

A GO-TO KINDA GUY

Bill Ellis

Maureen and I came to our first Delmarva Stargaze way back when it was on the other side of the park. In fact there was a good chance of the Star Party being cancelled that time because of a hurricane that came up the coast, but we had our first real Go-To scope, a Meade LX200 8", and were ready to try it out. Needless to say, being new to the hobby we were ill prepared. Jump start batteries, why since we have a generator in the camper, dew heaters, what are they for, red dot finders, cigarette lighter power adapters, red led flashlights, 2" diagonal, and the list went on and on.

I think we have progressed some since that first time but we have still stuck with the Go-To equipment upgrading to a Meade LX200 10" GPS and eventually leaving the Alt-Az mode for a look at using an Equatorial type mount, a Celestron CG-5 with a Celestron C6R / F8 ACHRO refractor. Not a bad scope but a long tube that rarely put the eye piece in a comfortable viewing position. I even tried putting an old Edmunds Scientific 8" /F6 Newtonian on the CG-5 mount and that really proved cumbersome.

So what should I try next in my search for a scope that I would enjoy using the most. The 10" LX was by far the best viewing with it's large aperture and great visual tracking abilities but weighing in at about 74Lbs nestled into it's fork mount it was far from being easy to drag in and out of our camper and setting up unless we were stationary for a few days of observing. The mirror flop associated with most all of the SCT's was also something that I wanted to remedy so I decided to add a Crayford type focuser to my 8" but had concerns about fork and power panel clearance when the scope was slewing. So my question was what to try next to find a way to mount a large aperture OTA on a Go-To mount without the weight of the forks.

I recently purchased a Celestron CGEM Equatorial mount with thoughts of piggy backing an 80MM ED Doublet on some kind of OTA and trying some DSLR photography but still wasn't sure of what I wanted to try as my main OTA. I really didn't want to take my 8" or 10" tube off their forks since they both perform really well so I began looking at the Cloudy Nights Ads and found a 10" LX tube (24.5Lbs) with rails that looks good and seems to perform very well on the CGEM mount. And I think even Joe Cain will like the configuration since you really don't have to be a "Contortionist Joe" to figure out how to look through the eye piece!

And now, as an added bonus thanks to Maureen and Maggi our little Chihuahua, we even have a TMB 100 16mm eye piece to enjoy this new configuration!! Thanks All, Bill Ellis

How to Join the Delmarva Stargazers: Anyone with an interest in any aspect of astronomy is welcome

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Do you need the newsletter snail mailed to you (Y/N)? _____

Please attach a check for \$15 made payable to Delmarva Stargazers and mail to Kathy Sheldon, 20985

Fleatown Rd, Lincoln, DE 19960. Call club President Don Surles at 302-653-9445 for more information.

MidAtlantic Mirror Making #11

Folks, our MidAtlantic Mirror Making #11 (MMM#11) is rapidly approaching. It will unfold March 11-13, 2011 in Mallard Lodge, Smyrna, DE.

I encourage all of our members who desire a high-quality Newtonian mirror to consider joining the group to make their own fine optic. It will be another international affair since we already have mirror makers from London and Canada committed.

Recently, I mounted a 12.5 inch F-7 mirror that I finally completed in 2008...I began the mirror and scope at least seven or eight years earlier. I can report that it is superior to any reflector or SCT I currently own or have ever owned...there have been many reflectors and SCT's thru my garage and basement over the years. And with the exception of a Nikon 4 inch F-12 refractor the 12.5 performs better than the refractors I have owned.

This mirror began as a piece of junk glass from Edmund Scientific's surplus...it was an F-12...yep, 125 inch focal length. But enuf on my mirror...let's just say that looking at the moon and planets with all the power I can generate is a pleasure. All I want you to understand is that you, too, can create a fine optic of your own - one you can be proud of and enjoy every time you peek into the eyepiece. You may even pass it on to your children or grandchildren.

We are fortunate to have some of the best amateur and professional mirror makers in the world lending their time and talents to our efforts. Our assemblage of experts can guide you thru the process to a finished optic that just can't be bought without considerably greater expense. This is a rare opportunity to participate in an event that very few people will ever have access. You are fortunate...your local astronomy club makes your participation possible.

So, check out the announcement here...

<http://www.delmarvastargazers.org/archive/mw11/index.html>

We look forward to having you complete a fine optic in MMM#11.

Don...

Your 2010-2011 Officers

Office	Officer	Phone	email
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President-elect	Lyle Jones	302-736-9842	Lyle.Jones@State.De.Us
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Blue Rings around Red Galaxies



by Trudy E. Bell and Dr. Tony Phillips

Beautiful flat rings around the planet Saturn are one thing—but flat rings around entire galaxies?

That is the astonishing discovery that two astronomers, Samir Salim of Indiana University at Bloomington and R. Michael Rich of UCLA described in the May 10, 2010, issue of *The Astrophysical Journal Letters*.

“For most of the twentieth century, astronomers observing at visible wavelengths saw that galaxies looked either ‘red and dead’ or ‘blue and new,’” explained Salim. Reddish galaxies were featureless, shaped mostly like balls or lentils; bluish ones were magnificent spirals or irregular galaxies.

Elliptical galaxies looked red, astronomers reasoned, because they had mostly old red giant stars near the end of their life cycles, and little gas from which new stars could form. Spiral and irregular galaxies looked blue, however, because they were rich in gas and dust that were active nurseries birthing hot, massive, bluish stars.

At least, that's how galaxies appear in visible light.

As early as the 1970s, though, the first space-borne telescopes sensitive to ultraviolet radiation (UV) revealed something mysterious: a few red elliptical galaxies emitted “a surprising ultraviolet excess,” said Rich. The observations suggested that some old red galaxies might not be as “dead” as previously supposed.

To investigate, Salim and Rich used NASA’s Galaxy Evolution Explorer satellite to identify 30 red elliptical galaxies that also emitted the strongest UV. Then they captured a long, detailed picture of each galaxy using the Hubble Space Telescope.

“Hubble revealed the answer,” says Salim. The UV radiation was emitted by enormous, flat bluish rings that completely surrounded each reddish galaxy, reminiscent of the rings of Saturn. In some cases, the bluish rings even showed a faint spiral structure!

Because the bluish UV rings looked like star-forming spiral arms and lay mostly beyond the red stars at the centers of the elliptical galaxies “we concluded that the bluish rings must be made of hot *young* stars,” Salim continued. “But if new stars are still being formed, that means the red-and-dead galaxies must have acquired some new gas to make them.”

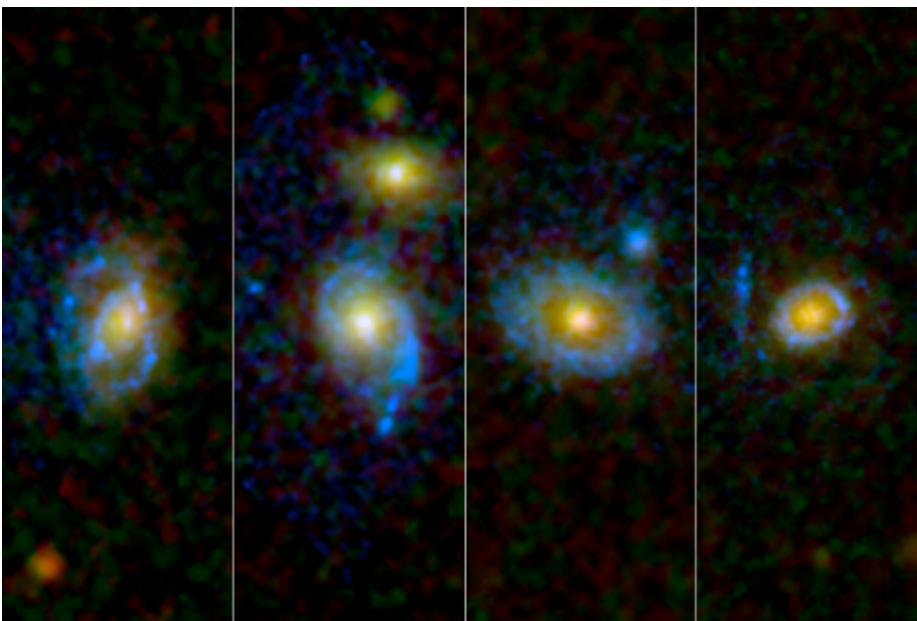
How does a galaxy “acquire some gas?” Salim speculates that it was an act of theft. Sometimes galaxies have close encounters. If a gas-rich irregular galaxy passed close to a gas-poor elliptical galaxy, the gravity of the elliptical galaxy could steal some gas.

Further studies by Galaxy Evolution Explorer, Hubble and other telescopes are expected to reveal more about the process. One thing is certain, says Rich: “The evolution of galaxies is even more surprising and beautiful than we imagined.”

The press release is available at <http://www.galex.caltech.edu/newsroom/glx2010-03f.html>. The full published article is “Star Formation Signatures in Optically Quiescent Early-Type Galaxies” by Samir Salim and R. Michael Rich, *The Astrophysical Journal Letters* 714: L290–L294, 2010 May 10.

Point the kids to the Photon Pile-up Game at <http://spaceplace.nasa.gov/en/kids/galex/photon>, where they can have fun learning about the particle nature of light.

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



The Galaxy Evolution Explorer UV space telescope helped to identify red elliptical galaxies that also emitted the strongest UV. These are detailed, long-exposure Hubble Space Telescope images of four of these galaxies that capture the UV-emitting rings and arcs indicative of new star formation.

1965 Happenings

Don Surles

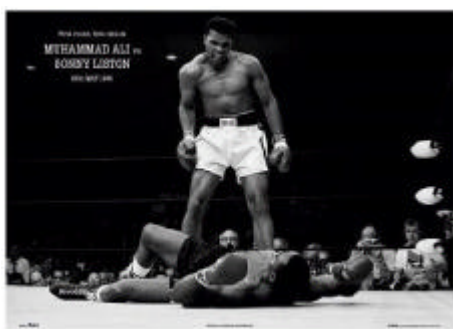
I went to my 45th High School Reunion September 25, 2010. Yep, I graduated from Angier High School in June 1965! Being a mere 18 years old at the time, the year 1965 just slid past me...honestly I don't remember a lot of the details of the whole year. Let's just say we were preoccupied with fulfilling graduation requirements, making plans for the future, enjoying fast cars, finding a summer job...all sorts of things more important than remembering current events.

So, with that in mind, I Googled the year 1965 just to refresh my memory and will present the hi-lites to you and at the reunion...with an astronomical twist. For those of you who were too young this is an opportunity to learn...all you other old farts... "Pay attention!!!!"...'cause you were probably doing the same things I was in 1965 and probably don't remember any more than I did.

First thing...January 1st was on a Friday which means we had Thursday, New Year's Eve, thru Sunday, Jan 3rd to party. Then on Monday night, Jan 4th, LBJ, aka, Lyndon Billions Nimrod Fountain Pen Johnson, delivered his State of the Union address. I missed it. But history says he unveiled his "Great Society" in that speech...that was before his "heavy heart" speech. Other events in January included the launch of Gemini 2 on a suborbital test of various space systems, the swearing in of LBJ for a full term as President (remember he assumed the Presidency after JFK was assassinated), and the funeral of Winston Churchill. February was kind of uneventful unless you happened to be Malcom X...he was knocked off on Feb 21 in Manhattan.

March was tumultuous. The Selma to Montgomery marches occurred on Mar 7, 9, 17 & 25...with several clashes twixt police and demonstrators on other days. LBJ sent his basis for the Voting Rights Act to Congress on the 17th. Cosmonaut Alexsei Leonov became the first man to walk in space on the 18th. Did you know there was a real Rhett Butler? Apparently there was, because on the 19th the wreck of the SS Georgiana, the most powerful Confederate cruiser ever built and supposedly owned by the real Rhett Butler, was found by a teenage diver off the Isle of Palms, SC, and it was estimated to be worth \$50 million...something about the cargo that sunk with it. There were various beatings and murders by some ticked off folks in Alabama during this month.

April began with the first, and only, launch of a nuclear power reactor (SNAP-10A) into space. It operated for 43 days and was supposed to stay in a 700 nautical mile orbit for 4000 years...so what happened to this 30Kw 650-pound jewel? An onboard voltage regulator within the spacecraft—unrelated to the SNAP reactor itself—failed, causing the reactor core to be shut down. An anomalous event in November 1979 caused the vehicle to begin shedding an eventual 50 pieces. A collision has not been ruled out and radioactives may have been released. Other events in April include the opening of the Astrodome in Houston, the 100th anniversary of Lee's surrender to Grant at Appomattox (Google actually said the "anniversary of the end of the Civil War"...but I have some pretty good information that for some the "Wahuh" has nevuh ended). Charlie Brown and Peanuts Gang were on the cover of Time. And on April 17, The SDS (Students for a Democratic Society), held its first march against the Vietnam War with 25,000 protestors in DC. Other war news...LBJ sent US troops to Dominican Republic to "prevent another Cuba" and Australia announced it would increase its combat forces in South Vietnam.



May 5th ushered in the first draft card burning at Berkley and a coffin was marched to the Berkley Draft Board. On May 22, the first skateboard championship was held and several hundred Vietnam War protestors marched to the Berkley Draft Board to burn draft cards and LBJ in effigy. How long will it be before LBJ reacts? June ended with Cassius Clay, aka, Muhammad Ali, beating Sonny Liston in the first round of a rematch with a "phantom punch".

June 2...The first contingent of the Australian combat troops arrived in South Vietnam. Next day, June 3, Astronaut Ed White, Gemini 4, made the first US spacewalk. Then on June 10, 1500 Viet Cong overran a S Vietnamese military headquarters at Dong Xoia. This was followed by an anti war protest at the Pentagon...a "teach-in"

that distributed 50,000 leaflets in and around the building.

And June ended...are you still paying attention? There will be a pop quiz...the year is only half over...just getting started.

On July 14, US spacecraft Mariner 4 flew by Mars and became the first spacecraft to photograph the Red Planet. July 24, four of our Phantom F-4C fighter planes escorted a bombing raid to Kang Chi, N Vietnam, and were fired on by anti-aircraft missiles (now where do you suppose they came from?)...1 F-4 was shot down and the other 3 were damaged. On July 28, LBJ announced our



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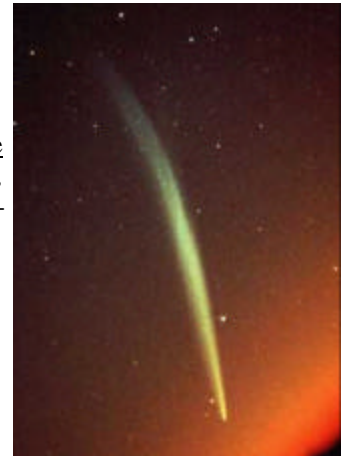
As a paid member of DMSG, you can sign up/renew your S&T or Astronomy mags through the club for a discount over private rate. S&T, reg. \$42.95, is \$32.95 thru DMSG, Astronomy, reg. \$44, is \$34. See Michael Lecuyer for details.

troop strength would increase from 75,000 to 125,000 and the draft per month would increase from 17,000 to 35,000...and Berkley was watching. On July 29, the first 4000 troops of the 101st Airborne arrived in S Vietnam, Cam Rahn Bay. July ended with LBJ signing the Social Security Act of 1965 establishing Medicare and Medicaid. More fountain pens were passed around the White House.

The Voting Rights Act of 1965 was signed into law on August 6 effectively ending Jim Crow. And this was followed by a "Hot Time, Summer in the City"...the Watts Riots began August 11. Jefferson Airplane made its debut at the matrix in San Francisco on Aug 13 and the Beatles played Shea Stadium on Aug 15. On Aug 18, 5500 US Marines destroy a Viet Cong stronghold in Quang Nai province believing there was a planned attack against the US base at Chu Lai. Gordon Cooper, Gemini 5, was launched on a 1-week mission to test fuel cells in space. Casey Stengel, Aug 30, announced his retirement from baseball after 55 years. August 31 was a day to remember...LBJ signed a law penalizing the burning of Draft Cards with 5 years in jail and \$1000 fine (you know that will be challenged by Berkley), US marines and S Vietnamese forces launched OP Piranha 23 miles south of Chu Lai, Sandy Koufax pitched a perfect game against the Chi Cubs and the Cubs pitcher allowed only 1 run which was "unearned", and Hurricane Betsy roared into New Orleans with 145MPH winds...the last major hurricane to hit New Orleans until Katrina in 2005. Walter Kronkite had a lot of news that night.

September...I told you there was an astronomical connection. Y'all know that comets are supposed to be omens of evil. Well, a couple of Japanese observers spotted a new comet September 15...Comet Ikeya-Seki. More on this later. Tom & Jerry Cartoon made its world broadcast appearance on CBS on the 25th. Cuba's Fidel Castro announced on the 28th that anyone who wanted to leave Cuba could emigrate to the USA. He also announced that Che Guevara had resigned and left Cuba...he did not say if Che wanted to leave. LBJ, yep, again, he was in the signing mode and signed an immigration bill that eliminated quotas based on national origin. And S Vietnam again...a brigade of S Korean troops arrived in S Vietnam.

October...finally...the first group of Cuban refugees arrived in the US on Oct 10. Remember the LBJ bill banning draft card burning? So did Berkley, and on the 15th the National Coordinating Committee to End the War in Vietnam staged the first public burning of draft cards in the US and there were arrests under the new law. But, folks were becoming agitated and on the 16th anti-war protests drew 100,000 demonstrators in 80 US cities and around the world. Comet Ikeya-Seki approached perihelion, 450,000 kilometers from the sun and was visible at noon in Tokyo...it magnitude was estimated at -10. This comet was said to be one of the brightest comets in 1000 years. The Pope, Pope Paul VI, announced that the Jews were not responsible for killing Christ. And the St Louis Gateway Arch, 630 feet high, was completed. On the 30th, US Marines repelled an intense Viet Cong attack at Da Nang and found sketches of US Marine positions on the dead body of a 13-year-old S Vietnamese boy who was peddling drinks to them the day before. In Washington, DC, an anti-war rally drew 25,000.



November 6 and 7 saw the Freedom Flights from Cuba to the USA begin and Pillsbury's Doughboy was launched. On the 8th, 1200 Viet Cong in Op Hump ambushed the 173rd Airborne, and the TV soap opera, Days of Our Lives began. The Northeast Blackout of '65 occurred on Nov 9. The 14th gave us the Battle of Ia Drang, the first major engagement between N Vietnamese regular soldiers and US forces. On the 15th Craig Breedlove set the land speed record at 600.6 MPH and on the 16th the Soviet Union launched Venera 3, which would send back pictures of the surface of Venus on March 1, 1966. On the 27th tens of thousands of Vietnam War protestors picketed the White House and then marched to the Washington Monument and LBJ announced we would increase our troop strength from 120,000 to 400,000 (now we know what those extra 18,000 draftees per month were for back in July). And on the 28th the Philippines agreed to send troops to S Vietnam.

December 9...Charlie Brown's Christmas, the first Peanuts television special, debuted on CBS. Gemini 6 and 7 performed the first controlled space rendezvous on the 21st. And the Soviet Union announced it had shipped surface to air missiles to N Vietnam (remember those shot-up F-4 Phantoms in July? How about the Mujahadeen and USA supplied Stinger missiles in Afghanistan whilst the Russians tried to subdue the country in the 1980's?) On Dec 30, Tokyo officially became the largest city in the world surpassing New York City.

So, now you have 1965 for review...did you notice how history has seemed to repeat itself in the past few years? And did you see the Great Comet of 1965? Could one of the brightest comets in 1000 years have been the omen of 10 more years of conflict in Vietnam?

Here are some pics to jog your memory....

The Season for Giving

Giving Back to Your Astronomy Club
December, 2010

Tom Koonce

Lancaster, California

The holiday season is here once again. It's a time to recognize those in need and for giving to others. With the fun that I've had through the years with my astronomy club and fellow amateur astronomers across the country, I started thinking about ways that I might give something back to amateur astronomy. You know that running any organization is a lot of time and work, so you can imagine that our club leaders would be appreciative of any help that is offered. I realized that the best gift I could give to the club would be to step up and help out with an aspect of the club that fits into my schedule. If this sounds like something you're interested in doing too, I have a few ideas for you to consider.

It's surprising how many astronomy-related bits and pieces that we accumulate that we haven't used in a long time such as basic amateur astronomy books, old binoculars, our first eyepieces, and perhaps an old telescope. Consider donating items like these to the club to be gathered up into a potential Spring garage sale for the benefit of the club's treasury. Maybe this could jumpstart the club savings for the summer picnic or piece of equipment that all members could share.

Even if you don't have items to donate, consider donating the benefit of your amateur astronomy knowledge by volunteering to teach a 30 minute to 1 hour class on the area of astronomy that interests you. If enough people wanted to teach small classes, perhaps a Saturday event could be put together that would really interest and excite members! Even with no preparation, acting as a "Star Guide" mentor for a new member is a way of giving that means a lot. We all remember the first experienced club member who showed us the ropes when we were beginning in astronomy. Why not be that memorable mentor for another person?

I always find it interesting to read the newsletter when someone has written up their observing session. It doesn't have to entail the discovery of a new comet or anything, just the simple observations. (Of course a discovering a new comet would be a pretty nice write-up!) A photo, sketch or even a star map of the area that is being discussed is a plus, but not required. Give back to the organization by summarizing your next observing session and share the evening with your fellow members.

If schedule is tight, giving even a bit of your time is appreciated. For instance, a nice gesture is to assist with greeting people at the monthly meetings. Many clubs do this as a way of welcoming new and long-time members at the door. If you would like to help increase club membership, making others feel welcome each month and taking a personal interest in them is one of the best ways.

If you have a bit more time, you can help the club out by volunteering to help on a committee or (longer term) running for an officer position to give back to the club in tangible ways that are also rewarding for the volunteers. Frankly, sometimes these are positions that can get a bit stale if the same people are in them again and again. If you are one of the people who have been in a particular job in the organization for a while, thank you for all that you do! Consider mentoring another person to take on this position while you try out something different. The club needs you! But changes can keep the organization fresh and vibrant and it will keep you excited about why we're involved in the first place... because it's fun. It might be a gift that both you and the mentee could give for the long term vitality of the club. Happy Holidays to you and your families. Clear Skies! - Tom

Looking for a skymap ? Goto: www.skymaps.com

Astrophotos

by Members and Friends



This is an image of NGC 891 taken two weeks ago at Spruce Knob, WV using my homebuilt 16" Newtonian and my SBIG ST-10XME camera. It's a pretty, edge-on spiral galaxy with a prominent, dark dust lane in the constellation Andromeda. This is a LRGB stack with 12 three minute subs for each of the RGB channels and 15 six minute subs for the Luminance channel. It was taken over two nights and the seeing was as good as it gets in the Appalachians ranging from 1.96" to 2.36" FWHM. Of course there was snow on the ground and the night time temp was in the mid-twenties. Might not show in the newsletter picture but there are a lot of other small galaxies present.

Joe