

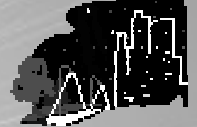


North Central Florida's
Amateur Astronomy Club
29°39' North, 82°21' West

April / May 2007
Issue 56.1/57.1



Member
Astronomical
League



Member
International
Dark-Sky Association

FirstLight

Newsletter of the Alachua Astronomy Club

THE BIRTH OF STARS & PLANETS

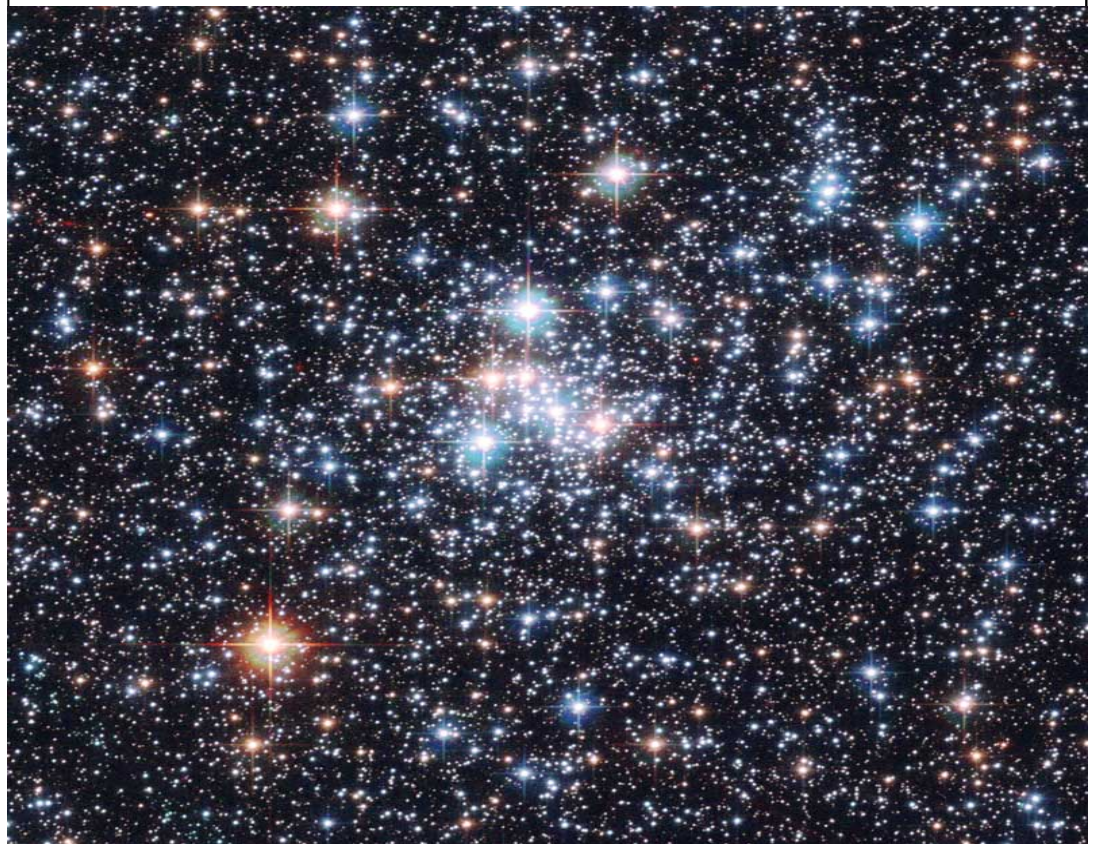
Reserve the night at the Florida Museum of Natural History. Free and Open to the Public. Thursday, April 12, 2007, 5-10 p.m. The UF Department of Astronomy and the AAC will provide telescope viewing

The Speaker Schedule is as follows:

6:00 pm	Family-Oriented Lecture	Wanders in the Celestial Space And Beyond	Dr. Stephen Kane, UF Dept. of Astronomy
7:00 pm	Featured Guest Lecture	The Search for Stellar Origins From Antiquity To the 21st Century	Dr. Charles Lada, Harvard-Smithsonian Center for Astrophysics

Special Activities Include:

Planetarium Shows, Telescope Viewing, Child Friendly Astronomy Activity Centers, A Scavenger Hunt, Star-Studded Puppet Show by Astronomy Puppeteers. Photo Credit: Open Cluster NGC 290 - ESA & NASA.





Around this time of year, you may have heard some of the more enthusiastic observers in the club talking about “doing the “messy ayes,” or “running a “messy aye” marathon.”

They are actually talking about a list of deep sky objects compiled (mostly) by French astronomer and comet hunter Charles Messier (1730-1827). In 1758, while following a comet discovered a few weeks earlier, he came across a nebulous patch between the horns of Taurus. He noted it on his chart, to avoid mistaking it as a comet in the future. He kept adding to his list, and an initial list of 45 objects, entitled “Nebulae and Star-Clusters,” was published in 1774. Some, but not all, were original discoveries by Messier. He later supplemented this catalog with supplements discovered by himself, his younger contemporary Pierre Mechain, and others. His final list contained 103 objects, and was published in 1781. Later, additional objects were added, based upon Notes

kept by Messier and Mechain, bringing the total to 109, or 110, depending on whether you accept NGC 5866 as M102, or consider M102 as a duplicate to M101. The list began as Messier’s hedge against false comet discoveries, but it has become an amateur astronomer’s list of easily found nebulae and star clusters. His comet discoveries have faded into obscurity, but his list of “nuisance object” has made him famous.

Owen Gingerich described the list this way: “Of the 110 entries in this Messier catalogue there are: 39 galaxies, 29 globular clusters, 27 galactic clusters, 6 diffuse nebulae, 4 planetary nebulae, 1 supernova remnant, 1 double star, 1 asterism, 1 bright patch of Milky Way, and at least 1 duplication.” You should be able to observe all 109 objects with the 8-inch telescopes you can check out from the club, viewing from typical star party locations. Messier primarily used telescopes of about 3 ½ inches, observing from a hotel roof in Paris. While some are challenges, many are quite easy. I bagged over 50 the night of March 17-18 with binoculars of less than two-inch aperture. Several are naked eye or easy binocular objects from dark locations. These include the Andromeda Galaxy in the fall, the Orion Nebula and the Pleiades in winter, The Beehive and the Hercules Globular Cluster in springtime, and the open cluster M7 and the big bright globular cluster M22 in summer.

So why observe the Messiers? It will help to build your observing muscles. The list has become the “boot camp” of deep sky observing. By tackling it, you will learn the brighter stars and constellations to find your way around the sky. You will strengthen your locating and observing skills. The sky will become a familiar place any night of the year. You will be amazed at the variety and beauty of the night sky, and the treasures hidden there. Most of all, it’s just great fun!

Let’s say you want to heed my advice, and go to Messier List boot camp. How do you begin? Fortunately, there are some excellent resources available. “Star Watch,” by Phil Harrington (\$7-\$12 online), gives you all-sky maps and detailed finder charts to all 109 Messiers and 16 other objects. I used it extensively to qualify for my AL Messier Certificate, and exclusively for my recent binocular Messier marathon. Phil includes eyepiece sketches for some, but not all the objects, drawn using his 8-inch reflector. “The Year-Round Messier Marathon Field Guide,” by the late Harvard Pennington (\$25 online), is another excellent book. It has large finder charts for each object, as well as an eyepiece drawing for each object to help you verify you have found the right one. “Deep Sky Companions: The Messier Objects,” by Steven James O’Meara, is, in my opinion, not well suited for the beginning deep sky observer. His finder charts are very small, and lack the detail needed. His drawings are quite detailed. In fact, they show more detail than most observers can tease out with large telescopes. Save this one for later.

Mike Toomey is doing an excellent job of coaching AAC members through the Messier List at our monthly star parties. He prepares observing lists and charts to help you find the month’s targets. It doesn’t get any better than that. You will probably still want one of the books I recommended, but having a personal mentor makes the going good.

If you decide to give the Messiers and deep sky observing a try, let me know. I’d love to hear from you.

Good hunting!

Bill Helms
Alachua Astronomy Club
President@FloridaStars.org

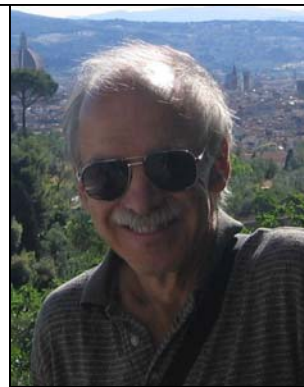
April Club Meeting

Tuesday, April 10, 2007, 7:00 p.m. EDT

Speaker: Dr. Frederick Gregory, Professor, Department of History,
University of Florida

Title: *Extraterrestrial Life Over the Ages*

Location: Powell Hall, Florida Museum of Natural History
(*Lucille T. Maloney Classroom*),
UF Campus, Gainesville FL



Dr. Frederick Gregory,
UF Dept. of History

Alachua Astronomy Club, Inc.

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Preview: Some of the earliest considerations of the possibility of life on other worlds originated as a problem in theology. While this development is to be expected, a survey from the 13th century to the present day reveals that the issue has enjoyed a surprising staying power as a central problem in theology.

About the Speaker: Professor Frederick Gregory received his Ph.D. in 1973 in history of science from Harvard University, his M.A. in 1970 from the University of Wisconsin, and his B.A. in 1965 from Wheaton College. He joined University of Florida Department of History in 1978 after teaching at Eisenhower College. He has published *Scientific Materialism in Nineteenth Century Germany*, and *Nature Lost? Natural Science and the German Theological Traditions of the Nineteenth Century*. Among recent article-length studies are "The Neo-Kantian Vitalism of J.F. Fries" (1997), "Two Dogmas of Historiography" (1997), "The Mysteries and Wonders of Natural Science: Bernstein's *Naturwissenschaftliche Volksbücher* and the Adolescent Einstein" (2000), "Intersections of Physical Science and Religion in the Nineteenth and Twentieth Centuries" (2002), and a historiographical study of the nineteenth century entitled "Science and Religion" (2003).

In addition to the undergraduate survey course in history of science, he regularly teaches classes on "The History of Science and Religion," "The Nuclear Age," and "Europe, 1763-1848." At the graduate level he teaches seminars on "Science and the Enlightenment," "Science and Romanticism," and "Modern Physical Science." He has served as president of The History of Science Society (1996-1997) and has recently completed a 36-lecture audio/video course on "History of Science, 1700-1900" for The Teaching Company in Washington, DC. With Professor Stephen McKnight and two colleagues from Germany, he is currently participating in the three-year collaborative research project supported by the Volkswagen Foundation on "Mysticism and Modernity."

This is Dr. Gregory's second presentation to the AAC. In March 2001, he gave a presentation entitled "Extraterrestrials: Ancient Historical Challenges to Religion."

On April 17, 2007 a spectacular occultation of the colorful double star Iota Cancri should be visible to observers in North Florida

In the last issue of *FirstLight* I discussed the upcoming occultation of the fourth magnitude star 48 Iota-1 Cancri A by the 76-km wide, main belt asteroid, 411 Xanthe. If you have forgotten about this event or did not read the original article, the following should help.

Some Reminders:

This event should be visible from much of North Florida. Even if you do not plan to make accurate timings of this event, I encourage you to try to observe this occultation since bright star occultations are rare.

Although the occultation path stretches over land from California to Florida, observers farther west will not see the occultation due to daylight. Only people in the southeast, especially southern Georgia and northern Florida, will have the opportunity to witness the disappearance of Iota Cancri A this April 17th.

The disappearance of Iota Cancri A should be especially interesting and startling since Iota Cancri is a beautifully colored, visual double star. Small telescopes easily show its brighter yellowish-white component (A), magnitude +4.0, and its fainter bluish-white component (B), magnitude +6.6, 30.7 arc seconds away.

Therefore, the sudden disappearance of component A leaving component B shining by itself should be especially startling and exciting!

Depending on where you are in the narrow occultation path (only about 47 miles wide), the yellowish star should wink out for up to eight seconds.

Brief Summary:

Star Occulted	Iota Cancri A (mag. +4.0) by asteroid <i>411 Xanthe</i> (mag. +14.7)
Date	Evening of April 17, 2007
Event Time	8:56 – 8:57 p.m. EDT (N. Fla.), or abt. one hour after sunset
Magnitude Drop	10.5 magnitudes
Max. Duration	8.3 sec
Path Width	76 km or 47 mi
Sunset	7:57 p.m. EDT (Gainesville)
Naut. Twilight Ends	8:51 p.m. EDT (Gainesville)
Zenith Distance	abt. 5° W of Zenith or overhead point (Gainesville)

To decide if your location is within the thin occultation path check the occultation path map in the last issue of *FirstLight* or on our web site, where you can also find many more details about this occultation: <http://www.floridastars.org/occult.iotacan.2007-04.html>

The predicted path has been updated a few times in the last several months but has not changed much. Currently (as of 2007 March 17), the predicted path is about five miles farther north than shown in the February/March issue of *FirstLight*. The center line passes just north of Live Oak, Lake City, Lake Butler, Starke and Palm Coast. The southern limit crosses through Mayo, Branford, High Springs, Alachua, the Gainesville airport, Hawthorne and just south of Daytona Beach. (The northern limit is north of Jasper near the Florida-Georgia line and passes through Orange Park south of Jacksonville.)

Several Additional Reminders and Warnings:

Occultation Reminder - continued

The most challenging part of this event will probably be finding Iota Cancri. This occurs because the occultation happens only about five minutes after nautical twilight ends so skies will not be completely dark. Therefore, you will have precious little time to find this star before the occultation begins.

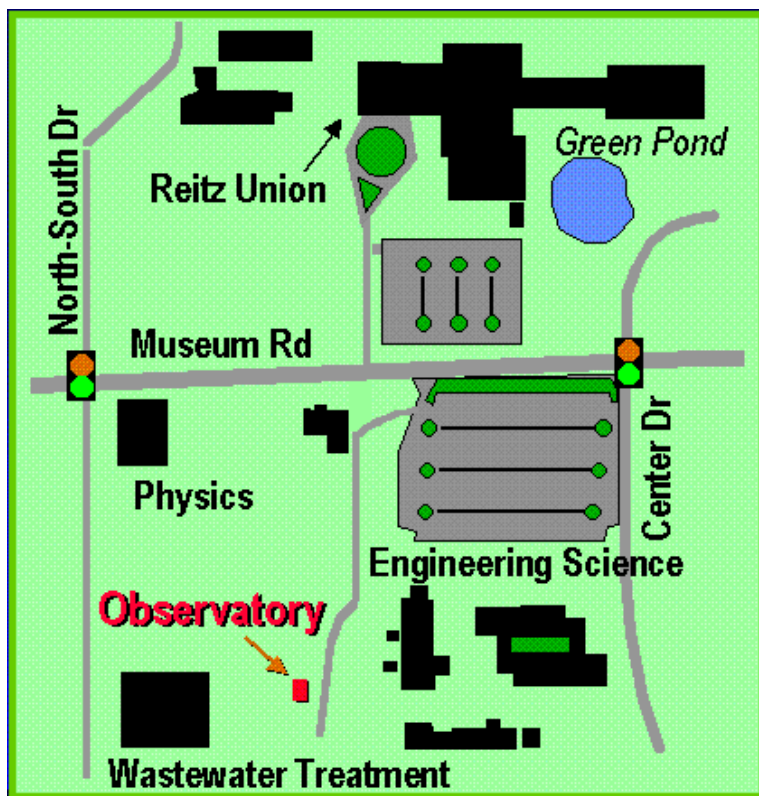
Consequently, one needs to **practice** finding this star with your telescope as the twilight sky darkens, about 45 minutes after sunset. (See finding charts in the last issue of *FirstLight* or on the web.) You will know you have the right star if you see both the brighter yellowish and fainter bluish components. Hint: Use a low power, wide angle eyepiece to find this double star. Most people can see both stars with as little as about 20-30x magnification. Then use about twice that power or more to observe the occultation itself.

Note: Nautical twilight ends about 8:40 p.m. EDT on April 1, 2007 and moves to 8:51 p.m. EDT by April 17, the date of the occultation.

Iota Cancri will also be only about five degrees from overhead, which can strain neck muscles. Furthermore, using some telescopes at this position is difficult or impossible. Therefore, check to see if your instrument can point nearly straight up.

Finally, the time of the event is approximate. Continuously monitor this star several minutes before the event is supposed to begin and continue to observe for several minutes after the event even if you do not see the star disappear.

Asteroid 411 Xanthe is too faint to spot at nearly fifteenth magnitude but this event gives patient and careful observers an opportunity to see a star temporarily disappear from the sky when a space rock hides it from view!



UF Campus Teaching Observatory Public Night

Join David Clark for the UF Observatory Public Night on Friday nights from 8:30 till 10:00pm at the Campus Teaching Observatory. Recent observing highlights included:

Interested in Telescopes?

Interested in hands on experience with telescopes, mounts, cameras, and more?

Want to gain experience observing? Check out the ATM-Observing Group on the third Tuesdays of the month. Check Floridastars.org for details.

Star Parties

Cold weather and the threat of clouds (even flurries!) kept many stargazers home in February but at least 7 members still met at the Cook's residence for our monthly star party. I was pleased to enlist three of them to our growing list of Messier hunters. If anyone is interested in working on an observing list, the Messier list isn't the only option. I keep materials on hand for two non-telescopic lists, including the Constellation Hunters and the Binocular Messier clubs.



The March star party was unseasonably cold as temperatures dropped below 40. However, the skies were clear, so 15 members made the drive to Moondance Hill. Despite the cold, Scott McCartney and I kept to our target list until 1am, when we finished dissecting the Virgo Galaxy Cluster.

Fingers are crossed that the weather will be clear for our first club star party at Hickory Ranch. The April 14th party will feature a brief introduction to star atlases: which is the right one for you? To encourage everyone to keep up with their dues, the Hickory Ranch star party is being offered to members only. Your guests are still permitted but please attend along with them.

On May 12, we're meeting at the Loftus Family Farm, north of Gainesville. This is one of the closer sites to Gainesville. We'll have another brief, introductory talk shortly near sundown.

If you plan on attending any star parties this year, be certain to keep your listserv address up to date. Cancellations are posted on the listserv before 3pm the day of the star party. If you cannot access Email, call me after 3pm: 352-219-0572.

To help clear some confusion, everyone is always welcomed and encouraged to bring food and drink to share with one another. If you can bring a table to place under your treats, that would be greatly appreciated as well. However, I request a one-year moratorium on pot-luck dinners – it adds more planning, or can be awkward when not promoted adequately. In rare instances, it can be a distraction from our observing goals. We'll revisit this next year.

I'm still looking for star party sites for the months of July and August. Traditionally, the weather has been hopeless this part of the year so it's hard to get too excited about the prospects. The mosquitoes don't help either. Even so, if you have an idea of where we should meet, I would really appreciate the input.

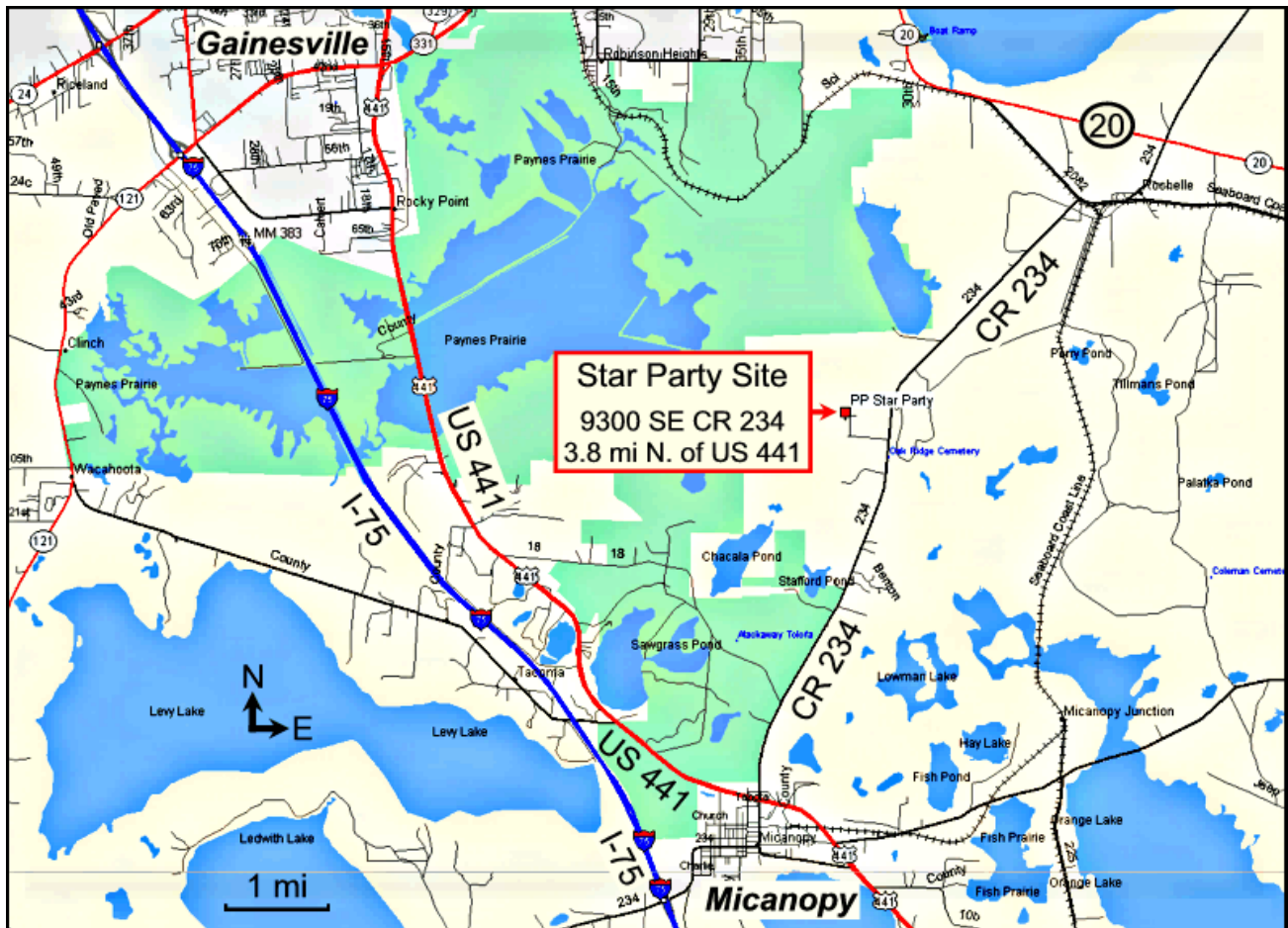
Finally, it's not too early to sign up for the Gold Head State Park star party in October. This is our one overnight star party of the year. Many campgrounds fill up months in advance, so mark your calendars now, and then make your site reservation. Gold Head offers well-appointed cabins as well as camp sites. All the details can be found by following the links on the star party calendar.

Special thanks to the Cook's and the Palmer's for hosting our recent star parties. Our programs could not be a success without your generosity!

Mike Toomey

STAR PARTY SCHEDULE: Upcoming Events - 2007

Star Party	Date 2007	Location <small>Check the website for directions and map</small>	Start/End Time
AAC April Star Party	Saturday, April 14th	Hickory Ranch (Dues Paying AAC Members & Their Guests Only)	7:00 pm to midnight EDT (Sunset 7:56 pm EDT)
AAC May Star Party	Saturday, May 12th	Loftus Family Farm (see map on page 9)	Sunset 8:18 pm EDT
AAC June Star Party	Saturday, June 9th	Bob Jacobs	Sunset 8:29 pm EDT



Hickory Ranch Map: Paynes Prairie State Preserve lies along the south border of Gainesville. Although Paynes Prairie offers many potential observing sites, this particular site, called **Hickory Ranch**, is located on the east side of the Prairie off of County Road (CR) 234. **Address of Gated Entry:** 9300 SE CR 234.

April Club Meeting:

Tuesday, May 8, 2007, 7:00 p.m. EDT

Speaker: Scott McCartney

Title: *A History of the Telescope: What You Don't Know*

Location: Powell Hall, Florida Museum of Natural History (*Lucille T. Maloney Classroom*), UF Campus, Gainesville FL



Mr. Scott McCartney

Preview: We are about to celebrate the 400th anniversary of the astronomical use of the telescope. This presentation will review the major advances of the telescope over the past 400 years -- and some little-known and surprising facts about the people who contributed to its development.

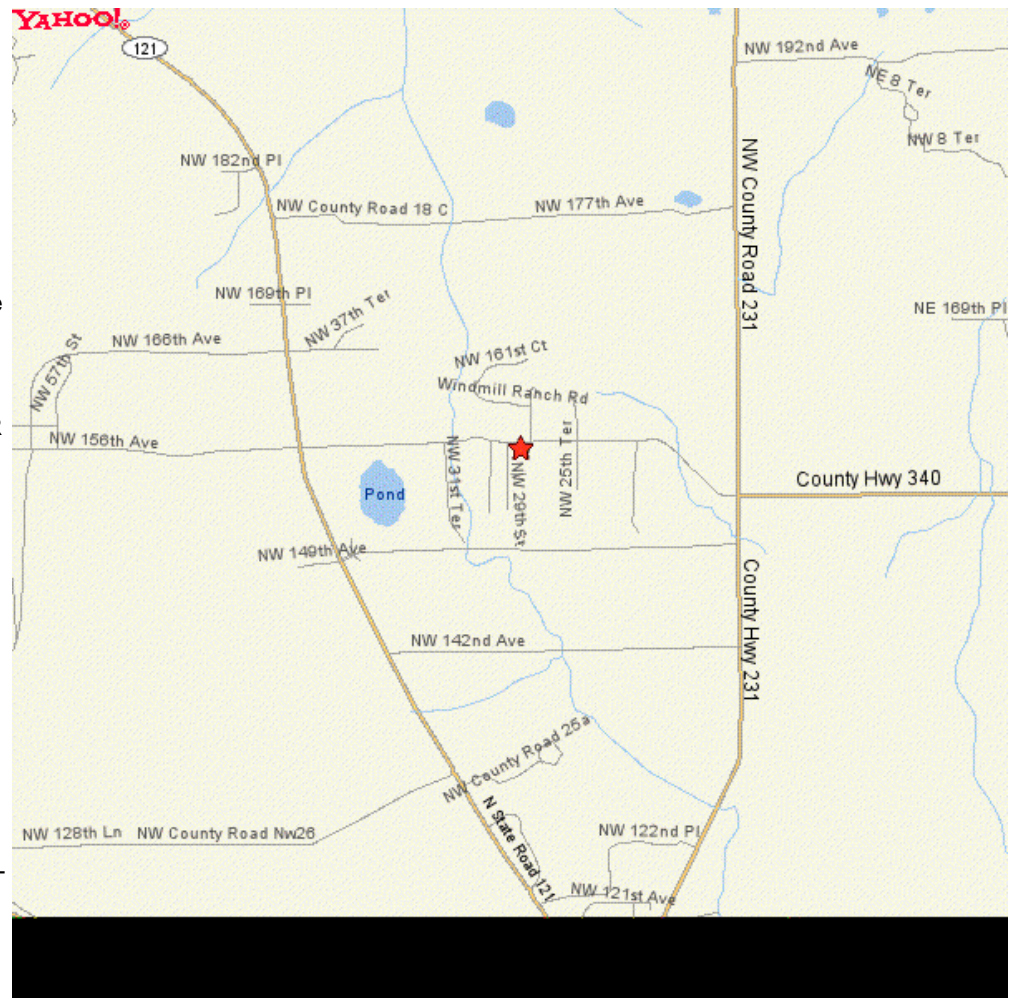
About the Speaker: Alachua Astronomy Club member Scott McCartney has been actively involved in amateur astronomy since the age of ten. He is currently the programs chair and assistant webmaster for the AAC, and has previously served as secretary and board member.

Scott has a bachelor's degree in Computer and Information Sciences at the University

Star Party Directions for the Loftus Family Farm:

14903 NW 29th Street
Gainesville, Florida

- Go **North** on **N.W. 34 St.** (State Rd. 121) to where SR 121 crosses US 441 by Highway Patrol Station **or**
- Take **N.W. 13 St. North** to same intersection and turn **right** (North) onto **SR 121**
- Continue **North** on **SR 121** for **3 mi.** where road forks (left fork SR 121, right fork CR 231)
- Take **left fork** (still SR 121) for another **3.5 mi.**
- Turn **right** onto **N.W. 156 Ave** (CR 22)
- Go about **1.2 mi.** on N.W. 156 Ave
- Turn **right** onto **N.W. 29 St.** (Be careful, N.W. 29 Ter. is about 0.1 mi. just before it)
- Take **left-hand driveway** (There are two easements separated only by a line of trees. A sign by the road should direct you to left-hand driveway)
- You have arrived when see a **pink building**



A Thank You from Your Vice President

— Howard L. Cohen

Did you know PKD is the most common, genetic, life threatening disease?

The AAC recently asked members for donations in memory of my twin brother Melvin, who died this past July from complications of **Autosomal Dominant Polycystic Kidney Disease (ADPKD or PKD)**. The AAC raised \$213.00 on Melvin's behalf and sent a check to the PKD Foundation.

Melvin's family and I thank you for supporting PKD research. Contributions from AAC members will help make a difference for those living with polycystic kidney disease. All contributions go directly to the PKD Foundation for research on this illness in hope of one day finding a cure.

PKD is relatively unknown to the public although it is the most common, genetic, life threatening disease afflicting more people than cystic fibrosis, muscular dystrophy, hemophilia, Down syndrome and sickle cell anemia *combined!*

If you are interested in learning more about PKD and the PKD Foundation, please visit their web site at <http://www.pkdcure.org>.

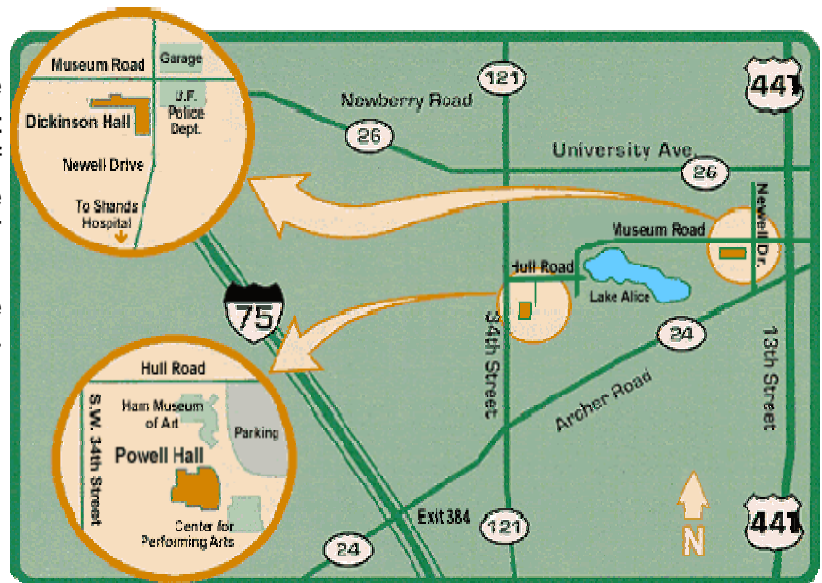
You can also visit my own web site devoted to PKD and Melvin at <http://www.astro.ufl.edu/~cohen/pkd.html>.

Melvin's courageous struggle against the effects of polycystic kidney disease (PKD) for much of his life was an inspiration to all of us.

AAC Meeting Location

AAC regular meetings are held on the second Tuesday of each month at **7:00 p.m.** at the Florida Museum of Natural History, **Powell Hall**, in the Lucille T. Maloney Classroom, on UF campus, unless otherwise announced. All meetings are free and open to the public. Join us for some great discussions and stargazing afterwards.

Please visit our website for more information (floridastars.org).



Classifieds:

For Sale:

Shorttube 90 Refractor, Solar Filter, diagonal, and mounting rings. A solid performer. \$175. Call Chuck 214-3085 or broward32666@yahoo.com

Our hobby is many things to many people. Some like to attend meetings and listen to speakers, others like to observe using “off the shelf” telescopes and accessories, and some of us like to tinker with equipment—trying new eyepieces, new telescopes (or actually a variety of used telescopes), new mounts and other devices.

Those of us in the latter category are often misunderstood by those around us, provoking cries of “What! Not another telescope!” Or, “Why do you want so many telescopes?”

For those of us in this category of unsatisfied starwatchers, the ATM-Observer Group exists....we gather the third Tuesday of the month, usually at the club’s warehouse location (contact me for location), to discuss and work with a number of different astronomical items and techniques.

At present, I am modifying the club’s Rather Large Telescope so that it can be more readily brought to observing sessions. I have lightened the base a bit, done a few things to the secondary end to lighten it up so that the ‘scope balances better, and will add a virtual counterweight system to assure that it balances with a variety of eyepieces and accessories.

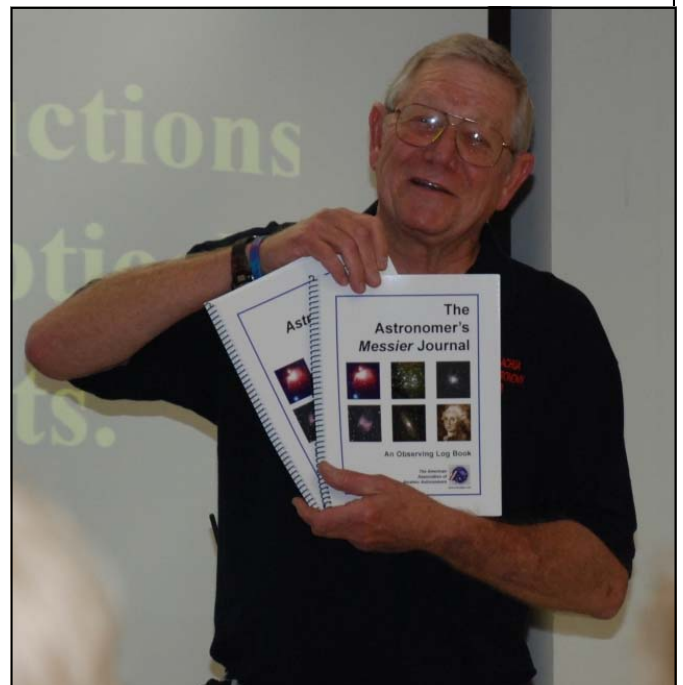
After the RLT is brought up to operating condition, we will begin testing it optically to see if indeed it is worth improving even more. The RLT is actually more than Rather Large, it is really imposing! This fact alone makes it a wonderful advertising tool for AAC, and I plan on making sure it appears at a number of public events. To facilitate this, and to keep work on the RLT moving, I plan on being custodian of the scope (in part because it requires a certain kind of vehicle to move it!).

In April, instead of a routine ATM meeting, we will be attempting to observe the occultation of a star (Iota Cancrui) by an asteroid. Howard Cohen is coordinating the club’s participation in this event. The path of the asteroid’s shadow (about fifty miles wide) sweeps across north Florida, and so far about half a dozen of us plan to observe and time this event. The data we gather will be pooled with data from other observers and will be used to determine and refine the size and shape of the asteroid. This is an activity where we amateurs can make a real contribution to science.

If you want to help out, work with another club member, or just observe the activity of the group, please contact Howard or Chuck (see the web page) soon!

So, come join us—we have lots going on!

Photo - Right: Chuck Broward describing some observing aids to the ATM-Observer group.





President Bill Helms, Alachua Astronomy Club

At the last club meeting President Bill Helms received a Honorary Messier Award for observing all 110 objects on the Messier List. He also has completed requirements for the Astronomical League's Lunar Observing Award.

Bill Helms also announced this past week that he did a all-night-long binocular Messier observing spree and observed 50 Messier objects in a two night period (he went back and re-observed a few items). For this effort, Bill will receive still another Astronomical League award.

Club members Mike Toomey and Scott McCartney announced that they completed viewing 77 of the 110 Messier Objects. This

makes them eligible for the Astronomical League Messier Award.

HATS OFF! To Bill, Mike, and Scott for their observing efforts!

And, **RLT sees sky at Moondance!** The club's RLT, a 17.5 inch Dob mount telescope, designed and built by club members several years ago, underwent viewing tests at the club's Moondance starparty. Results were gratifying. The 'scope is about twenty pounds lighter, and balances well without additional counterweights. Optically, the scope worked well after a quick collimation. It is a fast scope (f 4.5) so some coma is seen away from the center of the image, and the 'scope could benefit from some fans to speed up thermal changes.

It was absolutely fun chasing Messier objects with a scope of this size! Objects weren't just smudges, they suddenly contained structure and form. I will continue modifying the 'scope to make it easier to use. It will be a Asset at public starparties and a great tool for deepsky observation.

Clear Sky!

Chuck

Right: Scott McCartney introducing Don Loftus speaking about Wacky and Weird Telescopes



Double Full Moons

— Howard L. Cohen

The month of May 2007 will have two full Moons for the USA. According to modern traditions, some people will call May's second full Moon "Blue" but modern research interprets Blue Moons otherwise

Every so often, in fact, about every 2.7 years on the average, a second full Moon appears in a Gregorian calendrical month. This happens, of course, since the average time between full Moons (a synodic period) is about 29.53 days whereas all of our calendar months have at least 30 days except February. (Therefore, February cannot have a second full Moon and sometimes has only three named lunar phases.)

The last time we had a second full Moon in a month was July 2004 and the next after this year is December 2009. Also, in 1999 both January and March had two full Moons, a much rarer occurrence that will not be repeated until 2018 when February will have no full Moon.

The month of May this year is an example of a double full Moon month for the USA — full Moons occur both on May 2 and May 31 for people living in most of the Western Hemisphere at least one hour west of Greenwich.

May's second full Moon actually occurs June 1 at 1h04m Universal Time (UT), the time at Greenwich (longitude zero). However, for western time zones such as Eastern Daylight Time (EDT), four hours earlier than UT, the date of this full Moon is the previous day, May 31 at 9:04 p.m. EDT. For Greenwich and time zones east, it is June that will have two full Moons, June 1 and 30. So, second full Moons of the month are *time zone dependent*.

Thus, for us and the rest of the Americas, we will celebrate a second full Moon in May, a full Moon some will say is also "Blue."

In recent years much has been discovered about the origin of the term, "Blue Moon," which is now understood to have several meanings going back many centuries. These include rare, visibly colored blue Moons, which may not be full, due to extensive particulate matter in the air from major forest fires or massive volcanic eruptions

Much more common is the now widely held idea that a Blue Moon is the second full Moon in a calendar month. Therefore, we will have a "Blue Moon May."

However, Roger W. Sinnott, Donald W. Olson, and Richard T. Fienberg, writing for *Sky & Telescope*, point out that the trendy definition of a "Blue Moon" as the second full Moon in a month is a mistake. They note that folklorist Philip Hiscock (*Sky & Telescope*, March 1999) traced the original calendrical meaning of the term "Blue Moon" back to the *Maine Farmers' Almanac* for 1937. Further research showed that the old meaning of a Blue Moon was quite different from today's conventional use of Blue Moons to represent a month's second full Moon.

In fact, they showed the *Maine Farmers' Almanac* used the phrase Blue Moon to represent the *third full Moon in a quarter of the year when there were four full Moons*. (Usually a quarter year has only three full Moons!)

They further noted that this original calendrical definition apparently was lost and replaced by the second-full-moon-in-a-month idea, especially when James Hugh Pruett, an Oregon amateur astronomer, wrote a *Sky & Telescope* article (March 1946) called "Once in a Blue Moon." Pruett, who may not have seen the *Main Farmer's Almanac*, wrote, "Seven times in 19 years there were — and still are — 13 full Moons in a year. This gives 11 months with one full Moon each and one with two. This second in a month, so I interpret it, was called Blue Moon."

Double Full Moons - continued

Pruett's interpretation ultimately became the traditional or conventional meaning of a Blue Moon usually cited today although Hiscock and *Sky & Telescope* researchers have now shed new light on its probable, original, calendrical meaning.

Readers who are fascinated by Blue Moons and want more details should read "What's a Blue Moon?" at:

<http://skytonight.com/observing/objects/moon/3304131.html?page=1&c=y>

If interested in why the Moon can be "truly blue" in appearance, see

http://science.nasa.gov/headlines/y2004/07jul_bluemoon.htm

It is also worth reading Philip Hiscock's original article (also titled, "Once in a Blue Moon") if one has access to the March 1999 issue of *Sky & Telescope*.

So, will 2007 May (or June depending on your time zone) have a Blue Moon? Say yes if choosing to use today's popular cultural meaning—the second full Moon in a calendar month.

Otherwise, those preferring the more complex "traditional" meaning reckoned by the seasons, should wait until 2008 May 19 (or May 20 depending on the time zone). On this date a third full or "Blue Moon" of a four full Moon spring season will fall.

The traditional meaning is more complex because it can depend on the length of the year and when the year begins. For example, the *Maine Almanac* used the *tropical* not a calendar year to mark the seasons starting with the winter solstice. Moreover, traditional or old style Blue Moons, since set by the seasons, occur about a month before equinoxes and solstices, in February, May, August, or November.

Note: A *tropical year* is the time for the Sun to return to a fixed point along its path on the sky (the ecliptic) such as from vernal equinox to vernal equinox.

(The rationale for the traditional meaning given in the *Maine Almanac* ensures that other named full Moons fall at their proper places during the year such as the "Moon before Yule" or the "Easter Moon" just before Easter, etc.)

Of course, the term "Blue Moon" can still carry other "meanings" including *Blue Moon*, a Belgian-Style white beer from the Molson Coors Brewing Company! Many relate blue moons to sad, lonely, depressed, gloomy, etc., as expressed in numerous songs. An early reference apparently also connects blue with "absurd" through a 1528 proverb that states, "If they say the moon is blue, then we must believe that it is true."

Of course, we also have the popular phrase, "once in a blue moon," meaning infrequent, hardly ever, rare or now and then. How this connects to actual lunar events is unclear, especially since second full Moons in a month are not very uncommon!

In 1991, I suggested a hypothetical, farcical connection between lunar events and the idea that blue relates to unlucky. A second full Moon in a calendar month or four in one season gives 13 full Moons in a calendar year. Since some consider the number 13 unlucky, the occurrence of this "extra" full Moon in a year might be viewed with displeasure or gloom. Therefore, because people often connect the word "blue" with hopelessness, melancholy or despair, it is possible that this extra full Moon became associated with the color blue!

Celebrate May's second full Moon or not, but take time to ponder the many interesting meanings associate with "Blue Moons."

Executive Council Meeting Minutes

January 2, 2007, Grill Masters Restaurant

1. (BH) Meeting was called to order by the president at 7:09pm
2. (BH) In attendance were Bill Helms (BH), Bob O'Connell (BO), Tandy Carter (TC), Mike Toomey (MT), Larry Friedberg (LF), Charles Broward (CB), Thomas Olmsted (TO), Andy Howell (AH)
3. (BH) TC moved to approve minutes of last meeting. CB seconded. Board members voiced approval of the minutes.
4. (TO) Treasurer gave his report. \$514 in dues and contributions was collected last month. There were approximately \$220 in expenditures during December. As of December 31st, the checking balance was \$1573.01, and the savings balance was \$6013.28, exclusive of interest accrued during the month. There are 39 paid members at the moment. Following a request by TC to repeat the information, TO provided additional data on the cost of speaker's dinners, brochures, service awards, and newsletters. This completed the treasurer's report.
5. (BH) Status of Club Telescopes
 - (a) 8-inch Dobsonian - Rich Russin
 - (b) Museum Scope (6" Equatorial Newtonian) - Don Loftus
 - (c) Celestron C8 - Gary Cook
 - (d) 4.5" reflector - Marianne Gamble
 - (e) 8" Parks Newtonian on dob mount - Davis Liles (resides near Lake City)
6. (MT) Star Parties Report. There are two upcoming events:
Jan 18 - Museum Night. Mike will introduce film "Contact." Need 2-4 telescopes, and about 2-3 members have volunteered so far.
Feb 10 - Friends of Paynes Prairie Star Party. Will be held at Hickory Ranch. At least eight telescopes and as many volunteers are needed for this event.
7. (MT) Club Web Site. In lieu of SM, MT reports that the new officer page is ready. The membership roster has been updated. Email is working OK. BH reports that he stress-tested the system with 5 emails prior to the board meeting.
8. (BH) Transit of Mercury debrief. Nothing to report.
9. (BH) Status of thank you letters. Thank you letter to Mike (Toomey?) was sent for use of the warehouse.
10. (BH) Election of officers and board members. Nothing to report.
11. (MT) Warehouse Status. Nothing to report, except to note that CB and TO are custodians and have keys.
12. ATM Group Status. CB reports ATM Group will meet at the warehouse to discuss forthcoming year. Areas of interest are mirror grinding and telescope building.
13. (BH) Holiday Party (2006) Debrief. Consensus is that the party went very well. Thanks to the powers-that-be for arranging the shuttle launch that evening. BH agreed to write a thank-you note to Mark and Cindy for hosting the event.
14. (BH) Brochures for next year. Nothing to report.
15. (BH) Off-site retreat. Not a whole lot of interest at the current time. This is deferred until further notice. In lieu of an off-site, BH plans to contact people individually during the next 1-2 months about processes and procedures. The goal is to have, by the end of 2007, written documentation about how to perform repetitive tasks. For example, there should be a written procedure that explains how to arrange speakers for meetings and how to publicize such events through the media. People with the most experience in certain areas could take responsibility for documenting the procedures. Examples of repetitive tasks are how to send out announcements, make sure the museum knows about club meetings, and doing outreach events such as the Mercury transit. BH will conduct members who are most experienced in doing these things.
TC asked that there be discussion about how to modify the By-Laws to change the rules for a quorum. BH apologized for not having put this item on the agenda for the board meeting. The question is what should constitute a quorum. The current By-Laws seem overly restrictive in that the number needed for a quorum is set too high. This can be a problem where members live out of state or even in another country where they cannot possibly attend a meeting. November's meeting fell several people short of the number to hold officer elections because membership had grown to about 90. The quorum requirement was higher than the number who were present at November's meeting.
How do you go about revising the By-Laws to amend the quorum requirements, when a quorum is needed to make such a change? Should the issue be referred to a small committee to make recommendations to the board, and then to the general membership for voting? LF said that we should identify what the problems are with the existing By-Laws before we try to change them. TC indicated he's done some research on the quorum requirements of other organizations, and they range from 5-50%. He thinks that a realistic quorum is 10%. TO added that it doesn't make any sense to set the quorum too high if it limits the ability to hold elections or conduct business. BO proposed something called a "flexi-quorum" while others mentioned proxy voting and on-line voting as possible solutions. CB thinks we should pass around an attendance sheet at every meeting so we know who's there and can start tracking attendance.
To grapple with these issues, BH asked for a show of hands of 3+ people who want to work on a proposal about how to change the By-Laws. BO, TC, MT, and LF raised their hands. BH asked that BO head up the effort. It was mentioned that the vice president, Howard Cohen, should also be involved. The group will bring a recommendation to next month's meeting about how to initiate revision of the By-Laws.
16. (TO) Library Status. Thomas will get there next week to see what we have and start moving things over to the warehouse. He wants to get a card catalog on the web site so that members know what's available and how to request items. Thomas will get the 1990's Sky and Telescope issues out of the way to make some room for books. Shelving needs to be set up. Popular items will be kept in the museum - room for about 50 books - less frequently consulted items will be kept in the warehouse. The warehouse has provided some shelving without cost.
BH has three goals for the library: (1) Know what we have; (2) inform members what we have; (3) start a mechanism for tracking loans.
17. (BH) End of Year Report, School Liaison. Nothing to report.

Executive Council Meeting Minutes continued

January 2, 2007, Grill Masters Restaurant

18. Unscheduled items

(a) Credit Cards. Club credit card from credit union is needed. MT has, until now, used his personal credit card for purchases. It would also be handy for covering Jackie's newsletter expenditures. LF will consult with TO and MT about setting up a credit card. Downside is that credit cards are difficult to control. MT is paying for the web host out of his own pocket - that's his contribution to the club. It amounts to about \$2-3 per member. Dues structure doesn't take this expenditure into account. LF makes point that we need to have a central information depository. Things need to be codified and documented as discussed earlier.

(b) Assignments. BH will be handing out assignments during the next two months about processes and procedures. For example, he'll assign Mike, Howard, Scott to take whole issue of web mastering, email, to include how do we pay for web hosting.

(c) Club Elections. TC suggests notices be sent out by email or snail mail as a reminder of this month's meeting. BH prefers to notify everyone by email to avoid postage costs.

19. Location and date of next meeting. Grill Masters, 6:30 pm, first Tuesday of February (Feb 6).

20. Adjournment

Motion to adjourn made and seconded. Adjourned at 8:06pm.

Respectfully submitted, Andy Howell, Secretary

Executive Council Meeting Minutes

February 6, 2007, Grill Masters Restaurant

1. TC In attendance were Thomas Olmstead (TO), Bob O'Connell (BO'C), Tandy Carter (TC), Howard Cohen (HC), Marian Cohen (MC), Bill Helms (BH), Scott McCartney (SM), Larry Friedberg (LF), Charles Broward (CB)

2. BH The meeting was called to order by the president at 6:55 PM

3. BH (HC) moved and (TO) seconded to approve the minutes of the previous meeting. Minutes approved by voice vote.

4. LF Treasurer's Report

a. Income i. Contributions \$211.00; ii. Interest \$5.11; iii. Member Dues \$240.00; iv. Total \$456.11

b. Expenses i. Bank Charge \$34.11 ii. Total \$34.11

c. Total \$422.00 d. Total membership 50

5. LF Will give the AAC electronic banking user ID and password to the president (BH)

6. LF/SM To modify AAC membership roster a. LF/SM To add member's telescopes to AAC membership roster

b. LF/SM To add member's expertise and willingness to help to AAC membership roster

7. Management of past due members

a. LF To send postcards to AAC members that are past due b. SM To send email to past due members

c. BH To call past due members

8. BH Status of AAC telescopes a. 8" DOB Larry Friedberg; b. Museum telescope (6" Equatorial Newtonian) Don Loftus;

c. Celestron C8 Gary Cook; d. 4 1/2" reflector Marianne Gamble; e. 8" Parks Newtonian on Dob mount Davis Liles

f. RLT Don Loftus

9. BH In lieu of MT Friends of Paynes Prairie Star Party, have enough telescopes and operators.

10. BH reported that the Thank You letter for Mark and Cindy Barnett is completed and ready to be mailed.

11. BO'C Reported on proposed changes to the AAC bylaws

a. After much debate, it was determined that there is no problem with the quorum requirement

b. Also after much debate, it was determined that the portions of the AAC bylaws under review did not require amendment.

12. TC inquired about procedures for presenting stars to club members.

a. It was determined that special stars are not appropriate.

b. However, normal star nominations would be appropriate.

13. BH It is necessary to find a replacement secretary for Andy Howell

a. TC volunteered to fill the incomplete term for the secretary i. The board approved

b. HC advised the AAC bylaws needed to be amended to allow the president to make appointments to fill board vacancies.

i. It was determine that such changes need to be discussed at the next board meeting

ii. It was determined that such changes be approved by the AAC board

iii. After being approved by the board, the changes have to be approved by the entire club

c. SM suggested Pam Mydock be asked to replace (TC) as a Board member i. The board approved

d. BH said he would query the general membership for volunteers for board member

14. BH will query the general membership for volunteers to be the School Liaison Coordinator.

15. BH There has been a request for a star party by Camp Kulaqua February 27/28, 2007

a. TC volunteered to be the "Adult in Charge" for the star party

b. There was a debate as to whether the AAC should request donation/honoraria from the camp since this is for private school instead of public schools. No decision was made.

c. BH will ask MT to report on AAC policies.

d. HC will also search minutes for policies.

16. HC pointed out that September will be the AAC's 20th anniversary

a. A celebration will be added to the agenda for the next board meeting

17. HC pointed out that there would be a lunar eclipse March 3, 2007

a. After a discussion of the timing, it was determined that a star party would not be feasible.

18. BH reported that he has not received an answer from JO on deadlines for the FirstLight

19. (HC) moved and (LF) seconded that the meeting adjourned. The motion was approved by voice vote at 8:49 PM

Respectfully submitted, Tandy W Carter Jr., Acting Secretary

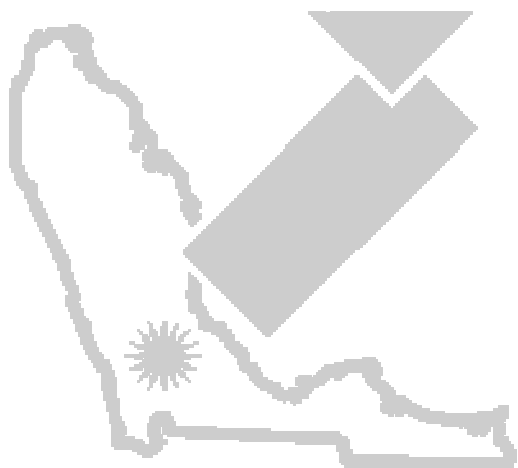
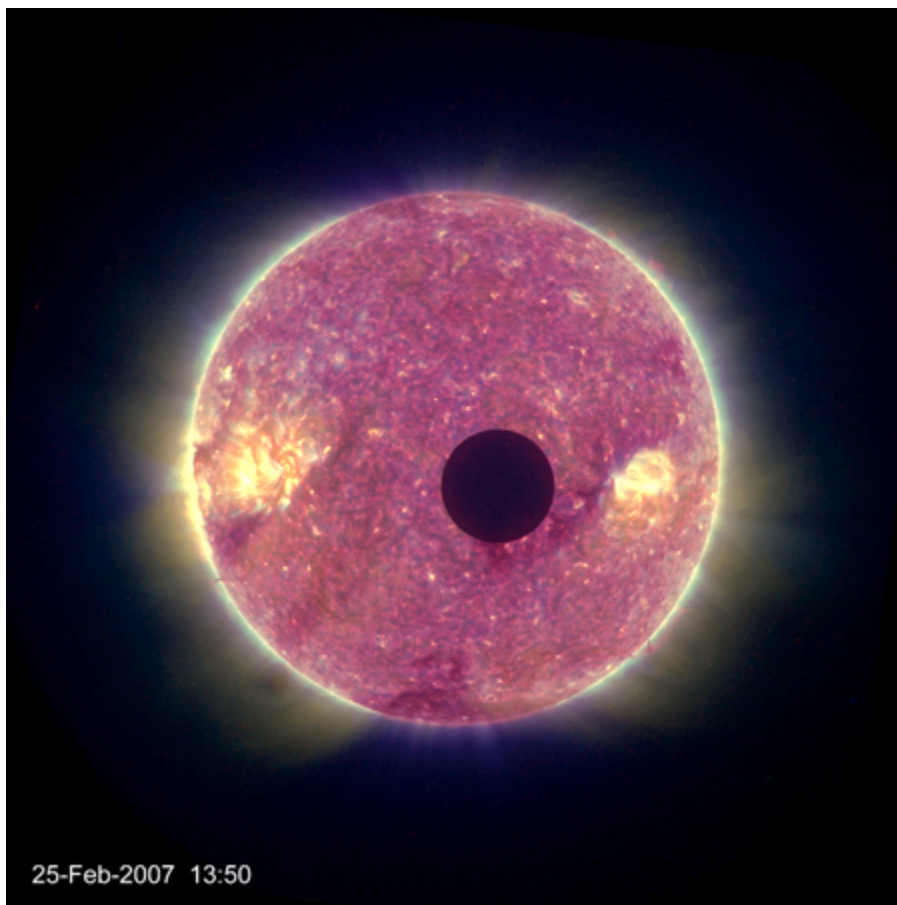
FirstLight - April / May 2007

15

FirstLight

April / May 2007

On Feb. 25, 2007 there was another kind of eclipse of the Moon when it crossed the face of the Sun - but it could not be seen from Earth. This sight was visible only from the STEREO-B spacecraft in its orbit about the sun, trailing behind the Earth. NASA's STEREO mission consists of two spacecraft launched in October, 2006 to study solar storms. The transit started at 1:56 am EST and continued for 12 hours until 1:57 pm EST. STEREO-B is currently about one million miles from the Earth, 4.4 times farther away from the Earth than we are on Earth. As a result, the Moon will appear 4.4 times smaller than what we are used to.



FirstLight
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