Dave Sanford makes a cloud projector.

Sandy Hallock blows up the world.

Georgia Neff and Kathy Michaels review slides.
President's Message......Steve Bishop

Becoming the new President of GLPA causes me to reflect on this organization, planetariums, and my life. When I was young, when other kids were going to weekend matinees, I used to take the bus into downtown Minneapolis to visit the public library planetarium and allow Maxine Haarstick to magically transport me out into the cosmos. In later years, in my own planetariums, I worked to recreate that same magic. But, like the sorcerer's apprentice, I am never sure who is servant and who is master - the planetarium or me.

First impressions can be accurate. I remember attending my first GLPA meeting in 1976 and being impressed by both the level of professionalism and the sense of community that pervaded the conference. Little did I imagine what the future held.

Looking down the list of past presidents is a humbling experience; they all seem larger than life. With lots of assistance from the membership, their enthusiasm and skill have helped shape GLPA into the thriving family of professionals it is today. I'll do my best to uphold their high standards and the trust of all GLPA members.

Several other personnel changes have now taken effect: Gary Tomlinson becomes past president, replacing Sheldon Schafer; Dan Goins has become president-elect, replacing me; Gregg and Barbara Williams are now conference planning committee co-chairpersons, replacing Bob Gardner; and Bart Benjamin is now newsletter editor, replacing Jeanne Bishop. Other officers and chairpersons, too numerous to list, continue in their capacities. My thanks and best wishes to all, old and new, who so selflessly serve GLPA.

Among the complex issues facing us this year is the one of corporate membership. If you have any ideas about whether we should implement a corporate membership program or how it should be structured, drop me a note. For that matter, if you have any ideas on how GLPA might better serve its membership in general or you in particular, let me know.

I look forward to seeing you in Bowling Green!
EXECUTIVE COMMITTEE MEETING

The GLPA Executive Committee will meet on Saturday, April 16th at Bowling Green State University’s Planetarium, beginning at 10 a.m. All GLPA members are invited to attend. For more information, contact host Dale Smith at (419) 372-8666.

EDITOR’S MESSAGE

On behalf of the entire GLPA membership, I want to offer sincere thanks to Jeanne Bishop for her dedicated work as GLPA newsletter editor during the past two years. Her dedicated work and the improvements she made to the newsletter make it easier for me to step into the role of newsletter editor.

Although the GLPA newsletter is already an outstanding resource to its members, I believe that there is always room for improvement. Since I accepted the editor’s role late last year, I’ve developed a few new ideas for the newsletter, each of which requires contributions from you — the GLPA membership. I would appreciate your contributions or ideas in the following areas:

PHOTOGRAPHS. If you have a picture that documents a newsworthy event or a picture that exemplifies what we planetarians are all about, please send it along with a caption for possible use as a newsletter illustration. Please indicate if you need it returned.

GLPA BULLETIN BOARD. This column will serve as a forum for short announcements and news notes that don’t require a full-length article. Give me your announcements of new production techniques, good publications you’ve read, employment opportunities, NASA information, or any other resources that would be of interest to members.

COMPUTER AND BOOK REVIEWS. I’ve asked Jerry Mansfield to assist me in preparing a series of articles beginning this summer on what the GLPA computer bank has to offer to members. I’d also welcome members to submit their own reviews of computer programs and/or astronomy books that they believe are especially good.

ARTICLES, SURVEYS, INTERVIEWS, ETC. As always, the GLPA newsletter welcomes quality articles written by its members in addition to the articles written by the editor.

NEW MEMBERS. I would like to begin announcing the names of new GLPA members to recognize them and inform our current members of their decision to join us.

THE LIGHTER SIDE. Any filler items, such as astronomy-related cartoons, jokes, crossword puzzles, etc. are welcome additions to the newsletter.

SUMMER SOLSTICE ISSUE.

WHAT IS YOUR PLANETARIUM DOING TO OBSERVE MARS THIS FALL? For the summer issue, I would like to compile information on what special programs, observing sessions, etc. that the planetariums of GLPA are planning for the upcoming close approach of Mars. If you’re doing something special, please send me the details.

STATE MEETINGS? If you have any news to report from your respective state meetings, please send me the details.

FRIDAY, MAY 6TH IS THE DEADLINE FOR THE SUMMER NEWSLETTER! Planetariums that have state news to report should inform their respective state chairman by April 29th.

I will do my best to keep the GLPA Newsletter an important source of information that will help you and your planetarium. However, the ultimate success of the GLPA newsletter depends on you — the membership. If you have a good idea or an important announcement that you think would be helpful to other planetariums, please let them know by way of the newsletter. With your contributions of articles, news items, and
announcements, the GLPA Newsletter can continue its proud heritage of serving you, the members of the planetarium community.

SECRETARY/TREASURER REPORT

Dave Parker reports that GLPA currently has 193 members and is growing each week. The GLPA treasury is in good shape, and all current bills have been paid.

STATE NEWS

Illinois

The Illinois State Meeting of GLPA will be held at Parkland College Planetarium in Champaign, Illinois on Saturday, April 30th, 1988.

Adler Planetarium -- On January 23rd, Apollo 17 astronaut Harrison Schmidt was a special guest at the opening of Adler's new "Space Transporter" exhibit. This exhibit allows visitors to "beam down" to the surface of each planet to weigh themselves and see the local landscape. Other exhibit renovations are expected to be completed by March. On April 2nd, Adler premieres a new children's program entitled "Star Stories," and on April 29th, Adler begins showing "First Light: The Space Telescope Story." Classes in astronomy resume in April as well.

Cernan Space Center -- On February 6th, the Cernan Earth & Space Center of Triton College kicked off its new membership year with "An Evening with Astronaut Alan Bean." Nearly 600 people heard the remarks and saw the paintings of Captain Bean, now a renowned space artist, who flew on Apollo 12 and Skylab. In April, the Cernan Earth & Space Center will premiere a new Cinema-360 film entitled "Genesis," which explores the earth from its ocean depths to its surface volcanoes, as well as the science of plate tectonics. Also continuing is its newest laser light show "Electric Flight."

The Cernan Center recently installed a large-format video projection system for its theater, complete with a 3/4 " videotape deck. Not only does this allow the Cernan Center to show video clips in its programs, but also enables the Cernan Center to receive teleconferences and programs through Triton's television studio.

Henry Crown Space Center -- Through June 9th, the Museum of Science and Industry's Henry Crown Space Center will be showing the aerial extravaganza "Flyers." On June 10th, the Crown Space Center premieres "Great Barrier Reef."

Unlike other Omnimax films it has shown in the past, the Crown Center is producing an all-new soundtrack for "Great Barrier Reef." The screenplay will be written and narrated by Bill Kurtis, a well-known television personality at Chicago's CBS affiliate.

ISU Planetarium -- The Illinois State University planetarium is currently showing its own production of "Pioneering the Space Frontier." Recently, planetarium director Carl Wenning received two awards for his contributions to amateur astronomy. He was inducted as member of the G. Weldon Schuette Society of Outstanding Amateur Astronomers. He was also presented with an Honorary Life membership to the Twin City Amateur Astronomers. Congratulations to Carl!

Lakeview Planetarium -- Lakeview Planetarium is currently alternating three planetarium programs for its spring schedule -- "Adventures Along the Spectrum,"
“Hawaii: Pacific Paradise,” and “Islands in the Sky.”

Strickler Planetarium -- Olivet Nazarene College’s Strickler Planetarium is continuing its "Solar System Spectacular" program on the first Friday of every month. The planetarium has just completed a renovation of its theater, with major improvements to its console and sound system. Congratulations to director Al Fleming for recently receiving his Ph.D. in geology.

Staerkel Planetarium -- The Parkland College Planetarium is now officially known as the William M. Staerkel Planetarium. The Staerkel Planetarium is continuing to show the film 'To Fly' as well as "Odyssey," a multimedia program produced in-house.

On April 30, 1988, Jim Manning and his staff will host the state GLPA meeting.

Indiana

The spring meeting of Indiana planetariums will occur on Friday and Saturday, April 22-23 at the Evansville Museum of Arts & Sciences in Evansville, Indiana. For more information, contact meeting host Mitch Lumen at the Evansville Museum, 411 S.E. Riverside Drive, Evansville, IN 47713 (812) 425-2406.

The other big news story in Indiana is that the Indianapolis Children's Museum is constructing a planetarium. The plans call for the ground to be broken in April of this year, with opening day scheduled for the spring of 1989. Sharon Parker, its director, reports that the dome will be a 40-foot flat hemisphere with seating for 130 and housing a Digistar projector.

Michigan

Garry Beckstrom reports with sadness the death of Jim Loudon, who was staff astronomer at the Ruthven Planetarium Theatre and University of Michigan Exhibit Museum since 1969.

Many in the planetarium community knew of Jim and his lifelong efforts in popularizing astronomy. His monthly film/lecture series in Ann Arbor, his articles in Sky and Telescope and Astronomy and his involvement with National Public Radio and his monthly "Spacelog" program found its way around the country. Jim Loudon was 44.

Ohio

Cleveland Regional Association of Planetariums -- is working on an astronomy booklet for elementary students to be published by the National Air & Space Museum next year.

Westlake Schools Planetarium -- New projects include the use of the "Humanities and the Stars" program for social studies classes, the development of special motivational lessons for junior high learning-impaired students, and the use of Jeanne Bishop's stuffed constellations for K-3rd grade students.

Bowling Green University Planetarium -- The "Humanities and the Stars" program serves as the basis of a course being team-taught by Dale Smith and a colleague from Romance Languages. Their current public program is "Journey to Earth," a lyrical romp through the universe to show our planet's place in space.

Ohio State University Planetarium -- Walt Mitchell recently conducted a lab exercise called "History in the Sky" in which the students plotted a star chart based on distance and therefore time. Students were then asked to select a historical event
associated with the celestial object whose light started out that long ago.

Dayton Museum Planetarium -- will run "Fire and Ice," which explores mass extinctions and ice ages, in April and May. In June, the Dayton Planetarium will premiere "Solar System Mysteries" and will also host Apollo Rendezvous for amateur astronomers on June 10th and 11th.

Hoover-Price Planetarium -- is currently running three public shows -- "Our Place in the Universe," "To Worlds Unknown," and "Spring Skies." Jane Mahoney also will teach astronomy courses and will conduct teacher's workshops for Wayne County.

Wisconsin

The Wisconsin/Iowa/Minnesota Planetarium Society (WIMPS) will conduct its state meeting on March 25th and 26th at the University of Wisconsin at Eau Claire.

Wauwatosa H.S. Planetarium -- will co-lead a delegation of students to China this July with Larry Mascotti from the Rochester, Minnesota planetarium. This program, called the Chinese American Youth Exchange will bring U.S. students to several Chinese astronomical sites.

Manfred Olson Planetarium -- initiated the Project Starwalk program last fall and reports that it has been running very successfully.

University of Wisconsin La Crosse Planetarium -- will host the Great Plains Planetarium Association (GPPA) meeting from October 6th through October 8th, 1988.

IPS News

The International Planetarium Society biennial conference is scheduled to take place June 29-July 3, 1988. IPS registration information is initially being sent out to current IPS members only. Persons who are not included in the mailing must request the information. Conference registrations must be received by May 31st. To receive information, contact Ethyl Universe Planetarium at 2500 W. Broad Street, Richmond, VA 23220; (804) 367-0211.

GLPA Bulletin Board

-- The National Earth Science Teachers Association (NESTA) provides a number of services to earth science teachers, including the publication of the quarterly "Earth Scientist," and the distribution of 15 short slide sets on subjects ranging from space to Mt. St. Helens. For more information, write NESTA at Department of Geological Sciences, Michigan State University, East Lansing, MI 48824.

-- The International Astronomical Union is sponsoring a colloquium on "Light Pollution, Radio Interference and Space Debris" scheduled to take place in Washington, D.C. on August 13-16, 1988. For more information, write Dr. David Crawford, IAU Colloquium No. 112; Kitt Peak National Observatory; Tucson, AZ 85726.

-- The International Astronomical Union is sponsoring a colloquium on "Teaching Astronomy" scheduled to take place at Williams College in Williamstown, MA on July 27-30, 1988. For more information, write John Percy; Department of Astronomy; University of Toronto; Toronto, Ontario; Canada M5S 1A1.
-- Does your planetarium need a familiar profile for its horizon showing skyscrapers, steeples, etc.? Supply us a panoramic horizon photograph or photographs of good contrast. We will digitize it for you on a scale suitable for cutout or stencil. Contact Walt Mitchell; Dept. of Astronomy; Ohio State University; 174 West 18th Avenue; Columbus, OH 43210.

-- During 1988-89, the V.M. Slipher Committee will have $4,500 to award for projects that enhance the public's understanding of astronomy. Preferences will be given to projects requiring seed money for programs that will continue beyond the funding period. To more information, please contact Dennis Schatz; V.M. Slipher Committee: Pacific Science Center; 200 Second Ave. North; Seattle, WA 98109.

-- Carl Wenning from the Illinois State University Planetarium has copies of his two papers he presented at the last GLPA Conference -- "Quieting that Noisy Ektagraphic" and "Using Kodak Precision Line Film LPD4 to create Photographic Masks." Please contact Carl at (309) 438-8758 to get a copy.

-- The Carter Company of Boston is offering an "Earth Shuttle: the ultimate hands-on experience" for students between grades 5 and 12. This program, which runs for 3 days and 2 nights, includes round trip flights on Eastern Airlines, tours of Kennedy Space Center and EPCOT Center. Call (800) 237-0046 for more information.

GARY TOMLINSON ARTICLE: Editor's note ... In Gary Tomlinson's article, he refers to ASCAP's charges of $5 per day. Since writing this article, Gary has learned from ASCAP that this should be corrected to $5 per performance. ASCAP charges remain $2 per day for planetariums who play music for walk-in only.

********

1988 GLPA Conference

The 1988 GLPA Conference will meet at Bowling Green on October 19-22. We are planning an agenda that we hope will be a worthy successor to Merrillville. The Agenda will definitely include time for workshops, as well as paper session, planetarium shows, and other traditional and new activities. If you have ideas for events that you have not already communicated to me, please let me know.

Contact: Dale Smith
Department of Physics & Astronomy
Bowling Green State University
Bowling Green, OH 43403-0224
1987 GLPA CONFERENCE
SUMMARY OF RECEIPTS AND DISBURSEMENTS

Receipts

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<tr>
<td>Donations</td>
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<tr>
<td>Learning Technologies</td>
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<td>Evans and Sutherland</td>
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<td>Meals</td>
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<td>Delegates</td>
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<td>Guests</td>
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<td>Group photo</td>
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<tr>
<td>Workshop fees for cloud projector</td>
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<tr>
<td>GLPA dues</td>
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<td>GLPA advance money</td>
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Disbursements

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<td>Letterheads, envelopes, and postage to ask for donations/door prizes</td>
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<td>Preview booklet printing and postage</td>
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<td>Folders, paper, name badges, and conference program booklet for conference folders</td>
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<td>Film, processing, and album for conference photos</td>
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<td>Computer paper and postage</td>
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<td>Dr. Kerry Mark Joels</td>
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<td>Jack Speehr</td>
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<td>Dr. Peter R. Backus</td>
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<td>Panel discussion members</td>
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<td>Meals</td>
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<td>Lunch Thursday--The Patio</td>
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<td>Group photos, envelopes, and postage</td>
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<td>Carl Wenning for cloud projector workshop</td>
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<td>Profit on 1987 conference to GLPA</td>
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Balance                                                  0.00
1987 GLPA CONFERENCE
EVALUATION SUMMARY

Ninety delegates attended the 1987 GLPA Conference. Fifty-five evaluations were returned. Below is the average answer to each question. The numbering system used was:

1 - strongly disagree
2 - disagree
3 - undecided
4 - agree
5 - strongly agree

<table>
<thead>
<tr>
<th>statement</th>
<th>average response</th>
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</thead>
<tbody>
<tr>
<td>1. Preconvention publicity was sufficient.</td>
<td>4.6</td>
</tr>
<tr>
<td>2. Pre-registration for this conference was easy to complete.</td>
<td>4.6</td>
</tr>
<tr>
<td>3. Workshops, panel speakers, and other activities were sufficiently delineated in the program.</td>
<td>4.7</td>
</tr>
<tr>
<td>4. The sequence of the conference was wisely arranged.</td>
<td>4.4</td>
</tr>
<tr>
<td>5. Registration at the hotel or meeting site was efficient.</td>
<td>4.4</td>
</tr>
<tr>
<td>6. Overall, the planetarium presentation was interesting and informative.</td>
<td>4.2</td>
</tr>
<tr>
<td>7. Paper presentations were interesting and valuable.</td>
<td>4.3</td>
</tr>
<tr>
<td>8. The Panel Discussion Session was well presented and valuable.</td>
<td>2.8</td>
</tr>
<tr>
<td>9. Workshops were interesting and informative.</td>
<td>4.7</td>
</tr>
<tr>
<td>10. The Spitz Lecturer was excellent and a worthwhile aspect of the meeting.</td>
<td>4.2</td>
</tr>
<tr>
<td>11. Time schedules were rigidly adhered to.</td>
<td>4.0</td>
</tr>
<tr>
<td>12. The Business Meeting was conducted efficiently and covered the issues.</td>
<td>3.9</td>
</tr>
<tr>
<td>13. The Executive Committee appears to be handling the affairs of GLPA very well.</td>
<td>4.5</td>
</tr>
<tr>
<td>14. Overall, the conference was worthwhile and I highly commend those who worked on it.</td>
<td>4.8</td>
</tr>
</tbody>
</table>

The following were the additional comments made most often:

- Workshops were very valuable/excellent.
- Repeat workshops next year.
- Very worthwhile conference.
- Panel discussion was too long.
- Workshops should have had more time.
- ASCAP discussion was too long at the Business Meeting.
A Letter to our former Editor-----

Dear Jeannie,

Seems there are some things to be said about GLPA Conferences that ought to come from a retiring Conference Chairman.

The Gregg Williams' seem to hear all of the complaints and druthers our members have been requesting for years. We had leisure time, short bus trips, good convention facilities, and above all, excellent workshops and papers. And this they put on without experience or fanfare. The 1987 GLPA Conference was unique because it was almost flawlessly planned to the desires of its members.

This is not to belittle other conference hosts. Every host has worked very hard to have the best conference possible. Each conference has had at least one striking feature to be remembered by; be it in-flight lunches, Yerkes Observatory, an Indian story-teller, videos and dinner under the dinosaurs, examining gravity towers and wind tunnels, lectures at Fermi Lab, dining at haunted saloons or Hancock Tower banquets, lost reservations, long bus trips, belabored panel discussions and sauna bath policy meetings. We have been in the presence of and heard great astronomers and lecturers. Twice we have been awe struck by lectures of Bart Bok. We have heard Verschuur, Edmonson, Hynek, Laudon, Delsemme, Kolb, Chapman, Abell, Drake, Asimov and Morgan. We have been stimulated by papers presented by Perkins, Reed, Marshall, Bishop, Chamberlain, Allen, DeBruyn and Elliot and oh, so many others. We have been blessed with talent and inspiration. All of this in spite of and without the intervention, nagging, or prying of the Conference Chairman! But, what of the future?

I sincerely hope that an internationally known astronomer will appear at each conference. Cost too much? If 20 more members are brought to the conference it would pay the additional costs. Just the talents of several new members would be worth the cost. An internationally famous person would do wonders for conference attendance. Past records might reveal if this has happened in the past. The effort to get Clyde Tombaugh for the 1988 conference is a step in the right direction.

A proposal was made at the last executive meeting to have an astronomer speak to our body "to catch us up" on major astronomical events of the year. That was an excellent proposal. A good speaking local astronomer could fit that bill.

If you are one of the 100 members who didn't come to this conference (and you missed it again, Fred), how do you feel?

Bob Gardner
I recently received a call from a planetarian who stated that ASCAP was requesting $7.50 per performance. We never figured out where that figure came from, but ASCAP finally agreed to $5.00 per day. The normal rate of $2.00 per day covers only seating and lobby music, not music with accompanying visuals. As soon as you add a visual to music (without narration), the price goes up to $5.00 per day. Since ASCAP cannot license music that has been mixed to accompany narration (i.e. as soon as you edit music and not play a selection in its entirety, solely for the purpose of featuring that particular piece of music), you need to search out that particular copyright holder to buy synchronization rights.

If you only use music behind narration and don't use seating or lobby music for atmosphere, you don't owe ASCAP anything - just the particular copyright holders of the music you are using.

The case I mentioned in the beginning of this article does have an interesting twist. Why did ASCAP agree to $5.00 per day rather than the $2.00 per day rate for mechanical music? It was because that particular planetarian used music during a live planetarium show while using visuals, i.e. the planetarium projector. Since the program was live, that was not synchronization. It fell within ASCAP's category of mechanical music with visuals (a star filled sky, sunset projector and I suppose a pointer), therefore, that planetarian was charged a higher rate.

For this particular planetarium there are several solutions:

1. Pay the $5.00 per day to ASCAP.
2. Produce recorded shows and pay nothing to ASCAP (unless you use entrance/exit, or lobby music, you do need to acquire synchronization rights for the particular music you use).
3. Don't use music (you'd better not even hum as that would be live music, charged at the minimum rate of $15.00 per performance).
4. Buy music with inhouse and synchronization rights granted (Loch Ness Productions or John Serrie for example).
5. Hire a composer to produce original music.
6. Use purchased music from any of the standard music libraries listed in the last GLPA newsletter.

One important reminder (again, this is as I understand it), music used in a classroom teaching situation (including planetariums) is exempt from the copyright law. Therefore, if you only service school groups (no Cub Scouts, church groups, etc.) and don't present public performances, then you haven't anything to worry about.

Loch Ness Productions just mailed out a new catalog listing their products (including music). There is also an explanation of copyrights in their catalog. Mark and Carolyn Petersen (they are Loch Ness Productions) have been very helpful to me in trying to understand the copyright issue, and I thank them both. If you haven't received their catalog, drop them a request at: Loch Ness Productions; P.O. Box 3023; Boulder, CO 80307; (303) 455-0611. Also, John Serrie has also composed music for planetariums.

Contact John at: Future Music; P.O. Box 930096; Norcross, GA 30093.

For GLPA, Bob Elliott (L.E. Phillips Planetarium; University of Wisconsin; Eau Claire, Eau Claire, WI 54701) is heading a committee that will collect names of particular cuts of music, albums, etc. that are of interest to members of GLPA. That committee will then attempt to locate the copyright owner. At the very least we will publish the addresses of the copyright owners for members to contact. At the most they will negotiate the rights for GLPA members to use that music, so if you have music you would like to see on the list, send all the information you can find about the music to Bob Elliott.
THE GREAT LAKES PLANETARIUM ASSOCIATION offers membership opportunities to all individuals in any way connected with the operation of planetariums regardless of geographical location. G.L.P.A. is an affiliate of the International Planetarium Society, and the National Science Teachers Association. Membership dues are $13 annually, payable at the time of the Autumnal Equinox. General correspondence and requests for membership should be addressed to: Mr. David E. Parker (Address below).

This quarterly "GLPA Newsletter" is received by all members in good standing. Ideas and opinions expressed in this Newsletter are not necessarily those of GLPA or its membership. Deadlines for contributions fall on the 15th of February, May, August, and November. Send information to: Bart Benjamin
Welcome Summer
In mid-March I had the opportunity to do some skygazing from a dark location 9200 feet up in the Sacramento mountains of New Mexico. The views were astounding. Venus was dazzling, the stars seemed countless, normally faint asterisms and clusters became obvious, and I even glimpsed the Crab Nebula with my binoculars. This awe-inspiring experience reminded me of one reason why planetariums are so important: They allow city-bound people to discover this same sense of awe about the universe.

GLPA's executive committee met on April 16th in Bowling Green, Ohio. Dale Smith and his associates at Bowling Green State University have a wonderful facility which is well-suited for our upcoming conference (October 19-22). Plans for the conference are still being developed, but it sounds like it will be great!

Please take the time to review the minutes of the Executive Committee meeting included in this newsletter. The issues of corporate membership and the relationship between GLPA and IPS bear especially close scrutiny. This is your organization, so please let your representatives know what you think about these and other issues.

Best regards,

Steve Bishop
EDITORS MESSAGE

Thanks to all of you who contribute articles and news items for the GLPA Newsletter. I really appreciate your efforts!

There are a few important articles in this issue of the GLPA Newsletter that I want to draw your attention to.

First, I have enclosed a "Mars Event" Form for you to complete and return. If there is enough membership response, I will write an article for the fall issue that describes what our member planetariums are doing to celebrate the close approach of Mars in September-October. Let me know what your planetarium is planning, and I will include this information in that article.

Dale Smith has included a preview of the October GLPA Conference that he and his staff are hosting in Bowling Green, Ohio. PLEASE NOTE: If you want to conduct a workshop at the conference, you must fill out the enclosed form and return it to Dale before July 25th. If you want to present a paper at the conference, you must fill out the enclosed form and return it to Dale before September 19th.

Also, this is the time to nominate fellow planetarians for the status of GLPA Honorary Member or GLPA Fellow. I've enclosed a description of the required qualifications for each of these honors.

I've asked Jerry Mansfield to prepare a series of articles on what the GLPA resource bank has to offer to members. The first of these articles appears in this issue. Jerry welcomes members to send him their own reviews of computer programs and/or astronomy books that they believe are especially good. Thank you, Jerry.

And finally, FRIDAY, AUGUST 15TH is the deadline for receiving articles or news items for the Fall issue of the GLPA Newsletter.

Have a GREAT summer!
EXECUTIVE COMMITTEE MEETING
APRIL 16, 1988
BOWLING GREEN STATE UNIVERSITY
BOWLING GREEN, OHIO


CALL TO ORDER -- The meeting was called to order by President Steve Bishop. Steve welcomed Dan, Barbara and Gregg to their first meeting.

COMMITTEE REPORTS

SECRETARY'S REPORT -- David sent minutes of the last meeting to all committee members. A motion to approve the minutes was seconded and carried.


CHECKING:
Account Balance 10-1-87
Receipts: +3826.20

Total Working Capital 3991.88

Disbursements:
Checking Account Balance 4-15-88 503.62 ---> 503.62

SAVINGS:
Credit Union Balance 10-1-87 5300.54
Transfer from checking 400.00 6700.54
Interest received 286.72 5967.26 --->+5967.26

4-15-88: ENDING BALANCE 6470.88

A review of the approximate financial variations from fall to spring for the last nine years was also distributed. The financial report was approved.

CORPORATE MEMBERSHIP PROPOSAL -- The establishment of various levels of corporate membership in GLPA were discussed. Various membership categories may be constructed, but we cannot offer corporate memberships only to corporations and regular memberships only to individuals. Each membership category should be available to all. All members in each category will receive the same benefits. Steve suggested two levels of corporate membership in addition to the regular individual memberships already in existence - Sustaining at 125, and Patron at $500.

Gregg Williams made a motion that we would set up a Sustaining membership level of $100 and a Patron membership level of $500 and that we define what those benefit levels will include and that we designate 40% of the revenue from those memberships for conference support, 40% for Proceedings support, and 20% for the GLPA treasury. Seconded by Bob Thomson. Sheldon suggested a lower fee for those membership levels. After further discussion, Gregg amended his motion to make the Sustaining level at $50 and the Patron level at $200. The amendment and motion by Gregg were tabled until after lunch when benefits of each level will be discussed.
CONSTITUTIONAL AMENDMENT — The GLPA By-Laws indicate that our organization will operate under the tax exempt designation of 501(c)(3), but the Internal Revenue Service has never recognized GLPA under that designation. We do not or have never operated under those guidelines. Steve had mailed to the Executive Committee a proposed constitutional amendment to bring our By-Laws in line with our IRS classification - changing 501(c)(3) to 501(c)(6). A motion was made by Bob Thomson to approve the change. Seconded by Sheldon. Motion carried. The amendment will be published in the NEWSLETTER and must be voted on and approved by the membership at the fall conference to become adopted.

GLPA AND I.P.S. AND THEIR RESPECTIVE ROLES — Steve initiated discussion concerning letters and articles printed in the most recent issue of the PLANETARIAN. At the request of the PLANETARIAN, letters were printed from several individuals in I.P.S., including Gary and Sheldon, expressing views on the relationship between the planetarium regionals and I.P.S. It is the GLPA policy to require membership in GLPA before publications of GLPA may be received. Legally, GLPA could not sell the poetry booklets, but we could only provide it free to members. One of the main thrusts of GLPA services has been to members who cannot attend conferences. Rod said that GLPA provides many services for the smaller planetariums that he feels are not provided by I.P.S.

MEMBERSHIP COMMITTEE — Bob reported that brochures and letters were sent to planetariums in the Great Lakes area and David reported that several new members have joined as a result. There are currently 211 members of GLPA, including 183 regular members, 19 student members, and 9 honorary life members. This is higher than any previous year.

Bob is going to ask state chairperson to help recruit members within their respective areas. David felt that a large part of the increase in GLPA membership in the last couple of years was due to the publications that we offer as a free benefit to members.

A nomination for FELLOW of GLPA was approved.

EDUCATION COMMITTEE — Rod has been in contact with Don Tuttle concerning his guide to pronunciations. The consensus of opinion that GLPA should publish it for GLPA members as a TIPS booklet.

Gary reported that the planetarium bibliography is planned for publication by I.P.S.

Discussion followed concerning whether GLPA should offer other publications to I.P.S. for their use. Most thought that GLPA members should be assured of receiving publications that originate within the organization.

Sheldon was asked to approach I.P.S. to see if they would consider printing extra copies of the bibliography so that it could be distributed to GLPA members who would not receive the publication as I.P.S. members.

Rod reported that the Cleveland Regional Association of Planetariums has received a grant from the Smithsonian to write two teacher resource books. One will be for elementary teachers on astronomy, stars and constellations, and the other will be for high school teachers on space artifacts. They will be published in the fall; the Smithsonian and the NASA centers will make those publications available to teachers. Slides and/or prints of the artifacts will accompany the book. Rod will investigate the possibility of having both booklets sent to all GLPA members.

Rod asked that GLPA look into developing a publication that will feature experiments, labs and participatory activities that GLPA members do in their planetariums with students. The committee urged Rod to proceed with the project; he will submit an article or letter for the summer NEWSLETTER to get the membership started thinking about presenting submissions.

Gary announced that the GLPA Goals and Objectives of Astronomy Education were published in a booklet by the Astronomical League.

PUBLICATIONS COMMITTEE — Dave Hoffman reported to Gary that he will not be serving as editor of the Proceedings beyond the 1986 and 1987 issues. He also said the cost for transcribing the two issues will be about $700.
Steve distributed copies of the Publications Committee report as submitted by Chairperson Bart Benjamin. Dave Hoffman reported to Bart that the 1986 Proceedings have been transcribed, first drafts have been sent to each presenter for review. It will be printed in September. The 1987 Proceedings are now being transcribed. It should be printed in late September or early October. Dale is planning to get high quality tapes and transcribe directly to a word-processor. There are also printing facilities on campus. Barbara said the cost of a court reporter which they contacted to come to their conference and record the talks, papers, etc. would have been about $750 to $800. Dale will look into the possibility of using a court reporter of stenographer.

Gregg proposed that the production of the Proceedings be divided into three categories: (1) recording, (2) transcribing and producing an ASCII computer file, (3) editing and printing. Different individuals could be assigned one or more of these steps. The host institution could logically do the recording, but others could do the transcription and editing. Sheldon said we should encourage paper presenters to prepare a printed copy, letting them know that it will be a savings of time and money to GLPA. Each speaker will also receive a $10 reduction in conference registration fees for preparing a printed copy of their presentation.

CORPORATE MEMBERSHIP -- Gregg distributed a proposal of benefits for Sustaining and Patron members. The by-laws currently allow individuals to become members of GLPA, but not corporations. Others sections will also have to be revised to make provisions for corporate members. Steve will review the by-laws, identify areas that need to be changed, conduct the voting by the Executive Committee in the summer and, if approved, print the proposed constitutional changes in the autumn issue of the NEWSLETTER, along with the one that was approved by the Executive Committee in the morning session.

Gregg amended his previous motion concerning corporate membership categories to state that upon the time our constitution is amended that permit these types of memberships, that these types of memberships go into effect immediately. Seconded by Bob and carried. After discussion, the motion to set the Sustaining member level at $50 and the Patron member level at $200 was seconded and carried. The original motion to establish higher levels of membership and to earmark various percentages was called and passed.

CONFERENCE PLANNING -- Barbara discussed the receipts and disbursements for the 1987 conference as it was published in the NEWSLETTER. The conference evaluation summary showed a high percentage of positive comments.

Gregg discussed several interesting conference facts and explained the chronological sequence of events from December 1986 to February 1988, surrounding the 1987 Merrillville conference.

Gregg also distributed a list of recommendations for conference planning. Gregg made a motion that the $1 credit be offered at the discretion of the conference host. Seconded. Motion carried.

To assist the conference host, Gregg and Barbara presented Dale with a prepared notebook containing examples of all kinds of letters, forms, programs, booklets, budgets, donations, paper session forms, workshop forms, and schedules from the past six years. A copy of the notebook will be maintained by the conference planning committee.

Regarding the 1988 conference, Dale said that he has been working with Dr. Randy Olson in an attempt to get Clyde Tombaugh as a speaker. If Dale can get funding from on campus to help support Mr. Tombaugh, we will probably have to open up his talk to the supporting organization outside of GLPA. If possible, a reception be held for GLPA members to meet and talk with Mr. Tombaugh.
Dale asked for opinions on travel to visit a nearby planetarium. It was suggested that the trip be made optional possibly opposite the trip to the observatory. For those who wish to go, a small fee might be charged for transportation. Dale will also try to schedule a speaker who can give an update regarding recent astronomical events.

**INSTRUCTIONAL MATERIALS** -- Jerry Mansfield reported that he copied about 450 slides, 15 computer disks, one bibliography, 10 audio tapes and one video tapes following the conference.

Jerry reminded everyone that the *Software for Aerospace Education - A Bibliography* was a first print from NASA and GLPA was asked to give input by sending suggestions or by returning the evaluation card enclosed in the book.

Jerry investigated the cost of slide copiers. The Bogen 3-S copier he recommends costs about $650. One reason for purchasing a slide copier is that the one Jerry has been using is old and repairs are difficult to obtain. Currently Jerry is charging $.32 per slide, including the film. The prices for the copiers does not include the camera body, which Jerry would provide. Jerry would also need to purchase the lens out of GLPA funds. A motion was made by Dan to authorize Jerry to purchase the Bogen 3-S copier and raise the slide coping fee from $.32 to $.50 per slide. Jerry will continue to provide the film. The motion was seconded and carried.

Jerry reported that STARDATE, a short daily program produced by the University of Texas, has stated offering subscriptions to individual planetariums or institutions for in-house use. The Allen Memorial Planetarium has started using the STARDATE program on their astronomy hotline. STARDATE provides the tapes with a 15-second built-in window for sponsors. The cost is $129 per year. The 365 messages are sent a month in advance.

**INTERNATIONAL PLANETARIUM SOCIETY** -- Sheldon reported that the Council is meeting June 29 at Richmond at the start of the conference. The 1990 I.P.S. meeting will be held in Sweden just prior to the solar eclipse.

**OTHER BUSINESS**

**Insurance** -- The liability insurance carrier refunded $100 of our insurance premium and sent us a notice that they are cancelling the policy, revising it, and making a new policy available.

**Code of Ethics** -- Sheldon read a proposed preamble for our Code of Ethics as follows:

Great Lakes Planetarium Association members recognize the Code of Ethics and strive to apply its components in their professional lives. The Great Lakes Planetarium Association recognizes that each person’s situation is unique and the degree of applicability may differ.

After discussion, Sheldon made a motion that the preamble to the Code of Ethics be adopted. Seconded by Gregg. Motion carried. Since the Code of Ethics was approved by the membership, the preamble should also be approved by the membership at the fall conference.

**Decals** -- Dan proposed making a GLPA decal to supply for the membership. He will contact at least two companies to get prices.

**Adjournment** -- Sheldon made a motion that the meeting be adjourned. The motion was seconded and carried.

Respectfully submitted:

David E. Parker
GLPA Secretary/Treasurer
Illinois

The Illinois State Meeting of GLPA was held at William Staerkel Planetarium in Champaign, Illinois on Saturday, April 30th, 1988. In addition to a tour of the new facility and screening of their in-house production called "Odyssey," eight papers were presented on a wide range of subjects, including theater hardware, techniques in teaching astronomy, and the recent total solar eclipse.

Adler Planetarium -- This summer, Adler premieres "First Light: The Space Telescope Story" to the public. In September and October, Adler will celebrate Mars month with a series of special events and activities.

Cernan Earth & Space Center -- Premiering June 25th is the Cernan Center own production of "Summer Skies," which celebrates the summer season and explores the wonders of the summer sky. In May, the Cernan Center premiered a laser light show featuring light jazz and instrumental music called "Laser Soundscapes," which is cosponsored by WNUA-FM radio. Premiering in June will be a laser light show featuring Pink Floyd’s classic album "Dark Side of the Moon." On May 21st, the Cernan Center conducted a very successful public Open House. Nearly 800 people attended the mini-programs, workshops and demonstrations that took place.

Henry Crown Space Center -- A rewritten and re-narrated version of the Omnimax film "The Great Barrier Reef" will run until early 1989. Recently, three famous persons visited the Crown Space Center -- NASA astronaut Dr. Franklin Chang Diaz (who spoke to 900 Hispanic students as part of a motivational rally for science careers), former astronaut Frank Borman (taping an episode of Entertainment Tonight beside his Apollo 8 capsule), and rock star Michael Jackson (who visited after hours to see the film and exhibits).

ISU Planetarium -- Carl Wenning takes great pleasure in announcing that his student aide, Ayne VandenBrook, has been named Bone Student Scholar for 1988. The honor is the highest accolade conferred upon university undergraduates and is based upon academic excellence, leadership and community service. This summer, the ISU planetarium will be featuring "Space Music." The presentation will use the music of PBS’s "Hearts of Space" radio program which features new age music. This program is a joint effort with the campus radio station WGLT-FM.

Lakeview Planetarium -- Lakeview Planetarium premieres "First Light: The Space Telescope Story" in July. In June, Sheldon Shafer and Georgia Neff are going to Chaco Canyon to photograph the site in preparation for an upcoming planetarium show. Recently, Lakeview purchased the Biological Cell cylinder for their Starlab portable planetarium.

William Staerkel Planetarium -- Opening June 2nd will be "Magic Egg," a computer-graphics film extravaganza, and "Juggernaut," a science-fiction spectacular featuring the voice of William Shatner. On April 30th, Jim Manning and his staff hosted the GLPA state meeting.

Indiana

The spring meeting of Indiana planetariums was conducted on Saturday, April 23rd at the Evansville Museum of Arts & Sciences in Evansville, Indiana. Hosting the meeting was Mitch Luman, science coordinator for the Museum. The morning session featured several paper presentations. St. Louis Science Center’s production of "The Little Star that Could" was presented. After lunch, the afternoon session featured displays of computer software and an LPD-4 processing workshop.
Michigan

The spring meeting of Michigan planetariums was conducted on Saturday, April 9th at the Hans Baldauf Planetarium in Kalamazoo. Hosted by Eric Schreur, the schedule included a tour of the planetarium, screening of the in-house production of "Terri and her Telescope," and informal discussions that centered primarily on children's programming. Summer offerings at Michigan planetariums:

Abrams Planetarium -- "Galaxies."
Chaffee Planetarium -- "Galaxies" and perhaps a laser light show.
Hans Baldauf Planetarium -- "The Shooting Gallery" (feature program), and "The Night the Stars Fell" (children's program).
McMath Planetarium -- "The Summer Sky Tonight" (feature program), and "Wonderful Rocket" (children's program).
Ruthven Planetarium -- "Voyager 2 at Uranus" (feature), and "A Starry Night" (family program).

Ohio

The spring meeting of Ohio planetariums was conducted on Saturday, April 9th in Youngstown. Local hosts Warren Young, Tim Kuzniar, Rick Pirko, and Mike DiMuzio ran two of their recent planetarium shows and demonstrated their new automation system and a video projector. Seven papers were presented on subjects that included construction of special effects projectors, astronomy lab exercises, and production techniques. There are now three Starlab portable planetariums in use in Ohio.

Bowling Green University Planetarium -- recently featured a performing arts night, "Stargrass and Holy Wars," a live reading of prose and poetry on a prairie theme to the accompaniment of slides and recorded prairie sounds.
Dayton Museum Planetarium -- is showing a program on dinosaurs to accompany the Museum's new Dinamation exhibit.
Neil Armstrong Planetarium -- recently reduced its theater's echo problems with the purchase of acoustical foam for the walls and the installation of upholstered seats.
Newhard Planetarium (Findlay College) -- has recently obtained a new star projector to replace the aging Goto. Together with still another projector in storage, the planetarium now has three star projectors in their possession.

Wisconsin, Minnesota

The spring meeting of Wisconsin, Iowa and Minnesota planetariums was conducted on March 25th and 26th in Eau Claire, Wisconsin. Hosted by Bob Elliott, the schedule included an evening of skywatching at a nearby nature reserve and a sharing of ideas concerning the upcoming close approach of Mars.

Waukesha Planetarium -- presented "Sky Phenomena" to the public in April. The program has been very well received. Special thanks to Bob Allen for the original script and visuals. The script for this show will soon be added to the GLPA script bank.
NEW TIPS BOOKLET. The Executive Committee has given permission to proceed with a new TIPS booklet. This TIPS booklet will be made possible by your willingness to share. This booklet will be filled with activities to do in the planetarium. Rod Thompson would like any interested person to send him any information on their own 'pet' projects that you'd like to share with other members. Please include the following information: 1) Title, 2) Concept or objective, 3) Grade level, 4) Materials needed, 5) Procedure, 6) any worksheets or diagrams, 7) Answer key, and 8) Follow-up activities. This TIPS booklet is tentatively planned for distribution at the 1989 GLPA Conference. Please send your contribution and any recommendations to Rod Thompson; 238 West Sunset; Rittman, Ohio 44270.

GLPA SLIDE COPIER. Jerry Mansfield reports that GLPA now owns a slide copier.

WANTED: TELESCOPE MIRROR. Paul Greinke of the Grand Haven Junior High School reports that their school is interested in building an observatory. Therefore, Paul is looking for a 24-inch or larger telescope mirror. If you know of one, please call Paul at (616) 842-5010.

WANTED: SHOW SCRIPTS. Gary Sampson is looking for show scripts. If you have a planetarium script that has been particularly well received by your audiences, please send to Gary Sampson at Wauwatosa, Wisconsin. His address appears on the newsletter masthead.

OBITUARY. It is with deepest sympathy that I must report the death of David Sanford, 47, who was director of the Shaker Heights Planetarium in Ohio. According to Dale Smith, Dave Sanford died of a heart attack on Thursday, May 19th. He will certainly be missed by many.

RESOURCE BANK REVIEW

This month, I've described two programs that run on the IBM PC and compatibles -- the Floppy Almanac and the Astrosoft Computerized Ephemeris (ACE). I wish to thank Carl Wenning for much of this information.

Both programs are public domain and are free to copy. GLPA members can order these programs by sending a request to Jerry Mansfield; Allen Memorial Planetarium; 3737 S. 7th Street; Terre Haute, IN 47802. Please enclose disks to copy onto -- 2 disks for ACE and 1 disk for the Floppy Almanac -- and $2.00 for postage and handling.

AstroSoft Computerized Ephemeris (ACE), version 1.00

ACE is a general purpose astronomy software package consisting of three separate parts, each supporting a variety of astronomy-related applications for the IBM Personal Computer and true compatibles.

Part I of ACE performs the most needed astronomical calculations, involving the sun, moon, planets, eclipses, astrophotography exposures, mean sidereal time, Julian Day, precession, moon phases, equinoxes and solstices, Jupiter's moons, a perpetual calendar, and Polaris. It achieves an accuracy that is comparable to those contained in the Astronomical Almanac.

Part II of ACE provides orbital and physical data for all the planets and satellites of the solar system as well as descriptive and observational data.

Part III of ACE provides data on nearly 2000 deep-sky objects, all stars brighter than 2nd magnitude, 100 double stars, with detailed commentary on nearly 400 of these objects.
WANTED: PHOTOGRAPHER FOR
1988 CONFERENCE

Barbara and Gregg Williams
Merrillville, Indiana

In order to provide continued photographic documentation of GLPA conferences, we are seeking applications for an official photographer for the 1988 GLPA Conference in Bowling Green, Ohio. The conference photographer is expected to:

1. attend the 1988 Conference (October 19-22)
2. provide their own 35 mm camera, electronic flash, tripod, and other accessories
3. provide a daily photographic documentation of the conference

In exchange, we will provide the following:

1. free registration for the conference (Conference photographer is responsible for paying his/her own GLPA membership dues, transportation to the conference, meals, and other conference fees.)
2. film and processing of film (GLPA retains negatives and prints)
3. the honor and glory that naturally comes with this position

To apply for conference photographer, send us a letter describing your photographic equipment, photographic experience, and attendance at previous GLPA conferences by July 22, 1988. You may send examples of your photographs, but we won't return them by mail. (You may pick them up at the conference in Bowling Green.) Selection of a photographer will be based on the ability to provide necessary equipment, photographic experience, and familiarity with GLPA conferences.

Send your application to:

Conference Photographer
Merrillville Community Planetarium
Pierce Junior High School
199 East 70th Avenue
Merrillville, IN 46410
Conference Highlights: The 24th annual Great Lakes Planetarium Association Conference will be held in Bowling Green, Ohio on October 19-22, 1988. We look forward to learning and sharing with our colleagues. The conference agenda will include a variety of paper sessions, workshops, and planetarium shows. New conference features being planned include a live school program and a sampler of performing arts events in the planetarium. We hope to avoid starting times prior to 9 a.m. and to keep a free evening.

Location: The conference will be hosted by the Bowling Green State University Planetarium on the BGSU campus. Bowling Green is located in northwest Ohio 25 miles south of Toledo and is conveniently located for most Great Lakes States.

Registration: Conference registration materials will be mailed to all GLPA members in mid-August. If you have not received your registration material by Thursday, September 1, contact the conference host.

All registration will be by mail. The deadline for registration is Monday, September 19, one month before the conference. Anticipated registration costs are about $45 per person ($25 for students). Late registration will be substantially higher.

Lodging: The Holiday Inn of Bowling Green is the host hotel. Guest rooms are available at the bargain conference rate of only $44 per night for up to four people per room. Reservation cards will be mailed with the conference registration material in August. The deadline for hotel reservation is Monday, September 19.

Meals: Four mouth-watering meals will be served during the conference, including the Friday evening banquet of prime rib of beef with all the trimmings and lunches on Thursday, Friday, and Saturday. A variety of beverages and pastries will be available Thursday and Friday morning and during afternoon breaks. The cost for the meal package will be about $45. (Thursday dinner is on your own.)

Transportation: Bus transportation will be provided from the hotel to the meeting site and to all conference-provided meals. No bus ride should exceed four minutes! For those who want some exercise, the hotel is less than a 15-minute walk from the meeting site.

Proposals for papers and workshops: If you would like to present a paper or workshop during the conference, please complete the appropriate proposal form included in this newsletter and return it to the conference host for consideration. Please note that workshop proposals have an early deadline (July 25) so they can be listed in the August registration materials for scheduling. Workshops should involve hands-on activities or audience participation. If you want to hold a formal round-table discussion on a specific topic as a scheduled session, please use the workshop proposal form.
Title: __________________________________________

Presented by: ______________________________________

Planetarium: ______________________________________

Address: __________________________________________

Phone: ____________________________________________
(Please give number where you can be reached in July)

Abstract:

Length: _______ 45 minutes _______ 90 minutes (please justify)

Can you repeat the workshop? ______ yes ______ no

Facility needed: ___ planetarium required
__ darkroom required
__ tables or workbench space required
__ can be given in a classroom
__ other (be specific)

Equipment needed: ___ overhead projector ___ videotape (format: ___)
__ slide projector ___ microcomputer (brand: ______)
__ 16 mm film proj. ___ 1/4" reel-to-reel playback
__ cassette tape player ___ other (be specific; no promise, but we'll try)

Cost per person (for additional materials): __________

Maximum people per session: ___________

DEADLINE: Must be received by Monday, July 25, 1988

Mail to: GLPA Workshop Proposals
Dept. of Physics & Astronomy
Bowling Green State University
Bowling Green, OH 43403-0224

Questions? contact Dale Smith
(419) 372-8666
Title: 
Presented by: 
Planetarium: 
Address: 
Phone: 

Abstract:

Total Length (including questions):   5   10   15 minutes
(Please note: time limits will be strictly enforced)

Facility needed:    ___ must be given in a planetarium
                   ___ can be given in a lecture room

Equipment needed:    ___ overhead projector   ___ videotape (format: ___)
                      ___ slide projector    ___ microcomputer (brand: ___)
                      ___ 16 mm film proj.   ___ 1/4" reel-to-reel playback
                      ___ cassette tape player ___ other (be specific; no promise, but we'll try)

Will you have handouts?    ___ yes   ___ no

DEADLINE: Must be received by Monday, September 19, 1988

Mail to: GLPA Paper Proposals
Dept. of Physics & Astronomy
Bowling Green State University
Bowling Green, OH 43403-0224

Questions? contact Dale Smith
(419) 372-8666
CONFERENCE PLANNING

Barbara and Gregg Williams
Merrillville, Indiana

Conference Planning is one of GLPA's standing committees. Its main purpose is to assist in the planning of future conferences. After many years of service as the committee's chairman, Bob Gardner stepped down from the position this spring. We have volunteered to serve as co-chairpersons following our experience of hosting the 1987 GLPA Conference here in Merrillville.

We have undertaken several projects to help with future conferences. One project has been to compile a notebook with examples of letters, schedules, and forms used at previous conferences and state meetings. We would appreciate it if hosts of state meetings would mail us copies of any agendas, forms, and mailing lists that they have used. We will include the material in the notebook for the use of future hosts.

Another project is to compile a computerized database of companies providing products and services to planetariums. This database could be used for inviting exhibits, sales materials, and donations for future conferences. If anyone has a list of companies that could be added to our database, please send a copy to us.

Our third project is to compile a database of planetariums near or within the GLPA region. This database would be used for mailing out conference registration materials. If you know of a planetarium not included in the IPS Directory or if you can update information in the directory, please forward it to us.

Finally, we would like to offer our assistance to all of you. If any of the information we are collecting would be of use to you, please contact us. Call Gregg at (219) 736-4837, or write to us in care of the Merrillville Community Planetarium, Pierce Junior High School, 199 East 70th Avenue, Merrillville, IN 46410.
Overview

The Floppy Almanac is an integrated package of software and astronomical data on one floppy disk which brings the benchmark standards of the Astronomical Almanac, the Nautical Almanac, and the Air Almanac to microcomputers. Using this interactive system, high precision astronomical and navigational data for one year's time can be calculated for specific times and locations. The Floppy Almanac runs under MS-DOS on microcomputers compatible with the IBM PC, XT, or AT with at least 256k of memory.

The Floppy Almanac disk will be useful for professional and amateur astronomers, navigators, surveyors, meteorologists, engineers, and others who regularly need accurate information on the positions and motions of celestial objects. The development of the Floppy Almanac has drawn upon ten years of experience producing the Almanac for Computers, an annual publication of the Nautical Almanac Office which provides astronomical formulas and algorithms which can be programmed for small computers and calculators. In contrast, the data from the Floppy Almanac will be immediately available to anyone with a microcomputer and the disk; no programming or detailed knowledge of computers is required. Ease of use has been a specific design goal.

Data Provided

The Floppy Almanac will be distributed as an executable module on a microcomputer floppy disk. Once loaded into computer memory, it can provide, for any date and time within the year, the following information:

(1) Geocentric apparent and astrometric places of Sun, Moon, planets, and stars;
(2) Heliocentric ecliptic longitude and latitude of planets;
(3) Barycentric equatorial rectangular coordinates of planets;
(4) Physical ephemerides (apparent illumination and rotation) of planets and Moon;
(5) Sidereal times: Greenwich mean and apparent, and local apparent for any longitude;
(6) Topocentric rise, set, and transit times for any object for any location;
(7) Navigation information sufficient for sight reduction;
(8) Topocentric altitude and azimuth of any object for any time and location.

The Floppy Almanac uses an internal catalog of data on 200 bright stars. However, at the user’s option this catalog may be temporarily replaced by any of three auxiliary catalogs also included on the disk: the FK5 fundamental catalog of 1536 bright stars, on the equator, equinox, and epoch J2000.0; the catalog of 233 compact extragalactic radio sources compiled by a working group of IAU Commission 24; or the 108 objects in the Messier catalog of clusters and nebulae. There is also a utility program which allows users to establish their own special object catalogs which can then be used by the Floppy Almanac.
In recognition of a member's professional status and significant contributions to the Great Lakes Planetarium Association (GLPA), the Executive Committee will consider candidates for the rank of FELLOW of GLPA.

Any current member in good standing with the GLPA may nominate a candidate by submitting an application and supporting documents to the membership chairman.

QUALIFICATIONS FOR FELLOW OF GLPA:

1. Active membership* in GLPA for ten or more consecutive years.

2. Active membership* in GLPA for five or more consecutive years with substantial contributions in at least two of the categories listed below.
   a. Serving GLPA in elective offices, appointed chairmanships, committee work, and/or conference planning.
   b. Relevant and significant publications and/or conference paper presentations.
   c. Active involvement in state and local planetarium organizations.
   d. The development and communication of innovative teaching methods and/or instructional materials of benefit to the general membership.

3. A nominee should be judged as adhering to the GLPA Code of Ethics for the Planetarium Profession.

* Active membership shall mean a dues paying member who has attended a majority of state and regional GLPA meetings.

The Executive Committee will vote to confer FELLOW status upon nominated individuals on the basis of the above qualifications.

SUBMIT NOMINATIONS TO:  G. Robert Thomson
                           GLPA Membership Chm.
                           The Vollbrecht Planetarium
                           19100 Filmore
                           Southfield, MI 48076
HONORARY LIFE MEMBER

In recognition of a member's significant contributions to planetarium education and the Great Lakes Planetarium Association (GLPA), the Executive Committee will consider candidates for HONORARY LIFE MEMBER who meet the qualifications listed below.

Any member in good standing with the GLPA may nominate a candidate by submitting an application and supporting documents to the membership chairman.

CRITERIA FOR HONORARY LIFE MEMBERSHIP:

1. A candidate for Honorary Life Membership should be nominated on the basis of:
   
   a. The number of years of membership in the GLPA.
   
   b. The amount of activity and service to the GLPA.
   
   c. Professional accomplishments in astronomy and planetarium education.
   
   d. Active involvement in state and local planetarium organizations.

2. A candidate for Honorary Life Member should be retired from fulltime planetarium education.

The Executive Committee will vote to confer Honorary Life Membership upon nominated individuals on the basis of the above qualifications. An Honorary Life Member will have full membership privileges for life and will be exempt from dues.

Members elected as Honorary Life Members will receive recognition and a certificate of their membership status at the annual Armand Spitz banquet.

SUBMIT NOMINATIONS TO:

G. Robert Thomson
GLPA Membership Chm.
The Vollbrecht Planetarium
19100 Filmore
Southfield, MI 48076
IS THERE A "MARS EVENT" IN YOUR FUTURE?

Please describe any special planetarium shows, telescope observing programs, guest speakers, celebrations, etc. that your planetarium is planning to commemorate the close approach of Mars this fall.

YOUR NAME?

FROM WHICH PLANETARIUM?

DATE(S) FOR YOUR MARS EVENT(S)?

PLEASE DESCRIBE YOUR MARS EVENT(S)?

This information will be compiled and written into an article that will appear in the fall GLPA Newsletter. Please send this to Bart Benjamin; Cernan Space Center; Triton College; 2000 Fifth Avenue; River Grove, IL 60171. Thanks for your cooperation.
THE GREAT LAKES PLANETARIUM ASSOCIATION offers membership opportunities to all individuals in any way connected with the operation of planetariums regardless of geographical location. G.L.P.A. is an affiliate of the International Planetarium Society, and the National Science Teachers Association. Membership dues are $13 annually, payable at the time of the Autumnal Equinox. General correspondence and requests for membership should be addressed to: Mr. David E. Parker (Address below).

This quarterly "GLPA Newsletter" is received by all members in good standing. Ideas and opinions expressed in this Newsletter are not necessarily those of GLPA or its membership. Deadlines for contributions fall on the 15th of February, May, August, and November. Send information to: Bart Benjamin

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Elgin, IL 60120

Mr. Dale W. Smith
Dept. of Physics & Astronomy
Bowling Green State University
Bowling Green, OH 43403-0224
JUST HOW CLOSE IS THIS PLANET GONNA GET!

MARSWATCH '88
As I write this, the Space Shuttle "Discovery" is poised for launch. As astronomy educators, we look forward to a renewal in the flow of new knowledge that the shuttle and its payloads will create. As advocates of space exploration, we eagerly await this opportunity to share our enthusiasm with others, particularly children. I'm sure I speak for all GLPA members when I wish the "Discovery" and her crew a safe and successful flight.

I'm happy to report that Dr. Clyde Tombaugh, discoverer of Pluto, is scheduled to speak to us at our upcoming conference in Bowling Green, Ohio. Thanks and congratulations to Dale Smith and Randy Olson for their efforts to work out Dr. Tombaugh's appearance. I'm sure we'll all be fascinated by the perspectives that this living legend has to offer. Dr. Mark Littman's Spitz lecture on the discovery of Neptune will allow us to make interesting comparisons to Dr. Tombaugh's work.

The Conference also includes planetarium shows, paper sessions, and a wide variety of workshops.

I hope to see you there!
EDITOR'S MESSAGE

It doesn't seem possible that our annual GLPA conference is less than a month away. Dale Smith and his staff in Bowling Green, Ohio have been working very hard to prepare for this exciting event. Conference information has already been sent out. If you haven't received this information yet, contact Dale Smith immediately! You won't want to miss this year's conference.

This issue of the GLPA Newsletter is largely devoted to our friend and GLPA colleague David Sanford, who died unexpectedly last May. Several of his close colleagues in Ohio wrote about their memories of Dave, and I have collected these into a memorial article.

Also in this issue is a retrospective of the IPS conference in Richmond, Virginia, written by Sheldon Schafer and Dave Linton. Whether you attended or not, you'll find this very informative.

Thanks to all of you who returned the "Mars Event" forms I included in the last issue. I've written a short article that summarizes the information I received.

Computer users -- please note that the GLPA resource bank review column will return next issue.

And remember, TUESDAY, NOVEMBER 15TH is the deadline for receiving articles or news items for the Winter issue of the GLPA Newsletter.

See you in Bowling Green!

MARSWATCH '88

As we all know by now, this month belongs to Mars. With its closest approach to earth on September 22nd, Mars will be an ideal target for amateur and professional astronomers.

Last issue, I included a "Mars Event" form in the newsletter to announce some of the activities and events that we planetarians are doing to celebrate Mars Watch '88. Thanks to all who participated. From the forms that were returned to me, I can report the following:

In the Chicago area, both the Cernan Earth & Space Center and the Adler Planetarium are offering public viewing of Mars.

At the Cernan Center, a special Mars Party is planned for the evening of Saturday, September 24th, in cooperation with The Planetary Society and the Chicago Astronomical Society. Staff member Dan Troiani, recently appointed as Assistant Mars Recorder for the Association of Lunar and Planetary Observers, will present two special planetarium programs on Mars. Also planned are Mars videos, Mars displays, a special Planetary Society display, and telescope viewing. On the evenings between September 20th and the 23rd, and again from the 27th through the 30th, Mars viewing will be conducted after the evening public show ends at about 8:30.

Downtown, the Adler Planetarium is celebrating Mars Month from September 1st through October 31st. During this time, Adler will be featuring special observing programs with its 20-inch computer controlled telescope, an exhibit of meteorites believed to have originated from Mars, the Sky shows "Planetary Puzzle" and "Meteor Mouse Goes to Mars," and Mars-oriented classes for all ages.

In Peoria, Lakeview Museum Planetarium premieres a new planetarium program in October that reviews our current knowledge of Mars as revealed by the Mariner and Viking spacecraft. On September 7th, Lakeview's planetarium staff conducted a Mars workshop for area educators.
At Illinois State University, Carl Wenning has prepared a 7-page Mars Watching Guide for both naked-eye and telescope observers of the red planet. Several observing sessions have been arranged with the local astronomical society.

Outside of Illinois, the Bowling Green State University planetarium will present the Loch Ness "Mars Show," with public telescope viewing following the Friday and Sunday shows. Student stargazes will take place on Tuesday, Thursday and Sunday nights as well.

1988 CONFERENCE UPDATE

All GLPA members should have already received a preview/registration booklet describing the October 19-22 GLPA Conference in Bowling Green, Ohio. If you haven't, contact Dale Smith immediately!

The conference promises to be an outstanding one, with distinguished speakers such as Clyde Tombaugh, Mark Littmann, and Lois Cheney and Theodore Snow. Along with an outstanding assortment of workshops, planetarium shows, paper presentations, live school programs, and theater and music under the dome, this conference should be outstanding!

Dale Smith wanted me to mention one addition to the booklet. On Thursday evening, convention-goers have the option of seeing "The Mars Show" in the planetarium from 8:15 to 9:00 p.m., in addition to the options stated in the booklet.

JOB OPENING: PLANETARIAUM CURATOR

The Louisiana Arts & Science Center Planetarium is currently seeking applicants for the position of Planetarium Curator, which is one of two equal positions.

The LASC Planetarium is a major planetarium offering educational and entertaining programming in the areas of space and earth science.

The facility has a Zeiss-Mark IV projector housed within a 60-ft. dome. Applicants should have a BS in Astronomy, Science Education or related fields.

Starting salary is $17,982. For additional information contact: Rick Greenawald, Planetarium Curator, 504-344-9465.

Applicants should submit a letter of application, resume, 3 professional references, and a research paper to:

Carol S. Gikas
Executive Director
Louisiana Arts & Science Center
P. O. Box 3373
Baton Rouge, LA  70821
FROM: Steve Bishop

SUBJECT: Constitutional Amendment to be Printed in the Newsletter

Since the IRS has determined that GLPA is tax exempt under IRS code 501 (c)(6) (business league trade and professional organizations) rather than 501 (c)(3) (charitable and educational organizations) as stated in our constitution, and since the prospect of changing the IRS determination is poor, I recommend that we amend our constitution to reflect our 501 (c)(6) status.

Article II section 1 of the constitution currently reads as follows, in part:

"The Great Lakes Planetarium Association is incorporated under the laws of the State of Michigan, as a non-profit organization, organized and operated for educational purposes within the meaning of section 501 (c)(3) of the Internal Revenue Code......"

I propose that this section be amended to read as follows:

"The Great Lakes Planetarium Association is incorporated under the laws of the State of Michigan as a non-profit organization, established and operated as a professional association within the meaning of section 501 (c)(6) of the Internal Revenue Code......"

All other text remains unchanged.

This amendment was adopted by majority vote of the executive committee at their last meeting subject to the approval of the general membership at the next annual meeting. Notice of the amendment must be published in the newsletter preceding the annual meeting by at least twenty days.

Thanks for your assistance.
ILLINOIS

ADLER PLANETARIUM -- In September and October, Adler will celebrate Mars month with a series of special events and activities (SEE MARS WATCH '88 ARTICLE).

CERNAN EARTH & SPACE CENTER -- To commemorate the resumption of Space Shuttle flights, the Cernan Center is presenting the award-winning Cinema-360 film "The Space Shuttle: An American Adventure," along with an all-new prologue that discusses the development of the shuttle, the Challenger accident, and the future of American presence in space. Premiering on September 30th will be a new laser light show featuring Pink Floyd’s classic album "Dark Side of the Moon."

HENRY CROWN SPACE CENTER -- A rewritten and re-narrated version of the Omnimax film "The Great Barrier Reef" will run until early 1989. July was a record-breaking month at the Museum of Science and Industry and its Crown Space Center -- 705,000 visited the Museum and 106,000 visited the Omnimax theater! The Henry Crown Space Center hosted the Space Theater Consortium conference in late August, with 300 persons attending from 14 countries.

ISU PLANETARIUM -- Carl Wenning reports a recent gift to his planetarium -- $10,000 from a local benefactor. This brings the total amount raised in their recent fund drive to over $12,000. The V.M. Slipher Fund recently awarded $500 to the ISU Planetarium for the development of a mobile astronomical library. This fall, the ISU planetarium will be featuring "The Milky Way."

LAKEVIEW PLANETARIUM -- Lakeview Planetarium is continuing its production of a new planetarium show, to be titled "The Cosmic Climate Connection: The Tale of Two Cities." The "two cities" are the ancient settlements at Chako Canyon and Cahokia.

WILLIAM STAERIEL PLANETARIUM -- This fall, the planetarium will be showing its own production of "Skies of Olympia," a program that discusses astronomy in ancient Greece and also serves as a tribute to the Olympic Games.

INDIANA

NO REPORT

MICHIGAN

Playing at Michigan planetariums this fall:

ABRAMS PLANETARIUM -- "First Voyage to Mars," a collaborative effort with the Chaffee Planetarium in Grand Rapids. This show will be replaced by "A Gift of Light" after Thanksgiving.

CHAFFEE PLANETARIUM -- "First Voyage to Mars" opens in September. In October, Chaffee premieres its first laser light show "Pink Floyd -- The Wall" with its all new laser equipment.

LONGWAY PLANETARIUM -- "The Mars Show" opens in October. Premiering on September 30th will be a new laser show produced by Audio Visual Imageering. Later this year, a Christmas laser show will be presented.

MCMATH PLANETARIUM -- "The Mars Show" opens in September. The Cranbrook Institute of Science will be setting up a StarLab and other exhibits in Marquette's shopping mall from September 29th through October 1st.

RUTHVEN PLANETARIUM -- "First Light" opens in September, along with the constellation show "Star Talk."

6
Ohio

Dale Smith reports that he is attempting to organize the Ohio planetariums into a cooperative network, an expansion of what Cleveland area planetariums have already done with C.R.A.P. (Cleveland Regional Association of Planetariums). Dale hopes to establish four new regional 'clusters' within Ohio.

Bowling Green University Planetarium will be hosting the GLPA Annual Conference from October 19 - 22, 1988.

Wisconsin

Bob Allen reports that he will be hosting the Great Plains Planetarium Association Conference (GPPA) from October 6th though the 8th.

WAUWATOSA HIGH SCHOOL PLANETARIUM -- This summer, Gary Sampson led 33 students to China to visit several observatories and planetariums. He reports that China is building many new planetariums throughout their nation.

CHARLES HORNITZ PLANETARIUM -- Dave DeRemer reports that the planetarium is currently running 'The Mars Show.'

POSITION AVAILABLE: Artist/Photographer

The Bishop Planetarium has an immediate opening for an experienced artist/photographer.

Job responsibilities include creation of original artwork and graphics for various planetarium productions, photography of artwork and graphics, processing of color and black & white film, mounting, opaquing, and aligning of slides and limited presentation of planetarium shows.

The Bishop Planetarium offers an extensive array of school shows, public starshows and laser-lightshows. Facilities include a large art/graphics studio, a Macintosh graphics computer, an Oxberry photocopy system and associated equipment, a fully equipped darkroom, and a planetarium professional staff of 5 1/2 plus additional support staff.

Salary is negotiable. The Bishop Planetarium offers a generous benefits package, air conditioned summers and frost free winters.

Contact: John Hare, Director (813) 746-4132
Bishop Planetarium
201 10th Street West
Bradenton, FL 34205
GREAT PLAINS PLANETARIUM ASSOCIATION CONFERENCE
The annual conference of the Great Plains Planetarium Association (GPPA) will be held in LaCrosse, Wisconsin on October 6, 7, and 8th. The theme of the conference is "Mars Mania." For more information, contact Robert Allen; Planetarium Director; Cowley Hall; University of Wisconsin; La Crosse, WI 54601. His phone number is (608) 785-8669.

ORDER YOUR GLPA DIRECTORY
GLPA is compiling a directory of manufacturers, suppliers and providers of services that are of interest to the planetarium community. It will be completed in October. The directory will be distributed free to all GLPA members and will be available for purchase by all members of the planetarium community. Nonmembers can reserve a copy of the directory by sending a $5.00 check payable to GLPA to Gregg & Barb Williams; Merrillville Community Planetarium; Pierce Junior High School; 199 East 70th Avenue; Merrillville, IN 46410.

ASTRONOMY DAY BOOKLET
The Astronomical League has just released a 120 page booklet designed to aid organizations planning Astronomy Day events. It is a compilation of ideas, suggestions, activities, and resources that have proven successful in past years. Organizations wishing a copy of the "Astronomy Day Coordinator's Handbook" should send their requests on institutional stationery plus $2.00 postage and handling to: Gary Tomlinson; Astronomy Day Coordinator; Chaffee Planetarium; 54 Jefferson S.E.; Grand Rapids, MI 49503 or call him at (616) 456-3985.

STAFF NEWS
Congratulations to Gary Sampson and Jeanne Bishop for being featured in the September issue of Astronomy magazine (pages 36 - 43)! The article in which they appear is entitled, "Astronomy in Our Schools."
This summer, Dave Linton was appointed Director of the planetarium, replacing Jim Manning, who is now Director of the planetarium at Montana State University in Bozeman, Montana.
Eugene Jenneman, former GLPA president, has taken a new position as the Director of the art museum at Northwest Community College in Traverse City, Michigan.
At the Eire Historical Society Museum and Planetarium, Gloria Rall was recently appointed as acting director and Mark Mayfield, a newcomer to planetariums, is now their planetarium lecturer.

ATTENTION VIEWLEX OWNERS!
Dave DeRemer from Waukesha, WI reports that he is having the circuit boards for his Viewlex Apollo III star projector redesigned. If any other Viewlex owners are interested in doing the same, please contact Dave.
IN MEMORY OF OUR COLLEAGUE
DAVID O. SANFORD
JULY 24, 1940 -- MAY 19, 1988

Dave Sanford was one of the most positive people I have known. His caring and polite manner never seemed to flag. I am aware that over about twenty years while Planetarium Director at Shaker Heights School District, he built up a comprehensive program for elementary and secondary visits. His work also included carefully planned visits to elementary classes.

I will remember Dave for a number of professional contributions: serving as Secretary to our Cleveland Regional Association of Planetarians for over ten years, hosting a number of Cleveland area meetings at Shaker Heights, sharing a fine secondary program on African mythology (still available from the GLPA script bank), and last, but not least, presenting programs with a strong basis in learning philosophy and employing a variety of media as well to make school presentations as fine as possible.

I had the good fortune to see two programs that Dave gave this past year. While serving on the Shaker Heights High School North Central Visiting Team (with committees that included planetarians Jon Marshall and Rod Thompson), I sat in on a first grade program and a fourth grade program. In each, Dave interacted with the children in a very pleasant and encouraging manner that seemed to instill a sense of wonder and respect for him, the subject, and the planetarium facility. The programs were not overloaded with concepts, but rather focused on grade-appropriate ideas that were presented in a variety of ways. Dave was an excellent teacher!

I will miss him very much.

Jeanne Bishop,
Westlake Schools

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In remembering Dave Sanford, I can think of so many positive things. Through the years I always noticed his friendliness and willingness to share with others. He always shared new ideas and information. Dave was the type of person you could talk to easily and he showed concern for you. Over the years I gained ideas from Dave that were fresh and new to me for my planetarium programs. He was a friend and colleague who will be greatly missed by many at meetings and gatherings.

Jim Comienski
Lakewood High School
One morning early, having packed the camper with food and other essentials, Bob, our dog Bitsey, and I drove to pick up Dave Sanford at his home in Kirtland to go to Rochester, New York for a GLPA convention. The camper was new so we still had the divider curtain up which separated the back sleeping area from the rest of the camper, so that Dave had the privacy (as much as could be) he needed. We took turns dressing in the small bathroom and ate our breakfast together at the table. I think that this was the first time that I had ever met Dave and I liked him right away. Our trip up was about 5 hours, with a lunch stop in Dunkirk, NY at a McDonalds with a view of the lake. We did not eat inside the restaurant but took our lunch across the street to the park.

We arrived at the campground about 30 miles from Rochester and set up camp. It was a nice country-like atmosphere and very pleasant, and an easy drive into Rochester. We made the trip each day of the convention and it was very pleasant. Dave was a good camper and got on just fine. He was always quiet and a gentleman. We liked him very much. We have had many other times, although short, with him and enjoyed being with him. I never met his family. We will miss him very much.

Lois Andress

David sat down in "my" planetarium just like the other visitors to the evening adult program did. After the hour and the questions by other visitors, he quietly introduced himself as an earth science teacher in the Shaker Hts. System who would be in charge of the new planetarium there. He sat in on many programs from that time on, often questioning how did I get "that effect" or why did I do something "that way". He always acted as if I had done the program the right way and he was looking for ways to do his programs. I think, however, he did more for my programs that I did for his.

Bob Andress
(retired) Warrensville Hts.
Remembering Dave Sanford...somehow "remembering" doesn't seem like the right word, as if the fact that he was taken away so suddenly just can't be a reality, as if one could simply pick up the phone and that friendly and calm-yet animated-voice would still be there as it had been for so many years.

All of us in the Cleveland Regional Association of Planetarians were especially struck by Dave's passing because it was so unexpected. As we have have met to exchange ideas, trade materials, travel to conferences, and work together on a great variety of projects, the possibility that we might lose someone in this way was never a matter of concern. But I think this abrupt reminder of our own mortality has sharpened our awareness of how close we have grown as colleagues and friends.

As I think of Dave I will remember his gentle, dedicated manner; a creative person with an active, sincere interest in what other planetarians were doing, both professionally and personally. He was always willing to share his own ideas and work, but never in an overbearing way. He would make you feel that your projects and ideas were far more interesting to him than his could possibly be to you. During a visit to his school just this past spring, I saw him give two planetarium lessons, something I had wanted to do for many years but hadn't been able to arrange. His rapport with students, his kindly handling of questions and some occasionally clamorous youngsters, and his effective use of the planetarium's facilities were a delight to witness. Here, indeed, was a man with that special "teacher's touch" in action.

Dave travelled and roomed with a group of us at the 1987 GLPA Conference in Merrillville - what a fun trip we had together. I'll remember him laughing and joking with us as we drove along; how he was determined to finish grading that set of papers in spite of our needling him to let them go; how he talked of planetarium ideas and programs; how we analyzed certain "marvelous technology" along the turnpikes!

But most of all, I am grateful to have had the good fortune to know Dave Sanford both as an able creative colleague and as a friend. All of us whose lives he touched--whether as teacher, colleague, or friend--will treasure our memories of a very special person.

Jon Marshall
I remember the time, last fall, when Dave Sanford, Jon Marshall, Dick Speir, Joe DeRocher and I travelled to Merrillville, Indiana for the GLPA Conference. We all piled into Jon's van for the trip which seemed short because of the chatter about things astronomical.

Upon arrival at the motel, Jon, Dave and I decided to share a room. The room had two beds and a roll-a-way. Dave volunteered to sleep on the roll-a-way, even though he was the tallest of the three of us and the roll-a-way was the shortest bed. Dave didn't sleep well on the roll-a-way, but he never complained about it. But that was Dave--he was a doer, not a complainer.

Dave volunteered to act as the secretary for our local group of planetarium educators. You could always depend on his punctuality in communicating information about our group and the meetings we held. He was always a great host when we held our meetings in the Shaker Planetarium. He always asked about our work and our families because he was genuinely interested in each of us.

I remember Dave Sanford for his caring and his sharing of his time and talent. He left us too soon. We miss him!

Bill Kobel
Lake Erie Nature & Science Center

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Dave Sanford was a strong force in the Cleveland Regional Association of Planetariums. As seen here, he was always "right out in front", serving as Secretary of the group for over 10 years. (Courtesy of Jeanne Bishop).
IPS CONFERENCE SUMMARY

Sheldon Schafer

The council meeting of the International Planetarium Society was called to order at the Richmond Marriott Hotel on June 29, 1988 at 6 p.m. Highlights of this meeting will follow. Anyone requiring further information should contact Sheldon Schafer directly.

-- Lars Broman, chairman of the IPS '90 conference committee, reports that planning is well underway for the 1990 IPS conference in Borlange, Sweden. He is finalizing cost estimates at this time.

-- John Hare proposed to the council the creation of an IPS archive and offered his facility in Bradenton, Florida as the repository for the IPS historical archives. David Menke from the Broward Community College in Ft. Lauderdale, Florida will assist in the project.

-- The 1992 IPS Conference will be held in Salt Lake City. Invitations are currently being sought for 1994.

-- Ken Wilson is heading up a committee which will come up with guidelines for architects and planners of future planetarium facilities.

-- An IPS committee chaired by Jeanne Bishop prepared a carefully worded resolution that describes IPS's position on the issues of "selling stars" and the promotion of astrology. The resolution explains these practices to our patrons without being offensive to the respective sellers and practitioners involved.

-- In addition to "The Planetarian," IPS is currently planning several other publications, including George Reed's "Naked I Astronomy," and a new incarnation of the IPS special effects handbook, currently being compiled by Richard Pirko of Youngstown, Ohio.

-- IPS presented several awards at the conference. In the first script writing contest, Dr. Erik Zimmerman won 1st prize, John Mosley won 2nd prize, and Fran Biddy won both 3rd and 4th prizes. Armand Spitz and Walter Bauersfield were honored posthumously with IPS service awards.

-- The election committee announced the nominations for the next election of officers. For president-elect, the candidates are David Dundee and John Pogue. For secretary, the candidate is Gerald Mallon. For treasurer, the candidate is Mark Petersen. The election will be conducted by a mail-in ballot.

-- IPS currently boasts 420 individual members, 38 library members, 7 complimentary members, 1 honorary member, and 53 institutional members.
"HAD A WONDERFUL TIME, WISH YOU HAD BEEN THERE"
A Review of the 1988 IPS Conference
Richmond, VA June 29 - July 3, 1988

The heat wave broke just in time for the conference, but it probably didn't matter much to the 300 planetarians attending the Richmond meeting since one really "had" to go outdoors in full daylight only twice. In fact, Friday, Saturday, and Sunday could have been spent entirely within the Marriott. The result was a concentrated, yet relaxed meeting. Of the 300 in attendance, 36 were from the GLPA Region, and over 30 were from outside the United States and Canada. The "I" in IPS is definitely becoming a significant part of our membership. Seven paper sessions dominated the conference agenda, in which 80 pages were presented, a dozen by GLPA members. For the first time in many meetings, there were enough paper sessions that concurrent presentations were unnecessary - no running back and forth between rooms. Selected papers will be published in future issues of "The Planetarian" so I won't attempt to summarize their content.

However, a few observations of some trends may be worth mentioning. Video seems to be the hottest new topic. Four years ago, there was one paper; this year ten. Terence Murtagh from Armagh, Northern Ireland has been, over the years, the leader in innovation, and this year he reported on an interactive video sky show where the whole audience chooses where to go and what to do during a solar system voyage; to me this is a significant new development in large audience interaction. The "I" in IPS was also more noticeable in paper sessions, with seven papers reporting on developments in other parts of the world, certainly just a teaser for our 1990 Stockholm meeting. Five papers reported on the use of computer graphics in the planetarium, certainly an up and coming new topic. Two of these discussed the use of computer graphics in all sky systems to create the illusion of sitting in a square or rectangular room instead of a dome. The effect was truly amazing!

Five speakers provided yet more variety: Lord Rosse, whose family owns the famous "Leviathan of Parsontown" telescope at Birr Castle in Ireland discussed the history of this observatory and plans for restoration. Dr. Joel Levine from NASA Langley Research Center presented the most recent results of his research on the primordial atmosphere of Earth. If you, like me, have been suggesting that the Earth's primordial atmosphere was methane and ammonia, etc., it's time for an update; in fact a complete revision. It wasn't that way at all! Rather than present the details here, write Dr. Levine for a full transcript of his paper. Lars Broman from Borlange, Sweden presented his plans for the 1990 convention, whetting many of our appetites for travel. The Keynote Address was presented by Dr. James Trefil on "Science and Cultural Literacy" (ed. - see Dave Linton's summary of this address immediately following this article.)

In addition to all of this, we spent an enjoyable evening in The Ethyl Universe, viewing "Seasons" and the 3-D Omnimax film "We are Born of Stars." It's amazing what can be done for seven million dollars. The Digistar demonstration was also fascinating, especially when I compare it to the demonstration which I saw there five years ago; Digistar has definitely come a long way. Perhaps the most amazing film footage I've ever seen was from the new Omnimax film "To the Limit." Still in production, we were shown some of the outtakes filmed live inside the human body. I'm not easily impressed by inner-space, but this was simply incredible, a "must see" when it comes to an Omnimax near you.

This conference also introduced the newest IPS publication, The Daily PLANETarian. John Mosley demonstrated the power of desktop publishing with his short daily conference newsletter, complete with schedule changes, announcements, job listings, and jokes, including Keith Goering's limericks. My favorite was:

The Spacesuit of Ms. Sally Ride
Was a model both proven and tried.
It was similar to one
Worn by Crippen and Young
Except for the plumbing inside.
IPS Keynote Address:
Science and Cultural Literacy
Dr. James Trefil

Note: A graduate of the University of Illinois, Oxford University, and Stanford, Dr. Trefil has published over 100 research papers in particle and system physics. He has also written extensively about science for the general audience; he contributed an essay and science wordlist to the bestselling book "Cultural Literacy" by E.D. Hirsch, and is involved in the compilation of the forthcoming "Dictionary of Cultural Literacy".

Cultural Literacy is defined as the body of knowledge that educated people in a given time and a given place assume that other educated people possess. This body of knowledge is not particularly detailed, but is rather a broad matrix or background of knowledge.

It is far easier to learn something if it is possible to fit that new knowledge into an existing matrix of knowledge. The person who seeks to learn, yet comes to the learning situation without certain basic knowledge which those who would teach him have assumed he holds, will have great difficulty learning.

Studies now show that our students are leaving the educational system with great gaps in this assumed body of knowledge. Dr. Trefil cited examples: one done in Richmond, VA, indicated that today's Community College students in this capitol of the old Confederacy do not know who Robert E. Lee was.

American culture depends upon its citizens having this body of knowledge. Yet they are not acquiring it. The first step in rectifying this situation, Dr. Trefil suggested, is to write down a list of terms which are generally agreed to be part of that assumed matrix of knowledge. Dr. Trefil then proposed that this list be used as a basis for designing a new content-based curriculum in the American education system.

It is clear that the American educational system is serving science more poorly than any other set of disciplines. As examples, only 5% of Americans are able to define "molecule", and only slightly more are aware that the sun is a star.

Dr. Trefil challenged the concept that taking a science course in one particular discipline results in an improved understanding of other sciences. And he challenged us as planetarians: "you can get the public in with flashy things, but while they're there, try to fill in a bit of that matrix of knowledge."

David Linton
THE GREAT LAKES PLANETARIUM ASSOCIATION offers membership opportunities to all individuals in any way connected with the operation of planetariums regardless of geographical location. G.L.P.A. is an affiliate of the International Planetarium Society, and the National Science Teachers Association. Membership dues are $13 annually, payable at the time of the Autumnal Equinox. General correspondence and requests for membership should be addressed to: Mr. David E. Parker (Address below).

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School Dist. U-46
355 E. Chicago St.
Elgin, IL 60120
PRESIDENT'S MESSAGE
Steve Bishop

I think I speak for all 112 participants when I say that the 1988 GLPA conference was superb. Sincere thanks to Dale Smith, his staff, Bowling Green State University, conference co-chairs Gregg and Barbara Williams, all the workshop and paper presenters, Dr. Mark Littman, Dr. Clyde Tombaugh, Dr. Ted Snow and the others who made this wonderful experience possible.

Dr. Tombaugh's warm personality and sharp wit; the fascinating live music and drama presentations; Sheldon, Bob and Jeanne all working with a real school group; the sense of being part of a thriving community -- these are just some of the vivid memories of the conference that I know I'll carry with me for a long time.

For those of you who were unable to attend, we missed you. The proceedings of the conference will be prepared by Dale Smith and distributed by October of next year.

Next year's conference will be at the Staerdel Planetarium at Parkland College in Champaign, Illinois. Dale Smith's great work this year has certainly given Dave Linton and his crew something to shoot for. Good luck, Dave!

To all GLPA members, I extend my best wishes for a happy holiday season and for a prosperous new year!

Happy Holidays! A new look has come to the GLPA Newsletter, through the "magic" of desktop publishing. I hope that this new format makes the Newsletter more enjoyable and easier to read.

On behalf of the GLPA membership, I would like to commend Dale Smith and his outstanding staff for a truly memorable GLPA Conference in Bowling Green, Ohio. A few of the photographic highlights of the conference are included in this issue. I found the conference to be very informative, well planned, and enjoyable. I thought that all the guest speakers did a particularly outstanding job. And the performances under the dome that kicked off the conference added a unique touch to the festivities.

During one of the GLPA conference discussions, the issue was raised that only a modest percentage of our members also belong to the International Planetarium Society (IPS). If you are not a member of I.P.S., perhaps you can make a New Year's resolution to do so. Membership offers a number of outstanding benefits, including the opportunity to attend their biannual conference. The next conference will take place in Borlange, Sweden from July 15 - 22, 1990. You won't want to miss it!

WEDNESDAY, FEBRUARY 15TH is the deadline for receiving articles or news items for the Spring issue of the GLPA Newsletter.

Here's wishing you all a very merry Christmas and a happy 1989!
ILLINOIS

Chairman: Bart Benjamin
Cernan Space Center
River Grove.

Meeting: April 15, 1989
Morton College, Cicero.

ADLER PLANETARIUM
In January, Adler Planetarium is premiering a new planetarium show entitled *Monsters in the Sky*, which will run through most of April. Also premiering in January is a new children’s program entitled *Sky Eye*, which describes a friendly space alien’s visit to earth. Astronomy courses resume in January as well.

CERNAN EARTH & SPACE CENTER
This holiday season, the Cernan Space Center premieres an all-new program entitled *Celebrations of Winter*, which surrounds viewers with a variety of winter stories from around the world. In January, the Cinema-360 film *Genesis* will return to the dome screen and play through mid-March. The current rock laser show, an in-house production of Pink Floyd’s *Dark Side of the Moon*, is attracting record crowds.

HENRY CROWN SPACE CENTER
On December 13th, the Henry Crown Space Center in the Museum of Science and Industry commemorated the 20th anniversary of the Apollo 8 mission with a dinner and special event featuring the three Apollo 8 astronauts. In January, the Omnimax film *The Dream is Alive* will return, with astronauts Kathryn Sullivan and Jerry Ross on hand for the opening.

ILLINOIS STATE UNIVERSITY PLM
*Seven Wonders of the Universe*, the current public show, will play through February 24th.

LAKEVIEW PLANETARIUM
In January, *Galaxies and How to Find a Fallen Star* will be presented in the Lakeview Museum Planetarium. In February, *The Cosmic Climate Connection* will premiere to the public. Bob Riddle of Project Starwalk reports that he is developing a Starwalk training video that will be available in the spring.

WILLIAM STAERKEL PLANETARIUM
Parkland College’s Staerkel Planetarium will present *Rites of the Season* during the holiday period, followed in January with the presentations of the *Skies of Olympia* and the Cinema-360 film *Genesis*. In March, the Cinema-360 film *The Great Barrier Reef* will premiere. The Staerkel Planetarium is also sponsoring a monthly lecture series that features the expertise of local scientists and college professors.

INDIANA

Chairperson: Joanna Gordon
Washington Township PLM
Indianapolis.

Meeting: April 22, 1989
Washington Township PLM
Indianapolis.

At Koch Planetarium (in Evansville), Mitch Luman reports that the planetarium expects to have an additional staff member in place by the beginning of 1989. This new Science Assistant will work in both the planetarium and the museum’s science center. Beginning in February, Koch Planetarium will present *Footsteps* as its
feature show. Efforts are now underway to put the planetarium back in operation at Castle High School in Newburgh.

**MICHIGAN**

Chairman: Garry Beckstrom
Ruthven Museum
U of Michigan, Ann Arbor.

Meeting: April 15, 1989
joint meeting in Grand Haven and Grand Rapids.

CHAFFEE PLANETARIUM
During the holidays, *Star of the Magi, A Christmas Present*, and a special Christmas laser show will be presented. *First Voyage to Mars* will return after the holidays and play through February. Progress is being made for the approval of a new museum and planetarium.

LONGWAY PLANETARIUM
*The Christmas Story* and a special Christmas laser show complete the holiday offerings. *Death of the Dinosaurs* runs January 7th through April 2nd. Laser shows by Audio Visual Imagineering will continue through March 30th.

MCMATH PLANETARIUM
*The Christmas Star* runs through the holidays with *First Light: The Space Telescope Story* and *The Winter Sky Tonight* opening January 7th.

RUTHVEN PLANETARIUM
*The Christmas Star* and *Holiday Skies* run through the holidays followed by the return of *First Light: The Space Telescope Story* and *Star Talk* on January 7th.

**OHIO**

Chairman: Dale Smith
Bowling Green State Univ., Bowling Green.

Meeting: April 29, 1989
Ohio State Univ., Columbus.

Tony Pisano (Copernicus Planetarium) has taken on additional administrative duties at Lourdes College. In addition to running the planetarium, he is now director of the College's Prior Learning programs and the new Weekend College program. Welcome to Joe Tolly, the new director of the Vandalia-Butler Planetarium at Smith Middle School near Dayton. The Southwest Ohio Area Planetariums (SOAP) held their first meeting at the Dayton Museum of Natural History on September 21st. Art Goss is the local organizer of SOAP, which includes planetariums in the Dayton and Cincinnati area. Other local meetings are being arranged at the other Ohio clusters, including the northeast (Tim Kuzniar, organizer); central (Walt Mitchell); and northwest (Dale Smith).

**WISCONSIN**

Chairman: Dave DeRemer
Horwitz PLM, Waukesha.

Meeting: April 14 & 15, 1989
Univ. of Wisc., Stevens Point.

In the December issue of Astronomy magazine, Gary Sampson (Wauwatosa H.S. Planetarium) wrote the viewpoint article entitled *A Nation Hungry for Astronomy*. It describes some of the discoveries that Gary and his class made in their recent trip to China. Congratulations, Gary!
GLPA BULLETIN BOARD

compiled by Bart Benjamin

REVISIONS TO GLPA HANDBOOK
Gary Tomlinson has been given the responsibility of making revisions to the Officer's Handbook. Therefore, he is asking for input from members on what needs to be revised. Officers and Committee Chairs are also asked to carefully look over their section of the handbook and make any necessary revisions.

Please forward all revisions to Gary Tomlinson at the Chaffee Planetarium in Grand Rapids, Michigan before December 31st.

DOES ANYONE HAVE THE GLPA HANDBOOK MASTERS?
Gary Tomlinson would like to know who has the GLPA handbook masters. They are probably unbound, without any holes punched, and are collected in a manilla folder. If you have them, please send them to Gary as soon as possible.

CORRECTION
As those of you who attended the Bowling Green conference know, GLPA has just published a 47-page Planetarium Sourcebook. The directory has been distributed free to all GLPA members and will be available for purchase by all members of the planetarium community.

In the last newsletter, I gave the wrong contact person to order additional copies of this sourcebook. The person you should contact to obtain a copy is Gary Sampson; Wauwatosa West High School; 11400 West Center Street; Wauwatosa, WI 53222.

MISS THE WORKSHOP?
Carl Wenning reports that three people who paid for the Moving Cloud workshop at the Regional Conference in Bowling Green did not attend.

POSITION AVAILABLE
The Science Museum of Virginia announces that a full-time planetarium position is now available.

The Planetarium Production Assistant will assist in the writing, production, and presentation of planetarium shows. Starting salary is $18,000.

Please send resume to the Personnel Office, Science Museum of Virginia, 2500 West Broad Street, Richmond, VA 23220.

NEW SCRIPTS AVAILABLE
Gary Sampson informs me that Dale Smith has generously donated five scripts to the GLPA script bank -- Star Tracks, It's About Time, Journey to Earth, Planet Quest, and I Paint the Sky.

To order these or any other scripts, please contact Gary Sampson; Wauwatosa West High School; 11400 West Center Street; Wauwatosa, WI 53222.

NEWS FROM SPITZ
The 1989 Summer Institutes in Planetarium Education hosted by Spitz, Inc. will be held July 10th to 14th (Institute I: Naked Eye Astronomy) and July 17th to 21st (Institute II: Teaching with the Planetarium). Each course may be taken separately or as a series.

A Spitz Post Institute guided tour of China will be conducted July 25th to August 9th. The tour will include traditional tourist sites as well as historical astronomical sites, observatories and planetariums. For information about any of these programs, please contact Dr. George Reed; Spitz, Inc.; P.O. Box 198; Chadds Ford, PA 19317. His phone number is (215) 459-5200.
GLPA PINS FOR SALE

GLPA pins are now being sold for $4.00. If interested please contact Dan Goins at the Martinsville High School Planetarium; 1360 E. Gray Street; Martinsville, IN 46151. His phone number is (317) 342-5571.

REMINDER FOR STATE MEETINGS

State meeting hosts -- don't forget that states can receive up to $35 reimbursement for hosting a state meeting or workshop. For more information, please contact Dave Parker.

IPS SPECIAL EFFECTS HANDBOOK

Rick Pirko is assembling a new edition of the IPS Special Effects Handbook. Anyone with contributions (they should be copyright-free and properly credited) should contact Rick at the Ward Beecher Planetarium, Youngstown State University, 410 Wick Avenue, Youngstown, OH 44555. His phone number is (216) 742-7278.

ASTRONOMY DAY

Gary Tomlinson is reminding planetariums that the next National Astronomy Day is scheduled for May 13, 1989. A booklet that offers suggestions for hosting a local event is available by writing Gary Tomlinson; Astronomy Day Coordinator; Chaffee Planetarium; 54 Jefferson Avenue S.E.; Grand Rapids, MI 49503.

Please send a request on institutional stationery and include $2.00 for postage and packaging ($3.00 outside the U.S.).

DAVE LINTON RECEIVES AWARD

Dave Linton, Director of the Staerkel Planetarium at Parkland College in Champaign, Illinois, has been named as Illinois Professor of the Year by the Council for Advancement and Support of Education (CASE). Dave Linton, who has taught physics and astronomy at Parkland since 1971, was one of 30 professors selected from 464 nominations. Candidates were judged on their abilities as teachers, service to their institutions and professions, achievement in teaching and scholarship, and achievement by former students. Congratulations, Dave!

CERNAN CENTER IN USA TODAY

September was an exciting month for the Ceman Space Center of Triton College.

First, the Ceman Center conducted a public "Mars Party" with the assistance of the Planetary Society which drew nearly 1,000 people. Those who attended were able to observe Mars, hear a special program on Mars presented by staff member and A.L.P.O. Assistant Mars Recorder Dan Troiani, and see special displays and exhibits.

On September 20, the Ceman Space Center was mentioned in a Mars article on the "second front page" of USA Today. Shortly thereafter, United Press International followed with an article, and Chicago's ABC-TV affiliate broadcast two stories about our Mars events on two different nights. In all, over 2,000 people saw the planet Mars at the Ceman Center during September.

DAVE HOFFMAN'S NEW ADDRESS

Dave Hoffman, who is working hard on the Cleveland and Merrillville Conference Proceedings, announces that he has retired from the planetarium field and will soon move to Stevens Point, Wisconsin to direct a Salvation Army shelter program for the homeless. Dave assures me that he will complete his responsibilities for the Proceedings, and he would welcome correspondence with his friends. After the New Year, Dave's address will be 1500 Clark Street, Stevens Point, WI 54481.

ART BARTON OBITUARY

Art Barton, the Assistant Director to the Planetarium for the Space Center in Alamogordo, New Mexico, died of a heart attack in September. Those who knew Art will miss him!
USE OF THE
HUMANITIES AND THE
STARS PROGRAMS

Jeanne Bishop

The Cleveland Regional Association of Planetariums was very fortunate to receive a grant from the Martha Holden Jennings Foundation to purchase a set of the Humanities and the Stars programs (slides, tapes, instruction manuals and scripts) during the 1987-88 school year. The materials, developed at Eastern Washington University under the direction of Eileen Starr, were used in a variety of ways, particularly at Lakewood and Westlake School Planetariums. A total number of about 2,000 students saw programs, including those in astronomy, English, social studies, and gifted and talented classes. Slides and excerpts of slides and narration were used for a number of elementary programs. The total number of students seeing just part of a program was also approximately 2,000. Some of the special ways that the series was used were as follows:

1) as an introduction to transcendentalism and the reading of "Siddhartha" in an advanced placement junior English course;

2) as an auditorium program for 300 students at a time with additional constellation slides (no planetarium) as the groups finished study of Greek mythology in ninth grade;

3) as a combined planetarium presentation of five different cultures' ideas of the sky for a sixth grade series of presentations;

4) as an integral part of the Chinese and Meso-American cultures units for ninth grade;

5) as a substitute for a text section on Polynesian culture for a senior course; and

6) as a section of the Egyptian sky curriculum program annually presented to sixth grades.

Distribution of the programs was handled by Dick Speir at the Sandusky Supplementary Education Center. Recently the set of programs were transferred to the Westlake Schools Planetarium, where they will have permanent storage. We are grateful to the Martha Holden Jennings Foundation for the support in this project.

VANDALISM ISSUE

Rod Thompson reports that during the summer, his planetarium suffered vandalism damage of about $20,000.

The Editor would like to prepare a report about vandalism and theft that will appear in a future issue. This report would address the following issues:

1) how widespread is this problem?
2) what is typically stolen or vandalized? and
3) what solutions, if any, can be found?

If your planetarium has experienced vandalism or theft, please describe the incident, what items were affected, and what policies you have implemented to reduce the chances of future incidents from occurring.

If you prefer, I can keep your facility's name confidential. Please send me any information by February 15th.

The information you provide could help your fellow planetarians!

MAILING LIST NOTICE

Occasionally, GLPA releases its membership list to interested companies and parties. If you do not wish your name and address released, please notify GLPA's Secretary/Treasurer Dave Parker.
GLPA EXECUTIVE COMMITTEE MEETING
OCTOBER 19 & 20, 1988, BOWLING GREEN STATE UNIVERSITY, OHIO


The meeting was called to order by President Steve Bishop. The minutes of the last meeting, April, 1988, were approved.


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9-30-88: ENDING BALANCE 4680.75

Publicity of the $35 available to hosts of state workshops was discussed. Upcoming expenses will include the printing bill for the Planetarium Sourcebook, $567, the printing costs for the 1986 Proceedings and the complete cost of producing the 1987 Proceedings. The financial report was approved.

CONSTITUTIONAL AMENDMENT -- Steve reported that the membership will vote to approve the change in the constitution reflecting our actual operation as a 501 (c)(6) organization instead of a 501 (c)(3) organization.
EDUCATION COMMITTEE — The Cleveland Regional Association of Planetariums has submitted rough drafts of two booklets to the Smithsonian. The publication dates of the elementary school astronomy booklet and the secondary booklet dealing with archives from the Smithsonian is unknown, but the group is under the impression that these booklets will be made available or distributed to GLPA members. Information will be published in the NEWSLETTER.

Rod reported that Don Tuttle needed to know what to include in his pronunciation guide. It was decided to limit it to star names, planets, moons and other commonly used names in planetarium shows. Rod will publish it as a TIPS booklet in time to be distributed at the 1989 conference.

Rod reported that there was absolutely no response to his NEWSLETTER request for planetarium activities. He will make another appeal for members to send planetarium activities to him for publication in a new TIPS booklet.

CONFERENCE PLANNING — Dale Smith reported that there are 112 registered for the conference. Dale would be able to accommodate an upper number of about 125. Dale said that conferences are becoming more logistically complex as workshops, school groups, volunteer presentations are added. Higher attendance in recent years also adds complexity. Conference registrations were sent to about 575 people or addresses this year.

Possibilities of a joint meeting with either GPPA or SEPA were discussed. The possibility of a 1993 or later joint meeting with GPPA will be explored.

Due to the scheduling of the workshops, there was less leeway with paper session scheduling this year; some papers had to be cut from 15 to 10 minutes. Enforcing deadlines and screening papers may become necessary. The $10 credit given to paper presenters for delivering a typed copy was claimed by about 3/4 of those giving papers. Dale said that the conference planning notebook that Gregg and Barb prepared was very helpful; he will make contributions to it.

All of the papers and talks will be recorded with the exception of Clyde Tombaugh's talk. Dale's secretary will transcribe the tapes that do not have a printed text. The rough drafts will be reviewed by the presenters, masters printed by the laser printer, and copies printed by the print shop on campus.

The conference planning committee will prepare a letter of understanding which will include financial arrangements, facility needs, times of the meetings, workshop needs, etc., to be sent to prospective host institutions.

An invitation to host the 1990 GLPA conference has been received from the Children's Museum in Indianapolis, for October 10-13, 1990. It will be the 25th anniversary celebration of GLPA. The planetarium, a Digistar, is scheduled to begin operation in the summer of 1989. This year’s conference registration material listed a conference limit of 100 in case the registration went beyond what the host would be able to handle. Dale was willing to accept up to 125 registrants. Since quite a few registered after the Sept. 19th deadline, Sheldon suggested that all who register before the deadline be accepted, but those who register after the deadline may be subject to available space limitations. Of course, the membership should be informed before conference registration materials are received if the conference space will be limited.

Sheldon moved to accept the invitation from Indianapolis for 1990. Seconded and carried. Gregg will reply.

It was agreed that since the GLPA Executive Committee through its Conference Planning Committee takes a more active role in preparing for the conference, we should be willing to underwrite the conference if losses are incurred. Funds in excess of costs will be placed in the GLPA treasury.

MEMBERSHIP COMMITTEE — Lists of members were distributed by the secretary. New members attending the Friday night banquet will be recognized. Bob reported on nominations for Fellow of GLPA. David Hoffman was approved by the Executive Committee last spring. David Parker nominated Garry Beckstrom and Gregg Williams. The nominations were seconded and approved.

Steve will prepare constitutional changes that need to be made before Patron and Sustaining levels of membership can be implemented. A list of benefits for these levels, which has been approved, was reviewed.

Jerry asked if his planetarium became a Sustaining member, would he be a GLPA member. Gregg said that if his institution named him as their representative, yes. Steve said that regardless of the membership level, if an
institution pays the membership fees, we should know who the representative is.

Deceased members will be remembered with a time of silence at the banquet.

**PUBLICATIONS COMMITTEE** -- Bart reported that the progress of the Proceeding has fallen behind expectations. David Hoffman is working on the 1986 and 1987 Proceedings. His new timetable calls for data entry and word processing to be finished by mid-November and sent to the printer by early December. He is committed to have both the 1986 and 1987 Proceedings in the hands of the members by mid-December.

Gregg mentioned that presenters at the 1987 conference have not received rough drafts. Bart will confirm with David that rough drafts will be sent to all presenters. Steve mentioned that Imax is giving financial assistance to the 1986 Proceedings and will place an ad in that issue.

Several expressed their concern for the delay in the progress of the Proceedings and will consider ways to make the job easier. Bart discussed ways of dividing the job. Recording should be required of the conference host. Transcription could be done by someone else. Others would take care of corrections and correspondence, typesetting and printing, and distribution.

Steve asked if, in order to save time and money, perhaps purely informational astronomical talks should not be included. Sheldon expressed the opinion that all of the talks and presentation should be included because it is a record of the affairs of GLPA—an historical account. It was agreed that, at the discretion of the editor, generally everything presented at the conference will be included in the Proceedings. If the text of a talk is not printed, for one reason or another, an abstract should be included.

Sheldon reported that the planetarium bibliography, submitted to I.P.S. (publication date unknown) by Gary Tomlinson and Katherine Becker (GPPA), may be sent to all GLPA members. All I.P.S. members would receive the publication and only copies for the rest of the GLPA members would be needed. Sheldon was urged to stay in close contact with this project so that enough copies will be printed.

Gregg passed out copies of the Planetarium Sourcebook, a publication which lists companies to contact for planetarium materials and equipment. Gregg said that the objective for this project is to provide a ready reference of product information to the planetarium community. It was also compiled to establish a relationship with and provide a service for these companies. A copy will be given to each GLPA member; extra copies will be $5. Some well-known companies are not included because they did not respond to the listing inquiry. No charge was made for the listings in the book. There is also space in the book, given the present format, to include advertising from companies. If the book is updated sometime in the future, Gregg suggested dividing the project up into four parts: (1) information compilation; (2) advertising; (3) promotion; and (4) distribution. Steve mentioned that from our experience with the proceedings, we know it is possible for a person to get burned out by trying to do the whole job.

Gary Tomlinson said he would do promotion of the sourcebook. Sheldon said that it should be listed in the PLANETARIAN news notes. In the next NEWSLETTER, Bart will announce the availability of the book from Gary Sampson at a price of $5. David will send the sourcebook to all GLPA members who did not attend the conference and the companies who ordered a copy.

Rod, speaking from his experience in producing the booklets for the Smithsonian, mentioned that the complexity of adding advertising, as well as splitting up the job to several locations around the GLPA area, would make communications and project completion much more difficult. Bart countered by confessing that it may not be the best choice and it adds complexity, but in order to avoid burnout and have some willing workers in future years, it is necessary. It was mentioned that there might be several individuals in GLPA who would be eager to have a part in the production of a publication. Gregg and Jerry suggested that we need to spread out the responsibilities.

Gary Tomlinson made a motion to table a decision on future publication of the sourcebook until the spring meeting. The motion was seconded and carried.

**INTERNATIONAL PLANETARIUM SOCIETY** -- Sheldon distributed a page from the PLANETARIAN which was the result of a brainstorming session exploring I.P.S. membership benefits. It will be discussed at the spring meeting.
INSTRUCTIONAL MATERIALS -- Jerry Mansfield reported that he will have a lens for the slide copier before the end of the year. Dale Smith will be copying the slides ordered at the conference. The price per slide is still $.32. When the new slide copier goes into use the price will be $.50 per slide.

David asked Jerry to set up an accounting system at his planetarium to track receipts and disbursements for slide copying.

New software contributed by Carl Wenning, Astrosoft Computerized Ephemeris (ACE), is a public domain IBM program. It has self-contained documentation. Floppy Almanac (for IBM) is also new.

Jerry will finish videotaping the slide bank. It will be an easily mailed visual catalog.

All slides known to be copyrighted have been removed from the slide bank. A release form is required for all submitted slides, as well as scripts and other printed materials.

Steve read a report from Gary Sampson, the printed materials curator, that indicated he had a surplus of about $83 that has been accumulated in the last two years. Money in various departments will need to be reported in future financial reports. Steve and Barb said that all checks sent in for scripts, slides, etc., should be made out to GLPA. Individuals receiving checks can countersign them into the school activities account to pay GLPA bills related to their GLPA functions. Anyone who receives money or manages an account of money for GLPA will submit an annual report of the financial status of the account transactions for the period October 1 to September 30.

Gary recommended in his report that the surplus monies held in his school’s activities account be applied towards the purchase of a new legal sized filing cabinet. This was approved. He also reported that the most usage of the script bank was by new planetarians. There were no new scripts added to the bank in the last year. An appeal was made for contributions to scripts. Gary stated that he now has access to Chinese curricula and scripts as a result of his visit to China this summer.

OTHER BUSINESS -- Barbara read an note from Youngstown State University inviting GLPA to hold a future conference at their location. Gregg will correspond with them.

Dan showed some 2" diameter badges that he had hand painted. Decals of a similar design could be made for front or back attachment for about $1 each. It was suggested that one kind of item be produced for each conference. If conference includes a small fee, they would be given away as conference premiums, as was done for this conference. Then other people can purchase them outright. A notice in the NEWSLETTER can announce the availability of these items. Dan volunteered to house and disburse the gift items that are for sale such as this year's pins. The pins will be $4 including postage.

Sheldon mentioned that at the business meeting, the members will be asked to adopt the Preamble to the Code of Ethics.

Gregg proposed that the Executive Committee meet three times a year instead of two. Gregg said it would give people who are working jointly on a project a chance to get together and exchange materials, etc. Sheldon said that it would almost double the mileage expenses for committee travel. The spring meeting where mileage is paid ($0.10/mile) costs each GLPA member almost $2. Gregg noted that we are providing more services to our members and we may have to consider raising dues a dollar. Steve said that another meeting should help increase the productivity of the committee. Gregg made a motion that we add a third Executive Committee during the summer. The motion was seconded. David mentioned that the Executive Committee seems to be taking on a lot of work that other members might like to do. Bob mentioned that one of the benefits of membership is working for the organization. Bart asked if it would be helpful to conduct a membership survey to see what areas individuals would be willing to help with. Gregg said that a summer meeting might help the committee monitor the progress of projects more effectively. The motion was defeated.

The next meeting date was set for April 8, 1989, at 9 A.M., in Champaign. A motion to adjourn was carried at 11:48 Post Meridian.

David E. Parker, Sec./Treas.
ANNUAL BUSINESS MEETING -- OCTOBER 22, 1988
BOWLING GREEN, OHIO

The meeting was called to order by President, Steve Bishop at 9:15 A.M.

MINUTES AND TREASURER'S REPORT -- The minutes of the previous meeting held at Merrillville, October, 1987, were published in the Newsletter. There were no additions, corrections or questions. A motion to approve the minutes carried.

David Parker read the financial report for the last year.

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<tr>
<td></td>
<td>Receipts</td>
<td>4144.91</td>
</tr>
<tr>
<td></td>
<td>Transfer from savings</td>
<td>1300.00</td>
</tr>
<tr>
<td></td>
<td>Total working capital in checking</td>
<td>-5363.73</td>
</tr>
<tr>
<td></td>
<td>Checking Account Balance 9-30-88</td>
<td>246.86</td>
</tr>
</tbody>
</table>

SAVINGS: Credit Union Balance 10-1-87........... 5300.54
Transfer to checking...............-1300.00 4000.54
Interest received........ 433.35........ 4333.89

9-30-88: TOTAL ASSETS (Checking plus Savings) 4680.75

A motion was made and seconded that the report be accepted. Carried.

CONSTITUTIONAL AMENDMENT -- Steve said that despite intentions that GLPA be classified by the IRS as a charitable, non-profit organization, 501(c)(3), the IRS determined that we really did fit into the category of a professional organization, 501(c)(6). A 501(c)(3) group can receive all contributions as tax exempt and any contribution given can be deducted. Contributions to a 501(c)(6) group are deductible only if they are in the normal matter of business of the donor. Materially, he said, it would not change anything. The amendment was printed in the Newsletter. Barb Williams made a motion that the amendment be approved. Seconded by Garry Beckstrom. Motion carried.

MEMBERSHIP -- Bob Thomson reported that GLPA had 218 members for this year. Steve said that steps are being taken to expand our membership opportunities to include two new categories, patron and sustaining, to allow corporations, institutions or individuals to participate beyond the level of individual membership. Some constitutional changes will be brought before the membership next year.

EDUCATION -- Rod Thompson reported that Don Tuttle will be continuing with his work on the pronunciation guide of astronomical objects, to be published as a TIPS booklet for next conference.

Rod would like to publish a collection of planetarium activities for GLPA and he asked the members to send him some of the activities that they have been using in the planetarium.

The Cleveland Regional Association of Planetariums has submitted two booklets to the National Air and Space Museum - an elementary booklet of astronomy activities and a H.S. booklet examining photos of astronomy artifacts.

PUBLICATIONS -- Bart Benjamin reported that Dave Hoffman is still working on the 1986 and 1987 Proceedings, but plans to have them in our hands by the middle or end of December.

Dale Smith will be publishing the 1988 Proceedings which should be ready for distribution at the 1989 conference. Those who submitted printed texts of their presentations received a $10 reduction in registration fees.

Bart thanked everyone who has sent in news and articles for the Newsletter. He reminded everyone that the Newsletter is an excellent vehicle for sharing news, ideas, or articles with all GLPA members. The deadline for submissions to the Newsletter is the 15th of the month preceding the solstices and equinoxes.

Bart discussed the Planetarium Sourcebook, produced by the Williams', and given to all members as a benefit of membership. Gregg asked that as members look through the sourcebook to make a note of companies that seem to be
welcome. Additional copies are available for purchase for $5 from Gary Sampson.

Appreciation was expressed for Gregg and Barb's work, and for the ones who do the work on the Newsletter, and for Dave Hoffman's work on the Proceedings.

INSTRUCTIONAL MATERIALS -- Jerry Mansfield reported that all paper-type instructional materials can be obtained through Gary Sampson. Jerry has the slides, tapes, disks, etc. Dale Smith will be duplicating and sending out slides ordered at this conference. IBM, Apple and TRS-80 computer programs are available--mostly for review only, many others are public domain. Jerry will prepare an software listing for the Newsletter. A blank disk and $2 for return postage sent to Jerry will get a copy of a disk.

Jerry reported that a videotape of Dr. Mark Littmann's Spitz Lecture will be given to the materials bank.

Gary Sampson reported that Dale Smith will be donating the three conference planetarium programs scripts to the script bank. Gary encouraged others who have original scripts to please donate them to the script bank. Script index card sets are $5 per set. A printed index of scripts is available for $2.

INTERATIONAL PLANETARIUM SOCIETY -- Sheldon Schafer mentioned that the International Planetarium Society report was published in the autumn Newsletter. The next I.P.S. conference will be in Borlange, Sweden, July 15, 1990. An optional visit to a new world-class science center in Helsinki and viewing of the solar eclipse (7/22) will follow a luxury cruise across the Gulf of Bothnia after the conference. Sandy Hallock asked if a promotional video or slides will be available for planetarians to use in approaching their boards of directors in regard to the conference. Sheldon will carry that request and any other concerns to the next Council meeting in July.

The 1992 conference will be in Salt Lake City. Sheldon strongly encouraged membership in I.P.S. and listed the many benefits available to members.

CONFERENCE PLANNING -- Gregg Williams spoke in appreciation of Bob Gardner's many years of work with conference planning. He asked everyone to fill out a conference evaluation to help guide future conference planning.

He announced that the Indianapolis Children's Museum would host the 1990 GLPA conference, Sharon Parker, host. The 1989 conference will be at Parkland College, Champaign, Illinois, David Linton, host.

Spring meetings in the various states were announced.

---Area--- ----Date----- -----Location------------ --State Chair--
Illinois April 15 Cicero Bart Benjamin
Michigan April 15 Grand Haven & Grand Rapids Garry Beckstrom
Wis/Minn. April 15 or 22 U. of W.--Stevens Point Dave DeSermer
Indiana April 22 Indianapolis Joanna Gordon
Ohio April 22 or 29 OSU & COSI, Columbus Dale Smith

Gregg offered assistance to the hosts of state meetings. He asked them to exchange copies of paperwork forms with him. David Parker mentioned that each state workshop host can apply to him for $35 financial aid from GLPA.

Steve asked that any institution which may be interested in hosting a GLPA conference beyond 1990 to communicate with Gregg.

CODE OF ETHICS PREAMBLE -- Steve read a proposed Preamble to the Code of Ethics. It was printed for review in the Newsletter. Sheldon said it addresses concerns that GLPA is trying to be a "big brother" to planetarians and a host of "what if" questions. A motion was made by Bob Thomson and seconded by Garry Beckstrom to adopt the preamble. Motion carried.

OTHER BUSINESS -- David DeSermer announced that the 25th anniversary of GLPA's founding will be celebrated at the 1990 Indianapolis conference. He solicited candid slides or prints of memorable conferences and descriptions of notable events which his committee will be putting together for the conference. Contributions should be sent to him at the Chaffee Planetarium, Grand Rapids.

Gregg asked to pursue videotaping of some portions of conferences for inclusion in the video library. A release will be needed.

Dan Goins, chair of the nominating committee, announced that the committee members will consist of Dan Smith, South Bend; Gary Tomlinson, Grand Rapids; and

David DeSermer, Waukesha. They welcome nomination suggestions from the members.

Ken Perkins thanked Dale Smith for providing the impetus behind the production of the beautiful lapel pins with the GLPA logo.

Jon Marshall asked if there existed a printed color copy of our logo for display in the planetarium. Carl Wenning said he uncovered the original black-and-white logo artwork.

A motion to adjourn the meeting was seconded and carried.

Respectfully submitted: 

David E. Parker, Sec/Treas.

---End of Document---
Jon Marshall presents one of many outstanding papers . . . all within the given time frame. OR ELSE!

One of the many conference workshops.

Sheldon, Jeanne, and Bob present a live school program to the conference guests.
The Sun, Moon and Stars make a cameo appearance.

Conference host Dale Smith dressed up for the occasion.

Even the Space Shuttle launched from Bowling Green during the GLPA conference.
A total of 51 conference evaluations were returned. Below are the evaluation questions and the tabulated results.

1. Below is a list of various aspects from this year's conference. Rate the quality of each aspect by circling the number of the quality. Circle a number only for those activities at which you were present.

   quality:  
   0 worthless
   1 poor
   2 fair
   3 good
   4 excellent

The ratings are listed below, in order from highest to lowest.

<table>
<thead>
<tr>
<th>rank</th>
<th>aspect of conference</th>
<th>rating</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Dr. Tombaugh's presentation (&quot;The Discovery of the Planet Pluto&quot;)</td>
<td>4.00</td>
</tr>
<tr>
<td>2.</td>
<td>Dr. Littmann's presentation (&quot;Neptune: The Planet Found on a Piece of Paper&quot;)</td>
<td>3.90</td>
</tr>
<tr>
<td>3.</td>
<td>Dr. Snow's presentation (&quot;What's Up, Doc? Astronomy in the Past Year&quot;)</td>
<td>3.87</td>
</tr>
<tr>
<td>4.</td>
<td>preliminary program booklet &amp; pre-registration</td>
<td>3.76</td>
</tr>
<tr>
<td>5. (tie)</td>
<td>overall conference schedule</td>
<td>3.43</td>
</tr>
<tr>
<td>5. (tie)</td>
<td>paper sessions (overall)</td>
<td>3.43</td>
</tr>
<tr>
<td>7.</td>
<td>Dr. Cheney's presentation (&quot;Drama Under the Dome: Sight, Sound, and Space&quot;)</td>
<td>3.34</td>
</tr>
<tr>
<td>8.</td>
<td>planetarium presentations (four)</td>
<td>3.28</td>
</tr>
<tr>
<td>9.</td>
<td>workshops (overall)</td>
<td>3.19</td>
</tr>
<tr>
<td>10.</td>
<td>GLPA business meeting</td>
<td>3.14</td>
</tr>
<tr>
<td>11.</td>
<td>conference facilities (hotel, meeting rooms, etc)</td>
<td>3.08</td>
</tr>
<tr>
<td>12.</td>
<td>live school programs (Friday morning)</td>
<td>2.86</td>
</tr>
</tbody>
</table>

2. What was your primary reason for attending this year's conference? Please select one statement that best expresses your answer.

The results are listed below, in order from highest to lowest.

<table>
<thead>
<tr>
<th>rank</th>
<th>primary reason</th>
<th>percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>I always try to attend GLPA Conferences.</td>
<td>51%</td>
</tr>
<tr>
<td>2.</td>
<td>I came to see friends and find out what's going on in the planetarium community.</td>
<td>25%</td>
</tr>
<tr>
<td>3.</td>
<td>I've never been to a GLPA Conference and I wanted to see what it was like.</td>
<td>14%</td>
</tr>
<tr>
<td>4.</td>
<td>I like to visit other planetariums and see their facilities and programming.</td>
<td>6%</td>
</tr>
<tr>
<td>5.</td>
<td>I came to hear Dr. Clyde Tombaugh speak.</td>
<td>4%</td>
</tr>
<tr>
<td>6.</td>
<td>I wanted to attend one or more of the workshops.</td>
<td>0%</td>
</tr>
</tbody>
</table>
3. What was your secondary reason for attending this year's conference? Please select one statement that best expresses your answer.

The results are listed below, in order from highest to lowest.

<table>
<thead>
<tr>
<th>rank</th>
<th>secondary reason</th>
<th>percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>I came to see friends and find out what's going on in the planetarium community.</td>
<td>38%</td>
</tr>
<tr>
<td>2.</td>
<td>I like to visit other planetariums and see their facilities and programming.</td>
<td>22%</td>
</tr>
<tr>
<td>3.</td>
<td>I came to hear Dr. Clyde Tombaugh speak.</td>
<td>20%</td>
</tr>
<tr>
<td>4.</td>
<td>I always try to attend GLPA Conferences.</td>
<td>10%</td>
</tr>
<tr>
<td>5.</td>
<td>I wanted to attend one or more of the workshops.</td>
<td>8%</td>
</tr>
<tr>
<td>6.</td>
<td>I've never been to a GLPA Conference and I wanted to see what it was like.</td>
<td>2%</td>
</tr>
</tbody>
</table>

The results of questions 2 and 3 can be combined. The results are listed below, in order from highest to lowest.

<table>
<thead>
<tr>
<th>rank</th>
<th>primary or secondary reason</th>
<th>percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>I came to see friends and find out what's going on in the planetarium community.</td>
<td>32%</td>
</tr>
<tr>
<td>2.</td>
<td>I always try to attend GLPA Conferences.</td>
<td>31%</td>
</tr>
<tr>
<td>3.</td>
<td>I like to visit other planetariums and see their facilities and programming.</td>
<td>14%</td>
</tr>
<tr>
<td>4.</td>
<td>I came to hear Dr. Clyde Tombaugh speak.</td>
<td>12%</td>
</tr>
<tr>
<td>5.</td>
<td>I've never been to a GLPA Conference and I wanted to see what it was like.</td>
<td>8%</td>
</tr>
<tr>
<td>6.</td>
<td>I wanted to attend one or more of the workshops.</td>
<td>4%</td>
</tr>
</tbody>
</table>

4. How do you feel about conference registration fees? Select as many statements as needed to express your answer.

The results are listed below, in order from highest to lowest. (Percentages added up to more than 100% because of multiple responses.)

<table>
<thead>
<tr>
<th>rank</th>
<th>statement</th>
<th>percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Within reason, the amount of the registration fee doesn't affect my ability to attend.</td>
<td>66%</td>
</tr>
<tr>
<td>2.</td>
<td>I am willing to pay a higher registration fee (about $10 higher) to attract &quot;bigger name&quot; speakers (like Dr. Tombaugh).</td>
<td>62%</td>
</tr>
<tr>
<td>3.</td>
<td>My registration fee is paid or reimbursed by my institution.</td>
<td>58%</td>
</tr>
<tr>
<td>4.</td>
<td>My registration fee is paid out of my pocket and is not reimbursed.</td>
<td>28%</td>
</tr>
<tr>
<td>5.</td>
<td>The amount of the registration fee directly determines my ability to attend.</td>
<td>8%</td>
</tr>
<tr>
<td>6.</td>
<td>I would prefer a lower registration fee even if it meant that the conference speakers might not be as well known.</td>
<td>2%</td>
</tr>
</tbody>
</table>
5. Below is a list of possible conference activities. Rate the frequency with which you would like to see each activity offered by circling the number of the frequency.

frequency: 0 no need to offer -- not important to me
1 offer at conference every other year
2 offer at conference each year

The ratings are listed below, in order from highest to lowest.

<table>
<thead>
<tr>
<th>rank</th>
<th>possible activity</th>
<th>rating</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>a speaker to provide a yearly update on astronomical research</td>
<td>1.90</td>
</tr>
<tr>
<td></td>
<td>(like Dr. Theodore Snow this year)</td>
<td></td>
</tr>
<tr>
<td>2.</td>
<td>a variety of hands-on workshops</td>
<td>1.85</td>
</tr>
<tr>
<td>3.</td>
<td>an evening free to do what I want</td>
<td>1.31</td>
</tr>
<tr>
<td>4. tie</td>
<td>round table discussions of important planetarium topics (like the Halley's Comet round table at Triton College)</td>
<td>1.17</td>
</tr>
<tr>
<td>4. tie</td>
<td>visits to other nearby planetariums</td>
<td>1.17</td>
</tr>
<tr>
<td>6.</td>
<td>an evening telescopic observing session</td>
<td>1.16</td>
</tr>
<tr>
<td>7.</td>
<td>visits to local cultural attractions (like museums)</td>
<td>0.88</td>
</tr>
</tbody>
</table>

6. Below is a list of benefits of joining GLPA. Rate the importance of each benefit to you by circling the number of the importance.

importance: 0 not important to me
1 slightly important
2 moderately important
3 highly important

The ratings are listed below, in order from highest to lowest.

<table>
<thead>
<tr>
<th>rank</th>
<th>GLPA benefit</th>
<th>rating</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>annual GLPA Conference</td>
<td>2.86</td>
</tr>
<tr>
<td>2.</td>
<td>quarterly GLPA Newsletter</td>
<td>2.67</td>
</tr>
<tr>
<td>3.</td>
<td>GLPA Tips Booklets and other publications</td>
<td>2.52</td>
</tr>
<tr>
<td>4.</td>
<td>slide, script, and software banks</td>
<td>2.19</td>
</tr>
<tr>
<td></td>
<td>state meetings</td>
<td>1.93</td>
</tr>
</tbody>
</table>
THE GREAT LAKES PLANETARIUM ASSOCIATION offers membership opportunities to all individuals in any way connected with the operation of planetariums regardless of geographical location. G.L.P.A. is an affiliate of the International Planetarium Society, and the National Science Teachers Association. Membership dues are $13 annually, payable at the time of the Autumnal Equinox. General correspondence and requests for membership should be addressed to: Mr. David E. Parker (Address below).

This quarterly "GLPA Newsletter" is received by all members in good standing. Ideas and opinions expressed in this Newsletter are not necessarily those of GLPA or its membership. Deadlines for contributions fall on the 15th of February, May, August, and November. Send information to: Bart Benjamin

Dr. Dale W. Smith
Dept. of Physics & Astronomy
Bowling Green State University
Bowling Green, OH 43403-0224