SJAA ephemeris jan '81

Jan 3 SJAA star party at Fremont Peak State Park, Coulter Camp.

Jan. 1-6 Quadrantids Meteor Shower in the constellation Bootes

Jan. 10 Indoor star party, Los Gatos Red Cross building. This will be the first meeting the SJAA telescope making workshop. All interested people are invited to attend. This first meeting will be a basic planning and "what's a telescope" meeting, but on-going, non-lecture classes are planned for every indoor star party hereafter. The Red Cross building is at 18011 Los Gatos-Saratoga Rd. Take Hwy. 9 exit off Hwy. 17 and head towards Saratoga. It's about a mile up the road on the right. From 7:30 pm on.

Jan. 16 Board meeting at Phil Hermsmeyer's, 20900 Alves Drive, Cupertino. 252-5529. 8:00 pm.

Jan. 17 SJAA General Meeting, to be held jointly with the Southbay Chapter of the L-5 Society, Peninsula Astronomical Society, and the San Mateo Astronomical Society at the Rosicrucian Auditorium, Park & Naglee, San Jose. 7:30 pm. Call 287-9171 for directions. The speaker will be Dr. Geoffrey Cuzzi, a member of the Voyager-Saturn Imaging Team from Ames Research Center. This should be an extremely informative lecture by an expert on the rings of Saturn. Everyone is welcome but come early for a good seat.

Jan. 24 Indoor star party, Los Gatos Red Cross building. 7:30 on.

Jan. 31 Indoor star party, Los Gatos Red Cross building. 7:30 on. This will be an informal beginner's night for those new members and/or new telescope owners who would like some help with observing techniques. There will be a casual star party in the parking lot for anyone who wishes to bring their telescope. Advice on how to observe, what to observe, and how to stay warm while doing it will be available.

Feb. 7 SJAA Close-in star party at Sanborn Canyon County Park. Take Hwy.9 up through Saratoga, heading for Big Basin. About 2-3 miles out of town turn left just after the white bridge. (There's a campground on the right down by the creek). Follow the signs to Sanborn Canyon Park. The club sets up in the upper parking lot.

Feb. 14 General meeting at DeAnza Community College, room S-34 by the Planetarium. The speaker or subject to be announced. 8:00 pm.

Feb. 20 Board meeting at Frank Dibbell's. 8:00 pm. 733-7208. All interested members are invited to attend.

Feb. 21 Indoor star party at the Los Gatos Red Cross building. 7:30 pm on. Everyone welcome!

Feb. 28 SJAA star party at Fremont Peak State Park, Coulter Camp Overflow area. Take Hwy 101 south to Hwy 156 east. Go two miles and turn right at yellow flashing light. Road "S"s around but follow signs for park. Coulter Camp is eleven miles up, just passed the entrance to the ranger's house.

the san jose astronomical association

Observations

First off, I want to apologize to the club membership for the January bulletin being this late. Kevin and I moved over Christmas, and this combined with the printer being closed down for the holidays and some slowness at the post office to make for a slightly confused bulletin and bulletin editor. I still haven't found my typewriter. This was all done on my crochety old electric at work so bear with the many mistakes. Hopefully by February everything will be more than settled and the SJAA 'corner' of our library will be back to normal.

'Nuf said. Back to business at hand. (or rather, in sky.)

January 10th will be the first meeting of the SJAA telescope makers' workshop at the indoor star party that night. This first time will be a basic planning session on how the class should be organized, and a basic lesson for beginners on what a telescope is and the differences between the various types. There will be plenty of information available to help starters decide what is best for them. At every indoor star party from now on out the workshop will be going for people at all stages of telescope making. Members and any interested amateurs in the area are invited to attend at any time. Bring plenty of newspapers and paper towels so clean up can be kept to a minimum.

Also, the January 31st indoor star party will be an informal 'beginners night' for new members and/or telescope owners who would like to get to know the sky, their equipment, and the club better. There will be a casual star party in the parking lot. All indoor star parties are held at the Los Gatos Red Cross, (directions on the first page), from 7:30 pm on, and everyone is welcome.

Every year the Western Amateur Astronomers (WAA) presents the G. Bruce Blair Gold Medal to an astronomer (amateur or professional) who has contributed to the advancement of amateur astronomy. Last year's was presented to Paul Zurakowski of the Chabot Telescope Makers' Workshop. This year the SJAA has nominated Don Machholz for his efforts in popularizing the Messier Marathon throughout California.

The WAA winter board meeting will be held Jan. 25 at the Burlingame Sheraton Inn with a luncheon and speaker at noon and the business meeting at 1:30. All interested people are invited to attend but please notify the WAA of your intention by writing Terry Terman, 1450 Todd St., Mountian View, 94040. Though the SJAA is allowed one vote towrds the G. Bruce Blair Award it would be a show of support to have a number of club members present.

The Spring Events calendar looks briefly like this:

Jan. 25 WAA Winter Board Meeting, Burlingame

Feb. 28 Astro-Photo IV , Cypress College, Cypress Ca.
For author/reg. information contact:
OCA, 2215 Martha Ave. Orange, Ca. 92667

March 14 Space Shuttle launch?

May 9 Astronomy Day (National)

May 23-25 Riverside Telescope Makers' Conference,
Big Bear, Ca.

The Winter and Spring sky, at a glance:

New Moons: Jan 5 Feb 4 March 6 April 4
Full Moons: Jan 20 Feb 18

Meteor Showers: The Quandrantids hit maximum activity on January 3rd, radiant is the now obsolete constellation of Quadrans Muralis (Bootes, Hercules, and Draco of modern day.) This shower usually produces 30 to 40 faint bluish metoers an hour. The moon's just right for good viewing this year.

Planets: In January both Mercury and Mars will share the same area of sky in the constellation Capricorn. On the evening on Jan. 23rd Mercury will be less than half a degree south of Mars, (about 4-1/2° high, 45 minutes after sunset.) Both will move into Aquarius in February.

We'll lose Venus from the morning sky by the end of January but before that it comes into conjunction with the Moon and Neptune on the morning of the 4th. The Moon will lie about 3° left of Venus before sunrise, and Neptune will be between them and about a degree lower. Venus stays in Sagittarius in January and moves to Capricorn in February.

Saturn and Jupiter will both stay within Virgo for the entire winter and spring. On January 14th Jupiter will pass 1°9' south of Saturn.

January 19th sees a penumbral eclipse of the Moon in Gemini, starting at 9:39 pm, ending at 2:03 am, Pacific Standard Time.

Between February 26-March 6, 1981 Moonshadow Expeditions is sponsoring "Northern Lights Skywatch," for a week of observing and photographing auroras, the sun, and the northern sky. Anyone interested should contact Steve Greenberg at P.O. Box 262, Menlo Park, Ca. 94025. 326-8614.

Many thanks to Jim van Nuland, Jay Freeman, Steve Greenberg, Patty Winter, Don Machholz, and Gerry Rattley for their contributions to this bulletin and the sanity of the bulletin editor. Deadline for the February newsletter will be January 18th. Thanks.

Denni

All those who are interested in putting an experiment or experiments on board a Space Shuttle flight: I am interested in your ideas---anything from telescopes to seeing how spiders spin webs in zero gravity. (Don't laugh, that's been done on Skylab, by a high school student.) There are 1.5 or 2.5 cubic feet to play with. Payloads will be turned on or off by an astronaut and must be self-contained. It;s called the Getaway Special and 300 universities, high schools, corporations, and individuals have put down deposits. Only 3 payloads are close to going. First done, first up! Many corporations or universities amy donate their space to another organization (us?) if the ideas are interesting enough. Please contact me at P.O. Box 262, Menlo Park, 94025, 326-8614.

Steve Greenberg

WANT ADS

Frank Dibbell is selling his C-90 spotter for $265. Call him at 733-7208

For sale: C-8 with special coatings, wedge, tripod, eyepieces; in case, mint condition, 2 years old. $950. Call Jim Barstow at (415) 642-7076 days

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New Addresses

Kevin & Denni Medlock
15022 Broadway Terrace
Oakland, 94611 654-6796

Don Van Zandt
168 Waverley #7
Palo Alto, 94301
327-3158

Bill Cook
765 Limerick Ct.
Sunnyvale, 94087 739-6319

COMET COMMENTS

As we enter 1981, two comets remain visible in our small scopes—one in the evening sky and one in the morning. More on them later. In the past month one new comet has been picked up—a recovery of a returning comet. Additionally, this month we begin a new topic in our "footnotes" section, a 12-month look at "Great Comets." As you know, the first 15 months of this column carried a section entitled "comet tails" which included tidbits on comets and comet-hunting. Then, last year (1980) I reviewed some of the people who have discovered comets. This year, each month I'll briefly discuss a particular comet.

Periodic Comet West-Kohoutek-Ikemura (1980r): This comet was recovered by H-E Schuster at the European Southern Observatory in Chile. Then a magnitude 18 in the constellation Grus, the comet is not expected to get much brighter. With a period of 6.12 years, it will be closest to the sun in mid-March.

P/Comet Stephen-Oterma (1980g)

Date	RA	Dec	Mag.
01-01	05:32.9	35°35'	8.8
01-06	05:34.4	37 31	9.0
01-16	05:39.9	40 35	9.6
01-26	05:49.2	42 38	10.3
02-05	06:02.1	43 50	11.0

Traveling through Taurus and Auriga, this comet will superimpose onto some striking fields. It seems to be holding true to these magnitude estimates. Get out there and see this one!

Comet Meier (1980q)

Date	RA	Dec	Mag.
01-01	17:53.0	23°16'	9.9
01-11	17:52.1	22 08	10.0
01-21	17:50.1	21 26	10.1
01-31	17:46.4	21 07	10.2

This comet is moving away from the sun but we are moving slowly towards it. In the constellation Hercules, it's traveling very slowly.

Great Comets: Halley's comet: This object is named after the person who first predicted it's return in 1749. This comet has been observed since 240 BC. The outer planets seem to vary its orbit from 74-80 years. Although some other comets have been brighter than Halley's , it is Halley's comet that has been consistently a naked-eye object for at least a few weeks of every orbit.
Halley's comet will be back again in 1986, reaching perihelion (point closest the sun) on February 9, 1986. However, it will ne opposite the sun from us at that time, then spending much of the time in the southern hemisphere. It should be recovered 1984-5 and first become visible in amateur's scopes in August, 1985.

LOOKING AHEAD—THE 1981 MESSIER MARATHON

A full moon on March 20 seems to split our Messier Marathon observing window in half. The "window" is from about March 7-April 3, when 108 or 109 of the 110 Messier objects can be observed in a single night. In 1979, 107 were observed, in 1980:109. This year, the weekends (when many more observers would be able to stay up all night) fall on the evenings of March 6-7, and April 3-4. On the first weekend, Messier objects M72 and M 73 may be difficult, but if they are observed, the 109 Messier object will be visible. The weekend in April raises more problems—M 74 will not visible, and M 77 and M 33 will be extremely difficult in the evening sky. The rest is rather easy.

Weathering permitting. I am planning on being on Loma Prieta these weekend nights for the Marathon. Should it appear the March weekend is going to be cloudy, I'll try for the first clear weekday I can find between March 3-9. I would like to invite and encourage you to participate once more in this. If you wish to observe all the Messier objects, I have some observing order sheets which should be of some help in picking up the galaxies, clusters, and nebulae. If you would rather not try for all the objects, bring your scope and observe whatever, or photo, or peek through other's scopes.

So, as it now stands—the 1981 Messier Marathon (third annual), March 6 and 7, and April 3 and 4, Loma Prieta Mountain, 45 minutes south of San Jose. For more information or for an Observing Order list, contact the undersigned.

Don Machholz
(408) 448-7077

DECEMBER STAR PARTY AT HENRY COE STATE PARK CLOUDED OUT——MAYBE

The december 6 star party at Henry Coes State Park was marked by mid-evening clouds which chased most of us home. I arrived at the site after the end of twilight, under basically clear skies--just a trace od cloud cover showing over the hilltops to the north and west. Unfortunately, the wind was from that direction, so that after a few initial forays and retreats, low black clouds covered the entire sky before nine o'clock. As he watched the mottled black patches cross the heavens, Jim van Nuland remarked that this is the way it must look to live inside the Orion Nebula.

The clouds lowered to fog, and even yielded a few drops of rain. Most of us packed up and left: about ten stopped at Cindy's for food and conversation. But as we left Cindy's sometime around eleven, the sky was clear, with no sign of clouds over the mountains toward the park. So I wonder if maybe a few people might have stuck it out and gotten a good night after all.

Some of us got in a little observing before the clouds rolled in. Gerry Rattley and a few others picked up Comet Stephen-Oterma in the same low-power filed as the Crab Nebula. I wonder if any SJAAers photographed this interesting conjunction. Van Nuland found the "blinking" planetary in Cygnus, and Bob Fingerhut told how he had once impressed a date at a star party by telling her that this celestrial object had learned to wink at pretty girls. I had only brought my six-inch hand-braced Newtonian (having spent the two previous nights at Fremont Peak with the C-14), and spent a little while looking at assorted faint deep-sky objects in Perseus.

As usual, I did not take attendace, but there were perhaps a dozen vehicles and 20 club members present.

--Jay Freeman

"Me? I'm just a migratory photon farmer...."
Kevin Medlock, somewhere between Malibu & San Jose, on Hwy. 101

Henry Coe Star Party

The December star party began with a lovely red sunset, followed shortly by clouds, and even more shortly by a cold damp breeze. Both astronomers and clouds soon began drifting in; the result was a tie -- the astronomers covered the hilltop as the clouds covered the astronomers.

After the fog and rain dewed up my 8 inch (a newtonian dewed?!!) the astronomers began to leave, things having gotten quite cold, and I busied myself de-fogging my scope by propping it in front of the heater outlet in my bus, as I tried for the terminal optimist award.

By 9:00 I was alone with the clouds. After a nap, at 10:30 I was alone with the stars!! I busied myself with clusters in Cassiopeia. With the 4-1/4 inch f/4 as a superfinder, I at last identified the several clusters including NGC 659, 663, 654, and environs. I marveled at the dust lanes and structure in the glorious 7789, and, after consulting Burnham, convinced myself that I had found M103. Somehow it looked like a galaxy. 122X made it look like Veherenberg's photo.

Having taken Florence's advice based on the Astronomy article about keeping warm, at 1 am I was not yet frozen. Of course I had moved my truck three times to block the wind; I had lots of room to maneuver.

So I enjoyed the Perseus double cluster, M45, and several more Cassiopeia clusters. I looked at the dull double cluster 1807/1817 in Taurus, but they are too far apart for the 8 and too dim for the 4.

Tiring of stars, I turned my attention on Comets Stephan-Oterma and Tuttle, neat fuzzy visiters that I hadn't given suitable attention last month at Digger Pines.

With that success, I pushed on to a more difficult fuzzy -- the Horsehead in Orion. The 4 didn't help much, but the 8", with help from Burnham and slightly increased magnification, showed an exceedingly faint streak with a roundish dark thing in it -- maybe even a hint of a snout!

Spent from the effort, I decided to reward myself with some brighter objects -- 2099 in Auriga, and 2168 in Gemini. Spectacular! Glorious! The 4" thought these rich clusters were the finest objects in the winter sky (though the 8 still favors 7789).

I found 2244 in Monoceros, part of the Rosette, and sought the whole Rosette. After some study with the 4" and the 7x50's, I decided that I wasn't sure. There's a lot of stuff in a circular area, but....

By now it was 3 am. The cold breeze had taken its toll. I carefully tucked myself into two sleeping bags and three blankets. With Orion now dropping into the west, I thought of all you people, snug in your warm beds, inside your opaque houses.

A few additional observations seem to be in order. The old 11 o'clock rule still seems to be a good one; it was developed at Coe under just such a sky.

I wonder if there hasn't been a failure of nerve. It was cold, it was damp, it was cloudy, it was windy. I have sat under lots of clouds that never yielded to the stars. But I have also seen many glorious nights begin exactly as this one did. The ranger tells me that temporary clouds had been the case much of the preceeding week. I don't think I'm so stoic -- its simply that after putting out the time, the money, the effort into getting there, I'm greedy enough to want some return for my investment. I had a good time. It would have been a little better if it wasn't so cold, sure. And it would have been a lot better if I'd had someone to share it with.

Once More, With Feeling: Infamous Quotes from JPL at the Voyager 1 Saturn Encounter

Planetary astronomer David Morrison on the subject of rings at a press briefing: "Every year, in the last ten years, we have understood less about ring systems."

Brad Smith, head of the imaging team, said in an aside after announcing the discovery of the three eccentric ringlets: "Of course, there is always the possibility that all the other [hundreds of] ringlets are eccentric, and these are the only circular ones...But, I don't want to think about that possibility..."

Later, he tried to counter published reports that the eccentric rings were violating the laws of physics: "Many aspects of the rings are not well understood. The rings are obeying the laws of physics. We just don't understand which ones, or the laws well enough..."

At the final press conference, moon specialist Larry Soderblom stated that: "Yesterday, we learned about the rings from Jeff Cuzzi, our ringleader; so today the spokes in the rings will be discussed by our spokesman, Richard Terrile."

Brad Smith again, also at the last press conference, this time on the discovery of the innermost "D Ring" by Voyager 1: "This is not the same D Ring that observers from earth saw. That D Ring does not exist. I should know. I was one of the observers who thought he saw it!"

On the day of closest encounter, Clyde Tombaugh (discoverer of Pluto: "I'm the world's only true plutocrat.") Ken Wilson, Patty Winter, and myself were talking in the press conference area, when some workers started noisily hammering and drilling away on a large model of the Saturnian system and Voyager 1's trajectory.

C.T. "Oh, they're justinstalling new satellites."

P.W. "They're subdividing rings, and filling in Cassini's Division."

K.W. "It's just a drill for encounter. They're bracing for new bits of information."

On Titan:

At one press conference, Brad Smith announced betting a bottle of Napolean Brandy with Dr. Tobias Owen that no surface features on Titan would be visible, and wining: "That's one bet I'd rather have lost."

It was verry interresting to watch the surface of Titan change in the descriptions of scientists and reporters as the calculated temperatures and pressures rose by degrees from 72 K and 380 mBar to 92 K and 1.5 Bars (Atmospheres). From oceans of liquid nitrogen with methane icebergs, to seas of liquid nitrogen in the colder northern hemisphere, to polar puddles of liquid nitrogen with methane seas and liquid nitrogen rain (analogous to Earth's desert rains, which sometimes evaporate before reaching the surface). We had a great deal of fun satirizing the "Is there life on Titan?" questions by postulating cryogenic life such as superconducting dinosaurs in the methane swamps near the edge of the liquid nitrogen ocean in the tropical zone, including Stegasauris Superconductorus Greenbergii. Another reporter actually coinedthe word Methanoids to be descriptive of the life forms that he was wondering about.

At the final press conference,Dr. Tobias Owen announced the findings about Titan as follows: "NO rings, no lightning or aurora, or cities of Methanoids."

Meanwhile, back on Earth:

On the morning of 16 November, when fires burning in the hills around JPL caused the lab to go off public and onto generator power, Roy Neal of the NBC television network news asked what all the fire engines near the lab were for. He was told that the lab was in no direct danger from fire. His comment,"That's good. I'd hate to be reporting news from Saturn, when the real story was that the lab was burning down around us!"

Steve Greenberg

K.W. "Some people don't believe that astronomy is a natural science!"
S.G. "What is it then? An unnatural science? It's got to be the world's oldest science!
K.W. "Is that like the world's oldest profession?"

The Finest Deep Sky Objects on the Skalnate Pleso Atlas of the Heavens
Chart III

NGC RA (1950) dec Con SP:mag,size,type,dist

2158 06 04.3 +24 06 Gem oc: 12; 4'-40*; g; 5000pc
H.VI 17: Cluster,pretty Small,much Compressed,very Rich,irregularly triangular shaper,stars extremely Small: small blaze imbedded on the south preceding edge of M.35; excellent sight at moderate power!

2168 06 05.7 +24 20 Gem oc: 5½; 40'-120*; e; 790pc
M.35: Cluster,very Large,considerably Rich,pretty Compressed,stars from mags 9 to 16: use low power; NGC 2158 on south-west edge!

2192 06 11.0 +39 50 Aur oc: 11; 6'-30*; f; 3700pc
H.VII 57: Cluster,considerably Large,Compressed,irregular Figure,stars very Small: use moderate power and a dark sky.

2266 06 40.5 +27 02 Gem oc: 9½; 5'-30*; f; 2290pc
H.VI 21: Cluster,pretty Small,extremely Compressed,Rich,stars from mags 11 to 15: use moderate power and a dark sky.

2281 06 45.8 +41 07 Aur oc: 7; 17'-30*; e; 1660pc
H.VIII 71: Cluster,pretty Rich,very little Compression,stars pretty Large: use low power; beautifully set in a rich Milky Way field!

2371-2 07 22.4 +29 35 Gem pn: 13(*13½); 0!9x0!6; IIIa+II; 3630pc
H.II 316: H.II 317: Bright,Small,Double nebula,each part Round,aligned preceding-following,brighter in the Middle,Nucleus: use moderate power.

2392 07 26.2 +21 01 Gem pn: 8½(*10½); 0!8x0!7; IIIb+IV; 420pc
H.IV 45: Bright,Small,Round,central star of 9th mag,star of 8th mag north following 100": "Clownface,Eskimo,or Strawberry Nebula"; lovely planetary with an easy central star; use moderate and high powers.

2419 07 34.8 +39 00 Lyn gc: 11½; 1!7; VII; 69kpc
H.I 218: pretty Bright,pretty Large,a little Elongated in PA 90°,very gradually brighter in the Middle,star of mag 7 or 8 in PA 267°,4' distant: use moderate power.

2420 07 35.4 +21 41 Gem oc: 10½; 7'-20*; e; 3200pc
H.VI 1: Cluster,considerably Large,Rich,Compressed,stars from mags 11 to 18: use low and moderate powers; large faint blaze.

2681 08 50.0 +51 31 UMa eg: 10½; 2!8x2!5; Sa; 7½Mpc
H.I 242: very Bright,very Large,very gradual,then very suddenly brighter in the Middle which is like a star of 10th mag: use moderate power.

2683 08 49.6 +33 38 Lyn eg: 9½; 8!0x1!3; Sb; 3Mpc
H.I 200: very Bright,very Large,very much Elongated in PA 39°,gradually much brighter in the Middle: almost edge-on!; use moderate power.

2768 09 07.8 +60 16 UMa eg: 10½; 2!0x1!0; E5; 15Mpc
H.I 250: considerably Bright,considerably Large,a little Elongated,pretty suddenly much brighter in the Middle to a Large Bright Nucleus: use moderate power.

2841 09 18.6 +51 12 UMa eg: 9½; 6!4x2!4; Sb; 7Mpc
H.I 205: very Bright,Large,very much Elongated in PA 151°,very suddenly much brighter in the Middle which equals a star of mag 10: use moderate power and a dark sky.

2903 09 29.3 +21 44 Leo eg: 9½; 11!0x4!6; Sb; 5Mpc
H.I 56: considerably Bright,very Large,Elongated,gradually brighter in the Middle,mottled,knot in north following arm(NGC 2905): use moderate power and a dark sky; this object is a rewarding sight!

3079 09 58.6 +55 57 UMa eg: 11; 8!0x1!0; Sb; 12½Mpc
H.V 47: very Bright,Large,much Elongated in PA 135°: use moderate power; a little brighter in the middle.

3184 10 15.2 +41 40 UMa eg: 9½; 5!6x5!6; Sc; 4Mpc
H.I 168: pretty Bright,very Large,Round,very gradually brighter in the Middle: use moderate power and dark skies.

compiled by Gerry Rattley