SJAA ephemeris — May '81

May 2 Star Party at Henry Coe State Park. Take the E. Dunn exit off Hwy 101 south and head east towards the hills. Follow the signs for the state park. Just past the entrance and before the ranger's house, there is a dirt road to the left with a gate. The SJAA lock will be on it (4565 will open it). If you arrive after dark please park at the gate and walk up to scout out a parking and observing site first. Always lock the gate after yourself. The club uses the site by special permission, so use it accordingly.

May 3 New Moon

May 1-8 The May Aquarids meteor shower in the constellation Aquarius

May 9 National Astronomy Day. More about this in Observations, but the SJAA will have stations at the University of Santa Clara, the DeAnza College Planetarium, and the K-Mart at Lawrence Expressway and El Camino Real. Get out and support this activity! Sunset on, (usually over by 10 pm).

May 15 Board meeting at Chris & Shea Pratt's, 474 Safari Drive, San Jose'. 629-2994. 8:00 pm. Everyone is welcome!

May 16 General meeting, to be co-sponsored with the L-5 Society. Our speaker will be Jim Gafford from Rockwell International with a post-flight Space Shuttle review, "The Year of the Shuttle." This informative lecture will be held in the Forum at DeAnza Community College at 7:30 pm. To get to the hall go east on Stevens Creek Blvd. Turn right onto Stelling Road and then right into Parking Lot C. (Peppertree Lane is opposite the turn into the parking lot.) The Forum is straight ahead from the north-west corner of the parking lot. If you park in Lot E, near the planetarium, continue north-east from the planetarium.

May 23 The 12th annual Riverside Telescope Makers' Conference at Big Bear, Ca. For registration forms see Kevin Medlock.

May 23 Indoor Star Party at the Los Gatos Red Cross building, 18011 Los Gatos-Saratoga Rd, Los Gatos. Take the Hwy 9 exit north off Hwy 17 and continue about two miles. Building is on the right with parking in back. 7:30 pm on. There's an on-going telescope makers workshop at every IDSP.

May 29-30 SJAA Star Party at Fremont Peak. We have Coulter Camp reserved for this two-day event. Go south on Hwy 101, east on Hwy 156 for two miles, right at the yellow flashing light. Follow the signs to the state park. Coulter Camp is eleven miles up the road, just past the driveway to the ranger's house. (The first level area on your right).

"Let's cancel June!" —Frank Dibbell

(actually, June's been scheduled for page 2)

Kevin Medlock, pres. 654-6796 Jim van Nuland, sec. 371-1307

the san jose astronomical association

June 6 AANC Star Party at Fremont Peak State Park. Everyone welcome!

June 12 SJAA Board meeting in outer Siberia. (The Medlock's) 15022 Broadway Terrace, Oakland. (Yes, that is a real address!) Best to carpool it. Call 654-6796 for directions. Everyone welcome!

June 13 Indoor star party at the Los Gatos Red Cross building. 7:30 pm on.

June 20 SJAA General meeting at the Los Gatos Red Cross. This will be members' slide and equipment night. We've had a Marathon, a shuttle landing, an auction, Astronomy Day, and the Riverside Telescope Makers Conference, besides a telescope makers' workshop of our own. That should mean a great slide and equipment night. These meetings are always some of the best the club has during the year so plan to attend.

June 27 SJAA Star Party. We're going to try and get Mt. Umunhum as a site. Remember the two great star parties there last year? Great horizon.

Observations

"You're the type of person that goes out to do astronomy and wonders why it's dark." Jack Zeiders, to someone who will remain anonymous, at the last board meeting.

Back in 1973, Astronomy Day was started in the Bay Area with suprising success. The public's interest in astronomy has grown strongly in the last ten years (as the SJAA's own membership will attest) and with it the activities surrounding Astronomy Day. It is now a national event, declared official in many states and supported by a large contingency of amateur astronomers in many ways: slide shows, planetarium programs, solar telescopes in shopping malls, numerous telescope stations set up at night. This year the SJAA will have three stations in the South Bay area— with our large membership we shouldn't have any problem finding telescopes and eager light bucket tenders to people the sites.

Just as last year two of the stations will be outside the DeAnza Planetarium, and in the parking lot at the K-Mart at Lawrence and El Camino Real, both high visibility areas. New this year will be a site at University of Santa Clara. Site leaders are: DeAnza—Gerry Rattley (732-0202, eves.) and Kevin Medlock (654-6796, Oakland), K-Mart—Chris & Shea Pratt (629-2994), and U. of Santa Clara—Frank Dibbell (733-7208). If you wish to volunteer you don't have to arrange it with the site leaders-just show up-but it would be good if we didn't repeat last year's goof of sixteen telescopes at K-Mart and only three at DeAnza!

YOU DON'T HAVE TO HAVE A TELESCOPE TO HELP! There are plenty of public asking questions like "Can you see the lunar lander?" or "How far can it see?" to make you feel wanted.

Think about helping out. It can be a lot of fun, and it's a great chance to talk to interested people about your hobby.

Club elections are coming up. May has been the traditional meeting for nominations. A nominating committee was formed at the last board meeting (Shea Pratt, Frank Dibbell, and Gerry Rattley) whose job it is to accept nominations from club members and come up with suggestions of their own. Being an odd year there is an odd number of board postions up for vote: Chris Pratt, Jim van Nuland, Kevin Medlock, Wolfgang Hanisch, and Bob Fingerhut's. Since Bob Fingerhut has requested not to hold office for awhile at least one new person must be elected from the membership. If you would like to run for board member or you would like to nominate someone for that position, either contact one of the nominating committee with the name or nominate during the May general meeting. Voting will take place at the June meeting and officer installation will be at the July picnic (or banquet).

Also coming up for consideration during the next few months will be the recepient of the SJAA's Dr. A. B. Gregory Award. Boris Gregory was a long-time club member who passed away suddenly in 1979. Known for his generousity and energy in teaching and helping out new members and students, he is being remembered by an annual award, to be presented to the club member who has given unselfishly of his or her time and energy to help the club members. Last year's recepient of the beautiful plaque was Kevin Medlock. This year it is up to the membership to nominate who you think has helped the SJAA. The award committee is Bob Fingerhut, 263-4455, Chris Pratt, 629-2994, and Kevin Medlock, 654-6796. Give this some thought and call the committee with a nomination.

Start thinking about whether you would like to have a picnic this year or a banquet, and then tell your local board member your opinion.

******WANT ADS*******

For sale: 4¼" Edmund reflector f/10 on a equatorial mount. $150 negotiable. Call Ed Novak (415) 641-4775).

For Sale:(Good deal!) Quantum 4 w/special coatings. 70 mm finder w/illuminated reticle eyepeice. All on a C-8 wedge mated to a C-14 tripod. All for $1000 (firm). Bruce DeGraaf, (408) 224-0972.

LUMICON, a company specializing in products for astrophotography, now has an opening for a qualified person.

Job Description

Wages:	$4.-$6. an hour, depending on prior experience. Quarterly merit raises.
Hours:	Full time preferable, but at least from 1-5 daily.
Location:	891 Laguna Street, Livermore, until new Lumicon facilities are available.
Type work:	Light optical and mechanical assembly. Film hypersensitization. Order filling and packing. Parts and materials reordering.

Job Requirements

--Knowledgeable in fundamentals of Astronomy & Telescopes.
--Astrophotography experience (can learn on the job).
--Good hand and eye coordination for work involving optical assembly.

LUMICON is an equal opportunity employer. Contact Dr. Jack Marling, 891 Laguna St., Livermore. (415) 447-9570

The 1981 Messier and Massive Marathons

The night of April 3-4 brought clear skies and half a dozen telescopes to Loma Prieta for the Messier Marathon. Several observers spent a few hours observing Messier objects while Jupiter and Saturn occupied the time for others. There was some wind that night and the temperature did get to 43°. I was up there all night and observed a total of 107 of the 110 Messier objects. M77, M74 and M33 were not visible.

The next night brought similar weather conditions and 12-15 telescopes to the mountain. Several observers even set up at the clearing about a quarter mile north of the main site. Once again, the planets, comets and Messier objects occupied the time.

There was some controversy with the Sheriff about us being there. While we're in the process of getting permission from the home owners to use the property (this will make it official) we should be able to continue using the property. They did point out that we have to keep the roadway clear (at least 15' wide), and we could not park off the roadway itself. We shouldn't have any trouble. In the past 5 years I've set up in that location some 700 times and the home owners usually appreciate having someone up there.

As for future Messier Marathons, next year the new moon will be March 25; this means next year's Marathon can be held on two weekends: March 19-21 and 26-28.

As mentioned last month, the Massive Marathon consists of 500+ non-Messier deep-sky objects. To see them all requires two nights, 5-7 months apart. I have been compiling my list of objects and ended up with 548 objects. Add the Messier objects and you get 658 deep-sky objects. I also stated last month that over 500 of these objects would be visible on April 3-4 and I would try for these.

Well, the weather was clear and I observed 599 objects that night, 107 of them being Messier objects.
I was not out to try and set some type of record. I did this because I just plain wanted to and see what it was like. It really wasn't that hard. I had planned for this and it went rather smoothly. And although I took only 52 seconds on the average to find and identify each object, I did have some time to get a good look at each one. I also found I needed no secretary to keep track of what I saw; extensive preplanning kept my notes to a minimum. Now, to finish observing all 658 objects I'll need to get out again to observe the remaining 59 -- this will be in September-November.

Would I do this again? Yes, perhaps every year it would be a good exercise, although I may not wish to observe 600 in one night. A more leisurely pace of 400-500 in one night may be perferred.

Don Machholz
(408)448-7077

The same organization that put together the fairly successful Viking Fund is now setting up The Halley Fund. Purpose: to show Congress the public support behind a NASA mission to explore Halley's Comet during its return in 1985. All tax deductible funds may be sent to The Halley Fund, 357 Saratoga Ave., Santa Clara, Ca. 95050 The United States is the only technologically advanced country that isn't sending a probe. If the mission does not get into the budget this summer, all money in the fund will go to American scientists associated with the European mission.

COMET COMMENTS

As the weather gets better, two comets remain visible to us in the heavens, while one more fades in the west. Meanwhile, no new comets have been picked up.

Incidently, an interview with comet discoverer William Bradfield will be apeearing in an issue of Astronomy magazine soon. The interview was conducted a couple of months ago by Ben Mayer.

P/Comet Borrelly (1980i):

Date	R.A.	Dec.	Mag.
4-26	05:20.3	+38°00'	10.5
5-06	05:58.2	39 39	10.7
5-16	06:36.3	40 52	11.0
5-26	07:13.6	41 10	11.3
6-05	07:49.6	40 50	11.3

Due to it's large eastward motion, this comet tends to hang in the western sky after evening twilight. During this time the comet moves through Auriga and into Lynx.

P/Comet Panther (1980u):

4-26	08:16.5	+45 51	9.6
5-06	08:26.0	39 15	10.0
5-16	08:35.6	33 48	10.4
5-26	08:45.2	29 10	10.7
6-05	08:54.6	25 08	11.0

This comet, still showing a tail, moves south in the evening sky, through Lynx and Cancer. It is pulling away from both the earth and sun.

Comet Meier (1980q):

4-26	14:10.8	+19 04	10.7
5-06	13:26.7	15 53	10.9
5-16	13:10.4	12 32	11.1
5-26	12:51.5	09 20	11.4
6-05	12:38.7	06 27	11.7

Moving away from both the earth and sun, this diffuse comet passes near the star Arcturus in late April, then into Virgo.

GREAT COMETS

The Great Comet of 1811 (Flaugergues): Discovered by Flaugergues on March 26, 1811, this comet was observed for 1½ years. It was a circumpolar object in the Autumn of 1811 and was widely observed. (It was magnitude 5 at discovery). The coma (or head) of the comet measured 1½ million miles in diameter, the largest known. In October, 1811, the tail measured over 100 million miles long. This comet is expected back in the year 4876, an orbital period 3065 years!

Don Machholz

RECORD-KEEPING FOR THE CELESTRIAL TOURIST

Only a small proportion of amateur astronomers seem to keep any kind of records of what they have seen. Far be it from me to tell anybody how to run a hobby, but there are certain pleasures and advantages to keeping records of the faint, fuzzy nothings seen through the eyepiece, and I would like to indicate what they are and suggest some ways of doing so.

One motivation for record-keeping is to assist answering the bothersome question. "What shall I look at tonight?" It may help if you have some easy way of distinguishing those objects you may have never seen before from those already looked at many times.

Record-keeping often suggests observing programs. Chasing down all the Messier objects is perhaps the most familiar example. Examining all the planetary nebulae listed in the Skalnate Pleso for detail or all the globular clusters for resolution into stars, are other simple programs.

Fussing around with existing records provides an interesting occupation for evenings when it's cold, wet, cloudy, moonlit, or otherwise unsuited for actual observing. What fussing you do depends on what records you keep.

Record-keeping can also lead to fame, glory, and notoriety: There's nothing like a fat logbook full of deep-sky observations to make your fellow amateurs hate you.

I'm not going to touch upon the kinds of records that might be required for such scientific aspects of amateur astronomy as variable star observing or occultations timing: the reference to "celestrial tourist" in the title is exactly what I mean.

Probably the two simplest ways to keep records of objects seen are to mark them off on a chart, or on a checklist of some sort. These techniques are quick, but have the potential disadvantages of providing no information as to the date of observation, size of telescope used, and magnification, and detail -- if any -- seen. I suggest the basic record-keeping device should be a logbook -- a dairy, if you will -- describing what you did each time you observed with a telescope. What you put in a logbook is up to you. Mine contains the following information: For each observing session; the date, the geographic location (e.g. Fremont Peak State Park), and the sky conditions -- seeing, darkness and transparency. For each object seen; the size and magnification(s) of the telescope used, and any appropriate comments about the appearance of the object (e.g., was a cluster resolved? Did it appear granular? Any nebulosity seen? Any color? Any shape or structure? And so on). If you do decide to keep a logbook, I suggest not trying to stick to any specific format for logging observations -- just write down what you feel is important. You can alter your procedures later, if necessary.

For various reasons, it can be useful to make a cross-reference of observations in the logbook. The simplest cross-reference might be a seperate logbook for each time you do a Messier survey, with the number 1-110 written down, followed by spaces for the date you observed each object. With the date in hand, you can always look up the observation in the logbook, if you need to.

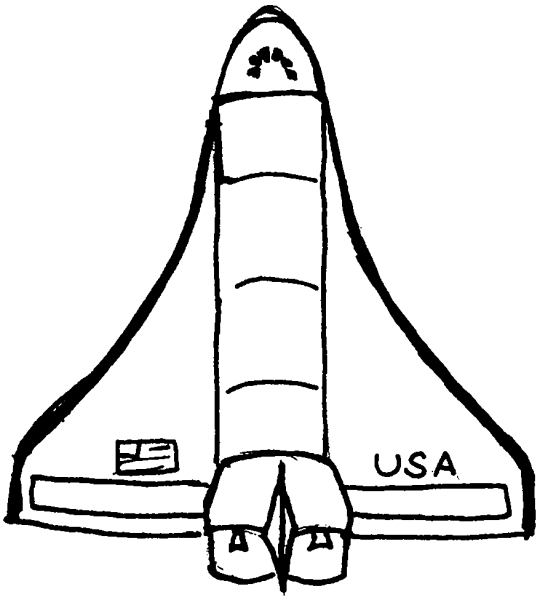
Another kind of cross-reference is a card index. These start to become useful when your logbook is so thick that you can no longer easily find specific observations by thumbing through it. The logical way to order a card index is by some kind of catalog number, such as NGC or IC number for the deep-sky objects. I have a three by five card file full of NGC observations -- one object to a card. Each card has the NGC number in the upper right corner, with any other identifications (Herschel numbers, Messier number, ...) immediately below it. At the top canter of the card I write the abbreviation for the constellation in which the object appears, and an abrreviation for what kind of object it is. Thus, "Com, G" means a galaxy in Coma Bernices. At the top right of the card I put the object's name, if any. I use one line of the card for each time I look at the object, and write down the date, telescope size and magnification, and a bit of abbreviation about what I saw: Thus, "I/3-4/81--6", 36X (n,c,d)" means that I observed on the night of Jan. 3-4, 1981, with a six-inch, thirty-six power, and saw nebulosity, color, and some kind of detail. For more information, I look up the observation in the logbook.

Another useful thing to do with the basic logbook is to use it as a reference from which to check things off in catalogs. Thus, you might mark off each object seen in Burnhams Celestrial Handbook, or in the Skalnate Pleso. Checked-off catalog lists are useful for quickly determining what you have and haven't seen, as when planning an observing session, or for impressing your friends.

A list or card file of objects "for future reference" -- that you can't look at now because it's the wrong season, for that particular constellation, or something -- can also be handy. It may save you from saying, "Oh, heck, I meant to look at _____, but it just disappeared into the evening twilight and it will be months before I get another chance at it."

Mary Engle, a San Francisco amateur who studied library science in college, once remarked to me that a true scientist must have something of the soul of a librarian. I suspect she's right. It does not necessarily follow that an amateur scientist must have the soul of an amateur librarian but nevertheless, thoughtful record-keeping can add an interesting dimension to our already fascinating hobby.

Jay Freeman



GO COLUMBIA!

1 a.m. Monday morning, April 13, the blue van, loaded with Dave & Mary Ambrose, Kevin & myself, Jay Freeman's binoculars, and Norm Neinchel's movie camera left Oakland on what I have to title "an odessey." Five years of disappointment at America's fading space program has suddenly been shaken awake by a view of the successful space shuttle launch and successive orbits earlier that weekend. The four of us were on our way to Edwards Air Force Base to see history made, there to show our support, to see a magnificent spacecraft, and silently praying the whole way that nothing would mar the so far perfect rebirth of the space program.

We were bleary eyed from lack of sleep but fairly jumping with excitement when we met Jeff Lo, his sister Debbie, and SJAA associate Rich Wright at Casa de Fruta an hour later. We blabbed excitedly for an hour before getting back on the road, a Go Columbia! poster taped to the van's back window. We were still wide awake at Bakerfield.

Nothing was different on the road until we came to Mohave. Row after row of chartered jets lined the airport's runways—a sign of the excitment and crowds to come.

Since we were about thirty hours early on arriving we didn't think too much about the lack of traffic as we turned off Hwy 58 and onto Edwards Air Force Base territory. But then we realized there were no signs, no guards, no one asking us for our pass. Nothing. We followed a Pepsi truck to find the public viewing area. Were we that early?

There were more outhouses set up then there were people. Little did we know that this setting of bliss would be very short lived. As we played frisbie and got interviewed by newspaper after newspaper, the whole suburbia of Los Angles showed up. By evening we were in a carneval. The San Jose group had had the luck of 1) being some of the first people there and thereby getting set up right on the perimeter fence, and 2) having a press packet (courtesy of Steve Greenberg) so we knew what direction the Columbia was coming in. It seemed everyone else was facing the wrong way. The Columbia was not to come in on the longest runway as suspected. We didn't tell anyone differently. It was getting crowded enough in our direction.

Monday night was party night for most of the 250,000 people there. We did our own version of it. The Chabot Observatory group had found us in the fray, along with new SJAA member Roland Mangan, Jeff Schroder of 11" refractor fame (with a 6" refractor") and Dave Chandler of Astroscopics. All together we had about 15 people along the fence. After a good dinner we took Jeff Lo's 6" Newtonian and by setting up a strob light backwards through the system, repeatedly flashed the press section set up on the flat desert some 3/4 of a mile further out from us. Steve Greenberg and Patty Winter were our targets and it was hoped that they would understand and respond. Later we found out they had been down at the VIP section during that time. It didn't matter. A group of people a hundred yards up the fence took the cue and we had a flash war going until our batteries went dead.

We were up early Tuesday morning to the sound of more of L.A. trying to squeeze into our spot on the fence. Telescopes, tripods, cameras,

chairs, anything and everything was set up to try and maintain a position for the landing hours later. The SJAA won out. We held one of the best viewing sites in the general public area.

Meanwhile, while we waited, the Air Force put on an air show for us quite unintentionally. Jets of every type flew in and out over our heads and allowed us to get camera and telescope ranging in before the shuttle sped by. Around 9 a.m. a shuttle-size jet we never could identify did three dry runs of the Columbia's approach and landing. Probably done so the VIPs watching at the end of the runway knew what to be looking for so they wouldn't miss it and go back to Congress disappointed.

Landing time approached. Chuck Claver, one of the Chabot group, had brought a frequency scanner and we had been enjoying listening (along with a large crowd around us) the shuttle to mission control to tracking station communications. It added a sense of reality the network news tended to forget with their programs. At least we could hear the actual talking being done between Young, Crippen, and Houston. Entering the blackout the crowd actually tensed, waited, listened, and watched the sky as the screaming white little T-38's took off for chase. Suddenly, "Mission Control? Columbia here!" And a roar came up from the thousands gathered with us. We scanned the sky above us desperately, looking for that first view over the lake bed. High above us the contrail of the T-38's could be seen, together first, and then spreading out and cutting in afterburners as they evidently saw the returning spacecraft. And as we strained the double sonic boom rocked us -- the strongest I have ever heard, and I once lived near Vandenburg. Mary, kneeling atop the van (safer than standing when you want to jump up and down), said later it nearly knocked off her perch. The crowd stood dazed for a split second, knowing it was up there but not being able to see it. What we didn't realize was that, even though the shuttle broke the sound barrier ten miles directly above us, by the time the wave reached the ground the craft had travelled quite a distance. (Quite a distance at that speed!) Within seconds it was spotted coming out of its turn to make its final (and only) approach.

The space shuttle is a beautiful spacecraft. Cetainly, it is versatile, machinary, perhaps a bunch of flying bricks. But it is also beautiful. We saw it first as a white plane contrasted against a blue desert sky, the black leading edges and underside outlining it clearly. It was gliding in, looking for all the world like a vehicle that knew what it was doing, flanked by the tiny T-38's. We knew then that there was no difficulty, no danger as we had hoped there wouldn't be. The flight of Columbia was perfection epitomized after so many failures. We cheered, we screamed, we flew it in. It touched down, gently meeting its mirage in the desert heat, and came to the end of its first flight far down the runway from us, surrounded by VIPs we couldn't see. But high overhead us the tiny T-38's spiralled a victory dance, each one piloted by a future space shuttle astronaut. We had seen history made -- they had come to see the future.

Go Columbia!

Denni Medlock

"You left the "s" out of Bakersfield." K.M.

"I spelt Los Angeles wrong, too." D.M.

"Well, that's ok." K.M.

The First Annual (?) SJAA Astro Auction
(An Auctioneer's View)

I must be at the Red Cross early to get set up and ready. Hurry, Hurry. Denni and myself move tables, set up chair, and try to register our own items. People start coming in wanting to register their items so Jay Freeman and Bob Fingerhut move the registraion area to the back of the room where Shea Pratt, Frank Dibbell, and Denni take over. People are bringing in their odds and ends, gizzies, scopes, parts, etc., and looking at what's already on the tables. Finally, eight o' clock rolls around and it's time to start. Looking at the crowd (approximately eighty people) I seriously wonder why I volunteered (was drafted) to be auctioneer. Getting everyone's attention was easy -- just make the most noise. Grabbing the nearest thing to me (it turned out to be an 8" mirror cell) I call for any opening bid. $5 I hear and the SJAA auction is underway. $5 looking for $6, I have $6, who will give me 7, etc, etc, up to $13. 13 going once, 13 going twice, 13 any advance, 13 three times, sold to bidder number --; little do I know that I was to become fluent in that sequence of words. Next item sold, next, sold, next sold, etc. Chris Pratt sets up shop behind me organizing items by bidder number, Frank Dibbell recording item numbers, selling price, bidder number. I go on and on getting wrapped up in numbers, asking for higher bids, looking for a raised bidder card, thinking is it straight up or sideways, a shouted out bid, a hand slightly raised, a flick of the wrist all indicating a bid. This crowd is really responsive, I'm thinking. Someone gets me a cup of cold fruit punch -- what a blessing. Not every item sells. The starting bid is too high. Going, going, gone back to its owner. At times I get so wrapped up in the bidding I forget what the bid is. It's embarressing having to ask but the crowd laughs, a short moment of rest and on with the show. I auction off eyepieces, cameras, mirror blanks, books, scopes, you name it -- it was probably there. All in all 120 items were up for bid. Finally the last item on the table is auctioned off. It's 11:30 p.m. I've been talking straight throguh for three and a half hours. A new record for me. I'm somewhat numb but very much jazzed about what has just happened. It was tremendous fun.

Auction fever seems to grab everyone and this auction was no exception. On many items, I had bids before I asked for them. All I had to do many times was pick something up and sure enough Jay Freeman would yell out "one buck!" I even managed to "sell" an empty Hawaiian punch can to Wolfgang Hanisch for 5¢. From my viewpoint the people there were really caught up in the auction craze. I had fun, fun, fun, and I hope, no, I'm sure that all those who attended had a good time also.

I would like to thank everyone who attended for their support of this auction and in particular the following people I owe my special thanks, without whom my job as auctioneer would have been impossible:

Shea and Chris Pratt, Frank Dibbell, Denni Medlock, Gene Cisneros, Jay "One Buck" Freeman, Bob Fingerhut, and all those who stayed around and helped put away the CHAIRS.

Thank you, and Well Done.

K. C. Medlock

President, SJAA

"Now that I've bought it, what is it?" Rich Wright, auction night

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Editor's note: When all the dust had settled and all the bills paid, the SJAA raised a little over $650! This will allow us to pay for our building maintenance fee to the Red Cross, print more club brochures, etc. Thank you all!

STAR PARTY & OBSERVING NOTES

I only went to the second night of the April Messier Marathon on Loma Prieta. There were about twenty cars and perhaps forty people. Telescopes ranged in size from very small to fourteen-inch; Bill Dellinges brought his C-14 and someone whose name I didn't catch had a similar-sized Newtonian, with Coulter optics, on a pipe mounting. Chris and Shea Pratt brought their twelve-inch Newtonian. Gerry Rattely and Don Machholz had ten-inch Newtonians, and I think several other people did as well.

The sky was clear, but not as dark as one might have wished. There was no fog or cloud over any of the nearby cities to help reduce light pollution.

I was trying out my recently-completed eight-inch f/5 Newtonian: I put it on a simplified Dobson mount, which works quite well. I have never been a fanatic for marathons of any kind, and was too tired to stay past about one o'clock, but nevertheless I observed sixty-one Messier objects with it.

I had three good nights at Fremont Peak State Park with the C-14 in late March and early April. On Friday, March 27, I observed till moonrise. Although the moon had not yet reached last quarter, there were five hours of good dark sky between the end of twilight and the first hint of the Moon. A college class from somewhere had two old Criterion eight-inch Newtonians set up nearby -- these seemed to be pretty nice instruments: Criterion used to manufacture a line of deluxe Newtonians, but hasn't done so in recent years. The instructor for this class was one of the MIRA people. They are making progress twoard getting their observatory funded.

I later learned the Bob Fingerhut has been over behind the ranger's house taking photographs that evening, but I didn't see him at the time.

I went up again on Monday, March 30, and had the park all to myself. Another lovely night.

On Friday the third of April, Coulter Camp might have been better named Aperture Valley: The San Francisco Sidewalk Astronomers had scheduled a public star party and brought the twenty-four inch Dobson and at least one other big Dobson. Between them and the usual run of dark-of-the-moon deep-sky fans, there were at least four telescopes of aperture sixteen inches and up. I put my little C-14 off in a corner where I hoped no one would step on it.

One person brought a smaller telescope of note: a five-inch, 19-power RFT using the Jaegers achromat. I had never seen one of these before -- the views through it were quite spectaculer. The owner was gloating justifiably over the tact that she had bought the objective back in the good old days when it cost only $75. Last time I looked, the price was up to $325.

Speaking of Messier objects, I have started a Messier survey that may be of interest to some Club members. I borrowed Gerry Rattley's old 60mm f/11.7 Tasco refractor . A lot of people seem to think that you can't see much of anything with a telescope that small. More experienced observers generally know that isn't true, but don't always bother to say so. The 2.4 -inch refractor is a popular beginner's instrument, so I thought it would be fun to do the Messier catalog with it. I've done fifty-five so far, and that includes all the Messier galaxies in Virgo and Coma Bernices. One of these -- M89 -- is probably the most difficult object on the list. I have been working at 28 power with a Meade 25mm modified achromatic eyepiece, and have removed a 6mm aperature stop from the finder objective in order to see with my naked eye. The finder does not use an achromatic objective, so with the aperture stop removed the images in it leave something to be desired, but the increased light grasp is worth it.

So far, all the galactic clusters are granular or unresolved, none of the galaxies shows as more than a smudge, and no globular cluster shows even a hint of resolution. The only Messier planetary nebula I have looked at yet is M 97 -- the Owl Nebula -- which shows as a round, featurless disc.

I happened to look at a couple of bright non-Messier objects in the last month. One of these was NGC 2403, a galaxy in Camelopardalis. This 8.8 magnitude object was obviously elongated in 11X80 binoculars as I looked for Comet Panther. It's plotted in the Skalnate Pleso and in Norton's (as 44^5 in the latter), near 7^h30^m, +65°.

A slightly fainter galaxym in Canes Venatici, is NGC 4490, also known as 198[1]. To find this 10.1 magnitude object, draw a line from alpha through beta and continue it for about half a degree. I happened to look at this one in a six-inch, but it should be visible in smaller apertures.

The star psi Virginis is located at about 12^h48^m, -10°. Within about a degree and a half to the south and three degrees to the west, the Skalnate Pleso plots six galaxies. Only one is shown on Norton's. The four to the east range from 11.7 to 12.5 magnitude, and should be detectable in a six-inch. The two to the west are a bit fainter and a bit bigger, and might be more difficult to detect. There is a 13,1 magnitude galaxy, NGC 4682, between the latter two. All are listed in Burnham's Celestrial Handbook and plotted on the AAVSO Variable Star Atlas.

Burnham also gives an identification chart for the quasar 3C273, near 12^h25^m, +2°, in Virgo. This 12.8 magnitude object should be easy to find in a six-inch, but it's about one and a half billion light years away. (Hubble's constant was revised recently: An older figure of three billion light years was in consequence incorrect. But what's a billion light years among friends?)

According to the Revised NGC Catalog, there are nine faint galaxies within a degree or two of M101. I recently chased them all down at 122X in a C-14. A slightly smaller telescope might suffice. I have provided a figure that locates them with respect to the big galaxy. I am not showing magnitudes, since what the Revised NGC gices are photographic magnitudes, and may be as much as a magnitude and a half fainter than the visual magnitudes for the same galaxies -- but maybe not.

-- Jay Freeman

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