

# GuideStar

January, 2006

*At the January 6 meeting...*

## Larry Mitchell

### The Arp Controversy Revisited - Round II

*Dr. Pinsky presented a point of view that suggested that Dr. Arp was wrong in his conclusions- Larry will present a different viewpoint in regard to the Arp thesis.*

*Dr. Arp was a speaker at the Texas Star Party in 2005. His idea is that the universe is continually creating matter and believes that some Quasars are not as far from us as their redshift would have us believe. There is an property of the Quasars that causes the large redshift, according to Dr. Arp.*

### Highlights:

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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.

### 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.  
Amelia Goldberg -- "Universe Sampler"

Site orientation meeting: ..... 7:00 p.m.  
Classroom 121

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

See last page for a map and more information.

## 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: Steve Sartor .....H:281-370-3544  
 Vice Pres: Bill Leach.....H: 281-893-4057  
 Secretary: Doug McCormick.....H:  
 Treasurer: Bill Flanagan .....H:713-699-8819

### Additional Board Members

	Liaison responsibility
Steve Goldberg.....713-721-5077	
Don Pearce.....713-432-0734	
Bob Rogers.....Field Trip and Observing, Program	
Kenneth Miller.....936-931-2724	
Allen Gilchrist.....	

### Committee Chairpersons

Audit .....	Tom Blocker .....	
Education.....	Susan Kennedy.....	281-376-3262
Field Tr./Obsg. ....	Clayton Jeter.....	
Novice.....	George Stradley.....	281-376-5787
Observatory.....	Kirk Kendrick .....	
Program.....	Don Pearce .....	
Publicity.....	John Missavage.....	
Telescope.....	Mike Hamlin .....	281-489-2926
Welcoming.....	Susan Kennedy.....	281-376-3262
	Darlene Sartor.....	281-370-3544

### Ad-Hoc Committee Chairpersons

Historian .....	Leland Dolan.....	713-688-0981
Librarian.....	Peggy Gilchrist.....	281-443-8773
Logo Mds Sales.....	Judy Dye.....	281-498-1703
Long Range Plan.....	Bill Leach.....	281-893-4057
Parliamentarian .....	Kirk Kendrick.....	281-633-8819
Publ. Star Party .....	Richard Nugent.....	713-524-1993
Rice U. Coord.....	Matt Delevoryas.....	713-666-9428
Schedule Obs'v'ty .....	Steve Goldberg.....	713-721-5077
Texas Star Pty.....	Steve Goldberg.....	713-721-5077

### 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.  
 Dr. Lawrence Armendarez, U. of St. Thomas

### Dues and Membership Information

Annual Dues:Regular .....	\$36.00
Associate .....	\$6.00
Sustaining .....	\$50.00
Student .....	\$12.00
Honorary .....	None

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 \$32.95/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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## 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 Leach.....	281-893-4057
Comets .....	Don Pearce .....	713-432-0734
Lunar & Planetary.....	John Blubaugh.....	713-921-4275
Occultations & Grazes.....	Wayne Hutchison.....	713-827-0828
Advanced.....	Bill Leach.....	281-893-4057

## 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.ghg.net/jscas/>

**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](mailto:bill.leach@nhmccd.edu). Web site: [www.astronomyclub.org](http://www.astronomyclub.org)

# January/February Calendar:



Photo by Scott Mitchell

**Date Time Event**

## January 2006

1	00:00 a.m.	Happy New Year!!!
3		Quadrantids Meteor Shower Peak
4		Earth at perihelion, closest to the sun
6	12:57 p.m.	First Quarter Moon
6	7:00 p.m.	Novice Presentation - UH
	8:00 p.m.	General membership meeting - UH
14	3:51 a.m.	Full Moon
22	9:15 a.m.	Last Quarter Moon
27		Saturn opposite the Sun
29	8:15 a.m.	New Moon

## February 2006

1		Saturn near the Behive (M44)
3	7:00 p.m.	Novice Presentation - UH
	8:00 p.m.	General membership meeting - UH
5	00:29 a.m.	First Quarter Moon
		Mars just south of Moon
12	10:44 p.m.	Full Moon
13	7:00 p.m.	Moon at apogee
24		Mercury at greatest eastern elongation
27	6:31 p.m.	New Moon

Send calendar events to [JBlubaugh@aol.com](mailto:JBlubaugh@aol.com)  
or call 713-921-4275.

Check the web site:

[www.astronomyhouston.org](http://www.astronomyhouston.org)

Webmaster: **Bob Rogers**

[siteworkerbob@hotmail.com](mailto:siteworkerbob@hotmail.com)

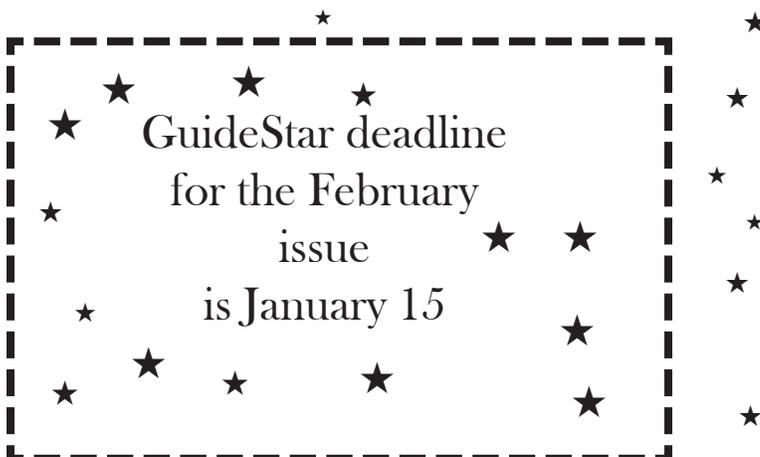
The Houston Astronomical Society Web page has information on the society, its resources, and meeting information.

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 [siteworkerbob@hotmail.com](mailto:siteworkerbob@hotmail.com).

## Special "Help" Volunteers

Any member who wants specific information on an astronomical topic may call special help volunteer (listed in most issues of the *GuideStar*). 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.

**At the HAS meeting, please remember to park across from Entrance 14.**



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## Observations... of the editor

by Bill Pellerin, GuideStar Editor



.....

### Happy New Year!!!

The holidays are (mostly) over by now and the decorations are put away (maybe). It's time to get the telescope out and do some serious observing. I'm not much for cold weather and for being outside with my ears, hands, and feet getting cold. The coldest weather I ever observed in, or tried to observe in, was 8 degrees F. This is far too cold for any enjoyment, as far as I'm concerned. I distinctly remember NOT enjoying the experience.

Observing is a fairly sedentary activity and so the air temperature doesn't have to be too low before it feels cold. It's not like dashing from the house to the car on a cold day; no, it's like setting up a stool in the driveway and sitting on it for a few hours.

If winter comes, can spring be far behind, they say. Truth is, winter has just begun officially. It begins officially at 12:35 p.m., central time on December 21, 2005. This is the moment of the winter solstice, the time at which is as far south as it gets. From then on, the sun creeps northward (for 6 months), and the days get longer.

In any case, I wish you the best for the new year - good observing, happiness, and health. I'll see you at the meeting!!

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### Welcome to our new Observatory Chairman...

Kirk Kendrick takes the reins as the new Observatory Chairman this year. This is a big job within the organization. It involves keeping the observing site and everything associated with it (observatory, rest rooms, road, etc.) in good order so that WE can enjoy using the site for observing. So, a big 'thank you' to Kirk. Please volunteer to help with this work and tell Kirk how much you appreciate his efforts.

Kirk has written an *Observatory Corner* article for this month's issue. Give it a read and see what the plans are for the coming year.

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### GuideStar schedule...

I'm going to be away for a couple of days (today's December 22), so I won't get the *GuideStar* out until Sunday, the 25th or Monday, the 26th at the earliest.

I hope that the *GuideStar* is still serving a purpose for our membership. In the 'old' days, we'd print and mail the *GuideStar* and it would show up in your mailbox.

Nowadays, it's a downloadable document on the web site. Much of what's in here could simply be posted as web content, and other items could be posted as individual pdf files. I'd like to hear any ideas you

have in that regard. How do you use the *GuideStar*? Do you download and print it? Do you read it on-line? Do you read it at all? What other technologies can we apply to getting information out?

### Possibilities:

RSS - real simple syndication -- text delivered to your computer via a RSS client. (If you haven't tried this go to:

<http://reader.rocketinfo.com>

...where you can try out an online RSS reader (free).

More content via the List Server (direct to your email-box).

Get back to us on this, ok?

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### Observing...

December 24th was clear and cool - perfect weather for observing. I set up my Losmandy GM8 and my TeleVue Pronto telescope (2.7" refractor) along with my DSI Pro imager and played around with this for a bit. As I've told you before, my goal is to be able to measure star brightness (photometry).

The good news is that I've got some good data. By which I mean that I have some good images of star fields. What follows is an analysis of a set of stars that are near M1. I've compared my measured magnitudes with the magnitudes in the Hubble GuideStar Catalog. Sometimes, my measurements are close, sometimes, they aren't. I can (potentially) attribute this

*Continued...*

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### Logo Sales

It is almost time to order the Observer's Handbooks for the next year. They will sell for approximately \$25.00. If you would like to order one or more, please e-mail me at [judyadye@aol.com](mailto:judyadye@aol.com), or call me at 281-498-1703. I would like to have some ideas as to how many to order.

## Observations... from previous page

error to undersampling (the star is not spread across



enough pixels to average out the error in any particular pixel). Otherwise, I don't understand the problem. This is a picture of several stars around

M1, and I can (barely) see M1 in the image, but it might not be visible here.

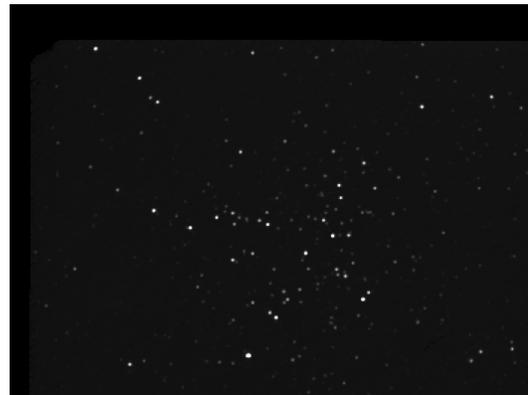
Anyway, here's my analysis of the star magnitudes in the image. As you can see the difference between

Comparison of measured values of magnitude			
Ref star is 9.19 SAO77297 (V filter in place)			
Star	TheSky	Measured	Difference
SAO77297	9.19	9.19	0
GSC1310:2140	10.41	10.532	0.122
GSC1309:1475	10.6	11.75	1.15
GSC 1309:1590	10.4	11.47	1.07
GSC 1309:1609	11.28	11.18	-0.1
GSC 1309:1579	9.69	9.69	0
GSC 1309:1624	10.1	11	0.9
GSC 1309:1632	11.1	11.8	0.7
GSC 1309:1519	10.31	10.147	-0.163
GSC 1309:1337	10.3	11.135	0.835

the GSC (Guidestar catalog) values and my measured values differs by up to 1.15 magnitudes. The average difference is just less than .5 magnitude. The star SAO77297 is my reference star, so I 'told' the system what the magnitude of that star should be. It doesn't matter which reference star I choose. Choosing another reference star simply drives the error in a different direction.

Note also that I had a V (visual) filter in place. This is recommended for single-shot variable star measurements.

Ok... beyond this, I have a photo of M38, on which I've done no analysis to date. Here's that picture.



So, there's work to be done here to figure out what's happening. My initial goal was to be able to record a recognizable star field on the camera. And, I've been able to do this. So I have data, the analysis isn't working. Hmmmmm

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

*..Bill*

# Observatory Duty Roster

by Michael B. Dye, (former) Observatory Chairman

★  
★ ★

This is the duty list for January and February. 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.

**January (06) Supervisor ..... Preston Engebretson ..... 713-270-9574**  
 Wayne Hutchinson ..... Site  
 Clayton Jeter ..... Site  
 Stanley Jones ..... Site  
 Keith Jurgens ..... Site  
 Arnie Kaestner ..... Site  
 David Kahlich ..... Site  
 Allen Gilchrist ..... Annual Picnic Observatory Night 01-21-06  
 Volunteer ..... Annual Picnic Observatory Night 01-21-06  
 Volunteer ..... Annual Picnic Observatory Night 01-21-06

★  
★ ★  
★  
★  
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★  
★

**February (06) Supervisor ..... Bob Rogers ..... 281-460-1573**  
 Jerod Kendrick ..... Site  
 Robert Kuna ..... Members Observatory Night 02-xx-06  
 Roger Lee ..... Site  
 Jay Levy ..... Members Observatory Night 02-xx-06  
 Mary Lockwood ..... Members Observatory Night 02-xx-06  
 John Missavage ..... 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.

## Want Ads

**For Sale:** Meade 12" LX200GPS UHTC. Seven eyepieces, filters, solar filter, tripod, various other accessories. Only used twice. From the estate of the original owner. Asking \$3000. In Oxford, MS. Contact Mrs. Schreiber at [schreiber@dixie-net.com](mailto:schreiber@dixie-net.com)

**For Sale:** 3 bedroom, 2 bath, 18X80 single wide Fleetwood 1999 Mobile Home with approximately 1200 square feet of living space. This is the largest single wide mobile home on the market. The **mobile home sits on 17.5 acres** of beautiful oak-wooded property. Contact Marilyn at [birdsongs2k@hotmail.com](mailto:birdsongs2k@hotmail.com)

**Wanted: High quality photographs** of the constellations Andromeda, Cassiopeia, Orion, and Ursa Major for use by my company. Call Richard Braastad at 713-529-4050.

**For Sale: Meade ETX 90EC Telescope**, and Meade tripod Used once. Includes Autostar controller. Paid \$850 new 6 months ago – no time for a new hobby. Includes all original boxes and manuals, and carrying case for scope and tripod. Before I put it on eBay, I'd like someone local to enjoy this scope. I'll take \$500 or any reasonable offer. Contact Bill at [beley8@houston.rr.com](mailto:beley8@houston.rr.com).

**Email your ads to Bob Rogers, our Webmaster, at [siteworkerbob@hotmail.com](mailto:siteworkerbob@hotmail.com)**

# 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.

Asteroids .....	Barbara Wilson .....	281-933-1289	History, Astro'y - General .....	Leland Dolan .....	713-688-0981
Astrometry .....	Richard Nugent.....	713-910-5945	.....	Ricardo Palmeira .....	713-669-1409
Astrophotography .....	Steve Goldberg .....	713-721-5077	History, Astro'y - Amateurs...	Tom Williams .....	713-526-2868
Beginning in Astronomy .....	Peggy Gilchrist .....	281-443-8773	Mathematics, Astronomical ..	Richard Nugent.....	713-910-5945
.....	Amelia Goldberg .....	713-721-5077	Messier Objects.....	Novice Committee (see	
CCDs & Astrophotography...	Randy Brewer.....		Photometry.....	Open	
Comets .....	Kenneth Drake.....	936-890-3735	Radio Telescopes.....	John Hiatt .....	713-464-4010
.....	Don Pearce .....	713-432-0734	Satellites, Artificial.....	Open	
Computers.....	Matt Delevoryas .....	713-795-0808	Solar Observing .....	Larry Mitchell.....	281-448-8700
.....	Leland Dolan .....	713-688-0981	Spectroscopy .....	Open	
.....	Ricardo Palmeira .....	713-669-1409	Thin Crescent Moons.....	Don Pearce .....	713-432-0734
Cosmology .....	Ricardo Palmeira .....	713-669-1409	Telescopes .....	Clayton Jeter.....	281-573-1337
Deep Sky .....	Larry Mitchell.....	281-448-8700	Variable Stars .....	Barbara Wilson .....	281-933-1289
.....	Barbara Wilson .....	281-933-1289	.....	Tom Williams .....	713-526-2868
Double Stars.....	John Blubaugh.....	713-921-4275	Video .....	Larry Mitchell.....	281-448-8700
Drawing (Sketching).....	Scott Mitchell .....	713-461-3020			
Herschel Objects .....	Larry Mitchell.....	281-448-8700			

## Membership Renewals...

**Your membership is renewable on January 1 of each year.**

Total yearly dues are \$36.

If you paid your dues after the first of 2004, you will only owe for the fraction of the year remaining in 2005. For example, if your dues are paid through March, 2005, you'd owe for 75% of 2005, or \$24.

Magazine subscriptions can be renewed at any time and the renewal does not need to be synchronized with your HAS dues.

Membership in the Houston Astronomical Society is one of the great bargains in Astronomy. For a regular membership of \$36 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.

Encourage other astronomy enthusiasts to join the organization as well. It's a great group.

**Thanks!**

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# A New View of the Andromeda Galaxy

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By Dr. Tony Phillips and Patrick L. Barry

This is a good time of year to see the Andromeda galaxy. When the sun sets and the sky fades to black, Andromeda materializes high in the eastern sky. You can find it with your unaided eye. At first glance, it looks like a very dim, fuzzy comet, wider than the full moon. Upon closer inspection through a backyard telescope—wow! It's a beautiful spiral galaxy.

At a distance of “only” 2 million light-years, Andromeda is the nearest big galaxy to the Milky Way, and astronomers know it better than any other. The swirling shape of Andromeda is utterly familiar.



*The GALEX telescope took this UV image of the Andromeda galaxy (M31), revealing a surprising shape not apparent in visible light.*

Not anymore. A space telescope named GALEX has captured a new and different view of Andromeda. According to GALEX, Andromeda is not a spiral but a ring.

GALEX is the “Galaxy Evolution Explorer,” an ultraviolet telescope launched by NASA in 2003. Its mission is to learn how galaxies are born and how they change with age. GALEX’s ability to see ultraviolet (UV) light is crucial; UV radiation comes from newborn stars, so UV images of galaxies reveal star birth—the central process of galaxy evolution.

GALEX’s sensitivity to UV is why Andromeda looks different. To the human eye (or to an ordinary visible-light telescope), Andromeda

remains its usual self: a vast whirlpool of stars, all ages and all sizes. To GALEX, Andromeda is defined by its youngest, hottest stars. They are concentrated in the galaxy’s core and scattered around a vast ring some 150,000 light years in diameter. It’s utterly unfamiliar.

“Looking at familiar galaxies with a new wavelength, UV, allows us to get a better understanding of the processes affecting their evolution,” says Samuel Boissier, a member of the GALEX team at the Observatories of the Carnegie Institution of Washington.

Beyond Andromeda lies a whole universe of galaxies—spirals, ellipticals and irregulars, giants and dwarfs, each with its own surprising patterns of star formation. To discover those patterns, GALEX has imaged hundreds of nearby galaxies. Only a few, such as Andromeda, have been analyzed in complete detail. “We still have a lot of

work to do,” says Boissier, enthusiastically.

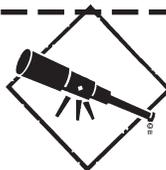


GALEX has photographed an even greater number of distant galaxies—“some as far away as 10 billion light-years,” Boissier adds—to measure how the rate of new star formation has changed over the universe’s long history. Contained in those terabytes of data is our universe’s “life story.” Unraveling it will keep scientists busy for years to come.

For more about GALEX, visit [www.galex.caltech.edu](http://www.galex.caltech.edu). Kids can see how to make a galactic art project at [spaceplace.nasa.gov/en/kids/galex/art.shtml](http://spaceplace.nasa.gov/en/kids/galex/art.shtml).

# Observatory Corner

By Kirk Kendrick, Observatory Chairman



After 17 years, Michael Dye has “retired” from the chairmanship of the Observatory Committee. Michael saw the completion of the Bathroom project, renovation of the F7 and C14, construction of the storage building, and replacement, upgrade, and general improvements to most of the equipment at the site.

As the new observatory chairman, I have some big shoes to step into. The only promise I can make at this point is that Michael’s 17 years will remain the record! I don’t plan to outlast him!!

As the first Observatory event for 2006, I am pleased to invite all of you to join us at the HAS 50th Anniversary Picnic to be held on January 21 (January 28 rain date) at the site.

Here is the planned schedule of activities:

- » Gates open 10AM on Saturday
- » Unearthing of time capsule at 2PM
- » Chili Dinner served at 4PM
- » Observing when it gets dark: Sunset 05:57PM, Twilight ends 07:18PM
- » “Light Window” around midnight for those that need to leave early
- » “Observing until dawn” for the die hards
- » Gates close Noon on Sunday

Bring your scope, and don’t forget 50-100’ of extension cord if you to plug into electricity. We have wireless internet at the site (ask one of the organizers when you arrive and they can help you get connected). The bathrooms have hot water for showers and flushable toilets (much better than the old outhouse from the 80’s!).

There’s plenty of room for tent or “dry” RV camping. We also have dump stations for those that need to empty the holding tanks on their RVs. Unfortunately; the normal RV sites are already reserved, and we do not have enough power, water, and dump connections to support everyone. You are welcome to bring a generator if you need it.

We will need an RSVP by January 16th if you are planning to attend.

Please let your club contact know how many adults and children will be coming.

- » Houston Astronomical Society - Amelia Goldberg
- » Fort Bend Astronomy Club - Amelia Goldberg
- » Johnson Space Center Astronomy Club - Bob Taylor
- » North Houston Astronomy Club - Bill Leach
- » Astronomy Society of Southeast Texas - Bill Christian
- » Austin Astronomical Society - Stephen Barrett
- » San Antonio Astronomy Association - Warren Wundt
- » New Braunfels Astronomy Club - Warren Wundt
- » Crossroads Astronomy Club - Jason Fry
- » Kingsville Astronomical Society - Cynthia Gustava

Just Click on “50th Anniversary Picnic” link on the HAS homepage --

<http://www.astronomyhouston.org>

for additional information.

*Clear skies!*

**Kirk**

## Remember --

All HAS memberships are due for renewal in January, 2006. Our membership year now corresponds to the calendar year.

Mail your dues to the address on the back page of this *GuideStar* or bring your payment to the meeting in February.

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# Asteroid Occultation - 1/5/2006

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Normal long term astrometry used to predict minor planet occultations use asteroid positions from as far back as 1900. The first computations predicted the center of the January 5 path to be near Clear Lake with the north edge about 35 miles north by the Woodlands. However, it was discovered that when using the more modern positions (from the year 1980 forward) the track center moved just below Victoria with the north edge near the small town of Louise off Hwy 59. This is the first such case where we have seen such a large disparity before the event. As a direct result it is not certain where the path really will fall. One might expect that the modern data should be the most reliable. But is it?

Hence we are asking those who are well north of the latest path to make observations from their homes as originally planned unless you are willing to go farther south to the new pathway.

The current path map is shown at <http://www.eclipsetours.com/events> with links to line maps that we need to have covered. Lines N7 south through S7 would be the limits of the path if the current prediction is correct. North shifts have been known to occur with many Tycho catalog stars and the 9th magnitude target star is indeed in that catalog. The lines open as of December 22 are:

N10 along Hwy 288 or near Wharton / Hwy 59  
N9 along Hwy 288 or near Pierce / Hwy 59  
N8 Hwy 288 at Brazoria County Airport or south of El Campo /Hwy 59  
N6 near Ganado / Hwy 59  
S1 near McFaddin / Hwy 77  
S3-S7

Persons at the HAS site near Columbus might consider driving south on Hwy 77 to intercept a line.

By the way, the above locations indicate intersection of the major highway with the lines. You can set up any place along the line you want.

I have posted the locations of all sites relative to the latest prediction and the original prediction on my EVENTS page. Due to bunching up of fixed observers I would like to request that anyone who has the flexibility to drive down to the path that Thursday morning to please email me. The names next to each line are of those who have volunteered to take those lines as of yesterday. I will update as things change.

I have an extra set of equipment and would like to find someone who might volunteer to use it for this event. It consists of a Celestron 8, PC164 camera,

camcorder and radio and I will set it up on site at line N4 near Inez at Hwy 59; I plan to be located at N3 just down the road. If you know of a competent observer who has a car but no equipment, it would be a good opportunity to see what it is like to collect occultation video in the field.

If you are a first time observer and are using a tape recorder, you must record time signals and your voice so that both are clearly heard. Please use mini-cassette tape recorders if possible. Digitally tuned radios that can pick up 5, 10 and 15 MHz time signals can be bought at Radio Shack and the best radio, the Grundig G2000A can be found online at Froogle for \$59. (higher priced at other web sites).

This promises to be a very interesting activity with the prospective outcome that new light will be shed on the origin of the perturbation in the orbit of Tisiphone as a result of positive and negative observations contributed by the team.

Though I will be sailing on the Crown Princess somewhere in the Caribbean between Dec. 24-Jan 3 I will be answering email during that period.

Thanks for your effort and best wishes for 2006,

**Paul**

Paul D. Maley

29.6049N, 95.1069W, alt.6m  
email: pdmaley@yahoo.com

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# *Houston Astronomical Society 50th Anniversary Picnic*

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50 years ago in September, 1955, the Houston Astronomical Society was formed. The Society has done many new things over the years. One of the major accomplishments since the founding of the Society was the building of our Columbus Observatory. The land surveying started in 1979, and in 1982 the current observatory building was dedicated. Three years later a time capsule was placed in the ground on the south side of the building.



On Saturday, January 21, 2006 (with a rain date of January 28th), we will have our annual picnic (the Fall Picnic was postponed due to Hurricane Rita). At the picnic we will unearth and open the capsule. And to help celebrate our 50th anniversary we are inviting all the area clubs to attend our picnic. As usual, the HAS will supply the food for the picnic, including chili, beef stew and sides, you bring the drinks. We will also have the observatory

open for our visitors, a constellation tour at twilight, and the usual observing session when it gets dark. Bring your own telescope to test our night skies. There will be a "light window" around midnight that if you would like to leave you may, or you can to spend the night at the site if you wish.

Here is the planned schedule of activities:

Gates open 10AM on Saturday  
Unearthing of time capsule at 2PM  
Dinner served at 4PM -- chili and beef stew  
Observing when it gets dark: Sunset 05:57p, Twilight ends 07:18p  
Gates close Noon on Sunday

We will need an RSVP by January 16th if you are planning to attend. Please let your club contact know how many adults and children will be coming.

Houston Astronomical Society - Amelia Goldberg  
Fort Bend Astronomy Club - Amelia Goldberg  
Johnson Space Center Astronomy Club - Bob Taylor  
North Houston Astronomy Club - Bill Leach  
Astronomy Society of Southeast Texas - Bill Christian  
Austin Astronomical Society - Stephen Barrett  
San Antonio Astronomy Association - Warren Wundt  
New Braunfels Astronomy Club - Warren Wundt  
Crossroads Astronomy Club - Jason Fry  
Kingsville Astronomical Society - Cynthia Gustava

RV Information. You may bring your RV / trailer / 5th wheel to the site. However, we do not have enough utilities for power, water and dump to support everyone. So if you plan to come to the site be prepared to dry camp (we do have a dump station if you want to dump before leaving). As an

alternative, there is an RV park on I-10 at Hatterman Lane, which is the exit to get to the site. From there it is about a 15 minute drive to our site. If you are interested in staying at the RV park, here is their contact info: Motorcoach RV Park, 2965 Hwy. 90, Weimar, TX 78962,

979-732-9494,  
[www.motorcoachrvpark.com](http://www.motorcoachrvpark.com).

Motel Information: There are several motels in Columbus if you want to spend the night or part of the next day before going back home. Here are 2 hotels in Columbus.

Mark you calendar now for January 21st.

Here is a link to our web site:  
<http://spacibm.nice.edu/~has/AnniversaryPicnic.htm>

**Steve Goldberg**  
**Event Chairman**

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**Minutes**  
**the November, 2005 Meeting of the**  
**Houston Astronomical Society**

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The November, 2005 meeting of the Houston Astronomical Society was called to order at 8:10 p.m. by Steve Sartor.

**General Announcements**

Introduction of new members -- 3 in attendance  
There were 2 visitors in attendance

**Announcements**

- Steve Goldberg announced the rescheduling of the 50th anniversary picnic for January 21 or 28 (the latter being a rain date), and asked for RSVP's by January 10 either with Amelia or through the HAS web site.
- Steve Sartor gave an update on the condition of George Stradley and passed around a get-well card for the membership to sign.
- Judy Dye took orders for the 2006 Observer's Handbook and promoted club T-shirts and polo-shirts.
- Bill Leach gave an Astronomy Day post report and recognized with thanks all the volunteers.
- The Annual Election took place (see next page / below for the slate) with the floor being opened for nominations. No nominations were made, a motion was made and seconded to close nominations and accept the slate as is. The membership unanimously voted to accept the slate as is.
- Don Pearce gave the monthly comet report, which featured a lack of comets.

**Program**

Don Pearce introduced Steve Goldberg who introduced the program speaker, Tim Cooper, who gave a talk entitled "NASA's Exploration Architecture"

Leland Dolan offered old magazines for anyone interested to take with him or them.

The meeting adjourned at 9:26 p.m.

**Addendum: the Election Slate**

The following slate of candidates was voted on and unanimously accepted by the membership.

President .....	Steve Sartor
Vice President .....	Bill Leach
Secretary.....	Doug McCormick
Treasurer.....	Bill Flanagan
Board of Directors .....	Allen Gilchrest
	Steve Goldberg
	Ken Miller
	Don Pearce
	Bob Rogers

**Committee Chairpersons:**

Loaner Telescope.....	Mike Hamlin
Field Trip / Observing .....	Clayton Jeter
Program .....	Don Pearce
Publicity.....	John Missavage
Novice .....	George Stradley
Audit .....	Tom Blocker
Observatory .....	Kirk Kendrick
Education.....	Susan Kennedy
Welcoming .....	Susan Kennedy / Darlene Sartor



### 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. Parking is NOW across from Entrance 14, by the stadium.

### Board of Directors Meeting

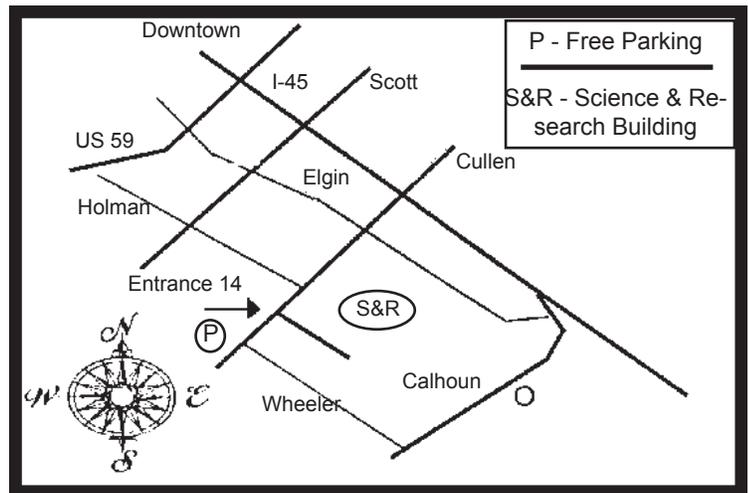
The Board of Directors Meeting is held on dates scheduled by the board at 7:00 p.m. at the University of St. Thomas. Information provided to GuideStar will be published. The meetings are open to all members of the Society in good standing. Attendance is encouraged.

### 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 available on the HAS web site to all members of H.A.S., and to persons interested in the organization's activities. Contributions to *GuideStar* by members are encouraged. Electronic submission is helpful. Submit the article in text, MS-Word format via email [BillPellerin@sbcglobal.net](mailto:BillPellerin@sbcglobal.net). Copy must be received by the 15th of the month for inclusion in the issue to be available near the end of the same month. Or, bring copy to the General Membership Meeting and give it to the Editor, or phone to make special arrangements.

Editing & Production: Bill Pellerin, 713-880-8061; FAX: 713-880-8850;  
Email: [BillPellerin@sbcglobal.net](mailto:BillPellerin@sbcglobal.net)

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## Houston Astronomical Society Meeting

December 6, 2006

7:00 Novice & Site Orientation

8:00 General Meeting

University of Houston

### Houston Astronomical Society

P.O. Box 20332 • Houston, TX 77225-0332



The Houston Astronomical Society welcomes you to our organization. The HAS is a group of dedicated amateur astronomers, most of whom are observers, but some are armchair astronomers. The benefits of membership are:

- Access to our 18 acre observing site west of Houston -- a great place to observe the universe!
- A telescope loaner program -- borrow a HAS telescope and try observing for yourself!
- A monthly novice meeting, site orientation meeting, and general meeting with speakers of interest.
- Opportunities to participate in programs that promote astronomy to the general public (such as Star Parties at schools)
- A yearly banquet with a special guest
- A yearly all-clubs meeting for Houston area organizations
- Meet other amateurs and share experiences, learn techniques, and swap stories

**You're invited to attend our next meeting.  
You'll have a great time.**