At the August 2 Meeting

The Sky IS Falling, and Other Astrometric Adventures

Dr. Fritz Benedict, Senior Research Scientist, McDonald Observatory

Astrometry, one of the oldest forms of astronomy, remains valuable. With Hubble Space Telescope we continue to contribute to the hot topics of exoplanets (planetary sizes, masses, and composition(!)) and stellar astrophysics (the intrinsic brightnesses of stars that go “boom”).

As for the falling sky, yes, it is an astrometric result. But you’ll have to come and find out why and when.

The GuideStar is the winner of the 2012 Astronomical League Mabel Sterns Newsletter award.

The Houston Astronomical Society is a member of the Astronomical League.
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.

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Dues and Membership Information

Annual Dues: Regular ................................................ $36
Associate ................................................................. $36
Sustaining ................................................................. $50
Student ................................................................. $12
Honorary ................................................................. N/C

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. The GuideStar, the monthly publication of the Houston Astronomical Society is available on the web site. 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 last page 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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Other Meetings...

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

Fort Bend Astronomy Club meets the third Friday of the month at 8:00 p.m. at the Houston Community College Southwest Campus in Stafford, Texas http://www.fbac.org/club_meetings.htm.
Novice meeting begins at 7:00 p.m., regular meeting begins at 8:00 p.m. Website: http://www.fbac.org

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

Brazosport Astronomy Club meets the third Tuesday of each month at the Brazosport planetarium at 7:45 p.m. The Brazosport planetarium is located at 400 College Boulevard, Clute, TX, 77531. For more information call 979-265-3376

GuideStar deadline for the September issue is August 15th
President's Message

by Bill Pellerin, President

Bob Rogers

- HAS members are mourning the loss of our observatory chair, Bob Rogers who passed away on July 13. You will find a lot about Bob in this issue, including some remembrance items and an interview with Bob originally published about this time in 2010. For those of us who knew Bob his departure leaves a large hole in our hearts. Bob and his observatory committee were innovative — always coming up with new ways to provide better service to the membership. Nobody worked harder than Bob. He always gave his friends a hard time, all in fun though. Anyone who he met became his friend right away. We’ll be electing a new observatory committee chair at the August meeting.

- The Wednesday (July 17) after we lost Bob was the date for the Board of Directors meeting. The Board has established a committee to make plans for remembering Bob in a thoughtful way. Also, there is a donation opportunity for members to donate in memory of Bob. See the HAS web site.

- As I write this, it’s the day after Bob Rogers’ funeral. It was a great event with a standing-room-only crowd in attendance. Many HAS members were there. The HAS provided a very nice arrangements of flowers for the funeral.

What’s Going on with the HAS?

- Mike Rao will be helping the organization in two new ways. He’ll be running urban observing events (bring your telescopes to an urban site and engage in some communal observing activities). Also, the HAS will be donating door prizes to the all-clubs meeting and Mike is our designated ‘shopper’ for those items.

- Don Selle and Mike Edstrom attended an organizing meeting for Astronomy Day. Volunteers are needed. Go to astronomyday.net for information on this year’s event. One change — rather than one table per area astronomy club, there will be one table providing information on all the clubs in the area.

- Our secretary position has been vacant since Rene Gedaly resigned to attend to some family matters. We will be electing a new occupant of that office at the August meeting. If you’d like to be a candidate, let me know prior to the meeting or nominate yourself at the August meeting. The secretary position is an ‘executive’ position within the organization and, as such, is a voting member of the HAS Board of Directors.

Parking — Read this...

We can continue to park in the lot across Cullen from the Science and Research Building. The spaces are marked ‘Faculty’ but are available to us from 6:30 p.m. to 10 p.m.

Cheers,

..Bill Pellerin

President
**August/September**  

**Calendar**

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

For the latest information on club events, go to http://www.astronomyhouston.org/

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**Check the web site:**  
www.astronomyhouston.org

The HAS website not only has news and information about our society, but also a variety of features to manage your membership and connect with other club members. Current members can post photos, trade gear, pay dues, manage discount magazine subscriptions, swap stories in the forum, and more.

Questions about the site? Need a hand to get your account set up? Contact webmaster@astronomyhouston.org.

*The HAS web site is the winner of the 2012 Astronomical League award for excellence.*

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Follow the GuideStar on Twitter at:  
GuideStar_HAS

Join Facebook and look for:  
Houston Astronomical Society

**Starline**

Call 832-404-HAS0 (**832-464-4270**) for the latest information on the meeting and other information about activities within the HAS.

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**HAS Board Meeting**

HAS Board meetings are scheduled regularly (see the calendar, above). All members are invited to attend these meetings, but only board members can vote on issues brought before the board.
Magazines on a Tablet, or Not?

When I found out that Astronomy magazine was available for reading on my Amazon Kindle I subscribed to the magazine via the Kindle and cancelled my paper magazine subscription. It was an experiment in reading magazines on a device rather than in hard copy. After some time of getting the magazine on my Kindle tablet, I’m reverting to the hard-copy version.

I’ve said before that tablet reading is great for novels or for histories where you read the material from the beginning to the end without jumps to different places in the text. This is why reading reference material on a tablet is not satisfying. Sure, there are search features but with a hard-copy I can simply turn to the page of interest and find what I want.

A magazine is similar. I don’t read every article in every magazine that I get. In fact, I usually find the article of immediate interest in the magazine, read those, and set the magazine aside. I’ll pick it up at another time to read those articles which are of secondary interest, browse through the advertisements, and read the short news pieces.

The other major problem on a tablet is you’re left with a choice of trying to read the material in magazine-layout format or re-formatted for a tablet.

In the magazine-layout format, you see the pages as they are in the print edition, but you’re obliged to magnify a page to make it readable (this may not be a problem on larger tablets). You then have to navigate around the page to finish reading the article. When the articles are reformatted for the tablet you lose the connection between the images and the text that was clear in the magazine-layout format. Oh, yes, and one errant button push (to the table-of-contents page, for example) and you have to figure out how to get back where you were.

I found that reading a magazine on a tablet is simply too much trouble. I’ve been skipping parts of the magazine that I’m sure I would have enjoyed.

Unfortunately, the price of the tablet version of the magazine was the same price as the printed version of the magazine. So while it’s good to save paper, ink, and mailing costs, those savings aren’t passed on to the consumer.

The GuideStar has been published only as an electronic document for some years now. The HAS saved a lot of money in printing and mailing costs, and that money has been and can be used for other purposes. The GuideStar now has color images and is available for anyone who wants to read it or print it. You probably wouldn’t want to print a whole magazine, but the GuideStar is relatively short and can be printed without too much angst about the cost of toner, ink, or paper. The membership has benefitted from this change, I think.

Last night, the ‘Thunder’ Moon

Last night was the evening of July 22, and according to the weather guy on KHOU it was the night of the ‘Thunder Moon’ although the Old Farmer’s Almanac identifies it as the ‘Buck Moon’. I like the ‘Thunder Moon’ declaration better — it sounds more ominous and even a bit more exciting.

What I know for certain is that we have a week until third quarter moon and two weeks to new moon. So, we’re a week away from having a dark evening and two weeks away from having a dark night. It’s ok, I got my new issue of Sky & Telescope magazine yesterday to keep me amused.

This week can be well used to plan your observing for the dark-sky weekends to come. Whatever you’re working on a bit of planning goes a long way. We’ve all seen folks show up to observe and ask, “What am I going to look at tonight?” Not good.

See the Astronomical League web site astroleague.org and browse through the many programs available on the site. You’re sure to find one you’ll enjoy.

Until next time...

clear skies and new moons!

..Bill
Certainly you know Bob Rogers! This HAS club member, and a great friend of mine, is a work horse within our membership. He is quite a craftsman and he’s what is known as a true handyman. He can work circles around me. I get tired of watching him work.

He always has something funny to say. Like me, he’s a true jokester. We both love to exchange the latest jokes that’s going around. Even when we greet each other, we have our own silly hand shake. I always look forward to chatting with him at our club meetings. But I need to say hello fast because he doesn’t stay long... he’s off to the observatory for more work on the following Saturday morning.

You’re really going to enjoy Bob’s chat here. He’s a hoot. Here’s Bob...

The Bob Rogers bio...

Being born and raised in Houston in December of 1954, I remember my father going to the U of H to get an Electrical Engineering Degree and going to work for NASA when it first started in a small building on the Gulf freeway. After NASA built their complex in Clear Lake, he had transferred down there and his job was building the Recovery Beacons that went into all the spacecraft that flew in space. Because he worked at NASA, I had an interest in Space at an early age. When Apollo 11 landed on the Moon, he had brought home miniature tie tacks that were made in the shop that he worked in resembling the Plaque that was on the Lunar Module Lander leg and detailed maps of the moon.

When I was around 12 years old, my mother spent nearly a year in the hospital. My brother and I lived with my aunt and uncle just a couple of blocks from my house. One cold winter night my uncle took me over to his father-in-law’s house in the same neighborhood. My uncle’s father-in-law, Mr. Sextant was a flight engineer for Pan Am Airlines at the time. When I got over to his house, I was told to stay in the car. I saw Mr. Sextant with a white telescope set up in his front yard. I remember that the moon was out that night. After a few minutes, I was called over to take a look in the telescope and the very first thing that I saw was Saturn. I couldn’t believe that I was looking at a planet with rings around it. I was hooked from that moment on. A few years later, for Christmas, I got a DST telescope. I remember using it off and on for a while until I finally quit using it and put it in the closet and forgot about it. But the interest was still there.

It wasn’t until 1986 that a friend of mine had told me about some Amateur Astronomers that were putting on an event at Rice University that I decided to go and check it out. In September of 1986, I joined HAS and have been a member ever since. A few years later, I was talked into joining the Observatory Committee and have been on it ever since. I have served as a board member and as web master after Steve Goldberg decided to step down from being the original web master. In 2007, I took over as being the Observatory Chairman. I often joke about missing a meeting and being appointed to that position, but in fact I was the next person in line to take it over. Mike Dye had told me that the first task as Observatory Chairman is to start looking for your replacement. I’ve enjoyed the position ever since. I look at it this way – since HAS offers a place to do astronomy away from city lights, the
least that I can do is return the favor of helping HAS out in any way that I can.

On a personal note here, I have met a lot of people over the years since being a member of HAS. I have seen them come and go and some close friends have passed away too. I have learned a lot from a lot of people over all those years and I would like to say “thank you” to all those that have supported me, especially when I was in the Hospital. I look forward to continuing to support HAS for as long as I can.

The Bob Rogers interview...

Clayton: Thanks Bob for sitting in for this fun interview. Maybe it’s a break for you from those long work hours out at the site or working as our webmaster. Either way... it’s great to have you here.

Let’s start... In your own words, what drives you to work so hard for our society? Why HAS?

Bob: Why HAS? That’s simple, it’s the members. When I joined HAS in 1986, I didn’t know that much about astronomy but had a desire to want to learn. That’s why I say the members. Everyone spent the time to answer all the question that I had about this hobby and to let me look through their telescopes. After all, you only learn by sharing your knowledge of astronomy. Now I return that favor when we get new members that come out to the site. Sometimes, if I have the time, I set down with the new members and show them how to work their scopes or point things out in the sky for them because someone did that for me when I started out doing this. New members enjoy this because it makes them feel welcomed and not left out in the cold to learn this without any help.

Clayton: Do you think that by becoming involved in astronomy, it has somehow changed a direction in your life?

Bob: I don’t know if astronomy has changed a direction in my life but I will say that it has opened my eyes to the fact that the universe is a very big place and our spot in it is extremely small. I always think about one of the last pictures that one of the Voyager spacecraft took of Earth and in the picture Earth was just a small dot. I wish everyone on Earth could see that picture and understand how small and fragile we are in this universe and maybe it would open everyone’s eyes and we wouldn’t have all the issues that are going on in the world right now.

Clayton: Has there ever been any discussion from members or yourself into the idea of replacing one of the three scopes in the observatory and replacing it with an upgrade? Perhaps a larger scope?

Bob: Yes, there have been lots of discussions about that. Usually it’s what kind, how big and which one to replace. Personally, I would like to see a nice size refractor that could be set up for CCD work. But like everything else, it always comes down to how we pay for it and which scope gets pulled. All three scopes that we have in there are good telescopes in their own ways. I remember one night many years ago meeting a HAS member (Clayton Jeter) who was using the F/7 and learned a lot from him about that telescope.

Clayton: What design telescope do you own? Ever use the ones in our observatory? Which one’s your favorite and why?

Bob: On the tails of Halley’s comet in 1986, I bought a 3 ½ inch Meade refractor. I still have the scope and it’s doing a nice job of collecting dust in my closet. After joining HAS, Larry Mitchell invited me in the observatory one night and showed me a red dwarf and explained to me what that was. That’s when I decided to take the training. John Norris and I took the training from Jerry Grosman and I have been using the observatory ever since. My favorite scope is the C-14 and F/5.

Clayton: I know for a fact that most of your astronomy is spent at the site in Columbus....working! But when at the eyepiece, what are you observing?

Bob: Galaxy’s and nebulae. I really enjoy looking at everything including double stars, but right now I’m slowly working on my Herschel 400 objects. Yes, I still get a chance to observe with all the work I do out at the site. Years ago, I got the Messier award using the scopes in the observatory which is one of the benefits of having the observatory. It still boggles my mind how nature created all this and how much fun it is to observe what is out there and that it never ends with all the objects you can view.

Clayton: Before taking over the job as our webmaster, had you done this type of work before? Is it time consuming?

Bob: First of all, let me clarify something here. I’m not the webmaster anymore and haven’t been since taking over the Observatory Committee. Kay McCallum took over being web master when I took over the observatory committee and she is doing a wonderful job as webmaster. Years ago, Steve Goldberg (the original webmaster for HAS) was looking for
(Continued from page 7)

someone to take over and he knew that I had taken some HTML courses in 2000. Guess who he zeroed in on. When I took it over for him, I knew I had some big shoes to fill. Yes, it was time consuming, but when you hear that new members found HAS through the internet and our web site, it was worth it. Right now I’m doing the Astronomy Day web site and have been for the last 5 or 6 years. For 2010 the new URL for Astronomy day has changed to www.astronomyday.info. I should have something up there in the next month or so as we get things planned out for Astronomy Day.

Clayton: I know you have had some serious health issues in the last couple of years. How are feeling these days? Are you pushing yourself too much out at the site?

Bob: It’s been a couple of years now since the hospital and the 5 surgeries that I had, but I’m doing much better now. The wound on my left ankle is still healing because it takes a lot of time for skin to grow back but the original wound is much smaller than what it was when I got out of the hospital. I still have some numbness and nerve damage that will be with me for the rest of my life and that’s fine because I still have my foot. As far as the site goes and pushing myself to much out there – no. I’ve had to learn to slow down a little bit and there are some things that I have to be careful in doing out there. On that note, I want to say “thank you” to everyone who covered for me during that time of recovery at the site and at the board meetings that I missed. It made me realize who my friends really are that stepped up to help me out. I know that everyone in HAS really cared about my health and were there for me during that time. Knowing that was some of the best medicine that I could ever have. Again, thank you to everyone.

Clayton: Excluding myself, do you have an amateur observing mentor?

Bob: Barbara Wilson, Larry Mitchell, Don Pearce, George Stradley, Steve and Amelia Goldberg just to name a few. When I started out in HAS, they were there to answer my questions and show me how to get started in this crazy hobby. You have to understand something here about me. When I started in HAS, I was not the same person that I am now. Back then I was “One wild and crazy guy” (thanks Steve Martin). I was doing drugs back then and didn’t really have any direction I was going in. The drugs were a secret that I kept to myself. Not everyone knows this but I soon realized that with the help of everyone in HAS that I finally got off the drugs and straightened out my life and got my priorities right. Again, thank you to all the HAS members back in 1986/87.

Clayton: Looking back at all of your work accomplishments at the observatory, what are you most proud of?

Bob: Surviving the building of the tractor shed. I had just gotten out of the hospital and about 2 months later Amelia Goldberg drove me out there for the pouring of the concrete on the tractor shed. When all was said and done, that damn shed cost the Committee close to $2200.00. I figured that was going to put me back into the hospital. But now we have a place to keep the tractor and lawn mower out of the weather and locked up. This is part of the reason that at the August meeting I’m going to ask for donations from the membership because we have other projects to be done at the site and I NEED donations to get things done.

Clayton: How do you envision our observing site and observatory in the next 25 years? Any changes on the way?

Bob: Hopefully, someone else will be running it, not me. When I took the Committee over, the past chairman Mike Dye told me that my first responsibility was to start looking for my replacement. I haven’t had any luck with that yet. I do hope to see an upgrade in the observatory concerning telescopes. I hope to see the membership of HAS increase, especially among the younger audience. I also hope that we can have the observing site property donated to us from the Fondren Family for us to do with as we please for amateur astronomers and their needs.

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

Bob: Yes, join an astronomy club and ask questions. Also, learn the basics of astronomy by learning how to star hop. I’ve seen a few people buy go-to telescopes and something breaks down and they pack it in because the go-to quits working. In most cases you can still observe without go-to by knowing how to star hop. Besides its fun to star hop and you never know, but you might just get lucky and discover a comet or run across something you have never seen before.

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

Bob: Yes, it’s – siteworkerbob@hotmail.com. Easy guess as to
Remembering Bob Rogers

By Allen Wilkerson

I first met Bob 2 plus years ago when the front gate at the darksite was not working. Thirty minutes later with the gate repaired he asked if I wanted to help out at the site. I said yes and thus began a 2 year friendship with a man I call friend, mentor, and “boss”.

While he could not physically do the heavy work our arrangement was “you do the thinking I do the work”. Bob would always look at what needed to be done and what could be done and when it should be done. We spent most of the first year slowly patching up all the little things at the site before tackling the big things. Bob would always put things on hold to help anyone who needed help or wanted help.

He reveled in hosting boy scout trips to the site and would arrange things so something extra special was available to make their trip memorable (ever seen kids around a big fire?). With Bob the devil was in the details and consideration and accommodation for all users his first priority. While I could cite many things he did for outreach or assistance I will tell you the one I enjoy most.

At a star party he aimed the C14 at M13 and told the ladies “think of the stars as diamonds – he went to Zales”. He then aimed the C14 at M6 and said “he went to Sears”. This was the essence of Bob the astronomer, he would show you how to find an object and would then give a description that anyone could understand. Bob’s favorite deep sky object was to show the Ring nebula, explain how far away it was and its significance.

He never hesitated to show people how to locate the constellations and follow them across the sky. Bob had a sense of humor and was a bit of a trickster. He enjoyed laughing at the common mishaps of life. Bob always thought about how what he was doing could affect others and their feelings – he never tried to offend anyone. I know he worked at the George Observatory on alternate weekends to outreach to the public. He went out of his way to help newcomers and colleagues alike. Bob’s legacy will live on long in our hearts and minds. Of my friend I will only say and promise to carry on what he showed me and make sure the next generations benefit from his wisdom, foresight, and generosity. In his words “and the work goes on”.

(Continued from page 8)

where I got that name from. Clayton, I want to thank you for the interview. I still haven’t figured out why me, but I do appreciate the thought very much. When you called me and talked to me about this interview, it really shocked me. I want to thank you for all you do for HAS and keep up the good work.

Clayton: Thanks Bob for taking the time to share your interest and thoughts here at our HAS newsletter, the GuideStar. I want to personally thank you for all the hundreds of hours that you have devoted to maintaining, upgrading, and grooming our beautiful observing site in Columbus Texas.

Clear skies always!

Clayton is an avid SCT visual observer and a longtime member of the Houston Astronomical Society. Contact him at: stonebloke@gmail.com

Bob Rogers
The Pertetual Novice

One Very Good Reason Why Power Matters

By Rene Gedaly

Some time ago while observing at the dark site, I noticed my fellow amateurs seemed to have a fixation with power. Folks would quiz each other over which eyepieces they were using and what magnifications they gave. As for me, I was content knowing that shorter eyepiece focal lengths magnified more than longer lengths, that a 10 mm eyepiece afforded more power than a forty. In my experience, knowing the details was unnecessary.

I've been using a 10" Dobsonian almost exclusively since I got it. My eyepiece of choice is a 40 mm wide-field with nice eye relief. Though the telescope mount is the typical Dobsonian alt-az box—no drive, no go-to—I find I don't have to worry much about objects drifting out of view. A 10 inch aperture gathers a lot of light and a 40 mm eyepiece covers a lot of sky. When I want more magnification, I pop in another eyepiece, usually without having to re-center the scope.

Recently, however, I've been doing some backyard observing. Unable to get to Columbus often, I prefer shielding myself from street lights rather than not observing at all. On one of those rare summer nights with clear, steady seeing I decided to take out my 90 mm refactor and test out my new high power, short focal length eyepieces. A sweep of the Messier objects in Scorpius and Sagittarius should do the trick.

A glance at the Pocket Sky Atlas showed me my eyes could detect stars down to magnitude 3.3, just enough to trace the constellations. Of course, in order to star hop to the Messiers contained within them, I was going to have to see far fainter stars. This had been no problem with the 10 inch Dobsonian at the dark site. What about this 3.5 inch refractor in the backyard?

Starting at Antares, I swung the scope southeast. The big red jewel in Scorpius’ neck was easy enough to find—not as easy as with binoculars, but no need to panic. Still glued to the eyepiece, I moved toward Messier 4, just a bit west. Maybe a bit more. Hmm, south a little? I decided to start over at Antares and scan the sky by moving the scope back and forth like I'd done learning to use binoculars. Success. A nice little globular cluster.

Now on to M80, closer to Scorpius’ pincers and further north. Again I scanned back and forth and up and down until I found it. I jotted down the time of observation and saw that it took quite a bit longer this time. One star and two Messier objects down and I feared I might have to call it a night after finishing up Scorpius. M6 and M7 by Scorpius’ stinger are naked eye objects but this time they eluded me. To find them I would need a few stars to launch from, but anything I considered bright enough was too far away.

Then it hit me why power mattered. It wasn't magnification per se, it was how magnification affected field of view: higher power, smaller field of view. After an hour spent swinging the telescope back and forth, it also dawned on me that it would be quicker, and certainly more direct, to bite the bullet and star hop from dimmer stars. To star hop any distance at all, however, I would need to know how far I was moving across the sky, one high-powered eyepiece view at a time.

I looked at my other eyepieces and found focal length printed on the barrels. This wasn’t enough; what I needed was field of view—the number of degrees spanned from one side of the eyepiece to the other. Fortunately I’d made a habit of carrying a portable astro-library with me wherever I observed, even in the backyard, so in addition to the Pocket Sky Atlas, I also had, apropos, The Backyard Astronomer’s Guide. Sure enough, on page 67 appeared this instruction: To find the actual or true field of view (in degrees) that an eyepiece gives on your telescope, divide the eyepiece’s apparent field by the magnification it provides. Apparent field? Yes, I knew that cold because of the manufacturer’s marketing: 72°. But I didn’t know the magnification of my eyepieces. Maybe those observers quizzing each other about power were on to something. To calculate magnifica-

(Continued on page 11)
For each board meeting the Observatory Committee submits a report of activities.

Here are some highlights.

- The observing field, picnic area, and around the observatory have been mowed (except where people had equipment sent up).
- Boy scouts had a good time at the site having on of the “first” primitive camping experiences. A log report with the troop number and names of all the scouts on it. They were treated to solar observations and very basic star observations. They cleared all the underbrush and dead limbs from the picnic area to the burn pile as a service job. The scouts got several tours of the Observatory and some basic astronomy facts as way of compensating for the overcast skies.

- Layout and measuring of the electrical positions for the private observatories. Calculation of materials needed and partial listing of personnel available for project.
- Chris Ober’s wife provided gate address and emergency signs for the site.
- Applied weed killer to the observatory parking area, middle of the roads, and flushed the tank before putting it back in storage.

I was content to have discovered, and first-hand, a very good reason for why power matters.

Rene

The term perpetual novice was originally used by computing experts to refer to hobbyists, those engaged in any facet of computing for the love of it. It is in this spirit that I recount my travels through amateur astronomy.
Starlight Nights — Book Review

Book by Leslie Peltier / review by Bill Pellerin

Read this book. What you’ll learn is that observing wasn’t that much different in the 1930’s from today. We have cameras and electronic devices that are better than they had in those days, but the stars are the same as they were and the experience is the same.

The book is a memoir of a lifetime spent observing — monitoring variable stars, observing nebulous objects, searching for comets, and seeing double stars. Leslie Peltier was often called the best non-professional observer of all time, and maybe he was. His credits include the discovery of 11 comets and two novae. During his observing career he submitted 132000 observations to the AAVSO, including some observations made in the last month of his life at the age of 80.

But what distinguishes Leslie Peltier is not the amount of effort he made in compiling his observations it’s his absolute joy in doing so. If you read the book Starlight Nights you’ll get some sense of this. Here’s a quote from the book:

“There is a chill in the autumn air as I walk down the path that leads along the brow of the hill, past the garden and the big lilac, to the clearing just beyond. Already, in the gathering dusk, a few of the stars are turning on their lights. Vega, the brightest one, now is drooping toward the west. Can it be that half a year has gone since I watched her April rising in the east? Low down in the southwest Antares blinks a red-eyed sad farewell to fall while just above the horizon in the far northeast Capella sends flickering beacon flashes through the low bank of smoke and haze that hangs above the town. Instinctively I turn and look back toward the southeast for Capella’s co-riser. Yes, there it is, Fomalhaut, the Autumn Star, aloof from the others in a sky made darker by the rising purple shadow of the earth.”

The whole book is like that; poetry disguised as prose. If we only knew the sky as well as Leslie Peltier did. He knew the sky so well because he was under the sky at every opportunity. He grew up on a farm in Ohio and made sure that every place he lived after that was a suitable place for an observatory. He could make variable star observations in a few seconds because he had the star field that included the variable memorized. He could find comets because he knew the locations of bright nebulae which could be confused as comets.

There are several sections of the book that were of particular interest to me. Following his marriage in 1933 to Dorothy Nihiser they took a road trip to what he calls the ‘southwest’. This included west Texas and the towns of Marfa, Alpine, and the future site of the McDonald Observatory, Mount Locke.

Although Mr. Peltier’s primary interest remained astronomy he was interested in nature generally. He knew, and hunted, rocks, he knew about flowers and birds and faithfully recorded his observations of everything he saw.

The book was republished in 1999 by Sky Publishing. It has an introduction by David Levy.

Novice Presentation August, 2013

Astronomical Sketching—Scott Mitchell

By Scott Mitchell

The Novice presentation at the next HAS meeting on August 2 will be a workshop on astronomical sketching. All sketching materials will be provided, except I request everyone to try to bring a 12-inch cardboard tube, such as used in paper towel rolls. So when your paper towel dispenser runs out this month, be sure to set the tube aside or put in your car to bring to the meeting. If you have more than one, bring any extras as well. Thanks! Scott
Hello,

This is Steve Goldberg writing this column in place of Bob Rogers. As most of you know, Bob died recently following double bypass surgery. His heart just didn’t have the strength to continue pumping at the needed rate. I visited Bob the Saturday before his surgery, telling him what I went through when I had my bypass. Unfortunately, his outcome was different than mine. During the visit Bob appointed me as temporary Observatory Chairman. So now, I am the acting Observatory Chairman in search of a permanent chairman. If you are interested please let me know. Here is the last picture taken of Bob at the Observatory. Thank you, Clayton Jeter, for taking this picture.

This past month there were 2 weekends where the moon was favorable for observing, on July 6\textsuperscript{th} and 13\textsuperscript{th}. On both weekends the weather was iffy, to say the least. I’m not sure if anyone made it out there on the 6\textsuperscript{th}, but I know about a dozen people went out on the 13\textsuperscript{th}. They looked at a couple of objects, between the clouds. And they did the usual schmoozing with each other when the clouds covered the sky. And next month, there are also 2 weekends favorable for observing: Aug 3 with the moon rising about 5am and on the 10\textsuperscript{th} with the moon setting about 10:20PM. Make plans to be out there and work on your Texas 45 list of objects.

As acting Chairman I plan on keeping the observatory running just as it has in the past. This includes having planned star parties; the maintenance and upkeep of the site; and having the Boy Scouts come out periodically for their campout and community service projects at the site.

As Bob usually does, I would like to remind you that we need to continue filling out Log Reports at the site so I can give this information to the Fondren Family. The property is on a 99 year lease and part of the lease agreement is that HAS needs to report every year to the Fondren Family that the property is being used. The Log Reports are located in the box in the middle of the field. Just open the cover, fill out the report and then slide it into the slot that is in the inside of the cover and then close the box. It is very important that everyone fill out a Log Report so that we are showing that the Observing site is being used. Your help on this is very much appreciated.

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\% of the gross sales that member spends at Randalls. Randalls totals up the amount spent each quarter and will send us a check if the amount goes over $2,500, otherwise the total rolls over to the next quarter and 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. This is very easy to do, just go to the Courtesy Booth and tell the person there what you want to do.

To Bob, you will be missed. But we know you are looking down on us from your vantage point on a star in the sky.

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

Thank you,

Steve Goldberg
Sgoldberg124@comcast.net
The End of the Road... for a Star


The design of a white dwarf’s burial shroud can be quite complex. Take the object called NGC 2392, or as it’s more commonly known, the Eskimo Nebula. As you can see in the image at the right, the material surrounding the star was ejected long ago and forms what looks like the outer hood of an Eskimo’s hood. The central region is a set of concentric shells and criss-crossing clouds of gas that have led scientists to suspect there’s more than one star at the heart of this object. X-ray emissions coming from the center of the nebula and detected by the Chandra X-Ray Observatory also suggest there’s more than one star here, probably a pair of binary stars.

I’ve talked about planetary nebulae many times on my blog. They fascinate me, just as starbirth regions do. They both represent stars at opposite ends of their lives. Planetary nebulae are old stars in designer wardrobes made for their funerals. As a star like the Sun gets old and begins the long descent into old age and death, it loses much of its mass to space. That mass forms a cloud of gas and dust surrounding the remains of the star, which is slowing contracting to become a small, hot, massive object called a white dwarf. The white dwarf heats up the material in its shroud, and that causes it to glow.

Eventually, the dying Sun will contract to become a dense white dwarf, which will light up the surrounding clouds. The rest of the solar system will cool and die as the Sun does. Tens of billions of years from now there will be no cloud left, just a slowly cooling white dwarf and its dead retinue of worlds. The cloud of gas and dust will have spread out to space, lending itself to the inventory of material available to create new generations of stars and planets.

Our own Sun will die like this in about 5 billion years. It probably won’t look quite so intricate, but the process will be the same. First the Sun’s mass loss (through a speeded-up 50,000 kilometer-per-hour solar wind) will cause it to shed huge amounts of its outer atmosphere to space. It will swell up to become a red giant, possibly reaching out to about the orbit of Earth. Our planet, Venus, and Mercury probably won’t survive, but Mars or the moons of the outer solar system could have a short-lived renaissance where their atmospheres could swell and water might flow freely on their surfaces.

Astronomers study planetary nebula such as the Eskimo, the Ring, and others, in different wavelengths of light. Each wavelength gives them a good idea of the processes occurring in the nebulae, the speeds of stellar winds, and the action at the cores of these ancient, dying stars. Their insights help us all understand what will eventually happen with the Sun.
Southern Skies Observing Adventure

March 29—April 5, 2014

By John Bambury, 3 Rivers Foundation

John Bambury is one of the Core 4 Volunteers for 3RF Australia, which is the Australian partner of the Three Rivers Foundation of Texas.

Like 3RF Texas we are a non profit organization, focused on providing astronomical education and outreach services to the community.

From March 29, 2014 to April 5, 2014 we will be hosting the 11th Annual Ozsky Star Safari, at Coonabarabran NSW. The Ozsky Star Safari was first held in 2004 and was previously known as the Deepest South Texas Star Safari. It has been held at least annually every Australian autumn and on four occasions we have also held a spring event, for people wishing to view different aspects of the Southern Skies.

The Ozsky Star Safari provides a unique observing opportunity for Northern Hemisphere observers. We provide several large aperture high quality visual telescopes (Obsessions), for use by the attendees and always have some experienced volunteers on hand every night, who provide guidance in using the scopes and in finding the Southern targets, if required. In addition they also provide a unique Australian cultural experience by assisting in arranging various daytime activities, tours, and dining experiences. By the same token the event is fairly unstructured, so participants can pick and choose what things they participate in.

The Ozsky Star Safari numbers are limited to 30 astronomers, plus spouses/partners. This ensures good and ready access to the equipment and plenty of scope time for the attendees. We always run “sky tours” for the non astronomy partners, to enjoy the wonders of the Southern Skies, at their leisure.

We, the 3RF staff, would like to make this Southern Hemisphere Observing Opportunity known to anyone who might be interested in observing the southern skies. The way we structure the trip and supply the equipment, makes the logistics of a southern hemisphere observing Trip very simple and relatively inexpensive, for northern hemisphere observers.

John Bambury (3RF Australia Volunteer)

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Email: jbambury@kiamaleagues.com.au
Object: Fomalhaut
Class: Bright Star
Constellation: Piscis Austrini (the southern fish)
Magnitude: 1.17
R.A.: 22 h 57 m 39 s
Dec: -29 deg 37 min 22 sec
Size/Spectral: 1.9 solar mass/A3 (white or blue-white)
Optics needed: Unaided Eye

Why this is interesting

I remember one night I was looking for alignment stars for my telescope’s computer. One of the suggested stars was Fomalhaut, and I was forced to admit that I had no idea where this star is on the sky. So, let’s start by seeing if we can find the star. It’s a bit lonely in the southern sky but at our latitude it rises to about 30 degrees above the horizon. It’s visible north of here, but it’s a southern star and being in the south is an advantage.

If you can see the Great Square of Pegasus, you can find Fomalhaut. Find the two stars on the western side of the Square, draw a line through those stars and continue south through Aquarius about 45 degrees and you’ll find it. If you’re looking for nearby stars for guidance you won’t find any. Fomalhaut exists as the single bright light in a field of dim stars.

The star is a A3 on the spectrum, meaning blue or blue-white. Because it’s low on the sky it may look a bit reddish (for the same reason the Moon looks red when it’s near the horizon — the atmosphere disperses the blue light making the object appear to be redder color than it is). It’s the 18th brightest star in the sky, not including the Sun and easily qualifies as a member of the first magnitude club.

This star rises late in August, but will rise earlier and earlier as time goes on.

The correct way to say the name of the star is to retain the final ‘T’ sound in the name, sort of like foam-a-lot. The name is from the Arabic for the mouth of the fish.

There’s a large circumstellar disk around Fomalhaut, but are there planets? Fomalhaut is a fairly young, 200 million-year-old, star, and there hasn’t been a lot of time for those planets to develop life. The Sun, but contrast is about 5 billion years old, and we know for certain that life developed in the vicinity of the Sun. There are images of the planet from 2005, now known as Fomalhaut B with a 2000 year orbital period in a highly elliptical orbit. The circumstellar disk has a hole near the center (i.e. near the star), and this may indicate that relatively close-in planets that have cleared out the debris from the disk. This disk could be the equivalent of our Kuiper Belt.

The circumstellar disk around Fomalhaut is not near the star residing at about 140 AU from the star. Hubble Telescope images show this disk clearly.
Parking at the University of Houston Main Campus
For the monthly Houston Astronomical Society Meeting

The large-scale map at the right shows the location of the 15F parking lot, on the west side of Cullen Boulevard.

The detail map (below) was provided by the University of Houston Parking department to define the area that is available for parking while attending the Houston Astronomical Society monthly meeting. This parking is available from 6:30 p.m. until 10:00 p.m. on the Friday night of the HAS meeting (usually the first Friday of the month).

This parking is free. If you get a notice from the UH campus police on the night of the meeting, call the UH Security office and let them know that this area has been made available on HAS meeting night by the Parking Department.

From Google Maps
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 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.

Meeting on Friday, August 2, 2013

7:00 Novice Meeting, room 116 Science & Research 1 Bldg
8:00 General Meeting, room 117 Science & Research 1 Bldg

University of Houston

Directions to meeting:

From I-45 going south (from downtown)
- exit at Cullen Boulevard
- turn right on Cullen
- turn right into the parking lot (past the parking garage)
- Science and Research is across the street (2nd building back)

From I-45 going north (from NASA/Galveston)
- exit at Cullen Boulevard
- turn left on Cullen
- turn right into the parking lot (past the parking garage)
- Science and Research is across the street (2nd building back)

P (tarking:

There is Free Parking. See Parking map on preceding page.

UPDATE — Use entrance 15F. You can park in this area, but NOT in a RESERVED space.