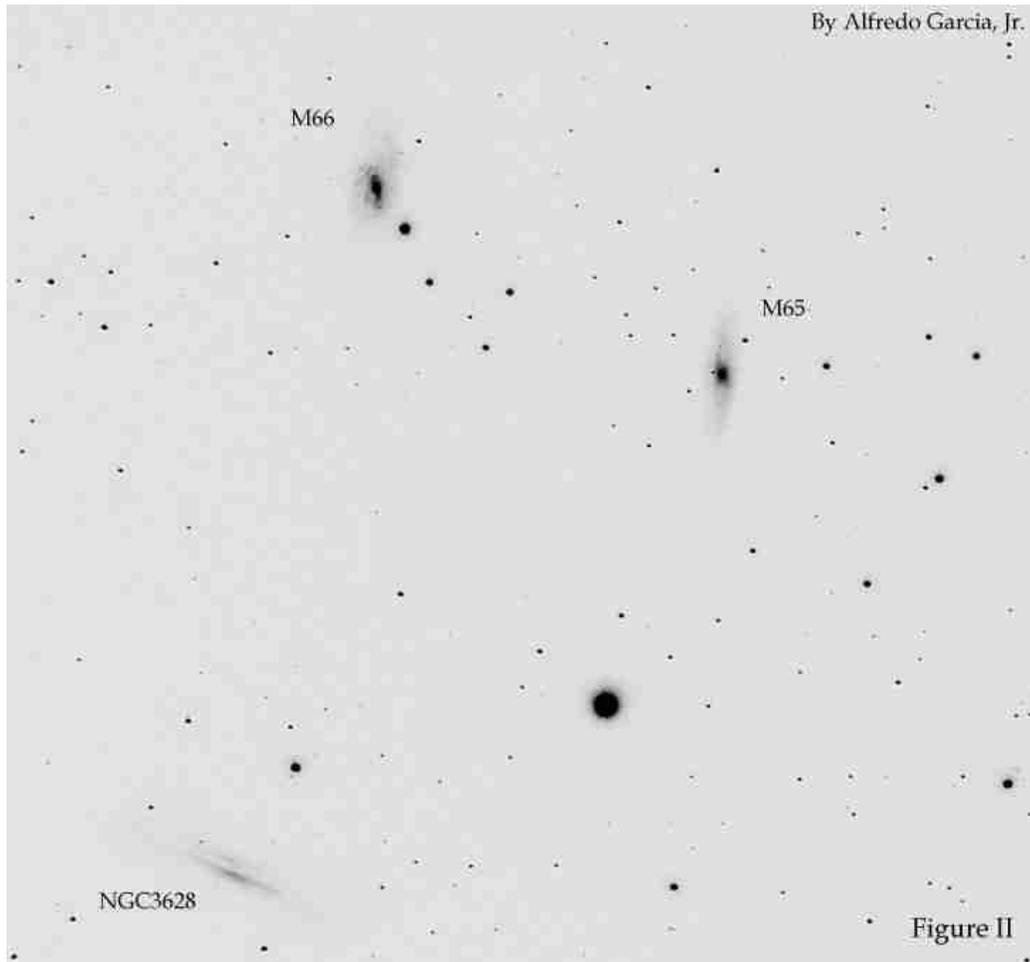


# Desert Skies

Tucson Amateur Astronomy Association

Volume LII, Number 5

May, 2006



Spiral galaxies M65, M66, and NGC3628

- ◆ Member's Night and Elections
- ◆ School star parties
- ◆ Mt. Lemmon Star Party
- ◆ Star-B-Que at Kitt Peak
- ◆ Grand Canyon Star Party
- ◆ Volunteer Opportunities
- ◆ Object of the Month
- ◆ Constellation of the month

**Cover Photo:** The Leo Triplett Group, imaged by Alfredo Garcia Jr. 80mm f/5 Orion ShortTube Refractor piggybacked on Meade 10" f/6.3 LX200 SCT, Starlight XPress SXV-H9 monochrome CCD camera. The image was a single 15 minute exposure and manually guided.

TAAA Web Page: <http://www.tucsonastronomy.org>

TAAA Phone Number: (520) 792-6414

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TAAA Board Of Directors	All Board Members		taaabod@tucsonastronomy.org

### Membership in the TAAA

#### Annual Fees

Individual membership .....	\$25.00
Family (includes two adults plus minor children).....	\$30.00
Youth under 18 years must join as a family upon parental or guardian acknowledgement of participation in TAAA events. Ask the Treasurer for the required form.	

#### Discounts (one discount allowed, subtract from above rates)

Seniors (over 60 years) .....	\$2.00
College Students, Teachers (K - 12).....	\$8.00
Youth under 18 yrs (form required, contact the treasurer) .....	\$13.00

#### Options (add to above membership rates)

Tucson society of the Astronomical League (TAL) fees\$	5.00
Sky & Telescope Magazine 1 year (12 issues).....	\$32.95
Astronomy Magazine 1 year (12 issues).....	\$34.00
2 years (24 issues) .....	\$60.00
Postage for New Member Pack .....	\$ 4.05

**Donations** are accepted for the following funds: SA-IDA/Light Pollution, TIMPA, Education, 30" Telescope & Land, and General/Undesignated.

#### Renewal Information

- Your membership expires as indicated on your mailing label.
- TAAA members may join the Tucson society of the Astronomical League (TAL) at the time they join or renew.
- Discounted Sky & Telescope or Astronomy magazine subscriptions are available to members and can be started or renewed at anytime. Rates are given above. Allow 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, pay the

subscription amount to the TAAA treasurer. Include your magazine renewal notice.

- Please include a note explaining what you are paying for. Credit cards are not accepted. Write one check or money order for fees 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 to address above or email the treasurer.

**TAAA Mission Statement** - The mission of the Tucson Amateur Astronomy Association is to provide opportunities for members and the public to share the joy and excitement of astronomy through observing, education and fun.

**Desert Skies Publishing Guidelines** - All articles, announcements, news, etc. must be submitted by the newsletter deadline. 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. All material copyright Tucson Amateur Astronomy Association or specific author. No reproduction without permission, all rights reserved. We will not publish slanderous or libelous material! Send submissions to:

George Barber  
TAAA/Desert Skies Editor  
15940 W Ridgemoor Ave Tucson AZ 85736

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Tucson Amateur Astronomy Association, Post Office Box 41254, Tucson AZ 85717.

### President's Message

This should be my last message as President of the Tucson Amateur Astronomy Association. It's been quite a ride. We started with the 50<sup>th</sup> Anniversary celebration of the TAAA and are continuing with the construction of a 16-foot Ash Dome observatory at TIMPA. The 14 inch Meade GPS telescope donated by Meade, through the generous efforts of Scott Roberts of Meade and TAAA member David Levy, arrived Monday, April 24.

Our May meeting is Members' Night. There are several presentations already slated, so get your ideas to me or Bill Lofquist early, as we will be limited in time.

Also remember that the May meeting will be at the Kuiper Space Sciences Building, which is just east of Flandrau on the U of A Mall. The evening's program will begin with

members' presentations at 6:30 p.m.

I want to thank everyone for their support these last three years and for making this one of the best astronomy clubs in the world. We have such a diverse group, ranging from the professional community to the newest beginners; it can be a real challenge to deal with the general membership needs. I will be "past president" for a year and help the incoming administration whenever called upon. I will continue to be an active member of TAAA and hope to be able to do even more star parties.

Thanks to everyone for being there.

Thom Peck

### Meeting Information and Calendar of Events

**TAAA MEETING DATE:** Friday, May 5 at the Kuiper Space Sciences Building (Lunar and Planetary Lab), in the main auditorium, room 308 on the third floor (one floor up).

**Member's Night: 6:30 PM**

**Tonight is your night to share the spotlight! If you have an astronomy-related topic you would like to present, contact Thom Peck to reserve a time slot during the main meeting.**

**BOARD OF DIRECTORS MEETING:** Wednesday, May 10, 6:30 pm at Steward Observatory Conference Room N305

**STAR PARTIES AND EVENTS:**

28 April - Telescopes for Telethon About Town  
29 April - Telescopes for Telethon at U of A  
08 May - Astrophoto SIG at China Rose

12 May - Our Mother of Sorrows Star Party  
17 May - Beginners SIG at China Rose  
18 May - T.A.G. Charter School Star Party  
19 May - Desert Winds ES Star Party  
20 May - Patagonia Elementary School Star Party  
20 May - BSIG Observing at TIMPA  
20 May - TAAA Star Party at Mt. Lemmon  
27 May - TAAA Star Party at Las Cienegas  
27 May - TAAA Picnic and Star Party at Kitt Peak  
27 - 29 May - TAAA & AIAA Star Party, Parker Canyon Lake  
17-24 June - Grand Canyon Star Party

**NEWSLETTER SCHEDULE:** Deadline for articles: Sat, May 20. Printing: Mon, May 22. Folding Party: Tues, May 23. Mailing: Wed, May 24. The newsletter is mailed at least one week prior to the following month's General Meeting.

### Club News

**Telescopes for Telethon 2006 - Final Call**

By John Kalas

The TAAA will be supporting the Muscular Dystrophy T4T activity again this year on Friday and Saturday, April 28<sup>th</sup> and 29<sup>th</sup>. The activity on Friday, April 28<sup>th</sup> involves two-telescope teams at each of five different Wal-Mart stores around Tucson from 6:00 to 9:00 pm. Saturday's activity will have solar viewing taking place from 3:00 to 6:00 pm with evening observing running from 6:00 to 10:00 pm at the University of Arizona Mall across from the Flandrau Science Center. David and Wendee Levy will be hosting the event. It is anticipated that Starizona, Stellar Vision and Flandrau Science Center will also be participating.

John Kalas is the TAAA coordinator for the event. Many volunteers will be needed to operate telescopes (solar and evening), staff donation areas and assist in general public

support. Please consider supporting this worthwhile event and contact John at 620-6502 or via e-mail at jckalas@cox.net.

**2006 Nominating Committee Report**

The 2006 Nominating Committee reports several changes for our upcoming election. Steve Marten has withdrawn his nomination for Vice President due to work requirements and Ken Shaver has withdrawn his name for Member at Large. Ken Shaver has offered to run as Vice President. Steve Marten has offered to continue as Secretary with some of his current tasks being transferred to the Vice President. These changes to the slate of nominees have been accepted by the Nominating Committee. Due to requirements in our constitution, Ken Shaver and Steve Marten will run as write-in candidates for

## Club News

their respective positions.

### ANNUAL ELECTIONS

Elections for the 2006-2007 TAAA Officers and Board of

Office	Candidate	Status
President	Bill Lofquist	
Vice-President	Ken Shaver	(write-in)
Secretary	Steve Marten	(write-in)
Treasurer	Terri Lappin	incumbent
Member-at-Large	George Barber	incumbent
	Richard Dougall	
	JD Metzger	
	Teresa Plymate	
	John Polacheck	

Directors will be held at the May meeting. The slate of candidates at time of printing is as follows:

### Member News

We welcome the most recent members to join the TAAA: Ethan Groff (a 5th grade Science Fair award recipient) and Walter Swap. 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 online at either YahooGroups list server websites under Files, or at most meetings.)

### TAAA Apparel

Looking for a special gift, or a way to make that fashion statement? Try on something from our fine line of club apparel. We've got hats, T-shirts, denim shirts, and patches. We take cash and checks.

### Member Survey

Ken Shaver will be presenting the results of the Member Survey during the May Member's night meeting.

### Logo Contest

Voting for the new TAAA Logo will take place during the Board of Directors elections.

### Mt Lemmon Star Party

Saturday, May 20

We have organized another star party at the Mt Lemmon Observatory in the Santa Catalina Mountains for Saturday, May 20th. This star party is organized by Ed Olszewski, Bob Peterson, Steve Larson and Gary Rosenbaum. The format is a bit more ambitious than our previous star parties on Mt Lemmon. We are inviting the TAAA plus all of the employees of both Steward Observatory and the Lunar and Planetary Laboratory.

The Mt Bigelow Observatory site will be open from 2:00 – 5:00 pm to view the 61" Kuiper telescope and the 30" Catalina Sky Survey Schmidt camera. Someone will be available at each dome to show you the telescopes. The Mt Bigelow site will close at 5:00 pm.

Plan to arrive at the Mt Lemmon Observatory complex at the top of the mountain at 3:00 pm or later. Maps of the observatory complex identifying the various buildings will be available at the observatory. BBQ grills will be set up next to the Upper Dorm near the site entrance from 5:00 – 7:00 pm. Bring utensils, plates and all your own food and drinks. There are no chairs or picnic tables available so plan accordingly. Set up your telescopes on the main observing field near the UofA 60" and 40" domes. Telescopes can be set up for Solar observing in the afternoon. We will use both the new Jamieson 20" Cassegrain telescope and the University of Minnesota 60" f/14.25 Dall Kirkham Cassegrain telescope for visual observing. The 60" telescope gives a 6 arc minute field of view at a magnification of 395x with a 55mm Plossl eyepiece. The Minnesota 60" telescope is located at the far southwest corner of the observatory complex and people are asked to walk (0.25 mile) between the main observing field and the Minnesota 60". Those with health concerns due to the elevation of 9157 feet are encouraged to drive from the main observing field to the Minnesota 60" telescope. The Jamieson 20", UofA 60" and the Minnesota 60" telescopes may close at 2:00 am, at the telescope operators' discretion. You can stay all night, pitch a tent and get some sleep before going down the mountain. A restroom is available in the UofA 60" dome.

The UofA 60" telescope will be operated by Steve Larson and the crew of the Catalina Sky Survey (CSS), a near earth object search program. Steve has upgraded the 60" telescope with a 4kx4k CCD camera at the f/2 prime focus which gives a 1.2 square degree field of view. You are welcome to go into the 60" warm room where the CSS crew will be taking "pretty picture" images during the star party of objects at our request (grayscale images, no filters). When was the last time you got to tell a professional astronomer what images to take? For those who want a copy of the images we will either burn CDs on site or provide a web site where you can download the FITS images. The CSS crew will also demonstrate their automated asteroid survey techniques for us. CSS usually discovers asteroids every night so you can be present while the software analyzes survey images and identifies new asteroids!

### Club News (cont.)

Sunset is 7:18 pm and Moonrise is 1:50 am. Expect the mountain temperatures to be 15-20 degrees cooler than in Tucson.

#### Directions:

From the Tanque Verde Road in the northeast part of Tucson, turn north onto the Mt Lemmon Catalina Highway and proceed up the mountain. If you want to see the 30" Schmidt Camera and the 61" Kuiper telescope proceed about a mile past the Palisade Ranger Station and turn right onto the Mt Bigelow Road. The Bigelow Observatory entrance is about 0.25 mile up the Bigelow Road and is posted with a sign. The gate to the Bigelow telescopes will be open from 2:00 to 5:00 pm. After leaving the Bigelow site go back to the Catalina Highway, turn right and proceed up the mountain. Turn right onto the Ski Valley Road at mile post 24.7 (just before Summerhaven). The gate at the end of the Ski Valley parking lot will be open; proceed up the mountain past Ski Valley ~ 2.5 miles to a locked gate. The combination to one of the padlocks is (*appears only in printed newsletter*). After entering the combination you may have to squeeze then release the padlock to open it. Please close the gate and lock the padlock after you go through, even if you found it open. Continue 0.1 mile to another gate at the entrance to the observatory. This gate should be closed but unlocked. Please close the gate after you go through. If you did not bring a telescope, park in the area just inside the observatory entrance in front of the building with 4 garage doors or along the road and walk up the hill past the Radar Dome to the main observing field. If you have health concerns at high elevations, drive up to the main observing field. If you bring a telescope turn right after entering the observatory grounds and drive up the hill past the Radar Dome to the main observing field where the 60" and 40" telescopes are located. Set up your telescope along the road or in the grass.

If you stop and park anywhere on the highway or use any of the recreational/restroom facilities you will need to pay the \$5 day use fee at Molino Basin. If you drive straight to one of the observatory sites and do not stop along the way you do not have to pay the fee. RSVP is requested but not required. Send email to [starparty@as.arizona.edu](mailto:starparty@as.arizona.edu). State that you are affiliated with TAAA and mention how many people will be in your vehicle.

Before May 20th contact Gary Rosenbaum at 579-0185 if you have any questions. If the weather is questionable on

the day of the star party call Gary's cell at 979-0113 or call 621-7931.

#### TAAA Spring Star-B-Cue at Kitt Peak

May 27 (Saturday)

The TAAA has scheduled a star party and pot-luck barbecue at the picnic grounds up on Kitt Peak on Saturday, 5/27, starting at 4:00 pm. A maximum of 70 TAAA Members and families will be allowed to participate. The ramada gas-fired barbecue grill will be fired up starting at 4:30 pm and members are invited to cook their dinners between 4:30 and 6:30 pm. Bring a dish to share with other members. The grill will be turned off at 6:30 pm. Telescope observing will commence after sundown and will be concluded by 11:30 pm. All members must be heading down the mountain by midnight. Be prepared for cool temperatures.

There will be a sign-up sheet on the table at the back of the lecture hall at the start of the May 5<sup>th</sup> meeting. Because of the popularity of this event, attendance will be initially limited to TAAA Members and their immediate family members only. If, after all TAAA Members have had an opportunity to sign up, there are any openings or cancellations, the attendance of guests will be considered. If you are unable to attend the May meeting, phone and e-mail reservation requests will be taken on a first-come, first-serve basis *after* 9:00 am Saturday, 5/6. Contact John Kalas at 620-6502 or via e-mail at [<jckalas@cox.net>](mailto:jckalas@cox.net).

It is very important for all attendees to abide by the rules established by Kitt Peak and respect the facility. Adherence to the rules will help to continue TAAA activities on Kitt Peak in the future.

1. No vehicles are allowed above the picnic grounds after 4:00 pm.
2. Only the ramada gas-fired barbecue grill is permitted for cooking food at the picnic grounds. No open fires or use of the personal barbecue grills is permitted.
3. All trash must be placed in the garbage receptacles.
4. Use of cellular phones and radio walkie-talkies is prohibited.
5. No alcoholic beverages are permitted.

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**Club News (cont.)**


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When leaving the picnic grounds after dark, if possible, use your parking lights until you have reached the main road and are headed downhill after exiting the picnic area

**TAAA and AIAA Star Party and Campout**

27 May (Saturday) thru 29 May (Monday)

This event is a joint venture with the Tucson Amateur Astronomy Association (TAAA), and the Raytheon Astronomy and Telescope Making Club and it will be held at Parker Canyon Lake over Memorial Day Weekend (Sat May 27th thru Mon May 29th). Parker Canyon Lake is a man-made lake in southern Arizona about two hours drive of Tucson.

([http://www.gfs.state.az.us/h\\_f/waters\\_parker\\_canyon\\_lake.shtml](http://www.gfs.state.az.us/h_f/waters_parker_canyon_lake.shtml)). This should be a fun and exciting event for the whole family. We'll enjoy the fishing, boating and other lake activities by day and then set up telescopes to enjoy the heavens at night.

We've reserved the group camping area, which is limited to 50 people. There are other campsites available at the lake, if you want to come up Friday night, but they are all first come, first serve. Please note that there is NO drinking water available at the group site, so you will have to bring your own! The other individual sites have access, but it is limited due to the extreme drought conditions over the last few years.

There will be a reservation fee of a mere \$10 per person, which includes three group meals and all the star gazing you can handle. There is also a camping permit fee of \$10 per night, per car. Please RSVP directly back to me with the number of people who will be coming with you and I will provide you with an address to send your reservation checks. As space is limited, if we reach 50 people, we will start a waiting list!

Let me know if you have any questions, or if you would like to participate.

*Sara Falconer  
Pre-College Outreach Coordinator, Tucson Chapter  
American Institute of Aeronautics and Astronautics  
TucsonKidsClub@aol.com*

**Grand Canyon Star Party**

17-24 June, 2006

North and South Rims

Hello Star Partiers! There's lots of news for the Grand Canyon Star Party. The word from our rangers is that the construction at Yavapai likely won't be completed, but impact on the observing site (Yavapai Point) likely won't be affected. I know we have talked in recent years about moving to a site less affected by wind, but we maintain such a high exposure to the crowds at Yavapai, it really is the preferred location. So plan to continue there for now.

For the campers among us, I've got at least 25 of our regulars and a couple new attendees staying in the 18 campsites that the Park Service is supplying this year. This is just about the perfect situation - about half the sites will be shared, and we've done that before. But consider the camping at the complimentary sites closed for this year. If you have not been in contact with me concerning a site, please make your own reservations.

We have new artwork from Joe Bergeron, space artist extraordinaire, and our personal t-shirt designer. I've yet to take the artwork to the printer to verify they can do it justice, but assuming they can, I'm needing any requests out of the ordinary be made to me now. That includes anything other than standard sizes (medium thru 2XL), long sleeves, or special orders (sweatshirts, tote bags, etc). Please let me know by about 15 May for these requests. Will likely get a few coffee mugs, as the few I had made last year seemed popular.

Other than that, I think we are in good shape - most of the regulars are back, and with the dry winter, we'll likely get great weather, though fire restrictions. Let me know if you have any questions, special orders or comments pertaining to the above. We're going to have a great time!

Dean-ketelsen@as.arizona.edu

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**Member's Events**


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**Astro-photo SIG Meeting**

Monday, May 8, 7pm

China Rose, NE corner Speedway/Rosemont

**NOTE THE DATE CHANGE:** Our presentations feature CCD images, planetary webcams, and film. Come see some of the state of the imaging art over some Chinese food. Just show up and enjoy the show!

**BSIG for May 2006**

The Beginner's Special Interest Group will hold its May dinner meeting at the China Rose restaurant (NE corner of Speedway and Rosemont) on May 17th at 6:00pm. Topics for discussion at the meeting will include the upcoming Grand Canyon Star Party and a demonstration of at least one popular planetarium software package available to amateur astronomers. This demonstration will be aimed primarily at using software as a tool for planning an

### Member's Events (cont.)

observation session and as a resource for the location of objects, and will use objects visible in the spring sky as examples.

BSIG will then gather, weather permitting, at TIMPA the following Saturday (5/20) for our regular observing session. Please plan on arriving before sunset to give yourself plenty of time to set up. As usual, the BSIG group will gather toward the west end of the TIMPA parking area.

If you are new to telescope use, please join us and bring all your questions. If you are an experienced hand at amateur astronomy, please consider joining us, especially at TIMPA, to help us assist those who are trying to learn their way around the night sky.

Tom Watson  
BSIG Committee

### TAAA Star Party at Las Cienegas (Empire Ranch) 27 May (Saturday)

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 member would be glad to let you look through their telescope. And, there are now restroom facilities at the site.. Las Cienegas is at 4000 feet so be prepared for cold temperatures after sunset. 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

### Items of Interest

#### WEBSITES: TRIPS ON THE INTERNET SUPER-SKYWAY

By Rik Hill

Gimmie Shelter! Pt. 2

I thought last month's article was not going to go over well. Shows what I know! I got more reaction, all positive thank you, than with any of these ever before. Go figure. Several people wondered about unusual roll-off roof observatories. So this month I will take a look at these and return to the unusual next month.

In the TAAA we have one of the largest such observatories in the U.S., the Winer Observatory owned and operated by Mark Trueblood:  
<http://www.winer.org/>

I'm told it's officially The Irvin Marvin Winer Memorial Mobile Observatory, Inc. and has no connection with any beverage. Mark knew of only one larger roll-off roof in Arizona, but the Diamondbacks do not have any telescopes so it does not count.

The Grasslands Observatory run by Tim Hunter and James McGaha is nearly as large:  
<http://www.3towers.com/Default.htm>

We don't get much snow in Tucson so we might at first glance think that the Black Star Observatory has a weird pitched roof: <http://zengine.ho8.com/Observatory.htm>

A similar problem led to another solution with a slide-down roof observatory of the Copper Ridge Observatory:  
<http://qcomet.tripod.com/id4.html>

the same solution was arrived at by the Bush Observatory:  
<http://www.missouriskies.org/observatory/>

[observatory.html](#)

It's all downhill at the start of the night but at the end it's all uphill!

Tucsonan Roy Tucker's Goodricke-Pigot Observatory uses a similar sloped roof design for his asteroid hunting system consisting of 3 0.35-meter telescopes:  
<http://gpobs.home.mindspring.com/gpobs.htm>

This observatory is not unusually large but the roof sure is! <http://www.doghouseastronomy.com/>  
They had to use a garage door opener to drive the roof

The Eta Carina Observatory very elevated observatory uses a split roll-off roof. It would have been interesting to see how they got all that up and in place:  
<http://www.etacarina.co.za/observatory/>

Our last observatory this month begins to return us to the out-of-the-ordinary. The South Tamworth Observatory is a hexagonal roll-off roof design:  
<http://tamworthobservatory.tripod.com/ob.htm>

It's a cozy design but only big enough for one person.

Next month I'll return to the unusual and creative designs for amateur observatories. Stay tuned!

As always, if you know of a particularly good website you would like mentioned here, or some web topic you would like to see highlighted, just drop me a line at: [rhill@lpl.arizona.edu](mailto:rhill@lpl.arizona.edu)

#### Happy Anniversary

Stellar Vision is having its 20th anniversary this year. Congratulations!

## Public Star Parties and Community Events

All members of are asked to support the TAAA School Star Party program and other community events listed below. TAAA either sponsors or co-sponsors these events. These are great opportunities for beginners as you may only need to know a few objects in the sky. Even without a telescope, you can be valueable in other capacities. Sign up sheets for many events can be found at the meeting or contact a TAAA officer.

### Telescopes for Telethon at UofA

April 29 (Saturday)

See article in the *Club News* section.

### Our Mother of Sorrows Star Party

Friday, 5/12/2006

**East**

No. of Scopes: 4

Our Mother of Sorrows will be hosting Night Sky With the Planets at 1800 S. Kolb Road. Go East on Speedway to Kolb. Turn South (right) on Kolb, go past 22nd street. OMOS School is on the right between Calle Denebola and Calle Ileo (Calle Ileo is the next light after 22nd street). Viewing will be on basketball court. Contact person Susan Tek can be reached at 747-1027 or email [suetek@cox.net](mailto:suetek@cox.net). Set-Up Time: 7:30pm. Observing will be from 8:00 pm to 10:00 pm. Sunset: 7:12pm Dark Sky: 8:11pm Moon Phase: near Full Moon.

### T.A.G. Charter School Star Party

Thursday, 5/18/2006

**East**

No. of Scopes: 2

T.A.G. Charter School will be planning Astro Science Night at 10129 E. Speedway. East on Speedway past Harrison. School is on the left, just before Houghton. Viewing will be on the playground area behind the school. Contact person Shannon Noah can be reached at 296-0006 or email [shannonsspirit@hotmail.com](mailto:shannonsspirit@hotmail.com). Set-Up Time: 7:45pm. Observing will be from 8:15pm to 9:45 pm. Sunset: 07:17pm Dark Sky: 08:16pm Moon Phase: (no moon during viewing).

**Meeting  
Location  
Change**

Remember that the Friday, May 5 meeting will be held at the Kuiper Space Sciences Building (Lunar and Planetary Lab), in the main auditorium, room 308 on the third floor (one floor up).

**Look Great!  
with TAAA  
Apparel.**

### Desert Winds ES Star Party

Friday, 5/19/2006

**Northwest**

No. of Scopes: 6

Desert Winds ES will be celebrating Night Sky Adventure at 12675 W. Rudasill. Follow E. Speedway Blvd to I-10. North on I-10 for 13.9 miles. At sign AVRA VALLEY RD , exit: 242. Turn left, follow W Avra Valley Rd for 5.2 miles Turn left, follow N Sandario Rd for 6.1 miles Turn right, follow W Rudasill Rd for 1.0 miles. Viewing will be on sports field next to basketball court. Contact person Shirley Nugent can be reached at 616-4014 or email [S.A.Nugent@maranausd.org](mailto:S.A.Nugent@maranausd.org). Set-Up Time: 7:30pm. Observing will be from 8:00 pm to 10:00 pm. Sunset: 7:17pm Dark Sky: 8:17pm Moon Phase: Last Quarter.

### Patagonia Elementary School Star Party Far South

Saturday, 5/20/2006

No. of Scopes: 4

Patagonia Elementary School will be preparing A Walk Around the Night Sky at 100 School St. Take I-10 East to exit 281, take Hwy 83 south 25 miles to Sonoita. Take a right onto Hwy 82. Go 12 miles to Patagonia. Once into Patagonia take a left onto 4thAve. (Patagonia Market is on the right, you turn left) Go two stop signs and make a left. Contact person Patty Cooper can be reached at 520-394-3070 or email [pattycooper@excite.com](mailto:pattycooper@excite.com). Set-Up Time: 7:30pm. Observing will be from 8:00 pm to 10:00 pm. Sunset: 7:18pm Dark Sky: 8:18pm Moon Phase: Last Quarter.

SAIDA NEEDS MORE HELP FROM MORE TAAA MEMBERS. AFTER ALL, WE WILL ALL BENEFIT FROM DARK SKIES IN OUR AREA !!!

For more information, go to: [www.sa-ida.org](http://www.sa-ida.org)

Or feel free to contact:

John Polachek  
President of SAIDA  
E-mail: [jpolach@dakotacom.net](mailto:jpolach@dakotacom.net)  
Telephone: 743-1362

SAIDA meets on the second Wednesday of each month from 5:30 to 7:30 PM in the IDA office located at 3225 N. First Ave, just North of Ft. Lowell. And.....

WE USUALLY HAVE PIZZA !!!

## Opportunity to Volunteer

We are looking for a few members to take on positions that have recently been vacated. Two members, to be exact.

### Star Party Volunteer Coordinator

Want to be part of our club that is a key person behind our successful community outreach Star Party Program? Occasionally, the Star Party Volunteer Coordinator (SPVC) is tasked to work with our Star Party Coordinator Paul Moss in finding an extra scope or two for an upcoming event. The SPVC emails Star Party Volunteers who are kept on a regularly updated list. This usually matches a scope and event in the same general area. The TAAA Announcements list server and possibly the TAAA Members Forum list server can be used to match the scope with the opening. Other than the interested star party scope list there is nothing to maintain. Please consider doing your small part for TAAA and one of our great community outreach programs!

### Equipment Loan Coordinator

The Equipment Loan Coordinator is in charge of the TAAA Loaner Telescope Program (see above). Generally, this means storing the telescopes until they are requested by a member. We are looking for someone who resides in central Tucson. The person in this position should be familiar with telescope and mount designs so they can train a beginner on the correct operation of these telescopes. (The Meade GPS telescope training is more intensive and is currently performed by Michael Turner.) The ELC is responsible for knowing who has borrowed the telescopes and maintains the loaner records for the program. Occasionally the TAAA board requests reports on the loaner program. If interested, you can speak with Jerry Penegor who has been the ELC since the program began.

If you're interested in either position, contact the board at [taaabod@tucsonastronomy.org](mailto:taaabod@tucsonastronomy.org), or speak with a board member.

## Star Party Report

### Picture Rocks Elementary Star Party

By Andrew Cooper

Photos by Christy Schacht

We had a great star party tonight at Picture Rocks Elementary. It was nice to do a school a little out of the city with reasonably dark skies, a little longer drive, but worth it. We had a large and appreciative crowd all night long. Both parents and students enjoyed views of Saturn, the Orion Nebula, and comet 73P/Schwassmann-Wachmann.

Picture Rocks is George Barber's project ASTRO school with teachers who are involved and prepared well for an evening telescope event. The students were primed and ready for a star party. I appreciate it when this is the situation. The students are really learning and it feels like you are doing something productive, the effort to get out to the school and setup is worth while.

My thanks to Mike Turner and Bill Lofquist for filling in at last moment. We definitely needed all four scopes for the crowd.



**Telescopes for Borrowing**

Don't own a telescope?  
 The TAAA Loaner Program is your answer!  
 There's no cost to you.  
 We have the following telescopes:

- Sears 60mmf/15 on equatorial mount
- Unitron 62mmf/14.5 on equatorial mount
- Meade 90mm ETX
- Coulter Odyssey8 8-inch f/4.5 Dobson
- Meade 10-inch f/4.5 on equatorial mount
- Meade 10" LX200 GPS (requires training session)

New members, here's your chance to begin learning and observing the sky before buying any equipment. Loaner Program is available to any current member after meeting requirements detailed in the TAAA Loan Policy. Contact the Equipment Loan Coordinator listed in the "Desert Skies" for details about the telescopes.

**Desert Skies Classified**

For Sale	7" Maksutov LX200 GPS UHTC coatings for sale. This is BRAND NEW still in the box NEVER USED. Call Joe
Free	Set of Astronomy magazines from January 1985 to the present. Set of Sky & Telescope magazines from October 1985 to the present. Contact John Kalas at 620-6502 or jckalas@cox.net.

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 or e-mail the newsletter editor.

**Dark Skies for May 2006**

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

Su/Mo 30/ 1	22:43 - 4:08	Th/Fr 11/12	- - -	Su/Mo 21/22	20:55 - 2:21
Mo/Tu 1/ 2	23:40 - 4:07	Fr/Sa 12/13	Full Moon	Mo/Tu 22/23	20:56 - 2:50
Tu/We 2/ 3	0:28 - 4:06	Sa/Su 13/14	- - -	Tu/We 23/24	20:57 - 3:22
We/Th 3/ 4	1:09 - 4:05	Su/Mo 14/15	20:48 - 21:13	We/Th 24/25	20:58 - 3:44
Th/Fr 4/ 5	1:43 - 4:03	Mo/Tu 15/16	20:49 - 22:16	Th/Fr 25/26	20:59 - 3:43
Fr/Sa 5/ 6	2:12 - 4:02	Tu/We 16/17	20:50 - 23:12	Fr/Sa 26/27	20:59 - 3:43
Sa/Su 6/ 7	2:39 - 4:01	We/Th 17/18	20:51 - 0:01	Sa/Su 27/28	21:00 - 3:42
Su/Mo 7/ 8	3:03 - 4:00	Th/Fr 18/19	20:52 - 0:42	Su/Mo 28/29	21:27 - 3:42
Mo/Tu 8/ 9	3:27 - 3:59	Fr/Sa 19/20	20:53 - 1:18	Mo/Tu 29/30	22:19 - 3:41
Tu/We 9/10	3:52 - 3:58	Sa/Su 20/21	20:54 - 1:51	Tu/We 30/31	23:04 - 3:40
We/Th 10/11	- - -			We/Th 31/ 1	23:41 - 3:40

Weekend	Sun	Sun	Mercury	Venus	Mars	Jupiter	Saturn	
Sa/Su	Set	Rise	Rise Vi	Rise Vi	Set Vi	Rise Vi	Set Vi	Vi=Visibility
29/30	19:01	5:37	4:53 7	3:42 -2	23:42 2	19:16 -2	1:15 0	-3 brilliant
6/ 7	19:06	5:30	4:59 9	3:37 -2	23:31 2	Set -2	0:48 0	0 conspicuous
13/14	19:11	5:25	Set -	3:32 -2	23:20 2	5:02 -2	0:22 0	3 moderate
20/21	19:16	5:21	19:30 -	3:27 -2	23:08 2	4:32 -2	23:56 0	6 naked eye limit
27/28	19:21	5:17	20:16 6	3:22 -2	22:56 2	4:02 -2	23:31 1	9 binoculars limit

By Erich Karkoschka

## Object of the Month by Alfredo Garcia

This month's OTM belongs to the class of objects known as galaxy groups. Galaxies are not usually found in isolated locations in space, but normally form groups or clusters ranging from a few individual galaxies to large clusters containing hundreds to several thousands of these magnificent star systems. The galaxies that make up these groups and clusters are in mutual gravitational interaction with each other and as such affect one another. Our own Milky Way Galaxy is a member of a smaller group of galaxies known as the Local Group. Our Local Group when combined with most nearby galaxy groups is part of a larger supercluster known as the Local or Virgo Supercluster.

One of my favorite galaxy groups to observe this time of year is one found in a constellation named after a lion. This lion of course is the constellation of Leo and within its boundaries is found a galaxy group made of three spiral galaxies. This celestial wonder is commonly known as The Leo Triplet. It is also referred to as the M66 Group. It consists of the spiral galaxies M65, M66, and NGC3628.

M66 is the brightest member of this small physical group of galaxies. It has a magnitude of 8.9 and is about  $8 \times 3$  arc minutes in apparent size in the sky. It was discovered by Charles Messier in 1781 and took on his catalog designation of M66. The galaxy is about 35 million light-years away.

M65 is the second brightest member of this small physical group of galaxies. It has a magnitude of 9.3 and is about  $8 \times 2$  arc minutes in apparent size in the sky. It was also discovered by Charles Messier in 1781 and took on his catalog designation of M65. The galaxy is also about 35 million light-years away. M65 is the most "normal spiral galaxy" of the three since it has a prominent central core and tightly wound spiral arms. M66 and NGC3628 however have distorted spiral arms indicating that they are being gravitationally affected the most.

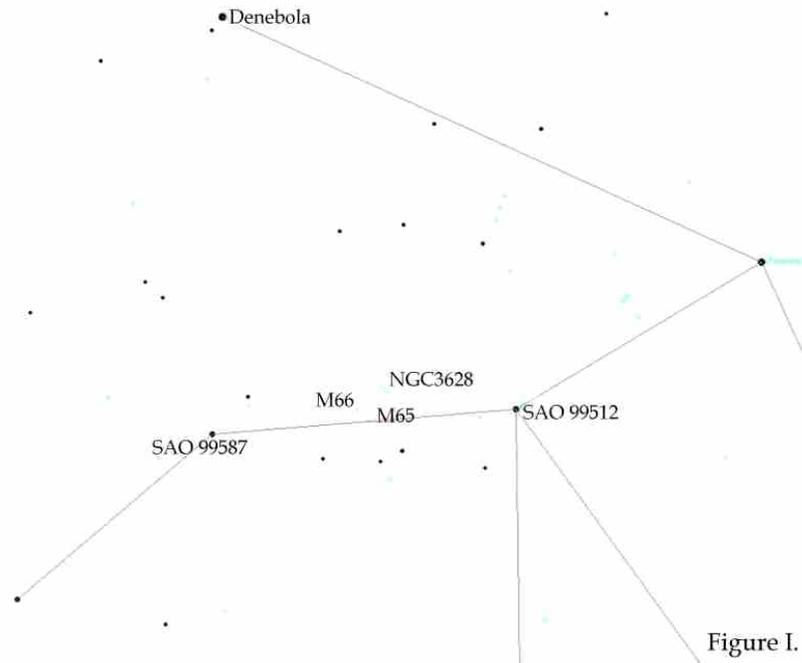


Figure I. NGC3628 is dimmest member of the three. It has a

magnitude of 9.5 and is the largest in apparent size with dimensions of about  $14 \times 4$  arc minutes. It was discovered by William Herschel in 1784. This galaxy too is about 35 million light-years away. NGC3628 is an edge on spiral galaxy and the deformation seen in its spiral arms is clearly the result of gravitational interactions with M65 and M66.

If you go out observing (from the Tucson area) during May at about 22:00 MST and look to the west, you will find the M66 Group at an altitude of about 60 degrees above the horizon in early May to about 37 degrees above the horizon in late May. You may want to use setting circles or an automated go-to scope to locate it as these galaxies are not visible to the naked eye. The coordinates for M65 are Right Ascension 11 hr 18 min 54 sec and Declination +13 deg 05 min. M66 can be found at Right Ascension 11 hr 20 min 12 sec and Declination +12 deg 59 min. And finally, NGC3628 is located at Right Ascension 11 hr 20 min 18 sec and Declination +13 deg 36 min. For those who are more adventurous, it can be found by star hopping techniques. See Figure

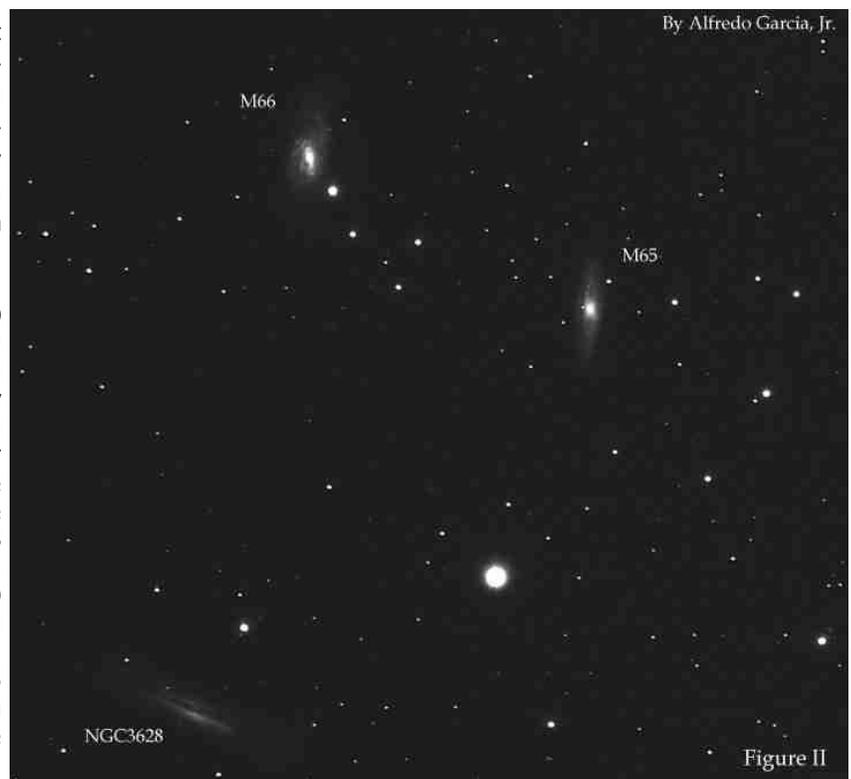


Figure II

### Object of the Month by Alfredo Garcia (cont.)

I to navigate your way to the Group.

The Leo Triplet Group is visually a good target to see through a telescope, but only when it is astrophotographed or CCD imaged, does it reveal its true beauty! If you have the equipment to image this Group, I recommend you do so. Your time and effort will be rewarded with an image of one of the finest galaxy groups in the sky. There are many outstanding amateur and professional images of this Group as well as the individual galaxies on the Internet and I suggest you do some "surfing". Figure II is an image I took of the Group using my 80mm f/5 Orion ShortTube Refractor piggybacked on my Meade 10" f/6.3 LX200 SCT. I used a Starlight XPress SXV-H9 monochrome CCD camera. The image was a single 15 minute exposure and manually guided.

Another interesting tidbit about this Group is that only three supernovae have been discovered among the galaxies' stars throughout the years. And these three supernovae were discovered in M66 alone. Supernova 1973R was discovered on 12 Dec 1973 and reached magnitude 15. This was followed by Supernova 1989B which was discovered on 31 Jan 1989 and reached a maximum brightness of magnitude 12.2. And finally, Supernova 1997BS was discovered on 15 Apr 1997 and reached a maximum brightness of magnitude 17.0. Perhaps you could be the next discoverer of a supernova in M66 or better yet, M65 or NGC3628. So take advantage of some of the clear, moonless spring nights this month has to offer and see if you can spot this amazing galaxy group and wonder at its place in the universe.

### TAAA Board of Directors Meeting - April 12, 2006

Attending: TAAA Board Members present: Thom Peck, presiding; Bill Lofquist, Steve Marten, Terri Lappin, Ken Shaver, Tom Watson and George Barber. Members present: Steve Ratts and Robert Crawford.

President's Call to Order: 6:40PM

**March Minutes.** Accepted, Unanimous.

**Announcements.** The group area at Parker Canyon Lake is OPEN for Memorial Day weekend including an astronomy campout, perhaps in association with AIAA (American Institute of Aeronautics and Astronautics).

**TAAA Insurance Coverage** - Terri Lappin and Robert Crawford

Terri discussed the recent notice from our insurer that some of our coverage will be limited or discontinued and a lower premium will be charged at renewal next month. Robert Crawford reported on the current coverage and new coverage proposed by the insurer. Electronic, dome and contractor liability coverage was discussed leading Thom to request that Robert speak to our agent for particular information. The Board recommended that we accept the new coverage for now as Robert completed his research. Steve Ratts will inquire about coverage held by our contractor.

**TIMPA Dome** - Steve Ratts

Pima county and FEMA ordinances are affecting our construction plans and permit application. Options were discussed including relocating the observatory slightly, raising the elevation above general area grade, relocating to another location instead of TIMPA and considering legal recourse. We can no longer forecast a completion date, or even a beginning date until we have more information. Steve suggested we plan a robotic, remote observatory as we have members with the necessary knowledge and skills. Bill noted that the TIMPA dome will provide opportunities for advanced observing, as well as a chance for beginners to advance. The dome should be placed where we can have easy access, stay overnight and perhaps use a robotic system. The Beginner's SIG desires locations close to Tucson, but with at least somewhat dark skies.

**Treasurer's Report** - Terri Lappin

A thorough review of the report was conducted and Terri answered specific questions such as funding for our Grand Canyon Star Party (stipend from Friends of the National Park Association), fair market value of our observatory equipment and scopes, propane costs for shared grill at TIMPA and that the Raytheon fund will be cleared out (the monies will be used to pay for teacher memberships). Steve Marten noted the considerable contributory revenue derived from Star Parties arranged by John Kalas and suggested some form of recognition is in order; the Board agreed.

Treasurer Report accepted unanimously.

**TAAA Survey** - Ken Shaver

Results continue to be tabulated. Survey deadline was April 8, 2006 (April General Meeting) and final results will be reported at Members Night meeting May 5, 2006. Seventy-four respondents at this time reflected the following interim results: Members indicated specific preferences for the monthly general meeting and tour preferences. What they like most about TAAA included newsletter, monthly meetings, guest speakers and volunteering. More than 71% said no name change necessary. Some emphasis was noted on getting publicity for our events, making TAAA more visible to the average Tucson resident and to station a box at the lecture hall for members to keep their tags between meetings.

**Web Site Re-design** Volunteer work continues.

Adjourn 9:30pm

Respectfully Submitted,  
Steve Marten, Secretary

## Constellation Report by Chris Lancaster

### Coma Berenices Berenice's Hair

Stargazers are presented with the best collection of galaxies the sky has to offer in the springtime skies. Here we find the Virgo cluster of galaxies, and most, as the name suggests, are located in the constellation Virgo. However, a large number are within the dim constellation of Coma Berenices.

The name of this constellation comes from Berenice II, who was the queen of Ptolemy III, ruler of Egypt circa 240 BC. When Ptolemy III left to fight an especially dangerous battle, Berenice II pledged to sacrifice her long, golden hair, of which she was very proud, if her husband returned victorious. When he did, she placed the hair in a temple honoring the goddess Aphrodite. To their dismay, the hair disappeared from the temple a short time later, so the court astronomer, Conon, comforted the royal couple by saying that the goddess was so enamored by the gift that she placed the queen's hair in the heavens so that everyone could admire it. You can find Berenice's hair by looking between the nearby constellations of Leo bordering to the west and Bootes to the east.

To the naked eye, the most distinguishing feature of the constellation is the large open cluster Melotte (or Mel) 111, which appears as a hazy spot sprinkled with a small handful of brighter, naked eye stars near the northwest section of Coma Berenices. This is one of the nearest star clusters to Earth at 260 light years, and for that reason is spread out across a large chunk of the sky. Binoculars are best for viewing this cluster which measures 5 degrees across. The most prominent shape of the cluster reminds me of a vintage propeller-driven fighter plane with its wings folded up as when stored on an aircraft carrier.

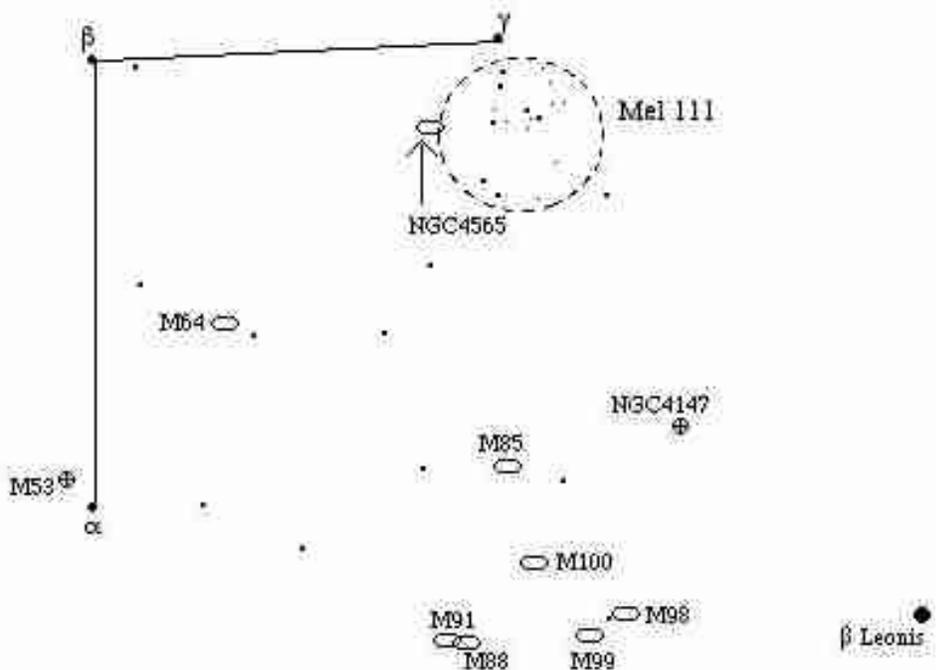
Overall, there are about 3,000 galaxies in the Virgo cluster. While over 200 bright members can be found within the boundaries of Virgo, more than 60 similar objects can be found in Coma Berenices. Scanning the area will bring galaxy after galaxy into view. M64 deserves special mention since its bright 8.0 magnitude glow is easy to find slightly less than one degree to the northeast of 35 Comae Berenices (RA 12h 56.7' Dec +21d 41'). This galaxy is nicknamed the "Black Eye Galaxy" because of a huge dark mass of dust wrapping around the bright nucleus. At a dark, clear site you should see close to half of the inner disk darkened by the dust cloud in contrast to the outer glow of the galaxy's oval.

NGC4565 is a favorite to those familiar with it. It is turned edge-on to our line of sight, and measures 15' in its longest dimension and only 1' in width. It appears much like a knife blade against the darkness of space, and running along its length is an easily noticeable dust lane, which bisects the egg-shaped nucleus. Find NGC4565 7' in RA east of 17 Comae Berenices, the closest 5th magnitude star of Mel 111, or RA 12h 36.3m Dec +26d 00'.

We can summarize other Messier galaxies as follows:

M85	Mag. 10.5	Spiral	RA 12h 25.4'	Dec +18d 11'
M88	Mag. 10.9	Spiral	RA 12h 32.0'	Dec +14d 25'
M91	Mag. 11.1	Spiral	RA 12h 35.5'	Dec +14d 30'
M98	Mag. 11.4	Spiral	RA 12h 13.8'	Dec +14d 54'
M99	Mag. 10.5	Spiral	RA 12h 18.8'	Dec +14d 25'
M100	Mag. 10.8	Spiral	RA 12h 22.9'	Dec +15d 49'

Closer to our home galaxy are two bright globular clusters, M53 and NGC4147. M53, magnitude 8 and 16' in diameter, has a broad nucleus saturated with stars 1 degree northeast of Alpha Comae Berenice. NGC4147 is one-third the size of M53 and has few, if any, resolvable stars, but its obvious nucleus is easy to find 6.5d northeast of Beta Leonis.



Tucson Amateur Astronomy Association  
P.O. Box 41254  
Tucson, AZ 85717

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Please consider renewing your membership on time. Renewal month and dollar amount appears on your address label. Magazine subscriptions are not included. TAL fee is included if participating in TAL. See details on page 2.

### **Directions to TIMPA Site**

GPS coordinates: 32 deg 15.868' N, 111 deg 16.390' W

#### **From the North:**

1. Take Ina Rd. west about three miles past I-10.
2. Turn left (south) on Wade Rd.. Wade Rd. becomes Picture Rocks Rd. when the Rd. bends to the right (west).
3. Take Picture Rocks Rd. west to Sandario Rd..
4. Turn left (south) on Sandario Rd. to Manville Rd..
5. Turn right (west) on Manville Rd. to Reservation Rd..
6. Turn left (south) on Reservation Rd. (dirt Rd.) and go about two miles. The entrance to TIMPA will be on the left.

#### **From the East:**

1. Take Speedway Blvd. west and it turns into Gates Pass Rd..
2. Go over Gates Pass and continue west to Kinney Rd..
3. Turn right (north) on Kinney Rd. and continue past the Desert Museum.
4. Kinney Rd. bends left at the entrance to Saguaro National Park West and becomes Mile Wide Rd..
5. Take Mile Wide Rd. west about five miles to Reservation Rd.. Mile Wide Rd. ends at Reservation Rd. and you must turn right (north) onto Reservation Rd..
6. Take Reservation Rd. north about one mile. The entrance to TIMPA will be on the right.

#### **NOTE**

Please DO NOT ask the caretakers for access to the TIMPA SITE. Contact a board member to arrange access to TIMPA. For scheduled TIMPA star parties, a designated TAAA representative will provide access to the site.

### **Directions to Las Cienegas (Empire Ranch)**

GPS coordinates: 31 deg 47.356' N, 110 deg 37.913' W

Take I-10 East from Tucson and turn off at Exit 281 (Route 83 Sonoita-Patagonia Highway South). Travel south on Route 83 for about 19 miles and watch for the green and white milepost 40 sign along the right side of the road. Approximately ¼ mile past milepost 40, turn left into Las Cienegas. The road is dirt and has some "washboarding" so don't go too fast. At about the 2.9 mile point there will be a fork in the road. Stay to the right. When the road ends in a "T", take a left. You will cross a concrete section of the road down in a wash. Just up the hill from the wash (about .2 mile), turn left. Just ahead of you (.1 mile) will be the end of an abandoned airstrip with a covered ramada. The club members have been setting up several tenths of a mile down the runway. If you arrive after dark, as a courtesy to other members, use only your parking lights to approach the set-up location.