

SJAA

EPHEMERIS

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April, 1991

FACE ON MARS IS TRYING TO TALK

The lips are moving! say stunned scientists

The mysterious face on Mars was carved out of solid rock but experts say it may be alive – because it's trying to talk!

Photographs taken by the Soviet Union's Mars 23 orbiter in January clearly show the mile-long monument's lips opening and closing just as human lips do when a person speaks. It is not yet known what the stone face might be trying to say. But the Soviets have put together a team of photo analysts and lip-readers in an attempt to find out.

"The face on Mars has been the focus of worldwide study for 15 years but there is nothing we've seen or learned that compares with this," Dr. Peter Bosch, the German astrophysicist and Soviet space consultant, told a scientific conference in Frankfurt.

"We still have more questions than answers, of course, but it does appear that the stone face is trying to talk."



06:44:17



06:44:20



06:44:22

"And if that's the case, I think we have to assume that the face is either a robot built by intelligent beings or a life form itself."

The Soviets declined comment on Dr. Bosch's report but acknowledged that their Mars orbiter had taken "numerous and significant photos of the face on Mars," between January 21 and 28.

They also conceded that Dr. Bosch has worked closely with the Soviet space program as a consultant and advisor since 1982.

"I wasn't involved in this particular mission but I have colleagues who were", said the scientist, who obtained six of the more than 2,000 pictures that the Soviet orbiter transmitted back to Earth.

"According to my sources, the Soviets initially thought that shifting sands or the play of light was merely making it appear that the stone face's lips were moving.

"But after further analysis they decided that the movement was genuine. They also concluded that the monument was trying to talk and assembled a team of photoanalysts and lip-readers to find out what it was trying to say.

"Not surprisingly, progress has been slow. All they've been able to come up with so far are the nonsense sounds 'Come to the SJAA auction.'"

While the Soviets continue to study the photographs Dr. Bosch and other scientists have called for a manned mission to Mars to investigate.

"We can look at photographs until we're blue in the face," said Dr. Bosch. "But if we really want to know what's going on up there we've got to see the face and listen to it firsthand."

APRIL STARRY NIGHTS

- Richard Stanton

I personally find this months Headline News to be perfectly believable. Have not most of us heard the call of Mars since we were children? Yes, it's true ... we are being called. At last the

secret that our scientists tried to bury so deeply has been divulged. The news that The Face on Mars is trying to tell us to come to the SJAA auction was reported by a group of dubious scientists during their recent Mars conference conducted at Husongs Cantina. Immediate confirmation of this story has been withheld by the Pentagon pending an investigation by the Great April Fool.

services.

The SJAA has conducted star parties as far as Gilroy. You needn't be an expert, it doesn't run very late, we sometimes get fed, and the kids love it! Step up and do something for the kids! Or, do something for your club! If that doesn't turn you on, come out and HAVE FUN!

APRIL 6TH THE SEARCH FOR EXTRA-TERRESTRIAL LIFE

APRIL 6: General Meeting at the Red Cross. Peter Backus on the search for ETs, 8 pm. Board of Directors meeting at 6:30 pm.

APRIL 7: Darkness Squandering Time begins. Advance your clocks one hour and apologize to your honest sundial.

April 13: Hails Valley Group public star party at Grant Ranch. SJAA invited. This is also the Outdoor session of the Introductory Observational Astronomy class.

April 15: (Doomsday?) Tax day. Earmark your refund for a nice new eyepiece. Sell your Fluorite if you owe!

April 19: (Friday) Public star party at Branham Lane Park. New volunteers welcome and needed!

April 20: Astronomy Day - Come again to Branham lane park. Needed: solar and Ha filters to show the Sun from Noontime onward. Evening observing as usual at the Park.

April 27: Introductory Observational Astronomy Class. Red Cross building at 8 pm.

May 3: (Friday) Board Meeting at the Los Gatos Red Cross. 8 pm.

May 4: Auction XI replaces the General Meeting this month. 2 pm until who knows how late. Milpitas Public Library.

SJAA HOTLINE
24 HOUR INFORMATION
415-997-3347

CALENDAR NOTES

The speaker for our April 6th General Meeting will be Dr. Peter Backus of NASA, speaking on the Search for Extra-terrestrial Life. The Board of Directors Meeting will be held the same night at 6 pm. SJAA members welcome to attend. Astronomy Day is coming up on April 20th. Volunteers are needed to support the SJAA at Branham Lane Park. Needed: Solar and Ha filters to show the Sun from Noontime onward. Evening observing as usual at the Park. Publicize this at your work if you can.

SJAA OFFICERS SELECTED

At the March 3 Board Meeting, the present officers were re-elected to their respective positions. Serving for yet another year are: Tom Ahl, President; Paul Mancuso, Vice-President; Jack Peterson, Treasurer; and Jim Van Nuland, Secretary. They were installed at the General Meeting. Last month's report failed to list the four members whose terms run for another year; they are - Wolfgang Hanisch, Gene Cisneros, Del Johnson, and Jack Peterson.

SCHOOLHOUSE STAR PARTIES

SJAA members traveled to Hayward for a school star party on February 20th. Thanks go to Jack Peterson, Del Johnson, Bob Fingerhut, Paul Mancuso, and Jim Van Nuland. Nobody is complaining, mind you, but this is a little way to go. Would some of our members who live up that way step up and offer? We need more volunteers, especially in the outer limits. We have members down south of San Jose; please contact Jim or Tom to offer your

AUCTION XI

The 11th Annual Bay-Area Astronomical Swap Meet and Auction will be conducted by the San Jose Astronomical Association on May 4, the first Saturday in May.

Through the efforts of Paul Mancuso (clap clap clap) we have a new location for the Auction: the Community Room in the Milpitas library. We are not able to use the Red Cross building due to coming construction at the next-door post office. More gruesome details inside.

JOB OFFER

Wanted: Planetarium operator. Minolta Planetarium is seeking an individual with a background in space science or astronomy. Part time; evenings and weekends to operate equipment and to run public programs. Please send resume to: DeAnza College, c/o Caron Blinick, 21250 Stevens Creek Blvd., Cupertino, CA 95014.

THE ASTRONOMERS

A new series on PBS

- Del Johnson

Not since the days of Galileo and Copernicus have there been such extraordinary discoveries in the field of astronomy. "THE ASTRONOMERS", an ambitious new PBS series, goes to the far reaches of the universe in search of black holes, quasars, dark matter, gravity waves, and evidence of planets outside of our solar system. Narrated by noted actor Richard Chamberlain, the new series (six one-hour episodes) promises an exciting new approach to the making of science programs on television, focusing on the lives of the astronomers in addition to

their work. "THE ASTRONOMERS" premieres Monday, April 15, at 8pm on KTEH, Channel 54. If you do not live within a Channel 54 viewing area, contact a local PBS station for their schedule.

The series begins with an intriguing question in episode one, "Where is The Rest of the Universe?". This question is critical to astronomers since they cannot account for nearly 90% of the assumed mass of the universe. Among those seeking an explanation for this dilemma is distinguished astronomer Vera Rubin of the Carnegie INstitution in Washington DC. This initial episode also contrasts the works of two men who are devoted to astronomy: Tony Tyson, who is at work in Hawaii and Chile in search of Dark matter, and John Dobson, an amateur astronomer who has devoted his life to making astronomy accessible to the public.

Episode two, "Searching for Quasars", looks at the oldest and most powerful objects in the universe: quasars. The program follows astronomer John Conway as he works with a team of astronomers to link together a global network of radio telescopes to search for a massive black hole that may be lurking at the center of galaxy NGC 1275. Because of the annual KTEH Auction, both episode two and episode three will be shown on April 29, starting at 8pm and 9pm. (SEE SEPARATE ARTICLE)

"A Window to Creation", episode three, explores questions about the earliest moments of the universe. Featured are two professors from Berkeley, Paul Richards and Andrew Lange, who travel to Japan for a joint rocket experiment examining the radiation afterglow of the Big Bang. The program also profiles Cambridge astronomers Margaret Geller and John Hucra, who have made the major discovery of the Great Wall, the largest structure of galaxies yet found in the universe.

On May 6, the forth episode, "The Waves of the Future", examines what may be an entirely new way to explore the universe: Gravity Waves. Predicted by Einstein, but still undetected,

these ripples in the fabric of space and time could reveal new information about the Big Bang, supernovas, and other cosmic events. Two leading Gravity Wave theorists (and friends), Kip Thorne of Caltech and Leonid Grishchuk of Moscow, will present their ideas and experiments.

Episode five, on May 13, "Stardust", explores the many mysteries surround the life and death of stars. The episode features astronomer Leo Blitz of the University of Maryland - an expert observer of star formation. This episode will also travel "down under" to follow Australian astronomers as they seek to understand the remnants of the death of a star - Supernova 1987A.

The series concludes with "Prospecting for Planets", which the efforts being made to discover planets beyond our solar system. Astronomer Dave Latham, Harvard University, is looking for tiny deviations in the motion of stars that would arise from the gravitational tug of unseen planets. In Chile, Richard Terrile and Brad Smith use a 100" reflector to find evidence of planets. This final episode concludes with a look at the Voyager mission as presented by project scientist Ed Stone.

As reported in the March Ephemeris, this is part of an educational outreach program. Instructors may obtain curriculum guides and other information from Judy Ravitz of KCET, Los Angeles. Her CORRECT telephone number is 213-667-9298.

WORKING WITH CHANNEL 54 - KTEH

KTEH (a PBS station) will be conducting their annual auction throughout the fourth week of April. This will cause the new 6 part series to be interrupted after the initial episode. I've discussed with KTEH, the need for volunteers to staff the auction. From an SJAA viewpoint, we could maximize our community presence by assisting on the night of 22 April (when episode 2 would have been shown). Channel 54 would announce our presence as they explained that the episode was being rescheduled to the following Monday. I have also requested that Channel 54 announce

our Hot Line number during showings of "THE ASTRONOMERS".

While nothing is firmed up as far as volunteers, I would like to get up a roster of prospective volunteers. hours are from 5-6 to 12pm. Whilst there is no pay involved, I understand that we'll get fed. If you would like to help in the multitude of tasks, please contact me, or my answering machine, at 408-448-0239. Thanks for helping, Del Johnson.

MOON STRUCK

- Bill Dellinges

As an amateur astronomer, my co-workers look to me for answers to their astronomical questions. Occasionally they stump me. This is one of those times. Perhaps someone out there (or their computer?) can give me an answer to the following question: Starting on, or about, January 1, 1991, how many years would it take till each day of the year had a full moon?

I've checked a few of my 200 books on astronomy to no avail. I've also written "Dear Merlin" in Stardate magazine, but it may be some time before I get a reply. Meanwhile, I tried a rather tedious, though straight forward approach to solving this question. Using Sean Meeus' Astronomical Tables of the Sun, Moon, and Planets, which list lunar phases from 1951 to 2050, I simply checked off the full moon dates for selected months of the year with 28, 29, 30, and 31 days (Jan, Feb, Mar, Apr, with Jul and Oct thrown in to sample months further into the year).

The result? Limited to the year 2050, I could not get all of the days of the above months checked off with full moons. So I was forced to work back from 1991 till, finally I came to April 26, 1964, when I had a full moon for every day of Jan, Feb, Mar, Apr, Jul, and Oct.

This took 85 years. (4/26/64 - 2/17/2049). But of course, since I didn't check the other six months, my "answer" is not definitive, though I suspect, a ball park figure. Or is it?

I would welcome a call or a note from a sympathetic club member who

might enjoy solving this challenge.

Bill Dellinges
5271 Dupont Ave.
Newark, CA 94560
415-792-9206

COMET COMMENTS - DON MACHHOLZ

Comet activity has been high lately, even Halley's Comet has participated by outbursting to magnitude 21, a jump of perhaps three magnitudes. Meanwhile, Comet 1991f is the 22nd comet find for Carolyn Shoemaker. She surpasses William Brooks and moves into second place (behind Pons who has 26) for the number of named comets. All of the Shoemaker finds, part of a program to find Earth-crossing objects, were photographic and faint, most never reaching magnitude twelve.

Comet Shoemaker-Levy (1991e):
This was picked up on Feb. 7 at magnitude 16.5. A preliminary orbit suggests that it was closest the Sun at 2.9 AU last month with an orbital period of 7.3 years.

Periodic Comet Shoemaker-Levy (1991f): This was found Feb. 9 at magnitude 17. It takes 6.8 years to orbit the Sun, and was at perihelion last July at 2.0 AU.

Comet McNaught-Russell (1991g):
Robert McNaught found this comet on a plate taken Feb. 12 by Kenneth Russell in Australia. This comet was clos-

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COMET EPHEMERIS

DATE (UT)	RA (1950)	DEC	RA (2000)	DEC	ELONG	SKY	MAG
Comet Levy (1990c)							
03-30	08h23.0m	+07°40'	08h25.7m	+07°30'	117°	E	10.1
04-04	08h19.6m	+09°21'	08h22.3m	+09°11'	112°	E	10.3
04-09	08h17.2m	+10°48'	08h19.9m	+10°39'	106°	E	10.5
04-14	08h15.8m	+12°03'	08h18.5m	+11°54'	100°	E	10.7
04-19	08h15.1m	+13°07'	08h17.9m	+12°58'	95°	E	10.9
04-24	08h15.1m	+14°02'	08h17.9m	+13°53'	90°	E	11.1
04-29	08h15.7m	+14°50'	08h18.5m	+14°41'	85°	E	11.3
05-04	08h16.8m	+15°31'	08h19.6m	+15°21'	80°	E	11.5
Comet Metcalf-Brewington (1991a)							
03-30	03h47.7m	+09°48'	03h50.4m	+09°58'	49°	E	9.9
04-04	04h00.9m	+10°31'	04h03.6m	+10°39'	48°	E	10.0
04-09	04h14.0m	+11°09'	04h16.7m	+11°17'	46°	E	10.1
04-14	04h26.9m	+11°44'	04h29.7m	+11°51'	45°	E	10.2
04-19	04h39.8m	+12°15'	04h42.6m	+12°21'	43°	E	10.3
04-24	04h52.5m	+12°43'	04h55.3m	+12°48'	42°	E	10.4
04-29	05h05.1m	+13°06'	05h07.9m	+13°10'	40°	E	10.5
05-04	05h17.5m	+13°26'	05h20.3m	+13°29'	38°	E	10.6

Don Machholz (916) 346-8963

THIS MONTH'S METEORS

SHOWER NAME	DATES	DATE OF MAXIMUM	MAXIMUM VISUAL ZENITHAL RATE (per Hr.)	RADIANT POINT (ON MAX DATE)	VELOCITY km/sec.	NOTES
R. A.	DEC					
Virgininids	Feb 3 - Apr 15	Mar 13?	<1	12h 24m	+ 0	35
Sigma Leonids	Mar 21 - May 13	Apr 17	<1	13h 0m	- 5	20
April Lyrids	Apr 20 - Apr 23	Apr 22	20	18h 6m	+ 34	47.6
Mu Virgininids	Apr 1 - May 12	Apr 25	<1	14h 44m	- 5	29
Alpha Bootids	Apr 14 - May 12	Apr 28	<1	14h 32m	+ 19	20
						slow orange/red meteors

est the Sun at a distant 4.8 AU last October and remains faint.

Periodic Comet Takamizawa (1990h): Jim Scotti recovered this comet from Kitt Peak on Feb. 17. A strange comet which was discovered in 1984 after an outburst, it will be closest the Sun on Aug. 17 at 1.6 AU. If it acts normal it will brighten to perhaps magnitude 15, but another outburst would make it quite a bit brighter.

Periodic Comet Kowal (1990l): Jim Scotti recovered this faint comet from Kitt Peak on Feb. 21. It orbits the Sun every 15 years and is a full year away from perihelion, which is 4.7 AU. It will remain near magnitude 18.

OBSERVING PLANETS IN THE DAYTIME

- Steve Gottlieb

Ever have problems where you can't seem to get enough nighttime viewing to satisfy that crave to gaze at the heavens through an eyepiece? Well, one partial fix is to do some viewing during the daytime. It's a real kick though a bit unnerving to be staring at a celestial body other than the sun or moon in the middle of the day. In this article we'll focus on the logical candidates for daytime viewing- the brighter planets.

You can find Venus, the brightest planet, anytime during the day with just your naked-eye as long as it is not near conjunction with the sun. Last summer at the S.F. State field campus in the Sierras, one of the exercises for students in the astronomy class was to view Venus naked-eye in the afternoon. Everyone was successful with this task and quite surprised how easy it was to view once you knew exactly where to look. That's the key, and then once found you must keep your eyes focussed on infinity. A high mountain site is certainly not necessary though, as I've had the same results from my house in Albany. But to know exactly where to look, you first want to locate Venus in your binoculars or better yet, your telescope. Then you can simply sight along the tube to see it naked-eye.

Now, you're probably asking, "How the heck am I supposed to locate the object in my scope in the daytime if I can't see it?" My response would be to first ask if you use an equatorial telescope or not. If you do, then the easiest method is as follows. Polar align your telescope the evening before. Then during the next day, center the sun (either using a solar filter or by observing the round shape of your scope's shadow on the ground) and adjust your setting circles to the sun's position. Then simply offset in right ascension and declination to the current position of Venus. You can find these positions either in Sky and Telescope or Astronomy magazines as well as the Observer's Handbook. Venus is bright enough to be easily seen in your finder scope even midday. The same method works fine for Mercury, Jupiter, Saturn or the brightest stars. With the fainter objects though, you will have to locate them directly in your main scope. Just be patient and don't get frustrated staring into that strange blue background. Once you pick up the planet, it will be easy to keep it in your field of view.

Last month, I was getting ready to leave Digger Pines at 8:00 in the morning. A fellow observer called me over to his C-14 to view Jupiter which was nearly on the meridian at this time. Even though the sun was well up in the East, the planet was relatively bright in the eyepiece and belt structure was still quite apparent. In fact, once my eyes adjusted to the view, 3 of Jupiter's sixth magnitude moons were also easy to see. Something that especially surprised me was the fact that the Southern Equatorial Belt of Jupiter was gone! When did it disappear?

Now, for those of you (like myself) with altazimuth telescopes, don't despair. With a little preparation you can accomplish the same goal. The method we will use is a favorite of mine, for finding very faint deep sky objects, namely star drifting! The trick is we have to find a star the preceding evening with a similar declination as the planet. You can accomplish this by looking up the declination of the planet and then searching through a good star atlas for a reasonably bright well-placed star with a similar declination.

Star positions can be found in the Sky Catalogue 2000.0 Vol. 1, the Yale Bright Star Catalog, or the SAO Star Catalog. Then after offsetting for any minor adjustment in declination between the 2 objects, simply cover your scope and let the sky drift through your field of view. Return to observe the planet after a time equal to the difference in right ascension. As an example, Venus is currently (as of this writing on October 10) at 16h09.6m -23°40' (2000). A star with a similar declination is Tau 3 Eridani at 3h02.4m -23°37'. This mag 4 star currently rises at 10:00 P.M. and transits the meridian at 2:48 AM. If you can locate Tau 3 Eridani at 12:00 midnight and leave your scope set, then Venus should drift through your field 13 hours and 7 minutes later. Actually, because of the difference in sidereal and civil time (4 minutes a day) you should subtract 2 minutes of time. So, adding 13 hours and 5 minutes to midnight brings us to 1:05 P.M. the next afternoon. Start to look at 1:00 and Venus should float into view. Mercury and Jupiter are also good candidates for this method. Give it a try and become a daytime observer!

METEOR NOTES

- JIM RICHARDSON

April showers may bring May flowers, but in my field they also start to bring the reluctant meteor observers, kept indoors by cold winter nights, back out into the warming spring air. They'll find however, that the sporadic meteor rate is now at its lowest point during the year, with as few as 3 meteors/hr in the early evening hours, and peaking at round 10 meteors/hr just before dawn. To make the advent of Spring a little better though, a cluster of minor showers, centered in the Virgo/Leo area, will begin to raise the number of meteors seen each night to a more acceptable level throughout the latter half of April and on into May.

The most important reason to get out this month is the April Lyrids, a small annual shower known for over 25 centuries. The radiant lies just a few degrees east of the well marked constellation of Lyra (and Vega, its brightest star), and is quite easy to find.

During the evening hours, the radiant will be found low on the horizon, and thus few or even no Lyrids will be observed. However, after midnight the rate will increase as the radiant rises, peaking at around 3:50 am PST, at the beginning of Astronomical Twilight.

The weekend of April 20-21 provides a good opportunity to see a few Lyrids, and the first quarter moon will be long set when the meteor activity begins to pick up each night.

The predicted peak for this shower is on Monday, April 22, at 1200 PST, so the best time to get out is in the early morning hours of that day. Since this is a fairly narrow stream, and our local maximum occurs about eight hours ahead of the actual maximum, our rates this year may be somewhat lower than usual (approx. 10/hr). For this stream just those few hours can make the difference. However, this is still a worthwhile stream to go out and watch. Pick an area about 20-30 degrees from the radiant, and watch for these fairly swift, white to yellow meteors, some with trains lasting 1 to 2 seconds. Average magnitudes should be about 2 to 3, but bright ones are possible.

INDIVIDUAL SHOWER NOTES

Virginids, Sigma Leonids, Mu Virginids - These streams are contributors to Hoffmeister's (1948) list of visual Virginids, and are also part of his Scorpius-Sagittarius system.

April Lyrids- This stream is considered a weak annual one in recent years, but previously has given stronger displays in 1884 (22/hr), 1922 (96/hr), and 1948 (20/hr).

ASTRO ADS

ASTRO ADS are free to all non commercial advertisers wishing to sell astronomically related products or services. Please send your ad directly to the Editor, John P. Gleason, 5361 Port Sailwood Dr., Newark, CA 94560 **NO LATER THAN THE 15TH OF EACH MONTH!** Your Astro Ad will run approximately 3-months.

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Celestron f/6.3 focal reducer/coma corrector - \$100. Also ... Celestron 17mm and 30mm 1 1/4" eyepieces - \$40 ea. University Konig II 8mm and 12mm 1 1/4" eyepieces - \$45 ea. And 1 1/4" Mark V visual nebula filter (narrow band - 480-506 nm) \$40. Orion Skyglow 1 1/4" broadband filter - \$30. Everything in new condition. Call Mike Scharfman at 209-544-8828 (eves) or 415-455-6012, ext. 353 (Days) 4/91

Dobsonian 10" f/6, sharp Cave mirror, Telrad, 2" focuser, Serrier-truss mount. Compact - \$500. Dobsonian 13.1 f/4.5 Coulter mirror, Telrad, 2" focuser, Serrier-truss mount - \$650. Cassegrain, 8" f/20, homemade, equatorial mount. Finished except for optical alignment. Enterprise optics mirror. Should outperform Meade/Celestron - \$400. Also University Optics 28mm Pretoria, \$100. Rick Decker 415-956-7070 or 415-383-6339. 4/91

Meade 6-Inch f/3.6 Comet Tracker Schmidt-Newtonian with Meade #636 equatorial mount, 25mm eyepiece, used twice - \$600. Celestron 10 X 40 orange finder with Bracket for C14. \$35. Celestron 10 X 70 orange finder with bracket for C14 - \$125. Orion DEC motor for Sandcast C8 - \$20. Celestron T-Adapter for camera - \$15. Meade #603 DC cord, 25', with cigarette plug for use with #784 motor - \$15. Meade #604 AC converter with 25' cord for use with #784 motor - \$20. Bill Dellinges 415-792-9206 4/91

Celestron Firstscope 80 with Azimuth-Altitude mounting w/slow motion controls. Adjustable tripod w/accessory tray, 26mm and X2 eyepieces. Paid \$600. Asking \$400. Like New! Call Ted at 415-367-0570 or 415-691-2324 4/91

Celestron C8 complete with carrying case, equatorial wedge and tripod. With Telrad finder, 8 X 50 right-angle finderscope with lighted crosshairs, set-

ting circle lights, front end counterweight, 2X Barlow lens, T-adapter and T-ring for Nikon camera. The following eyepieces are also included: 9mm Ortho, 40mm Kelner, 25mm Kelner, 26mm Plossl (with skylight filter). All like new, \$650/obo. Celestron C90 (90mm aperture, 1000mm f/11) with carrying case. Includes 6X30 finderscope, 2.5X Barlow lens, Barlow extender, Porro prism, star diagonal, and 18mm Kelner eyepiece. All like new, \$250/obo. Alan Tuthill, 415-345-2514 4/91

TeleVue Nagler 11mm wide-field eyepiece. Like New! \$120. SureSharp for Olympus. Like New! \$80. John Gleason, 415-792-8248 4/91

10-Inch full thickness mirror by Tom Scott. W/1.5" quartz diagonal and Novak secondary holder - \$350. Jon Hafstrom 707-442-7569 (weekends) 3/91

Questar 3.5" with standard accessories, Bogen tripod. Original wide-field eyepieces, 1957 vintage in near mint condition. Asking \$2000. Also... HP 41CV calculator w/hardcase and time module, survey pac, card reader, 30 cards, 2 rechargeable battery packs. 82143A printer also with charger and battery packs. Additional miscellaneous items and more. Asking \$250. Ed Stokke, 408-448-2181 1/91

Olympus binocular viewer, attaches to 1 1/4" telescope focuser. High Quality. Includes 2 pairs eyepieces - \$350. Celestron nebula filter, new type, 1 1/4", perfect - \$49. Call after 7 pm. Edward Hillyer, 209-463-1817 2/91

AUCTION XI

The eleventh annual Bay Area Astronomical Auction comes on May 4, so it's time to start sorting through your goodies. Whatever is astronomical or telescope-making related is welcome at the Auction.

Pre-registration makes it easy. Fill in the form below or a copy of it, listing each different item you have. If there are several of one item, use a single line and show the quantity. Enter a minimum bid, even if you wish to list it go really cheap. Indicate whether the item is an outright donation; if not, the commission is 10% of the selling price. The SJAA share of all sales is tax deductible, and goes to further public education in astronomy.

Next, MAIL the complete form with a SASE, to Jim Van Nuland, 359 Calico Ave., San Jose, CA 95124. You may wish to keep a copy of your files. Jim will assign a bidder/seller and item numbers, and return the form to you promptly. Use adhesive labels to label each item, indicating the minimum bid and item number on each item. If you omit the SASE, Jim will assign numbers, but hold the form for your pickup at the auction.

As in previous years, we will have a Swap Meet in the afternoon. Pre-registration is not needed for the Swap Meet. Items having a realistic minimum bid of \$5 or less probably should be Swap Meet material, as auction time is limited. Items of limited or specialized application, even if valued above \$5, should be considered for the swap meet.

A silent auction may be used, too. This is mostly for big ticket items such as complete telescopes. Attach a tag with the minimum bid to the item; bidders write in a new bid and line out the old one. Results of the silent auction will be made final at the break and the winning bidders announced. However, a seller may close bidding and sell at any time.

DIRECTIONS TO THE MILPITAS LIBRARY

Take hy. 17 (880) to Milpitas. Take the hy. 237 exit and go east for 1.1 miles. Turn left onto Milpitas Blvd., then an almost immediate right into the parking lot. Doors open at 1:00 pm. Swap Meet 2 pm to 5 pm, auction from 6 pm. \$1 donation is requested for registration to buy or sell during the auction. Refreshments will be available.

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Name _____		Address _____		Phone _____
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