

Houston Astronomical Society

GuideStar



May, 2005

It's PARTY Time!!!...

Texas Star Party!

The Texas Star Party begins May 1

It's the event we've all been looking forward to. The Texas Star Party begins at the Prude Guest Ranch near Fort Davis, Texas on May 1. The TSP this year will be outstanding with an excellent speaker list and some of the finest observing conditions in the country.

Get all the details at:

www.TexasStarParty.org

At the May 13 meeting...

Meeting on May 13 due to Texas Star Party

Dennis Borgman - "Lunaticing"

A presentation focused on the excitement of lunar observing, as presented by Dennis Borgman. Dennis will share many interesting notes and hopefully create a few more lunatics along the way.

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.
Ed Preston – "Coordinate Systems"

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: Brian Cudnik H: 832- 912-1244
 Treasurer: Bill Flanagan H:713-699-8819

Additional Board Members

	Liaison responsibility
Steve Goldberg	713-721-5077
Don Pearce	713-432-0734
Jay Levy	281-557-4920 Field Trip and Observing, Program
Kenneth Miller	936-931-2724
Kent Francis	

Committee Chairpersons

Audit	Don Selle	281-391-5470
Education	Richard Nugent	713-524-1993
	Susan Kennedy	281-376-3262
Field Tr./Obsg.	Kenneth Miller	936-931-2724
Novice	George Stradley	281-376-5787
Observatory	Michael Dye	281-498-1703
Program	John Blubaugh	713-921-4275
Publicity	Joe Khalaf	713-660-8219
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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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 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.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

Houston Astronomical Society

General Membership Meeting

Friday, April 1, 2005
University of Houston

Minutes

The Meeting was called to order at 8:09 pm and was followed by the President's welcome and meeting information.

The Novice Meeting and Columbus Training Meeting were announced.

The date changes of next month's general membership meeting was announced:

May 6 to May 13 due to TSP

There were 3 new members (who each introduced themselves) and 0 visitors present.

Pictures of members are being taken for the Contact Members Page: Steve Sartor is available to take pictures, or members can send pictures to the web master.

The announcements were as follows:

- The 6-inch Criterion raffle brought in \$500.
- Judy Dye announced logo sales.
- Amelia Goldberg awarded Ken Miller the Messier Object certificate #2203 for observing 70 Messier objects. She also gave a TSP announcement and made a call for volunteer help at the registration desk.
- Don Pearce gave the comet report for the following comets: C2004 Q2 (Machholz), a Deep Impact mission update, C2005 A1 (LINEAR), C2004 T4 (LINEAR), and 9P Tempel.

Steve Goldberg introduced Tommy Greathouse, who gave a talk about Titan Results

Leland Dolan announced the solar eclipse to take place Friday afternoon, April 8.

Judy Dye mentioned that Rice University will open the observatory between 4 and 6pm.

The meeting adjourned at 9:19 pm.

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!

May/June Calendar:



Photo by Scott Mitchell

Check the web site:
www.astronomyhouston.org
Webmaster: Bob Rogers
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.

Date Time Event

May 2005

1		Texas Star Party begins in Ft. Davis
	1:24 a.m.	Last Quarter Moon
7		Prime Night-Columbus
8	3:45 a.m.	New Moon
13	7:00 p.m.	Novice Presentation - UH
	8:00 p.m.	General membership meeting - UH (Note May meeting is <i>second</i> Friday.) Dennis Borgman-"Lunaticing" A presentation focused on the excitement of lunar observing, as presented by Dennis Borgman. Dennis will share many interesting notes and hopefully create a few more lunatics along the way.
16	3:57 a.m.	First Quarter Moon
23	3:18 p.m.	Full Moon
28		Members Observatory Night- Columbus
30	6:47 a.m.	Last Quarter Moon

June 2005

3	7:00 p.m.	Novice Presentation - UH
	8:00 p.m.	General membership meeting - UH
4		Prime Night-Columbus
6	4:55 p.m.	New Moon
14	8:22 p.m.	First Quarter Moon
21	1:46 a.m.	Summer solstice. Summer begins in northern hemisphere.
	11:14 p.m.	Full Moon
25		Members Observatory Night- Columbus
28	1:23 p.m.	Last Quarter Moon

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

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GuideStar deadline

for the June

issue

is May 15

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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 because of the construction in the parking lot of the Science and Research bldg.

Observations... of the editor

by Bill Pellerin, GuideStar Editor



It's now April 21, and in less than two weeks I'll be at the Prude Ranch in Fort Davis for the *Texas Star Party*. This is the time when I make my to-take list and my to-do list in preparation for the event. The to-take list includes a detailed list of all the stuff I have to take to the TSP to make it a successful observing event for me. There are the obvious things — telescope, tripod, etc, and the more obscure things — camera USB cable, spare batteries for the finder, etc. It's easy to make a mistake, and it's such a big investment in time to get to the Prude Ranch that I don't want to have anything get in the way of the observing.

A friend of mine once forgot the shroud for his telescope, but was able to fashion one from a tarp purchased at the hardware store in Fort Davis. Sometimes it's possible to work around these issues, but at other times it isn't. If you're planning to go, take the time to make sure you have all your stuff. It's a good investment of effort.

My to-do list is getting short now. Most of the things that needed doing have been done by now. Last Friday I went to the tire store to see if my tires were adequate for the trip — they are, but will need to be replaced before the year is over. The car has been 'serviced' (oil change and whatever they do at a scheduled maintenance), and is ready to go.

Next weekend will be the final run-through of the equipment set and the gathering of the stuff into a single pile will be the task of the day. On Saturday, the 30th, it'll be time to pack the car and begin the journey to Fort Davis.

I'll be taking two telescopes, the one I intend to use for the whole week, and a backup telescope... just in case. I know it sounds a bit over the top, but it helps assure that I'll be good-to-go on the observing field. (Truth is, I'm taking a third telescope.. my PST solar telescope is going to make the trip this year as well.)

In August I'll be doing a lecture at the Novice meeting on how to pack for an observing trip, so I'll be able to tell you how successful (or unsuccessful) I've been this time.

Last weekend, I did a bit of observing in the 'country' with our house guests from Albuquerque. The moon was at first quarter, so the sky wasn't very dark, but we could see quite a bit -- M36, M37, M38 --- the lovely clusters in Auriga, M35 in Gemini, M44 (the Beehive) in Cancer, the Moon, Jupiter, Saturn, M65 (Galaxy in Leo) barely visible, and Iota CNC a beautiful double star that you may wish to check out.

The good news was that all the stuff seemed to work, so it'll all go into the TSP pile. One rule-of-thumb that I use for the TSP -- don't

bring stuff to the TSP that I haven't used or tested. All new stuff takes a while to figure out, and I don't want to do the figuring-out while I should be observing.

I was very pleased to make the HAS meeting in April. Tommy Greathouse did an excellent presentation on Titan, and it was good to see everyone at the meeting. I missed the first three meetings of the year due to other commitments.

We'll be back from the TSP in time for the May meeting, and the June meeting usually features a review of the Texas Star Party for those of us who couldn't make the trip this year.

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

..Bill

Observatory Corner

By Michael B. Dye Observatory Chairman



Judy and I went to the Observatory Site on Saturday April the 16th, to practice our tent erecting and striking procedures.

This time we were a bit more successful in our endeavors. We were able to set up the tent by ourselves and were not nearly as funny as we were the last time we did this.

We (Judy, Bob, Susan, Susan's mother and I) then sat around admiring our various accomplishments for a while and then Judy and I struck the tent and put it back into the van. All was accomplished without nearly as much community amusement as the last time. We then took a break while Bob cooked hamburgers for us and we ate. Bob is getting very good at cooking on our Bar-B-Q grills. I may draft him to cook at the next picnic.

After dinner, Bob and I took some replacement batteries over to the storage building where we keep the two Dobsonian scopes to replace the ones that are used as backup power for the keypad access system. Bob had informed me earlier that it looked like one of the batteries was going bad. I had ordered some replacement batteries and took them out to the Observatory Site this trip. Remember I told you that the batteries were for the backup power for the keypad system? Well it seems that the primary UPS for the system had failed and since the backup batteries were also dead, the keypad access system wouldn't work. We used the key to get into the East room, but when we tried to open the door to the West room (where all the controls are, the lock refused to turn). We ended up taking the door off the hinges in order to get in and change the batteries. Mike Edstron, who was on the Observatory Site that day, helped get the door off the hinges and remount it when we had finished changing the batteries. As soon as we changed the batteries and removed the dead UPS unit, the system started working again. My thanks to Mike and Bob for their assistance.

Now to the fun activities. While we (Judy, Bob, Susan, Susan's mother and I) were sitting around the tents admiring our work and in general talking about nothing, Judy called her boss at Rice to ask her some sort of question (aren't cell phones marvelous?). Somehow we were offered two cots to sleep on while we will be at TSP. We accepted. All we had to do was to go to a point someplace north of Katy to pick them up. Judy and I left the Observatory Site about 7:30 and began our adventure into the back roads of the Texas country roads system. We were to go to Brookshire on I-10, turn left (North) in Brookshire and get on FM362 to go to Waller. We were able to accomplish parts one and two without any hitches. When it came to getting on FM362, we hit a small problem. It seems that there is no reference for how to get to FM362 until you

actually get to FM362. It appears that it splits off of FM359 (we never found the split). After driving around for about five minutes, I stopped and asked for directions (I know, unusual for a male). The nice man at the Pizza place told me how to get to FM362. Off we went again. I had not realized it, but it is about 21 miles to Waller from Brookshire on FM362.

Let me tell you a bit about FM362, which by the way, is true of most of the roads we traveled that night. This road is just wide enough for the two striped lanes; it is unmarked by signs of any kind except for an occasional speed limit sign, and consists of very long straight stretches punctuated by very sharp unexpected curves. Also the speed limit is posted at 60 MPH, so everyone drives at that speed no matter the weather or driving conditions. You end up traveling down long stretches of road with no idea of where you are. Judy's boss called after we had been on FM362 for what seemed like a very long time (it was dark by then) to check on our progress. I had just passed a sign indicating that Waller was 10 miles away (this was the only sign of this type that I saw that night) so that information was relayed to her. She said we were doing well and to keep going and following the directions.

We got to Waller. I was becoming concerned about the gas supply in the van so we stopped and got about 5 gallons. There's nothing like running out of gas on a back Texas road on a dark night. Don't most horror movies start that way? We kept driving down the back roads following the directions, punctuated by intermittent cell phone calls that were used to clarify our directions. The roads got progressively worse and worse, until we were driving down a gravel road (not as good as the one to the Observatory Site) looking for a right turn and a cattle guard. Have you ever tried to find a cattle guard on a dirt road in the dark? We eventually ended up on the cell phone again and we were talked in like an airplane on an instrument landing.

Continued...

Observatory Corner... from previous page

But wait, our fun didn't stop there. Getting there was only half the fun. We still had to get home using a different route than the one we used to get there. Remember we started our adventure at the Observatory Site and still had to get home in Houston. I got directions on how to get back to US 290 and started off. Almost every intersection we got to had a sign indicating the road we were getting off of but not the one we were trying to turn onto. This turned out to be a serious problem. We got to a 'T' in the road, which I mistook for a different location and made a right turn instead of a left turn. We were looking for a street called Hegar, which would take us directly to US 290. We drove down this road until it T'd into another road. The new road, of course, was not identified. But, of course the road we were on was. It was Hegar. Some consultation was done between Judy and me and we decided to go back down the road in the direction we had just come from. We based this decision on the fact that if US 290 was not at one end of Hegar, maybe it was at the other. We tried to call Judy's boss for further clarification but evidently they quit answering their phones after 11:00 PM.

We eventually passed the intersection that we got on the road from, identified the road we had gotten off of, determined that I had turned the wrong way the first time and continued on Hegar in the direction we hopped was toward US 290. I am here today to tell you that in fact, this final decision was the correct one. We eventually got home sometime after midnight. I hope our trip to TSP goes better.

The door lock to the East Bathroom (the one without the urinal) is still not functioning correctly. It (the door) doesn't lock very well. In fact, if you pull on the doorknob hard enough (from the outside), the door will pull open. This could be very embarrassing for all parties involved if anyone is using the bathroom at the time. We have procured the locking mechanism, but unfortunately have not been able to get same transported to the Observatory Site to be installed in the bathroom. We (the committee) are working on resolving this problem. In the mean time, please don't use the East bathroom for anything important. Please continue to use the West Bathroom until we post the fact that the East Bathroom door lock is repaired.

While I was at the Observatory Site on Saturday, I observed that Bob Rogers has done a great job of mowing the grass that past week. Not only did he mow the pad area and picnic area, but he also

mowed the northeast corner of the field. He cut all the grass except where the wildflowers were growing. We now have sections of the field that are patches of yellow. I am not sure which kind of flower is growing but they (the flowers) look neat. The mowing subject brings up the point that we will most likely not have the grass mowing by Ken Miller this year like we did last year. This is because, for medical reasons, Ken will not be able to ride a tractor for the entire summer. If anyone knows of someone who has a tractor and bush hog and has the time available to come and mow the Observatory Site, would that person please contact me. Our John Deere lawn tractor can only do so much.

The Society continues to benefit from members who shop at Randalls and now Kroger's. 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. If you shop at Kroger, we now have a card available (at the General Meeting) that you present at the cash register when you check out. We can thank Joe Khalaf for his efforts in getting the cards.

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.

Observatory Duty Roster

by Michael B. Dye, Observatory Chairman

This is the duty list for May, June and July. 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.

May Supervisor Brett Maiwald 281-259-3694
Eric Rothgeb Site
Henry Schneider Site
Linda Sternbach Site
Larry Wadle Site
Mark Watson Members Observatory Night 05-28-05
Tom Williams Site
Barbara Wilson Members Observatory Night 05-28-05
Buster Wilson Members Observatory Night 05-28-05
Payton Barnes Site

June Supervisor Matt Delevoryas 713-662-2939
Kelly Biggs Site
John Blubaugh Site
Ken Carey Site
John Chauvin Site
Art Ciampi Members Observatory Night 06-25-05
Brian Cudnik Members Observatory Night 06-25-05
Gary Delzer Site
Kay Sandor Site
George Dolson Members Observatory Night 06-25-05

July Supervisor Brett Maiwald 281-259-3694
Kenneth Drake Site
Victor Flores Site
Fred Garcia Members Observatory Night 07-30-05
Cliff Goldman Members Observatory Night 07-30-05
David Herlinger Site
Bob Menius Site
Clayton Jeter Members Observatory Night 07-30-05
Stanley Jones Site
Keith Jurgens 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: 2 year old Meade ETX-70AT Digital Telescope with Autostar Computer Controller. Package includes field tripod, dew shield, AC adapter, 9mm and 25mm eye-pieces, carrying case for tripod and scope. \$175.00
Contact Dave at dderosa@houston.rr.com

For Sale: Astronomical Camping Trailer. 1985 Starcraft Nova (pop-up). 24' long when set up. Has a King size bed on one end, a Double size bed on the other end, and the table folds down to sleep a couple of kids. (or short adults) I bought this camper new, it has ALWAYS been stored indoors and is in EXCELLENT condition. Comes with air-conditioning (roof mounted) a small heater that helps some, electric refrigerator, porta-potty, clothes closet and lots of storage space. The interior lights are set to operate on red, white, or both. The porch light is red. \$2500.00
Steve Sartor steve@sartor.com I know I have a picture somewhere, but can't locate one. Come see it!

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.

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.

Wanted: Flexiable slow-motion controls for a light duty alt-az or German mounted scope. Call Clayton @ 281-573-1337

Asian Tsunami Seen from Space

by Patrick L. Barry

When JPL research scientist Michael Garay first heard the news that a tsunami had struck southern Asia, he felt the same shock and sadness over the tremendous loss of human life that most people certainly felt. Later, though, he began to wonder: were these waves big enough to see from space?

So he decided to check. At JPL, Garay analyzes data from MISR—the Multi-angle Imaging SpectroRadiometer instrument aboard NASA’s Terra satellite. He scoured MISR images from the day of the tsunami, looking for signs of the waves near the coasts of India, Sri Lanka, Indonesia, and Thailand.

Looking at an image of the southern tip of Sri Lanka taken by one of MISR’s angled cameras, he spotted the distinct shape of waves made visible by the glint of reflected sunlight. They look a bit like normal waves, except for their scale: These waves were more than a kilometer wide!

Most satellites have cameras that point straight down. From that angle, waves are hard to see. But MISR is unique in having nine cameras, each viewing Earth at a different angle. “We could see the waves because MISR’s forward-looking camera caught the reflected sunlight just right,” Garay explains.

In another set of images, MISR’s cameras caught the white foam of tsunami waves breaking off the coast of India. By looking at various angles as the Terra satellite passed over the area, MISR’s cameras snapped seven shots of the breaking waves, each about a minute apart. This gave scientists a unique time-lapse view of the motion of the waves, providing valuable data such as the location, speed, and direction of the breaking waves.

Realizing the importance of the find, Garay contacted Vasily Titov at the National Oceanic and Atmospheric Administration’s Pacific Marine Environmental Laboratory in Seattle, Washington. Titov is a tsunami expert who had made a computer simulation of the Asian tsunami.

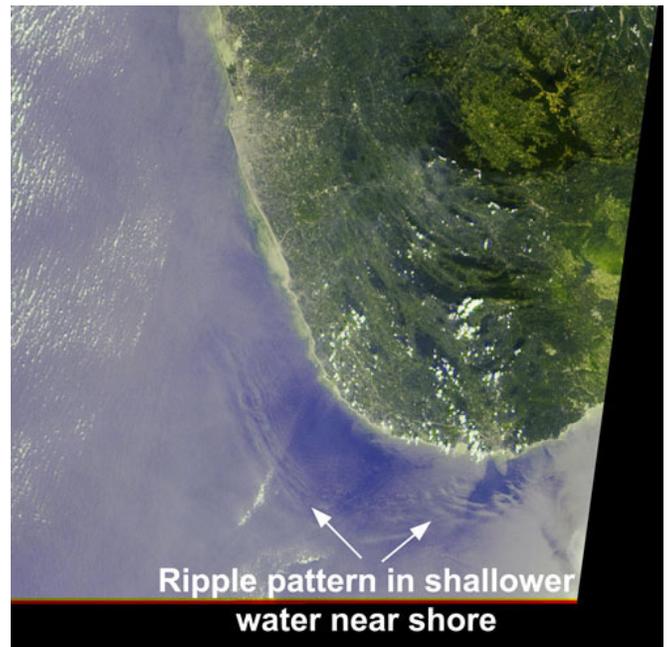
”Because the Indian Ocean doesn’t have a tsunami warning system, hardly any scientific measurements of the tsunami’s propagation exist, making it hard for Dr. Titov to check his simulations against reality,” Garay explains. “Our images provide some important data points to help make his simulations more accurate. By predicting where a tsunami will hit hardest, those simulations may someday

help authorities issue more effective warnings next time a tsunami strikes.”



Find out more about MISR and see the latest images at www-misr.jpl.nasa.gov/. Kids can read their own version of the MISR tsunami story at http://spaceplace.nasa.gov/en/kids/misr_tsunami.

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



This December 26, 2004, MISR image of the southern tip of Sri Lanka was taken several hours after the first tsunami wave hit the island. It was taken with MISR’s 46° forward-looking camera.

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

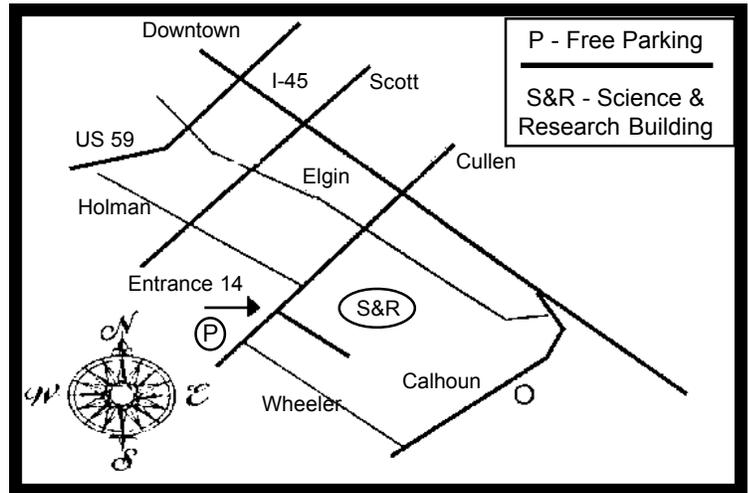
The Board of Directors Meeting is held on dates scheduled by the board at 7:00 p.m. at the University of St. Thomas. Information provided to GuideStar will be published. The meetings are open to all members of the Society in good standing. Attendance is encouraged.

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. 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

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Houston Astronomical Society

Meeting

May 13, 2005

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.**