

GuideStar



May, 2004

At the May 7 meeting...

Triple Nickel

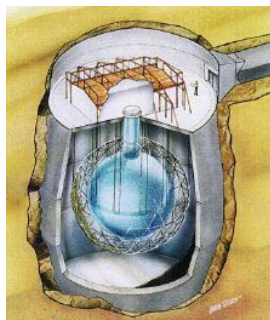
"Neutrinos and the Sudbury Neutrino Observatory"

Neutrinos have been something of a mystery. One observatory that's attempting to capture 'observations' of this chargeless, almost massless particle is the Sudbury Neutrino Observatory in Ontario.

Scientists at the SNO are trying to detect the neutrinos that are a byproduct of the fusion reactions within the sun (as the sun fuses Hydrogen into Helium). The observatory is a 12 meter diameter vessel filled with heavy water. As neutrinos enter the water, a light flash occurs when a neutrino interacts with the water. Photoelectric detectors record the flashes associated with the interaction.

More background information at:
<http://www.sno.phy.queensu.ca/>

The Sudbury Observatory is searching for the elusive Neutrino



Highlights:

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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.

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	281-657-4920	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 ObsV'ty	Steve Goldberg	713-721-5077
Texas StarPty	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.
 Web site: www.astronomyclub.org

President's Corner

May 2004

by Steve Sartor

I hope everyone remembers to bring his or her checkbooks to the May meeting. We will be putting together a pre-paid order for *Land's End* shirts. The Pima shirts that most of us ordered last year are \$33.50. This covers the price of the shirt, the logo, sales tax and shipping. It also appears that we will be ordering the Super-Ts. They will run \$20.00 per shirt. Yes, these are much more expensive than others that have been available, but these are top of the line quality shirts that have an embroidered logo and can be worn practically anywhere. Note: These prices may vary a little depending on sleeve length and/or pockets etc. Checks need to be made out to the HAS.

We also have some voting to do in June. We need to fill the vacancy on the board of directors left by the resignation of Chris Mendell. Nominations will be taken from the floor. If interested, please let someone know so that you can be nominated. You do not need a degree in astrophysics to serve on the board, just an interest in what happens with the Houston Astronomical Society; and you need to have been a member in good standing for the past year.

The few changes to our by-laws center around the way we will be paying our dues next year and how we give notice for our annual and special meetings. As for the dues, we need to adjust the wording from "twelve calendar months from date paid" to "starting January 1st and ending December 31st". We would also like to adjust the amount from \$33.00/year to \$36.00/year so as to make prorating the dues something less than a nightmare for our treasurer and to help make up for the increase in our AL dues. We would also like to adjust the associate dues to \$6.00 and the student dues to \$12.00 for the same reasons.

As for the notice of our annual and special meetings, we would just like to add the use of the Internet and the On-Line *GuideStar*. With the wide use of the Internet, there is just no reason that we have to send out notices by the United States Postal Service every time to those individuals who have access to e-mail and the Internet. However, those individuals without access to the Internet will still receive notice by way of the USPS.

We also want to add "Sustaining Member" to the list of those with voting privileges.

So, as we move towards a vote at our June meeting, I'd like to pass on some profound and important advice from one of my favorite movie stars; Bugs Bunny..."Don't take life too seriously. You'll never get out alive."

Steve Sartor

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!

★ Houston Astronomical Society

★ General Membership Meeting ★

★ Friday, April 2, 2004 ★
★ University of Houston ★

Minutes

The Meeting was called to order at 8:14pm, and was followed by an introduction to the H.A.S.

There was 1 new member and no visitors present.

The announcements were as follows:

- A new order for *Land's End* shirts will be taken next month when people can pre-order products. Steve Sartor modeled one such shirt and recommended those interested bring their checkbooks next month
- There will be a vote of the general membership at the June meeting to amend the bylaws along with the change in dues schedule. The dues schedule will have all members renew their dues in the same month—January. Comments from the membership were received.
- Also in June, nominees for an election to fill an open spot in the Board of Directors will be accepted
- Bad behavior, such as what occurred two months ago with the speaker, will not be tolerated.
- The society is getting as many people as possible to opt out of postal delivery of the *GuideStar*, since it is available online. Opting out is voluntary at this time, but the desire, to save costs, is to have the number of postal Guidestar recipients be less than 100.
- Clayton Jeter, chair of the Scope Loaner Program, displayed the featured scope of the month and described the Program
- Judy Dye provided information and specials concerning logo sales.
- Michael Dye announced that the Hattermann Lane exit is closed for the next 90 days for bridge repair and recommended that people use the Glidden exit and follow that road. The long route to the site, which will also be closed for 90 days for repairs.
- Bill Flanagan announced the Sky Tools 2.0 CD offer.
- Don Pearce gave the month's comet report, which features two bright comets:
 - C2002T7 (LINEAR): this one is not really bright, as it passed solar conjunction on March 22. The comet reaches perihelion on April 23 at a distance of 0.61 AU. The comet will emerge in the morning sky later this month as seen from Houston, but its elevation will only be 13 to 14 degrees at the start of twilight. It will appear briefly before transitioning to the evening sky in late May, attaining an end-of-nautical twilight elevation of 25 degrees and shining at magnitude 4 or 5 in Hydra. It will disappear again in the evening glow shortly thereafter.

- C2001Q4 (NEAT) Currently at magnitude 5.9, the comet is heading northward from far below the solar system. Currently at a declination of -65 degrees, the comet will become visible from Houston by May 7 as a potentially 2nd magnitude object near Sirius. It will slowly ascend, but fade, as the evenings progress. The comet makes its closest approach to the Earth on May 11, at 0.32 AU. At this time, the comet will have ascended to 40 degrees elevation at the end of nautical twilight, in the constellation of Cancer. It moves from Cancer to Cygnus between the 16th and 22nd of May while fading from 3rd to 4th magnitude.
- C2003K4 (LINEAR) is expected to reach the 5th magnitude when it passes perihelion in Mid-October. It will make its closest approach to the Earth in Mid-December. The object, moving northwestward in the sky, is currently magnitude 11.4.

Don Pearce introduced the evening's speaker, Dr. Edgar Bering, who gave a talk entitled "Studies of Geospace with Antarctic Balloons: PPB, MAXIS and MINIS"

Door prizes followed the evening's talk before the meeting adjourned at 10:05pm.

May/June Calendar:



Photo by Scott Mitchell

Check the web site:
www.astronomyhouston.org
Webmaster: Bob Rogers
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.

Date Time Event

May 2004

4	3:33 p.m.	Full Moon
7	7:00 p.m.	Novice Presentation - U of H.
	8:00 p.m.	General membership meeting U of H. Presentation by Triple Nickel ("Neutrinos") Members Observatory Night - Columbus
8		
11	6:04 a.m.	Last Quarter Moon
15		Prime Night-Columbus
16		Texas Star Party begins in Ft. Davis, and goes until May 23
18	11:52 p.m.	New Moon
27	2:57 a.m.	First Quarter Moon

June 2004

2	11:20 p.m.	Full Moon (moon close to perigee & looks extra large)
4	7:00 p.m.	Novice Presentation - U of H.
	8:00 p.m.	General membership meeting U of H.
8		before sunrise Transit of Venus (not visible from Houston)
9	3:02 p.m.	Last Quarter Moon
12		Members Observatory Night - Columbus
17	3:27 p.m.	New Moon
19		Prime Night-Columbus
20	7:57 p.m.	Summer solstice. Summer begins in northern hemisphere.
25	2:08 p.m.	First Quarter Moon

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

H.A.S. Volunteer Opportunities

In addition to considering volunteering for the vacant position on the board of the Houston Astronomical Society, you can consider helping the organization in other ways.

Michael Dye is always looking for help with maintenance of the club observatory. Anne Hallman can always use your help with getting the *GuideStar* out the door.

How about some special projects? Think about it. You may wish to organize observing special events that would be of interest to the HAS members or to the general public.

Talk to an officer or board member (see page 2) about it!

Many of your fellow members donate time and effort to keeping the organization running for you. Your help would be appreciated. Really

★ ★ ★ ★ ★

GuideStar deadline

for the June

issue

is May 15

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Observations... of the editor

by *Bill Pellerin, GuideStar Editor*

One month from today (it's April 18th as I write this), I'll be at the Texas Star Party. Last weekend I worked on a quick test of the equipment I plan to take out to West Texas. This weekend, I was out of town, so no testing or planning for TSP was done. There's still time.

While I was away this weekend, and at a get together, I had the opportunity to answer the question that has no good answer... "What telescope should I buy?" There's no right answer, of course, and that's why some of us have large Dobsonians, some of us have small Dobsonians, some of us have SCT's, some of us have refractors, and so on. Each of us has made a decision about what telescope is right. I've tried to answer the question directly... there are several relatively inexpensive 8" or 10" Dobsonians on the market, and while these are quite attractive, they may not represent the right choice for every beginner. I usually end up saying something like, "Get together with astronomy club members in your city and try out several telescopes." Anybody got any good answers?

There's a new version of The_Sky software (Software Bisque, www.bisque.com) out, but not yet delivered to my doorstep. The ship day is supposed to be tomorrow, April 19th. Look for a review here when I get it. Some of the features that have been added look very attractive. There's even an observation planning function built in — this may compete with Sky Tools; we'll see.

Please note that Don Pearce's item about Comet T7 was intended for the April issue. There's some good information here, though.

As usual, I'm finishing your *GuideStar* in a bit of a hurry. I got a new *Sky and Telescope* magazine today, and I'm always impressed that the staff of the magazine can turn out a new issue each and every month. I'm just guessing, but I'll bet that when the deadline for an issue is coming up that the work pace picks up considerably. They've done a bit of restructuring of the magazine recently, and I'd say that the changes are for the good.

This is the June issue, and there's a "Variable Stars for June" section on page 80. Good item, with a list of variables that are bright enough for small telescopes. (Good TSP information.)

I've said good things about Sue French's observing articles in the past, and she's still here. The article has adopted the name 'Deep Sky Wonders', which was the name of the series of articles by the late Walter Houston in *Sky and Telescope*. She's a worthy successor to the legendary Mr. Houston. (Yet another good list of objects for TSP.)

August Meeting Program

Richard Schmude's

"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.

If you're going to TSP, and even if you're not, check the TSP web site (www.TexasStarParty.org). John Wagoner's observing list for the TSP is posted. His lists are always a lot of fun, so plan to try it if you go to West Texas, or even if you don't. No lapel pin if you don't do the observations at the Texas Star Party, though.

I'll see you at the May meeting.

Until next time...

clear skies and new moons!

..Bill

The Beginning for Comet C/2001 Q4 (NEAT) in Northern Skies

by Don Pearce

When it was first discovered on August 24th of 2001, in the constellation Fornax, by one of the Near Earth Asteroid Tracking automated telescopes at Palomar, comet experts immediately assigned an absolute magnitude and brightening factor that indicated that this comet would possibly reach first magnitude by May 7th of this year, at its closest approach to the Earth (.32 AU). Normally, comets are at their brightest at perihelion, which occurs on May 16th at .96 AU, but because this comet comes exceptionally close to the Earth and this approach is relatively close to the perihelion date, it should be brightest on May 7th. To their credit, the comet prognosticators did not attach a great deal of hype to this discovery; after all, the comet was 20th magnitude and 10.1 AU (greater than Saturn's mean distance) from the Sun.

The comet has an inclination of 99 degrees, which, in reality, means it is inclined 81 degrees to the ecliptic with a retrograde orbit. Although many comets have a very high inclination, for almost the entirety of the last year I have never seen one come from so directly "below" the inner solar system, to emerge into the northern skies where it will spend many years before it escapes the solar system altogether. Also, for that reason, for the last year it has only been observable from the southern hemisphere, (or at least no further north than about 20N), but soon it will be coming into our skies. Starting about May 5th, the comet will become visible to us low in the southwest while

still in Canis Major, just passing above Sirius. However, each succeeding night its position will improve as it gradually works its way northward among the background stars. By the time of the Texas Star Party on May 16th it will be in Cancer, and before that, it will pass close to the "Beehive" on the night of May 14-15th, but it will be setting just before this encounter occurs.

On the other hand, as its position improves its magnitude will begin to drop. With luck, it will be close to second magnitude (around May 7th) and be an easy naked eye object from a dark location, but by the 16th it may have faded to about 3rd magnitude. As for the length of its tail, I think it may reach 15-25 degrees during that period May 7th - May 12th, but the geometry will gradually deteriorate as the month wears on, when most comets develop a larger tail post-perihelion. Q4 will continue drifting north as it climbs into Ursa Major, and should remain a telescopic object throughout 2004 and well into 2005. Eventually, as it escapes the solar system altogether, the comet will settle in the Andromeda, Triangulum, Pisces region of the sky for many years.

The End of the Beginning for Comet C/2002 T7 (LINEAR)

by Don Pearce

The evening apparition of T7 has finally come to an end. When Kenneth Drake couldn't see it from his reasonably dark skies near Willis on Wednesday (March 10th), I knew that the curtain had come down for our latitude; although some observations may still be possible for a few more days from far northern latitudes.

This has been a fascinating comet since its discovery in Oct. of 2002. Originally forecast to possibly reach zero magnitude at its closest approach to Earth on May 19th, it has been running about a magnitude dimmer than predicted. During the late fall and early winter it has been a beautiful and easy telescopic object gracing our skies. However, as it has sunk into the western horizon, it has also been deceptively difficult during the past few weeks from our southern latitude, and most of the recent observations have been coming from Europe. And, for us, the Earth-comet geometry will remain unfavorable for the remainder of its apparition. This comet has an inclination of 160 degrees, which means that, in reality, it is inclined 20 degrees to the ecliptic with retrograde motion. Keep in mind that since its discovery it has been continuously moving "down" from a heliocentric perspective. And since it has a hyperbolic orbit this will continue until it escapes the solar system altogether. The following is list of upcoming events in this, its only apparition:

March 22nd- Solar Conjunction (Superior)
April 23rd- Perihelion (.61 AU)
April 30th- Descending Node (crosses ecliptic from N to S)

Starting in late April the comet will become visible in our morning sky and will be optimum for observing around April 30th and May 1st, when it will have an altitude of about 13 degrees at the beginning of nautical twilight and could be naked eye if it reaches 2nd mag. (I would be more confident of this if we were further inland {higher and drier}). The geometry will be favorable for observing its tail. From these dates its position will start to deteriorate.

May 19th- Closest approach to Earth (.26 AU)
Unfortunately, it will not be visible for us. However, because of this very close approach to the Earth, T7 may exhibit a fairly long tail and

*Continued on page 8...
GuideStar, Page 7*

Observatory Duty Roster

by Michael B. Dye, Observatory Chairman

This is the duty list for May, June and July. 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.

May Supervisor Preston Engebretson 713-270-9574

Debbie Moran Site
Johnny Norris Site
Richard Nugent Members Observatory Night 05-8-04
Ralph Overturf Site
Don Pearce Members Observatory Night 05-8-04
Sim Picheloup Members Observatory Night 05-8-04
Scott Poteet Site
Leonard Raif Site
Henry Schneider Site

June Supervisor Matt Delevoryas 713-662-2939

Linda Sternbach Site
Larry Wadle Site
Mark Watson Members Observatory Night 06-12-04
Tom Williams Site
Barbara Wilson Members Observatory Night 06-12-04
Buster Wilson Members Observatory Night 06-12-04
Warren Wundt Site
John Blubaugh Site
Ken Carey Site

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

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.

Observatory Corner... from page 11

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.

Comet C/2002 T7 (LINEAR)... from page 7

be reasonably bright for southern hemisphere observers at this time.

Beginning in late May the comet will once again become an evening object and will become optimum for observing on around June 5th and 6th when it will be at an altitude of around 25 degrees at the end of nautical twilight, and at perhaps 4th-5th magnitude in Hydra just south of Alphard. This may possibly be the best chance to see this comet, naked eye, especially if it is a little brighter than this. After this, the comet will both fade and disappear from our skies.

NOTICE
Of
By-Laws Change
&
Board Member Election

At our June Membership Meeting

The following changes to the HAS by-laws will be voted on at our June general membership meeting. These changes to our by-laws center around the way we will be paying our dues next year and how we give notice for our annual and special meetings. As for the dues, we need to adjust the wording from “twelve calendar months from date paid” to “starting January 1st and ending December 31st”. We would also like to adjust the amount from \$33.00/year to \$36.00/year so as to make prorating the dues something less than a nightmare for our treasurer and to make up for the increase in our AL dues. We would also like to adjust the associate dues to \$6.00 and the student dues to \$12.00 for the same reasons.

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We will also be voting to fill the vacancy on the board of directors left by the resignation of Chris Mendell. Nominations will be taken from the floor. If interested, please let someone know so that you can be nominated. You do not need a degree in astrophysics to serve on the board, just an interest in what happens with the Houston Astronomical Society; and you need to have been a member in good standing for the past year.

The proposed verbiage to be voted on is as follows:

Section II: Dues

1. Dues shall cover a twelve-month period starting January 1st and ending December 31st. Dues will be due at the January general membership meeting. Renewal dues paid by March 31st shall be applied retroactively and the member shall be considered to have been a member continuously since January. Renewal dues offered after the three-month period shall still be applied retroactively although the continuity of membership will not apply. Renewal dues will not be accepted after a twelve-month lapse; instead, this individual will be considered a new member and dues will be paid as such
2. Dues for each class of member shall be as follows:
 - a. Regular Member-\$36.00 per year, prorated at \$3.00 per month.
 - b. Associate Member-\$6.00 per year, prorated at \$0.50 per month
 - c. Student Member-\$12.00 per year, prorated at \$1.00 per month.
 - d. Honorary Members-No Dues Apply
 - e. Sustaining Members-\$50.00 per year, where the portion of the dues in excess of those of regular members is a contribution to the society.

Continued on page 10...

Logo Sales

Please note the prices for the books listed below. They are all new and will go fast on a first come, first served basis.

Observe the Herschel II Guide \$17.00
Observe and Understand the Sun \$14.00
Astronomy, The Teachers Handbook \$12.00
ALPO's Mars Observer's Handbook \$12.00
Observe Variable Stars \$17.00
Observe Eclipses \$17.00

Orders will be taken for the 16 inch Levy Planisphere. It will sell for \$24.00 prepaid.

The prices all include taxes. **All checks should be made out to HAS** for the correct amount, and mailed to Judy Dye, 12352 Newbrook, Houston TX 77072-3910. If there are any questions, please call. Our phone number is 281-498-1703.

Judy Ann Dye

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.

By-Laws Change and Board Member Election... *...from previous page*

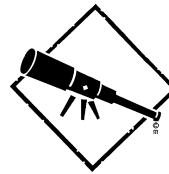
Section III: Voting Members

Add Sustaining member to this list as (e)

Section V: Notice of Meetings

Notice of each annual or special meeting, specifying the time, date, and place held, and in the case of a special meeting, the purpose of which the meeting is called, will be given at least ten days prior to the meeting. E-mail will be afforded the same merit as though the U.S. Postal Service delivered it, and information conveyed by the Internet *GuideStar* will be afforded the same merit as information conveyed by the printed *GuideStar*.

Observatory Corner



By Michael B. Dye Observatory Chairman



The first thing I want to start off with is the fact that one should not always believe weather reports. I did and I canceled the Paint The Observatory activity because of them (the reports that is). At the start of the week, Preston Engebretson, Kirk Kendrick and I were merrily getting ready to paint the Observatory. This consisted of arranging to buy the paint, the sand blasting equipment and other good stuff we would need when the big day arrived.

About Wednesday, when we were checking the five-day weather reports, things were looking bad for Saturday, so we decided to delay the decision until Thursday. The reports on Thursday indicated that Friday, Saturday and Sunday were going to be wet days, so I decided to cancel the Sand Blasting and Painting activity for that weekend. I made the necessary phone calls and cancelled the activity and put it off initially for two weeks, to the 17th of April. I, unfortunately, picked that date without first checking with the Observatory Committee Calendar (which, I unfortunately control). The date I picked was Prime Night for April. I didn't figure that would work at all, especially after Kirk (I think) pointed that out. After some consultation with the Observatory calendar, Preston and I selected April 30th, May 1st and May 2nd as the new Paint the Observatory weekend. We are still looking for volunteers. If you would like to volunteer to help, please contact me by phone or E-mail.

The next thing I am going to cover is the 2004 Fund Raising Activity. We are having an Observatory Fund Raiser for two main reasons this year. The first and for most reason is to replace our Observatory Riding Lawn Mower. The second reason is to help make up for the Budget short fall we are going to have this year.

The Lawn Mower first. This is going to cost somewhere between \$1,500.00 and \$2,000.00. The riding lawn mower we bought back in 1992 is finely giving up the ghost. I am asking the membership to donate money to the Observatory Committee for a new Lawn Mower. This year I am looking at getting a John Deere. The cost will be between \$1,500.00 to \$2,000.00. If anyone knows of a less expensive John Deere please let me know. I don't want to get a used riding mower, because that way we don't get a warranty and we do inherit someone else's problems.

The Budget is second. The Observatory Committee has spent an average of \$6,926.44 a year for the last four years (2000 through 2003) while having an average income of \$6,682.31 per year for the same time frame. This leaves a shortfall of about \$244.13 per year. The amount that the Society General Account has funded the Observatory Committee for the same time period has gone from \$5,600.00 in 2000 to \$5,000.00 in 2003. This year's (2004) budget amount is been reduced to \$4,600.00. This means that the Observatory Committee needs to raise about \$2,300.00 this year just to break even. I am asking the membership to donate any amount to the Observatory Committee. We all share in the use and enjoy the Observatory Site and hopefully we will all share in helping to keep

the Observatory Site operating. 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

Please help the Observatory Committee balance the budget and buy a new riding lawn mower. The Observatory needs about \$4,000.00 for both activities. 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 last item I want to talk about is the Annual Picnic. I am going to keep bringing this subject because I don't want anyone to claim I didn't advertise it enough. This year it will be on September the 18th. The moon will set at 22:06 (according to Matt Delevoryas), but the good news is that the New Moon was on the 14th. This means that this is only a four-day moon, which should not be too much of a problem. The reasoning behind choosing the 18th was that (a) August is too hot, (b) October has Astronomy Day, (c) the 4th of September (Members Observatory Night) was Labor Day Weekend and (d) the 11th was prime Night and nobody liked that date. Please make plans now to attend the Annual Picnic and help make the activity a success this year.

The contact numbers I promised are
Home E-mail: mbdye@aol.com
Work E-mail: mbdye@rice.edu
Home Phone: 281-498-1703
Work Phone: 713-348-6317

The Society continues to benefit from members who shop at Randalls and now

Continued on page 8...

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

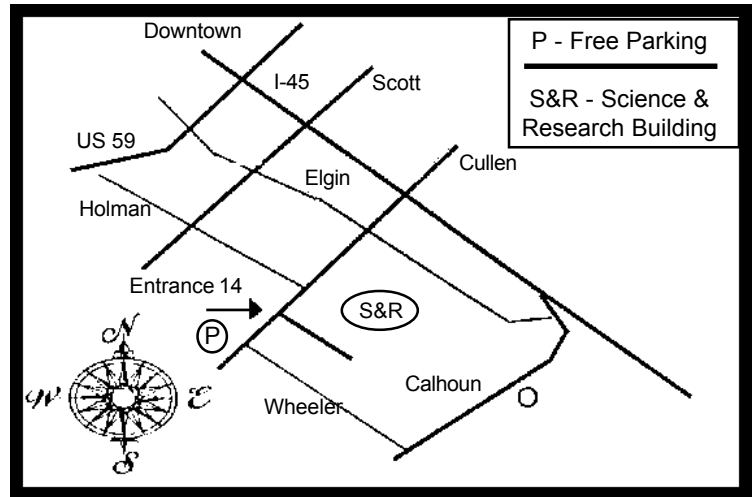
The Board of Directors Meeting is held on dates scheduled by the board at 7:00 p.m. at the University of St. Thomas. Information provided to GuideStar will be published. The meetings are open to all members of the Society in good standing. Attendance is encouraged.

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

May 7, 2004

7:00 Novice & Site Orientation

8:00 General Meeting

University of Houston



Houston Astronomical Society

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