



The Warren Astronomical Society Paper

P.O. Box 1505

Warren, Michigan 48090-1505

www.boonhill.net/was

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2005 WAS OFFICERS

// January, 2005

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The WASP (*Warren Astronomical Society Paper*) is the official monthly publication of the Society. Each new issue of the WASP is mailed to each member and/or available online www.boonhill.net/was. Requests by other Astronomy clubs to receive the WASP, and all other correspondence should be addressed to the editor, Cliff Jones, email: cliffordj@ameritech.net

Articles for inclusion in the WASP are strongly encouraged and should be submitted to the editor on or before the first of each month. Any format of submission is accepted, however the easiest forms for this editor to use are plain text files. Most popular graphics formats are acceptable. Materials can be submitted either in printed form in person or via US Mail, or preferably, electronically via direct modem connection or email to the editor.

Disclaimer: The articles presented herein represent the opinions of the authors and are not necessarily the opinions of the WAS or the editor. The WASP reserves the right to deny publication of any submission.



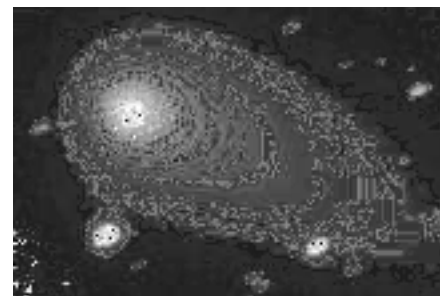
Astro Chatter

by Larry Kalinowski

Comet Machholz is now in viewing position for northern, hemisphere observers. If you don't mind doing a little searching in the suburban sky, you shouldn't have any trouble finding it with a pair of binoculars. Any size will do. Of course, the farther you can get from the city lights, the better. It's about fourth magnitude, just on the edge of naked eye visibility. Face south, around 9:00 PM and try to find Taurus the bull. It'll be high above the horizon, about 65 degrees, which is almost overhead. Actually, early in the month, it'll be near the Pleiades, that little group of stars that some people confuse with the little dipper. Suburbs north of Detroit will have to contend with Detroit's skyglow, but others should have a better sky and little difficulty. Early in January, the comet will be closest to the Earth but more than 90 degrees from the Sun, giving us a broadside view of its tail, if one develops. Comet tails have a tendency to grow even longer after a trip close to the Sun, so look for some detail

in the tail all during January. The comet will remain relatively bright throughout that month. According to Charles Morris of the JPL, it's a half magnitude brighter than predicted in ephemerides. Eventually it'll move into the northern sky. The picture shown below was taken by Gianluca Masi and Franco Mallia, in Italy, on September 14, 2004.

Fred Espenak wowed the members of the WAS when he showed his PowerPoint presentation at the club banquet last month. His presentation included past motion pictures of his trips to all seven continents and the eclipses he photographed. There were numerous stills and enhancements that showed much more detail than usually seen in a slide show. One shot even showed features on the Moon, which is usually dark as it covers the Sun. That detail, with



the Sun's corona, offered a very unusual picture. His talk also included details about upcoming eclipses and the advantages of each. If you missed Fred and the banquet, you missed somethin' special.

About 65 people showed up for the banquet. Many members received awards after Fred's show. All the members and non-members that gave a talk during the 2004 year were given certificates of appreciation. Special awards were given to Cliff Jones, Bill Beers and Vince Chrisman, who received the E. John Searles award, for outstanding work with the society. Of course, the awaited raffle was another highlight, with 10 to 30 power binoculars, donated by Rider's Hobby Shop and Ken Bertin's donation of a binocular viewer for your telescope. There were other assorted prizes, like the astronomers multi-purpose tool and Starry Night Pro, a favorite software program. Like I said, if you missed it, you could have been one of the excited prizewinners.

Deep Impact is the name of a space probe that's designed to smash into Comet Temple-1 on July 4, 2005. The sudden impact is supposed to make a crater or impact region about as big as a football field. It has to be launched in the near future or the launch window will close. Just what the experiment is all about, wasn't really stated in the article seen at www.space.com. Astronomers would like to know more about the inside of a comet nucleus, because it is little effected, as it journeys around the Sun. All comets lose material on the outside because of sublimation of frozen gasses as it closes in on the Sun. The approach to the comet will be photographed before impact.



Remember those fun house games that you enjoyed playing in when you went to an amusement park. Usually there was a tumbling barrel, a long slide or a

rotating platform that ran about 5 rpm or so and you tried to stay on it by staying in the center of the platform. The rotating platform might hold the answer to long term space flight. Von Braun's vision of artificial gravity was a large, rotating, wheel like space station as it orbited the Earth. Today, scientists are considering the use of an on board, rotating platform for smaller craft. Small enough to hold one or two people in constant rotation while they rest or sleep. Their heads would be near the center of the platform, with their feet

near the edge. Rotating it at the proper speed would keep their feet near a one g environment, simulating Earth gravity. Of course, it wouldn't be practical to stay on the device all the time, but once, twice or three times a week, for a few hours, might be all that's needed to keep bones from deteriorating.



On January 14, the Huygens probe will parachute into the fog infested atmosphere of Titan, Saturn's largest Moon, and attempt a landing on its surface. No

one knows what's to be expected. The Huygens probe has been orbiting Saturn for a few months now, aboard the Cassini space craft. Just exactly what will it reveal? The atmosphere of Titan is mainly hydrocarbons of some sort. Just the sort of atmosphere that produced the life forms we now see on Earth. News of the landing should be exciting. Drawing by Mark Garlick.

Richard Szumanski's talk, last month at Cranbrook, brought up some interesting points about Asteroids, comets and meteors. All those objects are related, directly and indirectly, and all follow planetary, orbital mechanics. Of course, they're all in different parts of the solar system and that makes them seem to be unrelated, but it's quite possible that they may have all come from the same source. Bode's law was discussed. You know, that series of numbers that seems to predict the positions of the larger planets. Some say the series is just a coincidence. I wonder. Resonances play an important role in shuffling orbiting bodies. As a result they follow a mathematical placement. Of course, there are other much stronger effects on planets which play an even greater role in their lives.

It was homecoming day last Saturday, November 27. Michele's, next to the old Van Dyke Inn, became the meeting ground for some of the WAS's older members. Bill Whitney, Ken Wilson, Jerry Alyea and yours truly, with wives Sandy, Betty, Margaret, Joann and Diann Ingrao. We all settled down for a quick luncheon that lasted almost three hours. The girls separated from the boys and old times were brought up, starting as far back as the origin of the WAS at Lincoln High School. Ken was in town to see his parents. He normally lives in Mechanicsville, Virginia. So he called some of us together for a quick, last minute reunion.

November's MCCC meeting proved quite educational. Steve Greene's unscheduled PowerPoint talk about optical basics took all by surprise. He covered the whole gamut of mirror problems with ray traces, for Newtonians and Schmidt Cassegrain type telescopes. After his talk, came Dave D'Onofrio's continuation of CCD images and how they were handled, by the computer, to produce enhanced pictures. He took some extra time to explain the function of the "Kernel", a mathematical array that performs its intended duty on each pixel in the CCD image. He showed how the Kernel could perform sharpening and contrast control when used in a filter. Dave ran short of time and told us he would be back again to further explain some of the more complicated functions in processing software. I'm looking forward to part four.

Jim Wynn, our source for making copies of the WASP, will no longer be able to continue that operation. As a result, the club is forced to pay for WASP copies at some local printer...unless someone volunteers to continue copying for free. Since printing can be quite a burden on our treasury, the club may be forced to stop mailing, raise dues or add a fee to continue mailing. If you can help out with WASP distribution, please contact one of our officers. And Jim, many thanks for the effort you've put into our newsletter.

Looks like radio is going to be overshadowed by TV again. More than one company is gearing up and designing antennas for mobile use. Mobile satellite TV is on its way and is expected to move into the automobile, perhaps within the next five years. Right now antennas are expensive and just now being designed for DirecTV and/or Dish networks. If you'd like to keep your kids occupied with TV on long trips, with a wide choice of viewing matter, it's just around the corner.

Riyad Matti, our observatory chairman, is looking for back copies of Sky and Telescope or Astronomy magazines to keep at the observatory. He wants to have some on hand to pass out to visitors that stop in for a look-see through the club telescopes. Bring any copies you want to donate to the next meeting or to the observatory the next time you're there.

The battle for data storage continues among manufacturers of DVD players and PC disc drives. By the end of 2005, HD DVD's are supposed to hit the market, with cooperation with the big motion picture makers. The storage ability of one single disc approaches 20 gigabytes. However, Blue Ray

DVD's are supposed to hold even more. About 25 gigabytes per disc. Each format uses a blue laser to read data but are different in some respects. Both technologies will be improvable to increase storage data even further. Just exactly which format will win the public's approval remains to be seen.

This month begins my fourteenth year as a contributor to the WASP. There have been other unscheduled articles but the "Chatter" series has been a continuous one. There will be more forthcoming, I'm sure. Thanks for letting me get into your heads and thank you, Frank McCullaugh, Cliff Jones, Jim Wynn and Vince Chrisman for creating a publication that gave me a chance to expand my horizons.

The next scheduled speakers will be Jim Shedlowski at the Cranbrook meeting on Monday, January 3 and Dave Bailey at MCCC on Thursday, January 20. Jim's talk will be a panorama of the Texas Star Party. While Dave's talk will be on The Atmosphere—Deep and Shallow.

A small Windows (98 and higher) program, called COLONG, has been added to the club's shareware library. The program brings up a window with the longitude of the sunrise terminator, for the present computer date. The date can be changed for other viewing times. It also gives the dates for phases of the Moon.

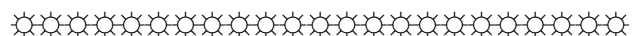
The January computer group meeting is scheduled for January 27th, (the fourth Thursday of the month) at Gary Gathen's home in Pleasant Ridge. He lives at 21 Elm Park Rd., three blocks south of I-696 and about a half block west of Woodward Ave. Meetings will start at 8:00 pm. You can reach him at 248-543-3366, or me, at 586-776-9720 for any further information.

If I missed you at the banquet in December, please have a Happy New Year!



Don Parker's amazing shot of the December Jupiter occultation

All photos are courtesy of SPACE.COM unless otherwise noted.





THE SWAPSHOP

This column is for those who are interested in buying, trading or selling items. Call 586-776-9720 (cometman@mybluelight.com) if you want to put an item for sale or trade in this section of the WASP. The ad will run for six months. The month and year, the ad will be removed, is also shown.

FOR SALE. PC power supply, 235 watt, switching type, ATX format. Used, replaced with a larger power supply. 586-776-9720. \$15. (6-05)

FOR SALE. Parts to build an 8 in. telescope. Includes an 8 in., F7, Pyrex mirror (1/25 wave, 56.3 in f.l.), finished fiberglass tube, 1.83 in. Pyrex, elliptical diagonal mirror (1/16 wave), Tube cradle, heavy duty brass pillow block bearings mounted in pipe fittings, two wooden disks for making the mirror support and a seventy lb. Steel base with a 2 1/2 in. flange, threaded for a 2 1/2 in. pipe post. 586-754-4076. Asking \$100 for all. (5-05).

WANTED. 12 1/2 inch aluminum mirror cell. Call Bob Watt at 586-757-4741. (2-05).

WANTED. A 3.1 inch F-15 refractor (tube assembly only) for a photographic guide 'scope. Would prefer a Meade ('80's vintage) or Unitron. Jim Ehlers, 248-628-1615 or e-mail ehlers71@comcast.net. (2-05).

FOR SALE. Celestron C102 HD, 4 inch , F-9 refractor. Comes complete with star diagonal and 20mm eyepiece (standard issue). Very good condition! Asking \$265. Jim Ehlers, 248-628-1615 or e-mail ehlers71@comcast.net. (2-05).

MIKE SLASHES PRICES IN HALF!

FOR SALE. Classic 6 in. Criterion RV-6 Dynascope., Newtonian reflector, 110v AC electric drive, aluminum pier with three feet, 6x30 two ring finder and rotating tube. \$200. starmikebest@comcast.net. (3-05).

FOR SALE. Refractor, 3 in., metal tube, 1 1/2 in. two ring finder scope, Eastman Kodak Aero-Ektar 7.12 in. (178mm) f.l., 5x5, F2.5 camera #EM6294 (\$150 estimated value), No mount. \$237. Starmikebest@comcast.net. (3-05).

Message from our President Ken Bertin

First of all, Happy New Year to all of you! I hope 2005 is full of health, happiness and clear skies for everyone. The last hope(clear skies) may very well need each of us to relocate, however we all can dream.

2005 has lots of fun things for us to experience in the world of Astronomy. In April, there will be a hybrid solar eclipse. Granted one would need to be on a boat in the Pacific, several hundred miles west of the Galapagos to experience it, but if you have a spare \$6-8000 laying around, there are a bunch of tours still with openings. In October, there will a rather long Annular eclipse going across Spain. Although, no where near as spectacular as the Total Eclipse variety, the price tag for the trip is much more reasonable. Occultations by the Moon in 2005 will be numerous including one of the Pleiades(of course not visible here). Needless to say all of the Occultations of the planets(there will be 11) will be unviewable here. There will be nearly 20 Lunar occultations of bright stars(most notably Antares) visible for us during the year, however.

January has a number of Jovian Moon events. The Huygens probe is schedule to enter Titan's atmosphere and land on the moon, while mother Saturn reaches Opposition. Comet Machholz will shine at 4.1 Magnitude in Taurus, passing by the Pleiades around the eighth and staying pretty bright into February.

We have lots who signed up to be speakers in 2005, continuing our tradition of being the club with the most membership participation and involvement. Remember, you don't have to just sign up for an hour long speech. We have time for a twenty minute presentation, and even a couple of five minute lectures in addition to our regular presentation each meeting.

With the tragedy in the Indian Ocean in December, it might be a very interesting topic for one to cover plate tectonics, earthquakes, volcanoes and tsunamis in the next year, including the history of them. Since it does involve our planet(obviously an Astronomical object), it might spark another talk on what goes on on the other objects in our solar system as well. I know there is a lot of data on Io and Europa.

I hope all of you enjoyed Fred Espenak's speech at our banquet, I know I sure did. We have a possible blockbuster speaker for our 2006 banquet already contacted. More on that later. Congrats to all our rewardees, Vince Chrisman(Searles Award), Cliff Jones and Larry Kalinowski(Distinguished Servive Awards).

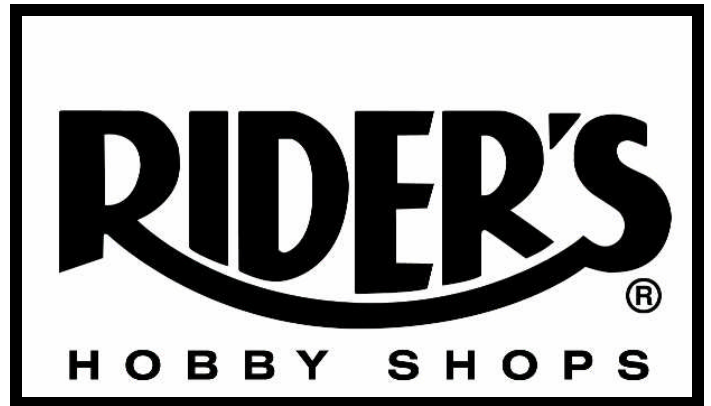
Again Happy New Year.

Respectfully Submitted,
Ken Bertin

ATTENTION!

Are you on this list? We don't have your email address and was wondering if you had one. If so, please send your email address to: Jim at jimskeebros@cs.com. Thanks.

Dave Bailey
Neil Bradley
Kim Dyer
Laszlo J. Kiss
Brian Klaus
Mark Kropinski
Al McDonald
John Rasmussen
Jon Root
Peter Rynshoven
Frank Spisak
Steve & Janet Stuart
Richard Szumanski
Craig & Sue White



*30991 Five Mile Rd., Livonia, MI 48154
(734) 425-9720 – Ask for John or Dan*

Now stocking Vixen telescopes and accessories.

See the new "**Sphinx**" GoTo Mount with the world's first LCD screen star chart controller.
Now taking orders for the new Meade LX D75 telescopes.

WAS Speaker List for 2005

| DATE | DAY | PRESENTER | SUBJECT |
|------------|----------|------------------|--|
| 1/3/2005 | MONDAY | JIM SHEDLOWSKY | TEXAS STAR PARTY |
| 1/20/2005 | THURSDAY | DAVE BAILEY | ATMOSPHERES, DEEP AND SHALLOW |
| 2/7/2005 | MONDAY | NORM DILLARD | HOSTEIN EXOPLANETS |
| 2/17/2005 | THURSDAY | GUY MAXIM | NEUTRON STARS |
| 3/7/2005 | MONDAY | MARK NORLOCK | PLANETARIUM Space Shuttle: CONCEPTION OPERATION LOSSES AND REPLACEMENT |
| 3/17/2005 | THURSDAY | MIKE O'DOWD | |
| 4/4/2005 | MONDAY | MICHAEL FORESTER | |
| 4/21/2005 | THURSDAY | VINCE CHRISMAN | VISITORS FROM OUTER SPACE |
| 5/2/2005 | MONDAY | BOB BERTA | ASTROPHOTOGRAPHY |
| 5/19/2005 | THURSDAY | DENNIS SCHMALZEL | IMAGING WITH NEW DSI CAMERA |
| 6/6/2005 | MONDAY | ALAN ROTHENBERG | THE LONG NIGHT OF SELENOGRAPH |
| 6/16/2005 | THURSDAY | RIYAD MATTI | |
| 7/11/2005 | MONDAY | MARTY KUNZ | |
| 7/21/2005 | THURSDAY | DAVE D'ONOFRIO | ASTRONOMY IN 3D |
| 8/1/2005 | MONDAY | DAVE WORKUN | STRING THEORY |
| 8/18/2005 | THURSDAY | STEVE UITTI | |
| 9/12/2005 | MONDAY | PHIL MARTIN | IMPROVING ASTRO PHOTOS W/PHOTOSHOP |
| 9/15/2005 | THURSDAY | | |
| 10/3/2005 | MONDAY | DALE PARTIN | MEASURING DIST. OLD STYLE |
| 10/20/2005 | THURSDAY | | |
| 11/7/2005 | MONDAY | ALAN KAPLAN | |
| | THURSDAY | | |
| 12/5/2005 | MONDAY | | |
| | THURSDAY | | |

January 2005 Calendar

Saturday, Jan 1 • 8:00 pm: Earth is at Perihelion

Sunday, Jan 3 • 12:46 pm: Last-Quarter Moon

Saturday, Jan 8 • Saturn crosses the ascending node of its orbit and will remain north of the ecliptic until early 2020.

Monday, Jan 10 • 7:03 am: New Moon

Thursday, Jan 13 • Saturn is at opposition to the Sun. If you were on Saturn you might see the Earth pass across the Sun.

Monday, Jan 17 • 1:57 am: First Quarter Moon

Tuesday, Jan 25 • 5:32 am: Full Moon

WAS Meetings scheduled for 2005

Cranbrook Meetings – Every 1st Monday

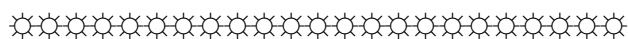
(See map on the last page for location.)

| | | | |
|-----------|----|----------|---|
| January | 3 | February | 7 |
| March | 7 | April | 4 |
| May | 2 | June | 6 |
| July | 11 | August | 1 |
| September | 12 | October | 3 |
| November | 17 | December | 5 |

Macomb Meetings – Every 2nd Thursday

(See map on the last page for location.)

| | | | |
|-----------|----|-----------------|----|
| January | 20 | February | 17 |
| March | 17 | April | 21 |
| May | 19 | June | 16 |
| July | 21 | August | 18 |
| September | 15 | October | 20 |
| November | 17 | Dec. 15-Banquet | |



Curved Collectors

By Vince Chrisman

In June, we held a Meade Nite at Stargate. We had approximately 20 folks show up with Meade,

Celestron and a few other scopes. Everyone shared their scopes and the accessories they had along with some tricks too. Here are a few that are inexpensive and will enhance your viewing pleasure.

Dick Gale demonstrated the Orion Red Dot Finder Scope he added to his Meade ETX 125. It greatly simplifies sighting in the scope by showing exactly where your scope is pointed. The Orion EZ Finder II Reflex Sight is available for \$34.95.

The mosquitoes made themselves present in the early evening. Everyone was putting on Off and other repellants except for Bob Watt. He had some nifty electronic mosquito repellents and was bug and bite free. He said he got them from QVC for around \$9. They didn't have a name on them and I search the Internet to see if I could find them. The closest I could come was the Sunbeam Mosquito repellents. So I bought one. Guess what? It doesn't work. I'll keep searching for the ones Bob uses.

Do you have a large scope and have had a heck of a time mounting it on a wedge by yourself? Well Bob Berta showed his simple solution. He has a 2x4 and tips the tripod on two legs and uses the 2x4 to become the third leg under the wedge. The wedge is now horizontal to the ground. He mounts the scope and then lifts it up to the normal position. Works great and it's a cheap solution for a very large and heavy problem.

Alan Rothenburg our Lunar Planetary and Double Star group chairman showed a number of double stars and how those can be used to determine how well your optics are performing by resolving those stars. Test your scopes optics out by looking at:

- Epsilon Lyra - The double double.
- NU (V) Scorpi. - A very close double double that test the optics of small scopes.
- Alberio in Cygnis - Colorful contrasting bright double.
- Mizar in the handle of the big dipper. First Double ever discovered with a telescope.

It's amazing the tips, tricks and neat toys you can find when you go to a star party at Stargate. Are you going to the next one?

WARREN ASTRONOMICAL SOCIETY

MEMBERSHIP/RENEWAL APPLICATION



New Member Renewal

Name: _____ Date: _____

Address: _____

City: _____ State: _____ Zip: _____

Home Phone:(____) _____ Cell Phone:(____) _____ Work Phone:(____) _____

E-mail address: _____

I would like to take advantage of the online color version in .PDF format of the *Warren Astronomical Society Paper (WASP)*, so don't send me a paper copy. (You will be notified by e-mail when your color newsletter is ready for download.)

May we send you monthly updates and occasional information on WAS activities by e-mail? YES NO

MEMBERSHIP DUES:

Regular Membership: \$30

Additional Family Membership: (Immediate family of regular member, residing at same address)

Names: _____ (\$7 for all) \$7

Sr. Citizen: (One person 65 years of age or older) \$22

College Student: (One person attending College or University) \$22

Student Membership: (Individual students, through High School) \$17

Magazine Subscription and Renewals: (At special WAS annual discount rates)

Astronomy (1 year, 12 issues at \$29.00) New Renewal \$29.00

Sky & Telescope (1 year, 12 issues at \$32.95) New Renewal \$32.95

TOTAL AMOUNT: (Please provide a single check payable to *Warren Astronomical Society*) Thank you! \$

OPTIONAL INFORMATION:

Where did you hear of our Society? _____

Experience level:

Beginner Intermediate Advance Professional

Telescope(s):

New/Dobsonian New/Equatorial Refractor SCT Radio
 Binoculars Other: _____

Make/Model: _____

Aperture: _____ Inches Millimeters f/Ratio: _____

Area(s) of interest:

Beginner Deep Sky Variable Stars
 Lunar and Planetary Meteor Observing Comets and Comet Hunting
 Solar Computer Radio Astronomy
 Astrophotography (Film, Video or CCD) Field Trips Public and Youth Astronomy Outreach

Send completed application with your check to:

Warren Astronomical Society Membership, P.O. Box 1505, Warren Michigan 48090-1505

WARREN ASTRONOMICAL SOCIETY
 P.O. Box 1505
 Warren, Michigan 48090-1505



TO:

MEETINGS

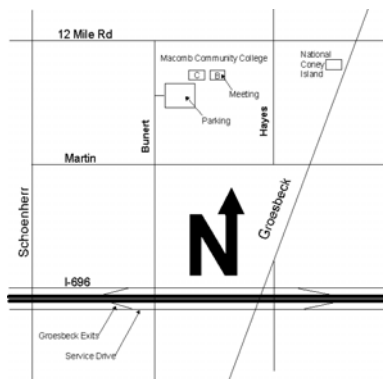
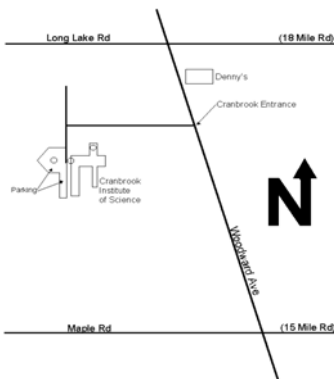
The society holds meetings on the first Monday and the third Thursday of each month, starting at 7:30 pm.

First Monday Meeting

Cranbrook Institute of Science
 39221 Woodward Avenue
 Bloomfield Hills, MI 48303-0801

Third Thursday Meeting

Macomb Community College
 South Campus, Building B, Rm 209
 14500 Twelve Mile Road
 Warren, Michigan 48088-3896



STARGATE OBSERVATORY

Stargate Observatory is owned and operated by the society. Located on the grounds of Camp Rotary on 29 Mile Road, 1.8 miles east of Romeo Plank Road.

Camp Rotary

20505 29 Mile Road
 Ray Township, MI 48096

