



# GuideStar

**October, 2008**

*At the October 3 meeting...*

## **Atmospheric chemistry of the gas giants**

**Dr. Channon Visscher, from LPI**

Note: Due to disruptions from hurricane Ike, the speaker for this month's meeting may change.

## **8th Southeast Texas All Clubs Meeting**

Friday, October 17, 2008  
Houston Community College 3100 Main St  
Registration: 7:00 PM  
Meeting: 8:00 PM - 10:00 PM

Featured Speaker: Dr. David Levy  
**"My Life and Hard Times as a Comet Hunter"**

*.. followed by*

**Astronomy Day 2008**  
[www.astronomyday.org](http://www.astronomyday.org)

*volunteer or just come out!*

### **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.  
Bill Jacobus, FBAC Vice President, "Dew Control for Telescopes"

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  
 Secretary: Doug McCormick.....H: 281-996-0177  
 Treasurer: Bill Flanagan.....H:713-699-8819  
 Past President: Steve Sartor .....

### Additional Board Members

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

### Committee Chairpersons

Audit .....Tom 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.

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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

## 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/cbr/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)

# October/November Calendar:



Photo by Scott Mitchell

Check the web site:  
[www.astronomyhouston.org](http://www.astronomyhouston.org)  
**Webmaster: Kay McCallum**  
[kaym@mcclibrary.net](mailto: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](mailto:kaym@mcclibrary.net).

**Date Time Event**

## October

3	7:00 p.m.	HAS Novice Meeting, U of H
	8:00 p.m.	HAS General Meeting, U of H
7	4:05 a.m.	Moon at first quarter
14	3:03 p.m.	Full Moon
17	7:00 p.m.	7th Annual Houston Beaumont Regional Astronomy Meeting, Houston Community College Administrative Building
18	3 p.m. - 10 p.m.	Astronomy Day, George Observatory
21	6:56 a.m.	Moon at last quarter Orionid Meteors Peak
22	4:00 a.m.	Mercury at greatest elongation west
25		Prime Night, Columbus Observing Site
28	6:14 p.m.	New Moon
30	7:30 p.m.	HAS Board of Directors Meeting, Houston Chronicle Building

## 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
29		Prime Night, Columbus Observing Site

Send calendar events to Doug McCormick  
 - [skygazer10@sbcglobal.net](mailto:skygazer10@sbcglobal.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](mailto:itjdm0@yahoo.com)

John Missavage- HAS Publicity Chair

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**GuideStar deadline  
for the November  
issue  
is October 15**

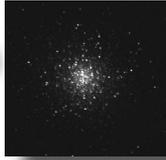
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## Observations... of the editor

by Bill Pellerin, GuideStar Editor



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### What happens when the lights go out?

September 20, 2008

By the time the lights went out at our house on Friday, September 12, I had already left town. It's now Saturday, September 20, and the lights are not yet on, and, according to the plan, we shouldn't expect power to be back until the 25th or so.

We've become so dependent on having electrical power to do what we want to do. I can't produce this *GuideStar* unless I have power to run my computer, and I can't get it posted on the web site unless my Internet connection is alive-and-well. At this point, I'm not sure when you'll see this. I'm coming back to Houston tomorrow, so I don't know when I'll be able to work on this.

Our dependency on technology is apparent in our astronomical activities as well. My primary star map is TheSky on my laptop. With TheSky, I can absolutely confirm that I'm looking at the correct part of the sky because I can match the map on the screen with what I see in the eyepiece. Without the ability to do that, I'm lost.

I hope you got through the storm without any significant problems. I see losing the power as an inconvenience, but not a significant problem. It's fair to say that I haven't missed any meals as a result of this problem.

I suppose that the skies over Houston were a bit darker than normal. Had I thought of it, I would have tried to determine the effect of the power outage on the sky brightness.

September 28, 2008

The power at my house came on at 14:00 yesterday (Saturday), the 15th day of the outage. I haven't been able to do anything on the *GuideStar* since the 20th, but I'll finish it this week, before the meeting.

The first week after the storm was spent out of Houston, but on the 21st I had to come back to town so I could go to work on the 22nd. The power crew from Los Angeles arrived



yesterday and had the power up in about an hour. I had purchased a dozen cookies for the event, so I was able to thank the electrical workers with the cookies.

Not much thought given to astronomy over this time. Priorities tend to change in a crisis.

Anyway... I hope to see you at Astronomy Day (I'll be there), and at the All Clubs Meeting the day before.

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

..Bill

### 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.

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# *Observatory Corner*

*By Bob Rogers, Observatory Chairman*



Hello everyone.

WOW! What a storm. I hope that everyone has made it through Hurricane Ike safe and sound. I like everyone else had tree damage but no structural damage. Let's hope we all don't get another one like this for a long, long time.

An update on the Tractor Shed – Well, still no Tractor Shed as of September 16<sup>th</sup>, but I have been told that delivery on it is to be the week or two after the storm. Carolina Carports decided to postpone the delivery until after Hurricane Ike had passed. I thought that was a good idea.

We have had a problem with the Corby system in the observatory at the site. The Corby system wouldn't let anyone into the Telescope room. I asked Mike Dye, who installed the system years ago, to come out and find the problem. After a few hours of testing circuits and saying a few choice words to the Corby box, it was discovered that the Telescope room door entry pad was bad. This is the keypad that gets the most use in the Observatory. After working on the problem Mike was able to get the system working again. I want to thank Mike and Judy Dye for coming out to fix it.

Well, enough for now. It's back to cleaning up the yard.

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/George Stradley, our Field Trip and Observing Chairmans, has set the following 2008 Field Trip Schedule –

- September 27<sup>th</sup> for the All Clubs Field Trip /HAS Picnic
- October 25<sup>th</sup> 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](mailto:siteworkerbob@hotmail.com)**

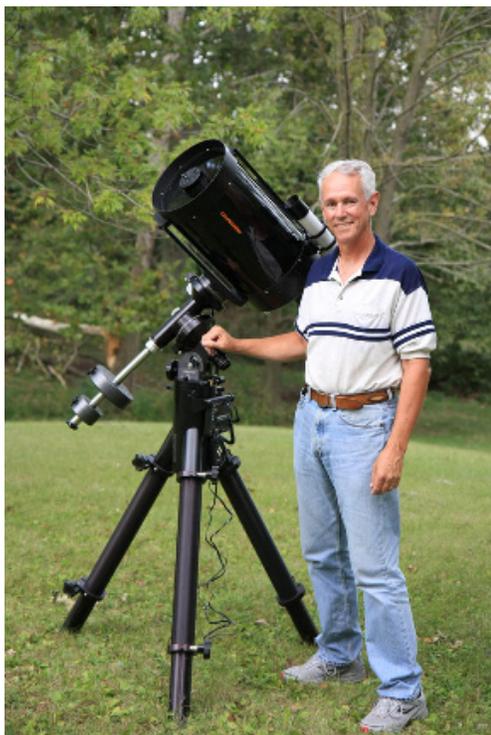


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## Bob Morrow -- of "Bob's Knobs"

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If you haven't heard of "Bob's Knobs", then where have you been? If you have made any of the Texas Star Parties "Great Texas Giveaways" on Friday and Saturday nights in more recent years, then you have heard of these handy little gizmos. I can hear as the crowd in the Prude Ranch auditorium chants in unison as they are given away every year... "BOB'S KNOBS... must be present to win"!



**Bob Morrow with his Celestron C-11 that inspired Bob's Knobs**

Bob Morrow is the creator of these fine collimating adjusting screws. It was really fun chatting with Bob for this interview; he is full of neat-o ideas. If you own a SCT, then you probably own a set of his adjustment screws. Let's find out how he got his idea to make life a little bit simpler for us. Enjoy his story...

### **The Bob Morrow Bio...**

Ever since he was given a Tasco refractor (234 power!) in the early 1960's, Bob Morrow has been interested in astronomy. He was a familiar sight at the Griffith Observatory, north of

Los Angeles, where he spent countless hours at the museum and in the planetarium. During his undergraduate work at the U. S. Air Force Academy, his ambitious project in astronomy class was to photograph all the Messier objects through the school's 10-inch Celestron SCT. He gave up after hours of collecting photons from the ring and crab nebulae onto GAF 500 film. They were barely visible. Bob finally acquired his own C11 and discovered that the views of the skies in rural Indiana were fantastic...when the telescope was collimated. Unfortunately, that wasn't often, and re-collimating was a real challenge using the factory screws. Eventually, Bob realized that the factory screws could be replaced with knobs, and Bob's Knobs was born. Now collimation could be done while looking through the eyepiece and without threatening the corrector plate with a pointed tool. After sending another set to an internet forum member, requests for knobs began arriving in droves. Bob got busy designing knobs for other telescope makes

and models, creating a web site [www.bob-sknobs.com](http://www.bob-sknobs.com), and learning about packaging and shipping. Bob's Knobs are now available for collimating over 40 different telescope models, and for various mounts so they can be assembled without tools.

### **The Bob Morrow interview...**

**Clayton:** It is wonderful to have you here Bob, to discuss your company, but most importantly, your interest in astronomy. Could you be a bit more specific on how you caught the astronomy bug? Was it an object that you observed through that massive Tasco refractor that sparked your interest?

**Bob:** It's actually a bit earlier than that, even. My fourth grade teacher, Mrs. Davis, was really into the physical sciences, and she sparked my interest in astronomy, chemistry, and electronics. My dad took me to the Griffith Observatory planetarium, and I still remember how the stars on that dome were so intensely brilliant. I'd never seen anything like it, at least not in Garden Grove, south of Los Angeles, where I grew up. My grandparents had friends in the Hollywood Hills area who had a 6-inch refractor in a dome on the third floor of their home. I vividly remember my first view of Albireo, that beautiful red and blue optical double in Cygnus, through that telescope. It blew me away! The little Tasco was a Christmas present from my grandfather, and I enjoyed it for years.

**Clayton:** Speaking about that giant Tasco refractor of yours from the 1960's... what became of it? Do you still own it? Was it a good performer?

**Bob:** I owned it through my college years, then finally sold it to a fellow Air Force pilot in the mid 1970's. It was a great performer, at least at the lower powers.

*Continued ...*

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## *Just Looking... from previous page*

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It had two eyepieces, a 35x, which was great, and a 117x, which was terrible, along with a 2x barlow. The views at 35x and 70x were quite remarkable. I remember reading a book on telescope performance while I was in high school, and the little Tasco did quite well – very little chromatic aberration, a bit of coma at the field edges, and (ahem) decent collimation. The two-element 2.5-inch objective would come apart and start an impressive solar fire, but we won't talk about that. Speaking of the sun, the Tasco had one of those incredibly dangerous solar filters that screwed onto the back of the eyepiece. After a few minutes observing the sun, I'd have to wait a while for it to cool down before removing it. I was fortunate the thing didn't crack and blow out my eyesight. That's the one item I didn't sell with the telescope. I still have it.

**Clayton:** Are you a visual observer only? What is a typical observing session for you?

**Bob:** While a student at the U. S. Air Force Academy in the early 1970's, a classmate named Paul Gilliam and I would do visual and camera work at the school's domed Celestron C10 Schmidt-Cassegrain. We had no idea where anything was in the sky, but my old Norton's Star Atlas gave right ascension (RA) and declination (DEC) numbers for everything we wanted to observe. Nothing was computerized at that time; the scope only had mechanical setting circles. So we set the RA and DEC for the Ring Nebula, and there it was in the eyepiece! We were never able to do that again. Piggybacked onto the C10 was a nifty 6-inch Schmidt camera with a film holder at the prime focus directly over the mirror. We had to cut a single frame of film, usually Ektachrome 200 or 400, insert it into the film holder, and carefully place it into a magnetic carrier inside the tube, all in total darkness. One false move and the primary mirror was history. Sometimes astronomy can be a high-anxiety hobby.

**Clayton:** What design instrument do you use? Still use your C-11?

**Bob:** I still have the C11 that was the test mule for my first set of knobs. However, most of my casual visual work today is done with Canon 18x50 image-stabilized binoculars. One of my favorite instruments for more serious visual work is an 8-inch PortaBall. I also have a C14 that comes out a few times a year when the local high school science class comes over for a star party.

**Clayton:** You mentioned earlier in your Bio as being a permanent fixture at the Griffith Observatory in your earlier years. During those times, were there observing sessions for the public or star parties?

**Bob:** Yes, the observatory would open the dome and have viewing sessions quite often. Of course, over the years the Los Angeles sky became so bright that little could be seen beyond the moon and planets, but it was still a great experience looking through a professional telescope. For me, the real highlights were the museum and planetarium. The observatory staff was

extremely helpful and taught this young kid a lot. They would even answer my long letters asking about planetary characteristics, and they occasionally sent me archival copies of their outstanding magazine called the Griffith Observer. I eventually subscribed for several years, and I still have the stack.

**Clayton:** Can you tell us a little about the making of "Bob's Knobs"?

**Bob:** My C11 was a real bear to keep in collimation. Sometimes just swinging the scope from one part of the sky to another was enough to turn the stars into comets. Using a screwdriver was a definite hit-and-miss procedure, and I'd invariably make things worse. Then I'd forget what screw was turned and in which direction, so achieving collimation soon became hopeless. My engineering background convinced me that there must be a better way, and that turned out to be replacing the factory screws with knobs. Now I could look into the eyepiece while adjusting the knobs, and the shadow of my hand on the star's diffraction pattern took the guesswork out of which knob to adjust.

**Clayton:** Besides the collimation knobs that you design, do you offer other astronomical items? What's new at Bob's Knobs?

**Bob:** Most of our focus has been on collimation, and we provide knobs for nearly the entire Meade and Celestron line, along with several other brands such as Orion, Takahashi, Vixen, and Intes. The challenge is keeping up with the new models. Sometimes the first we hear of a new scope is when a customer asks us about knobs! Aside from collimation, we also make knobs for no-tools mount setup and accessory attachment. Our web site has a section that allows a customer to order a custom set of knobs for just about any application.

**Clayton:** Do you have an amateur observing mentor?

**Bob:** Over the years I had friends that were interested in the hobby, and we often worked as a team. Much of what we learned

*Continued ...*

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## Just Looking... from previous page

was through trial and error, and I also had access to some outstanding books such as George Abell's Exploration of the Universe. The most valuable support came from my parents and teachers.

**Clayton:** Have you a favorite star party that you attend regularly? Are there others? I don't think I've seen you at TSP.... ever been?

**Bob:** I've never been to TSP, but as you mentioned earlier, we send a couple of door prizes each year. We support several star parties and other events in this way. Our regular star party attendance has been in my local area, and we go to the Apollo Rendezvous in Dayton, Ohio, nearly every year. This year I also made it to the Northeast Astronomy Forum (NEAF) and got to meet many of our dealers there, some for the first time.

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

**Bob:** Astronomy is one of the finest hobbies around. A person can start with a cheap pair of binoculars and see some fantastic sights. With the advent of computer-aided mirror manufacturing, telescopes are available for a few hundred dollars today that rival yesterday's professional instruments. Computer-aided control has taken much of the guesswork out of finding objects. (To be frank, though, this is one feature I don't use, preferring instead to learn the sky and point the telescope manually.) Finally, improvements in digital photography have given amateurs the ability to create images of a quality unheard of only ten years ago. Just look in the back of some of the astronomy magazines for some amazing examples. Judging by what's available to professionals today, I think that amateurs will soon see improvements in two major areas: remote telescope control and adaptive optics. As more amateurs put their instruments into domes, these can be networked together with internet-based control into an amateur version of the Very Large Telescope (VLT) array in Chile. Amateurs are already using Photoshop and other software to emulate adaptive optics by overlaying several images to improve resolution and reduce sensor noise, and I see this method becoming more prevalent and automated, perhaps performing nearly as well as mechanically adaptive mirrors. Looking father into the future, perhaps amateur astronomers will one day have access to their own space launch capability.

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

**Bob:** Absolutely. Don't make the mistake of acquiring a cheap department store telescope, as nothing will dampen your enthusiasm for the hobby more quickly. I always recommend using binoculars as a first "telescope" because even a basic pair with glass lenses performs far better than a cheap refractor, and they're easier to look through. You can even beg or borrow them at no cost. Someone who knows the sky can use a green laser pointer to guide you to the interesting objects. Get onto

the internet and learn all you can about the hobby. Buy a good backyard observing book and get to know the sky. If you're still at it after a month, subscribe to one of the astronomy magazines and begin saving your pennies for that first telescope.

**Clayton:** Is there an email address or website that you use that a Houston Astronomical Society member could contact you for an additional question or two?

**Bob:** Anyone can reach me by sending email to [bob@bobsknobs.com](mailto:bob@bobsknobs.com).

**Clayton:** Thanks Bob for taking the time to share your interest and thoughts with us for our monthly HAS newsletter, "The Guide Star". We wish you luck with all of your astronomy interests and "Bob's Knobs". Please come visit our society when in the Houston area, we'd love to see you. Clear skies, always.

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## 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 half-way. 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*

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## 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](http://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](http://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](http://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](http://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](http://www.astroleague.org) today?**

# Beta Lyr

by Bill Pellerin, GuideStar Editor

**Object:** Beta Lyr  
**Class:** Eclipsing variable  
**Magnitude:** 3.45 to 4.0  
**R.A.:** 18 h, 50 m, 5 s  
**Dec:** 33 degrees, 21 minutes, 46 seconds  
**Distance:** 880 ly  
**Constellation:**  
**Size:** n/a  
**Optics needed:** Naked eye

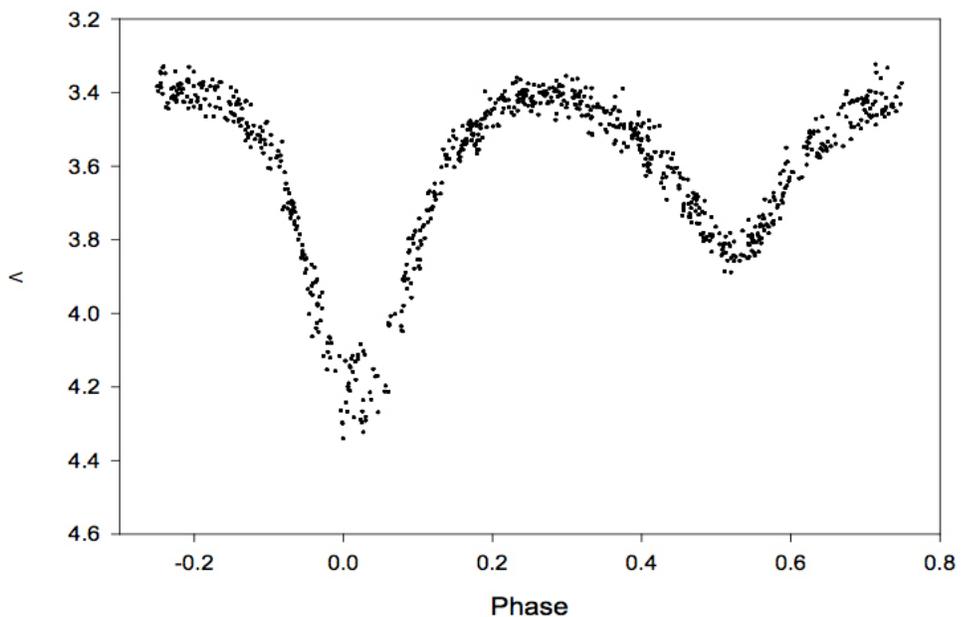
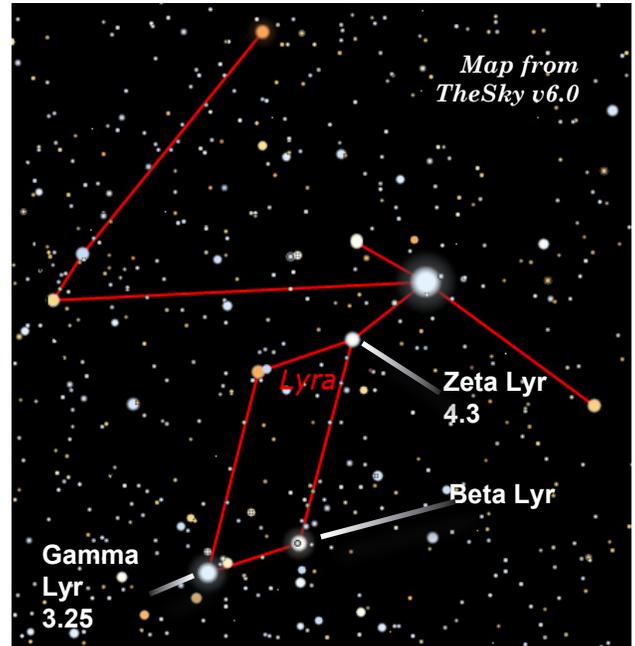
## Why this object is interesting.

The period of Beta Lyr (also known as Sheliak) is well known to be 12.94 days, exactly, almost. The fact that the period of the variability is so consistent and the period is so short tells us that this has to be an eclipsing variable. Two stars are in orbit around a common center of mass, and the plane of the orbit lines up with the Earth. What are the chances? (Algol, the demon star, is also an eclipsing variable -- see the November, 2006 issue of the *GuideStar* for a discussion.)

Most of the light comes to us from the main star, a B class (blue) star; the secondary is a B class dwarf. Scientists believe that the main star is losing matter to the secondary, dwarf, star in an accretion disk of material. This star is the prototype of in-contact eclipsing variable stars, so you'll hear about other stars systems that conform the Beta Lyr 'class'.

While the full cycle of variability takes the 12.94 days that I mentioned above, there are two events. At one point in the cycle the secondary star is in front of the primary star and the magnitude of the system drops to about 4.6. Then, 6.47 days later, the secondary star passes behind the primary star and the magnitude of the system drops to about magnitude 3.8. See if you can see this decrease in magnitude by monitoring the star regularly.

A good comparison star is Zeta Lyr, which is due north (up on the chart to the right). Zeta is a 4.3 magnitude star, so it is about as bright as Beta at its dimmest. (Zeta is a double star, by the way.) To the west is Gamma Lyr which shines at magnitude 3.25, about the same brightness as Beta at its brightest.



Light curve of Beta Lyr  
from AAVSO

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## Calling all Star Party Fans!

Friends of West U Parks is holding a “Fathers and Flashlights” event on Saturday, October 4. They are expecting about 250 dads with 350 children aged 4 through 9 for an evening of food, entertainment and games at the West University Little League Fields, and they have asked HAS to join the festivities and set up a “star gazing station” for the kids. If you are interested in participating please let me know.

Alan Rossiter, 713-660-9503; [alan@rossiters.org](mailto:alan@rossiters.org)

# Extreme Starburst

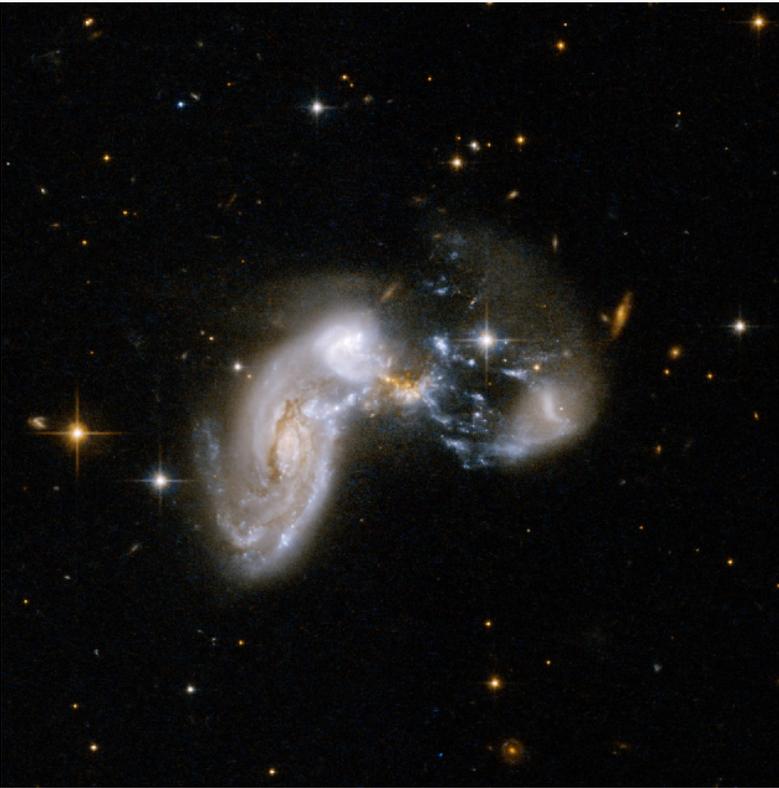


by Dr. Tony Phillips

*A star is born. A star is born. A star is born.*

Repeat that phrase 4000 times and you start to get an idea what life is like in distant galaxy J100054+023436.

Astronomers using NASA's Spitzer Space Telescope and ground-based observatories have found that the galaxy gives birth to as many as 4000 stars a year. For comparison, in the same period of time the Milky Way produces only about 10. This makes J100054+023436 an extreme starburst galaxy.



*The "Baby Boom" galaxy loosely resembles the galaxy shown here, called Zw II 96, in this Hubble Space Telescope image. This galaxy is only 500 million light-years away, while the Baby Boom galaxy is 12.3 billion light-years away.*

"We call it the 'Baby Boom galaxy,'" says Peter Capak of NASA's Spitzer Science Center at the California Institute of Technology in Pasadena, CA. "It is undergoing a major baby boom, producing most of its stars all at once. If our human population was produced in a similar boom, then almost all people alive today would be the same age."

Capak is lead author of a paper entitled "Spectroscopic Confirmation of an Extreme Starburst at Redshift 4.547" detailing the discovery in the July 10th issue of *Astrophysical Journal Letters*.

The galaxy appears to be a merger, a "train wreck" of two or more galaxies crashing together. The crash is what produces the baby boom. Clouds of interstellar gas within the two galaxies press against one another and collapse to form stars, dozens to hundreds at a time.

This isn't the first time astronomers have witnessed a galaxy producing so many stars. "There are some other extreme starburst galaxies in the local universe," says Capak. But the Baby Boom galaxy is special because it is not local. It lies about 12.3 billion light years from Earth, which means we are seeing it as it was 12.3 billion years ago. The universe itself is no older than 14 billion years, so this galaxy is just a youngster (Capak likens it to a 6-year-old human) previously thought to be incapable of such rapid-fire star production.

The Baby Boom galaxy poses a challenge to the Hierarchical Model of galaxy evolution favored by many astronomers. According to the Hierarchical Model, galaxies grow by merging; Add two small galaxies together, and you get a bigger galaxy. In the early years of the universe, all galaxies were small, and they produced correspondingly small bursts of star formation when they merged. "Yet in J100054+023436, we see an extreme starburst. The merging galaxies must be pretty large."

Capak and colleagues are busy looking for more Baby Boomers "to see if this is a one-off case or a common occurrence." The theory of evolution of galaxies hangs in the balance.

Meanwhile... A star is born. A star is born. A star is born.

See more breathtaking Spitzer images at [www.spitzer.caltech.edu/Media/mediaimages](http://www.spitzer.caltech.edu/Media/mediaimages). Kids can play the new Spitzer "Sign Here!" game at [spaceplace.nasa.gov/en/kids/spitzer/signs](http://spaceplace.nasa.gov/en/kids/spitzer/signs).

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

# George Stradley

We thought that George Stradley might be with us forever. He had been with us for so long we thought that he'd always be there. He almost made it.



*Jose Sancho, George Stradley, & Jack Cotter  
at the 2005 Texas Star Party*

We lost George on Monday, September 15 after he had made many friends, organized many HAS events, built and rebuilt telescopes, and made many observations. George was at the 2008 Texas Star Party, with his little refractor and a crowd of people to help him set it up and use it. I remember talking to George about his German equatorial mount and his polar finder. Bill Flanagan offered to build him a variable brightness reticle illuminator and George was excited about that. Bill did build this gadget for George, but he never got to use it.

George remembered everyone. He was sharp as a tack, probably sharper. He knew everyone and took an interest in everyone. If you talked with George about something you were working on, the next time he saw you he'd ask how your project was going. If you told George about something you were doing, he'd remember. He had a genuine interest in people and enjoyed being around everyone. At the Texas Star Party he set up on the north field, and observed until late into the night. Anybody who happened by became an instant 'observing buddy'.

He was the field trip and observing chairman and organized star parties for the HAS and for other clubs in the area. George decided that the other clubs in the Houston area needed to know about the observing site, so he invited them out. This probably resulted in more than a few new members in the HAS.

It wasn't until George was in his early 80's that he got interested in astronomy. He built and rebuilt telescopes several times and loaded and unloaded the telescopes for observing trips. One of those times he injured himself and decided he couldn't handle the large telescopes any more. George was fiercely independent, and insofar as offers to help violated his independence he wouldn't hear of it.

George and I talked about small refractors. I still have a TeleVue Pronto that I bought years ago. I talked with George about it and he decided that the TV-76 would be a good portable telescope for him. So, he got one. He enjoyed it thoroughly. While it didn't have the aperture of his large dob, the image quality was superb and it provided the ability to see deep-sky objects under clear West Texas skies.

He and his observing buddy Jack Cotter, who we lost almost exactly 2 years before George, were the best of friends. They each drove separately to the Texas Star Party, though. As I said, George wanted to have his independence while he was there. In the mornings, they'd drive over to the Indian Lodge for breakfast before beginning their day at the star party. We celebrated several of George's birthdays at the star party. This year, he bought a new focuser for his TeleVue refractor, and an illuminated badge that he programmed to say "George Stradley – Star Geezer".

In many ways George will always be around for us. He'll be remembered forever by the members of the Houston Astronomical Society and our sister organizations. For those of us who were lucky enough to have known him, and valued him as one of our friends, we'll think of him every time we're under a clear, dark sky.

*Check the April, 2008 issue of the GuideStar (on the HAS web site) for a profile of George by Clayton Jeter.*

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***Minutes***  
***of the September, 2008 Meeting of the***

***Houston Astronomical Society***

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The September, 2008 meeting of the Houston Astronomical Society was called to order on September 5th at 8:00 p.m. by HAS President, Bill Leach.

**Opening Announcements:**

- Bill Leach introduced himself and announced that HAS is celebrating its 53rd anniversary.
- Bill welcomed everyone, including two new members and two guests, to the meeting.

**Announcements:**

- 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 asked anyone interested in volunteering for this event to contact him.
- Bill Leach reminded everyone that HAS was recognized with an international award for co-hosting the best 2007 Astronomy Day. Bill announced that the 2008 event is coming up on October 18th, and he solicited volunteers to help with this year’s event. Astronomy Day volunteer benefits include lunch, free entrance to the park, and a very nice name tag.
- Bill Leach announced that he is the Chairperson of the Nominating Committee for this year’s November general election. Bill asked that anyone interested in serving in one of the club positions contact him. At the time of the meeting the Nominating Committee was actively searching for one at-large board member position and a secretary.
- HAS Vice President Ken Miller announced that the Annual HAS Picnic was scheduled for September 27th. Ken related that only those who RSVP for the picnic will be guaranteed a burger and asked those planning to attend to contact to him so he has a good count for the food.
- Telescope Loaner Program Co-Chair, Bram Weisman, reviewed the details of the Loaner Telescope Program and pointed members to the HAS website, [www.astronomyhouston.org](http://www.astronomyhouston.org), for more information.
- Bram also announced that he’s in charge of doing the name badges for each member for the general meetings. Bram asked anyone who needs a new name badge to

email him at the address posted for him on the HAS website.

- Bill Leach recognized Novice Program Chair, Justin McCollum, for his work heading up the Novice Program and Joe Dillinger for his excellent presentation at the Novice Meeting on asteroid hunting, delivered earlier in the evening.
- Bill announced that there were more vintage astronomy magazines from our library available free to members at the front of the meeting room.
- Don Pearce gave the Comet Report, highlighting Comets 17P/Holmes, C/2007 W1 Boattini, and 6P/d’Arrest. For more information on these comets and other comets of interest, see Don’s Comet Corner on the HAS website.

**Program:**

Don Pearce introduced the featured speaker for the evening, HAS member Brian Cudnik, who delivered his presentation, “What I’m Looking At.” At the conclusion of his excellent presentation on visual astronomy, Brian answered questions and received a gift of appreciation from the society.

**Closing Announcements:**

- Telescope Loaner Program Co-Chair, Bram Weisman, announced that George Dobson has donated a mount for one of the 4” loaner scopes.
- Bill Leach related that Field Trip/Star Party Chair George Stradley was holding his own in his battle with lung cancer. Bill asked everyone to keep George in their thoughts and prayers.
- Bill Leach pronounced the meeting adjourned at 9:23 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

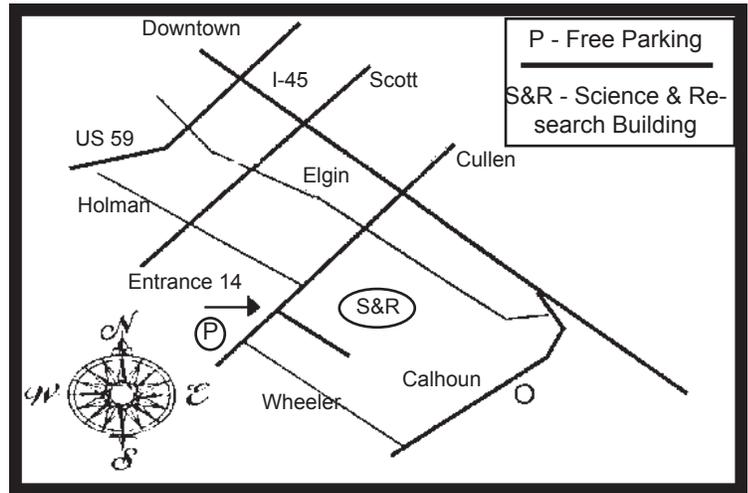
The Board of Directors Meeting is held on dates scheduled by the board at 7:00 p.m. at the University of St. Thomas. Information provided to GuideStar will be published. The meetings are open to all members of the Society in good standing. Attendance is encouraged.

### 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](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 on October 3

7:00 Novice & Site Orientation

8:00 General Meeting

### University of Houston

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### 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.***