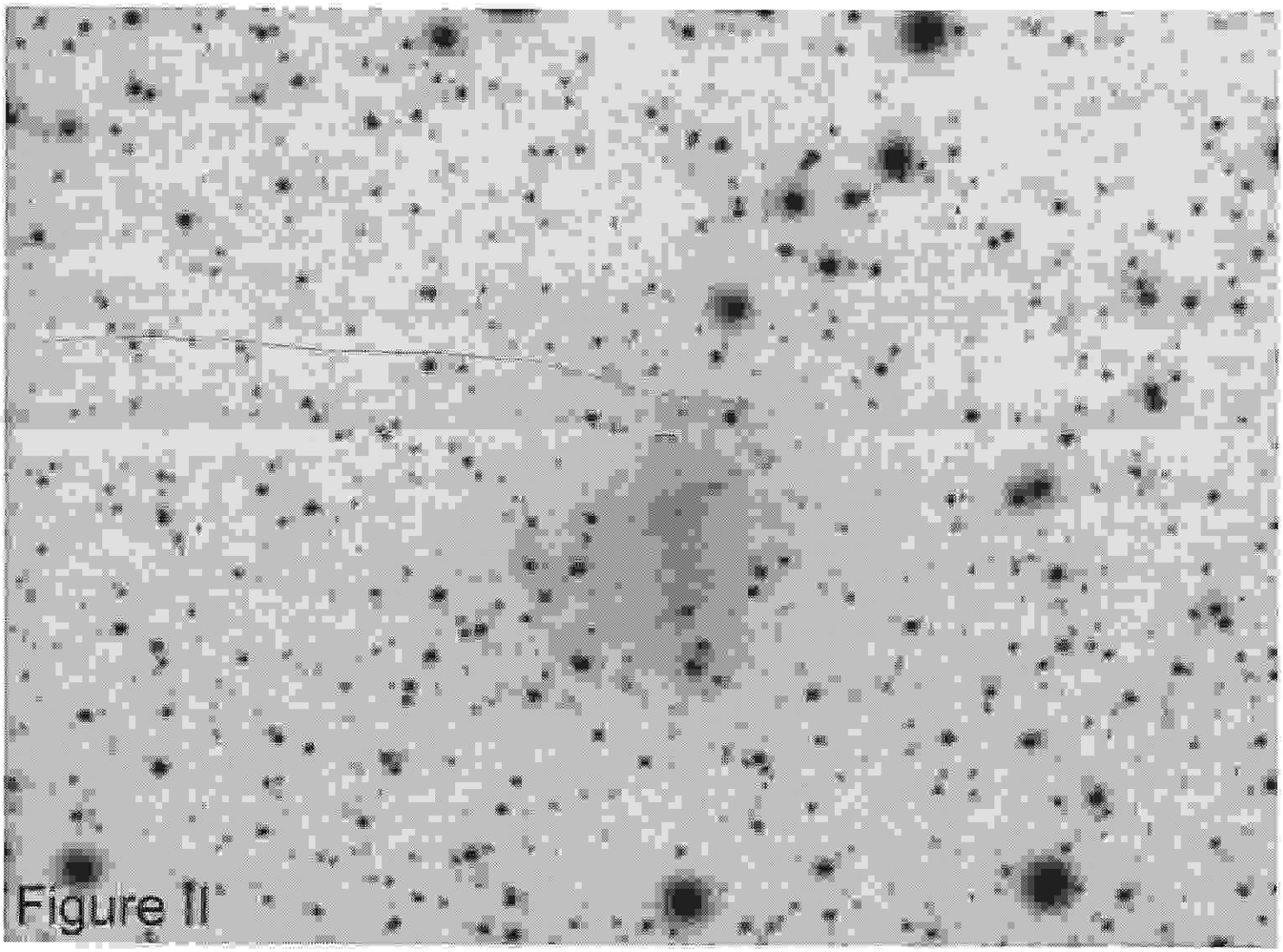
Desert Skies

Tucson Amateur Astronomy Association

Volume XLVIV, Number 7 July, 2003



Barnard's Galaxy, NGC6822

Cover Photo: This dwarf irregular galaxy is only one of the multitude of galaxies visible in the July sky. Imaged by Alfredo Garcia through an 80mm Orion Short-Tube Refractor at f/5 with a Starlight Xpress MX5C CCD camera at a 10-minute exposure.

TAAA Web Page: http://www.tucsonastronomy.org **TAAA Phone Number: (520) 792-6414**

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Membership in the TAAA

Annual Dues

Individual membership	$ 23
Family	$ 28
Senior (over 60) membership	$ 21
Senior Family (at least one over 60)	$ 26
Student membership (over 18 years old)	$ 15

Family Membership includes two adults plus minor children. Persons under 18 may join at a special Reduced Family Membership rate ($15/yr) upon parental or guardian acknowledgement of participation in TAAA activities. Call the Treasurer to request the required form.

Options (add to above membership rates)

Tucson society of the Astronomical League (TAL) dues	$ 3.50
Sky & Telescope Magazine	$ 29.95
Astronomy Magazine	$ 29.00
Postage for New Member Pack	$ 3.50

Donations are accepted for any of the TAAA funds: SA-IDA/Light Pollution, TIMPA, Education, 30" Telescope & Land, or General Fund.

Renewal Information

- Membership expires the last day of the month indicated on your mailing label. You will receive a renewal notice when they are due.
- TAAA members may join the Tucson society of the Astronomical League (TAL). TAL expiration will match your TAAA expiration.
- Discounted Sky & Telescope or Astronomy magazine subscriptions are available to members and can be started or renewed at anytime. Only single year subscriptions are accepted. Allow at least 3 months for processing. Subscriptions must be sent through the TAAA. *Do not send money directly to the magazines.* To change an individual subscription to the group rate, send the above subscription amounts and your magazine renewal notice to the TAAA treasurer.
- To ensure proper credit to your account, please include a note explaining what you are paying for. Credit cards are not accepted. Write one check or money order for dues plus any options or donations. Make it payable to TAAA and send to:

Tucson Amateur Astronomy Association
PO BOX 41254 Tucson, AZ 85717

Mailing Address or Email Changes - Send changes to the above address or email the treasurer.

TAAA Mission Statement - We are a resource for anyone interested in astronomy. It is our mission to nurture a person's natural curiosity about the night sky. By giving people a knowledge and understanding of astronomy, we enhance their enjoyment of the sun, moon, and stars. Through our public activities and school evening observing sessions, we bring astronomy to persons of all ages. Our regular meetings and observing sessions offer members a forum to meet others with similar interests and experiences and to learn from one another.

Desert Skies Publishing Guidelines - All articles, announcements, news, etc. must be submitted by the newsletter deadline noted above. Materials received after that date will appear in the next issue. The editor retains all submissions unless prior arrangements are made. Partial page submissions should be submitted in Word compatible files via e-mail or on a floppy disk. Full-page articles, artwork, and photos can be submitted camera ready. We will not publish slanderous or libelous material! Send submissions to:

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or by e-mail barbergj@flash.net

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President's Message

At a vigorous Board Meeting, we came up with many new and fresh ideas. Member's night meetings will not have a beginner's lecture and there will be a time and presenter limit. Slight changes to the format of the meetings should streamline the "door prize" session. Since we were awarded a second 10-inch Meade GPS telescope from the Telescopes for Telethon endeavors, one of the scopes will be raffled off. Members will have first shot at tickets of $5.00 each until November 1, 2003. After that, the general public will be offered raffle ticket purchases. A new Webmaster, Dean Salmon, will ease Andrew Cooper's load, which he has so faithfully carried for many years.

There is renewed interest in the search for a "permanent" dark site. There are some new ideas on how to go about this. Members are encouraged to input.

I will be out of town for the next meeting and Steve Peterson will be your host.

Thom Peck

Meeting Information and Calendar of Events

TAAA MEETING DATE: Due to the July 4th holiday, our July meeting will be held on second Friday in July the 11th. Normal times: 6:30pm for the Beginners Lecture and 7:30pm for the Lecture and General Meeting, at the Steward Observatory Auditorium - Room N210

BEGINNERS LECTURE: 6:30 pm
Title:TBA
Speaker:Andrew Cooper

GENERAL MEETING: 7:30 pm
Title: A new class of sub dwarf B variable stars
Speaker: Elizabeth Green, PhD

Dr Elizabeth Green, with the help of undergraduate students, recently discovered a new subclass of variable stars. Sub dwarf B stars are hot stars that are entering the white dwarf phase. Normally they vary their light output over a time scale measured in minutes. The newly discovered subclass sub dwarf B stars vary their light output over periods measured in timescales of about an hour. By studying the light curve of these stars, astroseismologist are able to study the interior structure of these stars in much the same way that earthquake sound waves are used to study the interior of the earth. Dr Green will explain why this new subclass of stars is so important to the field of astroseismology and the current model for their evolution. She will also show us preliminary results of a recently completed two-month photometric and spectroscopic observing campaign on one of these stars.

Dr Green is an assistant staff astronomer as Steward Observatory. She received her PhD in 1981 from the University of Texas, Austin. Her research interests are stellar populations and stellar evolution.

BOARD OF DIRECTORS MEETING: Wednesday, July 16, 7:00 pm at Steward Observatory Conference Room N305

STAR PARTIES AND EVENTS:
17 July – AstroPhoto SIG
19 July – TAAA Star Party at TIMPA
19 July - Tucson Children's Museum Star Party
26 July – TAAA Star Party at Empire Ranch

NEWSLETTER SCHEDULE: Deadline for articles: Sat, July 19. Printing: Mon, July 21. Folding Party: Tues, July 22. Mailing: Wed July 23. The newsletter is mailed at least one week prior to the following month's General Meeting.

Club News

Astrophoto SIG Meeting

17 July, 7pm
China Rose, NE corner Speedway/Rosemont

As usual, the astrophoto SIG will meet the Thursday after the main meeting, in this case, delayed to 17 July, after the main lecture is delayed to the 11th. We have had some great presentations lately and as we slide towards the monsoons, we can review some of the work that has been done by club members lately. See you there!

Dean Ketelsen

Member News

We welcome the most recent members to join the TAAA: Robert Fritz, Vernon Dunlap, Charles Klingberg, Molly Moore and Tom Perry, Rob Nelson, and Brad Sexton. Glad to have all of you join! New members should be sure to pick up a new members pack at a meeting. Hope you'll make it to our star parties or meetings so we can all get to know you. (Updated membership lists are available to any member at most regular meetings, so pick one up if you need it.)

Club News (cont.)

Refreshments

The sign up sheet for Refreshment Hosts will be in the back of the meeting room. Please sign up, as you are able. Hosts bring cookies, soda and other necessary supplies to the meetings. They also set up the refreshments and clean up after the feast is over. Costs are reimbursed up to $25/month. Bring the receipts to the meeting for reimbursement. Arrangements can be made if you need help carrying the supplies into the meeting room. Call Terri (579-0185 or tklappin@earthlink.net) if you have questions.

TAAA Email List-Server

The TAAA Email List-Server, located on Yahoo! Groups, allows quick communication with our members. The TAAA board strongly encourages those with email to subscribe to this list-server. It is designed for one-way messaging; only board members and a selected few individuals can post messages. It is not a chat list and replies do not go to the list. It is a very low volume list with only a few messages each month. Generally, the messages have been late breaking news, stuff that didn't make the newsletter, last minute information about star parties, and requests for telescope support at our school and convention group star parties. To join the list, email Terri Lappin (tklappin@earthlink.net) and ask to be invited. *This is the only way to join.* Be sure to include the email address you want to receive messages at and your first and last name so Terri can verify that you are a paid member of TAAA. If you decide later that you don't want to remain a member of the list-server it is easy to unsubscribe. Each message includes directions to unsubscribe. Yahoo! Groups is free of charge but advertising supports it, so each message also includes an ad.

In addition to the List-Server, the TAAA has a Yahoo! Groups website where members can upload photos or find useful information such as TIMPA Rules and Procedures and a FAQ page (answers to questions like: Can guests attend star parties?). To access these features, you must register with Yahoo! Groups (go to www.yahoogroups.com and click on "Register"). Registering with Yahoo! Groups is voluntary and not required if you only want to receive the emailed messages. Before registering with Yahoo! Groups, the TAAA Board encourages members to read the Yahoo! Groups Privacy Policy. Links to this policy can be found throughout the Yahoo! Groups website.

For additional information, email or call Terri (579-0185).

Items of Interest

WEBSITES: TRIPS ON THE INTERNET SUPER-SKYWAY

Serious ATMing

No, I am not going to talk about some ritual of going around and withdrawing money from various Automatic Teller Machines. In this case, for the uninitiated, the ATM stands for Amateur Telescope Making, a rapidly vanishing art among amateur astronomers in this age of telescope wealth. But there is
still a core of people, united by the Internet, that make or improve their telescopes themselves.

For the novice there is a nice little Newtonian design page where you can actually do the designing interactively on your browser! It's called the Newtonian Telescope Design Planner at:

http://home.earthlink.net/~flyj/scopcalc.html

This is a fun website with CGI designers for Internet Explorer versions (and it worked on my LINUX Mozilla browser too so I assume Netscape will handle it as well). This page also contains some good information on collimation of Newtonians (often a problem with the fast Newts I've seen).

If refractive systems are what you are interested in, a good place to start is with the website of Roger Ceragioli here at our own University of Arizona at:

http://alice.as.arizona.edu/~rogerc/

If you are contemplating the construction of a refractor telescope or camera, this website is a must! This is a comprehensive presentation of the designs of refractor systems, including some that are commercially available as well as the medial (Schupmann) refractor and the dyalytic designs. It is unfortunate that this latter has not been exploited by amateur since the designs are very conservative of glass and weight. This website gives a lot of basic information on lens aberrations, design and optimizing things like color correction and field curvature. He has good bibliographical references all throughout the work so you can research designs in detail. Many of the references are German but those familiar with optics know this is unavoidable (thanks to Fraunhofer & Utzschneider, Merz & Mahler, Zeiss etc.).

There is a very fun website called Weird Telescopes that can be found at the URL:

http://bhs.broo.k12.wv.us/homepage/alumni/dstevick/weird.htm

These pages include stories about various tilted mirror telescopes, unobstructed designs and unusual refractive systems like the Shupmann refractor. The stories are a delight to read (like Pete Manly's old book UNUSUAL TELESCOPES). This is a great way to pass a cloudy evening and may well inspire you to get out your grinding powders and tools!

Items of Interest (cont.)

If you are so inspired, there is a sub-page off this website at:

http://bhs.broo.k12.wv.us/homepage/alumni/dstevick/software.htm

that contains five freeware telescope design programs for PCs.

Finally, and this by no means exhausts what is available on the web but only gets you started, there is a good bibliographical page of articles at:

http://www.telescopes.ru/articles/

These too cover a wide range of advanced topics, mostly focused on the Russian Maksutov design in one form or another.

Enjoy these, get inspired and improve your system or dream about building another one. After all, the dreams are half the fun!

As always, if you know of a particularly good website you would like mentioned here, drop me a line at: rhill@lpl.arizona.edu

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Star Parties & Events

Tucson Children's Museum Star Party Central

Saturday, 7/19/03 No. of Scopes: 7

Tucson Children's Museum will be holding a Star-B-Que at 200 S. 6th Avenue and TAAA has been asked to provide a solar scope for late afternoon and scopes for the evening with set-up at 7.30, viewing at 8pm to 9pm. To get there go left on Stone to Broadway, then left on Broadway to Scott Avenue. Take a right on Scott to 13th Street, then left on 13th Street to 6th Avenue to 200 S. 6th Avenue. It's across from Armory Park and the viewing will be from the south lawn of grounds. Contact person Xochitl Gil can be reached at 792.9985 or email tcm@tucsonchildrensmuseum.org. Set-Up Time: 4:30pm Observing will be from 5:00pm to 9:00 pm. Sunset: 7.30pm Dark Sky: 8.06pm Moon Phase: Full Moon.

TAAA Star Party at TIMPA

Saturday, 7/19/03

Come on out and enjoy the summer skies! TIMPA star parties are great for both beginners and experienced observers. Our novice members can get help with observing issues or equipment problems, as there are many experienced members there who would be happy to help. If you don't own a telescope, come anyways, because there are lots of telescopes set up and everyone is invited to look through them. This is a great way to check out different telescope designs before you make that all-important decision to buy. There is no scheduled talk for this activity, just come out and enjoy. We'll do our best to get you the answers you need. If you have friends or relatives who are curious about amateur astronomy, feel free to bring them along. The TIMPA site features a large parking area, and full restroom facilities. Be prepared for a possible rain shower, as the monsoon season has started. Directions to the TIMPA site are located on the outside flap of this newsletter.

TAAA Star Party at Las Cienegas (Empire Ranch)

Saturday, 7/26/03

Las Cienegas (formerly Empire Ranch) has been our normal dark-sky observing site for quite a number of years. Please try to arrive before sunset. Stay as long as you like, but let everyone know when you are ready to leave; someone may be taking astrophotos. Bring a telescope if you have one, but you don't need one to attend. Any

Star Parties & Events (cont.)

member would be glad to let you look through their telescope. There are no restroom facilities at the site, so be prepared. At 4000 feet, it will be cooler than the Tucson area. Also, be prepared for a possible rain shower, as the monsoon season has started. Attendees should park their vehicles either perpendicular to the airstrip facing toward the center of the strip, or parallel to the airstrip along either side facing west. That way, when you are ready to leave, you will not have to back up and turn on your bright white backup lights. See the directions to Las Cienegas on the outside flap of this newsletter.

Dark Skies for July 2003

DARK SKIES (no twilight, no moonlight) for Tucson in 24-hour MST: 18=6pm, 20=8pm, 22=10pm, 0=12am
RISE, SET, VISIBILITY for sun and bright planets: rise for morning object, set for evening object

Mo/Tu	30/ 1	21:15 - 3:41	Fr/Sa	11/12	- - -	Mo/Tu	21/22	21:05 - 0:24
Tu/We	1/ 2	21:34 - 3:41	Sa/Su	12/13	- - -	Tu/We	22/23	21:04 - 0:55
We/Th	2/ 3	22:14 - 3:42				We/Th	23/24	21:03 - 1:29
Th/Fr	3/ 4	22:49 - 3:42	Su/Mo	13/14	Full Moon	Th/Fr	24/25	21:02 - 2:09
Fr/Sa	4/ 5	23:22 - 3:43	Mo/Tu	14/15	- - -	Fr/Sa	25/26	21:01 - 2:54
Sa/Su	5/ 6	23:53 - 3:44	Tu/We	15/16	21:09 - 21:31	Sa/Su	26/27	21:00 - 3:47
			We/Th	16/17	21:08 - 22:05			
Su/Mo	6/ 7	0:24 - 3:44	Th/Fr	17/18	21:08 - 22:36	Su/Mo	27/28	20:59 - 4:02
Mo/Tu	7/ 8	0:57 - 3:45	Fr/Sa	18/19	21:07 - 23:03	Mo/Tu	28/29	20:58 - 4:03
Tu/We	8/ 9	1:32 - 3:46	Sa/Su	19/20	21:06 - 23:30	Tu/We	29/30	20:57 - 4:04
We/Th	9/10	2:14 - 3:46				We/Th	30/31	20:56 - 4:05
Th/Fr	10/11	3:02 - 3:47	Su/Mo	20/21	21:05 - 23:56	Th/Fr	31/ 1	21:24 - 4:06

Weekend	Sun	Sun	Mercury	Venus	Mars	Jupiter	Saturn	
Sa/Su	Set	Rise	Set Vi	Rise Vi	Rise Vi	Set Vi	Rise Vi	Vi=Visibility
5/ 6	19:32	5:21	19:39 -	4:29 4	22:40 -1	21:38 0	4:40 9	-3 brilliant
12/13	19:31	5:25	20:09 8	4:39 4	22:18 -2	21:14 1	4:17 6	0 conspicuous
19/20	19:28	5:29	20:26 6	4:51 6	21:56 -2	20:51 2	3:53 3	3 moderate
26/27	19:24	5:33	20:33 5	5:04 7	21:31 -2	20:28 4	3:29 2	6 naked eye limit
2/ 3	19:19	5:38	20:32 4	5:18 9	21:05 -2	20:05 6	3:05 1	9 binoculars limit

By Erich Karkoschka

Desert Skies Classified

For Sale	Olympus OM 2000 camera with spot metering (only 1 year old). Includes 35-700 zoom lens and 80-200 zoom lens. Asking $225 for both. Also, a complete computer system. Details at www.galaxies.com/pc Phone 520 250-0407. [09/03]
For Sale	12" F4.5 truss-tube dobsonian telescope. 1 1/2" rack & pinion focuser. Includes 25mm eyepiece, 2x barlow, LED finder. Asking $800. Gary Vecere, 409-0113. [10/03]
For Sale	ST-7E NON AB CCD Camera Standard Package. Everything included. CCD 2 years old but I only used it for 1 year. $1600.00. TeleVue Genesis 101 F/5.5 Refractor (Brass Tude) with tube ring and Thousand Oaks Type 2 solar filter and e-finder scope. Includes wooden carrying case. $1800.00. Call Dean Salman at 520 250-0407. [10/03]
Wanted	Up to five individuals interested in think tanking, developing, finding funding for and implementing a totally new kind of public observatory. To be operated as a for profit business. Will cost 12 million to build if funded 100% and will generate about 1 million per year in after expenses revenue. Can also be franchised nationally, then internationally. This will not be a paid position until fruition and will require much of your personal time to develop to that point. Thereafter, the rewards would be great. If interested please contact Jim at; starman100@cox.net and use "Universe City" in the heading. [10/03]

Your ad will run for 4 months unless specified. Month and year of last appearance is last item of ad. For additions or changes to this list, call George Barber at 822-2392or e-mail at barbergj@flash.net.

Object of the Month by Alfredo Garcia, Jr.

This month's OTM is an interesting object to find and observe. It belongs to the galaxy class of objects and in particular irregular galaxies. It is part of the Local Group of galaxies that consists of our own Milky Way Galaxy, the Andromeda Galaxy, the Large Magellanic Cloud, the Small Magellanic Cloud and approximately thirty other small galaxies.

Irregular type galaxies are classified as the smallest of all types of galaxies. Some contain as few as one million stars and the smallest are often referred to as dwarf galaxies. These galaxies contain stars, dust, and gas just like other galaxies except that the material is randomly spread out. They also contain an abundance of gas and dust and consist of new stars, as well as older stars. Our own Milky Way Galaxy has numerous irregular galaxies orbiting around it and some are in the process of literally being consumed by the Milky Way due to the gravitational pull of the galaxy.

NGC6822, July's OTM, is one such type of irregular galaxy. It is further classified as a dwarf irregular galaxy owing to its relatively small size. It is also commonly known as Barnard's Galaxy and was discovered by the astronomer E. E. Barnard in 1884. It has a linear diameter of about 10,000 by 5,000 light- years. Its apparent size in the sky is 20' by 10' arcminutes and it has a visual magnitude of about 9.0. It contains a mere 10 million stellar members thus its classification as a dwarf irregular galaxy.

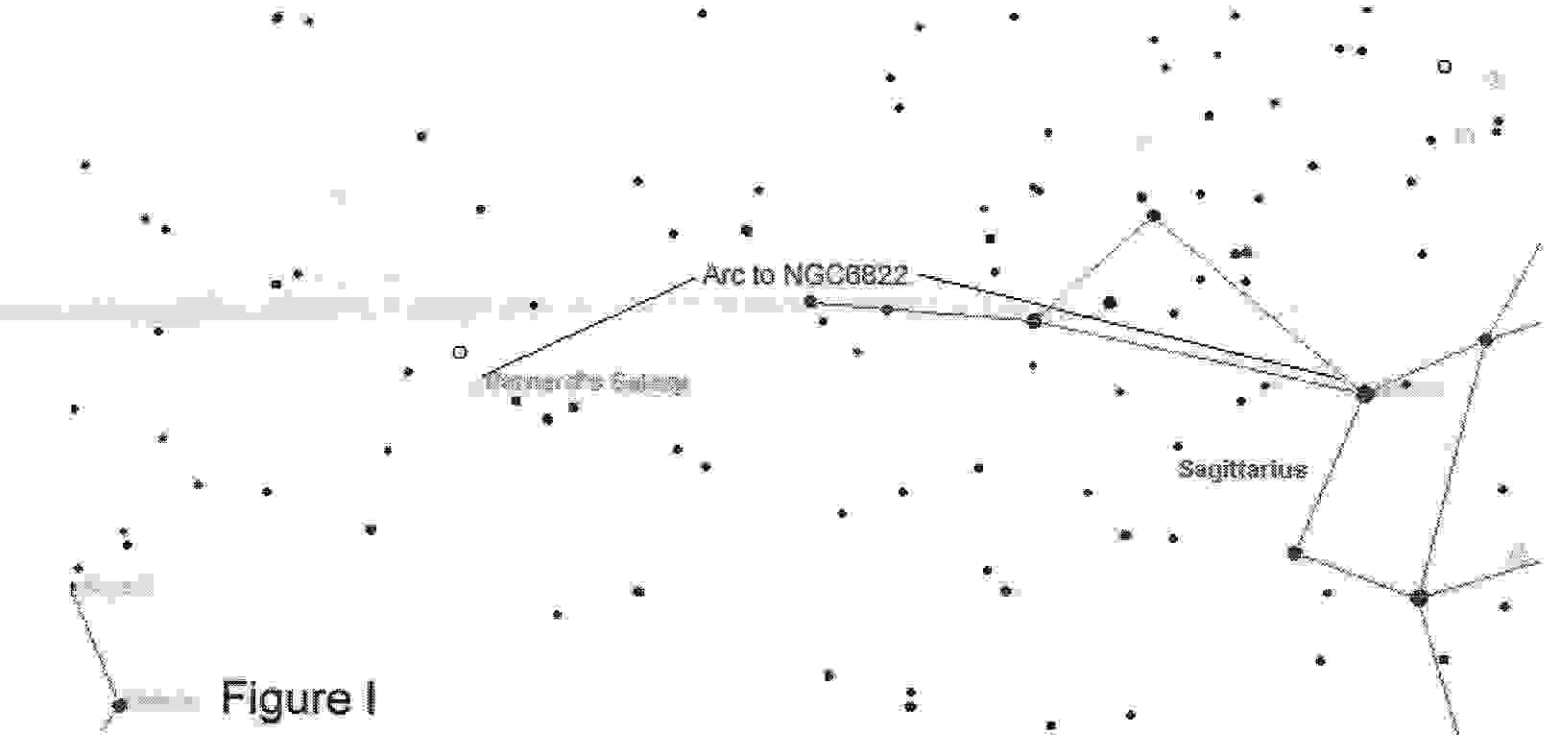

Figure I

Barnard's Galaxy is not a naked eye object and has low surface brightness. It is best observed in dark skies free of any moonlight and/or city light pollution. From the general Tucson area, you will find it well placed for viewing in the southeastern sky at the beginning and end of July at about 10:00 PM Local Time. To find with starhopping techniques, I use some of the brighter stars in Sagittarius. I start with Nunki (or Sigma Sgr) and follow an arc that runs from Nunki to Pi Sgr to Rho Sgr continuing about 6 degrees to NGC6822 (See Figure I.). If you have setting circles or an automated Go To scope, Barnard's Galaxy is at right ascension 19:44.9 (hr:min) and declination -14:47.9 (deg:min).

Though NGC6822 is visually interesting, it is even more so in widefield astrophotographs or CCD images. The CCD image on the front cover of the newsletter is typical of what can be done by amateurs with their telescopes using a CCD camera.

Another interesting fact about Barnard's Galaxy is that current distance estimates place it at 1.7 million light-years from Earth. At these distances, the next closest galaxy is the Andromeda Galaxy at 2.2 million light-years. Since NGC6822 is classed as a galaxy, then why is the Andromeda Galaxy always listed as the closest to our own? Shouldn't it be Barnard's Galaxy? These are good questions to ponder on!

TAAA Board of Directors Meeting - June 11, 2003

The Board: full attendance.
Members present: John Polacek, Liz Kalas, and Nora Toscano.

President's Call to Order: 7:05PM

1. Changes/additions to the agenda are allowed.
2. Meeting schedule: Board meeting on July 9; regular meeting on July 11.
3. The June Star Parties were discussed.
4. Treasurer's Report: included the T-shirts and one-time newsletter bills. Terri detailed a rise in our investment account. The Astronomy® calendar will be sold this winter.
5. Meade 10" scope: John Kalas is testing the optics. Bill motioned to set the ticket price at $5 each (600 tickets), with a members-only sale until Nov. 1st, after which they will be offered publicly. His motion also directed the proceeds to a fund named by the board at a later date. Seconded by Ed and passed unanimously. Liz graciously offered to oversee the raffle. An inquiry will be made as to any tax issues.
6. John Polacek reported on a poster board of IDA issues that could be presented at Star Parties by TAAA volunteers. SAIDA doesn't have enough active members to do it. Andrew noted that our hosts structure events, and we would be going outside the agreement. The SAIDA presence could be improved with the addition of a monthly newsletter article. John reminded the Board of the meter testing at TIMPA on June 21st and invited everyone to attend.
7. Event Publicity: an effort by the Board to ensure that press releases are sent to *individuals* at media outlets. John Polacek offered to help. Terri, Andrew, and Ed expressed interest in a better coordination between the TAAA and others.
8. 50th Anniv. Party. *Hidden Valley Inn* on Jan 23rd. Steve Marten to be informed of the need for NO Star Parties that evening.
9. Cards: Terri will order cards displaying the new phone number. John Kalas will not have to scratch out all the old cards while he's testing the 10". Liz expressed relief on his behalf. Laughter all around.
10. Phone Duty: Thom reported a need for assistance. Ken volunteered and was approved.
11. New Members: a drop in membership. Reasons were discussed. Ed proposed MALs greeting every new member at the meeting. Thom will congratulate and introduce them as the Gen. Meeting begins, if possible.
12. Steward's microphone: everyone must wear the mike. Settings adjusted per user while Gary works the hand console. Board members should spread out in the hall and monitor volume levels.
13. Members' Night: Ed proposes no Beginners' Lecture. Limits and sign-ups will be enforced: 15 min. and 3 days advance, respectively. Discussed meeting order and frequency. More ideas next month.
14. Tours: Andrew is putting together a tour of Whipple Observatory, and possible tours at other sites.
15. Webmaster: Andrew will perform the initial candidate (a member) contact, with security and privacy concerns expressed.
16. Electronic Newsletter: shelved until next month.
17. Projector choice: shelved until next month.
18. T.A.L.: the Board voted for the two openings per the candidates presented by the League. An improved interface with the League is desired.

Adjournment: 9:47PM

Respectfully Submitted,
Ken Wheelock
Secretary

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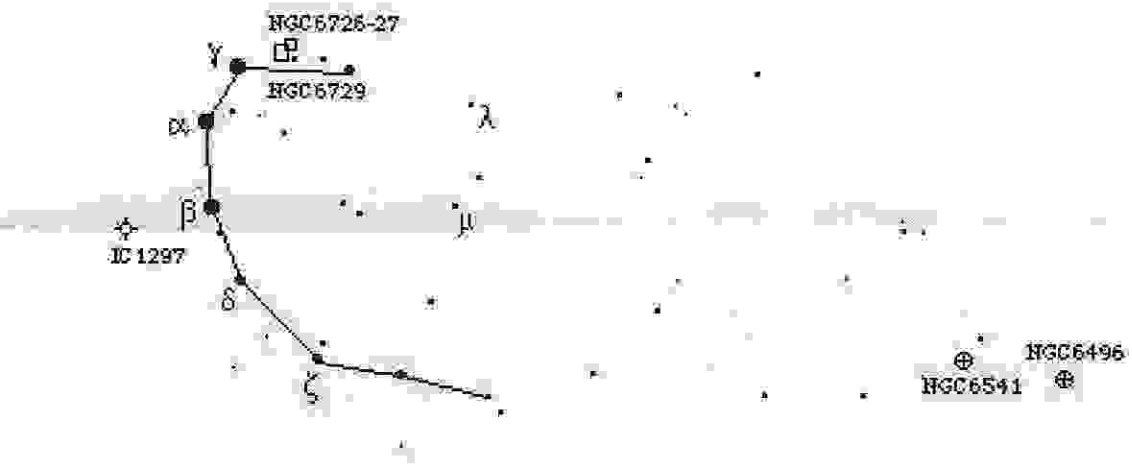
Constellation Report by Chris Lancaster

Corona Australis
The Southern Crown

Corona Australis is one of the original 48 constellations envisioned by the second century astronomer Ptolemy. It is a half circle of 4th magnitude and dimmer stars under the teapot asterism of Sagittarius and east of the lower curve of the tail of Scorpius. Most depictions of Corona Australis show it as a laurel wreath, and it is considered to be the crown of Chiron, the centaur, or a duplicate of Corona Borealis (the constellation known as the northern crown), which is the crown of Ariadne, the daughter of the king of Crete, Minos.

Corona Australis lies near the heart of the summer Milky Way, so the deep sky objects that we expect to see are star clusters and nebulosity. We can start with NGC6541, which is a bright globular cluster In the southwest corner of the constellation. One way to find this bright, 6.6 magnitude cluster is to star hop from some bright stars in the tail of neighboring constellation Scorpius. Start with Lambda Scorpii (the tip of Scorpius's tail) and move southeast through the tail stars of Kappa and Iota. Keep going in this same direction two and a half degrees to a 4.9 magnitude star, then repeat this step two and a half degrees to another 4.9 magnitude star. NGC6541 is then less than half of a degree southeast of this last star. You can also use your setting circles or computerized telescope and dial up RA 18h 8m Dec -43d 42'. Here is a fine globular cluster, which you may or may not be able to resolve depending on the size of your telescope and atmospheric conditions. It's overall magnitude of 6.6 means it is easy to spot, and the size of 13' makes a good view at moderate power.



Nearby at 1.7 degrees west-southwest of NGC6541 (or RA 17h 59m Dec -44d 16') is another globular cluster, NGC6496, which straddles the boundary between Corona Australis and Scorpius. Here we have a more subdued cluster glowing at magnitude 9.2 and having about half the size of NGC6541, but it is still well worth a look. This cluster appears as a loose ball of stars.

For experienced observers, there is an elusive planetary nebula at the opposite side of the constellation at RA 19h 17m 24s, Dec -39d 37' 00", or 1.5 degrees east of Beta Coronae Australis. This is IC1297, a small nebula measuring a mere 0.1 arc minutes across. At high power, you should be able to distinguish this as a diffuse circle, otherwise it will be difficult to see it as anything different than the surrounding stars.

A diffuse area of reflection and dark nebulosity is found in the northeastern section of Corona Australis. Here we have a collection of nebular bodies composed of NGC6729, NGC6726, and NGC6727. Although it sounds complex, they occupy a fairly small area of sky measuring about 5 arc minutes. One of these nebulae, NGC6729, is illuminated by the variable star R Coronae Australis, so the responding nebula also varies. This star is an irregular variable, which fluctuates between magnitude 9.7 and 12, and lights up the small, comet shaped nebula. So active is this star that it has been observed changing by as much as 2 magnitudes in a few days time. NGC6726 and 6727 are side by side, more or less in contact with each other, and forming a double lobed structure of about 2 arc minutes in the longer dimension. Find this group by centering your scope near 19h 1m 50s Dec -36d 55', or just less than 1 degree west of magnitude 4.2 Gamma Coronae Australis.

After finding some of these elusive objects, we can relax a little and go after an easy double star. It's one of the brighter stars in this constellation but, nevertheless, is just within naked eye limit in dark skies. The star is Lambda Coronae Australis, which is just to the west of the brightest arc of stars forming the most apparent structure of the constellation. Lambda is a pair of magnitude 5 and magnitude 9 stars separated by a wide 29 arc seconds, so it can be separated by the smallest of telescopes at very low power.

Often we forget about Corona Australis because it is adjacent to the wonderful offerings of Sagittarius and Scorpius, but sliding your scope a little more to the south will bring you into its environs, which offer some wonders of its own.