



March, 2002

At the **March 1** meeting...

Bill Leach

***The Interstellar Medium
Just how empty is space?
How much matter is in the universe?***

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.

Table of Contents

4	Observations of the Editor	16	Membership Renewals
5	Meeting notice		Other Meetings
6	March/April Calendar	17	HAS Web Page
7	Minutes of February Meeting	18	Observatory Duty Roster
9	Minutes of January Meeting	19	Collision Earth!
11	Planet X	20	Observatory Corner
12	Vatican Astronomer	22	Observer's Handbook
13	China Plans Moon Landing		Logo Sales
14	Moon Flashes		
15	Kent Francis Images		

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 know that it's only February (as I write this), but I'm starting to get excited about the Texas Star Party coming up in May. Last weekend, I was daydreaming (nightdreaming?) about observing under the dark skies of west Texas. I was asking myself questions, such as:

- What telescope should I take?
- What observations should I work on?

If you're going to the Star Party, it's probably not too early to begin your trip planning. Observing runs are always better when you've done the planning necessary to make it easy. Let me give you an example... I like to observe variable stars and visually estimate their brightness. In advance of doing this, I will check to see which of the stars that I observe regularly will be 'up' during the observing window of, say, 8:00 p.m. until 3:00 a.m.

I then review the AAVSO literature (American Association of Variable Star Observers) and see which stars are likely to be bright enough to be viewed with the equipment I have. Stars that are shining at 13th magnitude won't be visible in a small telescope, for example.

I then make sure that I have taken the reference stars from the AAVSO maps and entered the star magnitudes into my sky mapping software. This software allows me to match the view in my eyepiece exactly, and makes finding the candidate stars much easier. Entering this information into the software is easily done in a nice warm house, but not much fun in the field when I'd rather be looking through the telescope than at the computer screen.

There will be some observing programs at the Star Party as well, and these will be fun to complete. Most of all, having a week in the field with other folks with similar interests is hard to beat.

Continued on page 13...

Houston Astronomical Society

***Meeting Notice
For Friday, March 1, 2002***

***Bill Leach
H.A.S. Member***

The interstellar medium. What's really out there between all the stars, planets, and illuminated dust clouds? What does the interstellar medium tell us about the history of the universe and about the future of the universe? Is the density of the medium high enough to cause the universe to re-collapse into a "big crunch"? These and more issues will be discussed by fellow member Bill Leach at the March meeting.

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.

March:	Don Pearce -- "Comets"
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.**

March/April Calendar:



Photo by Scott Mitchell

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

1	7:00 p.m.	Novice Presentation - U of H. "Comets" (by Don Pearce)
	8:00 p.m.	General membership meeting U of H.
5	7:24 p.m.	Last Quarter Moon
9		Prime Night-Columbus
12	7:30 p.m.	Advanced SIG Mtg. Rice Univ., contact Matt Delevoryas, 713-795-0808
13	8:03 p.m.	New Moon
14-17		Kisatchie Star Party—Baton Rouge Astronomical Society; see www.eatel.net/~weinell
16		Members Observatory Night
20	1:16 p.m.	Spring Equinox-sun moves north of celestial equator
21	8:28 p.m.	First Quarter Moon
28	7:30 p.m.	Board meeting SS106 at Rice University entrance 13
	12:25 p.m.	Full Moon

April 2002

4	9:29 a.m.	Last Quarter Moon
5	7:00 p.m.	Novice Presentation - U of H. "Navigating the Virgo Messiers" (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		Members Observatory Night
12	2:21 p.m.	New Moon
13		Prime Night-Columbus
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

GuideStar, Page 6

Send calendar events to JBlubaugh@aol.com

or call 713-921-4275.

***Minutes of the General Membership Meeting of the
Houston Astronomical Society
01 February 2002.***

by Brian Cudnik, Secretary

The Meeting begins at 8:03pm.

President Kirk Kendrick gave the opening announcements, including a substitute treasurer for the evening, Matt Delavoryas, taking the place of Debbie Moran who was unable to be at the meeting this evening.

A summary of the board meeting of 31 January was also discussed:

- The General Meeting will follow a new format, made possible by the novice meeting ending at 7:45pm
- The Speaker will begin at 8:30pm and will be given 45 minutes, followed by a time of questions and answers.
- A break for 10 minutes will take place at 9:30pm, followed by an audio-visual session of members' slides.
- The Door Prize drawing will follow the A/V presentations
- The goal is to end the meeting by 9:45pm, no later than 10pm.

Marge Nunez introduced the banquet, to take place on February 23, at the Marriott at West Loop South (San Felipe & 610). The cost, \$24 per person, includes everything. The speaker for the evening will be Dr. Everett Gibson. Deadline for registration is February 20, and the forms are to be sent to the H.A.S. P.O. Box address.

James Wooten announced the Museum's Sun-Earth Day and made a call for volunteers to show people the Sun through their telescopes. People with Hydrogen-alpha filters were especially encouraged to volunteer. The event will occur Saturday, March 23, between 10am and 4pm.

Continued...

Minutes of February Meeting... from previous page

Kirk Kendrick announced the Members Observatory Night the next night (February 2), but added that the weather forecast did not look good for the event.

Judy Dye talked about logo sales and featured a hooded sweatcoat and the 2002 Astronomical Almanac. A suggestion for a women's windbreaker was raised by the membership, but Judy warned of the high prices of such requests. To reduce the price, a minimum of a dozen or so items must be ordered by the membership; two-dozen is a more favorable number.

Don Pearce announced that the Comet 2000WM1 LINEAR is in outburst, peaking at Magnitude 2.8, but is confined to the southern hemisphere (it rises for Houston at 7:30am and sets by 3:00pm). The comet passed perihelion on January 22 and is currently 1.1328AU from the Earth, 0.61248AU from the Sun. Another comet may be more spectacular in 2004 for local observers, the comet C2001Q4 (NEAT).

The Call for New Members produced 2 responses.

The Call for Guests produced a few responses

Leland Dolan announced the occultation of Saturn by the Moon to occur on 20 February.

A question about the Texas Star Party Lottery was raised by the membership. The answer given is that this will be done when the Goldbergs return from England.

Don Pearce introduced the speaker for this evening: John J. Matese gave a talk entitled "The trans-Neptunian Comet Belt (or) The Leonard-Edgeworth-Kuiper-Cameron-Whipple Comet Belt"

The talk is followed by a time of Q & A.

Marge did the raffle for door prizes.

The Meeting was adjourned at 9:43pm.

Minutes of the General Membership Meeting of the Houston Astronomical Society 04 January 2002.

by Brian Cudnik, Secretary

The Meeting began at 8:03pm with an introduction by President Kirk Kendrick, who provided a preview of this evening's meeting. Information about the club and the observatory was given, including details about the training required to use the Dark Site. The Novice Meeting was also announced.

The Call for New Members produced 2 responses.

The Call for Guests produced a large number of responses

The following acknowledgements and announcements were made:

- Don Pearce received a plaque of appreciation for his years of service to the Society, 1998-2000.
- Steve Goldberg announced the Texas Star Party, providing information about the star party, and then taking questions from the membership about the event.
- July Dye announced the H.A.S. logo sales and the Observer's Handbook 2002 sales.
- Don Pearce "sneaked in" a comet announcement concerning Comet LINEAR 2001 WM1. He described future observing opportunities as well as the comet's appearance from his home in Houston in December. He then encouraged the purchase of the **Observer's Handbook 2002**.
- President Kirk Kendrick encouraged the membership to view Jupiter and Saturn
- Marge Nunez announced a star party to be held Friday January 11, at 7:30 pm at a school near San Felipe and Sage
- She also announced the availability of "unusual" (middle-Eastern) snacks during the break in honor of our middle eastern guests
- Kirk followed this up by elaborating about the star party

Continued....

Minutes of January Meeting... from previous page

Scott Mitchell introduced the evening's speaker, Dr. Zoubi-Bouchikhi, who gave a talk entitled "Contributions of Muslim Scholars to Astronomy". A question-and-answer session followed.

President Kendrick announced the Board Meeting to take place in the Duncan Hall room 1064 the last Thursday of this month.

Don Pearce shared that Dr. Maltese from the University of Louisiana-Lafayette, will speak at next month's meeting about "comets, meteors, and the like".



A break in the meeting took place at 9:05pm.

Larry Mitchell introduced a video clip from the National Geographic Show about Steve O'Meara's expedition to Mt. Stromboli, Italy, to study the effect of the Moon's gravity on this volcano.

Marge held the raffle for door prizes.

The Meeting was adjourned at 9:43pm.

The Planet X - Asteroid Belt Connection

by John Lane

Has anyone ever asked you if there is a 10th planet? Maybe they refer to it as Planet X because The International Astronomical Union has never assigned it a name. For example I recently meet someone who was quite convinced that the Asteroid Belt was the shattered remains of two planets that recently (in the last 100,000,000 years) collided with each other.

The recent-collision theory would give credit to the idea that the shattered debris found in the asteroid belt would not have had time to accumulate and form a larger solid body. Much like our own Moon did after the alleged Mars sized Asteroid impact with Earth billions of years ago.

After doing a little research on the asteroid belt, I discovered that if you add up all the mater in it, you would not get enough to equal the size of Rhea, Saturn's little moon. Also, microscopic study of meteorites from the Asteroid Belt revealed that most meteorites come from six distinct families. Perhaps this is evidence of six different larger bodies that collided, billions of years ago forming what we now know as the asteroid belt. But, if these six bodies did exist, they were smaller than what we now call planets.

Moon Occults Saturn, February 20

by Bill Pellerin, GuideStar Editor

Just a quick note as I finish the *GuideStar* for this month. I was able to see the occultation of Saturn by the moon and its reappearance from my back patio tonight. The occultation began at about 5:29 p.m. and ended at about 6:58 p.m. The sky was very crisp and clear and afforded a nice view of the event. Notable, of course was the visual size of the two objects and the apparent brightness.

I used an inexpensive 80 mm refractor for this observation. I hope you got to see it! We may have some photos from Kent Francis next month!

Vatican Astronomer

to speak in April

In April, 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

One thing I do before I leave.. I set up my observing equipment in the backyard (or living room) just as though I'll be observing at the Star Party. This helps assure me that I have all the bits and pieces that I need for the trip. Once I'm convinced I have all my equipment in order, I take it down and pack it for the trip. I may even take a small, 'backup' telescope that I can use in the event that something happens to make the big telescope unusable.

Get ready!!!

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

..Bill

Flashing Light Phenomena Observed on the Moon

By John Lane

It's called the 'Lunar Transient Event,' and when I first read about this it almost took my breath away. Since it is new to me, I decided to pass on any information that I could dig up to you. I hope this will increase your interest in observing the Moon. But first; please be warned! If you never heard of the Lunar Transient Event, or if you thought the Moon was geographical dead and blasé, please sit down. I wouldn't want you to pass-out standing up.



Lunar Transient Events are, quite simply, bright flashes of light (sometimes reddish) near what appear to be cones. They are also not necessarily confined to one geographical area. There have been around 100 reported sightings by mostly seasoned amateur astronomers. Many reports suggest that the center of the crater Aristarchus is also known for this kind of phenomena. Some astronomers suggest that the flashes of light could be the venting of gas associated with volcanism. Other astronomers hypothesize that it could be a piezoelectric effect or even meteor impacts.

If you're like me, you went through life with the assumption that the Moon is a geographical dead place. Compared to Earth it probably is. On a closing thought; many years ago, one of the Apollo missions left behind instruments that detected as many as 3000 minor quakes on the Moon. These minor Moon quakes have been attributed to tidal forces. Could this also somehow be related to the Lunar Transient Events? If you have ever witnessed a Lunar Transient Event please e-mail me at, *John.J.Lane@NHMCCD.EDU*, and tell me all about it. For more information on this phenomena; check out the reference material listed below.

Reference Material:

1. Cameron, W.S., 1978, *Lunar Transient Phenomena Catalog. NSSDC, 78-03.*
2. Kolovos, G., 1992, *Icarus 97, 142.*
3. <http://itss.raytheon.com/cafe/qudr/q955.html>
4. <http://itss.raytheon.com/cafe/qudr/q759.html>
5. http://www.gbnet.net/surf/surf_95/Jet_Propulsion_Lab/Lunar_Transient_Events.html
6. <http://members.evansville.net/slk/lunascan.html>

Kent Francis Images

Here are some new pictures shot at the NHAC site on Saturday Feb 16, 2000 with my new Takahashi EM-10 GEM and Televue TV-85, and SBIG STV. I am very impressed with the EM-10 mount and as you can see from the picture of M42, the Great Orion Nebula, the stars are round, just like they are supposed to be. I had a lot of fun shooting Jupiter, Saturn, the Moon and M42. Hope you enjoy them. I am starting to work now with my SBIG ST-237 with Color Filter Wheel, so maybe next month.....



M42



Moon



Saturn



Jupiter

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>

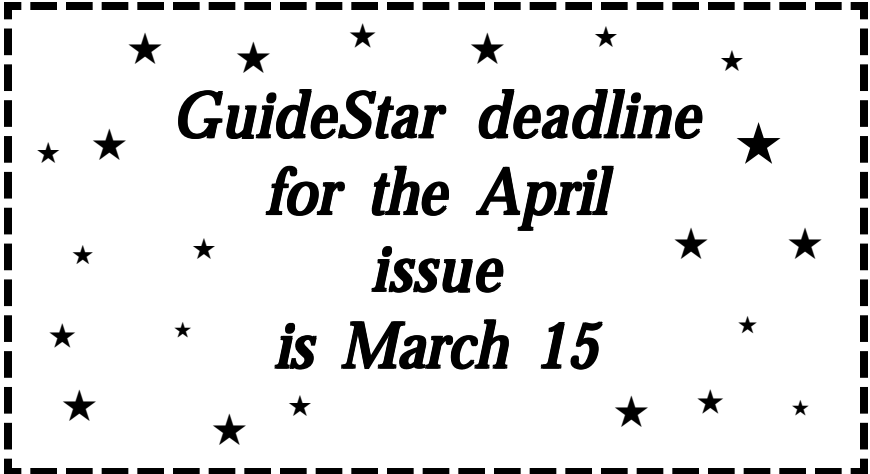
North Houston Astronomy Club meets at 7:30 p.m. on the 4th Friday of each month in the Teaching Theatre of the Student Center at Kingwood College. Call 281-312-1650 or E-mail bill.leach@nhmccd.edu. Web site: www.astronomyclub.org

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 April
issue
is March 15***

Observatory Duty Roster

by Michael B. Dye, Observatory Chairman

This is the duty list for March, April and May. 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.

March Supervisor.....Matt Delevoryas 713-662-2939
Art Ciampi Site
Brian Cudnik Site
George Dolson Members Observatory Night 03-16-02
Den Drake Members Observatory Night 03-16-02
Mark Egan Members Observatory Night 03-16-02
John Fennel Site

April SupervisorDana Lambert 281-599-0248
Rusty Flecher Members Observatory Night 04-13-02
Fred Garcia Members Observatory Night 04-13-02
John Garza III Site
Clifton Goldman Members Observatory Night 04-13-02
David Granadino Site
David L. Herlinger Site
Gary Hlivko Site
Clayton L. Jeter Site
Stanley G. Jones Site

May SupervisorCooper 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

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.

Collision Earth!

By. John Lane

Should we feel threatened by what's hurling around in outer space? Probably not, but it's sobering to know just how vulnerable we are. I heard it once said that there is a 1 in 100,000 chance that a major impact will hit us within our lifetime – odds that are frighteningly short on a cosmic scale. I believe that there is a way to reduce the odds, which I will elaborate on later. But first, take a look at the chart below. I've borrowed this abridged list out of Peter Gregor's book, *Collision Earth*, (104). It lists a few near-Earth approaches by asteroids:

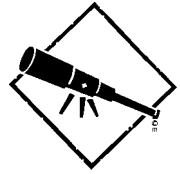
Asteroid Date (dmy) Distance (AU)

1991 VK	16/1/02	0.0718
4660 Nereus	22/1/02	0.029
5604 1992 FE ...	22/6/02	0.0768
1990 SM	17/2/03	0.0747
1991 JX	20/5/03	0.0923
1994 PM	16/8/03	0.0246
1990 OS	10/11/03	0.0304
1995 CR	29/12/03	0.0637
6239 1989 QF ..	2/2/04	0.0564
4179 Toutatis ...	29/9/04	0.0104
1988 XB	21/11/04	0.0729
1992 BF	3/3/05	0.063
1993 VW	24/4/05	0.0862
1992 UY4	8/8/05	0.0402
1991 RB	13/9/05	0.0785
1862 Apollo	6/11/05	0.0752

(AU- Astronomical Unit – equal to the Earth's average distance from the Sun, some 149,598,000 km).

Continued on page 21....

Observatory Corner



By Michael B. Dye Observatory Chairman



This year the Annual Picnic at the Observatory Site will be on September 28th. This will be, of course, the same night as Members Observatory Night. The members of the Observatory Committee discussed the Annual Picnic at the last Observatory Committee meeting. The major consensus was to have the Picnic on Members Observatory Night (as usual) and request that attendees donate a small amount of money (from three to five dollars per attendee). The later request for a donation is a change from the last few years where the Observatory Committee supplied the meat, food, supplies (condiments / plates) and drinks. The Committee will still supply the meat, supplies, drinks and some food, for this year's picnic. We are going to ask that attendees bring one of the following, chips (appetizers), covered dish for about seven to ten people or a desert. I will try and remind everyone about the picnic in July and August in order to find out how many people will be attending.

Last month I announced that we were changing the number of Observatory Key holders that would be selected to perform Observatory Site duty each month. We (the Committee) determined that we could use seven members performing Site Duty each month for the summer months (April through October) and only three for the winter months (November through March). The number of Key holders working on Members Observatory Night would remain the same. I took a second look at the number of key holders working on Site Duty for the summer months and decided that seven may be a bit excessive. Subsequently I decided to reduce the number to six Observatory Key Holders to be selected for Site Duty during the summer months. I am making this change retroactively to start in April. I have moved some names around in the April list to conform to this new policy and to remove some members who were no longer members of the Houston Astronomical Society.

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.

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.

Collision Earth... from page 19

Giving an account of what meteors have hit his native United Kingdom, Gregor states "There have been 24 recorded meteorites fall in the British Isles since the seventeenth century - eight in Ireland, three in Scotland, two in Wales and eleven in England". He also said that "this distribution is a fair meteoritic sprinkling, considering the surface area and the population of each country" (68).

So, should all this destructive information give us cause to panic? Probably not for ourselves, because the odds of getting hit by one in own life span is very low. **However**, it is my opinion that the human race should be concerned about the future of our children, grandchildren and all of our descendents. Comanche chiefs and spiritual leaders once counseled their people to do good deeds that will benefit your descendents for at least 7 generations. This noble council should encourage humanity to seek out and stop any potential incoming danger. If I could wish anything upon a shooting star, I would wish for that; because the next shooting star we wish upon may be the one we wish we had never seen.

Grego, Peter Collision Earth. London: Blandford, 1998.

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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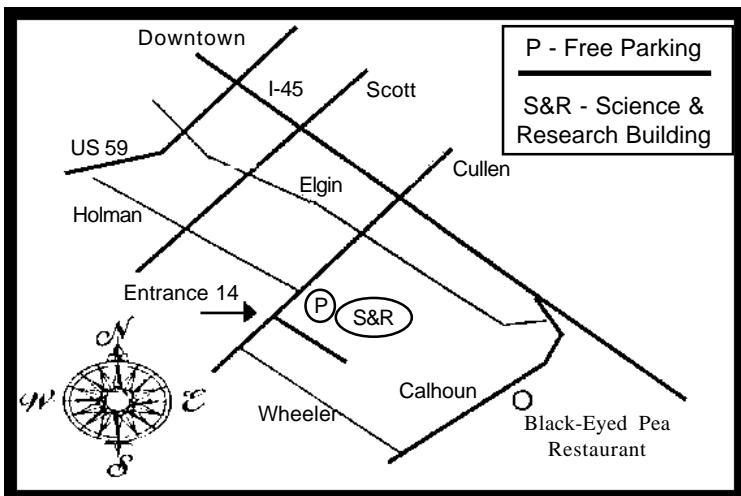
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Hooded Sweatshirts

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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