WASP

Warren Astronomical Society Paper

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1990 Awards: Who and Why

By Alan Rothenberg

PART I

Distinguished Service Award.....Ed Cressman

In 1984 Ed purchased a Celestron Cll along with a Day Star H-Alpha filter, which he used at the annular eclipse that year. Soon after the eclipse Ed had some problems with the Cll, and was less and less enthusiastic to take the beast out.

1989 saw the return of two old friends, the sunspot maximum and Ed Cressman. Early that year I talked to him about dragging the Cll out one weekend to get a good look at the sunspots with the H-Alpha filter, he liked the idea. Then on March 11, 1989, Marty Kunz called me all excited about a large sunspot group he was looking at at home with his C8. Marty went on to say that this grouping was so extensive that it was easily naked eye... it was time to call Ed. I picked up Marty, and we raced to Ed's house. You may have seen the 1989, March 13th Detroit Free Press feature, (page 2A) about a small group of amateur astronomers in Southfield that photographed a giant sunspot group. That was us!

Needless to say, Ed was hooked! Soon after he offered to chair the solar group. Many wonderful observing sessions were held that spring and summer of 1989. Ed kept us informed on the number of sunspots he counted each clear weekend he could get out to study the sun. Highlighting the 1989 solar group observing sessions were the field trips we took. Ed had arranged to have the solar group show the sun at an open house for the Warren Tank Command; he also gave lectures on Astronomy Day, and showed sunspots at several Star Trek conventions.

Ed put together a series of posters for these public outings explaining the sun, eclipses, and what the sun looks like in different wavelengths of light. He even included the Free Press article mentioned above on one of the posters, (a feather in his cap).

Mr. Cressman's service to the club and the solar group continued to be outstanding in 1990 as well. He led the solar observing again at this year's Star Trek conventions, donated books to the Society's library, and he even lent his Cll for the Society's use on Astronomy Day.

Thank you again Ed, for all your time and service. Well done!

Continued on page 5

Warren Astronomical Society, Inc.

The WASP

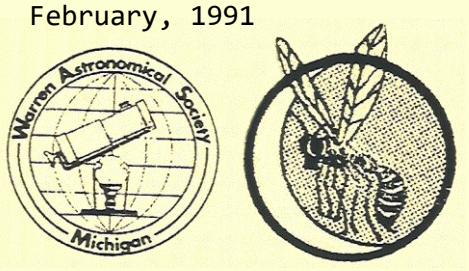
Volume 23 Number 2
February, 1991

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

Send membership applications and dues to:
Jeff Bondono
51054 Kingwood Shelby
Twp. MI 48316

1991 Officers:

President: Marty Kunz	477-0546
1st V.P.: Frank McCullough	254-8164
2nd V.P.: Mike O'Dowd	268-7125
Secretary: Robert Halsall	781-6784
Treasurer: Jeff Bondono	731-4706
Librarian:	



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 PM.

General Meeting on 1st Thursday:
Cranbrook Institute of Science
500 Lone Pine Road
Bloomfield Hills, MI

Business meeting on 3rd Thursday:
Macomb Community College
South Campus, Building B, Room 216
14500 Twelve Mile Road
Warren, MI

Membership in the Society is open to all. Annual Dues are:

Student:	$10	College:	$15
Senior Citizen:	$15	Family:	$25
Individual:	$20		

Along the many benefits of membership are:

Discount magazine subscriptions:

Sky and Telescope:	$16.00 (12 monthly issues)
Astronomy:	$14.00 (12 monthly issues)
DeepSky:	$ 8.00 (4 Quarter1y issues)
Telescope Making:	$ 8.00 (4 Quarterly issues)
Odyssey:	$12.50 (12 lonth1y issues)

Free copy of each WASP newsletter.
Free use of Stargate Observatory.
Special interest subgroups. (see subgroup chairperson) Call list - don't miss unexpected events.
Free membership in Astronomical league.
Free Reflector (Astronomical League Newsletter)
Free use of W.A.S. Library. (see librarian)
Rental telescopes (see observatory chairperson)

Warren Astronomical Society Paper. The Wasp is the official 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 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 an editor on or before the first Thursday of each month.

Editor: Nancy Rowe 544-9081
2005 Hyland, Ferndale, MI 48220

NOTE: The mirrors in the telescope are being collimated so the telescope will be out of service for a few months. lecturers will bring their own telescopes for viewing at the lecture.

Stargate Observatory is owned and operated by the Society in conjunction with Rotary International. 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 F17 club-built Cassegrainian telescope under a steel dome. The observatory is open to all club members in accordance to the 'Stargate Observatory Rules.' Those wishing to use the observatory lust call the Observatory Chairman by 7:00 PM on the evening of the session. The Observatory Chairman is:
Mike O'Dowd 268-7125

The Society maintains a library of astronomy-related books and periodicals at the Macomb County Community College meeting room. See the librarian for library rules or to check out a book.

Lectures are given at Stargate Observatory each weekend. The lecture will be either Friday or Saturday evening, depending on the weather and the lecturer's personal schedule. lecturers should check with the ranger at Camp Rotary early in the week to determine whether scouts will be at the camp, and to inform the ranger of the day and time of the lecture. If you cannot lecture on your scheduled weekend, please lake arrangements to switch weekends with another lecturer, or call the chairman as soon as possible. Upcoming lecturers are:

Riyad Matti	1-18/19	3-1/2
Scott Jorgenson	1-25/26	3-8/9
Frank McCullough	2-1/2	3-15/16
Robert Halsall	2-8/9	3-22/23
Jeff Bondono	2-15/16	3-29/30
Francis Stabler	2-22/23	4-5/6

Subgroups exist for those interested in specialized areas. Those interested should contact the chairperson, listed below:

Solar:	Ed Cressman	645-1837
Lunar/Planetary:	Alan Rothenberg	624-9339
Cosmology:	Mike O'Dowd	268-7125
Deep Sky:	Doug Bock	750-9369
Computer:	Larry Kalinowski	776-9720
Telescope Making:	Jim Houser	294-1952

The Call List is a list of people who wish to be informed of spectacular and unexpected astronomical events. Anyone who notices such an event calls the next person on the call list, who informs the next person, etc. A call list member can specify that he or she not be called at certain times. Any Society member is welcome to join the call list and can do so by notifying Jeff Bondono, 731-4706.

CALENDAR OF EVENTS

Thursday	Feb.	7	7:30	WAS Meeting at Cranbrook
Thursday	Feb.	14	7:00	Cosmology meeting at Al Vandermarliere's home. Topic: Thermodynamics. Contact Mike O'Dowd, 268-7125
Saturday	Feb.	16	6:30	Deep Sky - Star Party at Doug Bock's 750-9369
Thursday	Feb.	21	7:30	WAS Meeting at Macomb Community College

UPCOMING SPEAKER
JACK SZYMANSKI

ASTROPHOTOGRAPHY
SLIDE PRESENTATION

Comet Levy
AND
Star Field Shots

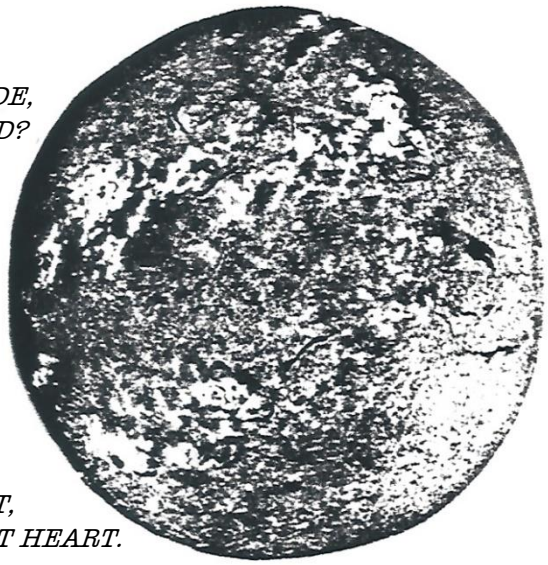
February 21, 1991
Macomb Meeting

DEEP SKY
STAR PARTY
SCHEDULE

Saturday

February	16	6:30
March	16	7:00
April	13	7:00
May	11	7:30
May	18	7:30
June	8	8:00
June	15	8:00

At Doug Bock's Home
(313) 750-9369



WHAT IS YOUR SUBSTANCE, WHEREOF ARE YOU MADE,
THAT MILLIONS OF STRANGE SHADOWS ON YOU TEND?
SINCE EVERY ONE HATH, EVERY ONE, ONE SHADE,
AND YOU, BUT ONE, CAN EVERY SHADOW LEND.
DESCRIBE ADONIS, AND THE COUNTERFEIT
IS POORLY IMITATED AFTER YOU;
ON HELEN'S CHEEK ALL ART OF BEAUTY SET,
AND YOU IN GRECIAN TIRES ARE PAINTED NEW:
SPEAK OF THE SPRING AND FOISON OF THE YEAR,
THE ONE DOTH SHADOW OF YOUR BEAUTY SHOW,
THE OTHER AS YOUR BOUNTY DOTH APPEAR;
AND YOU IN EVERY BLESSED SHAPE WE KNOW.
IN ALL EXTERNAL GRACE YOU HAVE SOME PART,
BUT YOU LIKE NONE, NONE YOU, FOR CONSTANT HEART.

William Shakespeare

The articles and columns that appear in the W.A.S.P. are strictly the opinion of the writer. It may be necessary to retype or delete parts of articles to conserve space. If you know of any upcoming events or speakers, that you would like to share with other club members, or have an article to submit, please call: Nancy Rowe 544-9091.

JOURNAL ROUNDUP
In Which We Look At Extraterrestrials, Jets, and some Very Big Comets

By Scott Jorgensen

I have never had much faith In the common UFO. Which Is not to say that I have no faith in extraterrestrials, I just think that they are all the provincial type who never wander more than a few billion miles from home. So you can Imagine how surprised I was to read that in fact they have been visiting us regularly since the dawn of history. Well. . . OK, they are not very big and they don't say, "Take me to your leader," nor do they play nice music on top of Devil's Tower.

Rather, these extraterrestrial visitors are amino acids born in space and delivered to earth by comets and meteorites. The first positive identification of these "building blocks of life" that were clearly of astronomical origin was made by a Swede, Jons Berzelius, In 1834. His discovery was disputed, but by 1970 there could be no further doubt.

It is interesting that not every meteor or comet can serve as a delivery vehicle. If the object Is too small, it burns up in the thin upper atmosphere, Incinerating the fragile organic compounds. On the other end of the spectrum, large objects are barely even slowed down by the atmosphere and vaporize/liquefy at impact; collision with the earth while travelling at speeds in excess of Mach 50 is also not conducive to survival. But in between are objects that are large enough to survive the trip to earth, yet small enough to avoid annihilation at Impact. These objects, such as the Murcheson meteorite, are the "space ships" for the amino acids from space.

These passengers are quite Interesting. Like foreigners of any sort, they are basically like us, yet clearly different in minor ways. Amino acids are not symmetric, they look different in a mirror. Specifically, they are right or left handed. Earthly amino acids are almost all left handed whereas those from space are nearly equally left and right handed. The carbon 13 content is also much higher, another made-In-space trademark.

You will recall that current theory says that the age of the dinosaurs ended with a bang provided by a large (10km) object, probably an asteroid. But it turns out that there is a deficit of extraterrestrial amino acids in the iridium rich layer of clay that marks the K/T (Cretaceous Tertiary) boundary and serves as the tombstone of a million dinosaurs.

That does not initially make much sense, because the asteroid that created the iridium rich layer would certainly have little impact on other sources of amino acids. But if the source of the amino acids had been a constant rain of small fragments from an earth crossing comet, then the comet could have provided the acids for thousands of years, and subsequently collided with the earth, ending the supply. So it may be that the dinosaurs were killed by the crash of a huge "UFO" that had been delivering aliens for thousands of years. Won't that STAR and the WORLD NEWS be excited when they hear this!

Everybody knows that the planet's tilt changes the weather: hot in summer when we face the sun more directly, cold when we tilt away in the winter. Now there is evidence of the converse on Mars, namely the weather changing the planet's tilt.

Basically, Mars has a wobble to its rotation axis. When the axis is strongly tilted and causes severe winters, the carbon dioxide Ice caps can become enormous, causing the planet to flatten. The flattening rebounds when the CO2 evaporates, but the ground does not fully rebound right away. In this way the shape of the planet is altered and the sun's gravity can actually tilt the planet permanently. NASA workers have shown that the entire 24.4 degree tilt of Mars may be due to this mechanism. Mars may be tilted due to Its weather.

The large comet Chiron, officially a minor planet residing between Jupiter and Uranus, may pay us a closer visit someday. English astronomers have calculated its orbit out 100,000 years into the past and future. As you would expect, the orbit is chaotic. Being near Jupiter and crossing the orbit of Saturn means that the otherwise smooth orbit is constantly pushed, pulled and generally rearranged. The probability that the comet was once a short period comet, venturing into the Inner solar system Is very good. And the probability that it will be one again is much higher than the probability it will be ejected out into a long period orbit it is the largest comet known, it would make an interesting space probe visit if it ever dropped into our neighborhood. For computer experts interested in trying it themselves, the current orbital elements as of

1987 are a=13.6678867, e=O.3797169, I=6.93242, and omega=208.63174.

One final note before we leave the solar system. Scientific American has some incredible radar pictures of Venus! You would swear they were aerials of earth they are so sharp. Look it up if you get the chance.

Astronomical jets are somewhat larger and more powerful than their airline counterparts. Astronomical jets are light years long streams of matter ejected, usually at extremely high speed, from galaxies, young stars and even neutron stars. Generally, the jet is focused by a donut shaped disk of material surrounding the "engine", or by the magnetic field generated by the engine. The disk of matter is essential to all the models of how jets operate, but It is not clear that the disks are stable. In fact, they may bloat to look more like a cylinder than a disk. Now a new theory has been advanced that allows even a bloated disk to form a jet. Considering the large number of jets found in diverse locations, this new theory may find a lot of use very soon.

Finally, we have news of a new sort of "comet." Neutral gas clouds known as Bok globules have been known for years. New observations of certain globules silhouetted against the Rosette nebula have comet-like tails. The tails all point away from a powerful infrared source identified by IRAS. These "comets" are rather large though. The heads are nearly 3/4 of a parsec across and the tails about 2pc long. It appears that the infrared source provides a stellar wind moving roughly 26km/sec. These objects have been dubbed cometary globules. They are not only big, they also contain around 500 solar masses of material. All in all, a very big comet indeed. Well, 'till next month…

Clear Skies!

1990 Awards
continued from front cover

PART II

Amateur Astronomer of the Year.....Nancy Rowe

In a group such as the W.A.S., we will always have a share of members who join up with the best of intentions and are genuinely interested in learning. Then there is an elite group who rocket out of the gate, thirsty to learn and do all they can. These folks are driven with all the wonder, and curiosity of a child on Christmas morning. They are the winners of the Amateur of the year awards.

Nancy has made great strides in her first full year with the Society. I was happy to be one of the people she had come to with questions about everything from different types of telescopes, to deep sky objects and double stars to astrophotography. She spent several observing sessions at my telescope during the summer, asking questions and learning as much from her inquiring as she did from watching me and others in the field. In May, the W.A.S. attended the Star Bowl in Lansing. Nancy was present to cheer us on to victory. At the May W.A.S. meeting the club received a flyer stating that Mr. Dobson was helping people make telescopes. She explained to several of us at the meeting how she was going to build herself a six inch Dobsonian telescope.

To undertake such a task in the first months of joining was very impressive indeed. She unveiled the telescope at the Milford site last summer. It was crude but looked functional. Don't forget Mr. Dobson's original intent, when he made his first telescope (that is his namesake), was to make a respectable size telescope out of odds and ends, and to do it very inexpensively. Nancy's telescope was in this true Dobsonian fashion. She set it up next to my telescope and asked me if I would help her obtain the telescopes first light. I was honored to help. We had a little trouble focusing the fragile eyepiece holder but did manage to get a good image of M13.

At the next meeting, Nancy informed me the six-inch mirror was stolen from her car. All that work gone. Then she said she had plans to grind a new mirror and build a larger scope! When Ken Kelly announced that he was going to be moving to Nevada, the WASP went through a series of editors, it came to rest in Nancy's hands. For someone to join, grind their own telescope mirror, and get involved in club activities as much as Nancy Rowe has, is well deserving of her title as AMATEUR ASTRONOMER OF THE YEAR 1990.

A Note from the Treasurer

The fund raising raffle held during our Awards Banquet raised $184 for our club. Below is a list of the items which were either raffled-off, given as door prizes, or available free to any attendee, along with their contributor. The club wishes to express our appreciation to all companies and individuals who donated these items.

7.4mm Plossl	Tele Vue
Series 4000 26mm Super Plossl	Meade Instruments Corporation
50 catalogues	Meade Instruments Corporation
Series 4000 26mm Super Plossl	John Kopin
Cheshire collimating tool	AstroSystems, Inc.
20 catalogues	AstroSystems, Inc.
20 laminated Lunar Maps	AstroSystems, Inc.
3 Observers Guides	Astro-Cards
10 brochures	Astro-Cards
MotoDec	JMI
50 catalogues	JMI
6" Solar Skreen Filter	Roger Tuthill
Miller Planisphere	Berger Brothers
5 catalogues	Berger Brothers
3 $25 gift certificates	Parks Optical
15 catalogues	Parks Optical
3 $25 gift certificates	Scope City
2 $25 gift certificates	Wholesale Optics of Pennsylvania
1 $25 gift certificate	Lumicon
Astronomy Magazine - 1 year	Kalmbach Publishing
DeepSky Magazine - 1 year	Kalmbach Publishing
Passport to the Stars and catalog	Edmund Scientific
22 Apollo 13 Glasses	Tim Skonieczny
Mankind's Comet	Astronomical Workshop - Furman University
Astronomical Calendar 1990	Astronomical Workshop - Furman University
4 brochures	Astronomical Workshop - Furman University
SkyGlow Filter for Schmidt-Cass	Orion Telescope Center
50 catalogues	Orion Telescope Center
5 catalogues	Pachart Publishing House
50 1991 Guides to the Heavens	Sky Publishing Corp
Solar System Placemat	purchased by the club

CRANBROOK - November 1, 1990

The meeting began at 7:50.
A 26 mm eyepiece has been donated to the club. It has not been decided whether to put it in the observatory. or use it in the Christmas raffle.
The Christmas Party was discussed. The room has been changed. Slides are still needed for the slide show. Jim Schwitzer from Adler Planetarium will be the guest speaker.
A report was made from the last business meeting. The post office box is being changed to a more convenient location.
Letters have been sent out for door prizes for the Christmas Party. 20 observers handbooks have been ordered to sell.
A complete overhaul is in progress on the Stargate telescope. There will be an Open House and Grand Reopening planned for this spring.
Lecturers are to take their own telescopes to Stargate until the reopening.
The great white spot on Saturn has been observed. Mars should be viewed now. The sand storm season is beginning. and could cause difficulty in viewing surface features. New storm spots have been observed on Jupiter.
Light shields are being put up around Stargate by Detroit Edison.
Clear Skies are being reported. Riyad Matti reported viewing the Horsehead Nebula in dark skies up north with 20 x 80 binoculars.
Marty Kunz gave a talk on mirror grinding and polishing. The Stargate telescope mirror was set up for testing and observing by members prior to shipping for refurbishing.
The meeting ended at 10:15 p.m.

Elizabeth Stabler
Secretary

MACOMB - November 15. 1990.

The meeting began at 8:05 pm.
Guests and new members were welcomed.
Everyone was reminded to order any magazines before the end of the year if you wish to take advantage of current prices. Contact Jeff Bondono if you need to place an order.
Speakers are needed for meetings in the new year. Contact Frank McCullough to volunteer.
Stargate optics are out for repair. A grand reopening will be planned for spring.
The Christmas Banquet has been moved to the Cordova Room. Look for directions once inside Warren Chateau.
The computer group will meet one week from Thanksgiving, Nov. 29. The Nov. 3rd meeting took a field trip to Jeff Rush's home for a demonstration of his extensive equipment. A field trip is planned Saturday after Thanksgiving to view the 24" telescope at Lansing. All members are invited to join.
The Cosmology group will meet December 13. Extra newsletters were made available to all members who wished one.
A location is needed for the mirror grinding group to meet and work. Any suggestions would be welcome.
Several members attended the Hidden Valley convention in Ohio. The flea market and the dinner were very good. The speakers were; David Levy on comets. Don Parker on planetary photography. Jack Newton on astrophotography. and Steven Edward of Halley Watch International.
The Royal Astronomical Society of Windsor invites any club members to attend their meetings. There will be a lecture on Cosmology November 20th at 7:30pm.
Mars is at opposition this Monday. Be sure to look. 2001 will be the next opportunity.
Meijer’s has a good sale on Astronomy books.
Dan Taylor from the Royal Astronomical Society of Windsor gave a talk on variable stars.
The meeting ended at 10:00 pm.

Elizabeth Stabler
Secretary

CRANBROOK - December 6, 1990

The meeting began at 7:58.

Visitors, Ken Burnick and Rick Wosnoaski were welcomed to the meeting.
Everyone was reminded of the Christmas Banquet December 20.
There will be an occultation of an asteroid the night of January 3. This will be the night of the Cranbrook meeting. we will be set up to observe, weather permitting.
Rick Hill and Jack Horkheimer will speak at Astronomy Day.
Jupiter can be viewed in good detail at this time for anyone willing to brave the elements.
The space probe Galileo is nearing the earth.
The Space Shuttle UV scope is functioning well.
Bob Halsall gave an update on the club telescope. It should be back and ready for use by spring. The secondary lens needs to be replaced, the primary lens is being refigured and recoated. Possible modification is being considered to switch from Cassegrain to Newtonian with rotating rings.
Videos and slides were presented by several members of the group.
The meeting ended at 10:05 p.m.

Elizabeth Stabler
Secretary