

Saguaro Astronomy Club

Metro Phoenix, Arizona

SACNEWS



February 1995 — Issue #217

v2.13

Grand Canyon Public Star Party 1994

by Bernie Sanden

Combining several worthwhile endeavors helps to satisfy some inner need of mine to play 'catch up,' as lately time seems to be so preciously and clinically parceled. For that reason, joining with the efforts of the Tucson Amateur Astronomy Association (TAAA) and their president Dean Ketelsen in their public outreach at the Grand Canyon during the usually clear, June "dark of the moon" seemed to be an excellent opportunity to enjoy the canyon's awesome *geologic* beauty by day and its just-as-awesome *celestial* beauty by night. As a bonus, I could also play a role in helping others discover that awe. The invitation to SAC members by TAAA was primarily to help in the efforts to "share" the night sky with canyon visitors, many who have never beheld planets, galaxies, nebulae, star clusters or the crescent moon through quality optics in a quality night sky. I determined to take that

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opportunity this past June. Something, however, told me I wouldn't get much sleep.

It was gratifying to see the amount of effort Dean and the other volunteers were expending for the benefit of the public who were, for the most part, initially unaware but then delightfully surprised by what was laid before them. At the edge of the canyon rim during the daylight hours, participants set up Celestrons, a Questar, and large binoculars. Canyon visitors were offered views such as a suspension bridge over the green Colorado River, a close-up glimpse of Phantom Ranch, river rafts beached for a midday swim and lunch, and hikers along the Bright Angel

Quick Calendar

SAC Board Meeting
Prior to Main Meeting
7:00 PM, Wednesday, February 10

SAC Meeting
7:30 PM, Friday, February 10

SAC Star Party
Buckeye Hills Recreation Area
Saturday, February 25

Quartzsite Star Party
Quartzsite
Friday–Sunday, March 3–5

For those of you who haven't renewed:
This will be Your Last Issue
See Member Services Form on the back page.

Trail, a vertical kilometer below. Partly to see the exciting expression on their faces and partly to invite the viewers to the evening "twilight talks" followed by a night of star gazing, the volunteers spent many hours at the overlook, encouraging everyone walking by to grab a memorable view and return for the nighttime events.

The Grand Canyon Star Party of 1994 lasted from Saturday the 4th through Saturday the 11th, and I was fortunate enough to participate in the last half of the week. All eight nights were clear (two years in a row!), although several were windy and the seeing varied from night to night. Each evening a new crowd would start filing behind the scopes as the twilight talk was ending well before darkness had set in, giving us the opportunity to train our scopes on Venus, Jupiter, and some of the

SAC Officers

President	Bob Gardner	274-5046
Vice President	Susan V. Pritchard	934-7496
Treasurer	Adam Sunshine	780-1386
Secretary	A.J. Crayon	938-3277
Properties	Pierre Schwaar	265-5533
SACNEWS Editor	Paul Dickson	862-4678
Public Events	Rich Walker	997-0711

brighter double stars (Ursa Major's Mizar & Alcor, Leo's Algeiba, Gemini's Castor, etc.) The bonus object on Saturday night was a beautiful crescent moon with crisply detailed earthshine.

Each night had something special about it. Saturday night, in particular, started off hectic but memorable. 50X views of the crescent Moon caused gasps of excitement and awe, and therefore by popular demand kept my scope (a 12.5" f/5 Newtonian) occupied. But at precisely the same time, Jupiter was showing off its Great Red Spot as well as the shadow of the Galilean moon Europa sharply defined under the north equatorial belt. I was torn between the two views, but I decided to stay on the Moon. As the crescent sank behind a line of trees, its slowly deteriorat-

ing detail was still visible to another dozen viewers before the image just faded away. At that point, I was able to swing the scope towards Jupiter before Europa's shadow crept off the face of the planet. Of course, with the other scopes in attendance, I trust everyone obtained equally memorable views of both.

Each night, as darkness would set in, the first object to show its full glory was the great globular in Hercules, M13. I saw more astonished faces and received more sincere thank-you's from the canyon visitors after showing this object than any other. It was almost comical whenever a couple young kids who perhaps had felt they had "seen it all" would step up to the eyepiece and get their first look at M13 ... "Whoa, dudes! Look at this!" they

SAC and SAC Meetings

Saguaro Astronomy Club (SAC) was formed in 1977 to promote fellowship and the exchange of scientific information among its members—amateur astronomers. SAC meets monthly for both general meetings and star parties, and regularly conducts and supports public programs on astronomy.

SAC meetings are usually held on the Friday nearest the full moon. This means that over the course of the year, meetings are not held on same week of the month. The same is true of the club's star parties. Star parties at Buckeye Hills are mostly held on the Saturday of the third quarter moon.

1995 SAC Meetings

Jan. 13
Feb. 10
Mar. 17
Apr. 14
May 12
Jun. 9
Jul. 14
Aug. 4
Sep. 8
Oct. 6
Nov. 3
Dec. 9 Party

1995 SAC Star Parties

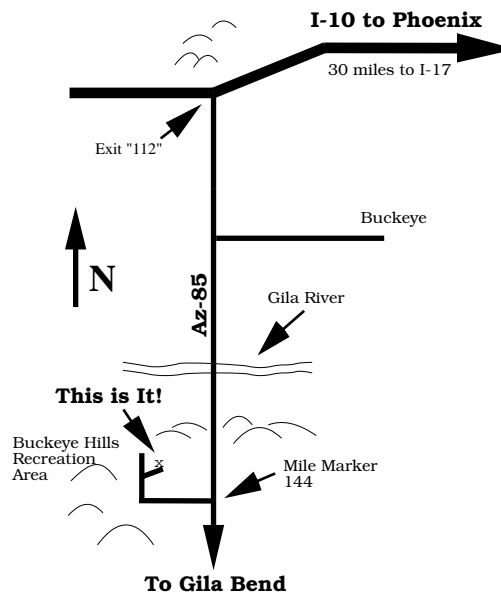
Date	Sunset	Moonrise
Jan. 28	5:56pm	5:15am
Feb. 25	6:22pm	4:00am
Mar. 25	6:41pm	2:50am
Apr. 22	7:05pm	1:30am
May 20	7:26pm	12:10am
Jun. 24	7:42pm	3:00am
Jul. 22	7:36pm	1:40am
Aug. 19	7:11pm	12:20am
Sep. 23	6:24pm	5:15am
Nov. 18	5:25pm	2:40am
Dec. 16	5:23pm	1:25am

Directions to SAC Events

SAC General Meetings 7:30 PM at Grand Canyon University, Fleming Building, Room 105 — 1 mile west of Interstate 17 on Camelback Rd., north on 33rd Ave., second building on the right.

SAC Star Parties at Buckeye Hills Recreation Area Interstate 10 west to Exit 112 (30 miles west of Interstate 17), then south for 10.5 miles, right at entrance to recreation area, one-half mile, on the right. No water and only pit toilets. Please arrive before sunset; allow one hour from central Phoenix.

SAC Deep Sky Subgroup Meeting at John & Tom McGrath's, 11239 N. 75th St., Scottsdale, 998-4661 — Scottsdale Rd. north, Cholla St. east to 75th St., southeast corner.



would call their friends, motioning them over to the eye-piece. If it spurned additional interest, I'd show them perspective differences between face-on and edge-on spiral galaxies, offering views of the Whirlpool Galaxy M51 versus NGC 4565 in Canes Venatici or the Sombrero Galaxy, M104 in Virgo (more "Whoa, dudes!"). I'd describe the distance relationships between the galaxies, globulars, our Milky Way, and the Sun. I would point out the edge-on appearance of our home galaxy, the Milky Way, blazing above. Finally, I'd show them a low-power view of the Scutum Star Cloud so they could get a good look at what really makes up our Milky Way. The canyon visitors, who had perhaps just re-defined for themselves the words "expanse" and "awe" that day as they gazed down into the mighty Grand Canyon, now got another shot at it all over

again that same night.

Based upon the number of hand-outs published by TAAA for the event and picked up by the visitors, approximately 500 individuals and families attended the twilight

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slide-shows, most of them making the short walk down to the observing field afterwards. Derald Nye of the TAAA counted over 1200 "looks" through his scope in 46 hours of

Comet Comments

by Don Machholz

(916) 346-8963 CC198.TXT January 7, 1995

One new faint comet has been discovered recently, while two returning comets have been recovered. Meanwhile, Periodic Comet Borrelly is slowly fading in our northern sky.

Beginning this month, the Smithsonian Astrophysical Observatory's Central Bureau for Astronomical Telegrams will be making some changes in the way that comets are named. The preliminary designation will consist of the year of discovery followed by an Uppercase letter for the half-month of the year, and a numeral for the order of discovery in that half-month. All this is preceded by a "C/" for a non-periodic comet and a "P/" for a periodic comet (one that orbits the sun in under 200 years). For example, if the first comet of 1995 is found on Jan. 10, and it is non-periodic, it is known as C/1995 A1. If one is found Feb. 10, it is C/1995 C1. If the next comet, a new periodic one, is found the next day, it is known as P/1995 C2.

Older and established periodic comets will be preceded by a number, the first being "1P/1682 Q1 = Halley". Recoveries of returning comets will not receive further designations.

As for the "proper" name of comets, there will be a few minor changes. Comet Smith will still be Comet Smith. However, observatory teams are asked to limit the number of names on a new comet to one. In the past such a comet could contain the names of 1) the person who finds it on the plate, 2) the person who exposed the plate, and 3) the person guiding or operating the telescope during the exposure. Secondly, attempts will be made to limit the number of names on any comet to two. Finally, it may take several days before any such naming becomes official.

Periodic Comet McNaught-Russell (1994u): Robert McNaught of Siding Spring, Australia found this image on plates exposed by Kenneth Russell. It was magnitude 17 when found on Dec. 12. We now know that it orbits the sun every 15.3 years, it was last closest to the sun on Sept. 6 at 1.28 AU.

Periodic Comet Wild 4 (1994v): Jim Scotti recovered this comet from Kitt Peak on Nov. 9, with followup confirmation a month later. At that time the comet appeared stellar and at magnitude 21; it was over 4.0 AU from the earth. When it reaches perihelion in nineteen months it will be 2.0 AU from the sun and visible in moderate-sized telescopes. It orbits the sun in 6.2 years.

Periodic Comet Schwassmann-Wachmann 3 (1994w): Recovered on Dec. 28, this comet has a rather short orbital period of 5.34 years. It will be closest to the sun on Sept. 22, 1995, but at the far side of the sun and difficult to observe.

19P/Borrelly					
Date	RA-2000-Dec	Elong	Sky	Mag	
01-23	09h45.1m +67°38'	130°	E	9.6	
01-28	09h39.1m +68°28'	129°	E	9.9	
02-02	09h32.3m +68°56'	128°	E	10.2	
02-07	09h25.5m +69°03'	126°	E	10.5	
02-12	09h19.3m +68°52'	125°	M	10.7	
02-17	09h14.1m +68°25'	123°	M	10.9	
02-22	09h10.4m +67°44'	122°	M	11.1	
02-27	09h08.1m +66°52'	120°	M	11.3	
03-04	09h07.3m +65°51'	118°	M	11.5	
03-09	09h07.8m +64°42'	116°	E	11.7	

Orbital Elements	Borrelly (1994)
Perihelion	1.3651 AU
Perihelion Date	Nov. 01.492, 1994
Argument of Perihelion	353.359° (2000)
Ascending Node	075.424° (2000)
Inclination	030.271° (2000)
Eccentricity	0.6228036
Period	6.88 years
Source	MPC 18259

nighttime viewing, so 150 or so views per night per scope is probably a realistic figure. Although the TAAA had 17 members involved at one time or another, others traveled from afar such as Paul Thayer from Littleton, Colorado; Rick Koehler of Chesapeake, Virginia; and John Gregory of Austin, Texas. SAC members Tom Polakis and Pierre Schwaar joined the event for the final weekend. Barry Hirrell and Rob Negro, members of John Dobson's San Francisco Sidewalk Astronomers, helped with the evening talks along with TAAA members Derald Nye, Dean Ketelsen, and Gene Fioretti. Many of the TAAA faithful also spent much of their day at the rim overlook to give views into the canyon and publicize the nighttime events.

What impressed me the most, and what motivates my return in '95, was the attitude of the public. Since for most canyon visitors it was a surprise that a dozen telescopes would be set before them for an evening of deep-sky discovery, most were genuinely grateful. Being in a non-rushed, vacationing sort of spirit, they were generally patient and courteous in line, inquisitive, and treated it as a family learning experience. Because the sky quality was so good, they were not disappointed with the views (neither were we!). Of course, I stuck with the showpiece objects, not offering views of 12th magnitude elliptical galaxies, stellar planetaries, or Gum 9. Still, after the visitors left the field each night, generally by 10 PM or

so, it was nice to have the sky to ourselves for some quiet observing under the star-studded canopy. At the high altitude it got rather brisk, and I usually had the snowmobile suit on by midnight. Oh, by the way, there was plenty of time in the day for hiking. Tom Polakis found out what it's like to hike the Grandview Trail with someone who'd been averaging under five hours of sleep each of the last three nights. Good thing we got out of the canyon in time to catch some of the Stanley Cup Finals hockey game in the Maswick Cafeteria Sports Bar. We'll soon be accepting dues to H.A.H.A. (the Hockey, Astronomy, and Hikers Association)...(OK, OK, SAC maybe. But I don't think my wife would put up with HAHA). When it was all said and done, I was easily able to convince myself that I had adequately "caught up," as was my original intention.

Suppose success could somehow be measured by the quantity of amazement generated from views of Jupiter and its moons, the blazing swarm of stars that make up a globular cluster, or an unexpected bright meteor. Or what if success could be numerically computed from the amount of awe imparted during a twilight talk about the staggering, incomprehensible scale of the universe. Imagine that it could be measured in units of gratitude from those offered a real-live view of a distant edge-on galaxy, a beautiful binary star system, or a naked-eye panorama of our own Milky Way galaxy etched into the dark sky

Grand Canyon Star Party by Dean Ketelsen

For four years now, the Tucson Amateur Astronomy Association (TAAA) has been going to the canyon in the June dark-of-the-moon for what has to be one of the largest public star parties.

The objective of the star party is to maintain an astronomical presence there for two weekends and the week in between. The first year, in 1991, we had seven TAAA members spread out thinly, but we had enthusiastic crowds and have grown every year. In June of 1993, we had over 25 amateurs showing the sky to thousands of canyon visitors.

The concept is simple and lots of fun. The canyon has millions of visitors yearly, though only about 10% stay overnight. The mostly international crowd is always surprised to see us there, but as is mostly the case, the unexpected pleasures are the most treasured. We have been showered with gratitude on every return.

In 1994 the viewing was dominated by Jupiter, and of course the galaxies of the spring sky highlighted by the rising Milky Way. We had an incredible 8 clear nights in a row — the second year in a row — a record I would like to see any other star party match. In addition the seeing is amazingly good for being so close to a mile deep trench!

The dates for 1995 are June 17–24, and if you are interested in attending and want a real bed to sleep in, you haven't a moment to lose. June is the Grand Canyon National Park's busiest time, and it is never too early to book a room. Most hotels fill up 3–4 months in advance so you need to act now. Camping is a different story, as sites are available days before your visit. Refer to the phone list below for hotels and camping. The TAAA charges no registration fee — just take care of a place to stay and let us know you are coming (you need to sign liability waivers for TAAA and the National Park Service.)

Come join us and have a great time, but be prepared to be exhausted, because with the canyon calling by day and the incredible skies by night, who has time to sleep?

Housing: For reservations at any of the motels or lodges at the South Rim or for Trailer Village (Camping trailers or RV's) call Fred Harvey Inc. at (602) 638-2401 **as soon as you make your plans!** Expect long telephone waits while making your reservations.

If you can tolerate a 7 mile drive, you can also try the following motels at Tusayan (all area code 602): Squire Inn 638-3515, Moqui Lodge 638-2424, Quality Inn 638-2673, Red Feather Inn 638-2414, 7 Mile Lodge 638-2291.

Camping: To make reservations for campsites at the regular rates (\$10 per night,) call MISTIX at 1-800-365-2267, no more than 8 weeks ahead.

For questions concerning the Grand Canyon Star Party, please call or write to me at: **1122 E. Greenlee Pl., Tucson, AZ, 85719**, home phone (602) 293-2855 or E-mail to ketelsen@as.arizona.edu.

The 1995 Arizona Messier Marathon

April 1, 1995

The Messier Marathon is a test of an observer's observing skill. In spite of the date this year, this is a real event, not an April Fools prank. For a lot of observers this is one night to work through the entire Messier catalogue. Those who take the time to write down their observations can complete their club's Messier Observing award in just one night, or at least get most of it done. Other observers might just be trying to better their count from the previous year. And yet still others may want to just come out and do their own observing programs or watch the people doing the marathon.

Regardless of why they do this, the mission of the marathon is still to view as many Messier objects as the evening, weather, and observing skills permit. The date chosen for this year's event allows the possibility of 109 to all 110 objects being seen.

After the event, awards will be given in recognition of observing efforts. Certificates are awarded to those observing 50 or more objects. Last year, a special certificate was awarded to those observing 100 or more objects since so many people reach that point. Those reaching the highest total will receive a small plaque, suitable for mounting on a telescope, for first, second and third places. Duplicate awards are presented in

case of ties.

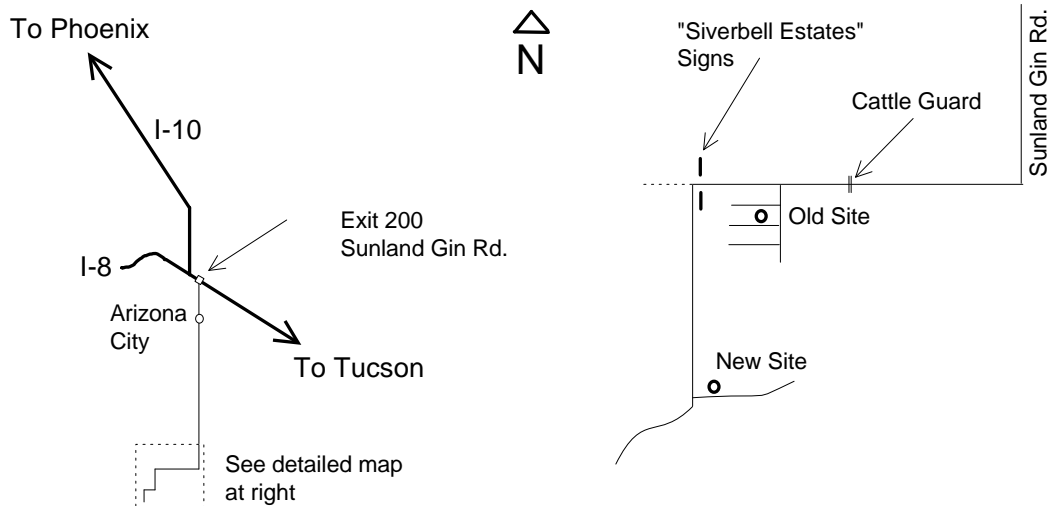
The marathon held at a site near Arizona City, which is nearly halfway between Phoenix and Tucson. A map will be provided in the February and March newsletters on how to get to the site. More details will also appear in the newsletter. The observing list available at SAC meeting possibly as early as the January meeting. The observing list will also be available at the site at the start of the event.

Spending the whole night doing the entire marathon means you have to plan ahead. Remember to bring those warm clothes and late night snacks. During the night you can spend a couple of hours just waiting for more objects to rise. During this time of inactivity, the cold will really get to you, making the night uncomfortable. If you bring extra layers of clothing, you can add layers as you feel colder, rather than going home.

Invitations were sent to all Arizona Astronomy Clubs that are known. We hope for a large turn-out. So plan on being there early to see old friends and make new ones. Last year, the weather in Phoenix was cloudy and many people decide not to attend, but south of Arizona City, the sky was nearly clear with only an occasional cloud.

Results of the Marathon will be sent to all Arizona Astronomy Clubs as well as popular Astronomy periodicals.

The Messier Marathon is being coordinated by A.J. Crayon, the chairman of the Saguaro Astronomy Club's Deep Sky Subgroup. You can contact him at: 13819 N. 37th Avenue, Phoenix, AZ 85023. By phone: (602) 938-3277. Via E-Mail: a.crayon@az05.bull.com.



Take I-10 to exit 200 (Sunland Gin Road.) 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. One mile past the road to the old site, the main road will turn south just after the "Silverbell Estates" signs. Continue for another 2.5 miles. The road will veer off to the west. Immediately to the east is the road to the site. About 100 yards down this road are several large, open areas to the left.

above? If so, then somewhere in an accountant's ledger might exist a numerical computation concluding that the 1994 Grand Canyon Star Party was a raving success. For me no data was required.

Bits and Pieces

Coming Events

Star Parties

Quartzsite	Mar. 3-5
Messier Marathon	Apr. 1
Sentinel	Apr. 29
Texas Star Party	May 21-29
RTMC	May 27-29
Grand Canyon	Jun. 17-24

Minutes of the January Meeting

The President formally gavelled the meeting to order promptly at 7:30pm. A call was issued for visitors to identify themselves.

Adam Sunshine reported on our financial condition in his Treasurer's report. There were 91 full time members, 21 complimentary and 9 Newsletter only members. He also has the 1995 RAS Observer's Guide. If you want one then see him.

AJ Crayon discussed the upcoming Messier Marathon on April 1st and the Deep Sky Group meeting.

Paul Dickson discussed Don Machholz's book Messier Marathon Observer's Guide. A good buy at \$14.00.

Pierre Schwaar reminded us that he is the SAC Librarian and to see him if you want to know what's there or to check out one of the books.

For Show-and-Tell Pierre started into one of his favorite topics — Young Moon Observations. Several slides were shown that were given special dark room treatment with the assistance of Paul Lind. His earliest observation is of a 13 hour 43 minute old moon. The record is about 15 minutes better. This was followed by a Deep Sky pot-pourri slide show.

The next Show-and-Tell was another slide show by Jim Crisman of his back yard observatory which housed a C-11 and C-8.

At the beginning of the break there were 37 present.

After the break Susan Pritchard introduced the speaker; space artist Kim Poor. Kim shared with us how

he gets his ideas for his ever popular paintings. It was an interesting, informative and humorous presentation.

Afterwards many members appeared at JB's for food and continued discussion of Kim's presentation as well as other topics of the day and evening.

—A.J. Crayon, SAC Secretary

SAC Board Meeting

There will be a board meeting at 7 PM on February 10 (just prior to the February SAC meeting).

Deep Sky Meeting

The Deep Sky Group is a Special Interest Group made up of people who like to discuss observing and observing techniques. They particularly like to observe objects out past the Orrt Cloud that's why they're called the Deep Sky Group. The type of objects include stars, nebula and galaxies.

If you are interested in sharing your observations, or are interested in observing techniques, then by all means come join in. The meetings are held at John McGrath's house every other month; directions are elsewhere in this Newsletter.

The group doesn't extend invitations to this meeting. It is not a closed meeting. It is OPEN to all SAC members. All you have to do is have the interest and follow the directions to the McGrath's.

For the March Deep Sky Meeting we will discuss the objects in Steve Coe's What's Up column for January and February. If you have new or old observations, bring them along. If you have no observations and want to know about observing, then come along.

Newsletter Deadline

Mail items for Such-a-Deal at least two weeks before the end of the month. Articles that need to be published in a timely fashion must be submitted or the newsletter editor notified of the article at least 6 weeks before month they are published. Items arriving too late for an issue will be included in the next newsletter.

What's Up

by Steve Coe

February 1995

Canis Major

Canis Major is one of those constellations that denotes a change in the seasons for me. Once I see Sirius and the other stars that make a pretty convincing stick figure dog, I know that cool weather is here for a while. It has never been difficult for me to imagine Orion as the hunter, with his faithful canine companion, wheeling across the sky. So, let's take a look at what is available to telescope owners within the boundaries of Canis Major.

NGC 2204 is at 6hr 15.7min and -18 degrees 39 min. In my old 17.5" *f*/4.5, this cluster is bright, pretty large, compressed, and rich. In a later observation, I counted 54 stars using the 13" *f*/5.6 at 220X. Several nice chains of stars with a background of fainter members, are easily seen at 100X. Both scopes show a "K" shape, and a somewhat milky background of stars with an orange 9th mag star to one side.

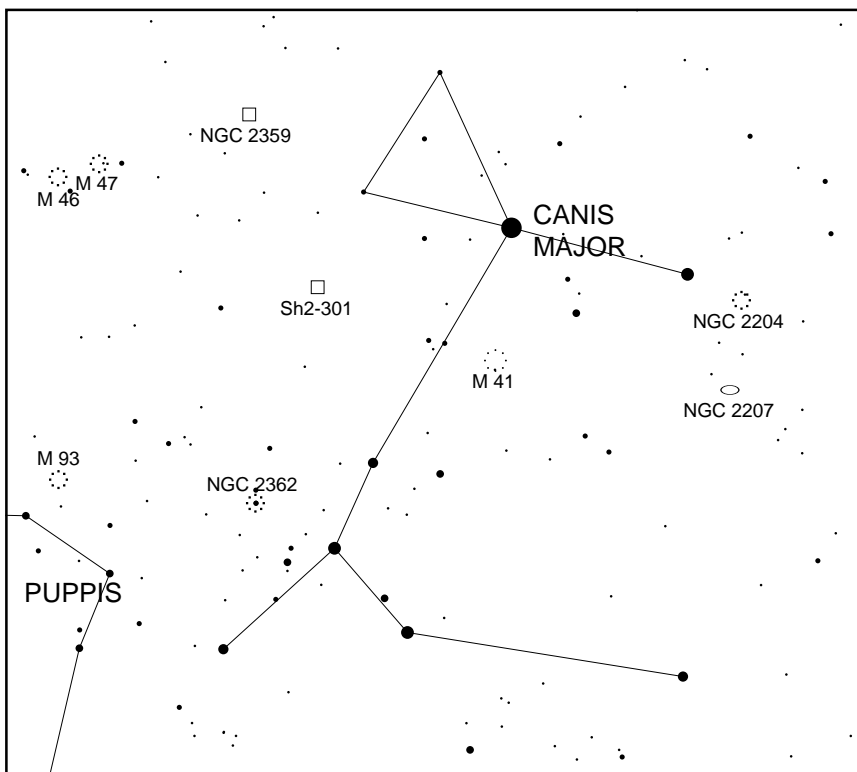
NGC 2207 is at 6 hr 16.4 min and -21 degrees 22 min. It is pretty bright, pretty large, elongated 1.5 X 1 in PA 90 degrees and much brighter in the middle at 150X in the 13" scope. A 12th mag star is just west of the nucleus, the star is involved within the galaxy. **IC 2163** is interacting with NGC 2207, it is pretty faint, pretty small, round and not much brighter in the middle. The two galaxies were never seen as two distinct objects even at 220X. It is quite unusual to have a galaxy this easily seen so close to the plane of the Milky Way.

M 41 is also **NGC 2287** it is at 6 hr 47 min and -20 deg 44 min. This excellent cluster is bright, large, somewhat compressed, and I can count 60 members with the brightest being an orange star near the center of the cluster. There are many curved lines of stars at 100X. Easily seen in a finder scope at most any observing site. I have spotted M 41 naked eye from the best locations away from the city.

NGC 2359 is at 7 hr 18.6 min and -13 deg 12 min. This nebula is pretty bright, large, and has an irregular shape. Nebulosity extends out of the 30 minute field at

100X in the 17.5 inch scope. The UHC filter helps the contrast of this object a lot. I have always heard this object called the **Duck Nebula** because the shape includes a side view of a duck head, complete with a bill.

NGC 2362 is located at 7 hr 18.8 min and -24 deg 57 min. It is pretty bright, pretty large, somewhat compressed, and round at 165X in the 13" scope from the beautiful skies of Sentinel, AZ. This unique cluster consists of **Tau CMA** and about 45 stars. Tau has a dark band around it, then the cluster members begin to fan out from this bright star. Tau has two companions that form almost a straight line. Tau is white, the two comes are bluish and both are on opposite sides of Tau.



Having a bright triple star in the center of a cluster is rarely seen and I return to this object often.

Sharpless 301 is at 7 hr 9.8 min and -18 deg 29 min. The nebula is pretty bright, pretty large, and irregular in shape at 100X on a night I rated 8/10 for seeing and transparency in the mountains of central Arizona. My first observation of this object was from a somewhat light polluted site and I called it faint. All these observations are with the UHC filter, it helps a lot on this object. This nebula has a three branch structure with many stars involved. There are a few detached sections of nebulosity that are larger than the 30 minute field in the 17.5 inch Dobsonian. This object is an unmarked green box on the Tirion Atlas.

A New Year's Moon after All

by Pierre Y. Schwaar

In the January issue of *Sky and Telescope*, E.C. Krupp rings in the New Year with the Moon nowhere to be seen (pp. 72–73). With the Moon new at 3:56 AM MST, Jan. 1, it would only be about 13 1/4 hours old at sunset from Phoenix.

At first glance, that seems hopelessly “young.” But thanks to some highly favorable geometry, there might be just a chance to glimpse it after all.

Tom Polakis, a fellow observer and young moon hunter, indicated that the Moon, at perigee on the very same day, would stand close to 8° nearly straight up from the sun at sunset. This is 1° more than the critical angle below which the Moon cannot be seen (Danjon), corresponding to about a 13 hour old moon. In fact, the earliest report (but unconfirmed) sighting, by Robert Victor, is of a 13h 28 min old crescent from Michigan in 1988.

So three of us: Sharon Holmes, Bill Waltz and myself decided to take up the challenge and see to it that a peek at the Moon would be part of our New Year's Day celebration.

Driving a few hundred miles east of Phoenix would even give us a chance to better Victor's record. So off we went, early that morning, and headed towards New Mexico, hoping to observe from near the town of Tularosa, just north of Alamogordo. An approaching front left us with no other options anyways. A visit to the VLA nearby would further justify the trip.

Arriving on site at 4 PM, we found the sky covered with high clouds. We were about 10 miles east of Tularosa, along US 70, where it was climbing towards the mountains west of there.

We didn't even see the sun set, although we were able to guess the location and identify a suitable landmark to jump from. The Moon, directly above the Sun, would set 5° further north 30 minutes later.

Our hopes were kept alive by the appearance of a narrow clearing just off the horizon. The south edge of it was just about where the Moon would set. Only about 2° wide and 2° above the horizon, this gap would just allow the Moon to peek through at the very end of the “window of opportunity” but too late to tie or break the record.

Mother Nature was trying hard to fulfill Krupp's No New Year's Moon prophesy!

15 minutes after sunset, someone in a pickup truck pulled up and solemnly informed us that we were trespassing on private property. Rats! We were going to be evicted, to boot! The gentleman, evidently the owner, seemed serious about his intent. And not the least bit interested in what we were doing. But after some deft

words, especially from Sharon, he finally relented—but admonished us to leave as soon as our project was finished!

5:35PM (MST): 25 minutes after sunset. I began to search in earnest in the narrow 2° gap, using my 8" *f*/4.3 newtonian at 50X. A fuzzy, curly cloud now sat in the middle of it, right where the Moon would appear. Rats again! It's going to try and get away from us.

5:36: Bill, who was scanning with a pair of 10X50's, called attention to something suspicious just under the curly cloud. But there were many such “bogeys” in the texture of the sky at that point. Nevertheless, I started scrutinizing close by the cloud.

5:37: Finding nothing below the cloud, I swept just above it—and then, lo and behold, there it was! The thinnest imaginable delicately curved arc, unbroken and surprisingly long! The exact time was 5:37:35 PM MST. (WWV recorded)

I had less than a minute before the cloud would swallow it so I called Sharon to confirm the sighting, She picked it out almost immediately. Then I switched over to photography and shot 14 frames on Kodak Royal Gold 100. Halfway through that, the Moon's evanescent thread vanished, to reappear half a minutes later below the cloud, After another minute, it faded for good into the thin layered clouds lurking just above the horizon.

We were elated! We felt extraordinarily lucky to have beaten such overwhelming odds! We bagged the not-to-be-seen 1995 New Year's Day New Moon!

It was one of those moments which makes it all worth while: Heaven knows Astronomy's rewards are notoriously hard to come by!

We did not beat Robert Victor's record sighting but came close at 13h 42min. On our side though was the fact that 2 of us viewed it, the first 6 photos in the sequence show it and the video, shot simultaneously through the 8" shows it quite well. (A pick-off mirror ahead of the main diagonal diverts the central 5" or so of the primary to the camcorder.)

We are convinced that a 13 hour Moon sighting is a possibility under ideal conditions. We encourage anyone to try it at the next favorable apparition. I obtained a probable image of one just 12h 49min old in May 1993, but since I did not see it, it doesn't count!

February 1995

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
<div style="border: 1px solid black; padding: 5px; display: inline-block;"> All Times are Mountain Standard Time </div>				PAS Meeting Brophy Prep. Physics Lab 1	TAAA Meeting (Tucson) 3	Yesterday Mercury at inferior conjunction with the Sun (moves into morning sky) 4
5	6	First Quarter Moon 5:53 A.M. 7	8	Galileo 1990: Venus Flyby 9	SAC Meeting Grand Canyon University, Fleming Rm. 105 10	Mars at opposition Also closest approach 11
12	13	Tomorrow Full Moon 5:16 A.M. 14	EVAC Meeting (SCC: Rm. PS172) 15	Sun enters Aquarius 10 A.M. 16	17	Pluto discovered by Clyde Tombaugh (1930) 18
19	20	21	Last Quarter Moon 6:04 A.M. 22	23	24	SAC Star Party Buckeye Hills (members&guests) 25
Venus 0.7°N of Neptune (morning) 26	27	28				

Magazines & Discounts

Club members may subscribe to astronomical magazines at reduced rates through the club Treasurer. See the Member Services Form on the back page of this newsletter. Furthermore, club members are encouraged to align their subscriptions with the Jan.–Dec. calendar year. This eases the burden both on the Treasurer and the Publisher by permitting a single Group Renewal to be placed in the autumn for the upcoming calendar year.

Those members who experience problems with their subscriptions to *Astronomy* magazine may call Kalmbach Publishing Customer Service at (800) 446-5489.

Those members who experience problems with their subscriptions to *Sky & Telescope* magazine may call Sky

Publishing at (800) 253-0245.

Besides the club discount on *Sky & Telescope* magazine, Sky Publishing offers club members a 10% discount on all other Sky publications. This means books, star atlases, observing aids, Spotlight prints, videos, globes, computer software, and more.

Club members who subscribe to *Sky & Telescope* through the Club Discount Plan may order Sky publications directly, at the above toll-free number, without going through the club Treasurer. Simply mention the Club Discount Plan and give the Saguaro Astronomy Club name to receive the discount. Sky Publishing will check their records to verify that you are eligible to receive the discount.

Saguaro Astronomy Club Member Services Form

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

- \$20.....Individual Membership
- \$30.....Family Membership (one newsletter)
- \$100.....Business Membership (includes advertising)
- \$4.....Nametag for members
- \$10.....Newsletter Only

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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 treasurer to renew your subscription.

Sky & Telescope.....\$20.00 for one year

Astronomy.....\$18.00 for one year

Write your name, address, and phone number in the space below.

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