



November, 2000

At the November 3 meeting...

***Observing
Circumstellar Disks from Chile
and the
Zodiacal Light from the Moon***

Dr. Joe Hahn of LPI

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.

HAS Web Page: <http://www.astronomyhouston.org>

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: 979-732-8861

★★★★★ *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 ★★★★★

President: Don Pearce H: 713-432-0734	Secretary: Bill Leah H: 713-863-8459
Vice Pres: Barbara Wilson H: 281-933-1289	Treasurer: Gene Horr H: 713-468-2157

★★★★★ Additional Board Members ★★★★★

Liaison responsibility

Bill Flanagan	713-699-8819
Howard Leverenz	713-957-8667
Jay Levy	281-557-4920 Field Trip and Observing, Program
Debbie Moran	713-666-9428
Warren Wundt	713-697-2960
Mike Dye	281-498-1703 Observatory Director

★★★★★ Committee Chairpersons ★★★★★

Audit	Gary Hliivko	713-864-2541	Program	Margaret Nunez	713-529-2549
Education	Richard Nugent	713-910-5945	Publicity	Mark Egan	281-265-1497
Field Tr./Obsg.	Kenneth Drake	936-890-3735	Telescope	Darin Palmer	713-223-3123
Novice	Kirk Kendrick	281-391-3834	Welcoming	Bill Leah	713-863-8459
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'vty	Steve Goldberg	713-721-5077
Long Range Plan	Barbara Wilson	281-933-1289	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.
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★★★★★ 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.

Table of Contents

4	Observations of the Editor	13	American Astronomical Society
5	Meeting notice	14	July 27 Board of Directors
6	October/November Calendar	16	Sept 28 Board of Directors
7	HAS Logo Sales	19	Fourth Quarter Occultations
8	Membership Renewals <i>GuideStar</i> Deadline	21	Oct 26 General Meeting
9	Observatory Corner	23	Amendment to the Bylaws
11	Columbus Sun & Moon	24	Observatory Duty Roster
12	B&Ps from the IAUCs	25	Special Help Volunteers
		26	Happy Thanksgiving

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. No new members this month. 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 Flanagan	713-699-8819
Comets	Kenneth Drake	936-890-3735
Lunar & Planetary	John Blubaugh	713-921-4275
Occultations & Grazes ...	Wayne Hutchison	713-827-0828
Advanced	Bill Leach	713-863-8459

Observations... of the editor

by Bill Pellerin, GuideStar Editor

All the best observing sessions begin well before you show up at the observing site and set up your equipment. I've been on observing trips with plans and without plans, and, there's no doubt that going on a trip with a plan is the way to go.

Long before you start observing you need to ask yourself, "What kind of observer am I?". You may be a lunar and planetary observer, a deep-sky observer (coaxing the last photon out of the sky), an observer of transient phenomena (occultations, eclipses), a double-star or variable star observer, an imager, someone who seeks out comets and asteroids, a binocular observer... and so on.

The kind of thing you observe and your approach to your observing program will determine the equipment and information you will need to carry out your program. And, I suppose, we could say that the planning for your observing program goes back to the selection of equipment that you use.

Once you've picked a program (if you haven't picked a program, check out the Astronomical League programs... there are plenty of them, and one will likely be of interest to you), you can plan your observing session. Here's what to do.

Check your resources (astronomy software, planisphere, night-sky maps in magazines or books) to see which of the objects you want to observe will be in the sky during the time you will be observing. In addition, knowing that the best time to observe objects is when they're highest in the sky, all things being equal, make an observing list of your objects in order of transit time (the time at which the object crosses the meridian). Pay special attention to those objects that will set shortly after dark. For these objects, you will have to observe these early.

With this list, produce 'finder' charts with your computer software, or search out the objects on the maps that you'll use in the field. The more

Continued on Page 7...

Houston Astronomical Society

**Meeting Notice
For Friday, November 3, 2000**

Observing Circumstellar Disks from Chile and the Zodiacal Light from the Moon

***Dr. Joe Hahn
of Lunar and Planetary Institute***

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.
Across from Room 117

Novice Committee -- Looking for observing buddies that can help you get started in astronomy? Join the Novice "Committee" at 7pm on the night of each regular HAS membership meeting. Each month we focus on a "topic of interest" requested by the group, and spend some time just talking about astronomy - from observing Messier objects to aligning your telescope to what's in Houston skies. Upcoming meetings will focus on:

November -- Filters, Dew, and viewing
December -- What should I buy? Why???

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

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

**See the inside back cover for a map
and more information.**

November/December

Calendar:



<i>Date</i>	<i>Time</i>	<i>Event</i>
-------------	-------------	--------------

November

- | | | |
|----|-----------|--|
| 3 | | HAS Club Meeting |
| | 7:00 p.m. | Novice Presentation - U of H |
| | 8:00 p.m. | General Membership Meeting U of H |
| 4 | 1:26 a.m. | First Quarter Moon |
| 11 | 3:16 p.m. | Full Moon |
| 14 | 7:30 p.m. | Advanced SIG Mtg. Rice Univ.,
contact Matt Delevoryas, 713-795-0808 |
| 18 | 9:26 a.m. | Last Quarter Moon |
| 19 | | Members Observatory Night-Columbus |
| 25 | 5:12 p.m. | Saturn is at opposition and is on the meridian at midnight.
New Moon |
| 27 | | Prime Night-Columbus
Jupiter is at opposition and is on the meridian at midnight. |

December

- | | | |
|----|------------|--|
| 1 | | HAS Club Meeting |
| | 7:00 p.m. | Novice Presentation - U of H |
| | 8:00 p.m. | General Membership Meeting U of H |
| 3 | 9:55 p.m. | First Quarter Moon |
| 11 | 3:04 a.m. | Full Moon |
| 12 | 7:30 p.m. | Advanced SIG Mtg. Rice Univ.,
contact Matt Delevoryas, 713-795-0808 |
| 17 | 6:43 p.m. | Last Quarter Moon |
| 16 | | Members Observatory Night-Columbus |
| 21 | 7:37 a.m. | Winter solstice. Sun farthest south of celestial equator. |
| 23 | | Prime Night-Columbus |
| 25 | 11:22 a.m. | New Moon. Partial solar eclipse late Christmas morning. |

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

HAS Logo Sales

by Judy Ann Dye

If you are interested in any of the following items and would like to place an order, please contact me (Judy Dye) at 281-498-1703, or send a check for the items requested to 12352 Newbrook, Houston Texas, 77072-3910. Below is the current list of logo items for sale:

Grey Hooded Sweatshirt (M to XL)	\$25.00
22 Ounce Thermal Cup	\$5.00
Observe Messier	\$4.00
Observe Comets	\$7.00
2000 Observer's Handbooks	\$ 14.00

Observations... from page 4

preparation that you can do before you go, the better you'll do in the field.

Also, make sure that your equipment is functional and that you know how to use it. Don't assume that you can figure it out in the dark at the observatory site. You'll be dealing with many more distractions at the site (other observers, darkness, cold air, warm air, bugs, etc.).

So, (does this sound obvious?) the key to a good night of observation is planning and preparation. Make your plans, get your equipment together, pack the car and go!

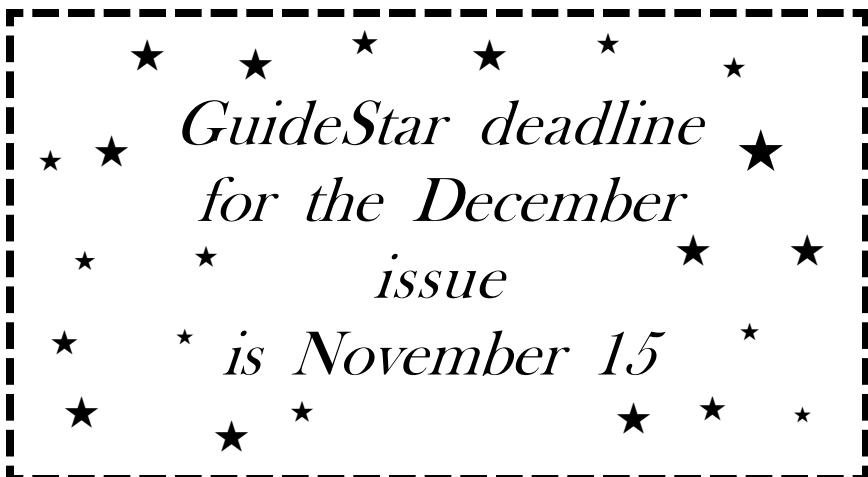
..Bill

Membership Renewals...

Please check the mailing label on your 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 the inside front cover.

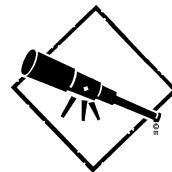
Membership in the Houston Astronomical Society is one of the great bargains in Astronomy. For a regular membership of \$33 you get the opportunity to support an active and growing organization, you get the monthly *GuideStar* newsletter, and you get access to the outstanding H.A.S. observing site near 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!



Observatory Corner

By Michael B. Dye Observatory Chairman



This past month (October) saw two astronomy events get rained out. The public event was Astronomy Day, which was on October 7th. This year Bill Leach, who was the HAS member of the Astronomy Day Committee, and the rest of the Astronomy Day committee were able to pull together a very good program of speakers and displays. If it hadn't been for the rain, we would have most likely had a packed 'house' on the Observing deck also. I was impressed that the event brought over 400 people into Brazos Bend State Park and the George Observatory even though we had clouds and rain most of the day. At times, it looked like we had more volunteers than public, but members of the public kept coming into the George Observatory Building to keep the event going. The volunteers were able to present a very good set of speakers and inside displays to keep the public entertained. I would like to commend the members of the local astronomy clubs that showed up to participate with a job well done.

The other event to get rained out was a less public event, that is, the HAS Annual Picnic. Despite the threat of rain we still had about a dozen members show up including one brave member who actually set up his telescope on the pads. The picnic was well attended by at least three past HAS presidents and the current president. We had about eight or ten members present when we decided we might actually have enough people show up to have a picnic. We started the fire and started getting the other stuff ready to eat. Just after we got the fire started in the Bar-B-Q pit, the rain started. First a sprinkle. Then a few more members showed up, including the president and a past president. Then the rain turned from a sprinkle to a drizzle. A management decision was made to move the eating part of the picnic into the Bunk House, while the cooking part would take place at the Bar-B-Q pit and two of the available RV's (that's where we were going to cook the beans and other stuff).

Continued...

Observatory Corner... from previous page

Then the rain got serious. It started to threaten the existence of the fire in the Bar-B-Q pit. Another management decision was made (after all, we had four current and past presidents there) to move the Picnic to Schobel's in Columbus. A caravan of autos was put together on the spot and all but three couples made their escape to Schobel's to have dinner. The diehards were Allen and Peggy Gilchrist, the couple who set up the scope on the pad and Judy and myself. The Gilchrist's stayed because Peggy had already started cooking chicken inside the RV. Judy and I stayed to clean up the Picnic that didn't happen and the other couple stayed because they had to rescue their scope off the pad and they had just come from a Family reunion where they had stuffed themselves with food anyway.

I would like to thank Gary Hlivko and Bob Rogers, who showed up during the week and on Saturday to clean up the Observatory Site and cut the grass for the Annual Picnic even though we were rained out. The grass looks great. It was too bad there were not enough people to enjoy it.

For the last two months of so I have been telling you that the Observatory Phone was not working. I am pleased to announce that that problem has now been solved. The phone now works. There are, however, a few catches (you don't get something for nothing). The first is to make an out going call, it will cost you 25 cents. I am trying to change this. Until then you need to have a few quarters ready to make a call. Even 800 calls. (Not my rules). The other catch is that while the phone accepts incoming calls, if no one answers in about five (5) rings the phone answers itself. This is how the telephone management company checks on their phones. When the phone answers itself, you will get a 'fax' tone in your ear. Hang up and wait about 20 to 30 seconds and call back. This will allow the person that has been running across the field to get to the phone before it starts ringing again. Also the 'loud' outside ringer is working again. If no one answer after about two cycles of this nonsense, there is most likely not anyone there.

The last item I want to talk about is the new *Observers Guide* – 2001 Edition from the Royal Astronomical Society. The books should be here for the November General Meeting. I have been informed that the new price will be \$15.00 a copy. We also will have a 2001 Calendar for \$11.00. List price

Continued on page 18....

2001 Columbus Sunrise/set, Twilight, and Moonrise/set

by Matt Delevoryas

There are now available two tables, one giving the 2001 sunrise, sunset, and twilight, and one giving the 2001 moonrise and moonset times, calculated for the Society's Columbus observatory site. Traditionally these have been made available on opposite faces of paper copies distributed at Society meetings late in the year. This is being done as usual, but the tables are also temporarily available in electronic form.

The sun table gives phenomena for every other day of the year, and the moon table gives phenomena for every day of the year. Since Society members are most interested in information about when it is dark in Columbus on just Saturday nights/Sunday mornings, appropriate information was extracted from these tables and formatted to produce a third table, the "Saturday table".

HAS Web site (<http://www.astronomyshouston.org> and <http://spacsun.rice.edu/~has>) has one page (<http://spacsun.rice.edu/~has/RiseSet.html>) which displays (combined) one version each of the sun the moon, and the Saturday tables (at a price of removing the 2000 information formerly available there). However, the original complete tables are also available in several different electronic forms

sun: http://members.aol.com/_ht_a/MDelevorya/c01sun.htm
moon: http://members.aol.com/_ht_a/MDelevorya/c01moon.htm
and
moon: http://members.aol.com/_ht_a/MDelevorya/c01sats.htm.

However, these are only temporary. If you think it would be valuable to have any particular format of those tables available permanently on the HAS Web site, please say so to Steve Goldberg, goldberg@sccsi.com (or to me, MDelevorya@aol.com).

B&Ps from the IAUCs

By Matt Delevoryas

We have seen the end of an era in the IAU Circulars. With appropriate credit to Daniel Green, who wrote the words in IAU Circular 7479, here is a direct quote of the announcement: "At the meeting of IAU Commission 6 in Manchester on Aug. 15, Brian G. Marsden announced his retirement, effective the next day, as Director of the Central Bureau [for Astronomical Telegrams]. His place was taken by the undersigned. Marsden had been in charge of the Bureau since Jan. 1968. In recognition of his long service, he has been given the honorary title of Director Emeritus, and it is anticipated that he will still be actively involved in the Bureau's activities. He has also been elected President of Commission 6." While the number of hats that the amazing Brian Marsden wears seems to have remained the same, it looks like we are seeing the end of the era of his day-to-day involvement in the IAU Circulars.



Antoine de Saint-Exupry could hardly have anticipated this.... Of late, we have seen a lot of discoveries of moons of asteroids. As examples, we all remember the images of Ida's moon Dactyl, and Arecibo has recently measured the duplicity of 2000 DP₁₀₇. This seems common enough that planetary scientists have some rethinking to do. And, also, all these moons beg for names! So, what does this have to do with Saint-Exupry? Recall his famous story Le Petit Prince (The Little Prince). We pass most of the story with the little prince, on a small asteroid. The last IAU general assembly bestowed a permanent designation and name for the satellite of asteroid (45) Eugenia: (45) Eugenia I (Petit-Prince).

Since this spring's IAU Circular 7409 announced the photographic discovery of this year's significant nova, Nova Aquilae 2000 has been slowly and consistently fading. This may be the last reasonable occasion to view the nova. It was discovered at magnitude 10 on April 28th. After some initial investigation, it was pronounced a recurrence of CI Aquilae, a star observed

Continued....

American Astronomical Society

AAS National Conference and 47th Annual Meeting

November 14 - 16, 2000
South Shore Harbour Hotel
Houston, Texas

Phone: **703-866-0020**
Fax: **703-866-3526**
E-mail: **aas@astronautical.org**
Website: **www.astronautical.org**

B&Ps from the IAUCs... from previous page

as a nova in 1917. Nova Aquilae 2000 is at coordinates 18^h 52^m 04.0^s and -1° 28' 39" (J2000.0). The AAVSO has charts with comparison magnitudes available, in directory http://charts.aavso.org/PRELIM/AQL/CI_AQL/ (for those not connected to the Internet, contact the author for copies; contact information on the inside cover of *GuideStar*). As seems common with such novae, the IAU Circulars were prompt in announcing a discovery, and timely in the announcement of spectroscopic data or non-visual wavelength data, but follow-up visual, B, V, R, or Vpg magnitudes are rare. IAUC 7482 reported it to have faded almost to magnitude 13.0 as August began, but other sources reported it to be between magnitudes 13.5 and 14.0 throughout September. It is now still accessible to amateurs, but will be much more difficult after the upcoming conjunction with the sun.

Speaking of novae in Aquila, last year's naked eye Nova Aquilae 1999 No. 2 = V1494 Aquilae (see January, p. 8, for more details) is nowhere near leaving easy observability. Also not being discussed in the Circulars any more, other sources give magnitudes of approximately 11.2 throughout the month of September.

Houston Astronomical Society
Board of Directors Meeting
July 27, 2000

Minutes – Secretary’s Draft

Attendees:

President – Don Pearce

Secretary – Bill Leach

Observatory Director – Mike Dye

Director – Bill Flanagan

Director – Howard Leverenz

Director – Jay Levy

Absent:

Vice President – Barbara Wilson

Treasurer – Gene Horr

Director – Debbie Moran

Director – Warren Wundt

1. The meeting was called to order by president Don Pearce at 7:42 PM.
2. Mike Dye made a **motion** that the agenda be accepted. The motion passed.
3. Jay Levy made a **motion** to accept the minutes of the May 25, 2000 board meeting. The motion passed.

Reports:

4. Secretary’s report: Bill Leach notified the board of his upcoming absence at the August general meeting. Marg Nunez and Howard Leverenz will take care of his responsibilities.
5. Treasurer: The treasurer was absent.
6. Observatory Committee: The need to raise \$13,000 for a new lawn mower was discussed.
7. Welcoming committee: New member’s kits are now available.
8. Astronomy Day committee: All plans are on schedule.

Old Business:

9. The problem with the strobe light at the observation site was discussed.
10. The secretary, Bill Leach, was instructed to send in the

Continued....

Board of Directors Meeting... from previous page

- application for the Kroger Cards.
11. Mike Dye made a **motion** to delete the scheduled break. The motion passed.

New Business:

12. A nominating committee was appointed;
Chairperson – Don Pearce
Members: Art Ciampi, Bill Flanagan, Steve Goldberg, Bill Leach
Mike Dye made a **motion** that this committee be accepted. The motion passed.
13. Jay Levy made a motion that the bylaws be amended as follows:
Article 4, Section 6

Present: “Twenty (20) voting members or twenty percent of the voting membership....”

Proposed: “Twenty (20) voting members or fifteen percent of the voting membership....”

The motion was accepted and the secretary was instructed to prepare an article for the September and October Guidestar.

14. The board went into executive session at 8:27 PM.
15. The board came out of executive session at 8:51 PM
16. The meeting was adjourned at 8:52 PM

William W. Leach
HAS Secretary

Houston Astronomical Society
Board of Directors Meeting
September 28, 2000
Minutes – Secretary's Draft

Attendees:

President – Don Pearce
Secretary – Bill Leach
Director – Warren Wundt
Director – Bill Flanagan
Director – Debbie Moran
Director – Jay Levy

Five guest society members were also present.

Absent:

Vice President – Barbara Wilson
Treasurer – Gene Horr
Director – Howard Leverenz
Director – Warren Wundt
Observatory Director – Michael Dye

1. The meeting was called to order by president Don Pearce at 7:52 PM.
2. After one addition the published agenda was accepted by the board.
3. After a few additions the minutes from the July 2000 board meeting were accepted.

Reports:

4. Secretary's report: A quorum was established.
5. Treasurer's report: The acting treasurer, Bill Flanagan, announced that the number of members now stands at 377.
A Profit and Loss report was filed with the secretary covering the period from January 1, 2000 to September 28, 2000.

Total Income:	\$14,605.33
Total Expenses:	\$12,172.58
Net Income:	\$2,432.75

A Balance Sheet covering the same period was also filed with the secretary.

Total Assets:	\$21,599.20
Total Liabilities and Equity:	\$21,599.20

The acting treasurer recommended that the list of nonmembers

Continued...

Board of Directors Meeting... from previous page

receiving the Guidestar be updated. The list was discussed. Don Pearce said that he would discuss this issue with Mike Dye, Guidestar distributor.

Payment arrangements were made for the new domain name for the website.

6. Observatory Committee:
7. Welcoming committee: New member's kits are now available.
8. Astronomy Day committee: Bill Leach announced that all systems are go and are prepared for 1000+ visitors.
9. HAS annual picnic committee: Don Pearce announced that the annual picnic would be on Saturday, October 21, 2000. The Observatory Committee will furnish all side dishes (donations accepted). Society members need only bring something to drink.

Old Business:

10. The previously ratified bylaw change proposal will be published in the November & December Guidestars and be voted on at the December regular meeting.

New Business:

11. The nominating committee presented the board with the following slate of officers:
President: Kirk Kendrick
Vice President: Bill Leach
Secretary: Art Ciampi
Treasurer: Debbie Moran
Observatory Director: Michael Dye
Board Member: George Dolson
Board Member: Bill Flanagan
Board Member: Howard Leverenz
Board Member: Jay Levy
Board Member: Larry Wadle
Audit Committee: Gary Hilvko
Education Committee: Richard Nugent
Field trips/Observatory Committee: Steve Grubbs
Novice Committee: Warren Wundt

Continued...

Board of Directors Meeting... from previous page

Publicity Committee: Brian Cudnik

Program Committee: Scott Mitchell

Telescope Committee: Darin Palmer

Welcoming Committee: Marg Nunez

12. A Houston meeting of the American Astronomical Society was announced.
13. Jay Levy made a motion to adjourn, it was seconded and passed and the meeting adjourned at 8:28 PM

William W. Leach

HAS Secretary

Observatory Corner... from page 10

for these two items would be \$22.00 for the *Observers Guide* and \$11.95 for the Calendar. We will only be getting 60 copy of the *Observers Guide*, so be sure to come to the November Meeting to get your copy. If you can make the meeting, call Judy Dye and reserve a copy. Her number is listed elsewhere in the *GuideStar*.

For the last few months, I have been inserting a paragraph requesting membership feed back concerning installing computers in the Observatory. I have actually got a response. This gives me hope that members are actuating reading my articles. This hope was shattered by a long time member who told me he never reads the *GuideStar*. If you have any ideas about the Observatory Site, including providing some sort of computers for controlling the Observatory Telescopes and maybe for CCD processing. Please contact me at mbdye@aol.com or 281-498-1703.

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.

Fourth Quarter Total Occultations

By Matt Delevoryas

There are six interesting occultations — well, really occultations on four occasions — by the Moon during the remainder of 2000. Here's the information for these events as seen from Houston (times are CST):

November 12: Delta¹ Tauri (“delta Tauri”; BS 1373)

(mag. 3.8) reappears from behind the dark limb of the 98% illuminated waning gibbous moon before 7:07 PM CST 68° counterclockwise from the south cusp, moon only 7° up, azimuth 74°. (Disappears before 6:17 PM before moonrise.) This is a wide double star in the Hyades (WDS 04229+1733), with a magnitude 13 secondary a minute and a half to the northwest, but the primary is spectroscopic and occultation binary of period 530 days, with a magnitude 13 secondary observed in 1972 0.04" north of the primary.



November 12: Delta² Tauri (64 Tauri; BS 1380) (mag. 4.8) reappears from behind the dark limb of the 98% illuminated waning gibbous moon after 7:22 PM CST 26° counterclockwise from the south cusp, moon only 10° up, azimuth 75°. (Disappears before 6:44 PM 72° clockwise from north cusp, moon a mere 2° up, azimuth 71°.) This, like delta¹ Tauri, belongs to the Hyades.

November 12: Delta³ Tauri (68 Tauri; BS 1389) (mag. 4.3, slightly variable) reappears from behind the dark limb of the 98% illuminated waning gibbous moon before 8:12 PM CST 76° clockwise from the north cusp, moon 20° up, azimuth 80°. (Disappears before 7:28 PM 28° counterclockwise from south cusp, moon 11° up, azimuth 76°.) This, like the previous two stars, belongs to the Hyades. It is a multiple star (ADS 3206 = WDS 04255+1756), with a magnitude 8.3 secondary 1.5" north-northwest from the primary, and with a magnitude 8.7 secondary slightly over a minute southwest from the primary.

Continued...

Occultations... from previous page

November 14: Zeta Tauri (BS 1910) (mag. 2.90-3.02, variable) reappears from behind the dark limb of the 92% illuminated waning gibbous moon before 1:57 AM CST 57° counterclockwise from the south cusp, moon 79° up, azimuth 141°. (Disappears after 12:28 AM 88° clockwise from south cusp, moon 65° up, azimuth 104°.)

November 16 (erroneously identified as two months earlier in the January *Sky & Telescope*): The center of open cluster M 44, Praesepe (mag. 3.1, size 95') reappears from behind the dark limb of the 65% illuminated waning gibbous moon after 11:17 PM CST 80° clockwise from the north cusp, Moon 10° up, azimuth 73°. (Disappears before 10:28 AM 56° counterclockwise from north cusp, moon at the horizon, azimuth 67°.) Naturally, the actual occultation times of the many stars of M 44 will be scattered about these times.

December 28: Eta Capricorni (BS 8060) (mag 4.8) disappears behind the dark limb of the 9% illuminated waxing crescent moon before 6:34 PM CST 57° clockwise from the south cusp, moon 17° up, azimuth 234°. (Reappears before 7:25 PM 36° counterclockwise from south cusp, moon only 8° up, azimuth 242°.) This is a multiple star (WDS 21044-1951), with a magnitude 7.2 secondary approximately 0.3" north from the magnitude 4.8 primary, but one source indicates the primary is itself an occultation double, magnitudes 5.2 and 6.5, with the secondary (in 1982) 0.003" north-northeast primary.

Minutes of the
General Membership Meeting
of the
Houston Astronomical Society
October 6, 2000
Secretary's Draft

1. The meeting was called to order by President Don Pearce at 8:10 PM. He welcomed everyone and the following general announcements were made:
 - a. The general meetings of the membership are in this room, room 117, at 8:00 PM on the 1st Friday of the month, except for May and September when the meeting will be on the 2nd Friday of the month.
 - b. The novice meeting is across the hall in room 116 at 7:00 PM preceding the general meeting.
 - c. The site orientation meeting is in room 121. All members must attend this meeting in order to obtain access to the 18-acre observing site in Columbus, Texas. You may visit the site as a guest of a qualified Society member prior to your certification.
2. There were 83 members and 1 guest present.
3. Five new members were introduced.
4. The President reviewed the types of telescopes available to the membership at the Society's 18-acre observing site: C-14, 12.5 in. f/5, 12.5 in. f/7, and two 12.5 in. Dobsonians. These telescopes are housed in a separate building right next to the observatory.
5. Darin Palmer, chairperson of the Telescope Loaner Program, was introduced and he explained the program.
6. The President announced the following membership benefits/concerns:
 - a. The *GuideStar* newsletter editor, Bill Pellerin, was recognized.
 - b. The Starline (281-568-9340), a service offering various recorded astronomy messages, was also announced and Matt Delevoryas was recognized for keeping the messages updated.
 - c. The HAS website is also available and Webmaster Steve Goldberg was introduced and thanked. The H.A.S. new domain name is www.astronomyhouston.org.
 - d. Special thanks was given to Steve Goldberg and John Blubaugh.
 - e. Discount prices for society members on Sky & Telescope (\$29.95) and Astronomy (\$29.00) magazines were announced.
 - f. Marg Nunez and Bill Leach of the welcoming committee were introduced.

Continued....

Minutes.... from previous page

- g. The program with Randall's grocery stores was announced and members were asked to register for nonprofit organization number 6618. One percent of everything you buy at Randall's will come to H.A.S.
- 7. The slate of candidates for the November election were announced by the Nomination Committee. (see board minutes)
- 8. Don Pearce made an announcement on the visibility of the planets.
- 9. Bill Leach invited everyone to come out to Astronomy Day 2000!
- 10. Steve Goldberg announced a new "dark-sky awareness" ribbon that will be worn by all Astronomy Day 2000! volunteers.
- 11. Mike Dye announced that the annual picnic would be at 5:00 PM on Saturday, October 21, 2000.
- 12. Buster Wilson presented a Texas Star Party certificate to George Stradley.
- 13. Ken Drake and Matt Delevoryas made announcements.
- 14. Judy Dye announced that the Observer's Handbook 2001 would soon be available for \$15.
- 15. Warren Wundt introduced the guest speaker, Calvin Seaman who gave a presentation entitled: **Hubble Space Telescope**. This was a fascinating detailed description of what was involved in maintaining the telescope. NASA hopes that the telescope will last until 2010. It was also announced that there is a new exhibit on the Hubble Telescope at Space Center Houston. The presentation lasted for 35 minutes and was followed by 10 minutes of questions and answers. The speaker was presented with a framed certificate.
- 16. Marg Nunez and Bill Leach handed out door prizes.
- 17. The meeting was adjourned at 9:30 PM.

HAS Secretary: William W. Leach
October 6, 2000

Amendment to the Bylaws

Houston Astronomical Society

The Board of Directors of the Houston Astronomical Society has determined that the following change in the society bylaws is needed to expedite necessary society business.

Article IV Section VI

Present:

Section VI QUORUM AND VOTING

1. Twenty (20) voting members or twenty percent of the voting membership, whichever is greater, present at any meeting shall constitute a quorum and each member shall have one vote. No member shall be entitled to vote by proxy on any question before the membership.

Proposed (change in bold):

Section VI QUORUM AND VOTING

1. Twenty (20) voting members or **fifteen** percent of the voting membership, whichever is greater, present at any meeting shall constitute a quorum and each member shall have one vote. No member shall be entitled to vote by proxy on any question before the membership.

Membership attendance at regular meetings has been vacillating between 75 and 105. Since the society's present membership total is around 400, section VI requires 80 members present in order to engage in society business. This could prevent the society from engaging in necessary business like elections, replacing persons that choose to step down from a position and other society business requiring a quorum. The Board of Directors present at the July board meeting unanimously ratified these changes.

A vote on this proposed amendment will occur at the December 2000 regular meeting.

***William W. Leach
HAS Secretary***

Observatory Duty Roster

by Michael B. Dye, Observatory Chairman

This is the duty list for November and December 2000. I don't have the January 2001 information yet. Some names were moved from one month to another to accommodate some conflicts. 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.

November Supervisor Matt Delevoryas 713-795-0808

Clayton Jeter	Site	
Stanley Jones	Members Observatory Night	11-18-00
Keith Jurgens	Site	
Arnie Kaestner	Members Observatory Night	11-18-00
David Kahlich	Members Observatory Night	11-18-00
Howard Leverenz	Site	
Jay Levy	Site	
Mary Lockwood	Site	

December Supervisor Kirk Kendrick 281-391-3834

Christopher Mendell	Site	
Robert Menius	Site	
Larry Mitchell	Members Observatory Night	12-16-00
Jeff Moore	Site	
Debbie Moran	Site	
Ben Negy	Members Observatory Night	12-16-00
Johnny Norris	Members Observatory Night	12-16-00
Marge Nunez	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.

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.

<u>Subject</u>	<u>Name</u>	<u>Phone</u>
Asteroids	Barbara Wilson	281-933-1289
Astrometry	Richard Nugent	713-910-5945
Astrophotography	Steve Goldberg	713-721-5077
Beginning in Astronomy	Peggy Gilchrist	281-558-1190
	Amelia Goldberg	713-721-5077
Comets	Kenneth Drake	281-367-1592
	Don Pearce	713-432-0734
Computers	Matt Delevoryas	713-795-0808
	Leland Dolan	713-529-0403
	Ricardo Palmeira	713-669-1409
Cosmology	Ricardo Palmeira	713-669-1409
Deep Sky	Larry Mitchell	281-448-8700
	Barbara Wilson	281-933-1289
Double Stars	John Blubaugh	713-921-4275
Drawing (Sketching)	Scott Mitchell	713-461-3020
Herschel Objects	Larry Mitchell	281-448-8700
History, Astro'y - General	Leland Dolan	713-529-0403
	Ricardo Palmeira	713-669-1409
History, Astro'y - Amateurs	Tom Williams	713-526-2868
Mathematics, Astronomical	Richard Nugent	713-910-5945
Messier Objects	Novice Committee (see inside front cover)	
Photometry	Open	
Radio Telescopes	John Hiatt	713-464-4010
Satellites, Artificial	<open>	
Solar Observing	Larry Mitchell	281-448-8700
Spectroscopy	Open	
Thin Crescent Moons	Don Pearce	713-432-0734
Variable Stars	Barbara Wilson	281-933-1289
	Tom Williams	713-526-2868
Video	Larry Mitchell	281-448-8700

Happy Thanksgiving

from the

Houston Astronomical Society

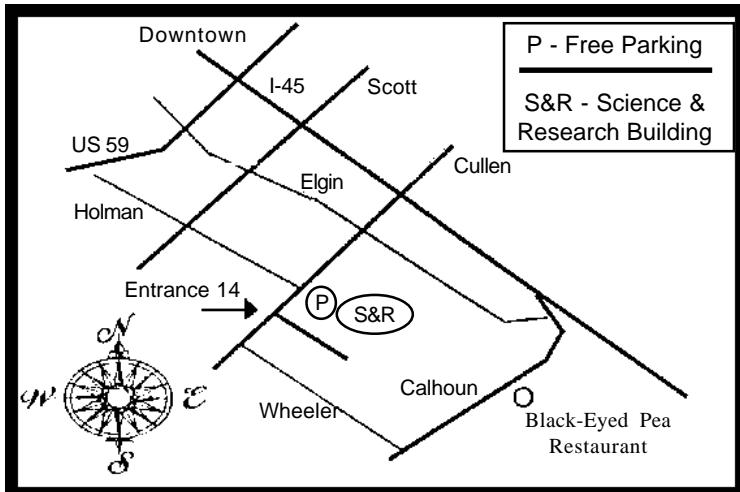
by Bill Pellerin, GuideStar Editor

Thanksgiving day, November 23rd is a good time to get together with family and friends, enjoy a good meal, and be grateful for all the good things that have happened to us over the year.

But.... there's one more thing to think about. New moon occurs on November 25th (the Saturday after Thanksgiving), and this gives all of us a good observing opportunity. We'll have a day or two (or more) extra days off from work, so now's the time to begin planning your observing trip for the weekend. If you're going to the H.A.S. observing site, I expect you'll have lots of company out there.

Know what else? We have a partial solar eclipse on Christmas Day, which, of course, is at new moon. You won't want to miss this. Check *Sky and Telescope* and *Astronomy* magazines for information on how and when to observe this event. In any case, the Christmas holiday weekend represents a good observing opportunity too. A few years ago I went to the club site on Christmas night, and enjoyed a nice night of observing with a few other H.A.S. members. (Note: Tony's Restaurant in Sealy was not open on the morning after Christmas.)

As I write this (October 22) we had a cloudy weekend (with some rain) (read Mike Dye's article about the picnic), so there wasn't a good observing opportunity this weekend. Maybe next weekend.... or Thanksgiving... or Christmas.



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 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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