



STAR FIELDS

NEWSLETTER OF THE AMATEUR TELESCOPE MAKERS OF BOSTON, INC.

Vol. 1, No. 2

September 1990

THIS MONTH'S MEETING...

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

LIMITING MAGNITUDE is this month's talk by Stephen J. O'Meara of Sky and Telescope. Steve is an Associate Editor at S&T and is well known to many ATM members. He is an accomplished and tireless visual observer, credited with the first visual sighting of Comet Halley on its recent time around, as well as the first visual sighting (using the Harvard's 70 year old Clark refractor) of the spokes in Saturn's rings several years before Voyager's 'discovery'.

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...

Marion Hochuli opened the July, 1990 meeting with about 60 members attending. She reviewed the large number of events occurring in July and August. John Stansfield voiced the concern of many ATM members over the great increase in the cost of the La Paz trip. Scott Milligan reminded members again to clean up after using clubhouse grinding and other work areas. He pointed out that it is not fair for the next member who wants to work to have to clean up the mess of a previous worker. Greg Chase announced that the club's 16-inch is back in operation in its hutch. The diagonal was reinstalled and the main mirror cleaned. The membership voted to purchase, for \$200, Dennis DiCicco's Celestron fork mount to be used on the club's 6-inch Matzoukov. The central activity of the meeting was a discussion by George East, Dennis DiCicco, Ken Laurie, Ed Dougherty, and Marion Hochuli on how to prepare for observing the solar eclipse of 1991. These individuals, all of whom had observed one or more previous eclipses, gave many good and practical suggestions concerning techniques, films, etc. (see below). Bernie Volz video taped the session. Julie Brown, only 6 weeks old, attended the meeting with her father, Michael, and found it so inspiring that she slept through most of it.

ECLIPSE OBSERVING TIPS from the discussion at the July meeting:

● Take lots of film because a 6 minute eclipse provides for an awful lot of picture taking time. Regardless of what film is left on the roll in the camera, reload with a new roll before totality begins.

● Although one tends toward using slide film, remember that negative film has finer grain and greater latitude. It also will record info that can be later be coaxed from it. A recommended negative film is Kodak Ektar that is available in several speeds.

● Prevent out of focus photos when using Schmidt-Cass type optical systems by remembering that the focal plane is concave. To compensate, focus on crescent sun at a position about 3/4 from center of film.

● During the 6 minutes of totality, take time to visually look at the eclipse. No photos will ever capture the sight your eyes can see.

● Obtain your neutral density filters now because they will become more scarce as the eclipse approaches. Use this summer's sun to check out your exposures.

● CCD camera recording of the eclipse offers wide dynamic range and a live image for making any adjustments. A 200 to 300 mm lens should be used.

ANNOUNCEMENTS...

RENEWAL NOTICES from Kalmbach Publishing you may have received should be ignored if you have renewed the subscriptions with your club membership. --Ed Los

ATM T-SHIRTS. The following individuals, who ordered and paid for T-Shirts, have not picked them up yet:

P. Bruckner	T. Kochanski
P. Calantropo	J. Sauer
D. Emerson	B. Sawyer
H. Robinson	E. Wallner

SCIENCE PROBE, a new quarterly amateur science magazine, begins publication this month. Subscription price is \$9.95. Call 1-800-777-5489.

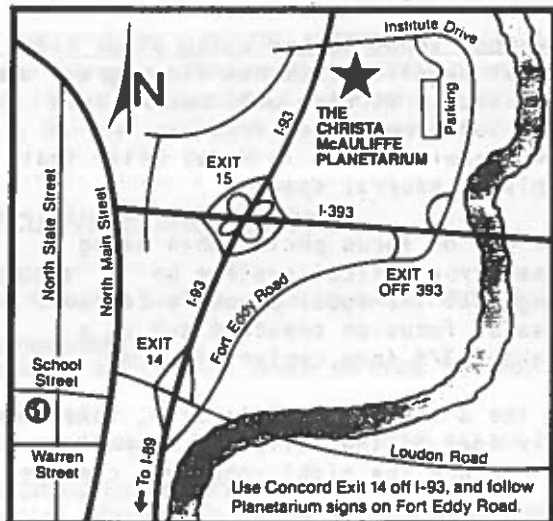
THE CHRISTA McAULIFFE PLANETARIUM, Concord, NH reportedly was sold out a week in advance for all shows this summer. With the vacation

season over, getting in to this new institution should be easier. Adult admission \$4.00 and children \$2.50. Call 603-271-STAR for more information. The map below shows how to find the planetarium.

NATIONAL GEOGRAPHIC magazine, in their usual class act fashion, carried the following two articles in the August issue:

Neptune: Voyager's Last Picture Show
Voyage of the Century

A beautiful poster of the solar system was also included.



ATM ACTIVITIES ROUNDUP...

This has been a busy summer with lots of amateur astronomy activities in which ATMer's have taken part. These are the highlights...

A.S.P. MEETING. Gary Walker represented us on the program of the meeting with a talk on astrophotography. About 45 people attended, and to judge from the many questions and the large group of participants around him after he left the podium, his talk was a success.

Although very few ATM members attended the meeting, a good number, including the Burrier family, Tal Mentall, Phil Rounseville, Gary Walker, Marion Hochuli, Dave Aucoin, Bernie Volz, Ed Dougherty, John Reed and others I may not have seen, showed up at the Science Museum clear skies (believe it or not) star party. Some 14 scopes were set up and there was good attendance from A.S.P. conference attendees. Photometrics Ltd installed a CCD camera on Bernie Volz's 8-inch to give spectacular images of M57 and M13. SpectraSource Instruments had their CCD system set up on a 4-inch refractor to also give good views of several deep sky objects.

SPACE WEEK. The following Saturday, ATMer's Ed Dougherty, Steve Mock, and John Reed helped the Science Museum celebrate Space Week by setting

up a display of scopes and video astronomy. That night John and Ed Budreau hosted a roof star party under clearing skies. They treated visitors to views of double stars, Saturn, M13 and M57.

STELLAFANE, in its 55th year, was honored by the US Department of Interior which declared the observatory and clubhouse a National Historical Site. In celebration, nature produced a fireworks display on Saturday night in the form of a spectacular 1-1/2 hour aurora. The northern horizon was brilliantly aglow and streamers and curtains pulsed to the zenith. Those present at Stellafane on Friday night were also treated to a clear and reportedly great observing night.

ATM happenings at Stellafane included our swap table dutifully manned by Greg Chase, John Reed, and Tony Costanzo. Tony also gave a demonstration on how to silver a mirror during the Saturday afternoon talks under the tent. Scott Milligan was master of ceremonies of the afternoon program which included a hilarious talk on the California amateur's Group 70 project by former ATM member John Briggs. Ken Launie walked away with the raffle's grand prize, a beautiful set of eyepieces.

John Samolyk of Waltham, a new ATM member who recently moved to this area, tied for 1st place in the optical judging with his entry of a 12.5-inch mirror.

Second place in optical judging went to Micheal Costanzo, Tony's 8 year old son, for his 6-inch telescope.

A new 6-inch refractor was shown at Stellafane that used a two element objective with absolutely no color problem. According to Scott Milligan, the secret to the design is the use of a new OHARA FK03 glass for one element in addition to the standard BK7 crown glass.

CONJUNCTION 1990 held in Northfield, MA was attended by several ATMer's including Marion Hochuli, Ed Los, Tony Costanzo, Tim Solinski and John Reed. One of the highlights of the meeting was a field trip to Oak Ridge Observatory in Harvard, MA.

MT. KATAHDIN TRIP included about 30 individuals. A lot of good long distant hiking was done by several people including Steve Mock and Sai Vallabha. Astrophotographers, George Roberts, Bernie Volz, and Mike Terazoni took advantage of the few nights of clear skies to take some excellent photos.

ATM COOKOUT & SLIDE SHOW at the clubhouse was a great success with nearly 40 people attending despite the intermittent drizzle. John Reed's tarp kept everyone comfortable and the mountains of food dry. After pigging-out, ATMer's retired to the clubhouse to see slides

of Ed Los's trip to Belgium to attend the first international AAVSO meeting. Marion Hochuli showed slides from Conjunction 1990 while John Reed's slides let us see what the Mt. Katahdin trip was like. In his first attempt at astrophotography, Mark Bruckner, chased clear skies to capture photos of Comet Austin. Bernie Volz showed us a variety of slides including some to the aurora at Stellafane. One of his most spectacular slides was of the Boston skyline below a hovering full moon. George Roberts' photos, taken at Baxter, of Comet Austin (showing two tails), M31, and the Sagittarius star clouds impressed all that saw them.

NEW MEMBERS...

A big and cordial welcome to the following amateur astronomers joining the ATM's:

Lawrence Durfee	Waltham, MA
Joseph Bergeron	Indicott, NY
Paul Cicchetti	Pepperell, MA
John Samolyk	Waltham, MA
Rodney Blake	Billerica, MA
Stephen Leiker	Cambridge, MA
David Greeley	Hingham, MA
Jeffery Burt	Natick, MA
A. Joseph Ross	Brookline, MA
Earl Simoneau	Nashua, NH

ATM PROJECTS...

THE ATM'S MATSOUKOV is now mounted in the Celestron fork and a mounting wedge has been completed according to Ed Dougherty. The Dog House donated by Dennis DiCicco is in position at the clubhouse ready to house the scope. All that is required is some husky, young ATMer's to dig a hole to mount the supporting telephone post. Any volunteers? Call John Reed.

THE 13-INCH SHUPMANN project is moving again according to Scott Milligan. Optics are about 95% complete. Forms for the concrete mount will be built at Stellafane this Fall. The machining of the tube assembly is expected to begin shortly.

PRODUCT COMMENTARY...

TURN LEFT AT ORION by G. Consolmagno and D.M. Davis appears to be one of the better telescopic observing guides, particularly for the less experienced amateur. It reviews 100 best night sky objects that can be seen with a small telescope and explains how to find them. Objects are located in terms of easily visible nearby stars, rather than by celestial coordinates. Drawings show what the observer should expect to see in his finder and in his scope. It is published by Cambridge University Press, 1989. The Boston Public Library catalogs it as number QB63 C69.

NOTICE

All non-members and editors of other amateur group bulletins who want to continue to receive STAR FIELDS must return their mailing label from this issue by September 31, 1990. We are requesting this in order to update our mailing list. Send to: Ted Poulos, 18 Cushing Rd., Brookline, MA 02146. I would also appreciate if you would add my name to your mailing list.

THE MARKETPLACE...

WANTED to buy a used 10-inch Dobsonian telescope. Call Sai Vallabha, 603-893-7884.

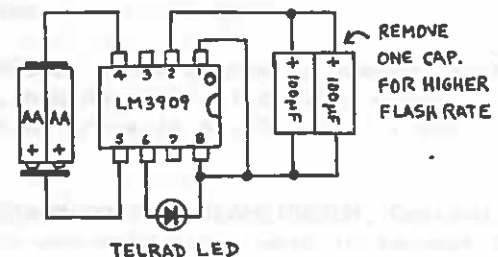
FOR SALE Casio Lunar & Planetary watches at a discount price of \$37 provided a group order of 15 can be placed. If your interested, you can order a watch by giving a \$20 deposit to Vladimir Uudler at the September meeting.

WANTED a Unimat lathe; preferably with accessories. Call Fred Miller 508-369-0528.

FOR SALE SGT-MAX software at a discount price to ATMer's of \$79 (\$99 list). Though the software is a self-standing graphical astronomy program, it can also be use with encoders to track and display where your scope is pointed. Software Bisque, 912 12th St., Golden, CO 80401, 303-278-4478.

ASTRO-TIPS...

FLASHING THE TELRAD TARGET reportedly gives the eye intervals of rest and allows you to see and align on fainter stars. Companies are selling modification kits for up to \$33. Below is my circuit for making this modification. It uses a special IC chip and gives a fixed flash rate and reticle illumination. Also since this circuit's current drain is so low, it can be left on continuously and, therefore, uses no on/off switch. The life of the batteries should approach their shelf-life. I can supply to ATMer's a small, completely assembled circuit board that fits within the Telrad at my cost of \$5.00. Of course, you must wire the board into the Telrad using the instructions supplied with the kit. -- Ted Poulos



ASTRO-TRIVIA...

THE LICK OBSERVATORY on Mt. Hamilton, CA was the world's first mountain top observatory. When it was dedicated in June of 1888 it also housed the world's largest telescope, a 36" Clark refractor.

THE WORLD'S HIGHEST OBSERVATORY is surprisingly not the Mauna Kea observatory in Hawaii at 13,765 feet, but rather the University of Denver's High Altitude Observatory in Boulder, CO at 14,067 ft. It was opened in 1973 and has as its main telescope a 24-inch Ealing Beck reflector.

THE WORLD'S ONLY FLYING OBSERVATORY is the Kuiper Airborne Observatory (KAO) operated by NASA. It is a modified Lockheed C-141 carrying a 36-inch reflector. At peak altitude it

flies above 85% of the atmosphere. The telescope is installed in an open cavity recessed into the port side of the aircraft, immediately ahead of the wing.

COMING EVENTS...

Sept. 20 CfA MONTHLY OBSERVATORY NIGHTS, "Astronomy Today--More than Meets the Eye", by Christine Jones. 8 p.m. Phillips Auditorium, CfA.

Thru Sept. 23 SOVIET SPACE exhibit, Boston Museum of Science.

Sept. 28 & 29 ASTRO-ASSEMBLY, Seagrave Memorial Observatory, 47 Peepload Rd., North Scituatd, RI. Call Sky Hotline 401-726-1328 for additional information.

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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.

NEWSLETTER DEADLINE...

The 30th 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.

AMATEUR TELESCOPE MAKERS OF BOSTON

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