



STAR FIELDS

NEWSLETTER OF THE AMATEUR TELESCOPE MAKERS OF BOSTON, INC.

Vol. 1, No. 5

December 1990

THIS MONTH'S MEETING...

Thursday, December 13, 1990, 8 p.m.
Phillips Auditorium, Harvard-Smithsonian
Center for Astrophysics

MAPPING THE UNIVERSE is this month's talk by Dr. Margaret Geller. Dr. Geller, Professor of Astronomy at Harvard and Senior Scientist at the CfA, is a theoretical extragalactic astronomer. Her research contributions include the largest studies of the three-dimensional distribution of galaxies, examination of the properties of individual systems of galaxies, and estimates of the mean mass density of the universe derived from systems of galaxies. She has appeared frequently on TV science and news programs. Last July she was awarded a MacArthur Foundation Fellowship.

Please join us for dinner before the meeting at the Changsho Restaurant at 5:45 p.m. The restaurant is located at 1712 Mass Ave. in Cambridge, near Linnean St.

LAST MONTH'S HIGHLIGHTS...

The November meeting was opened by the president with about 65 individuals in attendance. After the usual reports of the Secretary, Treasurer, and committee chairmen, the president announced that we had received official confirmation from the Astronomical League that we are to host ALCON 91. Bernie Volz, co-chairman of ALCON 91, made a plea for help from members to plan, organize, and implement this convention. He announced a planning meeting at the clubhouse for Sunday, November 11. Bernie also indicated that a tentative agreement had been completed with the U Mass Conference Service group. A vote was taken to raise ATM membership dues to \$35 and to set a dues of \$20 for students or members under 21 years old. A vote on family membership at the regular member rate was postponed when Paul Comba raised the question as to whether a family would have only one vote and would the by-laws have to be amended accordingly. Greg Chase gave an update on the clubhouse furnace and indicated that a new oil burner could be obtained for about \$1200, the cost of two new propane heaters. Gary Walker provided a supply of information on Photometric's CCD systems for interested members.

An excellent talk was given by Peter Nisenson on the principles of image processing especially as applied to the imaging problems of the HST. All attending were amazed at the sharpness of a HST image of Saturn shown. It looked as good as any Voyager obtained. He showed that deep sky objects that were bright enough (good signal to noise) could be processed by various deconvolution algorithms (one invented by Mr. Nisenson) to yield useful images.

ANNOUNCEMENTS...

THE NORTH SHORE AMATEUR ASTRONOMY CLUB grew out of the ATMOB by members who wanted to find a convenient location on the North Shore to meet and observe regularly. The club meets for observing every clear Friday night in the parking lot of the Mass. Audubon Society Ipswich River Wildlife Sanctuary in Topsfield. We invite all interested ATMs and others to come and join us. Our business meeting is held on the first Friday of the month at 8 p.m. in one of the buildings at Mass. Audubon and after which we observe if it is clear.

Take Rt. 1 north to Topsfield. Just past the Topsfield Fair Ground turn right at the traffic light (Rt. 97). Proceed 1/2 mile to Perkins Row and turn left. Travel exactly 1 mile to the gate of Mass Audubon (stone pillars) and turn right. Go up the hill. The parking lot is on the left. We set up at the far end of the lot. Park and walk down to the end.
--Michael D. McCoy, President, NSAAC, 508-768-3494.

AN EXECUTIVE BOARD MEETING has been called by the president for Saturday, January 5 at 7:30 p.m. at the clubhouse. Snowdate is Jan. 7. Board members who do not have a current copy of the By-Laws, can obtain a copy from Ted Poulos at the December meeting.

THE CLUB'S 20-INCH SCOPE will be at the Clubhouse December 1 for a week or so for all who would like to see it. GARY WALKER has made a split ring mount for it similar to his Stel-lafane award-winning mount. Some finishing touches will be made on it by ED DOUGHERTY over the winter. At meeting, called by Ed on November 10, to discuss the future of the scope, it was decided that we will construct a roll off roof (convertible to a dome) observatory for it this spring in the lower field beyond the Schupmann.
-- Marion Hochuli

THE MAKSTOV TELESCOPE that Sam Burgen's widow donated to the club is now operational inside DENNIS DI CICCIO'S donated 'doghouse.' Special thanks is extended to ED DOUGHERTY and many thanks to ED KNIGHT, STEVE BECKWITH, GREG CHASE, JOHN REED, TIM SOLINSKI and BERNIE VOLZ for making this possible. -- Marion Hochuli

ANYONE HAVING ACCESS to a 3/4-inch video player, please call Marion Hochuli (603-888-0141) immediately. We need one for our December speaker's presentation.

ATM ACTIVITIES ROUNDUP...

STEVE MOCK with his mounted 20x80 binoculars manned his usual post on the roof of the Harvard Observatory helping the CfA with their November Monthly Observing Night. Many thanks to STELITA CRONIN for the great home baked pastries she provides at our meetings and to JOHN REED, TIM SOLINSKI and others who help her with the refreshments. DAVE AUCOIN spent an October evening cleaning the clubhouse and also donated a video tape of recent NOVA space oriented shows. Some 20 kids and their parents from a Newton school visited the clubhouse on October 27 and enjoyed using the club's 6-inch Maksutov. The friendly, playful but destructive clubhouse area raccoon has disappeared. Rumor has it that MARION HOCHULI gave him a one way ride across the river. Can raccoons swim? GREG CHASE and ED KNIGHT replaced some parts on the club's oil burner trying to prepare it for another heating season. Thanks to the help of several ATMer's GARY WALKER'S new two story observatory in Plymouth, NH now has its 14 ft. dome and outer skin of fiberglass in place. MICHAEL TEREZONI, a NY amateur who has joined ATMer's at the Baxter outing each summer, won an astrophoto award (Astronomy, p 84) for a beautiful aurora photo taken at Baxter this summer.

ASTRO-NOT by Rich Burrier



ATMOB★ALCON 91...

Plans for the 46th annual convention of the Astronomical League at UMass, Amherst on August 6-9, 1991 are proceeding according to John Reed, Committee Chairman. It will be the first astronomical meeting after the July 11 solar eclipse. "On the Road to Stellafane" has been adopted as the convention slogan. The committee needs assistance in the areas of:

- Publicity
- Speakers/activities
- Registration
- Exhibits/sales/raffles

Call John Reed or Bernie Volz if you can help. A well organized meeting minimizes the workload for each ATMOB member, allowing all to enjoy the gathering. The next committee meeting is on Dec. 15 at 4 p.m. at the clubhouse.

ATM PROFILES...

MARION HOCHULI, president of the ATMOB and 13 year member, lives in New Hampshire, but grew up in the New York city area. There as a young girl she learned the constellations from her mother. Professionally, Marion is a Technical Writer and has worked as an editor for Double-day in NY as well as high tech firms in NH. Her first telescope, which she still has in modified form, was a Tasco 4.5-inch reflector. Her chief interests are astrophotography and solar observing, particularly the study of the morphology of sunspots. As a member of ALPO, she has contributed solar observational information to this organization. Marion has had the experience of observing four solar eclipses, two in Canada, one in Africa, and an annular one in North Carolina. While on the cruise to Africa, she attended lectures on Celestial Navigation and developed an interest in this subject and as well as spherical astronomy. Marion loves to read and has a beautiful collection of some 300 astronomy books. She also owns five telescopes ranging from a 60 mm refractor to a C8. Currently she is permanently installing in her yard a Cave mount for a 6-inch Cassegrain. Incidentally, Marion's last name is pronounced Hock'eu ly.

STEVE BECKWITH, a native of upper New York state, spent a stint in the navy and then worked while going to school here to get a degree in Electrical Engineering. He now works as an application engineer for NEC semiconductor products. Steve has been an active ATMOB member for some 6 years and is currently spear heading the project to get the club's 6-inch Schupmann up and operating. His interest in astronomy began as a boy influenced by the space fervor of the 60's and the fact that there was nothing to do at night in the rural town in which he lived except look up at the sky. He remembers his first serious observations of Neptune at the age of 12. It took three nights with his small telescope and trusty Field Atlas of the Stars to find the

planet in Scorpius. Currently interested in planetary astronomy, Steve observes with both 2.4 and 4-inch refractors. He hopes to get into variable star observing after completing a 10-inch mirror, and his project to build his own digital setting circles system. In addition to astronomy as a hobby, Steve plays the guitar (jazz, folk, and rock) and is an avid long distant runner who may return to being a sprinter for the BAA.

FROM THE EDITOR'S DESK...

HAPPY HOLIDAYS TO YOU ALL AND THE BEST OF OBSERVING IN THE NEW YEAR!

NEW MEMBERS...

We all extend a warm welcome to the following new club members:

Peter Bullock	Boston, MA
William Chan	Marlboro, MA
Martin Cielinski	Nashua, NH
Joan Coyne	Tewksbury, MA
Roberta Normile	Arlington, MA
Chris Samauz	Clinton, MA

THE MARKETPLACE...

FOR SALE Super C8 plus, Byers drive, special coatings, 8x50 finder, diagonal, tripod, and eye-pieces. \$1750 or best offer. Also a Canon A1 camera with four lenses and filters, \$850 or best offer. Call Steven Paris, 617-254-2951.

FOR SALE Sky & Telescope from 1970 to 1988 in good condition, \$50. Call John Kyrka, 508-655-3667.

FOR SALE Smithsonian Star Catalog, 4 volume set, original price \$60. Asking price \$30. Call Marion Hochuli, 603-888-0141.

HARD TIMES MUST SELL Odyssey 13.1" w aperture stop cover \$430. 50mm Finder \$32. Tele Vue 32mm Plossl \$72. 24mm wide field \$112. 13mm Nagler \$60. Lumicon Deep Sky Filter \$56. Meade Var. Polarizing Filter \$32. Spectra Flexi-Glow lamp \$10. Whole lot w Variair lens cleaner and S&T Feb. 86-Oct. 90, \$930. Jim Baker, home 508-692-7940 or work 508-264-4099.

FOR SALE Celestron C6, f/5 with equatorial mount. Great for astrophotography. \$450.00. Call Tony Costanzo 508-521-4209.

FOR SALE UNUSED Celestron 8-inch full aperture #4 density glass solar filter. Original price \$350, for sale at \$150. Bob Henderson, 227 Linwood St., Lynn, MA 01905. 617-598-3378.

NEWSLETTER DEADLINE...

The 27th of this month is the deadline for items to be included in next month's STAR FIELDS. Mail or telephone your contribution to Ted Poulos, 18 Cushing Rd., Brookline, MA 02146, 617-566-5127.

THROUGH THE 'SCOPE...

HOW FAR SOUTH CAN YOU SEE from your observing spot? Some clear night look at Orion, go straight south through Lepus and M79 to Columba. To me, Columba resembles an upper case 'gamma.' I can see Alpha Columbae and below and off to east, Beta, and below it 4 stars in a slight curve configuration and below them three stars in a straight horizontal line. South of the eastern-most of these is a 6th magnitude star at -39° , my limit from latitude 42.726° and my upstairs window. I chose the stars in Columba because its upper stars are bright (about 3 mag.) and are visible in the evening now. In the summer, Scorpius' tail (Theta and Eta Scorpii) could be used but unless you have a clear horizon you may have to contend with foliage. Using 20x80s and URANO-METRIA are invaluable here.

While you're looking at Lepus, note the globular M79--an easy object with 20x80s. Also try to locate R Leporis, a red variable with a period of 432 days. As I was observing it recently, I thought it to be eery--almost like blood. Then I consulted Burnham's and found that it indeed has been described as resembling a glowing coal, a ruby, and an illuminated drop of blood! -- Marion Hochuli

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THE RECENT ISSUE OF DEEP SKY suggests the use of Orion's Enhanced Skyglow and Ultrablack filters over Lumicon, Daystar, and Meade filters. They performed best when viewing diffused bright and faint nebulae. The Lumicon swan band filter (useful on comets) is the best for planetary nebulae.

When viewing objects like nebulae, your eyes constantly collect and 'dump' the information they gather every 3 seconds, unlike a camera or CCD which constantly collects the information. Time is limited, make it last!

Light at Neptune is 900 times fainter than the light on Earth--equivalent to reading a newspaper on Earth at 30 minutes after sunset. Try it!

The only bodies in the solar system to have volcanic activity are: Earth, Io, Triton, and possibly Venus (from recent Magellan observations). Surprisingly Io's volcanic activity was discovered by mistake, and Voyager found Triton's.

Ulysses, when it gets its sling shot trajectory from Jupiter enroute to the sun, will travel in excess of 100,000 mph, the fastest interplanetary probe ever.

Olympus mons on Mars is 80,000 feet high or 16 miles and covers an area the size of Montana. The rock and ice wall on Miranda is about 10 miles high, and it would take your body 4

minutes to reach the bottom if you jumped off it even though its gravity is 1/3 that of the moon. You would not survive!

The good news is...CRAF/CASSINI mission slated for 1995 launch. A comet rendezvous and asteroid flyby (CRAF) will be launched first on a Titan IV Centaur rocket, the most powerful launch vehicle since the Saturn 5. It will visit, via flyby, 449 Hamburga in 1998. Then swing on toward Comet Kopff in 2000. In 1996, the CASSINI is launched for a post Voyager Saturn visit. Bad news is...Congress is thinking about backing out of this joint NASA/ESA project. Write your Congressman to support CRAF/CASSINI!

I'll end my section with a joke...Magellan's memory failed in August, but don't worry, we're keeping an eye on it with Hubble.

-- David Aucoin

EXECUTIVE BOARD 1990-91

PRESIDENT

Marion Hochuli, 28 Taschereau Blvd., Nashua, NH 03062, 603-888-0141

VICE PRESIDENT

Scott Milligan, 843 Boston Rd., Groton, MA 01450 508-448-2596

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Edward Los, 7 Cheyenne Dr., Nashua, NH 03063, 603-880-6219

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Anthony Costanzo, 4 Lafayette St., Haverhill, MA 01832, 508-521-4209

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Mario Motta, 806 Lowell St., Lynnfield, MA 01940, 617-334-3648

Bernard Volz, 1108 Windsor Ridge Dr., Westboro, MA 01581,

508-386-0788

PAST PRESIDENTS

1989-90 David Aucoin, Derry, NH 03038

1987-89 Gary Walker, Dover, MA 02030

1985-87 E. Talmadge Mentall, Lynn, MA 01902

COMING EVENTS...

Thru May BLUE PLANET, new Omni Theater film, BMOS. More info call 617-523-6664.

Dec. 20 CfA MONTHLY OBSERVATORY NIGHTS. "Swords of Fire--The Northern Lights" by David Huestis, Sky-scrappers, Inc. 8 p.m., Phillips Auditorium, CfA, Cambridge, MA. More info call 617-495-7461.

Thru Jan 1 THE CHRISTMAS STAR, Hayden Planetarium, BMOS. For times call 617-523-6664.

COMMITTEES

OBSERVING

John Reed, 1437 Mass Ave., Lexington, MA 02173, 617-861-8031

WORKSHOP

Greg Chase, 29 Beacon St. 65F, Burlington, MA 01803, 617-272-9394

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: 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 NERO sign at the Groton town line. Proceed to the farmhouse on the left side of the road. Clubhouse telephone 508-692-8708.

FIRST CLASS

AMATEUR TELESCOPE MAKERS OF BOSTON

c/o Edward J. Los
7 Cheyenne Drive
Nashua, NH 03063