



# **STARSTUFF**

**The Newsletter of the Ford Amateur Astronomy Club**

**April 2002**  
**Volume 11 Number 4**



**Editor: Jim Frisbie**

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**STAR STUFF** is a monthly publication of the Ford Amateur Astronomy Club, an affiliate club of the Ford Employee Recreation Association.

**Ford Amateur Astronomy Club**  
**P.O. Box 7527**  
**Dearborn MI 48121-7527**

<http://www.boonhill.net/faac>

Submissions to STAR STUFF are welcome. Please write to the address above or contact the editor:

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via tele #: 734-453-1422  
or email: [w8tu@peoplepc.com](mailto:w8tu@peoplepc.com)

Dead line is the 15<sup>th</sup> of each month for the following month of publication.

**Officers:**

President	Don Nakic
Vice President	Ken Anderson
Secretary	Don Klaser
Treasurer	Mike Bruno

**General Meetings:**

The Ford Amateur Astronomy Club holds regular general meeting on the fourth Thursday of each month (except the combined November/December meeting held the first Thursday of December) at 5:00 PM in conference room 1491 in the Ford Credit building in Dearborn, Michigan.

**Observing:**

The Ford Amateur Astronomy Club observes at Spring Mill Pond within the Island Lake State Recreation Area near Brighton, Michigan. The club maintains a permit for after-hours access. Weather permitting, the club observes on Friday nights, Saturday nights, and nights before holidays.

**Club Information:**

Observing schedules and additional Club information is available by calling the Observing Hotline at: (313) 390-5456 or via the Ford Intranet: [www.be.ford.com/astro/faac.html](http://www.be.ford.com/astro/faac.html) or the public Internet: [www.boonhill.net/faac](http://www.boonhill.net/faac).

**Club Membership:**

Membership in the Ford Amateur Astronomy Club is open to Ford employees and non-employees. Write or call for an application.

Annual - New Member: \$25; Renewal: \$ 20 (before Jan 31 of each year)


Lifetime - \$ 150

**Membership includes:**

A subscription to the STAR STUFF newsletter and the quarterly newsletter the REFLECTOR published by the Astronomical League.

Discounts on ASTRONOMY and SKY & TELESCOPE magazines, after-hours access to the observing site and discounts at selected area equipment retailers.

**Magazine Discounts:**

Do not send money to FAAC for SKY & TELESCOPE or ASTRONOMY magazine subscriptions. We have a form that you send in with your subscription directly to the publisher to receive a \$10 discount. Pick up a form at the next meeting, or contact a club officer. 

**SWAP & SHOP**

**For Sale:** Used Meade LX200 8" f/10 SCT w/ base & wedge, 1 year old, \$1,850. Used Meade LX200 10" f/10 SCT w/scopesaver table & mars finder, \$2,200 or best offer. Contact John @ Riders Hobby - Livonia: 734-425-9720

**For Sale:** Meade ETX125EC, 1 yr old, deluxe tripod, dew shield, hard case, 26mm plossl eyepiece, \$ 1,150 obo. Contact: Tom Ellison, @ 248-549-7675

**For Sale:** Meade 203SC/300, 8" f/10 SCT with GEM. Very little use, perfect shape. Contact: Paul Chaveriat @ 734-721-3346

**For Sale:** Celestron CG4, equatorial mount & RA motor. Like-new/excellent condition. Asking \$150. Also, Celestron Ultima, 5mm eyepiece, 1 1/4", asking \$30. Contact: Thomas Blaszk @ Ofc: 313.323.9842 After hours: 313.277.3365

**THE EDITOR**

*Color pictures of the feature article on "Construction of an Observatory" can be found on the Club website at [www.boonhill.net/faac](http://www.boonhill.net/faac)*

**MINUTES OF THE**

**MARCH 28, 2002**

**FAAC GENERAL MEMBERSHIP MEETING**

**by Don Klaser**

The meeting was called to order by President Don Nakic @ 5:00pm. Approximately 35 members were in attendance. Introductions were held as the pop & pizza were enjoyed. Mike Bruno gave the Treasurers' report. Don Klaser asked if there were any additions to last months' minutes. Ken Anderson mentioned a couple of other possible destinations for a club field trip. Don Klaser will add to list. President Don spoke about a new meeting site at the Family Service & Learning Center on Rotunda Dr. A motion was made to establish our new site beginning in May by Jim Frisbie & seconded by Clay Kessler; The motion was passed. President Don asked the membership for any ideas or suggestions to make the club better. Jim Frisbie spoke about Astronomy Day - we have been invited to the Detroit

Science Center on April 20<sup>th</sup>. John Kirchhoff volunteered to coordinate our efforts for this project. Beginner's night was discussed. It will be held @ Island Lake on Saturday, April 20<sup>th</sup>. Mike Bruno will make sure that email gets out announcing our event after a day spent at the Detroit Science Center. President Don asked for volunteers to give a technical talk at up coming meetings. Greg Burnett offered to give one at the April meeting. Greg Burnett talked about meeting with the Grosse Isle Conservancy to help them set up an Astronomy program. The meeting date is Thursday, April 11. George Korody gave a presentation on Construction of an Observatory. The meeting was adjourned at 7:00 pm.

## A MESSAGE FROM THE PRESIDENT

by Don Nakic

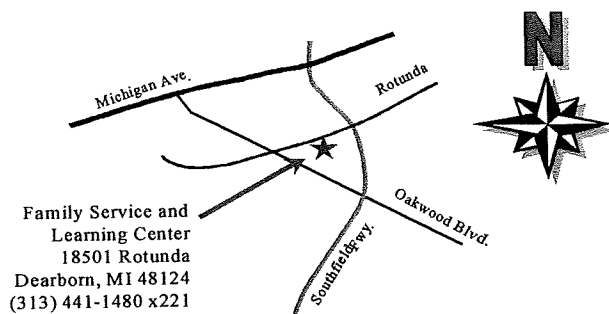
In the last general meeting George Korody gave a presentation on building an observatory. Not only was it a very informative discussion, it was also noteworthy on how George was strongly motivated by other group members to take on such a challenge. I was also delightfully encouraged to see club members help with the project. Those that saw the presentation found it wasn't a simple task. This story should encourage other members to motivate each other into expanding their horizons in astronomy. This is a great example of what the FAAC club is all about - people with the same interest helping each other.

In the spirit of helping others, it was also great to see club members and potentially new club members giving presentations to the public on Astronomy/Earth Day. They will be participating in demonstrations at Detroit Science Center, Earth Day at Kensington Metropark, and then Beginners Night at Island Lake Park. Wow! I'm sure the day will be a huge success.

A good club is one that people attend regular meetings and share ideas; but a great club is made up of proactive members that encourage each other to work together. I would like to say, and I'm sure others will agree, FAAC is a great club!

### *FAAC General Meeting Location Change*

Effective May 23<sup>rd</sup>, FAAC General Meetings will be held at The Family Service and Learning Center located on Rotunda. Below is the address and map to the facilities.



## Astronomy at the Beach

by John Kirchhoff

The sixth annual Astronomy at the Beach star party is scheduled for Friday May 17<sup>th</sup> and Saturday May 18<sup>th</sup> at Kensington Beach Metro Park. This year's event features the "Great Planetary Alignment of 2002", a chance to see all five naked eye planets and the moon forming a beautiful celestial arc in the western sky just after sunset. This planetary alignment will not be repeated until 2020 and will be well worth watching by even the casual astronomer!

The party is put on with the help of the Metro Park system and GLAAC, the Great Lakes Association of Astronomy Clubs and will be held rain or shine.

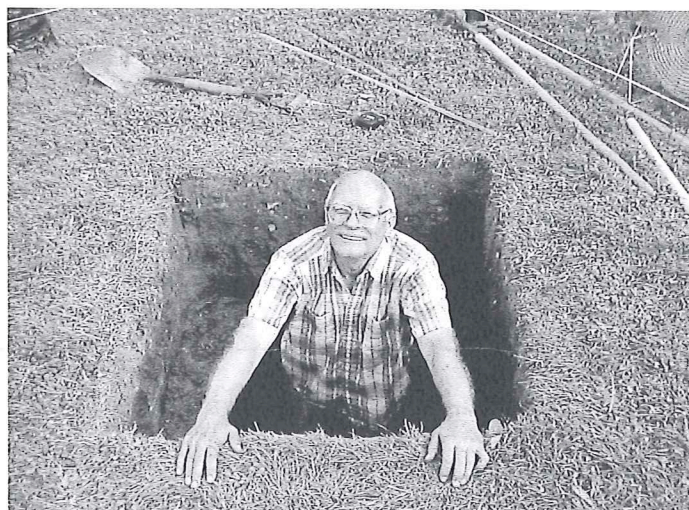
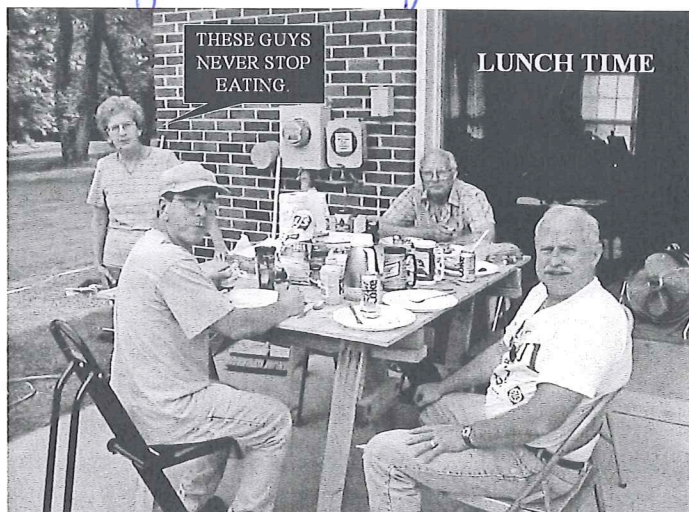
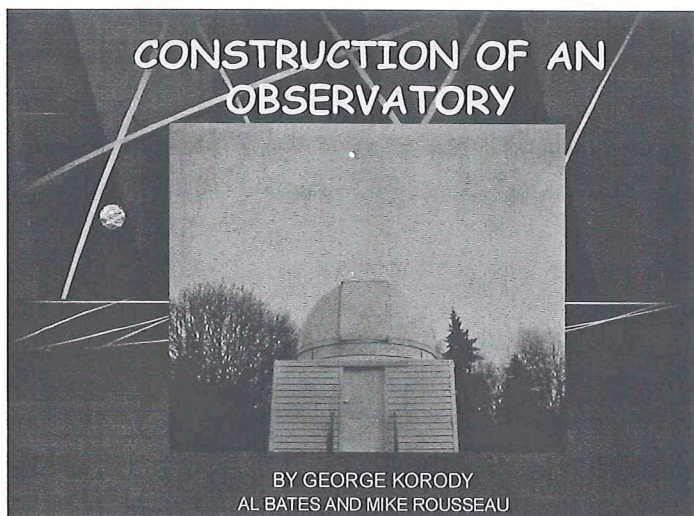
In addition to the planetary alignment there will be a host of activities, lectures, vendors, and equipment displayed at the park's Martindale Beach both days starting at 5pm. Amateurs are welcome to set up their equipment in the telescope field to the north of the pavilion. Telescopes equipped for solar viewing will provide enthusiasts a great view of our nearest star. This year's event will feature the ever popular comet making workshop for all of the young astronomers in attendance, a basic telescope/equipment talk, a paper on "Our Vanishing Night Sky", and Greg Burnett's Astronomy 101 slideshow and lecture. As the sky darkens there will be a tour of the constellations weaving science and mythology into the pattern of stars visible from the beach. The evening will end with a "Cosmic Treasure Hunt" where the kids and their parents can go to telescopes trained on galaxies, planets, stars and other sky targets, complete a checklist and redeem it for a certificate and door prize at the Discovery Store or Rider's Hobby Shop table.

Astronomy at the Beach is a perfect outing for anyone interested in astronomy and a great way to introduce our friends and family to the hobby we enjoy. Dust off your scopes, put the kids in the van and plan on making the BIGGEST star party in Michigan! For directions and more information see the Astronomy at the Beach Flyer on Page # 11.

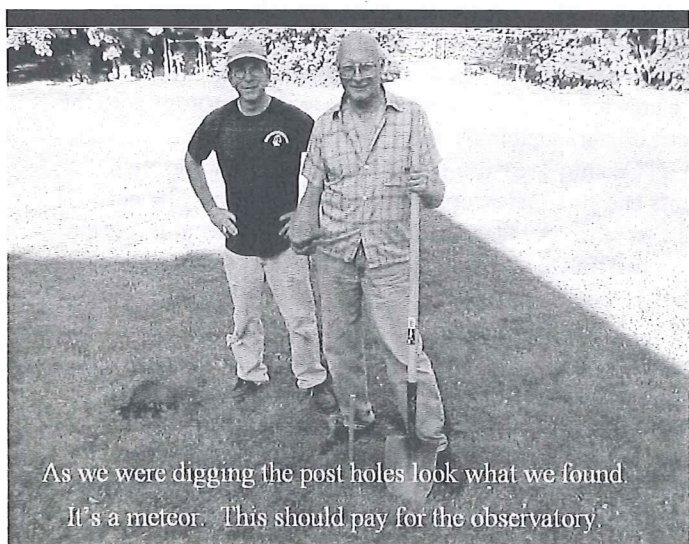


The following slides are highlights from the presentation made by George Korody at the March 28<sup>th</sup> general meeting.

*Geo,  
Thanks for  
your help.  
Jim*

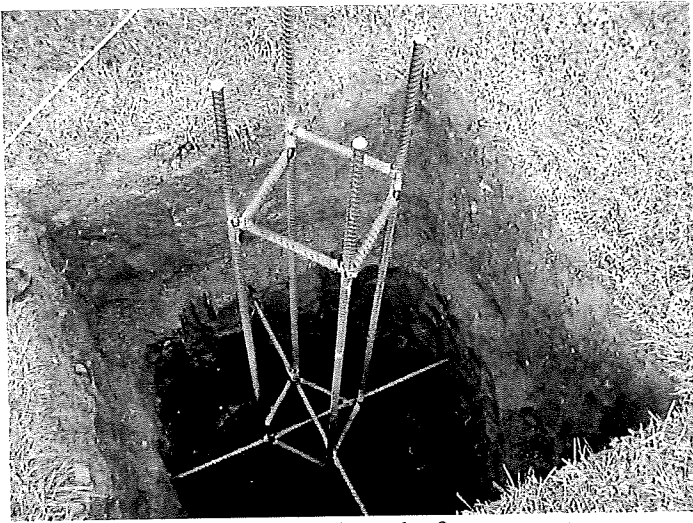


This is the hole for the pier, 3 ft. X 3 ft. X 5 ft. deep.



Al Bates welding the rebar frame for the pier.





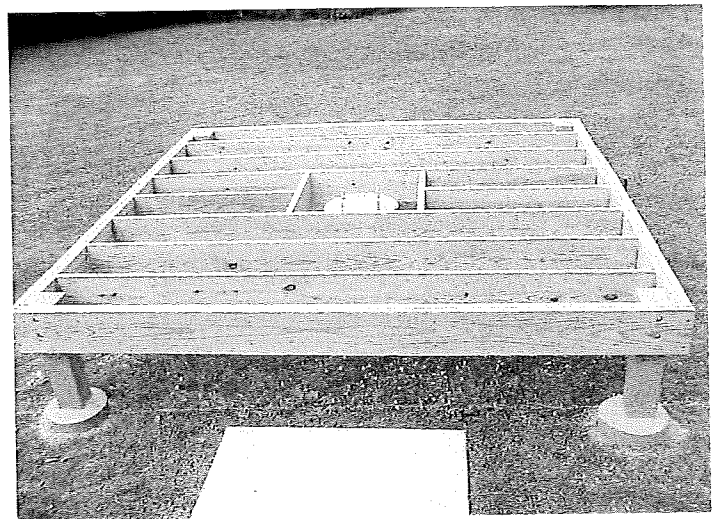
Rebar installed and ready for concrete.



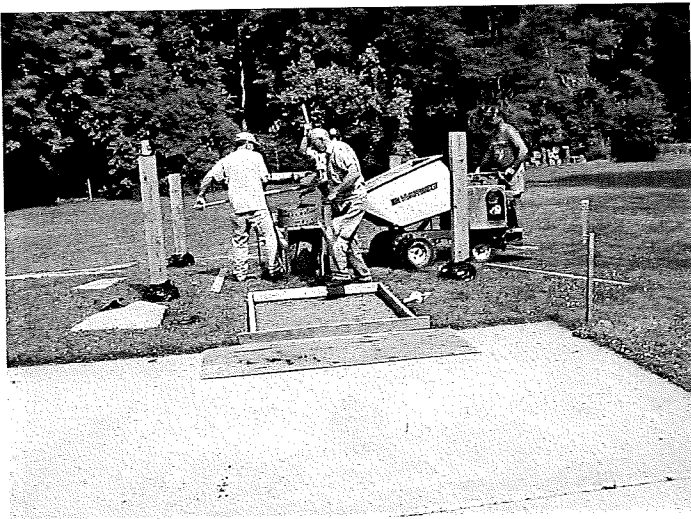
The completed pour.



George making final adjustment to the pier form.



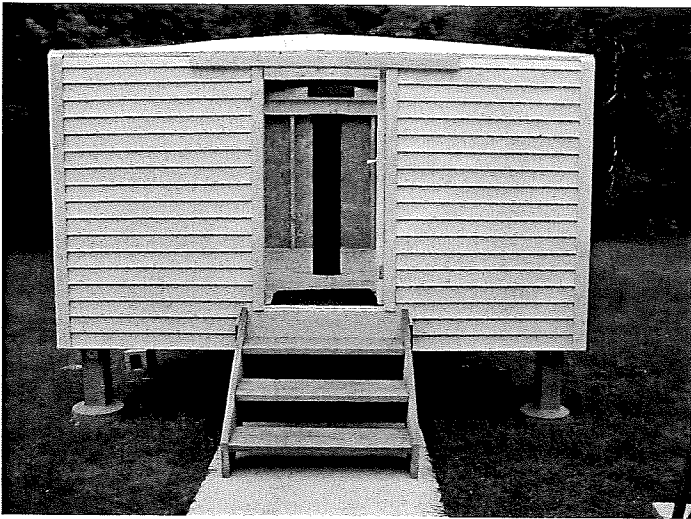
2" X 10" Decking for the main floor.



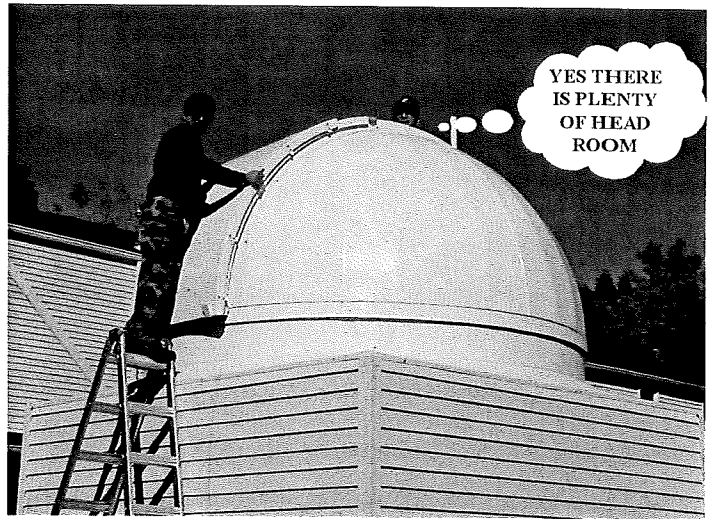
Al, Mike, Jim, & George making the pour.



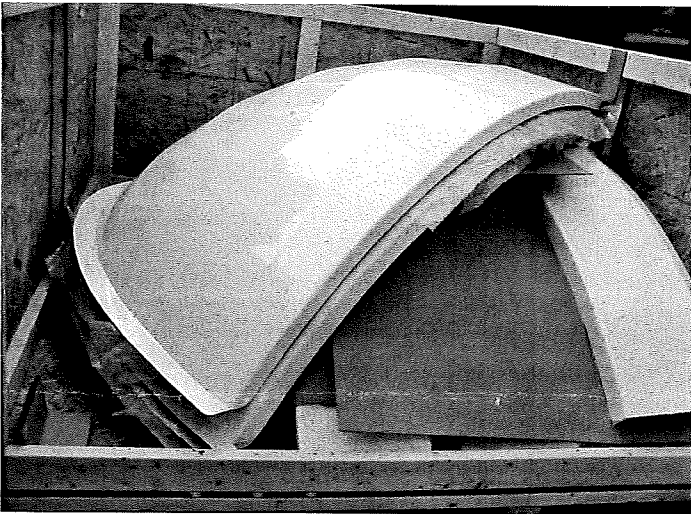
All four walls are up!



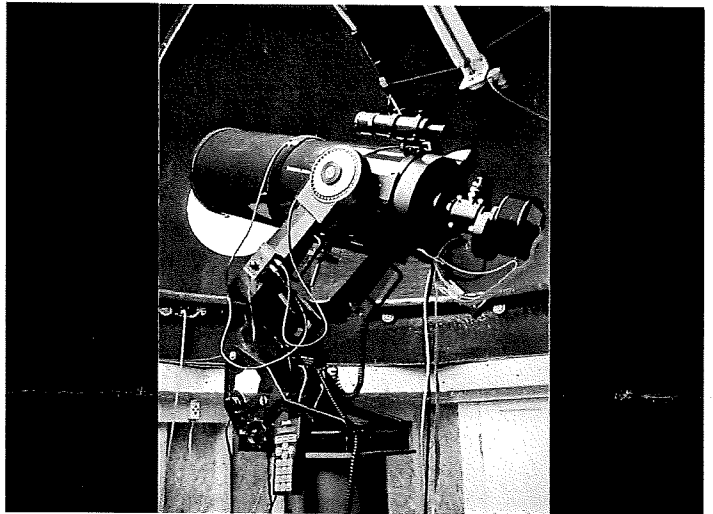
Building ready for dome.



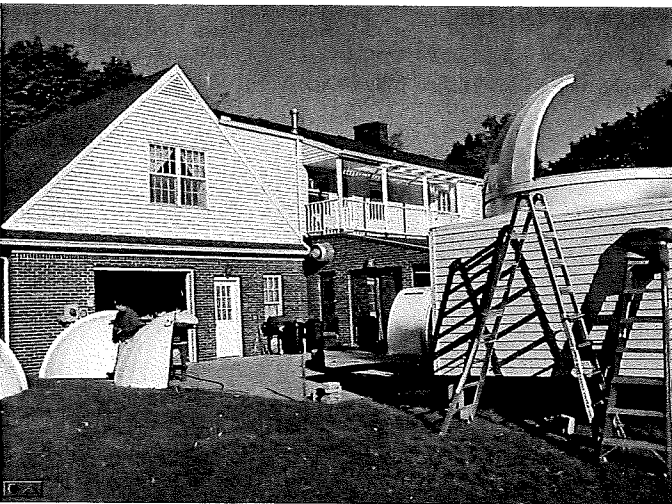
Shutter installation.



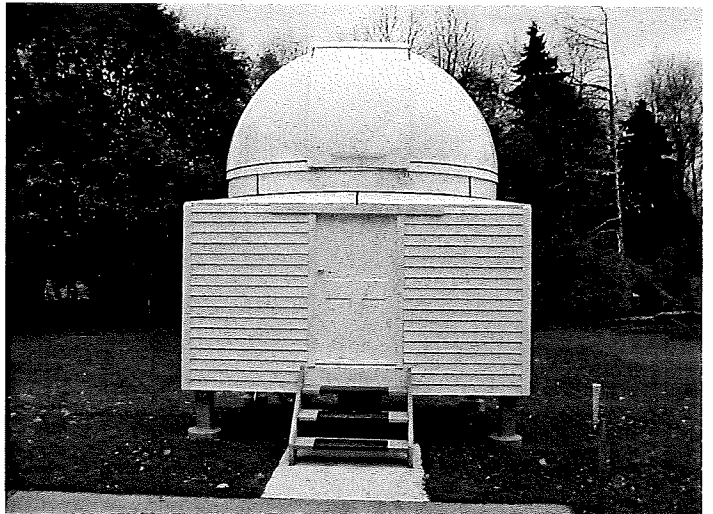
Dome pieces ready for assembly.



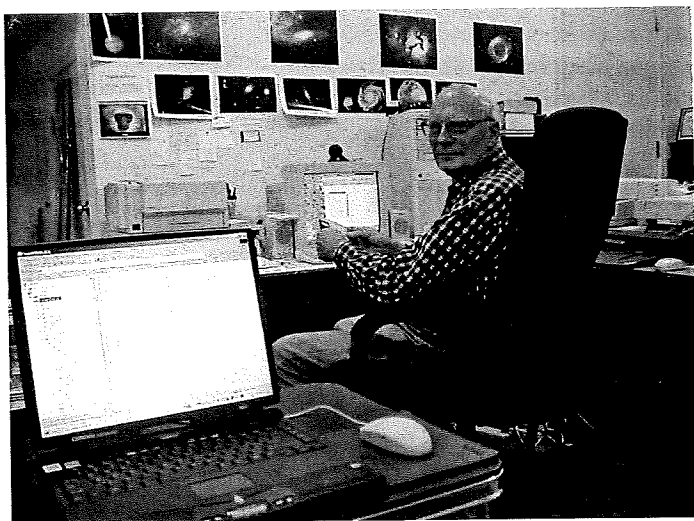
10" LX200 soon to be replaced with 14" Celestron.



Dome sections being installed.



The completed Observatory.



George in the control room.



## PRECISION STAR-HOPPING

by John Ford

The ultimate thrill (in my opinion!) of an evening under a starry sky is the successful hunt for a specific faint object. If your interest in astronomy includes getting to know your way around the sky and becoming familiar with the positions of myriads of faint deepsky objects, then you need to develop some means of locating the objects.

The "precision" part of this story refers to the difficulty in finding an object that isn't obviously visible in the eyepiece. Therefore, you need to be sure you are pointing at the exact spot before using refined visual techniques to "bring out" the object.

Roughly 60% of the Messier objects are bright enough to be found with a "point and scan" technique, while 20% of them might require more precise star-hopping.

Much in the same way that you learned to navigate on a map as a girl scout or boy scout, you need some basic stuff. You

need a good star chart, a means to aim your scope, and some means to see a wide-angle view of your target area.

My equipment, which is pretty typical for a star-hopper, includes my main telescope, a smaller finder scope that provides a low power wide-angle view. My finder scope also has a right-angle prism diagonal and separate eyepiece, which is the same basic setup as my main scope. The reason for this is so the view that I see in the finder will be the SAME view (orientation) that I see in the main scope, only bigger.

If you don't have this feature, then you will simply have to become accustomed to the differences in orientation and force your brain to do more processing as you switch from the finder to the main scope.

Last but not least, I have a TelRad or Rigel laser ring sight mounted on the main scope. (The laser sight will be the best \$40 you will ever spend in astronomy!)

Finally, I take time at the beginning of each star-hopping session to make sure that the scope, finder, and laser sight are all pointing at EXACTLY the same spot.

OK, we find a clear sky (a feat in itself in Michigan!) and some star charts that show the area of sky you are interested in. I use the SkyAtlas 2000 charts in the unbound "black stars on white" version that is not laminated. This allows me to carry them around separately, write on them, and to fold them in half more easily.

So let's find an object.

Since this article is one of a two-part "deepsky" series, I'm not going to let you off that easy. The target I propose is NGC6934, a small globular cluster. It's found on chart #16 of the Sky Atlas 2000, about an inch below the tail of the Dolphin, Delphinus. So let's find it!

1<sup>st</sup> Step, use the laser sight to point to the Dolphin's tail.

2<sup>nd</sup> Step, look in your finderscope. Can you recognize the "tail star" (Epsilon) with two tiny double stars next to it?

3<sup>rd</sup> Step, Next, you need to decide what route you are going to follow from the tail star. Holding your star chart in one hand, spend some time familiarizing yourself with the immediate area around the tail star and decide the direction you need to go in in order to get to NGC6934. Sort of like figuring out what stones you will use when you cross a stream.

4<sup>th</sup> Step, in my finderscope, I chose to go from the tail star, and follow the curved arc of double stars down to the right. (Actually, there's two double stars and then a pair of stars in this threesome chain. I had to "jump" across a wide gap to the next (fourth) pair of stars and then pause to see where I was. If I am where I think I am, I should be able to nudge the scope across to the left and see two more stars close to each other. Something is funny though, because the rightmost "star" in this group is very fuzzy. The fuzzy star is the tiny globular cluster, NGC 6934! Add some power to try and resolve some stars around the edge.

Remember to use averted vision and to remember that the globular will not jump out at you like a Messier object, and you may have to concentrate at the eyepiece for several minutes before spotting the prize. Incidentally, I use only about 65 power to do 99% of my deepsky finding and viewing.

A good way to learn how to star-hop is to spend time “scouting” around a star in several directions while keeping your place with your finger on the star chart. Remember, it’s like stepping stones across a shallow stream.

Depending on the type of telescope you have, the eyepiece view orientation may be upside down or reversed.

For simplicity in this article, I have referred to UP and DOWN, or LEFT and RIGHT relative to your horizon. So just move/point your telescope as you would point a flashlight.

The object NGC6934 should be visible in 6-8-inch scopes at the Island Lake site at new moon.

It’s challenging, but don’t hesitate to ask for help. We’ll be glad to help.

## CONSTELLATIONS FOR THE BEGINNER

by Janice A. Kessler

### April - Coma Berenices

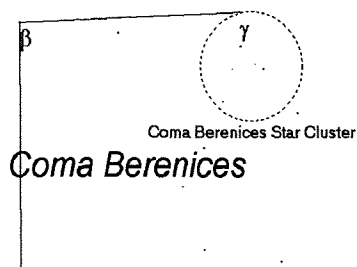
Seen near the zenith in April, some of Coma Berenices’ major stars and objects include:

Coma Berenices Star Cluster: Open cluster. Magnitude 1.8

$\beta$  Comae Berenices: Magnitude 4.26

$\gamma$  Comae Berenices: Magnitude 4.36

$\alpha$  Comae Berenices: Magnitude 5.22



### May — Virgo

The constellation of Virgo can be overhead facing south to somewhat southwest. Its bright stars include:

Vindemiatrix or  $\epsilon$  Virginis: Magnitude 2.83

Porrina or  $\gamma$  Virginis: Magnitude 3.65

Zaniah or  $\eta$  Virginis: Magnitude 3.89

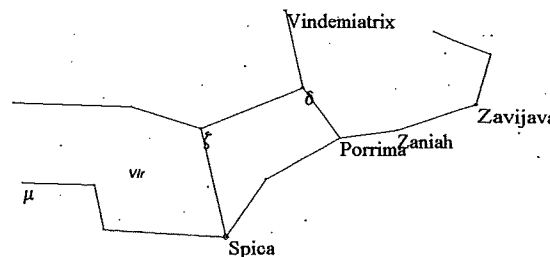
Zavijava or  $\beta$  Virginis: Magnitude 3.61

Spica or  $\alpha$  Virginis: Magnitude 0.98

$\mu$  Virginis: Magnitude 3.88

$\xi$  Virginis: Magnitude 3.37

$\delta$  Virginis: Magnitude 3.38



All maps and facts are courtesy of Chris Marriott and SkyMap 4.0.

All maps were designed to be viewed from Southeastern Michigan at Midnight around the 15<sup>th</sup> of the month. If you are at another location or viewing at another time, you may not be able to see this constellation.

### FAAC April 25, 2002 General Membership Meeting 5:00 pm to 6:25 pm Agenda

- Introductions	Don Nakic	20 min
- Reports: Treasurer's	Mike Bruno	5 min
Secretary's	Don Klaser	
- Old/New Business	Don Nakic	5 min
- Upcoming Events	Don Nakic	5 min
- Technical Discussion	Greg Burnett	15 min
- Film Astrophotography	Clay Kessler	35 min

## ASTRONOMICAL CALENDAR 2002

### April

April 25	Moon near Spica (dusk)
April 26	Full Moon 11:00 pm ( <i>Pink Moon</i> )
April 28	Moon near Antares (11 pm to dawn)



April 30 Mercury 6 deg lower right of Venus (dusk). The span of planets is 40 deg long today.

## May

*All times are Eastern Standard Time or Eastern Daylight Saving Time, whichever applies.*

May 1 Venus, Mercury, Saturn, Mars in close gathering low in W at dusk. Watch over next ten evenings for changing configuration. Tonight Saturn, Venus, Mercury form a line. Dim Mars 2.5° right of Saturn.

May 3 Mars 2.2deg upper right of Saturn (dusk)

May 4 Last Quarter 3:16 am

May 5 Compact triangle of Venus-Mars-Saturn less than 3 deg on a side. The span of five planets from Jupiter to Mercury is 36 deg long today. Mercury fading rapidly.

May 6 Venus 2.4 deg upper right of Saturn (dusk)

May 10 Venus 0.3 upper right of Mars (dusk)

May 12 New Moon 6:45 am

May 13 Moon 4° lower right of Saturn (dusk)

May 14 Moon near Venus; dim Mars 2.3 deg lower right of Venus (dusk)

May 15 Moon near Jupiter (15 & 16 dusk)

May 16 Moon near Gemini Twins (dusk)

May 19 First Quarter 3:42 pm  
Moon near Regulus (dusk)

May 22 Moon near Spica (22 & 23 dusk)

May 26 Full Moon 7:51 am (*Flower Moon*)  
Moon near Antares (10 pm)

This information was obtained from the Henry J. Buhl, Jr. Planetarium in Pittsburgh, PA.

## CLUB CALENDAR

Activity	Date	Time	Contact
- Beginners Night	Apr 20	7pm	Nakic
- General Meeting	Apr 25	5pm	
- UM Dearborn	May 3	9pm	McFarland
- FAAC Board Mtg	May 9	5pm	
- Astronomy at the Beach	May 17,18	5pm	Kirchhoff
- General Meeting	May 23	5pm	
- FAAC Board Mtg	June 13	5pm	
- General Meeting	June 27	5pm	
- FAAC Board Mtg	July 11	5pm	
- General Meeting	July 25	5pm	

- FAAC Board Mtg	Aug 8	5pm
- General Meeting	Aug 22	5pm
- FAAC Board Mtg	Sep 12	5pm
- Island Lake Star Party	Sep 14	- -
- GLACC Star Party	-	- -
- General Meeting	Sep 26	5pm
- FAAC Board Mtg	Oct 10	5pm
- General Meeting	Oct 24	5pm
- FAAC Board Mtg	Nov 14	5pm
- General Meeting	Dec 5	5pm
- Lake Erie Ice Days	-	- -

*Please help with new items and filling in the blanks.....*

## A CALL FOR PAPERS

*Well gang, the kitty of extra articles awaiting publication is almost empty. Thanks to all who have contributed to making Star Stuff what it is today. Keep them coming! I was recently contacted by an individual who picked up a copy of Star Stuff at Rider's Hobby. He enjoys reading the newsletter and would like to write an article on his astrophotography experiences with a Logitech Webcam. I said sure! Your contribution does not have to be about high end equipment. Star Stuff has many levels of readers. We are trying to appeal to all levels of amateur astronomers in some form or another. So don't be afraid to give your pen a try. Remember, someone great once said, "The pen is mightier than the sword".*

## ADVERTISERS WANTED!

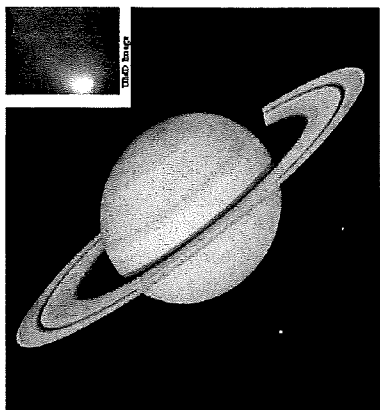
*Please let me know if you are aware of anyone that you think might want to advertise in Star Stuff. Advertising revenue helps offset costs of reproduction and mailing. At this time, 170 copies of Star Stuff are run each month and 130 copies are mailed to members. Advertisers have been distributing the remaining 40 copies to interested parties. Your ideas for new advertisers would be greatly appreciated. Thanks in advance!*



# Star Parties 2002

Outdoor Astronomical Observing Sessions that are Open and Free to the Public

## A Planetary Conjunction

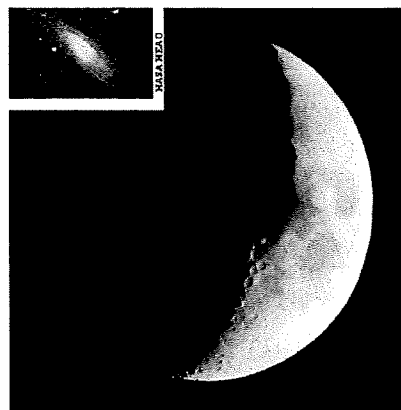


**3<sup>rd</sup> May 2002, Friday 9 PM—11 PM**

The Solar System on Parade: Comet C/2002 CI (Ikeya-Zhang) and the planets Mercury, Venus, Mars, Jupiter, and Saturn (To view the comet and all five planets arrive early.)

Cloud Date: 10<sup>th</sup> May 2002, Friday 9 PM—11 PM

## The Fall Sky



**8<sup>th</sup> November 2002, Friday 7:30 PM—9:30 PM**

A Bit of Everything: The Crescent Moon, Uranus, the Andromeda Galaxy, and much more.

Cloud Date: 15<sup>th</sup> November 2002, Friday 7:30 PM—9:30

★ **Location:** The observing area is located on the 5<sup>th</sup> floor of the Monteith Parking Structure at the University of Michigan-Dearborn. Enter the campus via the North Entrance (Evergreen at Hubbard) and follow the signs to the observing area.

★ **Status of the Event:** Call the number below after 6 PM on the day of the Star Party to find out its status. If the sky is not clear enough to hold the Star Party, the cloud date will be used to reschedule the event.

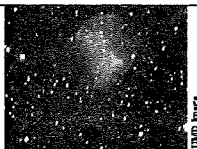
★ **Dress:** Even if the temperature during the day is warm, please dress appropriately. It tends to cool off and there is no protection from the wind.

★ **Several Telescopes** will be provided by the University for observing. Feel free to bring your own telescope if you would like.

Presented by The Astronomy Group of the University of Michigan-Dearborn

*Where Astronomy can be seen first hand.*

The University of Michigan-Dearborn  
Department of Natural Sciences  
c/o Dr. Donald Bord  
4901 Evergreen Road  
Dearborn, MI 48098-1491



Phone: 734-762-9365  
Email: [eric\\_j\\_rasmussen@yahoo.com](mailto:eric_j_rasmussen@yahoo.com)

8 April 2002



# **Kensington Metropark Sixth Annual Astronomy at the Beach May 17<sup>th</sup> & 18<sup>th</sup>**

*(Time 5:00 pm to Midnight rain or shine)*

## ***Great Lakes Association of Astronomy Clubs***

Check our web site <http://www-personal.umich.edu/~dgs/kensington/>

***Don't Miss Viewing***

## **The Great Planetary Alignment of 2002**

***Through Our Telescopes and Binoculars***

**This alignment will not be seen again until 2020!**

***Speakers to Be Announced***

*Sponsored by:*

• *Ford Amateur Astronomy Club*

• *Warren Astronomical Society*

• *Eastern Michigan University Astronomy Club* &

• *University Lowbrow Astronomers*

• *Oakland Astronomy Club*

• *Seven Ponds Astronomy Club*

• *Sunset Astronomical Society*

• *Genesee Astronomical Society*

• *Amateur Astronomers of Jackson*

***Rider's Hobby Shops***

***Discovery Channel Store***

Visit the GLAAC web page at: <http://www.boonhill.net/glaac/>

**Look at the stars through our telescopes! Bring your binoculars.**

**Bring the family, students, teachers & scouts!!!**

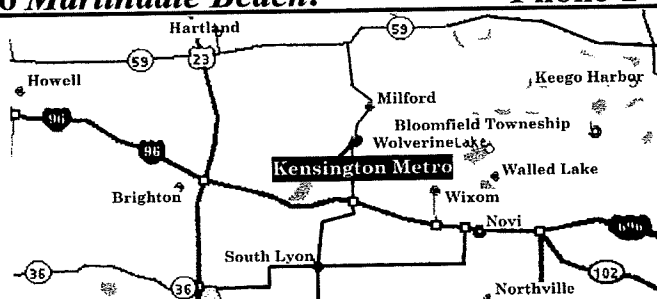
*(Due to limited seating, please bring a chair)*

- |                                     |                              |
|-------------------------------------|------------------------------|
| - Slide Presentation                | - Tour of the constellations |
| - Comet making Demonstration!       | - View the Sun               |
| - CCD digital Imaging               | - Learn Astronomy            |
| - Walk through Astronomy Displays   | - How to choose Telescopes   |
| - Food and Beverages (for purchase) | - Sky tour treasure hunt     |

**Kensington Metropark I-96 at the Kent Lake Road exit (153).**

**Go North to Martindale Beach.**

**Phone 1-800-477-3178**



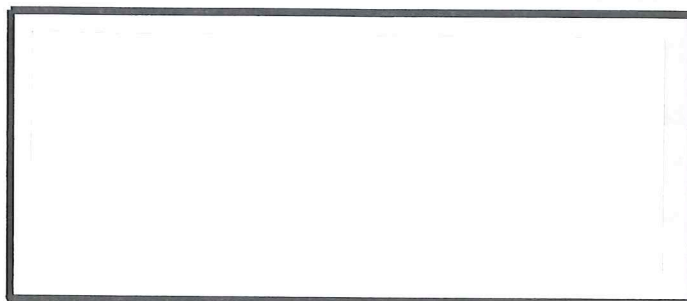
**This Event Is Free!**

**Park Vehicle Permit Required: \$2.00/Friday, 3.00/Saturday**

*Last updated April 10, 2002*



Ford Amateur Astronomy Club  
Star Stuff Newsletter  
P.O. Box 7527  
Dearborn, MI 48121-7527



48167+3555



# RIDER'S<sup>®</sup>

## HOBBY SHOPS

<b>Store Hours:</b> M-F 10am-9pm SAT 10am- 6pm SUN Noon-5pm	<b>Gen. Manager:</b> John Kirchhoff <b>Website:</b> <a href="http://www.riders.com">http://www.riders.com</a> <b>Email:</b> <a href="mailto:riderslivonia@prodigy.net">riderslivonia@prodigy.net</a>	30991 Five Mile Rd. Livonia, MI 48154 Tele: 734.425.9720 Fax: 734.425.2029
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### JUST ARRIVED ! NEW UHTC COATINGS!

- Meade LX200 GPS 8" \$2670
- Meade LX200 GPS 10" \$ 3230

Demo every clear Thursday night in front of the shop !

### Astronomy Day Special (good Thru 4/30/02)

Free Meade Electronic Eyepiece with purchase of ANY  
Meade Telescope in stock a \$79.99 retail value.