

URANOGRAPHOS

Newsletter for the
Shoreline Amateur Astronomical Association

Michael Cote' and Robert Wade, Editors

July, 1989

JULY MEETING

The July meeting of the Shoreline Amateur Astronomical Association will be held July 20th at the West Ottawa Middle School Planetarium in Holland, Michigan. The agenda is as follows:

7:30 - 7:45 PM - July Night Sky & Star Quiz

7:45 - 8:45 PM - "What Every Novice Observer Should Know" by Robert Wade. This talk is designed to give useful tips, information sources, etc. for beginning astronomers. Please bring a couple of books, etc. which you found helpful for your own development.

8:45 - 9:00 - General Business Meeting.

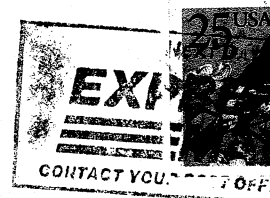
Executive Meeting

The meeting was called to order on June 7, 1989 by Dr. Robert Wade at 7:30 PM. Michael Cote' and Mark Logsdon were present.

Mark reported on his continuing efforts to get the local cable television companies to broadcast at least part of the upcoming Voyager

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encounter with Neptune (incidentally, Voyager has already discovered a new Neptunian moon!). Continental Cable is willing and Centel is thinking about it. All we really need is a definitive schedule of events from NASA for the companies to be able to publish times, etc.

Bob reported that he has yet to hear from Sky and Telescope regarding club discounts. He will contact them again and find out who has dropped the ball.

Michael said that all we need now to join the Astronomical League is a member mailing list to send them. Since several regular meeting

attenders have yet to pay their dues, we decided to wait until after the July meeting in order to give some "members" a chance to pay.

A club star party is tentatively scheduled for July 28th. In case of overcast skies, the rain date will be the 29th. The location will be discussed at the next club business meeting. Mark these dates on your calendar. These dates also cover the Delta Aquarid meteor shower.

Bob brought up the expense incurred for postage of the club newsletter (\$10.00/month). Since we have only 15 paid members and 35-40 newsletters are sent out a month, we had better limit the amount sent to unpaid members.

The meeting was adjourned at 9pm.

Respectfully submitted,
Robert Wade, SAAA Vice President.

Future Events

Our August meeting will feature Dr. Philip Hill, Sandy Plakke, and Rutan Mendez concerning their Australian trip and southern skies.

As mentioned above, set aside time for the July Star Party.

Michael Cote' will present a talk on Lunar Geology in September, to be quickly followed by a public star party (location and time to be announced) with the moon as a 'star attraction.'

R.W.

We're Official

On May 31 our organization's Articles of Incorporation were filed with the Michigan Department of Commerce. We may now be described as a non-stock corporation organized on a membership basis, to be financed by dues from the membership and contributions. Our

stated purpose is "to promote the science of Astronomy; to encourage and help coordinate activities of other amateur astronomical societies; to foster observational and computational work and related creative endeavors in the various fields and areas of astronomy; to correlate amateur activities with professional research." We now have a 15 month period in which to determine if we will seek not-for-profit status as conferred by the Internal Revenue Service. A \$150 fee is involved as well as additional forms, etc.

Submitted by Mark Logsdon

Star Quiz

This month we'll travel from near zenith to the southern portion of the sky. Break out your star atlas and try to find the following 5 stars. These will be covered in the quiz to be given at our next meeting.

Ras Algethi is in the constellation Hercules and derives from the Arabic *Ras al Jathiyy*, or the Kneeler's Head. Many ancients saw in this constellation someone who was kneeling. Indeed, modern depictions of Hercules shows a figure on one bended knee. Hercules is most easily recognized by the 'keystones'. However, this star is not one of that famous asterism.

Not far away in the constellation Ophiucus (the Serpent Holder) is *Ras alhague*. Ophiucus is associated with the Serpent (Serpens Cauda and Serpens Caput) and this star originally was called *Ras al Hawwa*, or the Head of the Serpent-Charmer.

Continuing southward we find one of the redder stars and one soon recognized by amateurs. Scorpio's (of course, the Scorpion) brightest star is *Antares*. This name originated from the Greek, *anti-ares* or "in the place of, or rival to, the planet Mars. This association could have either arisen due to its color resemblance, or because ancient astrologers associated Mars with this constellation. If we slide further down the tail of this constellation we find a star with the name *Dschubba*, from the Arabic *Al Jubbah*, or the Front, or Fore-

head, where it lies. Right! I did say tail further up there. Here we have a star associated with the opposite end of the modern constellation.

Continuing a small distance away (East or West?) is the constellation Libra (the Balance or Scales). We visited this constellation for our first star quiz. If we look to the second brightest star we find the interesting name *Zubeneschamali* from *Al Zuban al Shamaliyah*, or the Northern Claw. Ancient Greeks and Arabs alike saw in this group of stars, not a scale, but part of a scorpion. Evidently this was part of a larger scorpion containing the current constellation of that name.

R.W.

The M A S

On Saturday evening June 10th, my wife Mary and I travelled to Grand Haven at the invitation of Bill DeVette, Vice-President of the Muskegon Astronomical Society. The Muskegon group holds a yearly "Star Party" at the Grand Haven waterfront. Despite downtown lighting, the moon and Venus provided targets for about a dozen telescopes and a tripod-mounted pair of binoculars.

The Muskegon group has an observatory located in the middle of the Muskegon County Waste Water Management System with a 12' dome plus a utility building. A 12 $\frac{1}{2}$ " Newtonian occupies the dome while a 10" is also available. The 35 member group averaged 4.15 hours observing/night in 1988 according to their log. Three more star parties are scheduled for 1989 and a cordial invitation is extended to any SAAA member who wishes to join them for a night of observing. Contact Mark Logsdon for directions.

Submitted by Mark Logsdon

Sky Watch

Double stars can be interesting objects to observe, especially if there is a vivid color contrast. These galactic denizens can be either visual binaries, i.e. there is only a

chance alignment of the two stars as seen from earth, or they can be true binaries, i.e. they are gravitationally associated. The following list (from *Sky & Telescope*, February 1989) gives some visually pleasing color contrasts and the ones with the wider separation (in seconds of arc) should be separable with high powered binoculars. Don't forget club members can borrow the Fortney Telescope to view some of the close doubles:

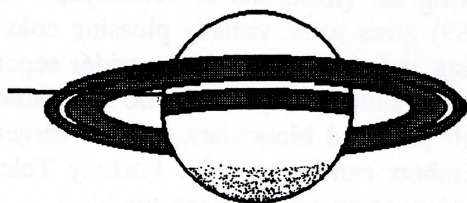
Star	R.A.(2000)	Dec.	Mags.	Sep'n	Colors
39 Oph	17 ^h 18 ^m	-24.3°	5.4,6.9	10.3"	pale orange, blue
8 Cyg	19 ^h 31 ^m	+28.0°	3.1,5.1	34.4	topaz yellow, sapphire blue
τ Del	20 ^h 47 ^m	+16.1°	4.5,5.5	9.6	yellow, light emerald
δ Cep	22 ^h 29 ^m	+58.4	4v,7.5	41.0	orange, fine blue
15 Aql	19 ^h 05 ^m	-4.0°	5.5,7.2	38.4	white, lilac tint
2 CVn	12 ^h 16 ^m	+40.7°	5.8,8.1	11.4	golden yellow, smalt blue

R.W.

Saturn Occultation

During the night of July 2-3, three SAAA members, Bob Wade, Mark Logsdon, and I (Peter Burkey) met at Bob's house for the first club star party (scheduled during the June meeting) and were treated to an exciting and extremely rare event: the star 28 Sagittarii was occulted by the planet Saturn. Among planetary occultations (during which a planet passes directly between the Earth and a star, temporarily blocking the starlight from our view), an occultation of such a bright star is nothing less than exceptional, and we enjoyed every minute.

After waiting out thunderstorms all day, we proved it pays to never give up on West Michigan weather, which cleared up just hours before the occultation started. Using four telescopes, an 8" Celestron, 10" and 13" Dobsonians, and a 6" Newtonian, the we began our observations by witnessing the first mo-



ment the star "blinked out" behind Saturn's 'A' ring (an event called immersion). There has been much debate as to whether the star would suddenly disappear (as is the case for lunar occultations) or whether it would fade or flicker as it passed behind the rings. The former proved to be the case as the star went behind the 'A' ring, although much to the excitement of the truly spellbound observers, the star did, in fact, twinkle, blink and fade as it moved behind the 'C' ring. It was extremely interesting to observe this phenomenon, especially since we were able to compare notes as each event was occurring. This enabled us to easily determine what we were seeing was real and not due to individual technique or equipment.

A final exciting moment occurred when the star was about to go behind the planetary disk. With the Celestron I was able to observe the planet blink several times - perhaps due to refraction through the upper layers of Saturn's atmosphere.

Observations of planetary occultations have been important sources of information for astronomers recently. A star makes a good point-source probe of a planet's location and the variations in stellar brightness as the star begins to pass behind the planetary disk gives valuable information about the density and composition of the planet's atmosphere. Planetary occultations disclosed the presence of the rings around Uranus in 1977 and ring arcs around Neptune in 1984.

Due to the impending dawn, increasing fog and clouds, the emersion (or reappearance) of the planet was not observed. However, we agreed that we had just witnessed one of the

most exciting, fascinating, and memorable events in our observing careers.

Submitted by Peter Burkey