

The Focal Point

The Atlanta Astronomy Club
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Editor: Tom Faber

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May General Meeting and Elections

Join us for the May meeting of the Atlanta Astronomy Club on Friday May 20th at 8PM. Refreshments will be provided starting around 7:30PM. The location of the meeting is in room 207 of White Hall on the Emory University Campus. There will be a talk by a guest speaker, election of Club officers, and announcements of upcoming club events. The meeting will run for about 2 hours. If you have any announcements you want to make during the meeting, please contact our President Mark Banks, so that he can schedule the time for you during the meeting. His contact information is on page 7.

The Program:

Our guest speaker for the night will be Philip Sacco. His talk is titled "Introduction to Archeo-Mythology." Philip's description of his talk is: "Archeo-Mythology is a term I have created to describe the study of ancient myths and what they tell us about mankind at the time they were created. This talk will highlight the development of three epochs of celestial mythology and a look at what kind of statements about mankind they may make. The three epochs touched on will be 'the First Ones,' 'the Classics,' and 'the Modern Era.'"

Speaker Bio:

This bio was provided by Philip: "Philip Sacco is a highly sought-after speaker in amateur astronomy. Blessed with an engaging wit, a love for the mythology of the night sky, and a storyteller's flair for the dramatic, Philip has been known to deliver his mythology talks clad in open-toed sandals and a toga. Philip is a modern Renaissance man, a visionary who is an acknowledged authority on virtually every aspect of astronomy from cosmology and quantum mechanics to (of course) mythology. He speaks regularly at Star Parties and conventions in the South-east and is known for his "Walk and Talks" and "After Midnight" forums."

"Philip served two terms as President of the Atlanta Astronomy Club,

during which time the AAC experienced the largest growth gains in its history and became the largest club in the south-eastern U. S. During his term as Observing Vice President, Philip was instrumental in breathing life back into the club by revitalizing the AAC's Villa Rica observing site. Philip is directly responsible for the formation and early development of the Charlie Elliott Chapter, an AAC affiliate, and he served for six years as Southeastern Representative of the Astronomical League (SERAL). Philip also narrated FRAC's stunningly beautiful "The Night Sky Explorers" CD."

"Last (but certainly not least), Philip is the A. L.'s Master Observer #11, having attained that lofty status by earning ten A. L. observing club pins. Today he is happy to be involved with community outreach programs. Philip lives in Stone Mountain, Ga."

Upcoming AAC Meetings:

June 17th - Former Club member Art Russell will present a talk about planetary nebulae.

Woodruff Volunteer Needed

Sharon Carruthers, AAC Treasurer

While it is still over a month off, perhaps we can inspire you to help out at the Woodruff Boy Scout Camp (near Blue Ridge) Summer Camp this year by implanting the idea early. In exchange for the Club's use of the Astronomy field at the Woodruff Camp, the AAC volunteers to go up once a week during their summer camping session and give the campers an opportunity to look through a telescope as part of their Astronomy Merit badge.

The viewing nights are Thursdays, and the campers usually are there between 9:00 - 11:00 p.m.. It is advisable to bring your own telescope; but we have a 10" Dob on site; and I usually leave one of my smaller Dobs up there during the summer. We get from 15 to 60 boys each night; between the ages of 10 - 16.

If you could volunteer one or more nights to help us out, it would be very much appreciated both by the scouts and the AAC. Contact me or Daniel Herron (see page 7), if you wish to volunteer or have any questions.

Camp Dates: June 9, June 16, June 23, June 30, July 7, July 14, July 21, July 28.

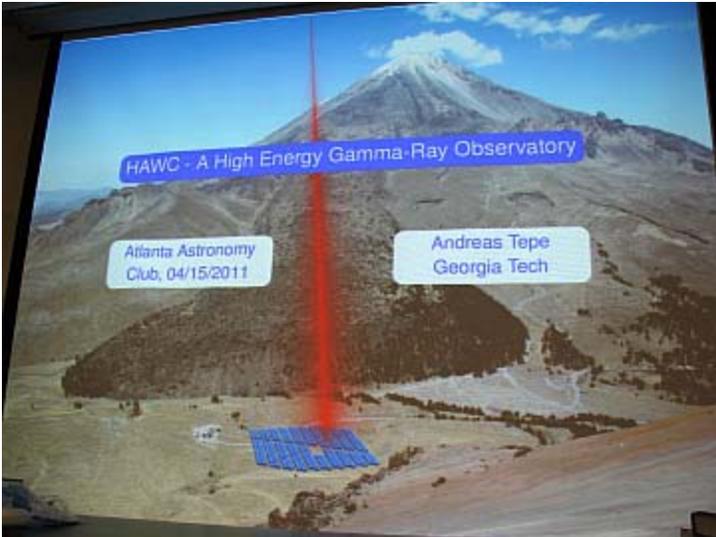


April Meeting Minutes

by Kat Sarbell filling in for Julie Moore, AAC Recording Secretary.

Photos by Tom Faber

There were 17 people (both visitors & guests) at the AAC meeting which was held on Friday, April 15, 2011. For this particular meeting, we were invited to one of the lecture rooms in the Howey Physics building at Georgia Tech. At 8 PM president of the club Mark Banks (photo bottom - by screen) opened the meeting and gave the floor to Dr. Jim Sowell (photo right top), one of the professors at the Georgia Tech School of Physics. Dr. Sowell talked about the physics program at Georgia Tech and introduced our speaker Dr. Andreas Tepe (photo right middle), a Postdoctoral Fellow in Astrophysics at the Georgia Tech. Dr. Tepe gave a fascinating talk about the High-Energy Gamma Ray Observatory (HAWC) which will be built in the mountains of Mexico (photo right bottom). He also presented information and statistics discovered in other observations of gamma rays. His lecture was followed by lots of questions from the people attending. After the lecture, club officers announced the latest news for the club, and Mark Banks provided a few astronomy books as door prizes to people who answered astronomy related questions. When the meeting was officially closed, a few club members drove to Fellini's Pizza on Northside Drive for dinner. Thunderstorms moving through Atlanta prevented us from visiting the observatory on the roof of the physics building after the meeting as was planned.



April Charlie Elliott Chapter Minutes

by Marie Lott, CE Chapter Recording Secretary

The April meeting of the Charlie Elliott Chapter of the Atlanta Astronomy Club was held on Saturday, April 2nd in the CEWC Visitor center at 5 PM. Twenty adults and eleven youth attended.

Chapter director Theo Ramakers announced that the chapter sponsored five community astronomy events in March, with at least six more scheduled for April. Solar observing at Anna Ruby Falls will be rescheduled after the rain-out in March. See the CE chapter calendar at <http://ceastronomy.org> for details. [Update - the Anna Ruby solar event has been rescheduled for Saturday April 30th, from 12:30- 3:30 PM in the Anna Ruby Falls visitor parking lot.]

Jim Soboleski gave the feature presentation on the Science of Super Novae, followed by Eric Bozeman who presented "Observing 101", a highlight of current sun, moon and planet rise and set times, observing targets and challenges. The meeting closed with the documentary: "A Universe of Their Own", which showed how even the brightest students (including Harvard graduates) fail to understand basic science concepts such as why the seasons change.

The skies after the meeting were splendid and approximately 30 people enjoyed several hours of observing on the Jon Wood field. The next meeting of the chapter will be Saturday, May 7, 2011 at 5 PM in the Charlie Elliott Visitor Center. The May meeting will feature mini workshops on different aspects related to astronomy from setting up an equatorial mount to imaging the planets and deep sky objects.

CE Chapter April Outreach Programs

by Theo Ramakers, CE Chapter Director

The Chapter reached out to several groups in April. The chapter did invite Scout troop 165 to the April meeting and observing at Jon Wood Field. Frank and Theo reached out to the local population at the Social Circle library on April 9 with a solar presentation and an observing session. On April 14th an evening program discussed some of NASA's Mars missions and after the presentation the interested visitors got to take a look at the moon through our telescopes.

Space Camp at Hightower Trail elementary school was scheduled this year for April 15 and was the 3th in which we participated. Cloudy skies made it impossible to give the kids a view of the night sky through our scopes, but we added two presentations to the rotation inside so the kids learned about telescopes, how asteroids are being detected and some of NASA's missions to Mars. The Outdoor discovery School at Charlie Elliott had two events one during the day with solar observing and an evening event to observe the night sky. Finally the canceled solar event at Anna Ruby Falls in March was rescheduled for April 30th. A very active month and the chapter ranked 10th in the nation on the Night Sky Network for the half year!! Thanks to all for participating and clear skies!

Only one little visitor nodded off during Observing 101 at Charlie Elliott in April. Photo by Marie Lott.



Bradley Observatory Open Houses

Astronomy Since Galileo (1610 – 2010)

The 400 years since the first astronomical use of the telescope have brought enormous progress to the science of astronomy. Technologies and new areas of science have been brought to bear on outstanding astronomical questions. The development of photography, spectroscopy, quantum mechanics, to name just a few have had profound impacts on our understanding of the universe. This year's lectures will explore the development of astronomy since Galileo. Lectures/Concerts begin at 8 PM. There will be observing with the Beck Telescope afterwards weather permitting. May 13, 2011 - "An Evening at the Edge of the Universe", James Webb (Florida International University). This is the final Open House of the 2010-2011 school year.

DAV Memorial Day Weekend Picnic

by Marie Lott, CE Chapter Recording Secretary

The Deerlick Astronomy Village Memorial Day Weekend Picnic will be held on Saturday May 28th 2011 at 5 PM at the Grier's Field pavilion, with setup and socializing beginning at 4 PM. Camping will be FREE on Saturday night! Other nights are \$5 per person per night. DAV field membership is not required. Burger, brats, slaw and potato salad will be provided. Please bring a side dish, fruit or salad to share. Please RSVP to picnic@deerlickgroup.com by Wednesday, May 25th so the cooks will know how much food to grill and what you are bringing! Come check out the AAC clubhouse and telescope and see what DAV is all about!

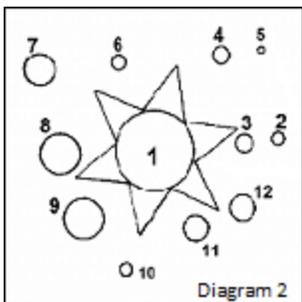
2012 - DOOM or DUMB? - Part 3

By Sharon Carruthers, AAC Treasurer

Zecharia Sitchin (January 11, 1920 - October 9, 2010) as born in Baku, Azerbaijan, and raised in Palestine. He graduated from the London School of Economics, majoring in economic history. He learned some modern and ancient Hebrew, as well as other Semitic and European languages, the Old Testament, and the history and archeology of the Near East.

The 12th Planet (1976) was Sitchin's first book in his *Earth Chronicles* series, that put forward the premise that, when our Solar System was young, it had a planet (Tiamat) between Jupiter and Mars, and no Earth, Moon or Pluto. An extra-solar planet, called Marduk (in Babylonian) or Nibiru (in Sumerian) traveling in a highly elongated, elliptical, retro-grade orbit of 3,600 years, was pulled into our Solar System, with the result that several moons were pulled out of Marduk (which was still highly "plastic" at this time) to orbit Uranus. Gaga, a moon of Saturn, was pulled loose and eventually became Pluto. On a second approach, Marduk, smashed up Tiamat, with half of the remnant debris forming the comets and the Kuiper belt asteroids, and the other half becoming the Earth. One of Tiamat's satellites became the Moon. Marduk, having an orbital period of 3,600 years must swing out about 230 AU from the Sun (about 6 times further out than Pluto).

How did Sitchin derive this amazing knowledge about the early Solar System? Not by studying astronomy but from the myths of the ancient Sumerians. His primary evidence is a Sumerian seal, VA-243, that he found in a Berlin Museum. See Diagrams 1 & 2. (These seals were carved cylinders that were rolled on a wet clay tablet as a form of "official signature", similar to a signet ring being impressed in hot sealing wax to authenticate the sender of a letter.) He maintained that the 12 orbs around the rayed shape in the upper left of the seal (Diagram 1, close-up in Diagram 2) were 11 planets (including the Moon, which they considered a



planet) orbiting the Sun. Since the Solar System has (had) 9 planets, plus the Moon, this only tallies to 10 planets. The planet missing from our modern Solar System is Marduk, because it's orbit is usually too far out to be observed by modern astronomers. But if it is too far out for modern astronomers to observe, how did the ancient Sumerians know of its existence?

Because their alien overlords told them about it (as well as the 3 planets that weren't known until telescopes were invented). Sitchin attributes the creation of the ancient Sumerian culture to the "Anunnaki" (the Biblical "Nephilim"), and which translates as "those who came from heaven to earth". The Anunnaki are a race of aliens that evolved on the planet

Seven Signs of Bogus Science

1. The discoverer pitches the claim directly to the media.
2. The discoverer says that a powerful establishment is trying to suppress his or her work.
3. The scientific effect involved is always at the very limit of detection.
4. Evidence for a discovery is anecdotal.
5. The discoverer says a belief is credible because it has endured for centuries.
6. The discoverer has worked in isolation.
7. The discoverer must propose new laws of nature to explain an observation.

Voodoo Science: The Road from Foolishness to Fraud

Robert L. Park, Ph.D, Oxford University Press, 2002

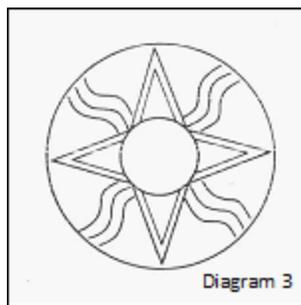
<http://www.quackwatch.com/01QuackeryRelatedTopics/signs.html>

Marduk (which he called Nibiru) over 45 million years ago. According to *The 12th Planet* all of humanity was created by a group of aliens who, after the devastation of their home world Marduk/Nibiru, came to Earth between roughly 450,000 BC and 13,000 BC. These aliens combined their DNA with that of the existing proto-humans to create a semi-intelligent slave workforce of miners. Remnants of the Anunnaki still live amongst us, making up some of the elite in all societies and culture, though many are unaware of their alien origins.

The Sumerians had a "ruling council" of twelve gods, which Sitchin, with a little mangling of Sumerian mythology, identifies with the twelve planets. Sitchin believed that Nibiru still orbits, returning every 3,600 years to cause disruptions in our Solar System, and predicted the next return for the year 2090. (I cannot find who specifically was the first person to link the Sumerian Nibiru with the Mayan calendar and the 2012 date for Planet X.)

How does Sitchin's "hypothesis" measure up to the sciences of anthropology and astronomy? Not very well.

According to experts in the Sumerian language, seal VA243 has no references to cosmology in the written text on the sides. The rayed figure that Sitchin refers to as the Sun is actually a star. They used a circle with wavy interior lines as a Sun symbol (see Diagram 3), a crescent as a Moon



symbol, and a rayed orb (or sometimes just a plain orb) as a star. (Experts believe that the small orbs around the star represent stars of lesser magnitude, like putting a lot of random dots in the sky to represent a starry night in a child's drawing.) The Sumerians were accomplished astronomers and many examples of their cuneiform astronomical texts still exist. They never list any more than five planets (seven if one counts the

Sun and Moon). They identified their god Marduk with Jupiter, not a rogue planet - an example of how Sitchin "mangled" their mythology to make it fit his scenario. Discussion of the seal can be found at: http://www.michaelsheiser.com/va_243%20page.htm

Astronomically, Sitchin's hypothesis faces the same problem as Velikovsky's. Based on elementary perturbation theory, a planet with an orbit as eccentric as Nibiru's would be so unstable that it could not keep the same period for two consecutive passages, and would either be ejected

Continued on next page

or converted to a short period object within twelve orbits. Any large planet in a stable orbit as close as 230AU would perturb the orbits of the known planets. Even the gravity of Pluto, which is smaller than the Moon, had detectable effects which led to its discovery by Clyde Tombaugh in 1930. In the last few decades, astronomers have acquired more knowledge about the composition of other objects in the Solar System. They have concluded that the Kuiper belt objects are not the remnants of a planet but leftover debris from the planetary disc out of which the solar system formed. If all the mass in the Kuiper Belt were collected up, it would only be half the size of the Moon.

So how does Stichtin do on our “The Seven Warning Signs of Bogus Science” list?

- 1) The discoverer pitches the claim directly to the media. Yes. In his *Earth Chronicles* series.
- 2) The discoverer says that a powerful establishment is trying to suppress his or her work. Yes. Archeologists and astronomers (and especially NASA) are denying the evidence he presents.
- 3) Evidence for a discovery is anecdotal. Yes, his hypothesis is based solely on his own interpretations of ancient mythologies.
- 4) The discoverer says a belief is credible because it has endured for centuries. Yes, as in point #3.
- 5) The discoverer has worked in isolation. Yes.

Next month, I will discuss Nancy Leider, the “mother” the current Planet X / 2012 controversy.

(Opinions expressed in this series are those of the author; not of the Atlanta Astronomy Club, its Board, its membership, nor the editors of the *Focal Point*.) *Editor's Note: But they do happen to be my opinion.*

Dawn Reaches Milestone Approaching Asteroid Vesta

NASA/JPL News Release - May 03, 2011

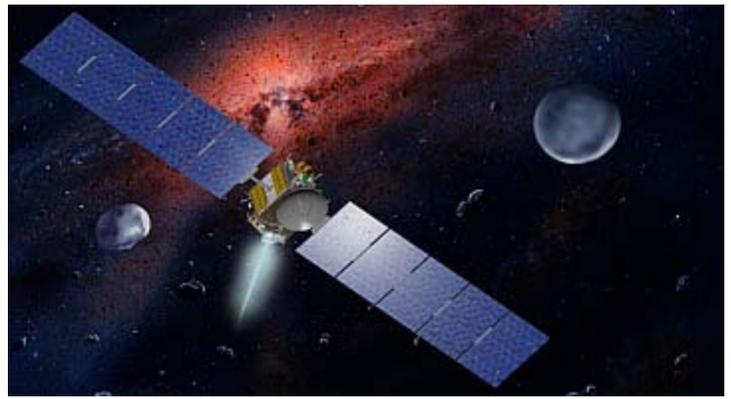
NASA's Dawn spacecraft has reached its official approach phase to the asteroid Vesta and will begin using cameras for the first time to aid navigation for an expected July 16 orbital encounter. The large asteroid is known as a protoplanet - a celestial body that almost formed into a planet.

At the start of this three-month final approach to this massive body in the asteroid belt, Dawn is 1.21 million kilometers (752,000 miles) from Vesta, or about three times the distance between Earth and the moon. During the approach phase, the spacecraft's main activity will be thrusting with a special, hyper-efficient ion engine that uses electricity to ionize and accelerate xenon. The 12-inch-wide ion thrusters provide less thrust than conventional engines, but will provide propulsion for years during the mission and provide far greater capability to change velocity.

“We feel a little like Columbus approaching the shores of the New World,” said Christopher Russell, Dawn principal investigator, based at the University of California in Los Angeles (UCLA). “The Dawn team can't wait to start mapping this Terra Incognita.”

Dawn previously navigated by measuring the radio signal between the spacecraft and Earth, and used other methods that did not involve Vesta. But as the spacecraft closes in on its target, navigation requires more precise measurements. By analyzing where Vesta appears relative to stars, navigators will pin down its location and enable engineers to refine the spacecraft's trajectory. Using its ion engine to match Vesta's orbit around the sun, the spacecraft will spiral gently into orbit around the asteroid. When Dawn gets approximately 16,000 kilometers (9,900 miles) from Vesta, the asteroid's gravity will capture the spacecraft in orbit.

“After more than three-and-a-half years of interplanetary travel, we are finally closing in on our first destination,” said Marc Rayman, Dawn's



NASA's Dawn spacecraft, illustrated in this artist's concept, is propelled by ion engines. Image credit: NASA/JPL

chief engineer, at NASA's Jet Propulsion Laboratory in Pasadena, Calif. “We're not there yet, but Dawn will soon bring into focus an entire world that has been, for most of the two centuries scientists have been studying it, little more than a pinpoint of light.”

Scientists will search the framing camera images for possible moons around Vesta. None of the images from ground-based and Earth-orbiting telescopes have seen any moons, but Dawn will give scientists much more detailed images to determine whether small objects have gone undiscovered.

The gamma ray and neutron detector instrument also will gather information on cosmic rays during the approach phase, providing a baseline for comparison when Dawn is much closer to Vesta. Simultaneously, Dawn's visible and infrared mapping spectrometer will take early measurements to ensure it is calibrated and ready when the spacecraft enters orbit around Vesta.

Dawn's odyssey, which will take it on a journey of 4.8-billion kilometers (3-billion miles), began on Sept. 27, 2007, with its launch from Cape Canaveral Air Force Station in Florida. It will stay in orbit around Vesta for one year. After another long cruise phase, Dawn will arrive at its second destination, an even more massive body in the asteroid belt, called Ceres, in 2015.

These two icons of the asteroid belt will help scientists unlock the secrets of our solar system's early history. The mission will compare and contrast the two giant bodies, which were shaped by different forces. Dawn's science instrument suite will measure surface composition, topography and texture. In addition, the Dawn spacecraft will measure the tug of gravity from Vesta and Ceres to learn more about their internal structures.

The Dawn mission to Vesta and Ceres is managed by JPL for NASA's Science Mission Directorate in Washington. Dawn is a project of SMD's Discovery Program, which is managed by NASA's Marshall Space Flight Center in Huntsville, Ala. UCLA is responsible for overall Dawn mission science. Orbital Sciences Corp. of Dulles, Va., designed and built the Dawn spacecraft. The framing cameras have been developed and built under the leadership of the Max Planck Institute for Solar System Research in Katlenburg-Lindau in Germany, with significant contributions by the German Aerospace Center (DLR) Institute of Planetary Research in Berlin, and in coordination with the Institute of Computer and Communication Network Engineering in Braunschweig. The framing camera project is funded by NASA, the Max Planck Society and DLR.

JPL is a division of the California Institute of Technology, Pasadena.

For more information about Dawn, visit: <http://www.nasa.gov/dawn> and <http://dawn.jpl.nasa.gov>

To learn more about Dawn's approach phase, read the latest Dawn Journal at <http://blogs.jpl.nasa.gov/2011/05/dawn-begins-its-vesta-phase/>

Keck & NASA Telescopes Reveal Surprisingly Young Galaxy

W.M. Keck Observatory Press Release - April 12, 2011

Astronomers have uncovered one of the youngest galaxies in the distant universe, with stars that formed 13.5 billion years ago, a mere 200 million years after the big bang. The finding addresses questions about when the first galaxies arose, and how the early universe evolved.

NASA's Hubble Space Telescope was the first to spot the newfound galaxy. Detailed observations from the W.M. Keck Observatory on Mauna Kea in Hawaii revealed the observed light dates to when the universe was only 950 million years old; the universe formed about 13.7 billion years ago.

Infrared data from both Hubble and NASA's Spitzer Space Telescope revealed the galaxy's stars are quite mature, having formed when the universe was just a toddler at 200 million years old.

"This challenges theories of how soon galaxies formed in the first years of the universe," said Johan Richard of the Centre de Recherche Astronomique de Lyon, Université Lyon 1 in France, lead author of a new study accepted for publication in the Monthly Notices of the Royal Astronomical Society. "It could even help solve the mystery of how the hydrogen fog that filled the early universe was cleared."

This galaxy is not the most distant ever observed, but it is one of the youngest to be observed with such clarity. Normally, galaxies like this one are extremely faint and difficult to study, but, in this case, nature has provided the astronomers with a cosmic magnifying glass. The galaxy's image is being magnified by the gravity of a massive cluster of galaxies parked in front of it, making it appear 11 times brighter. This phenomenon is called gravitational lensing.

"Without this big lens in space, we could not study galaxies this faint with currently available observing facilities," said co-author Eiichi Egami of the University of Arizona in Tucson. "Thanks to nature, we have this great opportunity to see our universe as it was eons ago."

The findings may help explain how the early universe became "reionized." At some point in our universe's early history, it transitioned from the so-called dark ages to a period of light, as the first stars and galaxies began to ignite. This starlight ionized neutral hydrogen atoms floating around in space, giving them a charge. Ultraviolet light could then travel unimpeded through what had been an obscuring fog.

The discovery of a galaxy possessing stars that formed only 200 million years after the big bang helps astronomers probe this cosmic reionization epoch. When this galaxy was developing, its hot, young stars would have ionized vast amounts of the neutral hydrogen gas in intergalactic space. A population of similar galaxies probably also contributed to this reionization, but they are too faint to see without the magnifying effects of gravitational lensing.

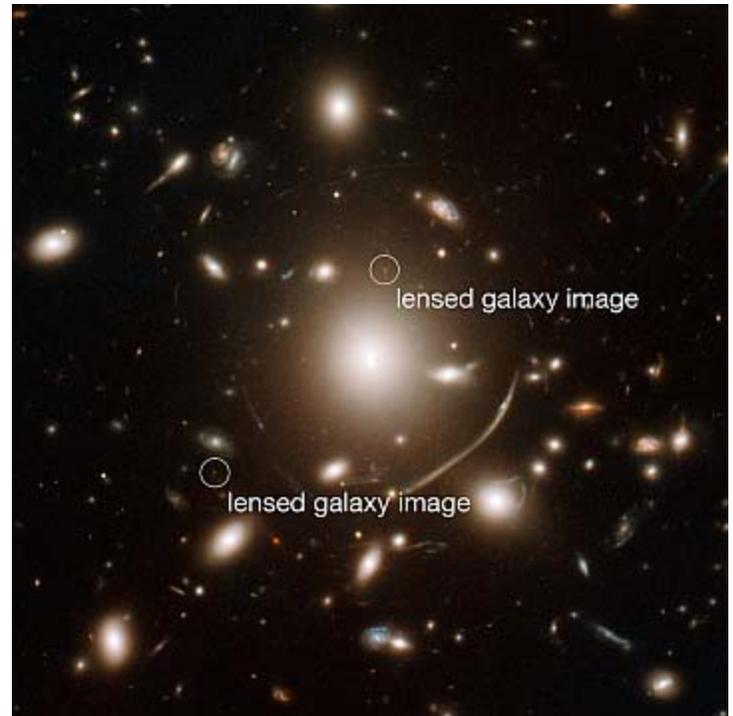
NASA's James Webb Space Telescope (JWST), scheduled to launch later this decade, will be able to see these faint galaxies lacking magnification. A successor to Hubble and Spitzer, JWST will see infrared light from the missing population of early galaxies. As a result, the mission will reveal some of our universe's best-kept secrets.

"Seeing a galaxy as it appeared near the beginning of the universe is an awe-inspiring feat enabled by innovative technology and the fortuitous effect of gravitational lensing," said Jon Morse, NASA's Astrophysics Division director at the agency's headquarters in Washington. "Observations like this open a window across space and time, but more importantly, they inspire future work to one day peer at the stars that lit up the universe following the big bang."

The W. M. Keck Observatory operates two 10-meter optical/infrared telescopes on the summit of Mauna Kea on the Big Island of Hawaii. The

twin telescopes feature a suite of advanced instruments including imagers, multi-object spectrographs, high-resolution spectrographs, integral-field spectroscopy and a world-leading laser guide star adaptive optics system which cancels out much of the interference caused by Earth's turbulent atmosphere. The Observatory is a private 501(c) 3 organization and a scientific partnership of the California Institute of Technology, the University of California and NASA.

For more information about Spitzer and Hubble, visit: <http://www.nasa.gov/spitzer> and <http://www.nasa.gov/hubble>

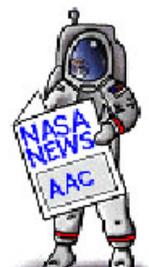


The giant cluster of elliptical galaxies in the centre of this image contains so much dark matter mass that its gravitational field bends light. This means that for very distant galaxies in the background, the cluster acts as a sort of magnifying glass, bending and concentrating the distant object's light towards Hubble. These gravitational lenses are one tool astronomers can use to extend Hubble's vision beyond what it would normally be capable of seeing.

Using Abell 383, a team of astronomers have identified and studied a galaxy so far away we see it as it was less than a billion years after the Big Bang. It is visible as two tiny dots (labelled) on either side of the bright cluster galaxy in the centre. Distant objects seen through gravitational lenses are typically multiply imaged and heavily distorted.

Viewing this galaxy through the gravitational lens meant that the scientists were able to discern many intriguing features that would otherwise have remained hidden, including that its stars were unexpectedly old for a galaxy this close in time to the beginning of the Universe. This has profound implications for our understanding of how and when the first galaxies formed, and how the diffuse fog of neutral hydrogen that filled the early Universe was cleared.

Credit: NASA, ESA, J. Richard (CRAL) and J.-P. Kneib (LAM) Acknowledgement: Marc Postman (STScI)



The Next AAC Board Meeting

The next Board meeting of the Atlanta Astronomy Club is scheduled for Sunday, June 26th at 3PM at Emory University in the Math and Science building room N301. Contact President Mark Banks or Board Chair Marie Lott for more information about the meeting agenda.

The Astronomical League

As a member of the **Atlanta Astronomy Club** you are automatically also a member of the **Astronomical League**, a nation wide affiliation of astronomy clubs. Membership in the AL provides a number of benefits for you. They include:

* You will receive *The Reflector*, the AL's quarterly newsletter.

* You can use the Book Service, through which you can buy astronomy-related books at a 10% discount.

* You can participate in the Astronomical League's Observing Clubs. The Observing Clubs offer encouragement and certificates of accomplishment for demonstrating observing skills with a variety of instruments and objects. These include the Messier Club, Binocular Messier Club, the Herschel 400 Club, the Deep Sky Binocular Club, and many others.

To learn more about the Astronomical League and its benefits for you, visit <http://www.astroleague.org> You may also contact the AAC's Astronomical League Correspondent Art Zorka for more information about the AL's Observing Clubs at artzorka@yahoo.com or by phone at 404-633-8822.

Atlanta Astronomy Club Online

While this newsletter is the official information source for the Atlanta Astronomy Club, it is only up to date the day it is printed. So if you want more up to date information, go to our club's website. The website contains pictures, directions, membership applications, events updates and other information. <http://www.atlantaastronomy.org> You can also follow the AAC on Facebook by joining the AAC group, and on Twitter at <http://twitter.com/atlastro>.

The **Atlanta Astronomy Club, Inc.**, the South's largest and oldest astronomical society, meets at **8:00 P.M.** on the Friday closest to full moon of each month at Emory University's White Hall or occasionally at other locations or times. Membership fees are **\$30 (\$42)** for a family or single person membership. College Students membership fee is **\$15 (\$27)**. These fees are for a one year membership (\$12 per year extra charge to receive a printed *Focal Point* by mail).

Magazine subscriptions to *Sky & Telescope* or *Astronomy* can be purchased through the club for a reduced rate. The fees are **\$33** for *Sky & Telescope* and **\$34** for *Astronomy*. Renewal forms will be sent to you by the magazines. Send the renewal form along with your check to the Atlanta Astronomy Club treasurer.

The Club address: Atlanta Astronomy Club, Inc., P.O. Box 76155, Atlanta, GA 30358-1155.

AAC Web Page: <http://www.AtlantaAstronomy.Org>. Send suggestions, comments, or ideas about the website to webmaster@AtlantaAstronomy.org. Also send information on upcoming observing events, meetings, and other events to the webmaster.

AAC Officers and Contacts

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PSSG Co-Chair: Joanne Cirincione
starrynights@AtlantaAstronomy.org

Sidewalk Astronomy: Brad Isley
sidewalkastronomy@AtlantaAstronomy.org

Light Trespass: Open - Contact Mark Banks if you would like to volunteer for this position

Woodruff Observ. Coordinator: Sharon Carruthers
Treasurer@AtlantaAstronomy.org

AAC Webmaster: Daniel Herron observing@AtlantaAstronomy.org

Directions to White Hall at Emory

Our meetings are generally held in White Hall on the Emory University campus. White Hall is located on Dowman Drive across the street from the Math & Science building. The best place to park is the new parking deck next to the Math & Science building. It provides easy access to both the Math & Science building and White Hall. There is a Barnes and Noble and other shops on the top floor of the parking deck, so there are some nearby things to do while waiting for the meetings to start. The best way to access this parking deck is to turn onto Oxford Road from the five way intersection across from Everybody's Pizza. The entrance to the parking deck is a short ways down Oxford on the right. For maps of the campus see <http://map.emory.edu>. For more detailed directions to Emory University, visit www.atlantaastronomy.org or go to the Emory University web site.

Calendar by Tom Faber (Times EDT/EST unless noted)

AAC Events are listed in BOLD

- May 3rd, Tuesday: New Moon.
- May 4th, Wednesday: Thin crescent moon near the Pleiades after sunset.
- May 6th, Friday: Eta Aquarids Meteors.
- May 7th, Saturday: **Charlie Elliott Chapter Meeting.** Mercury at Greatest Elongation West.
- May 7th - May 23: Grouping of Mercury, Venus, Mars, and Jupiter in the morning sky.
- May 10th, Tuesday: Moon First Quarter.
- May 11th, Wednesday: Mercury, Venus, and Jupiter in a near straight line.
- May 17th, Tuesday: Full Moon.
- May 20th, Friday: **AAC Meeting/Elections at White Hall, Emory Univ, 8PM.**
- May 24th, Tuesday: Moon Last Quarter.
- May 27th, Friday: **June Focal Point Deadline.**
- May 28th, Saturday: Open House and Potluck dinner at DAV starts at 4PM.

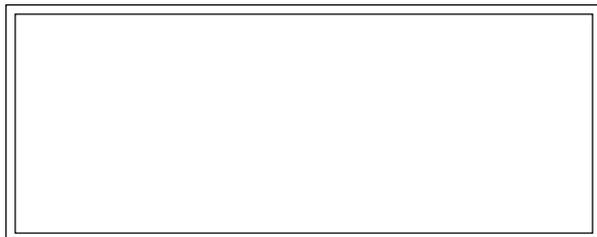
- June 1st, Wednesday: New Moon.
- June 4th, Saturday: **Charlie Elliott Chapter Meeting - 5PM.**
- June 8th, Wednesday: Moon First Quarter.
- June 12th, Sunday: Mercury Superior Conjunction.
- June 14th, Tuesday: Saturn Stationary.
- June 15th, Wednesday: Full Moon.
- June 17th, Friday: **AAC Meeting at White Hall, Emory Univ, 8PM.**
- June 20th, Monday: Mars near Pleiades low in the eastern morning sky.
- June 21st, Tuesday: Solstice at 1:16PM EDT.
- June 23th, Thursday: Moon Last Quarter.
- June 24th, Friday: **July Focal Point Deadline.**
- June 27th, Monday: June Bootids Meteors.
- June 28th, Tuesday: Moon between Mars and the Pleiades in the eastern morning sky. Pluto at Opposition.

Atlanta Astronomy Club Listserv

Subscribe to the Atlanta Astronomy Club Mailing List: The name of the list is: AstroAtlanta. The address for messages is: AstroAtlanta@yahoogroups.com . To add a subscription, send a message to: AstroAtlanta-subscribe@yahoogroups.com . This list is owned by Lemmy Abbey.

Focal Point Deadline and Submission Information

Please send articles, pictures, and drawings in electronic format on anything astronomy, space, or sky related to Tom Faber at focalpoint@atlantaastro.org. Please send images separate from articles, not embedded in them. Articles are preferred as plain text files but Word documents or PDFs are okay. You can submit articles anytime up to the deadline. **The deadline for June is Friday, May 27th. Submissions will not be accepted after the deadline.**



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Tom Faber

FROM:

Newsletter of The Atlanta Astronomy Club, Inc.

The Focal Point

