

The FBAC Observer

Volume 19, Issue 3

March, 2005

They say a true friend tells you secrets. Well, no wonder a telescope could be your friend. It tells you the secrets of the Universe. But before I got here, let me tell you what I found there.

Once upon a time, before I departed for Europe on a business trip that lasted two wonderful fun and adventure filled years, I decided to make a pit stop in central Amer-

ica, in a diminutive country known for its great canal, Panama City, Panama. Here is where I once lived. I finally made it, after 24 years away. When the plane landed, I felt like kissing the ground. Not to give it thanks. I had a terrible bumpy flight!

myself “Oh my God, what have I been missing all these years...”

I cannot remember which nebula, or galaxy she invited me to see through the eyepiece, but what I do remember is that what I saw is what you see when you type the word “galaxy” on Google’s image search engine. It was that clear, big and beyond belief! The rest of my vacation in Panama was a little

Once Upon A Time In Panama City By Ricky Carvajal

offset now. The images I had just seen had distorted my schema for the trip. All I could think about was what I had seen and all I wanted to do was to see more. Forget the city of Panama! Forget Jessica Simpson, I want to see more through that scope and nothing else! But time soon caught up with me and I had to fly back to the states, never to see her scope to again.

At any rate, it was her telescope that motivated me to finally go hunting for a scope. A few years later, just last year by the way, my super dooper wife, Lourdes, got me one for my birthday. I am now the proud owner of an Orion Astroview 120mm EQ refractor. This baby showed me what the skies are made up of and let me reassure you, it is made up of a tad more than just dots. I can actually see Saturn, Jupiter, Andromeda and the all-awesome Orion nebula now lurking through the early evening Texas skies.

Although my Galaxies are fuzzy little cotton balls, I am proud of them and I get a kick out of seeing them. The suspense of just trying to find them without knowing how to read my coordinate dials kills me. All I do is find a constellation and voila I find a nebula or a galaxy!

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I am so hooked to this new bug that I set my alarm to certain hours of the early new day in order to glimpse at special events that only take place at that time of the day. I have been called crazy for doing this and they are right, I am crazy for my skies.

Back to Aunt Mary or Maria as her real name is. She is the proud owner of an Astro-Physics 180mm f9 EDT Aproxomat Telescope. This baby is so heavy it requires a special stand to be wheeled around. The story behind the scenes about the building of this scope (custom made by the way) would take another few pages I am sure. I just flat out fell in love with that telescope. So much so that I have expressed to her that if no one else shows interest for when she gets tired of it, well.... I am here. (Hey I tried!!!)

If you wish to send a hello note to Aunt Mary, she has approved giving away her email. She loves to be emailed pampered regarding her scope. So go on and ask questions on her scope, Observatory and her awards. She is also a member of "La Asociacion Panamena de Astronomos Aficio-

nados" (the Panama Astronomy Association) - she is also a member of the Astronomy League of the United States and currently dedicating her time to the studies of double or Binary stars from which she won an award for her studies on the subject. If you wish to say hi to her, or compliment her little secret teller, you may send a message to marca@sinfo.net (permission granted)

Below, are pictures of her, the telescope, and the custom built Observatory above her home? Yes you heard it right. I said a custom built observatory made to her specs with sliding rooftops. What a dream setting. Can you imagine, having an observatory at the top of your home. It just could not get any better than that. Yep, we are both crazy for the skies.

Clear skies
Ricky Carvajal
Rcarva2000@yahoo.com



THE MILKY WAY The Sky Cloud

This article is a prelude to the story of the constellations. I thought it would be nice to examine the mother home of them.

The Milky Way is not, of course, a constellation, but is a band of faint light crossing the night sky. It is in this sea of stars that the constellations reside, and which gave inspiration for "The Constellations" to be presented to the members of FBAC. The Roman writer Manilius compared it to the luminous wake of a ship. Ovid in his *Metamorphoses* described it as a road lined either side by the houses of distinguished gods. Along this road the gods supposedly travelled to the palace of Zeus.

Eratosthenes tells us that the Milky Way was the result of a trick played by Zeus on his wife Hera so that she would suckle his illegitimate son Heracles (the Greek name for Hercules) and hence make him immortal. Hermes laid the infant Heracles at Hera's breast while she slept, but when she woke and realized who the baby was—perhaps by the strength with which he sucked—she pushed him away and her milk squirted across the sky to form the Milky Way. (We all know different).

Manilius listed various explanations for the Milky Way that were current in his day, both scientific and mythological. One suggestion was that it is the seam where two halves of the heavens are joined—or, conversely, where the two halves are coming apart, like a split in the ceiling. Alternatively, says Manilius, it might be a former path of the Sun, now covered in ash where the sky was scorched. Some thought that it could be the route taken by Phaethon when he careened across the sky in the chariot of the Sun god Helios, setting the sky on fire (see Eridanus). An idea attributed to the Greek philosopher Democritus that it could be a mass of stars, which we now know to be correct.

First timers at the Texas Star Party are amazed for the first time to see the Milky Way. It has been accused of being a cloud that has formed. And they are quite right, as it is a cloud.....a cloud of stars...

Leonard Pattillo, FBAC

THE CONSTELLATIONS

This article will be the first in a series dealing with all 88 constellations. It deals with the history and the mythology associated with each one.

This series was first presented to FBAC in 1985-1987, and has since been re-written with mistakes and errors corrected. The original presentation included, along with the information on the constellation, a spread sheet listing all of the objects 14th magnitude or brighter and N. of -40 degrees in that constellation. This was a major undertaking by yours truly and took over 2 ½ years to complete. I am happy to present them once more. Each constellation will appear in the FBAC newsletter.

The first constellation will be Andromeda and following will be the northern constellations presented in alphabetical order. The southern constellations will follow last.

Andromeda

Probably the most lasting of all Greek Myths is the story of Perseus and Andromeda. Andromeda was the beautiful daughter of King Cepheus and the vain Queen Cassiopeia, whose boastfulness knew no bounds.

Andromeda's misfortunes began one day when her mother, the queen, claimed that she was more beautiful than the Nereids, a very alluring group of sea nymphs. The Nereids decided that Cassiopeia's vanity had just gone too far and they asked Poseidon, the sea god, to teach her a lesson. Poseidon sent a terrible sea dragon (most likely Cetus) to ravage the coast of King Cepheus's territory. Overwhelmed with the amount of destruction, and his subjects demanding action, the beleaguered King Cepheus appealed to the Oracle of Ammon for a solution. He was told that he must sacrifice his virgin daughter Andromeda to appease the monster.

Well to make a long myth short, Andromeda was chained to a rock to atone for the sins of her mother, who watched from the shore with bitter remorse. The site of this event is said to have been on the Mediterranean coast at Joppa (now known as Jaffa), the modern Tel-Aviv. As Andromeda stood on the wave lashed cliffs, pale with terror and weeping at her impending fate, the hero Perseus, fresh from his exploit of beheading Medusa the Gorgon, spotted her and at first was going to pass her by when the wind ruffled her hair and he recognized her as a beautiful woman. His heart was captivated by the sight of the frail beauty in distress. Her White Knight to the rescue.

It was told by early Roman poets that Perseus at first almost mistook her for a marble statue. Only the wind blowing in her hair and the tears on her cheeks showed that she was a human. Perseus asked her name and why she was chained to the rock. Shy Andromeda did not at first reply, even though she was awaiting death in the sea monster's jaws. She would have hidden her face modestly in her hands, had they not been chained to the rock.

AMDROMEDA

COMMENTS	NGC/IC NO	NGC/IC DESCRIPTION	MAG.	DISTANCE	SIZE	UR PAGE	SA PAGE	R.A.	DEC
Edge On	NGC 7640	cF,L,mE,164°,vlbM	10.8	-----	11.0'x2.5'	88	9	23h22.1'	+40°51'
Planetary Neb.	NGC7662	Blue Snowball Nebula	----	-----	32"x28."	88	9	23h25.9'	+42°33'
Open Cluster	NGC 7686	Cl,P,1C,7 -11 stars	----	3,000 ly	14.0'	88,58,59	9	23h30.2'	+49°08'
Galaxy	NGC 21	eF,S,1E	----	-----	1.2'x0.6'	89	4	00h10.7'	+32°59'
Galaxy	NGC 29	pB,pL,E 0°	----	-----	1.6'x0.7'	89	4	00h10.8'	+33°21'
Galaxy	NGC 41	eF,*12 np 45"	----	Long way	1.4'x1.3'	89	4	00h13.0'	+30°55'
Galaxy	NGC 76	vF,S,bM	----	Long way	1.4'x1.2'	89,90	4	00h19.6'	+29°56'
Galaxy	NGC 80	F,S,R,psbM	12.1	-----	1.8'x1.7'	126	4	00h21.2'	+22°21'
Galaxy	NGC 83	E,biN,3 brite strs near	12.5	-----	1.5'x1.5"	126	4	00h21.4'	+22°26'
Galaxy	NGC 160	vF,vS,Stellar	12.6	-----	3.0'x1.6'	126	4	00h36.1'	+23°58'
Galaxy	NGC 183	pF,vS,R,gbM	12.7	-----	2.1'x1.6'	90	4	00h38.5'	+29°31'
Galaxy	M 110	NGC 205	8.1	8.1 mil. mi	21.9'x10.9'	60	4	00h40.4'	+41°41'
Galaxy	NGC 214	pF,pS,gvlbm,R	12.3	-----	2.1'x1.6'	126	4	00h41.5'	+25°30'
Galaxy	IC 43	vF,S,mbM	13.2	-----	2.2'x2.1'	90	4	00h42.4'	+29°38'
Galaxy	M 32	NGC 221	8.1	2.280mly	7.6'x5.8'	60	4	00h42.7'	+40°52'
Galaxy	M 31	NGC 224	3.4	2.000mly	180'x63'	60	4	00h42.7'	+41°16'
Galaxy	NGC 262	Seyfert Galaxy	13	-----	1.6'x1.5'	90	4	00h48.8'	+31°57'
Galaxy	NGC 393	F,vS,vIE,gbM,4st near	12.5	-----	3.4'x3.4'	91	4	01h09.4'	+35°43'
Galaxy	NGC 523	D,neb,vF,vS	12.7	-----	3.5'x0.8'	91	4	01h25.3'	+34°01'
Galaxy	NGC 529	pB,vS,sbM,p of 2	12.1	-----	2.4'x2.1'	91	4	01h25.7'	+34°43'
Galaxy	NGC 536	paired with NGC529	12.4	-----	3.0'x1.1'	91	4	01h26.4'	+34°43'
Galaxy	NGC 679	Faint, stellar	12.3	-----	2.1'x2.1'	92	4	01h49.7'	+35°47'
Galaxy	NGC 687	very faint, stellar	12.3	-----	1.4'x1.4'	92	4	01h50.6'	+36°32'
Galaxy	UGC 1344	very faint, stellar	12.7	-----	1.6'x08'	92	4	01h52.6'	+36°30'
Galaxy	UGC 1347	Very faint, small	12.9	-----	1.3'x1.01'	92	4	01h52.8'	+36°37'
Galaxy	NGC 753	pB,pL,R,gmbM	12.4	-----	2.9'x2.1'	92	4	01h57.7'	+35°55'
Open Cluster	NGC 752	Cl,v vL Nbrstrs 60	5.7	1000ly	50.0'	92	4	01h57.8'	+37°41'
Galaxy	NGC 891	B,vL,vmE 22°	10	31.290mly	13'x2.8'	62	4	02h22.6'	+42°21'
Galaxy	UGC 2034	Dwarf Irregular	13.2	33.250mly	2.5'x2.0'	62	4	02h33.7'	+40°32'

UR=Uranametria SA=Star Atlas 2000

Obsolete Constellations

Part 6

Leonard Pattillo, FBAC

Part 6 of Obsolete Constellations in a continuation in the mystery of constellations that are no longer recognized by the astronomical world.

—ROBUR CAROLINUM—

Charles's Oak

A constellation devised by Edmond Halley in 1678 as a patriotic gesture to King Charles 2. It commemorates the oak in which the King hid after his defeat by Oliver Cromwell's forces at the Battle of Worcester. Halley formed the constellation when he returned from a visit to St. Helena out of stars that used to be part of Argo Navis . The constellation was rejected by the French astronomer Louis de Lacaille, who mapped the southern skies 75 years after Halley.

—SCEPTRUM BRANDENBURGICUM—

The Brandenburg Scepter

Introduced in 1688 by the German astronomer Godfried Kirch to honor the Brandenburg province in which he lived. Its stars are now part of Eridanus.

—TAURUS PONIATOVII—

Poniatowski's bull

This constellation was originated in 1777 by Martin Poczobut, director of the Royal Observatory at Vilna, to honor king Stanislas 2 of Poland. It was first shown by the Frenchman Lalande on his celestial globe of 1779. It was made from a V-shaped group of stars that Ptolemy in his *Almagest* had classified it as being outside Ophiuchus. Poczobut thought that this group resembled the Hyades cluster that forms the face of Taurus. It is now part of Ophiuchus.

—TELECOPIUM HERSCHELII —

Herschel's Telescope

There were originally two such constellations, invented in 1789 by Maximilian Hell of Vienna to recognize William Herschel's discovery of the planet Uranus. The two constellations flanked the area in which the new planet was found. Tubus Herschelii Major, as Hell called it, represented Herschel's 20 ft. (6 meter) long telescope, and lay between Gemini and Auriga. Tubus Herschelii Minor was crammed between Orion and Taurus and represented Herschel's 7 ft (2 meter) reflector. Bode reduced the constellations to one, showing just the 7 ft. telescope with which Herschel actually discovered Uranus.

—TIGRIS—

The River

A constellation representing the Tigris river and introduced in 1613 by Petrus Plancius on the same globe as the river Jordan made its first appearance. Tigris began in Ophiuchus and flowed between Cygnus and Aquila and ending in Pegasus.

Going Deep

Keith Rivich

This month we will be GOING DEEP in the neighborhood of Orion's head and shoulders. The great Hunter's upper torso is made up of the three bright stars **Betelgeuse**, **Meissa** and **Bellatrix**. **Meissa**, which marks Orion's head, is one of the faintest stars to carry a proper name. Derived from the Arabic language it means, roughly, "The shining one". **Betelgeuse** proves that not all astronomy is romantic: its name derives from Ibt al Jauzah, which means "The armpit of the central one". When looking at **Betelgeuse** note its ruddy red color. **Betelgeuse** is a red supergiant with a diameter 600 times larger than the sun! **Bellatrix** was known in ancient times as "Warriress" the western shoulder. It was also known as the Amazon star.

Now that we know where we are lets begin our deep space romp at **Meissa**. **Meissa** is part of a very large open cluster **CR69**. This ill-defined cluster is best suited for binocs or a wide field finder. Containing 20 stars spread over 64' of space it is not going to jump out at you. This entire cluster, and much of the surrounding area, is swathed in the bright nebula **Sharpless 2-264** (SH2-264). While called "bright" the surface brightness is very low due to the light being so spread out. An OIII filter on a wide field scope may show hints of the nebulosity.

Imagine a line drawn from **Meissa** to **Bellatrix**. About 3/4 of the way to **Bellatrix** you will find another sparse cluster **Cr 458**. In an 8" scope this ill-defined cluster just stands out from the background. Expect to see about 15 stars. Now lets move in the other direction. Imagine a line drawn from **Meissa** to **Betelgeuse**. About 1/3 of the way down the line you will find the nice planetary nebula **NGC2022**. This 12th magnitude fuzzy will appear stellar at low magnification, but pump up the power and the tell-tale disk becomes quite apparent. Listed as a ring nebula I can only see a smooth disk

with slight mottling away from the center. A more challenging planetary lies nearly 3.5 degrees slightly west of due north from **NGC2022**. **Haro 3-75** appears as a bright knot surrounded by a fainter shell. This outer shell is elliptical in shape and was easy to see with direct vision. This nebula actually resembles a galaxy with a bright core!

Re-center **NGC2022** and then bump your scope 48' to the east. Look for a moderately bright, reddish star with a slight cometary haze around it. If successful you have found **FU Ori**, a very young star still in the wild fluctuations of its birth. A prototype of this star type FU can swing in brightness 7 magnitudes as dust is belched from its "surface". The nebula, **CED 59**, is slightly cone shaped with FU at the apex.

Continue your starhop to **Betelgeuse**. From **Betelgeuse** move your scope 3.3° to the 4th magnitude star **MU Ori**. Slip in the OIII filter and look whats hiding behind the star. That soft little glow is a nice planetary nebula **Abell 12**. To me **Abell 12** looked like a blob within the bright halo of **MU Ori**. The nebula appeared to almost touch the star. I thought I detected a ring, or donut shape. If you have trouble seeing the planetary move MU just off the field and the nebula becomes a bit easier to see.

Last on our list is **NGC 2141**. From **MU Ori** move your scope 44' due north and look for an unresolved nebula like glow. **NGC2141** is listed at overall mag 9.4 but the brightest stars in the cluster are just 15th mag, therefore it takes a large scope to resolve individual stars. Very interesting cluster!

Next month we will visit the neighborhood of "The Christmas tree cluster".

Object	Type	RA, Dec	Size	Magnitude
SH2-264	BN	05 26 18, 09 58 00	75'	N/A
Haro 3-75	PN	05 40 45, 12 21 21	24"	13.9p
NGC2022	PN	05 42 06, 09 05 13	35"	12.4p
FU Ori	Star	05 45 22, 09 04 10	N/A	9.6-16.5
CED 59	BN	05 45 24, 09 04 23	3.9'x2.0'	N/A
CR 69	OC	05 35 00, 09 56 00	64'	2.8
CR458	OC	05 27 24, 07 04 00	12'	N/A
Abell 12	PN	06 02 20, 09 39 15	37"	13.9p
NGC2141	OC	06 02 56, 10 26 48	10'	9.4

Fort Bend Astronomy Club

Minutes for December 10, 2004 Meeting

The Christmas Party was held and a good time was had by all.

The only business in the meeting was regarding a need to change the location of meetings for 2006 due to a change in the rental policy for the City of Sugar Land. Members are working on a solution to this issue.

Minutes for January 21, 2005

Meeting Started at 7:35 p.m. David Jenkins welcomed everyone to the meeting and introduced the officers. Joe Dellinger gave a novice presentation on the "Gotchas" of the East Dome. For a complete list of these gotchas, please see Joe.

Break at 8:15 p.m.

Meeting restarted at 8:31 p.m.

Secretary's Report—Due to the Christmas Party, no minutes were posted. These were read by the Secretary and a synopsis appears at the top of these minutes.

Treasurer's Report—We have \$913.07 in the bank. We are in the black for now. If you got an e-mail from Joe around January 21, 2005 you will be dropped from the club rolls for non payment of dues. Renewals for Sky and Telescope are done once per month. Give these payments to Joe at the meeting and he will send it off very quickly after the meeting. He will only do these payments ONCE per month, so make sure you bring your statement and check to the meeting.

A-team report—3 asteroids discovered in the last 1 ½ weeks. The team has also imaged Deep Impact.

Astronomy on Wheels Report—Both Star parties were very successful with one of the presentations being held before almost 500 people. Leonard Patillo gave the report and suggested we print a business card with information about the club and getting these events held.

HAS Banquet is February 26, 2005. All of FBAC is invited. See the HAS website for information.

Texas Star Party—The drawing for housing is January 22, 2005.

Main Presentation by Barbara Wilson and Dennis Borgman on Volunteering at the George Observatory

Barbara gave an overview of the Observatory Facilities. Dennis went over how to volunteer. Training on the East Dome is done through FBAC. Training on the Research dome and West Dome is through Barbara Wilson.

General Announcements

Earth Day is April 2, 2005 at Brazos Bend State Park.

February 2-5 is the Deep South Texas Star Party near Kingsville

A brief discussion of the current results from Huygens probe of Titan occurred.

An agreement is almost complete to have our meetings at HCC Stafford Campus starting in 2006. Lyn Adolphus and Don Wells have been pivotal in this effort.

Dennis Borman reminded everyone of the display of the club's telescopes.

Barbara Wilson announced that the HMNS Volunteer Appreciation Dinner is on May 12th. Make sure that Barbara has your current address and e-mail. She can be contacted at bwilson@hmns.org

Door prizes were presented.

Meeting adjourned at 10:00 p.m.

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Dedicated to the acquisition and dissemination of information pertaining to the science of astronomy

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You are invited to submit your opinions for inclusion on this page. Please be thoughtful and respectful of others in your comments. Rants will not be published. All articles should be 450 words or less and are subject to editing for clarity and length before publication. Please submit in Word format to:
stargazer411@earthlink.net

The Fort Bend Astronomy Club meets on the third Friday of every month except for those months when special meetings are called. The next regular meeting will be at 7:30 PM on March 18, 2005 at the First Colony Conference Center, 3232 Austin Parkway, Sugar Land, TX. Dues are \$30/year for the first member, \$5 per additional household member. Student dues are \$15/year.

The **Houston Astronomical Society** meets the first Friday of the month in room 117 of the University of Houston Research Building. The novice program begins at 7:00 PM and main meeting at 8:00 PM.

For the **Johnson Space Center Club**, refer to the JSCAS web site for meeting times and sites. There is a link on the FBAC web site.

North Houston Astronomy Club meets on the 4th Friday of the month at Kingwood College. The meeting starts at 6:45 PM, main meeting at 7:30 PM.

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