

The Refractor

The Bulletin of the Eastbay Astronomical Society
Founded in 1924 at Chabot Observatory, Oakland, California

Volume 79
Number 7
March 2003

The Annual Awards Dinner of the Eastbay Astronomical Society

Sunday, March 16, 6:00 pm
Chabot Space & Science Center
Planetary Landscapes Hall, Dellums Building

Keynote Speaker: Dr. Harold Weaver

Dr. Harold Weaver received both his undergraduate and graduate training in astronomy at the University of California, Berkeley. In 1942 he received his PhD degree, and then went to the Yerkes Observatory as a National Research Fellow. During 1943 to 1945 Dr. Weaver was engaged in war work at MIT and at Berkeley. In 1945 he was appointed to the staff of Lick Observatory, and in 1951 moved to the Berkeley campus as an Associate Professor of Astronomy. His research always involved some aspect of our Milky Way Galaxy, and with the discovery of radio astronomy, he became



The Hat Creek radio observatory, about 40 miles east of Redding in northern California

convinced that Berkeley had to become involved in that new field. In 1958 he became the founding Director of the Radio Astronomy Laboratory and built the radio observatory at Hat Creek. Dr. Weaver retired in 1988, but has remained very active in research.

Dr. Weaver plans to show new features of the

neutral hydrogen in the Sun's general neighborhood of the Galaxy observed in the radio range. He will use a movie technique; this permits the rapid and direct comparison of adjacent areas in the sky. There are many new and as yet unexplained features in the hydrogen. Of particular interest is an enormous shell of gas that fills a large part of the northern sky. It is coming at us at about 65 km/sec! Fortunately for us, it will not hit the solar system right away. ★

Our new look:

We updated our website to look a bit more contemporary, and added a lot of new content and material, too. It's far from



complete, and is still a "work in progress," but it's a start. You'll find it to be a lot more useful and entertaining, with up-to-the-minute news blurbs, next-meeting details right on the home page, and it even has fun "rollover" interactive pictures for the different buttons. Give it a try, and if you'd be interested in contributing to any articles or artwork, or would like to just tell us about some newsworthy item(s), let us know. It is our hope that this will be a website of the astronomers, for the astronomers, and by the astronomers! ★

Next Distinguished Lecturer Event At Chabot

When: March 20, 2003, 7:30pm, Tien Megadome Theatre
Who: Dr. Sten Odenwald (Goddard Space Flight Center)
What: "Patterns in the Void - Why It's Good to be Afraid of the Dark" Dr. Odenwald will address what the Ancients called "the Void" and why Astronomers and Physicists are poised to discover the tell-tale traces of other universes that may exist next door to our own. A dessert reception and book signing of Dr. Odenwald's recent release, "Patterns in the Void - Why Nothing is Important" will be held afterwards. ★

The Jane Chronicles

WARNING: Reading this article may make you run outside with your telescope and start looking at faint fuzzy things (or whatever) in the sky! Day or night!

Jane Houston Jones (and her husband, Morris Jones [Mojo]), are enthusiasts in the truest sense of the word. They just love to observe – period; be it Sun, Moon, planet, comet, cluster, galaxy, nebulae, or what have you, observing the sky is their favorite pastime. So, when she writes up her observing sessions, she always imparts a strong sense of the excitement and wonder she experiences at the eyepiece, and, actually, it is quite contagious.

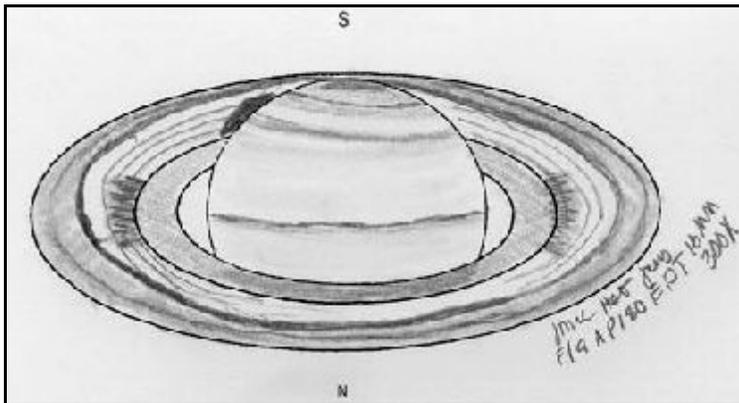


We love to observe the third quarter moon and often set up our f/9 AP180EDT in the late evening, set the alarm, and wake up when the moon is high overhead. Then we observe in the early morning stillness. Last November 27th was one such night. The clear

sky clock* indicated good seeing at our location at 37N 122W 15 miles north of the Golden Gate Bridge in the San Francisco Bay area. We looked up Jupiter events using Sky Map Pro 9 and discovered a Callisto shadow transit would begin at 3:09 a.m. local time.

We invited a friend over. Then we went to see an excellent movie - "Standing in the Shadows of Motown" - we highly recommend it! When we returned at midnight we set up the telescope, and had a look at Saturn. Our friend arrived at 2:00 a.m. and we all took turns observing Saturn. Don't you just love this hobby - inviting a friend

over at 2:00 a.m.! Using Akkana Peck's Satmoons 0.7 for the Palm I had a fast way to check which satellites I could see. Titan, Dione, Enceladas, Mimas, Tethys and Rhea were all visible and disk shaped through the big refractor. There were a couple bright stars in the field when I looked on Sky Map Pro on the laptop inside. It's nice to have a handy handheld Saturn tool like Satmoons to verify these things outside. I sketched the moons. That accomplished, I took a look at the rings and the planet. Soon the seeing deteriorated, but not before we had a pretty nice 6mm Radian (300x) view of our lovely ringed planet. We took a quickie view of the GRS on Jupiter, but the planet was still too low for good views. The



GRS crossed the central meridian at about 1:24 a.m. according to Akkana's Jup 0.2. It was a pretty washed out view, so we decided to sleep for a couple hours and wake up at 5:00 a.m. for the Callisto shadow transit and for some moon views.

At 5:00 a.m. we stumbled outside, with warm coffee and cold toast. It was 51 degrees outside. The little shadow of Callisto began its transit at 3:08 a.m. (11:08 UT) and ended at 7:52 a.m. 15:52 UT, so it was well underway at 5:00 a.m. The moon Callisto is so far from Jupiter that its orbit is the slowest of the 4 Galilean satellites and the shadow transit goes on and on and on. Because the moon is so far from the planet it exaggerated the sun angle - it was fun to see Callisto's shadow on the planet while Callisto itself was visible two Jupiters away!

That was a lot of fun, and the three of us were ready for some moon action. The cold had helped to wake us up too. It was now about 5:30 a.m. and the moon was in the trees. We switched from 6 and 10 Radians to the Zeiss Binoviewer and a pair of 25mm Zeiss Abbe Orthoscopic eyepieces + barlow for 200x. I spotted "Pinus" Iridum in the treetops of the Monterey Pine tree next door. Between branches we had great views of Sinus Iridum, Caroline Herschel and the much larger John Herschel using Rukl 2 and 10.

For the next hour or so we took turns observed Mare Orientale I have a sketch of the area on which I wrote all the lunar features to help my friend (and me) identify them. http://www.whiteoaks.com/sketches/mare_orientale.html We also opened the good book Rukl to pages 39 and 50.

Next I was drawn to the ghost crater Kies and Bullialdus environs shown on Rukl 53. Rima Hesiodus was easily visible. My very favorite view however was a moon pie - the small crater Cichus on the southern side of Rupes Mercator and Rima Hesiodus shown on Rukl 63. Kies points to it, actually, but you have to flip between the two maps. This little crater looked like a Thanksgiving pie with one piece missing (or one piece left, depending on your point of

view). The slice of pie was a little triangular wedge of light widest on the western side of the crater, pointing north-eastward towards Weiss. It wasn't a sunset ray (wrong direction for a ray) but whatever peak caught the light made a great view.

Before it got too light out, we took a look at the lovely crescent Venus through the telescope and Mars above it, and visually tracked the ecliptic all the way from sunrise to Saturn. We have a lot to be thankful for. ★

*A website utility that predicts seeing conditions for the astronomically-minded. Go to <http://cleardarksky.com/>

Eastbay Astronomical Society

Seventy Ninth Anniversary Dinner

Sunday, March 16, 2003

Astronomy Hall of Chabot Space & Science Center

10000 Skyline Boulevard, Oakland

We will again be in the Dellums (west) building of CSSC. This is where the “Planetary Landscapes” exhibits are. We are on Sunday this year to avoid impacting CSSC’s schedules. We plan to open the doors by 6:00 p.m. and have **Dinner at 6:45 p.m.** Awards presentation, door prizes and lecture about 8:00 p.m.

Our speaker will be Dr. Harold Weaver, Professor Emeritus, UC Berkeley.

“Movies Made from Observational Data: A New Way to Study the Galaxy”

Harold has spoken to us many times since 1946, primarily at our Annual Dinner. In 1948 he told us about “The material between the stars,” and in 1976, “Explosive Events in the Gas of Our Local Spiral Arm.” For the last several years he has been devising a variety of novel ways to study the local interstellar medium in an effort to understand its large-scale structure. Local here means out to a distance of at most a kiloparsec. He will tell and show us what he has found.

Assuming no paperwork problems that delay her move to the United States, we will also hear from **Alexandra Barnett**, Chabot’s new Executive Director who begins work on March 1. She is coming to us from the National Space Science Center in Leicester UK. (See <http://news.bbc.co.uk/1/hi/sci/tech/1394524.stm> and <http://www.nssc.co.uk/>)

We will be presenting the **Helen Pillans Award** to **Ellis Myers** for his many years as Editor for EAS and the Mt Diablo Astronomical Society, and his wonderful constellation articles.

The dinner will again be catered by **Harry’s Hofbrau** and will feature Roast Beef, Turkey, Ham and Spinach Lasagna. This dinner received rave reviews the past seven years.

Cost per person will be \$30.00. Make checks payable to EAS and mail as soon as possible with the form below to Don Stone, 19047 Robinson Rd., Sonoma, CA 95476-5517, or bring it with you to the next meeting, or give it to Carter Roberts at CSSC some Friday evening. To guarantee a seat at the banquet get your reservation in soon. We must give the caterer a final count by March 10. Questions? Call Don at (707) 938-1667, or email ddcstone@earthlink.net More information next month.

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EAS Banquet Reservation: March 16, 2003

Number of guests: _____ x \$30.00 = \$ _____

Your name(s): _____

Phone: _____ Email: _____

Please make your check payable to the EAS and send it with this form to:

EAS Banquet
Don Stone
19047 Robinson Road
Sonoma, CA 95476-5517



Editor's News 'n Views

As you can tell from the color insert in this issue, it's almost time for our yearly EAS Awards Dinner (6:00 pm, Sunday, March 16th), and it promises to be a great one! We've got a fascinating speaker

(**Dr. Harold Weaver** from UC Ber-

keley), yummy food (ala **Harry's Hofbrau**), and honored members **Ellis Myers**, receiving the *Helen Pillans Award*, and **Jake Siegal**, first recipient of the newly established *Betty Neall Award for most promising young astronomer*. You especially don't want to miss this: **Ms. Alexandra "Alex" Barnett**, will address the EAS in her official capacity as the brand new Director of the Chabot Space & Science Center for the first time, letting us know her ideas and goals for Chabot's future. Both Carter and Terry have met and talked with her already, and they were both very impressed! **NOTE: Your registration form must be in to Don Stone BEFORE March 10th, to give our caterer an accurate count of how much food to prepare, so don't delay!!**

Also in March, we've got a couple more Library Work Parties; one on Sat March 8th, and the other on Sat March 22nd (both from 2 – 5 pm). We really need to push this project to completion ASAP, so if you can spare a few hours on either or both of these days, it would be a big help. Call Don Saito (me) at (510) 482-2913 for more info.



Leah's new brass nameplate – designed and hand-carved by Carter Roberts

Well, the old Restoration Team is shaking the calcium from its bones and is starting to get active, again. We *finally* put Leah's brass nameplate on after the better part of a year's delay, and it was quite the or-

deal, let me tell you. At one point, whilst trying to re-

move a broken tap (thing that threads a hole for screws), Ken tried breaking up the tap by hitting it with a punch. Then the punch broke off on top of the tap, and we couldn't get it out, either! We ended up shifting the position of the plate, so that it both missed and covered-up the messed-up holes. :-)

The next Members' Only view night will be on Sunday, March 30th, starting at 6:30 pm (NOT on March 2nd, as tentatively listed in last month's newsletter). As always, call Don Saito (510) 482-2913 the afternoon before the event to verify, if the weather looks questionable. Hope to see you soon! ★

More funds needed for the Betty Neall Award of Merit

Last year, the Eastbay Astronomical Society set up an endowment fund to encourage young people in achieving their goals as junior observers. Named in honor of the youthful Betty Neall, who reached the age of 95 last September, the Betty Neall Award of Merit will be given annually to a youth in the East Bay who has shown dedication and resourcefulness as an amateur astronomer. The award will consist of a \$95 cash grant and an invitation to the Annual Dinner of the EAS. While the first award—to be given in March—is assured, the intent is to set aside sufficient funds that their return on investment will provide awards for future years, hopefully even enough to increase the awards in value or in number. This goal has not yet been met; thus this reminder that you may want to participate in this worthy cause. If each of the 166 members of the EAS were to send \$10, that would make a good start (together with monies already contributed). But, since you all know very well that everyone else is a piker, why not send in \$20 or more instead? Send your check or money order to:

The Neall Fund
c/o Don Stone
Treasurer
19047 Robinson Road
Sonoma, CA 95476-5517

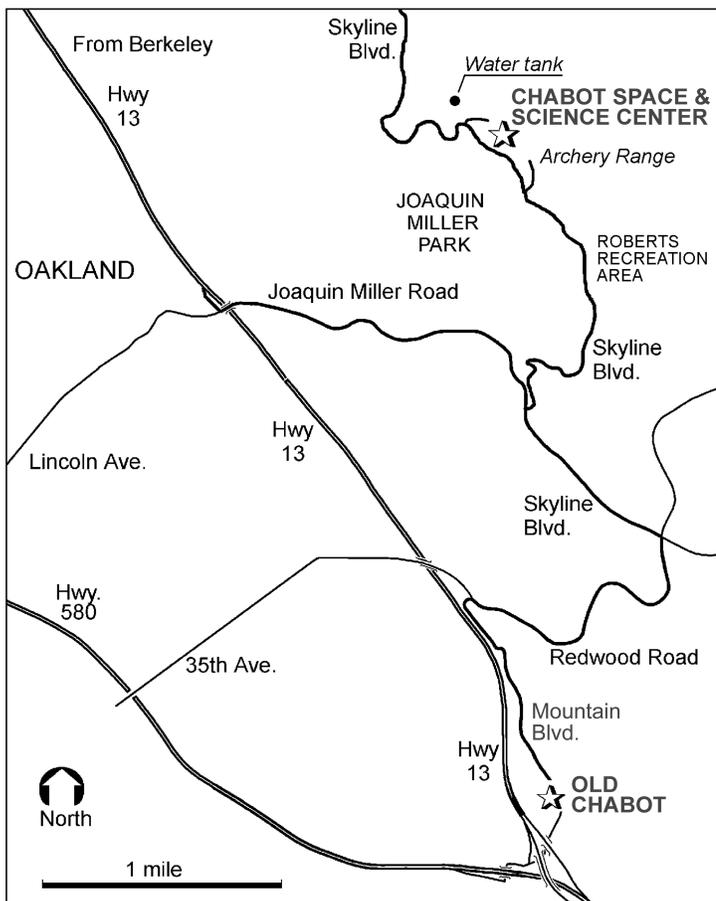
EAS + Amazon.com = \$\$\$ for club

We will very soon be initiating an association between our website and the Amazon.com website which should gain us a modest amount of extra income, which we can always use. Here's essentially how it works: On our website, we will provide links to specific books, CDs, DVDs, etc. at Amazon.com; items that we recommend to visitors to our site concerning astronomy and the space sciences. If someone goes to Amazon.com via one of our links to buy the linked item, or any other *Amazon.com* item (this doesn't include purchases from other merchants who have links in the Amazon.com website; e.g., Drugstore.com, etc.), then we get credit. For purchase of items listed in direct links, we get 15%. If you buy any other eligible items after going to Amazon through our website, we get 5%. There are exceptions and special cases to all this which are fully described on their website at <http://associates.amazon.com/exec/panama/associates/join/operating-agreement.html>, which you can read all about, if you're so inclined. But, basically, if you buy books, CDs, or videos from them through us, we'll get money! So, tell all your friends to buy everything they normally get through Amazon.com to go through our website, first. Such a deal! ★



Eastbay Astronomical Society

At Chabot Space & Science Center
 10000 Skyline Boulevard ● Oakland, CA 94619
 March 2003
 RETURN SERVICE REQUESTED



FUTURE CONJUNCTIONS

- Mar 8 2:00pm – 4:00pm Library Work Party
 13 7:30pm EAS Board Meeting at Chabot
 16 6:00pm EAS Annual Award Dinner at Chabot
 22 2:00pm – 4:00pm Library Work Party
 30 7:00pm EAS Members' Only view night at Chabot
 Apr 10 7:30pm EAS Board Meeting at Chabot
 19 7:30pm EAS General Meeting at Chabot
 26 2:00pm – 4:00pm Library Work Party

Eastbay Astronomical Society

President: Carter Roberts (510) 524-2146
 cwroberts@earthlink.net
 Vice President: Phil Crabbe II (510) 655-4772
 Treasurer, Membership: Don Stone (707) 938-1667
 ddcstone@earthlink.net

Articles and photos for *The Refractor* are encouraged. Deadline for the April issue is March 29, 2003. Items may be submitted by mail to the editor, Don Saito, 3514 Randolph Avenue, Oakland, CA 94602-1228. Internet email address: donsaito@pacbell.net Hm: (510) 482-2913.

Join the Eastbay Astronomical Society

- Regular, \$24/year
 - Family, \$36/year
 - Contributing, \$40/year
 - Student, \$15/year (digital)
 - Sustaining, \$60/year or more (newsletter, only)
- Contact: Don Stone, EAS Membership Registrar
 Telephone: (707) 938-1667 Email: ddcstone@earthlink.net
 Mail: 19047 Robinson Road, Sonoma, CA 95476-5517