# The FBAC Observer

VOLUME 17, ISSUE 10

OCTOBER, 2003

## **Aperture Fever: Building The Dobsonian Of A Lifetime By Dennis Borgman**

#### The beginning

Aperture fever had been getting stronger by the day. My chance to pacify this desire came about quite sud-

"The whole scope wasn't quite ready for the one ton club, when Ed but it was close."

December 1992 Sczcepanski, a

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prolific buyer, builder and seller of telescopes in Houston, put his home built 20" DOB up for sale. Upon informing me of it's availability, I immediately asked him to consider it sold and advertise no further. I soon found out that my speedy reply was indeed fortunate, for several Houston amateurs had heard through the grapevine that it was for sale and surely would have snatched it up had I not been prompt with my decision to purchase. My intentions for some time had been to purchase the optics and build the mount, but that of course, would have meant completing construction before I had a useable instrument. Here, for little more than the cost of the optics, I had a useable scope and could build my own mount at a leisurely pace. Ed's home-built scopes are seldom light-weights and this one was no exception. The upper cage alone weighed in at over 40 pounds! Nothing wimpy here! The whole scope wasn't quite ready for the oneton club, but it was close. I sprained my back the first time I loaded it in the truck, and decided there must

be a better way. Wheel-barrow handles and loading ramps to ease the pain of transporting were only the beginning.

#### Personal background

Building and fixing things has been a passion of mine for many vears. In fact home shop machining was my primary hobby before I became interested in Astronomy, so I have a well equipped home shop and the basic skills to use the tools. I am a computer technician by trade and a self taught hobby machinist and woodworker

#### The design

I used Generic CADD software to do most of my design work.

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#### IN THIS ISSUE

- In this issue, Dennis Borgman shows us how to build a premium Dobsonian telescope.
- FBAC has a new arrival
- Joe Dellinger chases the Solar eclipse of 1999
- Astronomers are at odds with the media

## Leonard Pattillo Retires As Observer Editor

After more than 8 years and over 100 issues, Leonard Pattillo is stepping down as editor of the FBAC Observer.

Leonard, who was one of the charter members of the Fort Bend Astronomy Club, said he has enjoyed the

challenge of gathering and editing articles for the newsletter but believes that, due to health concerns, he should let someone else take the job.

"I've tried lots of different formats over the years but found that keeping things simple is the best way to go", said Leonard.

He also heads up the Astronomy On Wheels program FBAC and will continue to administer that public outreach arm of FBAC.

-Wes Whiddon

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Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
28	29	30		FQ-19:10	3	4
5	6	7	8	9	10 Full-07:28	
12	13	14	15	16	17	18 LQ-12:32
19	20	21	22	23	24	25 New-12:51
26	27	28	29	30	31	1

#### Astronomy Day, 2003

This annual event is held in October at the George Observatory in Brazos Bend State Park. This year's affair is on Saturday, October 4. Astronomy Day brings the four Houston area clubs together in a combined effort to present the science of astronomy to the local public. Outdoor and indoor displays show all aspects of astronomy and talks on observing will be presented by club member volunteers. The highlight, of course is the actual observing through one of the three domed telescopes or one of the host of "deck" scopes provided by various club members. Admission to the park is \$3/ person and there is a charge to observe through the 36" research telescope.

#### What's Happening In October

**Wednesday, October 1**—15 minutes after sunset look early for Venus, very low in twilight. Visibility will improve as autumn progresses.

**Thursday, October 2**—Jupiter and Mercury are visible in the east one hour before sunrise. The moon is just past first quarter.

**Friday, October 3**—Saturn is high in the southeast. All clubs meeting at Houston Museum Of Natural Science—Herzstein Hall

**Saturday, October 4**—Astronomy Day at the George Observatory 3-11 PM.

**Monday and Tuesday, October 6-7**—Uranus at mag 6 is 3.6 degrees from Mars and 1.4 degrees north of Iota Aquarii.

Thursday, October 9—Full moon.

**Sunday, October 12**—The Pleiades high in the east 3 1/2 hours after sunset.

**Thursday, October 16**—Northernmost Moon rises far north of east tonight within 4 hours after sunset from northern U.S. Saturn rises 6 degrees below Moon within 3/4 hour later.

Friday, October 17—FBAC meeting, 7:15 PM, 3232 Austin Parkway, Sugar Land, TX.

**Tuesday, October 21-23**—Predawn, best mornings for Orionid meteors from particles once part of Halley's Comet.

Saturday, October 25—New moon. Saturn begins retrograde motion in Gemini.

**Highlight Of The Month**—Mars will fade sharply from mag –2.1 to –1.2 as the distance from Earth grows from 42 million to 58 million miles. The disk will shrink from 21 to 15 arcseconds and become noticeably gibbous.

**Other Highlights**—Remember that there will be a lunar eclipse visible from Houston early in November. In February of 2004, there will be simultaneous visibility of four of the five naked-eye planets in the evening sky.

### Aperture Fever (Continued From Page 1)

CADD allows you to correct mistakes before they are discovered after hours of construction in the shop. I can't claim a lot of original ideas in my finished scope, but I have diligently scoured the pages of telescope making publications and dutifully observed the craftsmanship and ideas of others. Through this process I have gleaned the ideas that appealed to me most and attempted to apply them wherever possible in my own design. So while there are many great ideas from others in my design, the overall finished product is my own. My primary desire was to build a DOB that was reasonably easy to transport and assemble. Telescopes that don't meet these criteria are seldom used, they just sit and collect dust! Secondly, I wanted a tracking telescope. Several years with a Celestron Ultima 8 had spoiled me with the ability to study star charts and return to the scope with the same star field still in the eyepiece. (I seemed to spend an undue amount of time back at the charts determining how to star hop with those mirrored images!) After talking with Andy Saulietis about getting a copy of his 'Polar Roller' design, he informed me that there was something better and brand new, a true alt-az drive system. This system was a 'CADD' (Computer Aided Dob Driver) system built by Tangent Systems and purchased through Andy Saulietis of DTG (Danciger Telescope Group). machined a pair of 17" worm wheels and matching steel worms to complete the basic drive package. Finally, I wanted a scope that was easy to maintain and align. Easy maintenance was accomplished by rugged construction and easy alignment would be augmented with electric collimation motors for the primary mirror and an "Easy Tilt"

secondary holder.

#### The rebuild

First to be rebuilt was the upper cage assembly and serrurier truss system. Both cage rings are identical octagonal segmented solid oak, with biscuit joinery to insure strength. After glue-up of all but one of the eight joints, the inside radius of the ring was formed by fastening it to a one quarter inch thick backup panel to provide a center pivot and then band-sawing. After removing the ring from the bandsaw and the remaining backup panel, the final joint was glued and clamped. The eight separating struts between the two cage rings are one (1) inch diameter .062" wall aluminum tubing with epoxied solid aluminum filler pieces where cross holes or tapped fasteners needed to be located. Recesses, matching the tube diameter, are milled .062" deep into the oak cage rings to positively locate the tube struts. To provide fastening points for the spider vanes that were rotated 90° to the eveniece position, four cross bars were mounted horizontally between adjacent tube struts. Short .25T x .5W x 1.5L bars fastened vertically at the center of each of the four cross bars provided a pair of fastening holes for the threaded ends of the spider vanes. A standard 20" Novak spider was modified to handle a beefier secondary mount rod. The center piece was replaced with one containing a 5/8" x 20 TPI threaded hole. I machined the secondary holder according to a Steve Watkins designed "Easy Tilt" with a steel 5/8" x 20 TPI threaded shaft to match the spider.

Note: The "Easy Tilt", for those unfamiliar with it, provides a simplified means of adjusting the secondary mirror. While many sec-

ondary holders use a push-pull adjusting/locking design that can be a bear to adjust even in the daylight, Steve's design is based on a single socket head cap screw at each of three evenly spaced radial points. with enough built in friction to eliminate secondary movement under telescope use or transport. Belville spring washers hold the adjustment screws under constant tension to the mounting plate fastened to the secondary support rod. Small threaded brass balls between compression plates allow for tilting of the portion of the holder glued to the secondary mirror with silicone adhesive. This sounds complicated, but it is in fact quite simple. The whole design depends on friction forces applied after the whole unit is assembled and works extremely well. In practice, the screws are adjusted with a small hex wrench and are simply turned clockwise or counterclockwise at each of the three adjusting points to align the secondary mirror WHILE you are looking through the focuser, alignment tube or autocollimator. Some nice pictures of the holder may be seen in Sky and Telescope magazine, Vol 83, #1, January 1992, page 14.

I use a JMI 2" NGF focuser mounted to a 3/16" aluminum plate fastened to adjacent cage struts. The TELRAD mounts to a 1/16" plate fastened between the lower oak cage ring and one of the horizontal spider mount braces. The finder scope is an ORION Big Eye 11 x 80 with an illuminated reticule and a 45° amici prism. A PULSE-GUIDE lights up the reticule in short, medium intensity bursts and along with the right-side-up views provided by the amici prism, is extremely pleasant to use.

(Continued next month)

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#### **GALACTIC COORDINATES**

By Leonard Pattillo, FBAC

Ever wonder just where the Galactic Equator, and the North Galactic and South Galactic Poles are?

The North Galactic Pole is in Coma Berenices, between NGC 4874 and NGC 4670, or 12h 51.4' and +27°07.7'. The South Galactic Pole is in Sculptor, just south of NGC 288, or 0h 51.4' and -27° 07.7'.

The Galactic Equator begins in Sagittarius. 0° is just north and west of the top star in the spout of the teapot. When you look in this direction you are looking toward the center of our Galaxy, The Milky Way.

Let's begin our journey along the Galactic Equator. Scutum at 20° lies in one arm of our Galaxy and is profusely populated by hundreds of millions of stars. Aquila at 40° and Sagitta at 55° are also imbedded within this cloud of stars. Our next stop will be at Vulpecula at 60° and Cygnus at 80° still rich with the clouds of

stars where the Sagittarius arm of the Milky Way joins the Cygnus arm of our Galaxy. Next we pass through Cepheus at 110°, Cassiopeia at 130° and Perseus at 150° where it is joined by the Orion arm of our Galaxy. At 180° we are now in Sculptor and Auriga, and at our South Galactic Pole. Let's pause for a moment in Sculptor and look north 100,000 light years to the North Galactic Pole. Hmm, I wonder if there is a Santa at the North Galactic Pole? Next at 190° is Orion. While we are in Orion, let's all sing "There's no Place Like Home", for it is here that our solar system resides, about 1300 light years from the outer edge of the Orion Arm. Traveling on, we pass through Monoceros at 210° and Canis Major at 230° then on to Puppis at 250° and Vela at 270°. Our next stops are Carina at 290°, Crux at 300° and then we hop over to Centaurus at 310°. About here we are getting close to our starting point...Norma at 330° and Scorpius at 350°. We are now back where we started. This journey took only a few moments to read, but would take countless millennia to accomplish in real time.

Occasionally you will find some celestial objects listed with Galactic coordinates, such as planetary nebula, or galaxies that are listed in the MCG catalog. In the case of planetary nebula, most have a galactic coordinate such as PK215-6.7. The PK is the name of the catalog. Perek & Kohoutek. The order of listing is in 1° strips of galactic longitude and from the north to the south galactic pole inside each strip. Thus 215 is near galactic longitude 215°, the -6 in this case is - 6° in galactic latitude. The 7 is an assigned number of the next free serial number in that particular strip.

It is interesting to look at this travel on a star chart that shows the Galactic Equator. Sky Atlas 2000 has the Galactic equator and both the NGP and SGP plotted. Uranometria 2000 has the poles plotted, but not the equator.

My next research will be in the quest of the Ecliptic poles.

Let us know when you are ready to leave on this journey, maybe we can space-ship pool.





#### EAST DOME SCHEDULING KEITH RIVICH

The FBAC owns and operates an 18", fork mounted newtonian telescope which is housed at the George Observatory in Brazos Bend State Park. As part of our agreement with the Observatory we are responsible for supplying volunteers during nights of public use, which includes all Saturday nights and some Fridays. In return we are allowed full access to the scope for personal use. Included with the scope are a full set of Televue eyepieces and filters, several sets of star-charts and reference books, a computer with charting programs and a CCD camera. To have access to this equipment you MUST go through a short training program AND volunteer at least once each quarter. The training can take place on the same night that you volunteer.

During the dark-moon period, which runs from several days prior to third-quarter moon to several days past new-moon, use of the scope is scheduled due to demand. At all other times the scope is available on a first come basis. If you volunteer for a public night, even during the dark-moon period, then the scope is yours for the remainder of the night. To schedule a dark moon night I must be contacted no later then the full-moon prior to the next observing runs. Each month I will publish the current East-dome volunteer schedule, observing schedule, and research team schedule.

#### OCTOBER SATURDAY NIGHT SCHEDULE

OCT 4	ASTRONOMY DAY
OCT 11	OPEN / OPEN / OPEN
OCT 18	OPEN / OPEN / OPEN
OCT 25	ELLIS / WEAVER / OPEN

See http://users3.ev1.net/~keithrivich/astronomy/eastdome/calender.html for updates

#### DARK MOON OBSERVING SCHEDULE

This part of the schedule will be continually updated and posted at http://users3.ev1. net/~keithrivich/astronomy/eastdome/calender.html For more information on how to schedule dark-moon nights call me at any of the numbers posted below.

Also available are the clubs 8" dobsonian reflector and the Solaris scope (for viewing sun w/ H Alpha filter).

The clubs Meade 8" and 10" LX-200 loaner scopes are available for use. For an update on availability please call me or go to

http://users3.ev1.net/~keithrivich/astronomy/eastdome/page3.html

For more information or to sign up as a volunteer please contact me at: HM 281-468-8491 or WK 713-771-6944 or e-mail at icgalaxies@cs.com

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## <u>Careful Planning and Quick Improvisation Succeed in Space Biz</u> by Dr. Tony Phillips

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On December 18, 2001, ground
controllers at JPL commanded
NASA's Deep Space 1 (DS1) spacecraft to go to sleep. "It was a bittersweet moment," recalls Marc Rayman, the DS1 project manager.
Everyone was exhausted, including
Deep Space 1, which for three years
had taken Rayman and his team on
the ride of their lives.

DS1 blasted off atop a Delta rocket in 1998. Most spacecraft are built from tried-and-true technology—otherwise mission controllers won't let them off the ground. But Deep Space 1 was different. Its mission was to test 12 advanced technologies. Among them: an experimental ion engine, a solar array that focused sunlight for extra power, and an autopilot with artificial intelligence. "There was a good chance DS1 wouldn't work at all; there were so many untried systems," recalls Rayman.

Nevertheless, all 12 technologies worked; the mission was a big success.

Indeed, DS1 worked so well that in 1999 NASA approved an extended mission, which Rayman and colleagues had dreamed up long before DS1 left Earth—a visit to a comet. "We were thrilled," says Rayman.

And that's when disaster struck. DS1's orientation system failed. The spacecraft couldn't navigate!

What do you do when a spacecraft breaks and it is 200 million miles away? "Improvise," says Rayman.

Ironically, the device that broke, the 'Star Tracker,' was old technology. The DS1 team decided to use one of the 12 experimental devices—a miniature camera called MICAS—as a substitute. With Comet Borrelly receding fast, they reprogrammed the spacecraft and taught it to use MICAS for navigation, finishing barely in time to catch the comet. "It was a very close shave."

In September 2001, DS1 swooped past the furiously evaporating nu-

cleus of Comet Borrelly. "We thought the spacecraft might be pulverized," Rayman recalls, but once again DS1 defied the odds. It captured the best-ever view of a comet's heart and emerged intact.

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By that time, DS1 had been operating three times longer than planned, and it had nearly exhausted its supply of thruster-gas used to keep solar arrays pointed toward the Sun. Controllers had no choice but to deactivate the spacecraft, which remains in orbit between Earth and Mars

Rayman has moved on to a new project—Dawn, an ion-propelled spacecraft that will visit two enormous asteroids, Ceres and Vesta, in 2010 and 2014. "Dawn is based on technologies that DS1 pioneered," he says. Even asleep, DS1 continues to amaze.

Find out more about DS1 at http://nmp.jpl.nasa.gov/ds1 ... For kids, go to http://spaceplace.nasa.gov/ds1dots.htm to do an interactive dot-to-dot drawing of Deep Space 1.

#### Monthly Book Review

"If the Universe Is Teeming with Aliens... Where Is Everybody? Fifty Solutions to Fermi's Paradox and the Problem of Extraterrestrial Life" ... by Stephen Webb

On the way to lunch at Los Alamos

Scientific American Review

Scientific Laboratory one day in 1950, Enrico Fermi and three other physicists--Emil Konopinski, Edward Teller and Herbert York--chatted about flying saucers. At lunch, when the talk had turned to other matters, Fermi suddenly said, "Where is everybody?" His compan-

ions realized that the talk of flying

saucers had turned his mind to the possibility that there is intelligent life elsewhere in the universe and that he was asking why, if there is, we have seen no sign of it. The ques-

tion encapsulates what is now known as the Fermi paradox. Webb, lecturer in physics at the Open University in England, presents 49 solutions that have been proposed for the paradox, grouping them according to whether they hold that intelligent extraterrestrials are here, exist but have not communicated, or do not exist. He makes a splendid and enlightening story of it, concluding with his own solution, the 50th: "We are alone."

#### Library Journal Review

In response to Enrico Fermi's famous 1950 question concerning the existence of advanced civilizations elsewhere, physicist Webb critically examines 50 resolutions to explain the total absence of empirical evidence for probes, starships, and communications from extraterrestri-

als. He focuses on our Milky Way Galaxy, which to date has yielded no objects or signals that indicate the existence of alien beings with intelligence and technology. His comprehensive analysis covers topics ranging from the Drake equation and Dyson spheres to the panspermia hypothesis and anthropic arguments. Of special interest are the discussions on the DNA molecule, the origin of life on Earth, and the threats to organic evolution on this planet (including mass extinctions). Webb himself concludes that the "great silence" in nature probably results from humankind's being the only civilization now in this galaxy, if not in the entire universe. This richly informative and very engaging book is recommended for most academic and public library science collections.

#### Diary Of An Eclipse Chaser By Joe Dellinger

#### August 10, 1999

Well our local contacts had warned us that they had been having a hot clear spell for too long (about 3 weeks) and it couldn't possibly last. And sure enough, August 10, the day before the eclipse, the weather turned cold and rainy. Fine, I thought: if the rain was a cold front, then we could have a nice crisp clear day for the eclipse! It was just there to wash away the heat haze!

That day a group of us (myself, my sister who was traveling with me, and some friends from Stanford days also in the area for the eclipse) planned to visit the Ries impact crater. I had seen the place described in a museum during a previous visit to Germany and had resolved to try to visit it the next time I came. Looking at a large-scale map of Bavaria the Ries crater is not an immediately striking feature. Driving across the middle of it, though, it's clear that this is an unusual place: a nearly perfectly circular ring of hills surrounding a broad, flat central plain. Somewhat off center on the plain sits

the perfect medieval town of Noerdlingen. On "Gene Shoemaker Strasse", within the old city walls, sits the Ries Impact Crater museum. The entrance exhibit tells you (in German) that the Ries valley, at only 15 million years old, is "The best preserved giant impact crater on Earth".

I had been told by a German geologist friend at Amoco that if I asked nicely, the head researcher at the museum would tell me where to go find outcrops of "suevite", a very rare kind of "high pressure, low temperature" metamorphic rock that only occurs in impact craters. Basically suevite is what you get if you take a bunch of random rock, run it through a blender, half melt it, and then quench it. Disjointed fragments of shattered rock from formations wildly varying in age, all deformed and jumbled together, mixed with chunks of glass, and shot through with porosity. Cool. I wanted some!

So we went to the museum looking for this fellow. Oops. It was the day before the eclipse and the museum was absolutely stuffed with visitors. I couldn't even wiggle through the huge mob filling the front entrance. And they were just about to close for lunch! Fortunately my Stanford friend, being much smaller and wirier, managed to squeeze through and found the guy... Who who wanted to know

if we had PERMISSION to go to the quarry before telling us how to get there. My friend replied that since I had been told about the quarry by a German geologist, he assumed I must have known about the necessity of getting permission first, and presumably had already taken care of that. He got the directions.

It was the first I had heard about needing permission. The German geologist fellow indicated you just went there and helped yourself...

The directions were of the type "after a gentle turn to the left look for a big grove of trees on the right. Turn right onto a dirt road. Look for a small stream. Turn left." etc. He emphasized that the roads would be bad and the guarry would be muddy with all the rain. We were highly dubious these instructions would work, but they did. And even the worst German back-country dirt roads are easily negotiable by standard passenger cars. The mud in the quarry pit was no worse than you would find all the time in Houston, should you give in to the urge to attempt to play pedestrian. And sure enough, in the quarry pit there were chunks of suevite all over the place. And some German geologists were already there, collecting samples. They didn't have permission either.

There were some signs in German probably telling us we couldn't go there, but fortunately we couldn't understand them.

The others left and our group was there alone helping ourselves to rocks. After a few minutes a large truck with flashing lights on top drove up and parked so as to entirely block the qurry entrance. Uh oh... Since I spoke the most German and was the instigator, I sheepishly went up to meet them. Maybe we could talk our way out of this one. At this point I was wondering whether I'd be spending eclipse day in a German jail...

It turned out to be workers arriving with earth-moving machinery to quarry some rock. They seemed unsurprised to find us there. Evidently this sort of thing happened all the time. They indicated we should just keep out of their way and other than that couldn't care less. Since we were now stuck there, I went back to looking at rocks. This suevite stuff was highly porous, and rapidly decomposed into crumbly yellow-green goo upon exposure to air.

Most of the easily obtainable rocks had already been in the air and rain too long, and could easily be crumbled to dirt in your hand, superman style. I took pictures of the quarry worker's giant scoop as they trundled it off the trailer, narrowly past our parked cars, and got ready to start scraping on the

quarry walls. As soon as they stopped blocking the exit we left (after all, at any moment their bosses might arrive to check up on how their workers were progressing, and they might have a less relaxed attitude towards our presence). We went back to the museum in Noerdlingen (it was still busy, but it was possible to enter now) and looked at the exhibits. The scientific director was still there. I presented him with a very nice book on the geology of impact craters I'd bought from NASA in Houston (for a dollar!). He was quite pleased to receive it. (He'd just ordered the museum a copy the day before, he said!) So what were the workers quarrying the rocks for? To be ground up for making special highly porous cement! We also found out that the large medieval church in the center of town was made out of blocks of suevite! Geez, that crumbly stuff? Who'd be stupid enough to make a building out of that!

We went to see this church, which was already closed for the day. The 300-foot-tall tower of the church, however, was open. It was entirely made out of blocks of suevite. We all climbed up. They were repairing the staircases; in many places you had to cross planks of wood with handrails instead. My sister carefully waited for me to cross these first, before crossing herself. At the top there was a little room, with an exhibit showing how the tower miraculously remained standing despite bombs in WW II that partially destroyed the adjoining church. There was a door leading out to a balcony that ringed the top of the tower. Outside, the evening sun was shining in a deep blue sky dotted with puffy white clouds. The rain had cleared the air, and the view was simply incredible. A tall tower with a 360-degree view, in the middle of a small city (with a perfectly circular medieval wall around it), in the middle of a perfectly circular impact crater! Wow!!!! What an enchanted place! (Continued next month)

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#### **Astro Bits: Notes From The Editor**

#### We May Need That Umbrella After All

As I was finishing an editorial (you can read it on page 9) this story came across on Space.com. It's interesting to note that not one major U.S. news organization picked up on this...at least as of this writing.

BHUBANESHWAR, India (AP) \_ Hundreds of people fled their homes when a meteor struck their village in eastern India, injuring three people and destroying two houses, a state minister said Sunday.

The fireball hit the village of Sudusudia in Orissa state on Saturday evening, said B. B. Harichandan, the state revenue minister. "One person has sustained burn injuries and two houses have been burned down. The injured has been hospitalized," the minister said.

Another two were hospitalized after falling unconscious, apparently from shock, local newspaper Dharitri reported. "The light was so bright that for a few seconds it appeared to be daylight," said Sanatan Sahu, a villager. Meteors, pulled by gravity toward earth, usually burn out in the planet's atmosphere and disintegrate before making an impact. "Though incidents of this kind are a rare phenomenon in this region, such celestial occurrences are common in space," said J. Kar of the Pathani Samanta Planetarium in the state capital Bhubaneshwar.

-- Associated Press

#### Tales From Late Arrival

Seems that club members haven't been making much use of our "unofficial" gathering spot lately. All the attention nowadays is on the George Observatory and educating the public about Mars. And there are some in FBAC who think we should be getting together more often for corporate observing sessions. So, some of us did just that. After a little urging by Jim Ellis, D.J. McCracken and yours truly joined Jim at late arrival for an outstanding night of observing. While a whole host of Bendonites were further down the road getting pestered by rug rats and teenagers, we were looking at incredible views of Mars, M31, and what's left to observe in Sagittarius. Well, incredible may be a little over the top considering the seeing was marginal but, what the heck, it was the first really good night in weeks so who's to complain. A bunch of foreigners also showed up to observe in our private spot but we, in the typical FBAC good host way, let them stay. I glad to report that we were only blinded once by a lost "looper" looking for the gate into the park.

**Speaking of Mr. Ellis**, the East Dome is the recipient of a new CD burner donated by Jim. Looks like the data files are getting too big to copy over to zip disk. Thanks, Jim, for your generosity.

Hal Coward reports that the Clearwater trip was pretty much a literal washout. Here's what he had to say: IMHO, Clearwater was pretty bad, because of the generally lousy weather. Thursday was solid clouds and rain, it rained all day Friday, and then cleared for about thirty minutes after sundown before clouding up again and shutting everyone down. I didn't bother to set up until Saturday night. We got in about I.5 hours of good observing with some really exceptionally steady seeing after sundown and then here came the clouds again. We tried waiting them out but it never really cleared up again. From an observing standpoint it was not really worth the effort. The facilities are convenient, however, and from what I saw after sundown on Saturday the site is really very dark. Maybe the October trip will be better. Mike Newtson was taking some video of Mars which, given the seeing, may have turned out pretty well. Keith Larson then got the bug but by the time he got his stuff set up, the clouds had come in. There was apparently a wet line just west of San Antonio and you guys had much better weather than we did. Wish I had better news to report, but there it is.

**It's impossible** to gauge the effort that Leonard Pattillo has put forth as editor of the Observer for so many years. I know this because I just finished editing my very first one. So, Leonard, thanks for all your hard work. I hope I'm able to fill your shoes.

-Wes Whiddon

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The Fort Bend Astronomy Club meets on the third Friday of every month except for those months when special meetings are called. The next meeting will be at 7:15 PM on October 17, 2003 at the First Colony Conference Center, 3232 Austin Parkway, Sugar Land, TX. Dues are \$30/year for the first member, \$5 per additional household member. Student dues are \$15/year.

The **Houston Astronomical Society** meets the first Friday of the month in room 117 of the University of Houston Research Building. The novice program begins at 7:00 PM and main meeting at 8:00 PM.

For the **Johnson Space Center Club**, refer to the JSCAS web site for meeting times and sites. There is a link on the FBAC web site.

**North Houston Astronomy Club** meets on the 4th Friday of the month at Kingwood College. The meeting starts at 6:45 PM, main meeting at 7:30 PM.

We're on the web Http://www.fbac.org

# **An Expression Of Editorial Opinion**





Rest In Peace Galileo Space Probe October 18, 1989 September 21, 2003

#### Astronomical False Alarms

The scale by which astronomers rate potential asteroid threats is being modified because of the latest sensational press scares. The most recent furor involved asteroid QQ47, which early on had a one-in-amillion chance of striking Earth eleven years from now.

The benchmark that astronomers use (called the Torino scale), was developed in 1999 by Rick Binzel of MIT. Used to inform the public of potential impacts, it rates an asteroid's threat on a scale of zero to ten, based on its speed, size, and probability of impact.

No asteroid has ever reached beyond a rating of one on the scale about the same chance as a random impact. But despite that, the media continue to do their usual thing i.e. exaggerate, misquote, and distort. Doomsday seems to be everywhere and the sky is always falling. Not even Chicken Little could surpass the Bad News Bears of our modern media outlets.

On the other hand, astronomers have historically been part of the problem. Presently any suspicious new "threats" are rated high on the scale until better orbits are determined. Ratings should not be given to any asteroid until good

data are in hand.
Even waiting a few
months to rate marginal asteroids is better than generating
another scare. Both
Brian Marsden and
Rick Binzel have expressed their dismay
at current events with
Marsden going so far
as to say the scale
should be gotten rid
of

But despite
"crying wolf" too
many times,
astronomers as a
whole think keeping
any asteroid data
secret is not an option.
Maybe, like Chicken
Little, we should all
get ourselves an
umbrella.

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