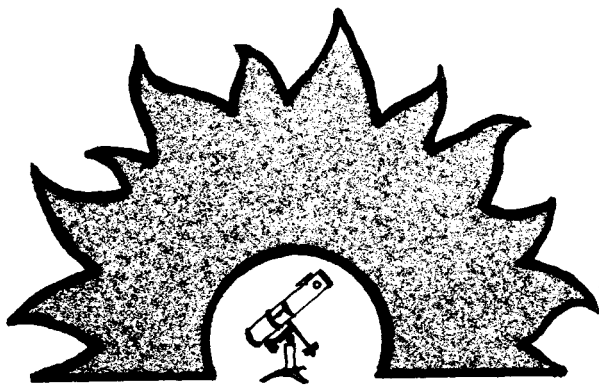




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PASTIMES

P H O E N I X A S T R O N O M I C A L S O C I E T Y -- F O U N D E D 1 9 4 8

FEBRUARY MEETING FEBRUARY MEETING FEBRUARY MEETING FEBRUARY MEETING

This month's meeting will be held on Friday, the 28th at Phoenix College, Room C-102 at 8:00 p.m. (see map on back of newsletter).

Heading up a slide show for **ASTROPHOTOGRAPHY NIGHT** will be members Raul Espinoza and Keith Parizek. Highlighting the show will be some of **Evered Kreimer's** great shots from **The Messier Album**. All members are invited to bring their own slides to share -- as well as their questions.

NOTES FROM OUR SECRETARY

Our January 24th meeting was an historical one. While 1.8 billion miles away Voyager II zipped past Uranus, we hitched an imaginary ride on the tale of Halley's Comet as Rick D'Alli (KAET's science guide) narrated a fine JPL slide show of our solar system's wonders. An almost full house was on hand to take the trip past the planets and their moons, examining the various yet common geology. Not only was the program fine, but Mr. D'Alli also took the time to extend thanks for club support of the ongoing **Space Probe 8** project. Special thanks went to Pete Manly and Gene Lucas.

Gene Lucas closed out the program with some of his latest slides of Halley, the Orion Nebula, and photos from behind the scenes of **Space Probe 8**.

In our continuing efforts to upgrade the quality of our monthly meetings and newsletter, our president, Bill Krist (254-4057) and editor, Steve Lewis (955-1205) would like more input from more members. Give them a call if you have any ideas regarding monthly programs or news items. See you on the 28th!

-- Harold Moorin

ASTROBRIEFS

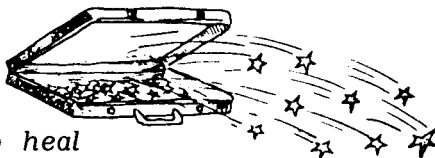
Challenger Funds

For those of you who wish to help heal the wounds left by the space shuttle tragedy, there are three funds:

1. U.S. Space Foundation -- Space Shuttle Fund, P.O. Box 51-L, Colorado Springs, CO, 80901.
2. NASA, Attn: BF, Washington, D.C. 20546.
3. Space Shuttle Children's Fund, American Security Bank, Lock Box 0150, Washington, D.C. 20055.

Uranus Update Based on the latest data gathered by Voyager II, the planet itself is swept by 200 mph winds, averages -350 degrees Fahrenheit, rotates once every 16.8 hours and is highly magnetic. Two more rings have been added to the previously known nine and most are less than 17 miles across and are composed mainly of coal black boulder-size objects. Only the innermost of the 15 moons (like 310 mile diameter Miranda) seem to have experienced internal upheavals. And while the Earth's auroras are created by the bombardment of magnetic fields by the solar wind, Uranus' auroras seem to be a

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Briefs -- continued

maelstrom of slow-moving electrons that inexplicably light up only in sunlight. Scientists have dubbed the phenomenon "electroglow".

Halley at 21 Degrees North! Those of you wishing to go further south to view the comet may want to consider Guadalajara, Mexico. One group is planning to leave Phoenix on the 4th or 5th of April and return April 13th. Viewing and photographic sessions are scheduled for five consecutive nights. Cost will be in the range of \$400 per person, including transportation, hotels, meals and three sight seeing tours. Contact Cecil L. Walker at 846-0779 for further information.

Cosmic Stopwatch A pulsing star some 1,500 light years away has such a uniform spin (186 times a second) that it can serve as an extremely accurate "clock", and ideal beacon for research into the origins of the universe. Princeton University scientists say these pulses could signal the passage of gravitational waves believed to have originated with the creation. This pulsar has not yet been named, cannot be seen, is only detected by radio signals, has $1\frac{1}{2}$ times the mass of our sun but has only a 10 mile diameter compared to the sun's million mile diameter. Such a dense star is composed of only the nuclei of atoms.

"Galileo" The Arizona Theatre Company (ATC) will present their production of "Galileo" (Bertolt Brecht's compelling drama about Galileo Galilei) on March 4 thru March 9th, 1986 at the Scottsdale Center for the Arts. The March 4th preview performance will be preceded by a lecture on Galileo given by Dr. Richard Wentz, Professor of Religion at ASU. Admission costs vary according to seats,

performance dates and times, and range from \$7.50 to \$16.50. Discounts are available for senior citizens and groups of 10 or more. For more information on group discounts call Sheila Fournier at 234-2892. To order single tickets call the ATC box office at 279-0534.

Strings! Whose Strings? The Milky Way is a wild and wonderful field to forage in. Astronomers at New Mexico's VLA and in Australia at the Culgoora Radioheliograph are describing two unique findings: 1. Our galaxy has a jet of extremely hot gas spewing from its nucleus -- supporting the theory that a black hole lies at the heart of the Milky Way; and 2. Three threadlike structures, like cosmic strings, lie across the central region. These "threads" are enormous, 100 light years long by one light year wide -- almost straight lines of radio transmissions. So far, the picture of our Milky Way provided by radiotelescopes is of a quiet galaxy with a small, very intense core (the jet of hot gas), with swirls of what seem to be gases spiraling towards the center. Enhancing this swirl is more material, including shell-shaped objects which may be remnants of exploded stars. Farther out are enormous arched loops of material which may represent a gigantic magnetic field and . . . two cone-shaped objects. Cutting across the central region like luminous tubes are the three "threads". The threads are remarkably constant, large yet well-ordered but without an observed connection. Astronomers are reveling in theories and possibilities, enjoying the unexplained. If you want to read more, Dr. Mark Morris, Astronomy - UCLA and his graduate student, Farhad Yusef-Zadeh reported their findings in the December issue of *The Astronomical Journal*. . . .

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The Force Is With Us! Physicists are beginning to suspect there is an unidentified force working in our universe. This force, hypothesizes the scientists, appears to challenge Einstein's General Theory of Relativity and Galileo's principle of equivalence (remember the cannon balls dropped at the Leaning Tower of Pisa?). This new analysis suggests there is something called hypercharge which acts on objects of different compositions causing them when falling to accelerate at slightly different rates. Galileo asserted that all falling bodies accelerate at the same rate. (Did you ever argue with the teacher about the falling feather and the coin?) The hypercharge is called a weak and local force and should not fundamentally alter Einstein's principles as a basic tool of modern cosmology. The new force needs to be studied more closely, using modern techniques that should make

it possible to conduct tests in near vacuums with uniform thermal conditions and an absence of outside vibrations. . .

(ASTROBRIEFS is edited by Helen Lewis)

INFORMATION WANTED on the optical and mechanical performance of the Bausch & Lomb Criterion 4000 and on the Meade 2045 Schmidt-Cassegrainian telescopes of 4 inch aperture. Please call John Ramser at 974-5192.

NOTE TO MEMBERS: Due to upcoming holiday conflicts, our March meeting is tentatively scheduled for the 21st of next month.

CALENDAR

2/24	Full moon -- rises shortly after sunset. Discovery of 1st Pulsar announced, 1968.
2/26	Mercury at perihelion -- visible in the southwest shortly after sunset.
2/27	Ceres at opposition in Leo at mag. +6.7 -- best at midnight.
2/28	Mercury at greatest eastern elongation, 18 degrees east of Sun -- visible shortly after sunset.
3/1	Moon at perigee at 3 a.m. Venera 3, first probe on Venus, 1966.
3/3	Moon last quarter. Saturn 5 degrees north of moon. Mars 4 degrees north of moon.
3/4	Uranus 4 degrees north of moon. Neptune 6 degrees north of moon.
3/8	Mercury 5 degrees north of Venus. Planet A and Vega 1 probes fly by Halley.
3/10	New moon
3/11	Venus 1.3 degrees north of moon.
3/13	Mars 0.3 degrees north of Uranus. Giotto probe flies by Halley.
3/14	Happy Birthday, Albert Einstein (1879).
3/15	Vega 2 probe flies by Halley.
3/16	Moon at apogee at 12 p.m.
3/18	Moon 1st quarter.

BLOOM COUNTY

