

SJAA ephemeris

June '81

- June 2 New Moon
- June 6 AANC Star Party at Fremont Peak State Park. Everyone welcome!
- June 12 SJAA Board meeting at the Medlock's, 15022 Broadway Terrace, Oakland. 654-6796 (eves). 8:00 pm for the meeting, 7 pm for dinner. Everyone welcome. There is limited couch and floor space for overnights. Carpool it!
- June 10-21 June Lyrids Meteor shower in the constellation Lyria
- June 13 Indoor star party at the Los Gatos Red Cross building, 18011 Los Gatos-Saratoga Rd, Los Gatos. 7:30 pm on. There is an on-going telescope makers' workshop. Everyone welcome. Take Hwy 9 off Hwy 17 and continue up Los Gatos-Saratoga Rd. about a mile and a half. Building is on the right with parking in back.
- June 20 SJAA General Meeting at the Los Gatos Red Cross building. This is the annual (or semi-annual) SJAA members' slide and equipment night, always one of the best meetings of the year. Come, bring, and enjoy slides from the Marathon, Columbia landing, auction, Astronomy Day, Riverside Telescope Makers' Conference, and the various spring star parties. Any new (or old) observing equipment is welcome for show and tell. Meeting starts at 8:00 pm.
- June 21 SUMMER BEGINS! 3:45 pm. PDT.
- June 27 SJAA star party at Mt. Umunhum. Details and directions in Observations.
- July 1 New Moon
- July 4 "We considered nothing planned for the fourth of July, that being the fourth of July."-Jim van Nuland. Happy Fourth!
- July 10 SJAA Board meeting at Chris & Shea Pratt's, 474 Safari Dr., San Jose. 629-2994. 8:00 pm. Everyone welcome.
- July 11 SJAA annual picnic and officer installation. More details about times and location in the July bulletin.
- July 11 Second anniversary of Skylab's 'landing'
- July 15 Northern Iota Aquarids Meteor shower in the constellation Aquarius
- July 16-17 Partial eclipse of the moon
- July 18 Space Day. This event is sponsored by numerous science orientated organizations in the Bay Area and will be held at San Jose State U. Exhibits, demonstrations, and lectures for the public will be held. The SJAA is planning on providing sun telescopes. More details in the July bulletin.
- July 25 Indoor star party, Los Gatos Red Cross building, 7:30 pm on
(over for more!)

- July 25-26 Capricornids Meteor Shower in constellation Capricorn
- July 27-28 Northern Delta Aquarids in constellation Aquarius
- July 30 Total eclipse of the Sun, visible in the extreme North American, Alaska, and Arctic Regions. There will be a SJAA occultation expedition to various parts of the path.
- August 1 Stellafane Telescope Makers' Convention, Springfield, Vermont. Details in Observations.

Observations

A lot of little announcements for this column this month. Generally speaking, the club is in great shape: star party-wise, fiscally-wise, and support-wise. Look forward to some great observing this summer!

MT. UMUNHUM STAR PARTY JUNE 27

Directions: Drive out Almaden Expressway to Guadalupe Dam, where you turn right and simply follow the signs up to Mt. Umunhum. There will be one locked gate at the top of the mountain and will have the SJAA combination lock on it. Use 4565 to unlock. Follow the main road to the helipad for the best observing site. Thanks, Bobby Fingerhut, for getting use of this site on short notice.

MEMBERSHIP DUES NOW DUE

Treasurer Shea Pratt wanted me to remind everyone that membership renewal is now going on. If you haven't sent in your card from Sky & Tel and your check you'd better do so fairly quickly. The following are applicable: Membership (includes S&T): \$18/yr
Junior membership (under 12yrs) \$12/yr
Bulletin subscription \$7/yr.

Send cards and/or checks to: Shea Pratt
474 Safari Dr., San Jose
95123 (408)629-2994

ELECTIONS*ELECTIONS*ELECTIONS

June is election month so bring your nominations with. Up for nomination are five board positions. Nomination committee consists of Gerry Rattley (732-0202), Frank Dibbell (733-7208), and Shea Pratt (629-2994). Give them a call if you have anyone you'd like to see on the board (yourself?). One must have been a member for at least a year or have attended 6 board meetings in a row. Consider it.

At the May board meeting the officers voted to replace Phil Hermesmyer on the board because of extended absences. Steve Greenberg was elected to fill the remainder of Phil's term (one year). Welcome, Steve, to the great chamber of chaos!

!PICNIC!

The SJAA supported the Auction so well that it was decided at the May board meeting that this year's picnic, to be held July 11, would be free to all members and associates. (An associate is someone who hangs around the club and supports its activities). All hamburgers, hot dogs, and condiments will be served first come, first served free of charge. We will again have a potluck dish arrangement since last year's was so successful. The site is yet to be secured but hopefully, it will be Portal Park again. Mark your calendars and bring your family!

SHUTTLE LANDING PASSES

Again, many club members would like to watch the Columbia land at Edwards Air Force Base in early October. Write to: Office of Public Affairs
NASA/Dryden Flight Research Cntr.
P.O. Box 273
Edwards, Ca. 93523

It is well worth the trip!

STELLAFANE

Would any SJAAers like to attend the Stellafane Telescope Makers' Conference on Aug. 1st this year? (Don't laugh--the SJAA had 5 members there last year). For registration write Dennis Di Cicco, 94 Pierce Rd. Watertown, Mass. 02172. Stellafane is the East Coast's version of Riverside. (Sorry, George, but I had to get back for the 'rain on telescopes' statement.)

THE DR. A.B. GREGORY AWARD

Just a reminder that if you wish to nominate a club member to receive the Gregory Award please contact one of the following: Bobby Fingerhut (263-4455), Chris Pratt (629-2994), and Kevin Medlock (654-6796, Oakland).

THE SJAA 12" TELESCOPE

Jay Freeman reports much progress on the construction of a Dobsonian mount for the club's long-dead 12" Newtonian. Projected time to completion is sometime early summer. If you wish to help and/or get some time on it call Jay at (408)423-2046.

WANT ADS

For sale: C-8 with cold camera, tripod, wedge, includes 25, 40, and 4 mm eyepieces and 17mm Plössl. One month old--guarantee has not been sent in yet. \$1000. Call Per Knudsen at 595-4929.

For sale: Major component for a compact 14" fork mounted telescope:
14" f/5 custom Coultier mirror
10" dia. polar housing assembly w/9" bearings
Triangular welded aluminum base
Aluminum alloy aircraft landing gear for fork mount
Early Mathis 8" worm and gear
\$650
Call Wolfgang Hanisch at 998-0861

For sale: 6" Vega Maksutov, collector's item. asking \$25,000 or interesting trade. Call Tom Curtis at 243-5093.

For sale: HP 67 calculator including standard pack, extra battery, and extra battery charger. \$250.00. Call Bruno at 733-9154 (after 6), or 857-6650 (work).

The SJAA has for sale Skalnate Pleso's (desk edition) for \$7.00. Contact Shea Pratt (629-2994).

SJAA EPHEMERIS

Published monthly by the San Jose Astronomical Association.

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Club Officers:

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Secretary	Jim van Nuland	371-1307
Treasurer	Shea Pratt	629-2994

Membership (including Sky & Telescope) \$18 yr.
Junior membership (under 12 yrs. old) \$12 yr.
Bulletin subscription for non-members \$7 yr.

ASTRONOMY DAY '81

The SJAA enjoyed a very successful Astronomy Day this year, with three well peopled sites and over 600 public viewers through our telescopes. Clear skies and warm weather emphasized the effort. The "show" objects of the evening, Jupiter, Saturn, and a first quarter Moon, were well resolvable in the fairly steady seeing we had between sunset and 11 PM.

As last year, DeAnza College proved to be the most populated site because of its heavy planetarium show attendance. This "captive" audience of 400+ viewed through Bobby Fingerhut's C-8, Bruce Swayze's 8", David Pratt's refractor, Walt Schoendorf's 12" Dobson, Gary & Jackie Rice's Odessey 13, and Kevin Medlock's newly rebuilt 18". John Gleason showed up for technical assistance but I don't know if he set up a telescope or not. With such an obvious show of aperture viewers were able to observe the more fainter but popular objects such as M-51 and 83. Bobby Fingerhut kept up a marathon slide show.

Jack Petersen brought his C-8, John Cincotta his C-90, Chris & Shea Pratt their "Starlost", "Obsius", and "Pigmy Pumpkin", (the 12", the 8", and the 4"), Jerry Jones his Meade 1000, and Mark Strohm his C-8 at the K-Mart site. Earlier in the day Jack Petersen had set up alone (brave soul that he is) and showed some 20-25 people sunspots through his C-8.

A new site this year was in the parking lot if the Benson Activity Center at the University of Santa Clara. Located directly alongside the Alameda this site is one of high visibility, and being on a campus we found that the 120+ people who viewed through our telescopes there were students and openly interested in what they were seeing. Though the flow of people was not high, I did count 30 around Gerry Rattley while he gave his slide show.

Telescopes there were Richard Page's big 14", Don Machholz's 8" (the one he discovered 1978L with), Gerry Rattley's 10" (manned by Bill Cook), Frank Dibbell's 8", and "Icarus", my 8". Bill Ramstad showed up later in the evening and played host to the groups of students coming through.

For those of the public who were viewing the moon and these planets for the first time (and most were), it will probably be an experience they'll remember for a long time. We all watched Io disappear behind Jupiter but Kevin reported that one lady, while standing on the ladder and looking into the 18" at the planet mentioned that "something funny" was going on -- that a bump had appeared on one side of Jupiter and was growing larger. To her amazement, it popped free of the surface and quickly moved away. She was, of course, witness to Io's reappearance. Once she understood what had happened she was justifiably excited -- and amazed that we earth-bound viewers could see the movement of the moons so quickly and easily. That's one person who had her view of our solar system changed drastically by looking through a telescope on Astronomy Day! And did anyone report the satellite (man-made type) between Jupiter and Europa? I caught it for a brief second in between viewers around 10 PM so there are chances someone at DeAnza may have seen it. It's small, quick events like those that addict people into being sky watchers....

I don't know of any of us whose time there wasn't well spent in showing the public the basics of amateur astronomy. Many of them were very impressed -- brochures were handed out and many bulletins sent out afterwards to potential members. Many thanks to the SJAAers who participated and gave their support and telescopes!

--Denni

COE STAR PARTY REPORT

One week before the May 2nd Henry Coe Star Party Bobby Fingerhut was heard to exclaim something to the effect of : "A Coe Star Party in May!? The last time I was at Coe in May it snowed!" Well, undaunted by such remarks at least thirty people showed up at the state park to brave the elements that be. Kevin and I arrived about a half hour after sunset to find most people entrenched on the hill, telescopes set up, but with gloved hands in parka pockets and hoods up. The sky was perfectly clear, a slight hazy fog was creeping in over the Bay Area, but a steady, cold wind was making conditions very uncomfortable. We tried. I set up my 8" across the road from Frank Dibbell's 8" and we battled it out on Jupiter with barlows and eyepieces, trying to dampen the vibration the wind had set up in our scopes. Difficult, but obtainable. The tragedy of the whole star party was, despite the wind, the seeing was close to rock steady. Saturn was beautiful with Cassini's Division obvious, and Jupiter's fragmented bands and whirls very visible. Jim van Nuland picked Omega Centauri low on the hazy horizon with his 8" and the globular was easily resolved. The contrast that night seemed tricky. A number of us looked at NGC 4361, that large planetary in Corvus and it was nothing but a big FFN (faint, fuzzy nothing). NGC 4565 suffered from the same dullness, but yet the Sombrero Galaxy, the Whirlpool Galaxy, as well as M 65 & 66 in Leo showed plenty of structure.

Another unique fact about the star party was besides one or two C-90's and Meade 1000's belonging to Jack Petersen and Jack Zeiders, and one alt-azimuth mounted 6" I didn't know (apologies to the owner), all telescope to be seen were 8-inchers. I had mine, Frank Dibbell his, Roland Mangan his new C-8, John Ridgely his, Jim van Nuland's (with a four strapped to the side) was there. Other people who were there and have 8" scopes (though I don't know if they were set up) were Bill Ransteed, Bob Fingerhut, and Mike Welch. Steve and Daniel Greenberg, and Dave and Mary Ambrose were interested observers along with some students from the University of Santa Clara that had been invited up to view. Too bad it had to be so cold, dewy and windy. Otherwise, it would have been a great star party.

About 11:30 nine of us packed up and went down the hill to Cindy's Restaurant, leaving the rest to become hearty overnight campers. Half-way down the hill, while trying to eat a turkey sandwich, Kevin almost ran late-comer Jay Freeman off the road (easy to do on the Coe Road.) Jay went on to spend some time with the remainder at the site, then turned around and joined us in a late night breakfast while we all warmed up.

At least it was clear and the seeing steady. Considering the terrible luck we had with last year's star parties and the weather, perhaps we're in for a better situation this year.

--Denni

"Who's got a natural state of affairs? No one around here!"
Gerry Rattley

"Whenever a new electronics game comes around I make it play my game first. I throw it as far as I can, and then it's its turn. "

Pete Manly

"Are you trying to say Pete Manly is a disease?" Jack Zeiders
"No, Pete Manly is a state of mind." Jim van Nuland

1981 RIVERSIDE TM CONFERENCE

This year the 13th annual Riverside Telescope Makers' Conference, traditionally held on Memorial Day weekend, saw over 1000+ people and 100+ telescopes on the field at Big Bear, Ca. This event has grown drastically in magnitude and this year the growth was reflected in the better quality of telescopes, lectures, food, and even the door prizes offered. (C-5's & C-11's).

I counted 24 SJAA members & bulletin subscribers in attendance, (including George Scotten, president of the Springfield, Vermont Telescope Makers, who became an adopted SJAA member for a week.) While it is normally club tradition to caravan down together after meeting at Chris & Shea Pratt's house, this year most left San Jose and arrived at Big Bear in scattered groups. Chris & Shea drove down with Kevin and I, stopping at the China Lake Navel Weapons Depot to pick up a vacuum chamber we had purchased. Gene and Sharon Cisneros arrived at the conference soon after us, and while the vans were being shuffled around into the set-up position at the top of the field, who should drive in in his familiar white and red VW van but Pete Manly, followed by his new club, the Saquaro Astronomical Society. The field crowded quickly. Gerry Rattley, Jerry Jones, Bruce Swayze, Bill Cook, Bill Cherrington, and Jack Marling soon arrived and had equipment set up, joining the already large southern California crowd. Riverside had begun.

Friday night was cold but clear, the seeing tolerable, and every scope on the field seemed to be in use. The 18", rebuilt and redriven, appeared to be working well. The Pratt's had brought Obsius, their 8", and it was going. Pete Manly had the SJAA's CID camera working on his C-8, fielding questions from the crowd that had quued up to view. I wandered the field as usual, meeting old friends and making new. (A telescope maker's social life is strange. A great deal of people in your close circle of friends are one's you see only once a year.)

Saturday saw Norn Neinchel and Jack Zeiders fly in and Bob Fingerhut and Jack Petersen arrive by land. I saw Jackie & Gary Rice later on in the evening, huddled around hot coffee cups. For Saturday night's main speaker the ASP had co-sponsored Bart Bok, lecturing on "The Milky Way Revisted." This famous astronomer is now retired and now considers himself an amateur astronomer. He gave a very humerous and informative talk on what's new in galactic astronomy these days.

We had cloud cover all day that persisted into evening and sunset, causing everyone to remince about 1980's conference. But by 10:00 pm the clouds cleared and seeing steadied, and another great night of observing was done. Thank goodness, continous hot coffee was free in the main hall.

I got to be a telescope judge quite by accident, literally. (It was, after all, the 13th. conference.) Bob Schalck normally judges for the northern California group but was in a semi-serious auto accident near Big Bear Friday night. (He and Chuck Claver are all right.) Pat Michaud asked Kevin to take over and after some arm twisting Kevin agreed. But then Kev got a distress call from Steve Greenberg and Patty Winter, whose Karmen Ghia had finally gone to VW heaven somewhere in Victorville. He went to pick them up and the left me on the merit award committee. Luckily there were only 43 scopes in the competition this year. (Down from 105 last year!)

It was fun. There were some incredibly well engineered and/or constructed scopes on the field. Wood made a strong showing this year in being the major component in about five of the top finishers. Solar scopes (coronagraphs, spectrographs, etc.) were also popular. A clock driven Ponchet mount used for astrophotography won the Warren Estes Award. There was even Rich Schaffer's very nice Dobson with slow motion controls.

As it always is, we came back charged up with ideas and energy, and had to face the post-Riverside blues of work, home and reality. But hopefully, enough of that energy will last to get something done for next year. It would be good to see new northern Californian (SJAA and Chabot-type) telescopes show there in '82.

--Denni

COMET COMMENTS

Comets Meier and Borrelly have faded in the western sky, and Comet Panther remains. Another comet - Comet Bowell, discovered early last year, is slowly brightening and is a telescopic object near Jupiter. Additionally, two new comets have been picked up - both faint.

Comet Elias (1981c): This 15th magnitude comet was discovered on April 3 by Jonathan Elias of Cerro Tololo Interamerican Observatory in Chile. Located in the deep southern sky (77°S) it will be closest the sun June 6 at 450 million miles, and it's not expected to get much brighter.

Comet Bus (1981d): If the name sounds familiar, it's because Schelte Bus also discovered Comet 1981b. This one, first seen April 26 at magnitude 16, is in Libra. It will be closest the sun on July 27 at 230 million miles. It will not get any brighter.

Comet Panther (1980u)

Date	R.A.	Dec.	Mag.	
05-26	08:45.2	+29°10'	10.7	Fading rapidly as it pulls away
06-05	08:54.6	25 08	11.0	from both the sun and earth, this
06-15	09:04.0	21 34	11.3	comet goes from Cancer to W. Leo.
06-25	09:13.3	18 21	11.7	By early July it will be too close
07-05	09:22.4	15 24	12.1	to the sun for observation.

Comet Bowell (1980b)

05-26	12:07.5	+01°14'	12.8(11.8)	Within a couple of degrees of
06-05	12:08.7	01 02	12.7(11.7)	Jupiter all month, this comet is
06-15	12:11.4	00 42	12.7(11.7)	now some 4 AU from the sun and
06-25	12:15.3	00 12	12.7(11.7)	slowly moving in. The magnitudes
07-05	12:20.6	-00 25	12.7(11.7)	in the () are probably more ac-
				curate. More below.

GREAT COMETS

Comet Bowell (1980b): Discovered Feb. 11, 1980 by Edward Bowell at magnitude 16.5, this comet was and still is very near the planet Jupiter. (You might remember Bowell, he co-discovered a satellite around the asteroid Herculina in 1978). This comet was 7.2 AU from the sun at discovery (a record), and may be under observation for a record amount of time - 5 years (?). Nearly a year after discovery, the comet passed 0.23 AU from Jupiter (and inside its orbit) and this increased its speed. It will be closest the sun (3.3 AU) next March, then speed out of the solar system, never to return.

At this point, the comet is roughly magnitude 12, diffuse and displays a short tail in photos. It is expected to reach magnitude 9 by next March.

Don Machholz
(408) 448-7077

STAR DATE: Star Date, described in the May S&T (p. 442), can be heard on radio station KCBS, 740 on the AM dial, at 7:52 PM and 10:52 PM weekdays. It is a two-minute astro-talk.

"I've lost twenty pounds in six weeks!" Wolf Hanisch

"Yeah, the ears are closer together now." Chris Pratt

THE CELESTIAL TOURIST SPEAKS

Due to an oversight, (editor's note: mine), the figure that I referred to last month, showing the location of the nine companion galaxies of Messier 101, did not get printed. I hope it shows up this time.

The word on star parties for the last month seems to have been that cold+wind=short! I did not get to Henry Coe State Park on the second of May until 11:00 or 11:30 PM, by which time almost everyone had already left. I did not set up, and did little observing there.

I got in three good nights with the Celestron 14 at Fremont Peak, however. I spent a little time looking at a cluster of galaxies in eastern Leo, centered near 11^h40^m , $+20^\circ$. Within about a degree and a half south and two or three degrees west of the star 93 Leonis there are some twenty-eight galaxies listed in the NGC catalog. I plotted them up on graph paper, (they are all too faint for any charts I have), and was able to identify 27 of them at 196X with the C-14. While looking, I noticed at least a dozen more galaxies that were not on the NGC roster. In one place, a single 196X field - about a quarter degree across - showed at least seven galaxies. It does take power to bring them out, though - I went through the same field at 71X and had difficulty finding most of them. I learned about this cluster from Charlie Stifflemire (whose 16-1/2 inch Dobson and VW camper have long been a familiar sight at Fremont Peak star parties), who in turn said he heard of it from Bob Kestner.

I also looked at the Coma Bernices galaxy cluster. This cluster is five or six times as far off as the Virgo cluster and contains about a third as many galaxies. The two brightest are in the NGC: they are NGC 4874 and 4889, and are perhaps 13th magnitude visually. At 71X with the C-14, I could see both of these plus at least sixteen more galaxies within half a degree. The center of the cluster is at roughly 12^h58^m , $+28^\circ15'$ (epoch 1950), which puts it about seven degrees east of the central part of the Coma Bernices star cluster. Alternatively, the cluster can be found by setting on 4.3 magnitude beta Coma Bernices and sweeping a little over two degrees to the west. Many foreground galaxies, in the Virgo Cluster, are in this area.

Owners of almost any telescope will find it worth looking at NGC 4565 - which members of the SJAA will recognize as the "Combination Galaxy". This lovely edge-on spiral is also in Coma Bernices. It is shown on the Skalnate Pleso, and appears in Norton's as 24° . At 50X my Meade 4-inch shows it obviously elongated. At 36X, my six-inch hand braced Newtonian may show the dark lane. An eight-inch at 51X definitely shows the dark lane and also the nuclear bulge. The C-14 at 71X shows all of this, plus the galactic nuclei peeping over the dark lane like some half awake cosmic eye. Burnham gives a magnitude of 10.5 and dimensions of $1.1' \times 15''$ for NGC 4565.

And before leaving Coma Bernices, look for NGC 5053. This low-surface globular cluster lies about a degree southeast of M 53. It is about the same angular size as M 53 but more than two magnitudes fainter. I have found that it takes pretty dark skies to find NGC 5053, but have seen it in my six-inch.

Also requiring dark skies is the galaxy NGC 4236 in Draco. Look about a degree and a half west of kappa Draconis. Norton's does not plot the galaxy, but it is almost precisely half way between the symbols for 263' and 264'. Burnham gives a magnitude of 10.7 and dimensions of $5' \times 22''$. It's big and faint, but I've seen it in my six-inch at 36X.

Eastern Draco contains the brilliant planetary nebula NGC 6543 -- plotted as 37⁴ on Norton's. This planetary is smaller and brighter than the Ring Nebula. Almost any telescope should show it, though you might have to put in 50X or 100X to be sure you are not looking at a star. It's about eighth magnitude, and about 20" in diameter.

As Riverside comes upon us, I find myself thinking that there are a few special awards categories which the judges seem to leave out. I've jotted them down here:

The Kitchen Sink Award, for the most elaborately equipped telescope.

The Seaweed and Barnacle Trophy, for the telescope with the crudest exterior finish.

The PGE Citation for the telescope whose operation requires the most electric power.

The Mightily Thor Gilded Linament Bottle, for the Dobson telescope with the stiffest bearings.

The Chiropractor's Cup, for the telescope with the most inconvenient eyepiece position.

The United Mine Workers Citation for the most glass excavated by hand in fabricating an optical system.

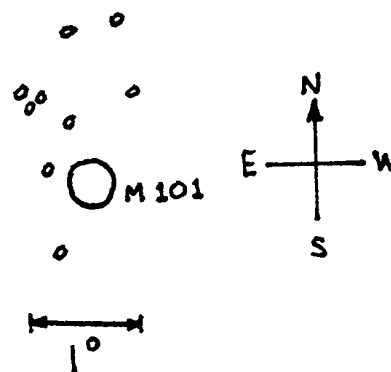
The Designer's Dream Award, for the sophisticated optical system that would deliver the most outstanding performance if only it could be made to work at all.

The Twelve Thumbs Trophy, for the telescope most susceptible to damage by mishandling, either in transportation, or set up, or operation.

The White Mastodon Award, for the most effort expended constructing a telescope of obsolete design.

I'm sure there are other such categories, but the above should be enough to make me sufficient enemies to last till next year.

--Jay Freeman



THE MISSING

FIGURE 1