



Our January Meeting...

Thursday, January 13, 1994
Phillips Auditorium, Harvard-Smithsonian
Center for Astrophysics

HAPPY NEW YEAR! This month's speaker, Daniel W. E. Green, of the Smithsonian Astrophysical Observatory, will speak on "Reflections on a Bright Fireball Seen Last August over New England."

On August 5, 1993, at about 9:16 p.m. Eastern time, an extremely bright fireball was seen by thousands of people across the northeastern United States and southeast Canada. Working with newspaper people and a Canadian amateur astronomer, Green collected nearly 200 reports from eyewitnesses that were used to construct the circumstances of the event. This was his initiation into fireball work, forcing him to learn much about the field. The talk will describe Green's experiences in collecting reports, numerous visits northward (with a Labor Day weekend trip to Quebec to the anticipated fall area with ATM President Bernie Volz!) and calculation results of this particular event. He will also talk a little on how amateur astronomers in the U.S. can greatly contribute to a field that both is very important and has been neglected in recent decades.

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.

December Meeting Highlights...

MARIO MOTTA presided over last month's meeting and announced the availability to the club of a sixty-nine inch, f/4.2 mirror from the University of Chicago. He also reported on the "Partnership in Astronomy" program at the Lynnfield Middle School and showed slides on the five hundred fifty pound mount he built for his thirty-two inch telescope.

Tal Mentall gave his annual recitation of "The Night Before Christmas" and encored with an a'capella version of "The Christmas Song".

Last month's speaker, MIT Professor and ATMoB member, Gerald Sussman, gave a detailed account of the inability to collimate - and the subsequent repair of the primary mirror's mounting system - of the 2.4 meter Hiltner Telescope at Kitt Peak.

Ed Dougherty gave the observing committee report, announcing several asteroid observation opportunities. The clubhouse saw much activity in November but little observing was done because of overcast conditions.

John Samolyk reported on the club's membership. Anyone who had not renewed their membership by the end of December would be dropped from the club's roster.

Gary Walker invited club members to his New Hampshire observing site for the May 10, 1994 annular solar eclipse.

Walter Scott Houston...

WALTER SCOTT HOUSTON, who authored *Sky & Telescope's* Deep-Sky Wonders column since September 1946, died on December 23rd at the age of 81 following a brief bout with pneumonia. He was in Cancun, Mexico, as part of an extended road trip with his wife, Miriam. Together with their daughter Margaret, they were planning to explore archaeological sites in the eastern Yucatan by day and the southern sky by night.

Born in Tippecanoe, Wisconsin, on May 30, 1912, Scotty had a life-long interest in astronomy. While still in grade school he viewed all the Messier objects with a 1-inch refractor he constructed from eyeglass lenses. He was an extraordinary observer. Although his column made him internationally recognized as a deep-sky expert, he was also a skilled solar observer and active as a variable star observer, contributing more than 12,000 magnitude estimates to the American Association of Variable Star Observers. An interview with Scotty, which describes some of his career, appears in the May 1987 issue of *Sky & Telescope*.

- Source: CompuServe (GO SKYTEL).

Scotty regularly gave talks and shadowgrams at Stellafane. He will be missed by all at future conventions.

Wanted: Satellite Observers...

The club has received a survey commissioned by the United States Air Force Space Command to determine if any amateurs are observing man-made satellites. Amateur astronomy clubs are being included in the survey to see if their observations may be of help to the space surveillance mission. If you are observing satellites and are interested in completing the survey, please see me at the January

Telescope Loaner Program

THE CLUB has several loaner telescopes available for members! The telescopes come with eyepieces and a hands-on instruction session, if requested. Please contact Ed Dougherty to take advantage of this great offer. A \$5 donation to the club (for upkeep of the scopes) is suggested.

meeting or contact me so I can mail you a copy.

- Bernie Volz

Keep Looking Up...

SEVERAL COMETS are visible in January - Comets Mueller 1993a and 1993p and Comet Schwassmann-Wachmann 2 (no relation to Sony-Wachmann). For details, see January's Sky & Telescope, page 109-110.

JANUARY IS also an excellent month to observe one of the crown jewel's of the night sky - M42, the Orion Nebula.

PERIODIC COMET Encke is in Aquarius this month. The following positions are from the December 1993 issue of *Sky & Telescope*.

Jan. 10 - R.A. 22^h28.6^m, DEC +02^d22^m, Mag. 8.7

Jan. 20 - R.A. 22^h21.8^m, DEC +00^d09^m, Mag. 7.8

Jan. 30 - R.A. 21^h54.8^m, DEC -05^d50^m, Mag. 7.0

January Star Party Volunteers Needed...

The ATMob has been asked to hold two star parties this month. The first will be held January 17th, from 6:00PM to 7:30PM (January 24th cloud date) for the Rockport Elementary School second graders. Pete Bealo (W: 508-281-2000) is coordinating the event and has requested members to arrive by 5:30PM with small telescopes for viewing the moon, Saturn and the Pleiades. One or two volunteer with flashlights are needed to point out constellations. Maps to the school will be provided at the January meeting or call Pete for directions and further information.

The second star party will be held Tuesday, January 18th (cloud date of January 25th), for the fifth graders at the J.W. Kilen Elementary School in Reading. The star party will run from 6:30PM until about 8:30PM. Charles McDonald (617-944-6140) is coordinating the party and has asked members to arrive and set up by 6:00PM. More

details and a map to the school will be available at the January meeting or call Charles for directions.

Announcements...

FOR MEMBERS who ordered the 1994 Observer's Handbook or the 1994 Astronomy & Space Exploration Calendar, they will be available at the January meeting. No extra copies are available.

HELP IS needed with mirror making activity at the Lynnfield Middle School. NASA has funded the purchase of five mirror making kits for the school as part of the "Partnership in Astronomy" program. Volunteers are needed to assist fifteen children in telescope making projects. If you're interested in lending a hand, contact Mario Motta.

INTERNET ACTIVITY. Pete Bealo is making a directory of ATMob members with internet access. If you're such a member, please notify Pete via internet (PBEALO@IIS.VARIAN.COM).

PLEASE WELCOME the following new members to the ATMob:

Seth Bechis	Concord, MA
Duke Briscoe	Lincoln, MA
Lyle Brownawell	Watertown, MA
Jerry Burchfiel	Watertown, MA
Frank Ferreira	Westford, MA
Adam Green	Lexington, MA
Robert Heller	Pepperell, MA
John Ingard	Natick, MA
Brewster LaMacchia	Framingham, MA
Alan Mazurka	Tyngsboro, MA
Hugh A. Stoddart	Harvard, MA
Tommy T. Tse	Brookline, MA

State Representative to Speak at NELPAG...

State Representative Jim Marzilli (Arlington, MA), will attend a January 29th NELPAG (New England Light Pollution Advisory Group) meeting to speak about the lighting bill he recently re-introduced at the State House in Boston. He will also talk on what can be done to help the bill along. The meeting is open to everyone and will be held in Phillips Auditorium at the Center for Astrophysics and is scheduled from 10AM to noon.

NELPAG is a group of individuals interested in reducing light pollution. There are no membership requirements or fees.

CCD Notes...

OPTIONS FOR amateurs interested in acquiring a deep-sky CCD camera have been somewhat limited to date: either buy a turnkey system from SBIG, Spectra or Photometrics, or build your own camera from scratch. The former option can contain painful financial consequences, unless you include the ST-4 (better described as an autoguider) while the latter, designing and building your own camera from scratch - despite valuable references such as Buil's "CCD Astronomy" - is a major undertaking and making a single set of printed circuit boards for the camera is inherently inefficient.

Two new systems may dramatically reduce the barriers to building your own CCD camera. The first, a book entitled "CCD Camera Cookbook" authored by Berry, Canto and Munger, provides plans (and optional printed circuit boards) for a pair of cameras based on Texas Instrument's TC211 and TC245 CCD detectors. The book will be available this March from Willman-Bell.

The second system is advertised in the market place section of December's *Sky & Telescope* and is from Guy Tucker, of Southwest Cryostatics. Tucker has developed a CCD camera system and will offer the design as an open architecture, public domain package that anyone can copy, build and improve upon (akin to shareware in the software arena). While not yet available, circuit boards and cryostatics will be offered in addition to his basic product: the documentation package.

Tucker has an extensive background as an imaging instrumentation engineer for Kitt Peak, MMI and Air Force Labs. His preliminary CCD camera design is fairly sophisticated using three to four stages of Peltier cooling, a 16-bit A/D converter and EPROM-based timing waveform storage. The latter feature makes the design CCD detector independent, supporting virtually any CCD detectors up to and beyond 1Kx1K pixel devices. This allows future upgrading as (pick one): detector prices fall, your income rises, or the obsession deepens.

While he has built an initial prototype, additional development through PC boards, etc. is dependent on ATM interest (although he indicated he was inundated with responses from the one ad). Anyone interested should contact him and voice their support. I'll bring reprints of his information to the January meeting along with a copies of a disc containing a fairly powerful image processing program he supplied. The software was developed by JPL for planetary imaging and performs many useful IP functions including: convolutions, edge detection, median filters, unsharp masking, etc. Best of all, it's public domain and free!

- Kevin McCarthy

Clubhouse News...

NEW YEAR'S DAY SUNSPOT activity was unusually high according to Ed Dougherty, who was solar observing from his home that day.

SPECIAL THANKS to Dennis DiCicco for donating several cabinets to the clubhouse.

AN IMPORTANT Observing Committee meeting will be held 7:00 PM Saturday, January 15 at the clubhouse. Committee members unable to attend should contact Ed Dougherty prior to the meeting.

CLUBHOUSE SCHEDULE

January 8: Green, Milon, Swedlow, Beckley

January 15: Bruckner, Mock, Heller, Chase

January 22: Cicchetti, Reed, Budreau, Rounseville

January 29: Volz, Walker, Hopkinson, Johansson

February 5: Swedlow, Heller, Fill, Beckley

February 12: Burrier, Hopkinson, Ledford, Bruckner

Position Offered at S&T...

Sky & Telescope has an opening for a half-time editorial assistant. This position involves office work, filing, maintaining the journals/periodicals library, answering mail and email, directing correspondences and manuscripts. For more complete details, contact Tim Lyster at 617-864-7360 x 150.

Equipment Reviews Needed...

EVER BUY a piece of equipment and the first time you used it, wondered why you didn't buy it sooner? Maybe that expensive telescope took forever to be delivered and wasn't all the manufacturer claimed it to be.

Star Fields is looking for member reviews of commercially available telescopes and accessories. The astronomy magazines are doing their reviews and while adequate, they are not always blind reviews. Some have been little more than free advertising for the manufacturer. Here's your chance to review a product as a *customer*. If you have new equipment, how about letting members know how well it works by writing about it in *Star Fields*. Mail your articles or send them via modem to me. - Steve Beckwith

Market Place...

FOR SALE: Celestron 8" Schmidt-Cassegrain. Excellent optical quality, hard coated optics, four eyepieces, wedge, steel tripod, AC/DC drive corrector, camera adapter, projection eyepiece tube, star atlas, case. \$950.00.

Paul Valleli 617-272-8946

FOR SALE: German equatorial mounted 17.5", F4.5 Newtonian reflector. Coulter primary, Novak nine point mirror cell, Telescopic 3.1" diagonal, four vane research quality spider and low profile helical focuser.

The mount is a rugged assembly of 2 7/16" shafts mounted in ball bearing pillow boxes all fixed to stainless steel structural boxes. Many extras... \$1250.00

Mike O'Connell (W) 603-881-1627 (H) 603-429-0550

Coming Events...

Jan. 14 VARIABLE STAR OBSERVING evening, 7:00 PM - 8:00 PM at the clubhouse.

Jan. 15 OBSERVING COMMITTEE MEETING 7:00PM at the clubhouse.

Jan. 29 NELPAG MEETING, 10:00 AM, Phillips Auditorium, Harvard-Smithsonian Center for Astrophysics.

EXECUTIVE BOARD 1993-94

PRESIDENT: Bernard Volz 508-881-3614
VICE PRESIDENT: Mario Motta 617-334-3648
SECRETARY: Steve Beckwith 508-779-5227
MEMBERSHIP: John Samolyk 617-391-9290
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1989-90 David Aucoin
1987-89 Gary Walker

COMMITTEES

OBSERVING: Edward Dougherty 508-458-8857

Amateur Telescope Makers of Boston

FEBRUARY STAR FIELDS DEADLINE

January 28th, is the deadline for items to be included in the February issue of *Star Fields*. Mail or phone your contributions to: Steve Beckwith, 195 Wilder Road, Bolton MA. 01740 508-779-5227

How to Find Us...

MEETINGS: Held the second Thursday of each month (September to July) at 8:00 p.m. 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.