Starscan

Johnson Space Center Astronomical Society

Volume 25, Number 1 January 2009

HAPPY NEW YEAR

FORTY YEARS AND COUNTING!

JSCAS AND AMERICA

2009

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Un mensaje del Presidente
(A message from the President)

Folks: It's a new year and we have many things on the agenda. To begin with, we have great speakers lined up for the months ahead. In January we honored to have the fascinating speaker, Richard Underwood; a retired technical assistant to the Director, Photography and Television Technology, NASA-JSC and author of the book, "A Photographic Journey to the Moon". In February, Robert A. Taylor, JSCAS Presidente emeritus, "Space and Astronomy, 2008 - A Year in Review". Then in March, Dr. Thomas D. Jones, Author, Retired Astronaut, "Planetology".

With the change in year we also have an administrative change. I deeply thank John Erickson for his efforts over the past two years as Star Party Chair and then also welcome Bob Taylor who, effective Jan 1st, volunteered to succeed John.

As I said, this year is starting out with interesting events and speakers and we hope to continue this throughout the entire year. Happy New Year everyone!

Clear skies!
David Haviland

LETTER FROM THE EDITOR
By Connie Haviland

Hi Everyone!!
Well we are entering a new year and if all goes our way, we will have a lot of stargazing going on. With 2009 designated as the International Year of Astronomy, it should be crammed pack with a lot of interesting things to do. I look forward to a wonderful year that includes a lot of things to report.

So here is wishing everyone a fun filled, clear skies and wonderful new year.

LETTER TO THE EDITOR
This came to my attention after the 25th of December so I am including it here.

FOR SALE
I am selling my pristine Celestron's. Yes, they are the Japan model, 8 x 56mm's in pristine condition, perfect collimation, model # 71126. I looked them over and see NO scratches, etc. All lens covers are there, with case. Even the Celestron shipping box. Everything about them are perfect. Asking $150. for this great viewing instrument. If you interested, let me know and I'll box them up and get them coming your way. My cell # is 713-569-7529
Thanks... Clayton L. Jeter

Star Parties for 2009
Bob Taylor

Here are the dates that are firm for now:

February 21 Moody Gardens
April 18 Moody Gardens
Sept 12 Moody Gardens

Once I confirm dates with the LPI and the winery I'll send an update.

Bob

Galveston Stargazor Group

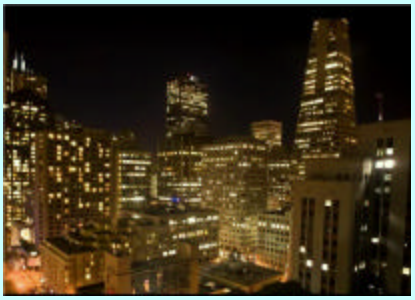
TBA
AFTER IKE HIT, THINGS NEED TIME TO GET BACK TO NORMAL,
BU T THEY ARE STILL MEETING AT THE DONUT SHOP..

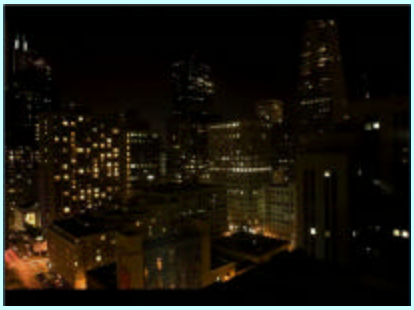
I know this may seem like an extremely early post, but I feel that if we are aware of it now, we can get it put in motion in the cities that we are associated with. So that is why it is here.

EARTH HOUR 2009—March 28, 2009…8:30pm to 9:30 pm

http://www.earthhour.org/

Join millions of people around the world in turning out the lights for one hour to symbolize that each of us can make a positive impact on climate change—no matter where we live. Visit earthhourus.org to join the movement and register your support for Earth Hour 2009





HEY ANDY aka YODA!!!

FROM:

YOUR PALS AS JSCAS

FROM AROUND THE CLUB

From Bob Taylor

From Hanna Lange, SCH

From Tracy Knauss

Our Speaker for January's Meeting

Biographical Data: Richard W. Underwood

President of Space Panoramas; Retired Technical Assistant to the Director, Photography and Television Technology, National Aeronautics and Space Administration (NASA).

Personal

Bom in Newport, Rhode Island, 15 July 1927. Married to Rosa A. Bustamante of Tegucigalpa, Honduras. Three daughters and two sons.

Education

Bachelor of Science, Geology with Civil Engineering, University of Connecticut. Advanced studies at University of Wyoming, Colorado School of Mines, George Washington University, and University of Houston in Geology, Engineering, Cartography, Photogrammetry, and Physics.

Military Service

U.S. Navy (Seabees) Pacific, 1944-1946. Commissioned U.S. Navy, 1950. Retired U.S. Navy Reserve, 1974.

Professional Awards and Honors

- NASA Exceptional Service Medal, Apollo Project
- Outstanding Service Award, Apollo 11, Gemini Project, and Lunar Orbital Science Team
- Frederick W. Brehm Memorial Medal, Rochester Institute of Technology, for outstanding contributions to the Photographic Sciences
- Silver Progress Medal, Royal Photographic Society
- Distinguished lecturer, American Institute of Aeronautics and Astronautics
- Distinguished national lecturer, Sigma Xi, the Scientific Research Society, since 1982
- First honorary lecturer, NASA, Marshall Space Flight Center
- First honorary life member California Geographic Society
- Honorary life member Dundee Photographic Society (Scotland), the world's oldest photographic society

Professional experience

1951-1963: A civilian employee for Department of Defense Corps of Engineers, served as a photogrammetric engineer in securing aerial photography for mapping and intelligence on a worldwide basis. Chief of Operations for Photogrammetry Division and Chief of Aerial Photographic Products, including first topographic maps of the moon. Eastern Missile Test Range, Echo satellites, and Mercury Project for NASA.

1963-1986: National Aeronautics and Space Administration (NASA) Lyndon B. Johnson Space Center, Houston, Texas. Technical Monitor for photographic experiments, Gemini, Apollo, Skylab, and Apollo-Soyuz Projects. Development of high precision photographic laboratory for Earth Resources Research Project. Photographic scientist for Space Shuttle Project. Only person to provide training to every astronaut to journey to space on a US spacecraft.

Retired from NASA to travel worldwide as a professional speaker and consultant on Space Photography. Mr. Underwood has written and presented many technical papers on the photographic sciences, including photogrammetry, remote sensing, and aerospace technology. He has made presentations throughout the United States and fifty-five other nations. He is the author of *The Manual of Color Aerial Photography*.

JANUARY OBSERVING

The January Sky

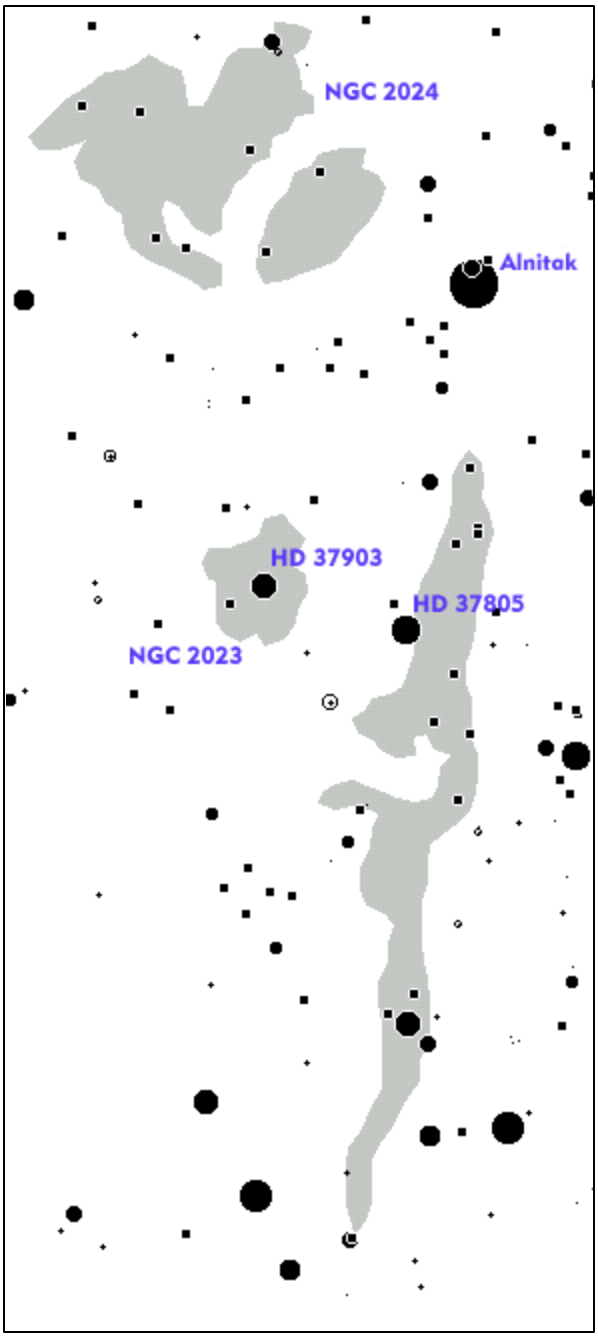
Hernan Contreras

The winter sky features the hexagon of the most distinctive constellations: Orion, Canis Major, Canis Minor, Gemini, Auriga and Taurus. Of these, the dominate constellation is the giant hunter/bull fighter, Orion valiantly fending off the charging bull with the big and the little dog cringing behind him and the twins, the charioteer and seven sisters just watching. Since Orion stands over the equator, it can be seen from every habitable place on earth. The constellation is mentioned in the *Bible* (*Job* 9:9, *Job* 38:31, and *Amos* 5:8). To pre-Christian Scandinavians the "belt" of Orion was known as Frigg's Distaff. The Finns called the group the scythe of Väinämöinen. However the most romantic is the Greek story. In Greek mythology, Orion was in love with Merope, one of the Seven Sisters (Pleiades), but she had nothing to do with him. Orion tragically died when he accidentally stepped on a scorpion in his pursuit after Merope. He was obviously distracted, but you can't blame him. Merope had the face of a Greek goddess and the body of a dancer in Agamemnon's court. The gods felt sorry for him so they put him with his hunting dogs in the sky surrounded by the animals he hunted and just out of reach of Merope. He can chase with abandon because Scorpius is on the other side of the world.

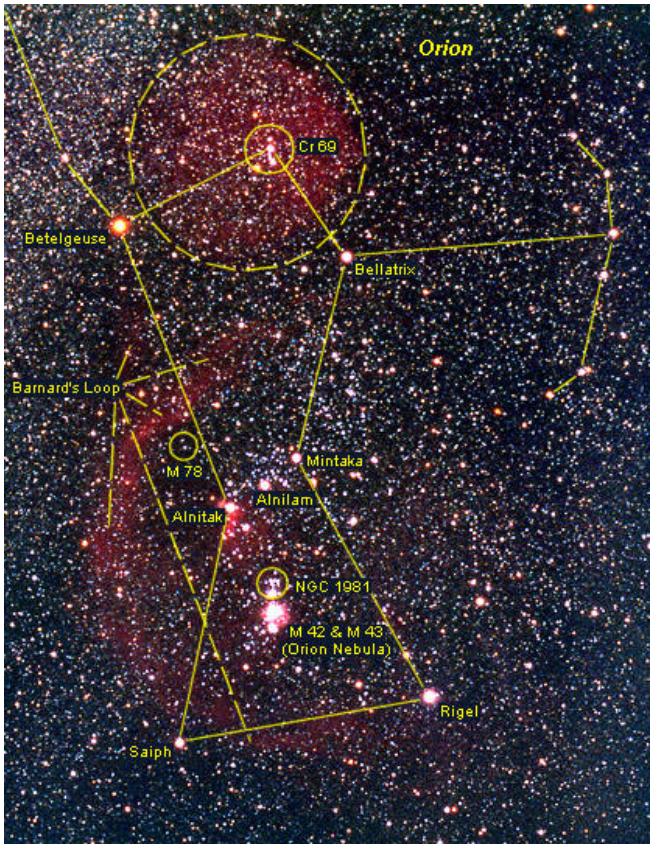
These six constellations contain the biggest (Betelguse), the brightest (Sirius) and the youngest (Trapezium) stars that can be seen from the northern hemisphere. Betelguse, in Orion's armpit is red giant so large that is one of the very few stars that astronomers can see it as disk and not just a pinpoint of light. If Betelguse were placed in the location of our sun, its perimeter would be outside the orbit of Mars. Of course, the most recognizable group of objects in the sky is the three bright stars that form the belt of Orion; Alnitak, the east most star in the belt, Alnilam, the middle star, and Mintaka. Most stars in a constellation are not really a group with stars being at varying distances, but not in this case. The stars of the belt are all in the neighborhood and are, indeed, a group. Other stars of note in this group of the winter constellation are; Pollux and Castor in Gemini, Capella in Auriga, Aldebaran and the Hyades in Taurus and Rigal in Orion.

Deep Sky Objects:

There are so many objects of interest in this region of the sky, it is difficult to select a few. As the challenge object, I have selected the well known, but difficult to see, the Horsehead Nebula. You need a dark sky, an 8" or higher telescope, and a lot of patience. An H-beta filter will also help, though some have claimed to see without the filter. The Horsehead, is directly south of the east most star of Orion's belt. Alnitak. It may be easier to find the Flame Nebula (NGC 2024) northeast of Alnitak and then move south to the Horsehead. Make sure you are able to see the dark lane in NGC 2024 before attempting the Horsehead. The chart attached is a negative image. You have to be patient. Relax and take your time. It will be time well spent. Once you see the object , it will be easier to find in subsequent times. The Horsehead is an enormous cloud. A billion, yes I mean billion, not a million, solar systems could easily fit within the Horsehead and that is only small part of a much larger cloud. The size boggles my mind. How can anything so big be so hard to see?



The other deep sky object I have selected is the Orion Nebula in the sword of Orion. This object is an emission nebula about 1500 light years away and can be seen with the unaided eye, but really a joy to see through a telescope of any size. It was cataloged by Messier as two objects, M 42 and M 43. M43 is the smaller, detached nebula north of M 42. Within M 42 are 4 bright star in the shape of a trapezoid known as the Trapezium. These are very young stars less than half a million years old. These 4 stars are only the most prominent stars of a much larger group of dimmer stars. The Orion Nebula is literally a star incubator.

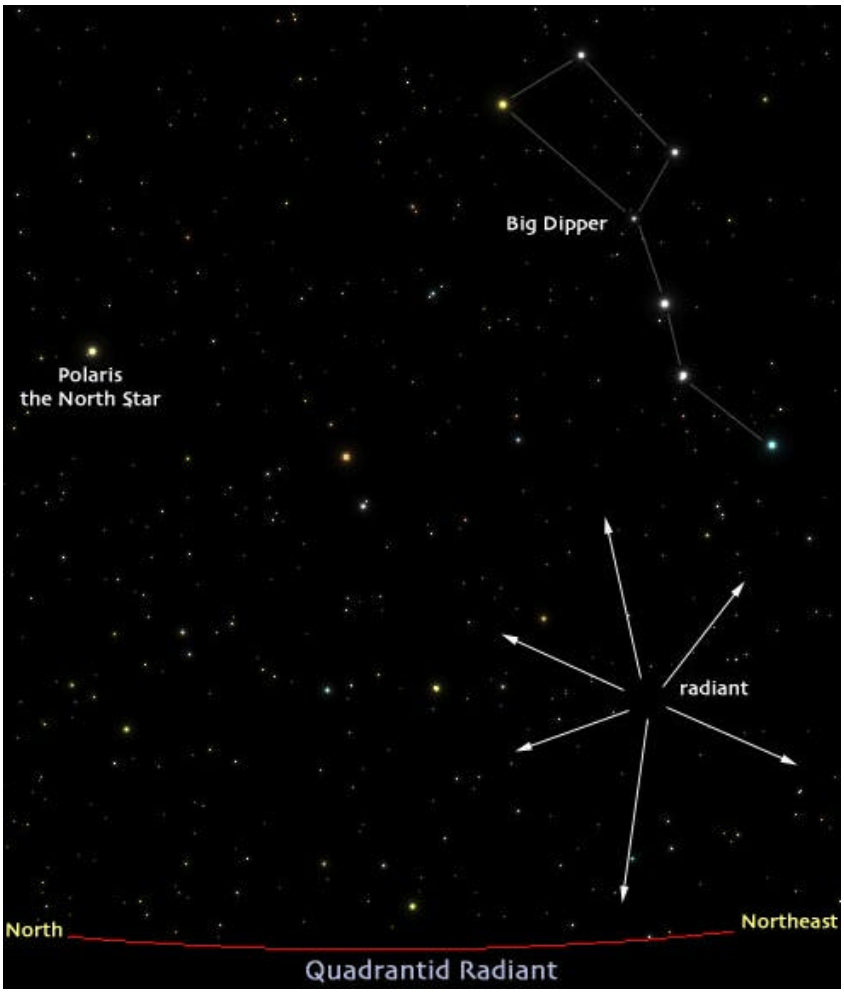


Solar System

Venus reaches its maximum elongation from the Sun of 47 degrees in the second week of January reaching its maximum brilliance of magnitude minus 4.5 at this time. On 23rd January Venus passes 1.5 degrees north of Uranus. Uranus has a maximum magnitude of plus 5.7 the difference in brightness between the two planets will therefore be over 10 magnitudes!

Jupiter will be lost to view after the first week of January reaching conjunction with the Sun on the 24th of January. We will have to wait until March 2009 to view Jupiter again when it reappears in the morning sky low in the South South East in the Constellation of Capricornus.

The Quadrantids January 1st --- -6th Maximum occurs on 3rd at 23:00. This meteor shower is one of strongest meteor shower of the year, but you will not see them unless you are in northern latitudes like Canada, Sweden or Norway. They seem to radiate from the now extinct constellation Quadrans Muralis! I didn't know constellations could become extinct. Apparently Quadrans Muralis was simply overwhelmed by Hercules. Boötes and Draco. I'm not aware of any other constellation in danger of extinction.



The Universe is yours to discover during the International Year of Astronomy 2009

With 2009 just over the horizon, stargazers around the world are busy preparing for the International Year of Astronomy. A staggering 135 nations are collaborating to bring the Universe closer to Earth. Events and activities will take place over the coming 365 days and beyond, in a spectacle of cosmic proportions.

The International Year of Astronomy 2009 (IYA2009) has been launched by the International Astronomical Union (IAU) and the United Nations Educational, Scientific and Cultural Organization (UNESCO) under the theme, "The Universe, yours to discover". Thousands of IYA2009 events are described on the national websites, as well as on astronomy2009.org, and a few of the global projects are listed here.

The official IYA2009 Opening Ceremony will take place in Paris on 15 and 16 January 2009, and the press is invited to attend. It will feature keynote speakers, including Nobel Laureates, and live video feeds to scientists working in remote locations. Many nations are holding their own Opening Ceremonies in January and February, showing their dedication to the Year. But events will begin before then. Don't be surprised to see telescopes on the streets on New Year's Day. The IYA2009 Solar Physics Group have been busy planning a grand worldwide campaign, with over 30 countries involved at more than 150 venues, which will see amateur stargazers set up their telescopes on pavements as well as in science centres, letting passers-by observe the Sun using special safety equipment.

The Cosmic Diary is an example of a global activity occurring during 2009, with the release of its official website on New Year's Day. The project concerns the daily lives of full-time astronomers. More than 50 bloggers, professionals from over 35 countries and employed by organisations such as ESO, NASA, ESA and JAXA have already begun producing content, writing about their lives, the work they conduct and the challenges they face. The public can see what being an astronomer is really like, and how ground-breaking research is conducted. Another project, 365 Days of Astronomy, will publish one podcast per day over the entire year. The episodes will be written, recorded and produced by people around the world.

100 Hours of Astronomy, another IYA2009 Cornerstone Project, is a worldwide event taking place from 2-5 April 2009, with a wide range of public outreach activities including live webcasts, observing events and more. One of the key goals of 100 Hours of Astronomy is to have as many people as possible look through a telescope, just as Galileo did for the first time 400 years ago.

The From Earth to the Universe (FETTU) Cornerstone Project is an exhibition arranged by IYA2009 that will bring large-scale astronomical images to a wide public audience in non-traditional venues such as public parks and gardens, art museums, shopping malls and metro stations.

Over 30 countries around the world are currently in the development phase of FETTU projects, many with multiple locations. Some 15 countries plan to begin FETTU exhibitions within the first month of 2009, ranging in size from 25 to over 100 images on display. FETTU will be introduced to the global community at the Opening Ceremony at UNESCO headquarters in January 2009.

The World at Night is an IYA2009 Special Project that is producing and bringing to the public a collection of stunning photographs and time-lapse videos of the world's landmarks with the sky in the background. The World at Night is preparing more than 30 exhibitions and educational events around the world.

One of IYA2009's aims is to raise awareness of light pollution, and how the beauty of the night sky is progressively being drowned out, particularly over urban areas. The project Dark Skies Awareness is tackling these issues head-on in a practical, inclusive manner. One way in which it is doing this is by holding star-counting events, where the public are encouraged to see how many stars in a particular area of the sky are actually visible from their location. When compared with data from truly dark sites, the results are often very surprising! The "How Many Stars" event will run from January 2009.

A list of event highlights is available on the official IYA2009 website, www.astronomy2009.org/highlights. From there it is also possible to contact the National Nodes, responsible for organising local events in the many participating countries.

During 2009, the sky will provide some exciting events, including the longest total solar eclipse of the 21st century, occurring on 22 July 2009 and lasting 6 minutes 39 seconds over a narrow corridor through countries including India, Bangladesh and China. A strong shower of Leonid meteors is also expected in mid-November 2009, with forecasters predicting upwards of an incredible 500 shooting stars per hour. In mid-October in the northern hemisphere, Jupiter will be placed at dusk, a perfect time to show public the giant planet and its moons. These are an impressive sight through even a small amateur telescope.

IYA2009 seeks to involve the public at large in its activities, and to this end amateur astronomers have been called upon to help organise and run events. Known for their enthusiasm, this army of helpers is growing every day, preparing to promote astronomy in a stunning variety of ways. In fact, so many thousands of people across the globe are already involved, they have formed the world's largest ever astronomy network.

Catherine Cesarsky, IAU President, says: "135 countries have committed themselves to the Year, all pulling together toward the common aim of making astronomy accessible to the public. IYA2009 will reinforce the links between science education and science careers, stimulating a long-term increase in student enrolment in the fields of science and technology and an appreciation for lifelong learning."

With such a range of activities planned, now is the ideal time to learn more about the cosmos and our place within it. The International Year of Astronomy 2009 promises to make the Universe yours to discover, beginning on 1 January 2009.

http://www.iau.org/public_press/news/release/iau0810/

Ten Commandments for Amateur Astronomers

Hannah Lange and Jason Zermeno
Space Center Houston

"1. Thou shalt have no white light before thee, behind thee, or to the side of thee whilst sharing the night sky with thy fellow stargazers.

"2. Thou shalt not love thy telescope more than thy spouse or thy children; as much as, maybe, but not more.

"3. Thou shalt not covet thy neighbor's telescope, unless it exceeds in aperture or electronics twice that of thy wildest dreams.

"4. Thou shalt not read "Astronomy" or "Sky & Telescope" on company time, for thine employer makes it possible to continue thine astronomical hobby.

"5. Thou shalt have at least two telescopes so as to keep thy spouse interested when the same accompanies thee under the night sky or on eclipse expeditions to strange lands where exotic wild animals doth roam freely.

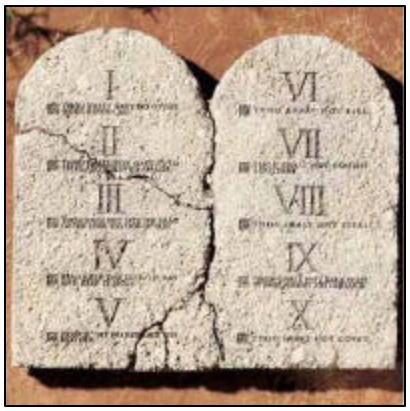
"6. Thou shalt not allow either thy sons or thy daughters to get married during the Holy Days of Starfest.

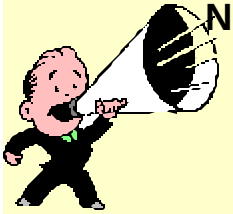
"7. Thou shalt not reveal to thy spouse the true cost of thy telescope collection; only the individual components, and that shall be done with great infrequency.

"8. Thou shalt not buy thy spouse any lenses, filters, dew shields, maps, charts, or any other necessities for Christmas, anniversaries, or birthdays unless thy spouse needs them for their own telescope.

"9. Thou shalt not deceive thy spouse into thinking that ye are taking them for a romantic Saturday night drive when indeed thou art heading for a dark sky site.

"10. Thou shalt not store thy telescope in thy living room, dining room, or bedroom, lest thou be sleeping with it full time."





Need volunteers

What's Happening at the George!!!

Cynthia Gustava

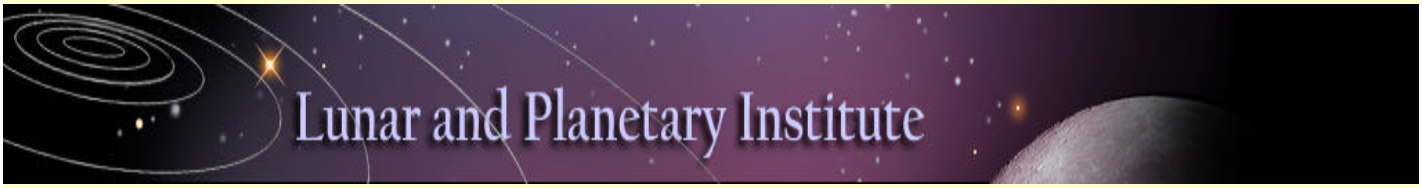
George Observatory January Events

Friday Night Groups (all times are 19:30 to 22:30)…Volunteers for domes and deck scopes are needed. Bring those laser pointers and instruct the girls on the constellations and bright objects! All nights are fully booked. Contact Cynthia Gustava at cynm31@att.net to volunteer.

Jan 09 – Sky Search Overnight
Jan 16 – Brownie Overnight
Jan 23 – Adult Girl Scout Overnight
Jan 30 – St. Pius X Science Club and Beckendorf Junior High (Building Manager: Cynthia Gustava)

Saturday Night Public Viewing (dusk to 23:00)…Volunteers for domes and deck scopes are needed. Contact the building manager teams below.

Jan 03 – Mary Lockwood and Joe Mills mplockwood@att.net or k5jmm@yahoo.com
Jan 10 – Barbara Wilson and Buster Wilson gobserve@consolidated.net or retsub@ix.netcom.com
Jan 17 – Justin McCollum and Carl Sexton justinmccollum@hotmail.com or carlsexton@hotmail.com
Jan 24 – Cynthia Gustava and Carl Sexton cynm31@att.net or carlsexton@hotmail.com
Jan 31 – Jack McKaye and Jessica Kingsley jemckaye@comcast.net or gnkingsley@att.net



We're going to try for 3 night viewings in 09. The dates are: 2/21 – Venus and Orion; 8/15 – Saturn and Globular Clusters; 10/24 – 1st Quarter Moon.

Of course these are tentative and I will let you guys know immediately if any of them change.

We really appreciate you all coming out and bringing your telescopes. The kids enjoy it so much.

Thanks,

Katy Buckaloo

Folks:

In times past, people that have wanted to take advantage of the club discount have had to write their check, put it in with the renewal slip, and then either mail it to me at my home or chase me down at a meeting. In most cases, within a week, I have sent out the renewal. Sometimes, and I don't really mind, the renewals have gone out at my expense for the postage. Without hesitation, question, or fail, it is not the most efficient means to maintain club subscriptions. So as secretary, I'd like to try something new...

You get all your stuff ready for the subscription, whether it be Astronomy or Sky & Telescope, you keep it - you hang on to it. Email (most reliable) or tell me when you see me that you want to take advantage of the club discount for either or both of these publications and that you need a supporting letter. What I'll do is get the letter together and email the "letter from the treasurer/secretary" back to you as a PDF. You print it off, and enclose it with your renewal. For this to work your computer must have Adobe Reader (which is free) and a means to print it. I would like this procedure to become the "Standard Operating Procedure" for Astronomy/S&T discounts through JSCAS. For those still not in the computer age, we can process things as we have in the past.

Clear skies,
David Haviland

THERE WAS A CORRECTION AFTER LAST MONTH'S EDITION WENT OUT—

I have a Celestron NexStar 5 Scope for sale—asking $600.00 OBO <——THE CHANGE
my cell: 832-545-7828
my home email FrankBittinger@yahoo.com—Frank Bittinger

****

Hey all,
I suppose many of my telescope repairs (at ADVANTAGE Telescope Repair) or Schmidt Cassegrain problems. Sadly, most of them are corrector plate issues. At least twice a week, I'll get a call from a SCT owner from somewhere in America that has broken his corrector plate lens!!! Ouch !!!

First the good news: no problem for me to remove the lens and the secondary for a new replacement. Now the bad news: At this point in time (to my best knowledge), there are no new correctors to purchase! I have contacted many vendors around the country and they all tell me that they don't exist. Meade or Celestron will not sell you a new one either. Your only avenue is to rob one from an old junk scope.

Moral of story: Worship your corrector Plate! Be extra careful with your SCT when handeling, shipping, and traveling with it. Keep it capped when stored. And, good luck.

PS. I have a customers Meade LX 200 now, that he decided to try his hand at collimation for the first time. He didn't read the instructions, loosened all three collimation screws and pulled them out. The secondary mirror fell off inside the tube... rattling against the corrector and primary mirror! Lucky....no damage. I now have it back together for him.
Be more c-a-r-e-f-u-l !!!!

Members' Gallery—January 2009
Submitted By
David Haviland

Mt. Everest

Received from John
A member of HAS

Light pollution:
Any adverse effect of artificial light including sky glow, glare, light trespass, light clutter, decreased visibility at night, and energy waste.

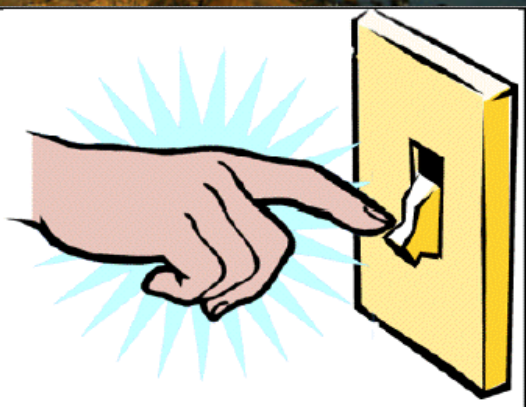
.Do you have a question about light pollution, protecting the night sky, or IDA's resources? **Get Help from IDA** http://www.darksky.org/mc/page.do?sitePageId=56399

Photograph © Phil Hart

IDA
THE LIGHT POLLUTION AUTHORITY

Help turn off the lights...

Join the
International Dark-Sky Association (IDA)
http://www.darksky.org
"To preserve and protect the nighttime environment and our heritage of dark skies through quality outdoor lighting."



Houston Area Astronomy Clubs

Brazosport Astronomy Club
Meets the Third Tuesday of the month, 7:45p.m.
At the Planetarium
400 College Drive
Clute, Texas (For more information, contact Judi James at the Planetarium 979-265-3376)

Fort Bend Astronomy Club http://www.fbac.org
Meets the third Friday of the month, 7:00 p.m.
First Colony Conference Center
3232 Austin Pkwy
Sugarland, Texas

Houston Astronomical Society http://spacibm.rice/edu/~has
Meets the first Friday of the month, 8:00 p.m.
University of Houston, University Park
Science and Research Building, Room 117

North Houston Astronomy Club http://www.astronomyclub.org
Meets the fourth Friday of the month, 7:30 p.m.
In the Teaching Theatre at Kingwood College
20000 Kingwood Drive
Kingwood, Texas

Galveston Stargazers
Meets the first Wednesday of the month At Home Cut Donuts, 6807 Stewart Rd, Galveston, TX From 7PM to 9PM.
Contact: Jim Gilliam at Jim.Gilliam@dars.state.tx.us or
At (409)795-3620, M - F, 8AM to 5PM

Starscan Submission Procedures

Original articles of some relation to astronomy will be accepted up to 6 p. m. (18:00 hrs) on the 25th of each month. THE most convenient way to submit articles or a Calendar of Events is by email and is preferred, but hard copies (CD, disk) are also accepted. All articles must include author's name and phone number. Also include any picture credits. Word, WordPerfect, and text files will be accepted. I have set up a special email account so that I can keep all of the Starscan articles, pictures, information, etc, separate from all of the other email I get. This makes is much easier to edit and set up the Starscan

Please send all submissions to:
conniesstarscanaccount@gmail.com

The author of individual articles bears all responsibility for publishing any e-mail addresses in the article on the World Wide Web

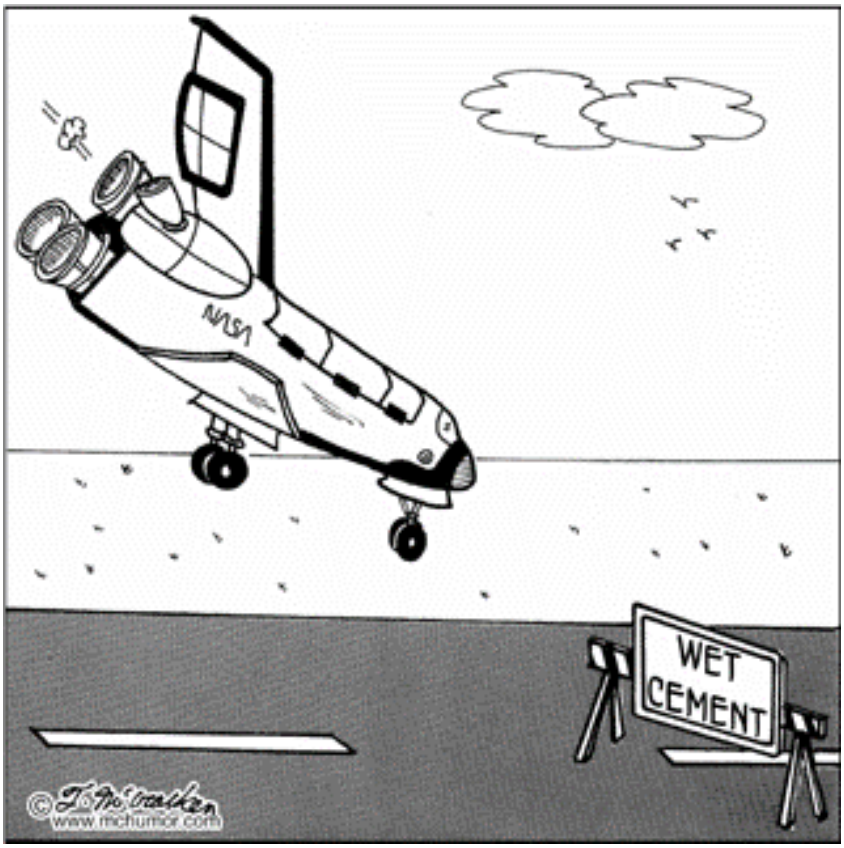
Johnson Space Center Astronomical Society

2008-Club Officers

President – David Haviland
Vice President – Chris Randall
Secretary – David Haviland
Starscan Editor – Connie Haviland
Star Party Chairperson – Bob Taylor
Librarian – Bob and Karen Taylor
Historian – Chris Randall
Scientific Expeditions – Paul Maley
Web Master—Chris Randall

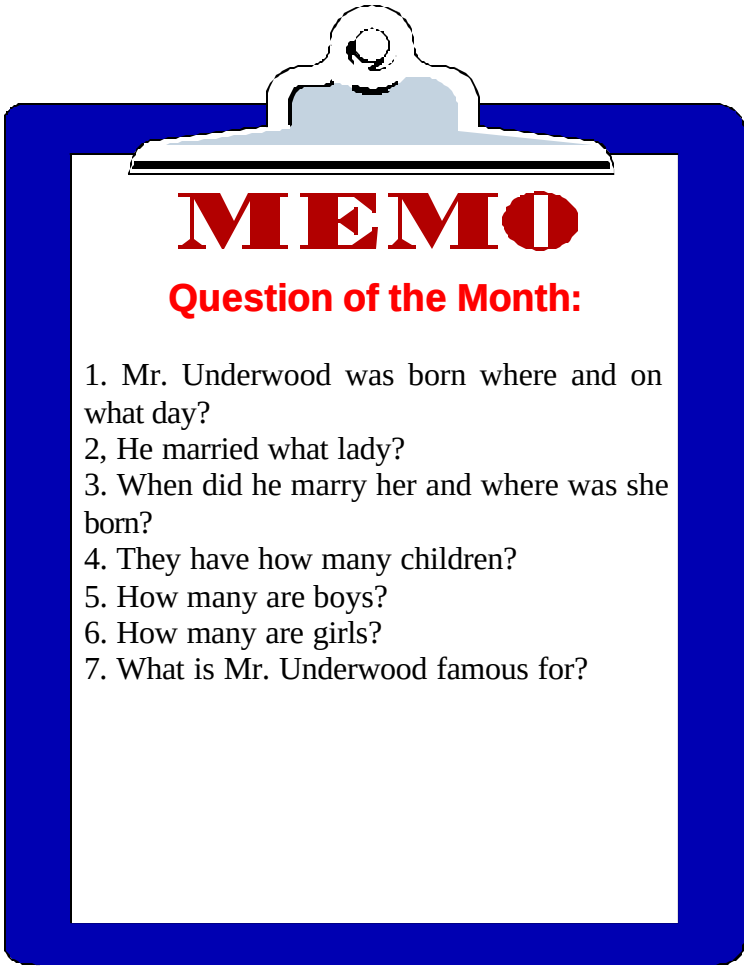
SIGS

Observing Awards – Triple Nickel
Astronomy 101 — Triple Nickel
CCD Imaging – Al Kelly
Binocular Observing – "OPEN"
Telescope Making – Bob Taylor
Deep Sky Observing – Hernan Contreras

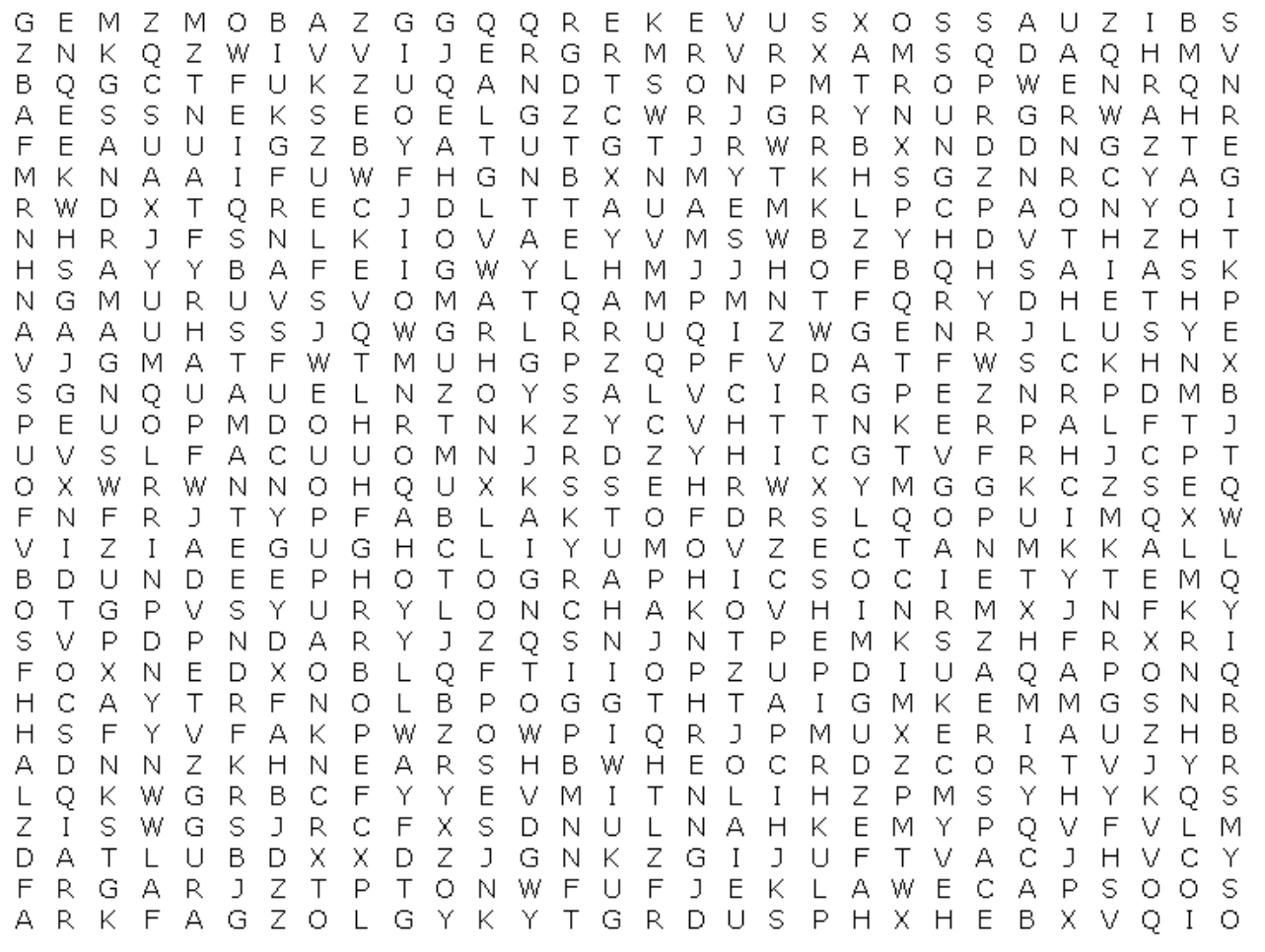


Astronomy and Kids

This is the section strictly for kids (or kids at heart). We will be including information, stories, ideas, puzzles or anything that has to do with astronomy. The only difference here is, it will be directed for children. We don't discourage parents or any other adult to get involved. In fact, we encourage it strongly. So we hope you enjoy this section and if it touches a child's interest in astronomy, our



WORD SEARCH FOR JANUARY



AEROSPACE
BUSTAMANTE
DUNDEE PHOTO-
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NAME _____

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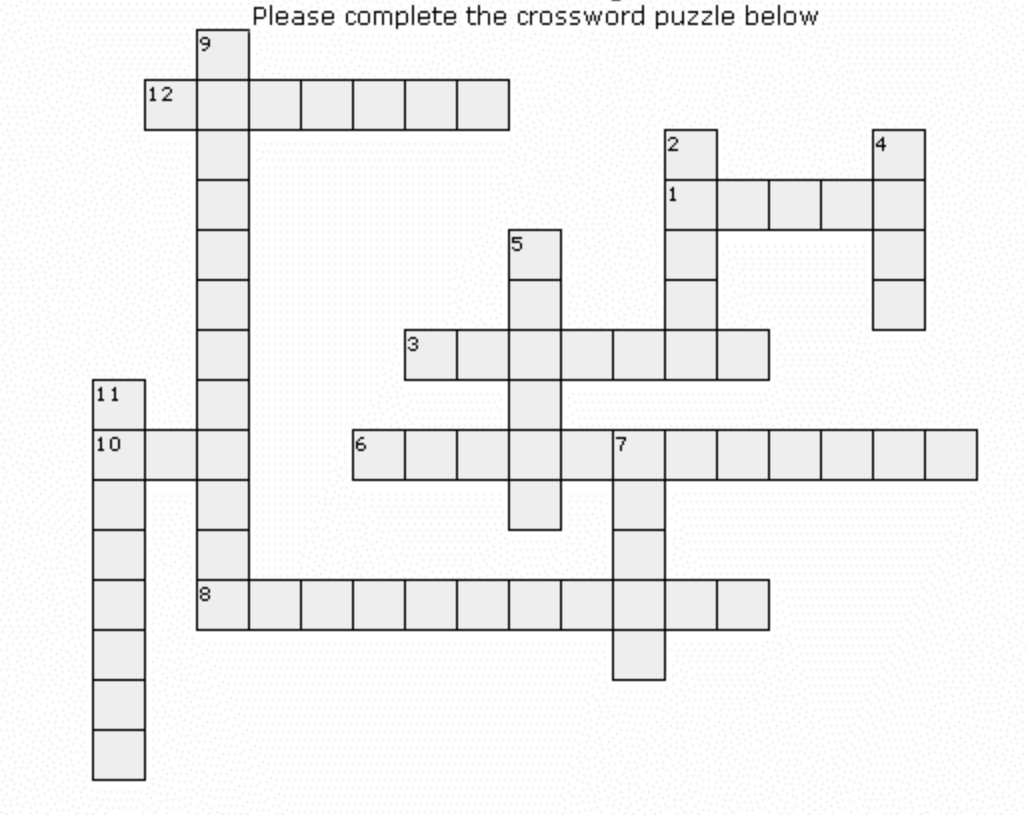
The Solar System

Please complete the crossword puzzle below



Across:

1. the path the object takes as it moves around another object in space
3. the force of one object's pull on another
6. four planets closest to the sun
8. the sun and the objects that orbit around it
10. center of the solar system
12. largest planet

Down:

2. large ball of ice and dust that orbits the sun
4. hot ball of glowing gases
5. a large body of rock or gas that orbits the earth
7. was once called a planet
9. five planets farthest from the sun
11. chunk of rock or metal that orbits the sun

Snoopy says, never stop looking up..reach for the stars and may you always have clear skies!!!!