



GuideStar

November, 2008

At the November 7 meeting...

The Sun, Solar Radiation, and Ramifications for Interplanetary Exploration by Humans

Brian Cudnik & Dr. Premkumar Saganti, of Prairie View A&M University and NASA-Johnson Space Center

Brian Cudnik will start with a discussion about the Sun, how it works, and how solar particle events happen, then Dr. Saganti will take over with a discussion on the latest in research concerning the effects of solar radiation on human astronauts travelling to Mars and beyond.

Highlights:

Barbara Wilson - George Obs Director.....	7
Shallow Sky Object - Deneb	13
Minutes of the October Meeting.....	15

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.
Justin McCollum (HAS), "A Novice Approach to Galaxies"

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: Bill Leach.....H: 281-893-4057
 Vice Pres: Ken Miller.....H: 936-931-2724
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 Past President: Steve Sartor

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Steve Goldberg.....713-721-5077
 Don Pearce.....713-432-0734
 John Missavage.....
 Clayton Jeter

Committee Chairpersons

AuditTom Blocker.....
 Education.....Richard Nugent.....
 Field Tr./Obsg.....George Stradley.....281-376-5787
 Novice.....Justin McCallum.....
 Observatory.....Bob Rogers.....281-460-1573
 Program.....Brian Cudnik.....
 Publicity.....John Missavage.....
 Telescope.....Bram Weisman.....
 Paul & Kay McCallum.....
 Welcoming.....Open.....

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* and *Astronomy* magazines are available to members at a discount.

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

3.....November/December Calendar
 Web site
 Publicity Suggestion Box
 4.....Observations of the Editor
 5.....Observatory Corner
 7.....Barbara Wilson
 George Observatory Director
 12.....Want-Ads
 Astronomical League
 13.....Shallow Sky Object - Deneb
 15.....Minutes of the October Meeting

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

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: www.jscas.net

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

November/December Calendar:



Photo by Scott Mitchell

Date	Time	Event
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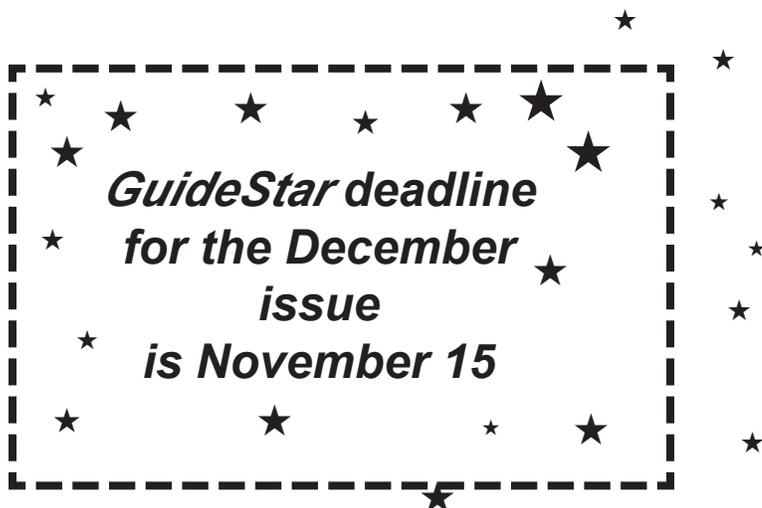
November

2	2:00 a.m.	Daylight Savings Time Ends
6	10:03 p.m.	Moon at first quarter
7	7:00 p.m.	HAS Novice Meeting, U of H
	8:00 p.m.	HAS General Meeting, U of H
13	12:18 a.m.	Full Moon
19	3:32 p.m.	Moon at last quarter
27	10:55 a.m.	New Moon
		Thanksgiving Day (US)
29		Prime Night, Columbus Observing Site

December

4	7:00 a.m.	Asteroid 2 Pallas at opposition
5	3:25 p.m.	Moon at first quarter
	7:00 p.m.	HAS Novice Meeting, U of H
	8:00 p.m.	HAS General Meeting, U of H
12	10:38 a.m.	Full Moon
13		Geminid meteors peak
19	4:30 a.m.	Moon at last quarter
21	6:04 a.m.	Winter solstice
22		Ursid Meteors Peak
25		Christmas
27	6:22 a.m.	New Moon
		Prime Night, Columbus Observing Site

Send calendar events to Doug McCormick
- skygazer10@sbcglobal.net



Check the web site:
www.astronomyhouston.org
Webmaster: Kay McCallum
kaym@mcclibrary.net

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 kaym@mcclibrary.net.

Publicity Suggestion Box

I welcome any suggestions that *any* member has to offer. It doesn't matter how trivial you think your idea may be. All input will be reviewed and welcomed.

Let's grow.

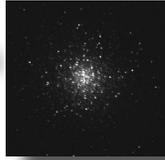
Please drop me a note at the following address.

itjdm0@yahoo.com

John Missavage- HAS Publicity Chair

Observations... of the editor

by Bill Pellerin, GuideStar Editor



Astronomy Day, 2008

As usual, Astronomy Day was a blast. There were plenty of people out for the event, though probably not as many as last year. It's understandable given the trauma that the region has been through with hurricane Ike. The Brazos Bend State Park only opened a week before the event.

My role was to be a bit like a busker who works the line of people waiting to get into the *real* show. I was stationed by the line of folks waiting to get into the West Dome. I don't know what they were showing in there, and the people in line didn't know either. But, while they were waiting I showed a lot of people Albireo, asked them what colors they saw, and pointed out the star in the sky with my green laser pointer. I also pointed out the Milky Way and the constellation Cygnus. I did this with a 66 mm (2.6") refractor on a small mount. It's not a very intimidating configuration, but for bright objects, it does the job.

I don't go to the George Observatory very often, and the amount of construction of homes and commercial buildings on highway 288 south of Houston is growing by leaps and bounds. This is unfortunate. We had a nice night at the George, but the sky glow from Houston and all the development south took away from the experience. We could see the Milky Way from there, but it didn't stand out as well as I remembered on past occasions.

The Astronomy Day event was preceded, on Friday night, by the regional all-clubs meeting with David Levy. David did a talk on his life as a comet hunter. You probably know that David, along with Carolyn and Gene Shoemaker are the co-discoverers of comet Shoemaker-Levy 9, that smashed into Jupiter beginning on July 16, 1994. It was quite an event!

Who wrote that?

I got a few questions at the last meeting about who wrote the remembrance of George Stradley in the October *GuideStar*. I did, but I failed to put my name on the item. Sorry about any confusion.

The economy...?

How are your investments doing? Don't ask, right? I heard Kelly Beaty (an editor at *Sky and Telescope*) say in 2006 that the makers of astronomical equipment weren't doing well; there was no astronomical event to capture the attention of the general public, and enthusiasts (like us) didn't constitute a sufficiently large market to support these companies.

I was checking out the Yahoo! financial web site to see what the stock market is doing, and decided to check out the stock price of Meade Instruments. It turns out that in mid 2000, the stock price

was over \$36.00/share; five years ago, the stock price was \$3.65/share. Two years ago, the stock price was \$2.00/share, and today, the stock price is less than \$0.20/share. So, if you want to own part of a telescope company you can get more than 5 shares for \$1.00. If you dig down a bit deeper you'll see that Meade has set up its manufacturing in Mexico (moved from California), and is behind on shipping product.

It's tough times all around.

Daylight Savings time is over!

Daylight savings time ends this weekend, the morning of November 2, to be exact. Good riddance to it, I say. I'm not a fan of Daylight Savings Time. Here's why:

- It stays hot later in the day during the summer. The days are hot enough and long enough without DST.
- Sunset is later (by the clock, at least) so observing time starts later. This is the most important issue!

Happy Holiday!

That said, I hope that you and your family have a great Thanksgiving holiday. New moon is on Thanksgiving day!

Until next time...

clear skies and new moons!

..Bill

Observatory Corner

By Bob Rogers, Observatory Chairman



Hello everyone.

An update on the Tractor Shed – On September 19th, Amelia Goldberg got up at 5:00 AM to drive out to the HAS Observing site to let the installers in to install our new Tractor/Lawn Mower Storage shed. I want to thank Amelia very much for all



her help in going out there for this project. As I type this, the back wall is being installed and I'm in the process of getting some prices for a garage door to be installed on the front of the shed. Don't be surprised if I do a fund raising in the first quarter of 2009 to help defer some of the cost for our ongoing improvement projects at the site.

On September 27th was the All Clubs Field Trip /HAS Picnic at the HAS Observing site. Due to Hurricane Ike and since I work for Harris County Mosquito Control, I was not able to attend the Picnic because of working 7 days a week for the 2 weeks after the Hurricane. From the reports that I received, the Picnic was a



great success. I want to thank everyone involved for the cooking and putting this together. Without you, it wouldn't have happened.

Steve Goldberg stepped in for me and here is his report - H.A.S. held their annual picnic at the site on September 27th. There were over 50 in attendance, many from other clubs in the area with most of the observing pads in use. The event was organized by Greg Barolak with cooking help from Mike Edstrom and Kirk Kendrick. After dinner, while everyone waited for dusk to end, observations of Jupiter were underway. As darkness fell, the Milky Way came out bright and you could see the rifts in our galaxy. The largest scope there, a 25" belonging to Keith "K2" Rivich from the Ft. Bend Astronomy Club, had an impressive list of objects observed during the night. The main observatory was open with the C-14 and F/7 telescopes operated by Allen Gilchrist and Brian Cudnik.

Here are a couple of more reports from Allen Gilchrist and Mike Kramer.

Mike Kramer - Man - what a day! Beautiful weather, great food and a good sky. What more can an astronomer want? OK, maybe a 12" Refractor or 36" Dob, but besides that. The sky was excellent last night, the temps were cool and a great group of people. If you didn't get out there you really missed something. The summer constellations started the evening at zenith. By early morning, the fall and winter constellations were coming up from the east. The haze and dew that typically ends sessions never really materialized so we really got a full night and morning of observation. I thank all involved in making it happen - organizers and cooks. It really was a great day!

Allen Gilchrist - I'll second Mike's comments. The picnic was GREAT! Excellent weather, good food, good friends. I met several new people as well. I did an open house with the C-14, taking advantage of the new Si-Tech drive system. We had several visitors, and I

Observatory Corner... from previous page

think everyone enjoyed the experience. Brian Cudnik and I were even able to look for some faint comets (Cpt. Comet, are you listening?).



If you have a Randalls card, and have not done so, please have it coded for the Houston Astronomical Society. Our number is #6618. The Society gets 1 percent of the gross sales that members spend at Randalls. Randalls totals up the amount spent

each quarter and will send us a check if the amount goes over



\$2,500.00, otherwise the total roles over to the next quarter or zeros out at the end of the calendar year. So please link your Randalls card to the Houston Astronomical Society so that the society can benefit from this 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 want to do.

Some dates of interest here for everyone. Ken Miller our Field Trip and Observing Chairman, has set the following 2008 Field Trip Schedule –

- October 25th for a HAS General Membership – Ken Miller's Ranch.

Keep an eye out on the Web site and here at the Observatory Corner for future updates for these Field Trips.

If you have any suggestions or thoughts for the site, let me know.

Thanks,

Bob Rogers
Observatory Chairman
281-460-1573
siteworkerbob@hotmail.com

• • • • •
• **Want new information in the**
• **GuideStar?**

• **Write it!!**

• You, too, can be published
• here.

- What are you doing that's new and exciting?
- What have you read recently (book report!)?
- What new and interesting software are you using?
- Did you have an observation that was especially interesting?
- Any 'lessons learned' from observing attempts?
- What are you looking forward to at the next Texas Star Party?

• Send your materials to Bill Pellerin,
• the *GuideStar* editor at:
• **BillPellerin@sbcglobal.net**



Barbara Wilson - George Obs Director

Here's our own ...Barbara Wilson

Barbara Wilson is well regarded in the amateur astronomy community for her ability to see dim and distant objects and her willingness to teach others how to do the same. In 1993 she joined the staff at the George Observatory, operated by the Houston Museum of Natural Science, where she teaches astronomy to school groups of all ages and conducts public Saturday night stargazing sessions. Barbara observes with a twenty-inch telescope equipped with the latest computer drive controls. Along with two other amateur astronomers, she discovered the globular star cluster IC 1257, which for a century had been mistakenly classified as an open cluster and co-authored a paper reporting the finding published in the *Astronomical Journal* in February 1997.



Barbara Wilson

Wilson caught the astronomy bug in the '50s. "I was a young girl, and my father (a military man) was stationed in Green Bay, WI. One evening, I had gone out to take some clothes in off the line, right at sunset before the dew got them. I saw this star rise in the east and noticed it was incredibly red. I ran inside and asked my dad, and he told me it was the planet Mars.

"I found out years later from Tim Ferris that he was observing Mars at the same time. It was the 'great opposition,' which means Mars comes about as close to the Earth as it ever comes. It was brilliant!"

Barbara Wilson is a "visual" amateur astronomer, with primary interests in deep sky observing. With a particular interest in globular clusters she has observed all known globular clusters of the Milky Way visible from latitude 29 degrees north.

Barbara has been featured in articles in *The New Yorker*, *Scientific American*, (drawings of planetary nebulae) *Sky and Telescope*, *Astronomy Magazine* and the book, "Seeing in the Dark" by Timothy Ferris.

As a HAS member for many years, while watching her work behind the eyepiece, I have always been in awe of this lady's observing skills. She has exceptional keen eyesight for observing those

faint deep sky objects. Best of all...Barbara loves sharing astronomy with all.

The Barbara Wilson interview...

Clayton: Being that it was your father, who sparked astronomy interest within you, was he knowledgeable about the cosmos? Was he an observer?

Barbara: Yes. He keeps up with astronomy by watching science on Television, and when I tell him (he is 80 now) about any new bright comets or exceptional meteor showers he will spend time looking, as he lives in the Sierra Nevada mountains under clear very dark skies. He loves finding the Andromeda galaxy in his binoculars. He uses good binoculars only.

Clayton: Are you a visual observer only? Tell us about your typical observing session.

Barbara: Yes, primarily visual observing. I have taken pictures of comets, Mars, and constellations. I have done prime focus astrophotography. I love all aspects of amateur astronomy.

I keep all my observations in a database I created that allows one to sort by object, by date, by type, by constellation, telescope used, location, etc. It is very helpful when you have thousands of observations and you are looking for a particular one. It is interesting to read your older observations and compare with more recent ones of the same object. It also allows you to share your observations with others. I would encourage observers to keep a log of some sort, whether writing in the margins of their charts, or a notebook, or directly into a computer or a tape recorder for later transcription. Keep detailed notes.

My Herschel 400 notes are now incorporated into a number of Deep Sky Observ-

Continued ...

Just Looking... from previous page

ing Commercial Programs like Deep Sky 2000. www.deep-sky2000.com/

Since time is precious under dark skies, I have a plan which I will follow unless something changes during the night. I will abandon a plan if I get a special night of Class One Bortle skies to attempt some objects that I always have at the ready, the really faint objects that I would like to see. I was able to finally after many years of waiting for the perfect moments of seeing and clarity to observe the Guitar Nebula at Okie Tex Star Party last month. It was a real high to observe a run-away neutron star in our galaxy!

When I plan an observing session, I have a list of object in a program that I want to observe.

Messier was my first formal observing program. The Herschel 400 was completed in Oct 1991, I received certificate number 68. Here I learned the discipline of keeping good log books, and observing many different kinds of objects.

As an example here are some objects on one of my many observing lists:

<i>RA Dec</i>	<i>Cons. Name</i>	<i>Year of Discovery</i>	<i>Discoverer</i>
13:56.4 -27:10	Hya AM 4	1982	Arp/Madore
18:08.4 -19:50	Sgr 2MASS-GC01, Hurt 1	2000	R.J. Hurt et.al. (2MASS)
18:09.6 -20:47	Sgr 2MASS-GC02, Hurt 2	2000	R.J. Hurt et.al. (2MASS)
18:09.1 -46:25	Ara ESO 280-SC06	2000	Ortolani/Bica/Barbuy
02:02.9 -03:15	Cet Whiting 1	2002	Whiting; 2005 Carraro
18:48.8 -01:30	Aql GLIMPSE-C01	2004	Kubolnicky et.al. (SST)
10:07.1 +12:48	Leo Segue 1	2006	Belokurov et.al. (SDSS)
16:52.2 -47:03	Ara FSR 1735, 2MASS-GC03	2006	Froebrich/Scholz/Raferty;
11:59.3 +12:16	Vir Kopusov 1	2007	Kopusov et.al. (SDSS)
07:58.3 +26:15	Gem Kopusov 2	2007	Kopusov et.al. (SDSS)
17:35.7 -36:21	Sco FSR 1767, 2MASS-GC04	2006	Froebrich/Scholz/Raferty; 2007 Bonatto/ Bica/Ortolani/Barbuy (2MASS)

Clayton: Tell us all about your telescope.

Barbara: In the summer of (2003) I had a new telescope built around my Galaxy Optics mirrors serial number 19. It replaced my old Sky Designs scope from 1988. These are the same 20 inch f4 optics I have had since 1988, which have been recoated several times. In 1988 f 4 scopes of this size were rare, and Galaxy Optics was a new company that I was taking a chance on, but now many manufacturers make them. It was cutting edge of the dobsonian revolution back then. No one used f 4 optics then. Most were f4.5 or longer. People

would walk up and assume it was a 17.5 inch because it is the same focal length, just a little stouter looking.



The new telescope was custom made for me by SpaceWalk telescopes in Austin. It has a ServoCat drive system <http://www.stellarcat.biz/> which replaced my equatorial platform built by Andy Sauletis and my husband, Buster. Because of the servo

drive I have regained 5 inches of height from the ground, so I don't have to go quite as high on the ladder. After a long night observing it makes a difference at dawn, I am not as tired from climbing the ladder all night.

Some of the special features that I love about this beauty are:

- Baltic Birch construction
- All stainless steel mirror cell
- All stainless steel hardware
- Kevlar mirror sling
- Kendrick Dew Remover System for mirrors eyepieces, finder
- 10 x 70 Takahashi finder with illuminated reticle.

Continued ...

Just Looking... from previous page

- Feather Touch Focuser by Starlight Instruments
- Servo Cat Drive System <http://www.stellarcat.biz/>
- Argo Navis Computer.
- Only two steps up a short ladder!

Clayton: I remember many discussions in our club meetings back in the 1990's as to whether it was suitable to use a goto mounted telescope. I also recall that your scopes from that era were always large Dobs and were not goto's. Now, this design is used and is very popular. Do you now use a goto? Do you still hear about this controversy?

Barbara: I thought about this and how my observing has changed over the last 25 years. Observing was very different before Uranometria became the "de facto" standard tool for deep sky observing in 1987. In those days when you found a faint fuzzy you did not know if it was a catalogued object, a comet or what. Uranometria changed all that. My first edition 1987 is totally dog eared, the book looks like it went through a war. Almost as worn is the Uranometria South edition (1988). I have annotated these books with hundreds of hand plotted objects, and observing notes/dates in the margins. I still use my Uranometrias, but for planning purposes now, I take my trusty laptop, loaded with MegaStar version 5 and the Real Sky (from Astronomical Society of the Pacific) loaded on the hard drive. (Now that big hard drives are common for laptops.) Real Sky is a compressed version of the Palomar Sky Survey which interfaces with MegaStar to show real images of the night sky. This allows quick searches of supernovae candidates, comet candidates, and allows one to quickly confirm a field seen in the telescope, using the photographic plates (albeit not at the resolution of the originals).

I would think that the advent of computer catalogues like MegaStar supplemented with the Real Sky loaded onto the hard drive is the greatest observing tool one can use at the telescope under true dark skies.

My new telescope is now go to. Computers are fast and efficient. I was very reluctant to use go to at first, but it was a requirement if I wanted the ServoCat drive/tracking system. Go to is a useful aid, but not a replacement for knowing the sky first. It gets you quickly to where you want to go, but then I still star hop with MegaStar/Real Sky to hone into really faint objects.

To be sure star hopping is still the only way to find the exact spot in the sky you are looking for. For brighter objects, go to is really simple and efficient, one can observe more objects in a night, and take detailed notes with a tracking system. It is great under light polluted skies, where stars are hard to see for star hopping. I still use my finder though. Using it, aligned with the telescope and a high power eyepiece to center the reticle, it is a killer for honing in on any object. The object may not be visible in the finder, but the faint stars visible in

it assure you that you are right where you need to be. Computers are an aid, but nothing is better than the human brain. I have hundreds if not thousands of objects memorized, what they look like where they are etc. There is nothing wrong with using the latest technology, if used correctly. I learned the sky first however. I rarely print star charts anymore. I just added a new technology. A Wireless 232. The telescope interfaces with the computer control system of Megastar via a wireless controller. It also shows on the computer screen exactly where you are looking in the sky.

Clayton: I know that your husband Buster and your grandson are all observers. Do the three of you ever observe together on occasion?

Barbara: Yes, Ben has gone with us to the Texas Star Party every year since he was 14, he is now in college at University of Texas at Austin. He has completed every observing program at TSP and has dozens of observing pins for his efforts.

Clayton: Years ago one of our past HAS presidents, Lee Cain, designed and proposed construction of a 30" binocular that would have been housed at our observatory site near Columbus. Of course it was never built. I personally thought it was a great idea. What were your thoughts about its construction then? Do you have a different view now?

Barbara: At the time the telescope was very innovative but not really practical for many people to use since it would have required an observing platform/chair to reach the eyepieces.

Clayton: *Sky and Telescope* or *Astronomy*? Why?

Barbara: I prefer *Sky and Telescope* most of the time. I know many of the people there and they are great. The editor in chief went to college here in Houston. But since my friend Steve O moved to *Astronomy* I think *Astronomy* is making great strides.

Continued ...

Just Looking... from previous page

Clayton: Do you have an amateur observing mentor?

Barbara: Wow, many. HAS members over the years have been wonderful and I learned so much from so many people in HAS. The club members have been warm and generous with their knowledge. Emil Bonnanno who was an HAS member for many years wrote *MegaStar*. We are blessed with many top names in astronomy in this club. You mentioned Lee Cain. He used to write so many great articles in *GuideStar*. One of my favorites was on eyepieces; Lee Cain's "13 power per inch of aperture" was a classic. I would devour his articles on observing. His sketch of the "Horsehead Nebula" was an inspiration to keep, as this object back when, was an exotic object to observe.

Clayton: I know that you're on the staff at the Texas Star Party year after year? What do you see for changes in the next decade?

Barbara: TSP will continue to offer the best observing and the best educational speakers; it will remain one of the premier observing events of the world.

Clayton: How do envision amateur astronomy in the next 25 years?

Barbara: This is a fabulous question, and there was a long discussion on astro yahoo groups recently on this very theme. Computers will continue to dominate telescope technology, remote observing for students will be commonplace, where students will take images from mountaintop sites for fun and school projects. If urban sprawl doesn't do us in completely however we will have to travel farther and farther to seek the beauty of star filled skies.

Clayton: Do you have any helpful advice to pass on to observers just starting out in astronomy?

Barbara: Astronomy teaches you patience. Prepare to be humbled. Clouds, mosquitoes, dew, humidity. I drove 2 hours to see a star go behind Saturn's rings, only to see the sky fill with clouds and rain at the exact moment of the event. The universe will share its secrets but on its own terms. This aspect is what keeps us coming back for more. Listen and learn, ask questions, get someone to spend a night of observing with you and show you what can be seen through your telescope. If you don't own a scope use one of the HAS loaners, it is a great way to start without spending a lot of money.

Don't become an equipment junkie too soon. Look through a bunch of telescopes, all kinds, reflectors, refractors, cats. I have at least one of each, but I have been doing this a long time. Different scopes work for different types of observing. If you buy a large dobsonian only to find out you want to observe double stars, then you need to look into a nice refractor instead. So learn what you like before you buy. The best scope is the one you use the most.

There is plenty of time to spend your hard earned dollars on

plenty of things you just can't live without. Do you really need 25 eyepieces? When you do buy, get advice from other people in the club. I took lots of chances but it turned out well. Good optics only goes up in price. Remember I am still using the same 20 inch optics I bought 20 years ago. A great investment if you choose correctly and carefully. Read reviews, but always with a grain of salt. Astronomics has a great website on telescopes.

Read the small ads in the magazines. Sometimes taking a chance on a new manufacturer before they become known will save you money down the road before they become known and expensive. My little 7 inch StarMaster which I bought before the company became known has quadrupled in value.. I have Nagler eyepieces from the 1980's I use all the time. A good investment. I have some eyepieces that are rare, and no longer made. Try things out, if you are unhappy there is always www.astromart.com to sell what you don't like. Or save money and buy used, if you know what you want. A friend of mine just bought a 20" StarSplitter in Arizona for about half its retail value because the owner's circumstances changed and he had to get rid of it. There are bargains out there. But rarely in eyepieces. Build a great collection; the best always keep their value if you take care of them. Fast focal ratio scopes make mincemeat of many cheap eyepieces. Slow focal ratios can use less expensive designs and give excellent views.

Buy books, and read them. Buy Burnham's *Celestial Handbook*, and read its wonderful prose, and it will guide you to the best of what each constellation has to offer.

I was lucky to have a club member one night at Columbus take me on a whirlwind tour of the fall sky with just a Telrad and some very basic charts in the beginning. I never forgot his generosity or his encyclopedic knowledge of the best and the brightest objects. Start an observing program, the internet and software planning programs are so helpful. Learn the NGC numbers, by season, so you

Continued ...

Just Looking... from previous page

know what part of the sky they are in. Learn how the sky rotates by month and season, so you will know when objects will be above your horizon. Learn the names of the 20 brightest stars in the sky and when they are visible. If someone asks you if NGC 1 is up you will know it is in Pegasus and it is visible now. This is not hard. The NGC is numbered by RA.

Stay focused on your program, observe what you like. Say, do a program on edge on galaxies, or face on spirals, or bright planetaries, or reflection nebulae (those little green boxes on Sky Atlas). Study star charts, I found them addicting and spent hours studying them during the day before going out at night. Don't get frustrated if you can't find xxx object, just take your time. Eventually that elusive object will show up in your eyepiece. Enjoy the hunt. Or go computerized if you prefer. Remember this is added complexity, instead of the pleasure and simplicity of a simple dobsonian or Newtonian and some star charts.

Find a used copy of Ken Fulton's Light Hearted Astronomer, (a humorous guide to amateur astronomy to help you find out what you want to do and where you want to go) which concludes with:

Go gently into that good night. Happy star trails, and God speed!"

Clayton: Thanks Barbara for taking the time to share your interest and thoughts with us for our monthly HAS newsletter, The *GuideStar*. We wish you luck with all of your astronomy interests. Thanks also for all the work and hundreds of hours that you and your husband Buster, have contributed for our society. Clear skies, always.

Remember --

All HAS memberships are due for renewal in January. It's not too early to pay your 2009 dues!! Our membership year corresponds to the calendar year.

If you've missed a dues payment in the past, there's no extra cost for late payment, and the organization appreciates your support.

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

Want Ads

For Sale: Takahashi NJP Temma Mount

The mount is in excellent condition and comes with auto guider cable, custom made heavy duty Scope Guard case, power supply in Pelican case, four 14 lb weights, hand controller, polar finder illuminator, PC cable, Losmandy saddle plate and software. I am asking \$4,500. Contact Mike Squicciarini, Richmond, Texas 281-277-1885 (home), msquic@alltel.net.

For Sale: Nexstar 5se

Nexstar 5se bought in June 07. Like new condition, barely used (bought a bigger scope): This is a great starter scope if you're new to the hobby!

Includes a Zhumell 1.25 Inch Eyepiece and Filter Kit and A/C power source. Still have all the original boxes. Asking \$550.00

Rick Hillier
Call 713-875-6463 (cell)
e-mail hillier_rick@yahoo.com

For Sale: Celestron C-5 Outfit

Includes:

- 5x24 finder scope
- Erect image diagonal
- Four Eyepieces: 25 mm; 17 mm; 12.5 mm; and 7.5 mm
- Equatorial wedge, adjustable for latitude
- Battery powered (9v) motor drive
- Celestron Rubber Covered Tripod--very sturdy
- Carrying case-Celestron

Condition excellent. Price: \$425 for complete outfit. For more information or to make offer, contact Tom Williams, 713-526-2868.

For Sale: 17.5" Newtonian

Perfect for imaging or visual star parties. 17.5" f4.5 Newtonian telescope with highly accurate microprocessor-controlled, step-based alt-az drive system with focal plane rotator. Designed and built by Andy Saulietis and the owner. Accepts ST4-compatible inputs for autoguiding. Mechanical and calibration work done by the owner to optimize system accuracy for autoguided CCD imaging. Original 1981 Coulter mirror refigured to smooth 1/8th-wave surface by Sky Optical in late 80's. Primary and secondary recoated with enhanced coatings group by PAP in early 90's. Optics in excellent condition. 80mm f5 finder. Breaks down to numerous major pieces for transport. With modest effort, can be a traveling scope, but better as a semi-permanent observatory. See my website for many images made with this system over the last decade.

Price negotiable. For pickup/delivery, maybe can meet you halfway. Call 281-482-5190 or E-mail Al Kelly.

For Sale: Celestron Nexstar 8

Like New Condition...Celestron Nexstar 8, Used only 2 times in back yard. Some extras include Solar filter, 1 1/4" star diagonal, 40 mm multi-coated nexstar plossel, 8-24 mm Z00 eyepiece, variable polarizing filter, 2X multicoated Barlow. \$ 850.00 Jack DeNina, Willis, Texas 936-856-0704, jjack9485@cs.com

Email your ads to Kay McCallum, our Webmaster, at KayM@MccLibrary.net and to Bill Pellerin, GuideStar editor at billpellerin@sbcglobal.net

How can I learn more about the Astronomical League?

Amateur astronomers from across the country benefit from perusing the many pages of the Astronomical League's website, www.astroleague.org. Naturally, this is the place to go if you're looking for information about upcoming events and League news. But there is so much more...

Want to learn all about one of the great League observing programs? Go to www.astroleague.org/observing.html.

Do you know of a worthy candidate for one of the many League awards? Look at <http://www.astroleague.org/al/awards/awards.html>.

Are you interested in buying a particular book about our fascinating hobby? Then go to www.astroleague.org/al/bookserv/bookserv.html.

There is even something to help your club function better. Try www.astroleague.org/al/socaid/socaidid.html

Make the most of your Astronomical League membership! **To find out more about what the Astronomical League offers you, why not log on to www.astroleague.org today?**

Deneb - the tail

by Bill Pellerin, GuideStar Editor

Object: Deneb
Class: Star
Magnitude: 1.25
R.A.: 20 h, 41 m, 26 s
Dec: 45 degrees, 16 minutes, 49 seconds
Distance: 1410 (+/- 230) ly (your pick)
Constellation: Cygnus
Size: see below
Optics needed: Naked eye

Why this object is interesting.

Just last night I spent several minutes gazing at Deneb a beautiful blue-white star in the constellation Cygnus the Swan. I've been doing some research on this star for this article and there are plenty of interesting things to know. The star is well placed at this time of the year, in the western sky at nightfall and setting after midnight.

Many of the older sources will put the distance of Deneb at 3200 ly or so. Roger Sinnott (of *Sky and Telescope*) wrote (October 2007) that new analysis of the Hipparcos data puts the star at 1430 ly, less than 1/2 the distance previously thought. (You can find this article at www.skyandtelescope.com.)

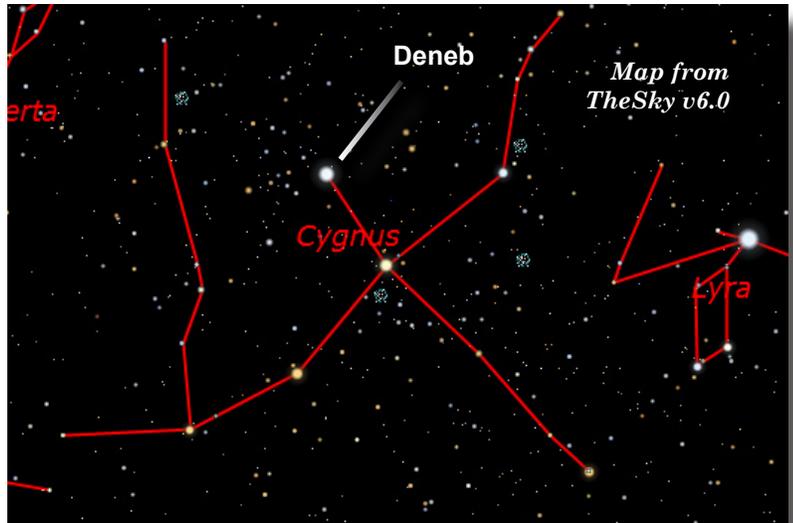
You probably know where Deneb is, and you know that it, with the brighter Vega to its west and with Altair to the south form the summer triangle. Vega shines at magnitude zero, so it's the brighter of the two northern points of the triangle.

Think about this. The magnitude of Altair, the southern star of the summer triangle is .76, but Altair is only 16.7 light years distant. So, Altair is a 2.2 absolute magnitude star and Deneb is a -6.95 absolute magnitude star. (Absolute magnitude is how bright the star would be if it were 10 parsecs [32.6 light years] away.)

This also means that the luminosity (power output) of Deneb is about 4600 times the luminosity of Altair and about 52000 times the luminosity of our Sun. (Jim Kaler, University of Illinois has a higher estimate, but assumes Deneb is much farther away.) It's likely that Deneb is one of the brightest stars in the Milky Way galaxy.

Even with this estimate, if Deneb were to replace our Sun, Earth's orbit would be inside the star.

We know that the name, Deneb, is from the Arabic meaning 'the tail', so we know that the Swan is flying south through the Milky Way. There's at least one other



well-known star with a similar name, Denebola. Denebola represents the tail of Leo the Lion, and its name means just that -- 'tail of the lion'.

Albireo, at the other end of the Swan indicates the beak (although there is some uncertainty about the etymology of the word).

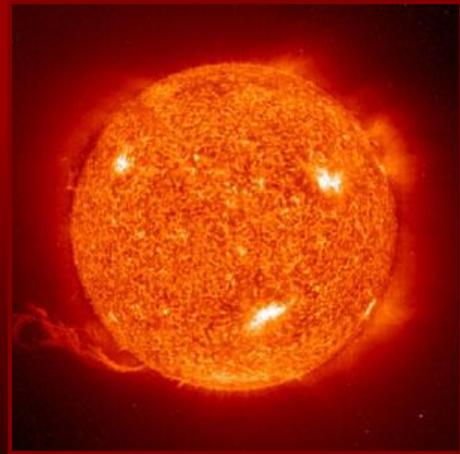
There's a wonderful new book called *The Brightest Stars* by Fred Schaff, a well-known writer on astronomical subjects. I'll write a more complete review of the book for next month, but the idea of the book is to introduce the reader to the magnitude 1 stars in the sky and then to dive into the details of those stars. Deneb is included and is the inspiration for this article.

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Membership Renewals...

Your membership is renewable on January 1 of each year.

Total yearly dues are \$36.

Your payment for 2009 is due as of January 1, 2009.

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 regularly, 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!

Minutes
of the October, 2008 Meeting of the

Houston Astronomical Society

The October, 2008 meeting of the Houston Astronomical Society was called to order on October 3rd at 8:04 p.m. by HAS President, Bill Leach.

Opening Announcements:

- Bill Leach introduced himself and welcomed everyone to the meeting.
- After spending a few moments surveying the attendees about their power situation in the wake of Hurricane Ike, Bill recognized the one guest in attendance.

Announcements:

- Bill Leach reminded everyone about the upcoming all clubs meeting at Houston Community College on the evening of October 17, followed by Astronomy Day at the George Observatory on the 18th. Bill related that there were still several opportunities to volunteer at Astronomy Day. To volunteer members were encouraged to visit the Astronomy Day website via the link on the HAS website: www.astronomyhouston.org.
- Amelia Goldberg presented Larry Wadle with the Astronomical League's Comet Observers Club Silver Level Certificate #46 and the accompanying lapel pin. To see all the awards earned by HAS members, visit the Astronomical League Certificates page of the HAS website. For more information on the Astronomical League observing programs, go to the AL website, <http://www.astroleague.org/>
- Alan Rossiter announced that there was a "Fathers and Flashlights" star party for 350 fathers and as many kids scheduled for the evening of October 4th. Alan also related that there's another community star party scheduled for October 28th in the Sugarland area. Alan asked anyone interested in volunteering for these events to contact him.
- Bill announced that there were more vintage astronomy magazines from our library available free to members at the front of the meeting room
- Bill Leach presented the list of candidates for this year's November HAS general election. The Nominating Committee was still actively searching for one at-large board member and a secretary. Bill asked anyone interested in serving in one of these club positions to contact him.

- Don Pearce gave the Comet Report, highlighting Comets 205P/Giacobini and 29P/Schwassmann-Wachmann. For more information on these comets and other comets of interest, see Don's Comet Corner on the HAS website.

Program:

Steve Goldberg introduced the featured speaker for the evening, Dr. Channon Visscher of the Lunar and Planetary Institute, who delivered his presentation, "Lifting the Veil: Clouds and Chemistry in Jovian Atmospheres." At the conclusion of his well-received presentation, Dr. Visscher answered questions and received a gift of appreciation from the society.

Closing Announcements:

- Telescope Loaner Program Co-Chair, Bram Weisman, reviewed the details of the Loaner Telescope Program and pointed members to the HAS website for more information.
- Bill Leach pronounced the meeting adjourned at 9:24 p.m.

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

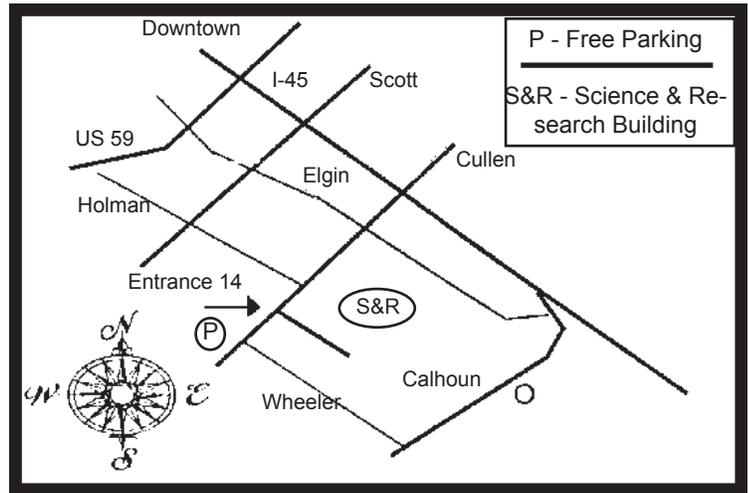
The Board of Directors Meeting is held on dates scheduled by the board at 7:00 p.m. at the University of St. Thomas. Information provided to GuideStar will be published. The meetings are open to all members of the Society in good standing. Attendance is encouraged.

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.

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Email: BillPellerin@sbcglobal.net

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Houston Astronomical Society

Meeting on November 7

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.***