



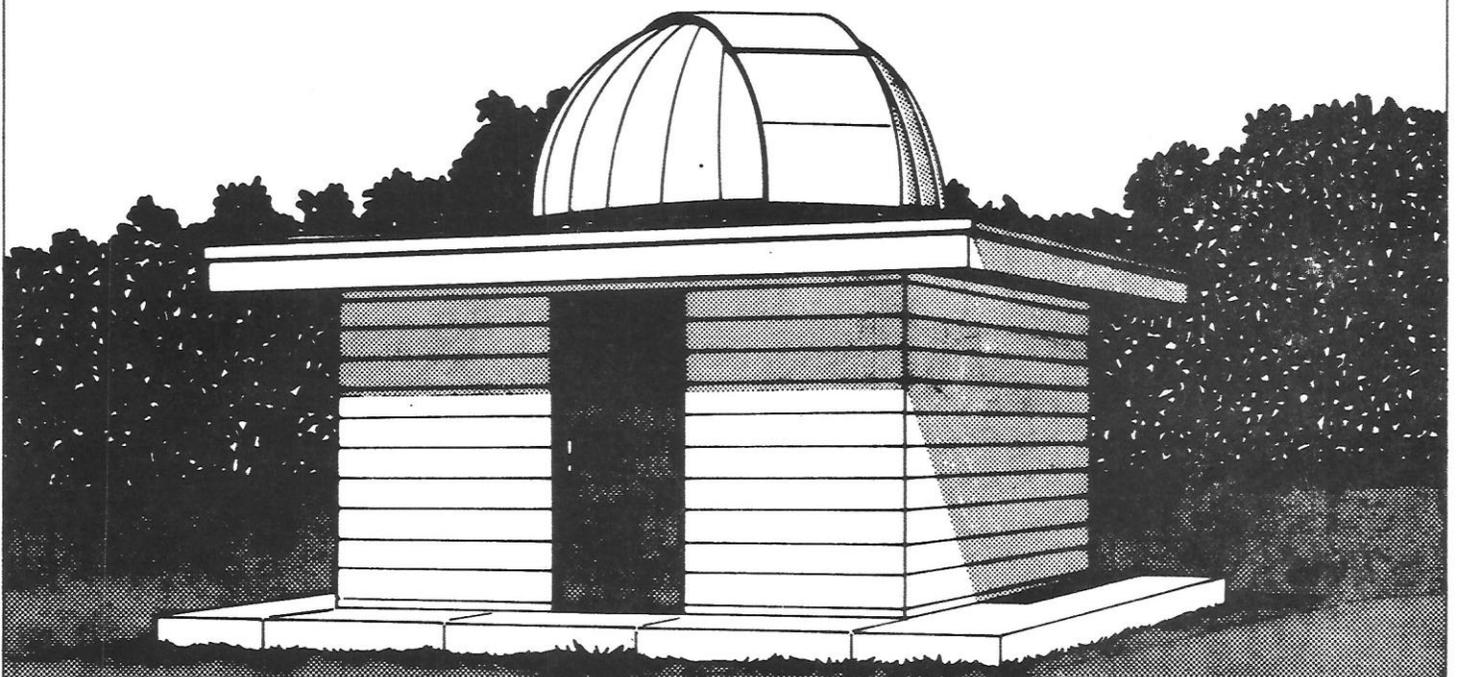
the
WASP



Journal of the Warren Astronomical Society

FEBRUARY 1982

Stargate



The illustration above shows the exterior of the W.A.S. STARGATE observatory, located on Camp Rotary property off North Ave. on 29 mile road. The building contains a 12 $\frac{1}{2}$ " cassagrain telescope of 100" focal length. The use of this observatory is the privilege of all members & guests of members. The equipment within the building will allow observational astronomy to be conducted at all times, weather permitting. A sun filter is also available for use on request.

Warren Astronomical Society Paper

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The W.A.S.P. is the official publication of the Warren Astronomical Society and is available free to all club members. Requests by other clubs to receive the W.A.S.P. and all other correspondence should be made to the editor at the above address. Articles should be submitted at least one week prior to the general meeting.

W.A.S.

Warren Astronomical Society
P.O. Box 474
East Detroit, MI 48021

President: Doug Bock 533-0898
1st V.P.: Frank McCullough 759-5215
2nd V.P.: Alan Rothenberg 355-5844
Treasurer: John Wetzel
Secretary: Nancy Tomczyk

The Warren Astronomical Society is a local, non-profit organization of amateur astronomers. The Society holds meetings on the first and third Thursdays of each month. The two meeting locations are listed below:

1st Thursday - Cranbrook Institute of Science
500 Lone Pine Road
Bloomfield Hills, MI

3rd Thursday - Green Acres School
Cousino at Holmes
Warren, MI 48092
264-2509

Membership is open to those interested in astronomy and its related fields. Dues are as follows and include a year's subscription to Sky and Telescope.

Student	\$18.00	Individual	\$27.00	Senior Citizen	\$22.00
College	\$22.00	Family	\$32.00		

Stargate

Observatory Chairman: Alan Rothenberg 355-5844 Stargate Observatory is owned and operated by the Warren Astronomical Society in conjunction with Rotary International. Located on the grounds of Camp Rotary, Stargate features a 12½" club-built Cassegrainian telescope under an aluminum dome. The observatory is open to all club members, according to the "Stargate Observatory Code of Conduct." Lectures are given at Stargate Observatory each weekend. The lecture will be either Friday or Saturday night, depending on the weather and the lecturer's personal schedule. If you cannot lecture on your scheduled weekend, please call the Chairman as early as possible or contact an alternative lecturer. Those wishing to use Stargate must call by 7:00 p.m. on the evening of the observing session. The lecturers for the coming month are:

February 19/20... Dave Harrington.....	879-6765	March 19/20	Doug Bock	533-0898
February 26/27... Frank McCullough...	879-6765	March 26/27	Ray Bullock.....	879-9458
March 5/6..... Ron Vogt	545-7309	April 2/3	John Root	464-7908
March 12/13..... Alan Rothenberg.....	355-5844	April 9/10	Lou Faix	781-3338

MINUTES OF THE JANUARY 21, 1982 MEETING OF
THE WARREN ASTRONOMICAL SOCIETY

At 7:55 the meeting was called to order by our president, Doug Bock. We had 18 people at the meeting, 7 who were guests. We were given some very good news. We are going back to Macomb College for sure. The question is just when. Lou Faix our chairman for The Great Lakes Regional Convention needs some help getting this convention together. Any volunteers please give Lou a call. The agenda for the convention is as follows: Friday evening we will be at Cranbrook, Saturday day amateur papers will be presented and there will be a luncheon. Saturday evening will be the Great Lakes Banquet with a professional speaker that night. Sunday, we will have activities at Stargate.

Some news on our sub groups:

COSMOLOGY- JOHN WETZEL

1/20 Pete Kwentus gave a talk on gravity waves

3/17 Doug Bock will have the meeting at his house

4/21 Lou Faix will give a talk on binary stars

OCCULTATION- Dave Harrington

2/13 The meeting was at Dave's house to watch the lunar eclipse
which was a disappointment

DOUBLE STAR - Lou Faix

There was no interest in this sub group so it has been temporarily
merged with the cosmology group.

ATM and OBSERVING- Doug Bock

This group will be meeting on a regular basis with presentations

2/11 discuss future activities, techniques and theory. Did you know
that out of 200,000 amateur astronomers that only 500 in the
USA hold Messier certificates?

ASTROPHOTOGRAPHY- Larry Kalinowski

Larry was not present to update us on this group.

For our program, Doug brought in his new Meade 4" Schmidt-Cassegrain telescope that he got for Christmas. Don Neal from the U of M came all the way down to give us an excellent talk on SUPER NOVA REMNANTS.

Respectfully Submitted
Garry Tomesek

Warren Astronomical Society
Schedule of Events
For MARCH

Tues. 3/2 First Quarter Moon
Thur. 3/4 *** CRANBROOK MEETING AT 7:30
Tues. 3/9 Full Moon
Wed. 3/10 Livonia meeting
Sat. 3/13 ***Observing group meeting at Frank McCullough's house.
Discussion of the Spring deep sky objects. Method~ of finding the
Virgo cluster. Phone 254-1786
Wed. 3/17 Cosmology meeting at Doug Bock's house. Phone 533-0898
Last Quarter Moon
Thur. 3/18 *** GENERAL MEETING at 7:30
Sat. 3/20 Hurray, Hurray, Spring starts TODAY.
Thur. 3/25 Astro-photography meeting at Larry Kalinoski's house. Phone
776-9720. New Moon.

***** WANT ADS *****

For Sale - 8 in. f/15 cassegrain telescope, equatorial mount with motor drive, slow
Deco control, 6x 35mm right angle finder, 40 mm eyepiece. Best Offer. Call Bob
Shannon at 885-42830

For Sale - Celestron 8 in., exceptional condition. Complete system \$1200.00 Call -
John Lippman 884-45410

For Sale - Falkauer Atlas. Photographic star atlas. Black stars on white
background down to 13th magnitude. Price \$45.00. Like new. Contact Marty Kunz
at 477-0546.

For Sale - 60mm 9TE-5 TASC0 refractor, 700mm focal length. 4.0,6.0 and
12.5mm eyepieces, barlow lens, star diagonal, solar wedge and sun screen. Make
best offer. Used - good condition. Call Brian Klaus at 731-0011.

travels at a speed of 13/64 of an inch per hour as compared with its actual orbital speed of 10,600 miles per hour.

Our entire miniaturized planetary system will fit into an area measuring 7 miles by 7 miles. The area of the City of Detroit will nicely accommodate our system, with some room to spare.

In our model, Alpha Centauri, our nearest star, is 24,653 miles from our Sun, a distance approximately equal to the actual circumference of our Earth. In designing our miniature model, let's assume that Alpha Centauri is the sun of a solar system which is a duplicate to our solar system. The nearest approach of our Planet Pluto to its replica, in the Alpha Centauri system, would then be 24,646 miles, assuming the orbital paths of the two planets are in the same plane as our Sun and Alpha Centauri. The cubic space assignable to the two planetary systems in our model, as determined by the model distance between our Sun and Alpha Centauri, is 29,941,208,260,000 cubic miles. From this volume, we can subtract the volume occupied by the two planetary systems or 185 cubic miles. The remainder, after our subtraction, represents an immense space which can be said to be completely devoid of any planetary bodies.

If we deem the vast devoid space in our miniature model as overwhelming, JUST IMAGINE THE VASTNESS OF THE VOID SPACE IF WE EXPANDED OUR MODEL BACK TO THE ACTUAL SCALE. We would need to multiply our 29,941,208,259,816 cubic miles by our original denominator 1.0 E9 cubed (written as 1.0 E27). The resulting total, representing the total devoid space dominated by the two planetary systems, is an awesome

29,941,298,259,816,000,000,000,000,000,000,000,000,000,000.
(29.941298259816 E39) cubic miles. WOW!!!!!!

IF OUR GALAXY CONTAINS AN ESTIMATED 150 BILLION STARS, ITS VOLUME EQUALS OUR AWESOME NUMBER TIMES 75 BILLION OR AN OVERWHELMING TOTAL OF 22.405973694862 E50 CUBIC MILES!!!!

John J Wetzel

From the Wall Street Journal: "One of Saturn's satellites appears to be an asteroid captured by the planet's gravity, scientists for the Voyager 2 spacecraft mission said. Voyager 2 came within 62,000 miles of Saturn last Aug 26, and a scientist said the dark red moon called Phoebe is "believed to be of a primitive composition."

While Reagan's budget office recommended killing all deep space probes, the President apparently bowed to the scientific community as his proposed NASA budget would maintain much of the space exploration program. GREAT NEWS