



GuideStar

May, 2006

At the May 5 meeting...

Historical and Modern Methods to Measure the Solar Diameter

Richard Nugent

HAS Member Richard Nugent will discuss methods used to measure the solar diameter including IOTA's method using historical and modern solar eclipses.

There may be a correlation with the changing solar diameter and how it relates to the Earth's climate.

Highlights:

- Who Wants to be a Daredevil7**
- Minutes of the April Meeting8**
- Observatory Duty Roster (new format)9**

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.
Ed Preston "Coordinate Systems"

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 SartorH:281-370-3544
 Vice Pres: Bill Leach.....H: 281-893-4057
 Secretary: Doug McCormick.....H: 281-996-0177
 Treasurer: Bill FlanaganH:713-699-8819

Additional Board Members

	Liaison responsibility
Steve Goldberg.....713-721-5077	
Don Pearce.....713-432-0734	
Bob Rogers.....281-460-1573	
Kenneth Miller.....936-931-2724	
Allen Gilchrist.....	

Committee Chairpersons

Audit	Tom Blocker	
Education.....	Susan Kennedy.....	281-376-3262
Field Tr./Obsg.....	Clayton Jeter.....	281-573-1337
Novice.....	George Stradley.....	281-376-5787
Observatory.....	Kirk Kendrick	281-633-8819
Program.....	Don Pearce	
Publicity.....	John Missavage.....	
Telescope.....	Mike Hamlin	281-489-2926
Welcoming.....	Susan Kennedy.....	281-376-3262
	Darlene Sartor.....	281-370-3544

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.
 Dr. Lawrence Armendarez, U. of St. Thomas

Dues and Membership Information

Annual Dues:Regular	\$36.00
Associate	\$6.00
Sustaining	\$50.00
Student	\$12.00
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.

Table of Contents

3.....	May/June Calendar
	.....Web site
4.....	Observations of the Editor
5.....	Astronomical League Convention
	.....Want Ads
6.....	Special Help Volunteers
	.....Renewal Informaton
7.....	Who Wants to be a Daredevil?
	.....(Space Place)
8.....	Minutes of the April Meeting
9.....	Observatory Duty Roster

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.ghg.net/jscas/>

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. Web site: www.astronomyclub.org

May/June Calendar:



Photo by Scott Mitchell

Check the web site:
www.astronomyhouston.org
Webmaster: Bob Rogers
siteworkerbob@hotmail.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 siteworkerbob@hotmail.com.

Date	Time	Event
May		
3		Jupiter at opposition
5	0:13 a.m.	First Quarter Moon
5	7:00 p.m.	Novice Presentation - UH
	8:00 p.m.	General membership meeting - UH
13		Comet Schwassmann-Wachmann 3 at .073 a.u.
13	1:51 a.m.	Full Moon
20	4:21 a.m.	Last Quarter Moon
27	1:26 p.m.	New Moon
June		
2	7:00 p.m.	Novice Presentation - UH
	8:00 p.m.	General membership meeting - UH
3	6:07 p.m.	First Quarter Moon
11	1:06 p.m.	Full Moon
18	9:10 a.m.	Last Quarter Moon
25	11:07 a.m.	New Moon

Send calendar events to JBlubaugh@aol.com
 or call 713-921-4275.

Special "Help" Volunteers

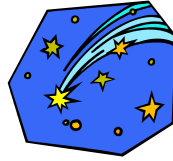
Any member who wants specific information on an astronomical topic may call special help volunteer (listed in most issues of the *GuideStar*). If you have a moderate knowledge of a special subject and would be happy to have others ask you about that subject, let the editor know and your subject, name and phone will be listed in *GuideStar* in the future.

At the HAS meeting, please remember to park across from Entrance 14.



Observations... of the editor

by Bill Pellerin, GuideStar Editor



.....

Time is on my wrist

As I was walking into the office today I checked my watch. It was 8:23 a.m. I had a meeting scheduled for 8:30 a.m., so I knew that I was going to make it (barely). It occurred to me that what a timepiece does is show the rotation of the earth relative to the sun for my location (or more precisely, my time zone). All these people are walking around with instruments measuring the rotation of the earth. My PC has an indicator showing the rotation of the earth in the lower, right-hand corner. My cell phone has a small window on the outside showing the day, date, and time, so it's showing me the rotation of the earth with respect to the sun as well as where the earth is in its yearly journey around the sun.

My German equatorial telescope mount does the same thing. It has a motor that drives one axis of the mount so that its position is synchronized with the rotation of the earth.

Of course, we aren't content to leave the time-of-day alone. We have to modify the time to "save daylight". This could be my least government mandate. For one thing, as an amateur astronomer, I want it to get dark early, so saving daylight doesn't do me any favors. In addition, we all know what July and August are like in Houston. Do we really want the hot sun bearing down on us for another hour in the summer? I don't.

Variable stars.

I've been getting good results with measurements of variable stars using my CCD imager. In a recent set of observations I had the problem of over-exposing the image of the star to be measured. With an anti-blooming CCD it is important to stay in the linear portion of the response curve. This typically means a maximum exposure of about 1/2 scale. With a 16 bit well-depth (which yields a maximum count of 2^{16} or 65536) this means I can use only 15 bits or 32768 counts. Good enough to get good data.

Texas Star Party starts SUNDAY, April 23

I spent the last weekend gathering up my stuff for the Texas Star Party. I always make a list of stuff I want to take, and check the list twice (or more) to make sure I didn't leave anything out. Everything goes into the big 'to-go' pile at least a week before I leave. That way, when we're ready to go all I have to do is put it in the car. It should be fun this year (just like every year). I hope to see you there.

I'll be taking my variable star CCD equipment out there and I'll spend some time fiddling with that stuff. I'm taking a simple visual observing rig as a backup. I have a Televue Telepod (simple alt-az mount), and a Televue Pronto 70mm refractor that works great and is a lot of

fun to use. And, I'll take my binoculars as an if-all-else-fails backup.

I checked the location of Comet 73p/Schwassmann-Wachmann 3 on my software (TheSky) against some on-line maps and they matched well enough. So, while I'm sure that Don Pearce will help us if we go astray in our efforts to find the comet, it's reassuring to have it appear in my software.

There's the TSP daytime list, which I didn't get to complete last year. I did finish the nighttime list, but barely. Weather conditions last year weren't good so getting to see all the objects was a challenge. The mount that I'll have this year can be turned off at dawn, and turned back on later in the day and not lose track of its orientation. So... if I turn it on during the day and do a 'warm-restart' I'll be able to tell it to go to an object and it should do it. I'm wondering how I'm going to be able to read the controller display, which is red LEDs, in daylight. I have a black cloth to put over my head and that may do the trick.

Things have been crazy for me. I'm doing some traveling for my work, we're doing some remodeling of our house, taxes were due (as we all know), TSP is coming up, and the *GuideStar* needs to be done. This will be a simple issue this time because I don't have a lot of time to spend on it this month.

Until next time...

clear skies and new moons!

..Bill

Logo Sales

The *Observer's Handbooks* for 2006 are in. They sell for \$25.00. If you would like to have one or more, please e-mail me at judyadye@aol.com, call me at 281-498-1703, or see me at the meeting... Judy

Astronomical League Convention

August 4-5 - Dallas

ALCon/Expo 2006, the Astronomical League Convention, will take place in Dallas - Fort Worth, Texas, August 4-5, 2006.

There will be an astronomical trade show and vendor exposition, guest speakers, and a public observing star party.

Attendees will have an opportunity to attend presentations by well-known astronomers.

A public star party and vendor fair will take place on Friday night. The annual Astronomical League Awards Banquet will be held on Saturday night.

<http://www.alconexpo.com/>

New Site Combination!!!

We will be changing the combination at the site by early May.

Contact Kirk Kendrick if you are trained and do not have the combination!

NOTE: You must have attended a site orientation meeting before you will be given the combination. These classes are taught at 7:00pm on meeting nights or by special appointment with Bob Rogers.

Want Ads

For Sale: 18 in Truss Tube Dobsonian

Nova primary, Astrosystems premium secondary, both w/96% coatings in excellent condition; birch construction, no-tool one person set-up. All sections nest for a footprint of 26x26. Components include: Novak heavy duty spider, JMI NGF2 focuser, Astrosystems steel-frame primary cell (sling & 18-point flotation), Ebony Star & teflon bearings. Includes Telrad, light shroud, Scope Coat cover, Takahashi 11x70 illuminated finder with rings & mounting bracket. Razor sharp images & quality throughout. This scope was built by Edward Szczepanski. Ed has made more than 50 dobs and has won several telescope making awards at the Texas Star Party. \$2900. Prefer sale in Houston, TX area. Will not ship. Will consider travel up to 200 mi. msquic@alltel.net. Michael Squicciarini Cell 281-702-8146

For Sale: Celestron C8

...with German equatorial mount. Approximately 7 years old. Accessories include - Meade 40mm plossl, 20mm Televue. Celestron 25mm wide angle, Celestron 45 deg erect image diagonal, Celestron 2X Barlow, Celestron Star Diagonal, # 11 filter and 8 inch solar filter. In good condition. \$700.00. Contact Mannie Steglich - 281-489-1626 after 6PM or email mcsjz@ev1.net

For Sale:

Celestron Sky Master 11 X 80 Astronomical Binocular with original carrying case. Celestron Photographic Tripod (crank up) in original box. Both items purchased new and gently used a few times. \$250 or best offer. George Sellnau 713-978-7774, gsellnau@aol.com

For Sale: 13.1" Colter "Odyssey"

13.1" Colter "Odyssey", 1.8 tele-vue barlow, 32mm plossl tele-vue 10.5mm Tele-Vue, 21.5mm rke Edmonds, Lumicon UHC filter, Celestron eyepiece filter set, 7 x 50 finder scope, Telerad finder, tube cap, light box and Skyatlas 2000 maps, Burnham's Celestial Handbook, vol 1,2,3., That's the details, everything for \$600.00. E-mail: roy60@ev1.net Phone: 713-434-2647

For Sale: Meade ETX 90EC Telescope,

and Meade tripod Used once. Includes Autostar controller. Paid \$850 new 6 months ago - no time for a new hobby. Includes all original boxes and manuals, and carrying case for scope and tripod. Before I put it on eBay, I'd like someone local to enjoy this scope. I'll take \$500 or any reasonable offer. Contact Bill at beley8@houston.rr.com.

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.

Asteroids	Barbara Wilson	281-933-1289	History, Astro'y - General	Leland Dolan	713-688-0981
Astrometry	Richard Nugent.....	713-910-5945	.....	Ricardo Palmeira	713-669-1409
Astrophotography	Steve Goldberg	713-721-5077	History, Astro'y - Amateurs...	Tom Williams	713-526-2868
Beginning in Astronomy	Peggy Gilchrist	281-443-8773	Mathematics, Astronomical ..	Richard Nugent.....	713-910-5945
.....	Amelia Goldberg	713-721-5077	Messier Objects.....	Novice Committee (see	
CCDs & Astrophotography...	Randy Brewer.....	281-421-1550	Photometry	Open	
Comets	Kenneth Drake.....	936-890-3735	Radio Telescopes.....	John Hiatt	713-464-4010
.....	Don Pearce	713-432-0734	Satellites, Artificial.....	Open	
Computers.....	Matt Delevoryas	713-795-0808	Solar Observing	Larry Mitchell.....	281-448-8700
.....	Leland Dolan	713-688-0981	Spectroscopy	Open	
.....	Ricardo Palmeira	713-669-1409	Thin Crescent Moons.....	Don Pearce	713-432-0734
Cosmology	Ricardo Palmeira	713-669-1409	Telescopes	Clayton Jeter.....	281-573-1337
Deep Sky	Larry Mitchell.....	281-448-8700	Variable Stars	Barbara Wilson	281-933-1289
.....	Barbara Wilson	281-933-1289	.....	Tom Williams	713-526-2868
Double Stars.....	John Blubaugh.....	713-921-4275	Video	Larry Mitchell.....	281-448-8700
Drawing (Sketching).....	Scott Mitchell	713-461-3020			
Herschel Objects	Larry Mitchell.....	281-448-8700			

Membership Renewals...

Your membership is renewable on January 1 of each year.

Total yearly dues are \$36.

If you paid your dues any time in 2005, your payment for 2006 is due as of January 1, 2006. New members joining in 2006 will pay only for the months remaining in the calendar year.

Magazine subscriptions can be renewed at any time and the renewal does not need to be synchronized with your HAS dues.

Membership in the Houston Astronomical Society is one of the great bargains in Astronomy. For a regular membership of \$36 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.

Encourage other astronomy enthusiasts to join the organization as well. It's a great group.

Thanks!

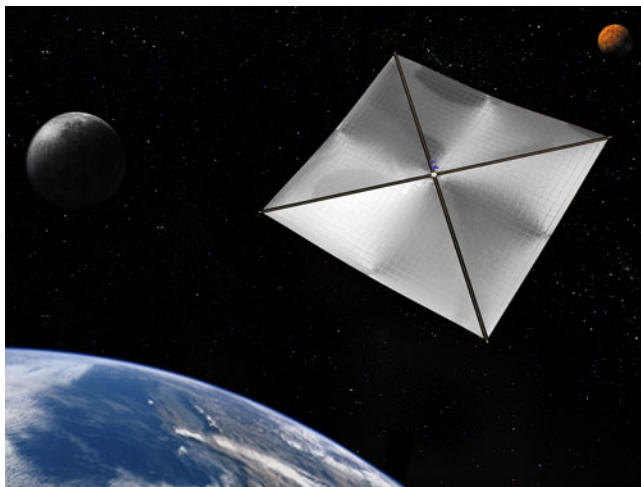
Who Wants to be a Daredevil?

By Patrick L. Barry and Dr. Tony Phillips

When exploring space, NASA naturally wants to use all the newest and coolest technologies—artificial intelligence, solar sails, onboard supercomputers, exotic materials.

But “new” also means unproven and risky, and that could be a problem. Remember HAL in the movie “2001: A Space Odyssey”? The rebellious computer clearly needed some pre-flight testing.

Testing advanced technologies in space is the mission of the New Millennium Program (NMP), created by NASA’s Science Mission Directorate in 1995 and run by JPL. Like the daredevil test



Artist's rendering of a four-quadrant solar sail propulsion system, with payload. NASA is designing and developing such concepts, a sub-scale

pilots of the 1950s who would fly the latest jet technology, NMP flies new technologies in space to see if they're ready for prime time. That way, future missions can use the technologies with much less risk.

Example:
In 1999, the

program's Deep Space 1 probe tested a system called “AutoNav,” short for Autonomous Navigation. AutoNav used artificial intelligence to steer the spacecraft without human intervention. It worked so well that elements of AutoNav were installed on a real mission, Deep Impact, which famously blasted a crater in Comet Tempel 1 on July 4, 2005. Without AutoNav, the projectile would have completely missed the comet.

Some NMP technologies “allow us to do things that we literally could not do before,” says Jack Stocky, Chief Technologist for NMP. Dozens of innovative technologies tested by NMP will lead to satellites and space probes that are smaller, lighter, more capable and even cheaper than those of today.

Another example: An NMP test mission called Space Technology 9, which is still in the planning phase, may test-fly a solar sail. Solar sails use the slight pressure of sunlight itself, instead of heavy fuels, to propel a spacecraft. Two proposed NASA missions would be possible only with dependable solar sails—L1 Diamond

and Solar Polar Imager—both of which would use solar sails to fly spacecraft that would study the Sun.



“The technologies that we validate have future missions that need them,” Stocky says. “We try to target [missions] that are about 15 to 20 years out.”

A menagerie of other cool NMP technologies include ion thrusters, hyperspectral imagers, and miniaturized electronics for spacecraft navigation and control. NMP focuses on technologies that have been proven in the laboratory but must be tested in the extreme cold, vacuum, and high radiation environment of space, which can't be fully recreated in the lab.

New NMP missions fly every year and one-half to two years, taking tomorrow's space technology for a daredevil test drive.

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

Remember --

All HAS memberships are due for renewal in January, 2006. Our membership year now corresponds to the calendar year.

Mail your dues to the address on the back page of this *GuideStar* or bring your payment to the meeting in March.

Minutes
the April, 2006 Meeting of the
Houston Astronomical Society

The April, 2006 meeting of the Houston Astronomical Society was called to order at 8:13 p.m. by Steve Sartor.

General Announcements:

- Steve Sartor welcomed everyone to the meeting.
- Steve recognized and welcomed the one new member and one guest present at the meeting.

Announcements:

- Steve Sartor introduced Dale Morningstar as the new chair of the Telescope Loaner program. Dale is a recent new member who joins HAS from the Phoenix club.
- Steve reminded the members that if they haven't paid their 2006 dues by now, they are way past due, and he announced that HAS now has a total of 205 regular, associate, and student members.
- Judy Dye introduced herself as the HAS Logo Sales salesperson and the HAS banquet chairperson. She invited all to visit the Logo Sales table at the side of the room and handed out a few free Coozies to attendees.
- Patrick Irby recognized Clayton Jeter for his excellent work organizing the 2006 Spring "Members Night" Observing Session held March 25th.
- Clayton Jeter announced that the first HAS field trip/star party held March 25th on the rooftop of the U of H Science and Research Building was a success. The approximately 40 members and guests attending enjoyed good food and had a great time viewing the planets and a few bright deep sky objects through privately-owned telescopes and binoculars as well as HAS' 14" classical cassagrain telescope housed in the U of H observatory dome. Clayton announced the next HAS field trip/star party is scheduled for May 20th at Ken Miller's ranch in Hockley.
- Linda Christian presented Bob Rogers with a beautiful blanket she knitted for him using yarn he had earlier given to her.
- Kirk Kendrick announced that he has the new combination for the observing site for those qualified individuals who haven't received it yet. He also invited members who haven't taken the site orientation training class and received access to the site to do so and come out to enjoy the site.
- Don Pearce gave the Comet Report highlighting the following:
 - o C/2006 A1 Pobjanski, now at 8.5 magnitude and fading in the morning sky.
 - o 73P/Schwassmann-Wachmann, periodic comet that broke up on its 1995 return to the inner solar system is now returning. 19 fragments have been identified and two fragments, B and C, are

now observable at magnitude 9 and 9.5 respectively in Bootes. At closest approach in mid-May these bright fragments could reach 3rd magnitude in Vulpecula. For information on these and other comets of interest, see Don's Comet Corner on the HAS website at <http://www.astronomy-houston.org>.

- Don Pearce reported that he, Bill Flanagan, and Tom Fox saw the thinnest moon he has ever observed (7.52 degrees separation, 15hrs. 10min. old) in West Texas on March 29th.

Program

Don Pearce introduced the featured speaker for the evening, HAS member, Brian Cudnick, who delivered his presentation entitled, "Stellar Life Cycles." Upon completion of his presentation, Brian answered questions from the audience, and Don Pearce presented him with a gift certificate and a roll-up astronomy table in appreciation from the society.

Closing Announcements

- Various members announced the following:
 - o Venus Express Orbiter has orbital insertion burn on Tuesday, April 11th.
 - o A member apologized for a recent light violation at the observing site.
 - o Dawn mission to asteroids Vista and Ceres has been reinstated by NASA.
- Steve Sartor pronounced the meeting adjourned at 9:33 p.m.

Observatory Duty Roster

by Kirk Kendrick, Observatory Chairman

A new approach to the duty roster is under development. The site continues to be in GREAT shape thanks to the unending efforts from our chief grounds keeper – Ed Szczepanski. Bob Rogers, and a few other volunteers that keep tackling key jobs.

Major Projects under planning:

- Site (continued) cleanup – before Picnic
- Annual Picnic – plant the new time capsule!
- Additional Camping sites with water and electricity

May Supervisor Jerod Kendrick 281-787-2367

Larry Mitchell
Debbie Moran
Stan Musielewicz
Johnny Norris
Richard Nugent
Ralph Overturf
Mark Watson
Volunteer

FOCUS THIS MONTH
Weed eat
Poison ants
Fence repairs N & W sides

June Supervisor Jerod Kendrick 281-787-2367

Doc Pearce
Sim Picheloup
Scott Poteet
Leonard Raif
Logan Rimes
Eric Rothgeb
Kay Sandor
Volunteer

FOCUS THIS MONTH
Weed eat
Poison ants
Trim bushes along entrance /
exit roads

July Supervisor TBD 281-633-8819

Henry Schneider
Linda Sternbach
Larry Wadle
Mark Watson
Tom Williams
Barbary Wilson
Buster Wilson
Volunteer

FOCUS THIS MONTH
Weed eat
Poison ants
....cool off...
Weed eat

Additionally:

The Field Trip & Observing committee is planning some **observing events to coincide with the “Members Observatory Night”** for certain months (stay tuned!). Rather than a small event each month, we will focus on more help a little less frequently.

Month	Prime Night	Members Observatory Night
-------	-------------	---------------------------

May	27	20
June	24	17
July	22	15

Please volunteer to help us keep the site in great shape! Contact Kirk Kendrick with your desires and let him know of any special skills you have that the club could leverage. Thanks!

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

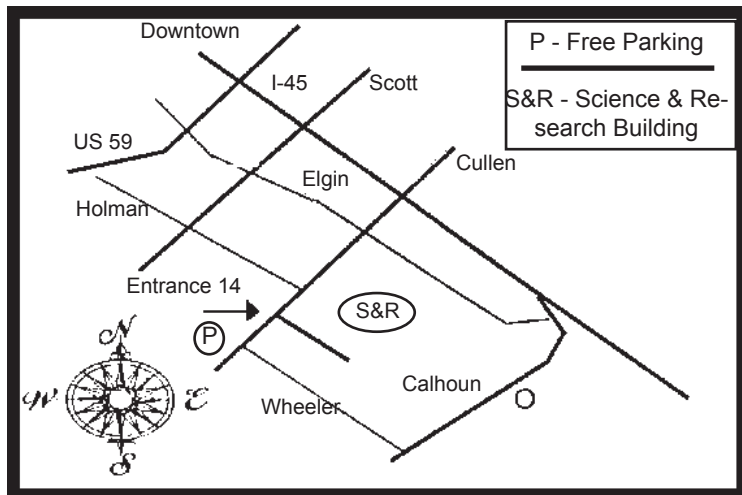
The Board of Directors Meeting is held on dates scheduled by the board at 7:00 p.m. at the University of St. Thomas. Information provided to GuideStar will be published. The meetings are open to all members of the Society in good standing. Attendance is encouraged.

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 available on the HAS web site to all members of H.A.S., and to persons interested in the organization's activities. Contributions to *GuideStar* by members are encouraged. Electronic submission is helpful. Submit the article in text, MS-Word format via email BillPellerin@sbcglobal.net. Copy must be received by the 15th of the month for inclusion in the issue to be available 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.

Editing & Production: Bill Pellerin, 713-880-8061; FAX: 713-880-8850;
Email: BillPellerin@sbcglobal.net

Advertising: Advertisers may inquire concerning ad rates and availability of space.



Houston Astronomical Society Meeting

May 5, 2006

7:00 Novice & Site Orientation

8:00 General Meeting

University of Houston

Houston Astronomical Society

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



The Houston Astronomical Society welcomes you to our organization. The HAS is a group of dedicated amateur astronomers, most of whom are observers, but some are armchair astronomers. The benefits of membership are:

- Access to our 18 acre observing site west of Houston -- a great place to observe the universe!
- A telescope loaner program -- borrow a HAS telescope and try observing for yourself!
- A monthly novice meeting, site orientation meeting, and general meeting with speakers of interest.
- Opportunities to participate in programs that promote astronomy to the general public (such as Star Parties at schools)
- A yearly banquet with a special guest
- A yearly all-clubs meeting for Houston area organizations
- Meet other amateurs and share experiences, learn techniques, and swap stories

***You're invited to attend our next meeting.
You'll have a great time.***