



October, 1999

At the October 1 meeting...

SBIG and CCD Astronomy

SBIG makes high quality CCD cameras for astronomy. They'll be here in October to talk about it!

Houston Astronomical Society

GuideStar

Starline - 281-568-9340

Houston Astronomical Society presents *Starline* -- a recorded message of Society events and astronomical happenings. This service is updated regularly, so call often to keep up-to-date on Society functions, new comets and more.

H.A.S. Web Page: <http://spacsun.rice.edu/~has>

Schedule Changes & Up-To-Date Information

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

Observatory Site Telephone: 409-732-8967

★★★★★ *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 and past president ★★★★★★★★★★

| | |
|---|--|
| President: Don Pearce H: 713-432-0734 | Treasurer: Bill Flanagan H: (713) 699-8819 |
| Vice Pres: Kirk Kendrick H: 281-391-3834 | |
| Secretary: Matt Delevoryas H: 713-795-0808 | Past-President: Allen Gilchrist H: 281-558-1190 |

★★★★★★★★★ Additional Board Members ★★★★★★★★★★

| | |
|-----------------------------------|-----------------------------------|
| Jay Levy 281-992-2708 | Liaison responsibility |
| Bill Leach 713-863-8335 | Field Trip and Observing, Program |
| Bill Molinare 713-664-3261 | Observatory, Welcoming |
| Bill Pellerin 713-880-8061 | Education, Telescope |
| Barbara Wilson 281-933-1289 | Audit, Publicity (shared) |
| Mike Dye 281-498-1703 | Novice, Publicity (shared) |
| | Observatory Director |

★★★★★★★★★ Committee Chairpersons ★★★★★★★★★★

| | |
|---|---|
| Audit Orv Wiens 281-391-2995 | Program Scott Mitchell 713-461-3020 |
| Education Bill Leach 713-863-8459 | Publicity Michael Cubstead 713-307-0270 |
| Field Tr./Obsg. Kenneth Drake 281-367-1592 | Telescope Clayton Jeter 281-383-1337 |
| Novice Sancho/Spore 281-379-4726 | Welcoming Marg Nunez 713-529-2549 |
| Observatory Michael Dye 281-498-1703 | |

★★★★★★★★★ Ad-Hoc Committee Chairpersons ★★★★★★★★★★

| | |
|--|--|
| Historian Leland Dolan 713-529-0403 | Publ. Star Party Marg Nunez 713-529-2549 |
| Librarian Peggy Gilchrist 281-558-1190 | Rice U. Coord. Matt Delevoryas 713-795-0808 |
| Logo Mds Sales Judy Dye 281-498-1703 | Schedule Obs'v't'y Steve Goldberg 713-721-5077 |
| Long Range Plan Don Pearce 713-432-0734 | Texas Star Pty Steve Goldberg 713-721-5077 |
| Parliamentarian Kirk Kendrick 281-391-3834 | |

★★★★★★★ 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. |
|---------------------------------|-------------------------------|

★★★★★★★★★ Dues and Membership Information ★★★★★★★★★★

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

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 \$29.95/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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Call the Starline, 281-568-9340 for updates and changes

Welcome to New Members!

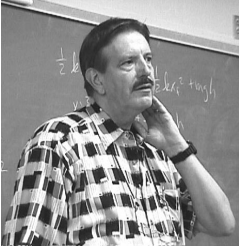
The Houston Astronomical Society encourages you to join our group of active amateur astronomers and take advantage of the benefits of membership. As a member you'll have access to the club observing site near Columbus, Texas. (You're required to participate in a site orientation meeting before you get the gate lock combination.) The site has concrete pads for setting up your telescope, restroom and bunkhouse facilities, and areas set aside for camping.

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 Flanagan | 713-699-8819 |
| Comets | Kenneth Drake | 281-367-1592 |
| Lunar & Planetary | John Blubaugh | 713-921-4275 |
| Occultations & Grazes ... | Wayne Hutchison | 713-827-0828 |
| Advanced | Bill Leach | 713-863-8459 |

The President's Message



On Labor Day weekend I was out at the Columbus site, and I noticed that the light pollution from the east has increased. We have had recent reports that unshielded mercury vapor lights have been installed at a number of the residences at the Oakridge Ranch. I believe we are about to reach a crises in regard to the utilization of Colum-

bus as a dark sky observing site. Obviously, there is nothing we can do about the general light pollution from the east, but the addition of any more unshielded lights from the nearby Oakridge Ranch could render our site as virtually unusable in the near future.

As I see it we have three choices: (1) We can work towards the acquisition of other property in a less light polluted area (with the obvious necessity of developing all the things necessary for an observatory and observing site. (2) We can take all action necessary to minimize the further encroachment of light from the Oakridge Ranch. (3) We can do both.

At the September 30th Board Meeting, we will address these and other important concerns, and I strongly urge every board member to attend this important meeting.

Clear skies and le croissant lunaire

Don Pearce

Houston Astronomical Society

***Meeting Notice
For Friday, October 1, 1999***

SBIG

The Santa Barbara Instrument Group has been the leader in the manufacture of CCD cameras for astro imaging. Their products include a wide range of CCD imagers and innovative products such as a 'seeing' adapter. See what's going on in the imaging world this month as Michael Barber and Alan Holmes of SBIG comes to the HAS.

The program will be entitled "CCD Imaging with Small to Medium Sized Telescopes." If time permits, they will give a short talk on amateur spectroscopy.

Schedule of meeting activities:

Novice meeting: 7:00 p.m.

Jose Sancho and Susan Spore began a new year of novice programs in January. This year the Novice committee will work with you to complete the Messier list. Please bring your Messier (and any other) observation records with you to the June meeting.

Site orientation meeting: 7:00 p.m.

General meeting: 8:00 p.m.

See the inside back cover for more information.

Oct./Nov. Calendar:



| <i>Date</i> | <i>Time</i> | <i>Event</i> |
|-----------------|-------------|--|
| October | | |
| 1 | | HAS Club Meeting |
| | 7:00 p.m. | Novice Presentation - U of H |
| | 8:00 p.m. | General Membership Meeting U of H, scheduled is SBIG: "CCD Imaging with Small to Medium Sized Telescopes." |
| | 11:03 p.m. | Moon at Third Quarter |
| 2 | | Members Observatory Night-Columbus |
| 9 | 6:34p.m. | New Moon |
| | | Prime Night-Columbus |
| | | Annual Picnic at Columbus (pot luck, see September GS, p. 11) |
| 12 | 7:30p.m. | Advanced SIG Mtg. Rice Univ., contact Bill Leach, 713-863-8459 |
| 16 | | Astronomy Day, George Observatory |
| 17 | 10:00 a.m. | First Quarter Moon |
| 23 | 2:00 p.m. | Jupiter at opposition, best apparition in 12 years |
| 24 | 4:03 p.m. | Full Moon |
| 31 | 2:00 a.m. | Standard Time begins, Daylight Saving Time ends. Set clocks back 1 hour. |
| | 6:05 p.m. | Moon at Third Quarter |
| November | | |
| 5 | | HAS Club Meeting |
| | 7:00 p.m. | Novice Presentation - U of H |
| | 8:00 p.m. | General Membership Meeting U of H |
| 6 | | Prime Night-Columbus |
| 7 | 9:53 p.m. | New Moon |
| 12 | | Taurid meteors peak (north stream): low activity, but often fireball-producing. |
| 13 | | Members Observatory Night-Columbus |
| 16 | 3:03 a.m. | First Quarter Moon |
| | 7:30 p.m. | Advanced SIG Mtg. Rice Univ., contact Bill Leach, 713-863-845 |
| 17 | 5 to 7 p.m. | Leonid meteor shower (predicted peak). 1999 possible storm year. |
| 23 | 1:05 a.m. | Full Moon |
| 29 | 5:20 p.m. | Moon at Third Quarter |

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

Astronomy Day, 1999

By Michael Dye, Observatory Chairman

This year Astronomy Day will be held at the George Observatory on October 16th, 1999. This is the closest we could get to the 10th anniversary of the Opening of the George Observatory. The event will be co-hosted by the Fort Bend Astronomy Club, Houston Astronomical Society, Houston Museum of Natural Science the Johnson Space Center Astronomical Society and the North Houston Astronomy Club. The purpose behind Astronomy Day is to inform the public about amateur, educational, and professional astronomical activities in the Houston area. The event features displays, demonstrations, lectures, and telescope viewing.

Astronomy Day at the George Observatory this year will include:

- **Speaker Program:** From mid-afternoon until early evening the Astronomy Day Speakers will offer the public a general introduction into Astronomy. Some presentations will include slide shows. Each presentation will be about 20 to 30 minutes long and will be of general interest to the public.
- **Dome Tour:** Visit the George Observatory's domes and the telescopes they house, including the Big Dome and its spectacular 36" Richey Chretien telescope.
- **Challenger Center:** Embark on a mission into space! Short tours will be conducted most of the day.
- **Children's Observation Deck:** Kids, come be astronomers for the evening! A special area set aside on the observatory deck will be equipped with telescopes for children to handle and use by themselves.
- **Demonstrations:** Learn how to operate a telescope; try solar observing through special filters; take a first-hand look at CCD imaging, astrophotography, and computer applications. The solar observing demonstration will allow viewers to see any visible sunspots and solar flares, and will emphasize viewing safety.

Continued...

Astronomy Day... from previous page

- **Deep Sky Viewing:** View the heavens through telescopes provided by volunteers from the Houston Astronomical Society and the Fort Bend Astronomy Club in the evening until about 10:00 p.m.
- **Displays:** Astronomy Day displays will include exhibits from Houston area observatories and programs open to the public or club members (George Observatory, Houston Astronomical Society Observatory, Burke-Baker Planetarium, star parties, etc.).
- **Computers and Astronomy:** Various software programs will allow the public to tour virtual space and see eclipses, planets, and galaxies in a new perspective.
- **Astronomical Photography:** Enjoy photo displays of deep sky objects, sun, moon, and planets and demonstrations on how to take photographs of astronomical objects.
- **Information:** Find out about other astronomy-oriented organizations (e.g. American Association of Variable Star Observers [AAVSO], American Lunar and Planetary Observers [ALPO], International Occultation Timing Association [IOTA] who will be represented at this year's Astronomy Day.

Please come to Astronomy Day at the George Observatory at Brazos Bend State Park on Saturday 16th of October. **You will not be disappointed.**

Looking for your submission...

The *GuideStar* is always looking for a few good submissions. I encourage you to write an article for the newsletter. Pass on some of your good ideas, write an essay about a nice night under the stars, discuss a technical issue, whatever.. The information on how to submit articles is on the inside back cover.

Book Review

nothingness
The Science of Empty Space

by Bill Leach, Kingwood College

This strange sounding book is written by Henning Gentz who is a professor of theoretical physics at the University of Karlsruhe, Germany. The book was written in 1994 and translated into English in 1999.

This is a great book on one of the most puzzling problems in physics and philosophy. Does empty space exist independently of the matter within it? Einstein said it does not. But the Heisenberg Uncertainty Principle allows for, although for very short time periods, the spontaneous creation and annihilation of matter in empty space. The book shows that empty space is not really empty at all, but seething with subatomic particles. Gentz takes the reader from the metaphysical speculations of the ancient Greek philosophers through the theories of Newton and Einstein right up to the latest theories of quantum physics and cosmology, the study of the universe.

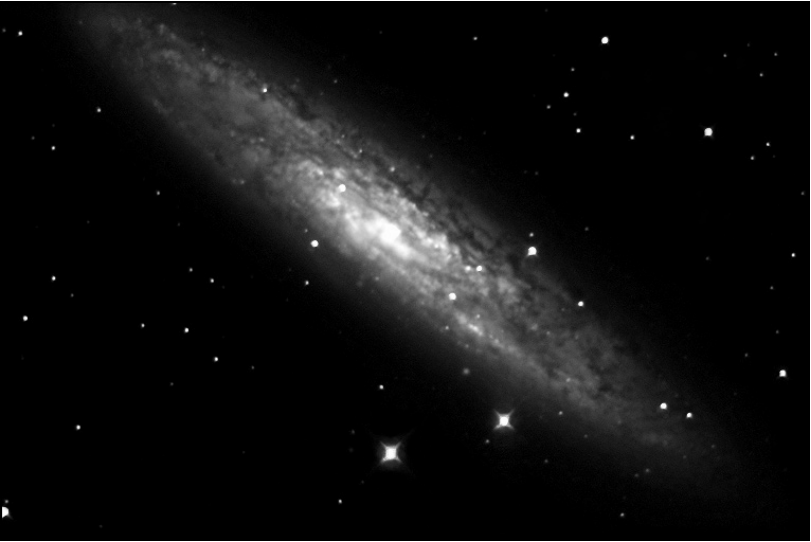
His discussion of early experiments on the vacuum is entertaining and his presentation on more modern experiments is intriguing. These and many other revealed investigations of this exciting field of quantum mechanics and cosmology reveal some incredible properties of the interplanetary and interstellar vacuum.

Other books have sporadically referred to the nature of the vacuum of outer space but this is the first book written for the nonscientist on this much neglected but incredibly fascinating aspect of modern physics and timeless philosophy. "It will delight and inform everyone interested in the latest concepts in physics, as well as the philosophical implications of scientific discovery." You should enjoy the book.

Perseus Books Publishing, L.L.C. - ISBN 0-7382-0061-1

You Gotta See This Image!!!

Astro image of the Sculptor Galaxy by Mark Williams, HAS Member.



Mark made this image using a 4-image technique (red, green, blue, intensity) and combining the images to produce the final result. The *GuideStar* reproduction won't do justice to the image. You can see it much better on Mark's web page at

<http://freeweb.pdq.net/williams/index.htm>

Mark has quite a few other images on the site as well, including a recent image of M1 (the Crab Nebula).

The camera is a ST-8 (SBIG will be at the October meeting -- see the meeting announcement). It is attached to a NGT-18 split-ring equatorial (18") telescope. The image was taken in the dark skies of New Mexico during the week of September 6, 1999.

Observatory Corner



By Michael B. Dye Observatory Chairman



Sometimes its hard to write these Articles. This is one of those times. If you have gone to the Observatory Site after the first weekend in September you may have noticed a small change in the landscape. In fact, this change extends from South of the North road to a line running East to West through the New Telescope Storage building. One of our members, for reasons unknown to me at this time, set a “controlled” burn in the above described area. This, during a time when most of the local county’s had banned open fires. Along with this, our Observatory Site Rules state that there will be no open

fires at the Observatory Site. As a result of these activities, I was forced to do something I have not had to do since I became the Observatory Chairman. That is to ask this member to leave the Observatory Site. The action of this member will become an agenda item at the next Board Of Directors meeting.

This is the last advertisement for the Houston Astronomical Society Annual Picnic. The picnic is scheduled for October 9th. This is Prime Night at the Observatory Site and also a week before Astronomy Day at the George Observatory. I have been appointed as the Picnic Chairman. I am trying a different approach this year. We are going to have a Pot Luck Picnic. The Observatory Committee will supply the meat (hamburgers and hot dogs), buns (also hamburger and hot dog), Iced Tea and maybe some soda (Coke, Pepsi, etc.). I am asking the membership to attend the picnic and bring a covered dish of some sort (Salad, vegetable, or desert) large enough to feed at least 8 to 10 people. I am experimenting with not charging any money to offset the cost of the meat, buns or drinks. Donations of course, will not be refused.

On the organizational side of this activity, I have drafted my wife, Judy, and talked Peggy Gilchrist into working as my telephone committee. Sometime in September and early October, they (Judy and Peggy) will be calling the membership to see who will be attending the Picnic. We need a fairly accurate count in order to know how many Hamburgers and Hot Dogs to buy and what covered dish will be provided. I have also got Ed Szczepanski’s agreement to be the Cook for this event using our recently installed Bar-B-Q grills. This is a free event so please plan to attend and join in the fun, festivities and observing at the Observatory Site. We

Continued...

Observatory Corner... from previous page

will also try and have some activities such as Horse Shoes, Badminton or anything else we think of provided the weather isn't too hot. Please plan to attend. If you wish to volunteer to help, please E-mail me at mbdye@aol.com.

If you have a Randalls card, and have not done so, please have it coded for the Houston Astronomical Society as your favorite Charity. Our number is #6618. The Society gets 1 percent of the gross sales that members spend at Randalls. Randalls totals the amount spent each quarter and will send us a check if the amount goes over \$2,500.00, otherwise the total roles over to the next quarter or zeros out at the end of the calendar year. So please link your Randalls card to the Houston Astronomical Society so that the society can benefit from this 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 want to do.

I am running an informal poll. If you have an opinion on whether the Society should provide some sort of computers for controlling the Observatory Telescopes and maybe for CCD processing. Also any other ideas in the same category. Please contact me at mbdye@aol.com or 281-498-1703.

Please buy HAS Logo merchandise and help me get some my den back. As a result of an Auto problem last month, we were unable to bring the Logo Merchandise to the September meeting. It only took large amounts of money to solve the auto problem. Now I no longer have even a den because I had to clean out the garage to get both autos in it. Most of the stuff stored in the garage is now in the den. I did however throw out a large amount of junk. Anyway, we still have very nice HAS Logo thermal mugs, T-shirts and other nifty stuff (including some very nice pictures). All at very reasonable prices. We are running a special on the Thermal Mugs this month, \$5.00 each or two for \$10.00 (same as last month). I have three cases of these suckers in my den. Please buy some. I have Girl Scout Cookies scheduled to fill the den sometime in late February to early March and I need the room. Come and see Judy at the Logo Table at the next General Meeting and buy lots of good stuff.

Please fill out the appropriate log form when you use the site. Remember we use these forms as attendance records.

Prime Night for October is the 2nd.
Members Observatory Night for October is the 9th.

Other Meetings...

Brazosport Astronomy Society meets at 7:00 p.m. on the 2nd Thursday of each month in the Planetarium of the fine Arts Center at Brazosport College. Call Steve Lamb for program details (409) 297-3984

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://rampages.onramp.net/~binder/>

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 (formerly Northside Astronomical Society) 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.

HAS Web Page

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

The address is: <http://spacsun.rice.edu/~has>

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 goldberg@sccsi.com. (You can click on my name on the HAS home page). Or, you can call me, Steve Goldberg (WebMaster), at 713-721-5077.

Observatory Duty Roster

by Michael B. Dye, *Observatory Chairman*

This is the duty list for October November and December. 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.

October Supervisor.....Logan Rimes.....713 681-5397

| | | | |
|------------------------|---------|-------------------|----------|
| John Chauvin | Site | | |
| Art Ciampi | Members | Observatory Night | 10-02-99 |
| Brian Cudnik | Site | | |
| Mickey Davis | Members | Observatory Night | 10-02-99 |
| George M. Dolson | Members | Observatory Night | 10-02-99 |
| Kenneth Drake | Site | | |
| Mark Egan | Site | | |
| John D. Fennell | Site | | |

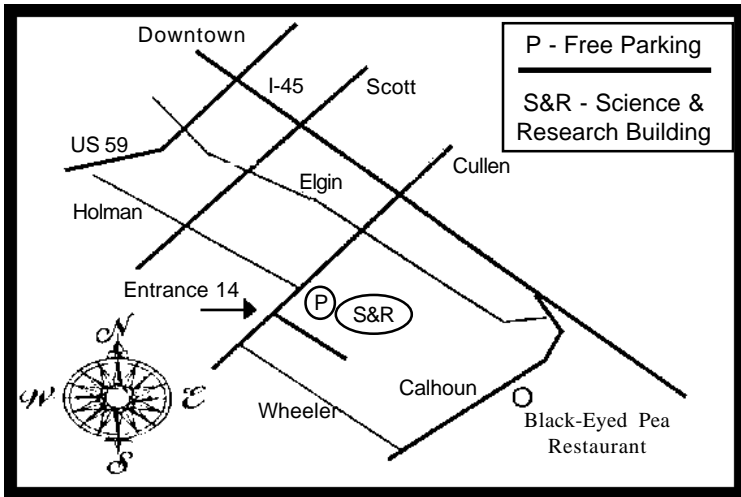
November SupervisorDana Lambert281-933-4627

| | | | |
|-------------------------|---------|-------------------|----------|
| Jean-Marc Follini | Site | | |
| Fred Garcia | Members | Observatory Night | 11-13-99 |
| John Garza III | Site | | |
| Clifton Goldman | Members | Observatory Night | 11-13-99 |
| David Granadino | Members | Observatory Night | 11-13-99 |
| Michael Gumler | Site | | |
| David Herlinger | Site | | |
| Robert Menius | Site | | |

December SupervisorKirk Kendrick281-391-3834

| | | | |
|--------------------------|---------|-------------------|----------|
| Larry Mitchell | Members | Observatory Night | 12-11-99 |
| John Mitscherling | Site | | |
| Jeff Moore | Site | | |
| Debbie Moran | Site | | |
| Ben Negy Jr. | Members | Observatory Night | 12-11-99 |
| Johnny Norris | Members | Observatory Night | 12-11-99 |
| Margaret Nunez | Site | | |
| Ralph Overturf, Jr. | 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.



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.

Board of Directors Meeting

The Board of Directors Meeting is held on dates scheduled by the board at 7:00 p.m. in Room 106 of the Space Science Building at Rice University. Call StarLine for Board Meeting information. 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 ASCII text, MS-Word (preferred), or WordPerfect format on an IBM format floppy or via AOL (BILLP10566). Mail copy to the address shown on the outside cover or to the editor at 256 East 5th Street, Houston, TX 77007. Copy must be received by the second Friday 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.

Editing & Production: Bill Pellerin, 713-880-8061; FAX: 713-880-8850;

AOL: BILLP10566; Internet: BILLP10566@AOL.COM

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Houston Astronomical Society

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