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The Naming of Names

By Greg Laughlin, [Systemic](#)

Sometimes, when I give a talk, I'm asked why the extrasolar planets don't have evocative names.



Names and labels carry a heavy freight and they get people worked up. The agonized IAU deliberations vis-à-vis Pluto's status as a plutoid or a planet or a dwarf planet constituted by far the biggest planet news of 2006, dwarfing, for example, the discovery of the triple Neptune system orbiting HD 69830. It's unlikely that New Horizons would have gotten its congressional travel papers in order had Pluto been a plutoid right from the start.

When new comets and asteroids are discovered, their names generally follow on fairly quickly. Comets are bestowed with the name of the discoverer(s), and as a result, Dr. Hale and Mr. Bopp are entwined together in immortality. With asteroids, the discoverer gets the naming rights (subject to certain IAU rules), resulting in both

some cool choices, (99942) Apophis, (3040) Kozai, as well as a Kilroy-was-here sloop of John B's: (6830) Johnbackus, (20307) Johnbarnes, (4525) Johnbauer, (15461) Johnbird, (12140) Johnbolton, (16901) Johnbrooks, (11652) Johnbrownlee, (26891) Johnbutler, etc. etc.

Galileo, in sighting the moons of Jupiter, made the first telescopic discovery of solar system objects. Ever on the eye for an angle, he tried to increase his odds of patronage by naming his new moons "The Medicean Stars" in reference to Cosimo II de' Medici, fourth Grand Duke of Tuscany. It's now generally agreed that Mr. Medici, whatever his merits, was rather dramatically undeserving of the following accolades:

Serenissimo Grand Duke, "scarcely have the immortal graces of your soul begun to shine forth on earth than bright stars offer themselves in the heavens, which, like tongues [longer lived than poets] will speak of and celebrate your most excellent virtues for all time."

Later in the seventeenth century, when Giovanni Cassini discovered Saturn VIII, V, III, and IV, he tried the same tactic. Three hundred and twenty two years later, his prose reads like a purple toad:

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Extreme Starburst

by Dr. Tony Phillips

A star is born. A star is born. A star is born.

Repeat that phrase 4000 times and you start to get an idea what life is like in distant galaxy J100054+023436.

Astronomers using NASA's Spitzer Space Telescope and ground-based observatories have found that the galaxy gives birth to as many as 4000 stars a year. For comparison, in the same period of time the Milky Way produces only about 10. This makes J100054+023436 an extreme starburst galaxy.

"We call it the 'Baby Boom galaxy,'" says Peter Capak of NASA's Spitzer Science Center at the California Institute of Technology in Pasadena, CA. "It is undergoing a major baby boom, producing most of its stars all at once. If our human population was produced in a similar boom, then almost all people alive today would be the same age."

Capak is lead author of a paper entitled "Spectroscopic Confirmation of an Extreme Starburst at Redshift 4.547" detailing the discovery in the July 10th issue of *Astrophysical Journal Letters*.

The galaxy appears to be a merger, a "train wreck" of two or more galaxies crashing together. The crash is what produces the baby boom. Clouds of interstellar gas within the two galaxies press against one another and collapse to form stars, dozens to hundreds at a time.

This isn't the first time astronomers have witnessed a galaxy producing so many stars. "There are some other extreme starburst galaxies in the local universe," says

Capak. But the Baby Boom galaxy is special because it is not local. It lies about 12.3 billion light years from Earth, which means we are seeing it as it was 12.3 billion years ago. The universe itself is no older than 14 billion years, so this galaxy is just a youngster (Capak likens it to a 6-year-old human) previously thought to be incapable of such rapid-fire star production.

The Baby Boom galaxy poses a challenge to the Hierarchical Model of galaxy evolution favored by many astronomers. According to the Hierarchical Model, galaxies grow by merging; Add two small galaxies together, and you get a bigger galaxy. In the early years of the universe, all galaxies were small, and they produced correspondingly small bursts of star formation when they merged. "Yet in J100054+023436, we see an extreme starburst. The merging galaxies must be pretty large."

Capak and colleagues are busy looking for more Baby Boomers "to see if this is a one-off case or a common occurrence." The theory of evolution of galaxies hangs in the balance.

Meanwhile... A star is born. A star is born. A star is born.

See more breathtaking Spitzer images at www.spitzer.caltech.edu/Media/mediainages. Kids can play the new Spitzer "Sign Here!" game at spaceplace.nasa.gov/en/kids/spitzer/signs.

This article was provided by the Jet Propulsion Laboratory, California Institute of Technology, under a contract with the National Aeronautics and Space Administration.



The "Baby Boom" galaxy loosely resembles the galaxy shown here, called Zw II 96, in this Hubble Space Telescope image. This galaxy is only 500 million light-years away, while the Baby Boom galaxy is 12.3 billion light-years away.

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In the Conclusion, the Discoverer considers that the Antient Astronomers, having translated the Names of their Heroes among the Stars, those Names have continued down to us unchanged, notwithstanding the endeavour of following Ages to alter them; and that Galileo, after their Example, had honoured the House of the Medici with the discovery of the Satellites of Jupiter, made by him under the Protection of Cosmus II; which Stars will be always known by the Name of Sidera Medicea. Wherefore he concludes that the Satellites of Saturn, being much more exalted and more difficult to discover, are not unworthy to bear the Name of Louis le Grand, under whose Reign and in whose Observatory the same have been detected, which therefore he calls Sidera Lodoicea, not doubting but to have perpetuated the Name of that King, by a Monument much more lasting than those of Brass and Marble, which shall be erected to his Memory.

In order to forestall just these sorts of embarrassments, the current IAU naming convention specifies that, *the names of individuals or events principally known for political or military activities are unsuitable until 100 years after the death of the individual or the occurrence of the event.*

The Medicean Stars are neither medicean nor stars, and so it's not surprising that the name failed to stick. In 1847, the names of the Sidera Lodoicea were finally standardized to Iapetus, Rhea, Tethys, and Dione, all of which *just sound right*. It's remarkable that nearly two hundred years elapsed before the final names were assigned.

At present, there's no IAU sanction for naming extrasolar planets. Sometimes astronomers give it a go anyway, as seen here in the abstract for [astro-ph/0312382](#):

Three transits of the planet orbiting the solar type star HD209458 were observed in the far UV at the wavelength of the H γ Ly-alpha line. The planet size at this wavelength is equal to 4.3 R_{Jup} , i.e. larger than the planet Roche radius (3.6 R_{Jup}). Absorbing hydrogen atoms were found to be blueshifted by up to -130 km/s, exceeding the planet escape velocity. This implies that hydrogen atoms are escaping this "hot

Jupiter" planet. An escape flux of $> \sim 10^{10} g/s$ is needed to explain the observations. Taking into account the tidal forces and the temperature rise expected in the upper atmosphere, theoretical evaluations are in good agreement with the observed rate. Lifetime of planets closer to their star could be shorter than stellar lifetimes suggesting that this evaporating phenomenon may explain the lack of planets with very short orbital distance.

This evaporating planet could be represented by the Egyptian God "Osiris" cut into pieces and having lost one of them. This would give us a much easier way to name that planet and replace the unpleasant "HD209458b" name used so far.

The name Osiris doesn't seem to have caught on, perhaps because $(5 \times 10^9)(3.17 \times 10^7)(1 \times 10^{10})$ is a good deal less than (1.4×10^{30}) . Also, I'd tend to disagree that HD 209458b is "unpleasant". A sequence of letters and numbers carries no preconception, underscoring the fact that these worlds are distant, alien, and almost wholly unknown — K2 is colder and more inaccessible than Mt. McKinley, Vinson Massif or Everest.

Ray Bradbury, in several of his stories, tapped into the profound significance of names. In the 2035-2036 section of *The Martian Chronicles*, he wrote:

The old Martian names were names of water and air and hills. They were the names of snows that emptied south in the stone canals to fill the empty seas. And the names of sealed and buried sorcerers and towers and obelisks. And the rockets struck at the names like hammers, breaking away the marble into shale, shattering the crockery milestones that named the old towns, in the rubble of which great pylons were plunged with new names: Iron Town, Steel Town, Aluminum City, Electric Village, Corn Town, Grain Villa, Detroit II, all the mechanical names and the metal names from Earth.

I think we'll eventually reach the extrasolar planets, and in so doing, we'll find out what their true names are.

Call For Observations—Sagittarius

By A.J. Crayon

As indicated in the newsletter this is the third time we have done observations in Sagittarius, but don't worry there's lots left to be done for another article sometime in the future. At first I thought the weather would impact getting these observations because the weather during the prime observing period was cloudy at best, not to mention the precipitation and wind. But not to be left out there were enough submitted with some room left. So, to help out, with this issue I took the liberty of using some of my observations. The 8" observations go back to 1987. The 14.5" ones are as recent as 2007. I hope you enjoy this issue as much as I did putting it together – thanks to those submitting observations!

As indicated in the article **M 69** has stars from 14th to 16th mag, is listed as mag 7.6 and in the NGC is described as *a nebula without stars*. Seems it didn't appear that way to SAC observers.

8" F6 Newtonian, 38X; Charlie Whiting: This GC is easily visible south of a bright star. This object also looks like it is a GC. **60X** : A nice object. Medium in size. Fairly bright. It is on the verge of resolving stars. **150X** : There are a couple of dozen stars resolved. Some are even seen right on top of a very dense core.

8" f/6, Dobsonian at 120X; Rick Tejera: Dim yet large Globular cluster. Low surface brightness. Circular in shape although averted vision brings out different shapes ranging from square to triangular. Very grainy texture. Not much halo beyond the central core.

10" f10, SCT, 178X; Joe Goss: Globular Cluster- Fairly large, fairly bright, very irregular shape, well resolved around the edge, slightly brighter towards core.

14" f10, SCT, 195X; Joe Goss: Globular Cluster- Large, bright, well resolved down to very near the bright core, Stands out well in a rich star field.

14.5" f5.2, Dobsonian at 220X; AJ Crayon: This is an attractive globular cluster. It is bright, about 10th mag, round, about 10', and sports a nice halo of 12th and 13th mag stars. The structure changes considerably with averted vision. It has a brighter middle and a smaller halo although it retains the same size. It is also situated in a very nice Milky Way field. Be sure to get a low power view to take in all the field has to show.

M 70 has the distinction of being close to the 1995 discovery of Comet Hale-Bopp. The globular is bright, at mag 7.9, large at almost 8' with stars from 14th to 17th mag and has a rather straight line of stars just to the northeast.

8" F6 Newtonian, 38X; Charlie Whiting: This object is easily visible at this low power. And, like M 69, it looks like a GC should look. It sits in an interesting field of

stars. Along with M 70, they seem to form an umbrella. **60X** : M 70 is smaller than M 69 and maybe not quite as bright. But it still shines brilliantly! **150X** : This GC is definitely not as dense as M 69. At first I did not see any stars resolved. But as I stared for a while I realized there were tons of stars resolved. They were so close to each other that at first their light appeared as continuous. Nice surprise!

8" f/6 Dobsonian at 120x; Rick Tejera: Bright but very small central core. Very dim halo extending three out core diameters. Nothing resolvable. Rather unremarkable cluster.

10" f10, SCT, 178X; Joe Goss: Globular Cluster- Small, fairly faint, fairly compact, not well resolved

14" f10, SCT, 195X; Joe Goss: Globular Cluster- Fairly small, fairly bright, very bright compressed core, few stars resolved on outer edge, chain of brighter stars trailing off SE.

14.5" f5.2, Dobsonian at 220X; AJ Crayon: With direct vision this clusters 7'X5' is elongated in an easterly position and at 8th mag appears pretty bright. It has a halo the is somewhat elongated in an easterly position, but may appear so because of some slightly brighter stars on that side of the cluster and it isn't clear if they are members or not. The brighter middle is about 3'. With averted vision the clusters brighter middle gets significantly brighter and larger and the halo is smaller, yet still elongated. On the north side there are 2 stars of 11th and 12th mag and on the east side there are 2 stars of 12th mag.

In the body of the Tea Pot asterism is the very bright **M 54**. It is listed as mag 7.6, 9.1', bright, large and round.

8" F6 Newtonian, 38X; Charlie Whiting: Another bright GC that is easily visible at low power. What a blessing after chasing all those faint galaxies for the past few months. **150X** : Medium size GC. Very condensed. Very bright core. Large halo. Only a few stars resolved.

8" f/6 Dobsonian at 120x; Rick Tejera: Very small, Very bright, very bright central core, halo noticeable to about twice the diameter of the core, more to the west. Halo not noticeable to the east. No stars resolvable within the cluster.

10" f10, SCT, 125X; Joe Goss: Globular Cluster- Small, fairly bright, fairly compressed, not well resolved

14" f10, SCT, 195X; Joe Goss: Globular Cluster- Fairly large, Bright, very compressed, much brighter to the core, not well resolved.

14.5" f5.2, Dobsonian at 220X; AJ Crayon: this globular is somewhat small, pretty bright, round and has a brighter middle. It seems 6' and 10th mag with a nice

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round halo that with averted vision became larger and brighter.

M 55, the brightest globular cluster so far at mag 6.3 and largest at 19.1'.

8" F6 Newtonian, 38 X; Charlie Whiting: This is a very large GC. It is easily visible at low power from a dark site. (It is virtually invisible from Glendale.) A J says it is the brightest GC in Sagittarius. This must mean its integrated brightness. Because the light from M 69, M 70 and M 54 is more compact, they impress the eye as being brighter than M 55. Bumping up to medium power, **60X**, and Wow! This baby is resolving! Dozens of tiny sparklers can be seen. **150X** : Wow, again! This puppy has exploded! There are about 100 stars resolved. This object looks a lot like M 13. Magnificent!

8" f/6 Dobsonian at 48x; Rick Tejera: Less detail visible, roundness more obvious, nothing resolvable. Possibly some hint of a halo on the west and southern edge of the cluster. Very low on horizon at the time of this observation. At **120x**; large cluster, pretty round bright but with low surface brightness. Several possible dust lanes within cluster. A few stars along outer edge resolvable. No real core or halo, appearing more nebulous rather than a globular cluster.

10" f10, SCT, 125X; Joe Goss: Globular Cluster- Large, fairly bright, fairly loose, and easy to resolve stars almost to the brighter center. Second observation - Large, fairly faint, very loose, many stars resolvable, much brighter to the center.

14" f10, SCT, 195X; Joe Goss: Globular Cluster- Large, fairly faint, loose, many stars resolved in outer area to the unresolved brighter core.

14.5" f5.2, Dobsonian at 220X; AJ Crayon: pretty bright, very large and irregularly round with a brighter middle. The halo and middle seem to have hundreds of faint stars strewn all over. There are numerous slightly darker lanes meandering in and about the middle. There is a dark bay on the southeast side. Estimates are 10' and 10th mag.

In the northeast part of the constellation is the planetary nebula **NGC6818**, often called the *Little Gem Nebula*. No one reported observing the slight elongation, as reported by the SAC database.

8" F6 Newtonian, At 38X; Charlie Whiting: this PN appeared to be stellar, but not quite a point of light. And it was very blue in color. At **60X** the extended nature of this object became apparent. It now looked like a tiny blue ball. This PN is AKA the *Little Gem Nebula*. (I can imagine just how pretty this would look if it were set in a gold ring.) **150X** : A J asked if its non-spherical nature could be detected. Yes. I think I saw it as slightly oblong at 150 X, aligned N-S. Four very faint stars are seen surrounding the PN. Perhaps they are the jewel box?

8" f/6 Dobsonian at 71x; Rick Tejera: Noted as large & Bright, Very much brighter in the middle. Did not try the O-III, Don't know why not.

8" f6, Newtonian at 80X; AJ Crayon: bright; **115X** round; **175X** 2 faint stars less than it diameter away. With good seeing there is an annular structure but no central star. It seems more bluish than green.

10" f10, SCT, 125X; Joe Goss: Planetary Nebula- Small, bright, gray color and round. Second observation - Small, bright, round, bluish color.

14.5" f5.2, Dobsonian at 440X; AJ Crayon: this planetary nebula has a dark center and fainter outer halo. In general, though, it is round, small and very bright. Its blue looks appear to be 10th mag and 15". At **90X** it is at the center of three pretty faint stars in a very pretty Milky Way field.

16" f4.4 Newtonian, 375x; Rick Rotramel: PN - fL, pB, round, darker in center, bluish white color.

Barnard's Galaxy, **NGC6822** has a surface brightness of mag 14.5 but is still viewable is telescopes smaller than 8". Look for the bright HII region. One is misclassified as IC1308 and is estimated at 14th mag by Steve Gottlieb.

8" f6, Newtonian at 80X; AJ Crayon: 10'X20', mag 12.5; very faint with low surface brightness. With averted vision and moments of good seeing 15 stars were seen.

10" f10, SCT, 125X; Joe Goss: Galaxy- Fairly large, very-very faint haze, very irregular shape, doesn't stand out well.

13.1" F4.5 Dobsonian, 47X; Charlie Whiting: I picked it up in the 32mm eyepiece but it was so faint that I could easily have missed it. (I tried for it a month earlier and failed to see it.) It blends in so well with the background. At **58X** its overall extent became slightly more apparent. With **125X**, and a 25' FOV, it overflowed the FOV. Finally at **94X**, 32' FOV, it was contained within the FOV and some background was left over around its perimeter. It is very large, perhaps as large as the full moon. But its surface brightness is very low. My eyes usually see the sky as a dark gray. I've never seen a sky that was inky black. Some have been darker than others, but always they are shades of dark gray. The point of this is: this object is only a slightly less dark shade of gray than the background. Its circular in shape and uniform in texture and brightness overall. [this observation from 10 years ago, AJ]

14.5 f5.2, Dobsonian at 90X; AJ Crayon: this galaxy is a member of the Local Group of Galaxies, is very large at about 15'X10', pretty faint and very elongated in a northerly position. The north end is slightly brighter than the remainder. There are dark lanes intertwining through the entire galaxy. IC1308 was easily seen on the northern end.

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President's Corner

By Steve Dodder



Kind of a wild month for the president.

I was asked to evaluate and write up a sales order for an estate sale of two telescopes and various accessories, which I did, somehow, given the lack of clear skies in August. The executor seems happy, and I continue to answer questions about the equipment. (It's listed on Astromart, and I guess

Craig's List.)

Just as things were going smoothly, I thought, I lost another job. The search goes on, but it's discouraging.

Rosie's workplace decided to place them on 10 hour days. She's working 4:00 pm to 2:00 am. This makes communication difficult, and she's my inspiration, so I've been wandering rather aimlessly since July. (You may have noticed. Or, maybe not. ;-/)

The volunteer pages on the website are making progress, and I hope will go live sometime soon. There's another Girl Scout event this month, but I haven't heard details from those involved, (Rick?) *(ed. note: The encampment is all set to go as of this writing, Thanks to Dick Harshaw, Chris Hanrahan, Jimmy Ray & Andrew Goodwin).*

I managed to hammer out a plan for accepting volunteers for the North Rim Grand Canyon Star Party, and have the guidelines up on the website. I've already fielded several questions from volunteers for this major event for 2009, and would like some input on the guidelines listed on the website. Please visit the link and let me know what you think.

Not much else for me to say this month, unfortunately. I've been a bit overwhelmed lately. All I can say is, please get in touch with our Community Outreach team, Rick Tejera, Jack Jones and Chris Hanrahan if you'd like to help out with the public, or have any suggestions on how to expand this important aspect of our hobby and club, if for no other reason than to raise awareness of light pollution issues.

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Call for Observations

For October the observations will come from the *Swan* Cygnus and will start with the cluster **NGC6819** that has over 100 stars from 11th mag. Should be quite pretty. Next is a selection from Sky and Telescopes' *Deep Sky Wonders* authored by Sue French. It's an asterism called the **Fairy Ring** that is a gathering of pretty faint stars, including some doubles and interesting stellar colors. It is located at R.A. 20h 04.1m Dec +38° 14' is round and about 20'. Let us know what colors you see. Nearby is **NGC6888** a 10th mag nebula that should be large, pretty bright and elongated. The next nearby entry is an open cluster **NGC7044**. This Herschel 400 entry is large, rich and faint with stars from 15th to 18th mag. Moving 1.5° almost due south of Gamma (γ) Cygni is **Berkeley 86** and its 30 stars from mag 9.5. The last of the Herschel 400 entries is **NGC6910** in the Gamma (γ) Cygni nebulosity. It is another open cluster with about

50 stars and should be easily found. Last is **M 39** This bright, large, loose cluster should be easily found.

So far we haven't done anything in the constellation of Lacerta. Surprisingly it contains open clusters and galaxies, which is what waits us for this session. Starting from the western part, near Cygnus, is **NGC7209**, a bright open cluster that is in both the *110 Best NGC* and *Herschel 400* lists. It has about 25 stars from 9th mag. Do you see it as scattered or compressed? About 5° south is the barred spiral **NGC7223**. What about the bar and spiral arms? Can you see them? Moving towards the northern part of the constellation is the open cluster **IC1422** and its 25 or so stars. The second galaxy, **NGC7265**, is same magnitude as NGC7223 but is larger and has a lower surface brightness. **NGC7296** is on the *Herschel 400* list is small and has 20 stars, so it may not be that easy to find. The last selection is the elliptical galaxy **NGC7426**. Beware it is just to the east of SAO72851, a double star, whose primary is mag 5.7.

October 2008

SUN	MON	TUE	WED	THU	FRI	SAT
			1	2	3	4 DTOM Star Party at Antennas
5	6	7 ☽	8	9	10	11
12	13	14 ○ ATM Meeting 1930, Paul Lind's House	15	16	17 SAC Meeting, GCU 1930	18
19	20	21 ☾	22	23	24	25
26	27	28 ●	29	30	31	

Schedule of Events for October 2008

Oct. 4th	DOTM Star Party at Antennas: Sunset 18:14; Ast Twilight 19:37; Moonset 21:25; Ast Twilight 5:10
Oct. 7th	Moon at first quarter at 0203mst
Oct. 9th	Public Star party at Dove ranch, Contact Dick Harshaw for more details: rharshaw2@cox.net
Oct. 14th	Moon is full at 1302mst
Oct 14th	ATM Sub group meeting at Paul Lind's house
Oct. 17th	SAC Meeting at Grand Canyon University at 1930, Speaker TBA
Oct. 21st	Moon at Last Quarter at 1155mst.
Oct. 25th	All Arizona Star Party at Farnsworth Ranch: for more information goto: http://www.eastvalleyastronomy.org/aasp.htm
Oct. 28th	Moon is new at 1613mst.

Monthly Trivia Question

Last month's question involved a Flight Controller position in an area known in the MOCR as "The Trench" the other Controllers in the trench were: "BOOSTER"; "GUIDO" 7 "FIDO". This month, why don't you tell me what "FIDO's Responsibilities were.

Last month's Answer: What was the primary responsibility of the Flight Control Officer call signed "RETRO"?

At First glance, the call sign Retro seems to indicate that this controller planned & monitored the re-entry activities. To an extent this is true. HE was "The Man" during this critical stage of the flight. This beckons the question, Why was he needed during the entire flight? His responsibilities might have been more clearly understood if they called this position "Abort". At any stage of the flight "RETRO" was responsible to have worked up the needed calculations to execute an abort of the mission. These calculations were read up to the crew at two hour intervals in what were called PADS. A PAD was a list of number that told the crew the various parameters of the maneuver (These were passed to the crew for any upcoming maneuver, not just abort scenarios). The information would included among other things: the program in the computer that would execute the maneuver, the calculated mass of the spacecraft; the reference matrix (The up, down, forward reference the guidance platform used); The gimbal settings, the length of

the burn (And what engine it would use). This is just scratched the surface of the information transferred. This information would be read back and entered into the ships computer.

There could be several abort pads entered at any time depending on several abort scenarios possible. For example, from Apollo 12 onward, the spacecraft used what was called a hybrid trajectory, as opposed to the free return of previous missions. After Transposition & Docking (Extracting the LM from the S-IVB), the crew would fire the SPS (Service Module) engine, which would take the ship out of it's free return trajectory. This enabled reaching less accessible landing sites. The risk of losing the free return was considered acceptable since there were now two engines (SPS & the LM descent Engine) available to restore the free return trajectory in case of an abort scenario. Thus RETRO would have two pads for the abort worked up, one for the SPS & one for the Decent engine.

This played out in dramatic fashion during Apollo 13. Due to the inability to determine the damage, if any to the SPS engine (It probably was damaged as the crew saw the engine bell severely dented when the SM was jettisoned), it was decided to use the LM descent engine to restore the free return trajectory. Calculating the burn and other parameters fell to the "RETRO" officer.



Astro-Yard Sale

- ★ When: Oct 11th, 2008, 0800 until it's gone
- ★ Where: Steve Coe's House, 1011 E. Rowlands Lane, Phoenix



Tools, Books (science and science fiction), ATM supplies (knobs, Telrad, nuts and bolts), Tables and more.

From 7th Street and Thunderbird go north on 7th St. and go thru the light at Hearn. The next right is Rowlands Lane. The sale is the seventh house on the right, just past the stop sign at 10th Street. Ph. 602-789-7786

Bits and Pisces, Minutes of the August General Meeting

By A.J. Crayon



The first order of business is the request for visitors, 2 stood up and introduced themselves. New members included Chuck Conner, Cheryl Nelson, Ron Bauer and Kerry Williams.

Steve Dodder offered an invitation for Novice Group meetings to include visitors and new members for a get together on a Saturday evening, a week after the General Meeting, at Stone Haven Observatory. He will be available to answer astronomy type questions. Just let him know if you are interested.

By this time there were 44 folks present.

The treasurer reported \$3658 in checking, \$102 cash on hand. The 2009 calendars by Astronomy are available for the discounted price of \$12.95 if ordered before October 15th. Our treasurer, Charlie Whiting, will be out of the country until September 25th. Until his return our president Steve Dodder will take care of his responsibilities.

Upcoming events, still on the calendar, are next meeting, September 12th, September 27th DOTM Star Party and suggested to be at 5 Mile Meadow. We need to act on this quick for the date is almost upon us.

For observing the SAC 110 Best Double stars Jack Jones received his Double Star telescope plate. Great job Jack!

Dick Harshaw discussed possibilities for purchasing SAC T-shirts, polo shirts and hats. Prices varied based on number of items purchased and design.

A correction is in order for the June General Meeting Minutes in regards to new outreach programs. There are two new positions that were started. One for a School Star Party Coordinator, chaired by Chris Hanrahan, and another for Public Outreach, chaired by Rick Tejera.

For Show-n-Tell, Steve Coe started by showing some of his new piggyback photos taken with his digital camera.

Paul Lind discussed his 9" Schafer Mount and its modifications to reduce its weight for his 14.5" scope. This was done to make it easier to handle and produce astrophotographs.

Glen Nishimoto showed a video of his eclipse trip to China. Pretty neat for a first time video.

Jennifer and Tom Polakis gave an update on the Burnham Memorial, which when finished will be placed on Mars Hill in Flagstaff, AZ.

After the break SAC member Dick Harshaw was our main speaker. The title of his talk was *The Awesome World of Double Stars*.

Bits and Pisces, Minutes of the August Board Meeting

By A.J. Crayon

In attendance: Steve Dodder, Charlie Whiting, Tom Polakis, Jennifer Polakis, David Fredericksen, Jack Jones, Rick Tejera, Joe Goss and AJ Crayon.

Rick Tejera is preparing web site data for Public Outreach and will pass it on to Peter Argenziano once it is ready.

Folks at the North Rim of Grand Canyon will receive an electronic copy of the newsletter. This will help them keep up with SAC activities, especially since we receive such great support from them. Speaking of newsletters the number of printed copies sent out is at 26 and we

are still working to reduce this count by converting to electronic copies.

Discussed responsibility for producing the SAC annual event calendar. Although there isn't any reference in the constitution, Rick Tejera has taken this responsibility. He indicated a willingness to continue.

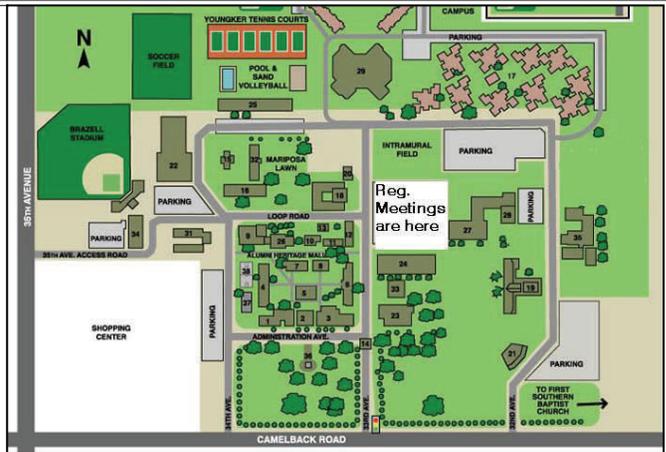
The prospect of the club purchasing a laptop or slide projector was voted down.

A new membership form was forwarded by Rick Tejera to Peter Argenziano that included the correct treasurer's contact. This form is for being installed on the web site.

SAC Membership Services

General Meetings

7:30 p.m. at Grand Canyon University, Fleming Building, Room 105: 1 mile west of I-17 on Camelback Rd., North on 33rd Ave., Second building on the right.



Dark of the Moon Star Parties-2008

<i>Date</i>	<i>Sunset</i>	<i>Moonset</i>	<i>Twilight</i>	<i>Location</i>
<i>January 5th</i>	<i>1737</i>	<i>-</i>	<i>1905</i>	<i>Antennas</i>
<i>February 9th</i>	<i>1813</i>	<i>2113</i>	<i>1937</i>	<i>Antennas</i>
<i>March 8th</i>	<i>1835</i>	<i>2001</i>	<i>1957</i>	<i>Antennas</i>
<i>May 3rd</i>	<i>1915</i>	<i>-</i>	<i>2049</i>	<i>Cherry II</i>
<i>July 5th</i>	<i>1944</i>	<i>2157</i>	<i>2129</i>	<i>Cherry II</i>
<i>August 2nd</i>	<i>1927</i>	<i>2022</i>	<i>2103</i>	<i>Cherry II</i>
<i>August 30th</i>	<i>1857</i>	<i>-</i>	<i>2024</i>	<i>Cherry II</i>
<i>October 4th</i>	<i>1814</i>	<i>2125</i>	<i>1937</i>	<i>Antennas</i>
<i>November 1st</i>	<i>1742</i>	<i>2010</i>	<i>1906</i>	<i>Antennas</i>
<i>December 27th</i>	<i>1734</i>	<i>1748</i>	<i>1903</i>	<i>Antennas</i>

SAC Membership Services

Membership— Memberships are for the calendar year and are pro-rated for new members as follows: Jan– Mar: 100%; Apr– Jun: 75%; Jul–Sep: 50%; Oct–Dec; 25%.

- \$28.00 Individual Membership
- \$42.00 Family Membership
- \$14.00 Newsletter Only
- \$10.50 Nametag for members, Pinned Clasp
- \$12.50 Nametag for members, Magnetic Clasp
(will be mailed to address below)

Magazine Subscription Services

The following magazines are available at a discount to club members. Check the magazines you wish to subscribe to or renew, and pay the club treasurer. Please allow 3-4 months for the order to be processed.

- Sky & Telescope \$33.00/yr
- Astronomy \$34.00/yr
- Astronomy \$60.00 for 2 Years

Please Print

Make Check Payable to : SAC

Name: _____

Bring completed form to a meeting or mail it with your remittance to:

Address: _____

**SAC Treasurer
c/o Charlie Whiting
4526 W Purdue Ave
Glendale, AZ 85302**

City: _____ **St:** _____ **Zip:** _____

Phone: _____

Check here if this is an update of information already on file.

E-Mail: _____

SAC on the Internet

SAC has several E-mail mailing lists. To subscribe, send an email to the email address and put **Subscribe** in the subject box.

SAC-Announce@freelists.org: SAC-Announce is a mailing list for just club announcements, Typically 3-5 messages per month.

SAC-Forum@freelists.org: SAC-Forum is a general discussion mailing list. Topics should be related to Astronomy or SAC

SAC-Board@freelists.org: SAC-Board is a mailing list for discussions of club business. If you'd like to see how the club is run (or not run), or have a question about the club, this is the list to read. Typically month to month matters are discussed.

AZ-Observing@freelists.org: AZ-Observing while not a Sac list, is well attended by SAC members. This is the list to with observing places around Arizona. Find out where people are going and what they saw.

Printed Newsletter

SAC can save a lot of money if you download the PDF version of the newsletter. PDF files are readable by both PC's and Macs. When the newsletter is published, a message will be sent to the address indicated above with the URL of the newsletter. Check the box below if you don't have access to the internet or if your prefer a printed copy.

Please send me a hard Copy of the newsletter

SAGUARO ASTRONOMY CLUB

September 2008

5643 W. Pontiac Dr
Glendale, AZ 85308-9117

Phone: 623-572-0713

Email: newsletter@saguaroaastro.org



Videmus Stellae



SAC Schedule of Events 2008

SAC Meetings

January 18th, 2008	July 11th, 2008*
February 22nd, 2008	August 15th, 2008
March 21st, 2008	September 12th, 2008
April 11th, 2008*	October 10th, 2008*
May 16th, 2008*	November 14th, 2008
June 13th, 2008*	Holiday Party, TBA

* Rescheduled Meeting Date

Future Planning

April 5th, 2008	All Arizona Messier Marathon
May 30th-June 1st, 2008	5 Mile Meadow Star Party
November 28th-30th, 2007	Autumn Stargaze

SAC Star Parties

Date	Sunset	Astronomical Twilight Ends	Moonrise	Site
Jan 5th, 2008	1737	1905	0608	A
Feb 2nd, 2008	1824	1929	0507	S
Mar 1st, 2008	1829	1952	0346	S
Apr 26th, 2008	1911	2042	0100	S
May 3rd, 2008	1915	2049	0401	C
Jun 28th, 2008	1945	2130	0142	C
Jul 26th, 2008	1935	2113	0021	C
Aug 23rd, 2008	1903	2033	2303	C
Sep 27th, 2008	1815	1938	0455	S
Oct 25th, 2008	1747	1910	0432	S
Nov 22nd, 2008	1726	1853	0331	S
Dec 12th, 2008	1730	1859	0128	S

S= Saddle Mountain; C= Cherry Road; A=Antennas