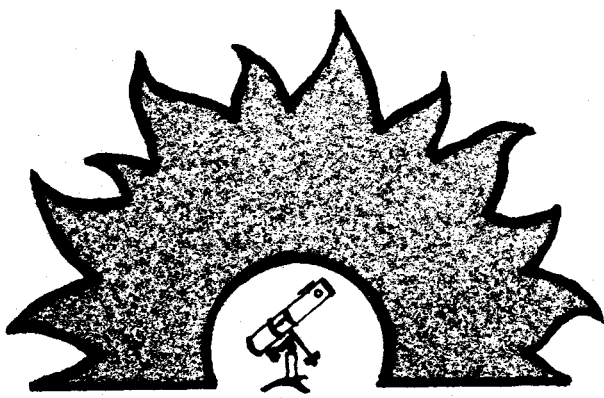




J A N U A R Y

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PASTIMES

PHOENIX ASTRONOMICAL SOCIETY -- FOUNDED 1948

JANUARY MEETING JANUARY MEETING JANUARY MEETING JANUARY MEETING JANUARY

He's a regular on *Horizon/Space Probe 8*, interviewing prominent scientists from around the world. In fact, he's been KAET's (TV 8) Science Producer since 1980. We are fortunate to have him as our featured speaker at our January meeting to be held Friday, the 24th at Phoenix College, Room C-102 at 8:00 p.m. (see map on back of newsletter).

Of course we're speaking of Rick D'Alli. What you probably didn't know is that Mr. D'Alli was on NASA's Mars Viking Imaging Team, did lunar mapping for the National Air & Space Museum, and has taught planetary geology courses at A.S.U. His topics for us will be the Viking mission and other planetary missions, and, of course, Halley's Comet. Mr. D'Alli will also entertain questions after his talk. **DON'T MISS THIS ONE!!!**

NOTES FROM OUR SECRETARY

Bill Krist's demonstration on "How To Develop Your Own Color Slide Film" provided us with an educational and suspenseful December meeting. Bill took snapshots of those in attendance with Ektachrome 400 color film and thru a programmed seven step procedure using Kodak's Hobby Pak and a changing bag produced a fine roll of color slides. The suspense was provided by the lack of hot tap water in the lecture hall, but this apparently had little effect on the quality of the slides. Lively audience participation and Bill's vaudeville style kept everyone entertained during the procedure. Thanks, Bill!

Mark Nobel again attended our meeting and distributed an outline of the goals and purposes of the Phoenix Observatory and Planetary Society. As you recall from Mr.

-- Notes p2

NOMINATING COMMITTEE NEEDED

It's not too early to be thinking of who you would like to see as your officers for the 1986-1987 season! According to our by-laws, a nominating committee has to be appointed by the end of February in order to put forth a slate of candidates at our April business meeting (of course, officer nominations from the floor will be very welcome at this meeting).

At this time I am asking for volunteers to serve on the nominating committee. For more details about serving on the committee or about the duties of the officers, contact me at 254-4057 or Steve Lewis (editor) at 955-1205. Thank you.

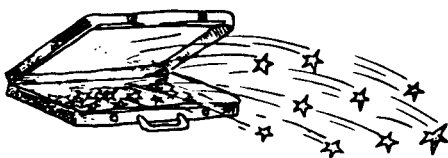
-- Bill Krist

WANTED: Telescope suitable for both observation and photography. Contact John Iles 274-6653.

For those members who have not paid their 1986 dues, I can still order Sky & Telescope at this late date. Please contact me at 933-8896.

-- Harold Moorin

ASTROBRIEFS



Using a gigantic

More Money Migraines. The permanently manned space station project endorsed formally by President Reagan January 25, 1984 is on the block for a budget chopping which would delay operation by at least three years. NASA requested \$580 million for space station developments in fiscal 1987. The White House budget office wants to cut out \$480 million which means the space station project would not be the only seriously damaged space project -- the efficiency of NASA centers would be

Comet Juice. Neutral water -- drinking water -- has been found to be dominant in Halley's coma, the cloud of gas containing the comet's snowball nucleus. NASA, John Hopkins and U of A scientists on board a flying observatory made the discovery using an infrared spectrometer built at the U of A. NASA's flying observatory called Kuiper Airborne Observatory (KAO) is a modified military transport, C-141, which can cruise above Earth's atmosphere (41,000') carrying a 36" diameter telescope. Until now, nobody has had an instrument capable of discriminating between the kinds of water in a comet. The other kind is ionized water, a form in which each molecule lacks an electron.

Name That Moon! Its sisters are named Miranda, Umbriel, Ariel, and Titania. The tiny newly discovered moon, temporarily designated "1985 U1", orbits Uranus between Miranda and the outermost of the planet's nine known rings, the Epsilon. This little sixth moon, discovered by Voyager II, was expected since the charcoal-black rings surrounding the bluish-green Uranus are so narrow. Scientists have long believed that the gravity of yet-undiscovered moons must be confining the rings. They expect to find at least 18 moons doing such "shepherd-ing" duties.

Here, Spot! The Great Red Spot, a cosmic landmark of Jupiter since the first telescopes revealed it some 300 years ago, is losing its mystery. You may have heard the volcano theory, the egg theory, the planetoid and the column-of-gas theory. Brush those aside, along with the hurricane theory. The scientific conclu-

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sion, aided by computer simulations, is that it's a gigantic eddy of swirling gas, driven by turbulent winds which maintain its constancy by "cannibalizing". When smaller eddies develop, the Great Red Spot sucks them in. The spot is 25,000 miles wide -- meaning it would cover the entire Earth's surface. An anti-cyclone whose motion has nothing to do with moisture, the Great Red Spot is helping specialists in dynamical systems understand how order can emerge spontaneously from natural chaos. This may help penetrate the complex patterns of Earth's weather. Jupiter has no solid surface, merely a combination of dense gases which forms the planet (all shape and color with no support). The planet rotates with such speed that a coriolis force is produced which drives the Spot. Coriolis force is the sidewise pressure that a person can feel while walking across a spinning merry-go-round.

Rage In Space. Novas have now been classified in two distinct categories. A.S.U. astrophysicist, Sumner Starrfield, and associates, have discovered another kind of nova, a real fury out in space. Previously, a nova was matter of factly accepted as the final cataclysmic spasms of a dying star. Now, according to Dr. Starrfield, these new found novas have the exploding force of 500 million trillion hydrogen bombs blasting out as much mass as 10 Earths, spewing a profusion of oxygen, neon and magnesium in amounts 100 times those seen in other exploding stars and firing out its own remnants at 11 million miles per hour. By comparison, the previous category of novas are just spitting, chiefly carbon and oxygen. . . .

Finding The Invisible. Kitt Peak telescopes have revealed a third "black hole" in the heavens. In 1981 Jeffrey McClintock of the Harvard-Smithsonian Center for Astrophysics and Ronald A. Remillard of Massachusetts Institute of Technology began to monitor the optical

brightness of an X-ray source spotted in 1975 and later identified as a red star apparently paired with a dark object. The red star, a dwarf, circled its dark companion at more than one million mph. Although black holes are impossible to prove except by actually going to one, the red star's activity indicated that the incredibly dense, dark object is a black hole. It is a couple of thousand light-years away, in the constellation Monoceros, but closer to earth than those previously discovered.

WELCOME, NEW MEMBERS!

Our complete 1986 membership roster will accompany next month's **PASTIMES**. Included will be the following newcomers to our group. We're happy you're with us!
Christopher Lecakes
Steve Gurley
John F. Foreman
David A. Chase

FOR SALE

1. Astronomical Spectroscope, straight-thru with 3 prisms, slitwidth control, 2-element collimating lens, separates D1/D2 lines of sodium, with 1 1/4" barrel, adapter for Nikon lenses, instruction manual and case. \$75.00
2. Becvar Atlas Eclipticallis, 124000 stars to mag. 9.75, color-coded spectral classifications, epoch 1950, like new, out of print. \$95.00
3. Becvar Atlas Boreallis, 92000 stars to mag. 13.0, color-coded classifications, epoch 1950, like new. \$35.00
4. Edmund 2" barrel, 32mm Erfle lens, 68 degree field. \$65.00
5. Novak 2"/1 1/4" Newtonian focuser with smooth spiral focusing, low profile for prime photography, never used. \$35.00
6. Novak 2" prime focus camera adapter for Nikon lenses. \$15.00

All of the above available from John Ramser 974-5192

