

The FBAC Observer

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Aperture Fever, Part 2: Building The Dobsonian Of A Lifetime

By Dennis Borgman

The serrurier truss system was rebuilt at the same time so I could use the new cage on the original 20" rocker box. The poles use a combination of innovations, again designed by others. I'm not sure who needs to get credit for the following ideas, so I'll

With this drive system the telescope is used like any traditional non-tracking DOB, just grab the telescope and point it.

leave this up to the editor. The cage end of the poles are a ball and clamp design. The ball ends are solid aluminum and were lathe turned with a ball turning attachment. They are turned for a sliding fit to the truss pole tube ID and epoxied in place. The clamp brackets each hold two poles and have matching socket recesses machined to positively locate and hold the ball ends. A

non-removable knob locks each clamp during telescope assembly. The lower end of each pole has a cam-lock design machined from aluminum solid and epoxied in the truss pole tube. The cam has a total offset of about .060" and locks securely with a quarter turn twist in closely machined steel sockets fastened in the mirror box. The bottoms of the steel truss pole sockets are adjustable to compensate for slight differences in their placement and therefore allow truss tube interchangeability. The construction so far was completed in time for TSP 1993 and that is how the telescope arrived at the Prude Ranch with it's proud new owner!

After a successful TSP trip, I turned my attention to the design and replacement of the telescopes

lower end, the mirror and rocker boxes. Since my design of the telescope lower end was to include a drive system, I had to plan for room to mount 17" worm drives and clutches for both altitude and azimuth. With this drive system the telescope is used like any traditional non-tracking DOB, just grab the telescope and point it. Initial setup is very simple and requires only two steps. After turning on the drive computer, point the telescope straight up by using a bubble level and press a "zenith button". Second, using an accurately aligned finder, point the telescope at the North Celestial Pole and press the "NCP button". From here on, the drive system uses encoders to feed back telescope position

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Astronomy Day 2003 Was An Absolute Success!

By Cynthia Gustava

The combined Houston/Beaumont clubs, which collaborate annually in the organization and running of Astronomy Day, are (as of this year) the proud owners of the domain name www.

astronomyday.com. If you were not able to come to Astronomy Day 2003 and haven't been out to see the website, there are lots of pictures loaded of all the many people who attended and

the activities that went on throughout the day. As many as 160 amateur astronomers volunteered to assist A-Day 2004. That's a record!

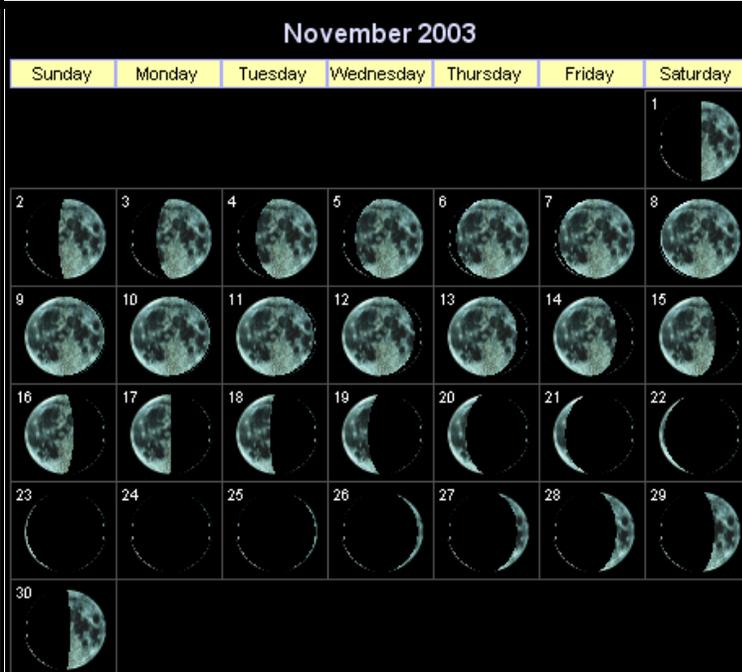
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SPECIAL POINTS OF INTEREST:

- Will Dennis Borgman finish his scope in time for TSP?
- An Astronomical Astronomy Day
- Will Joe Dellinger ever find a forgiving sky?
- Is the Ecliptic really located in Poland?
- All this and more in this issue of The FBAC Observer



What's Happening In November?

At the beginning of this month Saturn can be found in Gemini and Jupiter at 5 times brighter is in Leo. Saturn will rise about 10:30 PM with Jupiter following 5 hours later.

On **Tuesday, November 4**, Venus will be just above the horizon 45 minutes after sunset.

Saturday, November 8, the moon will begin eclipse, entering umbra at 5:32 PM CST, rising in the Houston area with eclipse already in progress. Eclipse will reach 50% at 6:10 PM and totality begins at 7:07 PM, ending at 7:30 PM. The moon will leave umbra at 9:05 PM.

The winter sky is beginning to make itself known. The Moon and the Pleiades (M45) will pass within a few degrees on the nights of **November 9-11**.

Venus and Mars are 90 degrees apart on **Wednesday, November 12** and will be moving closer together during the next few months.

Sunday, November 16 will bring the last quarter moon and Leonid meteors will be in the predawn hours of **November 17-19**. Prognosticators predict a poorer production process this year than in past periods.

Eta Leonis will be occulted by the last quarter moon on the morning of **November 17** and a waning crescent moon will occult Gamma Virginis early on the morning of **November 20**. Be sure to take your parka with you when observing this occultation because it's only visible along the northern tier of the Great Lakes.

On **Friday, November 21**, the **Fort Bend Astronomy Club** will hold its monthly meeting. The meeting **starts at 7:15 PM** and is held at the **First Colony Conference Center, 3232 Austin Parkway, Sugar Land, TX**.

Tuesday, November 25, marks the first easy young moon in the month.

Thursday, November 27, marks a day of devastation in the ranks of the U.S. turkey population.



Aperture Fever, Part 2 (Continued From Page 1)

and tell the drive computer the precise sky position being pointed to, and therefore allow precise determination of altitude and azimuth drive rates.

To provide a sturdy light weight foundation, my idea was to build the rocker box as an aluminum frame in place of the more traditional wood. Telescope movement friction would be controlled by clutch plates on the drive gears. With the telescope drive clutches completely released, telescope movement should be frictionless. While the telescope would never be used with the clutches completely released, it made sense to start frictionless and use the clutches to provide full control of friction. Before I could complete the design, I needed to know the balance point of the main telescope assembly. The balance point would dictate the vertical dimensions of the rocker frame for clearances and the placement of altitude pivot bearings. This need necessitated that the mirror box be completed first. My mirror box design includes ample room for electric collimation drive motors and a cooling fan to speed equalization of primary mirror temperature to atmospheric temperature. Oak veneer plywood panels with solid oak corners were used for the box construction. Building close fitting joints for the 12 solid oak corners turned out to be the most challenging aspect of the mirror box construction. I was forewarned by a close friend and cabinet maker, that this would be difficult. Never the less I stumbled on and was for the most part successful. I paid close attention to precise measurements and wound up with only a couple of joints that could have been improved upon. The box is held together with glue only, and has shown no signs of failure at any of the joints. The mirror box is finished with 3 coats of semi-gloss marine polyurethane and seems to protect the wood well against moisture. The primary mirror cell is a slightly modified Novak unit. Electrically driven primary mirror collimation necessitated the use of a different adjustment bolt scheme. The lower casting normally used to fasten the cell to the bottom of the mirror box and carry the collimation screws was discarded. The upper portion of the cell was modified to add ball and socket extension arms to the underside of the three main casting arms. A .75" semi-spheroid socket is machined into the upper extended surface and a .625" through hole is centered in the depression. The upper half of the socket is machined from a smaller piece with a similar semi-spheroid depression and through hole. Three #10-32 machine screws fasten the upper socket half to the extension arm and are used to retain and control the captive tension on .75" brass pivot balls. The brass balls have a .5" x 20 TPI internal thread. The 4"L x .5"D x 20 TPI adjustment screws pass through the upper captivation plate, through the threaded brass ball and through the extension arm. The collimation screws turn freely in ball bearings on each end supported by a bracket fastened to the mirror box. The threaded collimation screws pass through the mounting bracket and bearing on one end to provide a stub to mount a small toothed drive pulley. The motors are mounted to the side of the collimation screws and coupled with a 3:1 precision toothed belt/pulley system. One turn of the 20 TPI screw will move the mirror cell assembly .050". Coupled to a 100 step per revolution motor with a 3:1 drive reduction, provides .00017" movement per motor step. Close tolerances were required in the collimation screw assemblies to minimize lateral mirror cell movement as the telescope is tilted.

The weight of the entire telescope is carried by altitude ball bearings in the rocker frame and 1 inch stainless steel shafts locked into aluminum plates fastened to the side panels of the mirror box. The altitude balance point turned out to be about 1 inch above

the top of the mirror box. All the while I was building the mirror box, I was thinking about and refining my rocker frame design. I pre-machined many parts that I new dimensionally would not change based on the rocker frame size. Lots of small pieces like stainless steel pivot shafts fit to the altitude and azimuth bearings, clutch plate assemblies made from old 1/4" thick computer disk platters, bearing mounts, worm wheel hubs, stepper motor and worm gear mount assemblies, etc. filled the shorter evenings and left time on weekends for the big pieces.

My original intention to use aluminum rectangular tubing for the frame, posed another problem ... I had the MIG welder but I had no expertise to weld aluminum. I could cut and fit all the parts and have it professionally welded or I could choose another construction material. With TSP 1994 right around the corner, I decided to use steel tubing instead so I had a chance of getting the telescope back in useable condition in time for the trip. This added significantly to the total weight of the telescope. It weighs 340 pounds fully assembled. (So much for light weight!) One delay led to another and finally with only a few days left, I scheduled some additional vacation so I could work continuously on the frame and remaining parts. In three days the rocker frame parts were cut, fitted, and welded. A number of other parts had to be fabricated as well, and I worked late each night to complete these.

Final Part 3 next month

Club Dues Are Due. Regular members: \$30.00, associate household members \$5.00 each, students \$15.00. Checks may be sent to:
FBAC
P.O. Box 942
Stafford, TX 77497-0942

Diary Of An Eclipse Chaser, Part 2

By Joe Dellinger

The balcony was absolutely packed with tourists like ourselves. Unfortunately one quite fat one insisted on circling the tower the "wrong" way. This required getting by the other tourists. As he shoved his way behind us on the extremely narrow balcony I was pushed extremely forcefully against the outer railing. I couldn't help but notice at this point that the railing was also made of suevite and my hands were covered with a light dusting of gray-green suevite rock powder from where I had just been leaning over the railing looking straight down 300 feet... onto the part of the church that had been bombed. I remembered the grey-green goo in the quarry, and that this balcony had been exposed to air now for several hundred years (in addition to having been bombed) and that because of the eclipse there were now about as many large overweight people on the balcony as could possibly fit, maybe for the first time... and German liability laws are nothing like those in the USA. Yikes!

Fortunately the railing held, or I wouldn't be here to type this! My Stanford friend had other commitments of their own for watching the eclipse, so we parted company; they wouldn't be joining us for eclipse day.

That night I called home to get the last predictions from the internet on what the weather would be like. Bad news: our part of Germany had at best a 20% chance of visibility. If we were willing to drive for several hours in a mad dash towards France, though, we could do a lot better. Hmmm. Hotels were all full for eclipse night, though, and we were booked to spend one more night in Augsburg (towards the Eastern end of Germany), which rather tethered us unless we wanted to get up REALLY early and get back REALLY late and spend most of the day driving. And what was the traffic

on the autobahns going to be like on eclipse day?

I set my alarm to go off shortly after sunrise. We'd peek outside and make a decision then.

August 11:

At dawn, clear sky. Yippee! No heroic efforts needed! It was just going to magically work! Back to sleep. An hour later when we awoke again it was overcast and raining. Uh oh. Maybe we should have headed West after all? I called my friend in Karlsruhe, over on the Western edge of Germany hard next to France... and where the weather reports the night before had indicated a 75% chance of seeing the eclipse. (Latest predictions were for only a 10% chance for Augsburg, where we were!) He reported it was overcast and even raining a bit in Karlsruhe. Well if it was raining and overcast EVERYWHERE then I might as well not travel far and try to enjoy the day. So we stuck with our original plans and drove to "Hoechstaedt", a small city next to the city of "Dillingen".

One of the things we wanted to accomplish on this trip was to visit some cities of genealogical significance to Dellingers, on behalf of my parents (who are fanatical about genealogy, but didn't know this part of the story until they were too old to travel there themselves). That's the main reason my sister (also a genealogy fanatic) had come along on the trip, in fact. Hoechstaedt was where my great great great (well, a lot of greats) grandfather "Hans" got married in the late 1600's just before moving way off to Western Germany (to a city near Karlsruhe, in fact). Since he hailed from "Dillingen", when he got there he became "Hans of Dillingen", or "Hans Dellinger" for short. (We're not sure why or how the vowel slipped!)

At the local museum, which was open, we learned about the history of the area. Smart of my ancestor to have left... by leaving he missed the famous battle of Blenheim ("blindheim" on the map) near Hoechstaedt which killed 50,000 people in

30 minutes. We were told that this scenic corner of Bavaria was so depopulated by wars over the centuries that most of the current residents, in fact, don't have deep roots there at all, but are "recent" German refugees kicked out of what is now Western Poland at the end of WWII.

Since "Dillingen" was only 3km from the center line, our original plan was to go there to watch the eclipse. I thought maybe I could photograph the corona next to some high church tower landmark of the city or some such. On the map Dillingen sure looked small. I was expecting "Dillingen, Bavaria" to be something like "Barnsdall, Oklahoma" maybe...

What actually happened was the weather continued to get worse and worse. And despite looking like a "tiny" town on the map, "Dillingen an der Donau" (Dillingen on the Danube) was quite large enough to have lots of traffic. Turns out Dillingen had become much more important post-WWII by virtue of not having been bombed to smithereens by the allies in the last months of the war. (They wanted to keep its bridge across the Danube intact for their own use. "By this grace of God was our city saved in the time-of-total-destruction" said the shrine where the road into town crossed the river. The Germans actually have a word meaning "the period lasting a few months at the end of WWII when we no longer had an air force and all our cities were bombed flat by the allies".) We weren't the only ones who noticed Dillingen was conveniently on the center line and came there to watch the eclipse. Posters announced they were having a big party at the "Adolph-Kolping-Platz". (I assume it's somewhere in the city; we never found it!)

Sometime shortly after first contact we were sitting stuck in traffic. By performing a very un-German illegal U-turn we escaped for the open countryside, where we'd have some mobility. Halfway between Dillingen and Hoechstaedt at the edge of a corn

field was a group of people with viewers and binoculars. They had given up looking through the viewers and were staring up naked-eye at the cloudy sky, trying to catch a glimpse of the slightly eclipsed sun filtered through clouds. We joined them.

Almost as soon as we said hi, they quickly packed up and left. Oops. Meanwhile the rain just got heavier and heavier. Pretty soon we couldn't see anything except the occasional car going past, headlights on, and the nearest rows of corn. While we waited my sister read to me from her "German customs" guidebook: "Germans aren't as social as Americans" and "don't like being joined" and "don't like loud talking". I leaned my head on the steering wheel and thought oh jeez, I'm not going to see this one. No way... No, we're not going to be seeing anything today... this is the heaviest rain of the entire trip so far and it's less than an hour to totality now... this is going to be a total washout.

After another 15 minutes the rain got somewhat lighter and I thought, maybe it looked a LITTLE clearer towards the North. That was away from the centerline, but who cared? We weren't going to see anything sitting there in the corn. I'd feel

better for having made SOME effort to pull it out, at least! So we started the car and headed through Hoechst and out the other side into the open country South of the Ries crater. 30 minutes to totality now. Couldn't really tell anything was happening... it was so dark anyway that a little darker made no difference. We stopped at another roadside gathering and this time kept well away from the Germans already there. They ignored us and we ignored them. We caught a fleeting glimpse of the maybe 60% partially eclipsed sun as a patch of thinner cloud went over. The rain now was merely spitting. And, like a sign of God's approval on a small city way off to the NorthWest, there was a brilliant small circular patch of sunlight. The town's small church with its tower glowed brightly amidst the general gloom, with the colors of daylight made even more dramatic by the contrast.

We jumped in our car and drove like mad towards that heavenly glow. The patch of sunlight in the distance fragmented and disappeared, but we kept on going that way, and were rewarded by another patch of sunlight forming closer by. It was definitely starting to get a little eery now as we drove around. The now

reddish sunlight, combined with the lightning in the distance and the mottled dark and light storm clouds all around gave the landscape an otherworldly, somehow slightly sinister, aspect.

We were getting up on the crater rim hills now and could see a long way both North and South. 20 minutes to totality now, and raining again. We gotta be MOVING! No speed limits between towns (at least none posted). Was 80 kilometers per hour too fast? Hardly anyone else on the road now. When we came to a traffic circle we spun round and round, and round, in indecision while my sister tried to correlate the roads on the ground with the roads on the map. These rural German roads make a random network of point-to-point connections. We took a random exit, found it was veering away from the closest patch of sunlight after another couple of minutes, and turned around. Through the same circle yet again, out on a different side, and...

SUDDENLY WE WERE IN A BIG PATCH OF SUNLIGHT!

(Continued next month)

You recall last month we discovered where the **Galactic Poles** and the **Galactic Equator** are.

Our trip took us through our galaxy on the **BELTWAY** of the Milky Way. Now it's time to discover where the Ecliptic Poles are.

Unlike the Galactic coordinates that are pretty much fixed in space (except for the "twirling of our galaxy"), the Ecliptic poles and the Ecliptic are not forever the same. This is due to our planet, Earth, wobbling and spinning like a top on its axis that is tilted $22\frac{1}{2}^\circ$ from straight up. Earth is not exactly spherical, it bulges around the middle (sorta like me). The Sun and the Moon constantly pull on this bulge and this causes Earth to wobble as it rotates. Consequently the Ecliptic Poles and the Ecliptic, as well as our Celestial Poles, are constantly changing, albeit slowly, but never the less they are changing. This change is called **precession** and has a 26,000 year

The Ecliptic Poles By Leonard Pattillo

cycle. This is also why most of the Astrological charts are slightly wrong.

We all know that the path the Sun and the Planets follow is called the Ecliptic, a path in the sky traveling through the "12 Signs of the Zodiac", but **where** are the Ecliptic Poles...? Presently they are in the constellations Draco and Dorado. The North Ecliptic Pole is located in Draco at R.A. 18h and $+66.5^\circ$ declination or just South of NGC 6552. You can look on page 30 of Uranometria 2000 and find it. The South Ecliptic Pole is located in Dorado, North of NGC 2176 at R.A. 06h and -66.5° declination. You can look on page 445 of Uranometria 2000 and find it.

What does all of this mean? Well, we live in a constantly changing environment, some of the changes we are aware of, some we are not aware of. Most of the changes to our planet are at the unmistakable hands of the humankind, unfortunately most of which are detrimental to

the survival of Earth inhabitants. These changes we could reverse and "Save the Planet."

The changes most Earth inhabitants are not cognizant of are "Celestial Changes," changes that we as astronomers are aware of. How do you tell people that in 8000 AD Polaris will not be the North Star and that the North Celestial Pole is in Cepheus, or in 14,000 AD, Vega, in Lyra, will be near our North Celestial Pole, or in the year 22,000 AD Thuban in Draco will be our "North Star"?

You can tell them, but they will not understand something we, as astronomers do understand, however we find it difficult to deal with an event that's 20,000 years in the future.

It is easy to see that we are never where we think we are...We are always someplace else....

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 than 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.

NOVEMBER SATURDAY NIGHT SCHEDULE

NOV 1	MILLER/SELLE/OPEN
NOV 8	OPEN / OPEN / OPEN
NOV 15	DILLON / OPEN / OPEN
NOV 22	MACKAY / OPEN/OPEN
NOV 29	OPEN/OPEN/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

To start with,
we had a great line-up
of indoor and outdoor presenters this year!

Astronomy Day 2003 was an absolute success!

Indoor

“Star Lore” by Billie Harland, ASSET
 “Close Encounters of the '03 Kind” by James Wooten, HMNS
 “The Observable Edge of the Universe” by Dr. Reggie Du-four, Rice University
 “Mars Express and the Beagle 2 Lander” by Dr. Everett Gibson, NASA/JPL
 “A Tribute to Charles Messier” by Aaron Clevenson, NHAC
 “Mars Observations Throughout History” by Eleta Malewitz, JSCAS

About 375 people attended the indoor presentations. An average of 55 in a room that seats 65 is not bad! Two of the talks, Paul & Terry's and Dr. Gibson's, packed in 75 and 81 respectively and as you can imagine, were standing room only. By all reports, Dr. Gibson's talk on the Mars Express and the Beagle 2 Lander was especially fascinating.

Outdoor

“Close Encounters of the '03 Kind” by James Wooten, HMNS
 “Orbits” by Rodney Rocha, HAS
 “Telescopes and Their Stories” by Hernan Contreras, JSCAS
 “Mars Planetary Photos and Free Internet Programs” by Linda Sternbach and Elizabeth Danforth, HAS
 “Keeping Your Telescopes Sky Worthy” by Fred Garcia, HAS and Land Sea & Sky
 “Star Hopping Your Way Around the Sky – You CAN Do It!” by Ron Rosenwald, JSCAS

For the adult crowd, there were lots of tables set up by different members of the local area clubs ranging from mirror making to light pollution. Bob Taylor of JSCAS manned a table dedicated to mirror making, Phil Inderwiesen of FBAC set up a nice display covering light pollution, and Randy Brewer of FBAC provided a table on CCD imaging with lots of his own images available for everyone to see.

There was a Martian meteorite display brought by NASA/JPL (Houston) and monitored throughout the day by Dr. Everett Gibson, Dr. Carlton Allen, and his wife, Dr. Jaclyn “Jackie” Allen. Jackie said that it had definitely been worth their while to bring the Mars Rock display and that they would be glad to bring a Martian meteorite AND a moon rock to display at Astronomy Day 2004.

Land Sea & Sky (Texas Nautical Repair) also had a table in the front foyer with books, eyepieces, binoculars, etc. LS&S also contributed two of the evening's door prizes.

The kids were treated to tables of face painting

and galaxy-making run by Dolly Brewer, Sandra Brown, Lisa Lester and others.

Each local area astronomy club had a table set up in the foyer to answer any questions about astronomy, telescopes and how to join a club. Clubs represented were ASSET (Astronomical Society of Southeast Texas), FBAC (Fort Bend Astronomy Club), HAS (Houston Astronomical Society), JSCAS (Johnson Space Center Astronomical Society) and NHAC (North Houston Astronomy Club).

Cindy Harlan sat behind a table all day piled high with brochures, stickers, and all kinds of handouts generously donated by these organizations:

United Space Alliance - Houston
 Boeing - Houston
 Texas Nautical Repair / Land, Sea, and Sky - Houston
 NASA Johnson Space Center, Division of Space & Life - Houston
 NASA Johnson Space Center, Public Affairs Office - Houston
 NASA Johnson Space Center Astromaterials Research and Exploration Science Office
 NASA Jet Propulsion Laboratory - San Diego, California
 Astronomy.com – Jerry Burstein

And we must not forget the efforts of the George Observatory staff who got the place ready for us and the public to descend for eight hours! Many thanks to Barbara Wilson, Betty Glass and Charles Gray, Paul and Peggy Halford, Nick Aring, and Hannah Lange. Barbara checked with the BBSP headquarters to get the official count of visitors for Astronomy Day 2003 and was told that they sold seven books of tickets at 300 tickets per book. They estimated that one book was just for park visitors and six were for Astronomy Day, so the official count is 1800! A record for any Astronomy Day in the history of the George Observatory!

Joe Kahlaf, the publicity chairman of HAS set up a survey on A-Day to determine which promotion method was the most effective for 2003. Of those surveyed, most learned about A-Day from the postcards that were mailed out, next was by emails and lastly by word of mouth. Only one person mentioned the newspaper.

We can only hope that next year's event will be just as successful! Plans and improvements for Astronomy Day 2004 were already in the works before the dust had settled after A-Day 2003!



To Pay Your Dues

Astro Bits: Notes From The Editor

According to Loyd Overcash, our local contact in Ft. Davis, The McDonald Observatory is getting a 3.25 million dollar grant to bring a new telescope to town. From their web site:

The appropriation will bring the 1.8-meter telescope — known as the CCD Transit Instrument (CTI) — from New Mexico to McDonald Observatory. Locating CTI at McDonald rather than creating a new site for it will be a great cost-saver, because it will take advantage of McDonald's infrastructure of skilled personnel, roads, and electricity. At McDonald, the telescope will also benefit from the darkest night skies in the continental U.S. for astronomical research.

The Leonids are coming to town too but not with the kind of display from previous years. Experts (whoever that might be) are predicting only one streak every minute of two. But the earth will be tracking through not one but three different streams this year so keep your eyes glued between November 13th and 19th.

As this is being written, a mass coronal ejection is, in the vernacular of the press "buffeting the earth". After seeing this description, I decided to look up some synonyms for buffet. Here's what I came up with: rock, pound, batter, bang, pummel, beat. Holy cow! CMEs are dangerous. I definitely don't want to be rocked, pounded, battered, banged, pummeled, and beaten. Next time this happens, I'm leaving town...or maybe the entire solar system.

Fowl from here to Leakey and points between are expressing relief that the **Killer Star Party** is history. Good skies and clear weather prevailed accord-



annual **Chicken** ing to attendees.

Speaking of coronal mass ejections, the local search for attendant aurora has turned up negative. Reports from Arizona have turned up and it's possible it reaches us but just can't be seen because Houston is one of the most light polluted places in the known universe.

Predicting the future: A local teachers convention will culminate in visits to the George Observatory on Thursday, October 30 and Friday, October 31. Since Friday the 31st is Halloween night, I'm predicting that at least one FBAC member will show up in full wizard regalia. Next thing you know, he'll be looking for a ticket to Hogwarts. Or is it Hogwarts? I can never remember.

Headline from the Martian Chronicle:

Traffic Jam In Orbit! The Japanese spacecraft known affectionately as Nozomi (that's Imozon spelled backward) will be jostling with Mars Express (that's sserpxe sram spelled backward) and the Mars Exploration Rovers, Spirit and Opportunity for parking spots in orbit around Mars. Mars Express and the Exploration Rovers will attempt landings soon after entering orbit. Nozomi, which actually means hope in Japanese, will have to be content with staying in orbit to study the Martian atmosphere and it's interaction with the solar wind.

Some Martian Quotable Quotes:

"I dare not affirm that I am able to observe the phases of Mars; nonetheless, if I am not mistaken, I believe I have seen that it is not perfectly round."

—Galileo Galilei, in a letter to Benedetto Castelli, December 30, 1610

"To account for these phenomena, the explanation that at once suggests itself is, that a direct transference of water takes place over the face of the planet, and that the canals are so many waterways."

—Percival Lowell, *Mars*, 1895

"If you don't have a strong stomach for technical or financial failure, this is a bad place to be,"

—NASA Administrator Daniel Golden upon loss of the Mars Climate Orbiter, September, 1999.

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*Dedicated to the acquisition
and dissemination of
information pertaining to the
science of astronomy*

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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.

Can NASA Survive Reporters: An Expression Of Editorial Opinion

Anyone who reads the newspaper or has watched TV in the past year can pretty well figure out that our space agency is stopped at a crossroad. Whether NASA turns left, right, or plows straight ahead is anybody's guess for now. Sadly though, the direction taken may depend not on good science and engineering but the opinion of the media.

At a recent annual Houston area all clubs meeting prior to astronomy day, a pair of reporters from the Houston Chronicle were the featured speakers. Having written a series of articles on NASA during the interval since the Columbia accident Mike Tolson and Tony Freemantle spent a good hour and a half illuminating their take on where NASA has been and where it should go. But despite their impressive credentials and excellent articles (available on the Chronicle website at: <http://www.chron.com/content/>

chronicle/special/03/columbia/beyond/index.html), this editor found their take on the situation to be downright confusing with differing opinions and different viewpoints that don't seem to be expressed in their writing.

For instance, and according to my notes from that night, Tolson said there is no longer a constituency for manned space flight. Freemantle, who spoke last, believes the public supports it and their article of July 20, 2003 corroborates that viewpoint. Quoting from a survey taken in June and July of 2003, Colson and Freemantle say:

Broadly speaking, the poll reflects a nation that strongly supports the space program, follows what it does fairly closely, is somewhat ambivalent about spending more money on it and is almost evenly split on whether the space shuttle fleet is too old, too risky and too ex-

pensive to keep operating. However, more than two-thirds of the nation believe the benefits to be gained by manned shuttle flights outweigh the risks and expenses involved.

Obviously then, and if the poll is accurate, the public believes the space program has value and should continue. Interestingly enough though, not many people know what part of our national budget goes to NASA on an annual basis. They almost always thought it was much higher than the 1% actual cost.

The road to space is and always will be fraught with danger. And so the question: Which way will NASA go and how fast will it travel? Will it take the broad boulevard and easy path of public opinion and media scrutiny or the rock strewn, axle breaking trail of science and engineering? We can only hope it is the latter.

—Wes Whiddon