



## **ED KNIGHT, ATM<sub>o</sub>B HONORARY MEMBER...**

At our last meeting William Edmund Knight (known to us all as Ed Knight), was presented with a plaque that made him an ATM<sub>o</sub>B Honorary Member for life. This honor was bestowed on him for his tireless service to the club through his 40 years of membership. Over the years he has held the offices of President, Vice-President, and Member At Large. He built his first 6-inch telescope in 1954 and won 3rd prize for it at Stellafane that year. Always active in clubhouse shop activities he has helped many to grind mirrors and build telescopes. To a large extent, the present good condition of our clubhouse (acquired in 1978) is due to Ed's engineering experience and efforts. Early on, he lead a team that rebuilt the chimney in 1978, then the north foundation wall in '84, to say nothing of adding an indoor latrine, modernizing the electrical wiring, and maintaining the heating system. He also with others answered call to refurbish the observing chair of the Great Refractor when Harvard recently asked for our help.

Ed is currently retired from his position as chief mechanical engineer for Stone & Webster. He is an ardent boating enthusiast and just last Spring retired his 32-foot cabin cruiser that dated from 1937. As Planning Board member of the Volunteer Yacht Club of Lynn, Ed continues his interest and activities in boating. Thanks Ed for continuing interest in your other hobby, amateur astronomy, and particularly for your many contributions to the ATM<sub>o</sub>B.

## **THINGS YOU MAY WANT TO KNOW...**

**BAXTER DARK SKY TRIP.** For the last two years I've organized the dark sky trip to Baxter State Park in Maine. This year, however, I plan on using my precious vacation time for other exciting adventures like skiing up north and scuba diving way down south. I won't have enough time to dedicate to a Baxter trip. If you are interested in keeping the Baxter tradition alive and are willing to coordinate the activity, call me (617-391-9290) and I'll fill you in with the details.

--John Samolyk

**THE DISNEY TEAM BUILDING** at Disney World in Florida is built in the form of a sundial. The outside has a gnomon and lines for the sun's shadow. The building, located just left of the Pleasure Island entrance to the park, has on the inside a garden and another sundial. If your visiting Disney World this winter, check it out. Otherwise, read the cover story in Smithsonian magazine for July, 1992.

--Anna S. Hillier

**A CABLE ASTRONOMY PROGRAM.** I am working with Cablevision of Lexington on an educational cable program for astronomy and sky appreciation. If you are interested in the program's content or are willing to help produce it, contact me at 617-861-8338. The Wehr Astronomical Society is presently providing a program

## **OUR DECEMBER MEETING...**

Thursday, December 10, 1992, 8 p.m.  
Phillips Auditorium, Harvard-Smithsonian  
Center for Astrophysics

**CCD IMAGING FOR THE AMATEUR** is the title of this month's talk by Dennis di Cicco, Associate Editor of Sky and Telescope, past president of the ATM<sub>o</sub>B, and renowned astrophotographer. Dennis will discuss not only conventional CCD imaging, but will also describe the newer tri-color imaging techniques. He has been an amateur astronomer and telescope maker since the 60's and has used a wide variety of telescopes and accessories in connection with his work at S&T. His chief scope, housed in his observatory in Sudbury, is a C-11. He has two CCD cameras, a ST-4 he uses for guiding in astrophotography, and an ST-6 for imaging deep sky objects.

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

**COMING UP** at our January meeting will be a Show-and-Tell. Since it will be limited to only about four presentations, if you are interested in taking part, call Bernie Voiz now.

## **NOVEMBER MEETING HIGHLIGHTS...**

Nearly 100 members and guests attended our November meeting. All reports were given except for those of the Treasurer and Clubhouse Committee. The President presented Ed Knight with a plaque that bestowed upon him the title of Honorary Member for his service to the club for some 40 years. Our monthly Land and Capital Equipment expenditure fund raffle was won by Ken Laurie. Finally, our speaker, Dr. Philip Morrison of MIT, discussed the subject of the stuff of which the universe is made. Apparently, the normal matter we are familiar with and astronomers routinely observe my not make up the bulk of this stuff. Other candidates are what Dr. Morrison calls Dark Light, neutrinos created by such things as supernovae; Light Matter, an electron/positron plasma of low density but all prevailing throughout the universe; and, for course, unobservable ordinary matter too cool to radiate light.

like this (see The Reflector, Feb. 1991, page 5).

-- Anna S. Hillier

**GOING, GOING, GONE.** This issue of *STAR FIELDS* is your last if you have not renewed your ATMoB membership. Please renew NOW! Simply send your check for \$37 (dues plus S&T subscription) or \$17 (without S&T) to JOHN SAMOLYK, 65 Court St., Medford, MA 02155.

**BOOK DISCOUNTS** are available from Sky Publishing Corporation to all ATMoB members who also subscribe to S&T as part of their membership. Deduct 10% from your order and indicate that you are an ATMoB. A computer validates your membership status. A catalog of Sky Publishing's products was included as a supplement to the November issue of S&T.

**NEED A MIRROR ALUMINIZED** contact Don Jaynes, Research Service Co., 890 Lafayette Rd. Seabrook, NH 03874. 603-474-9332.

**REMINDER TO ALL MEMBERS.** If you have a telescope or any other personal property at the clubhouse, you **MUST** remove or clearly label it with your name and telephone number by December 31, 1992. Any property not removed or properly labeled becomes the property of the ATMoB on January 1, 1993. This property will then be used, sold, or disposed of as the officers of the club see fit. --ATMoB Executive Board

### **ATMoB ACTIVITIES...**

**PHILLIPS ACADEMY OBSERVATORY OPEN HOUSE** was conducted by ATM'ers TONY COSTANZO and PETER BEALO for students of the Rollins School in Lawrence on November 16. It was part of a science awareness program sponsored by Hewlett Packard. Some 15 youngsters and 7 adults took part. The observatory has two domes, one housing a 6-inch, f/15 Brashear refractor and the other a 16-inch reflector. Tony has been the Observing Assistant and telescope maintenance person at Phillips for the past couple of years. From time to time other ATM'ers have helped Tony in telescope refurbishing or repairs.

### **NEW MEMBERS...**

A hardy welcome to the following amateur astronomers who have just joined the ranks of the ATMoB:

Robert Jay	Cambridge, MA
Vincent Marcellino	Medford, MA
Larry Swezey	Groton, MA

### **BYLAW AMENDMENTS PROPOSED...**

The ATMoB Executive Board has proposed the following amendment to the ATMoB Bylaws which will be voted on at our December meeting:

Article V, Section 1C, Honorary Members:

Persons especially distinguished for their contributions to the Amateur Telescope Makers of Boston, astronomy, or telescope making be proposed for Honorary Membership by any ten members and shall be

designated as Honorary Members upon their election to such membership by the majority vote of the members present at any regular meeting of the members at which a quorum is present. Any honorary member, who is not also a Regular Member, shall not be liable for the payment of any future dues, and shall not be entitled to vote at any meeting of the members, and shall not be eligible to hold any office. Any honorary member, who is also a Regular Member, shall have his regular membership dues waived for life and shall have all rights and privileges of a Regular Member for life. The membership shall add no more than one (1) Regular Member to Honorary Member status each fiscal year. -- Bernie Volz

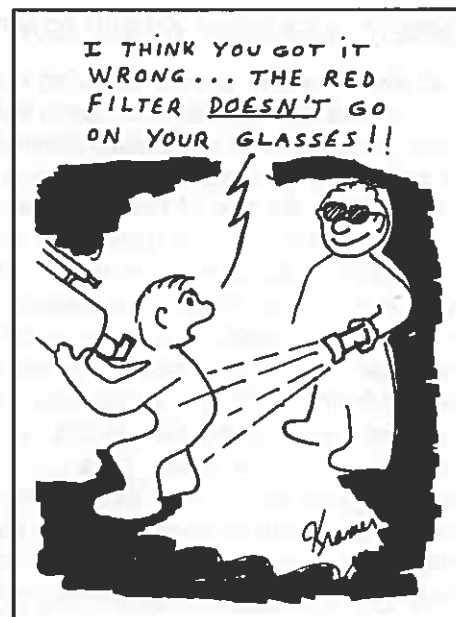
### **AN AUTOMATED TELESCOPE FOR AMATEURS...**

Did you know that there is a commercially made fully automated telescope for amateurs that is also capable of remote operation. I didn't until I was made aware of it by ATMoB members Mark Sheldon who owns one and Bob Beckley who was so impressed with the performance of Mark's scope he wrote a letter of praise to the manufacturer, Meade Instruments. Meade, pleased with Bob's letter, used it in their ads. To quote in part from Bob's letter: "Last weekend I arrived at our club's dark sky site (ATMoB Clubhouse) and set up next to a brand-new 8-inch LX200 owned by Mark, one of our club members. This was going to be a fun evening. Mark punched in a request for M57, the Ring Nebula. In less than 10 seconds, there it was exactly in the center of the eyepiece! Very sharp image too. Next we tried a long slew, off to M31, the Andromeda Galaxy. Took about 15 seconds and there was the core of M31, again centered in the eyepiece. We punched in a request for Saturn. The scope buzzed over and centered the beautiful ringed planet (this could make a

### **ASTRO-CARTOON...**

by Jack Kramer

From the Lake County Astronomical Society, Libertyville, IL via ASTRONOMY Network News.



finder scope obsolete!). We ran the power up on Saturn. The LX200 gave a splendid view. Sharp image, lots of contrast. Refractor like."

Note that this scope is not just a Computer Assisted Telescope (CAT), but is equipped with a four speed drive on each axis that has a maximum slew rate of up to 8° per second. The observer need not touch the scope when moving from one object to another. He just selects the object on a hand held keypad. Although the scope can be equatorially mounted, Mark chose the altazimuth mode of operation. Visual observing is not compromised in this mode, since precision two axis tracking keeps the object centered in the field. Astrophotography, however, with exposures longer than a few minutes will suffer from field rotation that does not exist when the scope is equatorially mounted.

By equipping the LX200 with a CCD camera, autofocuser, and connecting a PC to the scope's serial control port, the telescope is capable of truly remote operation--the scope in the backyard and you in your warm living room. Remote control software for the scope is available from Jim's Mobile Inc. as a version of The\_Sky desk top planetarium software. Simply point-and-click your mouse on any desired object, and the LX200 slews to the location. Similar software is available from Applied Controls Technology, Dearborn Heights, MI (313-563-8652) and CompuScope, Santa Barbara, CA. (805-687-1914).

For further details about the LX200, see the Meade ad in S&T, November '92, p. 598.

### **VERY SHORT POEMS...**

The cosmos once was very small  
An energetic little ball  
A fraction of a proton tall  
It blew apart, created all.

—Cosmic!, Boston Globe, 11-13-92

Twinkle, twinkle, quasi-star  
Biggest puzzle from afar  
How unlike the other ones  
Brighter than a billion suns  
Twinkle, twinkle, quasi-star  
How I wonder what you are.

— George Gamow, physicist

### **THOSE COMPUTER ENHANCED PHOTOS...**

Perhaps none of our senses ties so directly into our brains as vision. TV's popularity testifies to the power of colored, moving pictures... NASA appreciated long ago the public's demand that it fly cameras on its planetary spacecraft. And recently, thanks to modern computing power and the ingenuity of people like the California Institute of Technology's Eric De Jong, who leads the Solar System Visualization Project, we have been treated to amazing video displays of planets in motion. De Jong's latest production uses the Magellan radar

images to simulate a fantastic flight across a gleaming, golden surface of Venus, skimming past Devil's Tower-like volcanoes and soaring over gaping canyons. ...Nowhere does he (nor the media) say that most of the oblique views across the venusian landscape are vertically exaggerated by more than 20 to 1.

Geologists frequently exaggerate photos of gentle topography...though rarely by as much as 20 to 1. It helps them see at a glance what is uphill, and whether a linear feature is a ridge or a groove. But it is easy to forget that apparent Rocky Mountain topography could be just a distortion of Nebraska-like rolling plains. If a photo of your house were vertically exaggerated like the Venus pictures, its proportions would be more like the Washington Monument, and unrecognizable as your house.

Another way scientists exaggerate planetary images is by computer generated "enhanced" colors. Not only do scientists unwittingly amaze and confuse the public with these images, but they may mislead themselves when they aren't careful about "true" colors. Remember the spectacular orange pictures of pizza-like Io obtained from Voyager. After many researchers had struggled to understand Io's oranges and reds in terms of temperature-dependent properties of sulfur compounds, Andrew Young managed, years later, to convince his colleagues that Io was really a bland greenish yellow. But a tomato-sauce pizza will forever remain our mental image of Io.

In none of the TV clips or public showings I have seen, nor even in our own Planetary Report...has it been noted that these distorted pictures are anything other than colorized, oblique views of Venus as it really is. I think it is time that we ratchet down a few notches from the hype that George Lucas and his Industrial Light and Magic have gotten us used to. Exaggerated color and stereo have appropriate technical purposes. They may even be impressive to the public, if prominently and properly labeled as exaggerations. But if scientists, NASA's publicists, popular science magazine editors, and everyone else are not more careful, we'll all start believing that the solar system really looks the way Eric De Jong is so magnificently portraying it.

—From an article by Clark R. Chapman, *The Planetary Report*, Jan/Feb, 1992. Contributed by Dennis Milon

### **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 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...

- Dec. 9 OPEN NIGHT AT THE BU OBSERVATORY, "What's Up With Hubble" by George Fishman, 7:30 p.m., Rm 522, 725 Commonwealth Ave., Boston. Call 617-353-2630 after 5:30 p.m.
- Dec. 9 TOTAL ECLIPSE OF THE MOON, mid-eclipse 6:44 p.m. EST. See S&T, Dec. '92.
- Dec. 17 CfA MONTHLY OBSERVATORY NIGHTS, "The Wonders of Comets" by Daniel Green, CfA, 8 p.m., Phillips Auditorium, CfA, Cambridge, MA. For more info call 617-495-7461.
- Dec. 19 ATMob MONTHLY OBSERVING NIGHT at the ATMob clubhouse.

## 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 Marion Hochuli  
1989-90 David Aucoin  
1987-89 Gary Walker

## COMMITTEES...

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

## FIRST CLASS

- 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.
- Thru '93 ORION RENDEZVOUS: A STAR TREK VOYAGE OF DISCOVERY, Hayden Planetarium. For more info call 617-723-2500.

## JANUARY STAR FIELDS DEADLINE...

December 30th is the deadline for items to be included in the Jan. 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: 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: 508-692-8708.