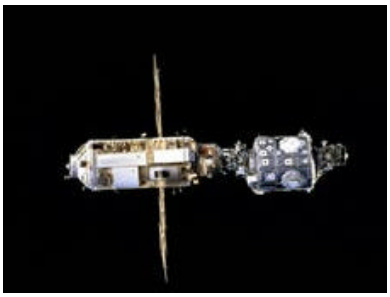
Starscan

Johnson Space Center Astronomical Society

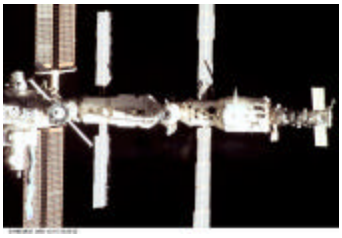
Volume 25, Number 2 February 2009

FORTY YEARS AND COUNTING!



THE SPACE STATION

IS 10 YEARS OLD



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Un mensaje del Presidente
(A message from the President)

A bitter-sweet month February is…. On one hand with the drier air the night sky has been exceptional. Personally, Connie and I have not been able to do much viewing of my own because of an endless list of home projects that we have on the docket. My only viewing of the night sky this year has only come from spending some time at the George where I helped Tony Weise from FBAC cue in M42 on the 36" scope for the crowds. But next March, we have our trip to the Fort so we definitely have something to look forward to. On a sad note, it is unfortunate that we are losing Randy and Dolly Brewer to Southern California for a few years. We'll come up with a catchy name for them, Bob is working on that as we speak. As Randy stated at the Solstice meeting, they will eventually return to Texas. It will be interesting to have his view of the S. California skies, and what sort of images he can coax from them! Best of luck and best wishes to Randy and Dolly.

Clear skies!
David Haviland

LETTER FROM THE EDITOR

By Connie Haviland

Hi Everyone!!

We are entering into the season for observing and starparties. So this edition is full of various different starparties invitations throughout the country. I have included them here so that those who need to make plans ahead of time, in order to attend, will have plenty of time to take care of things.

There is *Earth Hour 2009* in March this year. Join millions of people around the world in turning out the lights for one hour. There is a website mentioned there so that you can read more about this event.

There is the *Golden State Star Party of 2009*. This is starting on Saturday, June 20, and ending Wednesday, June 24. There is early registration, so check it out.

Another opportunity to attend activities with astronomy is the *2009 Mulberry Mountain Star Party,* to be held on June 19th & 20th, 2009.

I also have the most recent schedule for our own star parties, from Bob Taylor, but I am sure we will be adding more.

I hope you find this month's edition informative and fun.

Enjoy…..Connie

LETTER TO THE EDITOR

NOTHING THIS MONTH

Star Parties for 2009

Bob Taylor

FEBRUARY 21	MOODY GARDENS
FEBRUARY 27	HAAK WINERY
MARCH 19-22	FORT McKAVETT
APRIL 18	MOODY GARDENS
APRIL 19-26	TEXAS STAR PARTY
MAY 22	HAAK WINERY
JUNE—AUGUST	OPEN
SEPTEMBER 12	MOODY GARDENS
OCTOBER 15-18	FORT McKAVETT
NOVEMBER 6	HAAK WINERY
DECEMBER	OPEN

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..

OTHER ACTIVITIES AROUND THE AREA

We have another opportunity to excite the young minds from Baytown at a Science Star Night. Thursday, February 12, 2009 is the date, and we need to be ready for them by 6:00 pm.

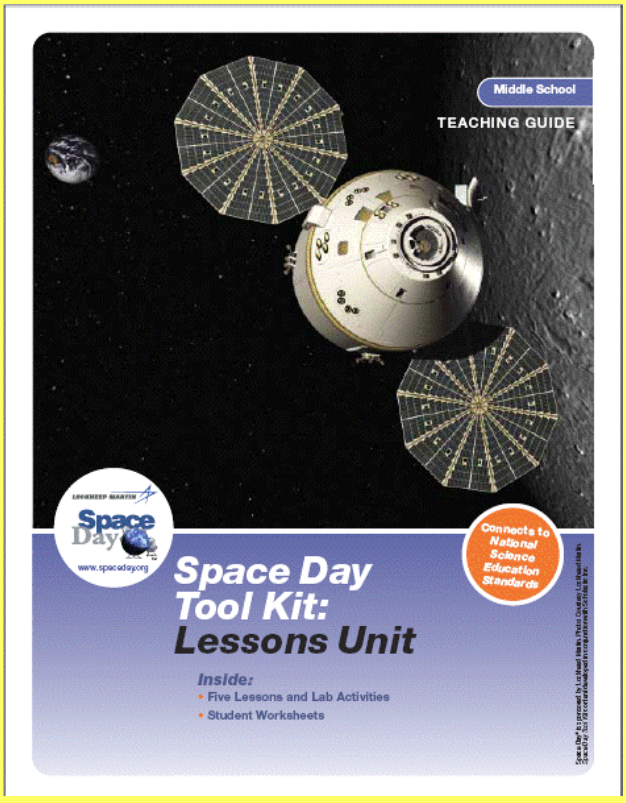
James Bowie Elementary is located at:

2200 Clayton Dr
Baytown, TX 77520

Please RSVP directly to me, Jessica Anne Kingsley at gnjkingsley@att.net, if you can attend.

For the teachers in our group. Here is the cover page for Space Day 2009. You can find this at:
SPACE DAY SITE FOR TEACHAERS
http://www.spaceday.org/

It has a lot of very interesting things at this site, besides this. Check it out!!

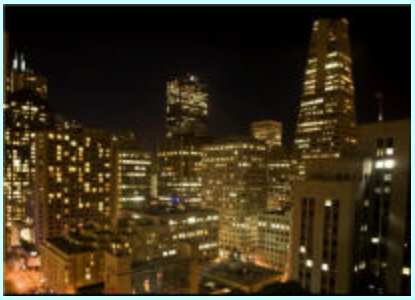


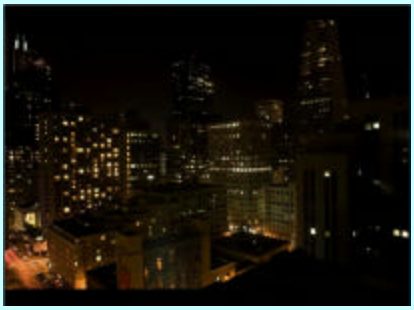
I know this may seem like an extremely early post, but I feel that if we are aware of it now, we can get it put in motion in the cities that we are associated with. So that is why it is here.

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 fo Earth Hour 2009





A Dream: An International Space Station

Ten years ago Dec. 4, 1998, NASA and its partner nations began building a dream: the International Space Station. On that date, space shuttle Endeavour lifted off on its 12-day mission to deliver NASA's Unity module and connect it to Russia's Zarya control module already orbiting Earth.

The commander of that first space shuttle construction flight to the station was astronaut Bob Cabana -- now director of NASA's Kennedy Space Center in Florida.

Cabana recalls vividly that first trip to the fledgling station, when he and Russian cosmonaut Sergei Krikalev prepared to be the first crew members to enter the newly joined modules.

"We finally got all the hatches open and we're up to the main hatch going into Node 1 (Unity). We open the hatch and Sergei Krikalev was with me. I just waved my hand toward the hatch and the two of us entered together," says Cabana. "I think what it talks about on the space station is international cooperation. You know, there wasn't a first person in. It was we went in together."

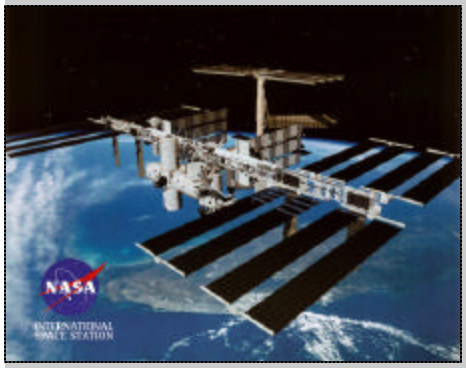
Despite his unique place in space station history, it is the sense of international cooperation that continues to impress Cabana.

"When you look at Japan, Canada, the European space agency and all its partners, Russia. You take all those different cultures, people and hardware built around the world and it comes together for the first time on orbit and it works flawlessly -- that's phenomenal," he says. "The engineering of it is phenomenal. But when you throw in the cultural differences and that we have worked together in space as partners through some tough times and some easier times for 10 years now -- that's amazing."

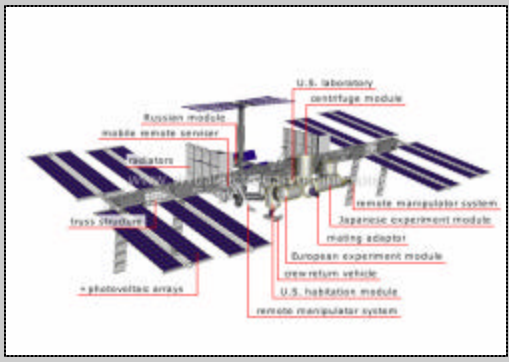
As the station's construction nears completion, Cabana reflects on the continuing work aboard the station.

"Right now, 24 hours a day seven days a week, 365 days a year, we have humans in space exploring -- exploring how to work in that microgravity environment in space. In that harsh environment where it can be as cold as minus 150 F or as hot as 300 degrees," he explains. "We're making things work. We're doing real science. We're going to do more science when we get a larger crew up there. We're proving the systems that we need. We have an excellent international cooperative partnership."

Cabana concludes, "I think folks need to know that we can work together. That it's not just when the shuttle launches. There's a crew up there right now doing real work in space. "



http://www.nasa.gov/mission_pages/station/behindscenes/construction_begins.html



Planetary storm over status of Pluto

Campaign seeks to overturn ruling that split the world of astronomy

By Steve Connor, Science Editor

(Submitted to the Starscan by DL Haviland)

ALAMY

Pluto: 'More like Earth than Earth is like Jupiter'

The number nine has a special significance for Mark Sykes, director of the Planetary Science Institute in Tucson, Arizona. Nine is the number of planets in the Solar System, and Sykes is one of several leading astronomers who want to keep it that way.

Unfortunately, the International Astronomical Union (IAU), which adjudicates on these matters, has ruled there are no longer nine planets in the Solar System, after a decision two years ago to downgrade Pluto to the lowly status of a "dwarf planet".

But in 2009, Dr Sykes and his like-minded colleagues hope to get the ruling overturned at the next general assembly of the IAU, to be held in Rio de Janeiro in August.

"The IAU is not the Holy Mother Church, so its pronouncements are not followed by everybody," said Dr Sykes. "To me and many like me, Pluto remains a planet and there are still nine planets in the Solar System.
"The one thing that was particularly bad about the IAU's decision is that normally it makes pronouncements that are a mark of a general consensus, but here it has tried to impose its view on the rest of us."

The row over Pluto's downgrading has been simmering since the astronomy organisation voted to relegate it in August 2006 in Prague. It was agreed at the last vote of that conference – after many scientists had left.
It was particularly galling for Alan Stern, principal investigator on a Nasa mission, New Horizons, which had launched a nuclear-powered probe to Pluto six months earlier.

Dr Stern and Nasa found that their £460m New Horizons spacecraft, due to arrive at Pluto in 2015, was no longer going to visit the Solar System's most distant planet, but just one of many chunks of rock in the Kuiper belt of asteroids beyond Neptune.

"The IAU definition is so flawed on so many levels," Dr Stern fumed. "It's an awful definition; it's sloppy science and it would never pass peer review." Nasa states: "Most people call Pluto a planet because it orbits the Sun and it is large enough for its own gravity to pull it into a spherical shape."

Pluto is a strange world: its surface is frozen at about minus 233C – just 40 degrees above the "absolute zero" of minus 273C – and it is so far from the Sun that its daytime could be compared to Earth during a full moon night. In fact, there is a strong scientific case for calling Pluto something other than the name given to the eight other planets, which fall either into the terrestrial "rocky" planets, notably Earth, Venus, Mercury and Mars, or the Jovian "gaseous" planets of Jupiter, Saturn, Uranus and Neptune.

"Pluto is just one of the largest members of the Kuiper belt of objects – the dregs of planet formation," said Hal Levison of the South Western Research Institute in Boulder, Colorado who has studied the dynamics of planet definition.

In other words, Pluto is just one of many large icy bodies around the Sun. The IAU has a new term, "plutoid", for such objects, which, while massive enough to form a near-spherical shape, do not have gravitational influence to clear the neighbourhood around their orbit of other objects.

"If you took Earth out of the Solar System, the other planets would care. If you took Pluto out, it would make no difference to the orbits of the other planets," said Dr Levison. Dr Sykes disagrees: "Pluto is far more like Earth than Earth is like Jupiter. Jupiter is a gas planet. It doesn't even have a surface or topography, unlike Pluto."

Both men, though, believe the argument over Pluto is more than an arcane discussion for experts. Astronomy and science are about organising observations of nature and a major aspect of this is how scientists agree on a system of classification.

"The argument over Pluto is a demonstration that scientists can disagree and that science is not some dictatorial project – it's dynamic," said Dr Sykes. "I think if the IAU changes its mind, that would be fine. If it doesn't, its credibility will be harmed."

Earth's most distant neighbor

1930 The year Pluto was discovered by the American astronomer Clyde Tombaugh

3,600 Pluto's average distance (in million miles) from the Sun

247.9 Years it takes Pluto to orbit the Sun

-233C Astronomers' estimate of the temperature on its surface

http://www.independent.co.uk/news/science/planetary-storm-over-status-of-pluto-1222862.html

(*personal note: I have never submitted to the wishes of the IAU and have and will always consider Pluto the 9th planet. I'm glad the controversy still rages on and that someday the IAU will rescind what is clearly a questionable decision. I tell school teachers not to count Pluto out and that part of the scientific process is resolving controversy. David.)*

ANNOUNCING THE 2009 GOLDEN STATE STAR PARTY
Information was provided to our club by Amelia & Steve Goldberg

We are pleased to announce that the Golden State Star Party in 2009 will again be held under the very dark, clear, and hospitable skies of Frosty Acres Ranch near Adin, California. GSSP 2009 will happen a little earlier this year, starting on Saturday, June 20, and ending Wednesday, June 24.

The Early Registration Period begins on January 2, 2009 and ends March 30, 2009. The adult registration fee for all four days is $50. The fee will increase to $60 on April 1, 2009, and to $75 after June 12, 2009. As in previous years, children under 18 years of age will be free.

Sponsored by The Astronomy Connection (TAC), this event has established itself over the years as the premier star party in California. GSSP will continue to feature the darkest skies available to large groups in California and a huge observing field ideal for camping and equipment set-up. In addition to observing activities, attendees can also enjoy nearby wildlife refuges, geothermal sites, Burney Falls, state parks, swimming in nearby Bieber, and other activities. We also plan to have an encore of last year's popular Ranch Day event hosted by the Albaugh's and other local families.

For registration and more information, visit our official GSSP Website at http://www.goldenstatestarparty.org. Register early and take advantage of the lower registration fee. We hope to see all of you at the Golden State Star Party in June!

Bill Porte
GSSP Organizing Committee

For those who know little or nothing about this event, I have pulled some information off of the internet for you.

Location: Frosty Acres Ranch near Adin in northeast California at an elevation of 4400 feet, with a stunning view of Mount Shasta 66 miles to the west. Enjoy the amenities of nearby towns and distance from city lights. Entrance gate coordi-

RVs are welcome, but there are no hookups. There is plenty of room, good highway all the way there, and easy drive-in access. Off-site accommodations are available in the nearby towns.

If you are camping, read the section on Campsite Preparation. (http://goldenstatestarparty.blogspot.com/2007/12/gssp-2008-campsite-preparation.html)

Groundcover recommendations

The observing field and camping area consists of hard clay ground covered with dry rooted cut grass. Although the type of grass in the field is not the type that sticks to clothing and works its way into your socks, there is, nonetheless, a tendency for the cut pieces to blow around and get into your belongings.

We recommend bringing three tarps, or two tarps plus a sizable piece of astro-turf. Use the tarps under your tent and as a "front porch" and the astro-turf as groundcover for your equipment. You'll find that this arrangement is comfortable and will keep the grass out of your stuff.

Wind and Stakes

In the afternoon, particularly on hot days, the northern Nevada desert cools off, and causes a westerly wind to pass over the cascades and down through Big Valley and Adin. When this happens, the wind picks up at about 3:00 pm and dies down at around 6:00 pm. By sunset, the air is still.

During the windy periods, tents, tarps and easy-ups can easily turn into kites. For this reason we will require that all of the above be secured with 1/4 inch diameter, or better, "nail-stakes". Standard tent stakes (the flimsy kind that probably came with your tent) will not suffice. We also recommend that you open a top corner of your easy-ups in the afternoon to prevent them from becoming airborne. At past star parties, we've have some incidents involving flying easy-ups; and we'd like to avoid any recurrence.

We also strongly suggest that you plan for securing your equipment. If you have a big dob, a piece of rope staked to the ground can be used to tie down the cage, pointing downwind. Dob's make great weather vanes; so protect your investment with a piece of rope and a nail stake.

Would more recommendations help?

We've been making trips like this, camping together at star parties for a long time. If you need any help, suggestions, pointers, etc., please write GSSP or ask questions in the GSSP Blog section of our web-site.

You will need to keep the sun off your tent in order to be comfortable. Make sure to read our page on Shading Tents.

For more information, go to http://goldenstatestarparty.blogspot.com/ But don't forget to check out the rules and guidelines site.

Arkansas Oklahoma Astronomical Society

2009 Mulberry Mountain Star Party

The Arkansas/Oklahoma Astronomy Society is proud to announce their second annual 2009 Mulberry Mountain Star Party, to be held on June 19th & 20th, 2009.

Once again, this year's event will take place at Mulberry Mountain Lodging & Events, which is a 650-acre facility located 16 miles north of Interstate 40, on Arkansas Hwy 23, near the city of Ozark, Arkansas. Highway 23 is otherwise known as the Pig Trail Scenic Byway. The facility boasts some of "The Darkest Skies in Arkansas," at GPS coordinates N 35° 42' 36": W 93° 47' 44"

Mulberry Mountain offers cabins, pull-through RV sites and improved tent campsites with water, electricity & showers. Virtually unlimited primitive campsites are also available. Contact Mulberry Mountain Lodging & Events by phone at (866) 667-1919 or by e-mail at mulberrymoutain@aol.com for lodging information and reservations, AOAS plans to set up a Public Observation Area on the south side of the resort on Friday and Saturday evenings. Several of our members' telescopes will be available. Non-members may set up their equipment in the Public Observation Area if they wish. All scopes are welcome. Amateurs who do not wish to participate in public viewing or who require a "lights-free" area will be located away from established light sources.

NOTE: It is our sincere hope that this event eventually grows to the point that we will someday require enforceable lighting regulations.

Vendors are being invited, and a "Swap Meet" will take place Saturday afternoon in the Main Lodge Meeting Room, where anyone will be able to buy, sell, or trade any astronomical items.

The newly formed Arkansas Section of the International Dark Sky Association will also conduct their 2009 Annual Meeting in the main Lodge meeting Room during the weekend.

For more information, contact Leonard Lynch, AOAS Mulberry Mountain Star Party Coordinator:
Phone: 479-782-1131, E-Mail: nspace01@swbell.net.

FEBRUARY OBSERVING

The February Sky

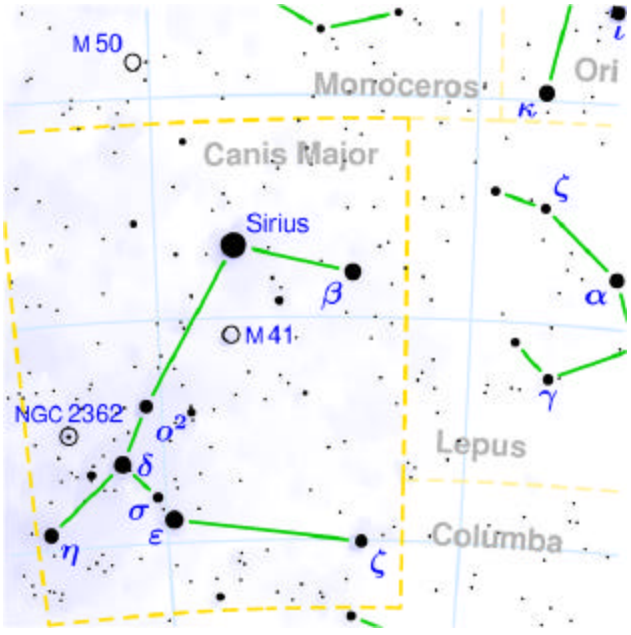
Cold, clear winter nights are not always best for viewing the sky with a telescope. The same phenomenon that makes the stars twinkle against a jet-black background, air turbulence, makes telescope images shaky and blurry. However, it is a great time to look at the sky with the naked eye, binoculars or low power eyepiece. The winter sky is loaded with objects best seen with low power eyepieces.

Of course the dominant star is the "Dog Star," Sirius in Canis Major. Sirius is bright because of its closeness (8.56 light years) not its size being only 1.5 times the diameter of our sun. It is a binary system with a companion very dim and very close. Friedrich Bessel noticed a slight oscillation in Sirius' orbit and predicted the existence of an unseen companion in 1834. The existence of such a companion was not verified until 1862 well past his death in 1846. The companion, "The Pup," is a dense white dwarf with estimated radius of only 10,000 km (about twice the size of the earth) with a mass equal to our sun. It is dense, indeed.

Canis Major, the larger of Orion's two hunting dogs, might be chasing Lepus, the Hare, who is just in front of him. Or perhaps he is ready to help Orion battle the great bull. The stories concerning Orion's dogs are not of mythic proportion, but the Greeks did have several interesting beliefs concerning Sirius, alpha Canis Majoris. Though Sirius is a winter star it is closely with summer because the sun is in Canis Major in the summer. This is the source of "dog days" in the scorching days of July. The star did not have the best reputation in antiquity being associated with sickness and death. There may be something to this superstition; I had my stroke in July!

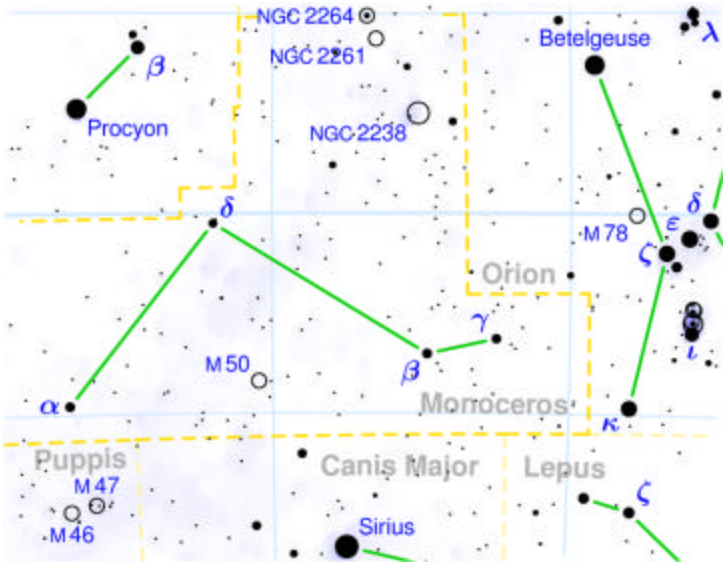
Deep Sky

M41 is a fairly loose open cluster. It's easy to resolve in a small telescope and spans the same area as the full Moon. To get the most pleasing view of M41, keep the magnification as low as possible. It's especially pretty in binoculars at 10x-15x; you'll see 40 or 50 stars in a 3-inch or larger telescope at 25x to 40x. More stars will be revealed at higher magnification, but you'll lose the aesthetic beauty of the cluster. Altogether, M41 is a bright object of magnitude 4.6, and is easy to find just 4 degrees south of Sirius in the constellation Canis Major. This is a fine region for bright nearby stars. Just west of Sirius is Mirzam, a star in Canis Major which 4 million years ago far outshone Sirius as the brightest star in our sky. Mirzam's brightness changes in a complex way, with beats and harmonics that oscillate like slightly out-of-tune guitar strings. This cluster was noted by Aristotle in 325 BCE.



Challenge Object

The Rosette Nebula large, circular region located near one end of a giant molecular cloud in Monoceros. The open cluster, NGC 2244, is closely associated with the nebulosity, the stars of the cluster having been formed from the nebula's matter



Solar System

Sun

There not been a year with less recorded sunspots since 1913. The last significant sunspot in 2008 was in October Number 1007. I'm not sure what the lack of sunspots portends; perhaps we'll get snow in July.

Moon

Full – Feb 9th New – Feb 25th

Planets

Venus is at its brightest—half Venus. Take advantage of a clear evening sky preferably just a few minutes after sunset and turn your telescope on Venus. Venus is too bright to view comfortably when the sky darkens. You may be able to observe the unlit half of Venus, in the same way as you often can see the "Old Moon in the young Moon's arms." This phenomenon is called "The Ashen Light" and has been the subject of much speculation as to its existence or cause for many years.

Saturn, in Leo, rises in the late evening with its rings almost edge on. With no rings in view the faint cloud belts may now be seen in moments of good seeing.

Comets

Comet C/2007 N3 (LULIN) it's first visit to the inner solar may brighten to 4th or 3 rd Magnitude in February. On the 15th February, it will pass very close to the bright 1st magnitude star Spica the leading star in the constellation of Virgo.

Penumbral Lunar Eclipse of 2009 Feb 09

Geocentric Conjunction = 15:28:39.1 UT J.D. = 2454872.14490
Greatest Eclipse = 14:38:16.5 UT J.D. = 2454872.10991

Penumbral Magnitude = 0.9244 P. Radius = 1.3004° Gamma = -1.0641
Umbral Magnitude = -0.0830 U. Radius = 0.7493° Axis = 1.0682°

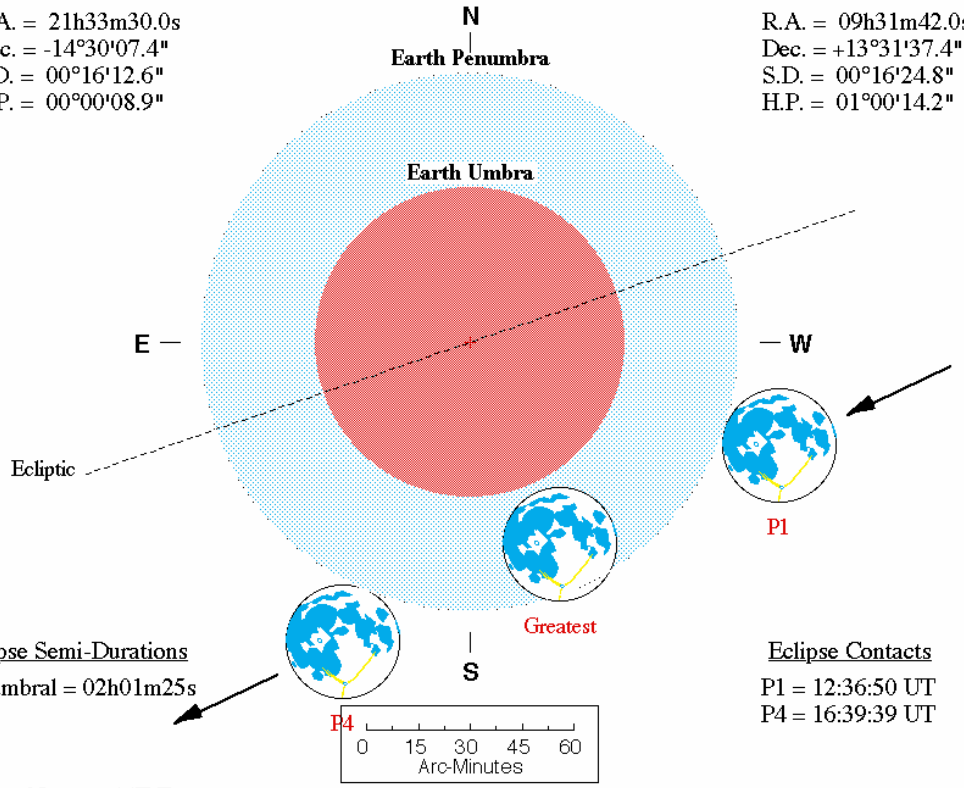
Saros Series = 143 Member = 18 of 73

Sun at Greatest Eclipse
(Geocentric Coordinates)

R.A. = 21h33m30.0s
Dec. = -14°30'07.4"
S.D. = 00°16'12.6"
H.P. = 00°00'08.9"

Moon at Greatest Eclipse
(Geocentric Coordinates)

R.A. = 09h31m42.0s
Dec. = +13°31'37.4"
S.D. = 00°16'24.8"
H.P. = 01°00'14.2"

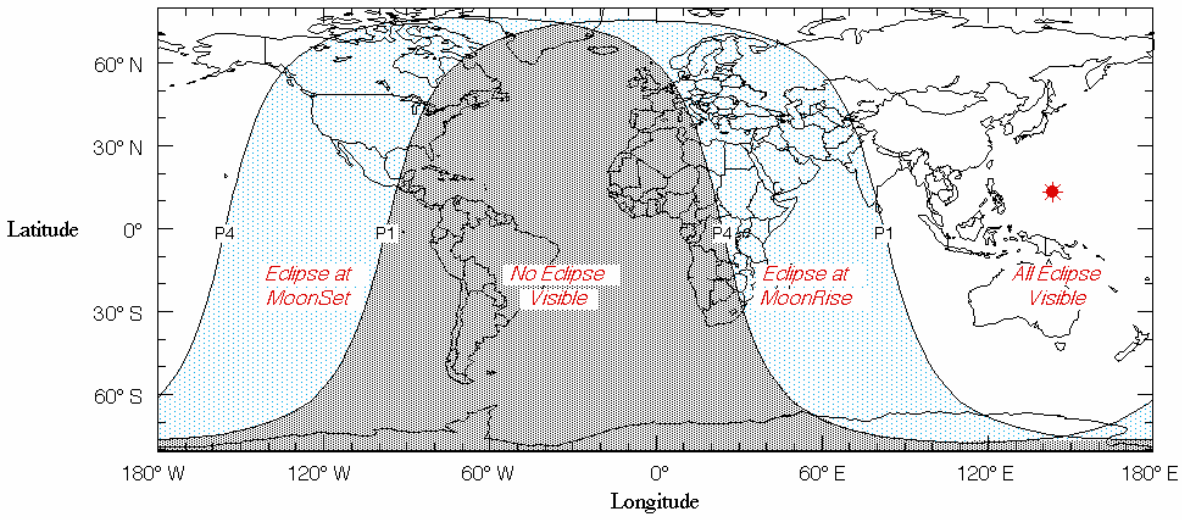


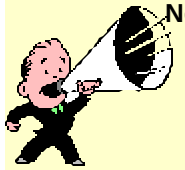
Eclipse Semi-Durations
Penumbral = 02h01m25s

Eclipse Contacts
P1 = 12:36:50 UT
P4 = 16:39:39 UT

Eph. = Newcomb/ILE
ΔT = 65.7 s

F. Espenak, NASA's GSFC - 2004 Jul 07
http://sunearth.gsfc.nasa.gov/eclipse/eclipse.html





What's Happening at the George!!!

Cynthia Gustava

George Observatory February 2009 Events

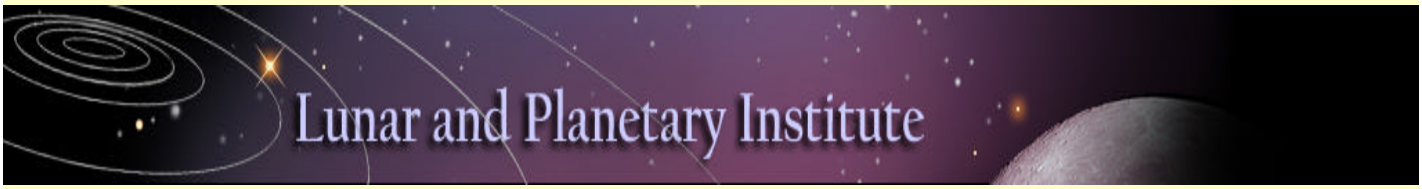
Friday Night Groups (all times are 19:30 to 22:30)…Volunteers for domes and deck scopes are needed. Bring those laser pointers and instruct the girls on the constellations and bright objects! All nights are fully booked. Contact Cynthia Gustava at cynm31@att.net to volunteer.

Feb 06 – Sky Search Overnight (30+ Girl Scouts)
Feb 13 – Stephen F. Austin High School (45 students)
Feb 20 – Aerospace Overnight (30+ Kids)
Feb 27 – Jersey Village Seniors (35 Adults)

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

Feb 07 – Tracy Knauss and Keith Rivich birdbarn2000@yahoo.com or icgalaxies@cs.com
Feb 14 – Cynthia Gustava and Mary Lockwood cynm31@att.net or mplockwood@att.net
Feb 21 – Mary Lockwood and Joe Mills mplockwood@att.net or k5jmm@arrl.net
Feb 28 – Barbara Wilson and Buster Wilson gobserve@consolidated.net or retsub@ix.netcom.com

Thanks!
Cynthia Gustava



This invitation is from Christine Shupla at LPI:

The Lunar and Planetary Institute invites all inquisitive adults to join us for Dr. Craig Wheeler's presentation Exploding Stars in an Accelerating Universe. This free public presentation on February 18 is part of the Cosmic Exploration Speaker Series at the Lunar and Planetary Institute (LPI), as we celebrate the International Year of Astronomy.

Supernova explosions produce the elements necessary for life, exotic objects like neutron stars and black holes, and the energy driving the evolution of galaxies. These exploding stars enabled astronomers to measure of the acceleration of the universe, and provided probes of the first stars to "wink on" in the universe.

J. Craig Wheeler is the Samuel T. and Fern Yanagisawa Regents Professor of Astronomy at the University of Texas at Austin and past department chair. His book, Cosmic Catastrophes: Supernovae, Gamma-Ray Bursts and Adventures in Hyperspace, has won popular awards. He recently finished serving a two-year term as President of the American Astronomical Society. His research interests are supernovae, black holes, gamma-ray bursts and astrobiology.

LPI's Cosmic Exploration presentation begins at 7:30 p.m., and will be followed by a light reception. No reservation is necessary. All inquisitive adults are welcome. LPI is located in the USRA building at 3600 Bay Area Boulevard in the Clearlake region of Houston; the entrance is located on Middlebrook Drive. The Lunar and Planetary Institute is part of the Universities Space Research Association (USRA).

Please feel free to pass along this information to anyone who may be interested.

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

For Sale: TeleVue TV012, Gibraltar Mount, and Starbeam Finder
Bought this rig last summer, used it a few times in my backyard and haven't used it since. Included is a TV102 package with accessories (TV Everbrite diagonal, 20MM eyepiece, hard case, and even the coveted hat), Gibraltar mount, and Starbeam finder. Other than a few sratches on the mount around the bolt holes I would rate this as like new. $2600 and it's yours. Local pickup in Houston area for entire package only - I will ignore any inquiries about shipping or separating. This is related to my reason for selling which I will share with serious local buyers. Thanks.
My email is hcoward01@comcast.net

Members' Gallery—February 2009
By
Al Kelly

Al Kelley LRGB color composite of M36. CGE-14; MX916; L:R:G:B = 24:10:6:8 minutes. Twenty years of CCDing and this is the first time I've imaged M36. When I go to Auriga I'm always looking at M37 and I forget the other beauties up there.

LRGB of NGC 3184 made two nights ago at Jack Petersen's observatory. CGE-14 / MX916; Astrodon filters; L:R:G:B = 170:50:30:40 min.; AIP4WIN and PS CS.

Light pollution:

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

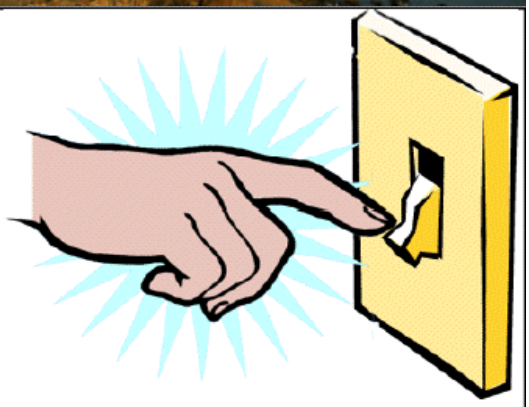
.Do you have a question about light pollution, protecting the night sky, or IDA's resources? **Get Help from IDA** http://www.darksky.org/mc/page.do?sitePageId=56399

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 –
Librarian – Bob and Karen Taylor
Historian – Chris Randall
Scientific Expeditions – Paul Maley
Web Master—Chris Randall

SIGS

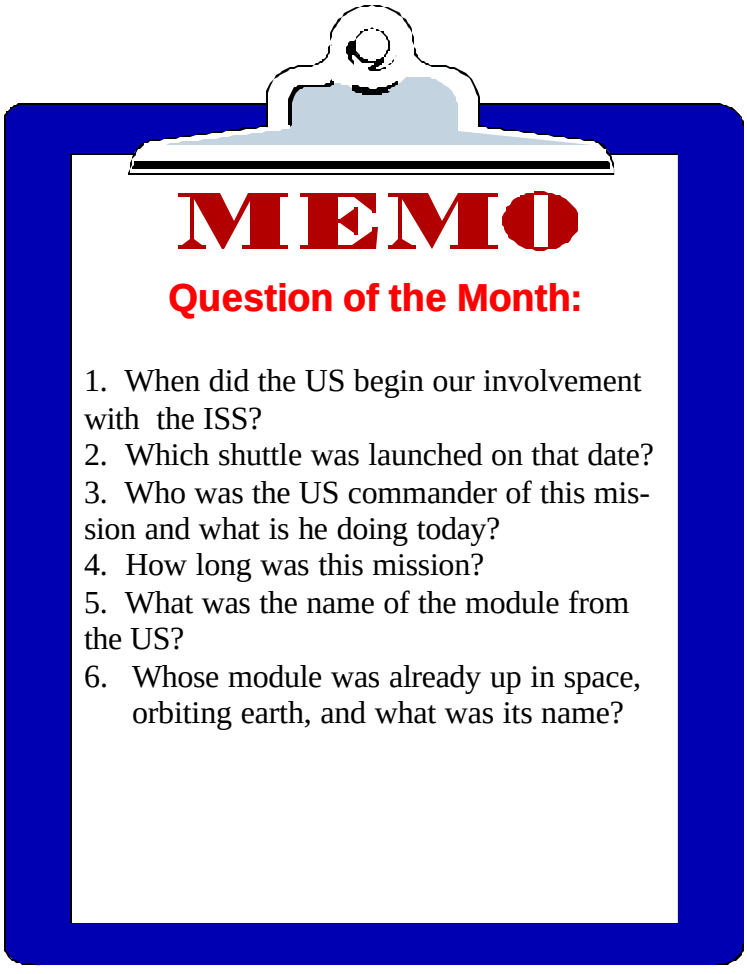
Observing Awards – Triple Nickel
Astronomy 101 — Triple Nickel
CCD Imaging – Al Kelly
Binocular Observing – "OPEN"
Telescope Making – Bob Taylor
Deep Sky Observing – Hernan Contreras

You think we can see the flags up there????

CAH

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

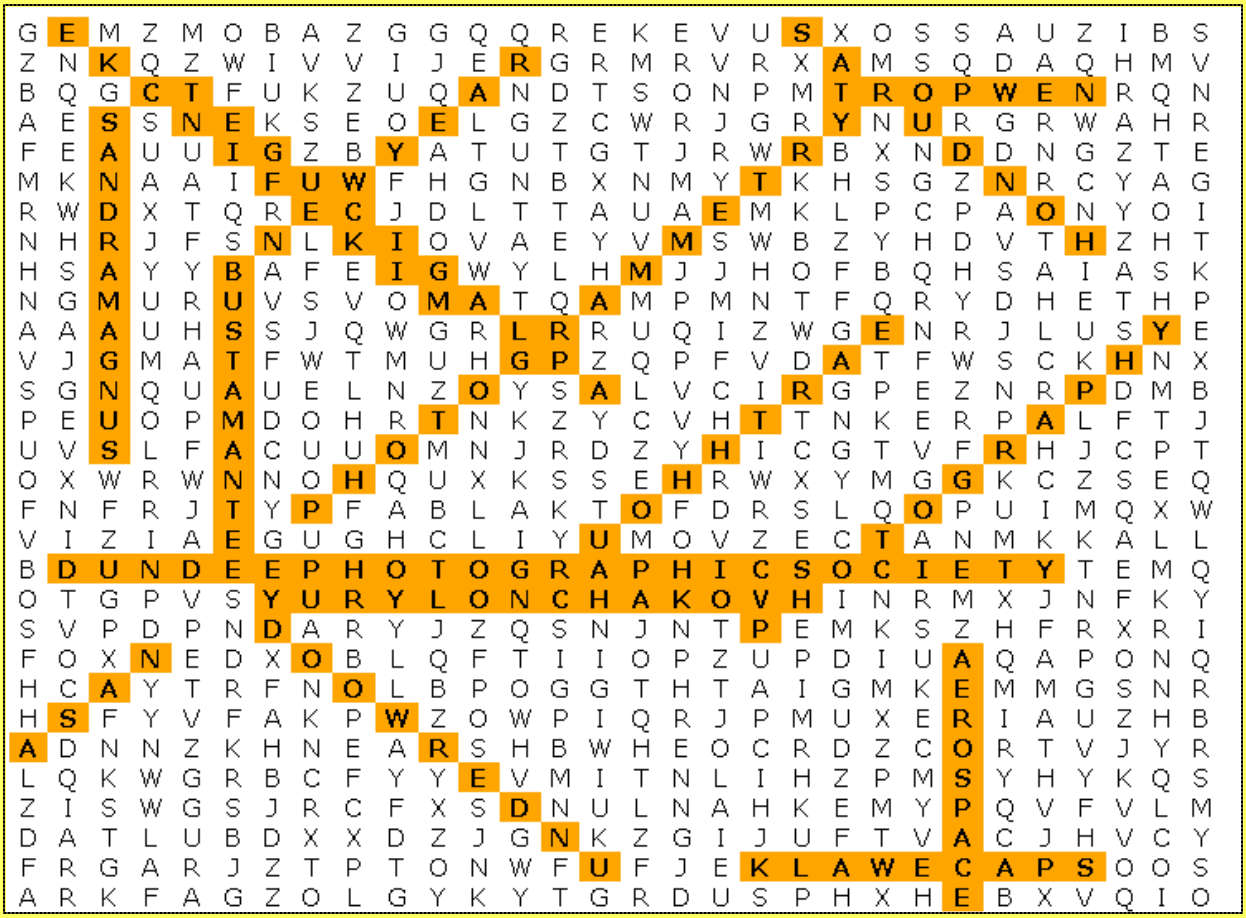


MEMO

Question of the Month:

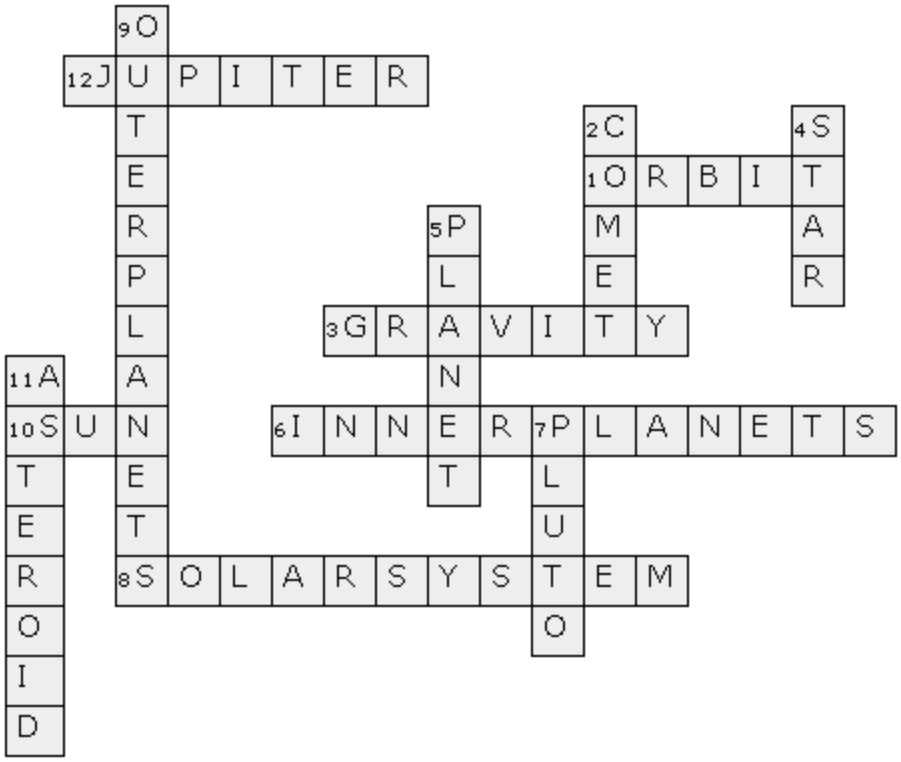
1. When did the US begin our involvement with the ISS?
2. Which shuttle was launched on that date?
3. Who was the US commander of this mission and what is he doing today?
4. How long was this mission?
5. What was the name of the module from the US?
6. Whose module was already up in space, orbiting earth, and what was its name?

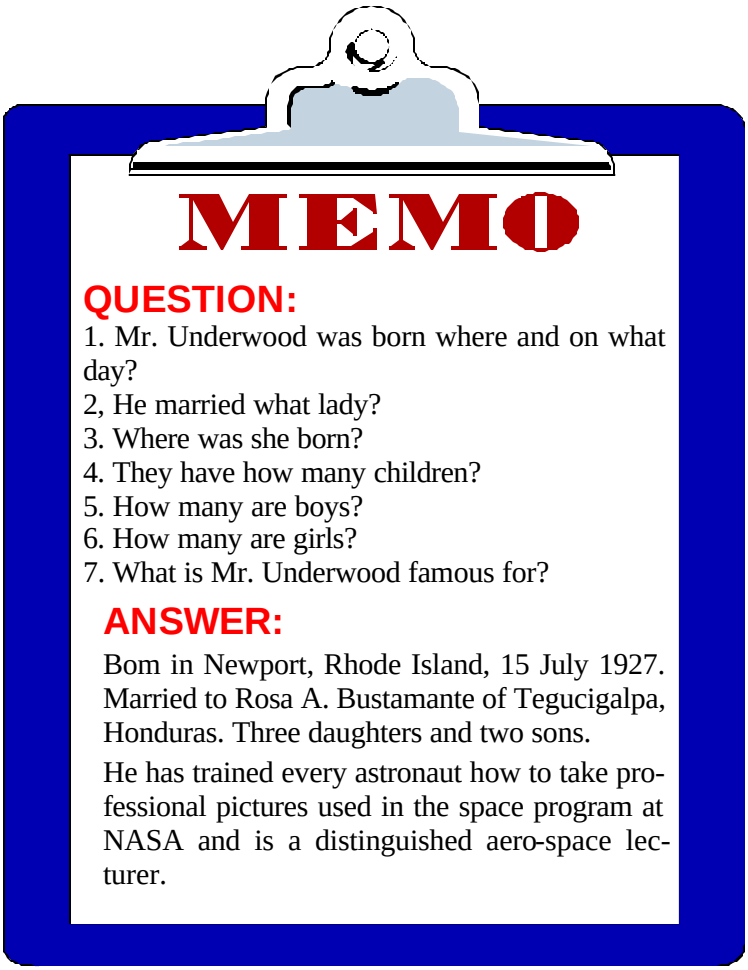
SOLUTIONS TO JANUARY'S PUZZLES



AEROSPACE
BUSTAMANTE
DUNDEE PHOTOGRAPHIC SO-
CIETY
EARTHHOUR
HONDURAS
MIKE FINCKE
NASA
NEWPORT
NEW YEAR
PHOTOGRAMMETRY
PHOTOGRAPHY
SANDRA MAGNUS
SPACEWALK
TEGUCIGALPA
UNDERWOOD
YURY LONCHAKOV

SOLUTIONS cont'd





NAME _____

DATE _____

WORD SEARCH

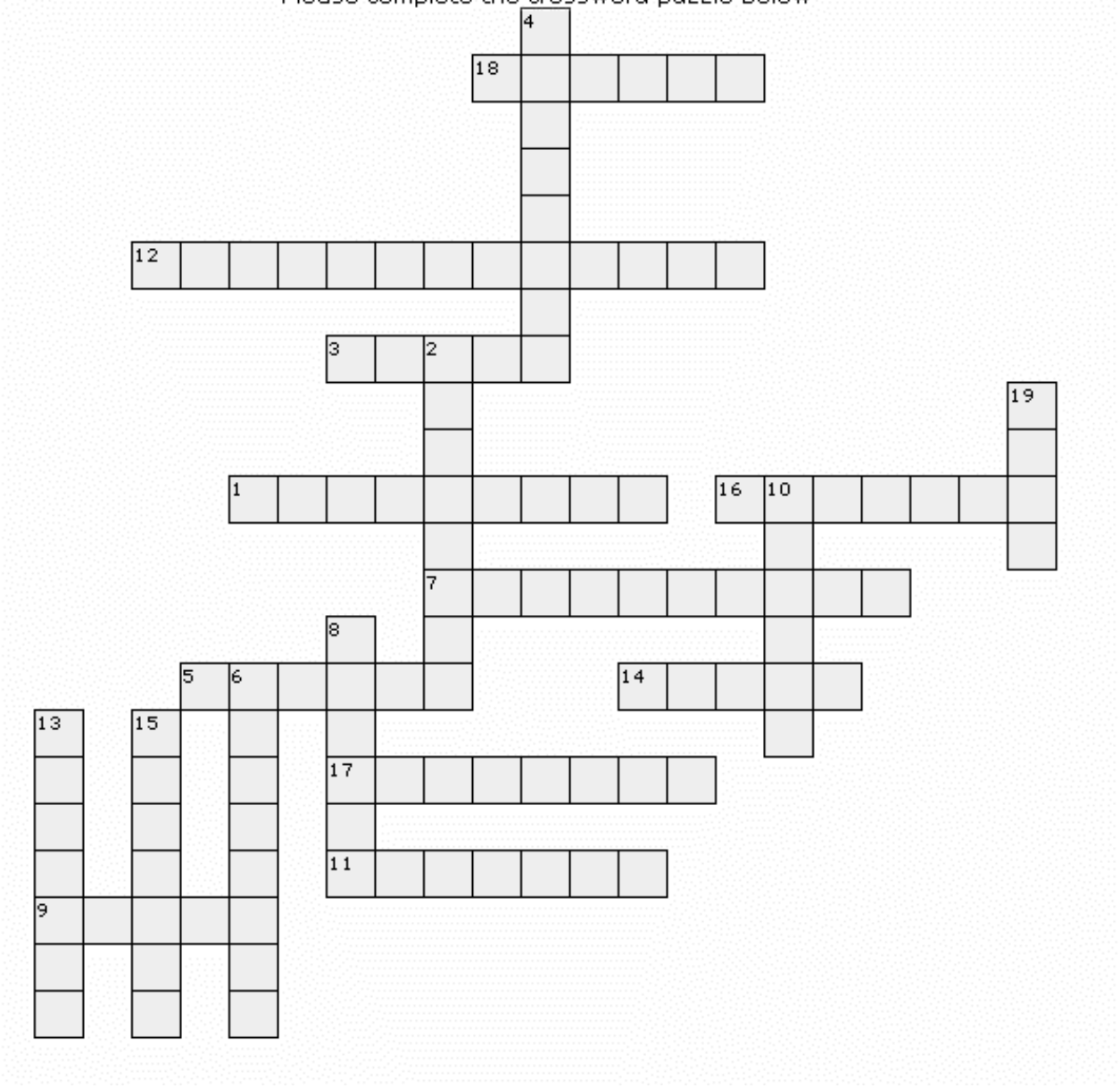
A DREAM COMES TRUE

T T D R I K L W C I S C E Z O K S E W C Y P K M P M V L S H
B S E H R X R S W Q M W W J F W Q Y H S G W J N W Z O L Q D
T F K E N N E D Y S P A C E C E N T E R G O N R I V V V J W
K J G C W O L W D N O Q L N W X C S D R W Y R U V X F H I G
C L Z K G H T N D I T J V T N I H G H Y L T R D Y P P V L X
T F M V C N O I T A T S E C A P S L A N O I T A N R E T N I
T J V L E I J V J X J Z B T I S M Y S J F T K H A D N R T A
P M E H N E E G E S K T L X F L W D M D Y I R P A N D K M B
R F R A T G H T M K F O U A V H Z T F O S U U M H J X S V C
N B S M R C F F R D V T Q D L T A X P W J X X V G N X U O C
J C J W I W T N W O Y L K U U V T N W R O T A L U P I N A M
W I P K F J C E T D Q H N Y X N H Y O Z E O W W C B C B H R
A S R V U Y J O R I X C F R F T P O F S L L Z I W A M S I K
I X E C G Z H O E M A S M X M O J E C M H A B I T A T I O N
R K I L E P R G Q N A E M A I V G Q I E W A V B R M C Y K T
D G E T U X G B V Z O B S L B R O W O H F A K W V Y S Q N A
O A O W C D M U C X Y E I H W N L I A D O R N L R H Z Q N N
T P U S R U O W M V S P D Q C L G U F G I H V O T T R U S S
M I E O P C R M C V F U W O O N A E H K S G T R Z F R U U T
V D U E G B C A K C N F V B N N B W A V H A A S U B A D D V
W J L T C I B T N Q R M S E X G S L Y I R D J G G E X B V O
Q H E C K A O Z C W Y U N I I J E N T O I F V T N Q W Q O T
I F V N N K J G J F K L K Z K V V V B A V S D D Z L X S F T
J A P A N E S E V T X Y T I N U Q A T R K I E R C A X B G A
M L M S G E Y A Z J K N N K I O L O L W X A W Z Y W R M G L
L H S V P X Y Z E Y Y Y V M O Z R U E S V J C N T V M Y D C
Y N H P P H S L D P Q F L U G S R R Z O R A N M F I S O A Y
X W F A U E H F O U F E S F K A S Y U S V G C P B K L R S B
F D N L A G T G K C C U L Q C Y R R V U F E Z Q Y A W X E B
A X O I Y X E U R O P E B P R S D Q K P J N P I I V M G F L

International Space Station
Kennedy Space Center
Endeavour
Zarya
Krikalev
Cabana
Node One
Unity
Centrifuge
Habitation
Photovoltaic
Truss
Manipulator
Radiators
Japanese
Europe
Laboratory
Modules

Solar System

Please complete the crossword puzzle below



Across:

1. What remains when a star dies
3. A gaseous mass that orbits the sun
5. A gathering of stars, gas and dust
7. The faint white star
9. no longer a planet
11. Named after the Roman god of water
12. a pattern of stars
14. The hottest planet and surrounded by gas
16. Largest planet of the solar system
17. Everything that exists
18. A piece of space debris that is burning

Down:

2. our galaxy
4. A cool red star
6. A small dense object that circles the sun
8. Surrounded by rings
10. a cold planet which the days last 42 years
13. A blocking of light from another object
15. The closest planet to the sun
19. The red planet

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