



distributed a draft of the proposed committee operating rules. The Honorary Member amendment to the bylaws was passed. Kevin McCarthy won \$13.50 in the monthly raffle. Although the total lunar eclipse was only the night before, John Reed displayed photos taken by him at Bentley College Observatory, Paul Cicchetti exhibited his excellent drawings of the eclipse, and Mario Motta showed a series of beautiful eclipse slides he had taken. And, of course, no December meeting would have been complete without Tal Mental's annual "Twas the Night Before Christmas" recitation. Our speaker, Dennis di Cicco, not only talked about CCD imaging and showed some of his tri-color work in this field, but he presented us with a slide photo album of highlights of his years as an amateur astronomer.

OUR JANUARY MEETING...

Thursday, January 14, 1993, 8 p.m.
Pratt Conference room, Harvard-Smithsonian
Center for Astrophysics

WELCOME TO 1993 ...

The ATMoB begins its 59th year. Our first meeting of the new year will be a Show & Tell night. The scheduled mini-talks are:

- Mike Mattei will speak on drawing Mars and the current favorable viewing of Mars.
- Mario Motta will present a summary of his now completed 18' observatory project (from woods to usable observatory in 4 months - it can be done!).
- Ed Dougherty, Peter Bealo, and/or Bob Heller will talk about the vacuum evaporator project --what it is and what it will do for the club.
- Plus more ... representatives from French and Associates, an architect firm, will talk about an exciting telescope project in Lynn, MA.

LAST CALL FOR PARTICIPATION--you must contact Bernie Volz in advance of the meeting.

NOTE that our meeting will be in the PRATT CONFERENCE ROOM, not in Phillips Auditorium (we are unable to use the auditorium that evening). The Pratt Conference room is located in the new building, below the Library.

Join us at 5:45 p.m. for a pre-meeting dinner at the Changsho restaurant, 1712 Mass Avenue, Cambridge.

DECEMBER MEETING HIGHLIGHTS...

The December meeting was attended by some 65 members and guests. The meeting was presided over by Vice President, Mario Motta, in the absence of the president. All the usual reports were given. Phil Rounseville reminded clubhouse users to remember to pick up after themselves. He also stressed that things like the Foucault Tester should never leave the clubhouse. Ed Dougherty reported that some 30 members attended an Observing Committee planning meeting at the clubhouse on December 5th, and he

THINGS YOU MAY WANT TO KNOW...

THE FIRST MONTHLY VARIABLE STAR EVENING will be held from 7-9 p.m. on Friday, January 15, 1993 at the ATMoB clubhouse. These informal workshops will provide newcomers with an opportunity to learn about variable star observing. No previous experience is necessary as a member of the American Association of Variable Star Observers (AAVSO) will be present to answer questions and demonstrate techniques. Because variable star observing requires completely cloudless skies, last minute schedule information can be obtained by dialing 603-880-6219 (my home) and entering the code 52 at the start of the recorded message.

--Edward J. Los

THE ANNUAL BAXTER DARK SKIES trip is scheduled for August 14 - 21, 1993. If you are interested in observing under dark skies plus hiking and swimming in beautiful Baxter State Park, Maine, you must sign-up now! A firm count of those planning to go on this trip is needed so that reservations can be made before February 12. See me at the January meeting or phone me at 617-769-3023.

--Tony Badessa

MISSING ANY KITCHEN UTENSILS? Someone attending the Baxter trip last summer may be missing a couple of copper clad sauce pans, pancake flippers, and a steak knife. They have turned up in John Reed's truck. Call him at 617-861-8031 to claim them.

A SECOND SKI RESORT IN VERMONT, Mount Mansfield Resort at Stowe, VT, was recently granted a permit to light their ski trails. Joy Fagan of the Vermont Astronomical Society presented the case for dark skies before the District 5 Environmental Commission. A compromise was reached in that the ski area was allowed to install the lights and use them for two years while the impact of light pollution is assessed. Stow's ability to continue to use the lights for the next 17 years will be determined during the third year. Other lighted ski areas in the Northeast are: Bolton Valley (VT) Brodie Mountain (MA) Mount Tom (MA) North Conway (NH) Shawnee Peak (ME) Mount Southington (CN)

--The Boston Sunday Globe, 11-29-92

OUR DEEPEST SYMPATHIES are extended to ATM'er, Phil Rounseville, on the sudden death of his mother, Barbara E. Rounseville on December 11, 1992.

A SIMPLE RAY TRACING program for the PC and compatibles is available from Ed Wallner. It is designed primarily for refractive systems and is restricted to spherical and cylindrical surfaces, stops and central obstructions. Reflective spheres and cylinders can also be included(?). Phase errors over any surface as well as spot diagrams can be computed. If you'd like a copy give Ed a call at 508-358-7938.

CONGRATULATIONS to Peter Bealo and his wife, Rachel, on the birth of their baby girl in early December.

PRESIDENT'S TRIP REPORT... by Bernie Volz

First of all, thanks to Mario Motta for presiding over the December meeting, and to John Reed for video taping it--I saw the video. It looked like a good meeting with Tal's traditional Night Before Christmas recitation and Dennis di Cicco's excellent talk and color CCD images!

But, I must say I had a good time in Tucson in early December. I arrived there on a Thursday evening by plane from Las Vegas. On Friday morning, Mike Rudenko and I headed for Kitt Peak (weather forecasts weren't favorable for either Saturday or Sunday). We spent most of the day there walking around, seeing the various observatories (4 meter, 50", 2.1 meter, and the McMath Solar Telescope) and visiting the visitor's center. If you've never been there, the site is very impressive and well worth a visit. If you do, you might want to check with the visitor's center since they offer a monthly "Night at Kitt Peak" which means you get to visit at night and see the telescopes in operation! But, they do this only one night a month, have room for only a few people, and it is usually booked months in advance.

Friday evening, we visited NOAO where Mike had to do some work to wrap-up after his observing run for UMASS (on the 50") earlier that week. Afterwards, we were treated to about 15 hot-air balloons on the campus of the University of Arizona--apparently this is an annual exhibition.

On Saturday, we visited the Arizona-Sonora Desert Museum. Pretty neat place. Again, well worth the visit. You see lots of desert animals (from snakes to bears) as well as plants and more. After the museum, we headed across Tucson to the east for a trip into the Colossal Cave (which is always a perfect 72 degrees). This is a big cave (not in size, but in length--lots of twisty little passages). Sadly, neither Mike or I were able to locate the \$60,000 in gold (now properly worth more like \$6 million now) that is supposed to be hidden somewhere. Finally, we wanted to visit a mountain for a night view of Tucson. But, it was temporarily closed.

On Sunday, we went to the Sabino Canyon - "a desert oasis in the southern foothills of the Santa Catalina

Mountains". This canyon isn't like the Grand Canyon, but is still impressive. One does need a lot of time though, since much walking is needed. The Sabino Creek that runs through the Canyon starts on the slopes of Mt. Lemmon (which features the southernmost ski area in the United States).

We next went to the Flandrau Science Center & Planetarium for the Sky Show. Sadly, it was not well attended and therefore we got a more private look at the planetarium and what its Minolta projector can do. This Science Center and Planetarium stays open late every night and runs quiet a few shows every day.

Next, it was off to pick up David Levy. He was returning for a trip to California where he gave a bunch of talks. We then drove to David's house in Tucson (he lives about 30 minutes out from the city center). I saw from where David hunts for comets and we next climbed a ladder to the roof of his house (where a neighborhood handy-man had built him a widow's walk) and sat on lounge chairs looking for Geminids. We saw quiet a few, although the sky conditions were fairly poor that evening (light pollution wasn't the problem!).

Next, it was back to the hotel for our early morning flights back east.

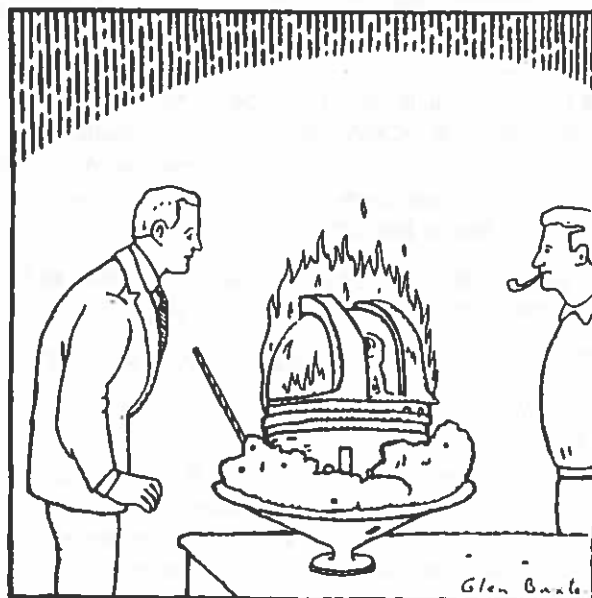
It was a great trip. Kitt Peak was definitely the highlight and well worth the visit! If time permits, I'll show a few slides at this or some future meeting.

ATMoB ACTIVITIES...

THANKS TO JOHN SAMOLYK for preparing our November meeting refreshments and to TONY COSTANZO for the December ones. --Bernie Volz

COMET SWIFT-TUTTLE may have been observed for

ASTRO-CARTOON... Contributed by Dick Koolish



ROBERT WAS ALWAYS ON THE LOOKOUT FOR NEW WAYS TO SERVE SAMBUCA.

the last time by an ATM'er when STEVE MOCK observed it in the twilight sky of December 18 from the Tom Britton Clubhouse. Anyone seen it later than this?

CLUBHOUSE NEEDS A TV SET. The one we had, recently died with a hiss and a sputter never to show a lighted face again. Remember, any donation of cash or other items, like a TV, are tax deductible.

THE ATM'oB is now covered under the Astronomical League's Liability Insurance Program. -- Bernie Volz

WE WELCOME, Ben Brault of Westford, MA as a new member of the ATM'oB. We are starting 1993 with 277 members--about 16 more members than last year at this time. --John Samolyk

CLUBHOUSE WORK. Again, we must thank John Reed, Paul Cicchetti, Ed Dougherty, Ed Knight and a few others for their work at the Clubhouse. They've been doing an outstanding job! So far, we've spent about \$950 on clubhouse work, the majority of the funds going to paint (we've probably purchased all of the paint we'll need to finish painting the clubhouse in the spring). --Bernie Volz

LAST CHANCE! By now, you should have labeled or removed any and all personal property (telescopes, mirror blanks, etc) from the Clubhouse. If not, do it NOW as any property not removed or properly labeled, becomes the property of the ATM'oB, Inc. THIS MONTH. These items may then be subject to being discarded, sold, or used by the corporation.

--ATMoB Executive Board

MEMBERS USING the ATM'oB Clubhouse shop facilities, are required to sign a release form before doing so. The forms can be found in the sign-in book. Use of the Clubhouse shop facilities is at your own risk. --ATMoB Executive Board

EDITOR'S NOTE...

Although I enjoy producing *STAR FIELDS* each month and hope you enjoy reading it, I wish more of you would contribute to it. One of the easiest things you can do is to fill out a "ATMoB Members Profile Questionnaire" that I can use to introduce you via a *Member's Profile* piece. Another contribution you can make that all of us can learn and in other ways benefit from, is your comments about a new piece of astronomical equipment, accessory or software you recently purchased. Reports on interesting observing sessions, aurora, fireball sightings and your educational outreach activities are needed. Things like poems, cartoons, info on coming events, clippings, and brief book reviews are always welcome. -- Ted Poulos

BEGINNERS INFO...

A series of well done "how to" articles, of particular interest to beginning amateur astronomers, have appeared in *Astronomy* magazine over the past year. They are listed below. If you do not subscribe to the magazine, consult your local library, find a friend who

does, or purchase the back issues you want from the publisher, Kalmbach Publishing, 21027 Crossroads Circle, Waukesha, WI 53187, 414-796-8776.

POLAR ALIGNING YOUR TELESCOPE by Michael Porcellino, May '92, Vol. 20, No. 5.

HOW TO CLEAN YOUR OPTICS by Michael Porcellino, March '92, Vol. 20, No. 3.

HOW TO COLLIMATE YOUR TELESCOPE by Michael Porcellino, April '92, Vol. 20, No. 7.

TAKING PICTURES WITH YOUR TELESCOPE by Alan Dyer, Dec. '92, Vol. 20, No. 12.

GIVE YOUR CAMERA A PIGGYBACK RIDE by John Sanford, Jan. '92, Vol. 20, No. 1.

BUILD AN ASTROPHOTO (Barn Door mount) PLATFORM by John Iovine, Nov. '92, Vol. 20, No. 11.

GETTING THE EXPOSURE RIGHT by Alan Dyer, Sept. '92, Vol. 20, No. 9. Simple tips on how to get well-exposed astrophotos.

HOW TO BUY YOUR FIRST TELESCOPE, Nov. '91, Vol. 19, No. 11.

BUYING BINOCULARS FOR ASTRONOMY, Nov. '92, Vol. 20, No. 11.

ASTRO-TRIVA...

THE WINTER TRIANGLE. You've heard of the summer triangle of stars formed by Deneb, Vega, and Altair, but are you familiar with Winter's counterpart? It consists of Procyon, Betelgeuse, and Sirius and encloses about the same sky area, but on the average is about a magnitude brighter than the summer triangle.

METEOROIDS in space travel with velocities up to 45 miles/second. A meteoroid impacting the Moon at 20 miles/sec. or more can give lunar escape velocity to more than its own weight of lunar material. It has been suggested that more matter is thrown off the moon by these impacts than falls into it. "Tektites," glassy, streamlined, meteorite-like rocks found on Earth, have been said to be such lunar debris. --NASA EP-38

MARKETPLACE...

FOR SALE Meade Starfinder 10-inch, f/4.5 Newtonian reflector complete with equatorial mount, motor drive, 25 mm eyepiece, and 6 x 30 mm viewfinder. Brand

OBSERVER'S CALENDAR...

- Jan. 3 MARS in Gemini makes its closest approach to the earth. Disk size: 14.9". North polar cap tilted slightly toward the earth.
- Jan. 1-10 MOON (Qrt. to full) hinders deep sky observations.
- Jan. 19 VENUS at greatest evening elongation with a angular distance of 47° from the sun.

new--only used by S&T for evaluation (see Jan. '93 Issue). Price \$675. Call Dennis di Cicco, 617-864-7360 (S&T) or 508-443-8493.

WANTED Used triple-track type storm windows for the clubhouse. Need six of minimum size: 30 x 53" and 1 27 x 45". Call John Reed, 617-861-8031.

COMING EVENTS...

- Jan 13 OPEN NIGHT AT THE BU OBSERVATORY, "Should We Visit Mars" by Steve Bloom, 7:30 p.m., Rm 522, 725 Commonwealth Ave., Boston. Call 617-353-2630 after 5:30 p.m.
- Jan 15 MONTHLY VARIABLE STAR EVENING, see page 1.
- Jan. 16 ATMoB MONTHLY OBSERVING NIGHT at

EXECUTIVE BOARD 1992-93...

- PRESIDENT: Bernard Volz, 508-881-3614
- VICE PRESIDENT: Mario Motta, 617-334-3648
- SECRETARY: Ted J. Poulos, 617-566-5127
- MEMBERSHIP SEC: John Samolyk, 617-391-9290
- TREASURER: Anthony Costanzo, 508-521-5382
- MEMBERS AT LARGE: Peter Bealo, 603-382-7039
Anna Hillier, 617-861-8338
- PAST PRESIDENTS: 1990-92 Marlon Hochuli
1989-90 David Aucoin
1987-89 Gary Walker

COMMITTEES...

- OBSERVING: Edward Dougherty, 508-458-8857
- CLUBHOUSE: -- Open --

the ATMoB Clubhouse.

- Jan. 21 CfA MONTHLY OBSERVATORY NIGHTS, "Space Flight and Space Exploration in the '90s" by J. McDowell, 8 p.m., Phillips Auditorium, CfA, Cambridge, MA. For more info call 617-495-7461.
- Thru '93 ORION RENDEZVOUS: A STAR TREK VOYAGE OF DISCOVERY, Hayden Planetarium. For more info call 617-723-2500.

FEBRUARY STAR FIELDS DEADLINE...

January 27th is the deadline for items to be included in the Feb.. Issue of *STAR FIELDS*. Mail or phone your contribution to Ted Poulos, 18 Cushing Rd., Brookline, MA 02146 (617-566-5127).

HOW TO FIND US...

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

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 495 to exit 33 and proceed west on Rt. 40 for 5 miles. Turn right at the MIT Lincoln Lab, Haystack Observatory sign at the Groton town line. Proceed to the farmhouse on the left side of the road. Since clubhouse attendance varies with the weather and other activities, it is wise to call ahead: 508-892-8708.

FIRST CLASS

AMATEUR TELESCOPE MAKERS OF BOSTON
c/o John Samolyk
65 Court Street
Medford, MA 02155