



Our December Meeting...

Thursday, December 8, 1994
 Phillips Auditorium, Harvard-Smithsonian
 Center for Astrophysics

OUR DECEMBER meeting is titled "Tales from the eclipse". Bernie Volz and I, Mario Motta, will describe our adventures and views of the November 3, 1994 total eclipse of the sun from Bolivia. Our journey began with twilight tours on lake Titicaca and took us to Tiwanacu and Inca ruins, culminating in a 450 kilometer journey into the altiplano desert to view the eclipse on the center line. It was SPECTACULAR! Though we were worried the evening before, the skies cleared in time to see a 5 degree corona with three long streamers (similar to the 1991 eclipse). After the eclipse Bernie, Howard Leveaux, and I took a rather precarious jeep ride to the world's highest ski slope (17,900 ft) and went skiing. We then took our own extension and spent 3 nights viewing the southern skies (food poisoning did ruin one night). Howard Leveaux decided to stay in South America till Christmas!

Daniel Green and Stephen O'Meara went with Wilderness Excursions, and got to enjoy three, dusty subfreezing and sleepless nights out somewhere in the altiplano in a tent. Dan will be on hand to relate their experiences on this trip.

Finally Dennis DiCicco will relate his views of the eclipse and his adventures in northern Chile during *Sky and Telescope's* trip to Putre. He will also tell us how a European group got there first and "borrowed" all the sleeping bags they rented. His group also visited many of the Chilean Observatories.

This evening should prove entertaining and informative not only of the eclipse, but also of our collective adventures in these third world exotic cultures.

Please join us at a pre-meeting dinner at the Changsho Restaurant, 1712 Mass. Avenue, Cambridge. Please meet at the restaurant by 6:00 PM.

November Highlights...

GUEST SPEAKER James Cornell, long time ATMoB friend and Publications and Information Manager at the Harvard-Smithsonian Center for Astrophysics, reviewed the following: information and educational activities his office, the interconnection with the Smithsonian Institution in Washington, DC, the many publications available to us and the general public and the local Observatory Nights and "Lowell Lecture" series at the Boston Museum of Science.

He then provided an informal visual tour of the Lowell Observatory Visitor Center in Flagstaff, AZ followed by an in-depth review of the of the MMT, Whipple Observatory and the development of it's visitor center at the base of Mount Hopkins.

Jim invites anyone planning a trip to the Tucson area to call either the Amado Arizona Whipple Observatory public information office (602-670-5707) or the CFA information office (617-495-7461) for specifics on current activities. Also, the Tucson amateurs cooperate the observatory to provide dark sky observing from the parking lot.

Many thanks to Mr. Cornell for an entertaining evening and the hospitality extended to our club over the many years.

The meeting was opened by Mario Motta, the October highlights were read by Bernie Volz in the absence of Secretary Steve Beckwith. Tony Costanza gave the treasurer's report and Membership Secretary, Mark Bruckner reported 198 full members, 22 senior members and 5 student members. Clubhouse activities were reported by John Reed, Steve Clougherty and Paul Cicchetti. They requested members not to throw out bunk beds, wall lamps or triple track storm windows but to call them clubhouse recycling.

Observe...

HOW MANY times has the daytime sky been crystal clear... you plan your evening observing session... and then, @#\$%^&...the clouds roll in and your night is ruined? Too many times, perhaps! Well, why wait until evening to begin your observing session?? Why not start during the daytime? Daytime observing is fun and easy and there are actually quite a few objects to observe during the day! Let's explore them...

First of all, there's the Sun, big and bright... way too bright! Make sure you use proper filtering devices or project the solar image for safety. There are several companies which offer filters to block the incoming solar light. I use a Thousand Oaks Optical Type II filter. It produces a nice orange image of the Sun. The detail in my RV-6 is great!

Next, don't forget the Moon! During much of the month, the Moon is visible during the daytime. Whenever I organize daytime star parties (especially for school

groups), I try to schedule them for either first or last quarter Moon. The reason has to do with the natural polarization of the daytime sky. Sky light is polarized, the maximum effect occurs 90 degrees from the Sun and that's where the Moon is during these phases! I use a single polarizing filter attached to the eyepiece. Simply turn the eyepiece until the sky brightness is minimized! Now the Moon stands out... not as brightly as at night, but enough to see detail!

Now, let's search for some planets. This December, Venus will appear as bright as it can be. What better time to observe it in the daytime! Wait! Venus in daylight? This December, Venus will be an easy daytime object (even with the naked eye!). First, your telescope needs to be polar aligned. Drag it out into the daylight, set it down and... wait a minute... I can't see Polaris! How can I polar align?? You only need a bit of information to accomplish the task! An excellent method for polar alignment was described in *Sky & Telescope* magazine (December, 1993, page 95). Here's how: First you need to know your sidereal time. You can obtain this from a planisphere. Set it to your time and date and read the Right Ascension (R.A.) of the Celestial Meridian (The line running north to south across the sky). Don't forget to correct for longitude... add 4 minutes per degree East of 75 degrees longitude; subtract 4 minutes for each degree West. Next, you need the Right ascension and declination of some object visible. I use the Sun. This information can be obtained from almost any of the "planetarium" programs for home computers or can be interpolated from the monthly information in *Sky & Telescope* magazine. So, here we go... Set the scope down. Level it and make sure the angle of the Right Ascension (R.A.) axis is set for your latitude. Now, point the telescope at the zenith. A carpenter's level will help to determine that you are there. Set the Right ascension circle to the Sidereal time. Next, move the telescope in Right Ascension and Declination (Dec.) until the circles read the position of the known object. All that is left to do is to swivel the base of the scope until the known object is centered in the eyepiece. The Sun is a nice target because you can observe the shadow of the tube on the ground to tell when the Sun is centered. Needless to say (but I can't resist... for any neophytes!), DON'T look into the eyepiece or finder without proper filtering! Now, the telescope is polar aligned! (Mark the location of the telescope base so you won't have to repeat this each time you set up!) Pre-focus the telescope on the Moon, clouds or very distant trees and then set the R.A. and Dec. for Venus (Obtained the same way as you obtained the coordinates for the Sun.). You may have to slew the scope a bit depending on your level of accuracy, but I've used this technique time and time again with great success! During December, Venus is a waxing crescent to the West of the Sun. It crosses the celestial meridian mid-morning. Once you've found it in the telescope, try to spot it with your unaided eye. It's magnitude -4.7 on December 9th!

Now, let's say you want more of a challenge! You're ready to try for stars in the daytime! Use the R.A. and Dec. of bright stars to locate them. For more information, check out the article by Herman M. Heyn in the September, 1994 issue of *Sky & Telescope* magazine (page 99). Herman was at last year's Stellafane gathering and was treating the faithful to views of Sirius and Arcturus! I've tried it myself.... it works!
- Richard Nugent

Telescope Loan Program...

ALL LOANER telescopes are being recalled at this time. Please bring your loaner 'scope and/or accessories to the clubhouse on December 3, 1994 (Dec. 10 snow date). We will inspect each instrument, add the ATMob logo, identify the telescope's donor and items included with each telescope. We hope to start re-issuing loaner telescopes on December 19. A \$5.00 monthly fee will be implemented. The loan periods will be renewable every three months.

Announcements...

A FEW months back, ATMob member Sai Ballabha said his farewells to us and moved, in search of a job, to the San Francisco bay area. According to John Reed, Sai had an interesting trip to the west coast including a stranding in Butte, Montana because of an out of season ice/snow storm. Since his arrival in California, Sai has been able to contact the local amateur group and also visit several area observatories. Despite the nice weather, hot tubs and endless parties in the California life, he still misses home and his friends. If you wish to contact him and say hello, his new address is: 1060 Reed Avenue #44, Sunnyvale, CA. 94086 (408-244-6817).

THE OBSERVING committee is always looking for new faces! If you've never volunteered for a star party, please consider it! The experience is always fun and you come away with the feeling that you've inspired someone to pursue this great hobby!
- Richard Nugent

ATMOB APPAREL - Caps, T-shirts, and sweatshirts imprinted with our logo, are available for purchase at meetings and by mail (postage extra). All proceeds go to the ATMob. We offer yellow T-shirts with a blue logo for \$10, gray sweatshirts/blue logo for \$18 and blue and white caps with a blue logo for \$6.
- Ted Poulos

Clubhouse News...

THE SIGN-IN log shows that 780 member and guests visits were made to the clubhouse, January through October 1994. Monthly totals ranged from 55 in January to 110 in July. Please continue to sign the log next to the

telephone each time you alone or with guests visit. If you are in charge of a star party, please add the number of telescopes to your log entry.

LOCKS ARE being upgraded and new keys will be distributed at the 7:00PM, December 3rd (Dec. 10, 7:00PM snow date) clubhouse committee meeting. Please plan to attend this meeting; all old, new and prospective committee members are invited. At the meeting, we will vote on a refundable key deposit.

The new "Duty Roster" will include only two members (formerly four) for each Saturday night. This moves the duty rotation from a monthly to a bi-monthly basis. If you are not on the clubhouse committee and can help us out, it will lighten the load even more.

CLUBHOUSE SCHEDULE

Dec. 3: Ledford, Fill, Swedlow, Burrier
Dec. 10: Heller, Volz, Rounseville, Walker
Dec. 17: Green, Hopkinson, Reed, Cicchetti
Dec. 24: CHRISTMAS EVE
Dec. 31: NEW YEAR'S EVE

THE SIX-INCH Maksutov has been returned to the clubhouse. The member who removed the "Mak" did not clear this action with the clubhouse directors beforehand. The 17mm Tele Vue eyepiece has not been located, nor has the 12" combination square or full sized vice grips. Two adjustable crescent wrenches were found in the construction box. Please check your "borrowed" box at home for these items.

ALL MEMBERS are encouraged to use your clubhouse. A few former members have shown up to use the facilities and purchase optical supplies - while not renewing their membership. This is not fair to the rest of us who provide the funds to keep the clubhouse safe and usable. Starting immediately, only specific committee members are authorized to dispense optical supplies; a surcharge will be added for non-members. In addition, members who have checked out on telescopes and equipment and have signed the loaner or release forms are authorized to use these items.

When you are at the clubhouse, please talk to other attendees, welcome non-members as your guests and invite them to become a member. Membership forms are located next to the telephone.

THE NEW year will see continued upgrade of the facilities - weather pushed us indoors; the new kitchen is priority one. Call John or Paul to volunteer- join the fun! We still need a bunk-bed and six small wall mounted lamps with shades.

HAVE ANY questions? Call:

Grounds and Observing Committee

Chairman: Steve Clougherty (617)-784-3024

Buildings Committee

Chairman (temp.): Paul Cicchetti (508)-433-9215

Optical Shop

Manager: Eric Johannson (508)-667-0137

Asst. Manager: Bob Collera (617)-275-9482

Master Optician: Phil Rounsville (617)-527-1080

Optical Consultant: Mike Mattei (508)-264-0017

Machine Shop

Manager: Fritz Ledford (508)-386-7928

Asst. Manager: Greg Chase (508)-957-9926

Aluminizing Shop

Manager: Ed Dougherty (508)-458-8857

Asst. Manager: Bob Heller (508)-433-6536

Observing

Chairman: Rich Nugent (508)-879-3498

(note: Star Parties to be coordinated with Rich.)

Electronics Shop (to be established)

Manager: Henry Hopkinson (603)-432-2490

Asst. Manager: OPEN

For Sale...

FOUR-INCH reflector on German Equatorial Mount with eyepiece - \$99.00. Very old Bausch & Lomb Criterion RV-6 Dynascope \$275.00 or trade suggestions. Bob Major, 603-891-2355

Coming Events...

MONTHLY FRIDAY OBSERVING near the new moon. At the clubhouse. Contact Ed Los at home 603-884-1586 (home) or 603-884-1586 (work).

Dec. 15 CFA MONTHLY OBSERVING NIGHTS. "Swords of Fire: The Amazing Northern Lights" by Dave Huestis, Sky Scrapers Inc. (The Amateur Astronomical Society of Rhode Island). 8:00PM, Phillips Auditorium, Harvard-Smithsonian Center for Astrophysics. Call 617-495-7461 for additional information.

JANUARY STAR FIELDS DEADLINE

December 30th is the deadline for items to be included in the January issue of *Star Fields*. Mail or phone your contributions to: Steve Beckwith, 195 Wilder Road, Bolton MA. 01740

EXECUTIVE BOARD 1994-95

PRESIDENT: Mario Motta 617-334-3648
VICE PRESIDENT: Peter Bealo 603-382-7039
SECRETARY: Steve Beckwith 508-779-5227
MEMBERSHIP: Mark Bruckner 617-648-4426
TREASURER: Anthony Costanzo 508-521-5382

MEMBERS AT LARGE: Gary Walker 508-785-0352
Dick Koolish 617-646-6086
Phil Rounseville 617-527-1080

HISTORIAN: Anna Hillier 617-861-8338

PAST PRESIDENTS: 1993-94 Bernard Volz
1990-92 Marion Hochuli

COMMITTEES

CLUBHOUSE DIR.: John Reed 617-861-8031
Paul Cicchetti 508-433-9215
OBSERVING: Richard Nugent 508-879-3498

How to Find Us...

MEETINGS: Held the second Thursday of each month (September to July) at 8:00PM in Phillips Auditorium, Harvard-Smithsonian Center for Astrophysics, 60 Garden St., Cambridge MA.

CLUBHOUSE: The Tom Britton Clubhouse is open every Saturday from mid-afternoon to late evening. It is the white farmhouse on the grounds of MIT's Haystack Observatory in Westford, MA. Take Rt. 3 North from Rt. 128 or Rt. 495 to exit 33 and proceed West on Rt. 40 for five miles. Turn right at the MIT Lincoln Lab, Haystack Observing at the Groton town line. Proceed to the farm house on the left side of the road. Since clubhouse attendance varies with the weather, it is wise to call in advance: 508-692-8708.

Amateur Telescope Makers of Boston

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