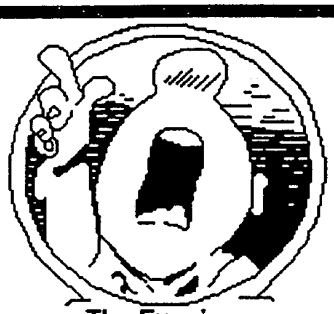
SJAA EPHEMERIS

VOLUME 6 NUMBER 8 OFFICIAL PUBLICATION OF THE SAN JOSE ASTRONOMICAL ASSOCIATION August 1995



The Eyepiece
by Bob Madden

Wow! For those who missed the July General meeting, you missed a good one. We had Don Machholz, famed comet hunter and author of Comet Comments talk to us about his comet hunting, observatory and observing equipment. Don was an active member in the SJAA before he, his wife, Laura, and his children moved to Colfax, CA. to provide an improved environment to raise his children. In the process Don also received better skies to observe and hunt comets in.

Don showed photographs of his observatory and equipment and took us through the history of growing up, setting observing projects, meeting his wife Laura, marring her and meeting his good friend and observing partner, Rich Page. Don reviewed many of the past comets and recent ones showing some which have broken apart. Don also reviewed statics which showed the average hours per find and the draught years. This year, 1995, has begun as a draught year as over six months have passed with only one find. The possibility exists that there aren't many observers looking for comets. His tabulation illustrated there have been up to eighteen months between finds.

Don is the only living person who has found three comets within one year - the other two are deceased. He passed out copies of hints for comet hunting and gave ideas on how to become a recognized comet hunter. The answer to that is to become known and respected by Dr. Brian Marsden, be the first to observe the comet and don't make mistakes in reporting them. There are a very select group of amateur comet hunters, Don is one of them.

Don was one of the very first to begin Messier marathoning, at least here in the Bay Area and has also published his second book, ***Messier Marathon Observer's Guide Handbook and Atlas, A complete Guide to Running Your own Messier Marathon.*** This is an excellent book with star charts and data that informs you when is the proper time to observe them. If you wis to obtain a copy, contact Make Wood Products, P.O. Box 1716, Colfax, CA 95713 or Crazy Ed's Optical, 408-364-0944.

It was nice seeing Rich Page once again. When Don last talked to our group, would you believe we were holding meetings at the Red Cross Building in Los Gatos, He mentioned a survey of observing sites here in the area, he and Rich completed. Copies are available. Would any one like to help updating this list and republishing it. Contact me if you are.

Next months speaker will be Robert (Bob) Ashford talking about "Project Astro", which is sponsored by the Astronomical Society of the Pacific. If I am correct, this effort is an improved version created by Bob when he was successfully working with a school in East Palo Alto. This is an important talk for those who enjoy working with school star parties and children. It places an amateur astronomer with a teacher in a specified school. Who knows you may work with a future professional astronomer or in the least foster a love of the universe in some young child who will eventually become an amateur astronomer.

Aug 4: Star Party, Houge Park, Sset 8:23 pm, 20% moon down 11:32 pm.
Aug 5: No activity. Too much moon, sets at midnight.
Aug 12: General Meeting 8:00 pm, preceeded by Board Mtg. Speaker Bob Ashford - Project Astro
Aug 19: Observational Astronomy Class, Houge, Jack Petersen, also - AANC Star-B-Q at Fremont Peak. Sset 7:50 pm, 31% moon up 1:40 am.
Aug 26: 2 Star parties: H Coe, Peak. Sset 7:44 pm, 1% moon down 7:52 pm., also, Halls Valley Group's public star party at Grant Ranch County Park.
Sept 1: Houge Park Public Star Party, Sset 7:37 pm, 48% moon, Mset 11:53 pm.
Sept 2: No activity, 1st Qtr moon
Sept 9: General Meeting 8:00 pm, preceeded by Board Mtg. This is our annual Slide/Equipment night. Bring your favorite project and show it to the group.
Sept 16: Observational Astronomy Class at Houge Park, 8:00 pm.
Sept 23: 3 Star parties: H Coe, Fremont Peak. Sset 7:02 pm, No moon, also, Halls Valley's public star party at Grant Ranch County Park.
Sept 29: Star Party, Houge Park, second this month, Sset 6:54 pm, 34% moon, Mset 10:44 pm.
October general meeting will be a dinner to celebrate the SJAA's 40th year. Call Bob Madden 264-4488.

The Ephemeris is published by
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5380 Pebbletree Way
San Jose, Ca 95111-1846

Forty Years Ago this month
by Jim Van Nuland

The August meeting was held at San Jose State College, at 8 pm.

The club's Articles of Incorporation, having been signed before the meeting, were read to the members by Mr.Krumm, the next step being submission to the Secretary of State of California. A standing vote of thanks was given to Mr.Hill for his splendid assistance in helping to incorporate the club.
Continued on page 5

Two nights of observing at Fremont Peak California
by Mark Wagner

A few members of the bay area's "local group" spent Friday and Saturday June 23 and 24 observing at Fremont Peak.

Friday night was "soft" with most stars appearing like small planetary nebula. This was strange, as conditions appeared to be near optimal. With the bay area under a sweltering heat wave (Gilroy, 20 miles north of Fremont Peak reported 106 degrees F), skies looked very clear and at dark there was almost no "twinkle" to the stars. Present were Dean Linebarger (20" Obsession), Richard Navarette 8" SCT with photo piggyback, Rich Neuschaefer (6" Astrophysics), Jim (the Shadow) Bartolini (10" dob, formerly identifiable as a Coulter) and myself using Dean's smaller 14.5" homebrew dob. Surprisingly, only one other person came up... Brian from Ohio to view. The only obvious drawback was a lack of fog to cover at the Pacific coastline, which under proper conditions would drown the lights of Santa Cruz, Monterey, Watsonville, Salinas and the glare of San Jose to the north.

I had hoped for some good seeing, as Saturday night Rich and I were to operate the Fremont Peak Observatory Association's 30" f4.5 Challenger for a public observing night. However, the night was short and only yielded Messier objects with good detail.

Saturday was as hot. The air was mostly still. High cirrus clouds threatened to ruin the evening. We took out the club's Solaris and viewed Sol. We saw one nice sun-spot, other interesting surface features and several small prominences.

Ranger Rick Morales, Rich and I began opening the observatory. The roll-back roof slid back around 8PM and soon I was sighting Jupiter in the 5" finder-scope attached to the Challenger. Stopping the 30 down to 10", Jupiter shown beatifully at just over 100X. No red spot, but plenty of detail in the two main belts.

As the sky began to darken around 8:30, people began to filter in. First a family of four. Then some boy-scouts. Ranger Rick was setting up the projector for a preparatory lecture. This proved invaluable later.

by 8:55 there were perhaps 40 people crowded into the room attached to the observatory. To my surprise, sticking my head in I found Rich speaking to the crowd. He was intelligent and entertaining... holding the audience's attention with interesting facts about our galactic neighborhood and beyond. Then Ranger Rick began the slide program. Images of the Ring (M57), NGC4564, M13, The Lagoon and other well known "tourist" sites were shown.

When the talk finished, the crowd converged on the Challenger. Having not dealt with a public program at the Peak, I was at first a bit overwhelmed by the size of the crowd. But then the familiar ooooh's and ah's of first discovery relaxed me, and Rich and I were able to answer many questions as we toured the night sky.

First stop was Jupiter again. Now the planet showed four moons and high detail. Because the planet rides so low in the sky this year, there was some turbulence, but the first time views had by the public were great!

On to the Ring, showing definate green tones and big and bright. Next stop was The Dumbell. It was huge. We used a Lumicon UHC filter and the entire shell filled in. Someone asked what formed the shell and Rich gave a nice explanation about stars shedding their outer atmoshperes in old age. A young couple with some very small binoculars began scanning the Milky Way, now showing clearly, steaming out of Sagittarius' spout and splitting at the Cygnus rift. I grabbed a pair of 10X50's from the observatory and handed it to the couple. They were astonished and began immediately asking what to look for in binoc's should they decide to purchase a larger pair.

We moved the 30" up to M13. The scale of our galactic "backyard" now began to dawn on many of the first timers. Resolved to the core, 13 filled the eyepiece. On to the Veil Nebula. I personally enjoy the view through Dean's 20" more than that on the 30. Only small areas of the Veil were observable at a time. But the brightness and detail (yes, with a Lumicon OIII filter) were very rewarding.

The crowd was so large, that we were looking at a new object only every 20 to 30 minutes. Quickly moving up to M51, we could see the bridge and very good detail in the arms. The scale of the known universe astonished the novices. M51's angular size and its distance are always amazing.

On to Alberio, wonderful color in the big scope. Next, on to 4565. The dust lane was very dark and the galaxy extended from one side of the low power eyepiece to the other.

It was now much later. The "kids" were all tucked in the camp-beds. Only the interested adults remained. We pointed the scope toward Pegasus. Perhaps five other galaxies were visible along side the great sweep of NGC7331. Someone from Ben Lomond (Santa Cruz mountain's community) climbed the ladder and swept up Stephen's Quintet. All there, perhaps more? It was difficult to tell. Back over to Ursa Major and M106. Is that it? The lights of San Jose cut the seeing, so we could only assume we were on our target.

It was now late. The handful of people remaining were treated to the highlights in Sagittarius. M22, The Swan, Lagoon, Triffid (the dark lanes so full of detail you would do a wonderful drawing of this one).

By now it was about 2:30 am. Normally, we'd just be getting going around that time, but the 2000 pound telescope, pushing around an climbing the big ladder, and the prior night now began to take it's toll.

We closed the observatory and went back down to the small instruments (Dean's 20, Rich's 6" APO, Johnny K's 18, etc.). We sat and talked, peeking at Saturn's starnge apparition occasionally. Walking over to the ridgeline, the lights of the coastal cities were now less imposing than before. Not many people left up at 3:30 am. It was warm enough to sleep in a single sheet. Morning came to soon, and Sunday was a blur of semi-coherence.

Directions to Fremont Peak can be found by telephone at: 408-559-1221 (San Jose Astronomical Association hotline)

Stars Over Silver City and Mt. Graham

by Bill Dellinges

Having read about Bear Mountain Guest Ranch (BMGR) in a May, 1994 travel article in the Arizona Republic, my wife and I decided to spend several nights there and explore the Silver City, New Mexico area. A scenic 320 mile drive brings you to this small town of 10,000 people nestled in the rolling Rocky Mts. at an elevation of 6200'.

BMGR is located 3 miles north of the city. A 2 story southwestern structure built in 1928 on 160 acres greets guests. There are 8 rooms in the main house and 3 cottages nearby. A cordial and accommodating Mrs. Myra McCormick has been operating this bed and breakfast hideaway for 36 years. We stayed in "coyote corner cottage" which ad a kitchenette. Using BMGR as our base camp, we took day trips out into the country and explored Silver City. A must-see are the Gila Cliff Dwellings, 45 miles north. My favorite, though, was our hike on the "Catwalk", a mile or so trail up a narrow gorge along catwalks above a river! Absolutely breathtaking (located 65 miles n.w. of town near Glenwood),

At night I set up my 5" refractor and gave guests a little star party. After they retired, I had the dark skies and clear southern horizon to myself. There is a bit of skyglow to the southeast from town, but otherwise I'd say the starry sky was on par with what you'd find at the Star Hill Inn.

The ranch is a magnet for bird watchers and Mrs. McCormick would like to attract stargazers as well. In this regard, she was kind enough to keep the porch light out during my stay, even though this meant guests had to sometimes use a flashlight to get inside! She plans on installing red lights were necessary to facilitate gazers and has set aside an area for observing.

I had a wonderful, relaxing time at BMGR and hated to leave. We had many interesting conversations with guests over breakfast, fun star parties, great hiking, and just a generally wonderful time in New exico. Rates at the ranch start at $67.00 for two persons. Contact: BMGR, 2251 Bear Mountain Road, Silver City, N.M. 88062
Ph. 1-800-880-2538 or 503-538-2538

On the way home we spent a night at a campground on Mt. Graham in Arizona). I've been curious about the mountain because of the controversy surrounding the observatory and red squirrel. Without getting into that, let me just report on our visit. A short drive south on highway 191 out of Safford, Mt. Graham rises to just over 10,000'. You can not see the observatory from below or any other place for that matter. It's obscured by trees. Take 366 off of 191 and you'll be looking at a long straight road leading directly to the mountain. Just before it begins to go up, and across the road from a federal prison(!), there is a small visitors center where you can get a free information packed with everything you'd ever want to know about Mt. Graham and its observatories. This is also the place where you meet to take tours up to the facility. Once or twice a month on a Saturday morning, a van takes visitors, at $20 a pop by prior arrangement, up to the site. Reservations are handled by Discovery Park, a science center being built in Safford which, among other things, will have a 50' planetarium and 20" telescope when completed in late 1995 when it will, apparently, be the new visitors center for Mt. Graham Observatory. Phone 520-428-6260

There are six campgrounds on the mountain, located at 10.7, 21.1, 22.5, 22.7, 30.2 and 34.6 miles from the base camp (visitors center) point. The road is steep and winding, so be patient. (Use your gears coming down. We had to pull over and let the brakes cool off.) We stayed at the second campground, Shannon, at about 9000'. From this point on the pavement ends. For gazers, I'd recommend going further up, as the trees at the first two campgrounds would be a problem. The higher you go, the fewer trees you'll find.

The observatory turnoff is not marked, but is located at the 27.7 mile point. There is a yellow metal swing barrier there with "No Trespassing" signs posted. At this time, two telescopes are in operation on the peak: the 1.8 meter (71") Vatican Advanced Technology Telescope and the 10 meter (394") Submillimeter Telescope (a radio telescope). Various problems have delayed the 12 meter Equivalent Binocular Telescope, a 5 meter Submillimeter Radio Telescope, a S.A.O. Submillimeter Interferometer, and two 8 meter infrared/optical telescopes. So it looks like we might have a "Kitt Peak" developing out to our east.

Our journey to the eastern territories was most enjoyable. The alpine atmosphere of Mount Graham brought back fond memories of previous astronomical outings in the Sierra Nevada Mountains of California.

Tracking Mir/Atlantis through 12" SC at 100x!

by progrmer@max.tiac.net

I watched Mir and Atlantis fly over Boston at 89-90 degrees overhead tonight (June 29th @ 9:22 EDT / June 30th @ 1:22 UTC) through a 12 inch Schmidt-Cassegrain at 100x.

I have written custom software for the ArchImage mount to track satellites!

I've been working on this project for a little bit under a month now at the Boston Museum of Science. After many long nights (twilight to twilight) testing this software on various satellites (40+ different satellites including Mir, the Shuttle (STS-71), and other random satellites) we watched Mir and the Shuttle pass overhead through the 2 telescopes (7" refractor and a 12" SC).

Visible through the eyepiece at 100x was Mir, the Shuttle, 6 of Mir's solar panel arrays (3 on each side of the main modual), the main modual of Mir, the Shuttle's tail fin and its nose!!! We where able to track on it from 5 degrees elevation (we started tracking on it while we COULD NOT SEE IT!!!) and watched it appear above our domes lower slit cover. We watched and tracked on it while it passed overhead and down towards the east till we lost it in the domes shutter. We had it at 100x for approx. 5 minutes w/no difficulty!

We are not up to the tolerances needed yet for CCD photography but we are able to keep it in the field of view of a 100x eyepiece.

Mir and the Shuttle appeared about 2-3 cm long in the eyepiece, it was very bright and as it got lower towards the eastern horizon it got really bright before we lost it in the Observatory lower dome slit. We where still able to watch it naked eye brighten and then quickly fade into Earth's shadow.

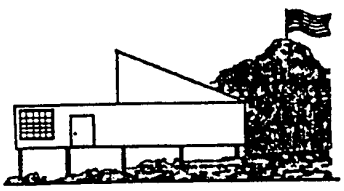
We are planning to try to take CCD images of Mir next time it is visible in the night sky over Boston (end of July/early august) and will be posting those pictures asap!

Other plans for this software are to photograph tumbling rocket boosters and determine their exact period of rotation as well as the plane in which they are tumbling (from their brightness variations), photographing Mir and the Shuttle, and trying to photograph rocket boosters as small lines/pencil shapes.

Another current project we are working on is aiming a 10 million candle power space beacon at the Shuttle to see if the astronoughts can see it. This light has a beam width/diameter of .23 degrees. At the range of the shuttle ~400 km the beam is a mear 1.2 miles or 1.9 km wide!

I made a sketch of what I saw through the 12" SC at 100x and will be posting a gif to alt.binaries.pictures.astro ASAP. (The sketch is NOT to scale.)

Present tonight was the Senior Editor for Sky & Telescope J. Kelly Beatty, Channel 5 and Channel 7 local news.



You're invited to the

FPOA/AANC STAR-B-QUE

Potluck Picnic & Super Star Party at Fremont Peak State Park

Saturday, August 19, 1995

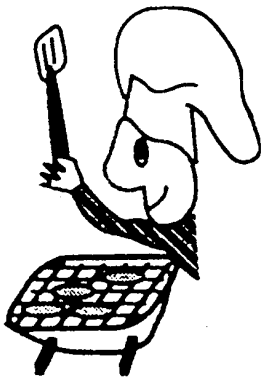
with Viewing through the 30-inch ***Challenger*** Telescope

Once again this year, the Fremont Peak Observatory Association (FPOA) and the Astronomical Association of Northern California (AANC) are hosting a potluck picnic and star party at Fremont Peak State Park. This is a GREAT way to meet other amateur astronomers and talk to members of other astronomy clubs. Bring a dish to share and we'll provide the hotdogs, hamburgers, drinks and utensils.

COST: Fremont Peak State Park charges $3 per car if you are not in a marked campsite. Numbered campsites are $7. (Most amateur astronomers camp in the picnic grounds.) Self-serve pay envelopes are provided. FPOA will be selling raffle tickets at $1 each with proceeds going to the Fremont Peak Observatory and the public programs.

RSVP: If you plan to attend, PLEASE call the FPOA hotline (408) 623-2465 by August 17 and leave your name, number of guests, name of your astronomy club and whether or not you are a FPOA member. Anyone interested in astronomy is welcome. You do not have to be a member of a club to attend.

ARRIVAL: There is limited space for telescopes behind the Ranger's house (where the potluck will be held) and 5 telescopes are permitted south of the Observatory. Come early to unload then ALL VEHICLES MUST LEAVE THIS AREA. Most telescopes will be set up in the Coulter picnic area.



POTLUCK: Begins about 5 p.m. Please bring a dessert or salad or your favorite dish you would like to share. We will provide Hamburgers and fixings, soft drinks and utensils. There will also be an **astronomical/gastronomical contest.** Bring your astronomically interesting dish and maybe you will win a prize. Previous winners have included a Black-Hole Cheesecake and an anatomically correct Io Pizza. Entries will be judged based on culinary ingenuity, looks and taste!

GETTING THERE: Fremont Peak is due east of Monterey Bay. It is about two hours from San Francisco or Oakland. Take US 101 south from San Jose to Hwy. 156 (about 10 miles south of Gilroy). Go east on 156 to the flashing yellow light as you pass San Juan Bautista. Turn right and watch for the Fremont Peak State Park signs. Within the first mile you will jog left then immediately right and a sign will tell you that you are on County Rd. G1. It is 11 miles to the park.

ETIQUETTE: Cover your flashlight with a red filter. Most people are more than happy to let you look through their telescope. Always ask first. **Please leave your pets at home.**

Forty Years Ago (cont from pg 1)

The first presenter was Wes Lindsay on "books". He covered Amateur Telescope Making, Book 1, edited by Albert Ingalls. His summary was very complete, and served to acquaint all of us with the scope of these books. He will discuss a book each month.

Bob Ferguson presented the Constellation of the Month, Cassiopeia. His diagrams were particularly illuminating.

Dr.Geisler presented the Foucault Test, a tough assignment, but handled very well. He covered the entire subject in about 40 minutes, and many of us learned a lot from his talk.

The invitation from the Peninsula club to attend their annual Star Party was read by Mr.Krumm. The date is Sept.2, at the corner of Middlefield Road and the Embarcadero in Palo Alto.

The meeting adjourned at 9:45, but the group was invited to stay to inspect Dr.Geisler and Mr.Krumm's demonstration of the Foucault test. This was a well-planned and arranged demonstration, and was warmly welcomed. It is hoped that similar demonstrations can be arranged for future meetings.

Paul Barton Resigns from The Board of directors

by Bob Madden

Paul Barton after years of service on the Board of Directors of the San Jose Astronomical Association has chosen to resign. Paul will continue to attend the Board Meetings, but feels His contribution has been slight and a younger more active member would better serve the Association. At this writing I am sorry to see Paul Leave as his sound judgement was guidance to us all. Paul's contribution and generosity is not always seen and appreciated. Paul has single handedly kept the Club's Telescope Loaner Program in operation, repairing, making new scopes, revising old scopes, purchasing eyepieces (out of his own pocket) and much more. A visit to Paul's "SHOP" (his home) will find Paul always working on a "Project", most of them telescope, but many are electrical. When he is not working on an astronomy project or repairing an electrical problem you will find him practicing his golf swing or reading a book.

We wish Paul well and thank him for his service and generosity.

Lew Kurtz was selected to fill the seat made vacant by Paul. Lew is dedicated to making the SJAA a better Association. Contact Lew if you have a comment or suggestion.

A Look Through A 1960s Vega Telescope

by Val Germann
Central Missouri Astronomical Association

I had a very interesting viewing session Friday night, July 7th, involving a pretty good 8-inch SCT and an old Vega 6-inch Maksutov/Newtonian. The SCT was put together from two shot down in shipping and amazingly enough was a pretty good telescope. At powers to about 200X Jupiter showed good detail and the moons in the field were all round at the same time. All in all the view was quite above average for this type of instrument.

The Vega is, of course, a piece of work. For those who have no idea what I'm talking about this telescope dates from the middle 1960s and sold for nearly $2,000, explaining the fact that only about 25 of them were ever made. The telescope looks like it was turned from a solid billet of aluminum yet it weighs about 20 lbs with its built-in drive and slow motion in DEC. On a scale of 10 the appearance is about an 11 — it's that good.

Optically, the telescope delivers the goods. I drove nearly 400 miles to look through this instrument with some new eyepieces that my Vega-owning friend is prototyping. The eyepieces are very good, offering long eye relief at short focal lengths and hopefully at a quite reasonable price. In steady moments the Vega, with a 25 per cent central obstruction and a primary by E&W (thirty years ago!) displayed Jupiter in spectacular fashion, the edges of the belts having the scalloped appearance I love so much and the Red Spot, just past the meridian, showing detail within its oval-shaped border. The moons of Jupiter, three in the 220X field, were all of different diameters with (?) Ganymede (?) obviously much, much larger than the other two.

Turning the telescope to the Moon we were treated to easy views of the two largest craterlets at 220X and with a couple of others flickering in and out as the seeing varied. The lunar surface had that "creaminess" that good refractors also exhibit and the brightest areas, glared out in ordinary telescopes, kept their texture. Only the finest instruments with the best polish on their optical surfaces can show the Moon in this style, the style of a fine Clark refractor or one of the modern APOs. The Vega is easily in this league, in spite of its old coatings, in spite of its multiple surfaces and in spite of its central obstruction, living proof of the benefits of ultra-high quality in reflecting systems. If you ever get a chance to look through one, don't pass it up — you won't regret the time.

P.S. There are modern imitations of the Vega but they don't even come close. The real thing is still the best by far.

Directions to Hogue Park

by your Editor

Here are directions to our General Meetings, Observational Astronomy class and public star party site at Houge Park. The Board of Directors meetings begin at 6:30 pm followed with the General meeting at 8:00 pm. Observational Astronomy class begins at 8:00 P.M. and may be followed with a step outside to look at the constellations. Every one is welcome at these classes and meetings, members and non-members alike. Star parties begin at sundown and continue until around 11:00 P.M. As you know the public is invited and so is the membership. Come display your favorite telescope, help another who is less proficient, and get some one else interested in astronomy and the night sky.

Driving south on Highway 17 exit onto Camden heading East to Union Avenue. Turn right to the next stoplight and turn right onto Woodard and go to the third stop sign. Turn left onto Twilight and drive just a little past Sunset. The Park will be on the left.

You may also exit onto Union avenue from Highway 85. Go North to Woodard and turn left and follow the directions from above.

NOTICE - NOTICE

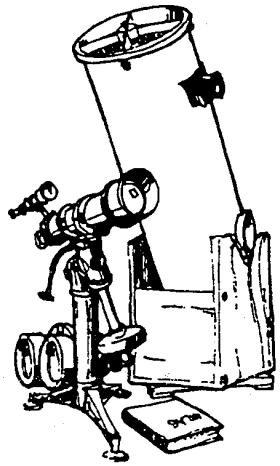
We are in the process of holding a "Founders Dinner" to celebrate our forty years of existance. Please mark on your calendar that the October meeting will be held at the kinh's Table (all you can eat) located on Bascom at Hamilton. We hope several very early members will come and be our guest. All members are welcome to attend and congratulate the early founders who has made the SJAA what it is today. Come and reminisce and visit with friends.

Second, we will also hold a commemorative Star party in honor of John Dobson and his 80 th birthday. This will be planned around our October Houge Park Public Star Party. John has contributed much to amateur astronomy. Come help us!

1995 SJAA Calendar

	General Meeting	Houge Park Star Party	Observational Astronomy Class
August	12	4	19
Sept	9	1 and 29	16
Oct	14	27	7 (Last -one Fremont Peak)
Nov	-	-	None
Dec	-	-	None
			Begin 1/1996

Please read your *Ephemeris* each month for changes



Telescope Loaner Status
by Paul Barton

NO.	Name	User	Due Date
1	4-1/2" Newt/P Mount	---------->	available
2	6" Dobson	John Paul Dasilvia	8/3/95
3	4" Quantum	Albert Chen	9/18/95
6	C-8 Celestron	Bob Maillot	9/22/95
7	12-1/2" Dobson	Tom Rice	indefinite
8	14" Dobson	Lee Courtney	9/8/95
15	8" Dobson	Bob Elsberry	9/8/95
18	8" Newt/P Mount	Jerry Lovelace	810/95
19	6" Newt/P Mount	---------->	Avaliable
21	10" Dobson	Richard Lee	9/5/95
23	6" Newt/P mount	Jim Marquis	9/8/95
24	60 mm refractor	Jason Sun	9/5/95

Solar telescope. Available only to experienced members for special occasions such as day time public star parties, etc. Call.

Wait List

Steve Wincor C-8

If you want to borrow a telescope call Paul Barton (number is on the credit Marque) and get your name on a general list (any telescope) or on a specific telescope list.

ASTRO ADS

ASTRO ADS are free to all noncommercial advertisers wishing to sell astronomically related products or services. Please send your ad directly to the Editor: Bob Madden
1616 Inglis Lane
San Jose, Ca. 95118-2825
NO LATER THAN THE 12th OF EACH MONTH! Your Astro Ad will run approximately 3-months.

Meade DS-16A Equatorial Mount. Heavy-duty mount includes ball-bearings on RA axis, 1.5" diameter shafts, original drive replaced with a 7" Mathis drive, RA drive corrector, original Meade pier with removeable legs and also a nicely made custom pier with 3/4" diameter leveling screws. $700. William Cooke work: (408) 492-5640
home: (408)295-6560 5/95

Televue Plossl Eyepieces, 32 mm, 26 mm, 21 mm, 17 mm, 13 mm, 10.5 mm, 2.5x Barlow, 1.8x Barlow, all in a case. Also, Meade 8.8 mm UWA (84 deg field. Every thing in perfect condition. Sacrifice all for $500 (1/2 retail). Call Edward at (209) 892-8926 Evening. 3/95

Meade 8-inch SC, MC Corrector, GEM Mount, Pole align Scope, 26 mm EP, RA drive. Asking $900. Call Maria Petersen (408) 262 1457 after 6 pm 4/95

8-inch Newtonian, f/8, Equ. Mount, Clock Drive, portable. $400 obo call (408) 629-7741 5/95

Lost: Battery .... Left at Fremont Peak, Coulter Camp, Saturday, June 17 or 24 Deep Cycle, Trojan Marine, Red Top, White Case, Call Paul Krukar at:
(h) 286-5728
(w) 277-4638
or Paul Barton at:
377-0148
or any board member. The battery is SJAA property, part of the C-11.

Celestial Calendar - August 1995

by Richard Stanton

Lunar Phase	Date	Rise	Trans	Set
FQ 20:16	03	13:23	18:53	00:15
FM 11:15	10	19:56	00:44	06:19
LQ 20:04	17	23:30	06:30	13:16
NM 21:30	25	06:05	12:47	19:22
Nearer Planets				
Mercury	07	07:08	14:00	20:50
1.24 A.U.	17	07:57	14:25	20:51
Mag. -1.5	27	08:33	14:38	20:42
Venus	07	05:55	13:00	20:05
1.73 A.U.	17	06:17	13:10	20:02
Mag. -3.9	27	06:40	13:18	19:56
Mars	07	10:52	16:43	22:34
1.94 A.U.	17	10:43	16:26	22:09
Mag. +1.0	27	10:36	16:11	21:46
Jupiter	07	15:23	20:18	01:17
5.01 A.U.	17	14:45	19:40	00:39
Mag. -2.2	27	14:09	19:03	23:58
Saturn	07	21:54	03:47	09:36
9.62 A.U.	17	21:13	03:06	08:54
Mag. +0.8	27	20:33	02:24	08:11

SOL Star Type G2V

RA	Dec				
09:07	+16:31	07	06:14	13:13	20:12
09:45	+13:32	17	06:23	13:12	20:00
10:22	+10:11	27	06:32	13:09	19:46

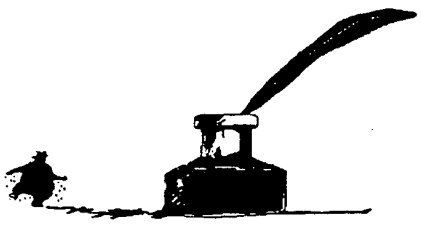
Astronomical Twilight

		Begin		End
JD 2,449,936	07	04:34		21:52
946	17	04:47		21:35
956	27	04:59		21:18

Sidreal Time

Transit Right	07	00:00	=	19:53
Ascension at	17	00:00	=	20:33
Local Midnight	27	00:00	=	21:12

Darkest Saturday Night	26-Aug-1995
Sunset	19:47
Twilight End	21:20
Moon Set	19:55
Dawn Begin	04:59



COMET COMMENTS

by Don Machholz

Periodic Comet d'Arrest moves rapidly southward as the earth overtakes it in our path around the sun. Meanwhile, Periodic Comet Jackson-Neujmin begins to brighten in our morning sky. It should become magnitude eleven in September, when it approaches to within 0.43 AU of us

Two faint comets have been recovered recently, both by Jim Scotti at Kitt Peak. Comet P/1995 M1 (Shoemaker-Levy 4) was recovered on June 22 at magnitude 22. The following night Scotti recovered Comet P/1995 M 2 (Parker-Hartley). It orbits the sun in 8.9 years. Neither will become bright enough for amateur's scopes

Kazimeras Cernis of Vilnius, Luthuania has recently presented a paper on comet hunting. With over 2000 hours of comet hunting over 20 years, Cernis makes some keen observations on the current state of the subject. He found the average search time for a visual comet discovery from 1975 through 1994 was 410 hours. But when we compare the Northern and Southern Hemisphere, we find a large difference In the Northern Hemisphere Cernis averaged 615 hours per find, while the Japanese observers averaged 627 hours for 25 finds and I averaged 621 hours. For Southern Hemisphere comet hunters the average is only 180 hours for each comet discovery.

EPHEMERIDES

6P/d'Arrest Date (00UT)	R.A.	Dec (2000)	EL	Sky	Mag	58P/Jackson-Neujmin Date (00UT)	R.A.	Dec (2000)	EL	Sky	Mag
07-22	23h05.3m	+01d02m	131d	M	9.3	07-22	21h22.3m	+03d11m	150d	M	13.4
07-27	23hl9.7m	-01d47m	134d	M	9.2	07-27	21h24.6m	+02d46m	153d	M	13.1
08-0	23h33.5m	-04d57m	136d	M	9.1	08-01	21h26.7m	+02d06m	157d	M	12.9
08-06	23h46.6m	-08d23m	139d	M	9.1	08-06	21h28.7m	+01d09m	161d	M	12.7
08-11	23h58.8m	-11d58m	142d	M	9.1	08-11	21h30.7m	-00d05m	165d	M	12.4
08-16	00h09.8m	-15d35m	144d	M	9.2	08-16	21h32.8m	-01d38m	168d	M	12.2
08-21	00hl9.5m	-19d06m	146d	M	9.3	08-21	21h35.2m	-03d28m	169d	M	12.0
08-26	00h27.7m	-22d24m	147d	M	9.5	08-26	21h38.2m	-05d34m	169d	E	11.9
08-31	00h34.4m	-25d24m	147d	M	9.7	08-31	21h41.8m	-07d53m	167d	E	11.7
09-05	0h39.6m	-28d01m	147d	M	9.9	09-05	21h46.2m	-10d21m	163d	E	11.5
09-10	00h43.5m	-30d13m	147d	M	10.2	09-10	21h51.7m	-12d52m	159d	E	11.4

ORBITAL ELEMENTS

	6P/d'Arrest	58P/Jackson-Neujmin
Perihelion Date	1995 July 27.36197	995 Oct. 06.61876
Perihelion Dist.(AU)	1.34587 AU	1.381125 AU
Arg of Prei.(2000)	178.0504 deg.	200.3470 deg.
Ascending Node (2000)	138.9874 deg.	160.7177 deg.
Inclination (2000)	019.5232 deg.	013.4779 deg.
Eccentricity	0.6140404	0.6614285
Orbital Period	6.51 yrs	8.24 yrs.
Source	MPC 20122	MPC 20123

Don Machholz (916) 346-8963

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