

Houston Astronomical Society

# GuideStar

July, 2004

*At the July 9 meeting...*

*NOTE: Meeting on 2nd Friday to avoid conflict with July 4 holiday weekend.*



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## William Herschel - His Life Story

**HAS Member Larry Mitchell will tell the story of William Herschel**

Among the astronomical luminaries of the 18th century, none shone as brightly as William Herschel (1738-1822). His contributions to astronomy were unrivaled in his day, and they greatly expanded



William  
Herschel

humanity's perception of the universe. Herschel was passionately devoted to astronomy. He tirelessly pursued his endeavors both day and night, often becoming thoroughly consumed with each project. He had to engineer, and then build, the great

instrument he used at night - often all night. Such devotion is almost unheard of today. Yet Herschel pursued his passion in this way for about 40 years.

His discoveries include the planet Uranus, 2000 nebulae and over 800 double stars.

**HAS Web Page:**

<http://www.AstronomyHouston.org>

See the *GuideStar's* Monthly Calendar of Events to confirm dates and times of all events for the month, and check the Web Page for any last minute changes.

## Schedule of meeting activities:

All meetings are at the University of Houston Science and Research building. See the inside back cover for a map to the location.

Novice meeting: ..... 7:00 p.m.  
Show 'n Tell – Astronomers and Their Toys;  
Amelia and Steve Goldberg; Jayne and Dana  
Lambert; Larry Mitchell, George Stradley

Site orientation meeting: ..... 7:00 p.m.  
Classroom 121

General meeting: ..... 8:00 p.m.  
Room 117

See last page for a map  
and more information.

## The Houston Astronomical Society

The Houston Astronomical Society is a non-profit corporation organized under section 501 (C) 3 of the Internal Revenue Code. The Society was formed for education and scientific purposes. All contributions and gifts are deductible for federal income tax purposes. General membership meetings are open to the public and attendance is encouraged.

### Officers & Past President

President: Steve Sartor .....	H:281-370-3544
Vice Pres: Bill Leach .....	H: 281-893-4057
Secretary: Brian Cudnik .....	H: 832- 912-1244
Treasurer: Bill Flanagan .....	H:713-699-8819
Past President: Kirk Kendrick .....	H: 281-633-8819

### Additional Board Members

Liaison responsibility		
Steve Goldberg .....	713-721-5077	
Don Pearce .....	713-432-0734	
Jay Levy .....	281-557-4920 .. Field Trip and Observing, Program	
Tessie Nolan .....	936-321-5422	

### Committee Chairpersons

Audit .....	Don Selle .....	281-391-5470
Education .....	Richard Nugent .....	713-524-1993
Field Tr./Obsg.	Kenneth Miller .....	936-931-2724
Novice .....	George Stradley	
281-376-5787		
Observatory .....	Michael Dye .....	281-498-1703
Program .....	John Blubaugh .....	713-921-4275
Publicity .....	Joe Khalaf .....	713- 660-8219
Telescope .....	Clayton Jeter .....	281-573-1337
Welcoming .....	Susan Kennedy .....	281-376-3262
	Hannah Lange .....	832-715-7833

### Ad-Hoc Committee Chairpersons

Historian .....	Leland Dolan .....	713-688-0981
Librarian .....	Peggy Gilchrist .....	281-443-8773
Logo Mds Sales .....	Judy Dye .....	281-498-1703
Long Range Plan .....	Bill Leach .....	281-893-4057
Parliamentarian .....	Kirk Kendrick .....	281-633-8819
Publ. Star Party .....	Richard Nugent .....	713-524-1993
Rice U. Coord. ....	Matt Delevoryas .....	713-666-9428
Schedule Obs'v'ty .....	Steve Goldberg .....	713-721-5077
Texas Star Pty .....	Steve Goldberg .....	713-721-5077

### Special Interest Groups & Help Committees

These are now listed on the inside of *GuideStar* (not every month). See the Table of Contents

### Advisors

Dr. Reginald DuFour, Rice Univ.  
Dr. Lawrence Pinsky, U. of H.  
Lawrence Armendarez, U. of St. Thomas

### Dues and Membership Information

Annual Dues:Regular .....	\$33.00
Associate .....	\$5.00
Sustaining .....	\$50.00
Student .....	\$5.00
Honorary .....	None

All members have the right to participate in Society functions and to use the Observatory Site. Regular and Student Members receive a subscription to *The Reflector*. Regular, Student, and Honorary Members receive *The GuideStar*. Associate Members, immediate family members of a Regular Member, have all membership rights, but do not receive publications. Sustaining members have the same rights as regular members with the additional dues treated as a donation to the Society. *Sky & Telescope* mag \$32.95/year, *Astronomy* mag \$29/year -- see club treasurer.

Membership Application: Send funds to address shown on outside cover of *GuideStar*. Attention - Treasurer, along with the following information: Name, Address, Phone Number, Special Interests in Astronomy, Do you own a Telescope? (If so, what kind?), and where you first heard of H.A.S.

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## Welcome to New Members!

The Houston Astronomical Society encourages you to join our group of active amateur astronomers and take advantage of the benefits of membership. As a member you'll have access to the club observing site near Columbus, Texas. (You're required to participate in a site orientation meeting before you get the gate lock combination.) The site has concrete pads for setting up your telescope, restroom and bunkhouse facilities, and areas set aside for camping. You'll get monthly issues of the *GuideStar* newsletter, you'll get to vote and to serve the organization as an officer, and you will be supporting the local amateur astronomy community.

## Special Interest Group Listing

Any member who wants specific information on a SIG listed below may call the listed individual. Also, see the "Ad Hoc Committee Chairpersons" on the inside front cover and the "Special Help Volunteers" listing (not in every issue).

Advanced .....	Bill Leach .....	281-893-4057
Comets .....	Don Pearce .....	713-432-0734
Lunar & Planetary .....	John Blubaugh .....	713-921-4275
Occultations & Grazes .....	Wayne Hutchison .....	713-827-0828
Advanced .....	Bill Leach .....	281-893-4057

## Other Meetings...

**Fort Bend Astronomy Club** meets the third Friday of the month at 8:00 p.m. at the First Colony conference Center. Novice meeting begins at 7:00, regular meeting begins at 8:00. Web site: <http://www.fbac.org>

**Johnson Space Center Astronomical Society** meets in the the Lunar and Planetary Institute on the 2nd Friday of each month. Web site: <http://www.ghgcorp.com/cbr/jscas.html>

**North Houston Astronomy Club** meets at 7:30 p.m. on the 4th Friday of each month in the Teaching Theatre of the Student Center at Kingwood College. Call 281-312-1650 or E-mail [bill.leach@nhmccd.edu](mailto:bill.leach@nhmccd.edu). Web site: [www.astronomyclub.org](http://www.astronomyclub.org)

# **President's Corner**

*July 2004*

*by Steve Sartor*

I'd like to thank everyone for supporting the board of directors' decision in their endeavor to update our by-laws. The way we have been paying our dues in the past has caused some confusion concerning individual renewal dates. As of January 1<sup>st</sup> this will no longer pose a problem. Also, the expanded use of the Internet is going to save our overworked and underpaid *GuideStar* volunteers many hours of work. The HAS treasury will also see substantial savings in printing and postage costs.

We're still working on the details, but we may be looking forward to a few auctions or drawings in the near future. The HAS has access to a number of very desirable items that have the potential of raising much needed funds for the organization. If anyone has any fund raising ideas, items to auction or draw for, please let one of the board members know. (Sorry, but we've already ruled out all car washes and bake sales)

As for the June meeting, I would like to offer my apologies to Robert and all of his rules of order. We come to the HAS meetings to have fun, be entertained and to learn something of interest, however, the business portion of the meeting still needs organization and protocol. .... I'll work on it.

***Steve Sartor***

"You know everybody is ignorant, only on different subjects."

- Will Rogers, New York Times Aug. 31 1924

## **Membership Renewals...**

**Please check the mailing label on your copy of the *GuideStar*, or check your email if you get an electronic copy of the *GuideStar*.**

It'll tell you when your membership expires. If it expires soon, please send your renewal to the address on the outside cover of *GuideStar*. The dues information is on page 2.

Membership in the Houston Astronomical Society is one of the great bargains in Astronomy. For a regular membership of \$33 you get the opportunity to support an active and growing organization, you get the monthly *GuideStar* newsletter, and you get access to the outstanding H.A.S. observing site near Columbus, Texas. (You must attend an orientation, given monthly, to use the site.) And, after two months of membership you can borrow, at no charge, one of the Society's loaner telescopes. It's the best deal in town, we think. Please renew your membership when it expires.

**Thanks!**

# Texas Venus Transit Landmark

## Help Establish a Landmark for the Historic Texas Transit of Venus Site in San Antonio

By Paul D. Maley

Many of you may not know that in September 1882, an expedition led by Jean-Charles Houzeau (1820-1888) the Director of the Royal Observatory in Brussels, Belgium made its way to San Antonio in order to prepare for the second Transit of Venus of the 19<sup>th</sup> century that was to occur three months later. After nearly a year of research site investigation, I have recently confirmed the precise locations of where their transit pier and heliometer were situated and would very much like for amateur astronomical societies in our area to commemorate the site by establishing an official State of Texas historic landmark. **This is likely the place where the most prominent astronomical event that transpired in the state took place during that century;** it is unmarked and essentially unknown except for an obscure article written 14 years ago in the *Southwest Historical Quarterly*.

The cost of establishing such a marker is \$1250 and any donations toward it are tax deductible. Having spent my early years in San Antonio, I am working with the San Antonio Astronomy Association—a non-profit scientific organization; they are collecting funds and will disburse the check to the state once the application for the marker has been approved. I have already made four trips to San Antonio to locate the site and meet with various people to discuss this effort. I was shocked to find that there are only a few historical landmarks in Texas which are astronomy-related: McDonald Observatory and two older colleges where astronomy was one of the courses taught there; then there are the Odessa and Bedias meteor craters.

In concert with this initiative, I have been able to lobby successfully with Fort Sam Houston (FSG) which has just agreed to authorize the establishment of a museum-related historical marker at that installation to honor the U. S. Naval Observatory team who observed the transit less than 0.1 mile east of the Belgian site. This was an American expedition observing on U.S. government property, unlike the Belgian expedition which was on private property. The commanding general of FSH, Daniel Perugini has acknowledged that the army will develop a marker and place it where we located the site earlier this year using GPS and based on the original field notes by Asaph Hall, the expedition leader (who is the noted discoverer of the two moons of Mars in 1877).

However, the Belgian station led by the remarkable astronomer J.-C. Houzeau, is currently unrecognized and unmarked. It is on land owned by the Bullis House Inn, a bed and breakfast on the southeast side of the city. The proprietors of the property on which the 1882 site lies have given their permission for such a marker to be installed provided funds can be raised. I have already begun

the paperwork for submission to the Texas Historical Commission justifying the marker.

If your life and experience in Texas has left you with pride as being a Texan and an intense interest in the history of our state, and you have an interest in preserving a part of astronomical culture and contributing to a worthwhile cause, please consider sending a donation to the SAAA. The contact person is Bryan Tobias at 210.4952671. Donations can be made out to the San Antonio Astronomy Association, P.O. Box 701261, San Antonio, TX 78270-1261. They will forward you a receipt which you can use for tax purposes in 2004.

We hope that if this is approved and funded, a ceremony commemorating the exploits of Houzeau will be held on December 6, precisely 120 years after the significant Venus transit observations that he made. It is planned to invite members of all the societies from the Austin, Houston, San Antonio region to represent the astronomy community. If you plan a trip to San Antonio next year, consider staying at the Bullis House Inn, 621 Pierce Street, and you will be able to see the marker for yourself and visit Ft. Sam just across the street. In addition to a military museum, you can see the Quadrangle where the notorious Indian chief Geronimo was held after his capture a few years after the transit. Many of the stone officers housing quarters that were built in the same period are still in use today. And, of course, the U.S. Army marker for the U.S.N.O. expedition site should be ready by winter.

It is noteworthy to comment that Houzeau was an exceptional individual; he was a prominent journalist, surveyor, astronomer, prolific writer, hiker, social activist, and traveler. Those wishing to read more about the life and times of Houzeau should take a look at *Sky and Telescope* magazine, October 1990, pp. 372-274.

# July/August Calendar:



Date	Time	Event
		Photo by Scott Mitchell

## July 2004

2	6:09 a.m.	Full Moon
9	NOTE: 7:00 p.m.	Meeting is on second Friday Novice Presentation - U of H.
	8:00 p.m.	General membership meeting U of H. Larry Mitchell: "William Herschel - His Life Story"
9	2:34 a.m.	Last Quarter Moon
10		Members Observatory Night - Columbus
17	6:24 a.m.	New Moon
		Prime Night-Columbus
24	10:37 p.m.	First Quarter Moon
31	1:05 p.m.	Full Moon

## August 2004

5		Neptune at opposition
6	7:00 p.m.	Novice Presentation - U of H.
	8:00 p.m.	General membership meeting U of H. Richard Schmude, "The 2003 Mars Apparition," (an amateur and professional perspective).
7	5:01 p.m.	Last Quarter Moon
12	early a.m.	Members Observatory Night - Columbus
14		Perseid meteor shower at maximum
15	8:24 p.m.	Prime Night-Columbus
23	5:12 p.m.	New Moon
27		First Quarter Moon
29	9:22 p.m.	Uranus at opposition
		Full Moon

Send calendar events to [JBlubaugh@aol.com](mailto:JBlubaugh@aol.com)  
or call 713-921-4275.



GuideStar deadline  
for the August  
issue  
is July 15

Check the web site:  
[www.astronomyhouston.org](http://www.astronomyhouston.org)  
Webmaster: Bob Rogers  
[siteworker@juno.com](mailto:siteworker@juno.com)

The Houston Astronomical Society Web page has information on the society, its resources, and meeting information.

Want your astronomy work and name on the Internet for the whole world to see? Have some neat equipment? Pictures in film, CCD, hand drawings or video format are all welcome on the page. Do you have an idea to improve the page? I'm listening. Send me Email at [siteworker@juno.com](mailto:siteworker@juno.com).

## New HAS Shirt

We have a new shirt for Logo Sales. It is a short sleeve with a collar, and comes in several different colors. It comes in men's sizes and lady's sizes. The logo was digitized and will be embroidered on each one, not silk-screened. You will be seeing them (I hope) by the next meeting.

For those of you who want to order a shirt, or for those of you who want to order another one, they have to be prepaid. The price of the shirt will be \$24.00. If you want to order, please call me at 281-498-1703, or you can e-mail me at [judyadye@aol.com](mailto:judyadye@aol.com). All checks are to be made out to HAS and mailed or given to me.

Thank you to the ones who have already ordered a shirt.

Judy Ann Dye

At the HAS meeting, please remember to park across from Entrance 14 because of the construction in the parking lot of the Science and Research bldg.

# *Observations... of the editor*

by Bill Pellerin, GuideStar Editor

I have an idea for the “next big thing” in astronomical equipment, and I’m going to share it with you.. I’m a visual observer, at least so far, and my process for finding objects through the telescope is to look them up on my computerized star map, move the telescope to the approximate location of the object and, using patterns of stars from the map, find the object of interest. You’ve all done it. I heard a lot of conversation at the Texas Star Party associated with finding objects.

“It’s just to the left of the small triangle of stars at the right side of the field,” says the observer on the ground looking at the map. “Oh, yes, I see it,” says the observer on the ladder at the eyepiece. And so it goes. For me, it’s looking at the map and trying to remember patterns of stars, returning to the eyepiece to find those patterns, returning to the map to confirm, and so on until I’m convinced that I’m looking at the object of interest.

All well and good, and go-to (or push-to) telescopes have helped with this. My idea is to combine the view of the map and the view of the sky by (somehow) displaying the map information as an overlay to the real view of the sky. You’d look through the eyepiece, see the sky, and see an overlay of a star map. There’d be identifying labels for the objects in your view, except in this case the objects would be the real objects, not dots on a screen. There’d have to be some way to turn off the map to provide a clear view of the sky, but you’d only have to look one place to see a view of the sky and your map. Pretty good idea, huh?

The technology for this exists, and, like most ideas, if it’s possible somebody will do it. Keep watching the ads in *Sky & Telescope*.

## Texas Star Party follow-up

I didn’t win anything at the drawings on Friday or Saturday night, but that’s ok. Wil Tirion spoke on the last full day of the TSP, and was very interesting. I now have his autograph on a book of star maps that he developed. It’s a long ride home from West Texas, but it’s worth the trip, without a doubt. I haven’t seen many stars since, and haven’t looked through a telescope at all.

I had a great time while I was there, though.

I missed the last meeting, unfortunately. It’s one of my favorites -- the Science Fair projects and their creators are always fun. As sometimes happens, I got tied up on a work-related problem, and the skies were so unsettled, I decided it would be best to stay home.

Observing conditions haven’t been good lately. The skies aren’t the nice clear blue that you’d hope for. It’s typical for this time of the year. The other thing... when I’ve been in the country I’ve been attacked by bugs of various kinds (chiggers and mosquitoes mostly), not making for the most pleasant circumstances.

Get used to it. It’ll be this way until the fall. As I write this, it’s June 20, and the solstice is TODAY. At 7:57 this evening the sun is as far north as it’s going to be, and it starts heading south. This means that the days will start getting shorter (and the NIGHTS will get LONGER). The other thing this means is that summer officially begins, as if we haven’t already noticed.

My summer reading has included a book called *The Great Influenza* by John M Barry. It’s a fascinating story of the condition of medical science in this country at that time (1918) and the devastating impact the flu virus had on the population of the country. I know it’s not about astronomy, but it’s a great read.

Here’s wishing you a great summer, with plenty of time to get out and observe the night sky. I’ll see you at the meeting in July.

*Until next time...  
clear skies and new moons!*

*..Bill*

# Space Weather

By Patrick Barry and Tony Phillips

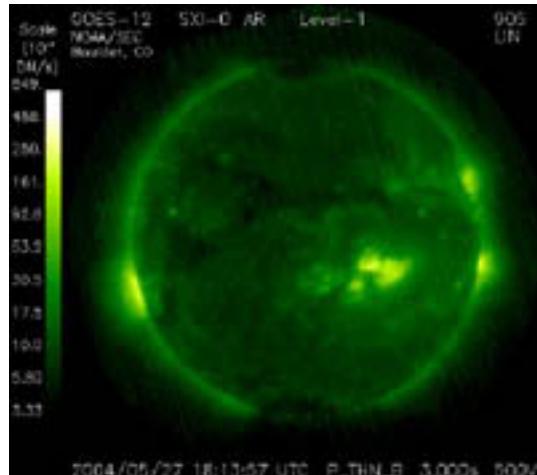
Radiation storms, 250 mile-per-second winds, charged particles raining down from magnetic tempests overhead ... it sounds like the extreme weather of some alien world. But this bizarre weather happens right here at Earth.

Scientists call it "space weather." It occurs mostly within the gradual boundary between our atmosphere and interplanetary space, where the blast of particles and radiation streaming from the Sun plows into the protective bubble of Earth's magnetic field. But space weather can also descend to Earth's surface. Because the Earth's magnetic field envelops all of us, vibrations in this springy field caused by space weather reverberate in the room around you and within your body as much as at the edge of space far overhead.

In fact, one way to see these "geomagnetic storms" is to suspend a magnetized needle from a thin thread inside of a bottle. When solar storms buffet Earth's magnetic field, you'll see the needle move and swing. If you live at higher latitudes, you can see a more spectacular effect: the *aurora borealis* and the *aurora australis*. These colorful light shows

happen when charged particles trapped in the outer bands of Earth's magnetic field get "shaken loose" and rain down on Earth's atmosphere.

And because a vibrating magnetic field will induce an electric current in a conductor, geomagnetic storms can have a less enjoyable effect: widespread power blackouts. Such a blackout happened in 1989 in Quebec, Canada, during a particularly strong geomagnetic storm. These storms can also induce currents in the metallic bodies of orbiting satellites, knocking the



*This image shows the outer solar atmosphere, or corona, as viewed by the GOES 12 Solar X-ray Imager (SXI). It shows the plasma at 4.0 MK (million degrees Kelvin). Bright areas are associated with sunspots seen in white light images and may produce explosive events known as flares. Dark regions are coronal holes where the fastest solar wind originates. Image courtesy of the Space Environment Center/NOAA.*



satellite out temporarily, and sometimes permanently.

Partly because of these adverse effects, scientists keep close tabs on the space weather forecast. The best way to do this is to watch the Sun. The NASA/ESA SOHO satellite and NOAA's fleet of GOES satellites keep a constant watch on the Sun's activity. If a "coronal hole"—where high-speed solar wind streams out from the Sun's surface—comes into view, it could mean that a strong gust of solar wind is on its way, along with the geomagnetic storms it will trigger. And an explosive ejection of hot plasma toward the Earth—called a "coronal mass ejection"—could mean danger for astronauts in orbit. The advancing front of ejected matter, moving much faster than the solar wind, will accelerate particles in its path to near the speed of light, spawning a radiation storm that can threaten astronauts' health.

Look for coming articles for more about space weather and about NOAA's efforts to forecast these celestial storms. Meanwhile, read today's space weather forecast at <http://www.sec.noaa.gov/>. Kids can learn about the geostationary and orbits of the GOES satellites at [http://spaceplace.nasa.gov/en/kids/goes/goes\\_poes\\_orbits.shtml](http://spaceplace.nasa.gov/en/kids/goes/goes_poes_orbits.shtml).

*This article was provided by the Jet Propulsion Laboratory, California Institute of Technology, under a contract with the National Aeronautics and Space Administration.*

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# ***Observatory Duty Roster***

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*by Michael B. Dye, Observatory Chairman*

This is the duty list for July, August and September. If you are listed in this roster, please be sure to contact your supervisor for any information that you may need and the date and time to be at the site. You may change from site duty to open house or from open house to site duty by pre-arrangement with the Site Supervisor for that month. Changes between months require Observatory Chairman coordination.

**July Supervisor** ..... **Allen Gilchrist** ..... **281-443-8773**  
John Chauvin ..... Site  
Art Ciampi ..... Members Observatory Night 07-10-04  
Brian Cudnik ..... Site  
Gary Delzer ..... Site  
Kay Sandor ..... Site  
George Dolson ..... Members Observatory Night 07-10-04  
Kenneth Drake ..... Members Observatory Night 07-10-04  
Victor Flores ..... Site  
Wayne Hutchinson ..... Site

**August Supervisor** ..... **Don Selle** ..... **281-391-5470**  
Clayton Jeter ..... Site  
Stanley Jones ..... Site  
Keith Jurgens ..... Members Observatory Night 08-07-04  
Arnie Kaestner ..... Site  
David Kahlich ..... Members Observatory Night 08-07-04  
Jerod Kendrick ..... Site  
Robert Kuna ..... Site  
Jay Levy ..... Site  
Mary Lockwood ..... Members Observatory Night 08-07-04

**September Supervisor** ..... **Allen Gilchrist** ..... **281-443-8773**  
Robert Menius ..... Site  
Larry Mitchell ..... Members Observatory Night 09-04-04  
Debbie Moran ..... Site  
Mark Mulrooney ..... Site  
Johnny Norris ..... Members Observatory Night 09-04-04  
Richard Nugent ..... Members Observatory Night 09-04-04  
Ralph Overturf ..... Site  
Don C. Pearce ..... Site  
Sim Picheloup ..... Site

Please remember that Site work can be done anytime and does not have to be done just before Members Observatory Night. Contact your Site Supervisor for details. Names are selected for Site Duty using the current Alphabetical listing for Observatory Key Holders. If any member knows of a conflict please call me before your name is listed.

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## ***Houston Astronomical Society Hats***

I will take orders for HAS hats at the next meeting. If I receive enough orders, I will try to place and order. I would like to know if you are interested in blue, white, or have an assortment of colors. I will need your name, phone number, and color desired. I will contact you to let you know how much the hats will cost.

If you can't come to the meeting, please call me at 281-498-1703, or e-mail me at [judyadye@aol.com](mailto:judyadye@aol.com) <<mailto:judyadye@aol.com>>.

Thank you.

Judy

# The Lowell Observatory

**By Anne Hallman**

Even by day the view from Mars Hill looking towards the San Francisco Mountains is inspiring. Perhaps this is why Lowell Observatory, named for its founder, Percival Lowell, enjoys such a distinguished place in the history of astronomy. Today this observatory in Flagstaff, Arizona is one of the largest privately owned non-profit research laboratories in the world and a registered national historic landmark.

Boston mathematician Percival Lowell founded the observatory in 1894, after a long search by his assistant, A.E. Douglass, for a suitable site. Lowell was looking for good “seeing” in the western United States and hoped to build an observatory in time for a close viewing of Mars. Although Lowell is best remembered for his belief in life on Mars, the observatory is best known for its part in the discovery of Pluto.

About 1901 Lowell's mathematical musings led him to publicly speak about a planet X beyond the orbit of Neptune. Lowell also hired V. M. Slipher to help out at the observatory. At Lowell's direction, he mastered the observatory's new spectrograph so well that Slipher discovered the Andromeda nebula was moving three times faster than anything known. He then worked out the speed of other nebulae and found that they were rotating, as well. Later Slipher confirmed the hypothesis of the existence of interstellar dust and gas.



This dome houses the 13-inch Lawrence Lowell telescope used in the discovery of Pluto.



Lowell's mausoleum overlooking the San Francisco Mountains

plates shot on January 23 and 29. The name, Pluto, proposed by an 11 year old school girl, was chosen to fit in with the theme of Roman gods and goddesses, and because the first two letters are Lowell's initials.

Although most of the scientific work done by the staff of Lowell Observatory today takes place at the modern dark site at Anderson Mesa, the observatory at Mars Hill is still a leader in public education on astronomy. To honor the Lowell Observatory, Flagstaff became the world's first dark sky city. With “stars up, lights down” no doubt the Lowell Observatory still has some history to make.

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*All words and pictures copyright Anne Hallman, 2004*

*Permission to print in GuideStar, publication of the Houston Astronomical Society.*

*This article was inspired by my recent trip to Grand Canyon while most HAS folks were at TSP. On our way back to the airport my fiancé, Tim Perez, generously let me take time to tour and photograph the Lowell observatory, even though I made us so late that we nearly missed our flight home to Houston!*

Meanwhile, Slipher was overseeing the search for planet X. Percival Lowell died in 1916 and was buried in a mausoleum at the observatory. Slipher became the acting director. He hired Clyde Tombaugh to assist him in 1929, after Tombaugh sent Slipher some sketches of Saturn and Jupiter for comment. Lawrence Lowell, Percival's younger brother and president of Harvard University, gave \$10,000 to buy a new 13-inch telescope. Tombaugh readied it for use then recast the planet X program for more efficient searching over the summer of 1929.

Using a blink comparator to compare two photographic plates at a time, Tombaugh first sighted planet X on February 18, 1930 while comparing

# **Upcoming HAS Meetings**

## **General Meetings**

### **August 6—Dr. Schmude “The 2003 Mars Apparition”.**

This talk will focus on work done by both amateurs and professional astronomers. The shrinkage rate of Mars' south polar cap will be discussed along with the December 2003 dust storm. Dr. Schmude will also briefly describe the two major discoveries made by professional astronomers, which are: the discovery of methane in the Martian atmosphere and the discovery that liquid water was once on Mars' surface. You are encouraged to bring your cell phone and digital watch. There will be at least one demonstration in this talk.

### **September 10—Peter Gural “Chasing the Leonid Meteor Storms” - Discussion of the ground-based and airborne missions to study the Leonid meteor storms where I contributed as an amateur meteor enthusiast. The ground based missions to Mongolia(1998), La Palma (1999), KSFC (2000), and Alaska (2003) as well as the Leonid MAC air based campaigns of 2001 and 2002 will be discussed.**

### **October 1—Richard Nugent “New Developments in the field of Asteroid Occultation’s”**

### **November 5—Dr. Larry Pinsky “The Accelerating Universe” (originally scheduled for April, but postponed until November)**

## **Novice Presentations**

### **August 1: An Overview of Computer Programs for the Amateur Astronomer: Bill Flanagan, Bill Pellerin, Steve Sartor and Don Selle. The program will describe what each of AstroPlanner, MegaStar, Sky Tools, Starry Night Pro, and TheSky can and can't do. Each participant will use his laptop for a “live” demonstration.**

### **September 10: Coordinate Systems: Ed Preston. Don't miss this one if you are a beginner — it's your key to finding things in the sky.**

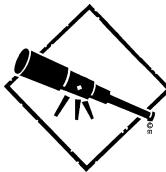
## **Special "Help" Volunteers**

Any member who wants specific information on a subject listed below may call the individual listed. If you have a moderate knowledge of a special subject and would be happy to have others ask you about that subject, let the editor know and your subject, name and phone will be listed in *GuideStar* in the future. Note that we have listed a few possible areas where you might volunteer, but, of course, you are not limited to these. You can also have a specialty which is a sub-group of another. Note that the number of names for any subject is not limited to only one person. Also see the "Ad Hoc Committee Chairpersons" on the inside front cover and the "Special Interest Groups Listing article.

<b>Subject</b>	<b>Name</b>	<b>Phone</b>
Asteroids .....	Barbara Wilson .....	281-933-1289
Astrometry .....	Richard Nugent .....	713-910-5945
Astrophotography .....	Steve Goldberg .....	713-721-5077
Beginning in Astronomy .....	Peggy Gilchrist .....	281-443-8773
.....	Amelia Goldberg .....	713-721-5077
CCDs & Astrophotography ..	Randy Brewer .....	
Comets .....	Kenneth Drake .....	936-890-3735
.....	Don Pearce .....	713-432-0734
Computers .....	Matt Delevoryas .....	713-795-0808
.....	Leland Dolan .....	713-688-0981
.....	Ricardo Palmeira .....	713-669-1409
Cosmology .....	Ricardo Palmeira .....	713-669-1409
Deep Sky .....	Larry Mitchell .....	281-448-8700
.....	Barbara Wilson .....	281-933-1289
Double Stars .....	John Blubaugh .....	713-921-4275
Drawing(Sketching) .....	Scott Mitchell .....	713-461-3020
Herschel Objects .....	Larry Mitchell .....	281-448-8700
History, Astro'y - General ..	Leland Dolan .....	713-688-0981
.....	Ricardo Palmeira .....	713-669-1409
History, Astro'y - Amateurs	Tom Williams .....	713-526-2868
Mathematics, Astronomical .	Richard Nugent .....	713-910-5945
Messier Objects .....	Novice Committee (see	
Photometry .....	Open	
Radio Telescopes .....	John Hiatt .....	713-464-4010
Satellites, Artificial .....	Open	
Solar Observing .....	Larry Mitchell .....	281-448-8700
Spectroscopy .....	Open	
Thin Crescent Moons .....	Don Pearce .....	713-432-0734
Telescopes .....	Clayton Jeter .....	281-573-1337
Variable Stars .....	Barbara Wilson .....	281-933-1289
.....	Tom Williams .....	713-526-2868
Video .....	Larry Mitchell .....	281-448-8700

# Observatory Corner

By Michael B. Dye Observatory Chairman



This is going to be a short article. I am writing the article from my daughter's house in Princeton, Texas. She just moved here from Houston and we (Judy and I) are visiting her (and her husband) at their new digs on our way up to Lake Texoma for our vacation. I spent so much time getting the fund raising letters ready and mailed that I neglected to write the Observatory Corner for July.

When Bill dinged me (using E-mail) on Thursday that Sunday would be the last day for article submission for the July GuideStar, I was in a panic. I was at that point packing the van to leave on vacation on Saturday Morning. I managed to get the Duty List composed and E-mailed to Bill on Friday evening. Now I am working on the Observatory Corner article on Saturday evening. With any luck I will complete this article and be able to E-mail it to Bill tonight. In case you are wondering, Princeton is just East of McKinney, Texas on Texas 380.

Now on to the stuff that actually deals with the Observatory Site.

I would like to thank Bob Rogers for completing the cleaning the observatory and getting all three of the scopes in the observatory ready for use. I would also like to thank Matt Delevoryas for assisting Bob in the re-installation of the F-7, which had been removed from the Observatory during the Sand Blasting and Painting activities. I would also like to thank Matt for accomplishing the repair work on the F-5 control box. This item has been nonfunctional for the last few months. Ed Szczepanski has volunteered to clean and paint the brickwork around the Observatory Building in the near future.

On to the next item on my agenda.

## The Observatory Committee 2004 Fund Raising Drive.

Most of the Society Members should have received their Fund Raising request letters by now. I spent the better part of two weeks writing and revising the letter, organizing the envelopes and making sure everything got together correctly. Judy and I mailed the whole mess on Tuesday evening and I have reports of people already getting their personally addressed letters. I want the membership to know that I just don't send out bulk rate generically addressed fund raising letters out to the world at large to raise money for the Observatory Site. I try very hard to make sure that I only mail letters to current members using First Class Postage. Thanks to the miracle of Microsoft Word (mail merge) and the club database, this was possible.

The Observatory Committee has already received \$750.00 in donations towards our goal of \$5,000.00 to pay for the new Observatory Site Riding Lawn Tractor and for expected Observatory Site expenses. I would like to thank the few members who have already contributed

to the 2004 Fund Raising Drive. We still need to raise about \$4,250.00 to pay for the new John Deere riding Lawn Tractor and for the continued operation of the Observatory Site. Donations can be made to the Observatory Site Fund by sending checks made out to the "HAS Observatory Committee" to HAS PO Box at the following address:

Houston Astronomical Society  
P. O. Box 20332  
Houston, TX 77225-0332

Each of the Fund Raising letters included a pre-addressed envelope to the above address in order to simplify the process of sending your tax-deductible donation to the Houston Astronomical Society. The Houston Astronomical Society is a 501 (c) 3 educational activity and all donations to the HAS are Tax deductible. The Observatory Committee will send out tax receipt letters for this year's donation in January 2005.

The Society continues to benefit from members who shop at Randalls and now Kroger's. For this we (the Society) thanks you. Please link your Randalls card to the Houston Astronomical Society so that the society can benefit from the Randalls program. Our number is #6618. This is very easy to do, just go to the Courtesy Booth and tell the person there what you what to do. If you shop at Kroger, we now have a card available (at the General Meeting) that you present at the cash register when you check out. We can thank Joe Khalaf for his efforts in getting the cards

Please fill out the appropriate log form when you use the site. Remember we use these forms as attendance records and to report Observatory Site problems such as broken toilets.

## **General Membership Meeting**

The Houston Astronomical Society holds its regular monthly General Membership Meeting on the first Friday of each month, unless rescheduled due to a holiday. Meetings are in Room 117 of the Science and Research Building at the University of Houston. A Novice Presentation begins at 7:00 p.m.. The short business meeting and featured speaker are scheduled at 8:00 p.m. Also typically included are Committee Reports, Special Interest Group Reports, current activity announcements, hardware reviews, an astrophotography slide show by members and other items of interest. Parking is NOW across from Entrance 14, by the stadium.

## **Board of Directors Meeting**

The Board of Directors Meeting is held on dates scheduled by the board at 7:00 p.m. at the University of St. Thomas. Information provided to GuideStar will be published. The meetings are open to all members of the Society in good standing. Attendance is encouraged.

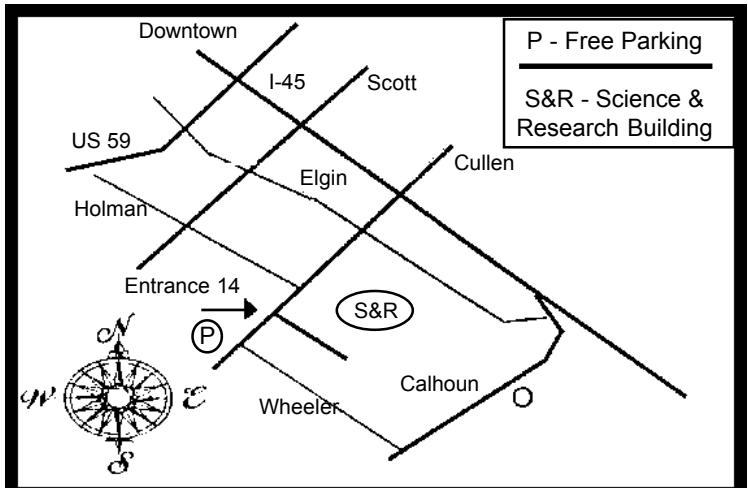
## **GuideStar Information**

The H.A.S. *GuideStar* is published monthly by the Houston Astronomical Society. All opinions expressed herein are those of the contributor and not necessarily of Houston Astronomical Society. The monthly Meeting Notice is included herein. *GuideStar* is sent via bulk rate mail to Regular, Student, and Honorary Members of H.A.S., selected individuals and recent visitors to the General Membership Meeting. Contributions to *GuideStar* by members are encouraged. Electronic submission is helpful. Submit the article in text, MS-Word format via email Billp10566@aol.com. Copy must be received by the 15th of the month for inclusion in the issue to be mailed near the end of the same month. Or, bring copy to the General Membership Meeting and give it to the Editor, or phone to make special arrangements.

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# **Houston Astronomical Society**

## **Meeting**

**July 9, 2004 - Second Friday**

**7:00 Novice & Site Orientation**

**8:00 General Meeting**

## **University of Houston**



# **Houston Astronomical Society**

P.O. Box 20332 • Houston, TX 77225-0332