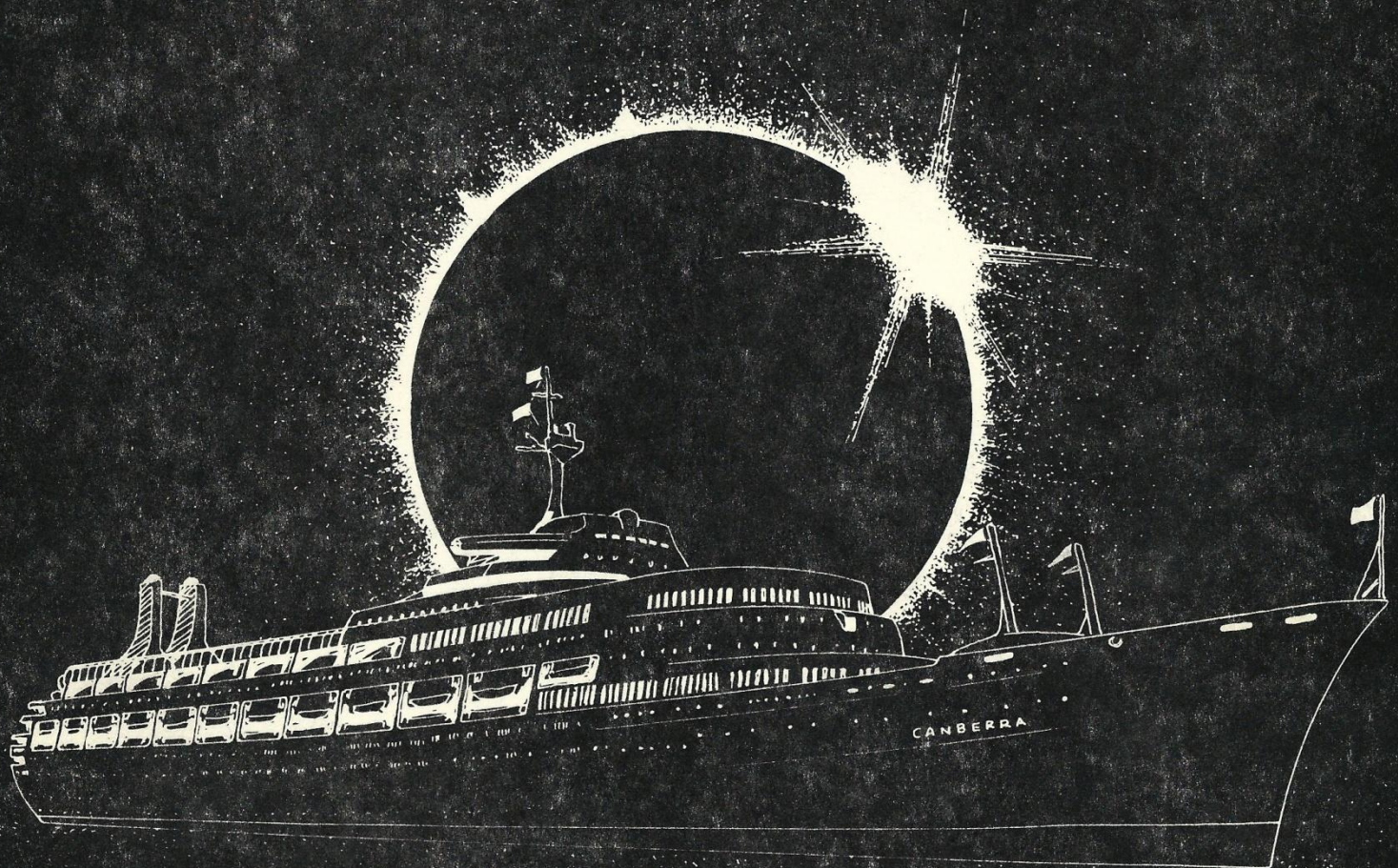


June 30, 1973



THE
Wasp

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
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MACOMB COMMUNITY COLLEGE-SOUTH CAMPUS, WARREN MICH.



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The Warren Astronomical Society corresponds with the following:

The Detroit Astronomical Society
The Detroit Observational and Astrographic Association
The Kalamazoo Astronomical Society
The Oakland Astronomical Association
The Jackson Astronomical Society (Mississippi)
The Astronomical League
The Miami Valley Astronomical Society
The Oglethorpe Astronomical Society (Savannah, Georgia)
The Royal Astronomical Society of Canada (Toronto)
The Olympic Astronomical Society (Bremerton, Washington)
The Lansing Astronomical Society
The Northern Lights – North Central Region (Minnesota)

(If we forgot anyone, please bring it to our attention)

*The
Warren
Astronomical
Society*

The Warren Astronomical Society Paper (W.A.S.P.) is published by the Warren Astronomical Society monthly as a privilege of membership. Advertisements are free to all W.A.S. members. Non-member subscriptions and advertisements are available to others upon arrangement with the editors. Contributions, literary or otherwise, are always welcome.

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This Month's Cover By: Roger Civic, esq.

CLUB NEWS

Don't forget the W.A.S. campout May 25-28 at Camp Rotary (site of Stargate Observatory). For more information call Frank McCullough at 791-8752.

*

The recent Messier Contest of May 4th was held under almost perfect conditions (maybe we're setting a trend?). First place went to me again, with close second and third going to Pete Kwentus and Dave Harrington, respectively. A good fourth place was taken by Messier Contest novices, Doug Bock and Don Mission.

*Pete's second place before Dave was undoubtedly due to his partner Frank Valka.

*

The mirrors of the 12½" Cass. at Stargate have recently been removed for a badly needed re-aluminizing. By the time you read this, they should be reinstalled (barring the effects of Peach Brandy) and aligned.

*

The W.A.S. welcomes Chris Edsall back after his short, but wet, trip to Scotland and England.

*

Thanks to Roger Civic, the club now has a rubber stamp with the club insignia on it. If anyone would like to use it, it is available now from Frank McCullough.

*

Included in this issue of the W.A.S.P. Should be two drawings showing the predicted positions for Comet Kohoutek as it approaches and recedes from perihelion. These drawings are courtesy of Dr. Freeman Miller of the University of Michigan

THERE AND HERE WITH AMATEURS

Reliable sources in Kalamazoo tell us of the night Bob Ross was almost strangled to death by his 12" telescope. It seems that this telescope is mounted on a Fork mount with heavy lead discs behind the mirror as counterweights. To move his telescope Bob has to stick his head thru the fork and lift the heavy instrument. As he was doing this one evening while carrying his 'scope into his backyard, Bob lost his balance and fell over. In the process Bob's neck was caught between the telescope and the fork. As he lay alone on the ground, slowly turning blue, one can only imagine what thoughts passed thru Bob's mind. Fortunately, for Bob, his sister came out and, discovering his predicament, freed him.

This is not the only thing to happen to Bob of late. During another Kalamazoo observing session, Bob decided to pet a stray cat who happened to wander by, just as Bob picked him up, the cat decided to relieve itself all over his shirt.

BITS AND PIECES

Oakland Stonehenge?

John B. Huner of Oakland University (anthropology dept.) has found a 45-foot-long group of rocks that may have been a Stonehenge-like calendar built by prehistoric Indians. If so this would be the second such find in the U.S. (the first being one near St. Louis).

It seems that these nine rocks, located in a field near Pontiac, form an arrow (Fig. 1) which points in a direction 4° north of due east. Huner explains this fact by pointing out that the arrow points in the direction of sunrise on the approximate date of the return of warm weather to Michigan (a date much more useful to the Indians than the date of the true vernal equinox).

Huner hopes to soon begin excavation at the site, whose exact location he prefers to keep secret, to confirm his theories.

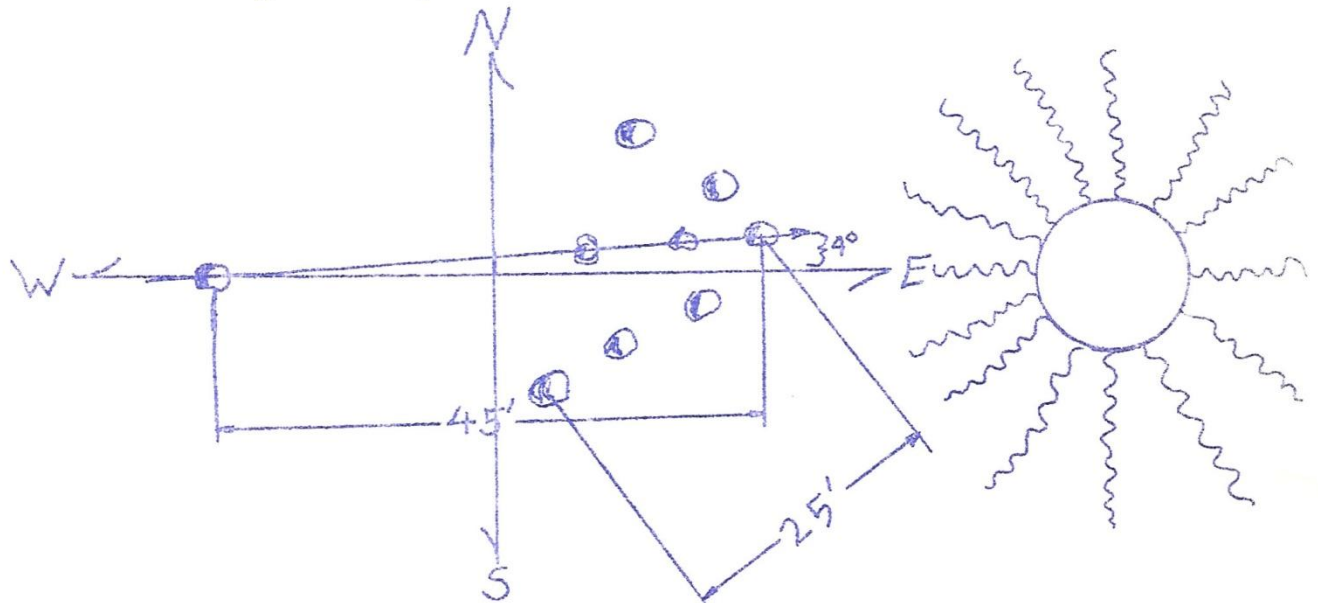


Fig. 1

June Occultation Predictions

I have received the following occultation predictions (accurate to within 1 min.) for Stargate Observatory from David Dunhan of the University of Texas. If anyone is interested in assisting me in observing these occultations, please call Ken Wilson at 268-9337.

June/	Time (UT)	/	Z.C. #	/	Mag.	/	Phen.	/	% Sunlit	/	Elong.	/	P.A. Deg.
7	02:28:05		1528		6.6		D		42 WAX.		81		148
8	01:57:19		1629		6.8		D		53 WAX.		93		85
11	04:08:53		1960		6.9		D		81 WAX.		129		85
12	01:41:36		2066		6.4		D		88 WAX.		139		119
20	06:10:46		3109		6.5		R		83 WAX.		228		254
20	06:41:13		3112		6.2		R		83 WAN.		228		204
23	06:35:19		3482		5.6		R		56 WAN.		263		232
27	08:06:46		472		5.0		R		14 WAN.		316		225



I have predictions for the rest of 1973 and all of 1974. By writing to the U.S. Naval observatory, I hope to receive predictions accurate to within a few seconds.

-Kenneth Wilson

Warren Astronomical Society
Meeting Guide

JUNE 1973

JULY'S MEETING
3rd THURSDAY JULY 19
ECLIPSE RESULTS FROM
CANBERRA!

SUNDAY	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY	SATURDAY
					1 KALAMAZOO MEETING DETROIT MEETING	2
3	4	5	6	7 MESSIER MEETING 791-8752	8 DETROIT MEETING	9
10	11	12	13	14 ASTROPHOTO MEETING 776-9720	15 DETROIT MEETING GRAND RAPIDS MEETING	16
17	18	19	20	21 WAS General meeting 776-9720	22 ECLIPSE CRUISE DEPARTURE 	23
24	25	26	27	28	29 ↓ DETROIT MEETING	30 ECLIPSE 

Messier Contest Results

May 4th 1973

The fifth Messier Contest was held on May 4th on a perfect but slightly breezy night. Ken Wilson retained his title with a very easy and quick sweep of the objects. Dave Harrington and his son used his 14½" reflector and spent many tedious minutes lining his scope so he could use his circles. At the beginning of the contest the circles were moved and he lost much valuable time. This paved the way for the team of Frank Valka and Pete Kwentus working with a 6" f8 reflector to capitalize on Dave's bad break. Dave after a slight delay started picking off the objects. Dave Harrington pulled within one object of Frank and Pete, but the loss of time proved to be too much for Dave to overcome and finished third only 60 seconds behind Pete and Frank. Donald Mission and newly acquired Doug Bach made a go of it and finished all of their objects which they deserve much credit for. It was the first time four entrees found all of the objects. All three places will be receiving Copernicus medallions when they arrive.

Congratulations to the winners and be prepared for the contest in July which will be the tune-up for the Messier Contest in Kalamazoo at the Great Lakes Regional Convention.

- 1st) Ken Wilson W.A.S.
2nd) Frank Valka-Pete Kwentus W.A.S.
3rd) Dave Harrington & Son W.A.S.

ADVERTISEMENTS

FOR SALE

12" f7 brand new with mounting- will sell promptly!
CALL: 751-2649 ask for Tim

FOR SALE

350mm Lentar TELEPHOTO LENS, Adapter to fit Pentax f5.6
CHEAP- Super Condition
\$50.00
CALL: Roger Civic 775-6634

GAF COLOR SLIDE PROCESSING and MOUNTING

Contact: Frank McCullough 791-8752

Why Pay More? When you can get the same quality for less money and have them done in one third the time and have them delivered if necessary.
This is a service not a hoax.

June 14th see for yourself at the Astrophoto meeting how color slides are processed and take part in developing the GAF slide film.

20 exposure roll \$1.00 36 exposure roll \$1.25

Everything You Always Wanted
to Know About Stargate Observatory*

By Kenneth Wilson

Once upon a time (in the year 1969, to be more precise) the Warren Astronomical Society held its general meetings at Lincoln High School. Among its many attractions was the nice, domed observatory which housed the club's 12½" Cassegrainian reflector. But, the general membership soon grew tired of just looking at the moon with their big telescope. So, the search began for a new telescope site where the stars might also be seen, away from the bright city lights.

The first possible site was a 40 acre farm, suggested by Mr. May to his neighbor, Dick Polus (former president of the W.A.S.). This site was soon discarded because of its lack of protection against vandalism.

The next and final site was also proposed by Mr. May. It seems that he was a member of the Rotary Club, which had a camp in Ray Township near Romeo. And, they were in need of an "attraction" to bring more youth groups out to the camp. He therefore suggested that we build our new observatory at Camp Rotary where their ranger could keep watch over it 24 hours a day. This arrangement solved both organizations' problems.

The first design for the new observatory was a simple roll-off roof shed, designed by Mr. Polus. We soon discovered that the Rotary Club had something different in mind. They wanted "a building with a dome". And, since they were willing to construct most of the building for us, the W.A.S. was perfectly willing to accept it.

Construction of the cinder-block building began in the fall of 1969, while Mr. Gerald Alyea was refiguring the mirrors of the 12½" and the W.A.S. was planning and constructing the dome. Steel angle-iron for the dome's framework was purchased from Hofley Manufacturing, who rolled it to the required curves free of charge. Three evenings were then spent in Mr. Polus' garage, cutting and fitting this angle-iron for later assembly at Camp Rotary. After several weekends of work, the frame was completely welded together. Sheet aluminum, purchased wholesale from H & M Metal Products was then cut and riveted to the frame. And, thanks to Mel Mazzline, the dome was then placed on top of the newly completed building. With the installation of the refigured 12½" Cass. Stargate Observatory went into operation in the spring of 1970.

Where did the name "Stargate" come from? Well nominations were taken and ballots marked. When the vote was tallied, Chris Edsall's "Stargate" won (Strange how some of those ballots had the same handwriting on them...hmmm.....).

At any rate, Stargate Observatory, with the help of many dedicated individuals (like Don Mission, who did the wiring) is now in full operation, serving both the public and our own members.

The End

*But Didn't Know Who to Ask!

THIS IS YOUR SECOND NOTICE

WARNING!

This notice is to give warning to those concerned that the annual convention of the Great Lakes Region of the Astronomical League will be held August 17-19, 1973 at Nazareth College, Kalamazoo, Michigan. Attendance at this convention may cause enlargement of the astronomical region of the cranium; a decrease in apathy towards amateur astronomy; an increase in astronomical possessions due to awarded prizes; and other afflictions beneficial to the amateur astronomer.

THE SPECTACLE INCLUDES:

Paper Sessions

Messier Contest

Star Bowl

Eclipse Results (~~Poseidon~~, Canberra, etc.)

Door Prizes (tallest door, heaviest door, etc.)

Telescopes

Shop Talk

Banquet

Guest Speaker: Robert E. Cox (S. & T.)

Exhibits

Observing

An Infamous "Good Time Hour", Friday Nite (BYOB)

Special Tours of the Strange Craters that have
opened up in the ground at the site of Pine Mt. Obs ,

And other crazy activities, Allah willing.

Registration: \$3.50/person, \$5.00/couple, \$7.00/family. Rooms: \$4.00 per person.

More information: Mike Potter- 1-(616)-795-7279.

Special Note: A prize of fifty (50) George Washingtons (dollars) will be awarded to the club with the best participation at the convention (i.e., attendance, papers given, exhibits, slide shows, contest participation, etc.). The KAS has disqualified itself, so it looks like the W.A.S. has a strong chance of winning. So, we want everybody there, SSSHEEE!

PREDICTED POSITIONS OF COMET KOHOUTEK RELATIVE TO SUN 1973-74

Magnitudes are the conservative estimates, but more extreme values are given in parentheses in a few instances.

New Moons Nov. 24 and Dec. 24, 1973

Nov. 24 ^m+4.1

Dec. 4

15°

Dec. 14 +0.8 (-1.0)

Dec. 19 -0.7

Dec. 24 -2.8 (-6.4)

Dec. 28 -5 (-10)

Dec. 26

Eastern Horizon

Feb. 17

Feb. 2 +3.3 (+2.9)

New Moon Jan. 23, 1974

Jan. 23

Jan. 13 +0.1

Jan. 8 -1.0 (-3.4)

Jan. 3 -2.8

Jan. 1

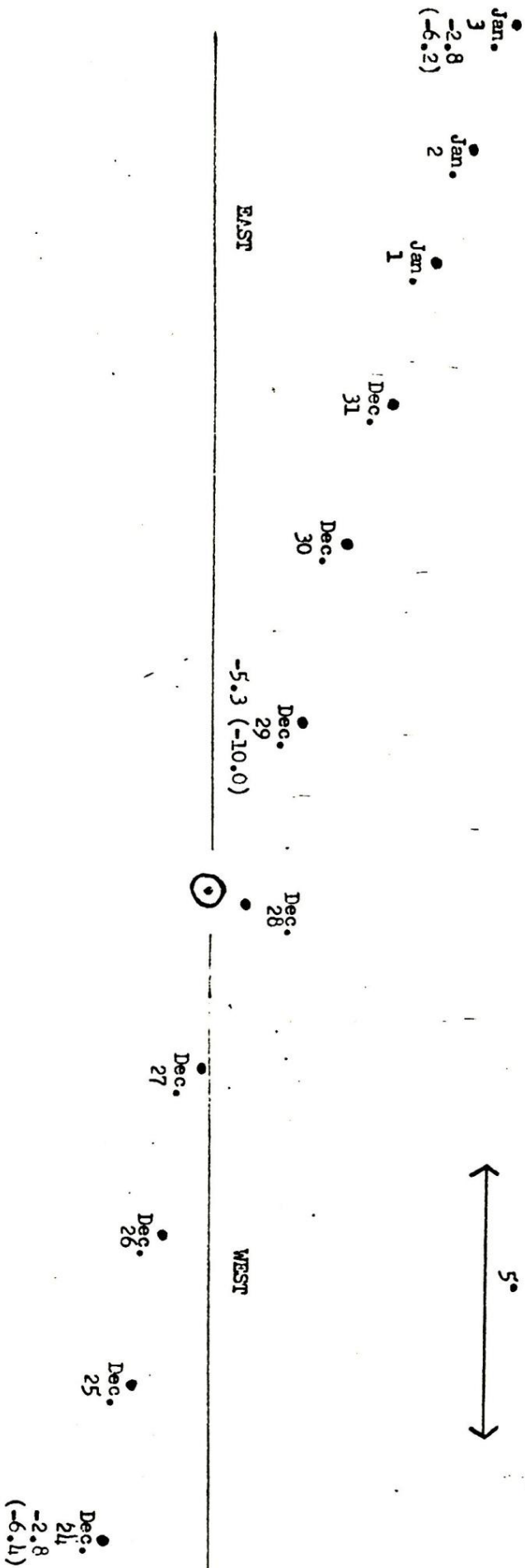
Dec. 30 -5

Western Horizon

Marsden is quoted by the Detroit News, as saying it might be a daytime object, presumably referring to the more optimistic brightening estimate for late December 1973.

Drawing by: Dr. Freeman Miller, University of Michigan FIM 16 April

POSITIONS OF COMET KOHOOTEK RELATIVE TO THE SUN
 SUN ASSUMED TO BE ON CELESTIAL MERIDIAN
 Venus reaches an apparent magnitude -4.5
 at its brightest





SECOND
BEFORE
TOTALITY

CANAL

CONSTELLATION of the MONTH

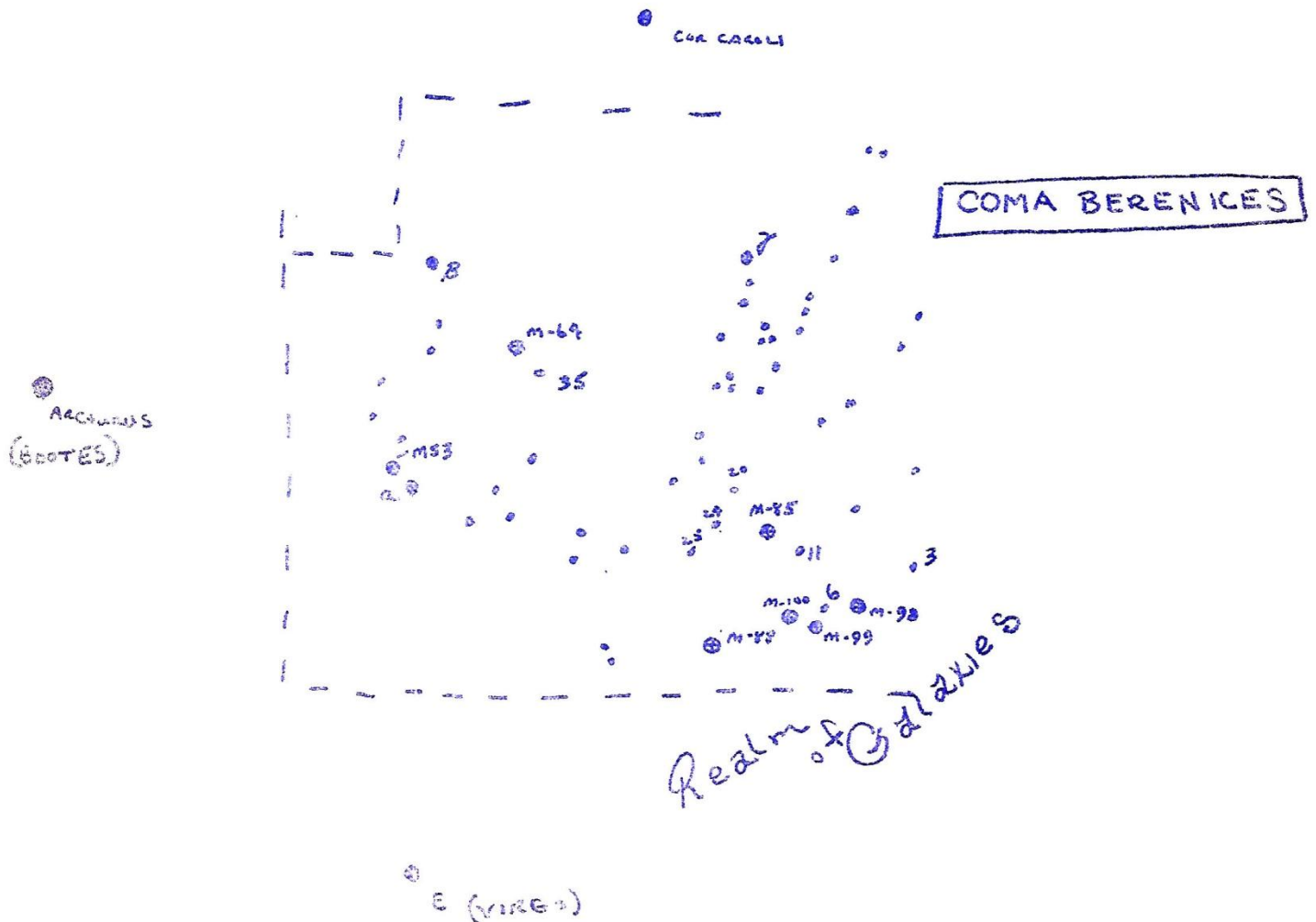
By
Frank McCullough

COMA BERENICES: Berenice's Hair

This is a group introduced by the great Danish astronomer Tycho Brahe, who worked at his observatory at Uraniberg, on the island of Hven, during the later part of the sixteenth century, and compiled an excellent star catalogue. A charming legend is attached to it. When Ptolemy Buergetes, king of Egypt, set off on a dangerous expedition against the Assyrians, his wife, Queen Berenice, vowed if he returned safely she would cut off her beautiful hair and place it in the temple of Venus. The king (crossed her up) duly returned; Berenice kept her promise and Jupiter placed the shining hair among the stars.

Coma occupies the area bounded by Bootes, Cor Caroli in Canes Venatici, and Denebola in Leo. It contains no star brighter than magnitude $4\frac{1}{2}$ but there are numerous faint ones, and at a casual glance the constellation resembles a large scattered cluster. It is well worth observing with binoculars or a low power on our 3" telescopes.

Coma Berenices contains seven Messier objects, 6 galaxies and 1 globular cluster. The objects are: M53, M64, M85, M88, M98, M99, and M100.



W.A.S. MONTHLY CHESS PROBLEMS

This monthly feature of the W.A.S.P. was initiated last month, in order to provide the readers of this learned journal with something to do on cloudy evenings. Featured were two problems, a two-mover and a three-mover. The three-mover was included to separate the men from the boys (no offense to the ladies intended), but the two-mover apparently served just as well. No less than six wrong solutions were received for problem no. 1, which was the two-mover. The solutions are as follows:

Solution to Problem 1

Key move: 1) Q - QN5
 Threat: 2) P - K8(Q) mate
 Variations:
 If 1) ..., K x KP
 2) Q - K8 mate
 If 1) ..., K - K4
 2) Q - K2 mate

Solution to Problem 2

Key move: 1) P - Q7
 Threat: 2) P Q8(Q)
 Variation:
 If 1) ..., P - KN4
 2) P - Q8(R)

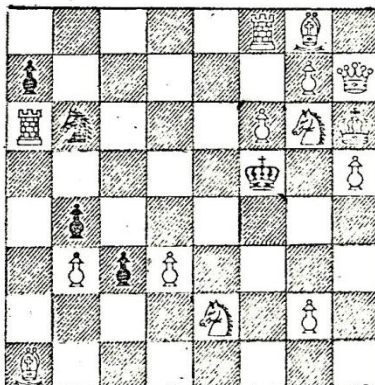
As of this writing, four correct solutions to problem no. 1 have been received. Only one correct solution to problem no. 2 was received, this being by Doug Bock. After one month of the six-month contest, the standings are:

RANK	NAME	POINTS
1	D. Bock	22
2	D. Misson	7
3	R. Kwentus	7
4	K. Wilson	7

After six issues of the W.A.S.P., the winner will receive a copy of the book, "1001 Ways to Cheat at Chess". One prominent chess player is conspicuously absent from the standings. (No names will be mentioned but his initial is Frank).

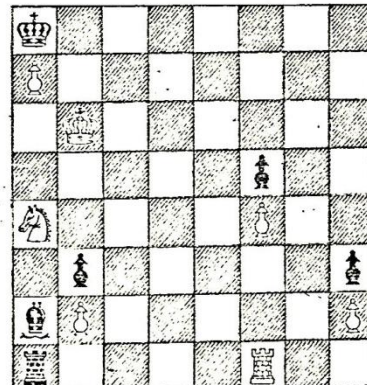
This month's problems are:

PROBLEM 3



A TWO-MOVER (9 POINTS)

PROBLEM 4



A THREE-MOVER (18 POINTS)

Remember that non-members are welcome to participate. Also recall that white always moves first; white is always moving up the board; and white must checkmate black in the specified number of moves. The key move (white's first move) should be written on a postcard and mailed to: Dave Harrington 26612 Karen Dr. Warren, Mich. 48091 If sending a postcard is inconvenient, call 755-1857 on any cloudy evening.

ASTRO-ALMANAC

By

Ken Wilson

<u>June /</u>	<u>EVENT</u>
1	Mercury 1.2° S. of Venus at 4:00, Ceres at opposition at 7:00, lunar perigee (222,200mi.) at 10:00
2	Mercury at greatest hel. lat. N., Moon 0.9°S. of Mercury at 1:00. Beginning of a Scorpoid Meteor Shower (thru 17 th), radiant: 164823.
3	
4	
5	Juno at opposition at 6:00
6	
7	First Quarter Moon at 7:07
8	
9	
10	Moon 6°S. of Uranus at 10:00
11	
12	
13	
14	Moon 4°S. of Neptune at 4:00
15	Saturn in conjunction at 5:00, Lunar apogee (252,400mi.) at 13:00, Full Moon at 16:35, Mercury at 071624 01, Venus at 064924 07 (Mag. -3.3), Mars at 235003 53 (Mag. +0.1), Jupiter at 205817 50 (Mag. -2.2), Saturn at 053411 13, Uranus at 131106 13, Neptune at 161619 36
16	
17	
18	Venus at perihelion, Pluto stationary at 20:00
19	Moon 4°N. of Jupiter at 17:00
20	Mercury 6°S. of Pollux at 5:00
21	Summer Solstice at 9:01 (SUMMER BEGINS), W.A.S. General Meeting at 20:00 at Macomb County Community College (Room B311)
22	Mercury at greatest E. elong. (25°) at 13:00
23	Last Quarter Moon at 15:45, Moon 9°N. of Mars at 22:00
24	
25	Mercury at descending node, Pallas stationary at 1:00. Venus 5°S. of Pollux at 3:00
26	
27	Uranus stationary at 1:00, Beginning of ζ Draconid Meteor Shower (thru 30 th), radiant: 151258; very slow meteors
28	
29	Lunar perigee (222,300mi.) at 20:00
30	Mars at greatest S. hel. lat., New Moon at 7:39
NOTE: All times are in 24-hour E.D.T., unless otherwise noted.	

ASTROPHOTOGRAPHERS

Save time and film. Twenty-page booklet (8½ by 11 in.) contains exposure data for the sun, moon and planets, satellites of Jupiter, earthshine and has a recently expanded eclipse section for the sun and moon. Eighteen exposure guides list shutter speeds for all films (4 to 2000 ASA) and f-ratios (1.4 to 256.0). Includes instructions for first focus, afocal, and negative and positive projection photography. Send \$2.00 to Larry F. Kalinowski, 15674 Flanagan Ave., Roseville, Mich. 48066. Phone (313)-776-9720. SPECIAL OFFER: \$1.00 off regular price of \$2.00 for all Warren Astronomical Society Members.