

Starscan

Johnson Space Center
Astronomical Society

Volume 24, Number 1 January 2008

*FORTY YEARS
AND
COUNTING!*



It's A New Year and A Few New Changes

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Message from the el Presidente

Usually it doesn't take much for me to get started on something since I can blab away with the keyboard but for some reason starting this "first address" has been less than easy. I don't want to bore anyone with the platitudes about the honor of being at the helm of this club but it IS an honor, and if I can be as half as successful as my predecessors I'll be a happy camper. I am pleased to no end that Chris Randall offered to be around as VP and most of all it is good to have the membership we do that makes this club what it is—unique.

As Connie and I have been busy since the Solstice party I haven't had the time to really think about a "State of the Union" address but I do have some thoughts I will share with you in next month's issue. In the meantime I look forward to seeing everyone at the January meeting and the scheduled events in 2008.

David Haviland

Letter from the Editor

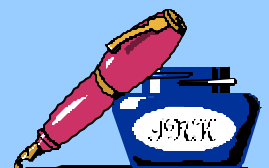
By Connie Haviland

This is the first edition of the Starscan for 2008. I plan to keep it the way it has been for the past year and see how it goes. I am sure we will be adding or deleting a few things, but not much will be different. It has worked so far, so, why change it. I do want to have more articles from "around the club", after all, it is our newsletter. So here's to a new year and a lot of star-hopping.

Letters to the Editor

Dear club,

I saw this email and thought I would forward it to the entire club to see what everyone thought about it:
I was just reading in S&T about 2009 being the "Year Of Astronomy". Do we at JSCAS have anything special planned? If not, I'll bet we could come up with something cool if we started planning now. Matt



Star Parties for 2008

By John Erickson

January—No Star Party

**February 15 - Bay Area Charter School Lecture (possible look at
FQ moon)**

February 21 - Total Lunar Eclipse

March 01 - Haak Winery Star Party

March 08 - Moody Gardens Star Party

April 03 to 06 - Fort Mckavett Star Party

May 10 - Lunar Occultation (Seabrook)

June 01-08 - Texas Star Party

June 28 - Moody Gardens Star Party

July— No Star Party

August—No Star Party

September 06 - Moody Gardens Star Party

September 27 - Haak Winery Star Party

October 18 - Astronomy Day @ George Observatory

October 23 to 26 - Fort Mckavett Star Party

November 01 - Haak Winery Star Party

December 12 - No Star party

The 2007 Winter Solstice
By C. Haviland

The Winter Solstice marks the shortest day of the year. It also is a time for you club to celebrate with friends and family of our club. This year was a special one, the end of one president and the new beginning of a new president. Bob Taylor officially handed over the position to David Haviland, who handed the VP position to Chris Randall. As always, our club members come together to make anything a wonderful gathering; and, this time was no different.

It was filled with laughter, great food and a few surprises. Yes, this writer had a birthday that day and the club never misses an opportunity to surprise (painlessly) its members. I got the cake and Bob got the wonderful surprise. The gift was handmade by David and Connie Haviland (as well as masterminded to get it taken care of) and thanks to the wonderful donation of so many members, turned out great.



I want to add, thanks to the two families the were willing to open their home to the club for the meeting. (we won't say why we were not at the regular meeting place..because it turned out so well) Matt and Lisa for volunteering, but Herman and Evelina for being the ones to step up and allow Matt and Lisa to rest after a long road trip home. It was so much fun and so many people showed up.



This group loves to get together and have a great time and this was just another example of how much fun we had. When it came to everyone's favorite time of the party, the *door prizes*, Aldora volunteered to be our club's "Alf". Yes, that is right our alf. She did a great job, too. Bob handed out his last bunch of door prizes and even Chris got a prize. Hmmm I wonder if his position is going to change things in that department, for him. In any case, I believe everyone had a great time and there is rumor that we might do this again next year. I personally think this is a great idea and needs some serious consideration. How about that Pres. Haviland???



Well, I want to thank everyone for all that they have done for this club and for a wonderful *Winter Solstice* party!!



Greetings!!

Not sure where to start! First of all I can't even make up words to express how humbled I am to be associated with this group. My poor abilities to read the LPI meeting room schedule this December (obvious at this point), immediately spawned a competition for "who could host the party". Hernan and Evelina graciously opened their home to us and provided the venue for a wonderful event. Food, spirits, libation, gifts, friendship. Not sure how it gets any better. It's hard for me to believe that I served for four years for this club, never once did I tire of the duties. I have enjoyed doing my part and look forward to the new leadership next month under David and Chris. I fully expect to see the bar raised by those two and hope that I can help out whenever they need it.

I also can't fathom the details that went into the appreciation gift I received last night! [the night of the party]!! There apparently were things going on behind the scenes that I was clueless to. Actually, removing one from the server is darn near solitary confinement! Sneaky, real sneaky. I was watching the presentation that Connie made me this morning and it was apparent that I was appreciated and that's what it's all about. Do good things in life and there are rewards. None so precious as friendship though. Your kind words about past events where I was involved let me know I'm on the right path (getting misty now, dangit). I look forward to the day when we're all sitting around telling how we could turn our walkers, hearing aids and wheelchairs into telescopes and such. Many years from now of course!

All that aside, I wish everyone good health for the season and a stellar New Year!!!!

Bob Taylor
Former Pres.

We have a new president

By Connie Haviland

We have a new President and Vice-President. David Haviland is the president and Chris Randall is our new VP. I thought it would be nice to know a little bit about David. I, also, look forward to anyone sending me any information regarding Chris for the future Starscan.



David obtained his B.A. Biology from the University of California at San Diego in 1980, an M.A. for Cell Biology from the University of California at Riverside in 1982, and also his Ph.D. for Immunochemistry and Biochemistry from the University of California at Riverside in 1987. He then went to Washington University in St. Louis for a Post-Doctoral Fellowship in the lab of Dr. Rick Wetsel. He was subsequently promoted to Instructor in 1992 and then to Research Assistant Professor in 1994. He came to the University of Texas-Houston Health Science Center in the Institute of Molecular Medicine for the Prevention of Human Diseases in 1996.



David is an Assistant Professor at the Institute of Molecular Medicine, University of Texas-Houston Health Science Center and Center for Immunology and Autoimmune Diseases. He is director for the IMM Flow Cytometry Core Laboratory. He is an Adjunct Professor with UT-MD Anderson Cancer Center School of Allied Health, and lecturer for the University of Texas-School of Public Health. He is and has been involved with various Research publications and Abstracts in the areas of innate immunity and more recently, work with both mouse and human stem cells.

David Haviland, although a somewhat quiet guy, is a very involved person. He is involved, not only with Johnson Space Center Astronomical Society, but with various other avenues. David has been and still is very involved with his son's Boy Scout troop, Troop 404, in the capacity of their Committee Chairman. He has also been their Assistant Scout Master. He also was involved with John Cavuoti's Eagle project and helped him with acquiring his Eagle Rank.

David has been married to our Starscan editor, Connie for 4 years, come this next June. They have 5 children (ranging from 30 years old to 12 years old) between them and one adorable two year old grandson. His interests, besides astronomy are camping, cooking, photography (with a strong interest in CCD imaging), woodworking, gardening and attending hockey games, just to name a few things. Oh, and let's not forget, going on cruises. He is involved with his local homeowners' association and started a supper club for the local residents in his area. David is going to make a good addition to our lists of club presidents.



FROM AROUND THE CLUB

Telescope Upgrade Bob Taylor

After years of futzing with my stepper motor tracking system, Chuck Shaw practically forced me to spend money to upgrade to a better mouse trap. Well, actually he did this through the power of persuasion. At our last Fort trip he dazzled many of us with his new Go-To system on his 14" scope (note here that 14" is much smaller than 22"). After funding approval was obtained on the home front I ordered the hardware from our own Andy Saulitis. Installation was pretty simple and the software was free on the internet. I was able to use my existing gear drive and encoders which saved quite a bit of time. The new servo motors have a built in gear reduction and encoder so the scope thinks it knows where it's pointing. Last night I got the old scope mounted encoders hooked up and they feed back to the controller to tell it where it "actually is". Redundant you might think? Kinda. With both sets of encoders communicating, you get a sort of "correction on the fly" effect. If the wind blows the scope or someone bumps it, it almost immediately moves back to where it was or where it was going. The software is pretty simple to operate and really cool revisions are on the way. I can also use almost any astronomy program available and the new system doesn't care! I have to admit, it is a bit deficient on LED's but that's easy to fix. Instead of beeps or clicks like older systems this one "talks" to you when commanded to do something. These sound clips can be modified to any .wav file so you can really customize your own system. There are routines that help identify mechanical inaccuracies in the mount and adjust for them (periodic error, etc.). Now if I can get just a couple of clear nights to play, I might just complete this upgrade. Thanks Chuck for all the help!!







JANUARY OBSERVING

★ SSO: (Solar System Objects) Summary for the 15 Jan 08

Object	Const	Mag	% Ill	Rise Time	Transit	Set Time
Sun	Sgr	-26.7	100	07:16	12:29	17:42
Moon	Psc	----	53	11:34	18:17	00:02
Mercury	Cap	-0.8	77	08:24	13:42	19:05
Venus	Oph	-4.0	81	04:48	09:59	15:09
Mars	Tau	-1.1	98	15:11	22:24	05:33
Jupiter	Sgr	-1.8	100	06:04	11:10	16:16
Saturn	Leo	0.5	100	20:59	03:24	09:49
Uranus	Aqr	5.9	100	10:03	15:50	21:42
Neptune	Cap	8.0	100	08:47	14:14	19:45
Pluto	Sgr	14.0	99	05:19	10:41	16:02
Comet Holmes 17P (outburst)	Per	18.4 8	97	11:40	19:49	03:54
Comet Tuttle 8P	Cet	6.1	66	13:53	19:05	00:13
Comet Wirtanen 46P	Psc	9.5	77	11:05	16:57	22:54

Highlighted times denote daylight events.

Lunar phases for January 08

New 	First 	Full 	Third 
08 th 05:37	15 th 13:46	22 nd 07:35	29 th 23:03

Central Standard Time

★ BSO: (Bright Sky Objects)

NGC 1976 (M42, LBN 974) – Bright Nebula in Orion, Magnitude 3.0, Size 90' x 60'

IC 405 (C-31, LBN 795) – Bright Nebula in Auriga, Magnitude 6, Size 84' x 60'

NGC 1746 (Cr 57, Mel 28) – Open Cluster in Taurus, Magnitude 6.1, Size 42', Stars 20.

NGC 1851 – Globular Cluster in Columba, Magnitude 7.2, Size 11'.

★ DSO: (Dark Sky Objects)

NGC 1893 – Open Cluster in Auriga, Magnitude 7.5, Size 11', #Stars 60.

NGC 1907 – Open Cluster in Auriga, Magnitude 8.2, Size 6', #Stars 30.

NGC 1535 (H-26-4) – Planetary Nebula in Eridanus, Magnitude 9, Size 20" x 17".

A-123 (NGC 1888+9) – Galaxy System in Lepus, Magnitude 13.1, Size 3.5' x 1'.

★ CDMP: (Chris' Don't Miss Pick)

NGC 1952 (M1) – The Famous Crab Nebula Supernovae Remnant in Taurus, Magnitude 8.4, Size .6' x 4'.

Is the most famous and conspicuous known supernova remnant, the expanding cloud of gas created in the explosion of a star as supernova which was observed on July 4, 1054 A.D by Chinese astronomers. It now shines as a nebula of magnitude 8.4 near the southern "horn" of Taurus, the Bull.

The nebulous remnant was discovered by British amateur astronomer John Bevis in 1731, who added it to his sky atlas, *Uranographia Britannica*. Charles Messier independently found it on August 28, 1758, when he was looking for comet Halley on its first predicted return, and first thought it was a comet. Of course, he soon recognized that it had no apparent proper motion, and cataloged it on September 12, 1758. It was the discovery of this object which caused Charles Messier to begin with the compilation of his catalog. It was also the discovery of this object, which closely resembled a comet (1758 De la Nux, C/1758 K1) in his small refracting telescope, which brought him to the idea to search for comets with telescopes (see his note). Messier acknowledged the prior, original discovery by Bevis when he learned of it in a letter of June 10, 1771.

This nebula was christened the "Crab Nebula" on the ground of a drawing made by Lord Rosse about 1844. Of the early observers, Messier, Bode and William Herschel correctly remarked that this nebula is not resolvable into stars, but William Herschel thought that it was a stellar system which should be resolvable by larger telescopes. John Herschel and Lord Rosse erroneously thought it is "barely resolvable" into stars. They and others, including Lassell in the 1850s, apparently mistook filamentary structures as indication for resolvability.

Early spectroscopic observations, e.g. by Winlock, revealed the gaseous nature of this object in the later 19th century. The first photo of M1 was obtained in 1892 with a 20-inch telescope. First serious investigations of its spectrum were performed in 1913-15 by Vesto M. Slipher (Slipher 1915, 1916): He found that the spectral emission lines were split. It was later recognised that the true reason for this is Doppler shift, as parts of the nebula are approaching us (thus their lines are blueshifted) and others receding from us (lines redshifted). In 1919, Roscoe Frank Sanford (Sanford 1919) found that the spectrum consists of two major contributions: First, a reddish component which forms a chaotic web of bright filaments, which has an emission line spectrum (including hydrogen lines) like that of diffuse gaseous (or planetary) nebulae, and second a strong blueish diffuse background which has a continuous spectrum.

Heber D. Curtis, in his description of this object based on Lick Observatory photographs, tentatively classified it as a planetary nebula (Curtis 1918), a view which was disproved only in 1933; this mis-classification can still be found in some much newer handbooks.

In 1921, C.O. Lampland of Lowell Observatory, when comparing excellent photographs of the nebula obtained with their 42-inch reflector, found notable motions and changes, also in brightness, of individual components of the nebula, including dramatic changes of some patches near the central pair of stars (Lampland 1921). The same year, J.C. Duncan of Mt. Wilson Observatory compared photographic plates taken 11.5 years apart, and found that the Crab Nebula was expanding at an average of about 0.2" per year; backtracing of this motion showed that this expansion must have begun about 900 years ago (Duncan 1921). Also the same year, Knut Lundmark noted the proximity of the nebula to the 1054 supernova (Lundmark 1921).

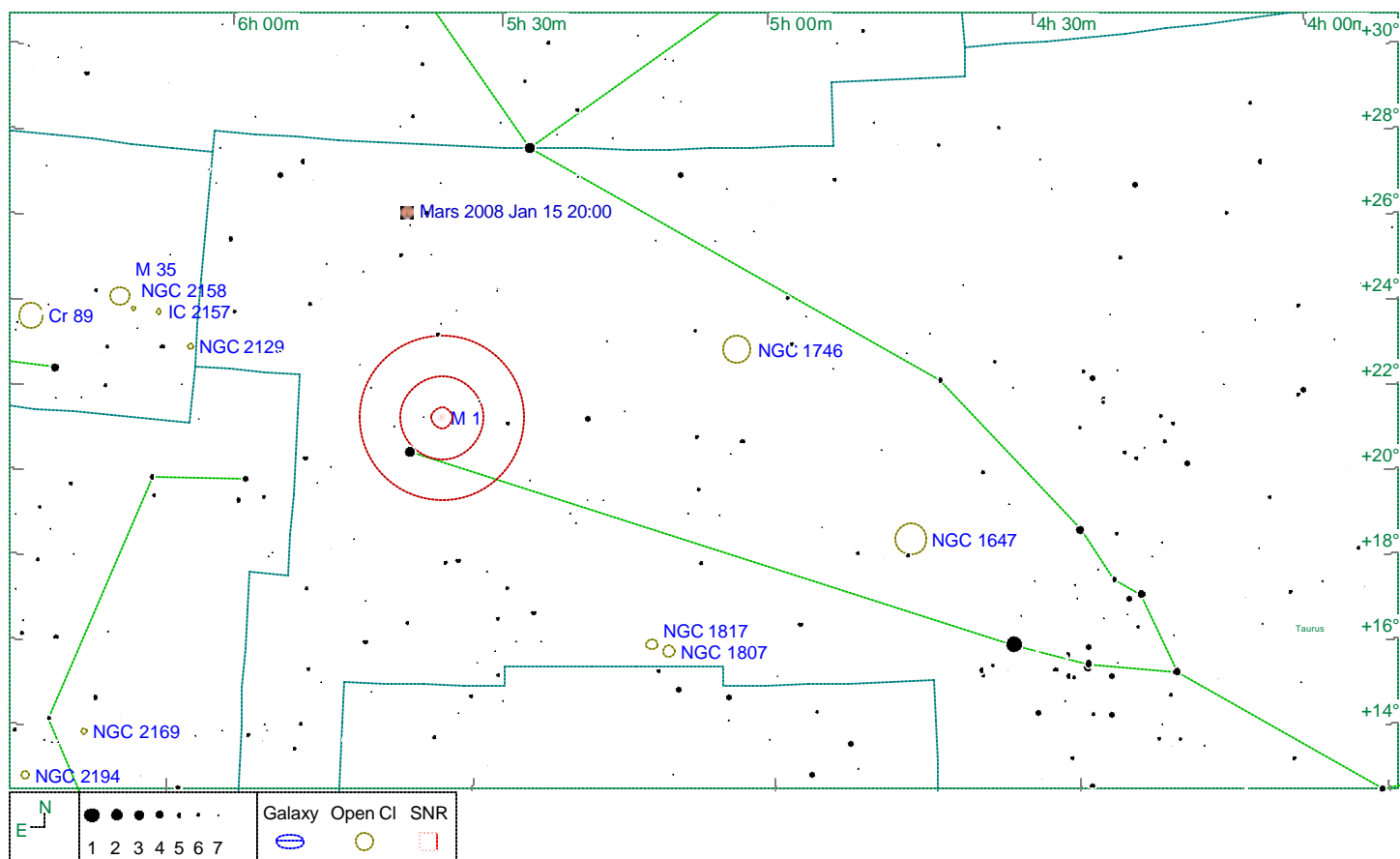
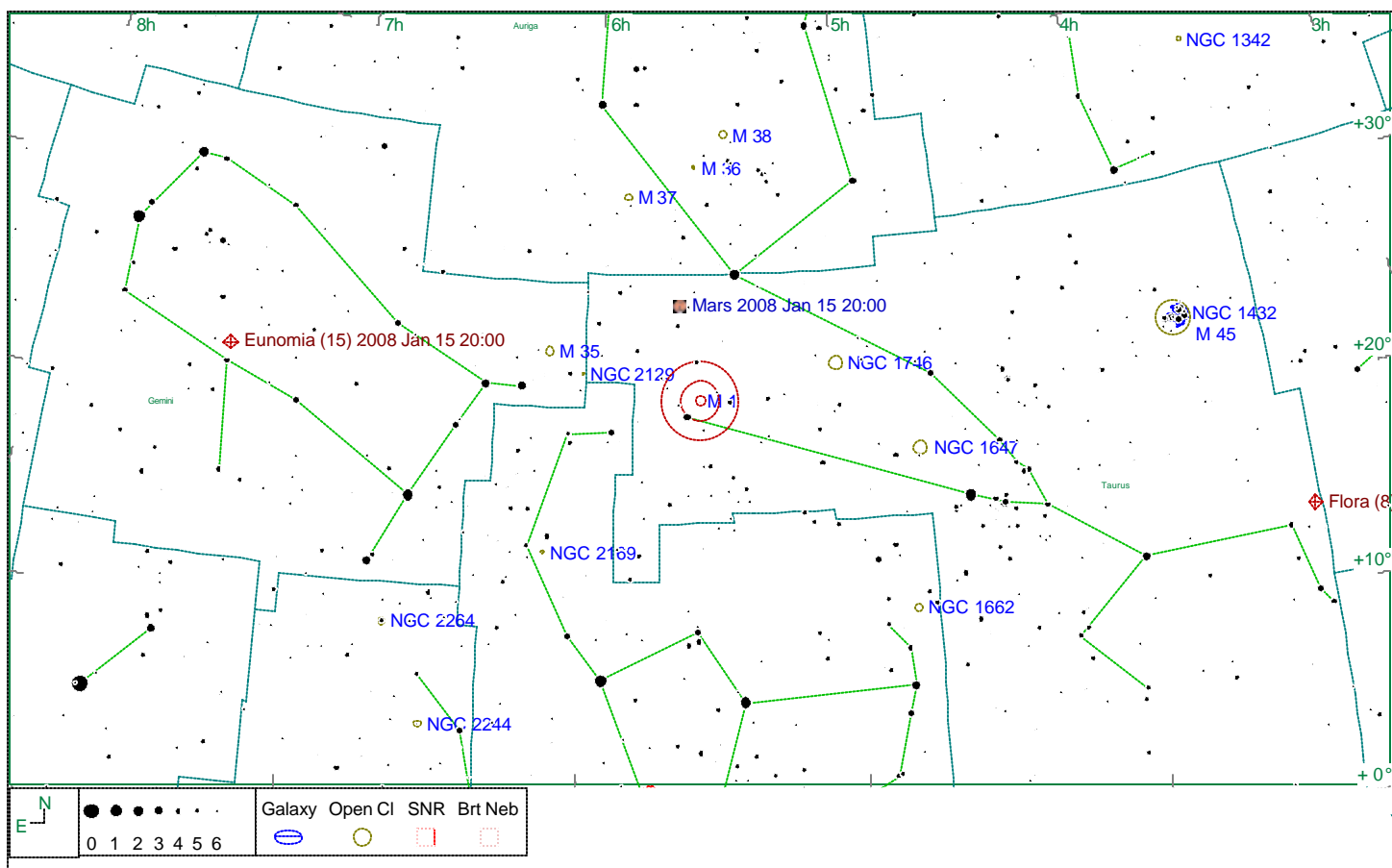
In 1942, based on investigations with the 100-inch Hooker telescope on Mt. Wilson, Walter Baade computed a more accurate figure of 760 years age from the expansion, which yields a starting date around 1180 (Baade 1942); later investigations improved this value to about 1140. The actual 1054 occurrence of the supernova shows that the expansion must have been accelerated.

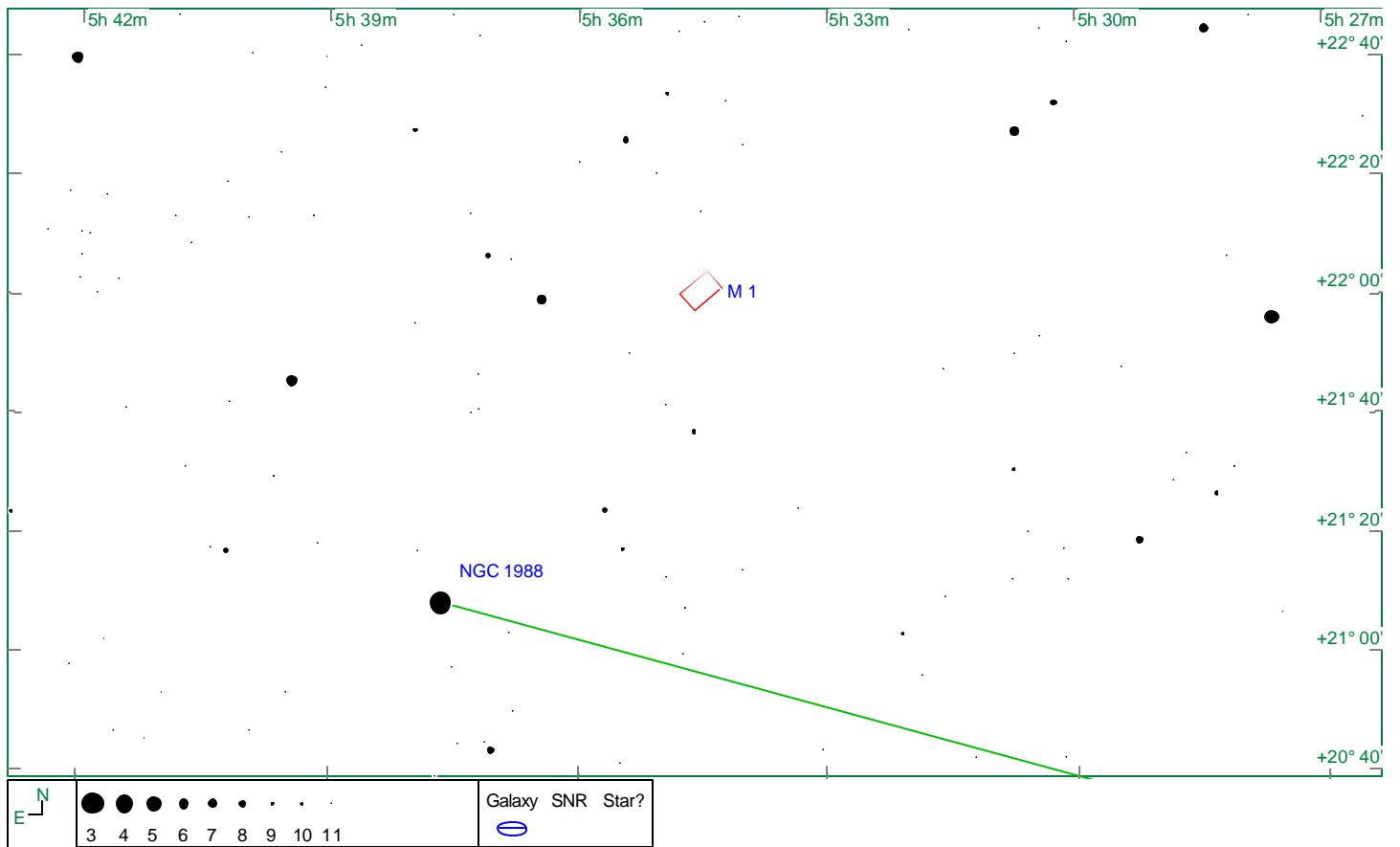
The nebula consists of the material ejected in the supernova explosion, which has been spread over a volume approximately 10 light years in diameter, and is still expanding at the very high velocity of about 1,800 km/sec. The notion of gaseous filaments and a continuum background was photographically confirmed by Walter Baade and Rudolph Minkowski in 1930: The filaments are apparently the remnants from the former outer layers of the former star (the "pre-supernova" or supernova "progenitor"), while the inner, blueish nebula emits continuous light consisting of highly polarised so-called synchrotron radiation, which is emitted by high-energy (fast moving) electrons in a strong magnetic field. This explanation was first proposed by the Soviet astronomer J. Shklovsky (1953) and supported by observations of Jan H. Oort and T. Walraven (1956).

Synchrotron radiation is also apparent in other "explosive" processes in the cosmos, e.g. in the active core of the irregular galaxy M82 and the peculiar jet of giant elliptical galaxy M87. These striking properties of the Crab Nebula in the visible light are equally conspicuous in the Palomar images post-processed by David Malin of the Anglo Australian Observatory, and in Paul Scowen's image obtained on Mt. Palomar.

The nebula can be easily seen under clear dark skies, but can equally easily get lost in the background illumination under less favorable conditions. M1 is just visible as a dim patch in 7x50 or 10x50 binoculars. With a little more magnification, it is seen as a nebulous oval patch, surrounded by haze. In telescopes starting with 4-inch aperture, some detail in its shape becomes apparent, with some suggestion of mottled or streak structure in the inner part of the nebula; John Mallas reports that under excellent conditions, an experienced observer can see them throughout the inner portion of the nebula. The amateur can verify Messier's impression that M1 looks indeed similar to a faint comet without tail in smaller instruments. Only under excellent conditions and with larger telescopes, starting at about 16 inches aperture, suggestions of the filaments and fine structure may become visible.

For this and more information go to <http://www.seds.org/>

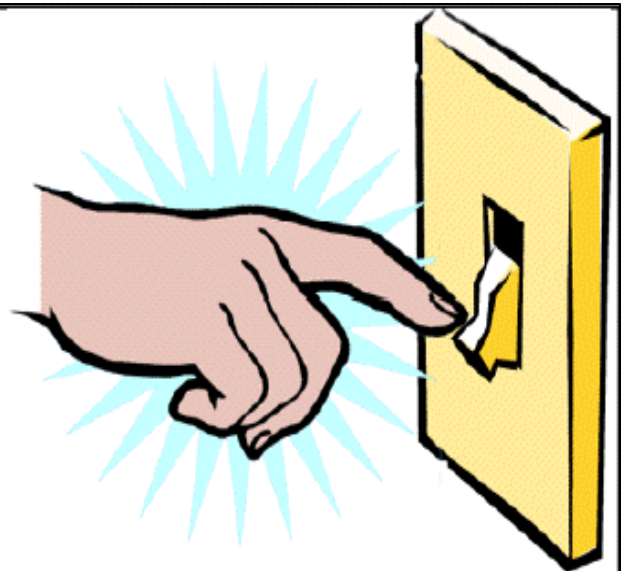




Help turn off the lights...

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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."





I notice that many of Al Kelly's images contain lots of closely spaced stars. It seems likely that some of these are double stars. In the past double stars were critical to understanding important aspects of astronomy. In particular, the masses can be obtained from careful observation of the orbits of double stars. This in turn was responsible for understanding things like mass-luminosity relations and estimates of distances that were too far away to be measured by parallax. The thought occurs to me that if Kelly has imaged these same star fields several years in the past, he might be able to discern that some of the stars had moved and would thus probably be members of a double or multiple system. If so, then perhaps the professional astronomers might be interested to know so that they could make the painstaking measurements that a full analysis of double star dynamics requires.

It is also possible that such double star observations and analyses have already been carried out to the point that whatever fundamental understanding of stellar processes they contribute has already been obtained. Also, the improvements in parallax measurements contributed by the Hipparcos satellite may have reduced the utility of double star work. I really don't know whether the professionals care much about double stars any more, but Kelly's well-resolved images suggest possible professional interest.

COMMENT FROM THE EDITOR: Hey Al, want to comment here? I am not sure exactly what Charlie's question is, so I am bumping this to you... C. Haviland



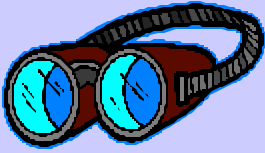
M11 taken 2002 by Al Kelly



M11 taken 2005 by Al Kelly



There has been no response to last month's challenge



FORT (Forward Observing Recon Team)

By Ken Lester (special operations team)

Not much to report for the F.O.R.T. report astronomy wise. Here goes =====>

On January 1st, Fort McKavett State Historic Site, along with 17 other Texas Parks and Wildlife sites, will be transferring to the Texas Historical Commission. The staff at the fort is really looking forward to this change. Here are some of the changes that we are expecting:

- 1) The size of the staff will be doubling from 4 to 8 people. We are in the process of hiring a Curator/Interpretive Specialist, an assistant office manager, a Maintenance Technician, and a Maintenance Assistant.
- 2) When the new staff gets on-board, we will be opening the site to 7 days a week visitation.
- 3) Existing staff will transfer to THC with no loss in seniority or pay.
- 4) The site will receive new equipment such as new trucks, a new front-end loader, new computers, and new tools for general maintenance.
- 5) There should be an influx of capital for much needed repairs to the buildings.
- 6) We expect that our interpretive exhibits which haven't changed in 30 years will be updated.
- 7) We expect that THC will engage in an aggressive advertising campaign to increase our visitation.
- 8) We will no longer be selling the Texas State Parks Pass (TSPP) or hunting/fishing licenses. We will honor the TSPP for entry into the fort until September 30, 2008.

THC is in full support of our star parties and have even informally talked with Buddy (the park superintendent) about possibly expanding the astronomy program.

Our basic fee structure should be staying the same. However, not everything has been finalized with regard to group entrance and facility usage fees. The entrance and facility fees are still being talked about. There is a possibility that our group, and others, will be required to pay the daily entrance fee and possibility a facility usage fee for staying in the buildings overnight. The \$3.00 daily entrance fee shouldn't present much of a burden to our members. JSCAS may be able to negotiate the facility fee down or get it waived since we are providing a night of public viewing for the fort. We will just have to wait and see but keep in mind that Buddy is very supportive of our group and will do his best to minimally impact our visits.

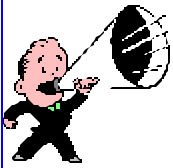
Astronomically speaking, Lisa and I are working on an astronomy presentation that we hope to give at the Menard County Library sometime this spring before our star party. The tentative title will be Astronomy in Menard County. It will have an emphasis on light pollution. We hope that this presentation will generate additional interest in our star parties, and an awareness about light pollution.



What's Happening at the George!!!

Cynthia Gustava

Need volunteers



George Observatory—January Events

Volunteers are needed for January 2008 George Observatory Friday and Saturday night events. To volunteer, please contact Cynthia Gustava at cynm31@comcast.net. Thanks!

Jan 4: Friday Night Group – Girl Scout Sky Search – 7:30 p.m.

Dome and deck scope positions are open. Bring your laser pointers and help the girl scouts identify constellations and objects.

Jan 5: Saturday Night Public Viewing – Building Managers: Jack McKaye and Wes Whiddon

Dome and deck scope positions are open. Viewing starts at dusk.

Jan 11: Friday Night Group – McWhirter Elementary – 7:30 p.m.

Dome and deck scope positions are open. There will be 80 kids and adults. Building Manager: Cynthia Gustava

Jan 12: Saturday Night Public Viewing – Building Managers: Tracy Knauss and Keith Rivich

Dome and deck scope positions are open. Viewing starts at dusk.

Jan 19: Saturday Night Public Viewing – Building Managers: Cynthia Gustava and Mary Lockwood

Dome and deck scope positions are open. Viewing starts at dusk.

Jan 25: Friday Night Group – Beckendorff's Science Olympiad's and the Eastwood Academy – 7:30 p.m.

Dome and deck scope positions are open. Combined visitors: 80 kids, teachers and adults. Building Manager: Cynthia Gustava

Jan 26: Saturday Night Public Viewing – Building Managers: Mary Lockwood and Joe Mills

Dome and deck scope positions are open. Viewing starts at dusk.



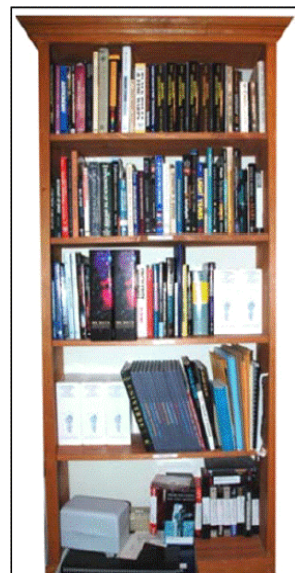
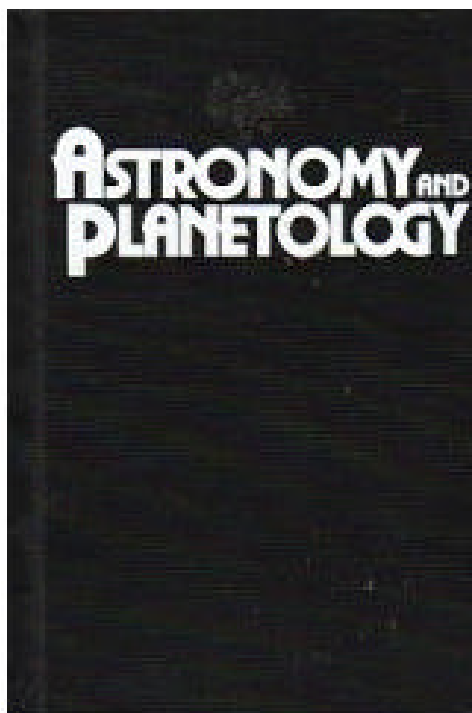
JSCAS LIBRARY

Karen Taylor

BOOK REVIEW

Bob Taylor

Gives instructions for building or making theodolites, sundials, telescopes, spectroscopes, planetariums and models for stars. It describes methods and times of observing the sun, moon, planets, stars, comets and meteors.



Astronomy and Kids



REPORT FROM LPI-FAMILY SPACE DAY

Matt and Lisa Hommel

Greetings!

I hope you all had a wonderful Christmas and safe and happy New Year! I can't believe another year has flown by!

Well, Family Space Day is back! We are excited about the new year ahead and all the fun topics that we'll be exploring. This month we will learn about telescopes. Join us here at the LPI on January 19th from 10am – 1pm for great hands-on activities and information. This month's topic is a pre-cursor for next month when we will be viewing the total lunar eclipse on February 20th (Wednesday night!). Wahoo!

Thanks,

Katy Buckaloo

Department of Education and Public Outreach, Lunar and Planetary Institute

3600 Bay Area Blvd.

Houston, TX 77058

Telephone: (281)486-2106

Fax: (281)244-2031

E-mail: buckaloo@lpi.usra.edu

Can we count on some folks to bring out different types of telescopes for this event so the people can see. LPI has two SCT's so there's no need to haul those out, but newt's and refractors etc... would be great.

I plan to bring a vintage refractor with Equatorial mount and tracker to show off.

Matt.



FOR SALE: 17-INCH F/4.5 DOB
made by Andy Saulietis. Good optics but needs work. It has been sitting my garage, mostly for the last 10 years, unused. I now have another scope and need to make room for it. Best offer.

Paul Maley, 281.2440208 (daytime) or pdmaley@yahoo.com email: paul.d.maley@nasa.gov (tel.) 281.244.0208 (fax.) 281.244.7622

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JSCAS Mirror Lab

Matt Hommel
PROGRESS REPORT

Well it has been a very busy Month on the mirror lab project.

In early December I traveled back to Iowa to pick up the parts of the mirror coating machine. On the way up someone banged up the rear bumper of my SUV with their Corvette and nearly hit my leg as I was adjusting the trailer latch bolt. He was apologetic, and more importantly heavily insured so all's well. On the way back through Kansas the highway had transformed into a giant ice skating rink (and me without my Zamboni) Anyway as we pulled onto the highway in Kansas City we lost everything resembling traction and did 3, yes 3, 90 degree fishtails before I was able to recover. Remember I was pulling a trailer as well. Nothing like that to get your blood pumping.

Long story short the parts are here and ready for assembly (Thanks again Bob for helping me unload almost 2000 lbs of equipment). There are a few things that remain that have to be custom built namely the adjustable mirror cell, and the mounting plate for the tungsten boats. I'll be pestering Bob and anyone else who'll listen for advice / help on this portion of the project.

In other mirror lab news I finally have all the parts to assemble my Interferometer. It was such fun trying to get all that stuff shipped over the holidays ;-) I started assembling it today but I have to let the Krazy Glue harden overnight or the Popsicle sticks won't hold together. I hope to achieve first light by the end of the week.

More to come,

Cheers,
Matt.



Wondering what to do with the left over ham after your New Year feast? I found this recipe from Rachael Ray, thought you would like to try it.

Croque Madame

Recipe Summary

Difficulty: Easy

Prep Time: 5 minutes

Cook Time: 15 minutes

Yield: 2 servings

(A Monsieur, made better!)

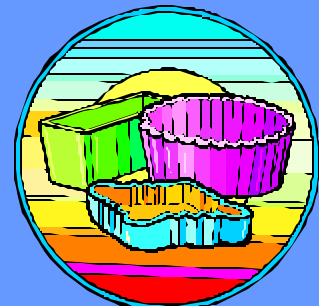
4 tablespoons butter, divided
1 rounded tablespoon all-purpose flour
1 cup milk
Salt and pepper
1/8 teaspoon fresh grated nutmeg, eyeball it
2 teaspoons Dijon style mustard
2 slices white bread
2 large eggs
4 slices deli ham
4 slices deli Swiss cheese
Chopped parsley leaves, chives or thyme leaves, for garnish - choose from any or all on hand

USER RATING ★★★★★

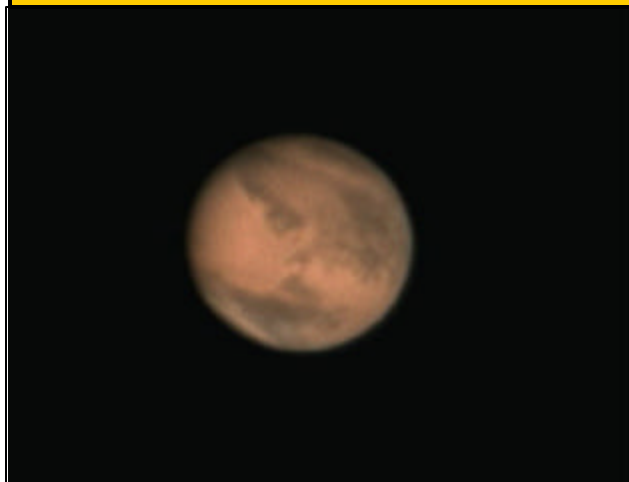
Place a small sauce pot over medium low heat and melt 2 tablespoons butter in it. Whisk in a rounded tablespoon of flour and cook 1 minute or so. Whisk in milk and bring to a bubble then drop heat to low. Season the sauce with salt, pepper, nutmeg and Dijon. When sauce coats back of a spoon, turn off heat.

Heat 1 tablespoon of butter in each of 2 medium nonstick skillets, both over medium low heat. When butter melts add 2 large eggs to the first skillet, keeping the whites separate from each other. To the second skillet add 2 slices bread and toast lightly on first side then turn the bread. Top turned bread liberally with sauce and 2 slices of the ham and the Swiss cheese on each slice of bread. Use a spatula to transfer the eggs to the tops of the open faced sandwiches. Cover the pan with foil and turn off heat. Let pan stand 5 minutes to melt cheese and set sauce and eggs.

Top sandwiches with chopped herb or herbs of choice and serve. Spoon any leftover sauce over top of the eggs before garnishing.



Members' Gallery—January 2008



Glenn Schaeffer—Santa Fe, TX

Imaged @ 1:59 am CST on 12/21/07 with 20" Obsession Telescope @ f/20, Tom Osypowski Aluminum Dual Axis Equatorial Platform, Toucam Pro II with IR-cut off filter. Only 386 out of 1000 frames kept, stacked and processed with Registax4. Seeing 5/10 "yuk" Transparency 9/10.

Chris Wells—League City

M42 image details:

7 images at 40secs each stacked, mainly processed in AIP4WIN

Celestron C11 GCE at f6.3

Image Camera - Canon Rebel Xti (400)

Capture Software - MaxIm DL DSLR Plugin



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

**Houston
Area
Astronomy
Clubs**

Johnson Space Center Astronomical Society

2007-Club Officers

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

SIGS

Observing Awards – Triple Nickel
Astronomy 101 — Triple Nickel
CCD Imaging – Al Kelly
Binocular Observing – Leslie Eaton
Telescope Making – Bob Taylor
Deep Sky Observing – Chris Randall

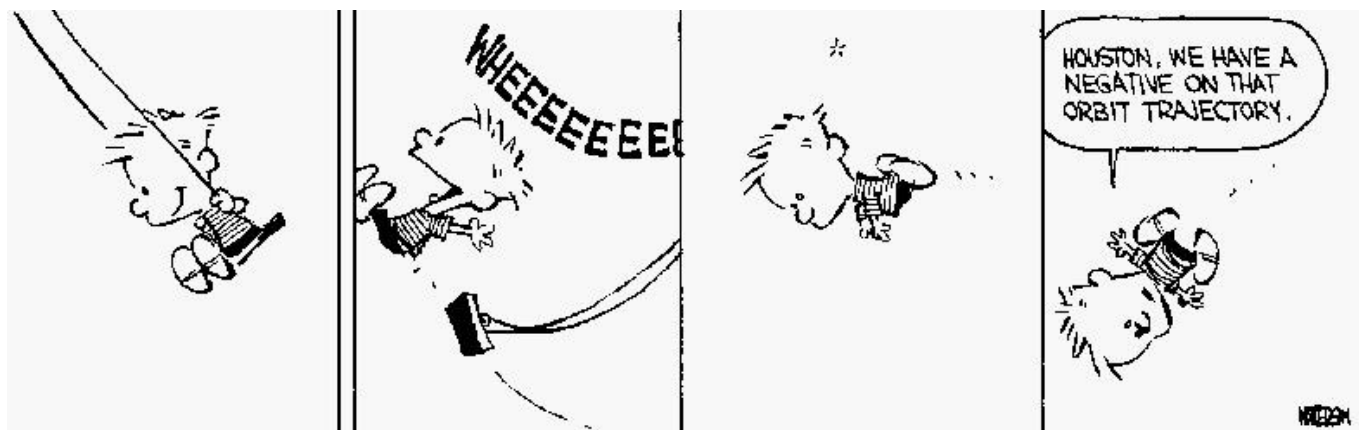
Starscan Submission Procedures

Original articles of some relation to astronomy will be accepted up to 6 p. m. (1800 hrs) on the 25th of each month. THE most convenient way to submit articles or a Calendar of Events is by email 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 it 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



"Calvin & Hobbes" by Bill Watterson

<http://www.astrosurf.com/skylink/comics/swings1.jpg>