts. University of New Mexico has donated two surplus observatory domes. New Mexico Tech has established Etscorn Observatory Field Station with a surplus dome from White Sands Missile Range at the 6,500-foot hilltop, the site dubbed the FOAH Observatory. I had envisioned the site as my "Fool On a Hill" Observatory before collaborations proved so fruitful that I realized, happily, we'd better call it FOAH for "Friends On a Hill!"

The Astronomical Lyceum is a work in progress. But since July 2015, when the Astronomical League's National Convention passed through town on the way to a special tour at the VLA, it was clear to us that we must open a show. Consequently, featured artifacts and images from the Lyceum collection, organized to highlight the life and accomplishments of pioneering American astronomer Lewis Morris Rutherford, were organized for display at Magdalena's CWB Gallery. This proved an interesting attraction to pause the League's tour bus. The display remains in place as I draft this report, and we are now opening it regularly in coordination with other tours at the VLA. The response to all this has been very encouraging.

My experience in Magdalena proves that wonderful things remain possible in New Mexico, perhaps more easily so than in many other places. The Route 60 corridor westward, running through the VLA and on to Pie Town and other truly remote New Mexican villages, offers among the most pristine dark skies of the nation. Other new observatories are underway out there. Magdalena now serves as a front line to the encroachment of urbanization pushing down and outward from Albuquerque. It would seem, however, that we can make a good stand here. And we have hope that the expanded popularity of the Enchanted Skies Star Party, and the example it sets for good collaboration with village and state entities, will prove to endure, educate, and inspire, for a long time to come. ☀

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