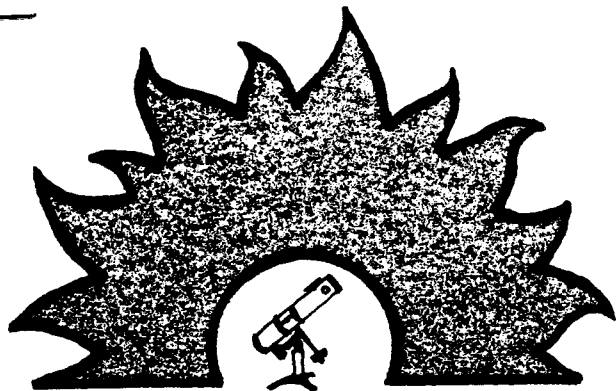




N O V E M B E R

1 9 8 6

PASTIMES

PHOENIX ASTRONOMICAL SOCIETY -- FOUNDED 1948

NOVEMBER MEETING NOVEMBER MEETING NOVEMBER MEETING NOVEMBER MEETING

As he promised in last December's PASTIMES, member Louis Boyd will speak to us at this month's meeting at our usual time and place: Friday, November 21, at 8:00 p.m., Phoenix College, Room C-102 (see map on back of newsletter).

Lou and his partner, Russell Genet, have been working hard the past few years on an ambitious project called the Automatic Photoelectric Telescope Service under the name Fairborn Observatory. All this has been taking place down south on Mt. Hopkins, and Lou has plenty of slides to share with us. See you Friday!

"ACTING SECRETARY" REPORTS

Somewhere in our midst out there is a latent secretary/treasurer who has always wanted to blossom into a key cog in our organization. It matters not if you are man, woman or alien being -- let's talk. My number is 254-4057.

Shame on you if you missed our last meeting. First, Dr. Roger Angel spoke to us on mirror making (spinning hot glass method) and all current and proposed multi-meter telescopes. Free 1.2 Meter mirror samples were distributed to all present (better be there next time!). Then, Dr. J.T. Williams (MMT director) spoke further on the future of astronomy on Mt. Graham and made a wonderful case for science's compatibility with nature on that mountain. Impressive information packets on Astronomy in Arizona were given to all in attendance. Thanks to both you gentlemen!

Now is the time to renew your membership for the coming year. See page 3.

-- Bill Krist

ASTROBRIEFS

Squirrels Vs. Scopes. The hearings held by the U.S. Forest Service this month concerning the deposition of Mt. Graham have produced only dissatisfaction and the rejection of a tentative compromise proposal. Comments were identical to those expressed at the August hearing. The Fish & Wildlife Service will make a decision regarding the classification of the Mt. Graham red squirrel late next year. The Forest Service plans to consult the Fish & Wildlife Service before issuing a final plan



Samantha In The Sky. Russian astronomer Lyudmila Chernykh has discovered a new asteroid (#3147) between Mars and Jupiter and has named it in honor of Samantha Smith, the girl from Maine who visited the Soviet Union in 1983 on a personal campaign for peace. The name

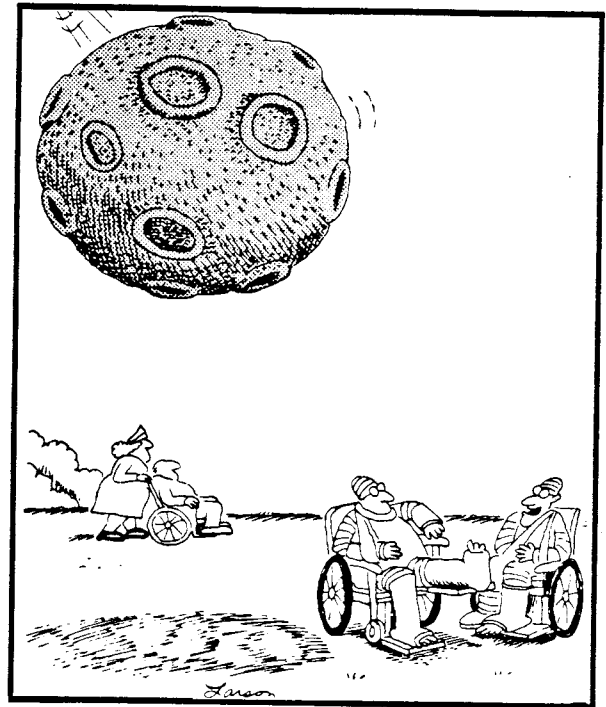
-- Briefs p2

Briefs -- continued

is registered with the International Planetary Center in Cincinnati

Comets, Comets, Comets. Scientists meeting in West Germany this month reviewed photos of Halley's core. It resembles a large pile of powdery snow and is surprisingly larger and more diffuse than expected. It is filled with dust and carbon substances which reinforce claims that comets were formed about 4.5 billion years ago. . . . Tucson is perfecting a thumbtack-shaped instrument package to be fired into a 2-mile wide comet, Temple 2, in order to discover whether the core comes from a relatively warm or cold place, in order to find out where the body was formed. The comet penetrator, called CRAF (Comet Rendezvous-Asteroid Flyby) is scheduled for September 1992 if Congress funds the mission. CRAF, probably costing half a billion dollars, will provide information on the creation of the universe. . . . Hallowe'en night was a real treat for Bill Sorrells, vice president of the Peninsula Astronomical Society of Palo Alto, CA. At 2:00 a.m. he held up a negative, saw a scratch, took a closer look at the fuzzy streak and decided it was a comet. Central Bureau for Astronomical Telegrams at the Smithsonian Astrophysical Observatory in Cambridge, MA confirmed his discovery and now lists Sorrells' Comet along with Halley's. Between 2 and 12 new comets are reported annually but only 2 other amateur astronomers have discovered a comet since 1970

Is It A Bubble, A Meatball, Or A Sponge? If you're going to find out how the universe got its structure you need to be able to describe it. You'll need a framework for explaining the process of cosmic evolution that has created order out of



"You're kidding! ... I was struck twice by lightning too!"

turmoil -- a description. So . . . what shape are we in? Until the '70's the assumption was that galaxies are distributed evenly through the universe -- no special structure. Then, evidence that galaxies form clusters led to the meatball theory: matter is organized in clumps. Further observation revealed unexpected voids, holes strongly suggestive of a sea of bubbles, with galaxies existing on the bubbles' surface. Now, researchers believe it's time to stop thinking in two dimensions. There is a symmetry of 3 dimensions, like a sponge, in which matter and void, "stuff" and "not-stuff" are interconnected all in one "piece". This change of perspective is an exciting concept because the relatively weak force of gravity cannot account for such gigantic galactic formations but it does provide a new kind of evidence for

BOARD MEMBERS

President
Vice President
Secretary/Treasurer
Director
Director
Director
Editor

Bill Krist	254-4057
Richard Wasson	279-0384
VOLUNTEER NEEDED!!!	-----
Robert Pribbenow	275-2786
Raul Espinoza	948-3617
Trevor Tuffin	948-3126
Steve Lewis	955-1205
2806 N. 33rd Place	
Phoenix, AZ 85008	

scientific investigation of the origin of the universe

Odyssey to OZ. Past Neptune, past Pluto, at the very rim of the solar system lies the Oort Cloud, thought to be an enormous collection of leftovers from the creation of the universe -- a spawning ground for the comets and meteors. Surrounding the Oort Cloud is the Oort Zone (OZ), a totally unknown area. One day, an ion-powered starship with a 50 year mission, will leave Earth for the 93 billion mile flight to explore OZ. It will leave, that is, if the project of former U of A husband and wife astronomers, Aden & Marjorie Meinel comes to pass. These are two seasoned pioneers, having been involved in the founding of Kitt Peak and U of A Optical Science Center. This new project, named TAU (Thousand Astronomical Units) would include entire generations of scientists working to chart the stars with unprecedented precision, measure the sun's magnetic field, and map the fringe of the solar system

(ASTROBRIEFS is edited by Helen Lewis)

FOR SALE

16" f8 Newtonian mirror and tube assembly (11' steel pipe, mirror cell) ground and polished by Richard Lines. \$1000 (probably less if you have the proper home for this gem! Superb mirror.) Call Louis Boyd at 275-8258.

BOOK OPPORTUNITY

Stan Gorodenski would like to purchase a couple of books from the Astronomical Society of the Pacific. Astrophysics I -- Stars (used as a text at ASU) and Astrophysics II -- Interstellar Matter & Galaxies usually sell for \$37.50 but cost only \$32.95 when 10 or more are ordered. Call Stan at 944-6639 if you're interested in this deal.

MORE COSMIC TRIVIA

Alpha Centauri is the nearest star system to our Sun -- 4.3 light years away. It is really a triple star system, and the dimmest companion, Proxima Centauri, is slightly nearer to the Sun than the two brighter stars. An Apollo spacecraft would take 850,000 years to reach the stars of Alpha Centauri if its average speed were the same as a 6-day 500,000 mile round trip to the Moon.

CLIP AND MAIL NOW WITH YOUR 1987 MEMBERSHIP DUES!

PHOENIX ASTRONOMICAL SOCIETY

Membership Dues/Enrollment Form

Name _____
 Address _____
 City _____
 State _____ Zip _____
 Phone(s) _____
 Telescope Size _____ Type _____

Membership Type:

Individual \$25 ☐ Sustaining \$30 ☐
 Family \$27 ☐ Non Sky & Telescope \$15 ☐

Please make check payable to Phoenix Astronomical Society

Return this form with your check to:

Bill Krist
 1205 E. Hubbell Street
 Phoenix, Arizona 85006