

Saguaro Astronomy Club



SACnews

Volume 31 Issue 9

September 2007

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30th Anniversary Speaker

The Saguaro Astronomy Club is pleased to announce our speaker for the 30th Anniversary Dinner, Dr. Paul Davies of the Beyond Center for Fundamental Concepts in Science. Dr Davies will speak about "Building a Time Machine" His Biography from the Beyond Center Website (<http://beyond.asu.edu/home.html>) is below:

Dr. Paul Davies



Paul Davies is a theoretical physicist, cosmologist, astrobiologist and author. He is a College Professor at Arizona State University, and Director of BEYOND.

Davies previously held academic appointments in the UK, at the Universities of Cambridge, London and Newcastle upon Tyne. He moved to Australia in 1990, initially as Professor of Mathematical Physics at The University of Adelaide. Later he helped found the Australian Centre for Astrobiology, based at Macquarie University, Sydney.

His research has ranged from the origin of the universe to the origin of life, and includes the properties of black holes, the nature of time and quantum field theory.

In addition to his research, Professor Davies is known a passionate science communicator. He gives numerous public lectures each year throughout the world and has written twenty-seven books, both popular and specialist works, which

have been translated into many languages. He writes regularly for newspapers, journals and magazines in several countries.

Among Davies's better-known media productions were a series of 45 minute BBC Radio 3 science documentaries. Two of these became successful books and one, *Desperately Seeking Superstrings*, won the Glaxo Science Writers Fellowship. In early 2000 he devised and presented a three-part series for BBC Radio 4 on the origin of life, entitled *The Genesis Factor*. His television projects include two six-part Australian series *The Big Questions* and *More Big Questions* and a 2003 BBC documentary about his work in astrobiology entitled *The Cradle of Life*.

Paul Davies has won many awards, including the 1995 Templeton Prize for his work on the deeper implications of science; the 2001 Kelvin Medal from the UK Institute of Physics and the 2002 Michael Faraday Prize from the Royal Society for promoting science to the public. In April 1999 the asteroid 1992 OG was officially named (6870) Pauldavies in his honour. You can find additional details about Davies, his writings, and spoken broadcasts at his personal website:

<http://cosmos.asu.edu/>



Cosmic Cockroaches

By Dr. Tony Phillips

Cockroaches are supposed to be tough, able to survive anything from a good stomping to a nuclear blast. But roaches are wimps compared to a little molecule that has recently caught the eye of biologists and astronomers—the polycyclic aromatic hydrocarbon.

Polycyclic aromatic hydrocarbons (PAHs for short) are ring-shaped molecules made of carbon and hydrogen. “They’re all around us,” says Achim Tappe of the Harvard Center for Astrophysics. “PAHs are present in mineral oils, coal, tar, tobacco smoke and automobile exhaust.” Aromatic, ring-shaped molecules structurally akin to PAHs are found in DNA itself!

That’s why Tappe’s recent discovery may be so important. “PAHs are so tough, they can survive a supernova.”

The story begins a few thousand years ago when a massive star in the Large Magellanic Cloud exploded, blasting nearby star systems and interstellar clouds with hot gas and deadly radiation. The expanding shell, still visible from Earth after all these years and catalogued by astronomers as “N132D,” spans 80 light years and has swept up some 600 Suns worth of mass.

Last year “we observed N132D using NASA’s Spitzer Space Telescope,” says Tappe. Spitzer is an infrared (IR) telescope, and it has a spectrometer onboard sensitive to the IR emissions of PAHs. One look at N132D revealed “PAHs all around the supernova’s

expanding shell. They appear to be swept up by a shock wave of 8 million degree gas. This is causing some damage to the molecules, but many of the PAHs are surviving.”

Astronomers have long known that PAHs are abundant not only on Earth but throughout the cosmos—they’ve been found in comet dust, meteorites and many cold interstellar clouds—but who knew they were so tough? “This is our first evidence that PAHs can withstand a supernova blast,” he says.

Their ability to survive may be key to life on Earth. Many astronomers are convinced that a supernova exploded in our corner of the galaxy 4-to-5 billion years ago just as the solar system was coalescing from primitive interstellar gas. In one scenario of life’s origins, PAHs survived and made their way to our planet. It turns out that stacks of PAHs can form in

water—think, primordial seas—and provide a scaffold for nucleic acids with architectural properties akin to RNA and DNA. PAHs may be just tough enough for genesis.

Cockroaches, eat your hearts out.

Find out about other Spitzer discoveries at www.spitzer.caltech.edu.

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



Using the IR spectrometer on the Spitzer Space Telescope, scientists found organic molecules in supernova remnant N132D

110TH? ANNUAL "HECK WITH THE MONSOON" NOVICE GROUP STAR PARTY PERSEID EVE., SATURDAY AUGUST 11, 2007

by: Rascal Polakis



When we arrived at the Cherry II site, there were 9 vehicles; at exactly 1 second before astronomical twilight, the last vehicle pulled in bringing the count to a total of 18 vehicles, at least 23 folks, ~18

scopes, 24 brownies, and 1 astro-dog (me). There was at least one remnant observer from the previous night; that would be the infamous DSO collector, Joe Goss, tenaciously scoping out the "little turds" as Karen Hanrahan so fondly calls those thousands of objects that Joe has managed to flush down his scope.

My Mom made brownies for everyone in celebration of my Dad's 7th birthday (46th in human years) which was the day before. The part about his birthday is a secret, so please do not tell anyone. Despite being everyone's favorite astro dog, I could not beg even a teeny chocolaty morsel off of any one. Jimmy Ray! Buddy ol' pal? What gives dude? So I resorted to snacking on the plentiful



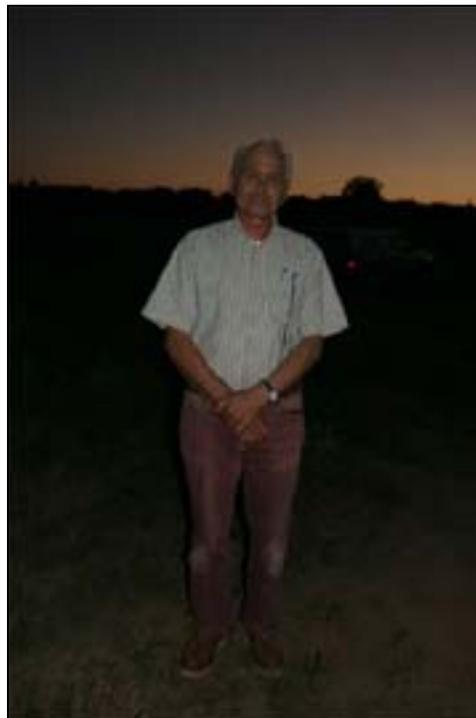
Joe Goss, DSO Collector Supreme



Jimmy Ray, Chris Hanrahan, Bernie Sanden and Tom Polakis in various versions of clear sky dance before becoming serious observers.

sphinx moths (not bad!) and those little turds Joe must have dropped into my food dish.

Brent Archinal from the Coconino Astronomical Society in Flagstaff met up with us; John Carter and Jeff Logan chimed in from the Prescott Astronomy Club; Bob Taylor from EVAC brought his friend Gary Wright; Ken Hall drove up from Phoenix for some observing advice, Fran McHugh made the drive from Winslow for this novice night and Bernie Sanden's friend Bob Kelly and his kids Derek and Diana joined us in some pre-peak Perseid counts. Tom Polakis with Coco Brent Archinal



Stan Gorodenski

Stan Gorodenski drove down for a visit from his Blue Hills Observatory in Dewey not too far from Cherry II. He left to catch up on some observing early on when he saw the sky was not so bad.

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President Telrad Helps novice Fran McHugh fro Winslow Set up his ETX.

Call For Observations—Scorpius

By A.J. Crayon

The name *Table of Scorpius* comes from none other than John Herschel and references the area from μ Scorpii to ζ Scorpii. It was named during his stay at the Cape of Good Hope from 1834 to 1838. His observatory overlooked Table Mountain, above which Scorpius rose.

For an excellent image of this area, see Chris Schur's web site where he has additional information. It may be found at <http://www.schurstrophotography.com/xtiastro/ic4628.html>

NGC6242

102mm, f13, Mak-Cass, 53X; Charlie Whiting: A pretty small OC at about 10' in diameter. I counted 8 stars visible, arranged loosely in a wedge shape or arrow pointing roughly north.

8" f10 SCT, 83X; Dick Harshaw: Somewhat sparse and grainy. Note the trapezoid (9m, 9m, 10m and 10m) at the center. At high power, many more stars come into view.

8" f10, SCT, 185X; Dan Gruber: This OC is centered on a north-pointing equilateral triangle of mag 8 stars. There are about 10 mag 8 - 9 stars and about 20 more stars of mag 10 or so in a 15' X 10' area elongated N - S.

10" f10, SCT; Joe Goss: Open Cluster- Fairly large, fairly bright, fairly compressed, three brighter stars form a triangle, well defined.

11" f10 SCT, 80X; Dick Harshaw: It is a semicircular group of 23 stars dominated by a reddish-orange 7m star. It opens to the east.

Trumpler 24

60mm, f5.8; 14X; Rick Tejera: Seen in same field as NGC 6231, Cr 316, IC 4628 & B48. It was seen as a horseshoe shaped group of stars, open to the east. About 6 Stars all about the same magnitude, pointing to B 48. Within Cluster Cr 316 and surrounding the main body of Bright Nebula IC 4628.

102mm, f13, Mak-Cass, 53X; Charlie Whiting: an OC that occupies the northeast quadrant of Cr-316. Cr-316 itself is too large (105') to be viewed in the 4" telescope because of its long focal length (1325mm). At 53X and in an eyepiece whose FOV is less than one degree, Tr-24 barely fits within the cylinder of the eyepiece. Tr 24 is very large, about 60' in diameter. It is pretty sparse. I resolved about 20 brighter stars and almost as many dimmer stars, all scattered about at random.

8" f10, SCT, 58X; Dan Gruber: A large, loose OC. There is a small pentagon - shaped group of mag 8 - 9 stars at

the SW corner, along with several star chains and triangles throughout. I noticed that there's an "arrow" consisting of a loose stream of mag 8 - 9 stars pointing towards this OC from NGC 6231 (described below) about 60' S. The "arrowhead" directly beneath Tr 24/Cr 316 also is very wide, about 60'.

10" f10, SCT; Joe Goss: Open Cluster- Large, more than 1 FOV, fairly bright, fairly compressed, not well defined, inside of Collinder 316.

11" f10, SCT, 80X; Dick Harshaw: Very large, it overflowed the 51 min FOV. It is very bright with a wide spread in magnitudes. It is dominated by a small asterism of bright stars that at first struck me as looking like a Christmas tree; then I read Tom Lorenzin's note that this area is called the "Baby Scorpion", and then it suddenly appeared, as a string of small stars flowed out of it and curved much like the larger array of Scorpius! It is hard to tell where Trumpler 24 leaves off and Collinder 316 begins.

IC 4628

60mm, f5.8; 14X; Rick Tejera: Seen in Same field with NGC 6231, CR 316, Tr 14 & B48. Noted as a faint, even glow within Tr14. Averted vision brought out an extension from the main body of the nebula to the north for about 40 arc minutes and gave the middle of Tr 14 a mottled look.

8" f10, SCT, 81X; Dan Gruber: Very faint nebulosity, best seen with a UHC filter, about 20' X 10' extending E - W on the northern side of Tr 24/Cr 316.

11" f10, SCT, 80X; Dick Harshaw: Visible only as a light sheen around the brightest stars of Trumpler 24. Moderate sky transparency was probably the culprit here!

Barnard 48

60mm, f5.8; 14X; Rick Tejera: Seen in same field as NGC 6231 CR 316, Tr 14 IC 4628. It was noted as a dark patch elongated in a kidney bean shape, concave to the west, in PA NE-SW and slightly NE of Cr 316.

8" f10, SCT, 58X; Dan Gruber: This dark nebula is roughly 40' X 25' oriented NE - SW. It is located about 30' E of Tr 24.

11" f10, SCT, 80X; Dick Harshaw: This is a very rich field that suddenly goes sparse. A few (maybe six), very faint stars overly this patch. It runs NE to SW and is roughly 3x1 in ratio.

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Collinder 316

10X, Spotter f/5; Dick Harshaw: It fills half the spotter's FOV! It is very rich, very large, and with a large spread in magnitudes. It is well detached from the field.

7X50 binoculars; Charlie Whiting: Very seldom do I see a clear sky during the summer in Venice FL. But, tonight was an exception; it was clear! Just south of Cr-316 ζ Sco (3.62m) was just at the threshold of naked eye visibility. But it was a beautiful site in the binoculars. ζ consists of 4th, 5th and 6th mag stars forming a triangle. The first two are stunningly brilliant. Above zeta, the glow of the OC NGC 6231 is unmistakable, and is highlighted by a bright beacon NW of center. I got the impression of an arrowhead shape. NGC 6231 was so bright that I tried to see it naked eye (but didn't). Some of its stars were on the verge of being resolved. Just north of NGC 6231 is the large and sparse OC, Cr-316. It's group of stars that form a distinct pentagon. Further north but still in the same FOV is μ_1 and μ_2 Sco, a brilliant double. To the ESE is ζ Sco, another sparkler. What a fabulous field this was!

60mm, f5.8; 14X; Rick Tejera: Seen in same field as NGC 6231, TR 14, IC 4628 & B48. Noted as large and sparse expect in the area that is actually Tr 14 and another area to the south, just north of NGC 6231. This area had an oval shaped grouping of faint stars aligned roughly east west about 40 min by 20 Min.

8" f10, SCT, 58X; Dan Gruber: A loose open cluster with about 20 mag 8 - 10 stars. There was no clear delineation between Tr 24 and Cr 316.

11" f10, SCT, 80X; Dick Harshaw: The center 1/3 of the cluster fills the FOV! It is a WOW! Object. There are many groupings of stars, chains, knots, with some variety in color, but mostly subtle. The background is very grainy, suggesting very distant stars behind this beautiful cluster.

NGC6227

11", f10, SCT, 80X; Dick Harshaw: I only detected a seven-star crooked line on the SW edge of Collinder 316. The stars run more or less N to S. Dreyer referred to this grouping as an asterism. Sulentic and Tiffit called it nonexistent in the RNGC (1973).

NGC6231

60mm, f5.8; 14X; Rick Tejera: Seen in Same field as Cr 316, Tr14, IC 4628 & B48. Noted as Very bright & Dense cluster just south of the large grouping within Cr 316. It is round in shape with several stars just outside the periphery. Most stars were very bright in comparison with those in CR316 & Tr 14.

102mm, f13, Mak-Cass, 53X; Charlie Whiting: This is

my first deep sky observation with the 4" telescope. Tonight is one of those rare times in Florida that the sky is almost totally clear of clouds, although there probably is a slight haze. At 53X NGC 6231 is a small OC, about 10' -15' in diameter. It is pretty dense and very bright. I resolved about a dozen bright sparklers and about the same number of dim stars. This is a nice sight for a 4" telescope.

8" f6, Newtonian, 60X; Charlie Whiting: NGC 6231 is aka the Table of Scorpius in Skymap. In the article written by Steve Coe in the Cloudy Nights Telescope Reviews, Steve describes the Table as a much larger area. So 6231 is a bright cluster within the Table. The cluster is clearly visible at **38X**. From a dark site it would certainly be visible in the finder and probably even naked eye. But it takes a telescope to see it from my Glendale backyard. At **60X** the number of stars is more clearly visible. They are twinkling a lot due to the low altitude in the sky and my telescope line-of-sight is barely clearing the rooftop of my house. The heat from the house makes the air turbulent. At **120X** there are 10-12 bright stars in the brightest level. There are another 10-12 stars in a dimmer level. And there are a few stars that are very faint in the third level.

8" f10, SCT, 81X; Dan Gruber: A roughly triangular OC pointing S located about 40' NNE of matched mag 4 stars (5' separation E - W; zeta 1 and 2). The cluster is 15' X 10' oriented E - W. I saw about 10 mag 8 - 9 stars and an equal number of fainter stars. There are several possible doubles, rows, etc. About 5 of the stars looked distinctly reddish to me. Note "arrow" asterism pointing from this OC northward toward Tr 24/Cr 316, described with Tr 24.

10" f10, SCT; Joe Goss: Open Cluster- Large, extremely bright, many chain, arcs and triangles of stars, fairly compressed, well resolved, well defined.

11" f10, SCT, 80X; Dick Harshaw: I can see why it is called the Northern Jewel Box! It is a wonderful and stunning object! I counted 30 stars in one quadrant, so estimate about 120 total stars (some of which may be background objects, this cluster lying so close to us). There are 18 bright stars that dominate. There are several chains with many colors, but mostly subtle yellow-orange.

SL 17

No observations submitted. Perhaps because there were no coordinates supplied! (*ed. Note: Actually I was just taken with the view of the table of Scorpius, I plain forgot about it*)

Call for Observations

For October let's take on Lyra for the first time. We are
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President's Corner

By Rick Tejera



OK, Astronomers 4, Monsoons 3. This years To Heck With the Monsoon Star Party goes to the Astronomers. While the weather seemed iffy all week and some stayed away because of this, the night turned out pretty good. We had a large turnout, including quite a few faces I've not seen before, which was part of the plan. Although Steve Coe had to leave early due to a balky telescope, the novices in attendance were no left out. Every one pitched in and answered questions and shared eyepieces. Personally, I think I helped Orion sell two Laser-mate Deluxe Collimators. Two gent's (I don't recall their names) from Prescott were set up near me with a 10" homemade dob and a 12" Meade Lightbridge. They were playing around trying to collimate the scopes. I went over and gave some ointer on manually collimating an then showed them how easy it was with the Laser mate. I had the Lightbridge collimated in about a minute. The owner said he'd never seen it done so fast before. No need t thank me Orion, I was glad to do it :)

As the night grew dark, folks settled in to work on their observing plans. I observed the Table of Scorpius in my ETX 60 for AJ's Column. The nice thing about using that

scope for this was the wide field got the whole shebang in one shot. Afterwards I worked on some summer H400's I've been neglecting until about midnight when the seeing got soft. Seems most folks decided to wait it out by sitting back and watching for Perseids. I called dit a night about 0200 and went to bed. It was certainly nice to get back at the eyepiece. Thank you Meteora.

Now on to business. Time's getting short to make your reservation for the 30th Anniversary Dinner. If you haven't done so please make your remittance as soon as possible. Thanks to Jennifer Polakis, we have Dr. Paul Davies, of the Beyond Center for Fundamental Concepts in Science as our main speaker (See page one for his bio and links to his work). I'm looking forward to a great talk. A response form is included on page 11 of this issue if you need one.

I sure could use some ideas for articles for the newsletter. I know I can count on you, every time my well runs dry I start to get some contributions. I'm getting there, so if you've gotten any new equipment or have any ideas for an article. Please let me know.

Till next month, Clear Skies.
Rick

(Continued from page 3)

Others from SAC included President Telrad, Jack Jones, Lynn Blackburn and Dorlynn; Chris and Karen Hanrahan, Dan Gruber, Paul Lind, Andrew and Darla Goodwin, Tom and Jenn Polakis--plenty of SAC members per novice. Seems like the novices converged onto Chris and he seemed to have matters handled while the rest of us watched Perseids mixed with various Aquarids, Cygnids, Capricornids, and the usual Sporadicids in-between surfing a not horribly monsoon-ish sky for turds and other deep sky amusements.



Jack Jones with infamous fish-bucketless scope.

October 2007

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

Schedule of Events for September 2007

Oct. 3rd	Moon at 3rd Quarter at 0306mst.
Oct. 6th	SAC Star Party at Dirt Rd Blvd, Sunset 18105 End Ast. Twilight 1932, Moonrise 0315.
Oct. 10th	Moon is new at 2201mst.
Oct. 13th	DTOM Star Party at Antennas, Sunset 1804 , Moonset 1911; Ast. Twilight Ends 1926; Ast. Twilight begins 0516.
Oct. 12th -13th	All Arizona star Party, Go to www.eastvalleyastronomy.org for more info
Oct. 19th	Moon at first Quarter at 0133mst
Oct. 25th	Moon is full at 2152mst.
Oct. 26th	SAC General Meeting at Grand Canyon University at 1930, Speaker: TBA

Future Planning

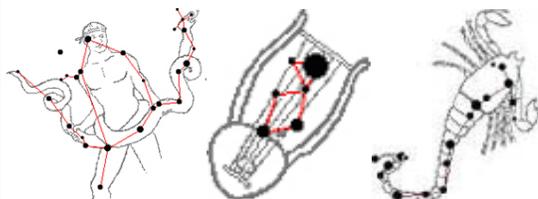
Nov. 9th-10th	Sentinel Schwaar Stargaze.
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Bits & Pisces, Minutes of the July 27th General Meeting

By Jennifer Polakis



President Rick Tejera commenced the meeting with the most exquisite gavel crash ever at precisely 19:30:00. There were 47 present including at least 3 guests. Paul Dickson, Treasurer gave a favorable report, presented an updated roster, and requests you to renew your membership if you're still slacking off. The invitations to our 30th Anniversary Dinner on September 29th at Challenger Space Center were handed out with the remainder being mailed to those members who were not present. Upcoming events included the August 11th Heck with the Monsoon Star Party, August 18th observing at Cherry II site, and of course the September 29th 30th Anniversary Dinner. Steve Coe spoke about the (then) upcoming Heck with the Monsoon/Novice Group meeting. VP Paul Lind has his photo somewhere in the June Sky and Telescope. If you missed it, here is one of Paul from the Heck with the Monsoon Star Party:



A J Crayon made a call for observations in Serpens, Lyra and Scorpius, which brings us to Show and Tell. Member Mike Mandall totally flabbergasted us with a show of his collection of more than 50 refractors most of

which are Astro-Physics. Just amazing! What is more, he is happy to take requests on what scopes to bring out observing.



After break, VP Paul Lind introduced our speaker, Brian Gootee, a geologist, community college teacher, Grand Canyon Field Interpreter, and Mars instructor at ASU. His talk was titled: MANAGING

MARTIAN REVOLTS: A GEOLOGIC EVOLVE OF MARS THROUGH THE POWERS OF 10. A very well illustrated lecture on Mars geology, structure, weather, evolution, and just about anything you'd want to know about Mars going all the way back to the birth of our solar system and beyond!

Twenty met up at JB's afterward where we also made the board meeting. Board members present were: President Rick Tejera, Vice President Paul Lind, Secretary Jennifer Polakis, and Properties Tom Polakis. Absent was Treasurer Paul Dickson. We discussed and agreed to increasing speaker honoraria to \$75 for speakers from in town and \$125 out of town commencing with the next (August 2007) meeting. Also discussed and remedied were issues with updating SAC's website and the practice of bouncing "overquoted" email messages. We also prepared the remaining invitations to the 30th Anniversary Shindig for mailing out to 62 members who did not receive an invitation at the meeting.

We licked stamps and envelopes in between chewing the fat while founding member Gene Lucas kept our guest speaker entertained for hours with his detailed talk on the history and content of Wikipedia.

(Continued from page 5)

all aware of the gem there, but there's more to the Lyre than the Ring Nebula. So, before getting there let's check what else there is to offer and start from the northern region. First up, in the same 15' field of view will be the galaxies **NGC6702** and **NGC6703**. The former will be the more difficult of the two, at mag 12.2 and about half the size. For the next galaxy, slew to **NGC6646**. This one is about 2deg northwest from Vega. For a change, go to the yellow and blue double star **OS 525**. Reminds you of Albiero, doesn't it? Reason this was selected is due to the proximity to next selection, but I wanted you to stop and smell, I mean view, this one because it gets passed by on the way to the magnificent *Ring Nebula*. Yes, just to make it clear **M57** is next on the list. There has been much discussion amongst amateurs and professionals about the visibility of its central star. It is considered variable from 14th to 16th mag and, regardless, you will need a clear transparent sky for any chance at seeing this one. Let us know if you see it – a simple yes or no should do. Before ending there are two more observations on the list. **NGC6765** wonder of all wonders this is another planetary nebula. Yes its magnitude is listed at near 13th, but don't let this stop you as it should be, at least, stellar in an 8". The NGC description in the SAC database lists it as elongated. Does this show up in larger telescopes? After this you will understand why it is a little known planetary. The final selection is the famous variable star **RR Lyre** http://en.wikipedia.org/wiki/RR_Lyrae_variable. Its fame comes from being

called a standard candle that is its absolute magnitude has been well determined. From knowledge of the absolute and visual magnitudes they are able to determine its distance. Pretty neat!

After a while looking at potential candidates for the November column I have settled on Aquila. There is enough for two columns. So here is the list for the first. For starters take on the cometary dark nebula **Barnard 133**. Be sure to take a look in your finder to see if that is a better view. Next are two open clusters a half-degree apart. First is **NGC6755**, the larger and brighter of the two. It includes another open cluster Czernik 39 to the northwest and the diffuse nebula Cederblad 166 to the north of northwest. The second **NGC6756** is to the north of northeast from the main cluster. Next up is the globular cluster **NGC6760**, which should be small and kind-of faint. Now try the planetary nebulas **NGC6803** and **NGC6804**. NGC6804 is just 50' south of NGC6803. There is a nice arching trail of stars between the two that should easily be seen in a finder. NGC6803 is the brighter, but much smaller, like stellar; yet NGC6804 is larger but has a low surface brightness. Your choice as to which you want to find first. Last are **Barnard 142** and **Barnard 143**. Together they form Barnard's famous "E". This is best seen in your finder, but if you have an RFT try it and let us know your impression. Otherwise pan around with your lowest power eyepiece.

Monthly Trivia Question

Who is the only astronaut honored with a statue in Statuary Hall in the U.S. Capital Building? What State was he from?

Last month's Answer:

Name the two surviving Mercury 7 Astronauts.

Malcolm Scott Carpenter & John H Glenn.

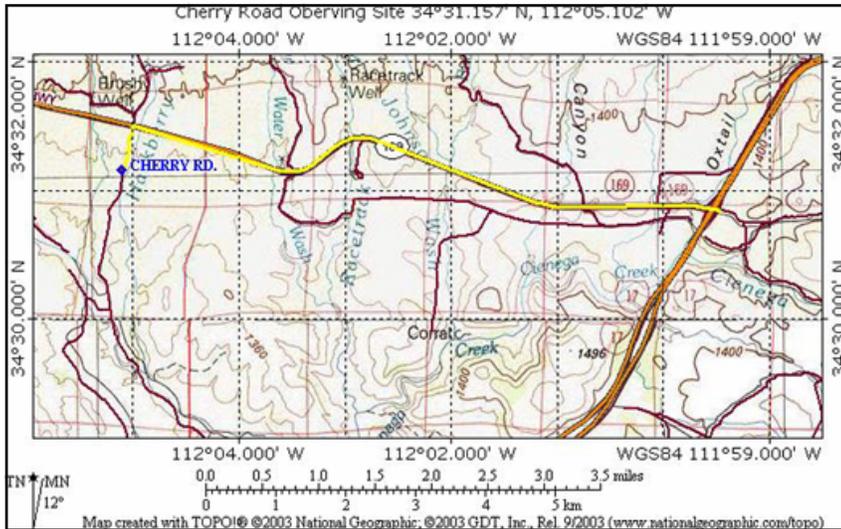
Carpenter flew only once in space and later spent time on the sea floor in Sealab II. Glenn, retired from NASA and pursued a career in Politics, becoming a U.S. Senator from his native Ohio. Glenn Later flew on STS-95 as a hu-

man guinea pig for space sickness. His last flight was referred to as the most expensive congressional junket in history.

Alan Sheppard Passed away July 21, 1998 at age 74; Gus Grissom died in the Apollo 1 fire Jan 27th, 1967 at age 40, Wally Schirra died recently on May 3, 2007 at age 84, Gordo Cooper died October 4, 2004 at age 77, Deke Slayton passed on June 13th, 1993 at 69

SAC Meeting and Observing Sites

Cherry Rd. Star Parties



Take I-17 north to the Cherry Rd exit. Turn west (left) and continue on Cherry Rd for about 5 miles. Turn Left on the dirt road just past the sign that says Cherry 6. Note you turn in the direction Opposite the arrow on the sign. The site is 3/4 down the road on the left.

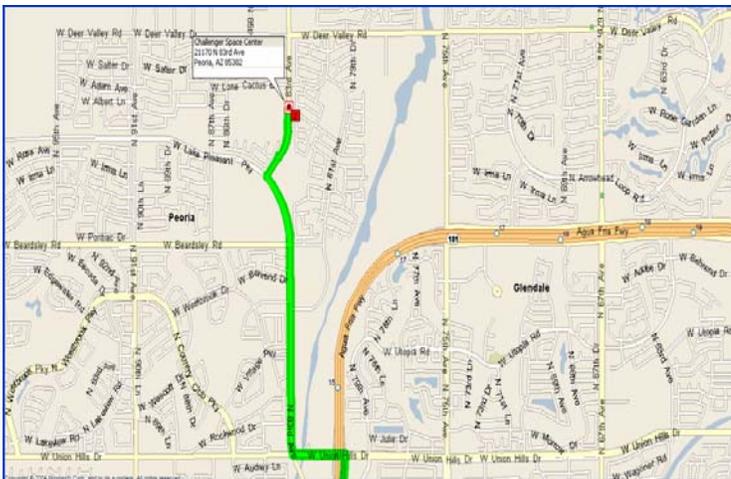
Jupiter Events Sept. 2007

<u>Time (LMT)</u>	<u>Sat</u>	<u>Event</u>	<u>Time (LMT)</u>	<u>Sat</u>	<u>Event</u>
2007 Sep 01 20:57	II	Shadow transit end	2007 Sep 13 21:09	III	Eclipse reappearance
2007 Sep 02 19:22	III	Transit start	2007 Sep 13 22:00	n/a	Great Red Spot transit
2007 Sep 02 21:05	I	Occultation disappearance	2007 Sep 15 21:00	II	Transit start
2007 Sep 02 21:47	III	Transit end	2007 Sep 16 19:31	n/a	Great Red Spot transit
2007 Sep 03 18:25	I	Transit start	2007 Sep 17 21:12	II	Eclipse reappearance
2007 Sep 03 19:43	I	Shadow transit start	2007 Sep 17 22:17	I	Transit start
2007 Sep 03 20:37	I	Transit end	2007 Sep 18 19:27	I	Occultation disappearance
2007 Sep 03 21:55	I	Shadow transit end	2007 Sep 18 21:10	n/a	Great Red Spot transit
2007 Sep 04 19:05	I	Eclipse reappearance	2007 Sep 19 18:02	I	Shadow transit start
2007 Sep 04 19:32	n/a	Great Red Spot transit	2007 Sep 19 18:58	I	Transit end
2007 Sep 06 21:11	n/a	Great Red Spot transit	2007 Sep 19 20:13	I	Shadow transit end
2007 Sep 08 18:20	II	Transit start	2007 Sep 20 20:05	III	Occultation reappearance
2007 Sep 08 20:57	II	Transit end	2007 Sep 23 20:19	n/a	Great Red Spot transit
2007 Sep 08 20:58	II	Shadow transit start	2007 Sep 24 18:46	II	Occultation disappearance
2007 Sep 08 22:50	n/a	Great Red Spot transit	2007 Sep 24 23:48	II	Eclipse reappearance
2007 Sep 10 18:37	II	Eclipse reappearance	2007 Sep 25 21:24	I	Occultation disappearance
2007 Sep 10 20:21	I	Transit start	2007 Sep 25 21:58	n/a	Great Red Spot transit
2007 Sep 10 21:38	I	Shadow transit start	2007 Sep 26 18:09	II	Shadow transit end
2007 Sep 10 22:33	I	Transit end	2007 Sep 26 18:44	I	Transit start
2007 Sep 11 17:30	I	Occultation disappearance	2007 Sep 26 19:57	I	Shadow transit start
2007 Sep 11 20:21	n/a	Great Red Spot transit	2007 Sep 26 20:56	I	Transit end
2007 Sep 11 21:00	I	Eclipse reappearance	2007 Sep 27 21:47	III	Occultation disappearance
2007 Sep 12 18:19	I	Shadow transit end	2007 Sep 28 19:29	n/a	Great Red Spot transit
2007 Sep 13 18:40	III	Eclipse disappearance	2007 Sep 30 21:08	n/a	Great Red Spot transit



You are cordially invited to join us as The Saguaro Astronomy Club Celebrates Thirty Years of Observing in Arizona.

Our celebration will be held on September 29th, 2007 at 7:00 p.m. at The Challenger Space Center 21170 N 83rd Ave Peoria, Arizona 85382



Directions from Loop 101 & Union Hills Drive (exit 15)

- Turn (West) onto W Union Hills Dr 0.3 mi
- Turn RIGHT (North) onto N 83rd Ave 1.0 mi
- Keep STRAIGHT onto W Lake Pleasant Pky 0.4 mi
- Turn RIGHT (North-East) onto N 83rd Ave 0.4 mi

**Arrive Challenger Space Center
[21170 N 83rd Ave, Peoria, AZ 85382]**

Saguaro Astronomy Club

**5643 W. Pontiac Dr
Glendale, AZ 85308-9117**

Mr./Mrs./Ms. _____

Will Attend:

Number of Guests: _____

Payment Enclosed: \$ _____

Will Not Attend:

Please respond prior to September 8th, 2007

SAGUARO ASTRONOMY CLUB

August 2007

5643 W. Pontiac Dr
Glendale, AZ 85308-9117

Phone: 623-572-0713

Email: newsletter@saguaroastr.org



Videmus Stellae



SAC Schedule of Events 2007

SAC Meetings

January 5th, 2007	July 27th, 2007
February 2nd, 2007	August 24th, 2007
March 2nd, 2007	September 28th, 2007
April 6th, 2007	October 26th, 2007
May 4th, 2007	November 16th, 2007
June 1st, 2007	December, 2007
June 29th, 2007	Holiday Party-TBA

SAC Star Parties

Date	Sunset	Astronomical Twilight Ends	Moonrise	Site
Jan 13th, 2007	1725	1854	0336	F
Feb 10th, 2007	1811	1935	0223	F
Mar 10th, 2007	1835	1958	0112	F
Apr 14th, 2007	1901	2029	0447	F
May 12th, 2007	1927	2059	0311	C
Jun 9th, 2007	1940	2125	0140	C
Jul 7th, 2007	1944	2128	0013	C
Aug 11th, 2007	1920	2054	0522	C
Sep 8th, 2007	1845	2011	0415	C
Oct 6th, 2007	1809	1932	0314	F
Nov 3rd, 2007	1737	1902	0207	F
Dec 1st, 2007	1723	1851	0057	F

Future Planning

June 15th-16th, 2007	5 Mile Meadow Star Party
Sept. 29th, 2007	SAC 30th Anniversary Celebration Dinner
November 9th-10th, 2007	Sentinel Schwaar Stargaze

F= Flat Iron; C= Cherry Road