The biggest show of the year, the Kensington Metro-park, Comet spectacular, turned out to be better than expected. Estimates of total attendance go as high as 5000 for the two days. Every significant Astronomy club in Southeast Michigan was there, giving attendees the image of a huge amateur astronomy convention, with ongoing lectures and constant public attendance. The club’s 22 inch Dob really attracted a crowd. There were times when I could see a line with nearly a hundred people waiting to take a peek through it.

Computer Chatter

by Larry Kalinowski

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The WASP
Published by Warren Astronomical Society, Inc.
P.O. Box 1505
Warren, Michigan 48090-1505

1995 Officers
President Dave D’Onofrio 213-863-6852
1st VP Lou Faix 816-78-3338
2nd VP Blaine McCullough 816-573-4595
Secretary Glenn Wilkins 816-584-4236
Treasurer Ben Tolbert 816-796-2823

The Warren Astronomical Society, Inc. is a local, non-profit organization of amateur astronomers. The Society holds meetings on the first and third Thursdays of each month, starting at 7:30 p.m.

First Thursday meeting: Crandbrock: Institute of Science
Cranbrook: Institute of Science
1221 North Woodward Ave
South campus, Bldg. B, Room 209
Bloomfield Hills, Michigan
14600 Twelve Mile Rd.
Warren, Michigan

Membership and Annual Dues
Student College Individual Family Senior Citizen
$12.00 $20.00 $25.00 $30.00 $17.00

Send membership applications and dues to the treasurer:
Ben Tolbert
20206 Vermander
Clinton Twp. MI 48035

Among the many benefits of membership are:
- Discount magazine subscription:
  - Astronomy $20.00 (12 monthly issues)
  - Sky & Telescope $27.00 (12 monthly issues)
  - CCD Astronomy $27.00
  - Loaner telescopes (with deposit). See 2nd VP.
  - Free use of Stargate Observatory.
  - Special interest subgroups. See chairpersons.
  - Free use of W.A.S. library. See librarian.
  - Call list: don't miss unexpected events.
  - Free membership in Astronomical League, including Reflector newsletter.
  - More benefits are listed in Member Booklet

The Warren Astronomical Society Paper (WASP) is the official monthly publication of the Society. Each new issue of the WASP is made available at the Macomb meeting on the third Thursday. Non-members will be charged $1.00 for each new issue.

Back issues, when available are free. Requests by other clubs to receive the WASP and other correspondence should be addressed to the editor.

Articles for inclusion in the WASP are strongly encouraged and should be submitted to the editor on or before the first Thursday of each month. Any format of submission is accepted, however the easiest forms for this editor are files in plain text format, and graphics in PCX format. Materials can either be transmitted in person, via US Mail, via direct modem connection at the phone number listed below (call using voice first), or E-mailed on the Internet to bondono@eaglequest.com

For further information on contribution, see or call the editor:
Jeff Bonden
51054 Ringwood
Shelby Twp. Michigan 48316-4524
810-73-4786

Disclaimer: The articles presented herein represent the opinion of their authors and are not necessarily the opinion of the Warren Astronomical Society or this editor. The WASP reserves the right to edit or deny publication of any submission.

Stargate Observatory is owned and operated by the Society. Located on the grounds of Camp Rotary on 29 Mile Road, 1.8 miles east of Romeo Plank Road, Stargate features a 12.5 inch f/17 club built telescope under a steel dome. The observatory is open to all club members in accordance to the "Stargate Observatory Rules" published in the member handbook. Those wishing to use the observatory must call the 2nd VP by 7:00 p.m. on the evening of the session. The coordinates for Stargate Observatory are 82° 56' 0.4" W, 42° 46' N.

Library. The Society maintains a library of astronomy-related books and periodicals at the Macomb meeting room. See the librarian, Louis Namee, to check out a book.

Special interest groups
- Computers: Larry Kalinowski 810-776-8720
- Deep Sky: Doug Bock 810-764-2727
- Lunar/Planetary: Riyad Matti 810-54-3232
- Solar: Marty Kunz 810-47-2546
- Math: John Herrigott 810-648-1442
- Telescope: Fred Judd 810-75-7548

COMET MUELLER (C/1997 D1)
T: 1997 OCT 9.527
m: 1.000000
q: 2.375280
Peri: 179.9820
Node: 277.8220
i: 142.1480
Absolute Mag: 7.5
Magnitude Coeff: 10.00
Epoch of elements: J2000.0

Rumors abound concerning the possible merger of Compaq and Gateway 2000. Compaq is attempting to buy out Gateway.

Speaking of Gateway, it looks as though that company is going to have to change it's name pretty soon. The year 2000 is coming fast. Who wants to buy a computer, from a company dated 2000, in the year 2001.

The May computer meeting will be at Jack Szymanski's home, on Thursday the 22nd and the June meeting is tentatively at Gary Gathen's home on Thursday the 26th. Jack's meeting will be another 'Comet Special', so all attendees are requested to bring any photos or slides that they've taken of Hale-Bopp. All new visitors will receive a free Windows planetarium program. A map showing how to reach Jack's place will be available at the May Macomb meeting. His phone number is 810-468-5479.
Cranbrook  
March 6, 1997

Dave opened the meeting at 7:43 with 31 members and guests in attendance.

The secretary read a letter from the Huron-Clinton Metropolitan Authority that they have gladly accepted our invitation to attend our comet party at Stargate on April 3 (Thursday). John Herrgott noted that it is important that the WAS make an especially good showing at our first outing with them since this alliance has the potential to be very beneficial for our observatory facility. Beverages will be provided and a slide program is being prepared by Blain & Jeff.

Dave met with Metropolitan Beach representatives on 3-5 and determined that we will set up between the sidewalk and nature center although other alternatives are being considered. Set up on April 4/5 can start at 5:00 and the program will be over at 10:00. Don't forget tripods & binoculars as well as telescopes. We will offer beverages, t-shirts and comet stickers as well as information on the comet and the WAS. Any offers of help through Dave will be warmly received!

The Kensington party hours will be 6 PM to midnight for the general public on April 25/6. Five astronomy societies have committed support and two more are pending. Each society has been asked to prepare a 20 minute presentation. Fred Judd will bring the 22" scope. Of course, volunteers are also needed for this exceptional opportunity for amateur astronomy.

Solar scopes & help are needed for Astronomy Day at Cranbrook on April 12.

Doug Bock announced that plans for the Badaxe star party on May 2/3 are being revised since Justin's Campground has been closed. An attempt is being made to move to Duggan's private Campground near Port Austin. There is a concern about lights at this site.

Hale-Bopp is meeting all expectations so far with reports on the net that the tail is 20 deg. long from dark sites! Four to six degrees of the tail are even visible from most city locations now with improvement from night to night.

Doug Bock was the feature speaker with a fine history of Charles Messier's career, and slides of Messier objects and aurora. The meeting ended at 10:00.

Macomb  
April 17, 1997

Dave called the meeting to order with 30 members and guests in attendance. He thanked Angie Judd for her expert help in sewing the light shroud for our 22" scope.

The weather was perfect for the 'Cranbrook' meeting at Stargate. Attendance was high and all enjoyed a splendid view of the comet in good company with plenty to eat and drink thanks to Ben Tolbert and Angie.

Unfortunately, the Michigan clouds returned for the two following evenings at Metro Beach. Dave was disappointed in the media response for the event, except for the Free Press. Astronomy Day at Cranbrook also suffered from clouds so an inside show was presented. One set of binoculars was aimed at a can of Comet cleanser for those wishing to see a comet! None-the-less, $90 was raised for the WAS at the event.

Plans for the Kensington Comet Party were finalized with 2 to 3,000 people expected to attend if the weather is good. Comet T-shirts will be available for only $10 and stickers will be 50 cents.

Ben reported that the treasury balance was $3,732.87 as of April 17, an increase of $182.55 over March.

Blain reported that 11 lecturers have already volunteered for Stargate, but still more are needed. Bob Hallsall is offering observatory training on the evening of May 17 at Stargate. The new gate keys also fit the two light control boxes. The floodlight can be turned off by unscrewing the bulb, but we must remember to screw it back in on departure.

Blaine's daughter, Sandy, showed us her fine light pollution project which she did for school.

Glenn showed us a feature article, in color, with a local amateur astronomer, Ron Zachary, covering most of the front page of the March 30 issue of The Eccentric. The subject was, of course, Hale-Bopp.

After the break, Dave D'onofrio and Brian Benning show us their fine comet slides. The feature presentation was put together in record time by Lou Faix and described a structured meteor counting event that was organized during the 1978 Persied shower. Lou would like to hear from any members who might be interested in a similar effort this August. 14 participants would be needed to be meaningful.

The meeting was closed at 10:05 with an invitation to regroup at the Coney Island.

by Glenn Wilkins, Secretary
A MESSIER MARATHON
By G. Milewski

Charles Messier found these objects, can you?

R I N G N E B U L A P J R M Z H L
A Y V C N P L P B R T X K Q P G P
L X S E I X A L A G T R E F Y E S
U A T N F O L E F W C P M L V M E
B L R J T T S G B M R V P Z N O A
E A I V B E U N C G A C K B V R G
N G F L P R O N Z J B A B Z P I L
A O I E C N K N G T N E H I G N E
G R D I Y A L D P L E I A D E S N
E E N B C I N A L U B E N L W O E
M R E T S U L C K C U D D L I W B
O B B D U M B B E L L B X K O A U
W M U I B S F T T A A W K M H D L
G O L X L V G P Q E C E Z Y S C A
L S A N D R O M E D A G A L A X Y
I A L U B E N N O I R O I Y D G Z
O Y X A L A G L O O P L R I H W C

Use the Messier number indicated below to determine the objects common name, and then find it in the puzzle above.

M. 1
M. 11
M. 16
M. 17
M. 20
M. 27
M. 31
M. 42
M. 44
M. 45
M. 51
M. 57
M. 77
M. 97
M. 104

Note: All spaces and/or grammatical symbols have been eliminated from the puzzle. Words may be up, down, diagonal, forwards, or backwards.
May
- Thu 15 7:30 pm: Meeting: Macomb Community College South Campus, Bldg. B, Room 209
  "The Hubble Deep Field", by Jeff Bondono
- Thu 22: Computer Subgroup Meeting, contact Larry Kalinowski

June
- Thu 5 7:30 pm: Meeting: Downstairs at Cranbrook Institute of Science
- Fri 6-Sat 7: 14th Annual Summer Solstice Party, at Northern Cross Observatory
- Fri 13– Sat 14: 27th Annual Apollo Rendezvous and Telescope Fair, Dayton Ohio
- Thu 19 7:30 pm: Meeting: Macomb Community College South Campus, Bldg. B, Room 209
- Thu 26: Computer Subgroup Meeting, contact Larry Kalinowski

July
- Thu 3 7:30 pm: Meeting: Downstairs at Cranbrook Institute of Science
- Thu 17 7:30 pm: Meeting: Macomb Community College South Campus, Bldg. B, Room 209
- Thu 24: Computer Subgroup Meeting, contact Larry Kalinowski
- Wed 30-Sun 2: SMURFS '97

Aug
- Sun 2-Sun 9: 4th Annual Nebraska Star Party
- Thu 7 7:30 pm: Meeting: Downstairs at Cranbrook Institute of Science
- Fri 8– Sun 10: Perseid Meteor Shower campout at Port Crescent State Park
- Tue 12– Wed 13: Peak of Perseid Meteor Shower (continued camping for those that wish)
- Thu 21 7:30 pm: Meeting: Macomb Community College South Campus, Bldg. B, Room 209
- Thu 29: Computer Subgroup Meeting, contact Larry Kalinowski

Sept
- Thu 4 7:30 pm: Cranbrook Meeting
- Fri 5– Sun 7: Astrofest, at Kankakee, Illinois
- Thu 18 7:30 pm: Macomb Meeting
- Thu 25: Computer Subgroup Meeting

Oct
- Thu 2 7:30 pm: Cranbrook Meeting
- Thu 16 7:30 pm: Macomb Meeting
- Thu 23: Computer Subgroup Meeting
### 1997 June 1997

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Key to times:
- SunRise
- MoonRise
- SunSet
- MoonSet

Detroit, MI