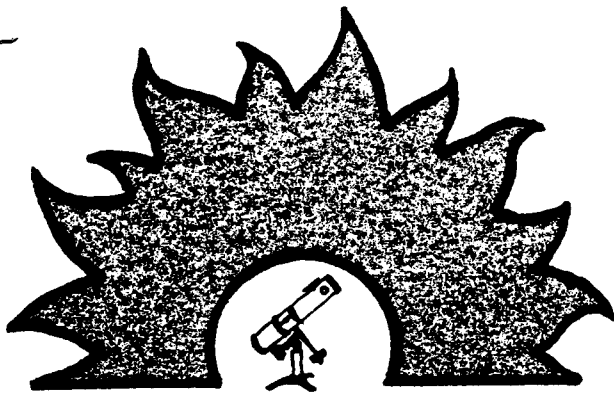




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PASTIMES

PHOENIX ASTRONOMICAL SOCIETY -- FOUNDED 1948

MAY MEETING MAY MEETING MAY MEETING MAY MEETING MAY MEETING MAY MEETING

Our final meeting of the 1986 - 1987 year will feature one of our own members, **Pete Manly**, whose topic will be "The formation of moons and rings in the solar system." Pete's programs are always informative and entertaining, so don't miss this one -- Friday, May 29, 1987 at 8:00 p.m., Phoenix College, Room C-102 (see map on back of newsletter). A special door prize will also be handed out to one lucky attendant!

NOTES FROM YOUR EDITOR

Our thanks go to **Dr. Paul Schmidtke** for sharing with us his information on recent advances in lunar occultation observing at our March meeting.

Our April meeting at **Dr. Keith Parizek's** home was lightly attended but a new slate of officers was elected for the 1987 - 1988 year. They are

President: **Richard Wasson**
Vice-President: **Raul Espinoza**
Secretary/Treasurer: **Ann Davis-Wright**
Editor: **Keith Parizek**
Directors: (To be announced later)

You'll notice that this issue of **PASTIMES** came with a colorful new 1987 - 1988 membership log. If you have renewed but don't find your name there, please forgive the omission and notify your new editor, **Keith Parizek** for inclusion in the September newsletter.

Have a good summer -- we'll see you in September!

-- Steve Lewis

ASTROBRIEFS

Monsoon Blues. Mt. Graham lost the fight for the 600" 4 mirror National New Technology Telescope to 13,796' high Mauna Kea in Hawaii. Mt. Graham, 15 miles southwest of Safford, AZ, was KO'd by Arizona's summer

storms. The National Optical Astronomy Observatories declared after a two year study that our "monsoons" hamper the infrared reach of the spectrum with their water vapor. Mauna Kea also has a wider view of the southern sky. Some people still think Mt. Graham could win on a technicality -- money. Speculation is that construction in Hawaii would be 2½ to 3 times higher than in Arizona. Funding for the \$261 million telescope would have to come from Congress through the National Science Foundation. Mt. Graham is being kept on the back burner as a back-up site, and some expect to see at least three major scopes up there eventually



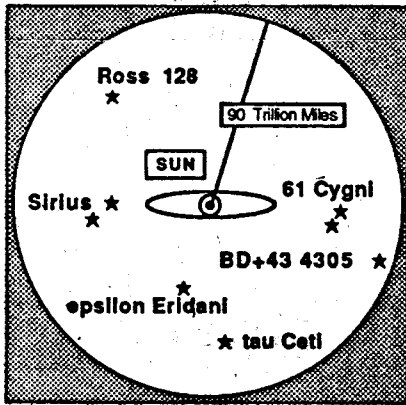
-- Briefs p2

Briefs - continued

Supernova Update. Sanduleak -69 202 used to shine in the Large Magellanic Cloud. Did it blow up? The text books say hot-blue stars are not supposed to blow up -- they're too young and full of fuel. Maybe a star in front of Sanduleak blew up and the debris is causing a "total eclipse". That's where supernova 1987A now shines -- the brightest one since 1885 and the closest observed such phenomenon in nearly 400 years

Planetarium or Black Hole? ASU officials say plans to replace their 17 year old planetarium were scuttled by an estimated \$375,000 price tag. The 50-seat planetarium will be closed and dismantled within the next two years. Their suggestion: surrounding municipalities could build a replacement planetarium

"Nearby" Neighbors. Kitt Peak, using images from the 1983 Infrared Astronomical Satellite (IRAS) during a four-year search, has announced six "possibilities" of life beyond earth. Out of the six nearby star systems selected -- all about 90 trillion miles away -- two specific stars seem to have the best environments favoring planet formation. Ross 128, a dwarf,



and the double star, 61 Cygni, in the constellation Cygnus, have the sort of dust clouds that give birth to a Mars, Venus or Earth. Whatever it is that surrounds these two stars is brighter to infrared telescopes than all of the known material in our own solar system

Dimmer, Please! Twenty-seven Arizona cities have regulated light pollution. By June, all but two counties, Navajo and LaPaz will have "dark sky" laws. Light pollution has forced Mt. Wilson (Los Angeles) to close and has impaired observation at Palomar (San Diego). Lowell (Flagstaff) has had to move its major telescopes 10 miles southeast of the city. Kitt Peak has a remarkable effi-



"See, Frank? Keep the light in their eyes and you can bag them without any trouble at all."

ciency factor which is credited to local sky glow regulations

Lurking Spiral. Found: in an enormously empty region in Virgo -- a starry pinwheel named Malin 1. With fewer stars it is about 100 times darker than the usual spiral galaxy, even though it's so close to Earth (only 715 million light-years away). It is 770,000 light-years across. Malin 1 was discovered with Mt. Palomar's 200" telescope and may be the forerunner of many other faint spirals providing the "missing mass" needed to explain how all creation is propelled outward at the rate it seems to be . . .

Hot Mama! At the core, Mother Earth is hotter than the sun. Strong evidence shows the core is about 12,420°F (sun's surface: 10,400°F). The finding suggests that the core, not the overlying mantle, is the source of the heat that makes the Earth's crust slide (a process called continental drift) and causes earthquakes and volcanoes. The inner core, although intensely hot, is solid due to high pressure and has a diameter of 1,500 miles

Honor Roll. Seven craters of the moon within the giant Apollo crater are to be named after the Challenger astronauts

killed last year if the International Astronomical Union's (IAU) general assembly approves. Seven asteroids have already been named after the Challenger crew. Nine lunar craters are already named for American astronauts and nine are named for Russian cosmonauts. The giant Apollo crater was named to commemorate the first manned lunar landing. The IAU will meet next year in Baltimore

ASTROBRIEFS is edited by Helen Lewis

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ASTRONOMERS MOURN LOSS

On April 30, 1987, a freak accident at Kitt Peak National Observatory took the life of award-winning astronomer, **Marc Arnold Aaronson**. The 36 year old Aaronson was killed instantly when a steel ladder that was welded to the lower support portion of the observatory dome struck the door through which he was walking, slamming it shut on him. The accident occurred as the dome was coasting to a stop.

For the past four years Aaronson had been an associate professor in the U of A astronomy department and an astronomer at Steward Observatory, specializing in the study of galaxies and distribution of stars. In 1984 he and two other astronomers shared the Newton Lacy Pierce Prize in astronomy for finding that the universe is much smaller and younger (12 billion vs. 20 billion years old) than once believed.

Aaronson is survived by his wife, Marianne, and two daughters, Laura, 9, and Jamie, 6.

A CREATIVE CLOUD

The great Orion Nebula, a cloud from which stars are forming, is at least 30 light-years in diameter -- 177 trillion miles. This is enough space to place 20,000 of our solar systems end to end. If an edge of this vast glowing cloud were placed near our Sun, it would stretch seven times farther than our nearest triple star group, Alpha Centauri. If the distance between the Earth and Sun (an astronomical unit) were represented by one inch, the great Orion

Nebula would be 12.6 miles in diameter. This vast, creative cloud has enough material for 10,000 stars like our Sun; in fact, they have already started to condense, and the birthrate continues to be high.

From The Cosmic Mind Boggling Book

WHY I NEVER BAWL OUT A WAITRESS

I have a rule against registering complaints in a restaurant, because I know that there are at least four billion suns in the Milky Way -- which is only one galaxy. Many of these suns are thousands of times larger than our own, and vast millions of them have whole planetary systems, including literally billions of satellites, and all of this revolves at a rate of about a million miles an hour, like a huge oval pinwheel. Our own sun and its planets, which includes the earth, are on the edge of this wheel. This is only our small corner of the universe, so why do not these billions of revolving and rotating suns and planets collide? The answer is, the space is so unbelievably vast that if we reduced the suns and planets in correct mathematical proportion with relation to the distances between them, each sun would be a speck of dust, two, three, and four thousand miles away from its nearest neighbor. And, mind you, this is only the Milky Way -- our own small corner -- our own galaxy. How many galaxies are there? Billions. Billions of galaxies spaced at about one million light-years apart (one light-year is about six trillion miles). Within the range of our biggest telescopes there are at least one hundred million separate galaxies such as our own Milky Way, and that is not all, by any means. The scientists have found that the further you go out into space with the telescopes, the thicker the galaxies become, and there are billions of billions as yet uncovered to the scientist's camera and the astrophysicist's calculations.

When you think of all this, it's silly to worry whether the waitress brought you string beans instead of limas.

By **Harry Golden**

From the book Only In America

Sad Note: We regret to inform you of the passing on of one of our members, **Catherin Zabka McIntosh**.