



September, 2002

At the **September 6** meeting...

Scott Mitchell

Houston Astronomical Society

***The Southern Skies Star
Party in Bolivia***

Houston Astronomical Society

GuideStar

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.

★★★★★ **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: Kirk Kendrick H: 281-391-3834 Treasurer: Debbie Moran H: 713-666-9428
Vice Pres: Bill Leach H: 281-893-4057 Past President: Don Pearce H: 713-432-0734
Secretary: Brian Cudnik H: 832- 912-1244

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Bill Flanagan 713-699-8819 Telescope Loaner Program
Howard Leverenz 713-957-8667
Jay Levy 281-557-4920 Field Trip and Observing, Program
Christopher Mendell 281-488-8906
Steve Sartor 281-370-3544

Liaison responsibility

★★★★★★★★★ **Committee Chairpersons** ★★★★★★★★★

Audit Matt Delevoryas 713-666-9428 Program Scott Mitchell 713-461-3020
Education Richard Nugent 713-524-1993 Don Pearce 713-432-0734
Field Tr./Obsg. Steve Grubbs 713-455-5701 Publicity Warren Wundt 713-697-2960
Novice George Stradley 281-376-5787 Telescope Darin Palmer 713-223-3123
Observatory Michael Dye 281-498-1703 Welcoming Marg Nunez 713-529-2549
..... Hannah Lange

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

Historian Leland Dolan 713-688-0981 Publ. Star Party Marg Nunez 713-529-2549
Librarian Peggy Gilchrist 281-443-8773 Rice U. Coord. Matt Delevoryas 713-666-9428
Logo Mds Sales Judy Dye 281-498-1703 Schedule Obs'v'ty Steve Goldberg 713-721-5077
Long Range Plan Bill Leach 281-893-4057 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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Check the web site:

<http://www.astronomyhouston.org>

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 Flanagan	713-699-8819
Comets	Don Pearce	713-432-0734
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

8/17/02 — Tonight's the night that 2002 NY40, a near-earth asteroid, is scheduled to fly by the earth, and I'm ready to look for it. If the sky will clear up this evening and the equipment works reasonably well, I ought to be able to see it.

I must admit that, as usual, my preparation activities have not gone without a hitch. I downloaded and printed the maps from the *Sky and Telescope* web site (www.skyandtelescope.com), and I think this information should be sufficient for me to find the object. However, I like to use a computer's sky map when I'm observing, and to make the object appear in the software I needed orbital elements for it. No problem... I go to Yahoo and enter "2002 NY 40" and get directed to a NASA site that has just what I need.

So... I printed the orbital elements, started the software, and searched for the dialog that lets me enter new object elements. It turns out that there are two entry screens, one for comets, and one for minor planets. The data asked for in the two screens is similar, but a few of the fields are different. Anyway, I entered the data in the 'minor planet' database. The object showed up in the sky map in very much the wrong place. I checked the entries, they're all ok. So, I tried entering the data in the comets area. When entered as comet data the object appeared in the right place in the sky.

The software correctly showed the location of the object, but no object symbol. It turns out that I didn't put an "Absolute magnitude" number into the entry screen, so the value defaulted to zero. (I didn't have any data on the absolute magnitude of the object.) The computed value, based on the information I gave the software, was -11. The software is set up to only display objects from 30th magnitude to -6 magnitude. I changed the absolute magnitude to 10. Only then did the object appear in the sky map.

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Houston Astronomical Society

***Meeting Notice
For Friday, September 6, 2002***

***Scott Mitchell
Houston Astronomical Society***

Our Program Chairman, Scott Mitchell will report on his recent trip to the Southern Skies Star Party on Lake Titicaca in Bolivia. He will cover the dark southern skies, accommodations, side trips, and the 12,000 foot altitude.

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

September/October Calendar:



Photo by Scott Mitchell

<i>Date</i>	<i>Time</i>	<i>Event</i>
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September 2002

6	7:00 p.m.	Novice Presentation - U of H.
	8:00 p.m.	General membership meeting U of H.
	10:10 p.m.	New Moon
10		Prime Night-Columbus
13	1:08 p.m.	First Quarter Moon
17	7:30 p.m.	Advanced SIG Mtg. Rice Univ., contact Bill Flanagan, 713-699-8819
21	8:59 p.m.	Full Moon
22	11:55 p.m.	Autumnal Equinox, Fall begins
28		Annual HAS picnic in Columbus. Members Observatory Night- Columbus
29	12:03 a.m.	Last Quarter Moon

October 2002

5		Prime Night-Columbus
6	1:18 a.m.	New Moon
11	7:00 p.m.	Novice Presentation - U of H.
	8:00 p.m.	General membership meeting U of H.
12	3:00 p.m.	Astronomy Day—George Observatory
	7:33 p.m.	First Quarter Moon
15	7:30 p.m.	Advanced SIG Mtg. Rice Univ., contact Bill Flanagan, 713-699-8819
20	9:20 p.m.	Full Moon
26		Members Observatory Night- Columbus
27	3:00 a.m.	Daylight Saving Time ends and Standard Time begins. Set clocks back 1 hour.
28	6:28 p.m.	Last Quarter Moon

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

Minutes of the Houston Astronomical Society General Membership Meeting 02 August 2002

Kirk Kendrick called the meeting to order at 8:10pm (Delayed due to parking issues resulting from the scrimmage football game between the Houston Texans and the Dallas Cowboys across the street from the meeting location).

The introduction of visitors and new members resulted in six; each is asked how each heard about the H.A.S. New members included Katherine and Sarah Katy, and visitors included Bob Bauer and Mike Pace.

The Announcements were given next:

- Bill Leach announced Astronomy Day, Saturday, August 12 at George observatory. There will be many activities, including indoor and outdoor activities at the event. He asked for help from the H.A.S.
- The All Clubs Meeting in October appears to be at the Houston Museum of Natural Science, but this is not 100% certain. Bradley Schaefer will be the speaker, and his topic will deal with the anomalies of the Greek Constellations, including scandals associated with them. There will be an All Clubs novice meeting immediately preceding the All-Clubs general membership meeting.
- There were no printed Guidestars this month as an assembler dropped out, unable to assemble. The club is over-budget on the Guidestar budget. A postcard was sent in lieu of the Guidestar this month, but an online version is available. There are options on what to do next in this issue, including continued postcard notifications. A chairman and committee are needed to assemble the Guidestars. Fred from the membership suggested that there should be four teams assembled to do the work, and they can rotate in and out of 3-month shifts, to alleviate the burden.

Continued...

Minutes... from previous page

- The Board Meeting was held on July 25, and the President apologized for any inconveniences with respect to the room location. It was not widely circulated, apart from the web page and e-mail, that the meeting now takes place in Duncan Hall. Steve Sartor gave the Program Development Committee Readout of 45-minutes, and the President thanked him before the membership for putting the presentation together. Changes are to come.
- There has been no loaner scope chair at the meetings. The chair had not been able to attend the meetings, so Clayton Jeeter will help out in this area. There will be a two-month limit on the loaner scope, with novices having first priority over who gets to borrow first.
- The President reported the site incident with the well pump burning up. The well has been reprimed, and the site now has high water pressure once again.
- Amelia Goldberg awarded Robert Boley the Binocular Messier Certificate number 501.
- Don Pearce gave the comet report. There are two new comets to observe.
 - Comet C2002 O4 (Hoenig), discovered on July 22, lost until July 27, with a perihelion on October 1 at a distance of 0.78A.U. This is a morning object moving northward, to become circumpolar by early August, then passing under the celestial pole by mid August. The elongation will be less than 50 degrees from the Sun from mid-September to mid-November, making this comet difficult to observe during this time frame. The predicted peak magnitude was 8.8, but the comet had been running 1 to 2 magnitudes brighter than predicted. It is now at magnitude 9.2 and brightening.
 - Comet C2002 O6 (SOHO), confirmed visually by Alan Hale on August 1.45. The coma is 4 arc minutes across and the comet is

Continued....

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brighter than magnitude 9.5, the estimate Hale gave when he observed it through twilight, moonlight, and cloud.

- Comet 57P du Toit-Neujmin-Delporte has 18 known companions in addition to the two already known. There is an excellent image on the comet home page, at <http://encke.jpl.nasa.gov>.
- An aerial image of the Columbus Dark Site was shown on the projection screen, as an illustration for the Site Announcement. There will be an open house (Members Observatory Night) tomorrow (August 3); all members are welcomed. Questions from the membership are entertained.

Brian Cudnik introduced tonight's speaker, Dr. Joseph Dolan who gave his talk entitled "Black Holes and Dying Pulse Trains—Another Test of General Relativity?"

There was a 10-minute break before door prizes are awarded.

The meeting was adjourned at 9:48p.m.

Notice:

**The October H.A.S. meeting will be
on the second Friday of the month
(10/11/02)**

as part of an all-clubs meeting for the
Houston area. This is the Friday before
Astronomy Day on Saturday, the 12th.

Satellites to the Rescue!

A ship on the ocean is swamped by a giant wave. A small airplane loses power and crash lands on a mountain field. A snowmobiler in Alaska

breaks a tread and is lost far from civilization. How do the brave people who rescue folks in peril find out where they are?



Search and Rescue Satellite-Aided Tracking, called SARSAT for short, uses two types of satellites to help people (and their pets!).

Geostationary Operational Environmental Satellites, nicknamed "GOES," fly in place. They never stray from their spots above Earth. Polar Orbiting Environmental Satellites, called "POES," are in constant motion. They orbit Earth several times a day. The main job of these spacecraft is to track environmental conditions around the world. But GOES and POES also hear special distress signals from ships, planes, and individuals. The satellites send the information to a control center in Suitland, Maryland. The National Oceanic and Atmospheric Administration, an agency of the U.S. Government, operates the center. They learn who's in danger and where the emergency is. Then they send the Coast Guard or the Air Force to save the day!



Search and Rescue Satellite Aided Tracking (SARSAT) system helps find people in trouble and send rescuers to help.

Ships, airplanes and people use different kinds of equipment to transmit

Continued....

H.A.S. Picnic

What: The Annual H.A.S. Picnic

Where: At the H.A.S. Observatory Site

When: September 28, Members Observatory night

Details: Read the *Observatory Corner* article in this issue of the *GuideStar*

Satellites... from previous page

emergency signals. All these devices broadcast distress messages to GOES and POES. Personal Locator Beacons for individuals are available only in Alaska, but soon may be sold in the rest of the United States. Backpackers and others who travel to remote areas could carry these devices in case they get into trouble.

NASA provided the satellites used for SARSAT and the National Oceanic and Atmospheric Administration operates them. SARSAT has helped to locate and rescue more than 12,800 people worldwide and 4,300 people in the United States. The Air Force and Coast Guard also rescued dogs and other pets that were traveling with their families when disaster struck!

Find out more about SARSAT at <http://www.sarsat.noaa.gov>. Also check out The Space Place Web site at <http://spaceplace.nasa.gov/goes/orbits.htm> to learn how these satellites orbit Earth and how GOES can hang over one spot all the time!

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

Observatory Corner



By Michael B. Dye Observatory Chairman



Last month I ended my article with a short paragraph about problems we might be having with the pump at the Observatory Site. Well, It appears that the pump, after about 18 to 20 years of service, finely died. How it died appears to be as result of a combination of conditions that eventually caused the pump to fail. As far as I can tell the combination went as follows. The bladder in the surge tank sprang a slow leak and eventually the air pocket that absorbs the pump

surges collapsed and the tank filled with water. We had discovered that the tank was filling with water at an earlier time and attempted to pump air back into the surge tank. Not knowing that the bladder was destroyed, we were unable to keep the air pocket in the surge tank. It seems that the tank itself also had a slow leaked through the zirk fitting that we used to pump air back into the tank. Eventually all the air leaked out of the tank. As people at the Observatory Site used water, the water pressure dropped below about 15 pounds and the pump kicked in to pump water back into the surge tank to bring the water pressure back up to about 50 or 60 pounds. When the water pressure hit 50 to 60 pounds the pressure switch opens and stops the pump. Since there was not an air pocket in the surge tank to even the pump surges and keep the water pressure up, the pressure switch would shut off the pump every cycle of the pump. This caused the water pressure to drop below 15 pounds and pressure switch would cycle the pump back on. Repeated quick power cycles like this eventually proved detrimental to continued operation of the pump and the pump failed. As the pump failed it also took the circuit breaker that supplied the pump. This was when Ed called me on Sunday, to report that the site no longer had running water.

I made a trip out to the Observatory Site on Tuesday and met the people from a well Service Company. I had to install a temporary Circuit Breaker when we discovered that while we did have power to the pump house, we did not have power from both poles of the circuit breaker to

Continued...

Observatory Corner... from previous page

the pump. We then tested the pump again and determined that it was not working. They (the Well Service Company people) also figured out that the Surge Tank was inoperative. Some discussion resulted in my decision to have both the pump and the surge tank replaced as soon as possible. They came out on Thursday and replaced the pump and the surge tank.

The material cost for the repair job ended up including \$850.00 for a new submersible pump and \$450.00 for a new surge tank. Labor to pull the old pump out of the ground and reinstall the new pump along with other odds and ends brought the total to \$1,704.00. The repair job was completed on Thursday, which was less than a week after Ed Szczepanski reported the problem. Kirk Kendrick and I went out the following Saturday to observe the work and install the new 20 amp circuit breaker. The new piping and surge tank looked very good. We installed the new circuit breaker, replacing the temporary breaker that I had installed the previous Tuesday. Remember I said that the circuit breaker had died? As a result of all this activity, the Observatory Site now has a brand new well pump and surge tank, which should last another twenty years. The Observatory Committee keeps an emergency slush fund to cover problems of this nature. This problem did make a rather large dent in this fund and I am now soliciting donations to cover this repair job. This, on top of the money I am soliciting for the retrofit of the C-14, brings my fund raising drive to about \$3,700.00 for this year.

Unfortunately, the pump was not the last of my site problems for the month. Ed Preston and Steve Goldberg notified me that the Bunkhouse door was not working correctly. Ed was able to determine that the problem was that the Bunkhouse seems to be sagging in the middle of the door wall and causing the doorframe to twist. This caused the door not to fit correctly in the doorframe. The closure of the door into the doorframe activates a magnetic switch located in the top of the doorframe. This switch controls the correct operation of the Bunkhouse access system. Failure of the switch to activate will prevent the access system from opening the door when the correct combination is pressed into the

Continued...

Observatory Corner... from previous page

keypad located outside of the door. Ed asked Steve to bring some tools from Steve's house and Ed was able to affect a temporary repair by shaving some of the door off the top thus allowing the door to close and activate the access system. Later discussion with Ed indicates that the correct fix action may be to jack the bunkhouse up at a point just to the left of the door at the bunk house frame.

The Annual Picnic is still on. Nothing has changed; we are still having it on September 28th at the Observatory Site. In keeping with the practices of the past, this is also the same night as the Members Observatory Night. Instead of the Observatory Committee supplying the meat (hamburgers and hot dogs), buns (also hamburger and hot dog), Ice Tea and maybe some soda (Coke, Pepsi, etc.) and other good stuff for free, we are going to ask for a small donation on a per person basis. At this point I am thinking of asking for Donations of \$5.00 per person or \$10.00 per family. 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 a few extra people. Please E-mail or phone me if you are coming to the picnic. We need this information for planning the food to buy. I need to point out to non-members that in order for non-members to come to the picnic, you have to be a guest of a member. It is actually easier if you are a member and have taken the Site Orientation course given by Bob Rogers the same night as the General Meeting is from 7:00 PM to 7:45 PM in room 121. There are signs at the door to point to the room where the class is given.

The week before the Annual Picnic will be used by a group of volunteers and me to clean and paint the outside of the Observatory. I am looking for about five to ten members to help. This will be done on a weekday, so unless you have weekdays off you will most likely have to take a day off from work. We are going to rent a sand pot (blaster) and compressor to do all the hard work and Dana Lambert has volunteered to spearhead the painting activity. If you would like to help with this activity please E-mail or phone me to let me know if you are going to help. My E-mail addresses are mbdye@rice.edu and mbdye@aol.com and my phone number is 281-498-1703. If you E-mail me please send messages to both of my addresses.

Continued...

Observatory Corner... from previous page

The Society continues to benefit from members who shop at Randalls. 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. We are also in the process of getting a Kroger number that does the same thing for Kroger but this activity does not seem to be moving along very fast. I think I need to talk to someone.

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.

The Invisible Universe

by Bill Pellerin, GuideStar Editor

I was in the Border's bookstore at the corner of Westheimer and Kirby last week and spied copies of *The Invisible Universe*, a book by David Malin on sale for about \$15. David Malin is one of the great astrophotographers on the planet and this large format book shows off some of his best work.

On page 118, you get a full page of Omega Centauri, a very bright globular cluster. The book also include great photos of the Orion nebula, the Horsehead nebula, the Sombrero galaxy and Barnard 86 (a dark nebula). Barnard 86 was on the observing list at this year's Texas Star Party, and it's a superb object both on the page of this book and through the eyepiece of a telescope.

Each image is accompanied by a page of text explaining the object. The introduction is written by the best science writer in the business, in my estimation, Timothy Ferris.

The book's original price is \$60, so look for it. You'll like it.

Observations... from page 4

I also resolved the inconsistency between the 'comet' object and the 'minor planet' object by entering different "Epoch of elements" values for the two virtual objects. It seems that, even though the field has the same label on both dialogs, it means different things in each. My NASA information has two dates in it. One is called the "Epoch of Osculation" and has a value of 2002-05-06; the other is called the "Perihelion Passage" and has a value of "2002-10-04.9847028". I don't know enough to know what these mean, but I did find out that the comet data entry screen wants the "Perihelion Passage" number and the minor planet entry screen wants the "Epoch of Osculation" number.

Go figure. So, after all this messing around with the software I have the object appearing in a place that matches the S&T charts. I can impose on the computer chart the field of view for the telescope / eyepiece that I plan to use. Then, I can change the time in one minute increments. This object is going to be moving VERY FAST in the eyepiece. I'm looking forward to trying to find and see it.

According to S&T, it'll shine at about a magnitude 10, which isn't too bright, but should be easily visible in my 8" telescope. I hope all my planning isn't wasted. I'll let you know; I won't finish the *GuideStar* before tomorrow, when I'll have results.

Last Saturday I was able to do some observing. It was quite a nice night for the summertime in this area. It was quite clear and the Milky Way showed up very brightly in the sky. I was looking at multi-colored double stars and having a good time. I had a list of double stars for which one or both stars were reported to be green. Well... it's hard to say that the stars were green, but there was some unusual color associated with the stars. I looked at several of them and though "yeah... this one *could* be green.

One of the best pairs that I looked at was 95 Her. It is listed as "apple green" and "cherry red" by David Oesper in the July/August 2002 *Double Star Observer* newsletter. Check this one out if you want to see some interesting colors in stars.

Continued...

Observations... from previous page

8/18/02

I **did** manage to see 2002 NY 40 last night, and I tracked it for about an hour before I let it carry on without me. There were some reports in the mass media that this object would be visible with binoculars. Maybe so, but I doubt it. (If you saw it in binoculars, I'd like to hear about it.) I estimated that the object was shining at about 9.5 mag, which is fairly dim on a night where the moon is lighting up the sky. To me, the object seemed to have a slight reddish glow. Anybody else see this?

I saw it easily in a 8" SCT, but I think I would have been struggling to see it in a smaller telescope. The other thing reported in the media is that the object would cross the sky near Vega. It depends on what you call 'near'. It actually passed south of the constellation of Lyra.

One of the things I learned is that if I'm trying to track a fast moving object on the computer it's important that the computer time be exactly right. For most purposes an error of a minute or so isn't significant, but in this case it was very significant. For the computer to show you the correct position it has to know the correct time.

Also, it's easier to see the motion of the object when it's near an object that does not move. That is, when the object passes a 'fixed' star the motion is more obvious.

The moon was waxing gibbous and quite bright, so opportunities for deep-sky observing were limited.

I'd love to put your observations of this or any other objects in the *GuideStar*.

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

..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!

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>

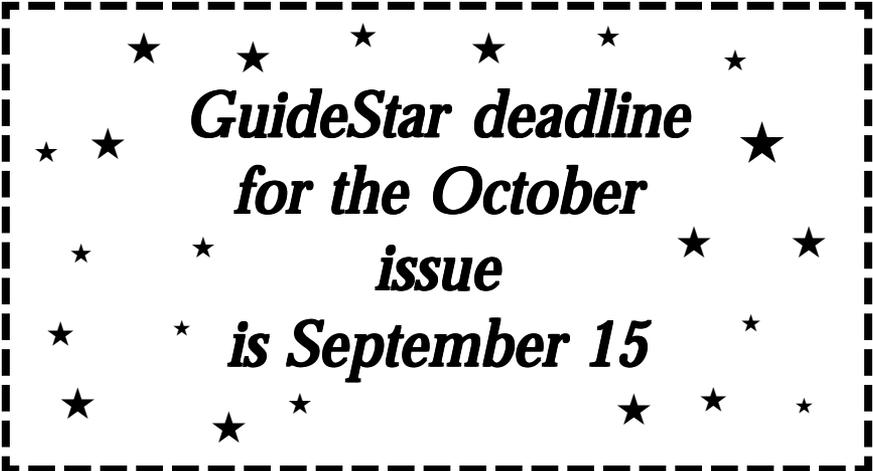
North Houston Astronomy Club meets at 7:30 p.m. on the 4th Friday of each month in the Teaching Theatre of the Student Center at Kingwood College. Call 281-312-1650 or E-mail bill.leach@nhmccd.edu. Web site: www.astronomyclub.org

HAS Web Page

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

The address is: <http://www.astronomyhouston.org>

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



***GuideStar deadline
for the October
issue
is September 15***

Observatory Duty Roster

by Michael B. Dye, Observatory Chairman

This is the duty list for September, October and November. 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.

September Supervisor Dana Lambert 281-304-6400

Mark Egan Members Observatory Night09-28-02
John Fennell Site
Jean-Marc Follini Site
Fred Garcia Members Observatory Night09-28-02
John Garza Site
Clifton Goldman Members Observatory Night09-28-02
David Granadino Site
Chai Heng Site
David Herlinger Site

October Supervisor Allen Gilchrist 281-443-8773

Clayton Jeter Members Observatory Night10-26-02
Stanley Jones Site
Keith Jurgens Site
Arnie Kaestner Members Observatory Night10-26-02
David Kahlich Site
Howard Leverenz Site
Jay Levy Members Observatory Night10-26-02
Mary Lockwood Site
Christopher Mendell Site

November Supervisor Logan Rimes 713-681-5397

Robert Menius Site
Larry Mitchell Members Observatory Night11-30-02
Debbie Moran Site
Mark Mulrooney Members Observatory Night11-30-02
Ben Negy, Jr Members Observatory Night11-30-02
Johnny Norris Site
Richard Nugent Site
Ralph Overturf Site
Don Pearce 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	713-688-0981
	Ricardo Palmeira	713-669-1409
Cosmology	Ricardo Palmeira	713-669-1409
Deep Sky	Larry Mitchell	281-448-8700
	Barbara Wilson	281-933-1289
Double Stars	John Blubaugh	713-921-4275
Drawing (Sketching)	Scott Mitchell	713-461-3020
Herschel Objects	Larry Mitchell	281-448-8700
History, Astro'y - General	Leland Dolan	713-688-0981
	Ricardo Palmeira	713-669-1409
History, Astro'y - Amateurs	Tom Williams	713-526-2868
Mathematics, Astronomical	Richard Nugent	713-910-5945
Messier Objects	Novice Committee (see 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
Telescopes	Clayton Jeter	281-383-1337
Variable Stars	Barbara Wilson	281-933-1289
	Tom Williams	713-526-2868
Video	Larry Mitchell	281-448-8700

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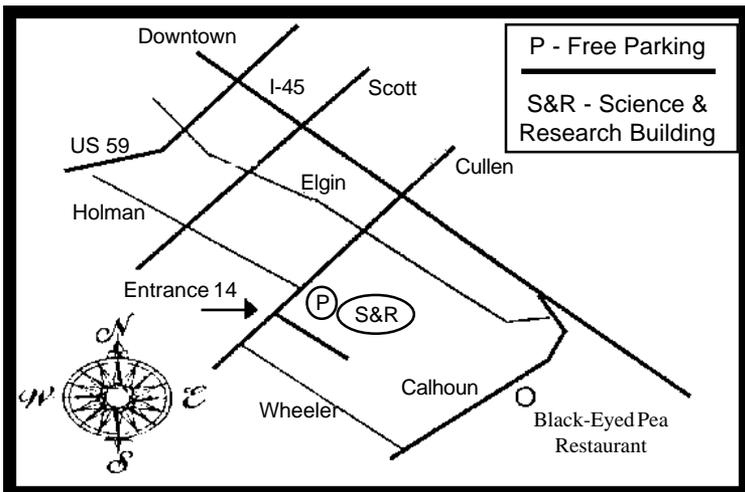


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General Membership Meeting

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. *GuideStaris* 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. *GuideStaris* 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 tomake special arrangements.

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