

Detroit Astronomical Society Newsletter

42° 24' 37.7" N. Latitude

Crowell Recreation Center



83° 15' 24.5" W. Longitude

NOVEMBER / DECEMBER / 1988

FROM THE PRESIDENT

The DAS will co-sponsor a Clyde Tombaugh Lecture with the Windsor Center of the Royal Astronomical Society and the University Of Windsor. The lecture will be free to the general public and is jointly funded by the above mentioned organizations. More details elsewhere in this issue, Make plans to attend.

Because Veterans day, November 4, falls on a Friday and many of the Detroit Parks and Recreation employes have the day off, the Crowell Recreation center may be open only part of the day. Therefore there will be no meeting on Nov. 11 (Veterans Day).

But dont forget the annual swap-shop on November 18 at the DAS meeting room in the Crowell Center. There will be lots of astronomical items for sale.

This years Christmas Party falls on December 16 because the following Friday falls on Dec 23 and is two days before Christmas, there will be no meeting on the 23 rd.

There will be a special after the lecture get to gether at a local hotel but this has not been finalized by the time the newsletter is printed. Either attend a club meeting or call Jack Brisbin at 981-4096 for more information.

JACK BRISBIN

CALENDAR OF EVENTS

- | | |
|-------------|---|
| November 4 | Clyde Tombaugh lecture series at the University of Windsor in Erie Hall. |
| November 11 | Veterans Day, no meeting. |
| November 18 | Astronomical Swap Shop, 7:45 PM at the Crowell Recreation Center. Set up at 7:30. |

**Department
of Environmental
Science
and Forestry**



10/15/2014 11:01 AM

Environmental Science

Environmental Science is a multidisciplinary field that combines the natural and social sciences to study the interactions between the environment and human activities. It focuses on understanding the complex systems of the Earth and how human actions impact these systems. Key areas of study include climate change, air and water quality, land use, and resource management. Environmental scientists use a variety of methods, including field observations, laboratory experiments, and modeling, to collect and analyze data. The ultimate goal is to develop sustainable solutions that protect the environment and improve the quality of life for current and future generations. This field is essential for addressing the global challenges we face today, such as climate change and environmental degradation.

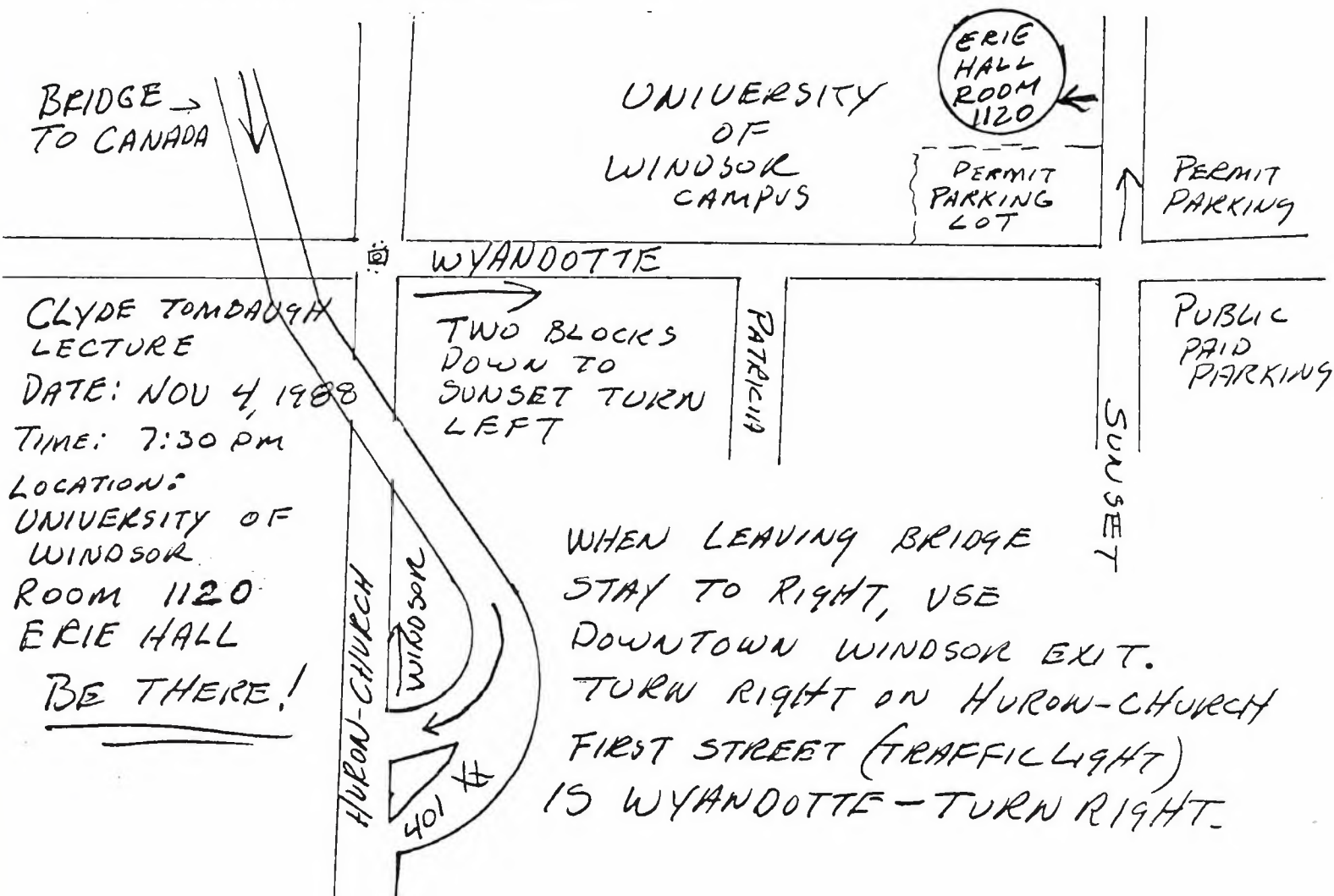
The Department of Environmental Science and Forestry offers a comprehensive curriculum that prepares students for careers in environmental management, policy, and research. Our programs emphasize both theoretical knowledge and practical skills, ensuring that graduates are well-equipped to tackle real-world environmental issues. We provide a supportive learning environment with access to state-of-the-art facilities and experienced faculty members. Whether you are interested in environmental policy, natural resource management, or environmental engineering, our department has the resources and expertise to help you succeed. Join us and become part of a community dedicated to making a positive impact on the world.

- November 25 Thankgiving Day Weekend, no meeting.
- December 2 Board of Directors meeting, 7:00 PM,
Workshop activities, 8:00 PM.
- December 9 General meeting, 8:00 PM.
- December 16 Annual Christmas party at 8:00 PM.
Bring dish to pass.
- December 23 No meeting. Have a Merry Christmas!
- December 30 No meeting. Have a Happy New Year!
- January 6, 1989 Board of Directors meeting.

ASTRONOMICAL SWAP SHOP

This years Swap Shop takes place on November 18, 1988. Setup time is 7:00. Sales start at 7:45 PM until 9:45 PM. Astronomical items such as books, magazines, star charts, telescopes and telescope making supplies and equipment are welcome.

CLYDE TOMBAUGH LECTURE AND MAP INFO.



MEMBERSHIP INTEREST

The members are being asked to participate in another Grazing Occultation on October 20, conducted by Gary Frey. Complete instructions are given on page 5.

I would like to credit Jim Fanzini for the information provided in the last newsletter regarding the previous occultation. Jim also provided the brochure on the Hubble Space Telescope with the information regarding same.

Ed Dvorak was the supplier of the general news items in the last letter.

I would like to urge all the members to supply any items of interest to the members such as any special projects one may be doing, general news pertaining to astronomy or any other related news.

The following members have renewed their subscriptions and paid their dues:

Stanley A. Strobel, William A. Elphick, Daniel D. Reynolds, Frank Lipke, Eugene F. Clarkson and Ed Dvorak.

We also have a new member. His name is Robert D. Blanchard and we welcome him.

I would like to remind all the members and their friends and any newcomers that the DAS annual dues are:

Regular, \$32.50 (18 years or older), family, \$37.50 and junior, \$22.50. Included is a subscription to Sky & Telescope magazine and the Reflector, a quarterly newsletter published by the Astronomical League. Both are mailed to your home.

Mail your dues to Ted Jasina, 1211 Beaupre, Madison Heights, MI 48071. Members forward renewal card from Sky & Telescope along with their dues.

For any star information for the month, dont forget to call the Hotline number which is 837-0130. A review of the club events is also given.

The DAS was the subject of an article by reporter Peter Gavrilovich in the Sunday edition of the Detroit Free Press on September 25. It appeared on page 3 and a copy is reproduced on page 6 of this newsletter.

On September 30, Larry Angelow of the Livonia Club gave a lecture on his work with astrophotography. Although he has a 6" Newtonian drive corrector telescope, the work and slides he had shown were done with camera only. He used 400 hypered Fuji film with light polution filters. The Sky-Glo and H-Pass filters were from Orion. The camera was a Nikon with 50 and 100 mm lenses. The constellations he photographed were Cygnus, Andromeda, Cassiopeia and Lyra. He also showed a nice slide of the moon, Venus and Jupiter in close proximity with Venus greatly enlarged and the crescent plainly visible.

He teaches in night classes at different schools in the area. The name of his course is "Cosmic Journey" and different subjects are taught each night. Each subject is condensed into one night. If you would like to get information regarding his classes, you can reach him by calling 537-6582.

Incidentally, his work was done in a light polluted area, so filters are a must.

Factual tidbit: There are 88 constellations in the sky today.

Another: Ceres is the largest asteroid known and is 955 km in diameter.

Frank Lipke has provided a program schedule of the Crestwood School District Planetarium for 1988-89. Refer to page 7.

Your editor was at the last R.A.S.C. Windsor branch meeting. A presentation of a portable photographic platform was given by one of its members named Alan DesRosiers. This platform is easy to construct and is manually operated. Complete details can be found in the July, 1987 issue of Astronomy magazine on page 91.

Another member named Dan Taylor, led a discussion on the difference between astronomy and astrology. This was an interesting discussion because too many of the general public do not seem to know the difference. To clarify the differences, I'd like to present my opinion of each.

My definition of astronomy is that it is a science based on observational facts. However, after reading some articles on astronomy, I'd like to leave out some theoretical interpretations of these observations. This is because some of these interpretations in my opinion, seem to move into the field of science fiction.

Astrology, although it makes use of the planetary bodies as well as the sun and moon, belongs in the spiritual or occult field. I'm inclined to think that any influence in this field is wielded by the collective mind rather than the aforementioned bodies.

A number of meetings ago, the RASC of Windsor had a quiz presented to them by one of their members named Steve Pellarin. I have his permission to use portions of this material in our newsletters. Those factual tidbits are from that quiz and will help to fill in the vacant spaces to complete a page. It will also help enlighten our knowledge of astronomy.

I have been working on a mathematical quiz for the members to reawaken their mathematical ability, but it has not been completed in time for this issue. It will be included in the next issue of our newsletter.

Members having materials to submit for future newsletters and all correspondence should be addressed to:

Mike Cyrek, editor
 Detroit Astronomical Soc.
 17149 Caldwell
 Detroit, MI 48212

GENERAL INFORMATION

The D.A.S. is a non-profit organization with membership open to any individual who is interested in astronomy. Guests are always welcome without charge or obligation. Our purpose is to encourage and promote the study of astronomy and related sciences.

The D.A.S. meets each Friday evening at the Crowell Recreation Center located at 16630 Lahser Road, Detroit, Michigan. The Center is 1/4-mile south of McNichols (Six Mile Road), on the east side of Lahser Road at the traffic signal light. This facility is a modern, well equipped building with ample off-street, lighted parking. It is operated by the City of Detroit Recreation Department and it is their finest facility serving this side of the city. Since we are their guests, it is important to be considerate in the use of the Crowell Recreation Center to insure our continued welcome.

The meetings consist of talks, lectures, films, slides, mirror making, sharing and fellowship with Astronomy as our common denominator. Scheduled events and features will begin at 8:30 p.m. The officers and Board of Directors meet privately on the first Friday of each month at 7:00 p.m. in the mirror polishing room. The regular business meeting for the general membership is held on the second Friday of each month and starts promptly at 8:00 p.m. We ask that the last person be out of the building by 10:30 p.m. to accommodate the building custodian.

During the summer months of July and August the Regular and Board of Director Meetings are suspended. Formal programs are reduced and emphasis is placed on scheduled star parties.

Grazing Occultations

Being a member of I.O.T.A (International Occultation Timing Association) I received data on 6 grazing occultations for our area between August and December 1988. Last month several club members attempted our first grazing occultation observation as described in the last DAS newsletter.

A grazing occultation occurs when the Moon's orbital motion causes a star to skim the northern or southern edge of the lunar disc. The star disappears behind the lunar mountains and reappears in the valleys on that edge. In order to see this event, you have to be positioned within a narrow band only a few miles wide.

There is a graze on Thursday evening, October 20 at 10:44 pm EDT. The graze line for this event will be set up North of Salem, Michigan, at 8 mile and Chubb road. The star to be occulted is the 5.6 magnitude star 42 Aquarii and numbered ZC 3268 in the Zodiacal Catalog. The Waxing Moon will be 77% sunlit and will be 33 degrees up in the south/southwest at 195 degrees azimuth. The graze will occur on the southern edge of the moon on the dark limb at 142 degrees position angle with a cusp angle of 16.9 degrees.

Percent sunlit tells you the age of the moon: zero percent sunlit is New Moon, while hundred percent is full moon. The cusp angle is the distance in degrees around the edge of the Moon that the graze occurs from the bright side. The position angle is the distance in degrees around the Moon from North to East to South to West to the location where the graze starts.

The graze should be visible in a 3-inch telescope at about 100 power. The profile attached depicts the mountains at the bottom of the moon and attempt will be made to place as many observers in the range of the mountains as is consistent with the gathering of good data. This should provide several events for a number of observers. Each observer will see a different series of events depending on exactly where they are placed on the profile.

Careful timing of these events allows us to make precise measurements of the position of the moon as well the astrophysical constants that define our universe. By plotting all the observations on a graph, we can get a picture of the edge of the moon and determine exactly where the moon is relative to the background stars.

In observing these grazes, you will need a tape recorder, telescope, and shortwave receiver that will tune WWV (Universal time tone every second). If you plan to observe this graze please fill in the coupon below and you must bring it to the October 14th meeting. You will receive detailed maps, additional information and a telephone number for the go-cancel decision. Be certain to make this call, as weather or location can change.

Yes, I intend to attend/observe (circle one) the graze.

Name: _____

Address: _____

City, Zip: _____

Phone: (Home): _____ (work): _____

Telescope: _____ " F/ _____ tape recorder (Y/N) _____ sw. receiver (Y/N) _____

Club ponders space from the backyard

The neighbor was barely clearing the trees; and, yes, there was a hint of red, a faint orange-red to the naked eye as Mars climbed in the southeastern sky. And how brilliantly the neighbor shone, a magnitude of minus 3 on the scale that rates the brightest star in the sky minus 1. The more minus, the brighter the object.

So no wonder John Lines adjusted his hand-made telescope and pointed the tube toward Mars, collecting light from the planet onto the mirror at the bottom of the tube and gazing in awe through the eyepiece. "I've been waiting and waiting to really see some detail," he said on the crisp autumn Friday night in Gary Frey's backyard in West Bloomfield Township.

Lines, Frey and five other members of the Detroit Astronomical Society gathered to study Mars, maybe to catch a glimpse of the galaxy M13 in Hercules, record observations of a binary system, discuss the upcoming occultation or gaze at the heavens.

That's something many rarely do today, settling instead for a fantasy view of space where cowboys of the cosmos yank their craft to light speed and cross trillions of miles in a cinematic flash.

Maybe because space is too big to grasp we don't try. Imagine the star Betelgeuse, so huge its size would fill the orbit of Mars around the sun.

But since 1931, a year after the discovery of Pluto, the Detroit Astronomical Society has been active, encouraging the science, helping members make telescopes and gathering regularly to study the heavens. The Society has 60 members, said president Jack Brisbin, 39, who has been enamored with the heavens since he was 10. The society meets almost every Friday at the Crowell Recreation Center in northwest Detroit. It operates a star-watchers telephone hot line that gives callers a detailed tape-recorded message of what to look for in the sky and where to look.

Mars has been the captivating issue



**Peter
Gavrilovich**
city life

this month because the planet, second closest to Earth, is now as close to Earth as it gets — some 38 million miles. "Come and look," Brisbin said to me, "because you won't get a chance to see the moon like this for another 18 years."

He was speaking of Deimos, one of the two Martian moons.

Frey, 49, first began to stare at stars when he was 10, growing up near Livernois and Grand River. An engineer for Chrysler, he spent six years building his eight-foot-long telescope and backyard observatory with a retractable roof and five computers which give him data that helps him to do projects for the likes of scientists at the University of Cambridge.

When he retires, he plans to move to 20 acres of land on a hilltop near Prescott, Ariz., where he plans to build an observatory far from the lights of big cities which pollute night skies and make star study difficult.

His avocation has given Frey a sensitive view of our universe. "After awhile," he said, "you know what you're living on and you know it's fragile."

There is something compelling about the stars, about space and concepts of cosmic travel and time. But trying to fathom the limitlessness of the universe probably causes us to shy from it. It is fearsome, it is beautiful. Space speaks to us of eternity and the unimaginable invitation to look up and see forever.

If you want to join, write the Detroit Astronomical Society, 5929 Sandhurst, Apt. 102, Canton 48187, or call the Society's 24-hour Skywatchers Hot Line, 837-0130.

CRESTWOOD SCHOOL DISTRICT PLANETARIUM
1988 - 1989
PUBLIC PROGRAM SCHEDULE

- SEPTEMBER 19, 20 THE RED PLANET
Mars dominates the evening sky this month. We will take a close look at our neighbor planet and also observe it through a telescope following the program at 9 p.m.
- OCTOBER 17, 18, 20 FALL SKIES FOR LITTLE PEOPLE
Our traditional program especially designed for children ages 3 to 8 and their parents. The children share the sky as they see it.
- NOVEMBER 21, 22 BACKYARD ASTRONOMY
The universe visible with your eyes, binoculars and small telescopes from your backyard.
- DECEMBER 19, 20 WINTER SKY WONDERS
We explore the stars, constellations and deep sky objects of a clear crisp winter's night.
- JANUARY 16, 17 EARTH SATELLITES EVERYWHERE
We learn how to observe them in the night sky and also participate in a communications session across the globe using the amateur radio satellite OSCAR 13.
- FEBRUARY 20, 21 VENUS
A profile of our sunward neighbor as seen by Russian and American spacecraft.
- MARCH 6, 7, 9 SPRING SKIES FOR LITTLE PEOPLE
A sequel to our fall program for children ages 3 to 8.
- APRIL 3, 4 ON TO NEPTUNE
We look at this distant world as the spacecraft Voyager II will see it during its fly-by this coming August.
- MAY 1, 2 SUMMER SKIES
We explore the stars, constellations, planets and special celestial events of the summer sky of 1989.

These one hour programs begin at 7:30 p.m. Cost is \$1. for adults and 75¢ for students and children. Reservations for all programs are necessary and may be obtained by telephone during school hours. School or community group planetarium visits may be set up at a special time of day or evening with group visit rates. Content of these special sessions can be adjusted to fit the needs of the group.

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DEARBORN HEIGHTS MICHIGAN 48127
278-0900

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