



April, 2002

At the **April 5** meeting...

Brother Guy Consolmagno
the Vatican Astronomer
**Why Does the Pope Have
an Astronomer?**

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 & 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

★★★★★★★★★ **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
 Christopher Mendell
 Steve Sartor

★★★★★★★★★ **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	
Novice	George Stradley		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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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. 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*

I did something scary last weekend. I cleaned the 14.5" mirror in my Starsplitter dobsonian. This may not sound like a scary proposition, but if you've ever read instructions for cleaning your mirror, you'll find that you have good reason to be concerned.

I checked the *Sky and Telescope* web site and downloaded the instructions that sounded the most conservative, that is, the least likely to cause trouble. They recommend simply running room temperature water from the tap onto the mirror for a while. If this gets the mirror clean enough, you're finished. If it doesn't, further cleaning requires large quantities of cotton and some liquid detergent.

My mirror is 8 years old, and has never been cleaned, so it was probably overdue. And, it was quite dirty. I carefully lifted it out of its cell and carried it to the bathtub. A simple rinse didn't get the mirror very clean, so armed with cotton and Ivory liquid detergent, I carefully washed it again, this time c-a-r-e-f-u-l-l-y moving the cotton carefully across the mirror surface.

In the end, the mirror is a LOT cleaner than it was, but probably not as clean as it could be. It's good enough for West Texas, I figure, where it's bound to get a good dusting of the powdery sand that's everywhere on the Prude Ranch. I'm fearful enough of scratching the mirror that I'm not going to go through another round of cleaning before Texas Star Party.

This is a Galaxy mirror, and they don't make 'em this size any more (they only make larger ones), so I want to make sure this mirror lasts for a while. The next step in the process may be to send the mirror off to get it re-silvered. It'd be as good as new, then.

Last weekend was a disappointment. We had a cold front go through, but on Saturday it "backed-up" and the skies were cloudy. I heard from a neighbor that the skies in Austin were crystal clear. I suppose that the front didn't back up that far. Oh, well.

I'm very much looking forward to Brother Guy's presentation at our April 5 meeting. I got a copy of his book *Brother Astronomer* and have been enjoying it. I'll be bringing it to the meeting for a signature from the author. I have a copy of the other book that Brother Guy worked on *Turn Left at Orion* and I highly recommend

Continued on page 13...

Houston Astronomical Society

***Meeting Notice
For Friday, April 5, 2002***

***Brother Guy Consolmagno
Vatican Astronomer***

"Why Does the Pope Have an Astronomer?"

This special guest was arranged by John Blubaugh. Brother Guy is the author of *Brother Astronomer: Adventures of a Vatican Scientist*, and co-author of *Turn Left at Orion*, a very nice guide to some superb celestial objects. This promises to be a very special presentation. Don't miss it.

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.

April: Amelia Goldberg-- "Navigating the Virgo Messiers"
May: Jay Levy - "Solar Stuff Plus Meteors"

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.**

April/May Calendar:



Photo by Scott Mitchell

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

4	9:29 a.m.	Last Quarter Moon
5	7:00 p.m.	Novice Presentation - U of H. "Navigating the Virgo Messiers" presented by Amelia Goldberg
	8:00 p.m.	General membership meeting U of H "The Vatican Observatory: Why Does the Pope Have an Astronomer?" by Brother Guy Consolmagno of the Vatican Observatory. (See accompanying article in this issue of GuideStar.)
6		Prime Night-Columbus
7	2:00 a.m.	Daylight Saving Time begins. Set clocks forward 1 hour.
12	2:21 p.m.	New Moon
13		Members Observatory Night
16	7:30 p.m.	Advanced SIG Mtg. Rice Univ., contact Matt Delevoryas, 713-795-0808
20	7:48 a.m.	First Quarter Moon
26	10:00 p.m.	Full Moon

May 2002

3	7:00 p.m.	Novice Presentation - U of H. "Solar Stuff Plus Meteors" presented by Jay Levy.
	8:00 p.m.	General membership meeting U of H. Dr. Reggie Dufour-Rice Univ.
4		Members Observatory Night
	2:16 a.m.	Last Quarter Moon
5		Texas Star Party begins in Ft. Davis
10	early eve.	Mars only ¼ deg. from Venus in west
11		Prime Night-Columbus
12	5:41 a.m.	New Moon
		Texas Star Party ends in Ft. Davis
14	7:30 p.m.	Advanced SIG Mtg. Rice Univ., contact Matt Delevoryas, 713-795-0808
19	2:42 p.m.	First Quarter Moon
26	6:51 a.m.	Full Moon
30	7:30 p.m.	Board meeting SS106 at Rice University entrance 13

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

The Quest to Know ...and Understand

By Bill Leach, Vice President

This is the first in an extended series of articles intended to extract how we know what we know about our immediate cosmic neighborhood. As our knowledge of our Solar System grows exponentially our exploration methodology becomes more and more innovative.

Why are humans not content with the way things are? Why do we have to go out to seek new ideas? The need to learn and expand our understanding seems to be a fundamental characteristic of our species. The most successful societies in our history are those that were not satisfied and went out to explore. We explore directly or vicariously to see what's on the "other side of the hill".

In 1958 NASA was established and charged with exploration and the acquisition and distribution of new knowledge. The robotic exploration of the Solar System is the primary charge of NASA's Jet Propulsion Laboratory (JPL) with assistance from the Ames Research Center, Goddard Space Flight Center and the Langley Research Center. NASA quickly adopted the scientific process of open competition and peer review to determine which scientists would use what methods to pursue which goals.

At the dawn of the space age there were few planetary scientists and most people universally believed that there were vast oceans on Venus, and that Mars was teeming with life, and that craters were created by volcanic eruptions. That was soon to change drastically. Earth was no longer to be the only planet we had intimate knowledge of.

The most formidable initial problem was distance. The intensity of starlight decreased by a factor of four every time the distance is doubled and the apparent size of planet or moon capturing the light from the Sun obeys the same rule. This double jeopardy makes exploring the Solar

Continued...

The Quest to Know... from previous page

System even more challenging. The Earth's atmosphere was another problem. It obscured most of the light arriving from distant planets and moons and what light it did allow to pass through was blurred and distorted.

The modern science of astrophysics is overcoming these problems using an accelerating technology. The distance problem is being solved by even larger and more powerful telescopes and the beginning of the space age with its robotic explorers. The atmospheric problem is being solved by placing sensors in space and by using computer technology to subtract blurring distortions from images. Science now uses the full spectrum of electromagnetic radiation in its studies and is no longer restricted to the narrow region of "visible light" that shackled human curiosity for millennia. Four primary tools emerged as the chief tools of scientific inquiry.

1. Spectroscopy – This involves the separation of the light received into its various frequencies and extracting information from each type. Gamma rays and X-rays tell us about the most violent events, ultraviolet light tells us about atmospheres and the magnetic environment, infrared light is used to study surface mineralogy and radio waves are used to study surface deformations.
2. Photometry – This uses changes in brightness to determine rotation periods, size, shape and color.
3. Polarimetry – The impact of light onto surfaces and its passing through atmospheres polarizes the light, that is, it severely restricts the infinite number of planes that normal electromagnetic oscillations undulate in. This is especially useful in study fine particle distributions.
4. Astrometry – By measuring accurate positions in the sky one can determine orbital properties which can possibly lead to the masses of interacting bodies.

The first robotic explorers of the Solar System extracted data in brief fly-by missions but had the versatility of visiting many worlds. The next generation of explorers was orbiting missions where extensive studies

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The Quest to Know... from previous page

were undertaken to be terminated by an exhaustion of fuel of budgetary support. The next step was to engage in surface landings and to develop robotic spacecrafts that could deliver a sensor probe to directly study atmospheres and surfaces. Robotic explorers that could rove around on a planet's surface were the next step in the evolution of exploration. The planning boards are now full of sample return missions. This started with the Apollo missions that brought back over 1000 lbs. of Moon rocks. Lunar and Martian meteorites turned out to be a freebie in this area. Future missions include sample returns from Mars, comets and asteroids. The last step may be actual human exploration starting with the surface of Mars.

After 40 years of robotic exploration and almost as many robotic missions, have we learned anything about our solar realm? One of the most important discoveries is that impacts are commonplace and were especially predominant during the first half billion years of the history of our Solar System. Cratering on solid surfaces can immediately determine if a surface is young or old and consequently how geologically active the surface is. A second discovery is volcanism. Volcanism includes molten rock (lava), water ice, sulfur fumes and liquid nitrogen. Volcanic surface activity is dictated by how heat is generated and dissipated by the interior of a body, which will then lead to knowledge of the extent of differentiation within the body. The final lesson learned is that the history of each body is unique and that there are few generalizations that can be used for "comparative planetology".

What is in store for the future of planetary exploration? Recently we have seen the drawbacks of NASA's "smaller and more efficient" philosophy but it still seems to be the way of the future. The Mars Surveyor program is using a series of similar robotic explorers so that one does not have to "reinvent the wheel" every time a new mission and robotic explorer is designed. NASA's Discovery missions are specifically challenged to examine the origins of our Solar System and to search for evidence of life. Presently budgetary battles keep vacillating between a Pluto/Kuiper Express mission to study the last unexplored planet Pluto while it is still close to the Sun and/or a Europa Orbiter/Probe mission to explore the possibilities of liquid water oceans beneath Europa's icy surface and the possibility of life there. Whatever the future, it seems assured that our knowledge of our Solar System will continue to increase at an exponential rate.

Drinking Moonlight From My Cup

by John Blubaugh

As I walked into the kitchen, I decided not to turn on the lights. That, as it turned out, was the right thing to do, or else what I saw would have gone unnoticed. It was a day or two after Christmas, and it was after midnight.

Only while drinking a glass of water did I notice it. It was beautiful. At first, I didn't know exactly what it was. It was light. The light I saw wasn't shining on the floor, or in the sink, or on a wall, but it was coming from the water I was drinking while standing at the sink below the window in the darkened kitchen. It was a soft and pale blue light with a tinge of white. Inasmuch as I was holding that glass of water, I was also holding that light. And I was drinking that light. I had never experienced anything quite like this before. I peered out of the window but noticed no artificial lights that could be causing such a phenomenon.

Then I looked up.

It was sunlight. How could this be since it was after midnight? The light I was seeing was indeed from the sun, but it was reflected from the moon before it struck my glass and shone in the water I was drinking.

Outside of the window hanging in the west, and above my line of sight, was an 11 day old gibbous moon. The moon was perfectly situated to shine through a small unobstructed patch of the sky and strike the glass of water I was drinking. If the time were slightly different, or had I not been standing in the right place, or had the room not been darkened, or the glass filled with water, the light would have gone unseen and the beautiful effect would have been unnoticed.



One does not need much to notice the beauty of the sky. Sometimes, one simply needs a darkened room and a glass of water to appreciate the beauty of the moon's light. By the way, moonlight tastes great.

***Minutes of the General Membership Meeting
of the
Houston Astronomical Society
1 March 2002.***

The Meeting was called to order at 8:03pm.

A welcome from president Kirk Kendrick was given.

The call for new members brought two respondents. The first was Karen Johnson, who found out about the H.A.S. through the Meade Telescope Web Page. The second was Tom McLaughlin who found the H.A.S. through the H.A.S. website.

There were approximately five visitors present.

The announcements were as follows:

- The Board Meeting will take place on March 28 in Space Science 106, Rice University.
- Marge Nunez gave a brief banquet report—73 attended the event, which went well and featured Dr. Everett Gibson who spoke about Life on Mars.
- Steve Goldberg announced that the TSP is full for this year, capped at 650 people.
- James Wooten announced the Sun-Earth Day at the Museum of Natural Science on March 23, and requests volunteers who have telescopes and filters to set up for public viewing to come between 10am and 4pm.
- Art Ciampi reveals a poster-sized image of the Andromeda Galaxy—a very beautiful color image obtained with a CCD and a 4-inch telescope.
- Judy Dye presents the logo sales and features sweaters, 2002 Almanacs, and extra Guidestars
- Michael Dye reported the replacement of damaged lights at the Dark Site last weekend by a group of 60 boy scouts. The scouts installed 9 lights along the pathway to the Rest Rooms and leading to the exit of the site.

Minutes of March Meeting... from previous page

- Kirk Kendrick issued a call for slides from anyone who wants to show them after tonight's main speaker.
- Rusty Fletcher shared information about a website, galaxies.com, which shows images that demonstrate what a 5-inch scope and a CCD can do. The images are those of his friend Dean Sulmona.

The featured speaker of the evening, Vice President Bill Leach, gave a talk, entitled "Interstellar Medium", which went into detail about the physics and dynamics of the interstellar medium.

Scott Mitchell provided a preview of upcoming talks to include the following. In May, Reggie Dufour of Rice University will speak on the same topic he will speak on at the TSP. John Blubaugh has secured a speaker for April, Brother Guy Consolmagno, Vatican Astronomer, who will give a talk entitled: "The Vatican Observatory: Why Does the Pope have an Astronomer?"

The membership took a ten minute break at 9:18pm.

The drawing for door prizes followed the break, then the meeting adjourned at 9:37pm.

Dear Fellow Astronomers,

Last night we had our annual HAS banquet and we were treated to a great time and a very interesting talk by Dr. Everett K. Gibson Jr, "The Search For Life On Mars: The Inside Story".

Our thanks to all that made the banquet a success. I had a great time. Here are some photos that I shot and have posted on my new web site. Feel free to share and print if you would like:

<http://home.houston.rr.com/kfrancis/images/HAS%20Banquet/>

Kent Francis

Vatican Astronomer

at April 5 Meeting

This month, we will welcome a special guest to the HAS. **Brother Guy Consolmagno** SJ of the Vatican Observatory will deliver a talk entitled: "The Vatican Observatory: **Why Does the Pope Have an Astronomer?**" An abstract follows.

The myth that science and religion are naturally opposed has only been around since Victorian times, while in fact the Church has supported astronomy through most of its history... and not only to be able to set the date of Easter! Br. Guy Consolmagno, an astronomer at the Vatican Observatory and curator of the Vatican's meteorite collection, will describe the history of his institution from the days of Gregory XIII's reform of the calendar, to Galileo's triumphs and trials, the mapping of the Moon and the solar observatories in cathedrals, Fr. Angelo Secchi and the birth of astrophysics, and the modern re-founding and work of the Observatory over the last 100 years.

Brother Guy Consolmagno SJ, was born in Detroit, Michigan, obtained his BS (1974) and MS (1975) degrees in Earth and Planetary Sciences from MIT, and his Ph. D. in Planetary Science from the University of Arizona in 1978. From 1978-80 he was a postdoctoral fellow and lecturer at the Harvard College Observatory, and from 1980-1983 continued as a postdoc and lecturer at MIT. After a stint in the US Peace Corps (Kenya, 1983-85) he became an assistant professor of physics at Lafayette College, in Easton, Pennsylvania. He entered the Jesuit order in 1989, took vows as a Jesuit brother in 1991, and joined the Vatican Observatory in Castel Gandolfo (Vatican City State) in 1993 where today he is curator of the Vatican meteorite collection.

His research explores the connections between meteorites and asteroids, and the origin and evolution of small bodies in the solar system. He divides

Continued...

Vatican Astronomer... from previous page

his time between Tucson, Arizona, where he observes asteroids and Kuiper Belt comets with the Vatican's 1.8 meter telescope on Mt. Graham, and Castel Gandolfo. In 1996, he spent six weeks collecting meteorites with an NSF-sponsored team on the blue ice regions of the East Antarctica ice cap. In 2000, the nomenclature committee of the International Astronomical Union named an asteroid, 4597 Consolmagno, in his honor in recognition of his work in the field of asteroid and meteorite studies.

Along with over 100 scientific publications, he has written several popular books. His most recent is *Brother Astronomer: Adventures of a Vatican Scientist* (McGraw Hill, 2000). His popular telescope guide, *Turn Left at Orion* (with Dan M. Davis; Cambridge University Press) was a science best seller at amazon.com for the year 2001.

Br. Consolmagno will speak on Friday, April 5, 2002 at 8 pm in room 117 of the Science and Research Bldg. (the usual location) off entrance 14 at the main campus of the U of H. Please join us for what promises to be a rare opportunity to hear from one of the "Pope's astronomers."

Observations... from page 4

it to amateurs who are beginning a serious observing program. The book tells you how to find objects in the night sky, and describes the object to you.

Often times what we see in the telescope disappoints, because we're expecting the full-color images that appear in books and magazines. For me, though, it is the knowing that I'm seeing a distant object 'live' that makes observing fun. Knowing something about the object I'm looking at only enhances the experience.

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

..Bill

Novice Star Party

By George Stradley, Novice Program

The Novice Section is planning a Star Party for April 13, 2002 at Ken Miller's Hockley property.

The activity will differ from other star parties in that its objective will be instructional; rather than cause for a day's outing.

Plans are to observe as a group from a prepared program so that novices can get a grasp of observing fundamentals. Instruction will be offered as needed by experienced HAS members.

We will get underway about 4:00 pm to allow time for setup, finder alignment, collimation, etc. and perhaps do a little solar observation (be sure to bring your solar filter or your projection screen!!!).

The structured program should complete about 10:00 p.m. at which time we will adjourn.

If seeing turns out to be exceptional, however, participants may choose to observe on their own a little longer.

The event is limited to HAS members and their families and those with experience will be expected to offer assistance to those needing it. Attendance by younger children is discouraged.

We will have a "fallback" date of April 20, should the weather fail to cooperate.

Program details and directions to the site will be posted on the HAS website in the next few days.

Contact George at: stradley@hal-pc.org

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://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>

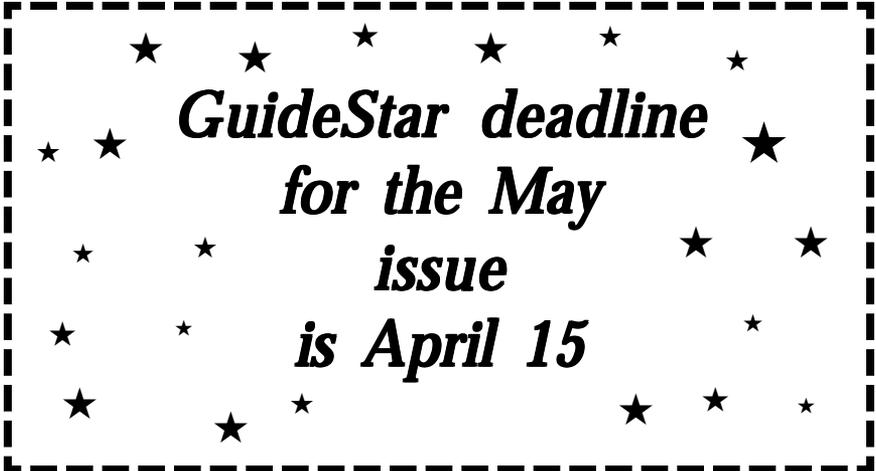
North Houston Astronomy Club meets at 7:30 p.m. on the 4th Friday of each month in the Teaching Theatre of the Student Center at Kingwood College. Call 281-312-1650 or E-mail bill.leach@nhmccd.edu. Web site: www.astronomyclub.org

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@sccsi.com. (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 May
issue
is April 15***

Observatory Duty Roster

by Michael B. Dye, *Observatory Chairman*

This is the duty list for April, May and June. Some names may have been 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.

Please Note new dates for Members Observatory Night. Prime Night is the 13th of April

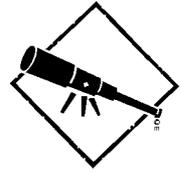
April Supervisor Dana Lambert 281-599-0248
Rusty Flecher Members Observatory Night 04-06-02
Fred Garcia Members Observatory Night 04-06-02
John Garza III Site
Clifton Goldman Members Observatory Night 04-06-02
David Granadino Site
David L. Herlinger Site
Gary Hlivko Site
Clayton L. Jeter Site
Stanley G. Jones Site

May Supervisor Cooper Walls 713-461-9590
Keith A. Jurgens Site
Arnie Kaestner Site
David Kahlich Members Observatory Night 05-04-02
Bill Krell Site
Howard Leverenz Site
Jay E. Levy Members Observatory Night 05-04-02
Mary Lockwood Members Observatory Night 05-04-02
Chris Mendell Site
Robert C. Menius Site

June Supervisor Matt Delevoryas 713-662-2939
Larry Mitchell Members Observatory Night 06-01-02
Jeff Moore Site
Debbie Moran Site
Mark Mulrooney Site
Ben Negy, Jr. Members Observatory Night 06-01-02
Johnny Norris Site
Richard Nugent Members Observatory Night 06-01-02
Ralph Overturf, Jr. Site
Don C. 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.

Observatory Corner



By Michael B. Dye Observatory Chairman



I would like to thank Kirk Kendrick for spending a cold Sunday afternoon at the Observatory Site fixing the Observatory Site pump on March the 14th of this year. We had received reports that the pump was not working correctly. It seemed to be surging and causing the lights to flicker in the bathroom. In fact the problem was that the Surge Tank that is in the Pump House was out of air. The surge tank works by having a pocket of air at the top of the tank that absorbs the surges in the pipelines as the well pump pulls water up from the ground. Anyway, the air pocket disappeared (actually the air is slowly absorbed into the water after a time) and we needed to pump air back into the surge tank. It seems that this problem is allowed for as the tank has an air valve (like the valve on a car tire) at the top of the tank so that we can inject air into the tank. Anyway Kirk was able to use a small compressor that he had brought with him (some forethought on his part) to inject air back into the nonexistent air pocket in the surge tank. Problem solved. Many thanks Kirk.

The Observatory played host to sixty Boy Scouts and their parents on the weekend of February 22nd through the 24th. On Saturday, the 23rd, the Scouts and adults divided up into various teams and one team installed new road lights along the left edge of the exit road and along the sidewalk from the road to the bathrooms. The new road lights are about three feet off the ground and set back about two feet from the left edge of the road. Another team of scouts removed and cut up the dead tree just northeast of the bathroom. The last team smoothed out the holes in the site road using dirt from the gopher mounds.

After the work was done and night fell, Bob Rogers and Rusty Fletcher treated the scouts to views of the night sky using the C-14 and F-5 in the Observatory. Bob and Rusty showed them (the Scouts and adults) Jupiter, Saturn, the Orion Nebula, the Pleiades and the Moon. One of the adults worked on the Astronomy Merit Badge with the Scouts. The Boy Scouts were from Troop 404, Pack 404, Pack 409 and Pack 414. The Scout Troop

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and Cub Scout Packs were from Pearland. In keeping with my past practice of listing the names of all the people who volunteered to work at the Observatory Site, I am listing the Scouts here.

Troop 404

Scouts: Ethan Cobble, Anthony Maldonado, Cody Jones, Frankie Lerma, Destin Moody, Riley Amick, David DeWitt, Michael Adams, Joe Calderon, Robert Williams, Joshua Williams, Taylor Martin, Michael Parker, Glen Adams, Brandon Epperson, Brian Epperson, Travis Wilson, Jared Bullock, Dewayne Hendricks and Michael Stephens.

Adults: Jimmy Cobble, Richard Parker, James Jones, Artie Jo Wilson, Patty Moody, Jay Epperson, Rosemary Epperson, Troy Bullock, Joe Calderon Sr., Bertha Calderon, Lloyd Stephens and Kevin Stephens.

Pack 404

Scouts: Jacob Barger, Richie Harper, Jordan Chitwood and Jeremy Carrette.

Adults: Phil Barger, Richard Harper, Randy Chitwood and Ed Carrette.

Pack 409

Scouts: Kyle Osborn, Evan Mills, Chris Mills, Stephen Gordon, Jeremy Gordon, Colton Schilhab, Eric Lerma and Ray Villarreal Jr.

Adults: Ray Osborn, Roger Mills, Marian Mills, George Gordan, Scott Schilhab, Frank Lerma, Eva Villarreal and Dianna Villarreal.

Pack 414

Scouts: William Haviland & Arthur Amick.

Adults: David Haviland & Phil Amick.

I would like to take this spot to thank one of our unsung heroes of the Observatory Site. This hard working person cleans the bathrooms,

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restocks the toilet paper and paper towels and mows the grass (when it grows) around the pads and picnic area. This unsung hero is Ed Szczepanski. We thank you Ed.

Late breaking news (actually Bob Rogers called me from the Observatory Site while I was writing this article). The flashing white light that was on the tower just north of the Observatory site is (1) no longer flashing and (2) no longer white. Bob just reported that the light is now red and does not flash. The light is a white strobe during the day however. One more annoyance is gone.

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.

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.

Observer's Handbook

Get ready for the 2002 observing season by getting your copy of the Observer's Handbook at the next meeting. This book will be your constant observing companion for the year. All of the important astronomical events for the year are included in this guide.



Don't miss a big event because you weren't prepared. Get your copy from Judy at Logo Sales at the next meeting. They won't last forever, you know!!!

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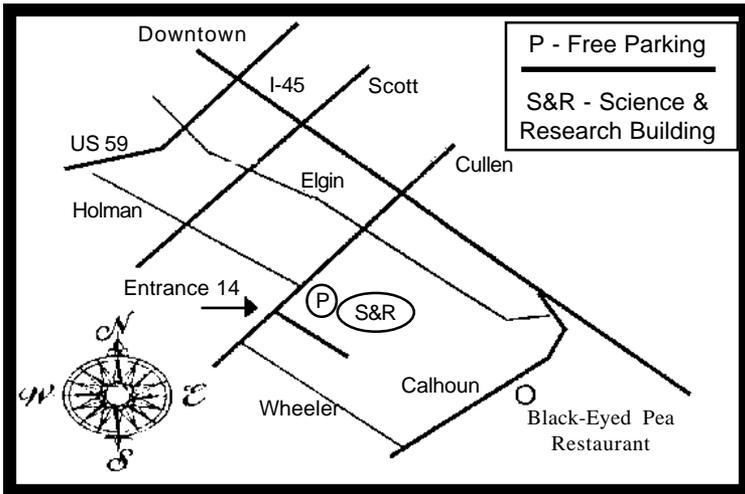
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Hooded Sweatshirts

M	\$31.00
L	\$31.00
XL	\$31.00
XXL	\$33.00

These are the prices for our new hooded sweatshirts. These are made from heavy sweatshirt material and were very popular at the previous meetings. If you want one, come to the meeting -- cash and checks accepted.





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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