



Sacnews

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Inside This Issue

Reflections: The Last Cluster	1
NASA's Space Place: Pluto Express	2
A Call For Observations-Ursa Major	4
Bit & Pisces, Minutes of the General Meeting	6
Calendar of Events	7
Messier Marathon Recap and Official Results	8
Bits & Pisces: Minutes of the April Board Meeting	10
Member Services	11

Reflections: The Last Cluster

By Rick Tejera

The day started out normally, the sky looked good and I was psyched about the 2004 All Arizona Messier Marathon. Planning had shown that I'd have plenty of time to hunt down M 74, so I felt good about my prospects for 109 objects, which was what most predicted would be doable this year. A thread on AZ-Observing started by Tom Polakis offered up the possibility of being able to get M 30 and how early in the year M30 was possible. Gerry Rattley's perfect score on March 24-45th 1985 was offered as a record for the earliest sighting. Would this year provide an opportunity to break that mark? We would soon find out. Or would we?

As the morning passed, the clouds started to roll in. Much chatter on AZ-Observing showed a pessimistic view, but touched with a determination to try. Like many others I loaded my car and set out hoping for the best. At the very least, I figured there'd be good company to chat with. As I was passing through Silverbell Estates marveling at the irony of the street names, I notice two guys standing by the side of the road. It's none other that Steve Coe & Matt

Luttinen, on their way back from Eloy for provisions. They decided to take a few picture under the sign at the corner of Sagittarius & Gemini. I joined then for a couple of shots and was further discouraged about the prospects, when they broke the news that Friday wasn't all that great. It seems the clouds rolled in killing whatever seeing was there around midnight. Oh well, I'm almost there, why turn back.

On arrival I'm surprised by the number of cars, I set up near Matt & AJ Crayon near the middle of the field. To add insult to injury, the wind has picked up as well. Everyone is thinking the marathon will be a bust. In spite of this cars keep rolling in. If memory serves we actually had about 60 or vehicles by sunset.

By now, AJ has decided that if the weather doesn't clear by 2100 or so, he'll call of the competition. A few breaks in the clouds seem to want to tease us on. I start out bagging the real easy objects, M42 & 43, M45, & M35. By now twilight is starting to deepen so I begin the hunt for M74. α & β Arietis are both

(Continued on page 3)

NASA's Space Place

Voyage to a Double Planet By Patrick L. Barry and Dr. Tony Phillips

Download a "nine planets" screensaver for your computer with spectacular photos of our solar system, and you'll notice that one planet is conspicuously missing: Pluto. Icy and mysterious, Pluto is the only planet never visited and photographed by NASA space probes.

In fact, the clearest image we have of Pluto is a tiny, pixelated blob of light and dark patches taken by the Hubble Space Telescope in 1994. It's tantalizing $\$$ but not much more. Earth-based telescopes have succeeded, however, in discovering one amazing fact: Pluto is not a lone world, but a double-planet system. Its companion, measuring about half the size of Pluto itself, is named Charon.

Work is underway to launch a robotic probe to visit and photograph Pluto and Charon. The project, called New Horizons, will map both worlds. Sensors will chart surface minerals and ices, and catalog the gases that make up Pluto's wispy atmosphere.

"It's the second epoch in the exploration of the planets," says Alan Stern, the principal investigator for New Horizons at the Southwest Research Institute in Colorado. "We're going to the very edge of the solar system."

The probe is scheduled to launch in January 2006. Its journey will be a long one. Pluto is more than 30 times further away from the Sun than Earth is! Even with a speed boost from a flyby of Jupiter, the probe won't

arrive at Pluto until July 2015. Afterward, the probe will venture on to explore the Kuiper Belt, a distant "halo" of small, frozen objects surrounding the solar system, from which comets originate.

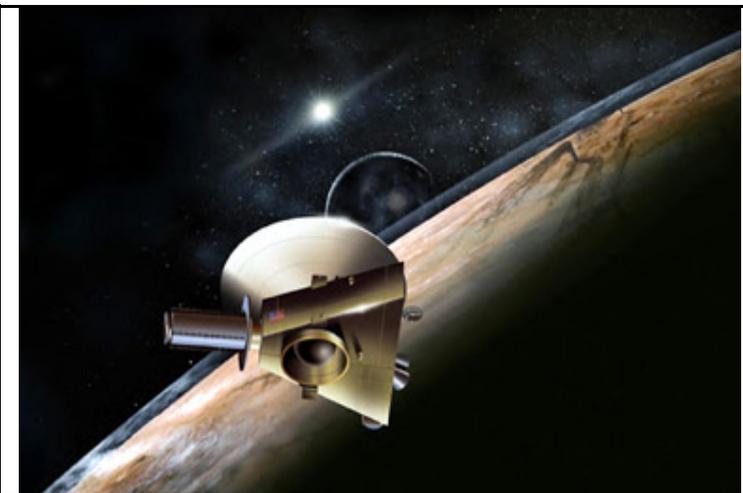
Aside from sheer curiosity about these distant worlds, scientists are motivated by questions about the formation of the solar system. Orbiting in the deep freeze far from the sun, Pluto and Charon have undergone less change than the inner planets during the solar system's 4.5 billion year history. These two worlds will provide a glimpse into the past.

Pluto could also shed light on the origin of our own Moon. Earth, with its single, large moon, is unusual. The Pluto-Charon system is the only other pair like it in the solar system. In fact, some astronomers consider Earth and the Moon to be a double planet, too. So knowing more about Pluto and Charon could give clues

about how the Earth-Moon system formed.

And, of course, the spectacular, up-close photos of Pluto and Charon are going to look great as a screensaver!

This article was provided by the Jet Propulsion Laboratory, California Institute of Technology, under a contract with the National Aeronautics and Space Administration.



Artist's idea of the New Horizons spacecraft flying by Pluto and its moon, Charon. (Credit: Dan Durda.)

(Continued from page 1)

visible and this is where I begin my star hop to M74. Having plied this path before, I get to where I think M74 should be. It didn't take that long before I was able to match the star field and sure enough there was the feeble glow of M74. Helping confirm the sighting was the supernova that is visible on the edge of the galaxy. Checking again against my star chart confirmed this. Who-Hoo, on to the rest of the evening twilight objects. Clouds low on the northwestern horizon made picking up M33 & The Andromeda trio challenging. I had to pick them out through sucker holes. The clouds were providing some challenge to an otherwise easy part of the marathon, which was making this more fun than usual.

While finishing up the twilight objects, I help Rich Payne & Matt confirm that they to had sighted M74. This was the beginning of what would become a team effort between the three of us. As the night moved on, it became obvious that someone up there liked us as the clouds started to break up. By A.J.'s appointed decision time, it was clear the game was afoot.

I've always found this stretch of the marathon to be the easiest, Just picking off the easiest of the Messiers' and finishing up to the Virgo cluster just before midnight and tonight was no different. While waiting for Virgo, I did a quick check of my list to make sure I hadn't missed anything about to set and then took a break and socialized a bit. I started Virgo a bit earlier than usual, as there were still some lingering clouds and guess where they were? My usual galaxy hop off Vindematrix was interrupted several times by clouds; even M 104 was a hard find as clouds played hide the galaxies. It took a bit longer than usual, but I managed to get through the Messier's version of Heartbreak Hill. Talking to Matt, we both agreed that the best strategy to head off any further interruptions from the clouds would be to try to bag the objects as the rose. It didn't take long for this to become more sport than strategy, as

the skies were now pretty much cloud free. Our goal became not just to get the objects, but to get them as low to the horizon as we could. By this time Rich was also playing shooting gallery with us. As morning neared twilight neared, we were consistently getting the objects within 5 degrees of the horizon. They looked awful, but they were there and that was all that mattered. The hardest object during this period was M 2, which happened to rise into one of the last lingering clouds, finally being visible through a sucker hole.

We now started to think about M 30. Rich, Matt & I Started to check & double check chart & Planetarium programs for exactly when & where M 30 would rise. I broke out the GPS, so Rich could set his planetarium program for our location. It looked like we'd be able to do it, M 30 would be 4 degree above the horizon by nautical twilight, still plenty of dark sky to play with and we'd all shown we could get object that low. While others had either packed it in or just had enough, there were three telescopes pointing to the Southeast almost to the horizon laying in wait. Alas, it finally dawned on us (get it, dawned on us) that there was one cloud left to spoil the party. It was right where M 30 rose and was low enough to obscure the horizon completely. I said it aloud and then the reality of it set in for the three of us. We congratulated each other on a race well run and took pride in our effort. All three of us are certain had Mother Nature not intervened, we'd have gotten M 30 and completed a perfect marathon.

Making the loss of the last cluster, M 30, a bit easier to accept was when we learned we were the only three to see 109 objects. Sharing first place with Matt & Rich is something I have no problem doing. Without their help & teamwork, I don't think any of us would've had a chance.

I guess we'll just have to wait 'till next year for another shot at M 30. Till then, Clear Skies

Last Call For Observations—Ursa Major

By A.J. Crayon

Here it is, the April column already! Don't think Ursa Major, the *Great Bear*, needs much of an introduction nor do some of its more famous galaxies; but do you know of a bear with a tail as long as the one depicted in this constellation?

$\Sigma 1193$ or STF1193 (08 20.7 72 24)

8" f6 Newtonian, 192X; Charlie Whiting: A double or triple star. Primary yellow and bright. Secondary blue and fairly dim. PA $\sim 275^\circ$. Separation 30" to 60". Tertiary white and very dim. PA $\sim 255^\circ$. Separation 60" - 90". This may be a different star than I reported. Skymap shows the stars as red, yellow and white.

20" F/5 Dobsonian, 115X; Ken Reeves: A very wide, bright yellow/orange star with a fainter pale blue star to the E. To the N of the blue star is a fainter star, forming a right triangle with the blue star at the apex.

NGC2681 (08 53.5 +51 19)

8" f6 Newtonian, 96X; Charlie Whiting: At 96x, this is a faint fuzzy galaxy, elongated 3 or 4 to 1. Aligned roughly E-W. 6' to 8' long. Non stellar middle. 2 very faint stars involved at the west end. 1 very faint star involved in the east end. 1 slightly brighter star involved in the middle of the east half. Object forms a wide base triangle with 2 stars. 1 of these stars is almost due east and the other is north of the object.

10" F/4.5 Dobsonian, 70X; Ken Reeves: This galaxy is a little bright, somewhat small, has a slightly brighter middle and a much brighter non-stellar nucleus. The halo is quite faint, use averted vision to bring it out. There is a possible elongation WNW/ESE although the stars nearby may make this an illusion. There are 4 stars close by, with 3 of the stars involved. The star on the far ESE end is not involved, but is a double.

12" f5 Newtonian, 170X; Matt Luttinen: with direct vision: round and compact, quickly brightening to a stellar nucleus. Using averted vision, the halo extends nicely outward for several arc-minutes and retains its circular shape. This galaxy is bracketed by four stars 12-14th magnitude.

16" f/4.4, Rick Rotramel, fB, fS, Face on Spiral, w/stellar nucleus. Arms real faint.

20" F/5 Dobsonian, 180X; Ken Reeves: This galaxy is pretty bright, somewhat small, round, has a gradually brightening halo, a much brighter middle, and a non-stellar nucleus. Averted vision makes halo grow, but shows no more detail. There are several stars nearby, but none involved.

RT UMA red (09 18.4 +51 24)

8" f6 Newtonian, 96X; Charlie Whiting: At 96x this is a red colored star. There is a white star of approximately the same brightness about 10' away in the direction of ESE. There is a very dim star, ~ 12 or 13 mag, in

between and a little south. Next day notes: Skymap shows a yellow 11.70 mag star 4' @ 321 degrees and a white 12.44 mag star @ 336 degrees. So, my estimate of the red star's brightness was too low and my estimate of the separation distance was too large.

20" F/5 Dobsonian, 115X; Ken Reeves: Very obvious orange/yellow star, 2 nearby white stars.

NGC2976 (09 47.2 +67 55)

8" f6 Newtonian, 96X; Charlie Whiting: At 96x 2976 is pretty dim and pretty small, elongated ~ 3 to 1, about 5' long, aligned E-W, and has no stellar nucleus. Same brightness overall. There is a dim star just outside of its boundary on the center of the south side.

10" F/4.5 Dobsonian, 100X; Ken Reeves: This galaxy is somewhat large, pretty faint, and is very slightly brighter towards the middle, there may be some mottling may be going on. It is elongated about 2:1 E/W. On the S is a star right on the edge of the halo, but not many stars nearby.

16" f/4.4, Rick Rotramel, fF, fL, Elongated Spiral, fairly wide and nebulous throughout.

NGC2985 (09 50.4 +72 17)

8" f6 Newtonian, 192X; Charlie Whiting: At 192x this galaxy appears pretty faint and pretty small, elongated ~ 3 to 2, aligned E-W, and is about 5' long. It has bulge in the middle and the middle is brighter than the halo. There is a star involved in the east end. At 47x, the galaxy can be seen at the diagonal center of a box of 4 dim stars.

10" F/4.5 Dobsonian, 100X; Ken Reeves: An interesting galaxy, somewhat bright, somewhat small, slightly brighter middle, and bright stellar nucleus. Using averted vision helps only a little. It is round with some detail noted in halo, spiral structure in suspected.

12" f5 Newtonian, 170X; Matt Luttinen: using direct vision: small, round, suddenly brightening to a distinct core. Using averted vision the shape enlarges a little and becomes slightly elongated.

16" f/4.4, Rick Rotramel, fB, fS, Face on Spiral, brighter toward the nucleus, w/faint arms.

NGC3027 (09 55.7 +72 12)

8" f6 Newtonian, 192X; Charlie Whiting: I looked hard and long but could not find this object. Skymap shows this object has surface brightness of 14.7 mag/sq arcmin. This is about the same as NGC 2985. It was an on again off again evenig for clouds and haziness. Maybe I just got clouded out.

12" f5 Newtonian, 170X; Matt Luttinen: using direct vision: faint, elongated roughly 2-to-1, barely visible under murky sky conditions. Averted vision does not help this object, a member of a galaxy group that

(Continued on page 5)

(Continued from page 4)

includes NGC 2985. Perhaps it would be more interesting to view on a better night.

NGC3031 - M81 (09 55.6 +69 04)

8" f/4.5, Rick Rotramel, vL, vB, Tilted Spiral, oval, very much brighter at the nucleus, spiral arms show, a Beauty!!

8" f6 Newtonian, 96X; Charlie Whiting: At 96x, M81 is big and bright! It has a bright stellar nucleus, looks slightly elongated, ~ 3 to 2, aligned NW-SE and is about 10' long.

10" F/4.5 Dobsonian, 70X; Ken Reeves: This galaxy is very large, very bright, has a much brighter middle which suddenly brightens to a non-stellar nucleus, and is longated NW/SE. Using averted vision makes halo extend quite a bit, especially in the minor axis. There are 2 stars involved to SE. Some possible mottling suspected, but mostly very even.

12" f5 Newtonian, 170X; Matt Luttinen: using direct vision: this great galaxy dazzles the eye, overflowing the 30 minute FOV in all it's spiral glory. M 81's roughly 4-to-1 elongation is immediately apparent and it's aspect angle reminds me of the Andromeda galaxy. Panning around, the outer edge slowly fades to black so it is hard to tell the full dimensions of this monster! The nucleus is very distinct and star-like, giving way to a visually "smooth" disk that gives hints of dust lanes and spiral structure. Averted vision does not bring out much more detail, for some reason. I am surprised by this--I would expect the dust lanes to "pop" more, but not tonight. Perhaps under better seeing more detail would be visible. Having seen so many images of M 81, it is hard to not "read in" details I know are there. As much as I try, the jet is not visible tonight. Is it visible in any amateur instrument, I wonder? Some have claimed success, but I am skeptical.

13.1" f4.5, DOB, 47X; Charlie Whiting: M81 & M82 were visible together in 20x finderscope. In 13" telescope (47x), both objects can be seen at the edge of the FOV; at 83x, M81 showed a mostly circular form. Very bright center. Its halo looks like a very cloudy atmosphere.

20" F/5 Dobsonian, 80X; Ken Reeves: This galaxy is very bright, very large, and contains an elongated halo 5:1 NE/SW. The halo gradually and smoothly brightens to a brighter middle elongated about 2:1 same as halo and then a suddenly much brighter non-stellar nucleus. Averted vision may show a clockwise spiral structure, especially on the SE side. 2 stars are involved on the SW end. In general, object is very smooth.

NGC3034 M82 (09 55.9 +69 41)

8" f/4.5, Rick Rotramel, L, B, Elongated, uneven mottled structure, w/something happening at the nucleus, an Interesting one!

8" f6 Newtonian, 192X; Charlie Whiting: M 82 is cigar shaped, probably 10' long and only 2' or less in width,

aligned NE-SW. Seems to have a brighter section about midway between the middle and the NE end. All the rest seems to be evenly bright. There is some mottling (?) or dark spots or lanes. Great object for high power!

10" F/4.5 Dobsonian, 70X; Ken Reeves: This galaxy is pretty bright, fairly large, extremely elongated ENE/WSW, has no central brightening, and is very mottled. There are possible dark notches at the middle. A fainter halo surrounding the main central streak. There is a nice string of 3 stars leading away from the galaxy to the SW, and several other stars close by. A very nice streak of light in the sky.

12" f5 Newtonian, 170X; Matt Luttinen: using direct vision: the "Cigar" galaxy is bright, highly mottled, and extremely elongated at a roughly 5-to-1 ratio. This active galaxy exhibits several protruding dust lanes or clouds perpendicular to the major axis. These clouds give the thin, otherwise uniformly bright disk a choppy appearance. There is little noticeable brightening of the nucleus, and there is actually a dark notch very near to where the nucleus should be. Using averted vision the dust clouds become more obvious and the "exploding" galaxy effect seen in images is hinted at. Beautiful!

13.1" f4.5, DOB, 47X; Charlie Whiting: 47x. Two fuzzy patches (M81 & M82). M82 is big but very elongated. At 120x, I could get a hint at some dusty lanes or lines.

20" F/5 Dobsonian, 180X; Ken Reeves: This galaxy is bright, pretty large, and elongated about 6:1 WNW/ESE. It is extremely mottled with no real center or nucleus. There are two brighter patches near the middle separated by a dark lane. Using averted vision extends the halo and shows tapered ends. There are several stars nearby, but non are involved.

NGC3077 (10 03.3 +68 44)

8" f6 Newtonian, 75X; Charlie Whiting: Having found M81 & M82, which can be seen together at 37x, star hop south eastward from M81. 3077 is a fairly faint, fairly small galaxy (compared to M81, it is tiny!). Looks like it has a stellar nucleus. Appears elongated, ~ 2 to 1, about 5' long, aligned NE-SW. 32mm eyepiece with the 2x barlow gave the best magnification / eye relief combination. Tom Connor was viewing this with me and he wears glasses at the eyepiece. It has a star nearby that along with 3077 form a narrow base to a right triangle with a third, brighter star.

10" F/4.5 Dobsonian, 70X; Ken Reeves: This galaxy is pretty bright, somewhat small, brightens up evenly to the middle with a bright stellar nucleus. It is round, very smooth with no texture seen at all. If you don't compare this to M-81 and M-82, it's not too bad.

16" f/4.4, Rick Rotramel, pS, fB, oval, nebulous.

Call for Observations

For May it's still Leo Minor, that small constellation

(Continued on page 9)

Bits & Picces, Minutes of the April 2nd General Meeting

Recorded by Joe Macke

The meeting was called to order at 0234UT.

There were 52 attendees at the beginning of the meeting.

- 1) President Thad Robosson opened the meeting and, departing from the usual convention, introduced the evening's speaker, Father George Coyne of the Vatican Observatory. Fr. Coyne's talk was titled "Dance of the Fertile Universe." Fr. Coyne concluded his talk and an interesting question and answer period at 0400UT, with 60 attendees including a den of four Cub Scouts and their two leaders, and a short break was taken.
- 2) The meeting re-convened at 0412UT with 34 attendees present.
- 3) President Thad Robosson welcomed the membership and asked if there were any guests present. One person identified himself as a guest. He was given a free copy of the newsletter and asked to sign the guest book.
- 4) Treasurer Al Stiewing reported that the club's assets include a checking account balance of \$1481.24, \$4327.28 in the savings account and \$20.00 as cash-on-hand. The room rent is prepaid for three months.
- 5) Al mentioned that new member forms were available on the table at the front of the room.
- 6) Al also reported about the first meeting of what was named the Astro-imaging special interest group (SIG.). They met at Precision Guitar with the ATM group on March 30 with about six people, the number varying with the number of ATM folks drifting over. Gene Lucas gave a talk describing his equipment and setup for asteroid occultation timing. Jeff Hopkins brought a webcam and computer and they were demonstrated. Richard Payne talked about astro-imaging software. The group will meet again next month in conjunction with the ATM group on May 4. Richard will talk about film photography.
- 7) A.J. Crayon reported that the Deep Sky meetings are cancelled until sufficient interest returns in having the meetings.
- 8) A.J. also reminded the members that observations of the objects in Ursa Major listed in the March newsletter are still wanted. Send them to A.J. for publication in the newsletter column.
- 9) A.J. then presented awards for the Messier

Marathon, held March 20 and 21. He thanked Jack Jones for his assistance in organizing the event and Sheryl Gambardella for helping with the signs and lights. Several participants managed to observe all 109 possible objects and a few made a credible claim of having been clouded out of M30. The awards presented at the meeting were certificates to Jack Jones and Joan McGue. Sheryl received a certificate for observing 85 objects. A second place plaque was given to Paul Lind for 108 observations. First place plaques were given to Matt Luttinen, Richard Payne and Rick Tejera for the previously mentioned 109.

- 10) Thad posted a list of the upcoming events: April 10, regular club star party at Flat Iron: sunset at 1859MST; April 24, the semiannual public star party at Thunderbird Park from 1900 to 2200MST; May 7, Regular club meeting, 1930MST, room 105 Fleming Bldg, Grand Canyon Univ.; May 15, regular club star party at Cherry Road, sunset at 1924MST.
- 11) Paul Dickson reminded the members about the mailing lists used by the club. The information about them is available on the club's web site under the Novice Information area: SAC-Announce-club announcements regarding activities; SAC-Forum-general discussion list; SAC-Board-club board member business open to all members to monitor or participate; AZ-Observing-a mailing list covering all things regarding observing in Arizona. Information on how to subscribe is available on the web site: <http://www.saguaroastro.com/content/DiscussionLists.htm>
- 12) Gene Lucas announced that the RTMC Astronomy Expo (aka Riverside Telescope Maker's Conference) will again be held Memorial Day weekend near Big Bear Lake, California. This is a well-known event, comparable to Stellafane. It includes a huge swap meet, lots of commercial vendors, talks all weekend and giveaways including large telescopes. There are also awards of merit given for homemade telescopes. Camping is almost a necessity because the nearest lodging is ten miles away and, at this time, may no longer be available. Go to <http://www.rtmcastronomyexpo.org>
- 13) Gene continued to say that the Society for Astronomy Science (formerly IAPPP) is having

(Continued on page 11)

June 2004

SUN	MON	TUE	WED	THU	FRI	SAT
		1	2	3	4	5
6	7	8	9	10	11	12
13	14	15	16	17	18	19
20	21	22	23	24	25	26
27	28	29	30			

Schedule of Events for May & June 2004

May 4th	Moon is full at 2033 mst
May 7th	SAC General Meeting at Grand Canyon University at 1930; Speaker: George DeLange, Topic: Archeoastronomy.
May 11th	Moon at Last Quarter at 1104 mst
May 13th-16th	Desert Sunset Star Party at Caballo Loco Ranch. See page 6 for Details or go to: http://chartmarker.tripod.com/sunset.htm
May 15th	SAC Star Party at Cherry Rd, Sunset: 1924, Ast Twilight: 2103, Moonrise: 0404
May 19th	Moon is new at 0452 mst
May 27th	Moon at 1st Quarter at 0757 mst
May 28th-30th	Riverside RTMC Astronomy Expo at Camp Oakes at Big Bear City, Ca. Go to http://www.rtmcastronomyexpo.org/ for more information
June 3 rd	Moon is Full at 0419 mst.
June 4th	SAC General Meeting at Grand Canyon University at 1930. Speaker: William Hartmann, Topic TBA
June 9th	Moon at last quarter at 2002 mst
June 12th	SAC Star Party at Cherry Rd. Sunset 1942, Ast. Twilight Ends 2127, Moonrise 0234
Jun 12-19th	Grand Canyon Star Party. Go to: http://www.tucsonastronomy.org/gcsp.html for more information
June 17th	Moon is new at 2027 mst.
June 17th-20th	Lowell Star Party at the Arizona Snowbowl. For more information goto: http://kraken.lowell.edu/lsp2/obssite.html
June 25th	Moon at First quarter at 1908 mst.

Recap of the 2004 All –Arizona Messier Marathon

By A. J. Crayon

Well this year's marathon didn't seem to start out so well - mainly due to the weather. Late Friday afternoon I met up with Ken Sikes, his two sons and Steve Coe, at Sunland Gin Road and Interstate 10, with all of us headed towards the site under pretty cloudy skies. Under normal conditions we all would have probably stayed home, but this was Messier Marathon weekend and there wasn't any holding us back. By the time we arrived at the site there was the port-a-potty, ordered by Jack Jones, and about 10 other vehicles.

Friday night started out with much fewer clouds and we showed Ken's sons Clay, and Jeremy who was home on leave from the US Navy, celestial sights they hadn't seen in some years; like the Great Nebula in Orion and open clusters in Auriga. But it wasn't long afterwards that the clouds rolled in again. I called it a night about midnight.

I awoke Saturday morning and the clouds were still with us; leading us to believe there wouldn't be more than 20 or so vehicles - were we wrong here! Saturday afternoon wasn't much better either and around 3:00pm Sheryl Gambardella arrived after having put the SAC signs out along with the already placed EVAC signs.

Around 4:00pm vehicles started to arrive, and arrive, and arrive. Even with partly cloudy skies and they kept arriving.

We had our usual meeting a few minutes before sunset, under cloudy skies. I did announce that if the sky stayed cloudy and no one was able to find anything by around 9:30pm or 10:00pm the event would be canceled. This caught some folks by surprise, but all seemed resigned to the fact that if you couldn't find any thing why continue with the event..

For some strange reason, after the meeting broke up . . . the clouds started to break up starting from the west. By around 7:30pm all the marathoners were straining to see M77 and M74. Most missed both, but the skies were partly cloudy and enough for the marathon to continue. By the 9:30pm time it was abundantly clear there would be NO cancellation now! Around 11:00pm several folks left the site and by midnight the sky was clear of clouds, but the seeing still wasn't good enough for serious observing or astrophotography.

As the night wore on most SAC and EVAC members

stayed with the marathon, only a few gave up.

Every marathon seems to have its unique attraction, and this one was no exception. If it wasn't the weather it was the tow truck that arrived around 5:10am. That's just three minutes after twilight when everyone was trying for M30! Of course it had lights and lots of them.

By 5:00am I was watching Richard Payne, Matt Lutinen and Rick Tejera pooling their resources to determine exactly where M30 would rise. So far all had found 109 objects and were desperately trying for the last one.

The week before the marathon Tom Polakis posted a message about the visibility of M30 in early season marathons. It seems the earliest date for it being observed, when all 110 were observed, was by Gerry Rattley on the morning of March 24, 1985. See the following site <http://www.seds.org/messier/xtra/marathon/results.html> for more information about this, other marathon events and Charles Messier. Many of us pondered seeing M30 for the current marathon.

Now here they are working to get postured to see M30 and this tow truck comes up on the field. It's a big observing field and the trucks lights are bright, very bright. I turned around to watch the truck hoping for its lights to go away and discussed this with someone standing next to me. In a few moments it lights go out and it turns around to back up to the disabled vehicle. About this time Rick Tejera is announcing, "I guess 109 is the limit for this event." Turning around to see what was the matter it was easily determined . . . the clouds rolled in right where M30 was expected to rise. Gerry Rattley's record will seem to stand, for now anyway.

Later in the morning, when picking up the check lists, discussing the marathon and astronomy in general, Jim Gutman said he counted 63 vehicles at sunset and around 30 were still there by sunrise. Not bad considering what the weather was like the day before.

Before leaving the site Ray Farnsworth dropped by and we talked for a few moments. Ray is the landowner that is kind and gracious enough to permit our using his land for the event. We discussed mostly the hot temperatures and cloudy skies. He didn't like them either as they forced cotton growers into an early harvest, something he wasn't prepared for. Ray also appreciated his being kept up to date about the events and was glad the marathon turned out so well.

Final Results of the 2004 All Arizona Messier Marathon Certified True By A.J. Crayon

Num	Name	Scope	Organization	Missed or Comments
109	Matt Luttinen	12"f5Newt	SAC	M30
109	Richard Payne	8"f6 Newt	SAC	M30
109	Rick Tejera	8"f6DOB	SAC	M30
108	Paul Lind	14.5"DOB	SAC	M74 M30
107	Peter Argenziano	33cmDOB	EVAC/SAC	M74 M77 M30
106	Anne Marie Cooper	10"LX200	EVAC	M74 M33 M79 M30
106	David Hardingen	10"LX200	EVAC	M74 M33 M93 M30
106	Roger Hutchins	8"LX200	EVAC	M74 M77 M33 M30
104	Dave Jeff Trogan	8"LX200	EVAC	M74 M33 M110 M76 M79 M30
104	John Welsh	10"LXD55	N/A	M74 M33 M110 M76 M34 M30
103	Carter Smith	10"DOB	TAAA	M74 M77 M33 M31 M32 M110 M30
102	Scott/David Kroeppler	80mm ref	AL	M74 M77 M32 M110 M2 M72 M73 M30
97	Lou Russ	10"DOB	EVAC	
90	Scott Saari	8"DOB	EVAC	
85	Sheryl Gambardella	8"f6DOB	SAC	
66	Sierra DeMesa	8"Ultima	TAAA	
66	Howard Israel	NexStar11	EVAC	
57	Joan McGue	8"f6DOB	SAC	
53	Jim Gutman	NexStar11	EVAC	
53	Chuck Shields	ETX70	EVAC	
52	Jack Jones	80mmED	SAC	

AL = Astronomical League M-A-L; EVAC = East Valley Astronomy Club; SAC = Saguaro Astronomy Club; TAAA = Tucson Amateur Astronomy Association

As usual, The Saguaro Astronomy Club would like to thank all who participated in this years event. It's success is because of you. We hope you enjoyed yourself.

We'd also like to thank & acknowledge Ray Farnsworth who generously allows us the use of his land for this event.

(Continued from page 5)

between Leo and Ursa Major, but with a correction, and For June, let's see what we can come up with . . . Canes not a minor one at that, for the double star. The original Venatici, the Hunting Dogs. First for the double and one came from the SAC version of the Washington variable stars try 2 and Y CVn (checked both with three Double Star list and, of something like 12,000 doubles, I references). For the remainder here they are, presented picked an out of date reference from an old appendix of without comment; NGC4143, NGC4631, NGC4656, M3 the Struves. The double star to do for this month really and M94. Go out and observe them and let us know turns out to be OSS105 at RA 10h 29.9m, Dec 28° 35m what you see!!! and is from Otto Struve's First Index Catalog. The rest of the objects are the same and follow NGC3294 NGC3344 NGC3432 NGC3486 NGC3504.

Bits & Pisces, Minutes of the April 5th Board Meeting

Recorded by Joe Macke

Thad Robosson called the meeting to order at 0135UT. In attendance were: Thad Robosson, Jack Jones, Dave Fredericksen, Al Stiewing, A.J. Crayon, Joe Macke, Paul Dickson, Steve Coe, Joe Goss, Rick Tejera, Peter Argenziano.

- 1) A.J. Crayon reported on the Messier Marathon. He had received an email from a person in Florida who had heard that we held the marathon and wanted to know how to get a certificate. Apparently he didn't know that attendance at the event is mandatory.
- 2) A.J. said that no one had turned in a check-off sheet late to either Jennifer Keller or Sheryl Gambardella.
- 3) Paul Dickson requested that the announcement of the availability of the electronic version of the newsletter wait until the hard copies had actually been mailed. A short discussion ensued; including the point that one of the benefits offered to the members to encourage them to subscribe to the electronic version was early delivery. The board voted not to change the newsletter publication schedule.
- 4) A.J. said that the Deep Sky group would not meet until further notice. Insufficient interest in having meetings is the reason.
- 5) Thad initiated a discussion of how to invigorate the novice group. An idea was proposed to have a novice group meeting in the parking lot during the general meeting breaks. This could possibly be coordinated with having the meeting speaker present their talk at the start of the meeting (allowing sufficient darkness for observing.) Steve said he would coordinate with Jennifer to organize something.
- 6) Jack Jones suggested that we sponsor the Clear Sky clocks used by the club. Sponsoring clocks gives them preference in updates. One dollar gives a clock update preference for seven days. Jack suggested we sponsor the Cherry Road and Flat Iron clocks for the times we are using those sites. The board approved this suggestion. Jack said he would take care of the details.
- 7) Thad reported that he had received a request from a member for an accounting of the proceeds of the sale of the Holmquist collection donation. The board voted unanimously to not undertake the effort for the following reasons:
 - a. The donor did not make a specific request for accounting of any proceeds at the time of the donation, nor has the donor contacted the club in the several years since the donation for an accounting.
 - b. The means to collect, verify, and accurately reconcile such information regarding this does not exist due to the length of time and large number of individual transactions that took place.
 - c. The board agreed unanimously that the matter was incontrovertibly closed with the vote(s) to:
 - i. Donate all monies in scholarship fund (regardless of origin) to the Challenger Space Center, and
 - ii. Close the scholarship fund and scholarship committee.

The meeting adjourned at 0205UT.

Such A Deal

For Sale

Celestron C8 GPS with Starbright coatings (standard). I bought this scope back in June just in time for Mars Mania. It has the standard equipment. The tripod is new and still in the box. I will also include an Orion Lens Shade and a Kendrick Hartmann mask. You can see the scope and examples of the images I have taken at <http://glory.gc.maricopa.edu/~pmaxson/index.htm>. The corrector plate needs cleaning on the inside from it's exposure to an un-forecast rain shower back in early December. Celestron charges \$100 plus shipping for the cleaning. From the web page you can see that it has not affected performance. I paid over \$2200 for the setup and for the mentioned reason I am asking \$900. I still have the original shipping boxes.

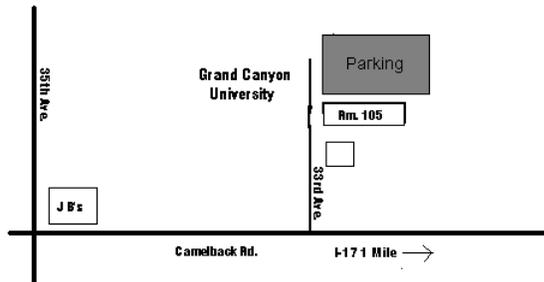
Also, I have a Kendrick Hartmann mask for a C11 and am asking \$40 for it.

Paul Maxson: sunspot51@cox.net; 623-975-9232

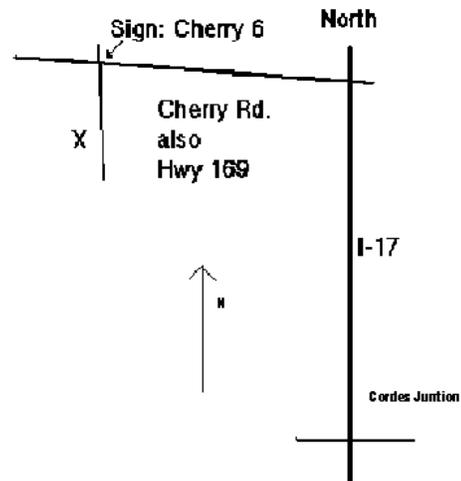
SAC Meeting and Observing Sites

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.



Cherry Rd. Star Parties



Take I-17 north to the Cherry Rd exit. Turn west (left) and continue on Cherry Rd for about 5 miles. Turn Left on the dirt road just past the sign that says Cherry 6. Note you turn in the direction Opposite the arrow on the sign. The site is 1/2 mile in through a fence on your right. Please close the gate behind you and make sure it remains closed at all times

(Continued from page 6)

- their meeting devoted to photometry and imaging on the Wednesday and Thursday prior to RTMS. He will be giving a talk on asteroid occultation timing. On the web, go to <http://www.socastrosci.org>. He also mentioned that, for those interested, the International Occultation Timing Association (IOTA), <http://www.occultations.org> and Minor Planet Mailing List, <http://www.bitnik.com/mp> might be useful.
- 14) Margie Williams reported that Dean Ketelsen had recently had his aortic valve removed due to an infection. Glen Nishimoto added that he is convalescing at home and his prognosis is good.
 - 15) Tom Polakis announced that, thanks to the efforts of Peter Argenziano, he had several compilation books of his Celestial Portrait columns. They are available for five dollars and any proceeds from the sales will be donated to the International Darksky Association.
 - 16) Tom also related that the week after the All-Arizona Messier Marathon, he and Bernie Sanden observed all 110 Messier objects and

all 9 planets from the Vekol road site. While they were observing, they saw a car or cars driving up and down the road without headlights. One of the cars stopped and it turned out to be BLM personnel. Gene Lucas added that it would probably be a good idea to set up somewhat off of the road to avoid attracting the attention of other, possibly undesirable, road users.

- 17) It was also reported (Steve Coe???) that four miles south of the Sentinel observing site, the BLM has dynamited the road to prevent "unauthorized" use.
- 18) Show and Tell: Steve Coe presented the 23 slides he had intended to use for a talk on binocular viewing, but couldn't due to time constraints.
- 19) The May general meeting will be May 7 at 1930.

The meeting adjourned at 0500UT.

Thad invited everyone to JB's at 35th Avenue and Northern for food and more talk.

SAGUARO ASTRONOMY CLUB

May 2004

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Glendale, AZ 85308-9117

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Videmus Stellae



SAC Schedule of Events 2003-2004

SAC Meetings

Jan 9th, 2004	Jul 2nd, 2004
Feb 6th, 2004	Jul 30th, 2004
Mar 5th, 2004	Aug 27th, 2004
Apr 2nd, 2004	Sep 24th, 2004
May 7th, 2004	Oct 29th, 2004
Jun 4th, 2004	Nov 19th, 2004

SAC Star Parties

Date	Sunset	Astronomical Twilight Ends	Moonrise	Site
Jan 17, 2004	1747	1915	0429	F
Feb 14th, 2004	1814	1938	0327	F
Mar 13th, 2004	1839	2002	0328	F
April 10th, 2004	1859	2025	0124	F
May 15th, 2004	1924	2103	0404	C
June 12, 2004	1942	2127	0234	C
Jul 10th, 2004	1943	2126	0105	C
Aug 7th, 2004	1924	2058	2335	C
Sep 11th, 2004	1840	2005	0405	C
Oct 9th, 2004	1804	1927	0256	F
Nov 6th, 2004	1734	1859	0141	F
Dec 4th, 2004	1723	1851	0027	F

F= Flat Iron; C= Cherry Road