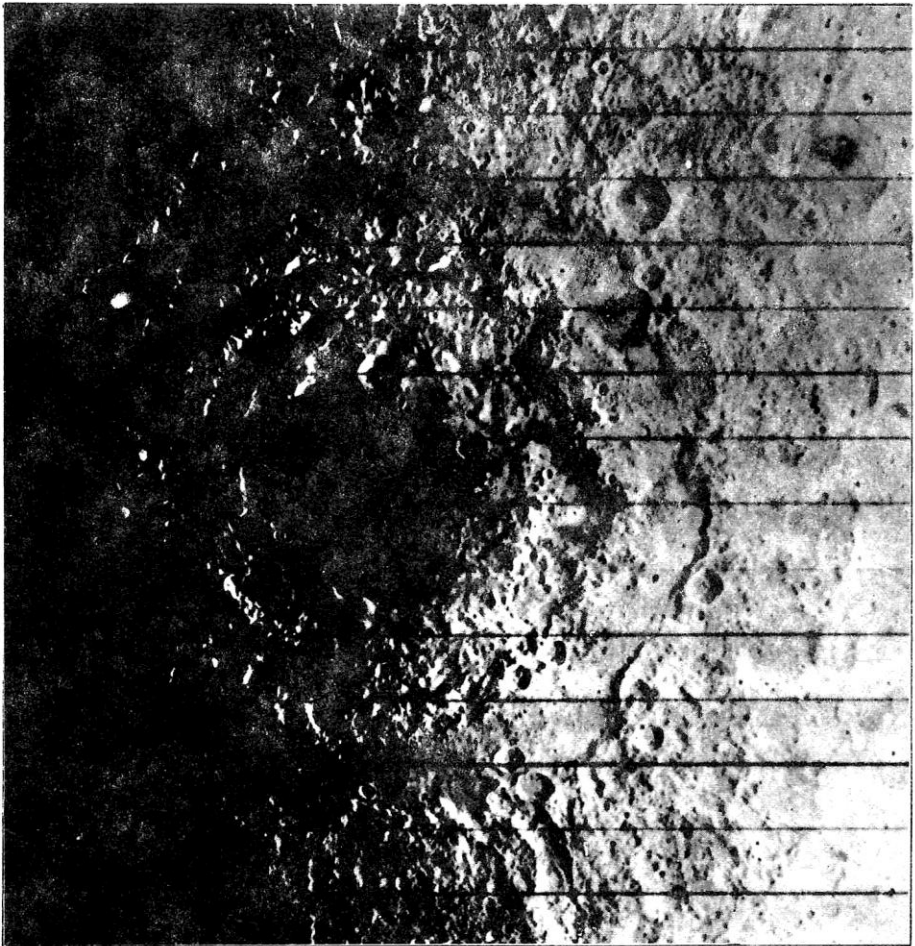


# The WASP



The moon's Mare Orientale



## SEPTEMBER 1976

**THE JOURNAL OF THE WARREN  
ASTRONOMICAL SOCIETY**



THE WARREN ASTRONOMICAL SOCIETY PAPER (W.A.S.P.) IS PUBLISHED BY THE W.A.S., MONTHLY AS A PRIVILEGE OF MEMBERSHIP. THE W.A.S. IS ALSO A CAMPUS CLUB OF MACOMB COMMUNITY COLLEGE-SOUTH CAMPUS, WARREN MICH.

The Warren Astronomical Society (W.A.S.) is a local nonprofit organization of amateur astronomers. Membership is open to all interested persons. Annual dues are as follows: Student, K-12 9.00, College 11.00, Senior Citizen \$13.50, Individual \$16.00, Family \$21.00. The fees listed here include a one year subscription to Sky & Telescope Magazine.

Meetings are held on the first Thursday at Cranbrook, and the third Thursday of each month at Macomb County Comm. College, in the student union bldg.

Subscriptions and advertisements are free of Charge to all members. Non-member subscriptions and advertisements are available upon arrangement with the Editor of the W.A.S.P. Contributions of any kind are always welcome and should be submitted to the Editor before the second Thursday of the month.

THE EDITOR: Roger A. Civic (775-6634)  
26335 Beaconsfield  
Roseville, Michigan 48066

The Editor of the W.A.S.P. will exchange copies of this publication for other Astronomy club publications on an even exchange basis.

The Warren Astronomical Society maintains contact, sometimes intermittent, with the following Organizations:

The Adams Astronomical Society  
The Astronomical League  
The Detroit Astronomical Society  
The Detroit Observational and Astrophotographic Assoc.  
The Fort Wayne Astronomical Society  
The Grand Rapids Amateur Astronomical Society  
The Kalamazoo Astronomical Society  
The M.S.U. Astronomy Club  
The Miami Valley Astronomical Society  
The Oglethorpe Astronomical Society  
The Orange County Astronomers  
The Peoria Astronomical Society  
The Saint Joseph County Astronomical Society  
The Sunset Astronomical Society

Other Amateur Astronomical Clubs are invited to join this exchange of publications.

# CLUB NEWS

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The W.A.S. now has a permanent address. A post office box in East Detroit, for all out of state mail and local delivery. The new address is on the back cover of your new WASP.

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The W.A.S. has a new membership card design, (we ran out of the old ones) for you new members and old ones who have lost yours or don't as yet have one please contact Don Misson, our new Treasurer, he will be more than happy to fix you up with a fancy new one.

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I have been informed by our president Pete Kwentus, that Mr. Bill Whitney has accepted the post of program chairman at the Cranbrook meetings, which are held each first Thursday of each month. Please contact him by phone or in person if you wish to present something at those meetings.

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The reasons for the short version of the W.A.S.P. this month are as follows: there a great many club members are on vacation in the month of August. The Editor has been on vacation and is leaving shortly for the AstroCon 76 Astronomical League convention. All the club officers of the Warren Astronomical Society will also be attending the convention in Kutztown, Pennsylvania, so, to also save the club some money the Editor has decided to put together this short version of the W.A.S.P. Next month the old W.A.S.P. will be back to its normal size and content.

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The observatory at Camp Rotary has a new lecturer. Would you believe a real volunteer? Mr. Dennis Jozwik is the new member of that gallant group of men who every Friday give of their time and talent. I personally thank Dennis for his brave move; furthermore, I will be at his side when he makes his first appearance before the Scouts at Camp Rotary. I also wish to thank Mr. Jozwik for his donation of a new eyepiece for the 12½" telescope; it is a welcome addition to the optical equipment at Stargate.

## Minutes of the W.A.S., July 15, 1976

The general meeting was called to order by Pete Kwentus. He discussed the telescope maintenance and use class and provided registration forms for interested members. The indoor classes will be held at St. Paul's United Church of Christ at 31654 Mound Road, Warren. The outdoor (field) classes will be held at Stargate.

Don Misson presented the Treasurer's Report.

Bill Whitney (newly appointed program chairman for Cranbrook) announced the showing of the "Jupiter Odyssey" (NASA film) and a talk by Dave Harrington on his trip to Kitt Peak and Lowell Observatories. The Messier-Astrophotography club meeting will be held at Cranbrook Institute of Science at 8 P.M., August 5.

Rik Hill proposed having a club picnic at Stargate sometime Labor Day weekend.

Lou' Faix discussed the program for the September general meeting. It will be set aside for presentations on the Astronomical League convention. He asked that anyone planning on taking photographs contact him. He would like to assign a specific area of interest to each so as to cover the convention accurately and avoid duplication.

Members decided to hold the August general meeting as scheduled. It was also decided to post-pone the business till the Cranbrook meeting. Carl Noble volunteered to chair the meeting.

Roger Civic reported on the observatory. He informed members that the new floor has been installed with a time plaque hidden underneath. Many thanks to Claude McEldery and Ray Bullock for their donation of materials. Roger also mentioned the need for painting. Also, new locks will be installed to replace the old ones. Questions regarding procedures for viewing at Stargate can be answered by Roger or Pete.

Rik Hill discussed information he received from Carmen Borzelli (chairman AAVSO nova search). Re explained that the assigned sectors would be approximately  $10^{\circ} \times 10^{\circ}$ . The AAVSO also has programs for naked eye observations (dome scan). Anyone interested in the nova searches should contact Rik.

The W.A.S. was honored to have Mr. Dick Lloyd of the Detroit Astronomical Society speak on Ancient Observatories.

Roger Civic gave an update on the Mars Viking Mission. He showed slides of the planned Landing area.

The meeting was adjourned by Pete Kwentus.

Minutes respectfully submitted,

Dolores H. Hill, Secretary

Program for August 19, 1976- LouFaix Program Dir.

Does anybody look at the Moon anymore?

## **THE MOON NEXT DOOR**

Inter-planetary probes and recent professional studies have directed great attention to the satellites of the outer planets. The surfaces of Mercury, Venus and Mars have proven to be more moon like than earthly. In all this excitement, it has become easy to overlook Earth's nearest neighbor and first space base - the Moon. The WAS August meeting will re-focus attention on our twin planet with movies, a talk and members pictures.

The program will feature two NASA movies:

"Nothing So Hidden" a documentary of the Apollo 16 exploration of the lunar highlands near the crater Descartes.

"The Moon - An Emerging Planet" a review of what has been learned of the Moon's structure, accretion, volcanism and bombardment.

Mr. Larry Kalinowski will discuss methods and techniques of amateur lunar photography. All WAS members are encouraged to bring their own pictures and slides of the Moon.

# V.S.O.

By Rik Hill.

When most people think of variable stars in Lyra, they think of the famous Beta Lyr., but there is another naked eye variable in Lyra, R Lyrae. It is located  $6\frac{1}{2}^\circ$  due north of Delta Lyr, and is usually shown as magnitude 4.5. Different sources list this star as anything, from semi regular to irregular. Yet all list a period which is commonly 46 to 50 days. Its spectral type is M5 (one source lists it as M6, the difference is too fine to be certain) which means that this is a red or cool star. Also R is a giant probably at a distance of 500 to 700 l.y. It is a terribly neglected star yet one which shows change in only a week. Just through casual observing you can keep track of R's changes and after a few cycles, graph its curve. If you do this remember that this is an irregular or semi regular at best and do not try to fit one cycle on top of another for you will find that they are not coincident, unlike Cepheid or long period variables. Good comparison stars to use are; theta and eta Lyrae each 4.5 magnitude and about  $1\frac{1}{2}^\circ$  apart. They may not look like the same brightness but this is due in part to a difference in color and the position of one from the other with respect to your eyes orientation. Also good for comparison are the stars; mu Lyr at mag. 5.1 and theta Her. at 4.0 mag.

## Attention, Members

### September General Meeting.    Lou Faix Program Dir.

The program for the September general meeting will review the entire Astronomical League convention, being held in Kutztown, Pa. August, 19 to August, 22, for the benefit of those WAS members who are not able to attend. There will be one and only one slide show covering all the events of interest.

## **OBSERVATORY SCHEDULE**

Lectures for the coming month are listed below.

Aug •••27/28 •• Frank McCullough•• 791-8752  
Sept •• 3/4 •• Diane McCullough •• 791-8752  
Sept •• 10/11 •• Dennis Jozwik ••••• 754-2037  
Sept •• 17/18 •• Kim Dyer •••••••• 835-2037  
Sept •• 24/25 •• Ray Bullock ••••••• 879-9458

The lecturer may select either the Friday or Saturday depending on the weather and their personal schedule. W.A.S. members wishing to be instructed on the operation of observatory and telescope controls should contact the lecturers directly. Additional lecturers and assistants are needed to lessen the load on these faithful old time members. Thank you.

Observatory Report: Roger Civic, Observatory Chairman.

The new wood floor in the observatory at Camp Rotary has been covered by the rug that was donated by Ray Bullock.

The old door locks that were going to be replaced were removed by Kim Dyer and they were cleaned and oiled by Mr. Evans a locksmith, the father of Glenn Evans one of our younger members. The locks are now in good working order, thanks to Mr. Evans and the efforts of Kim Dyer.

There have been some problems lately with the fuse on the clock-drive, but that has been corrected by Don Misson and is now in perfect working order. There is a new handle on the slit cover, it is not in front anymore, the old handle has been removed and a larger one has been placed on the top rear of the slit, it is now much easier to open and close.

There has been an addition to the optical equipment at Stargate; a new 18mm Orthoscopic eyepiece, the eyepiece was donated by Mr. Dennis Jozwik.

# Messier Objects~

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Reprinted from Sky & Telescope.

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**M16** NGC 6611 18h 16m.0 -13° 48'  
Cluster and nebula in Serpens

Basic data. The nebula is caused to shine by the cluster of hot blue and white stars. It is  $\frac{1}{2}^\circ$  in diameter and at a distance of 7,000 light-years from us.

According to M. F. Walker the cluster is only two million years old. Its brightest members, such as the conspicuous double star, are concentrated toward the northwest and are approximately 8<sup>th</sup> magnitude.

The M16 star cluster was discovered by P. L. de Cheseaux in 1746, the same year he found M17. The surrounding nebulosity, however, seems to have been first noted by Charles Messier two decades later.

NGC description. Cluster, at least 100 bright and faint stars.

Visual appearance. Messier 16 is one of the most unusual objects in the heavens and a fine sight at low power.

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**M 17** NGC 6618 18<sup>h</sup> 18<sup>m</sup>.0 -16° 12'  
Cluster and nebula in Sagittarius

Basic data. This object takes its familiar name of Omega or Horseshoe nebula from its appearance in small telescopes. As in M16, hot stars excite the gas to shine. The main source of this excitation may be in a



small cluster of faint stars which lies near the bright core of the nebula, according to the late Colin S. Gum.

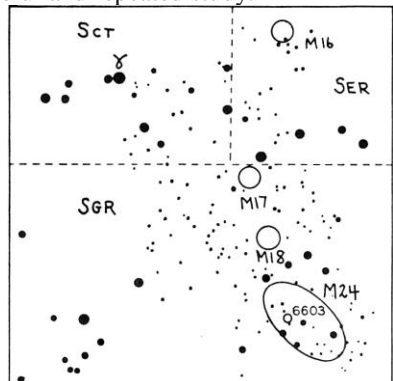
Associated with the nebulosity is a cluster of about 35 stars scattered over an area  $0.4^\circ$  across. This loose grouping is quite inconspicuous, however, and in a small telescope appears similar to a rich Milky Way field.

NGC description. Magnificent, bright, extremely large, extremely irregular shape, hooked like a "2."

Visual appearance. The Omega nebula dominates the field of the 4-inch, and only a few stars were noted in its vicinity.

The most conspicuous portion of the nebula is the straight bar, which appeared vividly white. The sky inside the hook seemed particularly dark, which is perhaps a contrast effect.

Messier 17 will challenge visual observers. Like the Orion nebula it repays careful and repeated study.





# •buy-sell-trade•

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For your own FREE ad to buy, sell, or trade anything astronomical, contact the Editors of the W.A.S.P.

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6" R.F.T. Reflector Telescope, tube only. Coulter mirror, Parks fiberglass tube, diagonal holder by Novak, spiral focus eye-piece holder. Only \$100.00 FIRM. Contact: Bill Whitney 588-1073.

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For sale; 1 1/4" Criterion S-4 Solar filter, Barlow type will accept any 1 1/4" eyepiece. Silvered mirror turns away 99.99% of the Sun's heat and light, absolutely safe, not a cheap N.D. filter. Only \$15.00, contact Ken Wilson - 268-9337.

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The L.F.K. Astrophotographic guide. Special price to all club members, \$1.00. Other guides not as complete are priced at \$4.00 & \$6.00. Contact: Larry Kalinowski, 776-9720.

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For Sale: Tasco 2.4" f.13 refractor. Alt-Azimuth head 3 eye pieces, erector lens star prism, wooden case. Metal 3 leg tripod, Good condition. Only \$65.00. Call Mike Grellman, 264-0745.

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For sale: Beautifully sculptured full relief models of the Moons central section, 30 square. Full color plaster castings- 4"X4"X1/2" thick. Great for framing.

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Special price for all club members, \$6.00, Contact: Roger Civic, 775-6634.

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K••Mart Spotting scope, 20X to 60X Zoom. 60mm Obj. Alt-azimuth table top tripod with slow motion controls. A steal at \$20.00, contact Ken Wilson, 268-9337.

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For sale; Ramsden 18mm Eye-piece, achromatic. Ramsden 9mm Eyepiece, acromatic. A good buy at \$6.00 each, or better yet both for \$15.00 Call Ken Wilson. 268-9337.

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Camera lens- perfect condition, like new-55mm f/1.7 Rexatar automatic, straw coated lens, Pentax threads. Only \$40.00. Contact: Roger Civic -775-6634.

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35mm SLR Miranda Automex III f/1.9 lens, removable penta prism, 3X tele extender, T-adapter for screw threaded lens, Great condition, \$75.00 Call Ron Kwentus, 771-3283

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