



# VESPA

THE JOURNAL OF THE WARREN ASTRONOMICAL SOCIETY



M-101 URSA MAJOR

# JULY 1977

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

MINUTES OF THE WARREN ASTRONOMICAL SOCIETY  
MAY 19, 1977

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The meeting was called to order by President, Pete Kwentus at 8 P.M. He read portions of the WAS constitution pertaining to election of officers.

Dolores Hill, secretary, briefly mentioned the Great Lakes Astronomical Symposium and the 2nd place telescope prize awarded to Louis Faix for his convertible telescope.

An appeal for articles was made by VESPA editor, Roger Civic.

The main business of the meeting was the WAS election. The new officers are as follows:

President -----Louis Faix  
1<sup>st</sup> Vice Pres. --Frank McCullough  
2nd Vice Pres. Dennis Jozwik  
Treasurer -----Gary Morin  
Secretary -----Loretta Caulley

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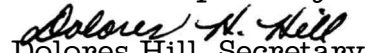
Congratulations and good luck to all!

John Root proposed a campout at Camp Rotary on Memorial Day weekend.

Dr. Dan Martin presented a talk on shadow bands and eclipses. He displayed some of his instruments and showed slides of his eclipse expeditions.

The meeting was adjourned by Pete Kwentus at 11:45.

Minutes respectfully submitted,

  
Dolores Hill, Secretary

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Editors Note:

Dear members, as you can see the old Wasp has changed again. It has been given a new name, VESPA; this is a Latin word that means wasp. The page size and character had changed about a year ago. The news letter was a very successful publication, now it is time again for yet another change in the style and format. We are going back to the good old 8½ x 11 inch page size, those members who wish to add a page or two in the newsletter are now able to. As before, the new VESPA will be assembled before each meeting. Thank you for a good year.

the Editor,



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- \$9.00, College- \$11.00, Senior Citizen- \$13.50, Individual- \$16.00, Family- 21.00, the membership fees listed here include a one year subscription to Sky & Telescope Magazine.

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

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The EDITOR:	Roger A. Civic, 26335 Beaconsfield Roseville Michigan, 48066- 776-8735
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Assistant to the-Editor:	Mike Newberry, 623-7284
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## **OBSERVATORY SCHEDULE**

Lectures for the coming month are listed below.

July .....1/2 .....Camp is closed  
July .....8/9 .....Camp is closed  
July .....15/16 .....Ray Bullock .....879-9458  
July .....22/23 .....Larry Kalinowski .....776-9720  
July .....29/30 .....Peter Kwentus .....771-3283

The lecturer may select either the Friday or Saturday, depending on the weather and their personal schedule.

In the future, some of our younger members will be assisting the senior lecturer. These members are, Bob Dennington, Dave Locke, Doug Holmes and Joe Tocco.

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## **•buy- sell- trade•**

The L.F.K. Astrophotographic Guide. Special price to Club members ...\$1.00  
Contact Larry Kalinowski, 776-9720.

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WANTED: A new or used 8" mirror blank or tool to be used as a tool to grind my mirror with. Call, Chris Edsall at 774-0007 with offer.

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FOR SALE: 10" Newtonian telescope. Factory mirror, yoke equatorial mount that is portable. 70 power eyepiece. For only \$300.00, also a 40mm Polaris finder scope-12X, \$25.00. 18mm Kellner eyepiece, \$18.00. All in good condition. Call Doug Tracy- 882-4499

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# MESSIER CONTEST & PERSEID METEOR

SHOWER

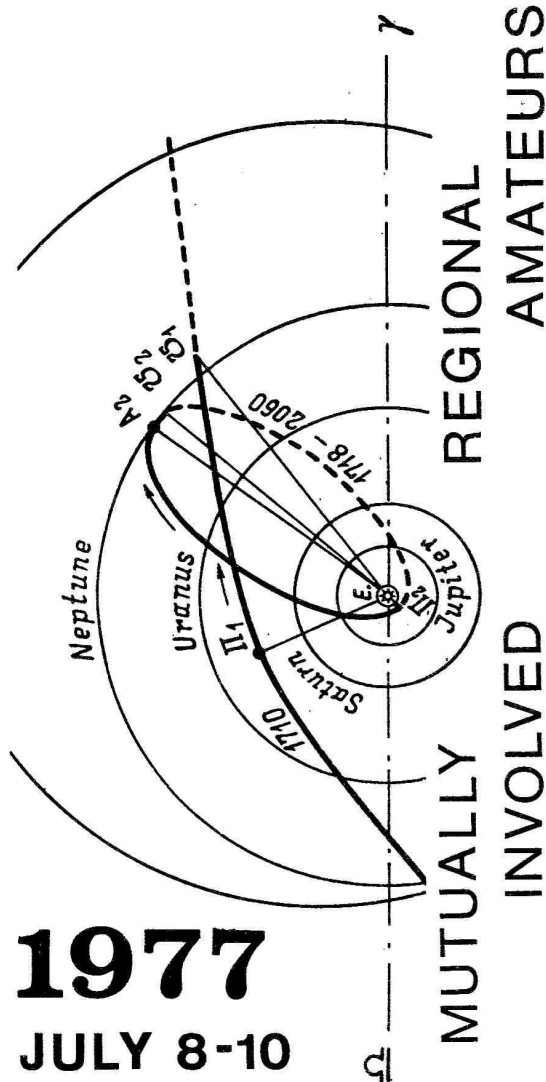


MORE INFO IN  
NEXT W.A.S.P.

MESSIER CONTEST, OUTING, OBSERVING  
and JUST LAYING ON YOUR BACK OBSERVING  
and PHOTOGRAPHING THE PERSEID METEOR  
SHOWER. AUGUST 13th

INFORMATION CALL  
FRANK MScULLOUGH  
791-8752

# Great Lakes Regional Convention



**1977**  
**JULY 8-10**

## Registration

NAME

STREET

CITY

STATE

ZIP

NUMBER OF PERSONS IN GROUP \_\_\_\_\_

REGISTRATION FEE  
\$6.00 per person

ACCOMMODATION PACKAGE \_\_\_\_\_  
\$33.00 per person and includes both Friday and Saturday stay at Hamlin Hall dormitory on campus, meals on Saturday and Sunday, and banquet. Rates are based on double occupancy. Add \$16.00 for single. Please include a list of persons taking advantage of this plan.

BANQUET \_\_\_\_\_  
\$14.00 per person for those not interested in the accommodation package.

TOTAL \_\_\_\_\_  
Payment for ACCOMMODATION PACKAGE and BANQUET is due no later than July 5, 1977.

Make check payable to GARY MORIN

Mail to: Gary Morin  
11203 E. 14 Mile Road  
Sterling Hts., MI 48077

HELP REPRESENT  
the  
WARREN ASTRONOMICAL  
SOCIETY

HAVE FUN MEET PEOPLE  
AT

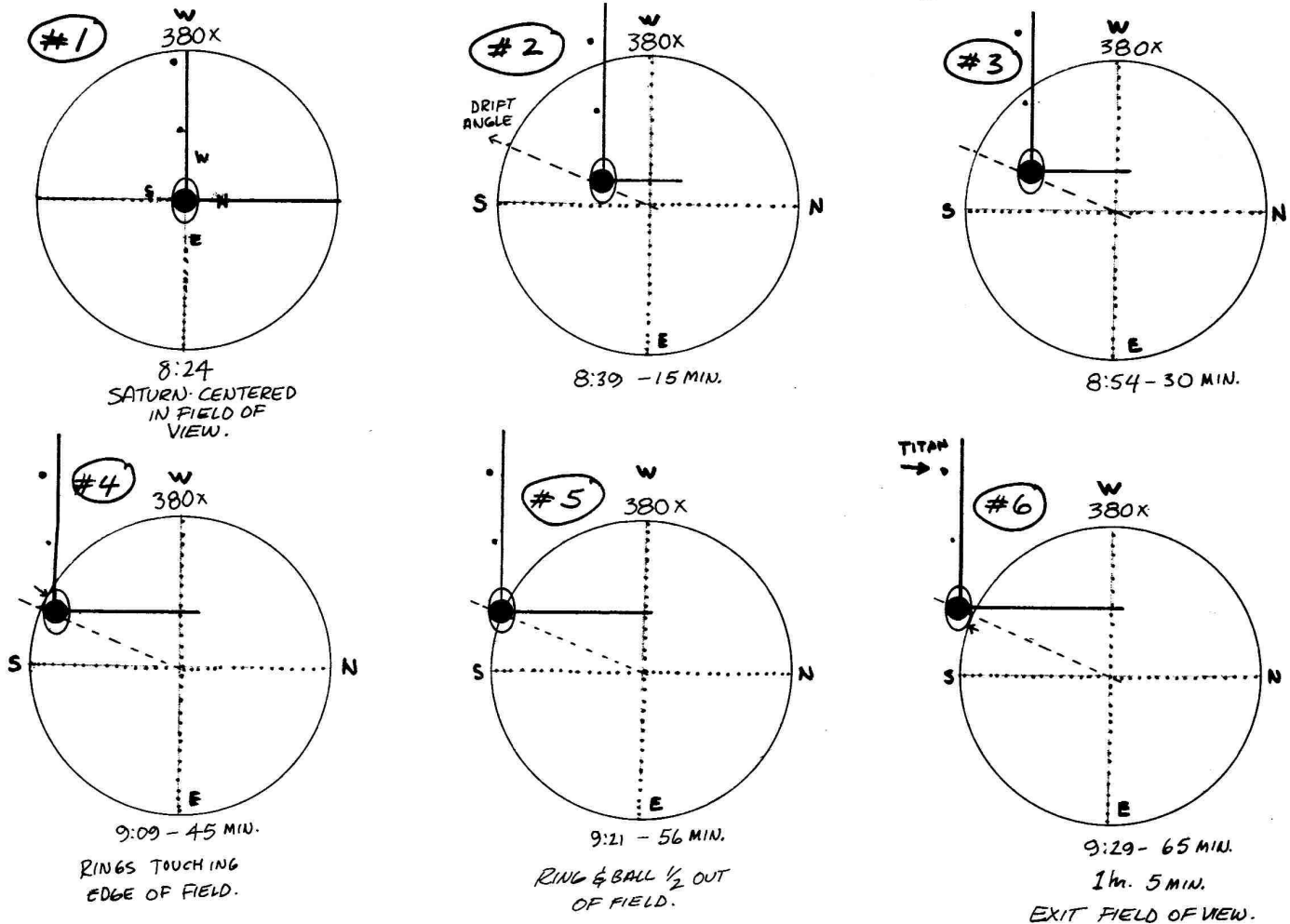
OAKLAND  
UNIVERSITY

MORE INFORMATION  
CALL FRANK McCullough  
791-8752

A PROBLEM IN TELESCOPE ALIGNMENT. with clock drive on R.A.  
by Roger Civic

FEB. 24, 1976 - 6" CASS. - 6 MM. EYEPIECE. - FIELD OF VIEW 5'36" APPROX.  
SATURN - (SIZE) 46" x 24" (RINGS)

I wanted to check the clock drive on my 6" cass. to see how well I could set it up. I took over an hour & one half to get everything squared away, then I centered the planet Saturn in the scope at 380X, the clock was running and I took a look. FIG. #1. NO ADJUSTMENTS WERE MADE WHAT SO EVER. I WALKED AWAY AND CAME BACK IN



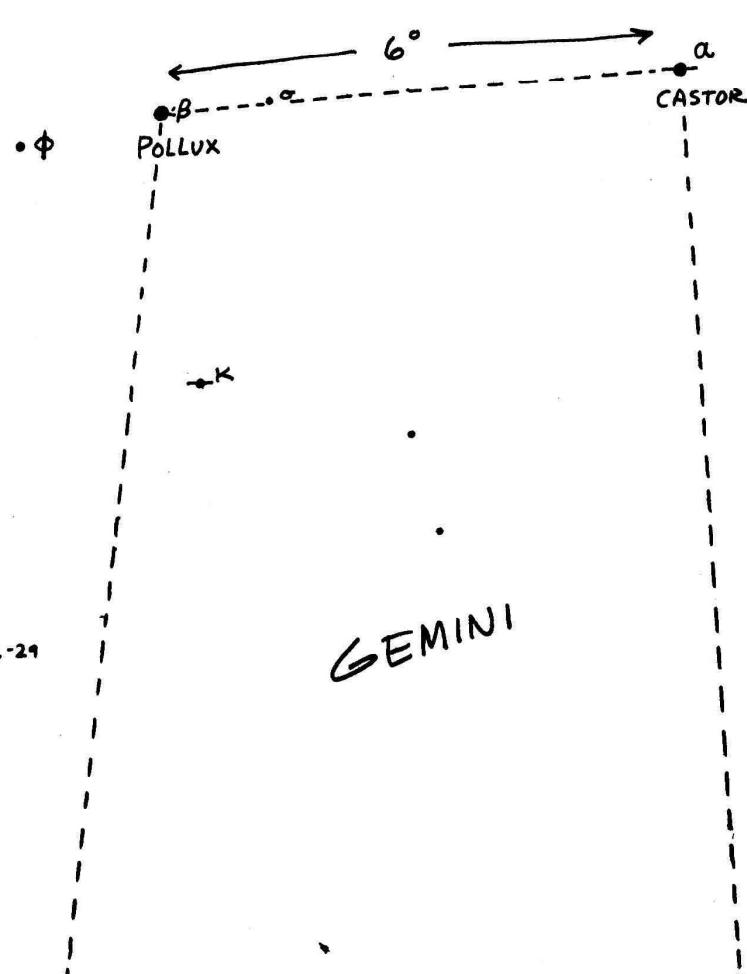
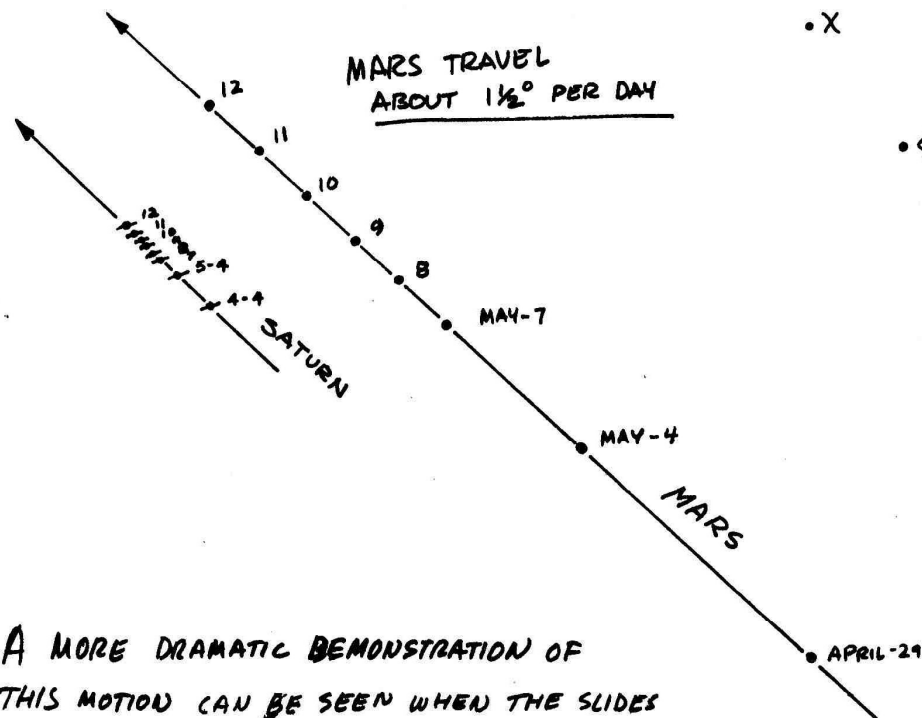
Fifteen minutes FIG. 2 - There was some movement, again in 15 MIN. FIG. 3, 45 minutes later Saturn was touching the edge of the field. FIG. 4 - in an hour and five minutes Saturn was gone. How good a job had I done in setting up my scope - the results - In 65 min Saturn had drifted (approx) 148" of arc. to the S.S.W. at a rate of 2.25" per minute or at a rate of about 0.56" in 15 sec. This is good for viewing but not for photography. I intend to do some more work on guiding and in the future will make another report -

Roger

PROOF OF PLANETARY MOTION... Photographs taken 4-29 to 5-12-1976.

by Roger Civic

FROM DAY TO DAY IT IS HARD TO SEE A PLANET TRAVEL ALONG THE ECLIPTIC. SO I THOUGHT I'D FIND OUT FOR SURE IF IT REALLY DOES AND HOW FAR IT MOVES OVER A PERIOD OF TIME. I PHOTOGRAPHED MARS & SATURN FOR A PERIOD OF 2 WEEKS WHEN THE SKY WAS CLEAR. I MADE A DRAWING OF STARS IN THE AREA & THE TWO PLANETS BY PROJECTING THE SLIDES ON A SCREEN AND MARKING ALL THE POINTS OF LIGHT. HOW ABOUT THAT, TWO OF THE POINTS OF LIGHT WERE CHANGING POSITION. THIS PROVED TO ME THAT THE PLANET, MARS AND THE PLANET SATURN WERE REALLY IN MOTION.



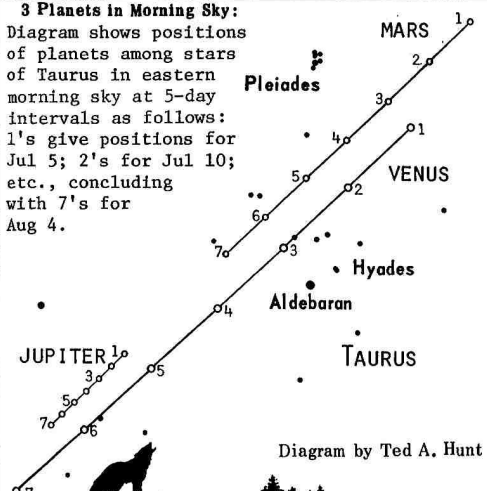
A MORE DRAMATIC DEMONSTRATION OF THIS MOTION CAN BE SEEN WHEN THE SLIDES ARE FLASHED ON A SCREEN IN RAPID SECESSION MARS & SATURN REALLY MOVE ALONG - SOMEDAY I WOULD LIKE TO SHOW THE MEMBERSHIP THESE SLIDES

ROGER CIVIC



# SKY CALENDAR JULY 1977

Information for helping teachers and students observe the sky

SUNDAY	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY	SATURDAY
<p><b>3 Planets in Morning Sky:</b> Diagram shows positions of planets among stars of Taurus in eastern morning sky at 5-day intervals as follows: 1's give positions for Jul 5; 2's for Jul 10; etc., concluding with 7's for Aug 4.</p>  <p>Diagram by Ted A. Hunt</p>	<p>MARS 1 Pleiades VENUS 2 Hyades Aldebaran TAURUS</p>	<p>Venus is brilliant morning "star" rising north of east 2 1/2 to 3 hrs before sun. Jupiter, next in brightness, rises only 1 1/2 hrs before sun in early July and is close to Venus late in month. Red Mars is highest; don't confuse with brighter Aldebaran which is also red. Take series of pictures or slides of planets among stars. Use fast film and lens, such as High-Speed Ektachrome at f/1.4. Take a 15 to 30-second exposure every few days. Sky should be quite dark (at least 1 1/2 hrs before sunup).</p>	<p>See circles labeled 5 1 on diagram at left for this morning's arrangement of the planets. One hour before sunrise note Mars 8° upper right of Venus, Aldebaran 11° lower left of Venus, and Jupiter 22° lower left of Venus.</p>	<p>Evening Planets: Saturn on July 1 is 14° lower right of Regulus and sets 2 hrs after sun. Observers with binoculars should keep track of Saturn and Regulus to use as guides to Mercury. See July 2, 9, 16, 18, 19, 27.</p>	<p>Moon, one day past full, rises shortly after sunset tonight, brightening the sky and spoiling the Milky Way. Moon rises later each night; by July 4 it will rise after twilight ends, permitting dark skies.</p>	<p>One hour after sunset: Face W to WNW. * Regulus * Saturn (14° apart)</p>
<p>One hour before sunrise (see circles labeled 2 on planet diagram above): Mars 9° upper right of Venus. Aldebaran 6° lower left of Venus. Jupiter 18° lower left of Venus. Watch Venus pass Hyades cluster (Bull's head) this week.</p>	<p>One hour before sunrise: Mars * Pleiades * Moon * Venus * Aldebaran *</p>	<p>One hour before sunrise: Pleiades * Mars * Venus * Moon * Aldebaran *</p>	<p>One hour before sunrise: Pleiades * Mars * Venus * Aldebaran * Jupiter * Moon *</p>	<p>1-2 hours before sunrise, note 3.6 magnitude star Epsilon Tauri 0.2° upper right of Venus. One hr before sunrise: * Jupiter Moon</p>	<p>One hour before sunrise (see circles labeled 3 on planet diagram above): Venus and Aldebaran closest this morning, 2.9° apart. Mars 11° upper right of Venus; Jupiter 14° lower left of Venus.</p>	<p>One hour after sunset: Face W to WNW. * Regulus * Saturn (14° apart)</p>
<p>Mars closest to Pleiades this morning. Look 5° to lower right of that cluster. The next time Mars passes the Pleiades will be June 25, 1979.</p>	<p>45 minutes after sunset (use binoculars): Saturn 12° lower right of Regulus. Mercury 1.7° lower right of Saturn. * Regulus Mercury * Moon * Saturn *</p>	<p>45 minutes after sunset (use binoculars): Saturn only 1/3 degree to lower left of Mercury. Moon * Regulus * Mercury * Saturn *</p>	<p>One hour before sunrise (see circles labeled 4 on planet diagram above): Aldebaran 6° upper right of Venus; Mars 13° upper right of Venus; Jupiter 9° lower left of Venus. Watch Venus approach Jupiter next 10 days.</p>	<p>One hour after sunset: * Spica Moon</p>	<p>Morning: Jupiter 1.8° north of 3rd-magnitude Zeta Tauri. Venus passes this star next week. One hr after sunset: Spica * Moon</p>	<p>First Quarter (evening half moon) * Spica</p>
<p>Mars midway between Pleiades and Aldebaran this morning, 7° from each. Watch Mars pass north of Hyades this week. Venus-Jupiter 1.8° apart. Mars 5° north (upper left) of Aldebaran.</p>	<p>One hour before sunrise (see circles labeled 5 on planet diagram above): Aldebaran 12° upper right of Venus; Mars 15° upper right of Venus; Jupiter 5° lower left of Venus. Evening: Antares lower left of moon.</p>	<p>Venus-Jupiter 4° apart this morning. One hour after sunset: Moon * Antares</p>	<p>Venus-Jupiter 3.2° apart in morning sky. 45 min after sunset (use binoculars): Mercury and Regulus only 8 minutes of arc apart (1/4 of moon's diameter). Look 4° up, 12° N of W. Mercury brighter.</p>	<p>Venus-Jupiter now 2.4° apart. Venus appears 1.1° farther east among the stars each morning. This morning and tomorrow note 3rd-magnitude Zeta Tauri (tip of Taurus' southern horn) 0.6° from Venus.</p>	<p>Venus-Jupiter only 1.8° apart this morning. Moon rises today about 45 min before sunset. Tomorrow's full moon sets around sunrise and rises around sunset.</p>	<p>Venus and Jupiter 30 closest this morning, 1.5° apart. Jupiter is 2 magnitudes fainter than Venus, or 1/6 as bright. 17° to upper right of this brilliant pair are two reddish objects, Mars and Aldebaran. See circles marked 6 on diagram.</p>

Magnitudes of the Planets: Venus -3.8 to -3.6; Jupiter -1.5 to -1.6; Saturn +0.7; Mars +1.2; Mercury -0.4 (Jul 16) to +0.3 (Jul 31). All naked eye planets move eastward this month as follows (details on Calendar): Venus goes 34° through Taurus, passing Pleiades, Aldebaran, and Jupiter; Mars, 12° from Arcturus into Taurus, passing Pleiades and Aldebaran; Jupiter, 6 1/2° in Taurus, passing Zeta Tauri (Bull's southern horn). In evening twilight, Saturn in Cancer, moves 2° closer to Regulus July 1-18; Mercury passes Saturn and Regulus.

East Lansing Sunrise: July 1 6:03 a.m.; July 16 6:13 a.m.; July 31 6:28 a.m. EDT  
Sunset: July 1 9:20 p.m.; July 16 9:14 p.m.; July 31 9:00 p.m. EDT