



Sacnews

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Artist in Glass

By Margie Vin-Williams & Paul Dickson

Bob Goff, master optician, moved from Tucson, Arizona to the Great Nebula in Orion on December 23, 2001. His memorial pamphlet instructs us, "...Whenever you glance in that direction, please send him a wink."

Bob stated that the child is the father of the man: When Bob was a young boy; he received a concussion from a fall at a roller skating party. While recovering, he read book on astronomy with the result being a passion for astronomy and optics.

In 1983 Bob moved from California to Kitt Peak where he, as a master technician, was one of the few who lived there full time, providing maintenance for the 40 telescopes.

Dean Ketelsen of the Steward Mirror Lab and David Levy, known for his comet discoveries, knew Bob from these first early days in Arizona. In 1985 Bob married Valerie and they formed their optical business where Bob consistently polished glass with margins within a few nanometers (one billionth of a meter) and in diameters from a few centimeters to 88 inches.

Bob Goff was described by his friends as a Teddy Bear and a man of such size that he was the one to be called when pianos had to be moved. Father George Coyne, Director of the Vatican Observatory, stated Bob was a multifaceted man except in his

wardrobe, which remained a T-shirt, shorts and Birkenstocks.

At the memorial service on January 11th, the outpouring of persons, from both the astronomical and medical world (Bob had been on the list for a heart transplant) caused the University Medical School Duval Auditorium to be filled beyond its 350-person capacity.

Marilyn Unruh from the Prescott Astronomy Club and Paul Dickson and Margie Williams from the Saguaro Astronomy Club attended the memorial

and enjoyed a wonderful reception with Derald and Denise Nye and Chuck Schroll from the Tucson Amateur Astronomy Association. There were two scopes set on the sun, which displayed eruptions in great French curves on the rim. As someone said, it was a nice day, a "Bob kind of day."



In Memorium
Robert Fulton Goff
December 23, 2001

Costa Rica Eclipse 2001

By Glenn Nishimoto

Thanks to AJ Crayon and his announcement that Skycamping of Oregon needed extra people in their group to make the trip, I decided to give them a call. When one plans an eclipse jaunt, the waiting gets unbearable and perhaps one packs and unpacks several times to travel light yet plan for every possible contingency. I have learned to always bring a roll of duct tape.

Well, trip time had arrived and I left Sky Harbor for the daylong trip to Costa Rica on December 12. While on a layover at DFW for the final leg, I met 3 other members of the group and we all assessed each other out and compared notes about our previous eclipse experiences.

Arrival in San Jose was a late evening event and thanks to Margaret and Gabriella who coordinated our trip in CR, we were met at arrivals and delivered to our hotel in downtown San Jose, by Carlos our bus driver. We stayed at the Hotel don Fadrique, a modestly priced elegant villa style hotel with the neatest artwork in its hallways and lobby. Everyone seemed exhausted after checking in, that an early bedtime was in order-but not before a light walk and a snack. The best option for that time of the night was a Subway and none of the "food service help" could speak English so with high school Spanish in hand, I managed to get a sandwich and soft drink. Those airline meals just don't do it.

The next day was an early departure for our destination to the Guanacaste region in the northwest. We were met by our "nature guide" Luis, who was extremely knowledgeable about the local flora and fauna as well as the history of the region.

We did make stops to stretch and refresh along the way and even made a ferry crossing just before Nicoya, though there is a bridge being constructed to make road travel faster. Nicoya was a late lunch

stop as well as a church visit (the oldest in CR). We all treated ourselves to a taco lunch-a plate that always includes rice and beans. Delicioso and cheap. Nicoya seems like a nice place to hang out-especially for the backpacker set as I caught a glimpse of many hostel-guesthouse type accommodations. We even managed to stop by a rustic native pottery studio of sorts where the old methods are still being utilized. Their kilns reminded me of the hornos of New Mexico.

We finally arrived at our hotel, the Hotel Iguana Azul by near sunset. Gabriella, the tour coordinator had everyone rush out to the hillside overlooking the ocean, so we could view the cielejas-colors of the sunset, with drinks in hand. The Iguana Azul is a moderate style hotel with ceiling fans on a hillside overlooking the Pacific. Construction looms in

We were able to see the annular ring through a few cloud wisps with a palm tree foreground overhang for about a minute..

the area and in a short while, the hotel will be surrounded by very expensive condominium and time-shares. After dinner, we attempted to do some observing as it is dark in the area but local weather

made viewing fair at best. The Geminids did make a show but activity came to a standstill around 2230 hrs local time. It was a treat for the Oregonians to see a bit lower south than what they are used to seeing. Be glad you live in the Land of AZ.

Eclipse day-I think everyone slept well the night before and in the AM the skies were indeed promising. Of course, my first thoughts were food related and I took into the local fresh fruit and breakfast. We had the day at our leisure and some of us just did early preparation for the eclipse. The pool on the hotel grounds was a nice respite from the heat and humidity but I welcomed it, as it was a bit chilly and dry when I left Arizona. By early afternoon, the skies did not look promising at all and clumps of cumulus kept intimidating us while we lounged on our poolside chairs. No one seemed to

Astronomy 101

The ETX 60AT & The Urban List

By Rick Tejera

Back in September, Costco seemed to come into a load of the little Meade ETX 60AT telescopes and sold them for \$100.00, which is about 1/3 the price they were selling for in other outlets. Seems shortly afterward Meade's ETX advertising no longer had the 60mm in its inventory. Given that for a few dollars more you could get the 70mm version, my guess is the 60's didn't sell very well and Meade unloaded them on Costco. At any rate, I know more than a few of us picked one up. Mine came to

me as an early Christmas present. I plan to use it as a "Portable" scope when traveling and for backyard observing. Given this I'll probably also bring it out to star parties for the heck of it. I like to play "compare the view".

How does this 60mm scope set itself apart from the typical 60mm department store scope? Read on. The telescope is a short focus achromatic refractor of 350mm focal length. This gives an f ratio of 5.8, which is about the same as Gert (my 8" dob). Given the short focal length, this telescope has RFT written all over it. The supplied modified MA eyepieces of 25mm and 9mm focal lengths give 14x and 39x respectively. The corresponding FOV's (Assuming a 40deg apparent fov of the eyepiece) yields 2 d 51' for the low power eyepiece and 1 degree for the high power eyepiece.

The telescope is controlled by a scaled down version of the same Meade Autostar that controls the larger ETX models. By scaled down I mean the database is noticeably smaller although it still has objects way to faint to be seen in this telescope, i.e. the Horsehead. The keypad is also smaller eliminating the number keys. Numeric inputs are made by scrolling the numbers using the arrow keys. Other than those differences, the software that controls the scope itself is unchanged from the larger models.



The Meade ETX60-AT. Notice the plywood tripod adapter I made under the base. Quick and simple. The Autostar controller is attached to the base with velcro.

The scope does not come with a tripod. The ETX tripod from Meade or JMI and other retailers would cost at least twice as much as the scope! Rather than yield to temptation I fashioned an adapter to my camera tripod out of plywood. I've noticed ads in the astro-mags for a similar device going for about \$30.00. Your choice. To minimize vibration

on the less sturdy tripod, I hang my famous "Bottle-O-Rocks" from the tripod. This suffices for my purposes.

OK, that the nuts and bolt of the scope, but how well does it work? Read on. The key to success with any GOTO scope is the alignment, and Autostar is no different. Input from (Marshall Dailey)

Fuzzy Spot, Canis Major

By Ken Reeves

Canis Major is a prominent winter constellation sitting on the Milky Way. As such, it contains many open clusters, typical of the winter Milky Way, and a few nebulae. It also contains the brightest star in the sky other than the sun, Sirius, which is unmistakable. Sirius has as its companion a white dwarf, Sirius B. I have tried numerous times to try to split this double, but have been unsuccessful to this point.

Canis Major is the hunting companion of Orion. With a little imagination, you can make out the stick figure of this dog in the sky. As an interesting note, the phrase "dog days of summer" came about when ancient people thought that the sun paired in the sky with the Dog Star, Sirius caused the extra heat.

NGC 2204 (06 15.7 -18 39): This open cluster, although one of the Herschel 400 objects, was not at all obvious in the 10" scope. About 10-11 stars over some haze was seen with the star pattern around cluster forming a cross shape.

NGC 2207 (06 16.5 -21 22): There are actually several decent galaxies visible in Canis Major. For example, this one was seen in the 20" scope as pretty bright, pretty large, and elongated NW/SE. The glow is fairly even with a slight brightening towards the middle. There is something weird going on in the middle, either 2 nuclei, or a nucleus with a star slightly to the west. On the SE end of the galaxy, there is a brighter spot, which is actually a small interacting galaxy.

NGC 2287 (06 47.0 -20 44): M-41 is one of the two star objects in Canis Major (in my opinion). At 70X in the 10" scope, it is fairly large, very bright, somewhat rich, and somewhat loose. There are 4 levels of stars with about 125 stars counted. Many of the stars are grouped in real nice strings and arcs. This cluster is visible as a hazy spot naked eye, and somewhat resolved in the finder scope or binoculars. Just because this is a big bright cluster, don't pass it over with a large scope. In the 20" scope at 60X, it fills the whole field of view. I counted about

200 stars in this scope, and noted 2 or 3 bright stars that are on the yellow side.

NGC 2345 (07 08.3 -13 10): I like this open cluster, if for no other reason, because it has an NGC number that I can remember. Besides that, I saw it as somewhat big, pretty bright, and elongated N/S. There are 3 levels of stars with 25 stars counted. At the N end is a tight group of stars, using averted vision really brings it out. On the S end is a real nice double star. NGC 2359 (07 17.8 -13 13): This is one of the nebulae in Canis Major. At 50x with UHC filter, it is somewhat bright and pretty large. The brightest part is around a grouping of 6 stars. The nebulosity fades away to the S where it abruptly ends at a star, but turns WSW there. To the N is some fainter nebulosity, but not very well defined. This is a very nice nebula well deserving of a Best of the NGC entry.

NGC 2360 (07 17.8 -15 37): This open cluster is somewhat large, pretty bright, very rich, and somewhat condensed. There is 1 prominent bright star and 4 levels of stars with about 90 stars counted in the 10" scope. Many of the stars form straight-line groupings. The overall shape is sort of maple leaf pointing to the E. To WNW is a very prominent star just out of the field of view.

NGC 2362 (07 18.8 -24 57): This last object is the other star attraction in Canis Major. It is one of the first non-messier objects I ever observed. With it centered on τ Canis Major, it is very easy to find. In the 10" scope, it is a very bright triangular shaped cluster, with about 30 stars counted. There is somewhat of a void immediately around τ . An interesting optical illusion can be seen on this cluster. Tap the scope slightly, and τ seems to wiggle in a direction opposite of the other cluster stars. While you are here, go about 2 degrees to the N (at 07 17 -23 19) and you will find a very nice bright double star. They are equal in magnitude, with a very strong contrasting yellow and bluish color.

Walter Scott Houston's "Deep Sky Wonders"

A book review
by Thad Robosson

Ever since reading the review of this book on Sky and Telescope some months ago, it's been on my list of things to get. By chance, I won my copy in the NASP raffle this past September 15th, and now I wish I had bought it much sooner. Veteran observers were lucky to have this gentleman's column in S&T every month, and now the newer astronomers have a chance to appreciate him as well. A pair of testimonials written by Brian Skiff and Dennis di Cicco make it obvious that Mr. Houston loved the sky and observing it. After thumbing through this book, I was convinced that newer astronomers had definitely missed out on something.

The book is divided up into the 12 months, and selections from nearly 50 years of columns were carefully pasted together by Stephen James O'Meara to create each "chapter". Each chapter discusses a variety of objects, whether it be an observation from himself or one of his readers who had responded to one of this many challenges (such as our own Mr. Coe.). And challenge he does, as a considerable number of observations involved small aperture 'scopes, binos, or even naked eye observations. But the large aperture crowd needn't worry, there are plenty of observations with the big ones as well. Even equipment and techniques get brought into

the mix, including the quite usable UHC filter. There is a good mix of all types of deep sky objects, from the obvious (M13, Omega Cent., etc.) to the more obscure (like "non-existent" NGC 7772, UGC's, Etc.), but whatever your liking, you're sure to find something that appeals to you. At the end of each chapter there is a list of objects, their coordinates, types, and the Sky Atlas, Uranometria, and Millennium Sky Atlas page numbers. But by far, the best part of the book for me is Mr. Houston's writing. Even with the "cut and paste" necessary to create this book, I found that his observations and challenges moved me. His stories of persistence and overcoming what was thought to be "unreachable" have given me some pretty lofty observing goals, fueled by desire to see the things he's written about, and driven by the need to push back the limits. That very next night, I sat down in the backyard with my 10x50's, Sky Atlas chart #16, and my red flashlight, and proceeded to chase 'em down. It was almost as if he had taken a chair next to me and kept daring me to look deeper. I was pleasantly surprised by how much I really could see, and now I'm hooked.... I'm sure that this was the effect that he was after.

This book is available from S&T online for \$29.95.

February 2002

SUN	MON	TUE	WED	THU	FRI	SAT
					1	2 SAC Star Party
3	4	5	6	7	8	9
10	11	12	13	14	15	16
17	18	19 School Observing Session	20	21	22 SAC Meeting	23
24	25	26	27	28 Deep Sky Group		

Schedule of Events for February 2002

Feb. 2nd	SAC Star party at Flat Iron mountain Site. Sunset 1803, Ast. Twilight Ends 1929, Moonrise 2346
Feb 4th	Moon at 3rd Quarter at 1333 mst
Feb. 5th	Apollo 14 lands in Fra Mauro, the intended landing site of the ill-fated Apollo 13.
Feb. 7th	Birth of Sir William Huggins, Pioneer in Spectroscopy. Knighted in 1897, served as President of the Royal Astronomical Society. He Died in 1910.
Feb. 12th	Moon is New at 0741mst.
Feb. 16th	Ceres in Conjunction with the Sun at 1351 mst.
Feb. 19th	School Observing Session at Desert Mountain School, 7th Ave and Carefree Hgwy. See Article on page 9.
Feb 20th	Moon at 1st Quarter 1202mst, Occults Saturn, Saturn disappears behind the dark limb at 1617mst and reappears at 1717mst
Feb. 22nd	SAC General Meeting at Grand Canyon University; 1930, Speaker to be Announced
Feb. 27th	Moon is Full at 0125mst.
Feb. 28th	Deep Sky Sub Group Meeting at the McGrath's House, See page 12 for directions

Future Planning

March 8th-9th	Sentinel-Schwar Star Gaze
April 13th-14th	All Arizona Messier Marathon
May 24th-26th	Riverside Telescope Makers Conference, go to http://www.rtmc-inc.org/ for more information

(Continued from page 2)

know the exact time of eclipse maximum. I had heard 1607 hr local time so by 1400 hr, we were all set up to view and photograph. There was a Televue 85, a B & L 4in. SCT, an Orion short tube refractor, assorted binoculars and I had brought my Questar. At least everyone had mylar or some solar filter to go around. I glued Baader film to a PVC flange, which loosely fit the Questar.

We all were excited as the moon kept taking larger bites but there were clouds coming in from the East. We were told that this was highly unusual for that time of year (hear that one before?) but we all kept our fingers crossed. I had already resigned myself to not seeing annular maximum. It looked bad! Some of us made sacrifices by jumping in the pool and perhaps the gods would be appeased. There were occasional breaks in the clouds but hey, que sera sera. You know, 1607 hr came and went; some of us hid our disappointment but we still kept looking west as the sun was close to the horizon. At approximately 1630 hr, Scott, the activities director of the Iguana Azul yelled out that there was a clearing in the clouds and lo and behold, there it was – we had not estimated the time correctly. We were able to see the annular ring through a few cloud wisps with a palm tree fore-

ground overhang for about a minute though I have no idea how long the duration was. Elation reigned and we all cheered. The chef of the hotel even prepared a special meal for the event to include ceviche.

That night in the wee hours of the morning, a few Oregon die-hards got up at 0330 hr to view the Southern skies. I think they were excited by their comments at breakfast. We had half a day to enjoy some local bird watching so Luis gave us a quick bird tour of the area around our hotel. We did see a split tail flycatcher, Baltimore oriole, caracara, a trogon, yellow kiskidees, and numerous others whose names escapes me - a bird-lister I'm not.

Departure from Guanacaste was by a CR airline with one engine. No, I did not get to see Arenal from the air but had seen that volcano on a previous trip. The group unanimously agreed to a shopping stop prior to being dropped off at our hotel and we all got to experience a Costa Rican version of Wal-Mart – Hypermall.

I have to admit that prior to the trip, I thought four days was a bit short, but the ease of the group and the itinerary was ideal for a short eclipse trip to the land of the cielejas- Costa Rica. (A scrapbook of the trip may be viewed at www.skycamping.com)



Annular Solar Eclipse,
December 14th 2001 from Costa Rica. Photo
Courtesy of Glenn Nishomoto

Bits & Pieces

Minutes of the December Holiday Party/Meeting By A. J. Crayon-SAC Secretary

The December potluck holiday party was held at Pat and AJ Crayon's house, attended by approximately 30 people, including family members and children.

One highlight of the evening was filling of two of the three remaining vacant offices for the coming year. The offices are President - David Fredericksen and Properties Directory Rich Walker. The outgoing President Jack Jones announced that the remaining office to be filled, treasurer, would have a name announced at the January 2002 meeting.

The other highlight of the evening - in addition to food and talk, was a plethora of prizes. Included were a number of telescope parts and

accessories, 2002 Astronomy calendars, a Bushnell refractor and some software.

After this there was quite a bit of trading, making it like a mini swap meet. Amongst items exchanged was The Sky, from Steve Coe to Stan Goredinski and the Bushnell refractor from Jennifer Keller to the Pieser kids.

The major software was Starry Night Pro, donated by Dean Koenig of Starizona in Tucson. Visit their web site at <http://www.starizona.com/> or drop him a note at dean@starizona.com. Our newsletter editor, Rick Tejera, got this gem! All agreed that it would have a fine home with Rick, congratulations.

School Observing Session

I recently received a request to hold a School observing session at the Desert Mountain School in Desert Hills. The Seesion is in conjunction with the schools Curriculum Night and is hosted by 7th grade science teacher Milissa Holder. The Date is Tues Feb 19th., from 6:00 to 9:00. Set up is at 5:00. We can use the daylight to show off out telescopes and explain how they work before it gets dark.

There will be plenty of showcase objects well

placed for viewing this night, Among them Jupiter, Saturn, M31 & the Double Cluster. The Moon is just about at first quarter, so some lunar observing is in order as well.

Desert Mountain School is located at 7th Ave. & Carefree highway. It's about a 30 minute ride from the 101 & I-17. Please plan on helping out if at all possible.

I'll be posting more details as the date nears.

(Continued from page 3)

who uses a ETX 125 and some experience show that the key to getting a good alignment can be stated in one word: LEVEL. First thing I do now is level the base of the scope. Next I sight Polaris and lock the scope in azimuth. Final step is to level the OTA. Once this is done the scope is ready to begin the alignment procedure. The scope will ask you for the date and time, time zone and is daylight savings time in effect. Enter all the parameters and you're ready to align the scope. Once again the more accurate your information about the time, the more accurate your alignment will be. There are three alignment options: Easy, One Star and Two Star. The only difference between easy and two star alignment is the easy alignment picks the alignment stars for you. Since my backyard has two tall trees on the southern side and a house on the north side, I usually opt for the two star alignment, so the telescope doesn't pick stars hidden by obstructions. The scope will ask you to put it in the "home position". You've already done this if you've leveled it as I detailed earlier. This is where the accuracy will show itself. If you've carefully leveled and pointed the scope north, odds are your alignment stars will be in the field of view. Center the each star and enter and your alignment is done. The more you have to slew the scope the less accurate the alignment will be.

Once aligned, Autostar works just as advertised. Select an object and hit GOTO and the scope puts it in the field each time. On the odd occasion it misses, there is a search feature that will slew the scope in ever increasing sized square patterns that should find the object quickly. The one time I used this feature, the scope found the object on the second square. If an object isn't centered, you can manually center it and then "Synch" the scope to make the small correction. The scope works just as well on dynamic objects (the planets), Once again the accuracy here is determined by the accuracy of your time input. Tracking is smooth, albeit noisy. The scope has the familiar ETX hum and grind sound to it.

OK, Autostar works fine, but how about the views? Read on. I've had the scope out under dark skies once, the remainder of the time I've had it out in the backyard. Under dark skies the view was sur-

prisingly nice. The wide field of view makes this scope a candidate for large open clusters. At Flat Iron, I easily counted 40 stars in two levels in the Pleiades. The wide field enabled me to view the entire dipper asterism without having to move the scope. At home with the Moon 80% lit, the double cluster was an easy score. Although not as spectacular as it would be from a dark sky, both clusters easily gave up enough detail to satisfy me considering the sky conditions. I tried Open Cluster TR2 in Perseus a loose grouping of about 10 stars surrounded by a square of fairly bright stars. The Orion Nebula showed plenty of detail, although the trapezium wasn't split. It appeared as a slightly elongated star. M31 showed a bright core and a hint of mottling beyond the core. α And was split only during moments of steady seeing, although it was suspected all the time. As you'd expect view of the planets are tinged with a slightly blue edge due to the scope's achromatic design. While observing the moon I didn't find it all to obtrusive, although I wouldn't want to speak for everyone on this. The planets were nice, although small even at 39x. I could barely separate Saturn's rings from its disk. Given this I'd say a Barlow and a high power eyepiece are a must for satisfying planetary observing.

OK you like the views. Is there anything you didn't like? Read on. Aside from the aforementioned need for a good Barlow and higher power eyepieces, my main peeve with the scope is the lack of parfocality on the eyepieces. Switching eyepieces means running the scope through what seem like most of its focuser travel. The reason for this is the low power eyepiece's barrel is too long to sit in the drawtube without hitting the diagonal mirror. I've found inserting the high power eyepiece in just far enough to grab the setscrew will alleviate some of the focuser travel required to reach focus. I don't like the idea of my eyepiece sitting on the diagonal, and will probably ask Thad to turn down the barrel a bit for a more "comfortable" fit. I'll lose the filter threads, but C'est la Vie. I figure if that's all I can complain about, for \$100.00 I'm ahead of the game.

Final Conclusion? The ETXAT for \$100.00 makes a fine second scope. My wife doesn't know it yet, but it is now the designated traveling scope. It's given

President's Message

By David Fredericksen

For those of you that don't know me my name is David Fredericksen and a funny thing happened to me at the SAC Christmas Party. I became President of the Saguaro Astronomy Club. Actually I told A.J. Crayon that I would accept the nomination to be the President. I have been a member of the club for 21 years and the only office that I have ever held was that of Secretary for a 2-year stint. I started thinking after the November meeting that I needed to be more involved in the club, so here I am. We should all give of ourselves to SAC. If it is a matter of being concerned that you don't know what to do, ask someone. I know that if I have any questions about how I need to do something, I can ask Jack Jones or any of a number of other people. That is the strength of our club: we are all willing to help each other when the need arises. I am asking our membership to step up and accept a nomination for an office when a vacancy comes up, even if it is only for 1 year. Everyone will appreciate it and you will actually have fun doing the job. Get involved, its not just a job, its an adventure. Oops, sorry! Wrong job.



One of the things that I would like to see during my tenure is for us to get to know more of the membership than we already know. I know many of the people in the club, but there are members that I see every meeting and I don't know them, which is my own fault. That is a big goal for myself and I hope it will be your goal too.

I have the good fortune to be able to teach Astronomy for a living. Oh boy, I get to teach my hobby and get paid to do it! I teach at Glendale Community College. I have a 12.5 inch Dobsonian and a C-5 that I picked up at Christmas. I am married and have 2 boys aged 13 and 11. I enjoy looking at the planets and Moon, but I prefer looking at the faint fuzzies that are out there.

I welcome all comments and suggestions and I look forward to serving SAC in the upcoming year.

Clear Skies,
David Fredericksen, SAC President

Such A Deal

For Sale: Coulter 14-1/4" F/7 mirror, Novak 9pt mirror cell, 2.25" ma diagonal and cylindrical spider. \$600 Contact Paul Maxson at sunspot51@home.com or 623-975-9232.

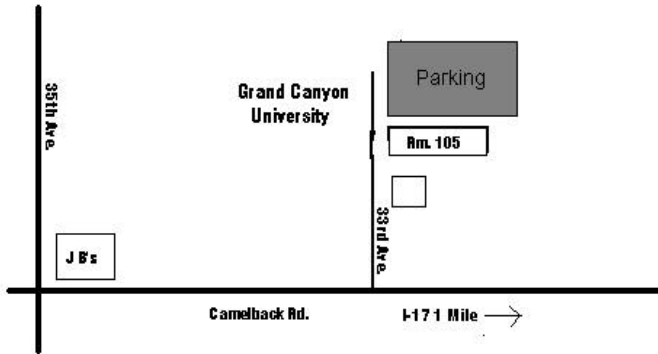
For Sale: Meade LX5 10" SCT with Lumicon Sky Vector II, three eyepieces, plus extra accessories, \$1195, complete details and photos via e-mail, Pete in Wickenburg AZ peteb@w3az.net or 928-684-3635.

For Sale: Meade ETX-125EC 125mm Maksutov-Cassegrain Telescope with tripod and #457 Autostar Computer Controller. More detailed specs can be found on the Meade home website. \$800. Please contact Oscar at (480)821-8428 or oscar.barba@intel.com

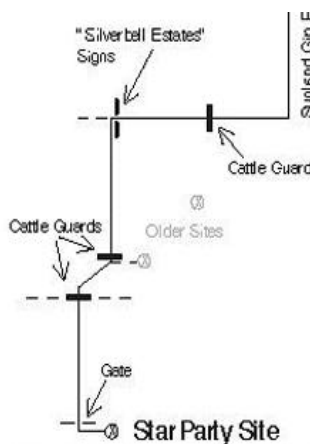
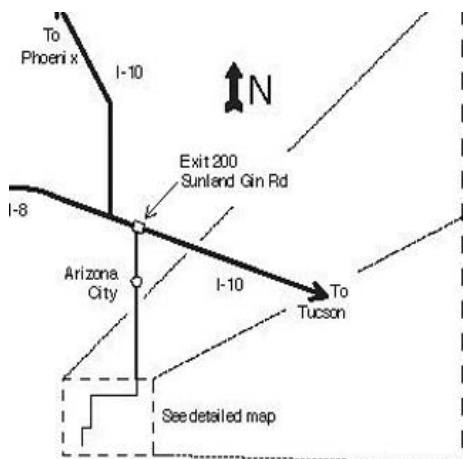
SAC Meeting and Observing Sites

General Meetings

7:30 p.m. at Grand Canyon University, Fleming Building, Room 105: 1 mile west of I-17 on Camelback Rd., North on 33rd Ave., Second building on the right.



Arizona City-Messier Marathon



Take I-10 to exit 200 (Sunland Gin Road). From here it is about 29 miles to the site. Turn right (south) after exiting the freeway. After about 15 miles, the pavement ends and about one mile further, the road turns sharply to the west. After another four miles, the main road will turn south just after the "Silverbell Estates" signs. Three miles past the signs, the road will veer off to the west, and five miles further, the road will pass through a gate. Turn left immediately after the gate and continue for another 2/3 of a mile, driving over a fence. The site is to the right.

Flatiron Star Parties



Head west on I-10 to the 339th Ave exit (exit 103). Turn North (right) and go two miles to Indian School Rd. Turn West (left) on Indian School and go 1 mile to 355th Ave. Turn North (right). This will turn into Wickenburg Rd. Follow this road for about 12 miles. Just after mile marker 23.3 you will go through Jackrabbit wash and pass a cattle guard sign. There is a dirt road just after the sign, marked by white painted rocks. Turn on to this road and follow it about .9 miles. Just after you pass through a wash, you'll see the field on your left. If you hit the cattle guard, or the dirt road your on is next to a fence, you've missed the correct road. Go back and look for the white rocks. (see detail map above).

SAC Membership Services Membership

Memberships are for the following calendar year and are pro-rated for new members as follows:
Jan.-Mar. 100%, Apr.-Jun. 75%; Jul.-Sep. 50%, Oct.- Dec, 25%

\$ 28.00	Individual Membership
\$ 42.00	Family Membership (one newsletter)
\$100.00	Business Membership (includes advertising)
\$ 14.00	Newsletter only
\$ 6.00	Nametag for Members

Subscription Services

The following magazines are available to members. Subscribe or renew by paying the club treasurer. You will receive the discounted club rate only by allowing the club treasurer to renew your subscription.

\$ 30.00/yr	Sky & Telescope
\$ 29.00/yr	Astronomy

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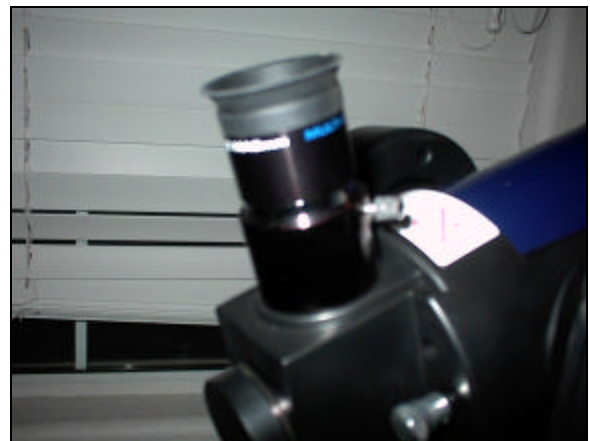
Mail Completed form to:

Peggy Kain
SAC Treasurer
P.O Box 30424
Phoenix AZ 85046-0424

(Continued from page 10)

me the impetus to get out in the backyard and start work on the Urban List. With my homemade Baader Solar filter, it will also work fine as a solar scope. Best of all was starting to observe with my daughter. With the tripod mounted low enough, she was able to observe a lot easier than me trying to hold her up to Gert's eyepiece.

For the money I'd say it's a good value. For what Meade was asking for it, I'd have to say you'd do better for your \$270.00



The gap caused by the barrel of the eyepiece, causing a large focus differential between eyepieces can just be seen in this picture.

SAGUARO ASTRONOMY CLUB

February 2001

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DUES ARE DUE

As you know all memberships expire at the end of the year. If you haven't already done so, now is the time to renew your membership. You will receive two more issues of SACnews unless you renew, so send in your remittance now. Use the handy renewal form on page 13 of this newsletter.

Videmus Stellae



SAC Schedule of Events 2002

SAC Meetings

Jan. 25th, 2002	July 26th 2002
Feb. 22nd 2002	Aug. 23rd 2002
Mar. 29th 2002	Sep. 20th 2002
Apr. 26th 2002	Oct. 18th 2002
May 24th 2002	Nov. 15th 2002
June 21st 2002	Dec. 20th 2002 (Holiday Party)

Deep Sky Group Meetings

Feb. 28th 2002	Aug. 29th 2002
May 2nd, 2002	Oct. 24th 2002
June 27th, 2002	Dec. 26th 2002

SAC Star Parties

Date	Sunset	Astronomical Twilight Ends	Moonrise
Jan 5th	1737	1906	0049
Feb 2nd	1803	1929	2346
Mar 2nd	1829	1951	2238
Apr 6th	1856	2021	0355
May 4th	1917	2050	0230
June 1st	1937	2118	0102
July 6th	1945	2127	0258
Aug 3rd	1930	2104	0132
Aug 31st	1858	2024	0009
Sep 28th	1820	1942	2250
Oct 26th	1745	1909	2136
Nov 30th	1723	1851	0410
Dec 28th	1731	1900	0305